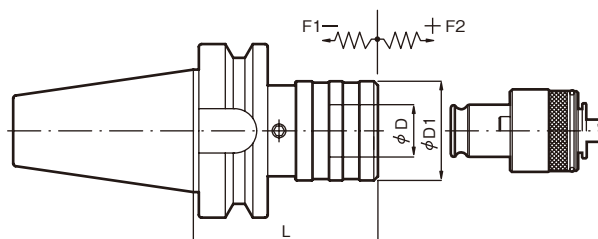


## BT Taper Tension/Compression Tap Holders

- Complete interchangeability with Bilz tap holders and adapters.
- Quick Change on holders and adapters – all in less than a few seconds.
- Proven design for smooth stroke and positive drive – Even under full torque load, the tension compression stroke is full and free.



P.65

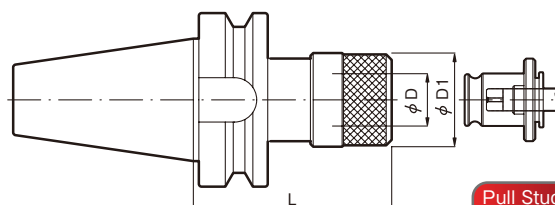
P.45

| Code No.     | Tap range |           | System | L   | ϕD | ϕD1 | Float |      | Tap adapter |
|--------------|-----------|-----------|--------|-----|----|-----|-------|------|-------------|
|              | Hand      | Pipe      |        |     |    |     | F1    | F2   |             |
| BT30-TC1-062 | M3-M12    | 1/8       | #1     | 62  | 19 | 36  | 7.5   | 7.5  | TC1         |
| BT40-TC1-067 | M3-M12    | 1/8       | #1     | 67  | 19 | 36  | 7.5   | 7.5  | TC1         |
| BT40-TC1-135 | M3-M12    | 1/8       | #1     | 135 | 19 | 36  | 7.5   | 7.5  | TC1         |
| BT40-TC2-094 | M8-M24    | 1/8 ~5/8  | #2     | 94  | 31 | 53  | 12.5  | 12.5 | TC2         |
| BT50-TC1-100 | M3-M12    | 1/8       | #1     | 100 | 19 | 36  | 7.5   | 7.5  | TC1         |
| BT50-TC1-165 | M3-M12    | 1/8       | #1     | 165 | 19 | 36  | 7.5   | 7.5  | TC1         |
| BT50-TC2-102 | M8-M24    | 1/8 ~5/8  | #2     | 102 | 31 | 53  | 12.5  | 12.5 | TC2         |
| BT50-TC3-163 | M14-M36   | 1/4~1.1/8 | #3     | 163 | 48 | 78  | 20.0  | 20.0 | TC3         |

\*When you need tap holders with different length, we recommend a combination of side lock holders SL (P.48) and straight shank tap holder (P.44) as a less costly option and for added mating flexibility.

## BT Taper Rigid Tap Holders without length compensation

- Complete interchangeability with Bilz tap holders and adapters.
- Quick Change on holders and adapters – all in less than a few seconds.
- For machining centers with synchronized tapping function.



P.65

P.46

| Code No.     | Tap range |           | System | L   | ϕD | ϕD1  | Float |    | Tap adapter |
|--------------|-----------|-----------|--------|-----|----|------|-------|----|-------------|
|              | Hand      | Pipe      |        |     |    |      | F1    | F2 |             |
| BT30-RT1-067 | M3-M12    | 1/8       | #1     | 67  | 19 | 34   | —     | —  | RA1         |
| BT40-RT1-072 | M3-M12    | 1/8       | #1     | 72  | 19 | 34   | —     | —  | RA1         |
| BT40-RT2-091 | M8-M24    | 1/8 ~5/8  | #2     | 91  | 31 | 49   | —     | —  | RA2         |
| BT50-RT1-078 | M3-M12    | 1/8       | #1     | 78  | 19 | 34   | —     | —  | RA1         |
| BT50-RT2-095 | M8-M24    | 1/8 ~5/8  | #2     | 95  | 31 | 49   | —     | —  | RA2         |
| BT50-RT3-142 | M14-M36   | 1/4~1.1/8 | #3     | 142 | 48 | 73.5 | —     | —  | RA3         |

\*When you need tap holders with different length, we recommend a combination of side lock holders SL (P.48) and straight shank tap holder (P.44) as a less costly option and for added mating flexibility.

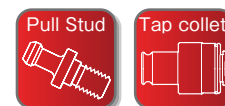
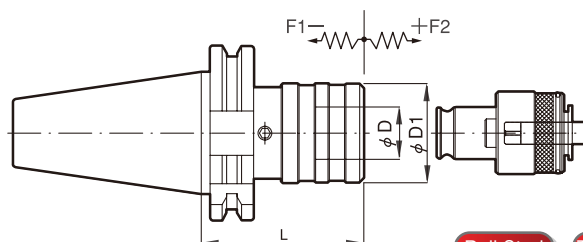


# Quick Change Tap holder

SK

## SK Taper Tension/Compression Tap Holders

- Complete interchangeability with Bilz tap holders and adapters.
- Quick Change on holders and adapters – all in less than a few seconds.
- Proven design for smooth stroke and positive drive – Even under full torque load, the tension compression stroke is full and free.



P.65

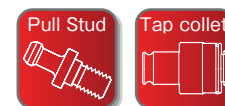
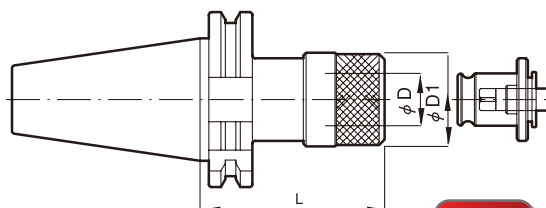
P.45

| Code No.     | Tap range |           | System | L   | φD | φD1 | Float |      | Tap adapter |
|--------------|-----------|-----------|--------|-----|----|-----|-------|------|-------------|
|              | Hand      | Pipe      |        |     |    |     | F1    | F2   |             |
| SK40-TC1-059 | M3-M12    | 1/8       | #1     | 59  | 19 | 36  | 7.5   | 7.5  | TC1         |
| SK40-TC1-100 | M3-M12    | 1/8       | #1     | 100 | 19 | 36  | 7.5   | 7.5  | TC1         |
| SK40-TC2-097 | M8-M24    | 1/8~5/8   | #2     | 97  | 31 | 53  | 12.5  | 12.5 | TC2         |
| SK50-TC1-059 | M3-M12    | 1/8       | #1     | 59  | 19 | 36  | 7.5   | 7.5  | TC1         |
| SK50-TC1-100 | M3-M12    | 1/8       | #1     | 100 | 19 | 36  | 7.5   | 7.5  | TC1         |
| SK50-TC1-135 | M3-M12    | 1/8       | #1     | 135 | 19 | 36  | 7.5   | 7.5  | TC1         |
| SK50-TC2-097 | M8-M24    | 1/8~5/8   | #2     | 97  | 31 | 53  | 12.5  | 12.5 | TC2         |
| SK50-TC3-139 | M14-M36   | 1/4~1.1/8 | #3     | 139 | 48 | 78  | 20.0  | 20.0 | TC3         |

\*When you need tap holders with different length, we recommend a combination of side lock holders SL (P.49-50) and straight shank tap holder (P.44) as a less costly option and for added mating flexibility.

## SK Taper Rigid tap Holders without length compensation

- Complete interchangeability with Bilz tap holders and adapters.
- Quick Change on holders and adapters – all in less than a few seconds.
- For machining centers with synchronized tapping function.



P.65

P.46

| Code No.     | Tap range |           | System | L   | φD | φD1  | Float |    | Tap adapter |
|--------------|-----------|-----------|--------|-----|----|------|-------|----|-------------|
|              | Hand      | Pipe      |        |     |    |      | F1    | F2 |             |
| SK40-RT1-072 | M3-M12    | 1/8       | #1     | 72  | 19 | 34   | —     | —  | RA1         |
| SK40-RT2-091 | M8-M24    | 1/8~5/8   | #2     | 91  | 31 | 49   | —     | —  | RA2         |
| SK50-RT1-072 | M3-M12    | 1/8       | #1     | 72  | 19 | 34   | —     | —  | RA1         |
| SK50-RT2-091 | M8-M24    | 1/8~5/8   | #2     | 91  | 31 | 49   | —     | —  | RA2         |
| SK50-RT3-130 | M14-M36   | 1/4~1.1/8 | #3     | 130 | 48 | 73.5 | —     | —  | RA3         |

\*When you need tap holders with different length, we recommend a combination of side lock holders SL (P.49-50) and straight shank tap holder (P.44) as a less costly option and for added mating flexibility.

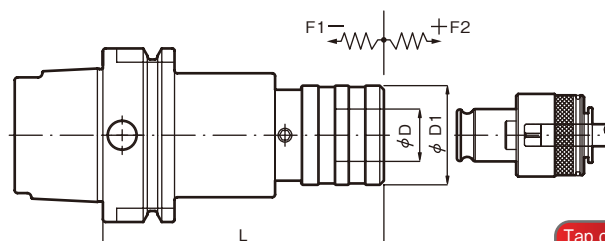


# Quick Change Tap holder

HSK

## HSK Shank Tension/Compression Tap Holders

- Complete interchangeability with Bilz tap holders and adapters.
- Quick Change on holders and adapters – all in less than a few seconds.
- Proven design for smooth stroke and positive drive – Even under full torque load, the tension compression stroke is full and free.

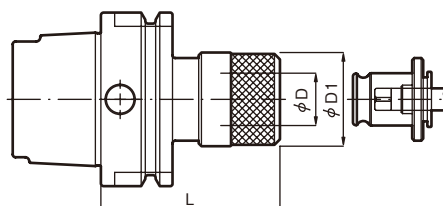


P.45

| Code No.        | Tap range |          | System | L   | ΦD | ΦD1 | Float |      | Tap adapter |
|-----------------|-----------|----------|--------|-----|----|-----|-------|------|-------------|
|                 | Hand      | Pipe     |        |     |    |     | F1    | F2   |             |
| HSK 63A-TC1-102 | M3-M12    | 1/8      | #1     | 102 | 19 | 36  | 7.5   | 7.5  | TC1         |
| HSK 63A-TC2-137 | M8-M24    | 1/8 ~5/8 | #2     | 137 | 31 | 53  | 12.5  | 12.5 | TC2         |
| HSK100A-TC1-105 | M3-M12    | 1/8      | #1     | 105 | 19 | 36  | 7.5   | 7.5  | TC1         |
| HSK100A-TC2-140 | M8-M24    | 1/8 ~5/8 | #2     | 140 | 31 | 53  | 12.5  | 12.5 | TC2         |

## HSK Shank Rigid Tap Holders without length compensation

- Complete interchangeability with Bilz tap holders and adapters.
- Quick Change on holders and adapters – all in less than a few seconds.
- For machining centers with synchronized tapping function.



P.46

| Code No.        | Tap range |          | System | L  | ΦD | ΦD1 | Float |    | Tap adapter |
|-----------------|-----------|----------|--------|----|----|-----|-------|----|-------------|
|                 | Hand      | Pipe     |        |    |    |     | F1    | F2 |             |
| HSK 63A-RT1-065 | M3-M12    | 1/8      | #1     | 65 | 19 | 34  | —     | —  | RA1         |
| HSK 63A-RT2-098 | M8-M24    | 1/8 ~5/8 | #2     | 98 | 31 | 49  | —     | —  | RA2         |
| HSK100A-RT1-065 | M3-M12    | 1/8      | #1     | 65 | 19 | 34  | —     | —  | RA1         |
| HSK100A-RT2-098 | M8-M24    | 1/8 ~5/8 | #2     | 98 | 31 | 49  | —     | —  | RA2         |



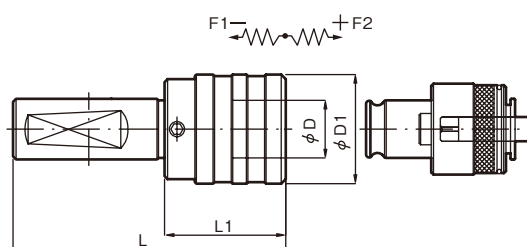
# Quick Change Tap Holder / Straight shank

## ❖ Straight Shank Tension/ Compression Tap Holder



Flat & Whistle notch

- Less costly option than extended length integral shank.
- Quick Change on holders and adapters – all in less than a few seconds.
- Complete interchangeability with Bilz tap holders and adapters.
- Proven design for smooth stroke and positive drive – Even under full torque load, the tension compression stroke is full and free.



P.45

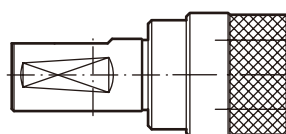
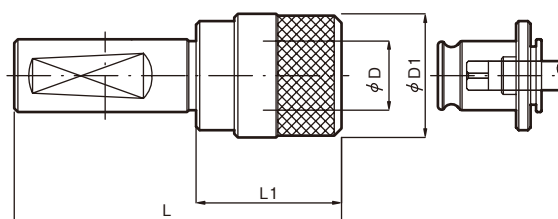
| Code No.    | Tap range |           | System | Shank Dia | L   | L1  | φD | φD1 | Float |      | Tap adapter |
|-------------|-----------|-----------|--------|-----------|-----|-----|----|-----|-------|------|-------------|
|             | Hand      | Pipe      |        |           |     |     |    |     | F1    | F2   |             |
| S20-TC1-040 | M3-M12    | 1/8       | #1     | 20mm      | 90  | 40  | 19 | 36  | 7.5   | 7.5  | TC1         |
| S25-TC2-065 | M8-M24    | 1/8 ~5/8  | #2     | 25mm      | 121 | 65  | 31 | 53  | 12.5  | 12.5 | TC2         |
| S32-TC3-100 | M14-M36   | 1/4~1.1/8 | #3     | 32mm      | 160 | 100 | 48 | 78  | 20.0  | 20.0 | TC3         |

## ❖ Straight Shank Rigid Tap Holders without length compensation



Flat & Whistle notch

- Less costly option than extended length integral shank.
- Complete interchangeability with Bilz tap holders and adapters.
- Quick Change on holders and adapters – all in less than a few seconds.
- For machining centers with synchronized tapping function.



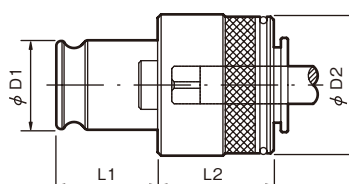
P.46

| Code No.    | Tap range |           | System | Shank Dia | L   | L1 | φD | φD1  | Float |    | Tap adapter |
|-------------|-----------|-----------|--------|-----------|-----|----|----|------|-------|----|-------------|
|             | Hand      | Pipe      |        |           |     |    |    |      | F1    | F2 |             |
| S20-RT1-040 | M3-M12    | 1/8       | #1     | 20mm      | 90  | 40 | 19 | 34   | —     | —  | RA1         |
| S25-RT2-060 | M8-M24    | 1/8 ~5/8  | #2     | 25mm      | 116 | 60 | 31 | 49   | —     | —  | RA2         |
| S32-RT3-095 | M14-M36   | 1/4~1.1/8 | #3     | 32mm      | 155 | 95 | 48 | 73.5 | —     | —  | RA3         |

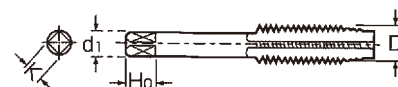


# TC Tap Adapter with Overload clutch

TC



|     | Tapping Capacity | $\phi D1$ | $\phi D2$ | L1   | L2   |
|-----|------------------|-----------|-----------|------|------|
| TC1 | M3-M12           | 19.0      | 32.0      | 21.5 | 25.0 |
| TC2 | M8-M24           | 31.0      | 50.0      | 35.0 | 34.0 |
| TC3 | M14-M36          | 48.0      | 72.0      | 55.5 | 45.0 |



Tap (JIS standard)

| D       |             |            | shk dia   | □dia | length | Tap Adapters |          |          |
|---------|-------------|------------|-----------|------|--------|--------------|----------|----------|
| metric  | unify       | pipe       | $\phi d1$ | K    | Ho     | System#1     | System#2 | System#3 |
| M3-M3.5 | No.5-No.6   |            | 4.0       | 3.2  | 6.0    | TC1J-M03     |          |          |
| M4-M4.5 | No.8        |            | 5.0       | 4.0  | 7.0    | TC1J-M04     |          |          |
| M5      | No.10-No.12 |            | 5.5       | 4.5  | 7.0    | TC1J-M05     |          |          |
| M6      | No.14-U1/4  |            | 6.0       | 4.5  | 7.0    | TC1J-M06     |          |          |
| M7-M8   |             |            | 6.2       | 5.0  | 8.0    | TC1J-M08     | TC2J-M08 |          |
| M9-M10  | U3/8        |            | 7.0       | 5.5  | 8.0    | TC1J-M10     | TC2J-M10 |          |
| M11     | U7/16       | P1/16-P1/8 | 8.0       | 6.0  | 9.0    | TC1J-M11     | TC2J-M11 |          |
| M12     |             |            | 8.5       | 6.5  | 9.0    | TC1J-M12     | TC2J-M12 |          |
| M14-M15 | U9/16       |            | 10.5      | 8.0  | 11.0   |              | TC2J-M14 | TC3J-M14 |
| M16     |             |            | 12.5      | 10.0 | 13.0   |              | TC2J-M16 | TC3J-M16 |
| M18     | U3/4        | P3/8       | 14.0      | 11.0 | 14.0   |              | TC2J-M18 | TC3J-M18 |
| M20     |             |            | 15.0      | 12.0 | 15.0   |              | TC2J-M20 | TC3J-M20 |
| M22     | U7/8        |            | 17.0      | 13.0 | 16.0   |              | TC2J-M22 | TC3J-M22 |
| M24-M25 |             | P5/8       | 19.0      | 15.0 | 18.0   |              | TC2J-M24 | TC3J-M24 |
| M26-M27 | U1          |            | 20.0      | 15.0 | 18.0   |              |          | TC3J-M27 |
| M30     |             | P3/4       | 23.0      | 17.0 | 20.0   |              |          | TC3J-M30 |
| M33     |             |            | 25.0      | 19.0 | 22.0   |              |          | TC3J-M33 |
| M36-M38 |             | P1.1/8     | 28.0      | 21.0 | 24.0   |              |          | TC3J-M36 |

Tap (DIN standard)

| D                       |                    |        | shk dia   | □dia | length | Tap Adapters  |               |               |
|-------------------------|--------------------|--------|-----------|------|--------|---------------|---------------|---------------|
| metric                  | unify              | pipe   | $\phi d1$ | K    | Ho     | System#1      | System#2      | System#3      |
| M3(371)-M5(376)         | U1/8(371)          |        | 3.5       | 2.7  | 6.0    | TC1D-M03(371) |               |               |
| M4(371)-M6(376)         | U1/4(376)          |        | 4.5       | 3.4  | 6.0    | TC1D-M04(371) |               |               |
| M5(371)-M6(371)-M8(376) | U5/16(376)         |        | 6.0       | 4.9  | 8.0    | TC1D-M05(371) | TC2D-M05(371) |               |
| M8(371)                 | U5/16(371)         |        | 8.0       | 6.2  | 9.0    | TC1D-M08(371) | TC2D-M08(371) |               |
| M10(371)                |                    |        | 10.0      | 8.0  | 11.0   | TC1D-M10(371) | TC2D-M10(371) |               |
| M10(376)                | U3/8(376)          | P1/8   | 7.0       | 5.5  | 8.0    | TC1D-M10(376) | TC2D-M10(376) |               |
| M12(376)                | U1/2(376)          |        | 9.0       | 7.0  | 10.0   | TC1D-M12(376) | TC2D-M12(376) |               |
| M14(376)                | U9/16(376)         | P1/4   | 11.0      | 9.0  | 12.0   |               | TC2D-M14(376) | TC3D-M14(376) |
| M16(376)                | U5/8(376)          | P3/8   | 12.0      | 9.0  | 12.0   |               | TC2D-M16(376) | TC3D-M16(376) |
| M18(376)                | U3/4(376)          |        | 14.0      | 11.0 | 14.0   |               | TC2D-M18(376) | TC3D-M18(376) |
| M20(376)                |                    | P1/2   | 16.0      | 12.0 | 15.0   |               | TC2D-M20(376) | TC3D-M20(376) |
| M22(376)-M24(376)       | U7/8(376)          | P5/8   | 18.0      | 14.5 | 17.0   |               | TC2D-M22(376) | TC3D-M22(376) |
| M27(376)                | U1"(376)           | P3/4   | 20.0      | 16.0 | 19.0   |               |               | TC3D-M27(376) |
| M30(376)                | U1.1/8-U1.1/4(376) | P7/8   | 22.0      | 18.0 | 21.0   |               |               | TC3D-M30(376) |
| M33(376)                |                    | P1"    | 25.0      | 20.0 | 23.0   |               |               | TC3D-M33(376) |
| M36(376)                | U1.3/8(376)        | P1.1/8 | 28.0      | 22.0 | 25.0   |               |               | TC3D-M36(376) |

Tap (ISO standard)

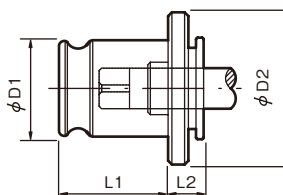
| D       |           |      | shk dia   | □dia | length | Tap Adapters |          |          |
|---------|-----------|------|-----------|------|--------|--------------|----------|----------|
| metric  | unify     | pipe | $\phi d1$ | K    | Ho     | System#1     | System#2 | System#3 |
| M3      | No.4-No.5 |      | 3.15      | 2.5  | 5.0    | TC1S-M03     |          |          |
| M4      |           |      | 4.0       | 3.15 | 6.0    | TC1S-M04     |          |          |
| M5      | No.10     |      | 5.0       | 4.0  | 7.0    | TC1S-M05     |          |          |
| M6      | U1/4      |      | 6.3       | 5.0  | 8.0    | TC1S-M06     |          |          |
| M8      | U5/16     | P1/8 | 8.0       | 6.3  | 9.0    | TC1S-M08     | TC2S-M08 |          |
| M10     | U3/8      | P1/4 | 10.0      | 8.0  | 11.0   | TC1S-M10     | TC2S-M10 |          |
| M12     | U1/2      |      | 9.0       | 7.1  | 10.0   | TC1S-M12     | TC2S-M12 |          |
| M14     |           |      | 11.2      | 9.0  | 12.0   |              | TC2S-M14 | TC3S-M14 |
| M16     | U5/8      | P3/8 | 12.5      | 10.0 | 13.0   |              | TC2S-M16 | TC3S-M16 |
| M18-M20 | U3/4      |      | 14.0      | 11.2 | 14.0   |              | TC2S-M18 | TC3S-M18 |
| M22     | U7/8      | P1/2 | 16.0      | 12.5 | 16.0   |              | TC2S-M22 | TC3S-M22 |
| M24     | U1"       | P5/8 | 18.0      | 14.0 | 18.0   |              | TC2S-M24 | TC3S-M24 |
| M27-M30 | U1.1/8    | P3/4 | 20.0      | 16.0 | 20.0   |              |          | TC3S-M27 |
| M33     | U1.1/4    | P7/8 | 22.4      | 18.0 | 22.0   |              |          | TC3S-M33 |
| M36     | U1.3/8    | P1"  | 25.0      | 20.0 | 24.0   |              |          | TC3S-M36 |



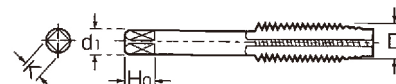


# RA Tap Adapter without Overload clutch

RA



|     | Tapping Capacity | $\phi D1$ | $\phi D2$ | L1   | L2   |
|-----|------------------|-----------|-----------|------|------|
| RA1 | M3~M12           | 19.0      | 32.0      | 21.5 | 7.0  |
| RA2 | M8~M24           | 31.0      | 50.0      | 35.0 | 11.0 |
| RA3 | M14~M36          | 48.0      | 72.0      | 55.5 | 14.0 |



Tap (JIS standard)

| D       |             |            | shk dia   | $\square$ dia | length | Tap Adapters |          |          |
|---------|-------------|------------|-----------|---------------|--------|--------------|----------|----------|
| metric  | unify       | pipe       | $\phi d1$ | K             | Ho     | System#1     | System#2 | System#3 |
| M3-M3.5 | No.5-No.6   |            | 4.0       | 3.2           | 6.0    | RA1J-M03     |          |          |
| M4-M4.5 | No.8        |            | 5.0       | 4.0           | 7.0    | RA1J-M04     |          |          |
| M5      | No.10-No.12 |            | 5.5       | 4.5           | 7.0    | RA1J-M05     |          |          |
| M6      | No.14-U1/4  |            | 6.0       | 4.5           | 7.0    | RA1J-M06     |          |          |
| M7-M8   |             |            | 6.2       | 5.0           | 8.0    | RA1J-M08     | RA2J-M08 |          |
| M9-M10  | U3/8        |            | 7.0       | 5.5           | 8.0    | RA1J-M10     | RA2J-M10 |          |
| M11     | U7/16       | P1/16-P1/8 | 8.0       | 6.0           | 9.0    | RA1J-M11     | RA2J-M11 |          |
| M12     |             |            | 8.5       | 6.5           | 9.0    | RA1J-M12     | RA2J-M12 |          |
| M14-M15 | U9/16       |            | 10.5      | 8.0           | 11.0   |              | RA2J-M14 | RA3J-M14 |
| M16     |             |            | 12.5      | 10.0          | 13.0   |              | RA2J-M16 | RA3J-M16 |
| M18     | U3/4        | P3/8       | 14.0      | 11.0          | 14.0   |              | RA2J-M18 | RA3J-M18 |
| M20     |             |            | 15.0      | 12.0          | 15.0   |              | RA2J-M20 | RA3J-M20 |
| M22     | U7/8        |            | 17.0      | 13.0          | 16.0   |              | RA2J-M22 | RA3J-M22 |
| M24-M25 |             | P5/8       | 19.0      | 15.0          | 18.0   |              | RA2J-M24 | RA3J-M24 |
| M26-M27 | U1"         |            | 20.0      | 15.0          | 18.0   |              |          | RA3J-M27 |
| M30     |             | P3/4       | 23.0      | 17.0          | 20.0   |              |          | RA3J-M30 |
| M33     |             |            | 25.0      | 19.0          | 22.0   |              |          | RA3J-M33 |
| M36-M38 |             | P1.1/8     | 28.0      | 21.0          | 24.0   |              |          | RA3J-M36 |

Tap (DIN standard)

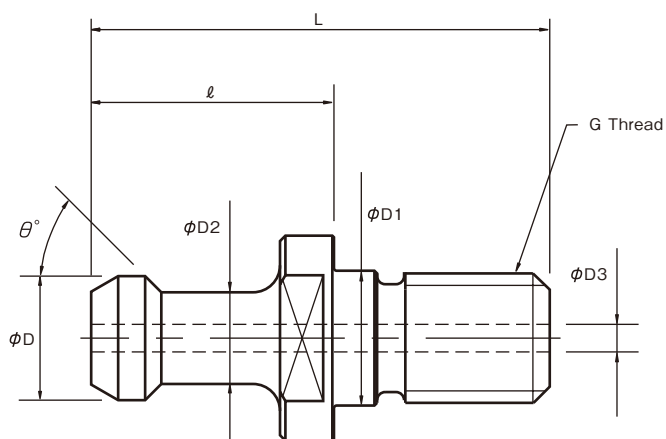
| D                       |                    |        | shk dia   | $\square$ dia | length | Tap Adapters  |               |               |
|-------------------------|--------------------|--------|-----------|---------------|--------|---------------|---------------|---------------|
| metric                  | unify              | pipe   | $\phi d1$ | K             | Ho     | System#1      | System#2      | System#3      |
| M3(371)-M5(376)         | U1/8(371)          |        | 3.5       | 2.7           | 6.0    | RA1D-M03(371) |               |               |
| M4(371)-M6(376)         | U1/4(376)          |        | 4.5       | 3.4           | 6.0    | RA1D-M04(371) |               |               |
| M5(371)-M6(371)-M8(376) | U5/16(376)         |        | 6.0       | 4.9           | 8.0    | RA1D-M05(371) | RA2D-M05(371) |               |
| M8(371)                 | U5/16(371)         |        | 8.0       | 6.2           | 9.0    | RA1D-M08(371) | RA2D-M08(371) |               |
| M10(371)                |                    |        | 10.0      | 8.0           | 11.0   | RA1D-M10(371) | RA2D-M10(371) |               |
| M10(376)                | U3/8(376)          | P1/8   | 7.0       | 5.5           | 8.0    | RA1D-M10(376) | RA2D-M10(376) |               |
| M12(376)                | U1/2(376)          |        | 9.0       | 7.0           | 10.0   | RA1D-M12(376) | RA2D-M12(376) |               |
| M14(376)                | U9/16(376)         | P1/4   | 11.0      | 9.0           | 12.0   |               | RA2D-M14(376) | RA3D-M14(376) |
| M16(376)                | U5/8(376)          | P3/8   | 12.0      | 9.0           | 12.0   |               | RA2D-M16(376) | RA3D-M16(376) |
| M18(376)                | U3/4(376)          |        | 14.0      | 11.0          | 14.0   |               | RA2D-M18(376) | RA3D-M18(376) |
| M20(376)                |                    | P1/2   | 16.0      | 12.0          | 15.0   |               | RA2D-M20(376) | RA3D-M20(376) |
| M22(376)-M24(376)       | U7/8(376)          | P5/8   | 18.0      | 14.5          | 17.0   |               | RA2D-M22(376) | RA3D-M22(376) |
| M27(376)                | U1"(376)           | P3/4   | 20.0      | 16.0          | 19.0   |               |               | RA3D-M27(376) |
| M30(376)                | U1.1/8-U1.1/4(376) | P7/8   | 22.0      | 18.0          | 21.0   |               |               | RA3D-M30(376) |
| M33(376)                |                    | P1"    | 25.0      | 20.0          | 23.0   |               |               | RA3D-M33(376) |
| M36(376)                | U1.3/8(376)        | P1.1/8 | 28.0      | 22.0          | 25.0   |               |               | RA3D-M36(376) |

Tap (ISO standard)

| D       |           |      | shk dia   | $\square$ dia | length | Tap Adapters |          |          |
|---------|-----------|------|-----------|---------------|--------|--------------|----------|----------|
| metric  | unify     | pipe | $\phi d1$ | K             | Ho     | System#1     | System#2 | System#3 |
| M3      | No.4-No.5 |      | 3.15      | 2.5           | 5.0    | RA1S-M03     |          |          |
| M4      |           |      | 4.0       | 3.15          | 6.0    | RA1S-M04     |          |          |
| M5      | No.10     |      | 5.0       | 4.0           | 7.0    | RA1S-M05     |          |          |
| M6      | U1/4      |      | 6.3       | 5.0           | 8.0    | RA1S-M06     |          |          |
| M8      | U5/16     | P1/8 | 8.0       | 6.3           | 9.0    | RA1S-M08     | RA2S-M08 |          |
| M10     | U3/8      | P1/4 | 10.0      | 8.0           | 11.0   | RA1S-M10     | RA2S-M10 |          |
| M12     | U1/2      |      | 9.0       | 7.1           | 10.0   | RA1S-M12     | RA2S-M12 |          |
| M14     |           |      | 11.2      | 9.0           | 12.0   |              | RA2S-M14 | RA3S-M14 |
| M16     | U5/8      | P3/8 | 12.5      | 10.0          | 13.0   |              | RA2S-M16 | RA3S-M16 |
| M18-M20 | U3/4      |      | 14.0      | 11.2          | 14.0   |              | RA2S-M18 | RA3S-M18 |
| M22     | U7/8      | P1/2 | 16.0      | 12.5          | 16.0   |              | RA2S-M22 | RA3S-M22 |
| M24     | U1"       | P5/8 | 18.0      | 14.0          | 18.0   |              | RA2S-M24 | RA3S-M24 |
| M27-M30 | U1.1/8    | P3/4 | 20.0      | 16.0          | 20.0   |              |          | RA3S-M27 |
| M33     | U1.1/4    | P7/8 | 22.4      | 18.0          | 22.0   |              |          | RA3S-M33 |
| M36     | U1.3/8    | P1"  | 25.0      | 20.0          | 24.0   |              |          | RA3S-M36 |



# Pull Stud



It is critical that the correct pull stud is used with each machining center. Please verify all dimensions prior to ordering. Machine specifications will be located in your machine manual.

| Spindle | Code No.   | $\phi D$ | L      | $l$    | D2     | D1   | G   | $\theta^\circ$ | D3    | Note                         |
|---------|------------|----------|--------|--------|--------|------|-----|----------------|-------|------------------------------|
| BT30    | HPS-16     | 11       | 43     | 23     | 7      | 12.5 | M12 | 45             | -     | MAS P30T-1                   |
|         | HPS-16C    | 11       | 43     | 23     | 7      | 12.5 | M12 | 45             | 2.5   | HPS-16 Coolant               |
|         | HPS-17     | 11       | 43     | 23     | 7      | 12.5 | M12 | 60             | -     | MAS P30T-2                   |
|         | HPS-17C    | 11       | 43     | 23     | 7      | 12.5 | M12 | 60             | 2.5   | HPS-17 Coolant               |
| BT40    | HPS- 1     | 15       | 60     | 35     | 10     | 17   | M16 | 45             | -     | MAS P40T-1                   |
|         | HPS- 2     | 15       | 60     | 35     | 10     | 17   | M16 | 60             | -     | MAS P40T-2                   |
|         | HPS-806-1  | 19       | 54     | 29     | 14     | 17   | M16 | 75             | 6     | JIS B6339. Coolant           |
|         | HPS-G51    | 18.796   | 44.106 | 19.106 | 12.446 | 17   | M16 | 45             | 7     | Mazak type. Coolant          |
|         | HPS-O8     | 15       | 60     | 35     | 10     | 17   | M16 | 90             | -     | 90 degree angle type         |
|         | HPS-301    | 15       | 60     | 35     | 11     | 17   | M16 | 60             | -     |                              |
|         | HPS-302    | 19       | 54     | 26     | 14     | 17   | M16 | 75             | -     | DIN69872.                    |
|         | HPS-366E-1 | 19       | 54     | 29     | 14     | 17   | M16 | 75             | 7     | P-9, S 15 O-ring             |
|         | HPS-805    | 19       | 54     | 29     | 14     | 17   | M16 | 75             | -     | JIS B6339-89                 |
|         | HPS-813-1  | 19       | 54     | 29     | 14     | 17   | M16 | 75             | 6     | JIS B6339-89                 |
| BT50    | HPS-B62-1  | 19       | 54     | 29     | 14     | 17   | M16 | 75             | 4     | S 15 O-ring                  |
|         | HPS- 5     | 23       | 85     | 45     | 17     | 25   | M24 | 45             | -     | MAS P50T-1                   |
|         | HPS- 6     | 23       | 85     | 45     | 17     | 25   | M24 | 60             | -     | MAS P50T-2                   |
|         | HPS-G41    | 28.956   | 65.2   | 25.2   | 20.828 | 25   | M24 | 45             | 10    |                              |
| SK30    | HPS-122    | 13       | 44     | 24     | 9      | 13   | M12 | 75             | -     | DIN69872 SK30 FORM A         |
| SK40    | HPS-302    | 19       | 54     | 26     | 14     | 17   | M16 | 75             | -     | DIN69872 SK40 FORM A         |
|         | HPS-309    | 19       | 54     | 26     | 14     | 17   | M16 | 75             | 7     | DIN69872 SK40 FORM A Coolant |
|         | HPS-309C   | 19       | 54     | 26     | 14     | 17   | M16 | 75             | 7     | DIN69872 SK40 FORM B         |
|         | HPS-A1     | 19       | 54     | 26     | 14     | 17   | M16 | 75             | 7     | ISO-7388/2-1984-A            |
|         | HPS-A4     | 18.95    | 44.5   | 16.4   | 12.95  | 17   | M16 | 45             | 7.35  | ISO-7388/2-1984-B            |
| SK50    | HPS-581    | 28       | 74     | 34     | 21     | 25   | M24 | 75             | -     | DIN69872 SK50 FORM A         |
|         | HPS-512    | 28       | 74     | 34     | 21     | 25   | M24 | 75             | 11.5  | DIN69872 SK50 FORM A Coolant |
|         | HPS-512B   | 28       | 74     | 34     | 21     | 25   | M24 | 75             | 11.5  | DIN69872 SK50 FORM B         |
|         | HPS-A3     | 28       | 74     | 34     | 21     | 25   | M24 | 75             | 11.5  | ISO-7388/2-1984-A            |
|         | HPS-A6     | 29.1     | 65.5   | 25.55  | 19.6   | 25   | M24 | 45             | 11.55 | ISO-7388/2-1984-B            |

◇Other Pull Studs are available upon request.