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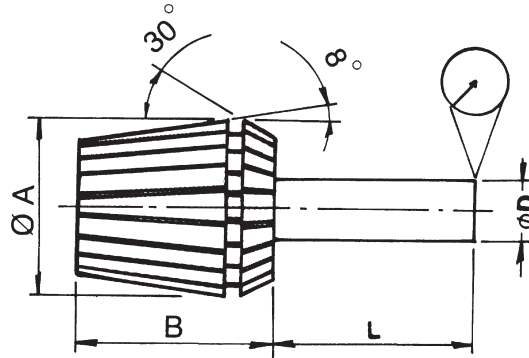
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# ER Spring Collet Chuck System

ER collet system of VERTEX is made of special elastic steel material under excellent heat treatment and precise grinding process, so it has precise accuracy, powerful clamping ability, and is durable. This collet can clamp for a specific standard size and its next size, (Refer to the data sheet on page 4). It can be widely used for boring, milling, drilling and tapping as well as for grinding operation, and is available for all sizes.

## ER COLLET DIMENSIONS

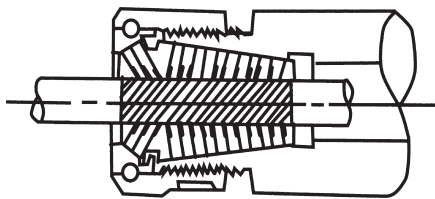


| TYPE  | A    | B    |
|-------|------|------|
| ER-8  | 8.5  | 13.5 |
| ER-11 | 11.5 | 18   |
| ER-16 | 17   | 27   |
| ER-20 | 21   | 31   |
| ER-25 | 26   | 35   |
| ER-32 | 33   | 40   |
| ER-40 | 41   | 46   |
| ER-50 | 52   | 60   |

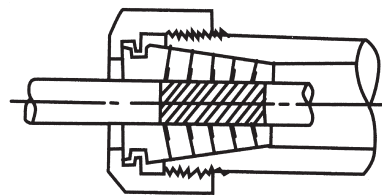
| L<br>m | D<br>mm   | DIN6343<br>Standard<br>precision | VERTEX<br>Standard<br>precision | A Grade<br>Optional |
|--------|-----------|----------------------------------|---------------------------------|---------------------|
| 6      | 1.0-1.4   | 0.02                             | 0.015                           | 0.01                |
| 10     | 1.5-2.9   | 0.02                             | 0.015                           | 0.01                |
| 16     | 3.0-5.9   | 0.02                             | 0.015                           | 0.01                |
| 25     | 6.0-9.9   | 0.02                             | 0.015                           | 0.01                |
| 40     | 10.0-17.9 | 0.03                             | 0.02                            | 0.01                |
| 50     | 18.0-26.9 | 0.03                             | 0.02                            | 0.01                |
| 60     | 27.0-34.9 | 0.03                             | 0.02                            | 0.01                |

THE HIGH PRECISION OF A GRADE IS AVAILABLE

double-taper chuck



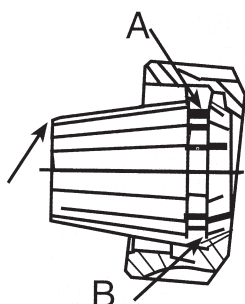
single-teper chuck



## POWERFUL CLAMPING STRENGTH

The handle of the drill with double-taper chuck is longer than that with single-taper (grinding spring) collet. The clamping strength will be more powerful, if a screw-driver fastened by steel ball is adopted.

## Mounting instructions for ER collets DIN 6499-A and DIN 6499-B



**A-** Place collet inside nut and rotate the nut to engage with the extractor spiral in colle groove.

**B-** Only then mount nut and collet together into the collet holder or machine spindle.

Note: Never use a 12-11mm collet to clamp a 12,2mm diameter, but rather use a 13-12mm collet.



| TYPE            | ER-8               |           | ER-11              |           | ER-16              |           | ER-20              |           | ER-25              |           | ER-32              |           | ER-40              |           | ER-50              |           |
|-----------------|--------------------|-----------|--------------------|-----------|--------------------|-----------|--------------------|-----------|--------------------|-----------|--------------------|-----------|--------------------|-----------|--------------------|-----------|
| COMPLETE SET    | 9PCS/SET           |           | 7PCS/SET           |           | 10PCS/SET          |           | 12PCS/SET          |           | 15PCS/SET          |           | 18PCS/SET          |           | 23PCS/SET          |           | 12PCS/SET          |           |
| FULL SET        | ORDER NO.          | CAP. mm Ø | ORDER NO.          | CAP. mm Ø | ORDER NO.          | CAP. mm Ø | ORDER NO.          | CAP. mm Ø | ORDER NO.          | CAP. mm Ø | ORDER NO.          | CAP. mm Ø | ORDER NO.          | CAP. mm Ø | ORDER NO.          | CAP. mm Ø |
|                 | CODE NO.           |           | CODE NO.           |           | CODE NO.           |           | CODE NO.           |           | CODE NO.           |           | CODE NO.           |           | CODE NO.           |           | CODE NO.           |           |
|                 | V08000<br>3001-101 | 0.5-5.0   | V11000<br>3002-101 | 0.5-7.0   | V16000<br>3003-101 | 0.5-10.0  | V20000<br>3004-101 | 1-13      | V25000<br>3005-101 | 1-16      | V32000<br>3006-101 | 2-20      | V40000<br>3007-101 | 3-26      | V50000<br>3008-101 | 10-34     |
| INDIVIDUAL UNIT | V08010<br>3001-001 | 1.0-0.5   | V11010<br>3002-001 | 1.0-0.5   | V16010<br>3003-001 | 1.0-0.5   | V20020<br>3004-001 | 2-1       | V25020<br>3005-001 | 2-1       | V32030<br>3006-001 | 3-2       | V40040<br>3007-001 | 4-3       | V50120<br>3008-001 | 12-10     |
|                 | V08015<br>3001-002 | 1.5-1.0   | V11020<br>3002-002 | 2.0-1.5   | V16020<br>3003-002 | 2.0-1.0   | V20030<br>3004-002 | 3-2       | V25030<br>3005-002 | 3-2       | V32040<br>3006-002 | 4-3       | V40050<br>3007-002 | 5-4       | V50140<br>3008-002 | 14-12     |
|                 | V08020<br>3001-003 | 2.0-1.5   | V11030<br>3002-003 | 3.0-2.5   | V16030<br>3003-003 | 3.0-2.0   | V20040<br>3004-003 | 4-3       | V25040<br>3005-003 | 4-3       | V32050<br>3006-003 | 5-4       | V40060<br>3007-003 | 6-5       | V50160<br>3008-003 | 16-14     |
|                 | V08025<br>3001-004 | 2.5-2.0   | V11040<br>3002-004 | 4.0-3.5   | V16040<br>3003-004 | 4.0-3.0   | V20050<br>3004-004 | 5-4       | V25050<br>3005-004 | 5-4       | V32060<br>3006-004 | 6-5       | V40070<br>3007-004 | 7-6       | V50180<br>3008-004 | 18-16     |
|                 | V08030<br>3001-005 | 3.0-2.5   | V11050<br>3002-005 | 5.0-4.5   | V16050<br>3003-005 | 5.0-4.0   | V20060<br>3004-005 | 6-5       | V25060<br>3005-005 | 6-5       | V32070<br>3006-005 | 7-6       | V40080<br>3007-005 | 8-7       | V50200<br>3008-005 | 20-18     |
|                 | V08035<br>3001-006 | 3.5-3.0   | V11060<br>3002-006 | 6.0-5.5   | V16060<br>3003-006 | 6.0-5.0   | V20070<br>3004-006 | 7-6       | V25070<br>3005-006 | 7-6       | V32080<br>3006-006 | 8-7       | V40090<br>3007-006 | 9-8       | V50220<br>3008-006 | 22-20     |
|                 | V08040<br>3001-007 | 4.0-3.5   | V11070<br>3002-007 | 7.0-6.5   | V16070<br>3003-007 | 7.0-6.0   | V20080<br>3004-007 | 8-7       | V25080<br>3005-007 | 8-7       | V32090<br>3006-007 | 9-8       | V40100<br>3007-007 | 10-9      | V50240<br>3008-007 | 24-22     |
|                 | V08045<br>3001-008 | 4.5-4.0   | V11015<br>3002-008 | 1.5       | V16080<br>3003-008 | 8.0-7.0   | V20090<br>3004-008 | 9-8       | V25090<br>3005-008 | 9-8       | V32100<br>3006-008 | 10-9      | V40110<br>3007-008 | 11-10     | V50260<br>3008-008 | 26-24     |
|                 | V08050<br>3001-009 | 5.0-4.5   | V11025<br>3002-009 | 2.5       | V16090<br>3003-009 | 9.0-8.0   | V20100<br>3004-009 | 10-9      | V25100<br>3005-009 | 10-9      | V32110<br>3006-009 | 11-10     | V40120<br>3007-009 | 12-11     | V50280<br>3008-009 | 28-26     |
|                 |                    |           | V11035<br>3002-010 | 3.5       | V16100<br>3003-010 | 10.0-9.0  | V20110<br>3004-010 | 11-10     | V25110<br>3005-010 | 11-10     | V32120<br>3006-010 | 12-11     | V40130<br>3007-010 | 13-12     | V50300<br>3008-010 | 30-28     |
|                 |                    |           | V11045<br>3002-011 | 4.5       | V16015<br>3003-011 | 1.5       | V20120<br>3004-011 | 12-11     | V25120<br>3005-011 | 12-11     | V32130<br>3006-011 | 13-12     | V40140<br>3007-011 | 14-13     | V50320<br>3008-011 | 32-30     |
|                 |                    |           | V11055<br>3002-012 | 5.5       | V16025<br>3003-012 | 2.5       | V20130<br>3004-012 | 13-12     | V25130<br>3005-012 | 13-12     | V32140<br>3006-012 | 14-13     | V40150<br>3007-012 | 15-14     | V50340<br>3008-012 | 34-32     |
|                 |                    |           | V11065<br>3002-013 | 6.5       | V16035<br>3003-013 | 3.5       | V20010<br>3004-013 | 1.0       | V25140<br>3005-013 | 14-13     | V32150<br>3006-013 | 15-14     | V40160<br>3007-013 | 16-15     |                    |           |
|                 |                    |           |                    |           | V16045<br>3003-014 | 4.5       | V20025<br>3004-014 | 2.5       | V25150<br>3005-014 | 15-14     | V32160<br>3006-014 | 16-15     | V40170<br>3007-014 | 17-16     |                    |           |
|                 |                    |           |                    |           | V16055<br>3003-015 | 5.5       | V20035<br>3004-015 | 3.5       | V25160<br>3005-015 | 16-15     | V32170<br>3006-015 | 17-16     | V40180<br>3007-015 | 18-17     |                    |           |



| Accuracy |           |                     |
|----------|-----------|---------------------|
| L(MM)    | øD(MM)    | Ultra Precision(MM) |
| 6        | 1.0-1.4   | 0.01                |
| 10       | 1.5-2.9   | 0.01                |
| 16       | 3.0-5.9   | 0.01                |
| 25       | 6.0-9.9   | 0.01                |
| 40       | 10.0-17.9 | 0.01                |
| 50       | 18.0-26.9 | 0.01                |
| 60       | 27.0-34.9 | 0.01                |

### C3 TOOLING SYSTEM



# ER Spring Collet Chuck System DIN 6499

## ER COLLET SET

## STANDARD PRECISION TYPE



## COLLET KITS

|                | PE    | COLLET SIZE INSIDE DIA.                                                  | PCS/SET | KGS/PACKING | CODE NO. |
|----------------|-------|--------------------------------------------------------------------------|---------|-------------|----------|
| <b>V-08000</b> | ER-8  | 1+0.5-5mm(1,1.5,2,2.5,3,3.5,4,4.5,5mm)                                   | 9PCS    | 0.8(C)      | 3001-101 |
| <b>V-11000</b> | ER-11 | 1-7mm(1,2,3,4,5,6,7mm)                                                   | 7PCS    | 0.3(C)      | 3002-101 |
| <b>V-11013</b> |       | 1+0.5-7mm(1,1.5,2,2.5,3,3.5,4,4.5,5,5.5,6,6.5,7mm)                       | 13PCS   | 0.3(C)      | 3002-102 |
| <b>V-16000</b> | ER-16 | 1-10mm(1,2,3,4,5,6,7,8,9,10mm)                                           | 10PCS   | 0.7(C)      | 3003-101 |
| <b>V-16008</b> |       | 3-10mm(3,4,5,6,7,8,9,10mm)                                               | 8PCS    | 0.6(C)      | 3003-102 |
| <b>V-20000</b> | ER-20 | 2-13mm(2,3,4,5,6,7,8,9,10,11,12,13mm)                                    | 12PCS   | 0.9(C)      | 3004-101 |
| <b>V-20008</b> |       | 4-13mm(4,5,6,7,8,9,10,11,12,13mm)                                        | 10PCS   | 0.8(C)      | 3004-102 |
| <b>V-25000</b> | ER-25 | 2-16mm(2,3,4,5,6,7,8,9,10,11,12,13,14,15,16mm)                           | 15PCS   | 1.3(W)      | 3005-101 |
| <b>V-25008</b> |       | 4-16mm(4,5,6,7,8,9,10,11,12,13,14,15,16mm)                               | 13PCS   | 1.0(W)      | 3005-102 |
| <b>V-25009</b> |       | 6,8,10,12,16mm                                                           | 5PCS    | 0.4(C)      | 3005-103 |
| <b>V-25010</b> |       | 4,6,8,10,12,14,16mm                                                      | 7PCS    | 0.35(C)     | 3005-104 |
| <b>V-32000</b> | ER-32 | 3-20mm(3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20mm)                 | 18PCS   | 3.3(P)      | 3006-101 |
| <b>V-32008</b> |       | 4,5,6,8,10,12,13,15,16,18,20mm                                           | 11PCS   | 2.8(P)      | 3006-102 |
| <b>V-32009</b> |       | 6,8,10,12,16,20mm                                                        | 6PCS    | 0.9(P)      | 3006-103 |
| <b>V-40000</b> | ER-40 | 4-26mm(4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26mm) | 23PCS   | 6.5(P)      | 3007-101 |
| <b>V-40008</b> |       | 4,5,6,8,10,12,13,15,16,18,20,21,22,25,26mm                               | 15PCS   | 4.2(P)      | 3007-102 |
| <b>V-40009</b> |       | 6,8,10,12,16,20,25mm                                                     | 7PCS    | 2.0(P)      | 3007-103 |
| <b>V-50000</b> | ER-50 | 12,14,16,18,20,22,24,26,28,30,32,34mm                                    | 12PCS   | 6.5(W)      | 3008-101 |

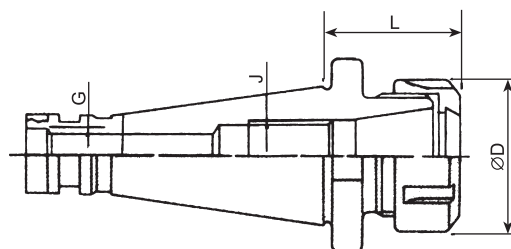




# ER Spring Collet Chuck System

Collet Chuck Kit With ISO Taper Shank

DIN 2080/ISO SHANK  
DIN 6499



| ORDER NO. | TAPER | COLLET TYPE | L  | D  | G                                   | WEIGHT KG. | CODE NO. |
|-----------|-------|-------------|----|----|-------------------------------------|------------|----------|
| V-101     | NT30  | ER32        | 55 | 50 | 1/2"-12W,M12X1.75P (USA 1/2"-UNC13) | 0.6        | 3020-301 |
| V-102     |       | ER40        | 70 | 63 |                                     | 1          | 3020-302 |
| V-103     | NT40  | ER32        | 50 | 60 | 5/8"-11W or M16X2.0P                | 1          | 3021-301 |
| V-104     |       | ER40        | 60 | 63 |                                     | 1.3        | 3021-302 |
| V-105     |       | ER50        | 80 | 78 |                                     | 1.9        | 3021-303 |
| V-106     | NT50  | ER32        | 60 | 50 | 1"-8W or M24X3.0P                   | 2.6        | 3022-301 |
| V-107     |       | ER40        | 65 | 63 |                                     | 3.2        | 3022-302 |
| V-108     |       | ER50        | 65 | 78 |                                     | 3.5        | 3022-303 |
| ※ V-109   | NT30  | ER25        | 55 | 42 | 1/2"-12W,M12X1.75P                  | 0.55       | 3020-303 |
| ※ V-110   | NT40  | ER25        | 50 | 42 | 5/8"-11W,M16X2.0P                   | 1.0        | 3021-304 |

## Collet Chuck Kit With ISO Taper Shank

Including shank, full set of collets, wrench and case.

Please notify the taper size, collet type, set range, and set numbers when ordering.



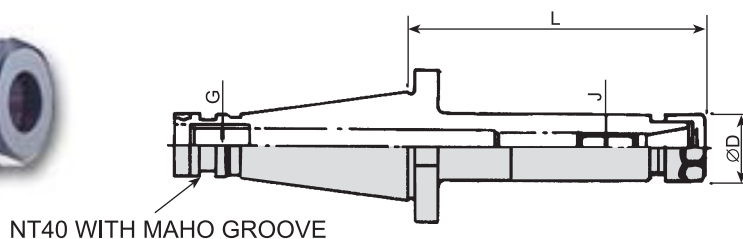
| ORDER NO. | TAPER | COLLET TYPE | SET RANGE | SET PCS | WEIGHT KG. |          |
|-----------|-------|-------------|-----------|---------|------------|----------|
| V-201     | NT30  | ER32        | 3-20      | 18      | 4.2        | 3020-401 |
| V-202     |       |             | 4-20      | 11      | 3.2        | 3020-402 |
| V-203     |       |             | 6-20      | 6       | 2.8        | 3020-403 |
| V-204     | NT30  | ER40        | 4-26      | 23      | 7.3        | 3020-404 |
| V-205     |       |             | 4-26      | 15      | 6          | 3020-405 |
| V-206     |       |             | 6-25      | 7       | 4.6        | 3020-406 |
| V-207     | NT40  | ER32        | 3-20      | 18      | 4.8        | 3021-401 |
| V-208     |       |             | 4-20      | 11      | 3.8        | 3021-402 |
| V-209     |       |             | 6-20      | 6       | 3.4        | 3021-403 |
| V-210     | NT40  | ER40        | 4-26      | 23      | 8.2        | 3021-404 |
| V-211     |       |             | 4-26      | 15      | 6.9        | 3021-405 |
| V-212     |       |             | 6-25      | 7       | 5.2        | 3021-406 |
| V-213     | NT40  | ER50        | 12-34     | 12      | 10         | 3021-407 |
| V-214     | NT50  | ER32        | 3-20      | 18      | 6.4        | 3022-401 |
| V-215     |       |             | 4-20      | 11      | 5.4        | 3022-402 |
| V-216     |       |             | 6-20      | 6       | 5.5        | 3022-403 |
| V-217     | NT50  | ER40        | 4-26      | 23      | 9.8        | 3022-404 |
| V-218     |       |             | 4-26      | 15      | 8.5        | 3022-405 |
| V-219     |       |             | 6-25      | 7       | 7          | 3022-406 |
| V-220     | NT50  | ER50        | 12-34     | 12      | 11         | 3022-407 |
| ※ V-223   | NT30  | ER25        | 2-16      | 7       | 2.8        | 3020-407 |
| ※ V-224   |       |             | 4-16      | 15      | 2.4        | 3020-408 |
| ※ V-225   | NT40  | ER25        | 2-16      | 7       | 3.3        | 3021-409 |
| ※ V-226   |       |             | 4-16      | 15      | 3.0        | 3021-410 |



# ER Spring Collet Chuck System DIN 6499

Extended Collet Holder With ISO Shank

DIN 2080/ISO SHANK EXTENDED CHUCK



| ORDER NO. | TAPER | COLLET TYPE | L   | D  | G                                   | WEIGHT KG. | CODE NO. |
|-----------|-------|-------------|-----|----|-------------------------------------|------------|----------|
| V-231     | NT30  | ER16        | 76  | 28 | 1/2"-12W,M12X1.75<br>USA 1/2"-UNC13 | 0.6        | 3020-304 |
| V-231A    |       | ER20        |     | 34 |                                     |            | 3020-305 |
| V-232     | NT40  | ER16        | 76  | 28 | 5/8"-11W or M16X2.0P                | 1          | 3021-314 |
| V-233     |       | ER16        | 100 | 28 |                                     | 1.2        | 3021-305 |
| V-234     |       | ER20        | 76  | 34 |                                     | 1          | 3021-306 |
| V-235     |       | ER20        | 100 | 34 |                                     | 1.2        | 3021-307 |
| V-236     | NT50  | ER16        | 100 | 28 | 1"-8W or M24X3.0P                   | 3.2        | 3022-304 |
| V-237     |       | ER16        | 150 | 28 |                                     | 3.6        | 3022-305 |
| V-238     |       | ER20        | 100 | 34 |                                     | 3.4        | 3022-306 |
| V-239     |       | ER20        | 150 | 34 |                                     | 3.8        | 3022-307 |

## Extended Collet Chuck Kit With ISO Shank

Including shank, full set of collets, wrench and case.



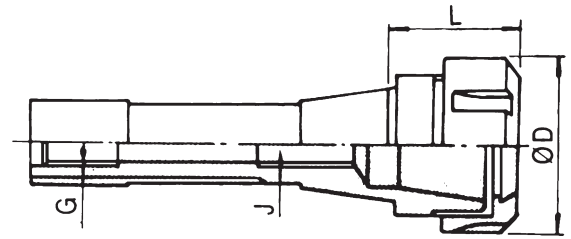
Please notify the taper size, collet type, set range, and set numbers when ordering.

| ORDER NO. | TAPER | COLLET TYPE | RANGE | PCS/SET | L   | WEIGHT KG. | CODE NO. |
|-----------|-------|-------------|-------|---------|-----|------------|----------|
| V-241     | NT30  | ER16        | 1-10  | 10      | 76  | 1.9        | 3020-409 |
| V-242     |       |             | 3-10  | 8       |     | 1.8        | 3020-410 |
| V-242A    |       | ER20        | 2-13  | 12      |     | 1.8        | 3020-411 |
| V-243     | NT40  | ER16        | 1-10  | 10      | 76  | 2.2        | 3021-411 |
| V-244     |       |             | 3-10  | 8       |     | 2.1        | 3021-412 |
| V-245     |       | ER16        | 1-10  | 10      | 100 | 2.4        | 3021-413 |
| V-246     |       |             | 3-10  | 8       |     | 2.3        | 3021-414 |
| V-247     |       | ER20        | 2-13  | 12      | 76  | 2.3        | 3021-415 |
| V-248     |       |             | 4-13  | 10      |     | 2.2        | 3021-416 |
| V-249     |       | ER20        | 2-13  | 12      | 100 | 2.6        | 3021-417 |
| V-250     |       |             | 4-13  | 10      |     | 2.5        | 3021-418 |
| V-251     | NT50  | ER16        | 1-10  | 10      | 100 | 4.2        | 3022-408 |
| V-252     |       |             | 3-10  | 8       |     | 4.1        | 3022-409 |
| V-253     |       | ER16        | 1-10  | 10      | 160 | 4.6        | 3022-410 |
| V-254     |       |             | 3-10  | 8       |     | 4.5        | 3022-411 |
| V-255     |       | ER20        | 2-13  | 12      | 100 | 4.3        | 3022-412 |
| V-256     |       |             | 4-13  | 10      |     | 4.2        | 3022-413 |
| V-257     |       | ER20        | 2-13  | 12      | 160 | 4.7        | 3022-414 |
| V-258     |       |             | 4-13  | 10      |     | 4.6        | 3022-415 |



# ER Spring Collet Chuck System<sub>R-8 SHANK</sub>

Collet Holders With R-8 shank



| ORDER NO. | TAPER | COLLET TYPE | L  | D  | G               | WEIGHT KG. | CODE NO. |
|-----------|-------|-------------|----|----|-----------------|------------|----------|
| V-301     | R8    | ER16        | 38 | 28 | 7/16"X20<br>UNF | 0.3        | 3027-301 |
| V-302     |       | ER32        | 40 | 50 |                 | 0.6        | 3027-302 |
| V-303     |       | ER40        | 70 | 63 |                 | 1          | 3027-303 |

## Collet Chuck Kit With R-8 Shank

Including shank, full set of collets, wrench and case. (ER16 No Wrench)



Please notify the taper size, collet type, set range, and set numbers when ordering.

| ORDER NO. | TAPER | COLLET TYPE | SET RANGE | SET PCS | WEIGHT KG. |          |
|-----------|-------|-------------|-----------|---------|------------|----------|
| V-311     | R8    | ER16        | 1-10      | 10      | 1.5(W)     | 3027-401 |
| V-312     |       | ER16        | 3-10      | 8       | 1.45(P)    | 3027-402 |
| V-313     | R8    | ER32        | 3-20      | 18      | 4.3(P)     | 3027-403 |
| V-314     |       | ER32        | 4-20      | 11      | 3.2(P)     | 3027-404 |
| V-315     |       | ER32        | 6-20      | 6       | 2.9(P)     | 3027-405 |
| V-316     | R8    | ER40        | 4-26      | 23      | 7.3(P)     | 3027-406 |
| V-317     |       | ER40        | 4-26      | 15      | 6.1(P)     | 3027-407 |
| V-318     |       | ER40        | 6-25      | 7       | 4.6(P)     | 3027-408 |

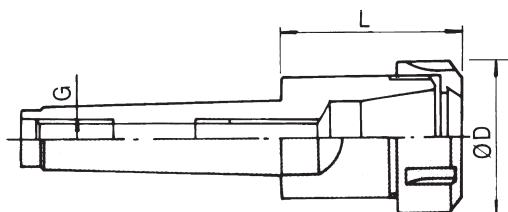


# ER Spring Collet Chuck System

MT-SHANK

Collet Holders With Morse Taper Shank

DIN 6499  
DIN 228



| ORDER NO. | TAPER | COLLET TYPE | L  | D  | G                                                         | WEIGHT KG. | CODE NO. |
|-----------|-------|-------------|----|----|-----------------------------------------------------------|------------|----------|
| V-401     | MT2   | ER16        | 40 | 28 | 3/8"-16W or M10 X 1.5P                                    | 0.3        | 3023-301 |
| V-402     |       | ER20        | 43 | 34 |                                                           | 0.3        | 3023-302 |
| V-403     |       | ER25        | 47 | 42 |                                                           | 0.4        | 3023-303 |
| V-404     | MT3   | ER16        | 40 | 28 | 3/8"-16W or 1/2"-12W M10X1.5P.M12X1.75P<br>USA 1/2"-UNC13 | 0.4        | 3024-301 |
| V-405     |       | ER32        | 70 | 50 |                                                           | 0.55       | 3024-302 |
| V-406     |       | ER40        | 80 | 63 |                                                           | 0.85       | 3024-303 |
| V-451     |       | ER20        | 43 | 34 |                                                           | 0.3        | 3024-304 |
| V-452     | MT4   | ER25        | 47 | 42 | 1/2"-12NC M12 X 1.75P                                     | 0.4        | 3024-305 |
| V-407     |       | ER32        | 60 | 50 | 5/8"-11W or M16 X 2.0P                                    | 0.6        | 3025-301 |
| V-408     |       | ER40        | 82 | 63 |                                                           | 1          | 3025-302 |
| V-409     | MT5   | ER50        | 85 | 78 |                                                           | 1.8        | 3025-303 |
| V-410     |       | ER40        | 82 | 63 | 1"-8W or M24 X 3.0P                                       | 1.8        | 3026-301 |
| V-411     |       | ER50        | 85 | 78 |                                                           | 2.5        | 3026-302 |

## Collet Chuck Kit With Morse Taper Shank

Including shank, full set of collets,  
wrench and case. (ER16, ER20 no Wrench)

- 1.ER16, 20, 25, PACKED IN WOODEN BOX (W)
- 2.ER32, 40, 50, PACKED IN PLASTIC BOX (P)



Please notify the taper size, collet type,  
set range, and set numbers when ordering.

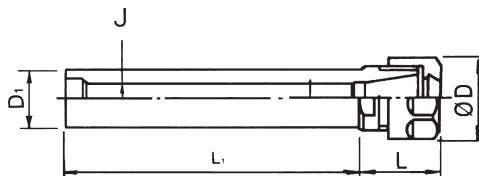
| ORDER NO. | TAPER | COLLET TYPE | SET RANGE | SET PCS | WEIGHT KG. | CODE NO. |
|-----------|-------|-------------|-----------|---------|------------|----------|
| V- 412    | MT2   | ER16        | 1-10      | 10      | 1.05       | 3023-401 |
| V- 413    |       | ER16        | 3-10      | 8       | 1          | 3023-402 |
| V- 414    |       | ER20        | 2-13      | 12      | 1.3        | 3023-403 |
| V- 415    |       | ER20        | 4-13      | 10      | 1.2        | 3023-404 |
| V- 416    |       | ER25        | 2-16      | 15      | 2.4        | 3023-405 |
| V- 418    | MT3   | ER25        | 4-16      | 7       | 1.3        | 3023-407 |
| V- 419    |       | ER16        | 1-10      | 10      | 1.5        | 3024-401 |
| V- 420    |       | ER16        | 3-10      | 8       | 1.1        | 3024-402 |
| V- 441    |       | ER20        | 2-13      | 12      | 1.35       | 3023-408 |
| V- 442    |       | ER20        | 4-13      | 10      | 1.3        | 3023-409 |
| V- 443    |       | ER25        | 2-16      | 15      | 2.5        | 3023-410 |
| V- 444    |       | ER25        | 4-16      | 7       | 2.1        | 3023-411 |
| V- 421    |       | ER32        | 3-20      | 18      | 4.1        | 3024-403 |
| V- 422    |       | ER32        | 4-20      | 11      | 3          | 3024-404 |
| V- 423    |       | ER32        | 6-20      | 6       | 2.7        | 3024-405 |
| V- 424    | MT4   | ER40        | 4-26      | 23      | 7.2        | 3024-406 |
| V- 425    |       | ER40        | 4-26      | 15      | 6          | 3024-407 |
| V- 426    |       | ER40        | 6-25      | 7       | 4.5        | 3024-408 |
| V- 427    |       | ER32        | 3-20      | 18      | 4.3        | 3025-401 |
| V- 428    |       | ER32        | 4-20      | 11      | 3.2        | 3025-402 |
| V- 429    | MT5   | ER32        | 6-20      | 6       | 2.9        | 3025-403 |
| V- 430    |       | ER40        | 4-26      | 23      | 7.3        | 3025-404 |
| V- 431    |       | ER40        | 4-26      | 15      | 6.1        | 3025-405 |
| V- 432    |       | ER40        | 6-25      | 7       | 4.6        | 3025-406 |
| V- 433    |       | ER50        | 12-34     | 12      | 9          | 3025-407 |
| V- 434    | MT5   | ER40        | 4-26      | 23      | 8.2        | 3026-401 |
| V- 435    |       | ER40        | 4-26      | 15      | 6.9        | 3026-402 |
| V- 436    |       | ER40        | 6-25      | 7       | 5.4        | 3026-403 |
| V- 437    |       | ER50        | 12-34     | 12      | 9.5        | 3026-404 |



# ER Spring Collet Chuck System

DIN6499  
STRAIGHT SHANK

## Collet Holders With Straight Shank



| ORDER NO. | COLLET TYPE | SHANK D1XL1 | L  | D  | J   | KGS  | CODE NO. |
|-----------|-------------|-------------|----|----|-----|------|----------|
| V-530     | ER11        | Ø16X50      | 21 | 19 | M10 | 0.15 | 3007-300 |
| V-531     |             | Ø16X100     | 21 | 19 | M10 | 0.15 | 3007-311 |
| V-532     |             | Ø16X150     | 21 | 19 | M10 | 0.25 | 3007-312 |
| V-501     | ER16        | Ø20X50      | 30 | 28 | M12 | 0.18 | 3003-301 |
| V-502     |             | Ø20X100     | 30 | 28 | M12 | 0.25 | 3003-302 |
| V-503     |             | Ø20X150     | 30 | 28 | M12 | 0.35 | 3003-303 |
| V-504     |             | Ø25X100     | 30 | 28 | M12 | 0.35 | 3003-304 |
| V-504A    |             | Ø25X50      | 30 | 28 | M12 | 0.25 | 3003-306 |
| V-505     |             | Ø25X150     | 30 | 28 | M12 | 0.45 | 3003-305 |
| V-505A    |             | Ø25X200     | 30 | 28 | M12 | 0.5  | 3003-307 |
| V-506     | ER20        | Ø20X50      | 36 | 34 | M12 | 0.18 | 3004-301 |
| V-507     |             | Ø20X100     | 36 | 34 | M12 | 0.25 | 3004-302 |
| V-508     |             | Ø20X150     | 36 | 34 | M12 | 0.35 | 3004-303 |
| V-509     |             | Ø25X150     | 36 | 34 | M12 | 0.45 | 3004-304 |
| V-509A    |             | Ø25X100     | 36 | 34 | M12 | 0.45 | 3004-305 |
| V-509B    |             | Ø25X50      | 36 | 34 | M12 | 0.35 | 3004-306 |
| V-510     | ER25        | Ø20X50      | 46 | 42 | M12 | 0.35 | 3005-301 |
| V-511     |             | Ø20X100     | 46 | 42 | M12 | 0.4  | 3005-302 |
| V-512     |             | Ø20X150     | 46 | 42 | M12 | 0.5  | 3005-303 |
| V-513     |             | Ø25X100     | 46 | 42 | M12 | 0.5  | 3005-304 |
| V-514     |             | Ø25X150     | 46 | 42 | M12 | 0.6  | 3005-305 |
| V-515     |             | Ø32X60      | 46 | 50 | M12 | 0.5  | 3005-306 |
| V-516     | ER32        | Ø25X80      | 54 | 50 | M16 | 0.5  | 3006-301 |
| V-517     |             | Ø32X100     | 54 | 50 | M16 | 0.6  | 3006-302 |
| V-517A    |             | Ø32X150     | 54 | 50 | M16 | 0.85 | 3006-305 |
| V-518     |             | Ø40X100     | 54 | 50 | M16 | 0.8  | 3006-303 |
| V-523     | ER40        | Ø32X100     | 55 | 63 | M16 | 1.0  | 3007-302 |
| V-524     |             | Ø40X100     | 55 | 63 | M16 | 1.3  | 3007-303 |



# ER Spring Collet Chuck System

DIN6499  
STRAIGHT SHANK



## Collet Chuck Kit With Straight Shank

Including shank, full set of collets, wrench and case.

(ER16, ER20 no Wrench)

## COLLET CHUCK SETS

| ORDER NO. | SHANK D1XL1 | COLLET TYPE | SET RANGE | SET PCS | KGS. | CODE NO. |
|-----------|-------------|-------------|-----------|---------|------|----------|
| V-681     | Ø 16X50L    | ER11        | 1-7       | 13      | 0.6  | 3002-401 |
| V-682     | Ø 16X50L    |             | 1-7       | 7       | 0.5  | 3002-402 |
| V-683     | Ø 16X100L   |             | 1-7       | 13      | 0.7  | 3002-403 |
| V-684     | Ø 16X100L   |             | 1-7       | 7       | 0.6  | 3002-404 |

| ORDER NO. | SHANK D1XL1 | COLLET TYPE | SET RANGE | SET PCS | KGS. | CODE NO. |
|-----------|-------------|-------------|-----------|---------|------|----------|
| V-601     | Ø20X50L     | ER16        | 1-10      | 10      | 1.1  | 3003-401 |
| V-602     | Ø20X50L     |             | 3-10      | 8       | 1.05 | 3003-402 |
| • V-603   | Ø20X100L    |             | 1-10      | 10      | 1.2  | 3003-403 |
| • V-604   | Ø20X100L    |             | 3-10      | 8       | 1.15 | 3003-404 |
| V-605     | Ø20X150L    |             | 1-10      | 10      | 1.1  | 3003-405 |
| V-606     | Ø20X150L    |             | 3-10      | 8       | 1.05 | 3003-406 |
| V-607     | Ø25X100L    |             | 1-10      | 10      | 1.2  | 3003-407 |
| V-607A    | Ø25X50L     |             | 1-10      | 10      | 1.1  | 3003-411 |
| V-608     | Ø25X100L    |             | 3-10      | 8       | 1.15 | 3003-408 |
| V-608A    | Ø25X50L     |             | 3-10      | 8       | 1.05 | 3003-412 |
| V-609     | Ø25X150L    | ER20        | 1-10      | 10      | 1.35 | 3003-409 |
| V-610     | Ø25X150L    |             | 3-10      | 8       | 1.3  | 3003-410 |
| V-611     | Ø20X50L     |             | 2-13      | 12      | 1.2  | 3004-401 |
| V-612     | Ø20X50L     |             | 4-13      | 10      | 1.15 | 3004-402 |
| • V-613   | Ø20X100L    |             | 2-13      | 12      | 1.3  | 3004-403 |
| • V-614   | Ø20X100L    |             | 4-13      | 10      | 1.25 | 3004-404 |
| V-615     | Ø20X150L    |             | 2-13      | 12      | 1.4  | 3004-405 |
| V-615A    | Ø25X50L     |             | 2-13      | 12      | 1.3  | 3004-409 |
| V-616     | Ø20X150L    |             | 4-13      | 10      | 1.35 | 3004-406 |
| V-616A    | Ø25X50L     |             | 4-13      | 10      | 1.25 | 3004-410 |
| V-617     | Ø25X100L    | ER25        | 2-13      | 12      | 1.4  | 3004-407 |
| V-617A    | Ø25X150L    |             | 2-13      | 12      | 1.5  | 3004-411 |
| V-618     | Ø25X100L    |             | 4-13      | 10      | 1.35 | 3004-408 |
| V-618A    | Ø25X150L    |             | 4-13      | 10      | 1.45 | 3004-412 |
| V-619     | Ø20X50L     |             | 2-16      | 15      | 2.4  | 3005-401 |
| V-621     | Ø20X50L     |             | 6-16      | 7       | 1.7  | 3005-403 |
| V-622     | Ø20X100L    |             | 2-16      | 15      | 2.4  | 3005-404 |
| V-624     | Ø20X100L    |             | 6-16      | 7       | 1.8  | 3005-406 |
| V-625     | Ø20X150L    |             | 2-16      | 15      | 2.5  | 3005-407 |
| V-627     | Ø20X150L    |             | 6-16      | 7       | 1.9  | 3005-409 |
| V-628     | Ø25X100L    |             | 2-16      | 15      | 2.5  | 3005-410 |

| ORDER NO. | SHANK D1XL1 | COLLET TYPE | SET RANGE | SET PCS | KGS. | CODE NO. |
|-----------|-------------|-------------|-----------|---------|------|----------|
| V-630     | Ø25X100L    | ER25        | 6-16      | 7       | 1.9  | 3005-412 |
| V-631     | Ø25X150L    |             | 2-16      | 15      | 2.65 | 3005-413 |
| V-633     | Ø25X150L    |             | 6-16      | 7       | 2.0  | 3005-415 |
| V-634     | Ø32X60L     |             | 2-16      | 15      | 2.5  | 3005-416 |
| V-636     | Ø32X60L     | ER32        | 6-16      | 7       | 2.0  | 3005-418 |
| V-637     | Ø25X80L     |             | 3-20      | 18      | 4.1  | 3006-401 |
| V-638     | Ø25X80L     |             | 4-20      | 11      | 3    | 3006-402 |
| V-639     | Ø25X80L     |             | 3-20      | 6       | 2.7  | 3006-403 |
| V-640     | Ø32X100L    |             | 4-20      | 18      | 4.3  | 3006-404 |
| V-641     | Ø32X100L    |             | 6-20      | 11      | 3.2  | 3006-405 |
| V-642     | Ø32X100L    |             | 6-20      | 6       | 2.9  | 3006-406 |
| V-643     | Ø40X100L    |             | 3-20      | 18      | 4.6  | 3006-407 |
| V-644     | Ø40X100L    |             | 4-20      | 11      | 3.5  | 3006-408 |
| V-645     | Ø40X100L    |             | 6-20      | 6       | 3.2  | 3006-409 |
| V-646     | Ø1"XL3      | ER40        | 3-20      | 18      | 4.1  | 3006-410 |
| V-647     | Ø1"XL3      |             | 4-20      | 11      | 3    | 3006-411 |
| V-648     | Ø1"XL3      |             | 6-20      | 6       | 2.9  | 3006-412 |
| V-658     | Ø32X100L    |             | 4-26      | 23      | 7.3  | 3007-404 |
| V-659     | Ø32X100L    |             | 4-26      | 15      | 6.1  | 3007-405 |
| V-660     | Ø32X100L    |             | 6-25      | 7       | 4.6  | 3007-406 |
| V-661     | Ø40X100L    |             | 4-26      | 23      | 7.6  | 3007-407 |
| V-662     | Ø40X100L    |             | 4-26      | 15      | 6.5  | 3007-408 |
| V-663     | Ø40X100L    |             | 6-25      | 7       | 5    | 3007-409 |

- V-603, V-604 are the most popular item.
- THE ER-20/25/32/40 ARE TO BE CONTINUED
- V-613, V-614 are the most popular item.



# ER Spring Collet Chuck System

DIN6499 MINI  
STRAIGHT SHANK

MINI TYPE  
STRAIGHT SHANK HOLDER



## COLLET HOLDER (MINI TYPE)

| ORDER NO. | COLLET TYPE | SHANK D1XL1 | D  | L  | KGS  | CODE NO. |
|-----------|-------------|-------------|----|----|------|----------|
| V-551     | ER11M       | ST16X50L    | 16 | 22 | 0.15 | 3011-301 |
| V-552     |             | ST16X100L   | 16 | 22 | 0.2  | 3011-302 |
| V-552A    |             | ST16X150L   | 16 | 22 | 0.25 | 3011-303 |
| V-553     | ER16M       | ST20X50L    | 22 | 32 | 0.18 | 3012-301 |
| V-554     |             | ST20X100L   | 22 | 32 | 0.25 | 3012-302 |
| V-555     |             | ST20X150L   | 22 | 32 | 0.35 | 3012-303 |
| V-555A    |             | ST20X200L   | 22 | 32 | 0.4  | 3012-307 |
| V-556     | ER20M       | ST20X50L    | 28 | 33 | 0.2  | 3013-301 |
| V-557     |             | ST20X100L   | 28 | 33 | 0.28 | 3013-302 |
| V-558     |             | ST20X150L   | 28 | 33 | 0.35 | 3013-303 |
| V-559     |             | ST25X100L   | 28 | 33 | 0.35 | 3013-304 |
| V-560     |             | ST25X150L   | 28 | 33 | 0.4  | 3013-305 |
| V-561     | ER16M       | ST16X100L   | 32 | 22 | 0.18 | 3012-304 |
| V-562     |             | ST25X100L   | 32 | 22 | 0.35 | 3012-305 |
| V-563     |             | ST25X150L   | 32 | 22 | 0.4  | 3012-306 |
| V-563A    |             | ST25X200L   | 22 | 32 | 0.45 | 3012-308 |
| V-557A    | ER20M       | ST20X200L   | 28 | 35 | 0.4  | 3013-306 |
| V-560A    |             | ST25X200L   | 28 | 35 | 0.45 | 3013-307 |



## MINI TYPE

**Collet Holders Kit  
With Straight Shank**  
Including shank,  
full set of collets,  
wrench and case.

## MINI TYPE

| ORDER NO. | SHANK D1XL1 | COLLET TYPE | SET RANGE | SET PCS | KGS  | CODE NO. |
|-----------|-------------|-------------|-----------|---------|------|----------|
| V-691A    | ST16X50L    | ER11M       | 1-7       | 7       | 0.5  | 3011-401 |
| V-691B    | ST16X50L    |             | 1-7       | 13      | 0.6  | 3011-402 |
| V-692A    | ST16X100L   |             | 1-7       | 7       | 0.6  | 3011-403 |
| V-692B    | ST16X100L   |             | 1-7       | 13      | 0.7  | 3011-404 |
| V-693A    | ST20X50L    | ER16M       | 1-10      | 10      | 1.05 | 3012-401 |
| V-693B    | ST20X50L    |             | 3-10      | 8       | 1.0  | 3012-402 |
| V-693C    | ST16X100L   |             | 1-10      | 10      | 1    | 3012-407 |
| V-694A    | ST20X100L   |             | 1-10      | 10      | 1.15 | 3012-403 |
| V-694B    | ST20X100L   |             | 3-10      | 8       | 1.1  | 3012-404 |
| V-695A    | ST20X150L   |             | 1-10      | 10      | 1.3  | 3012-405 |
| V-695B    | ST20X150L   |             | 3-10      | 8       | 1.2  | 3012-406 |
| V-695C    | ST25X100L   |             | 1-10      | 10      | 1.2  | 3012-408 |
| V-695D    | ST25X100L   | ER20M       | 1-10      | 10      | 1.35 | 3012-409 |
| V-696A    | ST20X50L    |             | 2-13      | 12      | 1.3  | 3013-401 |
| V-696B    | ST20X50L    |             | 4-13      | 10      | 1.2  | 3013-402 |
| V-697A    | ST20X100L   |             | 2-13      | 12      | 1.4  | 3013-403 |
| V-697B    | ST20X100L   |             | 4-13      | 10      | 1.3  | 3013-404 |
| V-698A    | ST20X150L   |             | 2-13      | 12      | 1.5  | 3013-405 |
| V-698B    | ST20X150L   |             | 4-13      | 10      | 1.4  | 3013-406 |
| V-698C    | ST25X100L   |             | 2-13      | 12      | 1.4  | 3013-407 |
| V-698D    | ST25X150L   |             | 2-13      | 12      | 1.5  | 3013-408 |



# Clamping Nuts & Wrench For Collets

DIN 6499

## ER CLAMPING NUT SYSTEM

### CLAMPING NUTS

| RDER   | Fig. | COLLET TYPE | D  | H    | G         |       | CODE NO. |
|--------|------|-------------|----|------|-----------|-------|----------|
| V-800  | 3    | ER11UM      | 19 | 13   | M14X0.75P | 0.01  | 3015-001 |
| V-801  | 3    | ER16UM      | 28 | 18   | M22X1.5P  | 0.035 | 3015-002 |
| V-802  | 3    | ER20UM      | 34 | 21   | M25X1.5P  | 0.06  | 3015-003 |
| V-803  | 4    | ER25UM      | 42 | 20   | M32X1.5P  | 0.095 | 3015-004 |
| V-804  | 4    | ER32UM      | 50 | 23   | M40X1.5P  | 0.15  | 3015-005 |
| V-805  | 4    | ER40UM      | 63 | 25   | M50X1.5P  | 0.31  | 3015-006 |
| V-806  | 4    | ER50UM      | 78 | 35   | M64X2.0P  | 0.58  | 3015-007 |
| V-807  | 1    | ER11MS      | 16 | 12   | M13X0.75P | 0.01  | 3015-008 |
| V-808  | 2    | ER16M       | 22 | 18   | M19X1.0P  | 0.035 | 3015-009 |
| V-809  | 2    | ER20M       | 28 | 19   | M24X1.0P  | 0.06  | 3015-010 |
| V-810A | 5    | ER40KM      | 63 | 29   | M50X1.5P  | 0.31  | 3015-011 |
| V-810B | 5    | ER50KM      | 78 | 40   | M64X2.0P  | 0.58  | 3015-012 |
| V-810C | 2    | ER-11M      | 16 | 12   | M13X0.75P | 0.01  | 3015-013 |
| V810D  |      | ER-8M       | 12 | 10.8 | M10X0.75P | 0.01  | 3015-014 |



ER20M

ER16M

ER11MS



ER40KM  
WITH & BEARING

ER40UM

ER16UM

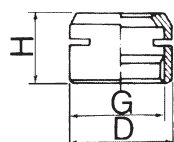


Fig.1 ER11MS

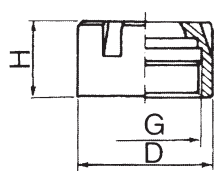


Fig.2 ER11,16,20M

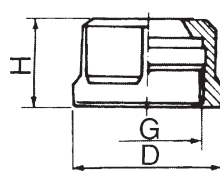


Fig.3 ER11,16,20UM

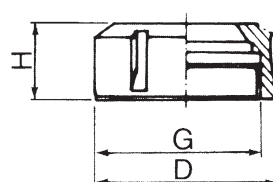


Fig.4 ER25,32,40,50UM

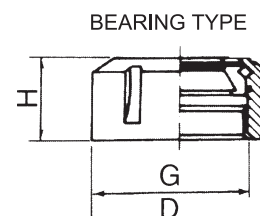


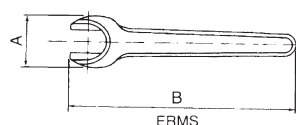
Fig.5 ER40,50KM

## ER WRENCHS SYSTEM

DIN 6499

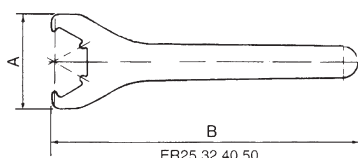
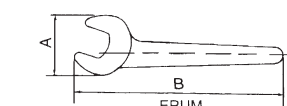
ERMS

ERUM



ERM

ER25,32,40,50



| ORDER NO. | TYPE    | A    | L   | KGS  | CODE NO. |
|-----------|---------|------|-----|------|----------|
| V-821     | ER11MS  | 22   | 100 | 0.05 | 3015-101 |
| V-822     | ER11M   | 17   | 95  | 0.05 | 3015-102 |
| V-823     | ER16M   | 22.5 | 118 | 0.06 | 3015-103 |
| V-815     | ER16UM  | 44   | 140 | 0.08 | 3015-104 |
| V-824     | ER20M   | 28   | 130 | 0.08 | 3015-105 |
| V-816     | ER20UM  | 53   | 170 | 0.1  | 3015-106 |
| V-811     | ER25 UM | 65   | 210 | 0.2  | 3015-107 |
| V-812     | ER32UM  | 75   | 250 | 0.4  | 3015-108 |
| V-813     | ER40UM  | 90   | 290 | 0.5  | 3015-109 |
| V-814     | ER50    | 110  | 350 | 0.9  | 3015-110 |

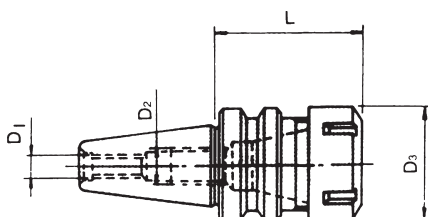


# ER Spring Collet Chuck System MAS403

Collet Holders With BT Taper Shank (For CNC Machine Center)

BT-SHANK

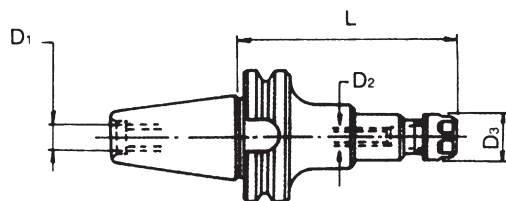
ER-32 ER-40



| RDER NO. | TAPER | COLLET TYPE | D1       | D2        | D3 | L   | KGS | CODE NO. |
|----------|-------|-------------|----------|-----------|----|-----|-----|----------|
| V-700    | BT30  | ER32        | M12      | M12x1.75P | 50 | 60  | 0.6 | 3031-303 |
| V-703A   | BT40  | ER32        | M16X2.0P | M22x1.5P  | 50 | 70  | 1.2 | 3032-305 |
| V-703B   |       | ER32        | M16X2.0P | M22x1.5P  | 50 | 100 | 1.4 | 3032-306 |
| V-704    |       | ER40        | M16X2.0P | M22x1.5P  | 63 | 80  | 2.0 | 3032-307 |
| V-705    | BT50  | ER32        | M24X3.0P | M28x1.5P  | 50 | 100 | 3.4 | 3033-305 |
| V-706B   |       | ER40        | M24X3.0P | M28x1.5P  | 63 | 150 | 5.8 | 3033-307 |
| V-707    |       | ER50        | M12      | M36x1.5P  | 78 | 100 | 4.8 | 3033-308 |
| V-710    | BT30  | ER11        | M12      | M12x1.75P | 19 | 60  | 0.6 | 3033-311 |
| V-711    |       | ER11        | M12      | M12x1.75P | 19 | 100 | 0.9 | 3033-312 |
| V-712    |       | ER11M       | M12      | M12x1.75P | 16 | 100 | 0.9 | 3033-313 |
| V-713    |       | ER16        | M12      | M12x1.75P | 28 | 100 | 0.9 | 3033-314 |
| V-714    |       | ER16M       | M12      | M12x1.75P | 22 | 100 | 0.9 | 3033-315 |
| V-715    |       | ER20        | M12      | M12x1.75P | 34 | 60  | 0.6 | 3033-316 |
| V-716    |       | ER20        | M12      | M12x1.75P | 34 | 100 | 0.9 | 3033-317 |
| V-717    |       | ER20M       | M12      | M12x1.75P | 28 | 100 | 0.9 | 3033-318 |
| V-718    |       | ER25        | M12      | M12x1.75P | 42 | 60  | 0.7 | 3033-319 |
| V-719    |       | ER40        | M12      | M12x1.75P | 63 | 70  | 0.9 | 3033-320 |
| V-720    |       | ER11        | M16      | M22x11.5P | 19 | 70  | 1   | 3033-321 |
| V-721    |       | ER11        | M16      | M22x11.5P | 19 | 100 | 1.5 | 3033-322 |
| V-722A   |       | ER11M       | M16      | M22x11.5P | 16 | 100 | 1   | 3033-323 |
| V-723A   |       | ER16M       | M16      | M22x11.5P | 22 | 100 | 1.5 | 3033-324 |
| V-723B   |       | ER16M       | M16      | M22x11.5P | 22 | 150 | 1.6 | 3033-330 |
| V-724A   | BT40  | ER20M       | M16      | M22x11.5P | 28 | 100 | 1.6 | 3033-325 |
| V-724B   |       | ER20M       | M16      | M22x11.5P | 28 | 150 | 1.9 | 3033-331 |
| V-725    |       | ER25        | M16      | M22x11.5P | 42 | 70  | 1.4 | 3033-326 |
| V-726    |       | ER25        | M16      | M22x11.5P | 42 | 100 | 1.7 | 3033-327 |
| V-727    |       | ER50        | M16      | M22x11.5P | 78 | 90  | 2   | 3033-328 |

Collet Holders With Extension Type BT Taper Shank

ER-16, ER-20



| O.     | TAPER | COLLET TYPE | D3 | L   | D1  | WEIGHT KGS | CODE NO. |
|--------|-------|-------------|----|-----|-----|------------|----------|
| V-770  | BT30  | ER16        | 28 | 60  | M12 | 0.6        | 3031-301 |
| V-772  | BT40  | ER16        | 28 | 70  | M16 | 1.1        | 3032-301 |
| V-773  |       | ER16        | 28 | 100 | M16 | 1.5        | 3032-302 |
| V-774  |       | ER20        | 34 | 70  | M16 | 1.1        | 3032-303 |
| V-774A |       | ER16        | 28 | 150 | M16 | 1          | 3032-308 |
| V-775  |       | ER20        | 34 | 100 | M16 | 1.5        | 3032-304 |
| V-775A |       | ER20        | 34 | 135 | M16 | 1.6        | 3032-309 |
| V-775B |       | ER20        | 34 | 150 | M16 | 1.7        | 3032-310 |
| V-775C |       | ER25        | 42 | 150 | M16 | 1.9        | 3032-311 |
| V-733  |       | ER32        | 50 | 150 | M16 | 2          | 3033-354 |
| V-776  | BT50  | ER16        | 28 | 100 | M24 | 4.3        | 3033-301 |
| V-777  |       | ER16        | 28 | 150 | M24 | 4.8        | 3033-302 |
| V-778  |       | ER20        | 34 | 100 | M24 | 4.3        | 3033-303 |
| V-779  |       | ER20        | 34 | 150 | M24 | 4.8        | 3033-304 |
| V-743A | BT50  | ER16        | 28 | 200 | M24 | 7.5        | 3033-364 |
| V-735  |       | ER20        | 34 | 200 | M24 | 5          | 3033-356 |
| V-736  |       | ER25        | 42 | 100 | M24 | 4.8        | 3033-357 |
| V-737A |       | ER25        | 42 | 150 | M24 | 5.8        | 3033-358 |
| V-744A |       | ER25        | 42 | 200 | M24 | 8          | 3033-365 |
| V-738A |       | ER32        | 50 | 150 | M24 | 5.8        | 3033-359 |
| V-739A |       | ER32        | 50 | 200 | M24 | 6.5        | 3033-360 |
| V-740A |       | ER40        | 63 | 100 | M24 | 5          | 3033-361 |
| V-741A |       | ER40        | 63 | 200 | M24 | 7.5        | 3033-362 |
| V-742A |       | ER50        | 78 | 150 | M24 | 6          | 3033-363 |



# ER Spring Collet Chuck System MAS403

## Collet Chuck Kit With BT Taper Shank

Including shank, full set of collets,  
wrench and case.(ER16 no Wrench)

- 1.ER16, ER20 PACKED IN WOODEN BOX
- 2.ER32, ER40, ER50, PACKED IN PLASTIC BOX
- 3.PACKAGE INCLDING : CHUCK, COLLET, WRENCH, BOX

Please notify the taper size, collet  
type, set range,and set numbers  
when ordering.



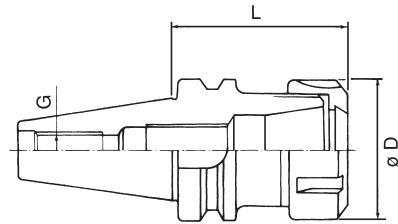
**BT-SHANK  
DIN 6499**

| ORDER NO. | BT TAPER  | COLLET TYPE | SET RANGE | COLLET PCS | WEIGHT KGS | CODE NO. |
|-----------|-----------|-------------|-----------|------------|------------|----------|
| V-780     | BT30-60L  | ER16        | 1-10      | 10         | 1.9        | 3031-401 |
| V-780A    | BT30-100L | ER16        | 1-10      | 10         | 2          | 3031-406 |
| V-781     | BT40-70L  | ER16        | 1-10      | 10         | 2.3        | 3032-401 |
| V-782     | BT40-100L | ER16        | 1-10      | 10         | 2.7        | 3032-402 |
| V-783     | BT30-60L  | ER20        | 2-13      | 12         | 2.5        | 3031-402 |
| V-783A    | BT30-100L | ER20        | 2-13      | 12         | 2.6        | 3032-413 |
| V-783B    | BT30-60L  | ER25        | 2-16      | 15         | 2.5        | 3032-414 |
| V-783C    | BT30-60L  | ER25        | 4-16      | 7          | 2.8        | 3032-415 |
| V-784     | BT40-100L | ER20        | 2-13      | 12         | 3          | 3032-403 |
| V-784A    | BT40-70L  | ER20        | 2-13      | 12         | 2.8        | 3032-416 |
| V-784B    | BT40-70L  | ER25        | 2-16      | 15         | 3.2        | 3032-417 |
| V-784C    | BT40-100L | ER25        | 4-16      | 7          | 3          | 3032-418 |
| V-785     | BT30-60L  | ER32        | 3-20      | 18         | 4.4        | 3031-403 |
| V-786     | BT30-60L  | ER32        | 4-20      | 11         | 3.8        | 3031-404 |
| V-787     | BT30-60L  | ER32        | 6-20      | 6          | 3.4        | 3031-405 |
| V-788     | BT40-70L  | ER32        | 3-20      | 18         | 5.2        | 3032-404 |
| V-789     | BT40-70L  | ER32        | 4-20      | 11         | 4.2        | 3032-405 |
| V-790     | BT40-70L  | ER32        | 6-20      | 6          | 3.8        | 3032-406 |
| V-791     | BT40-100L | ER32        | 3-20      | 18         | 5.7        | 3032-407 |
| V-792     | BT40-100L | ER32        | 4-20      | 11         | 4.7        | 3032-408 |
| V-793     | BT40-100L | ER32        | 6-20      | 6          | 4.3        | 3032-409 |
| V-794     | BT40-80L  | ER40        | 4-26      | 23         | 8.9        | 3032-410 |
| V-795     | BT40-80L  | ER40        | 4-26      | 15         | 7.6        | 3032-411 |
| V-796     | BT40-80L  | ER40        | 6-25      | 7          | 6          | 3032-412 |
| V-797     | BT50-100L | ER40        | 4-26      | 23         | 11.3       | 3033-401 |
| V-798     | BT50-100L | ER40        | 4-26      | 15         | 10         | 3033-402 |
| V-799     | BT50-100L | ER40        | 6-26      | 7          | 8.5        | 3033-403 |
| V-737     | BT50-150L | ER40        | 4-26      | 23         | 12.2       | 3033-404 |
| V-738     | BT50-150L | ER40        | 4-26      | 15         | 11         | 3033-405 |
| V-739     | BT50-150L | ER40        | 6-26      | 7          | 9.5        | 3033-406 |
| V-740     | BT50-100L | ER50        | 12-34     | 12         | 12         | 3033-407 |
| V-740A    | BT40-90L  | ER50        | 12-34     | 12         | 9          | 3033-408 |
| V-740B    | BT50-100L | ER32        | 3-20      | 18         | 7.5        | 3033-409 |



# ER Collet Chuck System

MAS403 BT30/40/50 SHANK



ULTRA PRECISION TYPE  
MAX. SPEED: 10,000RPM; G6.3  
DYNAMIC BALANCE TESTED

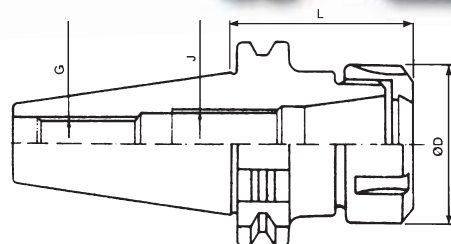
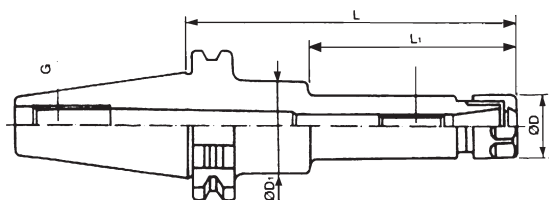
| R NO.           |     |    |      | EIGHT(Kgs) | CODE NO. |
|-----------------|-----|----|------|------------|----------|
| BT30-ER11-60-B  | 60  | 19 | ER11 | 0.5        | 3033-500 |
| BT30-ER11-100-B | 100 | 19 | ER11 | 0.55       | 3033-501 |
| BT30-ER16-60-B  | 60  | 28 | ER16 | 0.5        | 3033-502 |
| BT30-ER16-100-B | 100 | 28 | ER16 | 0.7        | 3033-503 |
| BT30-ER20-60-B  | 60  | 34 | ER20 | 0.55       | 3033-504 |
| BT30-ER20-100-B | 100 | 34 | ER20 | 0.8        | 3033-505 |
| BT30-ER25--60-B | 60  | 42 | ER25 | 0.6        | 3033-506 |
| BT30-ER32-60-B  | 60  | 50 | ER32 | 0.65       | 3033-507 |
| BT30-ER40-70-B  | 70  | 63 | ER40 | 0.9        | 3033-508 |
| BT40-ER11-70-B  | 70  | 19 | ER11 | 1          | 3033-509 |
| BT40-ER11-100-B | 100 | 19 | ER11 | 1.1        | 3033-510 |
| BT40-ER16-70-B  | 70  | 28 | ER16 | 1.1        | 3033-511 |
| BT40-ER16-100-B | 100 | 28 | ER16 | 1.2        | 3033-512 |
| BT40-ER16-150-B | 150 | 28 | ER16 | 1          | 3033-513 |
| BT40-ER20-70-B  | 70  | 34 | ER20 | 1.2        | 3033-514 |
| BT40-ER20-100-B | 100 | 34 | ER20 | 1.4        | 3033-515 |
| BT40-ER20-135-B | 135 | 34 | ER20 | 1.6        | 3033-516 |
| BT40-ER20-150-B | 150 | 34 | ER20 | 1.7        | 3033-517 |
| BT40-ER25-70-B  | 70  | 42 | ER25 | 1.2        | 3033-518 |
| BT40-ER25-100-B | 100 | 42 | ER25 | 1.45       | 3033-519 |
| BT40-ER25-150-B | 150 | 42 | ER25 | 1.9        | 3033-520 |
| BT40-ER32-70-B  | 70  | 50 | ER32 | 1.3        | 3033-521 |



# ER-SK Taper shank

& COLLET CHUCK SET  
DIN\*69871

## COLLET HOLDER WITH SK-SHANK DIN 69871



| ORDER NO. | COLLET TYPE | TAPER | D  |     |     | WEIGHT KGS | CODE NO. |
|-----------|-------------|-------|----|-----|-----|------------|----------|
| V-741     | ER16        | SK40  | 28 | 100 | M16 | 1.5        | 3029-301 |
| V-741A    | ER16        | SK30  | 28 | 60  | M12 | 0.45       | 3029-311 |
| V-741B    | ER16        | SK50  | 28 | 100 | M24 | 3.5        | 3029-317 |
| V-742     | ER20        | SK40  | 34 | 100 | M16 | 1.5        | 3029-302 |
| V-742A    | ER20        | SK30  | 34 | 60  | M12 | 0.5        | 3029-312 |
| V-742B    | ER25        | SK30  | 42 | 60  | M12 | 0.55       | 3029-313 |
| V-742C    | ER16        | SK40  | 28 | 70  | M16 | 1          | 3029-315 |
| V-742D    | ER20        | SK40  | 34 | 70  | M16 | 1.1        | 3029-316 |
| V-742E    | ER20        | SK50  | 34 | 100 | M24 | 3.5        | 3029-318 |
| V-743     | ER26        | SK50  | 28 | 150 | M24 | 4.8        | 3030-301 |
| V-744     | ER20        | SK50  | 34 | 150 | M24 | 4.8        | 3030-302 |

| ORDER NO. | COLLET TYPE | TAPER | D  |     |     | WEIGHT KGS | CODE NO. |
|-----------|-------------|-------|----|-----|-----|------------|----------|
| V-745     | ER32        | SK40  | 50 | 70  | M16 | 1.2        | 3029-303 |
| V-745A    | ER32        | SK30  | 50 | 60  | M12 | 0.6        | 3029-314 |
| V-745B    | ER32        | SK50  | 50 | 100 | M24 | 3.7        | 3029-320 |
| V-746     | ER40        | SK40  | 63 | 80  | M16 | 2          | 3029-304 |
| V-747     | ER40        | SK50  | 63 | 100 | M24 | 4.3        | 3030-303 |
| V-749     | ER25        | SK40  | 42 | 70  | M16 | 1.1        | 3030-304 |
| V-749A    | ER25        | SK50  | 42 | 100 | M24 | 3.7        | 3029-319 |

## COLLET CHUCK KIT WITH SK-SHANK DIN 69871

INCLUDING SHANK, FULL SET OF COLLETS,  
WRENCH AND CASE.



|        | ER TYPE | SK TAPER  | SET RANGE | SET PCS | WEIGHT KGS | CODE NO. |
|--------|---------|-----------|-----------|---------|------------|----------|
| V-751  | ER16    | SK40-70L  | 1-10      | 10PCS   | 2.3        | 3029-401 |
| V-751A | ER16    | SK30-60L  | 1-10      | 10PCS   | 1.8        | 3029-420 |
| V-752  | ER20    | SK40-70L  | 2-13      | 12PCS   | 3          | 3029-402 |
| V-752A | ER20    | SK30-60L  | 2-13      | 12PCS   | 2.4        | 3029-421 |
| V-752B | ER25    | SK30-60L  | 2-16      | 15PCS   | 2.7        | 3029-422 |
| V-753  | ER32    | SK40-70L  | 3-20      | 18PCS   | 5.2        | 3029-403 |
| V-754  | ER32    | SK40-70L  | 4-20      | 11PCS   | 4.2        | 3029-404 |
| V-754A | ER32    | SK30-60L  | 3-20      | 18PCS   | 4.2        | 3029-423 |
| V-754B | ER32    | SK50-100L | 3-20      | 18PCS   | 7          | 3029-424 |
| V-755  | ER32    | SK40-70L  | 6-20      | 6PCS    | 3.8        | 3029-405 |
| V-756  | ER40    | SK40-80L  | 4-26      | 23PCS   | 8.9        | 3029-406 |
| V-757  | ER40    | SK40-80L  | 4-26      | 15PCS   | 7.6        | 3029-407 |
| V-758  | ER40    | SK40-80L  | 6-25      | 7PCS    | 6          | 3029-408 |
| V-759  | ER40    | SK50-100L | 4-26      | 23PCS   | 11.3       | 3030-401 |
| V-760  | ER40    | SK50-100L | 4-26      | 15PCS   | 10         | 3030-402 |
| V-761  | ER40    | SK50-100L | 6-26      | 7PCS    | 8.5        | 3030-403 |
| V-762  | ER25    | SK40-70L  | 2-16      | 15PCS   | 3.5        | 3029-409 |
| V-763  | ER25    | SK40-70L  | 4-16      | 7PCS    | 3.2        | 3029-410 |

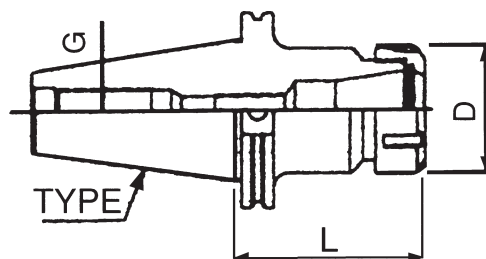
ER16, ER20 PACKED IN WOODEN CASE

ER32, ER40 PACKED IN PLASTIC CASE



# ER-CAT Taper Shank Collet Chuck

## COLLET HOLDER WITH CAT-SHANK



| ORDER NO. | COLLET TYPE | TAPER | D  | L      | G       | WEIGHT KGS | CODE NO. |
|-----------|-------------|-------|----|--------|---------|------------|----------|
| V-870     | ER16        | CAT30 | 28 | 2"     | 1/2"-13 | 0.8        | 3034-301 |
| V-871     | ER16        | CAT40 | 28 | 3"     | 5/8"-11 | 1.2        | 3035-301 |
| V-872     | ER20        |       | 34 | 3"     |         | 1.3        | 3035-302 |
| V-873     | ER25        |       | 42 | 2 1/2" |         | 1.3        | 3035-303 |
| V-874     | ER32        |       | 50 | 2 1/2" |         | 1.4        | 3035-304 |
| V-875     | ER40        |       | 63 | 3"     |         | 1.9        | 3035-305 |
| V-876     | ER40        | CAT50 | 63 | 3 1/2" | 1"/8"   | 4          | 3036-301 |

## COLLET CHUCK KIT WITH CAT-SHANK

INCLUDING SHANK, FULL SET OF COLLETS, WRENCH AND CASE.



- 1.ER16, ER20, ER25 PACKED IN WOODEN BOX
- 2.ER32, ER40 PACKED IN PLASTIC BOX
- 3.PACKAGE INCLUDING : CHUCK , COLLET, WRENCH , BOX

| ORDER NO. | COLLET TYPE | CAT TAPER     | SET RANGE | SET PCS | WEIGHT KGS | CODE NO. |
|-----------|-------------|---------------|-----------|---------|------------|----------|
| V-877     | ER16        | CAT30-2"L     | 1.0-10    | 10      | 1.7        | 3034-401 |
| V-878     |             | CAT40-3"L     | 1.0-10    | 10      | 2.3        | 3035-401 |
| V-879     | ER20        | CAT40-3"L     | 2.0-13    | 12      | 2.5        | 3035-402 |
| V-880     | ER25        | CAT40-2 1/2"L | 2.0-16    | 15      | 3          | 3035-403 |
| V-881     |             | CAT40-2 1/2"L | 4.0-16    | 7       | 2.8        | 3035-404 |
| V-882     | ER32        | CAT40-2 1/2"L | 3.0-20    | 18      | 5.2        | 3035-405 |
| V-883     |             | CAT40-2 1/2"L | 4.0-20    | 11      | 4.2        | 3035-406 |
| V-884     |             | CAT40-2 1/2"L | 6.0-20    | 6       | 3.8        | 3035-407 |
| V-885     |             | CAT40-3"L     | 4.0-26    | 23      | 8.9        | 3035-408 |
| V-886     | ER40        | CAT40-3"L     | 4.0-26    | 15      | 7.6        | 3035-409 |
| V-887     |             | CAT40-3"L     | 6.0-25    | 7       | 6          | 3035-410 |
| V-888     |             | CAT50-3 1/2"L | 4.0-26    | 23      | 11.2       | 3036-401 |
| V-889     | ER40        | CAT50-3 1/2"L | 4.0-26    | 15      | 9.8        | 3036-402 |
| V-890     |             | CAT50-3 1/2"L | 6.0-25    | 7       | 8.3        | 3036-403 |



# Milling Chuck

**DIN 6388 # 25 SERIES**  
**DIN 2080 NT-SHANK**

## COLLET HOLDER WITH #25 COLLET CHUCK DIN 6388 TYPE A OZ-25

1. Best selected quality tool steel hardened & Precision ground.
2. Accuracy of concentric to within 0.008" per inch. (0.02mm per 25mm)
3. High rigidity & Clamping force.
4. 1 set including 1 chuck shank holder  
1 wrench 1 case.  
7 or 15 pcs of collet.

### CHUCK SHANK ONLY

| ORDER NO. | CHUCK SHANK | DRAW BAR THREADS |           | WEIGHT/SET (PLASTIC CASE) | MEAS. CFT | CODE NO. |
|-----------|-------------|------------------|-----------|---------------------------|-----------|----------|
|           |             | SAE              | METRIC    |                           |           |          |
| VB-MT-2   | MT2         | 3/8"-16          | M10X1.5P  | 1kg                       | 0.3       | 3101-001 |
| VB-MT-3   | MT3         | 3/8"-16          | M10X1.5P  | 1kg                       | 0.3       | 3101-002 |
|           |             | 1/2"-12          |           |                           |           |          |
|           |             | 1/2"-13          | M12X1.75P |                           |           |          |
| VB-MT-4   | MT4         | 5/8"-11          | M16X2.0P  | 1.2kg                     | 0.3       | 3101-003 |
| VB-MT-5   | MT5         | 1"-8             | M24X3.0P  | 2kg                       | 0.5       | 3101-004 |
| VB-R8     | R-8         | 7/16"-20         |           | 1.2kg                     | 0.3       | 3101-005 |
| VB-NT30   | NT30        | 3/8"-16          | M12X1.75P | 1kg                       | 0.3       | 3101-006 |
|           |             | 1/2"-12          |           |                           |           |          |
|           |             | 1/2"-13          |           |                           |           |          |
| VB-NT40   | NT40        | 5/8"-11          | M16X2.0P  | 1.3kg                     | 0.3       | 3101-007 |
| VB-NT50   | NT50        | 1"-8             | M24X3.0P  | 3.2kg                     | 0.5       | 3101-008 |

Please Notify the Draw Bar Thread Size When ordering.

### MILLING COLLET CHUCK KIT

Including Shank, full set of collets, wrench and case.

Collet Chuck Kit



DIN 6388  
OZ-25 TYPE

### FULL SET

| ORDER NO. | COLLETS SIZE OZ-25 |               | PCS | WEIGHT ) | CODE NO. |
|-----------|--------------------|---------------|-----|----------|----------|
|           | TAPER              | COLLETS       |     |          |          |
| VB-101    | NT30               |               | 7   | 3.7      | 3101-101 |
| VB-102    |                    |               | 15  | 5.2      | 3101-102 |
| VB-103    | NT40               |               | 7   | 4        | 3101-103 |
| VB-104    |                    |               | 15  | 5.5      | 3101-104 |
| VB-105    | NT50               | Inch          | 7   | 6.5      | 3101-105 |
| VB-106    |                    | 1/8"-1" 15PCS | 15  | 8.5      | 3101-106 |
| VB-107    |                    | 1/4"-1" 7PCS  | 7   | 3.7      | 3101-107 |
| VB-108    | MT3                |               | 15  | 5.2      | 3101-108 |
| VB-109    | MT4                | Metric        | 7   | 3.9      | 3101-109 |
| VB-110    |                    | 3mm-25mm      | 15  | 5.4      | 3101-110 |
| VB-111    |                    | 15pcs         | 7   | 4.7      | 3101-111 |
| VB-112    | MT5                | 6mm-25mm 7pcs | 15  | 6.2      | 3101-112 |
| VB-113    | R8                 |               | 7   | 3.7      | 3101-113 |
| VB-114    |                    |               | 15  | 5.2      | 3101-114 |
| VB-115    | MT2                |               | 7   | 3.6      | 3101-115 |
| VB-116    |                    |               | 15  | 5.1      | 3101-116 |

Please Notify the Type Size, Collet Type, Set Range, and Set Numbers When Ordering.

### CONTENT COLLET SET SIZE

|            |      |                                                                                                  |
|------------|------|--------------------------------------------------------------------------------------------------|
| 7 PCS/SET  | MM   | 6,8,10,12,16,20,25MM                                                                             |
|            | INCH | 1/4", 5/16", 3/8", 1/2", 5/8", 3/4", 1"                                                          |
| 15 PCS/SET | MM   | 3,4,5,6,7,8,9,10,11,12,13,16,18,20,25MM                                                          |
|            | INCH | 1/8", 3/16", 1/4", 5/16", 3/8", 7/16", 1/2", 9/16", 5/8", 11/16", 3/4", 13/16", 7/8", 15/16", 1" |

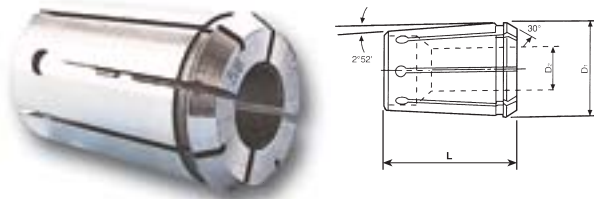


# Milling Clamping Nuts & Wrench For OZ

## COLLET DIN 6388, TYPE A

DIN 6388 #16,#25,#32 SERIES

COLLET MUST BE ASSEMBLED INTO THE CLAMPING NUT BEFORE INSERTING INTO THE CHUCK

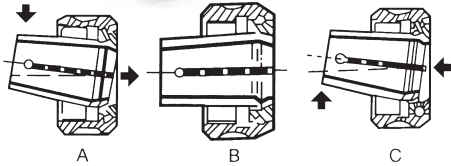


### METRIC

| ORDER NO. | D1    | L  | D2(MM)                                                      |
|-----------|-------|----|-------------------------------------------------------------|
| OZ-16-□   | 25.5  | 40 | 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16          |
| OZ-25-□   | 35.05 | 52 | 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 18, 20, 25 |
| OZ-32-□   | 44    | 60 | 6, 8, 10, 12, 16, 20, 25, 32                                |

### INCH

| ORDER NO. | D1    | L  | D2(INCH)                                                                                            |
|-----------|-------|----|-----------------------------------------------------------------------------------------------------|
| OZ-25-□   | 35.05 | 52 | 1/8", 3/16", 1/4", 5/16", 3/8", 7/16", 1/2", 9/16", 5/8", 11/16", 3/4", 13/16", 7/8", 15/16", 1"    |
| OZ-32-□   | 43.7  | 60 | 1/4", 5/16", 3/8", 7/16", 1/2", 9/16", 5/8", 11/16", 3/4", 13/16", 7/8", 15/16", 1", 1 1/8", 1 1/4" |



■ RANGE SIZE:3-25(1/8"-1")

OZ-25 ■ D:35.05 ■ L:52 ■ TAPER:1:10 ■ WEIGHT:0.18KGS

| ORDER NO. | CODE NO. | MM SIZE | ORDER NO. | CODE NO. | MM SIZE | ORDER NO. | CODE NO. | INCH   | ORDER NO. | CODE NO. | INCH   |
|-----------|----------|---------|-----------|----------|---------|-----------|----------|--------|-----------|----------|--------|
| OZ-2503   | 3100-101 | 3.0     | OZ-2515   | 3100-113 | 15      | OZ-2526   | 3100-124 | 1/8"   | OZ-2538   | 3100-136 | 7/8"   |
| OZ-2504   | 3100-102 | 4.0     | OZ-2516   | 3100-114 | 16      | OZ-2527   | 3100-125 | 3/16"  | OZ-2539   | 3100-137 | 15/16" |
| OZ-2505   | 3100-103 | 5.0     | OZ-2517   | 3100-115 | 17      | OZ-2528   | 3100-126 | 1/4"   | OZ-2540   | 3100-138 | 1"     |
| OZ-2506   | 3100-104 | 6.0     | OZ-2518   | 3100-116 | 18      | OZ-2529   | 3100-127 | 5/16"  |           |          |        |
| OZ-2507   | 3100-105 | 7.0     | OZ-2519   | 3100-117 | 19      | OZ-2530   | 3100-128 | 3/8"   |           |          |        |
| OZ-2508   | 3100-106 | 8.0     | OZ-2520   | 3100-118 | 20      | OZ-2531   | 3100-129 | 7/16"  |           |          |        |
| OZ-2509   | 3100-107 | 9.0     | OZ-2521   | 3100-119 | 21      | OZ-2532   | 3100-130 | 1/2"   |           |          |        |
| OZ-2510   | 3100-108 | 10      | OZ-2522   | 3100-120 | 22      | OZ-2533   | 3100-131 | 9/16"  |           |          |        |
| OZ-2511   | 3100-109 | 11      | OZ-2523   | 3100-121 | 23      | OZ-2534   | 3100-132 | 5/8"   |           |          |        |
| OZ-2512   | 3100-110 | 12      | OZ-2524   | 3100-122 | 24      | OZ-2535   | 3100-133 | 11/16" |           |          |        |
| OZ-2513   | 3100-111 | 13      | OZ-2525   | 3100-123 | 25      | OZ-2536   | 3100-134 | 3/4"   |           |          |        |
| OZ-2514   | 3100-112 | 14      |           |          |         | OZ-2537   | 3100-135 | 13/16" |           |          |        |

DIN6388 32# ■ RANGE SIZE:6-32(1/4"-1 1/4")

OZ-32 ■ D:43.7 ■ L:60 ■ TAPER:1:10 ■ WEIGHT:0.25KGS

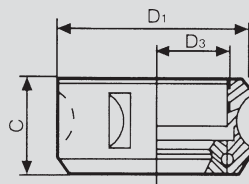


■ DIN 6388 16#

■ O Z-16 COLLET

| ORDER NO. | CODE NO. | MM SIZE | ORDER NO. | CODE NO. | MM SIZE | ORDER NO. | CODE NO. | INCH   | ORDER NO. | CODE NO. | MM  |
|-----------|----------|---------|-----------|----------|---------|-----------|----------|--------|-----------|----------|-----|
| OZ-3206   | 3100-201 | 6.0     | OZ-3220   | 3100-215 | 20      | OZ-3233   | 3100-228 | 1/4"   | OZ-1602   | 3100-001 | 2.0 |
| OZ-3207   | 3100-202 | 7.0     | OZ-3221   | 3100-216 | 21      | OZ-3234   | 3100-229 | 5/16"  | OZ-1603   | 3100-002 | 3.0 |
| OZ-3208   | 3100-203 | 8.0     | OZ-3222   | 3100-217 | 22      | OZ-3235   | 3100-230 | 3/8"   | OZ-1604   | 3100-003 | 4.0 |
| OZ-3209   | 3100-204 | 9.0     | OZ-3223   | 3100-218 | 23      | OZ-3236   | 3100-231 | 7/16"  | OZ-1605   | 3100-004 | 5.0 |
| OZ-3210   | 3100-205 | 10      | OZ-3224   | 3100-219 | 24      | OZ-3237   | 3100-232 | 1/2"   | OZ-1606   | 3100-005 | 6.0 |
| OZ-3211   | 3100-206 | 11      | OZ-3225   | 3100-220 | 25      | OZ-3238   | 3100-233 | 9/16"  | OZ-1607   | 3100-006 | 7.0 |
| OZ-3212   | 3100-207 | 12      | OZ-3226   | 3100-221 | 26      | OZ-3239   | 3100-234 | 5/8"   | OZ-1608   | 3100-007 | 8.0 |
| OZ-3213   | 3100-208 | 13      | OZ-3227   | 3100-222 | 27      | OZ-3240   | 3100-235 | 11/16" | OZ-1609   | 3100-008 | 9.0 |
| OZ-3214   | 3100-209 | 14      | OZ-3228   | 3100-223 | 28      | OZ-3241   | 3100-236 | 3/4"   | OZ-1610   | 3100-009 | 10  |
| OZ-3215   | 3100-210 | 15      | OZ-3229   | 3100-224 | 29      | OZ-3242   | 3100-237 | 13/16" | OZ-1611   | 3100-010 | 11  |
| OZ-3216   | 3100-211 | 16      | OZ-3230   | 3100-225 | 30      | OZ-3243   | 3100-238 | 7/8"   | OZ-1612   | 3100-011 | 12  |
| OZ-3217   | 3100-212 | 17      | OZ-3231   | 3100-226 | 31      | OZ-3244   | 3100-239 | 15/16" | OZ-1613   | 3100-012 | 13  |
| OZ-3218   | 3100-213 | 18      | OZ-3232   | 3100-227 | 32      | OZ-3245   | 3100-240 | 1"     | OZ-1614   | 3100-013 | 14  |
| OZ-3219   | 3100-214 | 19      |           |          |         | OZ-3246   | 3100-241 | 1-1/8" | OZ-1615   | 3100-014 | 15  |
|           |          |         |           |          |         | OZ-3247   | 3100-242 | 1-1/4" | OZ-1616   | 3100-015 | 16  |

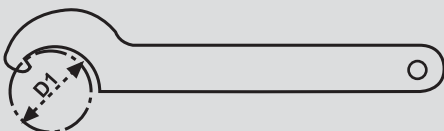
## BALL BEARING, NUTS FOR COLLETS DIN6388, TYPE A



Unit:mm

| ORDER NO. | C  | D1 | D3      | COLLETS | CODE NO. |
|-----------|----|----|---------|---------|----------|
| OZ-25N    | 30 | 60 | M48X2   | OZ-25   | 3100-301 |
| OZ-32N    | 33 | 72 | M60X2.5 | OZ-32   | 3100-302 |

## WRENCH FOR COLLETS DIN6388 TYPE A



Unit:mm

| ORDER NO. | D1 | COLLETS | CODE NO. |
|-----------|----|---------|----------|
| OZ-25W    | 60 | OZ-25   | 3100-310 |
| OZ-32W    | 72 | OZ-32   | 3100-311 |



# Milling Collet Chuck

DIN 6388 # 25 SERIES

MAS 403 BT-SHANK

OZ-25

COLLET HOLDER WITH BT-SHANK



| ORDER NO. | PER  | DIN 6388 |     | DRAW BAR | WEIGHT KGS | CODE NO. |
|-----------|------|----------|-----|----------|------------|----------|
| VB-BT40   | BT40 | #25      | 80  | M16X2.0P | 1.5        | 3101-009 |
| VB-BT50   | BT50 | #25      | 100 | M24X3.0P | 5          | 3101-010 |
|           |      |          | 150 | M24X3.0P | 5.8        | 3101-011 |

## Milling Collet Chuck Kit

Including shank, full set of collets, wrench and case.



### METRIC COLLET SYSTEM

| DER NO. | TAPER | PCS/SET | WEIGHT KGS | CODE NO. |
|---------|-------|---------|------------|----------|
| VB-241  | BT40  | 7       | 4.4        | 3101-117 |
| VB-242  |       | 15      | 5.9        | 3101-118 |
| VB-251  | BT50  | 7       | 7.5        | 3101-119 |
| VB-252  |       | 15      | 9.5        | 3101-120 |

### CONTENT COLLET SET SIZE

| SET SIZE                                                     |
|--------------------------------------------------------------|
| 7PCS: 6, 8, 10, 12, 16, 20, 25mm                             |
| 15PCS: 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 16, 18, 20, 25mm |

### INCH COLLET SYSTEM

| ORDER NO. | TAPER | PCS/SET | WEIGHT KGS | CODE NO. |
|-----------|-------|---------|------------|----------|
| VB-231    | BT40  | 7       | 4.4        | 3101-121 |
| VB-232    |       | 15      | 5.9        | 3101-122 |
| VB-233    | BT50  | 7       | 7.5        | 3101-123 |
| VB-234    |       | 15      | 9.5        | 3101-124 |

### INCH RANGE SET SIZE

|                                                                                                         |
|---------------------------------------------------------------------------------------------------------|
| 7PCS: 1/4", 5/16", 3/8", 1/2", 5/8", 3/4", 1"                                                           |
| 15PCS: 1/8", 3/16", 1/4", 5/16", 3/8", 7/16", 1/2", 9/16", 5/8", 11/16", 3/4", 13/16", 7/8", 15/16", 1" |



# Milling Collet Chuck

DIN 6388 # 32 SERIES

DIN 2080 NT-SHANK

COLLET HOLDER WITH ISO-SHANK  
OZ-32



| ORDER NO.     | TAPER | DIN 6388 | DRAW BAR               | WEIGHT KGS | CODE NO. |
|---------------|-------|----------|------------------------|------------|----------|
| VB-130        | NT30  | #32      | 1.M12X1.75P 2.1/2"-12W | 2          | 3102-006 |
| <b>VB-131</b> | NT40  | #32      | 1.M16X2.0P 2.5/8"-11W  | 2.2        | 3102-001 |
| <b>VB-132</b> | NT50  | #32      | 1.M24X3.0P 2.1"-8W     | 4.8        | 3102-002 |

## Milling Collet Chuck Kit

Including Shank, full set of collets, wrench and case.

**OZ-32 DIN 6388**



## METRIC COLLET SYSTEM

| ORDER NO.      | TAPER | PCS/SET | WEIGHT KGS | CODE NO. |
|----------------|-------|---------|------------|----------|
| <b>VB-121</b>  | NT40  | 8       | 7.5        | 3102-101 |
| <b>VB-121B</b> | NT40  | 15      | 9.2        | 3102-102 |
| <b>VB-122</b>  | NT50  | 8       | 9.8        | 3102-103 |
| <b>VB-122B</b> | NT50  | 15      | 11.8       | 3102-104 |
| <b>VB-123</b>  | NT30  | 8       | 7          | 3102-090 |
| <b>VB-123B</b> | NT30  | 15      | 9          | 3102-091 |
| <b>VB-124</b>  | MTB5  | 8       | 8          | 3102-092 |
| <b>VB-124B</b> | MTB5  | 15      | 10         | 3102-093 |

## INCH COLLET SYSTEM

| ORDER NO. | TAPER | PCS/SET | WEIGHT KGS | CODE NO. |
|-----------|-------|---------|------------|----------|
| VB-162    | NT30  | 10      | 7          | 3102-094 |
| VB-162B   | NT30  | 15      | 9          | 3102-095 |
| VB-163    | NT40  | 10      | 7.2        | 3102-105 |
| VB-164    | NT40  | 15      | 9.2        | 3102-106 |
| VB-165    | NT50  | 10      | 9.8        | 3102-107 |
| VB-166    | NT50  | 15      | 11.8       | 3102-108 |
| VB-167    | MTB5  | 10      | 8          | 3102-096 |
| VB-167B   | MTB5  | 15      | 10         | 3102-097 |

## CONTENT COLLET SET SIZE

| METRIC RANGE SET SIZE                                           |
|-----------------------------------------------------------------|
| 8PCS: 6, 8, 10, 12, 16, 20, 25, 32mm                            |
| 15PCS: 6, 7, 8, 9, 10, 11, 12, 13, 16, 18, 20, 25, 26, 30, 32mm |

| INCH RANGE SET SIZE                                                                                        |
|------------------------------------------------------------------------------------------------------------|
| 10PCS: 1/4", 5/16", 3/8", 1/2", 5/8", 3/4", 7/8", 1", 1-1/8", 1-1/4"                                       |
| 15PCS: 1/4", 5/16", 3/8", 7/16", 1/2", 9/16", 5/8", 11/16", 3/4", 13/16", 7/8", 15/16", 1", 1-1/8", 1-1/4" |



# Milling Collet Chuck

DIN 6388 # 32 SERIES

**COLLET HOLDER WITH BT-SHANK**  
**OZ-32 MAS 403**



| ORDER NO. |            | 88  | L   | DRAW BAR | WEIGHT KGS | CODE NO. |
|-----------|------------|-----|-----|----------|------------|----------|
| VB-226    | BT40-OZ-32 | #32 | 90  | M16X2.0P | 2          | 3102-003 |
| VB-227    | BT50-OZ-32 | #32 | 100 | M24X3.0P | 5          | 3102-004 |
| VB-228    |            |     | 150 | M24X3.0P | 6          | 3102-005 |

## Milling Collet Chuck Kit

Including Shank, full set of collets, wrench and case.

### #32 SERIES BT-TYPE

**MAS 403 BT-SHANK**



## METRIC COLLET SYSTEM SET

| ORDER NO. | TAPER | PCS/SET | WEIGHT KGS | CODE NO. |
|-----------|-------|---------|------------|----------|
| VB-243    | BT-40 | 8       | 7.4        | 3102-109 |
| VB-244    |       | 15      | 9.4        | 3102-110 |
| VB-253    | BT-50 | 8       | 10         | 3102-111 |
| VB-254    |       | 15      | 12         | 3102-112 |

## INCH COLLET SYSTEM SET

| ORDER NO. | TAPER | PCS/SET | WEIGHT KGS | CODE NO. |
|-----------|-------|---------|------------|----------|
| VB-256    | BT-40 | 10      | 7.4        | 3102-113 |
| VB-257    |       | 15      | 9.4        | 3102-114 |
| VB-258    | BT-50 | 10      | 10         | 3102-115 |
| VB-259    |       | 15      | 12         | 3102-116 |

## CONTENT COLLET SET SIZE

| METRIC RANGE SET SIZE                                      |
|------------------------------------------------------------|
| 8PCS: 6, 8,10,12,16,20,25,32mm                             |
| 15PCS: 6, 8,10,12,13,14,15,16,18, 20, 22, 25, 26, 30, 32mm |

| INCH RANGE SET SIZE                                                                                        |
|------------------------------------------------------------------------------------------------------------|
| 10PCS: 1/4", 5/16", 3/8", 1/2", 5/8", 3/4", 7/8", 1", 1-1/8", 1-1/4"                                       |
| 15PCS: 1/4", 5/16", 3/8", 7/16", 1/2", 9/16", 5/8", 11/16", 3/4", 13/16", 7/8", 15/16", 1", 1-1/8", 1-1/4" |



# Milling Collet Chuck

DIN 6388 # 25,#32 SERIES

## COLLET HOLDER WITH DIN 69871A & CAT TYPE



### DIN 69871A & CAT SHANK

| ORDER NO. | TAPER               | DIN 6388 | DRAW BAR | WEIGHT KGS | CODE NO. |
|-----------|---------------------|----------|----------|------------|----------|
| VB-261    | SK40-OZ25-80L       | #25      | M16X2.0P | 1.9        | 3101-011 |
| VB-262    | SK50-OZ25-100L      |          | M24X3.0P | 4.2        | 3101-012 |
| VB-263    | CAT40-OZ25-3"L      |          | 5/8"-11W | 1.9        | 3101-013 |
| VB-264    | CAT50-OZ25-3 1/2" L |          | 1"-8W    | 4          | 3101-014 |
| VB-265    | SK40-OZ32-80L       | #32      | M16X2.0P | 2.3        | 3102-011 |
| VB-266    | SK50-OZ32-100L      |          | M24X3.0P | 5          | 3102-012 |
| VB-267    | CAT40-OZ32-3"L      |          | 5/8"-11W | 2.3        | 3102-013 |
| VB-268    | CAT50-OZ32-3 1/2"L  |          | 1"-8W    | 5          | 3102-014 |

### Milling Collet Chuck Kit

Including Shank, full set of collets, wrench and case.



### METRIC COLLET SYSTEM SET DIN69871A SK-TYPE WITH #25,#32

| ORDER NO. | COLLET HOLDER  | TYPE | DIN 6388 | RANGE  | PCS   | KGS  | CODE NO. |
|-----------|----------------|------|----------|--------|-------|------|----------|
| VB-271    | SK40-OZ25-80L  | SK40 | #25      | 3.0-25 | 15PCS | 5.7  | 3101-125 |
| VB-272    | SK40-OZ25-80L  |      | #25      | 6.0-25 | 7PCS  | 4.2  | 3101-126 |
| VB-273    | SK40-OZ32-90L  |      | #32      | 6.0-32 | 15PCS | 9.2  | 3101-127 |
| VB-274    | SK40-OZ32-90L  |      | #32      | 6.0-32 | 8PCS  | 7.2  | 3101-128 |
| VB-275    | SK50-OZ25-100L | SK50 | #25      | 3.0-25 | 15PCS | 9.3  | 3101-129 |
| VB-276    | SK50-OZ25-100L |      | #25      | 6.0-25 | 7PCS  | 7.3  | 3101-130 |
| VB-277    | SK50-OZ32-100L |      | #32      | 6.0-32 | 15PCS | 11.8 | 3102-117 |
| VB-278    | SK50-OZ32-100L |      | #32      | 6.0-32 | 8PCS  | 9.8  | 3102-118 |

### METRIC COLLET SYSTEM SET CAT-TYPE WITH #25,#32

| ORDER NO. | COLLET HOLDER       | TYPE  | DIN 6388 | RANGE       | SET PCS | KGS  | CODE NO. |
|-----------|---------------------|-------|----------|-------------|---------|------|----------|
| VB-281    | CAT40-OZ25-3"L      | CAT40 | #25      | 1/8"-1      | 15PCS   | 5.7  | 3101-131 |
| VB-282    | CAT40-OZ25-3"L      |       | #25      | 1/4"-1      | 7PCS    | 4.2  | 3101-132 |
| VB-286    | CAT40-OZ32-3"L      |       | #32      | 1/4"-1 1/4" | 15PCS   | 9.2  | 3102-119 |
| VB-287    | CAT40-OZ32-3"L      |       | #32      | 1/4"-1 1/4" | 10PCS   | 7.2  | 3102-120 |
| VB-288    | CAT50-OZ25-3 1/2" L | CAT50 | #25      | 1/8"-1"     | 15PCS   | 9.3  | 3101-133 |
| VB-289    | CAT50-OZ25-3 1/2" L |       | #25      | 1/4"-1"     | 7PCS    | 7.3  | 3101-134 |
| VB-290    | CAT50-OZ32-3 1/2" L |       | #32      | 1/4"-1 1/4" | 15PCS   | 11.8 | 3102-121 |
| VB-291    | CAT50-OZ32-3 1/2" L |       | #32      | 1/4"-1 1/4" | 10PCS   | 10   | 3102-122 |



# Posi-lock Milling Collet Chuck

COLLET HOLDER WITH MT, R-8, NT TAPER SHANK  
POSI-LOCK COLLET TYPE



| ORDER NO. | TAPER | WEIGHT KGS | DRAW BAR      |                        | CODE NO. |
|-----------|-------|------------|---------------|------------------------|----------|
| VC-115    | MT2   | 0.7        | 1.M10x1.5     | 2.3/8"-16              | 3203-001 |
| VC-116    | MT3   | 0.9        | 1.M12x1.75    | 2.M10X1.5<br>3.3/8"-16 | 3203-002 |
| VC-117    | MT4   | 1          | 1.M16X2.0P    | 2.5/8"-11              | 3203-003 |
| VC-118    | R8    | 1          | 1.7/16"-20UNF |                        | 3203-004 |
| VC-123    | NT30  | 1          | 1.M12X1.75    | 2.1/2"-12              | 3203-005 |
| VC-124    | NT40  | 1.2        | 1.M16X2.0     | 2.5/8"-11              | 3203-006 |
| VC-125    | NT50  | 3          | 1.M24X3.0     | 2.1"-8                 | 3203-007 |

## POSI-LOCK MILLING COLLET CHUCK KIT

Including Collet Chuck, Full Set of Collets and Wrench  
Compact design for maximum clearance. Gradual collar taper for powerful clamping action over entire collet. Fast & simple tool changing.

| ORDER NO. | TAPER | DRAW BAR              | COLLET SIZE | COLLET PCS | WEIGHT KGS | CODE NO. |
|-----------|-------|-----------------------|-------------|------------|------------|----------|
| VC-101    | MT2   | 1.M10x1.5P            | METRIC      | 4          | 1.8        | 3203-101 |
| VC-101I   |       | 2.3/8"-16             | INCH        | 4          | 1.8        | 3203-102 |
| VC-101A   |       |                       | MM+INCH     | 8          | 2.3        | 3203-103 |
| VC-102    | MT3   | 1.M10x1.5P 2.M12X1.75 | METRIC      | 4          | 2          | 3203-104 |
| VC-102I   |       | 3.3/8"-16 4.1/2"-12   | INCH        | 4          | 2          | 3203-105 |
| VC-102A   |       |                       | MM+INCH     | 8          | 5          | 3203-106 |
| VC-103    | MT4   | 1.M16x2.0P            | METRIC      | 4          | 2          | 3203-107 |
| VC-103I   |       | 2.5/8"-11             | INCH        | 4          | 2          | 3203-108 |
| VC-103A   |       |                       | MM+INCH     | 8          | 2.5        | 3203-109 |
| VC-104    | R8    | 1.7/16"-20UNF         | METRIC      | 4          | 2.2        | 3203-110 |
| VC-104I   |       |                       | INCH        | 4          | 2          | 3203-111 |
| VC-104A   |       |                       | MM+INCH     | 8          | 2.5        | 3203-112 |
| VC-105    | NT30  | 1.M12x1.75P           | METRIC      | 4          | 2          | 3203-113 |
| VC-105I   |       | 2.1/2"-12             | INCH        | 4          | 2          | 3203-114 |
| VC-105A   |       |                       | MM+INCH     | 8          | 2.5        | 3203-115 |
| VC-106    | NT40  | 1.M16x2.0P            | METRIC      | 4          | 2.3        | 3203-116 |
| VC-106I   |       | 2.5/8"-11             | INCH        | 4          | 2.3        | 3203-117 |
| VC-106A   |       |                       | MM+INCH     | 8          | 2.8        | 3203-118 |
| VC-107    | NT50  | 1.M24x3.0P            | METRIC      | 4          | 4.3        | 3203-119 |
| VC-107I   |       | 2.1"-8                | INCH        | 4          | 4.3        | 3203-120 |
| VC-107A   |       |                       | MM+INCH     | 8          | 4.8        | 3203-121 |



EACH COLLET WEIGHT IS 0.09kgs

| ORDER NO. | SIZE | CODE NO. |
|-----------|------|----------|
| PLI- 1/4  | 1/4" | 3203-130 |
| PLI- 3/8  | 3/8" | 3203-131 |
| PLI- 1/2  | 1/2" | 3203-132 |
| PLI- 5/8  | 5/8" | 3203-133 |
| PLM- 6    | 6mm  | 3203-134 |
| PLM- 10   | 10mm | 3203-135 |
| PLM- 12   | 12mm | 3203-136 |
| PLM- 16   | 16mm | 3203-137 |

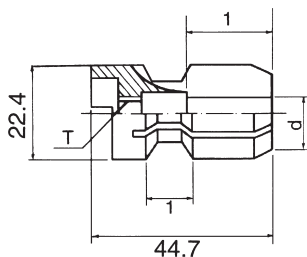
### COLLET SET RANGE SIZE

METRIC 4PCS:6,10,12,16mm

INCH 4PCS:1/4",3/8",1/2",5/8"

SIZE 8PCS:6,10,12,16mm,1/4",3/8",1/2",5/8"

## COLLET SIZE FOR POSI-LOCK



## INDIVIDUAL UNIT

| ORDER NO.                       | Q'TY | T          | d COLLET SIZE         |
|---------------------------------|------|------------|-----------------------|
| PL I - <input type="checkbox"/> | 1PC  | 5/8"-20TPI | Ø 1/4",3/8",1/2",5/8" |
| PLM- <input type="checkbox"/>   | 1PC  | M16-1.25P  | Ø 6,10,12,16mm        |

## FULL SET

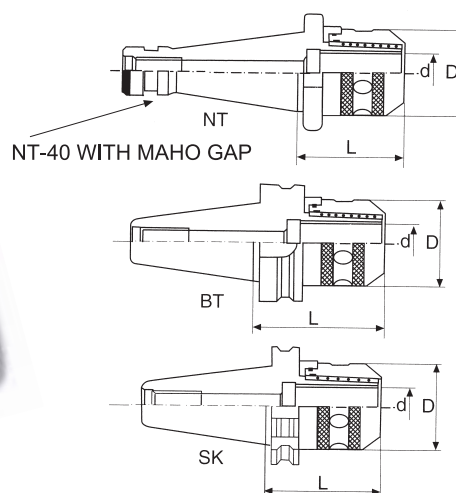
| ORDER NO. | COLLET SIZE                             | WEIGHT (kg) | DE       |
|-----------|-----------------------------------------|-------------|----------|
| VC-111    | 4pcs - 6,10,12,16mm                     | 0.36        | 3203-200 |
| VC-112    | 4pcs - 1/4",3/8",1/2",5/8"              | 0.36        | 3203-201 |
| VC-113    | 8pcs - 6,10,12,16mm,1/4",3/8",1/2",5/8" | 0.72        | 3203-202 |



# Multi-lock Milling Chuck

COLLET HOLDER WITH ISO, BT & SK TAPER SHANK  
STRAIGHT COLLET TYPE  
C-32 C-42

**NEW**



**DIN 2080, MAS 403 DIN 69871A**  
**C-20,25,32,42 TYPE**

| ER NO.  | TAPER | CHUCK          | d  | D  | L   | DRAW BAR                   | KGS | CODE NO. |
|---------|-------|----------------|----|----|-----|----------------------------|-----|----------|
| VB-431  | NT40  | NT40-MC32-95L  | 32 | 75 | 95  | 5/8"-11                    | 3   | 3202-001 |
| VB-432  |       | NT40-MC32-95L  | 32 | 75 | 95  | M16x2.0P                   | 3   | 3202-002 |
| VB-433  | NT50  | NT50-MC32-100L | 32 | 75 | 100 | 1"-8                       | 4.5 | 3202-003 |
| VB-434  |       | NT50-MC32-100L | 32 | 75 | 100 | M24x3.0P                   | 4.5 | 3202-004 |
| VB-435A | BT40  | BT40-MC32-105L | 32 | 75 | 105 | M16x2.0P                   | 3   | 3202-005 |
| VB-435B |       | BT40-MC32-150L | 32 | 75 | 150 | M16x2.0P                   | 3.5 | 3202-020 |
| VB-436  | BT50  | BT50-MC32-110L | 32 | 75 | 110 | M24x3.0P                   | 5.2 | 3202-006 |
| VB-437  |       | BT50-MC32-150L | 32 | 75 | 135 | M24x3.0P                   | 7   | 3202-007 |
| VB-438  | NT50  | NT50-MC42-110L | 42 | 87 | 110 | 1"-8                       | 6   | 3202-008 |
| VB-439  |       | NT50-MC42-110L | 42 | 87 | 110 | M24x3.0P                   | 6   | 3202-009 |
| VB-440  | BT50  | BT50-MC42-115L | 42 | 87 | 115 | M24x3.0P                   | 7   | 3202-010 |
| VB-441  |       | BT50-MC42-150L | 42 | 87 | 140 | M24x3.0P                   | 8.5 | 3202-011 |
| VB-442  | SK-40 | SK40-MC32-100L | 32 | 75 | 100 | M16x2.0P                   | 3   | 3202-012 |
| VB-443  | SK-50 | SK50-MC32-105L | 32 | 75 | 105 | M24x3.0P                   | 5.2 | 3202-013 |
| VB-444A | BT30  | BT30-MC20-85   | 20 | 52 | 85  | M12x1.75P                  | 2   | 3202-014 |
| VB-445  |       | BT30-MC25-85   | 25 | 58 | 85  | M12x1.75P                  | 2.5 | 3202-015 |
| VB-446A | BT40  | BT40-MC20-80   | 20 | 52 | 80  | M16x2.0P                   | 3   | 3202-016 |
| VB-446B |       | BT40-MC20-120  | 20 | 52 | 120 | M16x2.0P                   | 4   | 3202-017 |
| VB-447A |       | BT40-MC25-90   | 25 | 58 | 90  | M16x2.0P                   | 4.5 | 3202-018 |
| VB-447B |       | BT40-MC25-135  | 25 | 58 | 135 | M16x2.0P                   | 5   | 3202-019 |
| VB-448A | NT30  | NT30-MC20-80   | 20 | 52 | 80  | 1. M12X1.75P<br>2. 1/2"-12 | 1.5 | 3202-030 |
| VB-448B |       | NT30-MC25-85   | 25 | 58 | 85  | 1. M12X1.75P<br>2. 1/2"-12 | 1.5 | 3202-031 |
| VB-449A | NT40  | NT40-MC20-80   | 20 | 52 | 80  | 1. M16X2.0P<br>2. 5/8"-11  | 2   | 3202-032 |
| VB-449B |       | NT40-MC25-85   | 25 | 58 | 85  | 1. M16X2.0P<br>2. 5/8"-11  | 2   | 3202-033 |
| VB-450  | SK30  | SK30-MC20-95   | 20 | 52 | 95  | M12X1.75P                  | 1.5 | 3202-034 |
| VB-451A | SK40  | SK40-MC20-80   | 20 | 52 | 80  | M16X2.0P                   | 2   | 3202-035 |
| VB-451B |       | SK40-MC25-90   | 25 | 58 | 90  | M16X2.0P                   | 2   | 3202-036 |
| VB-452  | SK50  | SK50-MC42-110  | 42 | 87 | 110 | M24X3.0P                   | 5.7 | 3202-037 |



# Multi-lock Milling Chuck

## MULTI-LOCK MILLING CHUCK KIT

Including shank, full set of collets,  
wrench and case.



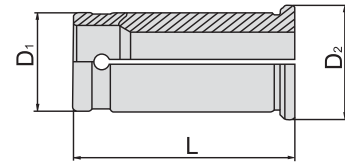
**DIN 2080 NT-SHANK  
MAS 403 BT-SHANK  
DIN 69871A SK-SHANK**

| ORDER NO. | TAPER | CHUCK          | COLLET | DRAW BAR                   | KGS  | CODE NO. |
|-----------|-------|----------------|--------|----------------------------|------|----------|
| VB-444I   | NT40  | NT40-MC32-95L  | 7PCS   | 5/8"-11                    | 7    | 3202-101 |
| VB-444    |       | NT40-MC32-95L  | 7PCS   | M16x2.0P                   | 7    | 3202-102 |
| VB-454I   | NT50  | NT50-MC32-100L | 7PCS   | 1"-8                       | 9    | 3202-103 |
| VB-454    |       | NT50-MC32-100L | 7PCS   | M24x3.0P                   | 9    | 3202-104 |
| VB-344A   | BT40  | BT40-MC32-105L | 7PCS   | M16x2.0P                   | 7    | 3202-105 |
| VB-344B   |       | BT40-MC32-150L | 7PCS   | M16x2.0P                   | 11.5 | 3202-118 |
| VB-354A   | BT50  | BT50-MC32-110L | 7PCS   | M24x3.0P                   | 9.5  | 3202-106 |
| VB-354B   |       | BT50-MC32-150L | 7PCS   | M24x3.0P                   | 13   | 3202-119 |
| VB-554    | NT50  | NT50-MC42-110L | 8PCS   | M24x3.0P                   | 12   | 3202-107 |
| VB-554I   |       | NT50-MC42-110L | 8PCS   | 1"-8                       | 12   | 3202-108 |
| VB-564A   | BT50  | BT50-MC42-115L | 8PCS   | M24x3.0P                   | 12   | 3202-109 |
| VB-564B   |       | BT50-MC42-150L | 8PCS   | M24x3.0P                   | 14   | 3202-120 |
| VB-565    | SK-40 | SK40-MC32-100L | 7PCS   | M16x2.0P                   | 7    | 3202-110 |
| VB-566    | SK-50 | SK50-MC32-105L | 7PCS   | M24x3.0P                   | 9.5  | 3202-111 |
| VB-567    | BT-30 | BT30-MC20-85   | 6PCS   | M12x1.75P                  | 6    | 3202-112 |
| VB-568    |       | BT30-MC25-85   | 7PCS   | M12x1.75P                  | 7.5  | 3202-113 |
| VB-569A   | BT-40 | BT40-MC20-80   | 6PCS   | M16x2.0P                   | 7    | 3202-114 |
| VB-569B   |       | BT40-MC20-120  | 6PCS   | M16x2.0P                   | 8    | 3202-115 |
| VB-570A   |       | BT40-MC25-90   | 7PCS   | M16x2.0P                   | 9.5  | 3202-116 |
| VB-570B   |       | BT40-MC25-135  | 7PCS   | M16x2.0P                   | 10.5 | 3202-117 |
| VB-571    | NT30  | NT30-MC20-80L  | 6PCS   | 1. M12X1.75P<br>2. 1/2"-12 | 4    | 3202-120 |
| VB-572    |       | NT30-MC25-85L  | 7PCS   | 1. M12X1.75P<br>2. 1/2"-12 | 4    | 3202-121 |
| VB-573    | NT40  | NT40-MC20-80L  | 6PCS   | 1. M16X2.0P<br>2. 5/8"-11  | 4.5  | 3202-122 |
| VB-574    |       | NT40-MC25-85L  | 7PCS   | 1. M16X2.0P<br>2. 5/8"-11  | 4.5  | 3202-123 |
| VB-575    | SK30  | SK30-MC20-95L  | 6PCS   | M12X1.75P                  | 4    | 3202-124 |
| VB-576    | SK40  | SK40-MC20-80L  | 6PCS   | M16X2.0P                   | 4.5  | 3202-125 |
| VB-577    |       | SK40-MC25-90L  | 7PCS   | M16X2.0P                   | 4.8  | 3202-126 |
| VB-578    | SK50  | SK50-MC42-110L | 8PCS   | M24X3.0P                   | 12   | 3202-127 |



# C-20,25,32,42 Collet

## C-TYPE COLLET



### 20, 25, 32, 42 STRAIGHT COLLETS

| ORDER NO. | COLLET | COLLETS SIZE d<br>INSIDE DIAMETER | D1<br>O.D. | D2 | L  | WEIGHT KGS |
|-----------|--------|-----------------------------------|------------|----|----|------------|
| C-20-□    | C-20   | 6, 8, 10, 12, 16                  | 20         | 25 | 52 | 0.1        |
| C-25-□    | C-25   | 6, 8, 10, 12, 16, 20              | 25         | 31 | 60 | 0.18       |
| C-32-□    | C-32   | 6, 8, 10, 12, 16, 20, 25          | 32         | 37 | 73 | 0.22       |
| C-42-□    | C-42   | 6, 8, 10, 12, 16, 20, 25, 32      | 42         | 48 | 80 | 0.35       |

| ORDER NO. | d  | CODE NO. |
|-----------|----|----------|
| C-20-6    | 6  | 3202-201 |
| C-20-8    | 8  | 3202-202 |
| C-20-10   | 10 | 3202-203 |
| C-20-12   | 12 | 3202-204 |
| C-20-16   | 16 | 3202-205 |

| ORDER NO. | d  | CODE NO. |
|-----------|----|----------|
| C-25-6    | 6  | 3202-230 |
| C-25-8    | 8  | 3202-231 |
| C-25-10   | 10 | 3202-232 |
| C-25-12   | 12 | 3202-233 |
| C-25-16   | 16 | 3202-234 |
| C-25-20   | 20 | 3202-235 |

| ORDER NO. | d  | CODE NO. |
|-----------|----|----------|
| C-32-6    | 6  | 3202-250 |
| C-32-8    | 8  | 3202-251 |
| C-32-10   | 10 | 3202-252 |
| C-32-12   | 12 | 3202-253 |
| C-32-16   | 16 | 3202-254 |
| C-32-20   | 20 | 3202-255 |
| C-32-25   | 25 | 3202-256 |

| ORDER NO. | d  | CODE NO. |
|-----------|----|----------|
| C-42-6    | 6  | 3202-280 |
| C-42-8    | 8  | 3202-281 |
| C-42-10   | 10 | 3202-282 |
| C-42-12   | 12 | 3202-283 |
| C-42-16   | 16 | 3202-284 |
| C-42-20   | 20 | 3202-285 |
| C-42-25   | 25 | 3202-286 |
| C-42-32   | 32 | 3202-287 |

| ORDER NO.  | d     | CODE NO. |
|------------|-------|----------|
| C-20-3/16" | 3/16" | 3202-210 |
| C-20-1/4"  | 1/4"  | 3202-211 |
| C-20-5/16" | 5/16" | 3202-212 |
| C-20-3/8"  | 3/8"  | 3202-213 |
| C-20-1/2"  | 1/2"  | 3202-214 |
| C-20-5/8"  | 5/8"  | 3202-215 |

| ORDER NO.  | d     | CODE NO. |
|------------|-------|----------|
| C-25-3/16" | 3/16" | 3202-240 |
| C-25-1/4"  | 1/4"  | 3202-241 |
| C-25-5/16" | 5/16" | 3202-242 |
| C-25-3/8"  | 3/8"  | 3202-243 |
| C-25-1/2"  | 1/2"  | 3202-244 |
| C-25-5/8"  | 5/8"  | 3202-245 |
| C-25-3/4"  | 3/4"  | 3202-246 |

| ORDER NO.  | d     | CODE NO. |
|------------|-------|----------|
| C-32-3/16" | 3/16" | 3202-260 |
| C-32-1/4"  | 1/4"  | 3202-261 |
| C-32-5/16" | 5/16" | 3202-262 |
| C-32-3/8"  | 3/8"  | 3202-263 |
| C-32-1/2"  | 1/2"  | 3202-264 |
| C-32-5/8"  | 5/8"  | 3202-265 |
| C-32-3/4"  | 3/4"  | 3202-266 |
| C-32-7/8"  | 7/8"  | 3202-267 |
| C-32-1"    | 1"    | 3202-268 |

| ORDER NO.   | d      | CODE NO. |
|-------------|--------|----------|
| C-42-1/4"   | 1/4"   | 3202-290 |
| C-42-5/16"  | 5/16"  | 3202-291 |
| C-42-3/8"   | 3/8"   | 3202-292 |
| C-42-1/2"   | 1/2"   | 3202-293 |
| C-42-5/8"   | 5/8"   | 3202-294 |
| C-42-3/4"   | 3/4"   | 3202-295 |
| C-42-7/8"   | 7/8"   | 3202-296 |
| C-42-1"     | 1"     | 3202-297 |
| C-42-1 1/2" | 1 1/2" | 3202-298 |



# C-20,25,32,42 Wrenchs

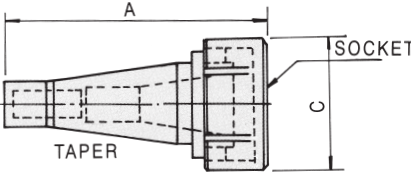


| ORDER NO. | L   | D  |      |      | CODE NO. |
|-----------|-----|----|------|------|----------|
| C-20W     | 227 | 52 | 0.22 | C-20 | 3202-311 |
| C-25W     | 227 | 58 | 0.22 | C-25 | 3202-312 |
| C-32W     | 260 | 75 | 0.33 | C-32 | 3202-313 |
| C-42W     | 270 | 87 | 0.35 | C-42 | 3202-314 |



# Quick-Change Tooling System

## MILLING-QUICK CHANGE HOLDER



- 1.QUICK-CHANG CHUCK TAPER ACCORDING TO DIN 2080 SPECIFICATION.
- 2.EASY AND FAST CHANGING MILLING CHUCK(HOLDER).
- 3.CHUCK TAPER PRECISELY MACHINED SUITABLE FOR HEAVY CUTTING.

| ORDER NO. | TAPER | SOCKET | A   | C  | WEIGHT KGS | CODE NO. |
|-----------|-------|--------|-----|----|------------|----------|
| VD-101    | NT30  | NT30   | 144 | 70 | 1.3        | 3201-001 |
| VD-102    | NT40  | NT30   | 150 | 70 | 2          | 3201-002 |
| VD-103    | NT40  | NT40   | 181 | 89 | 2.4        | 3201-003 |
| VD-105    | NT50  | NT40   | 175 | 89 | 3.8        | 3201-004 |
| VD-106    | R8    | NT30   | 175 | 70 | 1.4        | 3201-005 |

## MILLING-QUICK CHANGE SYSTEM KIT

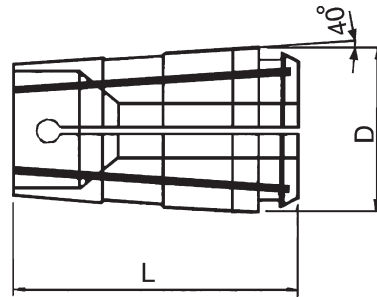


| ORDER NO. | TAPER | SOCKET | FULL SET                                                                                                                                                                                           | WEIGHT KGS | CODE NO. |
|-----------|-------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|----------|
| VD-111    | NT30  | NT30   | 1.MILLING QUICK-CHANGE HOLDER<br>2.DRILL CHUCK HOLDER<br>3.MORSE TAPER HOLDER<br>4.FACE MILL HOLDER<br>5.DIN6388 #25 COLLET CHUCK HOLDER<br>6.DIN6388 #25 15PCS COLLET<br>7.WRENCH<br>8.WOODEN BOX | 10         | 3201-006 |
| VD-112    | NT40  | NT30   |                                                                                                                                                                                                    | 10.5       | 3201-007 |
| VD-113    | NT40  | NT40   |                                                                                                                                                                                                    | 14         | 3201-008 |
| VD-115    | NT50  | NT40   |                                                                                                                                                                                                    | 16         | 3201-009 |
| VD-116    | R8    | NT30   |                                                                                                                                                                                                    | 10         | 3201-010 |



# TG 100 Collet System

DIN 464E



■ RANGE SIZE: 1/8"-63/64"

TG-100 ■ D:35 ■ L:61 ■ TAPER:4 ■ WEIGHT:0.2KGS

| ORDER NO. | INCH   | CODE NO. |
|-----------|--------|----------|
| TG10-01   | 1/8"   | 3204-001 |
| TG10-02   | 3/16"  | 3204-002 |
| TG10-03   | 1/4"   | 3204-003 |
| TG10-04   | 5/16"  | 3204-004 |
| TG10-05   | 3/8"   | 3204-005 |
| TG10-06   | 7/16"  | 3204-006 |
| TG10-07   | 1/2"   | 3204-007 |
| TG10-08   | 9/16"  | 3204-008 |
| TG10-09   | 5/8"   | 3204-009 |
| TG10-10   | 11/16" | 3204-010 |
| TG10-11   | 3/4"   | 3204-011 |
| TG10-12   | 13/16" | 3204-012 |
| TG10-13   | 7/8"   | 3204-013 |
| TG10-14   | 15/16" | 3204-014 |
| TG10-15   | 1"     | 3204-015 |

| ORDER NO. | INCH   | CODE NO. |
|-----------|--------|----------|
| TG10-16   | 5/32"  | 3204-016 |
| TG10-17   | 7/32"  | 3204-017 |
| TG10-18   | 9/32"  | 3204-018 |
| TG10-19   | 11/32" | 3204-019 |
| TG10-20   | 13/32" | 3204-020 |
| TG10-21   | 15/32" | 3204-021 |
| TG10-22   | 17/32" | 3204-022 |
| TG10-23   | 19/32" | 3204-023 |
| TG10-24   | 21/32" | 3204-024 |
| TG10-25   | 23/32" | 3204-025 |
| TG10-26   | 25/32" | 3204-026 |
| TG10-27   | 27/32" | 3204-027 |
| TG10-28   | 29/32" | 3204-028 |
| TG10-29   | 31/32" | 3204-029 |
|           |        |          |

| ORDER NO. | INCH   | CODE NO. |
|-----------|--------|----------|
| TG10-30   | 9/64"  | 3204-030 |
| TG10-31   | 11/64" | 3204-031 |
| TG10-32   | 13/64" | 3204-032 |
| TG10-33   | 15/64" | 3204-033 |
| TG10-34   | 17/64" | 3204-034 |
| TG10-35   | 19/64" | 3204-035 |
| TG10-36   | 21/64" | 3204-036 |
| TG10-37   | 23/64" | 3204-037 |
| TG10-38   | 25/64" | 3204-038 |
| TG10-39   | 27/64" | 3204-039 |
| TG10-40   | 29/64" | 3204-040 |
| TG10-41   | 31/64" | 3204-041 |
| TG10-42   | 33/64" | 3204-042 |
| TG10-43   | 35/64" | 3204-043 |
| TG10-44   | 37/64" | 3204-044 |

| ORDER NO. | INCH   | CODE NO. |
|-----------|--------|----------|
| TG10-45   | 39/64" | 3204-045 |
| TG10-46   | 41/64" | 3204-046 |
| TG10-47   | 43/64" | 3204-047 |
| TG10-48   | 45/64" | 3204-048 |
| TG10-49   | 47/64" | 3204-049 |
| TG10-50   | 49/64" | 3204-050 |
| TG10-51   | 51/64" | 3204-051 |
| TG10-52   | 53/64" | 3204-052 |
| TG10-53   | 55/64" | 3204-053 |
| TG10-54   | 57/64" | 3204-054 |
| TG10-55   | 59/64" | 3204-055 |
| TG10-56   | 61/64" | 3204-056 |
| TG10-57   | 63/64" | 3204-057 |
|           |        |          |

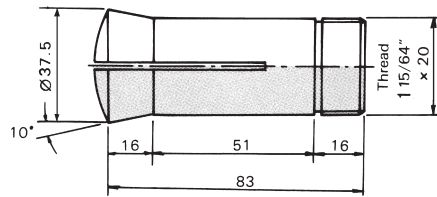


# 5C Collet System



5C RANGE

5C Collet



■ L:87 ■ D:37.5 ■ d:31.75  
■ α:10° ■ WEIGHT:0.21KGS

| ORDER NO. | Q'TY | RANGE SIZE                                                                                         |
|-----------|------|----------------------------------------------------------------------------------------------------|
| 5C-□      | 1 PC | Ø3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25MM             |
| 5C-□      | 1 PC | Ø 1/8", 3/16", 1/4", 5/16", 3/8", 7/16", 1/2", 9/16", 5/8", 11/16", 3/4", 13/16", 7/8", 15/16", 1" |

## COMPLETE SET AVAILABLE SIZE

| ORDER NO. | Q'TY | RANGE SIZE                              | PACKING | WEIGHT KGS | CODE NO. |
|-----------|------|-----------------------------------------|---------|------------|----------|
| VE-102    | 7PCS | 6, 8, 10, 12, 16, 20, 25                | CARTON  | 1.5        | 3205-100 |
| VE-102I   | 7PCS | 1/4", 5/16", 3/8", 1/2", 5/8", 3/4", 1" | CARTON  | 1.5        | 3205-101 |

## EMERGENCY TYPE SOFT COLLET

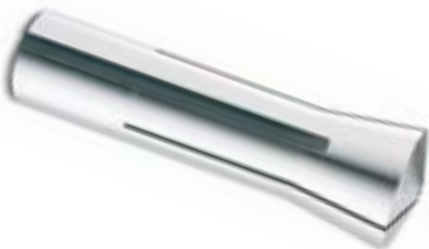
| ORDER NO. | MATERIAL | CODE NO. |
|-----------|----------|----------|
| VE-5CS    | STEEL    | 3205-201 |
| VE-5CB    | BRASS    | 3205-202 |
| VE-5CN    | NYLON    | 3205-203 |

| ORDER NO. | d  | CODE NO. |
|-----------|----|----------|
| 5C-3      | 3  | 3205-001 |
| 5C-4      | 4  | 3205-002 |
| 5C-5      | 5  | 3205-003 |
| 5C-6      | 6  | 3205-004 |
| 5C-7      | 7  | 3205-005 |
| 5C-8      | 8  | 3205-006 |
| 5C-9      | 9  | 3205-007 |
| 5C-10     | 10 | 3205-008 |
| 5C-11     | 11 | 3205-009 |
| 5C-12     | 12 | 3205-010 |
| 5C-13     | 13 | 3205-011 |
| 5C-14     | 14 | 3205-012 |
| 5C-15     | 15 | 3205-013 |
| 5C-16     | 16 | 3205-014 |
| 5C-17     | 17 | 3205-015 |
| 5C-18     | 18 | 3205-016 |
| 5C-19     | 19 | 3205-017 |
| 5C-20     | 20 | 3205-018 |
| 5C-21     | 21 | 3205-019 |
| 5C-22     | 22 | 3205-020 |
| 5C-23     | 23 | 3205-021 |
| 5C-24     | 24 | 3205-022 |
| 5C-25     | 25 | 3205-023 |

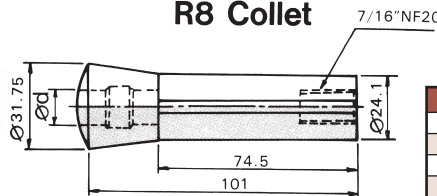
| ORDER NO. | d      | CODE NO. |
|-----------|--------|----------|
| 5C-1/8    | 1/8"   | 3205-024 |
| 5C-3/16   | 3/16"  | 3205-025 |
| 5C-1/4    | 1/4"   | 3205-026 |
| 5C-5/16   | 5/16"  | 3205-027 |
| 5C-3/8    | 3/8"   | 3205-028 |
| 5C-7/16   | 7/16"  | 3205-029 |
| 5C-1/2    | 1/2"   | 3205-030 |
| 5C-9/16   | 9/16"  | 3205-031 |
| 5C-5/8    | 5/8"   | 3205-032 |
| 5C-11/16  | 11/16" | 3205-033 |
| 5C-3/4    | 3/4"   | 3205-034 |
| 5C-13/16  | 13/16" | 3205-035 |
| 5C-7/8    | 7/8"   | 3205-036 |
| 5C-15/16  | 15/16" | 3205-037 |
| 5C-1      | 1"     | 3205-038 |



# R8 Collet System



R8 Collet



■ L:105 ■ D:31.75 ■ d:24.1  
■ G:7/16-20UNF ■ α:8°30' ■ WEIGHT:0.21KGS

| ORDER NO. | Q'TY | RANGE SIZE                                                               |
|-----------|------|--------------------------------------------------------------------------|
| R8-□      | 1 PC | Ø3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20 MM      |
| R8-□      | 1 PC | Ø 1/8", 3/16", 1/4", 5/16", 3/8", 7/16", 1/2", 9/16", 5/8", 11/16", 3/4" |

## COMPLETE SET AVAILABLE SIZE

| ORDER NO. | Q'TY  | RANGE SIZE                  | WEIGHT KGS | CODE NO. |
|-----------|-------|-----------------------------|------------|----------|
| VE-110    | 6 PCS | 6, 8, 10, 12, 16, 20 MM     | 1.5        | 3206-100 |
| VE-114    | 7 PCS | 6, 8, 10, 12, 14, 16, 20 MM | 1.5        | 3206-101 |

## EMERGENCY TYPE SOFT COLLET

| ORDER NO. | Q'TY  | RANGE SIZE                                 | WEIGHT KGS | CODE NO. |
|-----------|-------|--------------------------------------------|------------|----------|
| VE-109I   | 5 PCS | 1/4", 3/8", 1/2", 5/8", 3/4",              | 1.1        | 3206-102 |
| VE-110I   | 6 PCS | 1/4", 5/16", 3/8", 1/2", 5/8", 3/4"        | 1.6        | 3206-103 |
| VE-114I   | 7 PCS | 3/16", 1/4", 5/16", 3/8", 1/2", 5/8", 3/4" | 1.6        | 3206-104 |

| ORDER NO. | d  | CODE NO. |
|-----------|----|----------|
| R8-3      | 3  | 3206-001 |
| R8-4      | 4  | 3206-002 |
| R8-5      | 5  | 3206-003 |
| R8-6      | 6  | 3206-004 |
| R8-7      | 7  | 3206-005 |
| R8-8      | 8  | 3206-006 |
| R8-9      | 9  | 3206-007 |
| R8-10     | 10 | 3206-008 |
| R8-11     | 11 | 3206-009 |
| R8-12     | 12 | 3206-010 |
| R8-13     | 13 | 3206-011 |
| R8-14     | 14 | 3206-012 |
| R8-15     | 15 | 3206-013 |
| R8-16     | 16 | 3206-014 |
| R8-17     | 17 | 3206-015 |
| R8-18     | 18 | 3206-016 |
| R8-19     | 19 | 3206-017 |
| R8-20     | 20 | 3206-018 |

| ORDER NO. | d      | CODE NO. |
|-----------|--------|----------|
| R8-1/8    | 1/8"   | 3206-019 |
| R8-3/16   | 3/16"  | 3206-020 |
| R8-1/4    | 1/4"   | 3206-021 |
| R8-5/16   | 5/16"  | 3206-022 |
| R8-3/8    | 3/8"   | 3206-023 |
| R8-7/16   | 7/16"  | 3206-024 |
| R8-1/2    | 1/2"   | 3206-025 |
| R8-9/16   | 9/16"  | 3206-026 |
| R8-5/8    | 5/8"   | 3206-027 |
| R8-11/16  | 11/16" | 3206-028 |
| R8-3/4    | 3/4"   | 3206-029 |



# U2 Collet System



NO.1 U2 COLLET RANGE SIZE 3~16mm ■ L:120 ■ D:28 ■ d:20 ■ G:2.0P  
■ α:17°30' ■ WEIGHT:0.18KGS

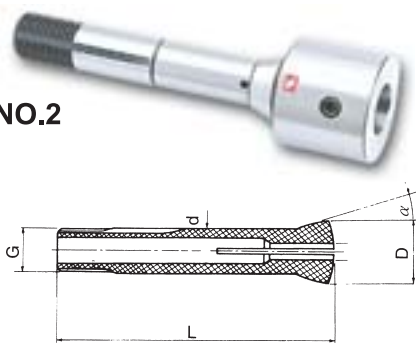
NO.1



| ORDER NO. | Q' TY | RANGE SIZE                                                                               |
|-----------|-------|------------------------------------------------------------------------------------------|
| VE-U2-□   | 1 PC  | NO.1 Ø 1, 1.5, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16<br>NO.2 Ø 18, 20, 25MM |
| VE-U2-□   | 1 PC  | Ø 1/8", 3/16", 1/4", 5/16", 3/8", 1/2", 5/8"                                             |

NO.2 U2 COLLET RANGE SIZE 18~25mm

NO.2



| ORDER NO. | d   | CODE NO. |
|-----------|-----|----------|
| VE-U2-1   | 1   | 3207-025 |
| VE-U2-1.5 | 1.5 | 3207-026 |
| VE-U2-2   | 2   | 3207-027 |
| VE-U2-3   | 3   | 3207-001 |
| VE-U2-4   | 4   | 3207-002 |
| VE-U2-5   | 5   | 3207-003 |
| VE-U2-6   | 6   | 3207-004 |
| VE-U2-7   | 7   | 3207-005 |
| VE-U2-8   | 8   | 3207-006 |
| VE-U2-9   | 9   | 3207-007 |

| ORDER NO. | d  | CODE NO. |
|-----------|----|----------|
| VE-U2-10  | 10 | 3207-008 |
| VE-U2-11  | 11 | 3207-009 |
| VE-U2-12  | 12 | 3207-010 |
| VE-U2-13  | 13 | 3207-011 |
| VE-U2-14  | 14 | 3207-012 |
| VE-U2-15  | 15 | 3207-013 |
| VE-U2-16  | 16 | 3207-014 |
| VE-U2-18  | 18 | 3207-015 |
| VE-U2-20  | 20 | 3207-016 |
| VE-U2-25  | 25 | 3207-017 |

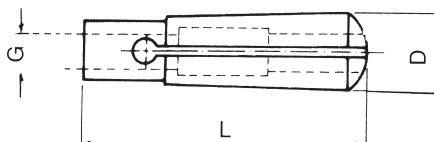
| ORDER NO.  | d     | CODE NO. |
|------------|-------|----------|
| VE-U2-1/8  | 1/8"  | 3207-018 |
| VE-U2-3/16 | 3/16" | 3207-019 |
| VE-U2-1/4  | 1/4"  | 3207-020 |
| VE-U2-5/16 | 5/16" | 3207-021 |
| VE-U2-3/8  | 3/8"  | 3207-022 |
| VE-U2-1/2  | 1/2"  | 3207-023 |
| VE-U2-5/8  | 5/8"  | 3207-024 |



# MT2 Collet System

■ D:18 ■ L:72 ■ G:3/8"-16 WEIGHT:0.12KGS  
■ G:10X1.5P

| ORDER NO. | Q' TY | RANGE SIZE                      |
|-----------|-------|---------------------------------|
| MT2-□     | 1 PC  | Ø 4, 6, 8, 10, 12MM             |
| MT2-□     | 1 PC  | Ø 1/8", 3/16", 1/4", 3/8", 1/2" |



|        | d  | CODE NO. |
|--------|----|----------|
| MT2-4  | 4  | 3208-001 |
| MT2-6  | 6  | 3208-002 |
| MT2-8  | 8  | 3208-003 |
| MT2-10 | 10 | 3208-004 |
| MT2-12 | 12 | 3208-005 |

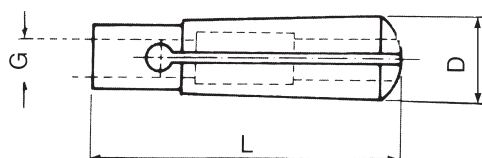
| ORDER NO. | d     | CODE NO. |
|-----------|-------|----------|
| MT2-1/8   | 1/8"  | 3208-006 |
| MT2-3/16  | 3/16" | 3208-007 |
| MT2-1/4   | 1/4"  | 3208-008 |
| MT2-3/8   | 3/8"  | 3208-009 |
| MT2-1/2   | 1/2"  | 3208-010 |



# MT3 Collet System

■ D:24.1 ■ L:87 ■ WEIGHT:0.18KGS  
■ DRAW BAR SIZE: G1.M12X1.75P  
G2.M10X1.5P  
G3.1/2"-12  
G4.3/8"-16

| ORDER NO. | Q' TY | RANGE SIZE                           | DRAW BAR SIZE |
|-----------|-------|--------------------------------------|---------------|
| MT3-□     | 1 PC  | Ø 4, 6, 8, 10, 12, 16, 20MM          | G1,G2         |
| MT3-□     | 1 PC  | Ø 1/8", 1/4", 3/8", 1/2", 5/8", 3/4" | G3,G4         |



| ORDER NO. | d  | CODE NO. |
|-----------|----|----------|
| MT3-4     | 4  | 3208-100 |
| MT3-6     | 6  | 3208-101 |
| MT3-8     | 8  | 3208-102 |
| MT3-10    | 10 | 3208-103 |
| MT3-12    | 12 | 3208-104 |
| MT3-16    | 16 | 3208-105 |
| MT3-20    | 20 | 3208-106 |

| ORDER NO. | d    | CODE NO. |
|-----------|------|----------|
| MT3-1/8   | 1/8" | 3208-107 |
| MT3-1/4   | 1/4" | 3208-108 |
| MT3-3/8   | 3/8" | 3208-109 |
| MT3-1/2   | 1/2" | 3208-110 |
| MT3-5/8   | 5/8" | 3208-111 |
| MT3-3/4   | 3/4" | 3208-112 |

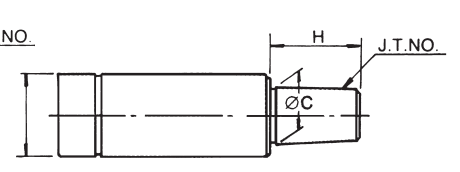
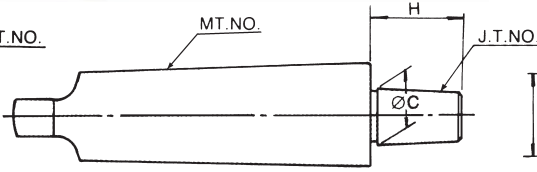
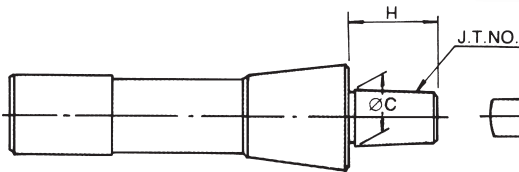


# Drill Chucks Arbor

R8

MT3.4.5

C20.25.32



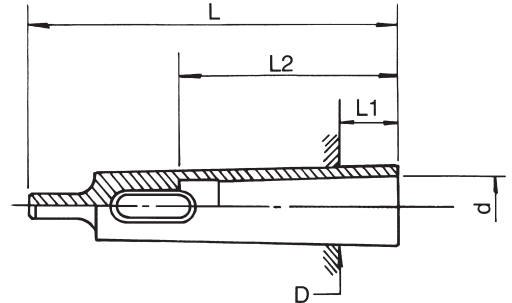
| ORDER NO. | TAPER | JT NO. | C      | H  | WEIGHT (kg) | CODE NO. |
|-----------|-------|--------|--------|----|-------------|----------|
| VJ-121    | R8    | JT1    | 9.754  | 18 | 0.4         | 3209-001 |
| VJ-122    |       | JT2    | 13.94  | 20 | 0.43        | 3209-002 |
| VJ-123    |       | JT6    | 17.17  | 26 | 0.48        | 3209-003 |
| VJ-124    |       | B16    | 15.733 | 24 | 0.42        | 3209-004 |

| ORDER NO. | TAPER | JT NO. | C      | H  | WEIGHT (kg) | CODE NO. |
|-----------|-------|--------|--------|----|-------------|----------|
| VJ-131    | MT3   | JT6    | 17.17  | 26 | 0.32        | 3209-030 |
| VJ-132    | MT4   | JT6    | 17.17  | 26 | 0.6         | 3209-031 |
| VJ-133    | MT5   | JT6    | 17.17  | 26 | 1.5         | 3209-032 |
| VJ-134    | MT3   | B16    | 15.733 | 24 | 0.3         | 3209-033 |

| ORDER NO. | TAPER | JT NO. | C     | H  | WEIGHT (kg) | CODE NO. |
|-----------|-------|--------|-------|----|-------------|----------|
| VJ-141    | C20   | JT6    | 17.17 | 26 | 0.2         | 3209-060 |
| VJ-142    | C25   | JT6    | 17.17 | 26 | 0.3         | 3209-061 |
| VJ-143    | C32   | JT6    | 17.17 | 26 | 0.5         | 3209-062 |



# Morse Taper Sleeve

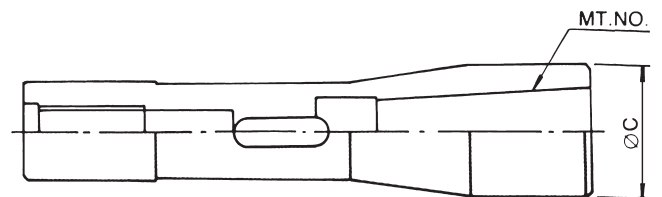


| ORDER NO. | I.D.xO.D. | D      | d      | L   | I1   | I2 |      | CODE NO. |
|-----------|-----------|--------|--------|-----|------|----|------|----------|
| VQ-101    | MT2xMT3   | 23.825 | 17.780 | 112 | 18   | 67 | 0.2  | 3210-001 |
| VQ-102    | MT2xMT4   | 31.267 | 17.780 | 124 | 6.5  | 67 | 0.45 | 3210-002 |
| VQ-103    | MT2xMT5   | 44.399 | 17.780 | 156 | 6.5  | 67 | 1.3  | 3210-003 |
| VQ-105    | MT3xMT4   | 31.267 | 23.825 | 140 | 22.5 | 84 | 0.4  | 3210-005 |

| ORDER NO. | I.D.xO.D. | D      | d      | L   | I1   | I2  | GHT  | CODE NO. |
|-----------|-----------|--------|--------|-----|------|-----|------|----------|
| VQ-106    | MT3xMT5   | 44.399 | 23.825 | 156 | 6.5  | 84  | 1.15 | 3210-006 |
| VQ-107    | MT3xMT6   | 63.348 | 23.825 | 218 | 8    | 84  | 4    | 3210-007 |
| VQ-108    | MT4xMT5   | 44.399 | 31.627 | 171 | 21.5 | 107 | 1    | 3210-008 |
| VQ-109    | MT4xMT6   | 63.348 | 31.627 | 218 | 8    | 107 | 3.6  | 3210-009 |
| VQ-110    | MT5xMT6   | 63.348 | 44.399 | 218 | 8    | 133 | 2.8  | 3210-010 |



# R8 With Morse Taper Sleeve



| ORDER NO. | SHANK | SIZE   | MT NO. |     | CODE NO. |
|-----------|-------|--------|--------|-----|----------|
| VQ-122    | R8    | R8-MT2 | MT2    | 0.3 | 3211-001 |
| VQ-123    | R8    | R8-MT3 | MT3    | 0.4 | 3211-002 |



# Face Mill Arbor

DIN 2080/ISO SHANK

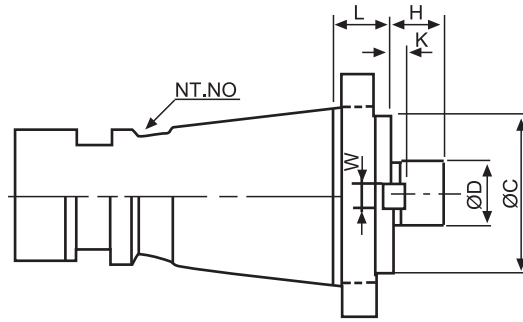
NT30, 40, 50, R8, MT3, 4



NT40 WITH  
MAHO GAP



NT30



**MATERIAL:SCM-21 HARDNESS:HRC 50°-55°**

Squareness of mounting surface:Less than 0.0002"(0.005M/M)

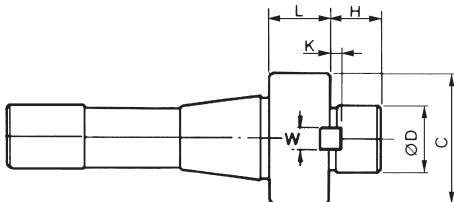
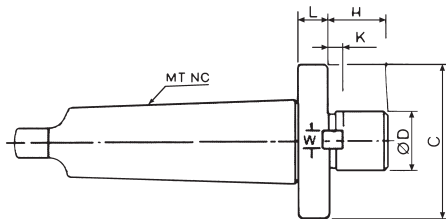
Deflection in shaft and taper:Less than 0.0002"(0.005M/M)

## INCH FMA TYPE

| ORDER NO. | TAPER | SHAFT SIZE |    |       |    | MOUNTING SIZE |    | WINGHT (kg) | CODE NO. |
|-----------|-------|------------|----|-------|----|---------------|----|-------------|----------|
|           |       | D          | H  | W     | K  | C             | L  |             |          |
| VF-101    | NT30  | 25.4       | 20 | 9.57  | 5  | 65            | 20 | 0.72        | 3212-001 |
| VF-102    | NT30  | 31.75      | 23 | 12.75 | 7  | 73            | 20 | 0.75        | 3212-002 |
| VF-103    | NT30  | 38.1       | 22 | 15.90 | 9  | 82            | 20 | 2.10        | 3212-003 |
| VF-104    | NT40  | 25.4       | 20 | 9.57  | 5  | 65            | 20 | 1.45        | 3212-004 |
| VF-105    | NT40  | 31.75      | 22 | 12.75 | 7  | 73            | 20 | 1.75        | 3212-005 |
| VF-106    | NT40  | 38.1       | 23 | 15.90 | 9  | 82            | 20 | 2           | 3212-006 |
| VF-109    | NT50  | 25.4       | 20 | 9.57  | 5  | 65            | 20 | 3.3         | 3212-009 |
| VF-110    | NT50  | 31.75      | 22 | 12.75 | 7  | 73            | 20 | 3.4         | 3212-010 |
| VF-111    | NT50  | 38.1       | 23 | 15.90 | 9  | 82            | 20 | 3.6         | 3212-011 |
| VF-112    | NT50  | 50.8       | 24 | 19.05 | 10 | 95            | 20 | 3.9         | 3212-012 |
| VF-114    | R8    | 25.4       | 20 | 9.57  | 5  | 40            | 20 | 0.8         | 3212-014 |
| VF-115    | R8    | 31.75      | 22 | 12.75 | 7  | 53            | 20 | 1           | 3212-015 |
| VF-116    | MT-3  | 25.4       | 20 | 9.57  | 5  | 40            | 20 |             | 3212-016 |
| VF-117    | MT-4  | 25.4       | 20 | 9.57  | 5  | 40            | 20 |             | 3212-017 |

## METRIC FMB TYPE

| ORDER NO. | TAPER | SHAFT SIZE |    |       |   | MOUNTING SIZE |    | WINGHT (kg) | CODE NO. |
|-----------|-------|------------|----|-------|---|---------------|----|-------------|----------|
|           |       | D          | H  | W     | K | C             | L  |             |          |
| VF-120    | NT30  | 22         | 18 | 9.57  | 5 | 40            | 20 | 0.6         | 3212-100 |
| VF-121    | NT30  | 27         | 20 | 12.75 | 7 | 53            | 20 | 0.7         | 3212-101 |
| VF-122    | NT30  | 32         | 23 | 15.90 | 7 | 63            | 20 | 0.9         | 3212-102 |
| VF-123    | NT40  | 22         | 18 | 9.57  | 5 | 40            | 20 | 1.2         | 3212-103 |
| VF-124    | NT40  | 27         | 20 | 12.75 | 7 | 53            | 20 | 1.35        | 3212-104 |
| VF-125    | NT40  | 32         | 23 | 15.90 | 7 | 63            | 20 | 1.41        | 3212-105 |
| VF-126    | NT40  | 40         | 26 | 19.05 | 8 | 85            | 20 | 1.82        | 3212-106 |
| VF-127    | NT40  | 60         | 32 | 25.40 | 5 | 128           | 24 | 3.8         | 3212-107 |
| VF-128    | NT50  | 22         | 18 | 9.57  | 5 | 40            | 20 | 3.2         | 3212-108 |
| VF-129    | NT50  | 27         | 20 | 12.75 | 7 | 53            | 20 | 3.3         | 3212-109 |
| VF-130    | NT50  | 32         | 23 | 15.90 | 7 | 63            | 20 | 3           | 3212-110 |
| VF-131    | NT50  | 40         | 26 | 19.05 | 8 | 85            | 20 | 3.6         | 3212-111 |
| VF-132    | NT50  | 60         | 32 | 25.40 | 5 | 128.57        | 24 | 5.5         | 3212-112 |
| VF-134    | R8    | 22         | 18 | 9.57  | 5 | 40            | 20 | 0.9         | 3212-113 |
| VF-135    | R8    | 27         | 20 | 12.75 | 7 | 53            | 20 | 0.95        | 3212-114 |
| VF-136    | MT-3  | 27         | 20 | 9.57  | 7 | 53            | 20 | 0.6         | 3212-115 |
| VF-137    | MT-4  | 27         | 20 | 9.57  | 7 | 53            | 20 | 1           | 3212-116 |



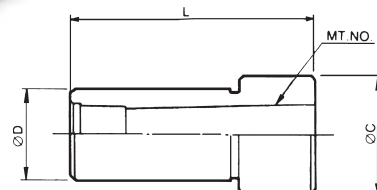
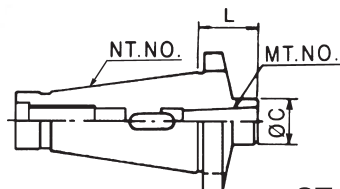


# Morse Taper Adapter

DIN 2080/ISO SHANK

NT-30, 40, 50, R8, MT3, 4

MORSE TAPER ADAPTER  
WITH STRAIGHT SHANK



## STANDARD TYPE

| ORDER NO. | TAPER | TYPE | C  | L   |        | CODE NO. |
|-----------|-------|------|----|-----|--------|----------|
| VI-101    | NT30  | MT1  | 25 | 25  | 0.57kg | 3211-030 |
| VI-102    | NT30  | MT2  | 32 | 50  | 0.57kg | 3211-031 |
| VI-103    | NT30  | MT3  | 35 | 65  | 0.58kg | 3211-032 |
| VI-104    | NT40  | MT1  | 25 | 30  | 0.87kg | 3211-033 |
| VI-105    | NT40  | MT2  | 32 | 30  | 0.87kg | 3211-034 |
| VI-106    | NT40  | MT3  | 40 | 70  | 1.2kg  | 3211-035 |
| VI-107    | NT40  | MT4  | 50 | 90  | 1.48kg | 3211-036 |
| VI-108    | NT50  | MT2  | 32 | 30  | 3kg    | 3211-037 |
| VI-109    | NT50  | MT3  | 40 | 30  | 3kg    | 3211-038 |
| VI-110    | NT50  | MT4  | 50 | 45  | 3.4kg  | 3211-039 |
| VI-111    | NT50  | MT5  | 65 | 105 | 3.7kg  | 3211-040 |

## STANDARD TYPE

| ORDER NO. | TAPER | SIZE    | D  | MT NO | C  | L  | WEIGHT(kg) | CODE NO. |
|-----------|-------|---------|----|-------|----|----|------------|----------|
| VI-131    | C20   | C20-MT1 | 20 | MT1   | 27 | 60 | 0.1        | 3211-060 |
| VI-132    | C20   | C20-MT2 | 20 | MT2   | 27 | 70 | 0.1        | 3211-061 |
| VI-133    | C25   | C25-MT1 | 25 | MT1   | 33 | 60 | 0.2        | 3211-062 |
| VI-134    | C25   | C25-MT2 | 25 | MT2   | 33 | 70 | 0.2        | 3211-063 |
| VI-135    | C25   | C25-MT3 | 25 | MT3   | 33 | 90 | 0.12       | 3211-064 |
| VI-136    | C32   | C32-MT1 | 32 | MT1   | 37 | 60 | 0.38       | 3211-065 |
| VI-137    | C32   | C32-MT2 | 32 | MT2   | 37 | 70 | 0.36       | 3211-066 |
| VI-138    | C32   | C32-MT3 | 32 | MT3   | 37 | 90 | 0.31       | 3211-067 |

PLEASE NOTIFY THE DRAW BAR THREAD SIZE  
WHEN ORDERING.

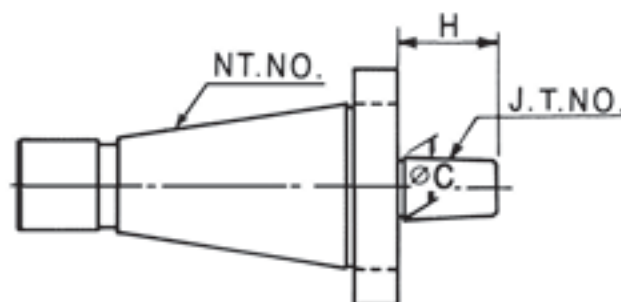


# Jacobs Taper Drill Chuck Arbor

DIN 2080

NT30, 40, 50-JT & B

ISO SHANK



| ORDER NO. | TAPER | JT NO | C      | H  | WEIGHT (kg) | CODE NO. |
|-----------|-------|-------|--------|----|-------------|----------|
| VJ-101    | NT30  | JT1   | 9.754  | 18 | 0.6         | 3209-090 |
| VJ-102    | NT30  | JT2   | 13.94  | 20 | 0.6         | 3209-091 |
| VJ-103    | NT30  | JT6   | 17.17  | 26 | 0.6         | 3209-092 |
| VJ-105    | NT40  | JT2   | 13.94  | 20 | 1.2         | 3209-094 |
| VJ-106    | NT40  | JT6   | 17.17  | 26 | 1.2         | 3209-095 |
| VJ-109    | NT50  | JT6   | 17.17  | 26 | 3.5         | 3209-098 |
| VJ-111    | NT30  | B16 * | 15.733 | 24 | 0.5         | 3209-099 |
| VJ-112    | NT40  | B16 * | 15.733 | 24 | 1           | 3209-100 |
| VJ-113    | NT50  | B16 * | 15.733 | 24 | 3.2         | 3209-101 |

PLEASE NOTIFY THE DRAW BAR THREAD SIZE WHEN ORDERING.

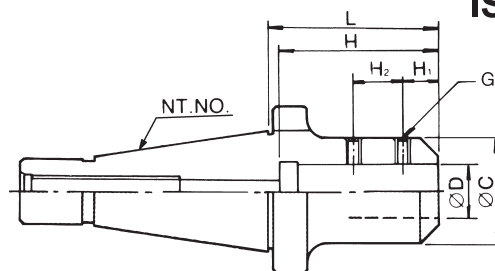


# Sidelock END Mill Holder

DIN 2080

NT30, 40, 50, R8-SLA

ISO SHANK



| ORDER NO. | TAPER | D    | C  | H  | L   | H1 | H2 | G   |     | CODE NO. |
|-----------|-------|------|----|----|-----|----|----|-----|-----|----------|
| VN-101    | NT30  | 12   | 40 | 45 | 55  | 20 | 16 | M10 | 0.6 | 3213-001 |
| VN-102    | NT30  | 16   | 45 | 50 | 60  | 22 | 18 | M10 | 0.7 | 3213-002 |
| VN-103    | NT30  | 20   | 50 | 60 | 65  | 25 | 20 | M12 | 0.8 | 3213-003 |
| VN-104    | NT30  | 25   | 50 | 65 | 75  | 25 | 22 | M12 | 1.0 | 3213-004 |
| VN-105    | NT40  | 12   | 40 | 45 | 55  | 20 | 16 | M10 | 1.2 | 3213-005 |
| VN-106    | NT40  | 16   | 45 | 50 | 60  | 22 | 18 | M10 | 1.3 | 3213-006 |
| VN-107    | NT40  | 20   | 50 | 60 | 65  | 25 | 20 | M12 | 1.3 | 3213-007 |
| VN-108    | NT40  | 25   | 50 | 65 | 75  | 25 | 22 | M12 | 1.5 | 3213-008 |
| VN-109    | NT40  | 32   | 60 | 70 | 90  | 30 | 22 | M16 | 1.7 | 3213-009 |
| VN-110    | NT40  | 42   | 80 | 80 | 105 | 32 | 24 | M16 |     | 3213-010 |
| VN-111    | NT50  | 12   | 40 | 45 | 55  | 20 | 16 | M10 | 3   | 3213-011 |
| VN-112    | NT50  | 16   | 45 | 50 | 60  | 22 | 18 | M10 | 3.1 | 3213-012 |
| VN-113    | NT50  | 20   | 50 | 60 | 65  | 25 | 20 | M12 | 3.5 | 3213-013 |
| VN-114    | NT50  | 25   | 50 | 65 | 75  | 25 | 22 | M12 | 3.5 | 3213-014 |
| VN-115    | NT50  | 32   | 60 | 70 | 90  | 30 | 22 | M16 | 4   | 3213-015 |
| VN-116    | NT50  | 42   | 80 | 80 | 105 | 32 | 24 | M16 | 4   | 3213-016 |
| VN-117    | NT50  | 50.8 | 95 | 90 | 105 | 35 | 25 | M20 | 5   | 3213-017 |
| VN-118    | R8    | 12   | 40 | 45 | 55  | 20 | 16 | M10 | 0.7 | 3213-018 |
| VN-119    | R8    | 16   | 20 | 50 | 60  | 22 | 18 | M10 | 0.9 | 3213-019 |
| VN-120    | R8    | 20   | 50 | 60 | 65  | 25 | 20 | M12 |     | 3213-020 |
| VN-121    | R8    | 20   | 50 | 65 | 75  | 25 | 22 | M12 |     | 3213-021 |

Please notify the Draw Bar Thread Size When ordering.

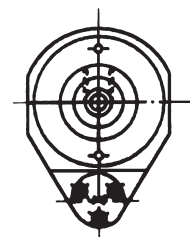
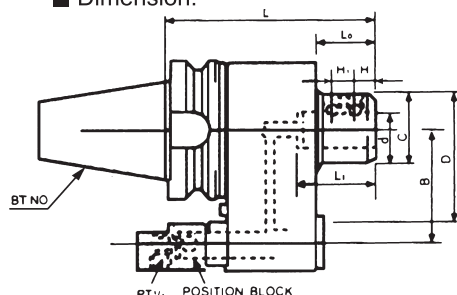


## Oil-Feed Holder / Slo

Coolant hole holder for straight shank  
BT40,BT50



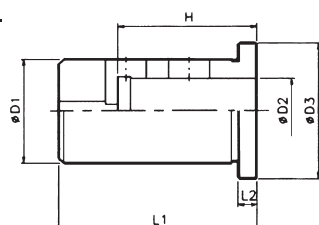
■ Dimension:



Unit:mm

| ORDER NO.     | d  | L   | B      | C  | D   | L0 | L1 | H  | H1 | WEIGHT(kg) | CODE NO. |
|---------------|----|-----|--------|----|-----|----|----|----|----|------------|----------|
| BT40SLO32-150 | 32 | 150 | 60(65) | 53 | 90  | 52 | 60 | 15 | 15 | 4KGS       | 3214-001 |
| BT40SLO40-150 | 40 | 150 | 60(65) | 70 | 90  | 52 | 70 | 19 | 18 | 4.6KGS     | 3214-002 |
| BT50SLO32-150 | 32 | 150 | 80(82) | 54 | 100 | 42 | 60 | 15 | 15 | 7.1KGS     | 3214-003 |
| BT50SLO40-150 | 40 | 150 | 80(82) | 64 | 100 | 52 | 70 | 19 | 18 | 7.8KGS     | 3214-004 |

Reducing sleeve for oil feed holder.



| ORDER NO. | D1 | D2 | D3 | L1 | L2 | H  | WEIGHT(kg) | CODE NO. |
|-----------|----|----|----|----|----|----|------------|----------|
| OC32-20   | 32 | 20 | 42 | 63 | 6  | 48 | 0.4        | 3214-103 |
| OC32-25   |    | 25 |    |    |    | 54 | 0.3        | 3214-104 |
| OC40-25   | 40 | 25 | 50 | 63 | 6  | 54 | 0.6        | 3214-105 |
| OC40-32   |    | 32 |    |    |    | 58 | 0.5        | 3214-106 |



# Face Mill Arbor

BT-SHANK MAS 403

BT30,40,50



FIG. 1

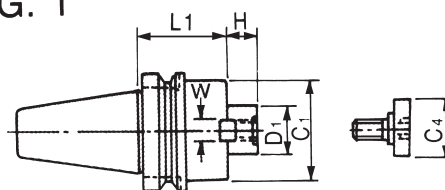
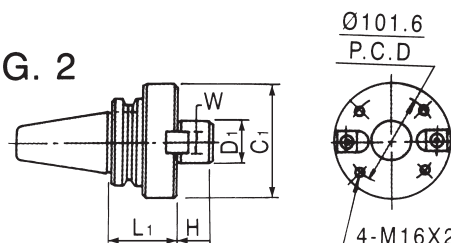


FIG. 2



## INCH FMA TYPE

| ORDER NO. | TAPER |   | D1     | L1  | H  | C1     | W     | C4 | WG (KG) | CODE NO. |
|-----------|-------|---|--------|-----|----|--------|-------|----|---------|----------|
| BT-101    | BT30  | 1 | 25.4   | 50  | 22 | 45     | 9.5   | 33 | 1.0     | 3212-201 |
| BT-103    | BT40  | 1 | 25.4   | 45  | 22 | 60     | 9.5   | 33 | 1.7     | 3212-203 |
| BT-105    | BT40  | 1 | 25.4   | 90  | 22 | 60     | 9.5   | 33 | 2.6     | 3212-205 |
| BT-106    | BT40  | 1 | 31.75  | 45  | 30 | 70     | 12.7  | 40 | 1.9     | 3212-206 |
| BT-108    | BT40  | 1 | 31.75  | 90  | 30 | 70     | 12.7  | 40 | 3.2     | 3212-208 |
| BT-109    | BT40  | 1 | 38.1   | 60  | 34 | 85     | 15.9  | 50 | 2.9     | 3212-209 |
| BT-111    | BT50  | 1 | 25.4   | 45  | 22 | 60     | 9.5   | 33 | 3.9     | 3212-211 |
| BT-112    | BT50  | 1 | 25.4   | 105 | 22 | 60     | 9.5   | 33 | 4.9     | 3212-212 |
| BT-113    | BT50  | 1 | 25.4   | 150 | 22 | 60     | 9.5   | 33 | 6.2     | 3212-213 |
| BT-114    | BT50  | 1 | 31.75  | 45  | 30 | 70     | 12.7  | 40 | 4.0     | 3212-214 |
| BT-115    | BT50  | 1 | 31.75  | 75  | 30 | 70     | 12.7  | 40 | 4.8     | 3212-215 |
| BT-116    | BT50  | 1 | 31.75  | 105 | 30 | 70     | 12.7  | 40 | 5.6     | 3212-216 |
| BT-117    | BT50  | 1 | 38.1   | 45  | 34 | 85     | 15.9  | 50 | 4.4     | 3212-217 |
| BT-118    | BT50  | 1 | 38.1   | 75  | 34 | 85     | 15.9  | 50 | 5.6     | 3212-218 |
| BT-119    | BT50  | 1 | 50.8   | 45  | 36 | 95     | 19.05 | 65 | 4.8     | 3212-219 |
| BT-120    | BT50  | 1 | 50.8   | 75  | 36 | 95     | 19.05 | 65 | 6.8     | 3212-220 |
| BT-121    | BT50  | 1 | 47.625 | 75  | 38 | 128.57 | 25.4  | -  | 7.9     | 3212-221 |

## METRIC FMB TYPE

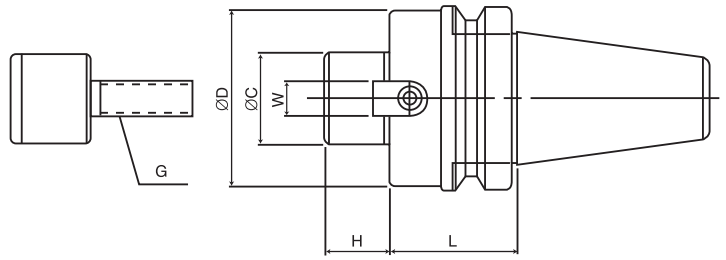
| ORDER NO. | TAPER | FIG | D1 | L1  | H  | C1 | W  | C4 | WG (KG) | CODE NO. |
|-----------|-------|-----|----|-----|----|----|----|----|---------|----------|
| BT-150    | BT30  | 1   | 22 | 45  | 18 | 48 | 10 | 33 | 2.0     | 3212-267 |
| BT-151    | BT30  | 1   | 27 | 45  | 20 | 60 | 12 | 33 | 2.2     | 3212-268 |
| BT-152    | BT40  | 1   | 22 | 45  | 18 | 48 | 10 | 50 | 2.5     | 3212-269 |
| BT-153    | BT40  | 1   | 22 | 90  | 18 | 48 | 10 | 33 | 2.3     | 3212-270 |
| BT-154    | BT40  | 1   | 27 | 45  | 20 | 60 | 12 | 33 | 2.5     | 3212-271 |
| BT-155    | BT40  | 1   | 27 | 90  | 20 | 60 | 12 | 33 | 4.7     | 3212-272 |
| BT-156    | BT40  | 1   | 32 | 45  | 22 | 62 | 14 | 50 | 2.7     | 3212-273 |
| BT-157    | BT40  | 1   | 40 | 60  | 26 | 85 | 16 | 50 | 7.4     | 3212-274 |
| BT-158    | BT50  | 1   | 22 | 45  | 18 | 60 | 10 | 33 | 3.8     | 3212-275 |
| BT-159    | BT50  | 1   | 22 | 75  | 18 | 60 | 10 | 33 | 3.5     | 3212-276 |
| BT-160    | BT50  | 1   | 27 | 45  | 20 | 70 | 12 | 33 | 4.0     | 3212-277 |
| BT-161    | BT50  | 1   | 27 | 75  | 20 | 60 | 12 | 33 | 5.8     | 3212-278 |
| BT-162    | BT50  | 1   | 27 | 150 | 20 | 60 | 12 | 33 | 8.2     | 3212-279 |
| BT-163    | BT50  | 1   | 32 | 75  | 22 | 75 | 14 | 50 | 4.2     | 3212-280 |
| BT-164    | BT50  | 1   | 32 | 105 | 22 | 80 | 14 | 33 | 3.0     | 3212-281 |
| BT-165    | BT50  | 1   | 32 | 150 | 22 | 80 | 14 | 33 | 4.0     | 3212-282 |
| BT-166    | BT50  | 1   | 40 | 75  | 26 | 85 | 16 | 50 | 6.1     | 3212-283 |



# Face Mill Arbor

BT-SHANK MAS 403

BT30,40,50

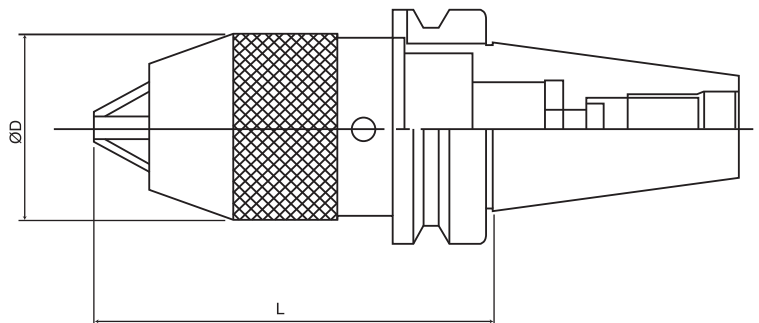


## METRIC FMC TYPE

| ORDER NO. | SIZE           | øC | øD | L   | H  | W  | G         | WEIGHT (kg) | CODE NO. |
|-----------|----------------|----|----|-----|----|----|-----------|-------------|----------|
| BT-168    | BT30-FMC22-45  | 22 | 48 | 45  | 18 | 10 | M10x1.5P  | 0.85        | 3212-285 |
| BT-169    | BT40-FMC22-45  | 22 | 48 | 45  | 18 | 10 | M10x1.5P  | 1.45        | 3212-286 |
| BT-170    | BT40-FMC22-90  | 22 | 48 | 90  | 18 | 10 | M10x1.5P  | 2.20        | 3212-287 |
| BT-171    | BT40-FMC27-45  | 27 | 60 | 45  | 20 | 12 | M12x1.75P | 1.60        | 3212-288 |
| BT-172    | BT40-FMC27-90  | 27 | 60 | 90  | 20 | 12 | M12x1.75P | 2.30        | 3212-289 |
| BT-173    | BT40-FMC32-45  | 32 | 62 | 45  | 22 | 14 | M16x2.0P  | 1.75        | 3212-290 |
| BT-174    | BT50-FMC22-45  | 22 | 60 | 45  | 18 | 10 | M10x1.5P  | 4.50        | 3212-291 |
| BT-175    | BT50-FMC22-105 | 22 | 48 | 105 | 18 | 10 | M10x1.5P  | 6.4         | 3212-292 |
| BT-176    | BT50-FMC22-150 | 22 | 48 | 150 | 18 | 10 | M10x1.5P  | 6.8         | 3212-293 |
| BT-177    | BT50-FMC27-45  | 27 | 70 | 45  | 20 | 12 | M12x1.75P | 4.6         | 3212-294 |
| BT-178    | BT50-FMC27-105 | 27 | 60 | 105 | 20 | 12 | M12x1.75P | 6.7         | 3212-295 |
| BT-179    | BT50-FMC27-150 | 27 | 60 | 150 | 20 | 12 | M12x1.75P | 7.5         | 3212-296 |
| BT-180A   | BT50-FMC32-45  | 32 | 75 | 45  | 22 | 14 | M16x2.0P  | 5.7         | 3212-297 |
| BT-181A   | BT50-FMC32-105 | 32 | 80 | 105 | 22 | 14 | M16x2.0P  | 6.8         | 3212-298 |



# Drill Chuck Holder/APU



| ORDER NO. | TAPER          | øD | L   |     | CODE NO. |
|-----------|----------------|----|-----|-----|----------|
| BT-180    | BT30-APU08-80  | 37 | 80  | 0.8 | 3212-301 |
| BT-181    | BT30-APU13-100 | 50 | 100 | 1   | 3212-302 |
| BT-182    | BT40-APU08-85  | 37 | 85  | 1.3 | 3212-303 |
| BT-183    | BT40-APU13-110 | 50 | 110 | 1.7 | 3212-304 |
| BT-184    | BT40-APU16-120 | 58 | 120 | 2.1 | 3212-305 |
| BT-185    | BT50-APU08-95  | 37 | 95  | 4   | 3212-306 |
| BT-186    | BT50-APU13-120 | 50 | 120 | 4.3 | 3212-307 |
| BT-187    | BT50-APU13-180 | 50 | 180 | 5.6 | 3212-308 |
| BT-188    | BT50-APU16-120 | 58 | 120 | 4.5 | 3212-309 |

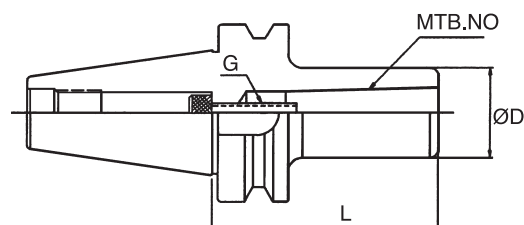
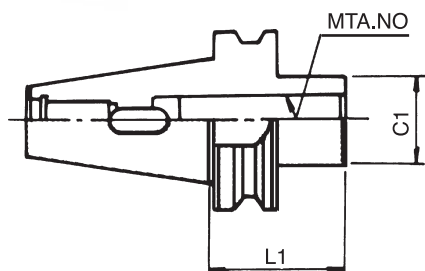


# Morse Taper Adaptor

MAS 403

BT30,40,50-MTA,MTB

BT-SHANK



## MTA TYPE (STANDARD TYPE)

| ORDER NO. | TAPER | MT.NO. | L1  | C1 | WEIGHT (KG) | CODE NO. |
|-----------|-------|--------|-----|----|-------------|----------|
| BT-204    | BT30  | MT-2   | 60  | 32 | 0.8         | 3211-091 |
| BT-207    | BT30  | MT-3   | 90  | 40 | 1.2         | 3211-092 |
| BT-209    | BT40  | MT-1   | 50  | 25 | 1.0         | 3211-094 |
| BT-212    | BT40  | MT-2   | 50  | 32 | 1.0         | 3211-095 |
| BT-215    | BT40  | MT-3   | 75  | 40 | 1.2         | 3211-096 |
| BT-218    | BT40  | MT-4   | 95  | 50 | 1.4         | 3211-097 |
| BT-220    | BT50  | MT-1   | 45  | 25 | 3.5         | 3211-098 |
| BT-223    | BT50  | MT-2   | 50  | 32 | 3.5         | 3211-099 |
| BT-226    | BT50  | MT-3   | 65  | 40 | 3.6         | 3211-100 |
| BT-229    | BT50  | MT-4   | 75  | 50 | 3.6         | 3211-101 |
| BT-231    | BT50  | MT-5   | 105 | 65 | 4.2         | 3211-102 |

## MTB TYPE

| ORDER NO. | SIZE          |      | L   | ØD | G   | HT (kg) | CODE NO. |
|-----------|---------------|------|-----|----|-----|---------|----------|
| BT-234    | BT30-MTB1-45  | MTB1 | 45  | 25 | M6  | 0.7     | 3211-103 |
| BT-235    | BT30-MTB2-60  | MTB2 | 60  | 32 | M10 | 0.8     | 3211-104 |
| BT-236    | BT40-MTB1-45  | MTB1 | 45  | 25 | M6  | 1       | 3211-105 |
| BT-237    | BT40-MTB2-45  | MTB2 | 45  | 32 | M10 | 1       | 3211-106 |
| BT-238    | BT40-MTB3-75  | MTB3 | 75  | 40 | M12 | 1.2     | 3211-107 |
| BT-239    | BT40-MTB4-75  | MTB4 | 75  | 48 | M16 | 1.3     | 3211-108 |
| BT-240    | BT50-MTB1-45  | MTB1 | 45  | 25 | M6  | 3.5     | 3211-109 |
| BT-241    | BT50-MTB2-45  | MTB2 | 45  | 32 | M10 | 3.6     | 3211-110 |
| BT-242    | BT50-MTB3-60  | MTB3 | 60  | 40 | M12 | 3.7     | 3211-111 |
| BT-243    | BT50-MTB4-75  | MTB4 | 75  | 48 | M16 | 3.7     | 3211-112 |
| BT-244    | BT50-MTB5-120 | MTB5 | 120 | 63 | M20 | 5.2     | 3211-113 |

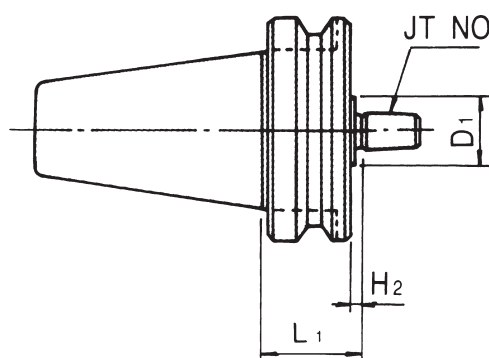


# Jacobs Taper Arbor

MAS 403

BT30,40,50 JT & B

BT-SHANK



| ORDER NO. | TAPER | JT.NO. | L1  | D1 | H2 | WEIGHT (KG) | CODE NO. |
|-----------|-------|--------|-----|----|----|-------------|----------|
| BT-301    | BT30  | JT-1   | 45  | 30 | 3  | 0.6         | 3209-140 |
| BT-307    | BT30  | JT-6   | 45  | 30 | 4  | 0.8         | 3209-142 |
| BT-309    | BT40  | JT-1   | 45  | 30 | 3  | 1.3         | 3209-144 |
| BT-313    | BT40  | JT-2   | 45  | 30 | 4  | 1.3         | 3209-145 |
| BT-314    | BT40  | JT-2   | 90  | 30 | 4  | 1.4         | 3209-146 |
| BT-315    | BT40  | JT-6   | 45  | 30 | 4  | 1.2         | 3209-147 |
| BT-316    | BT40  | JT-6   | 90  | 30 | 4  | 1.4         | 3209-148 |
| BT-325    | BT50  | JT-6   | 45  | 30 | 4  | 4.2         | 3209-151 |
| BT-326    | BT50  | JT-6   | 105 | 30 | 4  | 4.6         | 3209-152 |
| BT-332    | BT40  | B16※   | 45  | 30 | 4  | 1.45        | 3209-155 |
| BT-333    | BT50  | B16※   | 45  | 30 | 4  | 5.1         | 3209-156 |

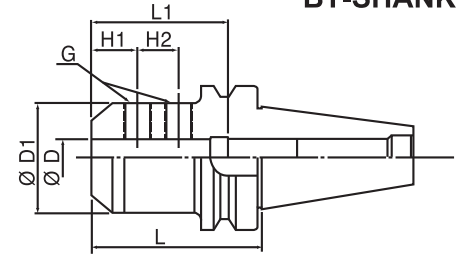
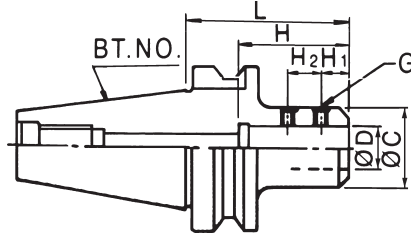


# Sidelock End Mill Holder MAS 403

BT30,40,50-SLA

WELDON TYPE

BT-SHANK



Unit:mm

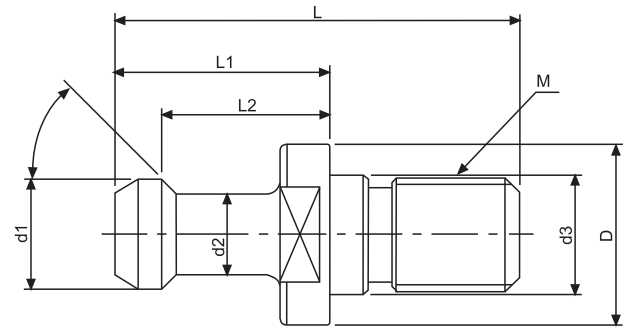
| ORDER NO. | SIZE           | ØD | ØD1 | L   | L1 | H1 | H2 | G       | g)   | CODE NO. |
|-----------|----------------|----|-----|-----|----|----|----|---------|------|----------|
| BT-436    | BT30-SLA6-60   | 6  | 25  | 60  | 30 | 12 | 10 | M6x1.0  | 0.65 | 3213-126 |
| BT-437    | BT30-SLA8-60   | 8  | 28  | 60  | 35 | 14 | 12 | M8x1.25 | 0.65 | 3213-127 |
| BT-438    | BT30-SLA10-60  | 10 | 35  | 60  | 40 | 15 | 14 | M8x1.25 | 0.7  | 3213-128 |
| BT-439    | BT30-SLA12-60  | 12 | 42  | 60  | 50 | 20 | 16 | M12x1.5 | 0.7  | 3213-129 |
| BT-440    | BT30-SLA16-75  | 16 | 48  | 75  | 60 | 20 | 18 | M12x1.5 | 0.8  | 3213-130 |
| BT-441    | BT30-SLA20-75  | 20 | 52  | 75  | 70 | 23 | 19 | M12x1.5 | 0.8  | 3213-131 |
| BT-442    | BT40-SLA6-75   | 6  | 25  | 75  | 30 | 12 | 10 | M6x1.0  | 1.1  | 3213-132 |
| BT-443    | BT40-SLA8-75   | 8  | 28  | 75  | 35 | 14 | 12 | M8x1.25 | 1.2  | 3213-133 |
| BT-444    | BT40-SLA10-75  | 10 | 35  | 75  | 40 | 15 | 14 | M8x1.25 | 1.3  | 3213-134 |
| BT-445    | BT40-SLA12-75  | 12 | 42  | 75  | 50 | 20 | 16 | M12x1.5 | 1.4  | 3213-135 |
| BT-446    | BT40-SLA14-75  | 14 | 44  | 75  | 50 | 20 | 16 | M12x1.5 | 1.4  | 3213-136 |
| BT-447    | BT40-SLA16-75  | 16 | 48  | 75  | 60 | 20 | 18 | M12x1.5 | 1.5  | 3213-137 |
| BT-448    | BT40-SLA18-75  | 18 | 50  | 75  | 60 | 20 | 18 | M12x1.5 | 1.5  | 3213-138 |
| BT-449    | BT40-SLA20-90  | 20 | 52  | 90  | 70 | 23 | 19 | M12x1.5 | 1.8  | 3213-139 |
| BT-450    | BT40-SLA25-90  | 25 | 62  | 90  | 80 | 24 | 25 | M18x1.5 | 2.1  | 3213-140 |
| BT-451    | BT40-SLA32-90  | 32 | 63  | 90  | 80 | 24 | 28 | M20x1.5 | 2    | 3213-141 |
| BT-452    | BT40-SLA40-105 | 40 | 79  | 105 | 80 | 24 | 28 | M20x1.5 | 2.9  | 3213-142 |
| BT-453    | BT40-SLA42-105 | 42 | 79  | 105 | 80 | 24 | 28 | M20x1.5 | 2.9  | 3213-143 |
| BT-454    | BT50-SLA6-90   | 6  | 25  | 90  | 30 | 12 | 10 | M6x1.0  | 3.7  | 3213-144 |
| BT-455    | BT50-SLA6-150  | 6  | 25  | 150 | 30 | 12 | 10 | M6x1.0  | 4    | 3213-145 |
| BT-456    | BT50-SLA8-90   | 8  | 28  | 90  | 35 | 14 | 12 | M8x1.25 | 3.7  | 3213-146 |
| BT-457    | BT50-SLA8-150  | 8  | 28  | 150 | 35 | 14 | 12 | M8x1.25 | 4.15 | 3213-147 |
| BT-458    | BT50-SLA10-90  | 10 | 35  | 90  | 40 | 15 | 14 | M8x1.25 | 3.9  | 3213-148 |
| BT-459    | BT50-SLA10-150 | 10 | 35  | 150 | 40 | 15 | 14 | M8x1.25 | 4.3  | 3213-149 |
| BT-460    | BT50-SLA12-90  | 12 | 42  | 90  | 50 | 20 | 16 | M12x1.5 | 3.9  | 3213-150 |
| BT-461    | BT50-SLA12-150 | 12 | 42  | 150 | 50 | 20 | 16 | M12x1.5 | 4.6  | 3213-151 |
| BT-462    | BT50-SLA14-90  | 14 | 44  | 90  | 55 | 20 | 16 | M12x1.5 | 3.9  | 3213-152 |
| BT-463    | BT50-SLA16-90  | 16 | 48  | 90  | 60 | 20 | 18 | M12x1.5 | 4.1  | 3213-153 |
| BT-464    | BT50-SLA16-150 | 16 | 48  | 150 | 60 | 20 | 18 | M12x1.5 | 5    | 3213-154 |
| BT-465    | BT50-SLA18-90  | 18 | 50  | 90  | 60 | 20 | 18 | M12x1.5 | 4.1  | 3213-155 |
| BT-466    | BT50-SLA20-105 | 20 | 52  | 105 | 70 | 23 | 19 | M12x1.5 | 4.8  | 3213-156 |
| BT-467    | BT50-SLA20-150 | 20 | 52  | 150 | 70 | 23 | 19 | M12x1.5 | 5.2  | 3213-157 |
| BT-468    | BT50-SLA20-200 | 20 | 52  | 200 | 70 | 23 | 19 | M12x1.5 | 6.1  | 3213-158 |
| BT-469    | BT50-SLA20-250 | 20 | 52  | 250 | 70 | 23 | 19 | M12x1.5 | 7.1  | 3213-159 |
| BT-470    | BT50-SLA25-105 | 25 | 65  | 105 | 80 | 24 | 25 | M18x1.5 | 5    | 3213-160 |
| BT-471    | BT50-SLA25-150 | 25 | 65  | 150 | 80 | 24 | 25 | M18x1.5 | 6.1  | 3213-161 |
| BT-472    | BT50-SLA25-200 | 25 | 65  | 200 | 80 | 24 | 25 | M18x1.5 | 7.3  | 3213-162 |
| BT-473    | BT50-SLA25-250 | 25 | 65  | 250 | 80 | 24 | 25 | M18x1.5 | 9    | 3213-163 |
| BT-474    | BT50-SLA32-105 | 32 | 72  | 105 | 80 | 24 | 28 | M20x1.5 | 5.1  | 3213-164 |
| BT-475    | BT50-SLA32-150 | 32 | 72  | 150 | 80 | 24 | 28 | M20x1.5 | 6.5  | 3213-165 |
| BT-476    | BT50-SLA32-200 | 32 | 72  | 200 | 80 | 24 | 28 | M20x1.5 | 8.1  | 3213-166 |
| BT-477    | BT50-SLA32-250 | 32 | 72  | 250 | 80 | 24 | 28 | M20x1.5 | 9.8  | 3213-167 |
| BT-478    | BT50-SLA40-120 | 40 | 90  | 120 | 90 | 30 | 32 | M20x1.5 | 6.5  | 3213-168 |
| BT-479    | BT50-SLA42-120 | 42 | 90  | 120 | 90 | 30 | 32 | M20x1.5 | 6.5  | 3213-169 |



# Pull Studs

BT30,40,50

FOR MAS 403



Unit:mm

| ORDER NO. | TAPER NO. | a° | L  | L1 | L2 | D    | d1 | d2 | d3   | M   | CODE NO. |
|-----------|-----------|----|----|----|----|------|----|----|------|-----|----------|
| BT-510    | BT30X90°  | 90 | 43 | 23 | 18 | 16.5 | 11 | 7  | 12.5 | M12 | 3215-007 |
| BT-501    | BT30X45°  | 45 | 43 | 23 | 18 | 16.5 | 11 | 7  | 12.5 | M12 | 3215-008 |
| BT-502    | BT30X60°  | 60 | 43 | 23 | 18 | 16.5 | 11 | 7  | 12.5 | M12 | 3215-009 |
| BT-511    | BT40X90°  | 90 | 60 | 35 | 28 | 23   | 15 | 10 | 17   | M16 | 3215-010 |
| BT-503    | BT40X45°  | 45 | 60 | 35 | 28 | 23   | 15 | 10 | 17   | M16 | 3215-011 |
| BT-504    | BT40X60°  | 60 | 60 | 35 | 28 | 23   | 15 | 10 | 17   | M16 | 3215-012 |
| BT-512    | BT50X90°  | 90 | 85 | 45 | 35 | 38   | 23 | 17 | 25   | M24 | 3215-013 |
| BT-505    | BT50X45°  | 45 | 85 | 45 | 35 | 38   | 23 | 17 | 25   | M24 | 3215-014 |
| BT-506    | BT50X60°  | 60 | 85 | 45 | 35 | 38   | 23 | 17 | 25   | M24 | 3215-015 |

- With through hole for internal coolant



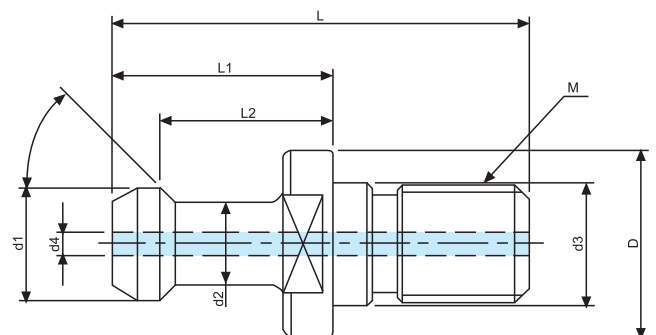
# Pull Studs

MAS 403

BT-40,50

FOR MAS 403

- With through hole for internal coolant



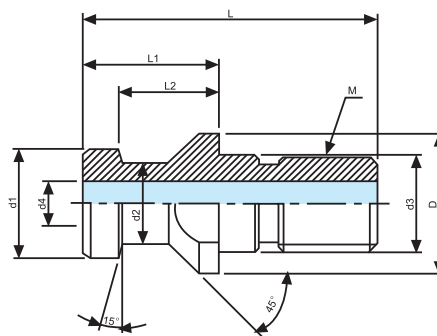
Unit:mm

| ORDER NO. | TAPER NO. | a° | L  | L1 | L2 | D  | d1 | d2 | d3 | d4 | M   | CODE NO. |
|-----------|-----------|----|----|----|----|----|----|----|----|----|-----|----------|
| BT-516    | BT40X45°W | 45 | 60 | 35 | 28 | 23 | 15 | 10 | 17 | 4  | M16 | 3215-060 |
| BT-517    | BT40X60°W | 60 | 60 | 35 | 28 | 23 | 15 | 10 | 17 | 4  | M16 | 3215-061 |
| BT-518    | BT40X90°W | 90 | 60 | 35 | 28 | 23 | 15 | 10 | 17 | 4  | M16 | 3215-062 |
| BT-519    | BT50X45°W | 45 | 85 | 45 | 35 | 38 | 23 | 17 | 25 | 7  | M24 | 3215-063 |
| BT-520    | BT50X60°W | 60 | 85 | 45 | 35 | 38 | 23 | 17 | 25 | 7  | M24 | 3215-064 |
| BT-521    | BT50X90°W | 90 | 85 | 45 | 35 | 38 | 23 | 17 | 25 | 7  | M24 | 3215-065 |



# Pull Studs

FOR DIN 69872



## DIN 69872, (WITH THROUGH HOLE)-A TYPE

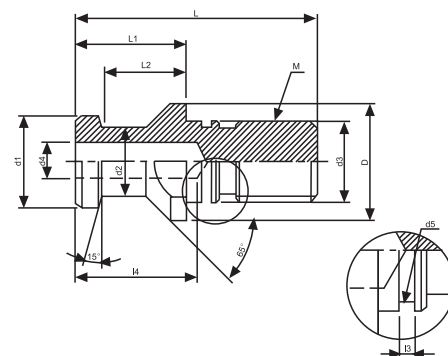
Unit:mm

| ORDER NO. | TAPER NO. | L  | L1 | L2 | D  | d1 | d2 | d3 | d4   | M   | CODE NO. |
|-----------|-----------|----|----|----|----|----|----|----|------|-----|----------|
| BT-522    | DIN30-A   | 44 | 24 | 19 | 17 | 13 | 9  | 13 |      | M12 | 3215-066 |
| BT-523    | DIN40-A   | 54 | 26 | 20 | 23 | 19 | 14 | 17 | 7    | M16 | 3215-067 |
| BT-524    | DIN40-A-L | 54 | 29 | 23 | 23 | 19 | 14 | 17 | 7    | M16 | 3215-068 |
| BT-525    | DIN50-A   | 74 | 34 | 25 | 36 | 28 | 21 | 25 | 11.5 | M24 | 3215-069 |

## WITHOUT O-RING DIN 69872-B TYPE

Unit:mm

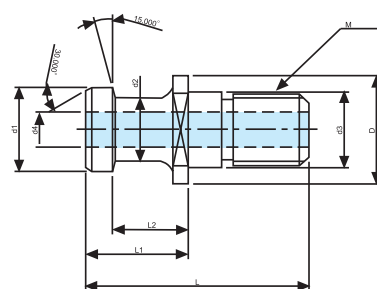
| ORDER NO. | TAPER NO. | L  | L1 | L2 | I3  | I4 | D  | d1 | d2 | d3 | d4   | M   | CODE NO. |
|-----------|-----------|----|----|----|-----|----|----|----|----|----|------|-----|----------|
| BT-526    | DIN30-B   | 44 | 24 | 19 | 1.4 |    | 17 | 13 | 9  | 13 |      | M12 | 3215-070 |
| BT-527    | DIN40-B   | 54 | 26 | 20 | 1.9 | 27 | 23 | 19 | 14 | 17 | 7    | M16 | 3215-071 |
| BT-528    | DIN50-B   | 74 | 34 | 25 | 3   | 37 | 36 | 28 | 21 | 25 | 11.5 | M24 | 3215-072 |



# Pull Studs

## ISO-A TYPE

## FOR ISO/DIS 7388/2/A

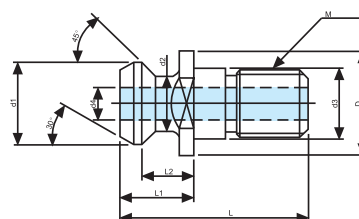


Unit:mm

| ORDER NO. | TAPER NO. | L  | L1 | L2 | D  | d1 | d2 | d3 | d4   | M   | CODE NO. |
|-----------|-----------|----|----|----|----|----|----|----|------|-----|----------|
| BT-529    | ISO40-A   | 54 | 26 | 20 | 23 | 19 | 14 | 17 | 7    | M16 | 3215-073 |
| BT-530    | ISO50-A   | 74 | 34 | 25 | 36 | 28 | 21 | 25 | 11.5 | M24 | 3215-074 |

## ISO-B TYPE

## FOR ISO/DIS 7388/2/B



Unit:mm

| ORDER NO. | TAPER NO. | L    | L1   | L2    | D    | d1    | d2    | d3 | d4    | M   | CODE NO. |
|-----------|-----------|------|------|-------|------|-------|-------|----|-------|-----|----------|
| BT-531    | ISO40-B   | 44.5 | 16.4 | 11.15 | 22.5 | 18.95 | 12.95 | 17 | 7.35  | M16 | 3215-075 |
| BT-532    | ISO50-B   | 65.5 | 25.5 | 17.95 | 37   | 29.1  | 19.6  | 25 | 11.55 | M24 | 3215-076 |



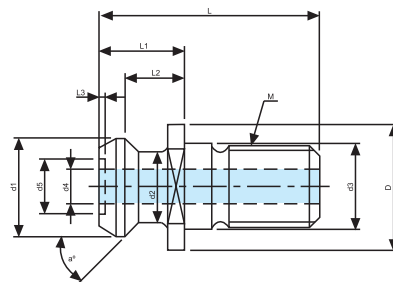
# Pull Studs

MAZAK FOR MAZAK MACHINE

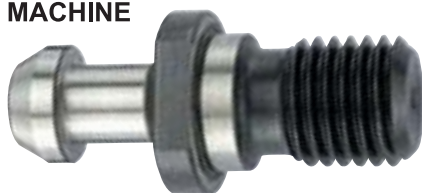


Unit:mm

| ORDER NO. | TAPER NO.   | L    | L1   | L2    | L3  | D  | d1    | d2    | d3 | d4 | d5 | M   | CODE NO. |
|-----------|-------------|------|------|-------|-----|----|-------|-------|----|----|----|-----|----------|
| BT-533    | MAZAK BT50  | 65.2 | 25.2 | 17.58 | 1.8 | 37 | 28.95 | 20.83 | 25 | 10 | 16 | M24 | 3215-077 |
| BT-534    | MAZAK BT40  | 44.1 | 19.1 | 14    |     | 22 | 18.8  | 12.45 | 17 | 7  |    | M16 | 3215-078 |
| BT-535    | MAZAK CAT40 | 41.1 | 16.1 | 11    |     | 22 | 18.8  | 12.45 | 17 | 7  |    | M16 | 3215-079 |

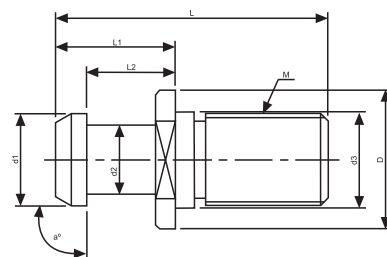


mitsui FOR MITSUI MACHINE



Unit:mm

| ORDER NO. | TAPER NO.   | a° | L  | L1 | L2 | D  | d1 | d2 | d3 | M   | CODE NO. |
|-----------|-------------|----|----|----|----|----|----|----|----|-----|----------|
| BT-536    | MITSUI BT40 | 90 | 50 | 25 | 18 | 23 | 15 | 10 | 17 | M16 | 3215-080 |
| BT-537    | MITSUI BT50 | 90 | 71 | 31 | 23 | 36 | 24 | 18 | 25 | M24 | 3215-081 |



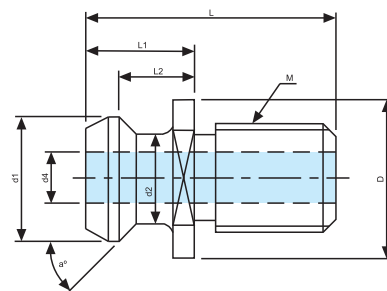
# Pull Studs

CAT FOR ANSI B5-50



Unit:mm

| ORDER NO. | TAPER NO. | a° | L    | L1   | L2   | D    | d1   | d2   | d4   | M    | CODE NO. |
|-----------|-----------|----|------|------|------|------|------|------|------|------|----------|
| BT-538    | CAT40     | 45 | 38.1 | 16.2 | 11.2 | 23.8 | 18.8 | 12.4 | 7.1  | 5/8" | 3215-082 |
| BT-539    | CAT50     | 45 | 58.4 | 25.4 | 17.8 | 36   | 28.9 | 20.8 | 11.8 | 1"   | 3215-083 |

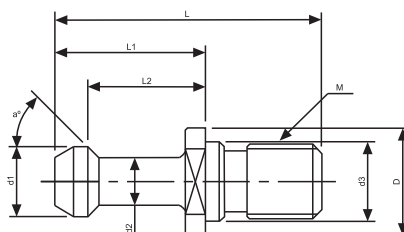


CAT-BT FOR BT MACHINE



Unit:mm

| ORDER NO. | TAPER NO.  | a° | L    | L1 | L2   | D  | d1 | d2 | d3 | M    | CODE NO. |
|-----------|------------|----|------|----|------|----|----|----|----|------|----------|
| BT-540    | CAT40X45°  | 45 | 57   | 32 | 25   | 23 | 15 | 10 |    | 5/8" | 3215-084 |
| BT-541    | CAT40X60°  | 60 | 57   | 32 | 25   | 23 | 15 | 10 |    | 5/8" | 3215-085 |
| BT-542    | CAT40X90°  | 90 | 57   | 32 | 25   | 23 | 15 | 10 |    | 5/8" | 3215-086 |
| BT-543    | CAT50X45°  | 45 | 78.6 | 45 | 35.2 | 38 | 23 | 17 |    | 1"   | 3215-087 |
| BT-544    | CAT50X60°  | 60 | 78.6 | 45 | 35.2 | 38 | 23 | 17 |    | 1"   | 3215-088 |
| BT-545    | CAT50X90°  | 90 | 78.6 | 45 | 35.2 | 38 | 23 | 17 |    | 1"   | 3215-089 |
| BT-546    | CAT40X45°M | 45 | 57   | 32 | 25   | 23 | 15 | 10 | 17 | M16  | 3215-090 |
| BT-547    | CAT40X60°M | 60 | 57   | 32 | 25   | 23 | 15 | 10 | 17 | M16  | 3215-091 |
| BT-548    | CAT40X90°M | 90 | 57   | 32 | 25   | 23 | 15 | 10 | 17 | M16  | 3215-092 |





# Complete NC Tooling Set

We recommend a complete set which is included tool holder, collet chuck, collet set, pull stud, tooling locking stand, edge finder for NC machining center. it is popular and suitable sale-mix in the market.



**ORDER NO. VBT-30-0720**

**CODE NO. 3216-001**

**BT-30 WITH 7PCS. HOLDER & ER-20 COLLET**

| ITEM NO. | Descriptions                               | Figures | Quantity | Explanation                                                                          |
|----------|--------------------------------------------|---------|----------|--------------------------------------------------------------------------------------|
| 1        | ER20 COLLET CHUCK<br>BT30-ER20-60          |         | 3pcs.    | For small Dia. End mill and Drills.                                                  |
| 2        | MORSE TAPER ADAPTOR<br>BT30-MTA1-60        |         | 1pc.     | For drills with Morse taper Shank No.1.                                              |
| 3        | MORSE TAPER ADAPTOR<br>BT30-MTA2-60        |         | 1pc.     | For drills with Morse taper Shank No.2.                                              |
| 4        | END MILL HOLDER<br>BT30-SL12-60            |         | 1pc.     | For straight shank end mill with Sidelock edge Dia. 12mm(WELDON Type)                |
| 5        | END MILL HOLDER<br>BT30-SL16-60            |         | 1pc.     | For straight shank end mill with Sidelock edge Dia. 16mm(WELDON Type)                |
| 6        | ER20 SPRING COLLET<br>ER20-d $\varnothing$ |         | 11pcs.   | For item 1. Including 11 collets as below: $\varnothing$ 3,4,5,6,7,8,9,10,11,12,13mm |
| 7        | PULL STUD<br>BT-501, BT-502                |         | 7pcs.    | BT-501 $\theta = 45^\circ$<br>BT-502 $\theta = 60^\circ$                             |
| 8        | TOOL HOLDER LOCKING<br>STAND VTS-BT-30     |         | 1pc.     | For locking the pull studs or preparing Cutting tools of tool holders.               |
| 9        | ELECTRONIC EDGE FINDER<br>VPS-20B          |         | 1pc.     | For setting work coordinate on Machine Centers.                                      |

**ORDER NO. VBT-30-1520**

**CODE NO. 3216-011**

**BT-30 WITH 15PCS. HOLDER & ER-20 COLLET**

| ITEM NO. | Descriptions                               | Figures | Quantity | Explanation                                                                          |
|----------|--------------------------------------------|---------|----------|--------------------------------------------------------------------------------------|
| 1        | ER20 COLLET CHUCK<br>BT30-ER20-60          |         | 6pcs.    | For small Dia. End mill and Drills.                                                  |
| 2        | MORSE TAPER ADAPTOR<br>BT30-MTA1-60        |         | 1pc.     | For drills with Morse taper Shank No.1.                                              |
| 3        | MORSE TAPER ADAPTOR<br>BT30-MTA2-60        |         | 1pc.     | For drills with Morse taper Shank No.2.                                              |
| 4        | FACE MILL ARBOR<br>BT30-FMB22-45           |         | 1pc.     | For holding the face milling Cutter Dia.50, 63mm                                     |
| 5        | END MILL HOLDER<br>BT30-SL12-60            |         | 2pcs.    | For straight shank end mill with Sidelock edge Dia. 12mm(WELDON Type)                |
| 6        | END MILL HOLDER<br>BT30-SL16-60            |         | 2pcs.    | For straight shank end mill with Sidelock edge Dia. 16mm(WELDON Type)                |
| 7        | END MILL HOLDER<br>BT30-SL20-75            |         | 2pcs.    | For straight shank end mill with Sidelock edge Dia. 20mm(WELDON Type)                |
| 8        | ER20 SPRING COLLET<br>ER20-d $\varnothing$ |         | 11pcs.   | For item 1. Including 11 collets as below: $\varnothing$ 3,4,5,6,7,8,9,10,11,12,13mm |
| 9        | PULL STUD<br>BT-501, BT-502                |         | 15pcs.   | BT-501 $\theta = 45^\circ$<br>BT-502 $\theta = 60^\circ$                             |
| 10       | TOOL HOLDER LOCKING<br>STAND VTS-BT-30     |         | 1pc.     | For locking the pull studs or preparing Cutting tools of tool holders.               |
| 11       | ELECTRONIC EDGE FINDER<br>VPS-20B          |         | 1pc.     | For setting work coordinate on Machine Centers.                                      |



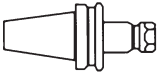
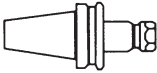
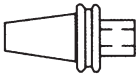
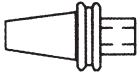
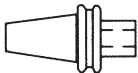
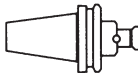
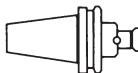
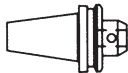
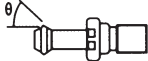
# Complete NC Tooling Set

We recommend a complete set which is included tool holder, collet chuck, collet set, pull stud, tooling locking stand, edge finder for NC machining center. it is popular and suitable sale-mix in the market

**ORDER NO. VBT-40-1532**

**CODE NO. 3216-002**

**BT-40 WITH 15PCS. HOLDER & ER-32 COLLET**

| ITEM NO. | Descriptions                           | Figures                                                                             | Quantity | Explanation                                                                     |
|----------|----------------------------------------|-------------------------------------------------------------------------------------|----------|---------------------------------------------------------------------------------|
| 1        | ER32 COLLET CHUCK<br>BT40-ER32-70      |    | 3pcs.    | For small Dia. End mill and Drills.                                             |
| 2        | ER32 COLLET CHUCK<br>BT40-ER32-100     |    | 3pcs.    | For small Dia. End mill and Drills.                                             |
| 3        | MORSE TAPER ADAPTOR<br>BT40-MTA1-45    |    | 1pc.     | For drills with Morse taper<br>Shank No.1.                                      |
| 4        | MORSE TAPER ADAPTOR<br>BT40-MTA2-45    |    | 1pc.     | For drills with Morse taper<br>Shank No.2.                                      |
| 5        | MORSE TAPER ADAPTOR<br>BT40-MTA3-75    |    | 1pc.     | For drills with Morse taper<br>Shank No.3.                                      |
| 6        | FACE MILL ARBOR<br>BT40-FMB22-60       |  | 1pc.     | For holding the face milling<br>Cutter Dia.50, 63mm                             |
| 7        | FACE MILL ARBOR<br>BT40-FMB27-60       |  | 1pc.     | For holding the face milling<br>Cutter Dia.80mm                                 |
| 8        | END MILL HOLDER<br>BT40-SL16-75        |  | 1pc.     | For straight shank end mill with Sidelock<br>edge Dia. 16mm(WELDON Type)        |
| 9        | END MILL HOLDER<br>BT40-SL20-75        |  | 1pc.     | For straight shank end mill with Sidelock<br>edge Dia. 20mm(WELDON Type)        |
| 10       | END MILL HOLDER<br>BT40-SL25-75        |  | 1pc.     | For straight shank end mill with Sidelock<br>edge Dia. 25mm(WELDON Type)        |
| 11       | END MILL HOLDER<br>BT40-SL32-90        |  | 1pc.     | For straight shank end mill with Sidelock<br>edge Dia. 32mm(WELDON Type)        |
| 12       | ER32 SPRING COLLET<br>ER32-d Ø         |  | 11pcs.   | For item 1.2. Including 11 collets as<br>below: Ø4,5,6,8,10,12,13,15,16,18,20mm |
| 13       | PULL STUD<br>BT-503 OR BT-504          |  | 15pcs.   | BT503 $\theta = 45^\circ$<br>BT504 $\theta = 60^\circ$                          |
| 14       | TOOL HOLDER LOCKING<br>STAND VTS-BT-40 |  | 1pc.     | For locking the pull studs or preparing<br>Cutting tools of tool holders.       |
| 15       | ELECTRONIC EDGE FINDER<br>VPS-20B      |  | 1pc.     | For setting work coordinate on<br>Machine Centers.                              |



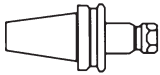
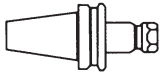
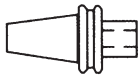
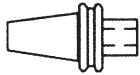
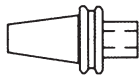
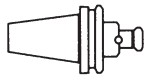
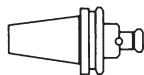
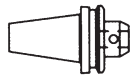
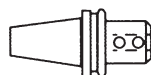
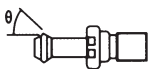
# Complete NC Tooling Set

We recommend a complete set which is included tool holder, collet chuck, collet set, pull stud, tooling locking stand, edge finder for NC machining center. It is popular and suitable sale-mix in the market

**ORDER NO. VBT-40-2432**

**CODE NO. 3216-003**

**BT-40 WITH 23PCS. HOLDER & ER-32 COLLET**

| ITEM NO. | Descriptions                           | Figures                                                                             | Quantity | Explanation                                                                     |
|----------|----------------------------------------|-------------------------------------------------------------------------------------|----------|---------------------------------------------------------------------------------|
| 1        | ER32 COLLET CHUCK<br>BT40-ER32-70      |    | 4pcs.    | For small Dia. End mill and Drills.                                             |
| 2        | ER32 COLLET CHUCK<br>BT40-ER32-100     |    | 4pcs.    | For small Dia. End mill and Drills.                                             |
| 3        | MORSE TAPER ADAPTOR<br>BT40-MTA1-45    |    | 1pc.     | For drills with Morse taper<br>Shank No.1.                                      |
| 4        | MORSE TAPER ADAPTOR<br>BT40-MTA2-45    |    | 2pc.     | For drills with Morse taper<br>Shank No.2.                                      |
| 5        | MORSE TAPER ADAPTOR<br>BT40-MTA3-75    |    | 2pc.     | For drills with Morse taper<br>Shank No.3.                                      |
| 6        | FACE MILL ARBOR<br>BT40-FMB22-60       |  | 1pc.     | For holding the face milling<br>Cutter Dia.50, 63mm                             |
| 7        | FACE MILL ARBOR<br>BT40-FMB27-60       |  | 1pc.     | For holding the face milling<br>Cutter Dia.80mm                                 |
| 8        | END MILL ARBOR<br>BT40-SL16-75         |  | 2pc.     | For straight shank end mill with Sidelock<br>edge Dia. 16mm(WELDON Type)        |
| 9        | END MILL ARBOR<br>BT40-SL20-75         |  | 2pc.     | For straight shank end mill with Sidelock<br>edge Dia. 20mm(WELDON Type)        |
| 10       | END MILL ARBOR<br>BT40-SL25-90         |  | 2pc.     | For straight shank end mill with Sidelock<br>edge Dia. 25mm(WELDON Type)        |
| 11       | END MILL ARBOR<br>BT40-SL32-90         |  | 2pc.     | For straight shank end mill with Sidelock<br>edge Dia. 32mm(WELDON Type)        |
| 12       | ER32 SPRING COLLET<br>ER32-d ∅         |  | 11pcs.   | For item 1.2. Including 11 collets as<br>below: ∅4,5,6,8,10,12,13,15,16,18,20mm |
| 13       | PULL STUD<br>BT503 OR BT504            |  | 23pcs.   | BT-503 $\theta = 45^\circ$<br>BT-504 $\theta = 60^\circ$                        |
| 14       | TOOL HOLDER LOCKING<br>STAND VTS-BT-40 |  | 1pc.     | For locking the pull studs or preparing<br>Cutting tools of tool holders.       |
| 15       | ELECTRONIC EDGE FINDER<br>VPS-20B      |  | 1pc.     | For setting work coordinate on<br>Machine Centers.                              |

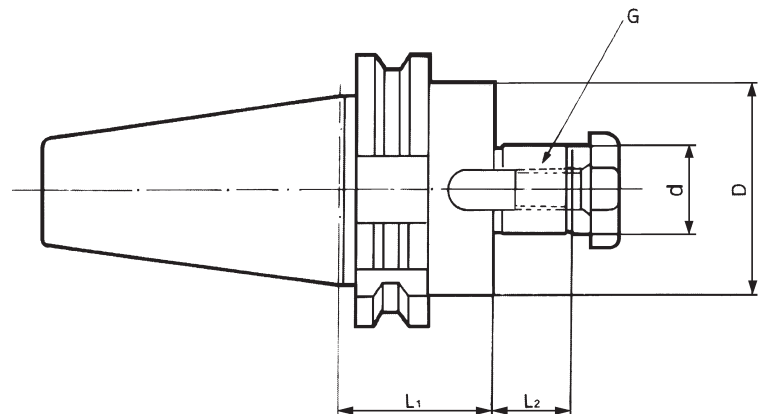


# Face Mill Holder

DIN 69871A

Holder For Face Mill Cutter.

**DIN69871 A**



Unit:mm

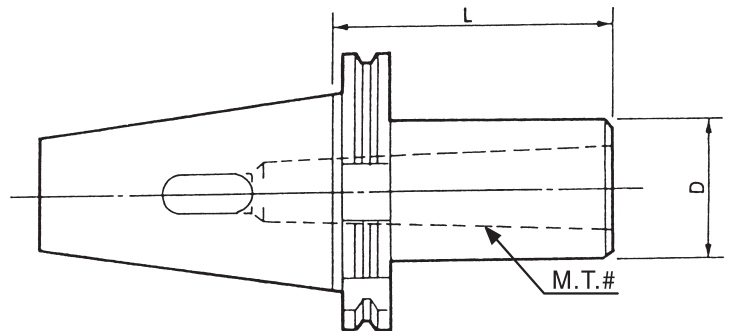
| ORDER NO.     | SIZE         | d  | D  | L1 | L2 | G   |     | CODE NO. |
|---------------|--------------|----|----|----|----|-----|-----|----------|
| <b>SK-111</b> | SK40-FM16-45 | 16 | 38 | 45 | 17 | M8  | 1.2 | 3212-301 |
| <b>SK-112</b> | SK40-FM22-45 | 22 | 48 | 45 | 18 | M10 | 1.2 | 3212-302 |
| <b>SK-113</b> | SK40-FM27-45 | 27 | 60 | 45 | 20 | M12 | 1.6 | 3212-303 |
| <b>SK-114</b> | SK40-FM32-45 | 32 | 62 | 45 | 22 | M16 | 1.9 | 3212-304 |
| <b>SK-117</b> | SK50-FM22-45 | 22 | 60 | 45 | 18 | M10 | 3.4 | 3212-307 |
| <b>SK-118</b> | SK50-FM27-45 | 27 | 70 | 45 | 20 | M12 | 3.5 | 3212-308 |
| <b>SK-119</b> | SK50-FM32-45 | 32 | 75 | 45 | 22 | M16 | 3.7 | 3212-309 |
| <b>SK-120</b> | SK50-FM40-55 | 40 | 85 | 55 | 26 | M20 | 4.7 | 3212-310 |



# Morse Taper Holder-DIN6383 DIN 69871A

Holder For Morse Taper Shank With Tang.

**DIN69871 A**



Unit:mm

| ORDER NO. | SIZE         | M.T.# | L   | D  | WEIGHT (kg) | CODE NO. |
|-----------|--------------|-------|-----|----|-------------|----------|
| SK-211    | SK30-MT1-50  | 1     | 50  | 25 | 0.7         | 3211-130 |
| SK-212    | SK30-MT2-65  | 2     | 65  | 32 | 0.7         | 3211-131 |
| SK-213    | SK30-MT3-80  | 3     | 80  | 40 | 0.8         | 3211-132 |
| SK-214    | SK40-MT1-45  | 1     | 45  | 25 | 1.2         | 3211-133 |
| SK-215    | SK40-MT2-50  | 2     | 50  | 32 | 1.1         | 3211-134 |
| SK-216    | SK40-MT3-70  | 3     | 70  | 40 | 1.2         | 3211-135 |
| SK-217    | SK40-MT4-90  | 4     | 90  | 48 | 1.35        | 3211-136 |
| SK-218    | SK50-MT1-45  | 1     | 45  | 25 | 3           | 3211-137 |
| SK-219    | SK50-MT2-60  | 2     | 60  | 32 | 3.1         | 3211-138 |
| SK-220    | SK50-MT3-65  | 3     | 65  | 40 | 3.3         | 3211-139 |
| SK-221    | SK50-MT4-90  | 4     | 90  | 48 | 3.5         | 3211-140 |
| SK-222    | SK50-MT5-105 | 5     | 105 | 63 | 3.7         | 3211-141 |



# Sidelock END Mill Holder DIN 69871A

DIN69871 A

WELDON TYPE



■ Dimensions:

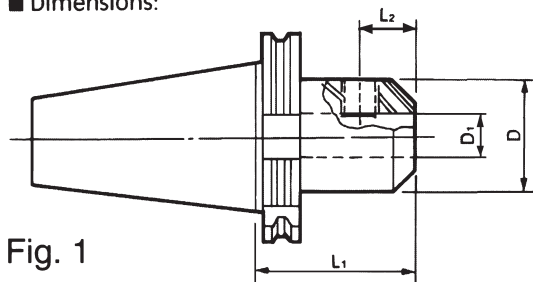


Fig. 1

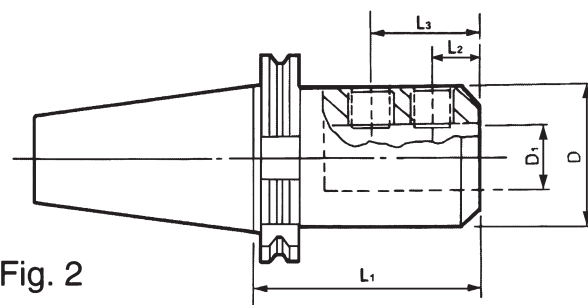


Fig. 2

Unit:mm

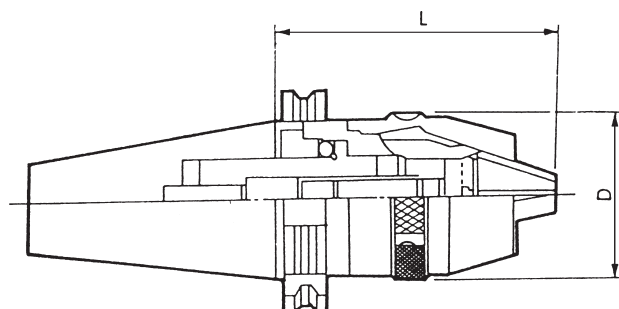
| ORDER NO. | SIZE          | Fig. | D1 | D  | L1  | L2   | L3 | g)   | CODE NO. |
|-----------|---------------|------|----|----|-----|------|----|------|----------|
| SK-411    | SK30-EM6-50   | 1    | 6  | 25 | 50  | 18   | -  | 0.55 | 3213-201 |
| SK-412    | SK30-EM8-50   | 1    | 8  | 28 | 50  | 18   | -  | 0.55 | 3213-202 |
| SK-413    | SK30-EM10-50  | 1    | 10 | 35 | 50  | 20   | -  | 0.60 | 3213-203 |
| SK-414    | SK30-EM12-50  | 1    | 12 | 42 | 50  | 22.5 | -  | 0.60 | 3213-204 |
| SK-415    | SK30-EM16-63  | 1    | 16 | 48 | 63  | 24   | -  | 0.7  | 3213-205 |
| SK-416    | SK30-EM20-70  | 1    | 20 | 52 | 70  | 25   | -  | 0.7  | 3213-206 |
| SK-417    | SK40-EM6-50   | 1    | 6  | 25 | 50  | 18   | -  | 1.1  | 3213-207 |
| SK-418    | SK40-EM8-50   | 1    | 8  | 28 | 50  | 18   | -  | 1.1  | 3213-208 |
| SK-419    | SK40-EM10-50  | 1    | 10 | 35 | 50  | 20   | -  | 1.2  | 3213-209 |
| SK-420    | SK40-EM12-50  | 1    | 12 | 42 | 50  | 22.5 | -  | 1.3  | 3213-210 |
| SK-421    | SK40-EM16-63  | 1    | 16 | 48 | 63  | 24   | -  | 1.5  | 3213-211 |
| SK-422    | SK40-EM20-63  | 1    | 20 | 52 | 63  | 25   | -  | 1.8  | 3213-212 |
| SK-423    | SK40-EM25-100 | 2    | 25 | 65 | 100 | 24   | 49 | 2.1  | 3213-213 |
| SK-424    | SK40-EM32-100 | 2    | 32 | 72 | 100 | 24   | 52 | 2.1  | 3213-214 |
| SK-425    | SK50-EM6-63   | 1    | 6  | 25 | 63  | 18   | -  | 3.3  | 3213-215 |
| SK-426    | SK50-EM8-63   | 1    | 8  | 28 | 63  | 18   | -  | 3.3  | 3213-216 |
| SK-427    | SK50-EM10-63  | 1    | 10 | 35 | 63  | 20   | -  | 3.4  | 3213-217 |
| SK-428    | SK50-EM12-63  | 1    | 12 | 42 | 63  | 22.5 | -  | 3.4  | 3213-218 |
| SK-429    | SK50-EM16-63  | 1    | 16 | 48 | 63  | 24   | -  | 3.5  | 3213-219 |
| SK-430    | SK50-EM20-63  | 1    | 20 | 52 | 63  | 25   | -  | 3.5  | 3213-220 |
| SK-431    | SK50-EM25-80  | 2    | 25 | 65 | 80  | 24   | 49 | 3.8  | 3213-221 |
| SK-432    | SK50-EM32-100 | 2    | 32 | 72 | 100 | 24   | 52 | 4.9  | 3213-222 |
| SK-433    | SK50-EM40-100 | 2    | 40 | 80 | 100 | 30   | 62 | 5    | 3213-223 |



# Drill Chuck Holder / APU

DIN 69871A

DIN69871 A



Unit:mm

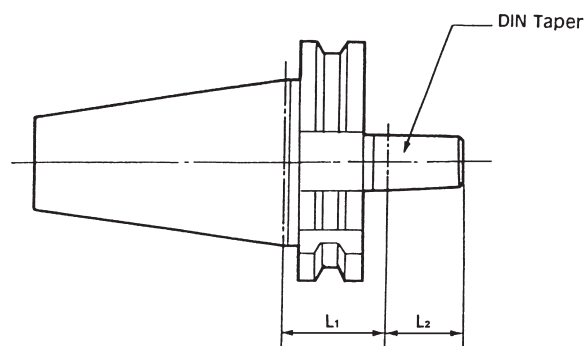
| ORDER NO. | SIZE           | Clamping range<br>( $\varnothing$ mm) | D    | L       |         |     | CODE NO. |
|-----------|----------------|---------------------------------------|------|---------|---------|-----|----------|
|           |                |                                       |      | Minimum | Maximum |     |          |
| SK-511    | SK40-APU08-80  | 1-8                                   | 36.3 | 80      | 86.5    | 1.3 | 3301-001 |
| SK-512    | SK40-APU13-105 | 1-13                                  | 51.5 | 105     | 109     | 1.7 | 3301-002 |
| SK-513    | SK50-APU08-80  | 1-8                                   | 36.3 | 80      | 97.5    | 3.8 | 3301-003 |
| SK-514    | SK50-APU13-105 | 1-13                                  | 51.5 | 105     | 120     | 4.1 | 3301-004 |
| SK-509    | SK30-APU08-70  | 0.5-8                                 | 36   |         |         |     | 3301-005 |
| SK-510    | SK30-APU13-82  | 0.5-13                                | 50   |         |         |     | 3301-006 |



# Drill Chuck Holder

DIN 69871A

DIN69871 A



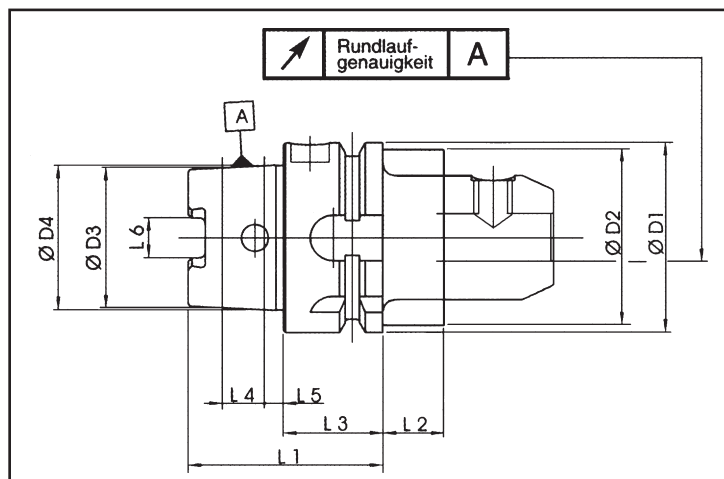
Unit:mm

| ORDER NO. | SIZE     | DIN Tper # | L1 | L2 |     | CODE NO. |
|-----------|----------|------------|----|----|-----|----------|
| SK-521    | SK40-B16 | B16        | 45 | 24 | 0.7 | 3209-180 |
| SK-522    | SK40-B18 | B18        | 32 | 32 | 1   | 3209-181 |
| SK-523    | SK50-B16 | B16        | 45 | 24 | 2.5 | 3209-182 |
| SK-524    | SK50-B18 | B18        | 43 | 32 | 3   | 3209-183 |



# HSK-A63(DIN-69893) Tool Holder

## Form A



DIN 69893

**Compared to the steep taper the HSK has the following advantages**

- high repetition accuracy when clamping tools into spindle
- fix axial positioning by flat contact surface
- suitable for high speed cutting
- no pull stud necessary

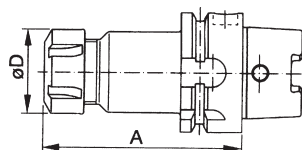
### Material

- special case-hardening steel for highly stressed parts
- surface hardness 58-2 HRC

**Tensile strength in core min. 1000 N / mm<sup>2</sup>**

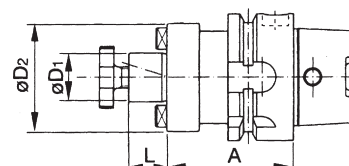
| SIZE   | ØD1 | ØD2 | ØD3   | ØD4 | L1 | L2 | L3 | L4   | L5  | L6    |
|--------|-----|-----|-------|-----|----|----|----|------|-----|-------|
| HSK 63 | 63  | 53  | 46.53 | 48  | 58 | 16 | 26 | 14.7 | 6.3 | 12.54 |

## Collet chuck ER

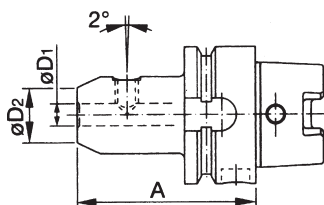


| ORDER NO.     | A   | D <sub>2</sub> | WEIGHT (kg) | CODE NO. |
|---------------|-----|----------------|-------------|----------|
| A 63.020.ER16 | 100 | 28             | 1           | 3217-001 |
| A 63.020.ER25 | 100 | 42             | 1.2         | 3217-002 |
| A 63.020.ER32 | 100 | 50             | 1.4         | 3217-003 |
| A 63.020.ER40 | 120 | 63             | 1.5         | 3217-004 |
| A 63.022.ER16 | 160 | 28             | 1.7         | 3217-005 |
| A 63.022.ER25 | 160 | 42             | 1.9         | 3217-006 |
| A 63.022.ER32 | 160 | 50             | 2.1         | 3217-007 |
| A 63.022.ER40 | 160 | 63             | 2.3         | 3217-008 |

## Adapter for inserted tool milling cutter



## Weldon toolholder



| ORDER NO.     | A   | D <sub>2</sub> |     | CODE NO. |
|---------------|-----|----------------|-----|----------|
| A 63.030.SL6  | 80  | 25             | 1   | 3217-060 |
| A 63.030.SL8  | 80  | 28             | 1.1 | 3217-061 |
| A 63.030.SL10 | 80  | 35             | 1.1 | 3217-062 |
| A 63.030.SL12 | 90  | 42             | 2   | 3217-063 |
| A 63.030.SL14 | 90  | 44             | 2   | 3217-064 |
| A 63.030.SL16 | 100 | 48             | 2   | 3217-065 |
| A 63.030.SL18 | 100 | 50             | 2.1 | 3217-066 |
| A 63.030.SL20 | 100 | 52             | 2.1 | 3217-067 |
| A 63.030.SL25 | 110 | 65             | 2.6 | 3217-068 |
| A 63.030.SL32 | 110 | 72             | 2.8 | 3217-069 |

| ORDER NO.      | A   | D <sub>2</sub> |     | CODE NO. |
|----------------|-----|----------------|-----|----------|
| A 63.051.FMC22 | 100 | 50             | 1.3 | 3219-030 |
| A 63.051.FMC27 | 100 | 60             | 1.5 | 3219-031 |
| A 63.051.FMC32 | 100 | 78             | 1.6 | 3219-032 |
| A 63.051.FMC40 | 100 | 87             | 2   | 3219-033 |
| A 63.052.FMC22 | 160 | 50             | 1.5 | 3219-034 |
| A 63.052.FMC27 | 160 | 60             | 1.7 | 3219-035 |
| A 63.052.FMC32 | 160 | 78             | 1.8 | 3219-036 |
| A 63.052.FMC40 | 160 | 87             | 2.2 | 3219-037 |

### ACCURACY

**CONCENTRIC** ≤ 3µm (A < 160mm)

≤ 4µm (A ≥ 160mm)

**HARDNESS HRC 56 ~ 58**

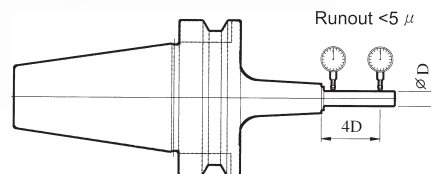
**TOOL DYNAMATIC BALANCE TEST.**



# DC High Speed Slim Chuck System

5  $\mu$   
30,000  
rpm

NEW

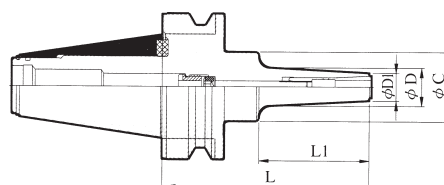


1. Smallest outside diameter in the world:  $\phi 12$ ; this can solve the difficulties during thin processing on mold manufacture.
2. Collets with different sizes can be used on all kind of end mills, reamers, drills and tapping below 6m/m.
3. High speed balancing :30,000rpm; G2.5
4. Runout:  $< 5 \mu$  m (Length 4D)



## Slim Collet Chuck With Double Face Contact

5  $\mu$   
30,000  
rpm



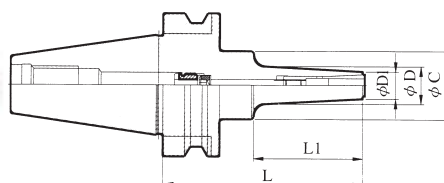
### DC Collet System

1. For the features of double face contact.
2. Runout: below 0.005mm. (length 4D)
3. Smallest outside diameter in the world:  $\phi 12$  (Collet inside diameter  $\phi 1.75 \sim \phi 6$ )
4. Max speed: 30,000rpm; G2.5.

| R NO.        |      | L  | L1 | D  | D1 | C  | WEIGHT (kg) | CODE NO. |
|--------------|------|----|----|----|----|----|-------------|----------|
| BTD30-DC6-60 | BT30 | 60 | 38 | 16 | 12 | —  | 0.8         | 3218-040 |
| BTD30-DC6-90 | BT30 | 90 | 50 | 17 | 12 | 30 | 0.9         | 3218-041 |
| BTD40-DC6-60 | BT40 | 60 | 33 | 16 | 12 | —  | 1           | 3218-042 |
| BTD40-DC6-90 | BT40 | 90 | 48 | 17 | 12 | 30 | 1.2         | 3218-043 |



## MAS BT30/40 Collet Chuck DC Collet System



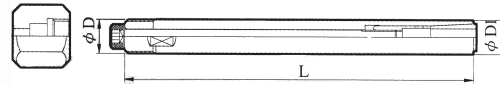
1. Runout: below 0.005mm. (length 4D)
2. Smallest outside diameter in the world :  $\phi 12$  (Collet inside diameter  $\phi 1.75 \sim \phi 6$ )
3. Max speed :30,000rpm; G2.5.

|             | L  | L1 | D  | D1 | C  | WEIGHT (kg) | DE NO.   |
|-------------|----|----|----|----|----|-------------|----------|
| BT30-DC6-60 | 60 | 38 | 16 | 12 | —  | 0.8         | 3218-044 |
| BT30-DC6-90 | 90 | 50 | 17 | 12 | 30 | 0.9         | 3218-045 |
| BT40-DC6-60 | 60 | 33 | 16 | 12 | —  | 1           | 3218-046 |
| BT40-DC6-90 | 90 | 48 | 17 | 12 | 30 | 1.2         | 3218-047 |

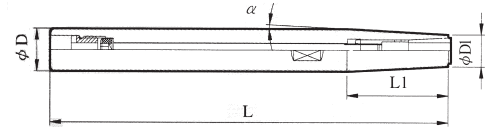


# Cylindrical Shank Of DC Slim Chuck

**DC Collet System**



- 1.Runout:below 0.005mm.(length 4D)
- 2.Smallest outside diameter in the wourd:Ø12(Collet inside diameter ø1.75~ø6)
- 3.Using anti-vibration material, surface hardness HRC 65°



| ORDER NO.    | Fig | L   | L1  | D  | D1 |    | WEIGHT(kg) | CODE NO. |
|--------------|-----|-----|-----|----|----|----|------------|----------|
| ST12-DC6-120 | 1   | 120 | —   | 12 | 12 | —  | 0.15       | 3218-048 |
| ST16-DC6-150 | 2   | 150 | 38  | 16 | 12 | 3° | 0.3        | 3218-049 |
| ST20-DC6-200 | 2   | 200 | 76  | 20 | 12 | 3° | 0.6        | 3218-050 |
| ST25-DC6-250 | 2   | 250 | 124 | 25 | 12 | 3° | 0.8        | 3218-051 |



## Set Of DC Collets And Collet Chuck

**DC Collet System**

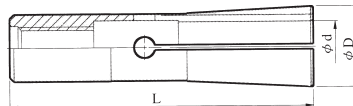


| ORDER NO.      | Cellet Chuck | Collets      | Spanner   | Weight(kg) |          |
|----------------|--------------|--------------|-----------|------------|----------|
| SST12-DC6-120E | ST12-DC6-120 | EACH SET     | 30109-205 | 0.7        | 3218-052 |
| SST16-DC6-150E | ST16-DC6-150 | DC6-3E × 1pc | 30109-205 | 0.7        | 3218-053 |
| SST20-DC6-200E | ST20-DC6-200 | DC6-4E × 1pc | 30109-205 | 1          | 3218-054 |
| SST25-DC6-250E | ST25-DC6-250 | DC6-6E × 1pc | 30109-205 | 1.3        | 3218-055 |



## Small Collet Of Slim Collet Chuck

**DC Collet System**



- 1.Below ø6 can clamp any shank.
- 2.DC6 series : for clamping drills, reamers and taps.
- 3.DC6-E series:for clamping end mills.
- 4.Runout : below 0.005mm. (length 4D)

| ORDER NO. | Range(d)  | WEIGHT (kg) | CODE NO. |
|-----------|-----------|-------------|----------|
| DC6-2     | 1.75-2.00 | 0.05        | 3218-056 |
| DC6-2.25  | 2.00-2.25 | 0.05        | 3218-057 |
| DC6-2.5   | 2.25-2.50 | 0.05        | 3218-058 |
| DC6-2.75  | 2.50-2.75 | 0.05        | 3218-059 |
| DC6-3     | 2.75-3.00 | 0.05        | 3218-065 |
| DC6-3.25  | 3.00-3.25 | 0.05        | 3218-066 |
| DC6-3.5   | 3.25-3.50 | 0.05        | 3218-067 |
| DC6-3.75  | 3.50-3.75 | 0.05        | 3218-068 |
| DC6-4     | 3.75-4.00 | 0.05        | 3218-069 |

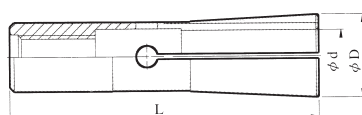
| L  | D   | d     |
|----|-----|-------|
| 36 | 9.8 | ø2~ø6 |

| ORDER NO. | Range(d)  | WEIGHT(kg) | CODE NO. |
|-----------|-----------|------------|----------|
| DC6-4.25  | 4.00-4.25 | 0.05       | 3218-070 |
| DC6-4.5   | 4.25-4.50 | 0.05       | 3218-071 |
| DC6-4.75  | 4.50-4.75 | 0.05       | 3218-072 |
| DC6-5     | 4.75-5.00 | 0.05       | 3218-073 |
| DC6-5.25  | 5.00-5.25 | 0.05       | 3218-074 |
| DC6-5.5   | 5.25-5.50 | 0.05       | 3218-075 |
| DC6-5.75  | 5.50-5.75 | 0.05       | 3218-076 |
| DC6-6     | 5.75-6.00 | 0.05       | 3218-077 |



## For End Mill Shank

**DC Collet System**



| RDER NO. |     | g)    | CODE NO. |
|----------|-----|-------|----------|
| DC6-3E   | 3   | 0.05  | 3218-078 |
| DC6-4E   | 4   | 0.05  | 3218-079 |
| DC6-5E   | 5   | 0.05  | 3218-080 |
| DC6-6E   | 6   | 0.05  | 3218-081 |
| L        | D   | d     |          |
| 36       | 9.6 | ø3~ø6 |          |



# High Speed Chuck

## UC COLLET CHUCK

For clamping HSC(High speed cutting) tools on machining centers.

Maximum speed:15,000 R.P.M

High accuracy:0.005mm T.I.R

### Features

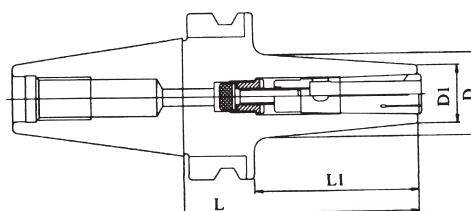
Taper of UC spring collet is 1/120, self-locked function makes high gripping power to prevent slip-out of the cutting tools.

UC spring collet chucks are made by high alloy steel and case hardened up to HRC59° and ground to ultra precision.

UC spring collets are slitted with a patented slotted-design for increasing gripping power and accuracy. (PAT.103654)

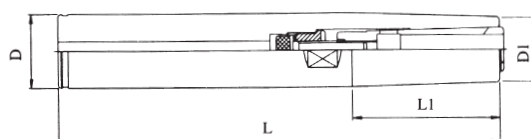


UC



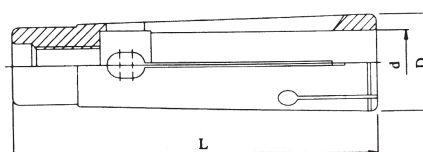
| ORDER NO.     | L   |    | D  | D1 | Collets | GHT (kg) | CODE NO. |
|---------------|-----|----|----|----|---------|----------|----------|
| BT30-UC10-70  | 70  | 48 | 30 | 22 | UC10    | 0.8      | 3218-001 |
| BT40-UC10-90  | 90  | 63 | 32 | 22 | UC10    | 1.4      | 3218-002 |
| BT40-UC16-90  | 90  | 63 | 40 | 30 | UC16    | 1.5      | 3218-003 |
| BT50-UC10-110 | 110 | 72 | 36 | 22 | UC10    | 4.9      | 3218-004 |
| BT50-UC16-120 | 120 | 82 | 42 | 30 | UC16    | 5        | 3218-005 |

### STRAIGHT SHANK UC CHUCK



| ORDER NO.    | L   | L1 | D  | D1 | ets  | WEIGHT (kg) | CODE NO. |
|--------------|-----|----|----|----|------|-------------|----------|
| C25-UC10-150 | 150 | 50 | 25 | 22 | UC10 | 0.5         | 3218-030 |
| C25-UC10-200 | 200 | 50 | 25 | 22 | UC10 | 0.7         | 3218-031 |

### UC SPRING COLLETS



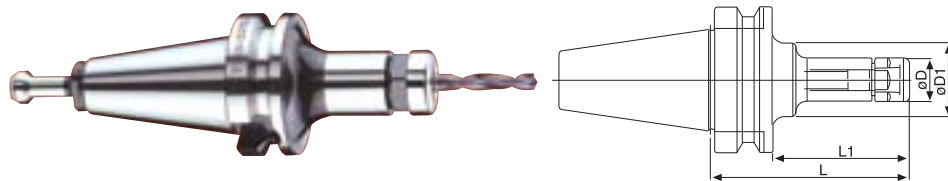
| ORDER NO. | d  |    | L    | WEIGHT (kg) | CODE.NO. |
|-----------|----|----|------|-------------|----------|
| UC10-6    | 6  | 15 | 56.5 | 0.054       | 3218-060 |
| UC10-8    | 8  |    |      | 0.047       | 3218-061 |
| UC10-10   | 10 |    |      | 0.039       | 3218-062 |

| ORDER NO. | d  | D  |    | WEIGHT (kg) | CODE NO. |
|-----------|----|----|----|-------------|----------|
| UC16-10   | 10 | 21 | 67 | 0.104       | 3218-090 |
| UC16-12   | 12 |    |    | 0.104       | 3218-091 |
| UC16-14   | 14 |    |    | 0.069       | 3218-092 |
| UC16-16   | 16 |    |    | 0.089       | 3218-093 |



# SD Collet Chuck

MAS BT 30/40/50



1. Without use any tools on insert collet into nut and take off collet from nut.
2. Max speed: 10,000rpm; G6.3.
3. SD collet designed with small angle 8° smaller than ER Collet 16°. Gripping Torque raises 2 times.
4. For special required, balance can reach 24,000rpm; G2.5.

| ORDER NO.     | Range      | L   | L1  | D  | D1 | Nut     | Wrench  | Collet        | CODE NO. |
|---------------|------------|-----|-----|----|----|---------|---------|---------------|----------|
| BT30-SD6-60   | 1.75~6.00  | 60  | 38  | 20 | -- | N-SD6   | SDW-917 | SD6 / SD6-E   | 3218-100 |
| BT30-SD6-90   | 1.75~6.00  | 90  | 50  | 20 | 30 | N-SD6   | SDW-917 | SD6 / SD6-E   | 3218-101 |
| BT30-SD10-60  | 1.75~10.00 | 60  | 38  | 29 | -- | N-SD10  | SDW-925 | SD10 / SD10-E | 3218-102 |
| BT30-SD10-90  | 1.75~10.00 | 90  | 68  | 29 | -- | N-SD10  | SDW-925 | SD10 / SD10-E | 3218-103 |
| BT30-SD16-60  | 2.75~16.00 | 60  | 38  | 41 | -- | N-SD16  | SDW-936 | SD16 / SD16-E | 3218-104 |
| BT40-SD6-60   | 1.75~6.00  | 60  | 33  | 20 | -- | N-SD6   | SDW-917 | SD6 / SD6-E   | 3218-105 |
| BT40-SD6-90   | 1.75~6.00  | 90  | 50  | 20 | 40 | N-SD6   | SDW-917 | SD6 / SD6-E   | 3218-106 |
| BT40-SD6-120  | 1.75~6.00  | 120 | 50  | 20 | 40 | N-SD6   | SDW-917 | SD6 / SD6-E   | 3218-107 |
| BT40-SD10-60  | 1.75~10.00 | 60  | 33  | 29 | -- | N-SD10  | SDW-925 | SD10 / SD10-E | 3218-108 |
| BT40-SD10-90  | 1.75~10.00 | 90  | 63  | 29 | -- | CN-SD10 | SDW-925 | SD10 / SD10-E | 3218-109 |
| BT40-SD10-120 | 1.75~10.00 | 120 | 70  | 29 | 40 | N-SD10  | SDW-925 | SD10 / SD10-E | 3218-110 |
| BT40-SD10-150 | 1.75~10.00 | 150 | 88  | 29 | 40 | N-SD10  | SDW-925 | SD10 / SD10-E | 3218-111 |
| BT40-SD16-60  | 2.75~16.00 | 60  | 33  | 41 | -- | N-SD16  | SDW-936 | SD16 / SD16-E | 3218-112 |
| BT40-SD16-90  | 2.75~16.00 | 90  | 63  | 41 | -- | N-SD16  | SDW-936 | SD16 / SD16-E | 3218-113 |
| BT40-SD16-120 | 2.75~16.00 | 120 | 93  | 41 | -- | N-SD16  | SDW-936 | SD16 / SD16-E | 3218-114 |
| BT40-SD16-150 | 2.75~16.00 | 150 | 123 | 41 | -- | N-SD16  | SDW-936 | SD16 / SD16-E | 3218-115 |
| BT40-SD20-60  | 4~20       | 60  | 33  | 50 | -- | N-SD20  | SDW-702 | SD20-E        | 3218-116 |
| BT40-SD20-90  | 4~20       | 90  | 63  | 50 | -- | N-SD20  | SDW-702 | SD20-E        | 3218-117 |
| BT40-SD20-120 | 4~20       | 120 | 93  | 50 | -- | N-SD20  | SDW-702 | SD20-E        | 3218-118 |
| BT40-SD20-150 | 4~20       | 150 | 123 | 50 | -- | N-SD20  | SDW-702 | SD20-E        | 3218-119 |
| BT40-SD25-80  | 6~25       | 80  | 53  | 55 | -- | N-SD25  | SDW-703 | SD25-E        | 3218-120 |
| BT40-SD25-120 | 6~25       | 120 | 93  | 55 | -- | N-SD25  | SDW-703 | SD25-E        | 3218-121 |
| BT50-SD6-100  | 1.75~6.00  | 100 | 50  | 20 | 40 | N-SD6   | SDW-917 | SD6 / SD6-E   | 3218-122 |
| BT50-SD6-150  | 1.75~6.00  | 150 | 50  | 20 | 40 | N-SD6   | SDW-917 | SD6 / SD6-E   | 3218-123 |
| BT50-SD10-100 | 1.75~10.00 | 100 | 62  | 29 | -- | N-SD10  | SDW-925 | SD10 / SD10-E | 3218-124 |
| BT50-SD10-150 | 1.75~10.00 | 150 | 70  | 29 | 50 | N-SD10  | SDW-925 | SD10 / SD10-E | 3218-125 |
| BT50-SD16-100 | 2.75~16.00 | 100 | 62  | 41 | -- | N-SD16  | SDW-936 | SD16 / SD16-E | 3218-126 |
| BT50-SD16-150 | 2.75~16.00 | 150 | 112 | 41 | -- | N-SD16  | SDW-936 | SD16 / SD16-E | 3218-127 |
| BT50-SD20-100 | 4~20       | 100 | 62  | 50 | -- | N-SD20  | SDW-702 | SD20-E        | 3218-128 |
| BT50-SD20-150 | 4~20       | 150 | 112 | 50 | -- | N-SD20  | SDW-702 | SD20-E        | 3218-129 |
| BT50-SD20-200 | 4~20       | 200 | 162 | 50 | -- | N-SD20  | SDW-702 | SD20-E        | 3218-130 |
| BT50-SD25-100 | 6~25       | 100 | 62  | 55 | -- | N-SD25  | SDW-703 | SD25-E        | 3218-131 |
| BT50-SD25-150 | 6~25       | 150 | 112 | 55 | -- | N-SD25  | SDW-703 | SD25-E        | 3218-132 |
| BT50-SD25-200 | 6~25       | 200 | 162 | 55 | -- | N-SD25  | SDW-703 | SD25-E        | 3218-133 |



# SD Collet Chuck

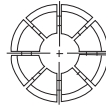
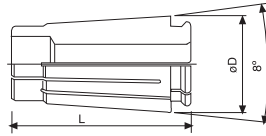
DIN69871 SK40/50

| ORDER NO.     | Range      | L1  | L1 | D  | D1 | Nut    | Wrench  | Collet        | CODE NO. |
|---------------|------------|-----|----|----|----|--------|---------|---------------|----------|
| SK40-SD6-80   | 1.75~6.00  | 80  | 53 | 20 | 40 | N-SD6  | SDW-917 | SD6 / SD6-E   | 3218-140 |
| SK40-SD10-80  | 1.75~10.00 | 80  | 53 | 29 | -- | N-SD10 | SDW-925 | SD10 / SD10-E | 3218-141 |
| SK40-SD16-80  | 2.75~16.00 | 80  | 53 | 41 | -- | N-SD16 | SDW-936 | SD16 / SD16-E | 3218-142 |
| SK40-SD20-80  | 4~20       | 80  | 53 | 50 | -- | N-SD20 | SDW-702 | SD20-E        | 3218-143 |
| SK40-SD25-80  | 6~25       | 80  | 53 | 55 | -- | N-SD25 | SDW-703 | SD25-E        | 3218-144 |
| SK50-SD6-100  | 1.75~6.00  | 100 | 80 | 20 | 50 | N-SD6  | SDW-917 | SD6 / SD6-E   | 3218-145 |
| SK50-SD10-100 | 1.75~10.00 | 100 | 80 | 29 | -- | N-SD10 | SDW-925 | SD10 / SD10-E | 3218-146 |
| SK50-SD16-100 | 2.75~16.00 | 100 | 80 | 41 | -- | N-SD16 | SDW-936 | SD16 / SD16-E | 3218-147 |
| SK50-SD20-100 | 4~20       | 100 | 80 | 50 | -- | N-SD20 | SDW-702 | SD20-E        | 3218-148 |
| SK50-SD25-100 | 6~25       | 100 | 80 | 55 | -- | N-SD25 | SDW-703 | SD25-E        | 3218-149 |



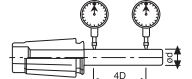
# SD Collet

1. Gripping range is 0.25mm for collets below 3mm. Collets larger than 3mm, the gripping range is 0.5mm.
2. Collets with 5 series, can grip drills, taps, reamers and end mills between 1.75mm-25mm.



| ORDER | D     | L  |
|-------|-------|----|
| SD6   | 10.55 | 25 |
| SD10  | 15.60 | 30 |
| SD16  | 24.6  | 45 |
| SD20  | 30    | 50 |
| SD25  | 35.6  | 57 |

| COLLET LEVEL | RUNOUT |
|--------------|--------|
| AA           | 3μ     |
| A            | 7μ     |



| ORDER NO. | RANGE    | CODE NO. |
|-----------|----------|----------|
| SD6-2     | 1.75-2   | 3218-160 |
| SD6-2.25  | 2-2.25   | 3218-161 |
| SD6-2.5   | 2.25-2.5 | 3218-162 |
| SD6-2.75  | 2.5-2.75 | 3218-163 |
| SD6-3     | 2.75-3   | 3218-164 |
| SD6-3.5   | 3-3.5    | 3218-165 |
| SD6-4     | 3.5-4    | 3218-166 |
| SD6-4.5   | 4-4.5    | 3218-167 |
| SD6-5     | 4.5-5    | 3218-168 |
| SD6-5.5   | 5-5.5    | 3218-169 |
| SD6-6     | 5.5-6    | 3218-170 |

| ORDER NO. | RANGE    | CODE NO. |
|-----------|----------|----------|
| SD10-2    | 1.75-2   | 3218-171 |
| SD10-2.25 | 2-2.25   | 3218-172 |
| SD10-2.5  | 2.25-2.5 | 3218-173 |
| SD10-2.75 | 2.5-2.75 | 3218-174 |
| SD10-3    | 2.75-3   | 3218-175 |
| SD10-3.5  | 3-3.5    | 3218-176 |
| SD10-4    | 3.5-4    | 3218-177 |
| SD10-4.5  | 4-4.5    | 3218-178 |
| SD10-5    | 4.5-5    | 3218-179 |
| SD10-5.5  | 5-5.5    | 3218-180 |
| SD10-6    | 5.5-6    | 3218-181 |

| ORDER NO. | RANGE  | CODE NO. |
|-----------|--------|----------|
| SD10-6.5  | 6-6.5  | 3218-182 |
| SD10-7    | 6.5-7  | 3218-183 |
| SD10-7.5  | 7-7.5  | 3218-184 |
| SD10-8    | 7.5-8  | 3218-185 |
| SD10-8.5  | 8-8.5  | 3218-186 |
| SD10-9    | 8.5-9  | 3218-187 |
| SD10-9.5  | 9-9.5  | 3218-188 |
| SD10-10   | 9.5-10 | 3218-189 |
|           |        |          |
|           |        |          |
|           |        |          |

| ORDER NO. | RANGE | CODE NO. |
|-----------|-------|----------|
| SD16-3    | 2.5-3 | 3218-190 |
| SD16-3.5  | 3-3.5 | 3218-191 |
| SD16-4    | 3.5-4 | 3218-192 |
| SD16-4.5  | 4-4.5 | 3218-193 |
| SD16-5    | 4.5-5 | 3218-194 |
| SD16-5.5  | 5-5.5 | 3218-195 |
| SD16-6    | 5.5-6 | 3218-196 |
| SD16-6.5  | 6-6.5 | 3218-197 |
| SD16-7    | 6.5-7 | 3218-198 |
| SD16-7.5  | 7-7.5 | 3218-199 |
| SD16-8    | 7.5-8 | 3218-200 |

| ORDER NO. | RANGE   | CODE NO. |
|-----------|---------|----------|
| SD16-8.5  | 8-8.5   | 3218-201 |
| SD16-9    | 8.5-9   | 3218-202 |
| SD16-9.5  | 9-9.5   | 3218-203 |
| SD16-10   | 9.5-10  | 3218-204 |
| SD16-10.5 | 10-10.5 | 3218-205 |
| SD16-11   | 10.5-11 | 3218-206 |
| SD16-11.5 | 11-11.5 | 3218-207 |
| SD16-12   | 11.5-12 | 3218-208 |
| SD16-12.5 | 12-12.5 | 3218-209 |
| SD16-13   | 12.5-13 | 3218-210 |
| SD16-13.5 | 13-13.5 | 3218-211 |

| ORDER NO. | RANGE   | CODE NO. |
|-----------|---------|----------|
| SD16-14   | 13.5-14 | 3218-212 |
| SD16-14.5 | 14-14.5 | 3218-213 |
| SD16-15   | 14.5-15 | 3218-214 |
| SD16-15.5 | 15-15.5 | 3218-215 |
| SD16-16   | 15.5-16 | 3218-216 |
|           |         |          |
|           |         |          |
|           |         |          |
|           |         |          |
|           |         |          |



| ORDER NO. | COLLET | QUANTITY | CODE NO. |
|-----------|--------|----------|----------|
| SSD6-11   | Ø2-Ø6  | 11 pcs   | 3218-225 |
| SSD10-19  | Ø2-Ø10 | 19 pcs   | 3218-226 |
| SSD16-27  | Ø3-Ø16 | 27 pcs   | 3218-227 |



## SD-E Collet (for end mill)



| ORDER NO. | d | CODE NO. |
|-----------|---|----------|
| SD6-3E    | 3 | 3218-230 |
| SD6-4E    | 4 | 3218-231 |
| SD6-6E    | 6 | 3218-232 |

| ORDER NO. | d  | CODE NO. |
|-----------|----|----------|
| SD10-3E   | 3  | 3218-233 |
| SD10-4E   | 4  | 3218-234 |
| SD10-6E   | 6  | 3218-235 |
| SD10-8E   | 8  | 3218-236 |
| SD10-10E  | 10 | 3218-237 |

Gripping torque of SD-E Collets is 20% more than SD Collets. Can reach high stability during milling.

| ORDER NO. | d  | CODE NO. |
|-----------|----|----------|
| SD16-3E   | 3  | 3218-238 |
| SD16-4E   | 4  | 3218-239 |
| SD16-6E   | 6  | 3218-240 |
| SD16-8E   | 8  | 3218-241 |
| SD16-10E  | 10 | 3218-242 |
| SD16-12E  | 12 | 3218-243 |
| SD16-16E  | 16 | 3218-244 |

| ORDER NO. | d  | CODE NO. |
|-----------|----|----------|
| SD20-4E   | 4  | 3218-245 |
| SD20-6E   | 6  | 3218-246 |
| SD20-8E   | 8  | 3218-247 |
| SD20-10E  | 10 | 3218-248 |
| SD20-12E  | 12 | 3218-249 |
| SD20-16E  | 16 | 3218-250 |
| SD20-20E  | 20 | 3218-251 |

| ORDER NO. | d  | CODE NO. |
|-----------|----|----------|
| SD25-6E   | 6  | 3218-252 |
| SD25-8E   | 8  | 3218-253 |
| SD25-10E  | 10 | 3218-254 |
| SD25-12E  | 12 | 3218-255 |
| SD25-16E  | 16 | 3218-256 |
| SD25-20E  | 20 | 3218-257 |
| SD25-25E  | 25 | 3218-258 |

| ORDER NO. | COLLET                   | QUANTITY | CODE NO. |
|-----------|--------------------------|----------|----------|
| SSD10E-5  | 3, 4, 6, 8, 10           | 5 pcs    | 3218-270 |
| SSD16E-7  | 3, 4, 6, 8, 10, 12, 16   | 7 pcs    | 3218-271 |
| SSD20E-7  | 4, 6, 8, 10, 12, 16, 20  | 7 pcs    | 3218-272 |
| SSD25E-7  | 6, 8, 10, 12, 16, 20, 25 | 7 pcs    | 3218-273 |





# Stright Shank

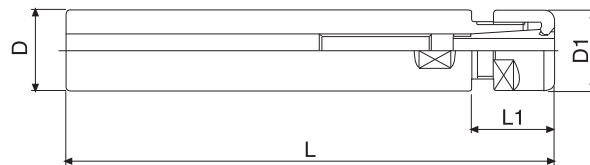
SET OF SD COLLETS AND CHUCK / SD



| Order NO.      | Collet Chuck  | Collet                        | Spanner | CODE NO. |
|----------------|---------------|-------------------------------|---------|----------|
| SBC20-SD6-120  | BC20-SD6-120  | SD6-3E, 4E, 6E 3pcs           | SDW-917 | 3218-280 |
| SBC20-SD6-150  | BC20-SD6-150  | SD6-3E, 4E, 6E 3pcs           | SDW-917 | 3218-281 |
| SBC20-SD6-180  | BC20-SD6-180  | SD6-3E, 4E, 6E 3pcs           | SDW-917 | 3218-282 |
| SBC20-SD10-120 | BC20-SD10-120 | SD10-3E, 4E, 6E, 8E, 10E 5pcs | SDW-925 | 3218-283 |
| SBC20-SD10-150 | BC20-SD10-150 | SD10-3E, 4E, 6E, 8E, 10E 5pcs | SDW-925 | 3218-284 |
| SBC20-SD10-180 | BC20-SD10-180 | SD10-3E, 4E, 6E, 8E, 10E 5pcs | SDW-925 | 3218-285 |



# Stright Shank SD Collet Chuck



| Order NO.     | L   | L1 | D  | D1 | Collet | Wrench  |          |
|---------------|-----|----|----|----|--------|---------|----------|
| BC20-SD6-120  | 120 | 20 | 20 | 20 | SD6-d  | SDW-917 | 3218-290 |
| BC20-SD6-150  | 150 | 20 | 20 | 20 | SD6-d  | SDW-917 | 3218-291 |
| BC20-SD6-180  | 180 | 20 | 20 | 20 | SD6-d  | SDW-917 | 3218-292 |
| BC20-SD10-120 | 120 | 38 | 20 | 29 | SD10-d | SDW-925 | 3218-293 |
| BC20-SD10-150 | 150 | 38 | 20 | 29 | SD10-d | SDW-925 | 3218-294 |
| BC20-SD10-180 | 180 | 38 | 20 | 29 | SD10-d | SDW-925 | 3218-295 |



# Clamping Nut



Fig.1

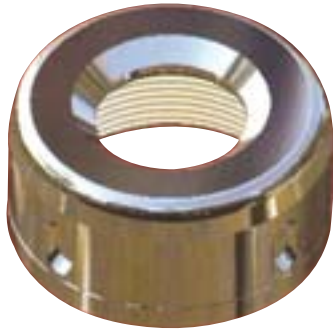


Fig.2

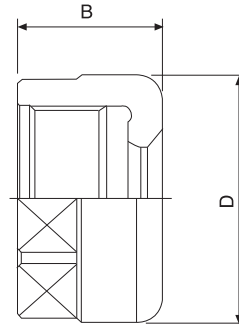


Fig.1

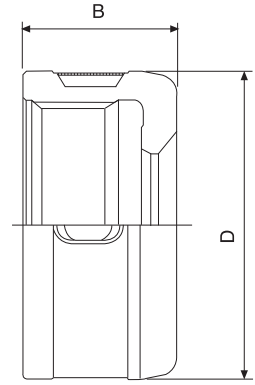


Fig.2

| Order NO. | Fig | D  | B | CODE NO. |
|-----------|-----|----|---|----------|
| N-SD6     | 1   | 20 | 1 | 3218-300 |
| N-SD10    | 1   | 29 | 1 | 3218-301 |
| N-SD16    | 1   | 41 | 2 | 3218-302 |
| N-SD20    | 2   | 50 | 2 | 3218-303 |
| N-SD25    | 2   | 55 | 2 | 3218-304 |



## The Accessories For SD-Type Chuck

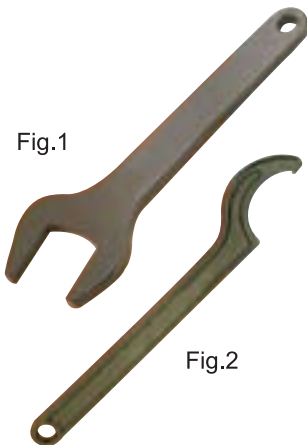
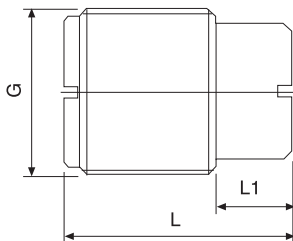


Fig.1

Fig.2

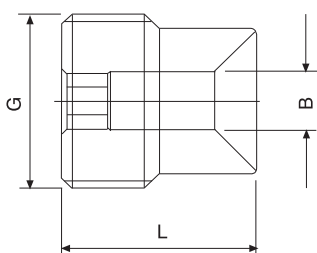
### WRENCH

| Order NO. | Fig | Type            | CODE NO. |
|-----------|-----|-----------------|----------|
| SDW-917   | 1   | SP-SD6 / ER11   | 3218-310 |
| SDW-925   | 1   | SP-SD10 / ER16  | 3218-311 |
| SDW-936   | 1   | SP-SD16 / HEC12 | 3218-312 |
| SDW-702   | 2   | SP-SD20         | 3218-313 |
| SDW-703   | 2   | SD-SD25         | 3218-314 |



### ADJUST SCREW

| Order NO. | G     | L  | L1 | Holder system | CODE NO. |
|-----------|-------|----|----|---------------|----------|
| AS-10     | L-M12 | 25 | 10 | SD10          | 3218-320 |
| AS-16     | L-M18 | 30 | 10 | SD16          | 3218-321 |
| AS-20     | L-M22 | 30 | 10 | SD20          | 3218-322 |
| AS-25     | L-M28 | 30 | 10 | SD25          | 3218-323 |



### ADJUST SCREW WITH COOLANT HOLE

| Order NO. | G     | L  | B | Holder system | CODE NO. |
|-----------|-------|----|---|---------------|----------|
| AS-10H    | L-M12 | 20 | 3 | SD10          | 3218-330 |
| AS-16H    | L-M18 | 20 | 4 | SD16          | 3218-331 |
| AS-20H    | L-M22 | 24 | 4 | SD20          | 3218-332 |
| AS-25H    | L-M28 | 30 | 4 | SD25          | 3218-333 |



# 3D - TASTER



## STYLUS

Change stylus in seconds

No screws or special tools required

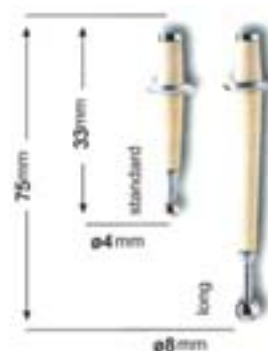
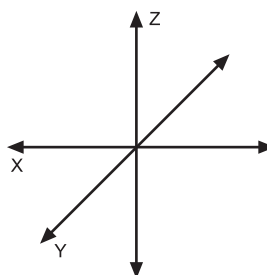
Easy precision plug-in mechanism

| ORDER NO. | TYPE                  | WEIGHT | CODE NO. |
|-----------|-----------------------|--------|----------|
| V-3D-05   | ø4x33 standard stylus | 10g    | 3219-005 |
| V-3D-06   | ø8x75 long stylus     | 15g    | 3219-006 |

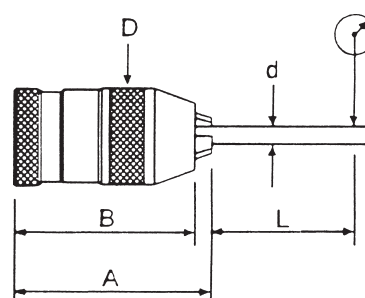
|        | TYPE      | ACCURACY | CODE NO. |
|--------|-----------|----------|----------|
| V - 3D | 3D-Taster | 0.01mm   | 3219-001 |

**Find your exact zero points in all three axes in seconds with the new distance measuring scale (graduated and analogue).**

- 1.Black scale for radial deflection.
- 2.Red scale for axial deflection
- 3.Precise and effortless calipering of fixtures and workpiece edges.
- 4.Setting of NC-programme zero points in seconds.
- 5.Measuring of clamped workpieces.
- 6.Generous overrun allowances prevent damage to Taster stylus.
- 7.Easy and precise change of stylus.



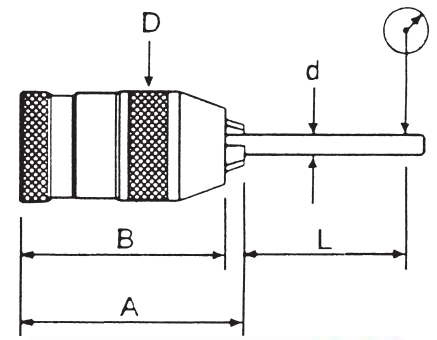
# Integrated Type Keyless Drill Chucks



| ORDER NO.    | Clamping Capacity<br>mm / inch | Tapper | OUTER<br>Ø / mm | Weight<br>(kg) | CODE NO. |
|--------------|--------------------------------|--------|-----------------|----------------|----------|
| INT-8-BT30   | 0.5-8 1/64"-1/8"               | BT30   | Ø35             | 0.7            | 3301-070 |
| INT-13-BT30  | 0.5-13 1/64"-1/2"              |        | Ø51.5           | 1.35           | 3301-071 |
| INT-8-BT40   | 0.5-8 1/64"-1/8"               | BT40   | Ø51.5           | 1              | 3301-072 |
| INT-8-CAT30  | 0.5-8 1/64"-1/8"               | CAT30  | Ø35             | 0.8            | 3301-073 |
| INT-13-CAT30 | 0.5-13 1/64"-1/2"              |        | Ø51.5           | 1              | 3301-074 |
| INT-8-CAT40  | 0.5-8 1/64"-1/8"               | CAT40  | Ø35             | 1.32           | 3301-075 |
| INT-13-CAT40 | 0.5-13 1/64"-1/2"              |        | Ø51.5           | 2.1            | 3301-076 |
| INT-16-CAT40 | 3-16 1/8"-5/8"                 |        | Ø58             | 2.26           | 3301-077 |
| INT-13-CAT50 | 0.5-13 1/64"-1/2"              | CAT50  | Ø51.5           | 3.95           | 3301-078 |
| INT-16-CAT50 | 3-16 1/8"-5/8"                 |        | Ø58             | 4.2            | 3301-079 |
| INT-8-NT30   | 0.5-8 1/64"-1/8"               | NT30   | Ø51.5           | 0.65           | 3301-080 |
| INT-8-NT40   | 0.5-8 1/64"-1/8"               | NT40   | Ø51.5           | 0.92           | 3301-081 |



# Integrated Type Keyless Drill Chucks



The main-shafts is of integrated type, which is much more superior than the traditional design.

The major features are as follows:

1. Extremely rigid construction.
2. The accumulative tolerances can be reduced to a minimum, since the traditional mechanism requiring an ARBOR to connect the Drill Chucks which will generate the accumulative tolerances.  
The Integrated type Keyless Drill Chuck is designed to solve this problem totally.
3. Prevent the Drill Chucks from falling out.
4. Extremely safe in operation.

| ITEM NO. | d mm | L mm | Max Tolerance mm | Torque kgf-cm |
|----------|------|------|------------------|---------------|
| INT-8    | 3    | 35   | 0.05             | 160           |
|          | 6    |      |                  |               |
|          | 8    | 50   |                  |               |
| INT-10   | 3    | 35   | 0.05             | 260           |
|          | 6    |      |                  |               |
|          | 10   | 55   |                  |               |
| INT-13   | 5    | 75   | 0.05             | 400           |
|          | 10   |      |                  |               |
|          | 13   | 55   |                  |               |
| INT-16   | 5    | 35   | 0.05             | 480           |
|          | 10   |      |                  |               |
|          | 16   | 80   |                  |               |

| ORDER NO.    | Clamping Capacity<br>mm<br>inch | Female Taper<br>DIN<br>or<br>Jacobs | STD      | OUTER Ø<br>mm | Length          |                   | Weight<br>(kg) | CODE NO. |
|--------------|---------------------------------|-------------------------------------|----------|---------------|-----------------|-------------------|----------------|----------|
|              |                                 |                                     |          |               | open<br>B<br>mm | closed<br>A<br>mm |                |          |
| INT-8-MT-2   | 0-8                             | MT-2                                |          | 35            | 140             | 148               | 0.5            | 3301-030 |
| INT-8-JC-20  | 0-5/16"                         | JC-20                               |          |               | 124             | 132               | 0.7            | 3301-031 |
| INT-13-R8    | 1-13<br>0-1/2"                  | R8                                  |          | 51.5          | 183             | 175               | 1.5            | 3301-032 |
| INT-13-MT3   |                                 | MT-3                                |          |               | 182             | 194               | 1.25           | 3301-033 |
| INT-13-MT4   |                                 | MT-4                                |          |               | 182             | 194               | 1.58           | 3301-034 |
| INT-13-JC-20 |                                 | JC-20                               |          |               | 138             | 150               | 1.1            | 3301-035 |
| INT-13-JC-25 |                                 | JC-25                               |          |               | 138             | 150               | 1.25           | 3301-036 |
| INT-13-JC-32 |                                 | JC-32                               |          |               | 138             | 150               | 1.45           | 3301-037 |
| INT-13-NT30  |                                 | NT-30                               |          |               | 138             | 150               | 1.5            | 3301-038 |
| INT-13-NT40  |                                 | NT-40                               | DIN 2080 |               | 98              | 109               | 1.8            | 3301-039 |
| INT-13-BT40  |                                 | BT-40                               | ISO      |               | 98              | 109               | 3.2            | 3301-040 |
| INT-13-BT50  |                                 | BT-50                               | ISO      |               | 109             | 120               | 4.4            | 3301-041 |
| INT-13-NT50  |                                 | NT-50                               |          |               |                 |                   |                | 3001-059 |
| INT-16-R8    | 3-16<br>1/8"-5/8"               | R8                                  |          | 58            | 188             | 202               | 1.85           | 3301-042 |
| INT-16-MT3   |                                 | MT3                                 |          |               | 188             | 202               | 1.52           | 3301-043 |
| INT-16-MT4   |                                 | MT4                                 |          |               | 188             | 202               | 1.85           | 3301-044 |
| INT-16-JC-20 |                                 | JC-20                               |          |               | 140             | 155               | 1.45           | 3301-045 |
| INT-16-JC-25 |                                 | JC-25                               |          |               | 150             | 165               | 1.5            | 3301-046 |
| INT-16-JC-32 |                                 | JC-32                               |          |               | 150             | 165               | 1.72           | 3301-047 |
| INT-16-NT30  |                                 | NT-30                               |          |               | 116             | 130               | 2              | 3301-048 |
| INT-16-NT40  |                                 | NT-40                               | DIN 2080 |               | 116             | 130               | 2.2            | 3301-049 |
| INT-16-BT40  |                                 | BT-40                               | ISO      |               | 116             | 130               | 4              | 3301-050 |
| INT-16-BT50  |                                 | BT-50                               | ISO      |               | 126             | 140               | 4.8            | 3301-051 |
| INT-16-NT50  |                                 | NT-50                               |          |               |                 |                   |                | 3301-056 |

Please notify Taper or Jacobs size when ordering.



# Keyless Drill Chucks

**SPECIAL  
HEAVY DUTY TYPE**

**TYPE: XHSP**



- Special design & manufacture against for super heavy torque (Clamping capacity) use.
- Owing to inspecting strictly & with excellent RUNOUT Accuracy and quality guanteed the gripping power is double than the general brand.
- Avoid the drill dropped when used in instaneous change of direction and equipped with spanner hole for tightening perfect safety.
- Especially suitable for CNC machining center & milling machine use.
- Accuracy: 50mm length within 0.05mm
- The key is optional

Unit:mm

| ORDER NO. | Type   | Clamping Capacity<br>mm<br>inch | Female Taper DIN or jacobcs | OUTER Ø mm | Length    |             | Wt g | QTY Pcs./ Cu-Ft | N.W/G.W kge | CODE NO. |
|-----------|--------|---------------------------------|-----------------------------|------------|-----------|-------------|------|-----------------|-------------|----------|
|           |        |                                 |                             |            | open B mm | closed A mm |      |                 |             |          |
| 11014     | 8XHSP  | 0-8<br>0-5 / 16"                | J2                          | 36         | 61        | 69          | 320  | 40/0.6          | 13/14       | 3302-001 |
| 11015     |        |                                 | B10                         | 36         | 61        | 69          | 320  | 40/0.6          | 13/14       | 3302-002 |
| 11016     |        |                                 | J1                          | 36         | 61        | 69          | 320  | 40/0.6          | 13/14       | 3302-003 |
| 11017     |        |                                 | B12                         | 36         | 61        | 69          | 320  | 40/0.6          | 13/14       | 3302-004 |
| 11018     | 10XHSP | 0-10<br>0-3 / 8"                | J33                         | 43         | 81        | 92          | 700  | 40/0.6          | 28/29       | 3302-005 |
| 11019     |        |                                 | J2S                         | 43         | 81        | 92          | 700  | 40/0.6          | 28/29       | 3302-006 |
| 11020     |        |                                 | B12                         | 43         | 81        | 92          | 700  | 40/0.6          | 28/29       | 3302-007 |
| 11021     |        |                                 | B16                         | 43         | 81        | 92          | 700  | 40/0.6          | 28/29       | 3302-008 |
| 11025     | 13XHSP | 0-13<br>0-1 / 2"                | J6                          | 51.5       | 92        | 103         | 1030 | 30/0.6          | 31/32       | 3302-009 |
| 11026     |        |                                 | J33                         | 51.5       | 92        | 103         | 1035 | 30/0.6          | 31/32       | 3302-010 |
| 11027     |        |                                 | B16                         | 51.5       | 92        | 103         | 1030 | 30/0.6          | 31/32       | 3302-011 |
| 11028     |        |                                 | J6                          | 58         | 95        | 108         | 1450 | 24/0.6          | 35/36       | 3302-012 |
| 11029     | 16XHSP | 3-16<br>1-8 - 5/8"              | B16                         | 58         | 95        | 108         | 1450 | 24/0.6          | 35/36       | 3302-013 |
| 11030     |        |                                 | B18                         | 58         | 95        | 108         | 1450 | 24/0.6          | 35/36       | 3302-014 |
| 11035     |        |                                 | J3                          | 58         | 95        | 108         | 1450 | 24/0.6          | 35/36       | 3302-015 |
| 11031     | Key    | 13XHSP                          |                             |            |           |             |      |                 |             | 3304-001 |
| 11032     |        | 16XHSP                          |                             |            |           |             |      |                 |             | 3304-002 |
| 11033     |        | 8XHSP                           |                             |            |           |             |      |                 |             | 3304-003 |
| 11034     |        | 10XHSP                          |                             |            |           |             |      |                 |             | 3304-004 |
| 17000     | 6XHSP  | 0.5-6.5<br>1/64"-1/4"           | B12                         | 34         | 61        | 69          | 320  | 8/0.6           | 26/27       | 3304-010 |
| 17002     |        |                                 | J1                          | 34         | 61        | 69          | 320  | 8/0.6           | 26/27       | 3304-011 |
| 17004     |        |                                 | B10                         | 34         | 61        | 69          | 320  | 8/0.6           | 26/27       | 3304-012 |



# Keyless Drill Chucks

**STANDARD TYPE**

**TYPE: H**



- Industrial design especially for life and safety while in operation.
- All hardened parts ensure long milling machines and drilling machines.
- Accuracy: 35 m/m length within 0.08 m/m

Unit:mm

| ORDER NO. | Type | Clamping Capacity<br>mm<br>inch | Female Taper DIN or jacobcs | OUTER Ø mm | Length    |             | Wt g | CODE NO. |
|-----------|------|---------------------------------|-----------------------------|------------|-----------|-------------|------|----------|
|           |      |                                 |                             |            | open B mm | closed A mm |      |          |
| 11061     | 6H   | 0-6.5                           | J1                          | 34         | 61        | 69          | 320  | 3302-030 |
| 11062     |      | 0-1 / 4"                        | B10                         | 34         | 61        | 69          | 320  | 3302-031 |
| 11063     | 8H   | 0-8                             | J1                          | 34         | 61        | 69          | 340  | 3302-032 |
| 11064     |      | 0-5 / 16"                       | B10                         | 34         | 71        | 69          | 340  | 3302-033 |
| 11065     | 10H  | 0-10<br>0-3 / 8"                | J2S                         | 42.5       | 81        | 92          | 700  | 3302-034 |
| 11066     |      |                                 | J33                         | 42.5       | 81        | 92          | 700  | 3302-035 |
| 11067     |      |                                 | B12                         | 42.5       | 81        | 92          | 705  | 3302-036 |
| 11068     |      |                                 | B16                         | 42.5       | 81        | 92          | 705  | 3302-037 |
|           |      |                                 |                             |            |           |             |      | 3302-038 |
| 11070     | 13H  | 0-13<br>0-1 / 2"                | J6                          | 50.5       | 92        | 103         | 1030 | 3302-039 |
| 11071     |      |                                 | J33                         | 50.5       | 92        | 103         | 1035 | 3302-040 |
| 11072     |      |                                 | B16                         | 50.5       | 92        | 103         | 1030 | 3302-041 |
| 11073     | 16H  | 3-16<br>1-8 - 5/8"              | J6                          | 50.5       | 92        | 103         | 1030 | 3302-042 |
| 11074     |      |                                 | B16                         | 50.5       | 92        | 103         | 1030 | 3302-043 |
| 11075     |      |                                 | B18                         | 50.5       | 97        | 108         | 1040 | 3302-044 |



# Keyless Drill Chucks HEAVY DUTY TYPE S

TYPE:S

Extremely high accuracy and precision design, suitable for CNC machines and machine center. All parts are ground, heat treated, surface treated and under specific QC condition.



| ORDER NO. | Size | Capacity |         | Taper Mount No<br>DIN or Jacobs | Length(m/m) |        | Outer Dia<br>(m/m) | Weight<br>(g) | CODE NO. |
|-----------|------|----------|---------|---------------------------------|-------------|--------|--------------------|---------------|----------|
|           |      | mm       | inch    |                                 | Open        | Closed |                    |               |          |
| 12201-1   | 8S   | 0-8      | 0-5/16  | JT1                             | 68          | 76     | 38                 | 420           | 3302-060 |
| 12201-2   |      |          |         | JT2S                            | 68          | 76     | 38                 | 420           | 3302-061 |
| 12201-3   |      |          |         | B10                             | 68          | 76     | 38                 | 420           | 3302-062 |
| 12201-4   |      |          |         | B12                             | 68          | 76     | 38                 | 420           | 3302-063 |
| 12202-1   | 10S  | 0-10     | 0-3/8   | JT2                             | 80          | 92     | 43                 | 640           | 3302-064 |
| 12202-2   |      |          |         | JT33                            | 80          | 92     | 43                 | 640           | 3302-065 |
| 12202-3   |      |          |         | B10                             | 80          | 92     | 43                 | 640           | 3302-066 |
| 12202-4   |      |          |         | B12                             | 80          | 92     | 43                 | 640           | 3302-067 |
| 12203-1   | 13S  | 0-13     | 0-1/2   | JT33                            | 90          | 102    | 49                 | 970           | 3302-068 |
| 12203-2   |      |          |         | JT6                             | 90          | 102    | 49                 | 970           | 3302-069 |
| 12203-3   |      |          |         | B12                             | 90          | 102    | 49                 | 970           | 3302-070 |
| 12203-4   |      |          |         | B16                             | 90          | 102    | 49                 | 970           | 3302-071 |
| 12205-1   | 16S  | 3-16     | 1/8-5/8 | JT6                             | 97          | 110    | 55                 | 1300          | 3302-073 |
| 12205-2   |      |          |         | JT3                             | 97          | 110    | 55                 | 1300          | 3302-074 |
| 12205-3   |      |          |         | B16                             | 97          | 110    | 55                 | 1300          | 3302-075 |
| 12205-4   |      |          |         | B18                             | 97          | 110    | 55                 | 1300          | 3302-076 |



## Keys



| ORDER NO. | Type | Dmm       | Lmm | Weight(g) | Packing  | CODE NO. |
|-----------|------|-----------|-----|-----------|----------|----------|
| 14001     | T1   | 3         | 35  | 20        | Unpacked | 3304-100 |
| 14002     | T2   | 4         | 42  | 40        | Unpacked | 3304-101 |
| 14003     | T3   | 5.5       | 44  | 45        | Unpacked | 3304-102 |
| 14004     | T4   | 6         | 45  | 55        | Unpacked | 3304-103 |
| 14005     | T5   | 6.5       | 45  | 50        | Unpacked | 3304-104 |
| 14006     | T6   | 7         | 45  | 50        | Unpacked | 3304-105 |
| 14007     | T7   | 8         | 50  | 80        | Unpacked | 3304-106 |
| 14008     | T8   | 9.5       | 65  | 150       | Unpacked | 3304-107 |
| 14009     | T9   | 11        | 100 | 320       | Unpacked | 3304-108 |
| 14010     | P1   | 4         | 42  | 40        | Unpacked | 3304-109 |
| 14011     | P2   | 5.5       | 44  | 45        | Unpacked | 3304-110 |
| 14012     | P3   | 6         | 45  | 55        | Unpacked | 3304-111 |
| 14013     | P4   | 6.5       | 45  | 50        | Unpacked | 3304-112 |
| 14014     | P5   | 7         | 45  | 50        | Unpacked | 3304-113 |
| 14015     | P6   | 8         | 50  | 80        | Unpacked | 3304-114 |
| 14016     | P7   | 9.5       | 65  | 150       | Unpacked | 3304-115 |
| 14100     | CK0  | D(in) 1/8 | 300 | 20        | Unpacked | 3304-116 |
| 14101     | CK1  | 5/32      | 361 | 25        | Unpacked | 3304-117 |
| 14102     | CK2  | 1/4       | -   | -         | Unpacked | 3304-118 |
| 14103     | CK3  | 5/16      | 55  | 80        | Unpacked | 3304-119 |
| 14104     | CK4  | 3/8       | 74  | 180       | Unpacked | 3304-120 |
| 14105     | CK30 | 15/64     | 43  | 40        | Unpacked | 3304-121 |
| 14106     | CK32 | 1/4       | 50  | 60        | Unpacked | 3304-122 |
| 14107     | KK   | 9/32      | 44  | 40        | Unpacked | 3304-123 |
| 14108     | KG   | 1/4       | 35  | 25        | Unpacked | 3304-124 |



# Key Type Drill Chucks

## TYPE:G



- Representative products, super precision durable & rigity
- Big outside diameter suit for heary duty
- The nut and jaws adopt AISI-52100 (bearing steel) and heat-treated, durability the precision can be lssted.
- The taper is precision ground, advance the precision.
- Auuracy: 90mm length within 0.08mm

| ORDER NO. | Type   | Clamping Capacity<br>mm<br>inch | Female Taper DIN or jacobcs | OUTER<br>Ø<br>mm | Length          |                   | Wt<br>g | Key Size | QTY Pcs./ Cu-Ft | N.W/G.W<br>kgs | CODE NO. |
|-----------|--------|---------------------------------|-----------------------------|------------------|-----------------|-------------------|---------|----------|-----------------|----------------|----------|
|           |        |                                 |                             |                  | open<br>B<br>mm | closed<br>A<br>mm |         |          |                 |                |          |
| 10006     | G-6H   | 0.5-6.5                         | J1                          | 32               | 40              | 50                | 200     | CK3      | 100/0.82        | 20/21          | 3303-001 |
| 10007     |        | 1/64"-1/4"                      | B10                         | 32               | 40              | 50                | 200     | CK3      | 100/0.82        | 20/21          | 3303-002 |
| 10017     | G-10XH | 0.5-10                          | J2                          | 41.5             | 50.5            | 64                | 390     | CK4      | 60/0.85         | 24/25          | 3303-003 |
| 10018     |        | 1/64"-3/8"                      | J2S                         | 41.5             | 50.5            | 64                | 390     | CK4      | 60/0.85         | 24/25          | 3303-004 |
| 10050     | G-13XH | 0.5-13<br>1/64"-1/2"            | J6                          | 56               | 69              | 82                | 800     | P6       | 36/0.83         | 30/31          | 3303-006 |
| 10051     |        |                                 | B16                         | 56               | 69              | 82                | 800     | P6       | 36/0.83         | 30/31          | 3303-007 |
| 10052     |        |                                 | J33                         | 56               | 69              | 82                | 800     | P6       | 36/0.83         | 30/31          | 3303-008 |
| 10068     | G-16XH | 1-16                            | J3                          | 65               | 78              | 96                | 1000    | P7       | 24/0.84         | 24/25          | 3303-009 |
| 10070     |        | 1/32"-5/8"                      | B18                         | 65               | 78              | 96                | 1000    | P7       | 24/0.84         | 24/25          | 3303-010 |
| 10074     | G-19XH | 3-19                            | J4                          | 74               | 89              | 126               | 2150    | P7       | 18/0.83         | 39/40          | 3303-011 |
| 10075     |        | 1/8"-3/4"                       | B22                         | 74               | 89              | 126               | 2150    | P7       | 18.0.83         | 39/40          | 3303-012 |



# Ball Bearing Key Tpye Super Chucks

## TYPE:H



- Suitable for heavy duty drilling use.
- By using anti-thrust bearing to increase the gripping power, so that, high speed drilling. can be performed
- All parts hardened by heat treatment and precision ground precision can be lasted, super clamping power.
- Accuracy:100m/m length is within 0.08m/m

| ORDER NO. | Type  | Clamping Capacity<br>mm<br>inch | Female Taper DIN or jacobcs | Ø<br>mm | Length          |                   | Wt<br>g | Key Size | CODE NO. |
|-----------|-------|---------------------------------|-----------------------------|---------|-----------------|-------------------|---------|----------|----------|
|           |       |                                 |                             |         | open<br>B<br>mm | closed<br>A<br>mm |         |          |          |
| 12011     | 10BXH | 1-10<br>1/32"-3/8"              | J2S                         | 45      | 56              | 64                | 390     | P4       | 3303-030 |
| 12006     | 13BXH | 1-13<br>1/32"-1/2"              | J3                          | 62      | 75              | 95                | 1200    | P6       | 3303-031 |
| 12001     |       |                                 | J6                          |         |                 |                   |         |          | 3303-032 |
| 12002     |       |                                 | J33                         |         |                 |                   |         |          | 3303-033 |
| 12003     | 16BXH | 1-16                            | J3                          | 65      | 81              | 101               | 1500    | P7       | 3303-034 |
| 12004     |       | 1/32"5/8"                       | B18                         | 65      | 81              | 101               | 1500    | P7       | 3303-035 |
| 12005     | 19BXH | 1-19<br>1/32"-3/4"              | J4                          | 74      | 100             | 130               | 2150    | P7       | 3303-036 |
| 12007     | 25BXH | 5-25<br>3/16"-1"                | J5                          | 93      | 112             | 153               | 4100    | T9       | 3303-037 |



# Key Type Drill Chucks



- Suitable for use on heavy duty & extra heavy duty.
- For milling machine, lathe, drill machine & wood working machine.

| ORDER NO. | Type | Clamping Capacity<br>mm<br>inch | Female Taper<br>DIN or Jacobs | Female Thread<br>Inch or metric | OUTER<br>Ø mm | Length       |                | Wt g | Key Size | CODE.NO. |
|-----------|------|---------------------------------|-------------------------------|---------------------------------|---------------|--------------|----------------|------|----------|----------|
|           |      |                                 |                               |                                 |               | open B<br>mm | closed A<br>mm |      |          |          |
| 10001     | 4H   | 0.5-4<br>1/64"-5/32"            | JO                            |                                 | 22            | 29           | 35             | 80   | T1       | 3303-060 |
| 10002B    | 5HB  | 0.5-6                           | 5D                            |                                 | 27.5          | 33           | 43             | 100  | T2A      | 3303-061 |
| 10003     | 6H   | 0.5-6.5<br>1/64"-1/4"           | J1                            | 3/8-24                          | 32            | 40           | 50             | 190  | T2       | 3303-062 |
| 10004     |      |                                 | B10                           | 3/8-24                          | 32            | 40           | 50             | 190  | T2       | 3303-063 |
| 10005     |      |                                 | Ø 5.5x90°                     | 3/8-24                          | 32            | 40           | 50             | 190  | T2       | 3303-064 |
| 10010     |      |                                 | J2                            | 3/8-24 1/2-20                   | 38            | 50.5         | 64             | 290  | T3       | 3303-065 |
| 10011     | 10H  | 1-10<br>1/32"-3/8"              | J2S                           | 3/8-24 1/2-20                   | 38            | 50.5         | 64             | 290  | T3       | 3303-066 |
| 10012     |      |                                 | B12                           | 3/8-24 1/2-20                   | 38            | 50.5         | 64             | 290  | T3       | 3303-067 |
| 10014     |      |                                 | Ø 5.5x90°                     | 3/8-24 1/2-20                   | 38            | 50.5         | 64             | 290  | T3       | 3303-068 |
| 10015     |      |                                 | Ø 6.5x90°                     | 3/8-24 1/2-20                   | 38            | 50.5         | 64             | 290  | T3       | 3303-069 |
| 10016     |      |                                 | J1                            | 3/8-24 1/2-20                   | 38            | 50.5         | 64             | 290  | T3       | 3303-070 |
| 10038     |      |                                 | J2S                           | 3/8-24 1/2-20                   | 47            | 65           | 81             | 520  | T5       | 3303-071 |
| 10039     | 13H  | 1-13<br>1/32"-1/2"              | J6                            | 3/8-24 1/2-20                   | 47            | 65           | 81             | 520  | T5       | 3303-072 |
| 10040     |      |                                 | B16                           | 3/8-24 1/2-20                   | 47            | 65           | 81             | 520  | T5       | 3303-073 |
| 10041     |      |                                 | J33                           | 3/8-24 1/2-20                   | 47            | 65           | 81             | 520  | T5       | 3303-074 |
| 10042     |      |                                 | Ø 5.5x90°                     | 3/8-24 1/2-20                   | 47            | 65           | 81             | 520  | T5       | 3303-075 |
| 10043     |      |                                 | Ø 6.5x90°                     | 3/8-24 1/2-20                   | 47            | 65           | 81             | 520  | T5       | 3303-076 |
| 10061     |      |                                 | J6                            | 1/2-20 5/8-16                   | 56            | 78           | 96             | 800  | T7       | 3303-077 |
| 10062     | 16H  | 1-16<br>1/32"-5/8"              | J3                            | 1/2-20 5/8-16                   | 56            | 78           | 96             | 800  | T7       | 3303-078 |
| 10063     |      |                                 | B16                           | 1/2-20 5/8-16                   | 56            | 78           | 96             | 800  | T7       | 3303-079 |
| 10064     |      |                                 | B18                           | 1/2-20 5/8-16                   | 56            | 78           | 96             | 800  | T7       | 3303-080 |
| 10065     |      |                                 | Ø 6.5x90°                     | 1/2-20 5/8-16                   | 56            | 78           | 96             | 800  | T7       | 3303-081 |
| 10066     |      |                                 | Ø x90°                        | 1/2-20 5/8-16                   | 56            | 78           | 96             | 800  | T7       | 3303-082 |
| 10072     |      |                                 | B22                           |                                 | 67.5          | 89           | 126            | 1570 | T8       | 3303-083 |
| 10073     | 19H  | 3-19<br>1/8"-3/4"               | J3                            |                                 | 67.5          | 89           | 126            | 1570 | T8       | 3303-084 |
| 10045     | 13XH | 1-13<br>1/32"-1/2"              | Ø 6.5x90°                     | 1/2-20                          | 52            | 69           | 82             | 770  | T7       | 3303-085 |
| 10046     |      |                                 | J6                            | 1/2-20                          | 52            | 69           | 82             | 770  | T7       | 3303-086 |
| 10047     |      |                                 | B16                           | 1/2-20                          | 52            | 69           | 82             | 770  | T7       | 3303-087 |
| 10048     |      |                                 | J33                           | 1/2-20                          | 52            | 69           | 82             | 770  | T7       | 3303-088 |
| 10079     | 19XH | 1-19                            | J4                            |                                 | 69            | 94           | 132            | 1700 | T8       | 3303-089 |

**Material Analysis Table**

| PART NO. | PART NAME | MATERIAL              | HEAT TREATED |
|----------|-----------|-----------------------|--------------|
| 1        | Body      | JIS-4051<br>SAE 1045  | HRC45-48     |
| 2        | Case      | JIS-4018<br>SAE0 1018 | HRC38-40     |
| 3        | Jaw       | JIS-4051<br>SAE 1045  | HRC52±2      |
| 4        | Nut       | JIS-4051<br>SAE 1045  | HRC61±2      |

**Run-out Accuracy & Torque Inspection Table**

| Type        | 4H   | 5H   | 6.5H | 10H  | 13H  | 16H  | 19H  | 13XH | 19XH |
|-------------|------|------|------|------|------|------|------|------|------|
| Ø dmm       | 3.5  | 4.5  | 6    | 9    | 12   | 15   | 18   | 12   | 18   |
| Lmm         | 60   | 80   | 90   | 110  | 140  | 150  | 150  | 140  | 150  |
| L1mm        | 40   | 60   | 70   | 85   | 110  | 120  | 120  | 110  | 120  |
| Max Run-out | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 |
| Torque kg-m | 18   | 20   | 45   | 75   | 85   | 250  | 300  | 190  | 300  |



# Key Type Drill Chucks



13H.S



13XH.S  
COLLAR



H



XH

## U.S.A. Market Style

- Suitable for use on heavy duty & extra heavy duty.
- For milling machine, lathe, drill machine & wood working machine.

| ORDER NO. | Type  | Clamping Capacity<br>mm<br>inch | Female Taper<br>DIN<br>or Jacobs | Female Thread<br>Inch or<br>metric | OUTER<br>Ø<br>mm | Length          |                   | Wt<br>g | Key<br>Size | CODE NO. |
|-----------|-------|---------------------------------|----------------------------------|------------------------------------|------------------|-----------------|-------------------|---------|-------------|----------|
|           |       |                                 |                                  |                                    |                  | open<br>B<br>mm | closed<br>A<br>mm |         |             |          |
| 19001     | 4H    | 0.5-4 1/64"-5/32"               | JO                               |                                    | 22               | 29              | 35                | 80      | CK0         | 3303-100 |
| 19003     | 6H    | 0.5-6.5                         | J1                               |                                    | 32               | 40              | 50                | 190     | CK1         | 3303-101 |
| 19005     |       | 1/64"-1/4"                      | Ø 5.5x90°                        | 3/8-24                             | 32               | 40              | 50                | 190     | CK1         | 3303-102 |
| 19010     | 10H   | 1-10<br>1/32"-3/8"              | J2                               |                                    | 37.8             | 51              | 64                | 260     | CK30        | 3303-103 |
| 19011     |       |                                 | J2S                              |                                    | 37.8             | 51              | 64                | 290     | CK30        | 3303-104 |
| 19014     |       |                                 | Ø 5.5x90°                        | 3/8-24                             | 37.8             | 51              | 64                | 290     | CK30        | 3303-105 |
| 19015     |       |                                 | Ø 6.5x90°                        | 1/2-20                             | 37.8             | 51              | 64                | 290     | CK30        | 3303-106 |
| 19016     |       |                                 | J1                               |                                    | 37.8             | 51              | 64                | 290     | CK30        | 3303-107 |
| 19038     | 13H   | 1-13<br>1/32"-1/2"              | J2S                              |                                    | 46               | 65              | 82                | 520     | CK32        | 3303-108 |
| 19039     |       |                                 | J6                               |                                    | 46               | 65              | 82                | 520     | CK32        | 3303-109 |
| 19041     |       |                                 | J33                              |                                    | 46               | 65              | 82                | 520     | CK32        | 3303-110 |
| 19042     |       |                                 | Ø 5.5x90°                        | 3/8-24                             | 46               | 65              | 82                | 520     | CK32        | 3303-111 |
| 19043     |       |                                 | Ø 6.5x90°                        | 1/2-20                             | 46               | 65              | 82                | 520     | CK32        | 3303-112 |
| 19044     |       |                                 |                                  | 1/2-20                             | 46               | 65              | 82                | 520     | CK32        | 3303-113 |
| 19046     | 13HS  | S- Ø 5/8                        | 5/8"                             |                                    | 46               | 78              | 95                | 610     | CK32        | 3303-114 |
| 19061     | 16H   | 1-16<br>1/32"-5/8"              | J6                               |                                    | 56               | 78              | 96                | 800     | CK3         | 3303-115 |
| 19062     |       |                                 | J3                               |                                    | 56               | 78              | 96                | 800     | CK3         | 3303-116 |
| 19065     |       |                                 | Ø 6.5x90°                        | 1/2-20                             | 56               | 78              | 96                | 800     | CK3         | 3303-117 |
| 19066     |       |                                 | Ø 8.5x90°                        | 5/8-16                             | 56               | 78              | 96                | 800     | CK3         | 3303-118 |
| 19072     | 19H   | 3-19<br>1/8"-3/4"               | J3                               | 3/4-16                             | 67               | 89              | 126               | 1570    | CK4         | 3303-119 |
| 19073     |       |                                 |                                  | 5/8-16                             | 67               | 89              | 126               | 1570    | CK4         | 3303-120 |
| 19074     | 10XH  | 0.5-10<br>1/64"-3/8"            | J2                               |                                    | 45               | 55              | 69                | 390     | CK32        | 3303-121 |
| 19075     |       |                                 | J2S                              |                                    | 45               | 55              | 69                | 390     | CK32        | 3303-122 |
| 19045     | 13XH  | 1-13<br>1/32"-1/2"              | Ø 6.5x90°                        | 1/2-20                             | 52               | 69              | 82                | 770     | CK3         | 3303-123 |
| 19046-1   |       |                                 | J6                               |                                    | 52               | 69              | 82                | 770     | CK3         | 3303-124 |
| 19048     |       |                                 | J33                              |                                    | 52               | 69              | 82                | 700     | CK3         | 3303-125 |
| 19050     | 13XHC |                                 | J33                              |                                    |                  | 85              | 103               | 900     |             | 3303-126 |
| 19079     | 19XH  | 1-19 1/8"-3/4"                  | J4                               |                                    | 72               | 96              | 126               | 1700    | CK4         | 3303-127 |

## Material Analysis Table

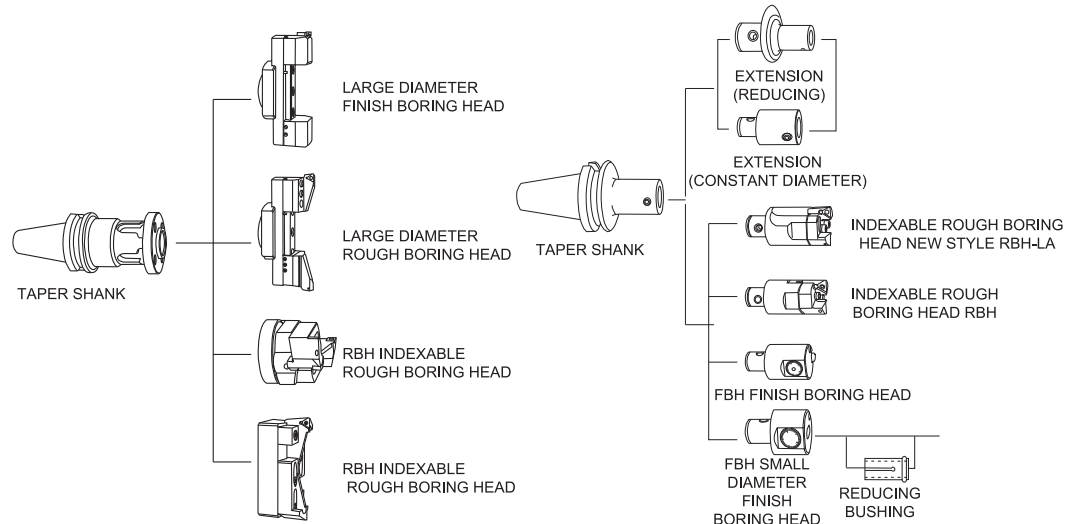
| PART NO. | PART NAME | MATERIAL | HEAT TREATED |
|----------|-----------|----------|--------------|
| 1        | Body      | SAE 1045 | HRC45-48     |
| 2        | Case      | SAE 1018 | HRC38-40     |
| 3        | Jaw       | SAE 2100 | HRC52±2      |
| 4        | Nut       | SAE 5145 | HRC61±2      |

## Run-out Accuracy & Torque Inspection Table

| Type        | 4H   | 6.5H | 10H  | 13H  | 16H  | 19H  | 13 XH | 19 XH | 13 XHC | 13 HS |
|-------------|------|------|------|------|------|------|-------|-------|--------|-------|
| Ø dmm       | 3.5  | 6    | 9    | 12   | 15   | 18   | 12    | 18    | 12     | 12    |
| Lmm         | 60   | 90   | 110  | 140  | 150  | 150  | 140   | 150   | 140    | 140   |
| L1mm        | 40   | 70   | 85   | 110  | 120  | 120  | 110   | 120   | 110    | 110   |
| Max Run-out | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15  | 0.15  | 0.15   | 0.15  |
| Torque kg-m | 18   | 45   | 75   | 85   | 250  | 300  | 190   | 300   | 190    | 85    |



# Modular Boring Systems

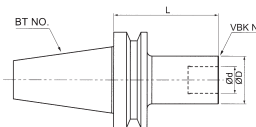
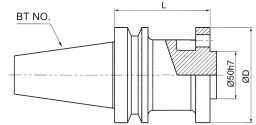


## Taper Shank For Boring Heads Series BST, VBK

### BST SERIES



### VBK SERIES



| ORDER NO.     | Length (L) | External Diameter (D) | Applicable Boring Heads                                                        | Weight (kg) | CODE NO. |
|---------------|------------|-----------------------|--------------------------------------------------------------------------------|-------------|----------|
| BT40-VBK1-70  | 70         | 19                    | FBH20                                                                          | 1.2         | 3220-220 |
| BT40-VBK2-70  | 70         | 23                    | RBH25 ; FBH25                                                                  | 1.3         | 3220-221 |
| BT40-VBK3-80  | 80         | 30                    | RBH32 ; FBH32                                                                  | 1.45        | 3220-222 |
| BT40-VBK4-70  | 70         | 38                    | RBH40 ; FBH40 ; CBI4                                                           | 1.5         | 3220-223 |
| BT40-VBK4-100 | 100        | 38                    | RBH40 ; FBH40 ; CBI4                                                           | 1.7         | 3220-224 |
| BT40-VBK5-60  | 60         | 50                    | RBH52 ; FBH25 ; CBI5                                                           | 1.8         | 3220-225 |
| BT40-VBK5-80  | 80         | 50                    | RBH52 ; FBH25 ; CBI5                                                           | 1.95        | 3220-226 |
| BT40-VBK6-55  | 55         | 64                    | RBH68 ; RBH92 ; FBH68<br>FBH100 ; FBH150 ; CBI6                                | 2.15        | 3220-227 |
| BT40-BST-90   | 90         | 95                    | RBH120 ; FBH200<br>RBH120 and above ; FBH200 and above                         | 3.2         | 3220-228 |
| BT50-VBK1-85  | 85         | 19                    | FBH20                                                                          | 3.5         | 3220-229 |
| BT50-VBK2-105 | 105        | 23                    | RBH25 ; FBH25                                                                  | 4           | 3220-230 |
| BT50-VBK2-135 | 135        | 23                    | RBH25 ; FBH25                                                                  | 4.2         | 3220-231 |
| BT50-VBK3-110 | 110        | 30                    | RBH32                                                                          | 4.4         | 3220-232 |
| BT50-VBK3-140 | 140        | 30                    | RBH32                                                                          | 4.6         | 3220-233 |
| BT50-VBK4-100 | 100        | 38                    | RBH40                                                                          | 4.8         | 3220-234 |
| BT50-VBK4-160 | 160        | 38                    | RBH40                                                                          | 5.2         | 3220-235 |
| BT50-VBK5-90  | 90         | 50                    | RBH52                                                                          | 5.4         | 3220-236 |
| BT50-VBK5-165 | 165        | 50                    | RBH52                                                                          | 6.2         | 3220-237 |
| BT50-VBK5-210 | 210        | 50                    | RBH52                                                                          | 6.4         | 3220-238 |
| BT50-VBK6-85  | 85         | 64                    | RBH68 ; RBH92 ; FBH68<br>FBH100 ; FBH150 ; CBI6                                | 5.9         | 3220-239 |
| BT50-VBK6-155 | 155        | 64                    | RBH68 ; RBH92 ; FBH68<br>FBH100 ; FBH150 ; CBI6                                | 6.5         | 3220-240 |
| BT50-VBK6-215 | 215        | 64                    | RBH68 ; RBH92 ; FBH68<br>FBH100 ; FBH150 ; CBI6                                | 6.9         | 3220-241 |
| BT50-BST-105  | 105        | 95                    | RBH120                                                                         | 5.71        | 3220-242 |
| BT50-BST-150  | 150        | 95                    | RBH120 and above ;<br>FBH200 and above ;<br>large diameter boring heads series | 7.41        | 3220-243 |
| BT50-BST-200  | 200        | 95                    | RBH120 and above ;<br>FBH200 and above ;<br>large diameter boring heads series | 8.79        | 3220-244 |
| BT50-BST-250  | 250        | 95                    | RBH120 and above ;<br>FBH200 and above ;<br>large diameter boring heads series | 10.26       | 3220-245 |
| BT50-BST-300  | 300        | 95                    | RBH120 and above ;<br>FBH200 and above ;<br>large diameter boring heads series | 11.25       | 3220-246 |

## Large Diameter Twin-bit Rough Boring

### New Modular Style For Diameter Over 200mm

Boring diameter from ø200-ø810mm



| Boring Head Type | ORDER NO.                      | RBH 200LA                                         | RBH 300LA        | RBH 400LA        | RBH 500LA        | RBH 600LA         | RBH 700LA         |
|------------------|--------------------------------|---------------------------------------------------|------------------|------------------|------------------|-------------------|-------------------|
|                  | Length (kg) Total Weight       | 130<br>9.7 kg                                     | 130<br>11.7 kg   | 130<br>13.7 kg   | 130<br>15.7 kg   | 130<br>17.7 kg    | 130<br>19.7 kg    |
|                  | D(mm) Boring Diameter          | 200-310                                           | 300-410          | 400-510          | 500-610          | 600-710           | 700-810           |
| Module           | Taper Shank                    | BT50-BST / NT50-BST<br>BT50-BST / NT50-BST Series |                  |                  |                  |                   |                   |
|                  | Flange (kg)Weight              | BR200<br>2.7 kg                                   |                  |                  |                  |                   |                   |
|                  | ExtensionSlide (kg)Weight      | RST200<br>3.4 kg                                  | RST300<br>5.4 kg | RST400<br>7.4 kg | RST500<br>9.4 kg | RST600<br>11.4 kg | RST700<br>13.4 kg |
|                  | Clamp Base (kg)Weight          | RS200<br>0.98 kg                                  |                  |                  |                  |                   |                   |
|                  | Height Setting Shim (kg)Weight | RS201<br>0.05 kg                                  |                  |                  |                  |                   |                   |
|                  | Insert Holder                  | RB200C12                                          | RB200C16         | RB200C22         | RB200C12         | RB200C12          | RB200C12          |
|                  | Applicable Insert (kg)Weight   | CCMT120404                                        | TCMT16T304       | TCMT220404       | SCMT120404       | SCMT120404        | SCMT120404        |
|                  |                                | 0.68 kg                                           |                  |                  |                  |                   |                   |
|                  | CODE NO.                       | 3220-250                                          | 3220-251         | 3220-252         | 3220-253         | 3220-254          | 3220-255          |



# Large Diameter Finish Boring Head

New Modular Style For Diameter Over 200mm

Boring diameter from  $\varnothing 200$ - $\varnothing 810$ mm



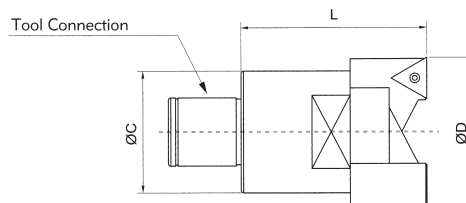
| Boring Head Type | ORDER NO.             |  | FBH200                                            | FBH300   | FBH400   | FBH500   | FBH600   | FBH700   |
|------------------|-----------------------|--|---------------------------------------------------|----------|----------|----------|----------|----------|
|                  | Length                |  | 120                                               | 120      | 120      | 120      | 120      | 120      |
|                  | (kg) Total Weight     |  | 9.4 kg                                            | 11.4 kg  | 13.4 kg  | 15.4 kg  | 17.4 kg  | 19.4 kg  |
|                  | D(mm) Boring Diameter |  | 200-310                                           | 300-410  | 400-510  | 500-610  | 600-710  | 700-810  |
| Module           | Taper Shank           |  | BT50-BST / NT50-BST<br>BT50-BST / NT50-BST Series |          |          |          |          |          |
|                  | Flange                |  | BR200                                             |          |          |          |          |          |
|                  | (kg) Weight           |  | 2.7 kg                                            |          |          |          |          |          |
|                  | Extension Slide       |  | RST200                                            | RST300   | RST400   | RST500   | RST600   | RST700   |
|                  | (kg) Weight           |  | 3.4 kg                                            | 5.4 kg   | 7.4 kg   | 9.4 kg   | 11.4 kg  | 13.4 kg  |
|                  | Balance Weight        |  | RBN200                                            |          |          |          |          |          |
|                  | (kg) Weight           |  | 1.6 kg                                            |          |          |          |          |          |
|                  | Finish Head           |  | CB200                                             |          |          |          |          |          |
|                  | (kg) Weight           |  | 1.6 kg                                            |          |          |          |          |          |
|                  | Applicable Insert     |  | TPGB08 TPGB09                                     |          |          |          |          |          |
|                  | CODE NO.              |  | 3220-260                                          | 3220-261 | 3220-262 | 3220-263 | 3220-264 | 3220-265 |

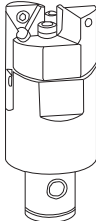
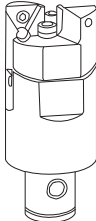
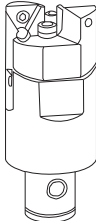
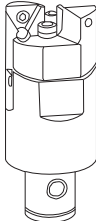
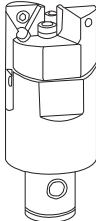


# Indexable Twin-bit Rough Boring Head RBH

VMH-SYSTEM

Boring diameter from  $\varnothing 25$ - $\varnothing 350$ mm

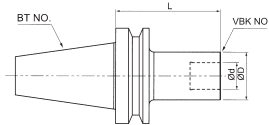
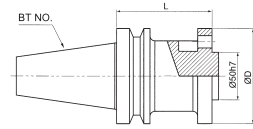
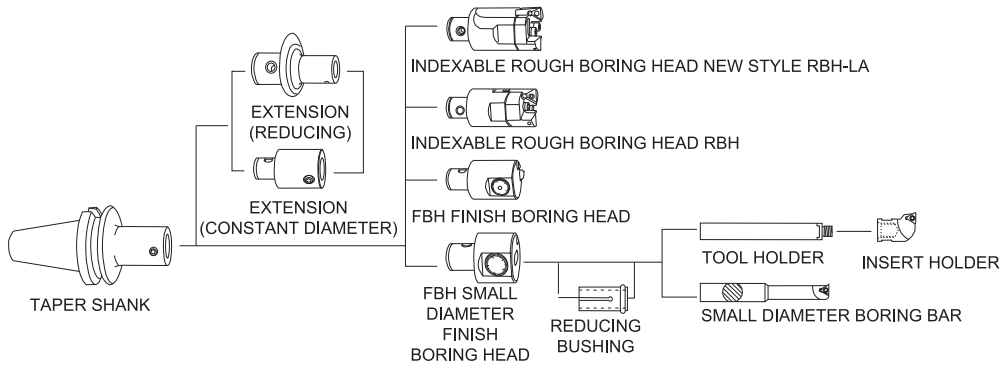


|  | ORDER NO.                                                                           | Tool connection | D(mm)<br>Boring Range |     | L<br>(mm) | C<br>(mm) | insert     | (kg)<br>Weight | CODE NO. |          |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------------|-----------------------|-----|-----------|-----------|------------|----------------|----------|----------|
|                                                                                     | RBH25-33-C                                                                          | VBK2            | 25                    | 33  | 45        | 23        | CCMT060204 | 0.15           | 3220-270 |          |
|  | RBH32-42-C                                                                          | VBK3            | 32                    | 42  | 55        | 28        | CCMT060204 | 0.3            | 3220-271 |          |
|                                                                                     | RBH32-42-T                                                                          |                 |                       |     |           |           | TCMT110204 |                | 3220-272 |          |
|                                                                                     | RBH40-55-C                                                                          | VBK4            | 40                    | 55  | 65        | 36        | CCMT09T304 | 0.5            | 3220-273 |          |
|                                                                                     | RBH40-55-T                                                                          |                 |                       |     |           |           | TCMT16T304 |                | 3220-274 |          |
|                                                                                     | RBH40-55-S                                                                          |                 |                       |     |           |           | SCMT09T304 |                | 3220-275 |          |
|                                                                                     | RBH52-70-C                                                                          | VBK5            | 52                    | 70  | 75        | 48        | CCMT09T304 | 1              | 3220-276 |          |
|                                                                                     | RBH52-70-T                                                                          |                 |                       |     |           |           | TCMT16T304 |                | 3220-277 |          |
|                                                                                     | RBH52-70-S                                                                          |                 |                       |     |           |           | SCMT09T304 |                | 3220-278 |          |
|                                                                                     | RBH68-92-C                                                                          | VBK6            | 68                    | 92  | 85        | 60        | CCMT120408 | 2              | 3220-279 |          |
|                                                                                     | RBH68-92-T                                                                          |                 |                       |     |           |           | TCMT16T304 |                | 3220-280 |          |
|                                                                                     | RBH68-92-S                                                                          |                 |                       |     |           |           | SCMT120404 |                | 3220-281 |          |
|                                                                                     |  | RBH90-122-C     | VBK6                  | 90  | 122       | 100       | 80         | CCMT120408     | 2.9      | 3220-282 |
| RBH90-122-T                                                                         |                                                                                     | TCMT220408      |                       |     |           |           |            | 3220-283       |          |          |
| RBH90-122-S                                                                         |                                                                                     | SCMT120404      |                       |     |           |           |            | 3220-284       |          |          |
|  |                                                                                     | RBH120-164-C    | BST                   | 120 | 164       | 95        | 90         | CCMT120408     | 3.8      | 3220-285 |
|                                                                                     |                                                                                     | RBH120-164-T    |                       |     |           |           |            | TCMT220408     |          | 3220-286 |
|                                                                                     |                                                                                     | RBH120-164-S    |                       |     |           |           |            | SCMT120404     |          | 3220-287 |
|                                                                                     |                                                                                     | RBH160-204-C    |                       | 160 | 204       |           | 130        | CCMT120408     | 4.8      | 3220-288 |
|                                                                                     |                                                                                     | RBH160-204-T    |                       |     |           |           |            | TCMT220408     |          | 3220-289 |
|                                                                                     |                                                                                     | RBH160-204-S    |                       |     |           |           |            | SCMT120404     |          | 3220-290 |
|  |                                                                                     | RBH200-254-C    | BST Series            | 200 | 254       | 95        | 170        | CCMT120408     | 6.5      | 3220-291 |
|                                                                                     |                                                                                     | RBH200-254-T    |                       |     |           |           |            | TCMT220408     |          | 3220-292 |
|                                                                                     |                                                                                     | RBH200-254-S    |                       |     |           |           |            | SCMT120404     |          | 3220-293 |
|                                                                                     | RBH250-304-C                                                                        | 250             |                       | 304 | 210       |           | CCMT120408 | 8.3            | 3220-294 |          |
|                                                                                     | RBH250-304-T                                                                        |                 |                       |     |           |           | TCMT220408 |                | 3220-295 |          |
|                                                                                     | RBH250-304-S                                                                        |                 |                       |     |           |           | SCMT120404 |                | 3220-296 |          |
|                                                                                     | RBH300-354-C                                                                        | 300             |                       | 354 | 260       |           | CCMT120408 | 10             | 3220-297 |          |
|                                                                                     | RBH300-354-T                                                                        |                 |                       |     |           |           | TCMT220408 |                | 3220-298 |          |
|                                                                                     | RBH300-354-S                                                                        |                 |                       |     |           |           | SCMT120404 |                | 3220-299 |          |



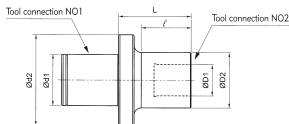
# Taper Shank For Boring Heads Series BST, VBK

Modular Boring Systems



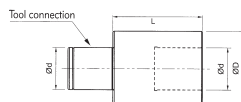
| ORDER NO.     | Length (L) | External Diameter (D) | Applicable Boring Heads                                                        | Weight (kg) | CODE NO. |
|---------------|------------|-----------------------|--------------------------------------------------------------------------------|-------------|----------|
| BT40-VBK1-70  | 70         | 19                    | FBH20                                                                          | 1.2         | 3220-220 |
| BT40-VBK2-70  | 70         | 23                    | RBH25 ; FBH25                                                                  | 1.3         | 3220-221 |
| BT40-VBK3-80  | 80         | 30                    | RBH32 ; FBH32                                                                  | 1.45        | 3220-222 |
| BT40-VBK4-70  | 70         | 38                    | RBH40 ; FBH40 ; CBI4                                                           | 1.5         | 3220-223 |
| BT40-VBK4-100 | 100        |                       |                                                                                | 1.7         | 3220-224 |
| BT40-VBK5-60  | 60         | 50                    | RBH52 ; FBH25 ; CBI5                                                           | 1.8         | 3220-225 |
| BT40-VBK5-80  | 80         |                       |                                                                                | 1.95        | 3220-226 |
| BT40-VBK6-55  | 55         | 64                    | RBH68 ; RBH92 ; FBH68<br>FBH100 ; FBH150 ; CBI6                                | 2.15        | 3220-227 |
| BT40-BST-90   | 90         | 95                    | RBH120 ; FBH200<br>RBH120 and above ; FBH200 and above                         | 3.2         | 3220-228 |
| BT50-VBK1-85  | 85         | 19                    | FBH20                                                                          | 3.5         | 3220-229 |
| BT50-VBK2-105 | 105        | 23                    | RBH25 ; FBH25                                                                  | 4           | 3220-230 |
| BT50-VBK2-135 | 135        |                       |                                                                                | 4.2         | 3220-231 |
| BT50-VBK3-110 | 110        | 30                    | RBH32                                                                          | 4.4         | 3220-232 |
| BT50-VBK3-140 | 140        |                       |                                                                                | 4.6         | 3220-233 |
| BT50-VBK4-100 | 100        | 38                    | RBH40                                                                          | 4.8         | 3220-234 |
| BT50-VBK4-160 | 160        |                       |                                                                                | 5.2         | 3220-235 |
| BT50-VBK5-90  | 90         | 50                    | RBH52                                                                          | 5.4         | 3220-236 |
| BT50-VBK5-165 | 165        |                       |                                                                                | 6.2         | 3220-237 |
| BT50-VBK5-210 | 210        |                       |                                                                                | 6.4         | 3220-238 |
| BT50-VBK6-85  | 85         | 64                    | RBH68 ; RBH92 ; FBH68<br>FBH100 ; FBH150 ; CBI6                                | 5.9         | 3220-239 |
| BT50-VBK6-155 | 155        |                       |                                                                                | 6.5         | 3220-240 |
| BT50-VBK6-215 | 215        |                       |                                                                                | 6.9         | 3220-241 |
| BT50-BST-105  | 105        | 95                    | RBH120                                                                         | 5.71        | 3220-242 |
| BT50-BST-150  | 150        |                       | RBH120 and above ;<br>FBH200 and above ;<br>large diameter boring heads series | 7.41        | 3220-243 |
| BT50-BST-200  | 200        |                       |                                                                                | 8.79        | 3220-244 |
| BT50-BST-250  | 250        |                       |                                                                                | 10.26       | 3220-245 |
| BT50-BST-300  | 300        |                       |                                                                                | 11.25       | 3220-246 |

## Extension (Reducing)



| ORDER NO.   | d1 | d2 | D1 | D2 | L   | ℓ  | Applicable Boring Heads | (kg)Weight | CODE NO. |
|-------------|----|----|----|----|-----|----|-------------------------|------------|----------|
| VBK2-1-36L  | 14 | 24 | 11 | 19 | 36  | 30 | FBH20                   | 0.1        | 3220-301 |
| VBK3-1-41L  |    |    |    |    | 41  | 30 | FBH20                   | 0.15       | 3220-302 |
| VBK3-2-37L  | 18 | 31 | 14 | 24 | 37  | 25 | RBH25 ; FBH25           | 0.15       | 3220-303 |
| VBK4-1-58L  |    |    | 11 | 19 | 58  | 40 | FBH20                   | 0.3        | 3220-304 |
| VBK4-2-50L  | 22 | 39 | 14 | 24 | 50  | 36 | RBH25 ; FBH25           | 0.3        | 3220-305 |
| VBK4-3-50L  |    |    | 18 | 31 | 50  | 37 | RBH32 ; FBH32           | 0.35       | 3220-306 |
| VBK5-1-60L  |    |    | 11 | 19 | 60  | 40 | FBH20                   | 0.45       | 3220-307 |
| VBK5-2-54L  |    |    | 14 | 24 | 54  | 35 | RBH25 ; FBH25           | 0.45       | 3220-308 |
| VBK5-2-74L  |    |    |    |    | 74  | 55 | RBH25 ; FBH25           | 0.5        | 3220-309 |
| VBK5-3-47L  | 28 | 50 |    |    | 47  | 29 | RBH32 ; FBH32           | 0.5        | 3220-310 |
| VBK5-3-72L  |    |    | 18 | 31 | 72  | 54 | RBH32 ; FBH32           | 0.6        | 3220-311 |
| VBK5-4-42L  |    |    |    |    | 42  | 25 | RBH40 ; FBH40           | 0.5        | 3220-312 |
| VBK5-4-67L  |    |    | 22 | 39 | 67  | 50 | RBH40 ; FBH40           | 0.7        | 3220-313 |
| VBK6-1-70L  |    |    | 11 | 19 | 70  | 40 | FBH20                   | 0.9        | 3220-314 |
| VBK6-2-63L  |    |    |    |    | 63  | 45 | RBH25 ; FBH25           | 0.7        | 3220-315 |
| VBK6-2-93L  |    |    | 14 | 24 | 93  | 75 | RBH25 ; FBH25           | 0.8        | 3220-316 |
| VBK6-3-56L  |    |    | 18 | 31 | 56  | 39 | RBH32 ; FBH32           | 0.75       | 3220-317 |
| VBK6-3-96L  | 36 | 64 |    |    | 96  | 79 | RBH32 ; FBH32           | 0.95       | 3220-318 |
| VBK6-4-51L  |    |    |    |    | 51  | 35 | RBH40 ; FBH40           | 0.85       | 3220-319 |
| VBK6-4-101L |    |    | 22 | 39 | 101 | 85 | RBH40 ; FBH40           | 1.3        | 3220-320 |
| VBK6-5-41L  |    |    |    |    | 41  | 25 | RBH52 ; FBH52           | 0.85       | 3220-321 |
| VBK6-5-91L  |    |    | 28 | 52 | 91  | 75 | RBH52 ; FBH52           | 1.45       | 3220-322 |

## Extension (Constant Diameter)



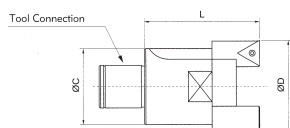
| ORDER NO.  | d  | D  | L  | Applicable Boring Heads              | (kg)Weight | CODE NO. |
|------------|----|----|----|--------------------------------------|------------|----------|
| VBK1-1-30L | 11 | 19 | 30 | FBH20                                | 0.07       | 3220-323 |
| VBK2-2-30L | 14 | 24 | 30 | RBH25 ; FBH25                        | 0.1        | 3220-324 |
| VBK3-3-30L | 18 | 31 | 30 | RBH32 ; FBH32                        | 0.15       | 3220-325 |
| VBK4-4-45L | 22 | 39 | 45 | RBH40 ; FBH40 ; CBI4                 | 0.4        | 3220-326 |
| VBK5-5-60L | 28 | 50 | 60 | RBH52 ; FBH52 ; CBI5                 | 0.8        | 3220-327 |
| VBK6-6-60L | 36 | 64 | 60 | RBH68/RBH90 ; FBH68, 100, 150 ; CBI6 | 1.4        | 3220-328 |



# Indexable Twin-bit Rough Boring Head RBH-LA

Boring range from  $\varnothing 25\text{mm}$  to  $\varnothing 810\text{mm}$ ;

a variety of tool holders and boring heads are for your selection.

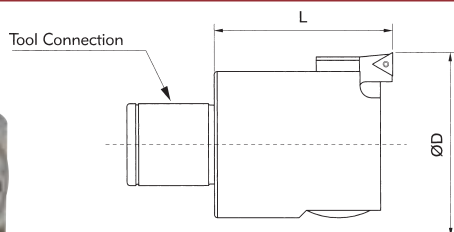


|  | ORDER NO.      | Tool Connection | D(mm)<br>Boring Range | L<br>(mm) | C<br>(mm) | Insert                                                                   | (kg)<br>Weight | CODE NO. |
|--|----------------|-----------------|-----------------------|-----------|-----------|--------------------------------------------------------------------------|----------------|----------|
|  | RBH25-35LA-C   | VBK2            | 25~35                 | 50        | 24        | CCMT060204                                                               | 0.15           | 3220-340 |
|  | RBH32-45LA-C   | VBK3            | 32~45                 | 60        | 31        | CCMT060204                                                               | 0.3            | 3220-341 |
|  | RBH32-45LA-T   |                 |                       |           |           | TCMT110204                                                               |                | 3220-342 |
|  | RBH40-55LA-C   | VBK4            | 40~55                 | 74        | 39        | CCMT09T304                                                               | 0.6            | 3220-343 |
|  | RBH40-55LA-T   |                 |                       |           |           | TCMT16T304                                                               |                | 3220-344 |
|  | RBH40-55LA-S   |                 |                       |           |           | SCMT09T304                                                               |                | 3220-345 |
|  | RBH52-75LA-C   | VBK5            | 52~75                 | 80        | 50        | CCMT09T304                                                               | 1              | 3220-346 |
|  | RBH52-75LA-T   |                 |                       |           |           | TCMT16T304                                                               |                | 3220-347 |
|  | RBH52-75LA-S   |                 |                       |           |           | SCMT09T304                                                               |                | 3220-348 |
|  | RBH68-100LA-C  | VBK6            | 68~100                | 90        | 66        | CCMT120408                                                               | 2.5            | 3220-349 |
|  | RBH68-100LA-T  |                 |                       |           |           | TCMT16T304                                                               |                | 3220-350 |
|  | RBH68-100LA-S  |                 |                       |           |           | SCMT120404                                                               |                | 3220-351 |
|  | RBH90-130LA-C  | VBK6            | 90~130                | 100       | 88        | CCMT120408                                                               | 3.1            | 3220-352 |
|  | RBH90-130LA-T  |                 |                       |           |           | TCMT16T304                                                               |                | 3220-353 |
|  | RBH90-130LA-S  |                 |                       |           |           | SCMT120404                                                               |                | 3220-354 |
|  | RBH120-164LA-C | BST             | 120~164               | 95        | 95        | CCMT120408                                                               | 3.8            | 3220-355 |
|  | RBH120-164LA-T |                 |                       |           |           | TCMT220408                                                               |                | 3220-356 |
|  | RBH120-164LA-S |                 |                       |           |           | SCMT120404                                                               |                | 3220-357 |
|  | RBH160-204LA-C | BST             | 160~204               | 130       | 130       | CCMT120408                                                               | 4.8            | 3220-358 |
|  | RBH160-204LA-T |                 |                       |           |           | TCMT220408                                                               |                | 3220-359 |
|  | RBH160-204LA-S |                 |                       |           |           | SCMT120404                                                               |                | 3220-360 |
|  | RBH200-310LA   | BST Series      | 200~310               | 130       | 180       | Optional Inserts<br>CCMT120408<br>TCMT16T304<br>TCMT220408<br>SCMT120404 | 9.7            | 3220-361 |
|  | RBH300-410LA   |                 | 300~410               |           | 280       |                                                                          | 11.7           | 3220-362 |
|  | RBH400-510LA   |                 | 400~510               |           | 380       |                                                                          | 13.7           | 3220-363 |
|  | RBH500-610LA   |                 | 500~610               |           | 480       |                                                                          | 15.7           | 3220-364 |
|  | RBH600-710LA   |                 | 600~710               |           | 580       |                                                                          | 17.7           | 3220-365 |
|  | RBH700-810LA   |                 | 700~810               |           | 680       |                                                                          | 19.7           | 3220-366 |



# FBH Finish Boring Head

Boring diameter from  $\varnothing 20$  -  $\varnothing 810\text{mm}$



## Ordering Example

FBH      52-75      —      VBK5  
Head Type      Boring Diameter      Tool Connection

## FEATURES:

1. FBH finish boring head is suitable for finish boring with working ranges from  $\varnothing 20\text{mm}$  to  $\varnothing 810\text{mm}$  on diameter.
2. The dial has been graduated into 50 divisions, each of which is 0.01mm on diameter. Available is a sub-dial for finer adjustment.
3. High precision internal lead screw with inner lubrication is free from the effects of chip, featuring high durability.
4. Coolant nozzle easily cools the insert elongating its working life.
5. Cartridge unit is housed in a square structure with two face support, proving high stability and rigidity.

| ORDER NO.<br>Boring Head Type | Tool Connection | $\varnothing D$<br>Diameter | length | Weight | Insert/Clamping Ssrew | CODE NO. |
|-------------------------------|-----------------|-----------------------------|--------|--------|-----------------------|----------|
| FBH20                         | VBK1            | 20-26                       | 35     | 0.1    | TP08/M2.2;TP06/M2     | 3220-370 |
| FBH25                         | VBK2            | 25-33                       | 40     | 0.2    |                       | 3220-371 |
| FBH32                         | VBK3            | 32-42                       |        | 0.3    |                       | 3220-372 |
| FBH40                         | VBK4            | 40-55                       | 50     | 0.5    |                       | 3220-373 |
| FBH52                         | VBK5            | 52-75                       | 60     | 1      | TP08/M2.2;TP09/M2.5   | 3220-374 |
| FBH68                         | VBK6            | 68-102                      | 72     | 2      |                       | 3220-375 |
| FBH100                        | VBK6            | 100-152                     |        | 2.9    |                       | 3220-376 |
| FBH150                        | VBK6            | 150-202                     |        | 4.2    |                       | 3220-377 |
| FBH200                        | BST Series      | 200-310                     | 120    | 9.7    |                       | 3220-378 |
| FBH300                        |                 | 300-410                     |        | 11.7   |                       | 3220-379 |
| FBH400                        |                 | 400-510                     |        | 13.7   |                       | 3220-380 |
| FBH500                        |                 | 500-610                     |        | 15.7   |                       | 3220-381 |
| FBH600                        |                 | 600-710                     |        | 17.7   |                       | 3220-382 |
| FBH700                        |                 | 700-810                     |        | 19.7   |                       | 3220-383 |

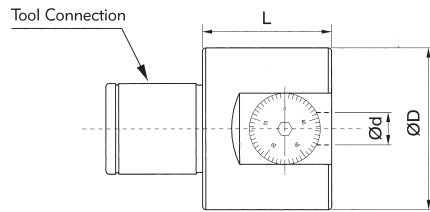


# Small Diameter Finish Boring Head Type CBI

BORING DIAMETER FROM Ø8 - Ø40MM

## FEATURES:

1. Available are three different styles enabling small diameter boring from Ø8mm to Ø40mm. Boring range can be within Ø2mm to Ø8mm if small diameter solid carbide boring bar has been employed.
2. The dial has been graduated into 50 divisions, each of which is 0.01mm on diameter. Available is a sub-dial for finer adjustment.
3. High precision internal lead screw with inner lubrication is free from the effects of chip, featuring high durability.
4. Cartridge unit is housed in a square structure with two face support, proving high stability and rigidity.



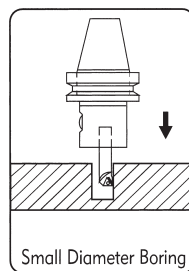
| ORDER NO.<br>Boring Head Type | Tool Connection | Ød<br>Internal Diameter | ØD<br>External Diameter | Length<br>mm | Feed<br>mm | kg<br>Weight | CODE NO. |
|-------------------------------|-----------------|-------------------------|-------------------------|--------------|------------|--------------|----------|
| CBI4                          | VBK4            | 10                      | 39                      | 32           | 0 - 2      | 0.4          | 3220-390 |
| CBI5                          | VBK5            | 12                      | 50                      | 40           | 0 - 3.5    | 0.8          | 3220-391 |
| CBI6                          | VBK6            | 16                      | 64                      | 50           | 0 - 5      | 1.2          | 3220-392 |

| ORDER NO. | D mm | D1 mm | Applicable Carbide Tool Holder | O.       |
|-----------|------|-------|--------------------------------|----------|
| EC1608    | 16   | 8     | SC08-M5-....                   | 3220-393 |
| EC1610    | 16   | 10    | SC10-M6-....                   | 3220-394 |
| EC1612    | 16   | 12    | SC12-M6-....                   | 3220-395 |



# Small Diameter Boring Head CBI4

BORING DIAMETER FROM Ø8 - Ø20MM



| ORDER NO.  | ØD mm     | Ød mm     | L mm      | L2 mm     | H mm      | Insert     | Clamp Screw | Wrench | CODE NO. |
|------------|-----------|-----------|-----------|-----------|-----------|------------|-------------|--------|----------|
| BJ1008-32  |           | 8         | 64        | 32        |           | TB..0601.. | MS2005A     | TF6    | 3220-440 |
| BJ1010-40  |           | 10        | 72        | 40        |           |            |             |        | 3220-401 |
| BJ1012-45  | 10        | 12        | 77        | 27        | 9         | TP..0902.. | MS2506A     | TF9    | 3220-402 |
| BJ1016-45  |           | 16        | 77        | 27        |           |            |             |        | 3220-403 |
| BJ1020-45  |           | 20        | 77        | 27        |           | TP..1103.. | MS3008A     | TF9    | 3220-404 |
| ※BJ16-8PCS | BJ1008-32 | BJ1010-40 | BJ1012-45 | BJ1016-45 | BJ1020-45 |            |             |        | 3220-405 |



# Small Diameter Boring Head CBI6

BORING DIAMETER FROM Ø8 - Ø40MM

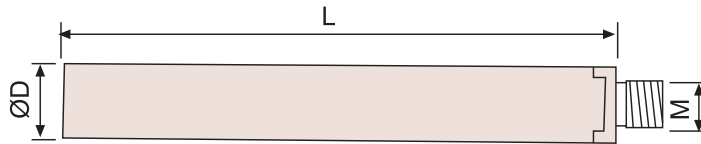
※ In Box Package

※ Note: Outstretch of small diameter boring is better within 3 times of its diameter when in use.

| ORDER NO.  | ØD mm     | Ød mm     | L mm      | L2 mm     | H mm | Insert     | Clamp Screw | Wrench | CODE NO. |
|------------|-----------|-----------|-----------|-----------|------|------------|-------------|--------|----------|
| BJ1608-32  |           | 8         | 74        | 32        |      | TB..0601.. | MS2005A     | TF6    | 3220-406 |
| BJ1610-40  |           | 10        | 75        | 40        |      |            |             |        | 3220-407 |
| BJ1612-53  |           | 12        | 85        | 53        |      | TP..0902.. | MS2506A     | TF9    | 3220-408 |
| BJ1616-68  |           | 16        | 100       | 68        |      |            |             |        | 3220-409 |
| BJ1620-83  | 16        | 20        | 115       | 83        | 15   |            |             |        | 3220-410 |
| BJ1625-90  |           | 25        | 122       | 90        |      |            |             |        | 3220-411 |
| BJ1630-90  |           | 30        | 122       | 90        |      | TP..1103.. | MS3008A     | TF9    | 3220-412 |
| BJ1640-90  |           | 40        | 122       | 90        |      |            |             |        | 3220-413 |
| ※BJ16-8PCS | BJ1608-32 | BJ1610-40 | BJ1612-53 | BJ1616-68 |      |            |             |        | 3220-414 |
|            | BJ1620-83 | BJ1625-90 | BJ1630-90 | BJ1640-90 |      |            |             |        |          |



# Carbide Tool Holder



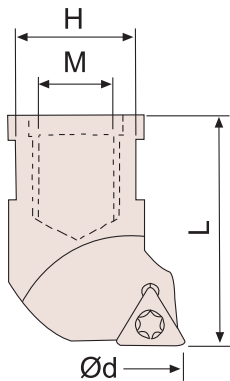
## Small Diameter Modular Boring Bar

BORING DIAMETER FROM Ø8 - Ø16MM

| ORDER NO.    | L mm | D mm | M mm | Applicable Insert Holder                                                           | Applicable Bushing | CODE NO. |
|--------------|------|------|------|------------------------------------------------------------------------------------|--------------------|----------|
| SC08-M5-115  | 115  | 8    | M5   | BE09A, BE10.5A                                                                     | EC1608             | 3220-420 |
| SC10-M6-115  | 115  | 10   | M6   | BE12A                                                                              | EC1610             | 3220-421 |
| SC10-M6-135  | 135  |      |      |                                                                                    |                    | 3220-422 |
| SC10-M6-160  | 160  |      |      |                                                                                    |                    | 3220-423 |
| SC12-M6-135  | 135  | 12   | M6   | BE14A, BE16A                                                                       | EC1612             | 3220-424 |
| SC12-M6-165  | 165  |      |      |                                                                                    |                    | 3220-425 |
| SC16-M10-180 | 180  | 16   | M10  | BE18A, BE20A, BE22A, BE24A, BE26A, BE28A, BE30A, BE32A, BE34A, BE36A, BE38A, BE40A | ---                | 3220-426 |

## Insert Holder

BORING DIAMETER FROM Ø9 - Ø40MM



| ORDER NO. | d(mm) | H(mm) | L(mm) | M(mm) | Insert     | Clamping<br>Screw | Wrench | CODE NO. |
|-----------|-------|-------|-------|-------|------------|-------------------|--------|----------|
| BE09A     | 9     | 7     | 18    | M5    | TP..0808.. | MS2206A           | TF7    | 3220-430 |
| BE10,5A   | 10,5  | 7     |       |       |            |                   |        | 3220-431 |
| BE12A     | 12    | 8     | 23    | M6    |            |                   |        | 3220-432 |
| BE14A     | 14    | 10    |       |       |            |                   |        | 3220-433 |
| BE16A     | 16    | 10    |       |       |            |                   |        | 3220-434 |
| BE18A     | 18    | 14    |       |       |            |                   |        | 3220-435 |
| BE20A     | 20    | 14    | 27    | M10   |            |                   |        | 3220-436 |
| BE22A     | 22    | 14    |       |       |            |                   |        | 3220-437 |
| BE24A     | 24    | 14    |       |       |            |                   |        | 3220-438 |
| BE26A     | 26    | 14    |       |       |            |                   |        | 3220-439 |
| BE28A     | 28    | 14    |       |       |            |                   |        | 3220-440 |
| BE30A     | 30    | 14    |       |       |            |                   |        | 3220-441 |
| BE32A     | 32    | 14    |       |       |            |                   |        | 3220-442 |
| BE34A     | 34    | 14    |       |       |            |                   |        | 3220-443 |
| BE36A     | 36    | 14    |       |       |            |                   |        | 3220-444 |
| BE38A     | 38    | 14    |       |       |            |                   |        | 3220-445 |
| BE40A     | 40    | 14    |       |       |            |                   |        | 3220-446 |

## RBH Indexable Twin-bit Rough Boring Head

BORING  
DIAMETER  
FROM  
Ø25 - Ø350MM



1. The head is suitable for single bit boring, twin-bit boring and step boring with working diameter from ø25mm to ø350mm on diameter.
2. New cartridge style with built-up rib. The pressure imposed on both cartridges counteracts producing highest rigidity and cutting efficiency, most suitable for a variety of borings.
3. Boring head can be easily adjusted to different boring needs for machining on demand. Boring depth can be extended by tool connection.
4. Clear side division provides a convenient adjustment without using a tool pre-setter.
5. Most suitable for boring on various machine centers or boring mills. Universal design accepts inserts of any brands, which will reduce tool grinding and greatly improve boring performance.
6. Patented step boring design; suitable for both level boring and step boring.

### Indexable Twin-bit

### Rough Boring Head RBH-LA

BORING DIAMETER FROM Ø25 - Ø200MM



1. Thickened cartridge with higher rigidity.
2. Coolant nozzle easily cools the insert elongating its working life.
3. Completed with chip pocket, improving chip flow of deep boring.
4. Clamp plate solidifies cartridges and head, upgrading cutting rigidity.
5. Patented step boring design; suitable for both level boring and step boring.

### Large Diameter Modular

### Rough Boring Head With

### Diameter Over Ø200mm

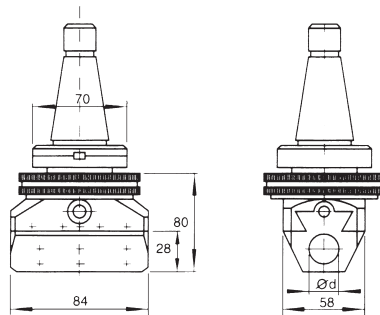
BORING DIAMETER FROM Ø200 - Ø810MM



1. This type is suitable for large diameter boring with ranges from ø200mm to ø810mm.
2. The structure includes common flange and extension slide for both rough and finish boring heads. Available can be optional accessories for different works. Adjustment range is within 110mm on diameter.
3. Options of various inserts for rough boring of different materials and boring styles.
4. Available is the horizontal slide made of Aluminum alloy to reduce total weight.
5. Options of external boring kit with boring range from ø20mm to ø300mm.



# Universal Boring And Facing Master Head



## FULL SET

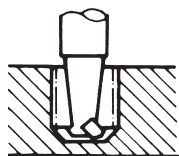
| ORDER NO. | SHANK TYPE | DRAWBAR S.A.E. | THREAD METRIC | WEIGHE (kg) | CODE NO. |
|-----------|------------|----------------|---------------|-------------|----------|
| VBHU-202  | MT-3       | 1/2"-12W       | M12X1.5P      | 4.6         | 3401-001 |
| VBHU-203  | MT-4       | 5/8"-11W       | M16X2.0P      | 5           | 3401-002 |
| VBHU-204  | MT-5       | 1"-8W          | M24X3.0P      | 6           | 3401-003 |
| VBHU-205  | R-8        | 7/16"-20UNF    | n/a           | 4.8         | 3401-004 |
| VBHU-206  | NT-30      | 1/2"-12W       | M12X1.75P     | 4.5         | 3401-005 |
| VBHU-207  | NT-40      | 5/8"-11W       | M16X2.0P      | 4.9         | 3401-006 |
| VBHU-208  | NT-50      | 1"-8W          | M24X3.0P      | 7.6         | 3401-007 |
| VBHU-209  | BT-40      |                | M16X2.0P      | 5.6         | 3401-008 |

## SPECIFICATION

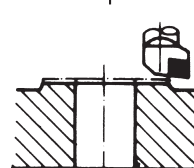
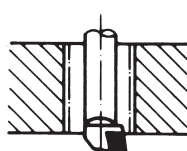
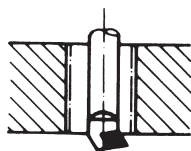
Unit:mm

|      | ACTUAL SIZE | OVERING BAR HOLE SIZE | BORING BAR HOLE SIZE | CENTER DIST BETWEEN HOLES. | CROSS HOLE DIA | OFFSET |
|------|-------------|-----------------------|----------------------|----------------------------|----------------|--------|
| VBHU | 84          | 100                   | 18                   | 23                         | 18             | 15     |

It is construction with precision parts, freedom of selection feeding quantity, auto feed and stop. Processing range from 5mm to 250mm.



Boring with several different bits from 5 $\varnothing$ -250mm



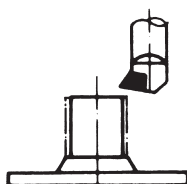
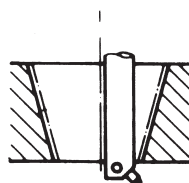
From inside outward



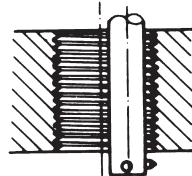
From inside inward



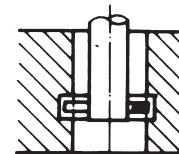
Taper turning



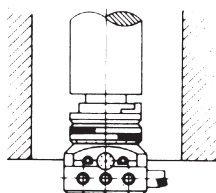
Outside turning



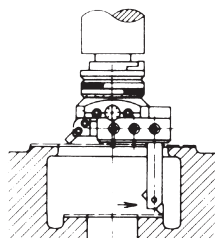
Thread Cutting



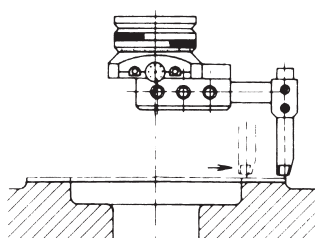
Recessing



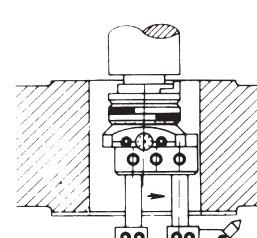
Because of the small construction of the facing and boring heads deep bores can be made. In this case the boring bit is fixed directly in the side.



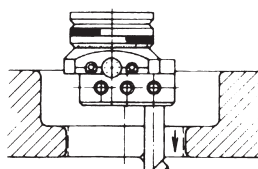
Facing in two areas with one boringbar and boringbar holder



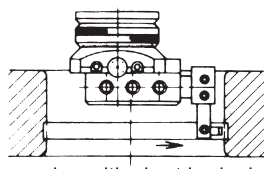
Facing of large  $\varnothing$  with long boringbar holden reinforced by rings and draw in screw



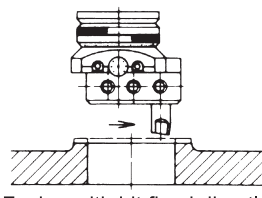
Facing of the reverse side by using boringbar holders contained in attachment.



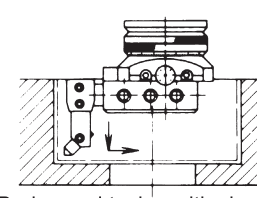
Boring with long boringbar



Recessing with short boringbar holder and a boringbar



Facing with bit fixed directly in slide

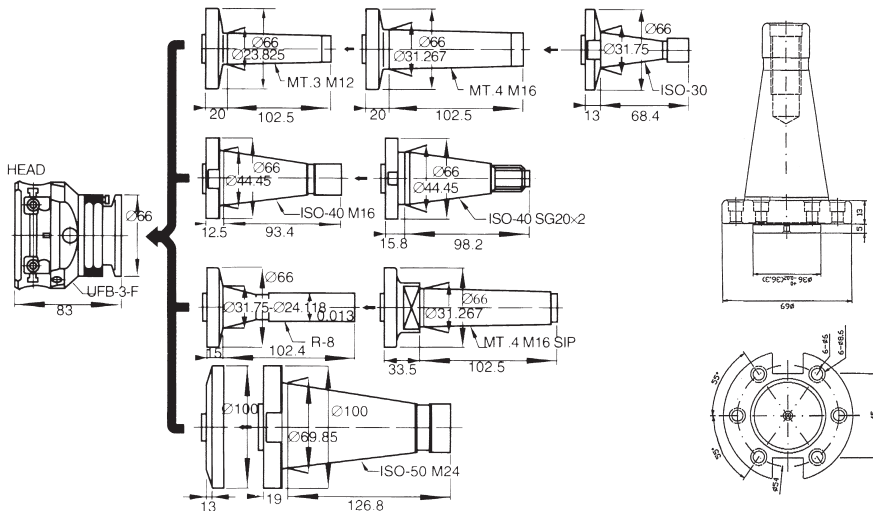


Boring and tacing with short boringbar holder and a boringbar

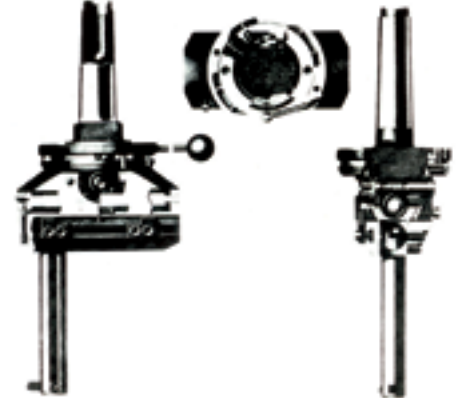


# Interchangeable Shanks

## SHANK



## VBHU-NT-30,40 R-8, MT-3, MT-4, MT-5, BT-40, BT-50



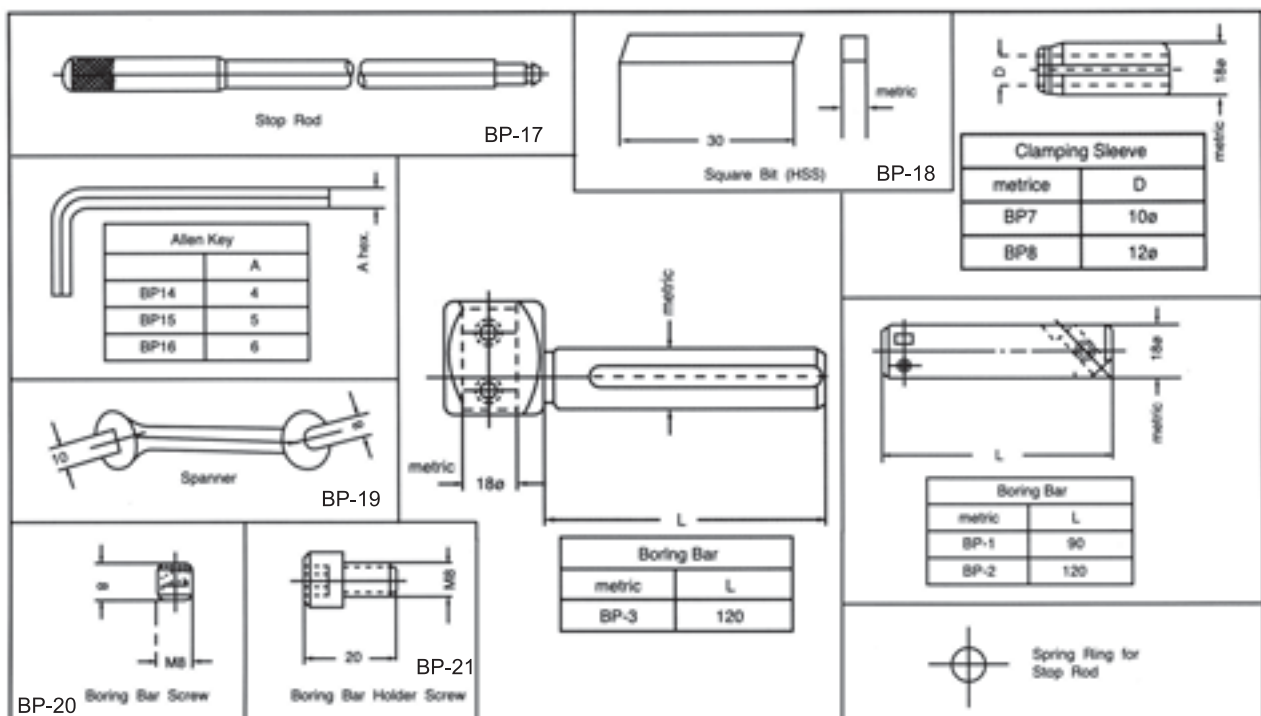
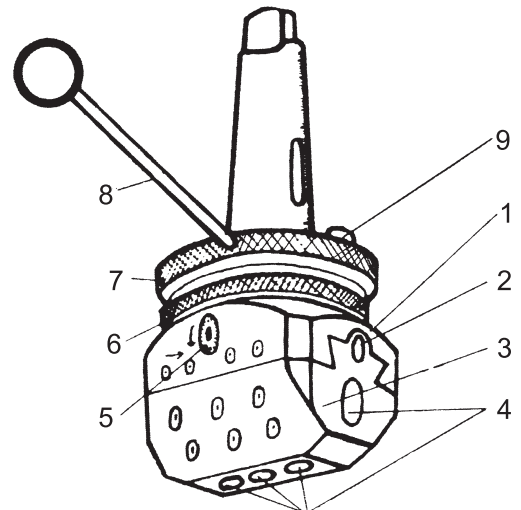
Main part of the universal boring heads is the body(1), in which the tool slide (3) moves on dovetail guideways. The tool slide is provided with holes for accommodation of tools and tool holders(4). In boring holes or turning external cylindrical surfaces, the tool is adjusted with the aid of the graduated dial for fine setting of tool slide(5), one division of which means a change in diameter of bored hole by .0005".

On the types rapid adjustment of the tool slide(3) can be produced by rotating the graduated dial for quick adjustment of the tool slide(2). During recessing, turning of front or rear facings or similar jobs calling for automatic transverse feed movement to the tool slide, the preselected feed movement to the tool slide is engaged with the aid of the engagement ring (6). After setting of tool, the automatic transverse feed movement to the tool slide is started by braking of the brake ring(7), by means of the handle(8).

The clutch(9) provides for tripping of the automatic feed movement when cutting resistance increases or when the trip dog is approached.

Mechanism of the boring heads has a lubrication circuit delivering oil from two lubricators to all friction surfaces.

All parts are hardened and working surfaces are ground.



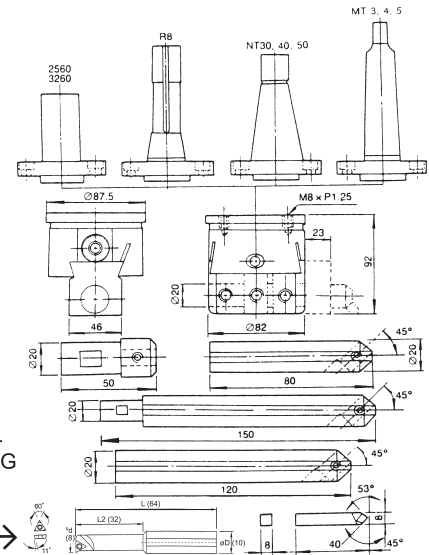


# Boring Head Sets

STANDARD TYPE



INSERT NO.  
TBGT060102L-W-T1200A FOR STEEL  
TBGT060102L-W-T110A FOR CASTING  
"SUMITOMO" BRAND



FULL SET

|         | SHANK TYPE | DRAWBAR S.A.E.             | THREADS METRIC | WEIGHT (kg) | CODE.NO. |
|---------|------------|----------------------------|----------------|-------------|----------|
| VBH-102 | MT3        | PLATE TONE                 | -              | 7           | 3401-101 |
| VBH-103 | MT4        |                            | -              | 7           | 3401-102 |
| VBH-104 | MT5        | 1"~8W                      | M24X3.0P       | 7           | 3401-103 |
| VBH-105 | R8         | 7/16"~20UNF                | 7/16"~20       | 7           | 3401-104 |
| VBH-106 | NT30       | 1/2"-12W<br>or<br>1/2"-13W | M12X1.75P      | 7           | 3401-105 |
| VBH-107 | NT40       | 5/8"-11W                   | M16X2.0P       | 7           | 3401-106 |
| VBH-108 | NT50       | 1"-8W                      | M24X3.0P       | 10          | 3401-107 |
| VBH-109 | BT40       | -                          | M16X2.0P       | 10          | 3401-108 |
| VBH-110 | SK40       | -                          | M16X2.0P       | -           | 3401-109 |
| VBH-111 | C25        | -                          | -              | 7           | 3401-110 |

Processing Range  $\phi 10 \sim \phi 240\text{mm}$

Simple, extremely rigid construction, Finest materials and craftsmanship are employed to combine strength, flexibility and accuracy in a tool of unique design. 2 vertical boring tool holes: one centered and one offset. One cross hole for greater versatility and capacity. Dependable adjustment --- far spread graduation for closer reading. Perfectly balanced for high speed operation.

Precision ground & hardened shank are integral with the head for routing and smoother operation.



## Boring Head Set C-Type



VBHC-BC2  
SET TYPE

|                       | WEIGHTY (kg) |
|-----------------------|--------------|
| VBHC-SHANK SIZE-VBC-2 | 1.4          |
| VBHC-SHANK SIZE-VBC-3 | 1.4          |

| ORDER NO.       | WEIGHT (kg) | CODE.NO. |
|-----------------|-------------|----------|
| VBHC-R-8-BC-2   | 2           | 3401-150 |
| VBHC-MT-3-BC-2  | 1.84        | 3401-151 |
| VBHC-MT-4-BC-2  | 2.35        | 3401-152 |
| VBHC-NT-30-BC-2 | 2           | 3401-153 |
| VBHC-NT-40-BC-2 | 2.6         | 3401-154 |



VBHC-BC3 SET TYPE

Here is a sturdy unit of extended boring range, capable of peeling off heavy roughing cuts as well as a tool of extreme sensitivity. The use of a wide base bar holder, resting securely on the body, eliminates the need for a separate side plate. You will note this has now become an integral part of the body. The direct reading adjusting screw is ground after hardening and a plainly marked dial face in nonreflecting satin chrome allows easy reading and adjustments of .005 or less. All Criterion Boring Heads have threaded backs for use with a variety of shanks. This model takes a 1-1/2"-18 threaded shank. SHANK SIZE: NT-30,40,50, MT-3,4,5,R8

| DER NO.         | WEIGHT (kg) | CODE.NO. |
|-----------------|-------------|----------|
| VBHC-R-8-BC-3   | 4.2         | 3401-160 |
| VBHC-MT-3-BC-3  | 4.4         | 3401-161 |
| VBHC-MT-4-BC-3  | 4.6         | 3401-162 |
| VBHC-NT-30-BC-3 | 4.2         | 3401-163 |
| VBHC-NT-40-BC-3 | 4.8         | 3401-164 |
| VBHC-NT-50-BC-3 | 6.8         | 3401-165 |



# Shank For C-Type Boring Head

ORDER NO. VBC-R8, NT30, NT40,  
MT3, MT4, MT5.

The shanks are made for C-type boring head use.  
Also, can be replaced from time to time.



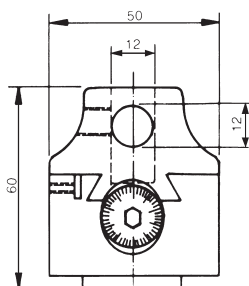
| ORDER NO.  | VBC-R8   | VBC-NT30 | VBC-NT40 | VBC-MT3  | VBC-MT4  | VBC-MT5  |
|------------|----------|----------|----------|----------|----------|----------|
| CODE NO.   | 3401-210 | 3401-211 | 3401-212 | 3401-213 | 3401-214 | 3401-215 |
| WEIGHT(kg) | 0.615    | 0.58     | 1.18     | 0.45     | 0.78     | 1.61     |



## C-Type Boring Head



ORDER NO. VBC-2



Here is a small head that will be in constant demand in any shop.

Note the wide base bearing surface that assures maximum rigidity even when the bar holder is in an off-set position. This wide base design is a recent Criterion innovation that increases bearing surfaces by 50% over the older models.

A choice of either 3/8" or 1/2" double hole bar holder with a 1/2" cross hole is available.  
The unit has a 1 1/2"-18NC threaded back and also features a direct reading dial screw.

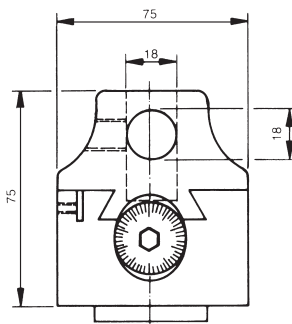
### SPECIFICATION

### BORING CAPACITY Ø10-Ø100

| ORDER NO. | ACTUAL SIZE | OVERALL LENGTH | BORING BAR HOLE SIZE | CENTER DIST BETWEEN HOLES. | CROSS HOLE DIA | OFFSET | WEIGHT (kg) | CODE NO. |
|-----------|-------------|----------------|----------------------|----------------------------|----------------|--------|-------------|----------|
| VBC-2(I)  | 2" Dia.     | 2-7/16"        | 1/2"                 | 5/8"                       | 1/2"           | 5/8"   | 0.7         | 3401-301 |
| VBC-2(m)  | 50          | 62             | 12                   | 15                         | 12             | 15     | 0.7         | 3401-302 |



ORDER NO. VBC-3



Here is a sturdy unit of extended boring range, capable of peeling off heavy roughing cuts as well tool of extreme sensitivity. The use of a wide base bar holder, resting securely on the body, eliminates the need for a separate side plate. You will not this has now become an integral part of the body.

The direct reading adjusting screw is ground after hardening and a plainly marked dial face in non-reflecting satin chrome allows easy reading and adjustments of .0005 or less.

All Criterion Boring Heads have threaded backs for use with a variety of shanks. This model takes a 1-1/2"-18 threaded shank.

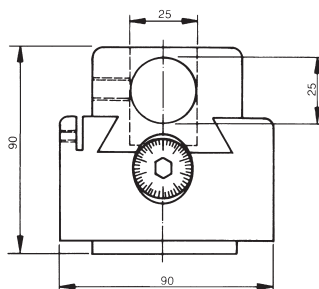
### SPECIFICATION

### BORING CAPACITY Ø10-Ø220

| ORDER NO. | ACTUAL SIZE | OVERALL LENGTH | BORING BAR HOLE SIZE | CENTER DIST BETWEEN HOLES. | CROSS HOLE DIA | OFFSET | WEIGHT (kg) | CODE NO. |
|-----------|-------------|----------------|----------------------|----------------------------|----------------|--------|-------------|----------|
| VBC-3(I)  | 3" Dia.     | 3.5/32"        | 3/4"                 | 15/16"                     | 3/4"           | 1"     | 2           | 3401-303 |
| VBC-3(m)  | 75          | 80             | 18                   | 23                         | 18             | 25     | 2           | 3401-304 |



ORDER NO. VBC-4



This is a bigger boring head which can be put on a large machine to process more as you want. The radius of boring hole can reach on about Ø 400mm long by a boring bar of 160mm.

### SPECIFICATION

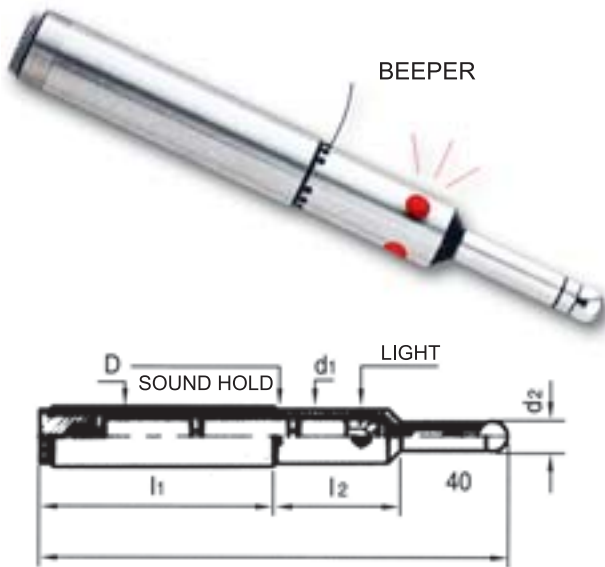
### BORING CAPACITY Ø10-Ø250

| ORDER NO. | ACTUAL SIZE | OVERALL LENGTH | BORING BAR HOLE SIZE | CENTER DIST BETWEEN HOLES. | CROSS HOLE DIA | OFFSET | WEIGHT (kg) | CODE NO. |
|-----------|-------------|----------------|----------------------|----------------------------|----------------|--------|-------------|----------|
| VBC-4(I)  | 4" Dia.     | 3-1/2"         | 1"                   | 1-1/4"                     | 1"             | 1"     | 4           | 3401-305 |
| VBC-4(m)  | 100         | 90             | 25                   | 32                         | 25             | 25     | 4           | 3401-306 |



# Touch Point Sensor

With beeper



- No need to rotate while measuring.
- The red lamp with setting red glue, it can concentrate light and resist water.
- It will give up beep sound at the same time when the red lamp light up.
- When work lamp light up to be influence visual sense, it can be probe by the beep sounder.
- It can be sound due in thr reverse side and can't seeing of the aide.
- When probe the deep hole while you can't see the red light, but you can hear the sound by the sounder.
- Accuracy: within 0.005mm

## OPTICAL TYPE WITH BEEPER

Unit:mm

| ORDER NO. | D   | d1 | d2 | L   | L1 | L2 | BATTERY TYPE | WEIGHT | CODE NO. |
|-----------|-----|----|----|-----|----|----|--------------|--------|----------|
| VPS-20B   | Ø20 | 18 | 10 | 160 | 79 | 41 | UM-5#(SP)    | 0.32kg | 3402-001 |
| VPS-32B   | Ø32 | 18 | 10 | 160 | 79 | 41 | x2PCS        | 0.6kg  | 3402-002 |



# Touch Point Sensor

Optical Type

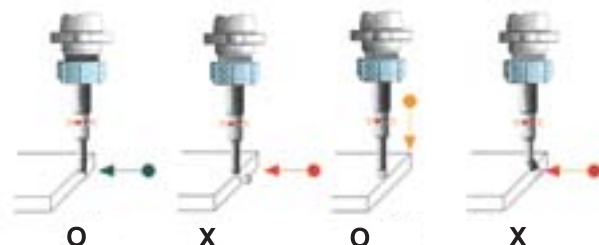
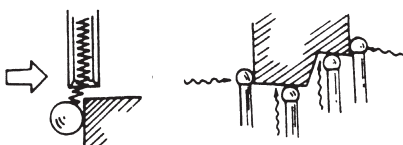


## OPTICAL TYPE

Unit:mm

| ORDER NO. | D  | d1 | d2 | L   | L1 | L2 | BATTERY TYPE  | WEIGHT (kg) | CODE NO. |
|-----------|----|----|----|-----|----|----|---------------|-------------|----------|
| VPS-20    | 20 | 16 | 10 | 157 | 77 | 35 | UM-5#(SP)     | 0.35        | 3402-003 |
| VPS-32    | 32 | 16 | 10 | 157 | 71 | 41 | x 2P/R1./1.5V | 0.6         | 3402-004 |

- High sensitivity location sensor.
- Red pilot can be seen clearly.
- Whole travel of red pilot is sparkling, detecting also can be done during turning while spindle stops.
- Location of end surface, outside circle dia., inside circle dia. of the workpiece for processing can be detected with full effect.
- Deviced with safety line excess, ball supported by spring, so even line excess, it will be sepatated easily from the base shown as the fig. The precision to return to its original position will reach up to micrometer.





# Touch Point Sensor

With Beeper



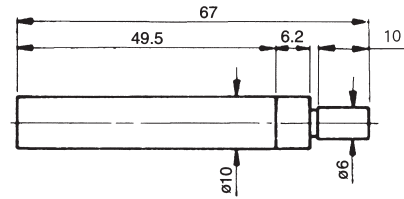
## CERAMIC TYPE VPS-201C

The series is a high precision setting device for positioning the accurate center between tool spindle of machine and reference surface of working at low-cost and saving time.

Accuracy ; within 0.005 mm

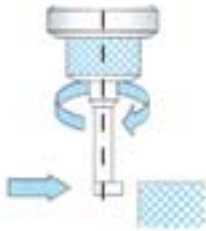
Made of tool steel, hardened and ground.

Suitable rotation speed : VPS-201-450 to 600rpm.  
VPS-401-600 to 1,000 rpm



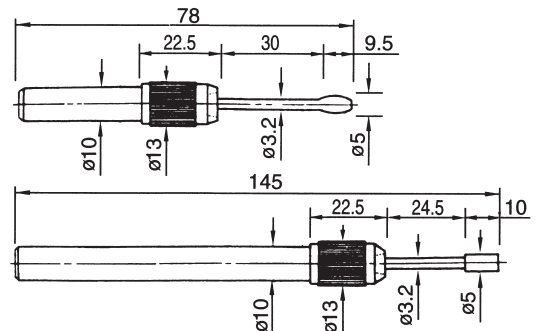
## MECHANICAL TYPE SIMPLE TYPE

| ORDER NO.  | VPS-201  | VPS-201C |
|------------|----------|----------|
| CODE NO.   | 3402-005 | 3402-007 |
| WEIGHT(kg) | 0.1      | 0.1      |



# Touch Point Sensor

VPS-401 (2 PCS/SET)  
VPS-402A(LONG) SINGLE  
VPS-402B(SHORT) SINGLE

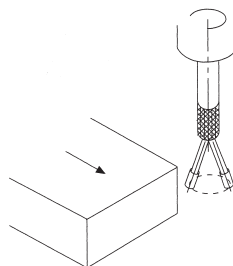


## DELUXE TYPE

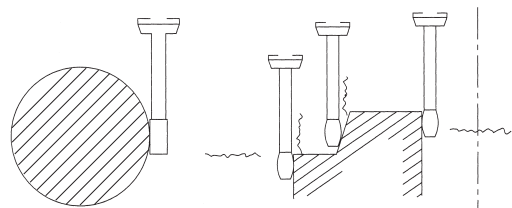
| ORDER NO.  | VPS-401 (2PCS/SET) |
|------------|--------------------|
| CODE NO.   | 3402-006           |
| WEIGHT(kg) | 0.18               |

## FEATURES

1. Material: high-carbon steel.
2. Accuracy within 0.003mm
3. Hardness: HRC 58°±1°
4. R.P.M. Within 600-1000
5. Suitable for milling machine.  
Drill machine, and boring machine.



## EXAMPLES-APPLICATION

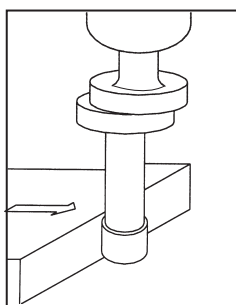




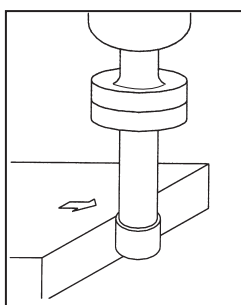
# Touch Point Sensor



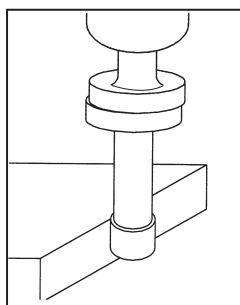
- Accuracy of zero point to point is within 0.003mm.
- R.P.M. within 450-600.
- Max. flange can be clear your sight sense.
- MIN. (4mm) can be test mini hole for your workpiece.



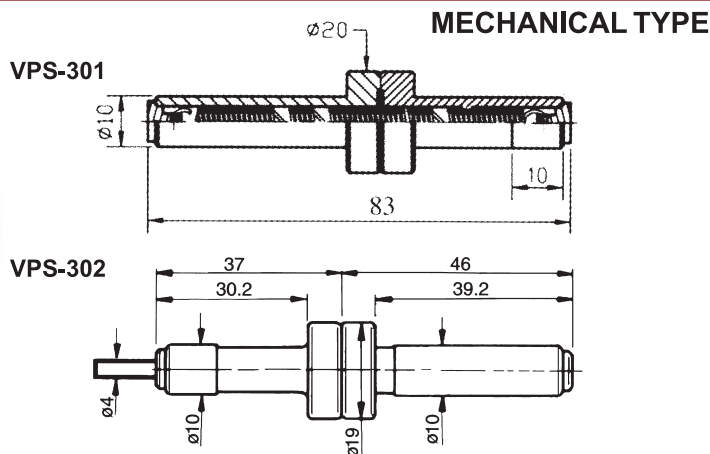
Spindle runs about 500rpm. move spindle closed to measuring surface.



When measuring probe touches workpiece, it looks in one part.



When the probe and shank are in alignment, probe will slide out of rotating center. Now, the center spindle is located 5mm away from measuring surface.



| ORDER NO. | MATERIAL  | HARDNESS | WEIGHT (kg) | CODE NO. |
|-----------|-----------|----------|-------------|----------|
| VPS-301   | ALLOY     | HRC 56°  | 0.03        | 3402-100 |
| VPS-302   | STEEL     | HRC 56°  | 0.03        | 3402-101 |
| VPS-301S  | STAINLESS | HRC 60°  | 0.03        | 3402-102 |
| VPS-302S  | STAINLESS | HRC 60°  | 0.03        | 3402-103 |
| VPS-301C  | CERAMIC   | HRC 60°  |             | 3402-104 |

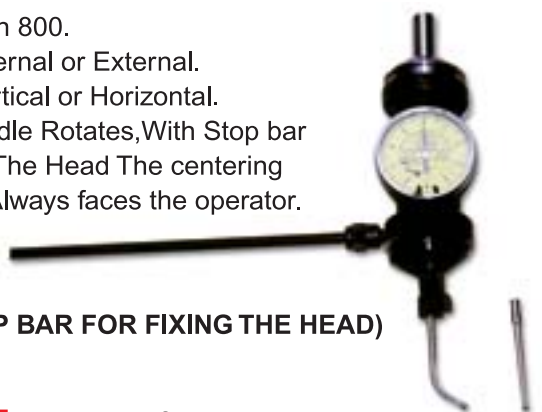


**CERAMIC TYPE VPS-301C**



# Centering Indicator

- RPM Within 800.
- Use for Internal or External.
- Use for Vertical or Horizontal.
- While Spindle Rotates, With Stop bar for Fixing The Head The centering Indicator Always faces the operator.



(WITH STOP BAR FOR FIXING THE HEAD)

**ORDER NO. VCI-170**

**CODE NO. 3402-130**

|                 |                                   |     |
|-----------------|-----------------------------------|-----|
| Shank           | 10 <sup>ø</sup>                   | m/m |
| Length          | 170                               | m/m |
| Internal        | 4 <sup>ø</sup> ~ 108 <sup>ø</sup> | m/m |
| External        | 0 <sup>ø</sup> ~ 108 <sup>ø</sup> | m/m |
| Min. Indicator  | 0.01                              | m/m |
| Indicator Range | 0 ~ 6                             | m/m |
| Weight          | 0.4                               | kgs |



# Height Presetter



**HP-50Z BATTERY**  
**LR4476AG13**  
**1SET/2PCS**  
**HP-50ZM**  
**LR44**  
**1SET/2PCS**

**OPTICAL TYPE**

|           | STANDARD TYPE | WITH MAGNETIC BASE |
|-----------|---------------|--------------------|
| ORDER NO. | HP-50Z        | HP-50ZM            |
| CODE NO.  | 3403-001      | 3403-002           |

- Height 50mm.
- With magnetic base.
- The red lamp will be lighted up when touched.
- Accuracy 0.005mm
- Combined vertical and horizontal in a unit.
- Weight: 0.7kgs



# Height Presetter (For Machining Center)



1. Location the height presetter on a place suitable for a reference surface of work piece.
2. Apply the cutter on the measuring surface and slowly lower the Z-axis. Then, cutter gets near to the measuring position.
3. A distance from the reference surface to the tool tip can be measured easily but precisely, so that this presetter is most suitable not only for machineing centers but for NC lathes and NC milling machines.

| ORDER NO. | Height from reference surface | WEIGHT | CODE NO. |
|-----------|-------------------------------|--------|----------|
| HP-100    | 100mm                         | 2.6kgs | 3403-010 |

\* Magnetic base function can be used in vertical position & horizontal position.

\* HEIGHT:100mm±0.005



## Z-Zero-Setter



HP-50A



| ORDER NO. | H    | STYLE              | WEIGHT(kg) | CODE NO. |
|-----------|------|--------------------|------------|----------|
| HP-50A    | 50mm | STANDARD TYPE      | 1.1        | 3403-020 |
| HP-50B    |      |                    | 1.7        | 3403-021 |
| HP-50AM   |      | WITH MAGNETIC BASE | 1.1        | 3403-022 |
| HP-50BM   |      |                    | 1.7        | 3403-023 |

1. Have the central measuring porfion of the zero setter presetter against a plain surface and aligned if with the outer reference surface. Turn the dial gauge for zero setting.
2. Have the cutter touched against the z zero setter. Once the indicator position at zero the distance between the tool tip to workpiece is 50mm.



HP-50B



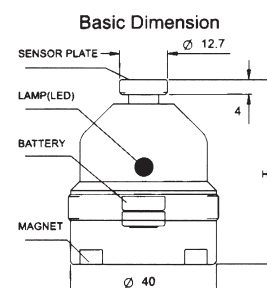
## Electronic Tool Length Setter



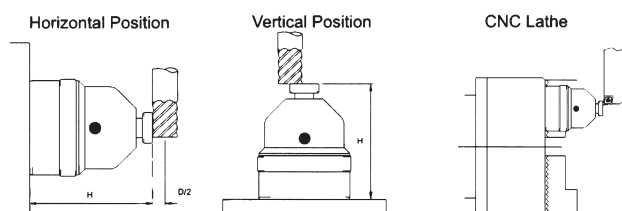
### • HIGH ACCURACY • EASY OPERATION

- Be sure to remove all chips and all from the sensor plate and the base of the HP-50E as well as from the workpiece and tool.
- To move the tool approaching the sensor plate slowly.
- When touching, the "LED" turns on immediately and "H" is just 50.00 mm.(or2")
- LED will not function if batteries are not set in correctly.
- Designed to be used on ferrous and non-ferrous materials.

| ORDER NO. | H     | STYLE              | WEIGHT(kg) | CODE NO. |
|-----------|-------|--------------------|------------|----------|
| HP-50EM   | 50mm  | WITH MAGNETIC BASE | 0.2        | 3403-032 |
| HP-100EM  | 100mm |                    | 1.1        | 3403-033 |



Stainless Steel Base With Magnet



Stainless Steel Base With Magnet

TOOL PRE-SETTER FOR MACHINING CENTERS.  
CNC & STANDARD MILLING MACHINES AND  
CNC & STANDARD LATHES



# Reversible Tapping Attachment for Drilling & Milling Machine

| ORDER NO. | TAPPING CAPACITY | SHANK | TO WORK WITH DRILLING MACHINE                                      | WEIGHT | PACKING mm  | SPEED | CODE NO. |
|-----------|------------------|-------|--------------------------------------------------------------------|--------|-------------|-------|----------|
| K1-1/2    | Ø3-8mm           | 1/2"  | DRILLING MACHINE MUST EQUIPPED WITH DRILL CHUCK CAPACITY 13M/M     | 0.9KG  | 90X90X190   | 1 : 1 | 3404-001 |
| K1-MT-2   | Ø3-8mm           | MT-2  | DRILLING MACHINE MUST EQUIPPED WITH MT-2 HOLE                      | 1KG    | 90X90X240   | 1 : 1 | 3404-002 |
| K2-1/2    | Ø5-10mm          | 1/2"  | DRILLING MACHINE MUST EQUIPPED WITH DRILL CHUCK CAPACITY 13M/M     | 1.6KG  | 100X100X210 | 1 : 1 | 3404-003 |
| K2-MT-2   | Ø5-10mm          | MT-2  | DRILLING MACHINE MUST EQUIPPED WITH MT2 HOLE                       | 1.7KG  | 100X00X260  | 1 : 1 | 3404-004 |
| K3-MT-3   | Ø6-14mm          | MT-3  | OTHERS LIKE MT-3 SHANK BORING HOLE DRILLING MACHINE N.T. AVAILABLE | 3.1KG  | 125X125X300 | 1 : 1 | 3404-005 |
| K4-MT-3   | Ø12-25mm         | MT-3  | OTHERS LIKE MT-3 SHANK BORING HOLE DRILLING MACHINE N.T. AVAILABLE | 5.5KG  | 160X160X360 | 1 : 1 | 3404-006 |

K1 TYPE USED CHUCK TO FIX THE TAP

K2, K3, K4 TYPE USED THE SLIDING PLATE OF THE SQUARE SHARP HOLE TO FIX THE TAP.



## Drill Tapper

Including shank, full set of collets, wrench and case.

(Used for radial drilling, lathe and tapping machines.

1 Main body, 6 Tap Collet, 1 Drill Chuck Holder

Optional in Collets & Tapper Sleeves.)0.6CUFT.

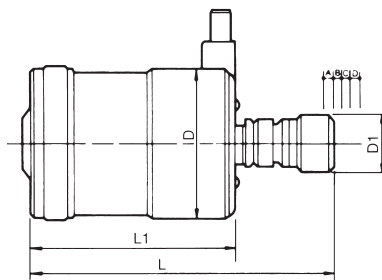
Unit:mm

| ORDER NO. | STANDARD ASSEMBLY SPECIFICATION |                                                          |                       |                              | G.W. kg | MEAS. CFT | CODE NO. |
|-----------|---------------------------------|----------------------------------------------------------|-----------------------|------------------------------|---------|-----------|----------|
|           | MAIN BODY 1PC/SET               | TAP COLLET 6PCS/SET                                      | TAPER SLEEVE 2PCS/SET | DRILL CHUCK HOLDER 1PC/SET   |         |           |          |
| VDT-33    | MT-3                            | M8, 10, 12, 14, 16, 18, 20,22, 24, 27, 30, 33(MM)        | 33-MT1                | 33-JT6 With 1/2" Drill Chuck | 12.5    | 0.6       | 3404-010 |
|           | MT-4                            | 1, 1-1/8, 1-1/4(INCH)                                    | 33-MT2                |                              | 13      |           | 3404-011 |
|           | MT-5                            | PT1/8, 1/4, 3/8, 1/2                                     | 33-MT3                |                              | 14      |           | 3404-012 |
|           |                                 | 3/4, 1(INCH)                                             | 33-MT4                |                              |         |           |          |
| VDT-24    | MT-3                            | M4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, (MM)           | 24-MT1                | 24-JT6 With 1/2" Drill Chuck | (W) 12  | 0.6       | 3404-013 |
|           | MT-4                            | W3/16, 1/4, 5/16, 3/8, 7/16, 1/2, 5/8, 3/4, 7/8, 1(INCH) | 24-MT2                |                              | 13      |           | 3404-014 |
|           | MT-5                            | PT1/8, 1/4, 3/8, 1/2(INCH)                               | 24-MT3                |                              |         |           | 3404-015 |

Extra Purchase Welcome.



# Reversible Tapping Attachments



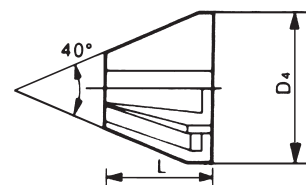
- Radial Float is SELF-CENTERING to compensate for hole center misalignment.
- Unique Double Spring Mechanism produces Automatic Feed and Cushion Drive. There are two springs for the feed and two springs for the reversal. Each set gives you double smoothness for ULTRA accurate tapping applications (not possible with this type of tapping head in the past).
- Pre-set Torque Control Permits easy operation of tap brake torque control
- JACOBS RUBBER FLEX COLLETS are standard accessory.

## Reversing Type

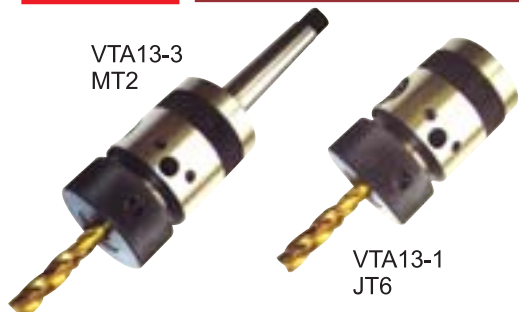
| ATTACHMENT DESIGNATIONS<br>ORDER NO. | FOR TAPS | SUITABLE ADAPTERS SIZE | REC. MAX SPEED | LENGTH COMPENSATION      |                      |                      |                      | D DIA | D1 DIA | L     | L1   | WEIGHT (kg) | CODE NO. |
|--------------------------------------|----------|------------------------|----------------|--------------------------|----------------------|----------------------|----------------------|-------|--------|-------|------|-------------|----------|
|                                      |          |                        |                | R.H. ROTATION<br>COMP. A | NON ROTAT.<br>EXP. B | LH. ROTAT.<br>EXP. C | LH. ROTAT.<br>EXP. E |       |        |       |      |             |          |
| VTA7-JT6                             | M2-M7    | FC-10/FC-11            | 1500RPM        | 5                        | 3.5                  | 1.5                  | 7.0                  | 52    | 23     | 125.5 | 94.5 | 1.2         | 3404-020 |
| VTA12-JT6                            | M3-M12   | FC-20/FC-21            | 1000RPM        | 5                        | 4.5                  | 1.5                  | 8.5                  | 73.5  | 28     | 169   | 122  | 3           | 3404-021 |
| VTA20-M20                            | M8-M20   | FC-30/FC-31            | 600RPM         | 5.5                      | 5                    | 2.0                  | 9.0                  | 91    | 38     | 190   | 128  | 5.6         | 3404-022 |

## Rubber Flex Collet For VTA Tapper

| ADAPTER DESIGNATIONS | COLLETS CAPACITY | D4   | L  | CODE NO. |
|----------------------|------------------|------|----|----------|
| FC-10                | Ø 2.5- Ø 4.5     | 16   | 11 | 3404-030 |
| FC-11                | Ø 4.5- Ø 6.5     | 16   | 11 | 3404-031 |
| FC-20                | Ø 4.5- Ø 7.5     | 21.5 | 13 | 3404-032 |
| FC-21                | Ø 7.5- Ø 10      | 21.5 | 13 | 3404-033 |
| FC-30                | Ø 8.0- Ø 16      | 26.5 | 15 | 3404-034 |
| FC-31                | Ø 14- Ø 19       | 26.5 | 15 | 3404-035 |



# Tap Chuck Series



OPTIONAL:

TAP CHUCK WRENCH



1. THE DESIGN CAN PREVENT THE TAPS CHUCK FROM LOOSENING AFTER TAPPING.
2. SUIT FOR VARIOUS TAPS. LARGE TAPPING CAPACITY. HIGH POWER TORSIONAL.

| ORDER NO. | CONNECTING TAPER | TAPPING CAPABILITY            | CODE NO. |
|-----------|------------------|-------------------------------|----------|
| VTA13-1   | JT6              | Ø2 - 13MM<br>Ø1/8" - Ø1/2"    | 3404-006 |
| VTA13-2   | B16              |                               | 3404-007 |
| VTA13-3   | MT2              |                               | 3404-008 |
| VTA13-4   | MT3              |                               | 3404-009 |
| VTA16-1   | JT3              | Ø3 - 16MM<br>Ø1/8" - Ø5/8"    | 3404-016 |
| VTA16-2   | B18              |                               | 3404-017 |
| VTA16-3   | MT2              |                               | 3404-018 |
| VTA16-4   | MT3              |                               | 3404-019 |
| VTA24-1   | MT3              | Ø12 - 24MM<br>Ø1/2" - Ø15/16" | 3404-023 |
| VTA24-2   | MT4              |                               | 3404-024 |



# Tap Chuck

1. It's suitable for various taps, so it is much more economic and efficient than other brands of taps chuck.
2. The design can prevent the taps chuck from loosening after tapping.

Unit:mm



| ORDER NO. | SIZE | TAPPING CAPACITY |         | Taper Mount<br>NO. DIN or Jacobs | Length<br>(m/m) | Outer Dia.<br>(m/m) | Weight<br>(g) | CODE NO. |
|-----------|------|------------------|---------|----------------------------------|-----------------|---------------------|---------------|----------|
|           |      | mm               | inch    |                                  |                 |                     |               |          |
| 35000     | 1/2  | M4-M12           | 1/8-1/2 | JT6                              | 75              | 42                  | 585           | 3404-056 |
| 35002     | 1/2  | M4-M12           | 1/8-1/2 | B16                              | 75              | 42                  | 585           | 3404-057 |
| 35004     | 3/8  | M4-M12           | 1/8-1/2 | JT2                              | 75              | 42                  | 590           | 3404-058 |
| 35006     | 5/8  | M9-M18           | 3/8-3/4 | JT6                              |                 | 50                  |               | 3404-059 |



# Expansible Tapping Holder

1. Floating and expansion design will reduce the differential of motor rotary speed and feedign speed so will extend the life of tap.
2. Use ER High Spring Collet, you don't need to worry the few size will delay working, so their value is more than any other tapping system.

## STRAIGHT SHANK



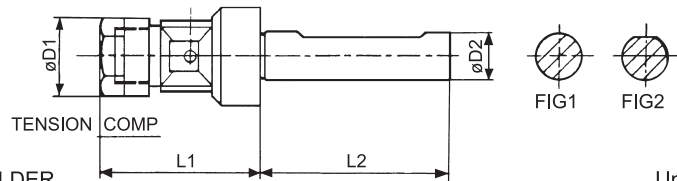
3. Strong Vise clamping function which is controls by one screw will keep the outlet which have been controlled by ER collet, so it can auto-center and you own the double lock and save in clamping.
4. The series. can be fitted with ER20 collet as optional accessory.



HOLDER

Unit:mm

| ORDER NO. | COLLET | HOLDER (D <sub>2</sub> XL <sub>2</sub> ) | FIG | L <sub>1</sub> | D <sub>1</sub> | TAPPING RANGE | WEIGHT KG | CODE NO. |
|-----------|--------|------------------------------------------|-----|----------------|----------------|---------------|-----------|----------|
| VET-101   | ER16   | 20X80                                    | 1   | 47             | 28             | M3-M10        | 0.2       | 3404-040 |
| VET-102   | ER16   | 20X80                                    | 2   | 47             | 28             | (1/8"-3/8")   | 0.2       | 3404-041 |



HOLDER

Unit:mm

| ORDER NO. | COLLET | HOLDER (D <sub>2</sub> XL <sub>2</sub> ) | FIG | L <sub>1</sub> | D <sub>1</sub> | TAPPING RANGE | WEIGHT KG | CODE NO. |
|-----------|--------|------------------------------------------|-----|----------------|----------------|---------------|-----------|----------|
| VET-201   | ER20   | 20X80                                    | 1   | 70             | 34             |               | 0.5       | 3404-042 |
| VET-202   | ER20   | 20X80                                    | 2   | 70             | 34             | M3-M16        | 0.5       | 3404-043 |
| VET-251   | ER20   | 25X80                                    | 1   | 70             | 34             | (1/8"-5/8")   | 0.6       | 3404-044 |
| VET-252   | ER20   | 25X80                                    | 2   | 70             | 34             |               | 0.6       | 3404-045 |

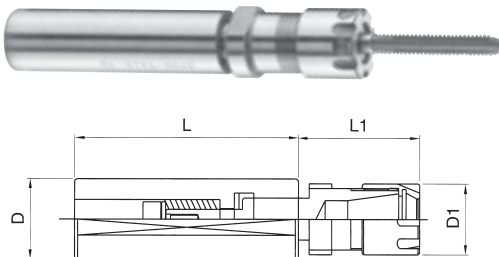
SETS

Unit:mm

| ORDER NO. | COLLET | HOLDER (D <sub>2</sub> XL <sub>2</sub> ) | SET/PCS | WEIGHT(kg) | CODE NO. |
|-----------|--------|------------------------------------------|---------|------------|----------|
| VET-105   | ER16   | 20X80                                    | 8       | 1          | 3404-046 |
| VET-106   | ER16   | 20X80                                    | 10      | 1.1        | 3404-047 |
| VET-253   | ER20   | 20X80                                    | 10      | 1.6        | 3404-048 |
| VET-254   | ER20   | 20X80                                    | 12      | 1.7        | 3404-049 |



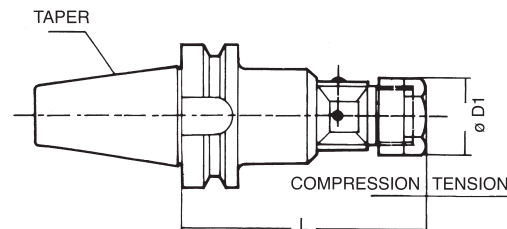
# Expansible Tapping Holder



HOLDER

Unit:mm

| ORDER NO. | COLLET | HOLDER (DXL) | L <sub>1</sub> | D <sub>1</sub> | TAPPING RANGE | WEIGHT KG | CODE NO. |
|-----------|--------|--------------|----------------|----------------|---------------|-----------|----------|
| VET-260   | ER16   | ER16M 20X70  | 35             | 22             | M3-M10        | 0.2       | 3404-036 |
| VET-261   | ER16   | ER16M 25X70  | 35             | 22             | 1/8"-3/8"     | 0.2       | 3404-037 |



HOLDER

Unit:mm

| ORDER NO. | COLLET | HOLDER (DXL) | L <sub>1</sub> | D <sub>1</sub> | TAPPING RANGE     | WEIGHT KG | CODE NO. |
|-----------|--------|--------------|----------------|----------------|-------------------|-----------|----------|
| VET-270   | ER32   | ER32 32X100  | 100            | 50             | M3-M25<br>1/8"-1" | 1.5       | 3404-025 |
| VET-271   | ER32   | BT40 20X110  | 110            | 34             | M3-M16            | 2.2       | 3404-026 |
| VET-272   | ER20   | BT50 20X95   | 95             | 34             | 1/8"X5/8"         | 4         | 3404-027 |
| VET-273   | ER20   | BT40 32X110  | 110            | 50             | M3-M25            | 2.4       | 3404-028 |
| VET-274   | ER32   | BT50 32X110  | 110            | 50             | 1/8"-1"           | 4.5       | 3404-029 |



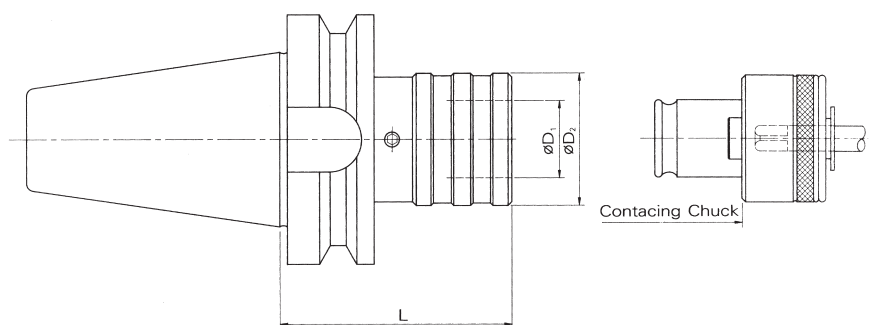
# Quick Change Tapping Chucks

European Type



## QUICK CHANGE TAPPING CHUCKS (with length compensation) MAS-BT shank / DIN69871A SK-40, 50

- Tension and compression feature allows taps to follow their own thread lead.
- With extreme light compensation compression and tension operated by ball cage.



### WF-BT40/SK40

| ORDER NO. | Thread Size | L     | ØD <sub>2</sub> | ØD <sub>1</sub> | Length Compensation |         | Collets | WEIGHT (g) | CODE NO. |
|-----------|-------------|-------|-----------------|-----------------|---------------------|---------|---------|------------|----------|
|           |             |       |                 |                 | Compression         | Tension |         |            |          |
| BT40-WF12 | M3-M12      | 66.5  | 36              | 19              | 7.5                 | 7.5     | TC-312  | 1.3        | 3404-050 |
| SK40-WF12 |             |       |                 |                 |                     |         |         | 1.3        | 3404-051 |
| BT40-WF20 | M8-M20      | 93.5  | 53              | 31              | 12.5                | 12.5    | TC-820  | 1.8        | 3404-052 |
| SK40-WF20 |             |       |                 |                 |                     |         |         | 1.8        | 3403-053 |
| BT40-WF33 | M14-M33     | 162.5 | 78              | 48              | 20                  | 20      | TC-1433 | 4          | 3404-054 |
| SK40-WF33 |             |       |                 |                 |                     |         |         | 4          | 3404-055 |

### WF-BT50/SK50

| ORDER NO. | Thread Size | L     | ØD <sub>2</sub> | ØD <sub>1</sub> | Length Compensation |         | Collets | WEIGHT (kg) | CODE NO. |
|-----------|-------------|-------|-----------------|-----------------|---------------------|---------|---------|-------------|----------|
|           |             |       |                 |                 | Compression         | Tension |         |             |          |
| BT50-WF12 | M3-M12      | 100   | 36              | 19              | 7.5                 | 7.5     | TC-312  | 4           | 3404-060 |
| SK50-WF12 |             |       |                 |                 |                     |         |         | 4           | 3404-061 |
| BT50-WF20 | M8-M20      | 101.5 | 53              | 31              | 12.5                | 12.5    | TC-820  | 4.1         | 3404-062 |
| SK50-WF20 |             |       |                 |                 |                     |         |         | 4.1         | 3404-063 |
| BT50-WF33 | M14-M33     | 162.3 | 78              | 48              | 20                  | 20      | TC-1433 | 5.8         | 3404-064 |
| SK50-WF33 |             |       |                 |                 |                     |         |         | 5.8         | 3404-065 |

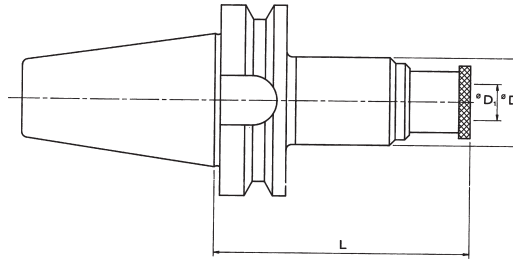


# Quick Change Tapping Chucks

## QUICK CHANGE TAPPING CHUCKS (with length compensation)

### MAS-BT shank & DIN 69871A shank

- Tension and compression feature allows taps to follow their own thread lead.



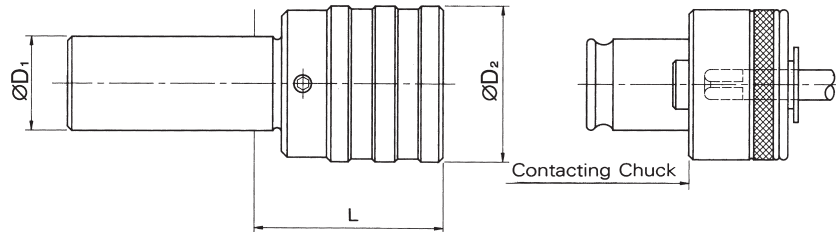
### WFE-BT40/SK40

| ORDER NO.      | Thread Size | L   | ØD <sub>2</sub> | ØD <sub>1</sub> | Length Compensation |         | Collets |     | CODE NO. |
|----------------|-------------|-----|-----------------|-----------------|---------------------|---------|---------|-----|----------|
|                |             |     |                 |                 | Compression         | Tension |         |     |          |
| BT40-WFE12-135 | M3-M12      | 135 | 46              | 19              | 15                  | 20      | TC-312  | 1.5 | 3404-070 |
| SK40-WFE12-135 |             |     |                 |                 |                     |         |         | 1.5 | 3404-071 |
| BT40-WFE12-165 |             | 165 |                 |                 |                     |         |         |     | 3404-072 |
| SK40-WFE12-165 |             |     |                 |                 |                     |         |         |     | 3404-073 |

### WFE-BT50/SK50

| ORDER NO.      | Thread Size | L   | ØD <sub>2</sub> | ØD <sub>1</sub> | Length Compensation |         | Collets | WEIGHT (kg) | CODE NO. |
|----------------|-------------|-----|-----------------|-----------------|---------------------|---------|---------|-------------|----------|
|                |             |     |                 |                 | Compression         | Tension |         |             |          |
| BT50-WFE12-135 | M3-M12      | 135 | 46              | 19              | 15                  | 20      | TC-312  | 4           | 3404-080 |
| SK50-WFE12-135 |             |     |                 |                 |                     |         |         | 4           | 3404-081 |
| BT50-WFE12-165 |             | 165 |                 |                 |                     |         |         |             | 3404-082 |
| SK50-WFE12-165 |             |     |                 |                 |                     |         |         |             | 3404-083 |

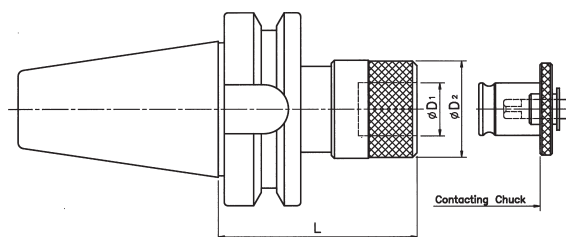
## QUICK CHANGE TAPPING CHUCKS (with length compensation) STRAIGHT shank



### WF-ST

| ORDER NO. | Thread Size | ØD <sub>3</sub> | L  | ØD <sub>2</sub> | Length Compensation |         | Collets | HT (kg) | CODE NO. |
|-----------|-------------|-----------------|----|-----------------|---------------------|---------|---------|---------|----------|
|           |             |                 |    |                 | Compression         | Tension |         |         |          |
| ST25-WF20 | M8-M20      | 25              | 65 | 53              | 12.5                | 1.5     | TC-820  | 1       | 3404-090 |
| ST32-WF20 |             | 32              |    |                 |                     |         |         | 1       | 3404-091 |

## QUICK CHANGE TAPPING CHUCKS (type solid) MAS-BT shank & DIN 69871A shank



- No tension or compensation stroke for use in synchronous tapping (rigid tapping) cycle.

### SF-BT40/SK40

| ORDER NO. | Thread Size | L   | ØD <sub>2</sub> | ØD <sub>1</sub> | Collets  | )   | CODE NO. |
|-----------|-------------|-----|-----------------|-----------------|----------|-----|----------|
| BT40-SF12 | M3-M12      | 72  | 34              | 19              | TC-312B  | 1   | 3404-100 |
| SK40-SF12 |             |     |                 |                 |          | 1   | 3404-101 |
| BT40-SF20 | M8-M20      | 91  | 50              | 31              | TC-820B  | 1.4 | 3404-102 |
| SK40-SF20 |             |     |                 |                 |          | 1.4 | 3404-103 |
| BT40-SF33 | M14-M33     | 130 | 74              | 48              | TC-1433B | 3.5 | 3404-104 |
| SK40-SF33 |             |     |                 |                 |          | 3.5 | 3404-105 |

### SF-BT50/SK50

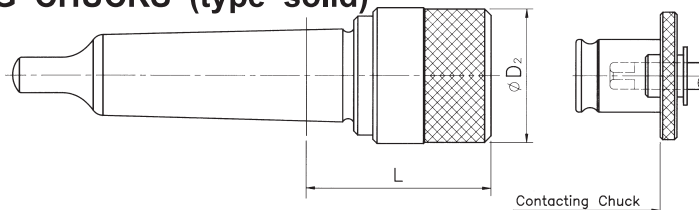
| ORDER NO. | Thread Size | L   | ØD <sub>2</sub> | ØD <sub>1</sub> | Collets  | GHT (kg) | CODE NO. |
|-----------|-------------|-----|-----------------|-----------------|----------|----------|----------|
| BT50-SF12 | M3-M12      | 78  | 34              | 19              | TC-312B  | 3.4      | 3404-110 |
| SK50-SF12 |             |     |                 |                 |          | 3.4      | 3404-111 |
| BT50-SF20 | M8-M20      | 95  | 50              | 31              | TC-820B  | 3.5      | 3404-112 |
| SK50-SF20 |             |     |                 |                 |          | 3.5      | 3404-113 |
| BT50-SF33 | M14-M33     | 120 | 76              | 48              | TC-1433B | 5.2      | 3404-114 |
| SK50-SF33 |             |     |                 |                 |          | 5.2      | 3404-115 |



# Quick Change Tapping Chucks

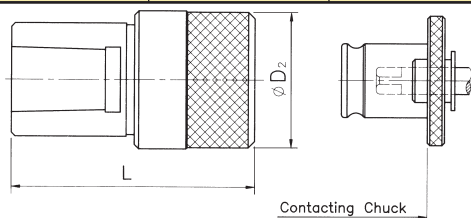
## QUICK CHANGE TAPPING CHUCKS (type solid) MORSE TAPER shank

### SF-MT

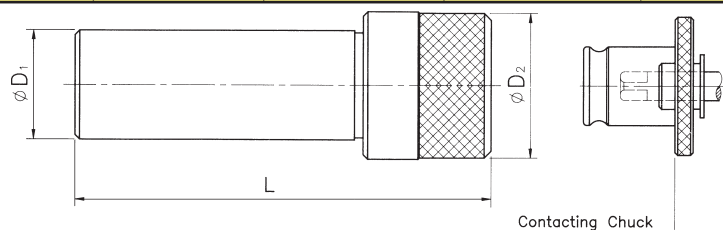


| ORDER NO. | Thread Size | L  | ØD <sub>2</sub> | Collets  | Weight(kg) | CODE NO. |
|-----------|-------------|----|-----------------|----------|------------|----------|
| MT2-SF12  | M3-M12      | 44 | 32              | TC-312B  | 0.3        | 3404-120 |
| MT3-SF20  | M8-M20      | 61 | 50              | TC-820B  | 0.8        | 3404-121 |
| MT4-SF33  | M14-M33     | 91 | 72              | TC-1433B | 2.2        | 3404-122 |

### SF-JTA



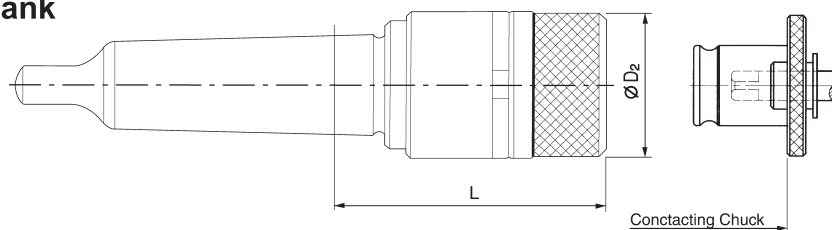
| ORDER NO. | Thread Size | L  | ØD <sub>2</sub> | Collets | Weight(kg) | CODE NO. |
|-----------|-------------|----|-----------------|---------|------------|----------|
| JTA6-SF12 | M3-M12      | 65 | 32              | TC-312B | 0.3        | 3404-130 |
| JAT2-SF12 | M8-M12      | 65 | 32              | TC-312B | 0.3        | 3404-131 |



### SF-ST

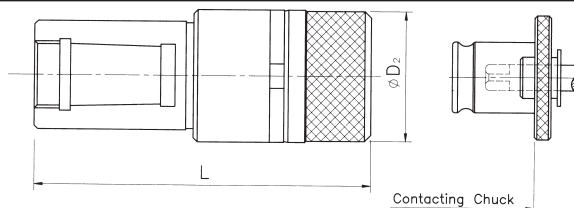
| DER NO.   | Thread Size | L   | ØD <sub>2</sub> | ØD <sub>1</sub> | Collets | Weight(kg) | CODE NO. |
|-----------|-------------|-----|-----------------|-----------------|---------|------------|----------|
| ST20-SF12 | M3-M12      | 100 | 32              | 20              | TC-312B | 0.3        | 3404-140 |

## QUICK CHANGE TAPPING CHUCKS (type solid + floating) MORSE TAPER shank



### MT-SFP

| O.        | Thread Size | L  | ØD <sub>2</sub> | Floating | Collets | Weight(kg) | CODE NO. |
|-----------|-------------|----|-----------------|----------|---------|------------|----------|
| MT2-SFP12 | M3-M12      | 65 | 32              | 0.5      | TC-312B | 0.4        | 3404-150 |
| MT3-SFP20 | M8-M20      | 91 | 50              | 1.0      | TC-820B | 1.3        | 3404-151 |



### JTA-SFP

| ORDER NO.  | Thread Size | L   | ØD <sub>2</sub> | Floating | Collets | Weight(kg) | CODE NO. |
|------------|-------------|-----|-----------------|----------|---------|------------|----------|
| JTA6-SFP12 | M3-M12      | 100 | 32              | 0.5      | TC-312B | 0.5        | 3404-160 |
| JTA2-SFP12 | M8-M12      | 100 | 32              | 0.5      | TC-820B | 0.5        | 3404-161 |

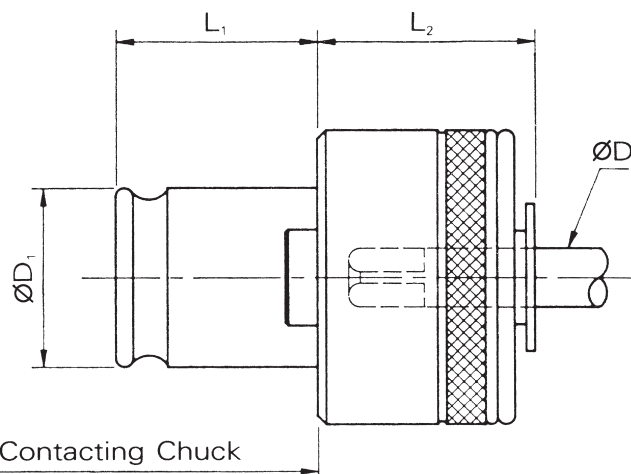


# Quick Change Tapping Chucks

## QUICK CHANGE TAP COLLETS (with overload clutch)

1PC±0.18kg

| Size          | Thread    | Tap Shank<br>∅D □ | ∅D <sub>1</sub> | L <sub>1</sub> | L <sub>2</sub> | ORDER NO. | CODE NO. |
|---------------|-----------|-------------------|-----------------|----------------|----------------|-----------|----------|
| TC312<br>(#1) | M3        | 4 3.2             | 19              | 21.5           | 25             | 312-01    | 3404-200 |
|               | M4        | 5 4               |                 |                |                | 312-02    | 3404-201 |
|               | M5        | 5.5 4.5           |                 |                |                | 312-03    | 3404-202 |
|               | M6        | 6 4.5             |                 |                |                | 312-04    | 3404-203 |
|               | M7        | 6.2 5             |                 |                |                | 312-05    | 3404-204 |
|               | M8        | 6.2 5             |                 |                |                | 312-06    | 3404-205 |
|               | M9        | 7 5.5             |                 |                |                | 312-07    | 3404-206 |
|               | M10       | 7 5.5             |                 |                |                | 312-08    | 3404-207 |
|               | M11       | 8 6               |                 |                |                | 312-09    | 3404-208 |
|               | M12       | 8.5 6.5           |                 |                |                | 312-10    | 3404-209 |
|               | •M14      | 10.5 8            |                 |                |                | •312-11   | 3404-210 |
|               | •M15      | 10.5 8            |                 |                |                | •312-12   | 3404-211 |
|               | UNC 1/4   | 6 4.5             |                 |                |                | 312-13    | 3404-212 |
|               | UNC 5/16  | 6.1 5             |                 |                |                | 312-14    | 3404-213 |
|               | UNC 3/8   | 7 5.5             |                 |                |                | 312-15    | 3404-214 |
|               | UNC 7/16  | 8 6               |                 |                |                | 312-16    | 3404-215 |
|               | UNC 1/2   | 9 7               |                 |                |                | 312-17    | 3404-216 |
|               | •UNC 9/16 | 10.5 8            |                 |                |                | •312-18   | 3404-217 |
|               | PT 1/8    | 8 6               |                 |                |                | 312-19    | 3404-218 |
|               | PT 1/4    | 11 9              |                 |                |                | 312-20    | 3404-219 |



- Torque is factory-set to protect the tap for which a particular collet is designed. Small adjustments can be made by a trained user to accommodate tap strength and material variations.
- Collet stops driving when set torque is exceeded.
- A collet is necessary for each tap shank diameter.
- DIN & ISO systems : please see page 68.

1PC±1.8kg

| Size          | Thread   | Tap Shank<br>∅D □ | ∅D <sub>1</sub> | L <sub>1</sub> | L <sub>2</sub> | ORDER NO. | CODE NO. |
|---------------|----------|-------------------|-----------------|----------------|----------------|-----------|----------|
| TC820<br>(#2) | M7       | 6.2 5             | 31              | 35             | 34             | 820-01    | 3404-230 |
|               | M8       | 6.2 5             |                 |                |                | 820-02    | 3404-231 |
|               | M9       | 7 5.5             |                 |                |                | 820-03    | 3404-232 |
|               | M10      | 7 5.5             |                 |                |                | 820-04    | 3404-233 |
|               | M11      | 8 6               |                 |                |                | 820-05    | 3404-234 |
|               | M12      | 8.5 6.5           |                 |                |                | 820-06    | 3404-235 |
|               | M14      | 10.5 8            |                 |                |                | 820-07    | 3404-236 |
|               | M15      | 10.5 8            |                 |                |                | 820-08    | 3404-237 |
|               | M16      | 12.5 10           |                 |                |                | 820-09    | 3404-238 |
|               | M17      | 13 10             |                 |                |                | 820-10    | 3404-239 |
|               | M18      | 14 11             |                 |                |                | 820-11    | 3404-240 |
|               | M20      | 15 12             |                 |                |                | 820-12    | 3404-241 |
|               | M22      | 17 13             |                 |                |                | 820-13    | 3404-242 |
|               | UNC 3/8  | 7 5.5             |                 |                |                | 820-14    | 3404-243 |
|               | UNC 7/16 | 8 6               |                 |                |                | 820-15    | 3404-244 |
|               | UNC 1/2  | 9 7               |                 |                |                | 820-16    | 3404-245 |
|               | UNC 9/16 | 10.5 8            |                 |                |                | 820-17    | 3404-246 |
|               | UNC 5/8  | 12 9              |                 |                |                | 820-18    | 3404-247 |
|               | UNC 3/4  | 14 11             |                 |                |                | 820-19    | 3404-248 |
|               | UNC 7/8  | 17 13             |                 |                |                | 820-20    | 3404-249 |
|               | PT 1/8   | 8 6               |                 |                |                | 820-21    | 3404-250 |
|               | PT 1/4   | 11 9              |                 |                |                | 820-22    | 3404-251 |
|               | PT 3/8   | 14 11             |                 |                |                | 820-23    | 3404-252 |
|               | PT 1/2   | 18 14             |                 |                |                | 820-24    | 3404-253 |

1PC±0.6kg

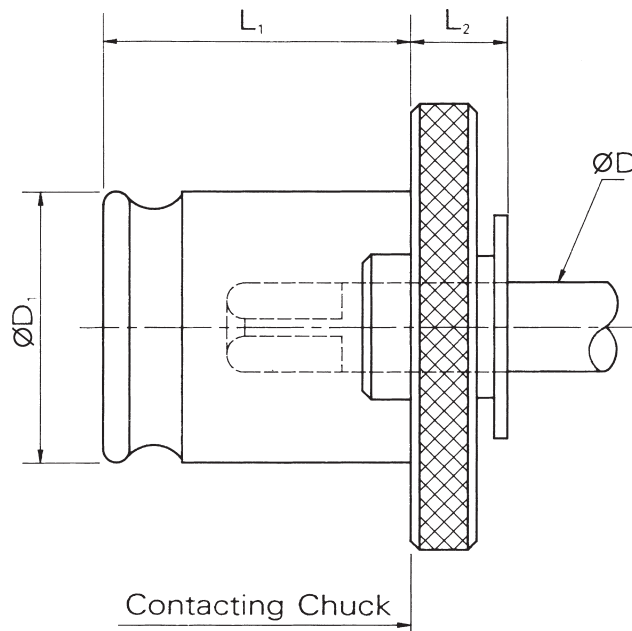
| Size           | Thread    | Tap Shank<br>∅D □ | ∅D <sub>1</sub> | L <sub>1</sub> | L <sub>2</sub> | ORDER NO. | CODE NO. |
|----------------|-----------|-------------------|-----------------|----------------|----------------|-----------|----------|
| TC1433<br>(#3) | M14       | 10.5 8            | 48              | 55.5           | 45             | 1433-01   | 3404-260 |
|                | M15       | 10.5 8            |                 |                |                | 1433-02   | 3404-261 |
|                | M16       | 12.5 10           |                 |                |                | 1433-03   | 3404-262 |
|                | M17       | 13 10             |                 |                |                | 1433-04   | 3404-263 |
|                | M18       | 14 11             |                 |                |                | 1433-05   | 3404-264 |
|                | M20       | 15 12             |                 |                |                | 1433-06   | 3404-265 |
|                | M22       | 17 13             |                 |                |                | 1433-07   | 3404-266 |
|                | M24       | 19 15             |                 |                |                | 1433-08   | 3404-267 |
|                | M25       | 19 15             |                 |                |                | 1433-09   | 3404-268 |
|                | M26       | 20 15             |                 |                |                | 1433-10   | 3404-269 |
|                | M27       | 20 15             |                 |                |                | 1433-11   | 3404-270 |
|                | M28       | 21 17             |                 |                |                | 1433-12   | 3404-271 |
|                | M30       | 23 17             |                 |                |                | 1433-13   | 3404-272 |
|                | M32       | 24 19             |                 |                |                | 1433-14   | 3404-273 |
|                | M33       | 25 19             |                 |                |                | 1433-15   | 3404-274 |
|                | M34       | 26 21             |                 |                |                | 1433-16   | 3404-275 |
|                | M35       | 26 21             |                 |                |                | 1433-17   | 3404-276 |
|                | M36       | 28 21             |                 |                |                | 1433-18   | 3404-277 |
|                | UNC 9/16  | 10.5 8            |                 |                |                | 1433-19   | 3404-278 |
|                | UNC 5/8   | 12 9              |                 |                |                | 1433-20   | 3404-279 |
|                | UNC 3/4   | 14 11             |                 |                |                | 1433-21   | 3404-280 |
|                | UNC 7/8   | 17 13             |                 |                |                | 1433-22   | 3404-281 |
|                | UNC 1     | 20 15             |                 |                |                | 1433-23   | 3404-282 |
|                | UNC 1 1/8 | 22 17             |                 |                |                | 1433-24   | 3404-283 |
|                | UNC 1 1/4 | 24 19             |                 |                |                | 1433-25   | 3404-284 |
|                | UNC 1 3/8 | 26 21             |                 |                |                | 1433-26   | 3404-285 |
|                | PT 1/4    | 11 9              |                 |                |                | 1433-27   | 3404-286 |
|                | PT 3/8    | 14 11             |                 |                |                | 1433-28   | 3404-287 |
|                | PT 1/2    | 18 14             |                 |                |                | 1433-29   | 3404-288 |
|                | PT 3/4    | 23 17             |                 |                |                | 1433-30   | 3404-289 |
|                | PT 1      | 26 21             |                 |                |                | 1433-31   | 3404-290 |



# Quick Change Tapping Chucks

## QUICK CHANGE TAP COLLETS

(without overload clutch)



1PC±0.08kg

| Size        | Thread  | Tap Shank |     | ØD <sub>1</sub> | L <sub>1</sub> | L <sub>2</sub> | ORDER NO. | CODE NO. |
|-------------|---------|-----------|-----|-----------------|----------------|----------------|-----------|----------|
|             |         | ØD        | □   |                 |                |                |           |          |
| TC312B (#1) | M3      | 4         | 3.2 | 19              | 21.5           | 7              | 312B-01   | 3404-300 |
|             | M4      | 5         | 4   |                 |                |                | 312B-02   | 3404-301 |
|             | M5      | 5.5       | 4.5 |                 |                |                | 312B-03   | 3404-302 |
|             | M6      | 6         | 4.5 |                 |                |                | 312B-04   | 3404-303 |
|             | UNC5/16 | 6.1       | 5   |                 |                |                | 312B-05   | 3404-304 |
|             | M7/M8   | 6.2       | 5   |                 |                |                | 312B-06   | 3404-305 |
|             | M9/M10  | 7         | 5.5 |                 |                |                | 312B-07   | 3404-306 |
|             | M11     | 8         | 6   |                 |                |                | 312B-08   | 3404-307 |
|             | M12     | 8.5       | 6.5 |                 |                |                | 312B-09   | 3404-308 |
|             | UNC1/2  | 9         | 7   |                 |                |                | 312B-10   | 3404-309 |
|             | M14     | 10.5      | 8   |                 |                |                | 312B-11   | 3404-310 |
|             | PT1/4   | 11        | 9   |                 |                |                | 312B-12   | 3404-311 |

- A collet is necessary for each tap shank diameter.
- DIN & ISO systems : please see page 68.

1PC±0.8kg

| Size        | Thread | Tap Shank |     | ØD <sub>1</sub> | L <sub>1</sub> | L <sub>2</sub> | ORDER NO. | CODE NO. |
|-------------|--------|-----------|-----|-----------------|----------------|----------------|-----------|----------|
|             |        | ØD        | □   |                 |                |                |           |          |
| TC820B (#2) | M7/M8  | 6.2       | 5   | 31              | 35             | 11             | 820B-01   | 3404-330 |
|             | M9/M10 | 7         | 5.5 |                 |                |                | 820B-02   | 3404-331 |
|             | M11    | 8         | 6   |                 |                |                | 820B-03   | 3404-332 |
|             | M12    | 8.5       | 6.5 |                 |                |                | 820B-04   | 3404-333 |
|             | UNC1/2 | 9         | 7   |                 |                |                | 820B-05   | 3404-334 |
|             | M14    | 10.5      | 8   |                 |                |                | 820B-06   | 3404-335 |
|             | PT1/4  | 11        | 9   |                 |                |                | 820B-07   | 3404-336 |
|             | UNC5/8 | 12        | 9   |                 |                |                | 820B-08   | 3404-337 |
|             | M16    | 12.5      | 10  |                 |                |                | 820B-09   | 3404-338 |
|             | M17    | 13        | 10  |                 |                |                | 820B-10   | 3404-339 |
|             | M18    | 14        | 11  |                 |                |                | 820B-11   | 3404-340 |
|             | M20    | 15        | 12  |                 |                |                | 820B-12   | 3404-341 |
|             | M22    | 17        | 13  |                 |                |                | 820B-13   | 3404-342 |
|             | PT1/2  | 18        | 14  |                 |                |                | 820B-14   | 3404-343 |

| Size         | Thread   | Tap Shank |    | ØD <sub>1</sub> | L <sub>1</sub> | L <sub>2</sub> | ORDER NO. | CODE NO. |
|--------------|----------|-----------|----|-----------------|----------------|----------------|-----------|----------|
|              |          | ØD        | □  |                 |                |                |           |          |
| TC1433B (#3) | M14/M15  | 10.5      | 8  | 48              | 55.5           | 14             | 1433B-01  | 3404-360 |
|              | PT1/4    | 11        | 9  |                 |                |                | 1433B-02  | 3404-361 |
|              | UNC5/8   | 12        | 9  |                 |                |                | 1433B-03  | 3404-362 |
|              | M16      | 12.5      | 10 |                 |                |                | 1433B-04  | 3404-363 |
|              | M17      | 13        | 10 |                 |                |                | 1433B-05  | 3404-364 |
|              | M18      | 14        | 11 |                 |                |                | 1433B-06  | 3404-365 |
|              | M20      | 15        | 12 |                 |                |                | 1433B-07  | 3404-366 |
|              | M22      | 17        | 13 |                 |                |                | 1433B-08  | 3404-367 |
|              | PT1/2    | 18        | 14 |                 |                |                | 1433B-09  | 3404-368 |
|              | M24/M25  | 19        | 15 |                 |                |                | 1433B-10  | 3404-369 |
|              | M26/M27  | 20        | 15 |                 |                |                | 1433B-11  | 3404-370 |
|              | M28      | 21        | 17 |                 |                |                | 1433B-12  | 3404-371 |
|              | UNC1 1/8 | 22        | 17 |                 |                |                | 1433B-13  | 3404-372 |
|              | M30      | 23        | 17 |                 |                |                | 1433B-14  | 3404-373 |
|              | M32      | 24        | 19 |                 |                |                | 1433B-15  | 3404-374 |
|              | M33      | 25        | 19 |                 |                |                | 1433B-16  | 3404-375 |
|              | M34/M35  | 26        | 21 |                 |                |                | 1433B-17  | 3404-376 |
|              | M36/M38  | 28        | 21 |                 |                |                | 1433B-18  | 3404-377 |

[illegible]

JIS STANDARD PIPE THREAD

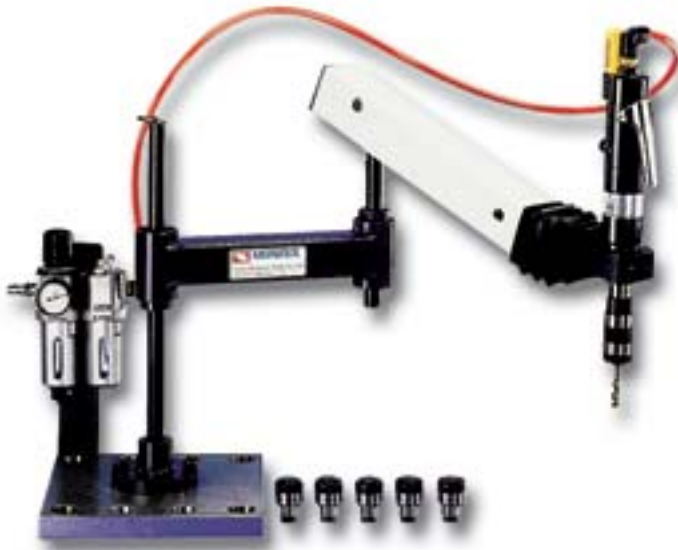
|        |        |        | d  | □  |
|--------|--------|--------|----|----|
| 1/8    | 1/8    | 1/8    | 8  | 6  |
| 1/4    | 1/4    | 1/4    | 11 | 9  |
| 3/8    | 3/8    | 3/8    | 14 | 11 |
| 1/2    | 1/2    | 1/2    | 18 | 14 |
|        |        | 5/8    | 19 | 15 |
| 3/4    | 3/4    | 3/4    | 23 | 17 |
|        |        | 7/8    | 24 | 19 |
| 1      | 1      | 1      | 26 | 21 |
|        | 1 1/8  | 1- 1/8 | 28 | 21 |
| 1- 1/4 | 1- 1/4 | 1- 1/4 | 32 | 26 |
| 1- 3/8 | 1- 3/8 | 1- 3/8 | 35 | 26 |
| 1- 1/2 | 1- 1/2 | 1- 1/2 | 38 | 29 |



# Mini Type Arm Type Air Tapping Unit

## ACCESSORIES

- Air tapping spindle
- Parallel arm
- Table mounting column
- Air unit
- Choose any six safety clutch tapping adapters
- Radial jib



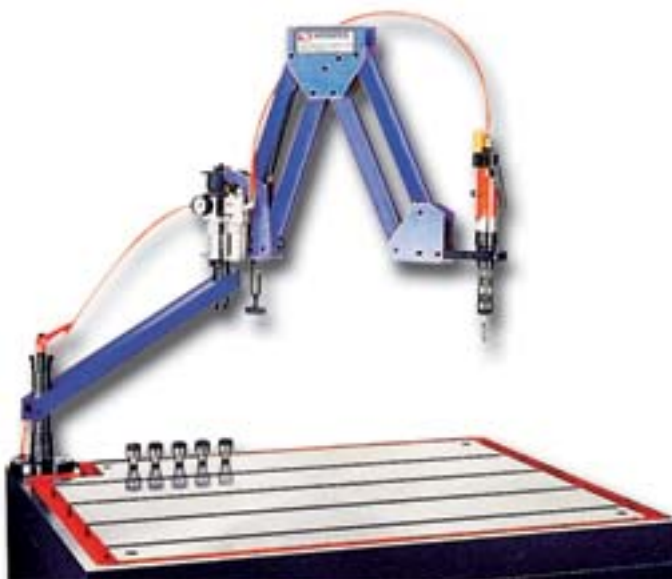
| ORDER NO.    | VAT-708    | VAT-712  | VAT-716  |
|--------------|------------|----------|----------|
| For Tap      | M2~M8      | M3~M12   | M3~M16   |
|              | TC-312     | TC-312   | TC-312   |
| Speed (rpm)  | 700        | 400      | 400      |
| Weight (kgs) | 12         | 12       | 12       |
| Work Range   | Rmax 700mm |          |          |
| Code No.     | 3404-410   | 3404-411 | 3404-412 |



# Small Arm Type Air Tapping Unit

## ACCESSORIES

- Air tapping spindle
- Parallel arm
- Table mounting column
- Air unit
- Choose any six safety clutch tapping adapters
- Radial jib, increases arm reach by 500mm

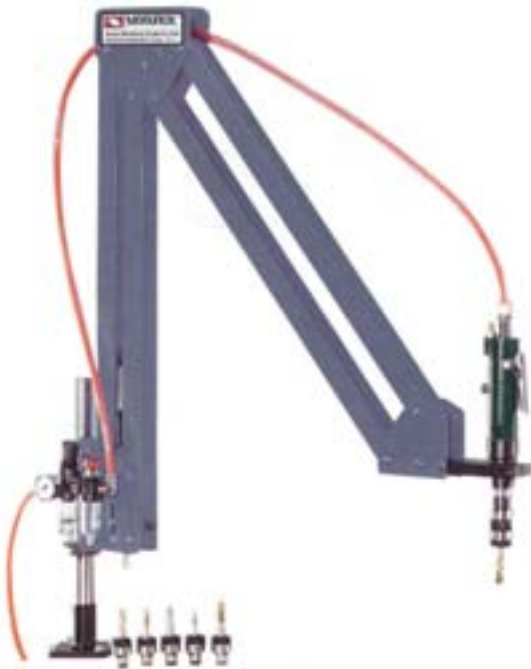


| ORDER NO.    | VAT-1408    | VAT-1412 | VAT-1416 |
|--------------|-------------|----------|----------|
| For Tap      | M2~M8       | M3~M12   | M3~M16   |
|              | TC-312      | TC-312   | TC-312   |
| Speed (rpm)  | 700         | 400      | 400      |
| Weight (kgs) | 18          | 18       | 20       |
| Work Range   | Rmax 1400mm |          |          |
|              | Rmin 200mm  |          |          |
| Code No.     | 3404-415    | 3404-416 | 3404-417 |

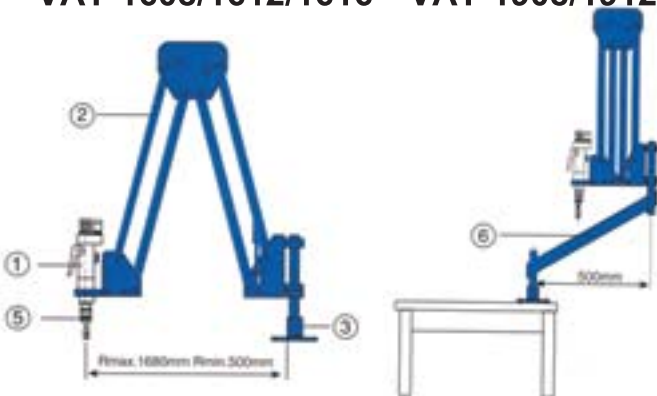


# Arm Type Air Tapping Unit

WORK RANGE 1600X500m/m  
RMAX. X MIN.

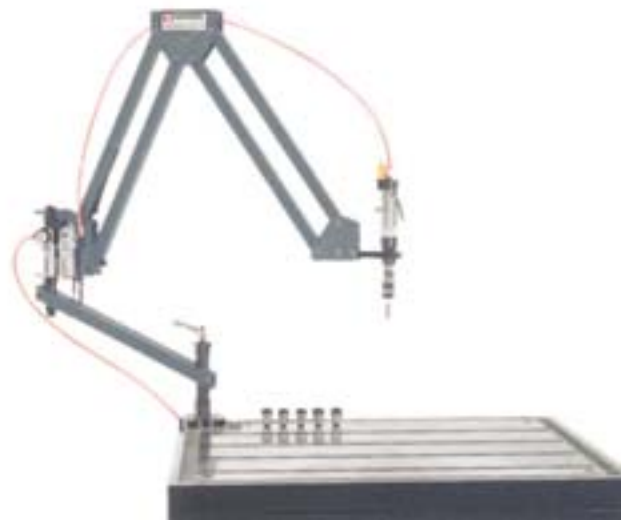


VAT-1608/1612/1616 VAT-1908/1912/1916



## To solve all tapping problems

1. Rapid positioning and high machining speed increase productivity.
2. Lower tap damage rate, high thread accuracy.
3. Tap shall never break for tapping through-hole or blind-hole.
4. Tapping for heavier workpiece requires no positioning equipments nor movement, large work area.
5. Lower machining cost than that by CNC machine, drilling machine or manual tapping operation.
6. Drilling to max: 6mm diameter
7. Easy operation, no experience or strength required.



WORK RANGE 1900X200m/m  
RMAX. X MIN.

| ORDER NO.    | VAT-1608    | VAT-1612 | VAT-1616 |
|--------------|-------------|----------|----------|
| For Tap      | M2~M8       | M3~M12   | M3~M16   |
|              | TC-312      | TC-312   | TC-312   |
| Speed (rpm)  | 700         | 400      | 400      |
| Weight (kgs) | 18          | 18       | 20       |
| Work Range   | Rmax 1600mm |          |          |
|              | Rmin 500mm  |          |          |
| Code No.     | 3404-420    | 3404-421 | 3404-422 |

| ORDER NO.    | VAT-1908    | VAT-1912 | VAT-1916 |
|--------------|-------------|----------|----------|
| For Tap      | M2~M8       | M3~M12   | M3~M16   |
|              | TC-312      | TC-312   | TC-312   |
| Speed (rpm)  | 700         | 400      | 400      |
| Weight (kgs) | 20          | 18       | 22       |
| Work Range   | Rmax 1900mm |          |          |
|              | Rmin 200mm  |          |          |
| Code No.     | 3404-425    | 3404-426 | 3404-427 |

## VAT-1608, 1612, 1616 STANDARD ACCESSORIES

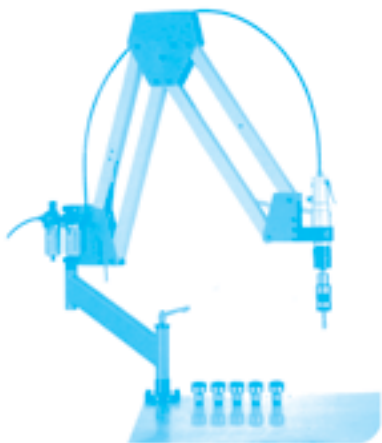
1. Air tapping spindle
2. Parallel arm
3. Table mounting column
4. Air unit
5. Choose any six safety clutch tapping adapters

## VAT-1908, 1912, 1916 STANDARD ACCESSORIES

1. Air tapping spindle
2. Parallel arm
3. Table mounting column
4. Air unit
5. Choose any six safety clutch tapping adapters
6. Radial jib, increases arm reach by 500mm



# Air Tapping Machine



Large Range Type For  
Tap M4~M20, TC-312B,  
TC-820B

## STANDARD ACCESSORIES:

- Air tapping spindle
- Parallel arm
- Table mounting column
- Air unit
- Choose any six safety clutch tapping adapters
- Radial jib, increases arm reach by 500mm

| ORDER NO. |        | SPEED (rpm) | WORK RANGE  | WEIGHT (kg) | CODE NO. |
|-----------|--------|-------------|-------------|-------------|----------|
| VAT-1920  | M4~M20 | 150/400     | Rmax 1900mm | 31          | 3404-430 |
| VAT-1922  | M4~M22 | 120/300     | Rmin 200mm  |             | 3404-431 |



## Air Hydraulic Special Accessories Of Tapping Machine

90° and Various Degree Tapping Device



| ORDER NO. |                                       | WEIGHT (kg) | CODE NO. |
|-----------|---------------------------------------|-------------|----------|
| AT08-90°  | VAT-708 VAT-1608<br>VAT-1408 VAT-1908 | 1.1         | 3404-440 |
| AT12-90°  | VAT-712 VAT-1612<br>VAT-1412 VAT-1912 | 1.1         | 3404-441 |

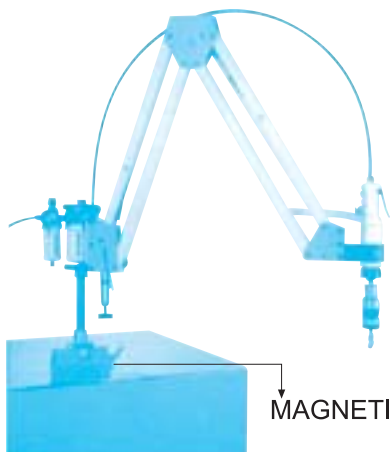


| ORDER NO. | FOR PE                                | WEIGHT (kg) | CODE NO. |
|-----------|---------------------------------------|-------------|----------|
| AT16-90°  | VAT-716 VAT-1616<br>VAT-1416 VAT-1916 | 1.5         | 3404-442 |
| AT20-90°  | VAT-1920                              | 1.5         | 3404-443 |
| AT22-90°  | VAT-1922                              | 1.5         | 3404-444 |



## Magnetic Base For Air Tapping Machine

PORTABLE & MOVEABLE AIR TAPPING ARM



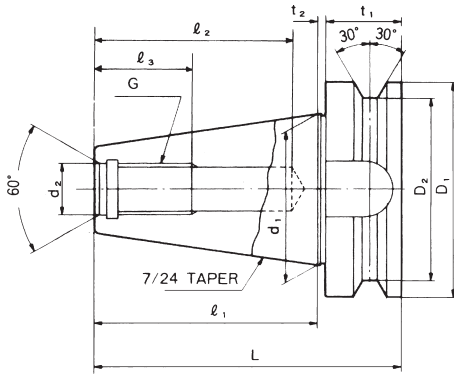
MAGNETIC BASE

| ORDER NO. | Magnetic Base |              | Suit For VAT-Type               | WEIGHT (kg) | CODE NO. |
|-----------|---------------|--------------|---------------------------------|-------------|----------|
|           | Holding power | Dimension mm |                                 |             |          |
| VLM-300A  | 300kg         | 155x90x93    | VAT-7□□<br>VAT-14□□<br>VAT-16□□ | 8.6         | 3404-450 |
| VLM-600A  | 600kg         | 224x115x120  | VAT-1920<br>VAT-1922            | 2.1         | 3404-451 |



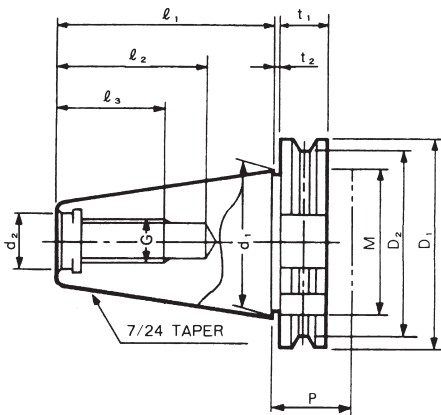
# Specification For Taper Shank

## BT Shank (MAS403B)



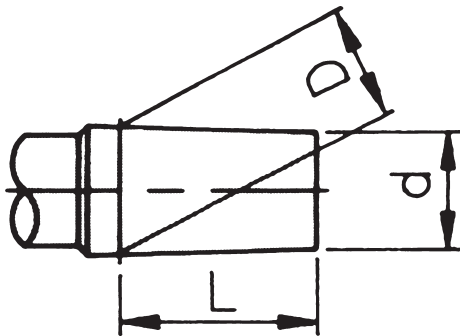
| Shank   | D <sub>1</sub> | D <sub>2</sub> | t <sub>1</sub> | t <sub>2</sub> | l <sub>1</sub> | l <sub>2</sub> | l <sub>3</sub> | L     | d <sub>1</sub> | d <sub>2</sub> | G   |
|---------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-------|----------------|----------------|-----|
| BT30    | 46             | 38             | 20             | 2              | 48.4           | 34             | 24             | 70.4  | 31.75          | 12.5           | M12 |
| BT35    | 53             | 43             | 22             | 2              | 56.4           | 34             | 24             | 80.4  | 38.1           | 12.5           | M12 |
| BT35-MS | 53             | 43             | 20             | 2              | 56.5           | 34             | 27             | 78.5  | 38.1           | 13             | M12 |
| BT40    | 63             | 53             | 25             | 2              | 65.4           | 70             | 30             | 92.4  | 44.45          | 17             | M16 |
| BT45    | 85             | 73             | 30             | 3              | 82.8           | 70             | 38             | 115.8 | 57.15          | 21             | M20 |
| BT50    | 100            | 85             | 35             | 3              | 101.8          | 90             | 45             | 139.8 | 69.85          | 25             | M24 |

## DIN/ISO Shank (DIN 69871 Form A / DIN 7388-1)



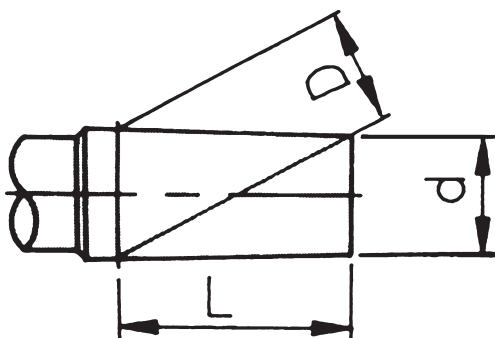
| Shank  | D <sub>1</sub> | D <sub>2</sub> | t <sub>1</sub> | t <sub>2</sub> | l <sub>1</sub> | l <sub>2</sub> | l <sub>3</sub> | d <sub>1</sub> | d <sub>2</sub> | M    | P  | G   |
|--------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|------|----|-----|
| ISO 40 | 63.55          | 56.25          |                |                | 68.4           | 42.5           | 32             | 44.45          | 17             | 44.7 |    | M16 |
| ISO 45 | 82.55          | 75.25          | 15.9           | 3.2            | 82.7           | 52.5           | 40             | 57.15          | 21             | 57.4 | 35 | M20 |
| ISO 50 | 97.5           | 91.25          |                |                | 101.75         | 61.5           | 47             | 69.85          | 25             | 70.1 |    | M24 |

## Drill Chuck Taper (JACOBS)

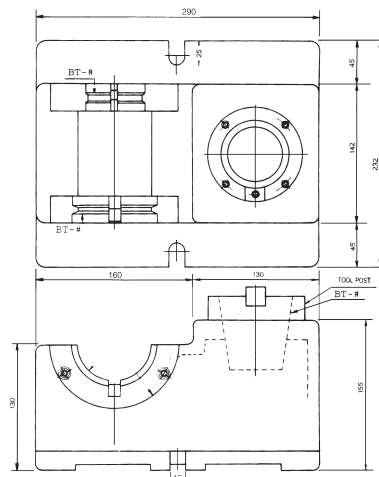


| Taper No. | Tsper   | D      | d      | L      |
|-----------|---------|--------|--------|--------|
| JT0       | 0.04929 | 6.35   | 5.802  | 11.112 |
| JT1       | 0.07709 | 9.754  | 8.469  | 16.669 |
| JT2'short | 0.08155 | 13.940 | 12.386 | 19.050 |
| JT2       | 0.08155 | 14.199 | 12.386 | 22.225 |
| JT33      | 0.06350 | 15.850 | 14.237 | 25.400 |
| JT6       | 0.05191 | 17.170 | 15.852 | 25.400 |
| JT3       | 0.05325 | 20.599 | 18.951 | 30.956 |
| (JT4)     | 0.05240 | 28.550 | 26.346 | 42.069 |
| (JT5)     | 0.05183 | 35.890 | 33.422 | 47.625 |

## Drill Chuck Taper (DIN 238)



| Taper No. | Tsper   | D      | d     | L    |
|-----------|---------|--------|-------|------|
| B 6       | 0.05    | 6.350  | 5.85  | 10   |
| B10       | 0.04988 | 10.094 | 9.40  | 14.5 |
| B12       | 0.04988 | 12.065 | 11.10 | 18.5 |
| B16       | 0.04995 | 15.733 | 14.50 | 24.0 |
| B18       | 0.04995 | 17.780 | 16.20 | 32.0 |
| B22       | 0.05020 | 21.793 | 19.80 | 40.5 |
| B24       | 0.05020 | 23.825 | 21.30 | 50.5 |



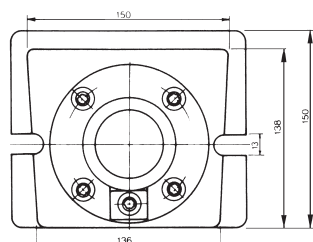
- (A) This tool setting stand is one kind of subsize tool for helping machine center to work efficiently. To be used fixing the tools on tool holder. It could avoid the method of using draw bar to fix (on machine center). It is both safety and don't effect the precision of machine's spindle.
- (B) It could selet using on horizontal or vertical lines, simple & quick operations.
- (C) A multi-function tool, it is changeable, has two kinds of specifications can be used. That is to say, one machine could be used as two sets machines.
- (D) Additional special accessories to make your operating more convenient.

| ORDER NO. | SHANK TAPERS |                   | WEIGHT<br>(kg) | CODE NO  |
|-----------|--------------|-------------------|----------------|----------|
|           | TOOL POST    | ADAPTER HOLDING   |                |          |
| VTD-1     | BT-#40x1     | BT-#40x2          | 25             | 3405-001 |
| VTD-2     | BT-#50x1     | BT-#50x2          | 23             | 3405-002 |
| VTD-3     | BT-#50x1     | BT-#50x1 BT-#40x1 | 24             | 3405-003 |
| VTD-4     | BT-#40x1     | BT-#50x1 BT-#40x1 | 24             | 3405-004 |



- A. This tool setting stand is one kind of subsidize tool for helping machine center to work efficiently. To be used fixing the tools on tool holder. It could avoid the method of using draw bar to fix (on machine center). It is both safety and don't effect the precision of machine's spindle.

- B. It is simple structure type. And could fix tooling on the above and hold the pull studs on the below of it. This is the excellent helping tools for simple, rapid and safety.





# Tool Holder Locking Device

| ORDER NO. | STD                    | WEIGHT (kg) | CODE NO. |
|-----------|------------------------|-------------|----------|
| VTG-BT30  | ISO NT (SAME TAPER) BT | 3.7         | 3405-020 |
| VTG-BT40  |                        | 3.7         | 3405-021 |
| VTG-BT50  |                        | 10.4        | 3405-022 |
| VTG-SK30  | DIN69871A              | 3.7         | 3405-023 |
| VTG-SK40  |                        | 3.7         | 3405-024 |
| VTG-SK50  |                        | 10.4        | 3405-025 |



# Tool Holder Locking Device

TILTING TYPE

| ORDER NO. | STD       | WEIGHT (kg) | CODE NO. |
|-----------|-----------|-------------|----------|
| VTL-BT30  | ISO NT BT | 4           | 3405-030 |
| VTL-BT40  |           | 4           | 3405-031 |
| VTL-BT50  |           | 8           | 3405-032 |
| VTL-SK30  | DIN69871A | 4           | 3405-033 |
| VTL-SK40  |           | 4           | 3405-034 |
| VTL-SK50  |           | 8           | 3405-035 |



# Tool Holder Locking Fixtures

| ORDER NO. | STD       | WEIGHT (kg) | CODE NO. |
|-----------|-----------|-------------|----------|
| VTF-BT30  | ISO BT    | 12          | 3405-040 |
| VTF-BT40  |           | 12          | 3405-041 |
| VTF-BT50  |           | 14          | 3405-042 |
| VTF-SK30  | DIN69871A | 12          | 3405-043 |
| VTF-SK40  |           | 12          | 3405-044 |
| VTF-SK50  |           | 14          | 3405-045 |



# Tilting Tool Locking Device

| ORDER NO. | STD       | WEIGHT (kg) | CODE NO. |
|-----------|-----------|-------------|----------|
| VTU-BT30  | ISO NT BT | 11.3        | 3405-026 |
| VTU-BT40  |           | 11.3        | 3405-027 |
| VTU-BT50  |           | 15          | 3405-028 |
| VTU-SK30  | DIN69871A | 11.3        | 3405-036 |
| VTU-SK40  |           | 11.3        | 3405-037 |
| VTU-SK50  |           | 15          | 3405-038 |





## End Mill Sheath Rack



Material:ABS  
with 62 sheaths.

unit:mm

| ORDER NO. | CAPACITY RANGE | SIZE       | WEIGHT(kg) | CODE NO. |
|-----------|----------------|------------|------------|----------|
| VMS-2     | Ø6~Ø42         | 205x205x80 | 0.4        | 3405-050 |



## Spindle Taper Wiper



- Easily and quickly for cleaning spindle hole.
- Plastic body, the taper wiper is made of special cotton material, will not be damage to spindle.
- The BT & DIN of taper are same

| ORDER NO. | TAPER NO. | TOTAL LENGTH | WEIGHT(kg) | CODE NO. |
|-----------|-----------|--------------|------------|----------|
| VTW-30    | #30       | 168mm        | 0.05       | 3405-060 |
| VTW-40    | #40       | 185mm        | 0.06       | 3405-061 |
| VTW-50    | #50       | 235mm        | 0.13       | 3405-062 |



## Spindle Taper Wiper

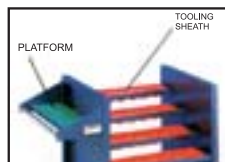


| ORDER NO. | TAPER NO. | TOTAL LENGTH | WEIGHT  | CODE NO. |
|-----------|-----------|--------------|---------|----------|
| VTW-63A   | HSK63A    | 166mm        | 0.08kg  | 3405-120 |
| VTW-50H   | HSK50A    | 159mm        | 0.08kg  | 3405-121 |
| VTW-63H   | HSK63H    | 167mm        | 0.0.8kg | 3405-122 |



## Tooling Trolleys

ORDER NO.:VTT-2  
WEIGHT:38kg



ORDER NO.:VTT-6



ORDER NO.:VTT-5  
WITH 2 DRAWERS



WEIGHT:65kg

| ORDER NO. | STD                 | CODE NO. |
|-----------|---------------------|----------|
| VTT-2-30  | BT-30<br>DIN 69871A | 3405-100 |
| VTT-2-40  | BT-40<br>DIN 69871A | 3405-101 |
| VTT-2-50  | BT-50<br>DIN 69871A | 3405-102 |

| ORDER NO. | TOOLING SHEATH CAPACITY |            |            | SIZE (mm)                  |
|-----------|-------------------------|------------|------------|----------------------------|
|           | BT-30                   | BT-40      | BT-50      |                            |
| VTT-2     | 32 PCS/SET              | 28 PCS/SET | 20 PCS/SET | 960(L)<br>950(W)<br>840(H) |

| ORDER NO. | STD                 | CODE NO. |
|-----------|---------------------|----------|
| VTT-6-30  | BT-30<br>DIN 69871A | 3405-105 |
| VTT-6-40  | BT-40<br>DIN 69871A | 3405-106 |
| VTT-6-50  | BT-50<br>DIN 69871A | 3405-107 |

| ORDER NO. | STD                 | CODE NO. |
|-----------|---------------------|----------|
| VTT-5-30  | BT-30<br>DIN 69871A | 3405-110 |
| VTT-5-40  | BT-40<br>DIN 69871A | 3405-111 |
| VTT-5-50  | BT-50<br>DIN 69871A | 3405-112 |



## Tooling Sheath Rack



THE BT & DIN OF TAPER ARE SAME.

| ORDER NO.  | WEIGHT(kg) | CODE NO. |
|------------|------------|----------|
| VTTR-BT-30 | 2.64       | 3405-120 |
| VTTR-BT-40 | 2.64       | 3405-121 |
| VTTR-BT-50 | 2.64       | 3405-122 |

SIZE  
595mm(L)  
143mm(W)  
225mm(H)



## Tooling Sheath



THE BT & DIN OF TAPER ARE SAME.

ORDER NO.: VTTS-BT-30  
WEIGHT:0.077kg  
CODE NO. 3405-130  
SIZE: 48 X 138 X 65mm

ORDER NO.: VTTS-BT-40  
WEIGHT:0.085kg  
CODE NO. 3405-131  
SIZE: 63 X 138X 74mm

ORDER NO.: VTTS-BT-50  
WEIGHT:0.123kg  
CODE NO. 3405-132  
SIZE: 93 X 138X 104mm



# Tool Presetter

## TP-3040E ECONOMICAL-TYPE TOOL PRESETTER ORDER NO. TP-3040E CODE NO.3405-400

- Z axis is provided the Square Carriage and treated by special scratch.
- The base of X axis is provided the Dove Tail Slot which is grind and treated by special scratch to ensure the durability of parallelism.
- Spindle sizes can be changed by using different sleeves(BT#50,#40, #30) to inspect different sizes of tools. The tool presetter of standard sleeve is BT-50
- The optional sleeve is O.D. BT-50 XI D. BT-40 and O.D. BT-50X I.D. BT-30
- Digimatic Readout is provided to display the measuring size.

### STANDARD ACCESSORIES

|                                          |
|------------------------------------------|
| Digimatic Readout (XxZ:200x450m/m)       |
| Test Arbor BT#50(DxL:50x250mm)           |
| Dial Gauge (2 sets) 0.01mm               |
| Protective Dust-Resistance Plastic Cover |

### OPTIONAL ACCESSORIES

#### 1.SLEEVE



| ORDER NO. | SIZE        | CODE NO. |
|-----------|-------------|----------|
| S50-40    | BT-50XBT-40 | 3405-410 |
| S50-30    | BT-50XBT-30 | 3405-411 |

#### 2.TEST ARBOR



| ORDER NO. | SIZE  | CODE NO. |
|-----------|-------|----------|
| A50       | BT-50 | 3405-412 |
| A40       | BT-40 | 3405-413 |
| A30       | BT-30 | 3405-414 |



### SPECIFICATIONS

|                      |                   |
|----------------------|-------------------|
| Range of measurement | D:300mm, L:400 mm |
| Graduation           | Xaxis:0.01 mm     |
|                      | Zaxis: 0.01 mm    |
| Machine size(LxWxH)  | 662x222x862 mm    |
| G.W                  | 135kgs            |



# Tool Presetter

## TP-3040 DELUXE-TYPE TOOL PRESETTER ORDER NO. TP-3040 CODE NO.3405-401

- The Z spindle use Swiss made non-pitch screw pole. Can quick move and minor adjustment. Movement slightly and swiftly.
- The special equipment "Lock Up Setting" is installed around the spindle to reduce the aberration when measuring.
- Spindle sizes can be changed by using different sleeves to inspect different sizes of tools..
- The standard of sleeve is BT-50, the optional is O.D. BT-50 XI.D. BT-40, O.D. BT-50 X I.D. BT-30
- Germany Digimatic Readout is provided on X axis to display the measuring number.
- Ball Screw bearing Unit is provided on X axis to increase the accuracy.
- Tapered Bearing Units is provided on Z axis for making movement more smoothly.
- Precision Linear Guide is provided on Z axis for wear-resistance and long-term accuracy.

### STANDARD ACCESSORIES

|                                    |
|------------------------------------|
| Digimatic Readout (XxZ:200x450m/m) |
| Test Arbor BT#50(DxL:50x250mm)     |
| Dial Gauge (2 sets) 0.01mm         |
| Cabinet                            |
| Dust-Resistance Plastic Cover      |

### SPECIFICATIONS

|                      |                 |
|----------------------|-----------------|
| Range of measurement | D:300mm,L:400mm |
| Graduation           | Xaxis:0.01mm    |
|                      | Zaxis:0.01mm    |
| Size(LxWxH)          |                 |
| Machine              | 662x222x860mm   |
| Cabinet              | 650x500x760mm   |
| Weight               |                 |
| Machine              | 110kgs          |
| G.W                  | 135kgs          |





# Tool Presetter

## TP-3040Q OPTICAL TYPE TOOL PRESETTER ORDER NO. TP-3040Q CODE NO.3405-402

- The special equipment "Lock Up Setting" is installed around the spindle to reduce the aberration when measuring.
- Spindle sizes can be changed by using different sleeves to inspect different sizes of tools.
- The standard of sleeve is BT-50, the optional is O.D. BT-50 X I.D. BT-40, O.D. BT-50 X I.D. BT-30.
- Digital Readout is provided on X and Z axis to display the measuring number.
- Ball Screw Bearing Unit is provided on X axis to increase the accuracy.
- Tapered Bearing Units is provided on Z axis for making movement more smoothly.
- Precision Linear Guide is provided on Z axis for wear-resistance and long-term accuracy.
- Two sets of Manual Rotary Equipment are attached on the machine.
- Different multiple of Projectors are available.

### SPECIFICATIONS

|                      |                                |
|----------------------|--------------------------------|
| Range of measurement | D:300mm,L:400mm                |
| Graduation           | Xaxis:0.005mm<br>Zaxis:0.005mm |
| Size(LxWxH)          |                                |
| Machine              | 662x222x900mm                  |
| Cabinet              | 650x500x760mm                  |
| Weight               |                                |
| Machine              | 110kgs                         |
| Cabinet              | 57kgs                          |

### STANDARD ACCESSORIES

|                                  |
|----------------------------------|
| Digital Readout (XxZ:120x420m/m) |
| Protective (10X)                 |
| Test Arbor BT#50(DxL:50x250mm)   |
| Dial Gauge (2 sets) 0.01mm       |
| Cabinet                          |
| Dust-Resistance Plastic Cover    |
| Projector 10X                    |



# Tool Presetter

## TP-3040P DIGITAL READOUT TYPE TOOL PRESETTER



IT CAN BE CONNECT  
WITH RS 232C

## ORDER NO. TP-3040P CODE NO.3405-403

- The special equipment "Lock Up Setting" is installed around the spindle to reduce the aberration when measuring.
- Spindle sizes can be changed by using different sleeves to inspect different sizes of tools.
- Germany Digital Readout is provided on X and Z axis to display the measuring number.
- Ball Screw Bearing Unit is provided on X axis to increase the accuracy.
- Tapered Bearing Units is provided on Z axis for making movement more smoothly.
- Precision Linear Guide is provided on Z axis for wear-resistance and long-term accuracy.

### SPECIFICATIONS

|                      |                                |
|----------------------|--------------------------------|
| Range of measurement | D:300mm,L:400mm                |
| Graduation           | Xaxis:0.005mm<br>Zaxis:0.005mm |
| Size(LxWxH)          |                                |
| Machine              | 662x222x900mm                  |
| Cabinet              | 650x500x760mm                  |
| Weight               |                                |
| Machine              | 110kgs                         |
| Cabinet              | 57kgs                          |

### STANDARD ACCESSORIES

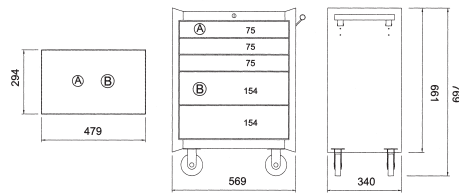
|                                  |
|----------------------------------|
| Digital Readout (XxZ:170x420m/m) |
| Test Arbor BT#50(DxL:50x250mm)   |
| Dial Gauge (2 sets) 0.01mm       |
| Cabinet                          |
| Dust-Resistance Plastic Cover    |





# Tool Cabinet

ALL THE OVERALL SIZE IS WITHOUT WHEEL HEIGHT.



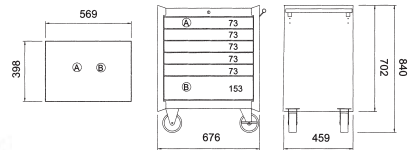
**5 Drawers Roll Cabinet**  
**Cuft: 6.9'**  
**Net Weight: 31.3 kgs**  
**Gross Weight: 34 kgs**

| ORDER NO. | CODE NO. |
|-----------|----------|
| VTC-S23   | 3405-144 |

500WX345DX650Hmm

|         | mm  |     |     |
|---------|-----|-----|-----|
|         | W   | D   | H   |
| DRAWERS | 480 | 292 | 65  |
| DRAWERS | 480 | 292 | 140 |

- Ball bearing slide with Quick Disconnect
- Heavy Duty 4"x1" Caster
- Double wall construction
- Electro - Powder Coating to Resist Scratch & solvent markings
- 10mm Top Mat
- All drawers appended to Drawer Liners



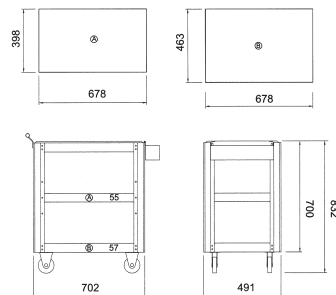
**6 Drawers Roll Cabinet**  
**Cuft: 11'**  
**Net Weight: 53.3 kgs**  
**Gross Weight: 55.7 kgs**

| ORDER NO. | CODE NO. |
|-----------|----------|
| VTC-MD15  | 3405-146 |

680WX460DX675Hmm

|         | mm  |     |     |
|---------|-----|-----|-----|
|         | W   | D   | H   |
| DRAWERS | 560 | 412 | 60  |
| DRAWERS | 560 | 412 | 140 |

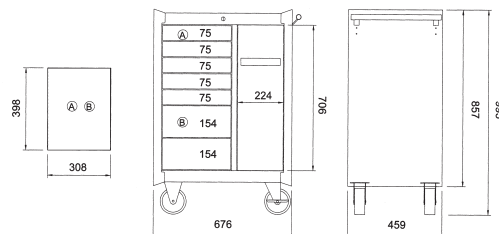
- Ball bearing slide with Quick Disconnect
- Heavy Duty 5"x2" Caster
- Double wall construction
- Electro - Powder Coating to Resist Scratch & solvent markings
- 10mm Top Mat
- All drawers appended to Drawer Liners



| ORDER NO. | CODE NO. |
|-----------|----------|
| VTC-MR3S  | 3405-147 |

700WX490DX700Hmm  
**Heavy Duty 3 Tray Service Cart**  
**Cuft: 3'**  
**Net Weight: 19.1 kgs**  
**Gross Weight: 21.3 kgs**

- Sturdy construction for heavy duty applications
- Standard Duty 3"x1" Caster
- Electro - Powder Coating to Resist Scratch & solvent markings
- Knocked Down Design. Easy to Ship



**8 Drawers Roll Cabinet**  
**Cuft: 13'**  
**Net Weight: 67.9 kgs**  
**Gross Weight: 72.1 kgs**

| ORDER NO. | CODE NO. |
|-----------|----------|
| VTC-LHP25 | 3405-149 |

680WX460DX830Hmm

|         | mm  |     |     |
|---------|-----|-----|-----|
|         | W   | D   | H   |
| DRAWERS | 310 | 395 | 60  |
| DRAWERS | 310 | 395 | 140 |

- Ergonomic Large Drawer Design
- Ball bearing slide with Quick Disconnect
- Heavy Duty 5"x2" Caster
- Double wall construction
- Electro - Powder Coating to Resist Scratch & solvent markings
- 10mm Top Mat
- All drawers appended to Drawer Liners



# Workbench & Workstation

• Strong structure, heavy duty, workbench.

• Workbench with 3 Drawer chest (Ball Bearing Slide)



ORDER NO.VWB-59B CODE NO.3405-150  
SIZE : 1500W x 700D x 800H mm

| DESCRIPTION    | W    | D   | H   | N.W       | G.W.      | CUFT |
|----------------|------|-----|-----|-----------|-----------|------|
| Overall        | 1500 | 700 | 800 | 60<br>kgs | 64<br>kgs | 7.13 |
| 3 Drawer chest | 660  | 305 | 250 |           |           |      |
| 2 Drawers      | 572  | 270 | 41  |           |           |      |
| 1 Drawer       | 572  | 270 | 65  |           |           |      |

• Workbench W.Backpanel with 3 Drawer chest (Ball Bearing slide)



ORDER NO.VWB-590 CODE NO.3405-151  
SIZE : 1500W x 700D x 1500H mm

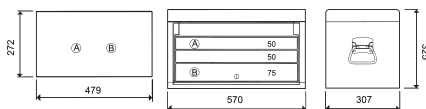
| DESCRIPTION    | W    | D   | H    | N.W       | G.W.        | CUFT |
|----------------|------|-----|------|-----------|-------------|------|
| Overall        | 1500 | 700 | 1500 | 71<br>kgs | 74.5<br>kgs | 7.74 |
| 3 Drawer chest | 660  | 305 | 250  |           |             |      |
| 2 Drawers      | 572  | 270 | 41   |           |             |      |
| 1 Drawer       | 572  | 270 | 65   |           |             |      |
| Wall cabinet   | 420  | 200 | 380  |           |             |      |



## Tool Cabinet



| ORDER NO. | CODE NO. |
|-----------|----------|
| VTB-31    | 3405-160 |



**VTB-31: 3 Drawer Top Chest with Drop Front Door**  
**Cuft: 4.05'**

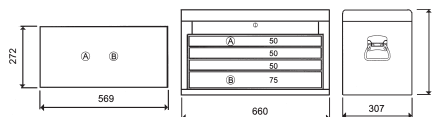
**Net Weight: 18.4 / 17.1 kgs**

**Gross Weight: 19.8 / 18.5 kgs**

- Double wall construction
- Firm Drop Front Door Prevents Stealing
- Ball bearing slide with Quick Disconnect
- Heavy Duty metal side handle
- All drawers appended to Drawer Liners
- Electro - Powder Coating to Resist Scratch & solvent markings



| ORDER NO. | CODE NO. |
|-----------|----------|
| VTB-41    | 3405-161 |



**VTB-41: 4 Drawer Top Chest with Drop Front Door**  
**Cuft: 4.5'**

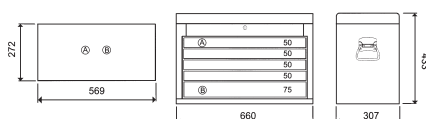
**Net Weight: 24 / 22.8 kgs**

**Gross Weight: 24.6 / 23.4 kgs**

- Electro - Powder Coating to Resist Scratch & solvent markings
- Double wall construction
- Ball bearing slide with Quick Disconnect
- Heavy Duty metal side handle
- All drawers appended to Drawer Liners



| ORDER NO. | CODE NO. |
|-----------|----------|
| VTB-501   | 3405-162 |



**5 Drawer Top Chest**

**Cuft: 5.2'**

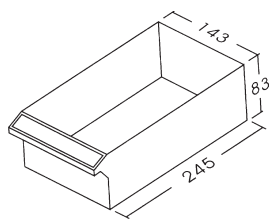
**Net Weight: 26.3 kgs**

**Gross Weight: 28.8 kgs**

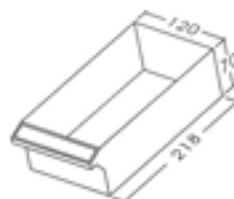
- Ball bearing slide with Quick Disconnect
- Double wall construction
- Heavy Duty metal side handle
- All drawers appended to Drawer Liners
- Electro - Powder Coating to Resist Scratch & solvent markings



# Parts Cabinet



THE SIZE OF DRAWER  
245D x 143W x 83H (m/m)



THE SIZE OF DRAWER  
218D x 170W x 70H (m/m)



ORDER NO. VA6-212H



ORDER NO. VA6-330H



ORDER NO. VA7-324P



ORDER NO. VA7-448P

| ORDER NO. | SIZE (m/m)      | METAL                                             | DRAWER NUMBERS | WEIGHT(kg) | CODE NO. |
|-----------|-----------------|---------------------------------------------------|----------------|------------|----------|
|           | W x D x H       |                                                   |                |            |          |
| VA6-212H  | 357 x 265 x 569 | STEEL PLATE COVER WITH ZINC.<br>Drawer metal: GPS | 12PCS          | 13.22      | 3405-200 |
| VA6-330H  | 541 x 265 x 937 |                                                   | 30PCS          | 28.02      | 3405-201 |
| VA7-324P  | 440 x 222 x 650 |                                                   | 24PCS          | 16.75      | 3405-202 |
| VA7-448P  | 575 x 222 x 937 |                                                   | 48PCS          | 29.39      | 3405-203 |



# Tool Box



ORDER NO. VTB-102



ORDER NO. VTB-901



ORDER NO. VTB-203



| ORDER NO. | SIZE (m/m)      | MATERIAL |       | CODE NO. |
|-----------|-----------------|----------|-------|----------|
|           | W x D x H       |          |       |          |
| VTB-102   | 420 x 235 x 180 | ABS      | 1.83  | 3405-300 |
| VTB-901   | 378 x 182 x 144 |          | 0.895 | 3405-301 |
| VTB-203   | 400 x 185 x 180 |          | 1.179 | 3405-302 |

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