

NC DRILL CHUCK

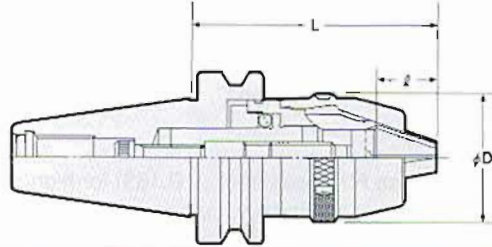
NIKKEN

BT-NPU



Being given favorable reception its Compactness, High Precision & High Rigidity.

- The shank body fabricated solidly with the keyless drill chuck eliminates the possibility of slipping-off.
- The attached tightening wrench prevents slipping-off of drill to ensure the safety in unmanned operation.
- Chucking torque three times as large as ever before. There is no possibility of slipping-off of the carbide drill etc.



Chucking Length (L)
NPU 8 : 18.8mm
NPU13 : 26.5mm

| TAPER | Code No. | Chucking Dia | D | L | | Weight (kg) |
|--------------|----------------|--------------|-------|-------|-------|-------------|
| | | | | MIN. | MAX. | |
| No.30 | BT30-NPU 8- 70 | 0.3~8 | 36.5 | 76.5 | 83.5 | 0.7 |
| | -NPU13- 95 | 1~13 | 48 | 102.1 | 113.1 | 1.2 |
| No.40 | BT40-NPU 8- 70 | 0.3~8 | 36.5 | 76.5 | 83.5 | 1.2 |
| | (IT40) -110 | | | 115.5 | 122.5 | 1.5 |
| | -155 | 160.5 | 167.5 | 1.7 | | |
| | -NPU13- 80 | 1~13 | 48 | 86.1 | 97.1 | 1.5 |
| | -130 | | | 137.1 | 148.1 | 2.2 |
| | -175 | | | 182.1 | 193.1 | 2.7 |
| No.50 | BT50-NPU 8- 85 | 0.3~8 | 36.5 | 87.5 | 94.5 | 3.8 |
| | (IT50) -110 | | | 115.5 | 122.5 | 3.9 |
| | -170 | | | 175.5 | 182.5 | 4.3 |
| | -NPU13- 90 | 1~13 | 48 | 97.1 | 108.1 | 4.1 |
| | -130 | | | 137.1 | 148.1 | 4.6 |
| | -190 | | | 197.1 | 208.1 | 5.2 |

★ Centre Through Type Drill Chuck has different L-length & Code No. P.97, Pull Stud with Oil Hole P.166
★ Flange Through Type Drill Chuck has different L-length & Code No. P.98

★ Wrench is available as an option. NPU8: NPUL-8, NPU13: NPUL-13.
★ In case of IT40, IT40-NPU8-80 is the shortest length.
★ In case of IT50, IT50-NPU8-80 is the shortest length.

No Slipping encountered even when using Carbide Drill

Comparison data of drill chuck tightening torque

| | Method of Tightening | Twisting moment | Comparison % |
|-----------------------------|------------------------|-----------------|--------------|
| Keyless chuck on the market | by Hand | 7Nm | 100 |
| NIKKEN NPU Chuck | by Hand | 7Nm | 100 |
| NIKKEN NPU with wrench | Tightening with wrench | 22Nm | 314 |

3 Times of Chucking Torque

Manual tightening will do for a drilling work of non-through hole. However, an abnormal torque will be produced immediately before drilling through in case of the through hole as shown in Fig. (A), so that the drill will be broken due to its slippage. The NIKKEN NC drill chuck is so designed to cope with such slippage that grooves as shown by Fig. (B), are arranged around the chuck body to enable tightening there by using the attached wrench (C).



Straight Shank NC DRILL CHUCK

NIKKEN

D-NPU

For MULTI-LOCK Milling Chuck



| Style | Code No. | Chucking Dia | L | | Weight (kg) |
|-----------|-----------|--------------|------|------|-------------|
| | | | MIN. | MAX. | |
| 32 | D32-NPU 8 | 0.3~8 | 65.5 | 72.5 | 0.9 |
| | -NPU13 | 1~13 | 84.5 | 96.5 | 1.4 |
| 42 | D42-NPU 8 | 0.3~8 | 55.5 | 62.5 | 1.2 |
| | -NPU13 | 1~13 | 79.5 | 91.5 | 1.7 |

★ φD : NPU 8 : 36.5mm Chucking Length : NPU 8 : 18.8mm
NPU13 : 48mm NPU13 : 26.5mm

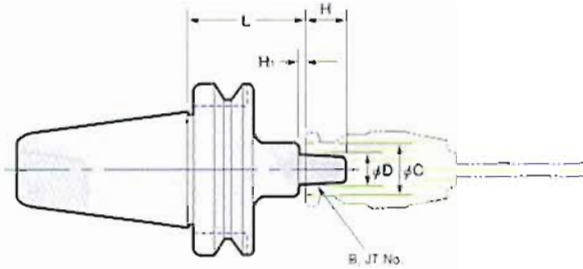
★ Wrench is available as an option. NPU8: NPUL-8, NPU13: NPUL-13

DRILL CHUCK ADAPTER

NIKKEN

B, JTA

■ Taper contact area of more than 80% ensures reliable drilling with no chattering accompanied.



■ **DIN**

| TAPER | Code No. | B- No. | D | L | H | H1 | C | Weight (kg) |
|--------------|----------------------|--------|--------|---------|------|----------|----|-------------|
| No.30 | BT30 -B6 -45 | B6 | 6.35 | 45 | 10 | 3 | 30 | 0.9 |
| | -B10 -45 | B10 | 10.095 | | 14.5 | | | 0.9 |
| | -B12 -45 | B12 | 12.065 | | 18.5 | | | 4 |
| | -B16 -45 | B16 | 15.733 | | 24 | 5 | | 1.0 |
| No.40 | BT40 -B10 -45, 90 | B10 | 10.095 | 45, 90 | 14.5 | 3 | 30 | 1.1, 1.4 |
| | (IT40) -B12 -45, 90 | B12 | 12.065 | | 18.5 | 4 | | 1.1, 1.4 |
| | -B16 -45, 90 | B16 | 15.733 | | 24 | 5 | | 1.1, 1.4 |
| | -B18 -45, 90 | B18 | 17.431 | | 25 | 1.1, 1.4 | | |
| No.50 | BT50 -B10 -45, 105 | B10 | 10.095 | 45, 105 | 14.5 | 3 | 30 | 4.0, 4.4 |
| | (IT50) -B12 -45, 105 | B12 | 12.065 | | 18.5 | 4 | | 4.0, 4.4 |
| | -B16 -45, 105 | B16 | 15.733 | | 24 | 5 | | 4.0, 4.4 |
| | -B18 -45, 105 | B18 | 17.431 | | 25 | 4.0, 4.4 | | |

■ **JACOBS**

| TAPER | Code No. | JT- No. | D | L | H | H1 | C | Weight (kg) |
|--------------|-----------------------|---------|--------|---------|----|----|----|-------------|
| No.30 | BT30 -JTA6 -30 | 6 | 17.17 | 30 | 24 | 4 | 30 | 1.0 |
| No.40 | BT40 -JTA2 -45, 90 | 2 | 14.199 | 45, 90 | 20 | 4 | 30 | 1.1, 1.4 |
| | (IT40) -JTA6 -45, 90 | 6 | 17.17 | 45, 90 | 24 | | | 1.1, 1.4 |
| No.50 | BT50 -JTA2 -45, 105 | 2 | 14.199 | 45, 105 | 20 | 4 | 30 | 4.0, 4.4 |
| | (IT50) -JTA6 -45, 105 | 6 | 17.17 | 45, 105 | 24 | | | 4.0, 4.4 |

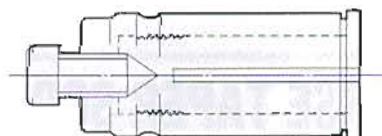
★ Each Drill chuck Adapter is supplied without drill chuck. P.37

★ For high speed and high accurate application, Slim Chuck P.37 is highly recommended.

NCK COLLET (for MULTI-LOCK MILLING CHUCK)

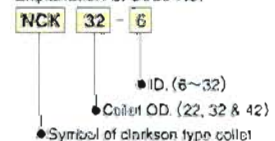
NIKKEN

NCK For CLARKSON end mills, please use NCK collets.



| Code No. |
|-----------------------------|
| NCK22-6, 10, 12, 16 |
| NCK32-6, 10, 12, 16, 25 |
| NCK42-6, 10, 12, 16, 25, 32 |

Explanation of Code No.



MORSE TAPER ADAPTER A TYPE

NIKKEN

MTA



- Taper contact area of more than 80% ensures high repeatability run-out accuracy.
- Side lock bolt prevent the cutting tool from slip down.

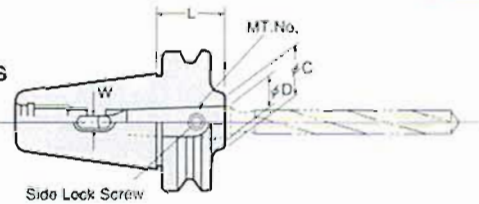


Fig. 1

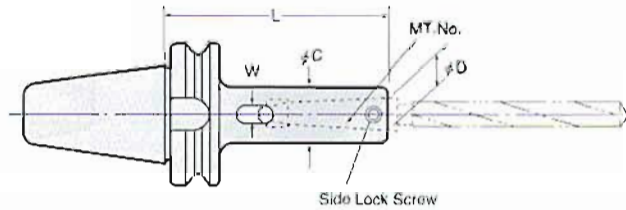


Fig. 2

| TAPER | Code No. -L | MT. No. | D | L | C | W | Fig | Weight (kg) |
|-------|-----------------|---------|--------|-----|----|------|-----|-------------|
| No.30 | BT30-MTA1- 45 | 1 | 12.065 | 45 | 20 | 5.6 | 1 | 0.8 |
| | -MTA1-105 | | | 105 | 25 | | 2 | 0.9 |
| | -MTA2- 60 | 2 | 17.780 | 60 | 30 | 6.6 | 1 | 0.9 |
| | -MTA2-120 | | | 120 | | | 2 | 1.2 |
| | -MTA3- 80 | 3 | 23.825 | 80 | 40 | 8.4 | 1 | 1.0 |
| No.40 | BT40-MTA1- 45 | 1 | 12.065 | 45 | 25 | 5.6 | 1 | 1.0 |
| | (IT40)-MTA1-120 | | | 120 | | | 2 | 1.3 |
| | -MTA2- 60 | 2 | 17.780 | 60 | 32 | 6.6 | 1 | 1.1 |
| | -MTA2-120 | | | 120 | | | 2 | 1.4 |
| | -MTA3- 75 | 3 | 23.825 | 75 | 40 | 8.4 | 1 | 1.2 |
| | -MTA3-135 | | | 135 | | | 2 | 1.8 |
| | -MTA4- 95 | 4 | 31.267 | 95 | 50 | 12.4 | 1 | 1.4 |
| | -MTA4-165 | | | 165 | | | 2 | 2.4 |
| No.50 | BT50-MTA1- 45 | 1 | 12.065 | 45 | 25 | 5.6 | 1 | 4.0 |
| | (IT50)-MTA1-120 | | | 120 | | | 2 | 4.3 |
| | -MTA1-180 | | | 180 | | | 2 | 4.3 |
| | -MTA2- 45 | 2 | 17.780 | 45 | 32 | 6.6 | 1 | 4.0 |
| | -MTA2-135 | | | 135 | | | 2 | 4.4 |
| | -MTA2-180 | | | 180 | | | 2 | 4.6 |
| | -MTA3- 45 | 3 | 23.825 | 45 | 40 | 8.4 | 1 | 3.9 |
| | -MTA3-150 | | | 150 | | | 2 | 4.7 |
| | -MTA3-180 | | | 180 | | | 2 | 4.9 |
| | -MTA4- 75 | 4 | 31.267 | 75 | 50 | 12.4 | 1 | 4.0 |
| | -MTA4-180 | | | 180 | | | 2 | 5.4 |
| | -MTA5-105 | | | 105 | | | 5 | 44.399 |

★Centre through type MT Adapter has different dimensions.

★Flange through type MT Adapter has different dimensions.

★For High Pressure Coolant Through, please use Milling Chuck P.29, Slim Chuck P.37 or Side Lock Holder P.93 instead of MT Adapter.

Straight Shank MORSE TAPER SOCKET

NIKKEN

K-MT

For MULTI-LOCK Milling Chuck



| Style | Code No. |
|-------|---------------|
| φ20 | K20-MT1,2 |
| φ25 | K25-MT1,2 |
| φ32 | K32-MT1,2,3 |
| φ42 | K42-MT1,2,3,4 |

MORSE TAPER ADAPTER B TYPE with DRAW BOLT

NIKKEN

MTB

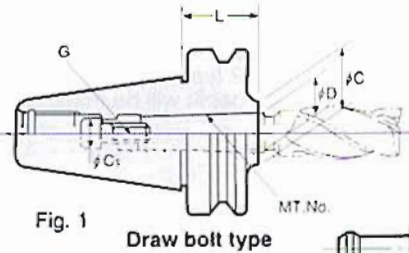
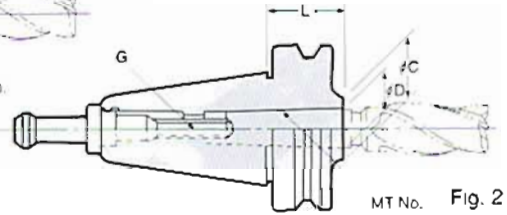


Fig. 1 Draw bolt type



Pull stud draw bolt type.

Taper contact area of more than 80% ensures reliable machining with no chattering accompanied.

| TAPER | Code No. | MT.No. | D | L | C | C ₁ | G | Fig | Weight (Kg) |
|-------|---------------|--------|--------|-----|----|----------------|----------|-----|-------------|
| No.30 | BT30-MTB1- 45 | 1 | 12.065 | 45 | 25 | 10 | M 6×1 | 1 | 0.8 |
| | -MTB2- 25 | 2 | 17.780 | 25 | 32 | — | M10×1.5 | 2 | 0.8 |
| | -MTB3- 80 | 3 | 23.825 | 80 | 40 | — | M12×1.75 | 2 | 1.0 |
| No.40 | BT40-MTB1- 45 | 1 | 12.065 | 45 | 25 | 10 | M 6×1 | 1 | 1.0 |
| | -MTB2- 60 | 2 | 17.780 | 60 | 32 | 13.5 | M10×1.5 | 1 | 1.1 |
| | -MTB3- 45 | 3 | 23.825 | 45 | 40 | — | M12×1.75 | 2 | 1.1 |
| | -MTB4- 85 | 4 | 31.267 | 85 | 50 | — | M16×2 | 2 | 1.3 |
| No.50 | BT50-MTB1- 45 | 1 | 12.065 | 45 | 25 | 10 | M 6×1 | 1 | 3.9 |
| | -MTB2- 45 | 2 | 17.780 | 45 | 32 | 16 | M10×1.5 | 1 | 3.9 |
| | -MTB3- 60 | 3 | 23.825 | 60 | 40 | 18 | M12×1.75 | 1 | 3.9 |
| | -MTB4- 75 | 4 | 31.267 | 75 | 50 | 20.5 | M16×2 | 1 | 3.9 |
| | -MTB5-105-M16 | 5 | 44.399 | 105 | 70 | — | M16×2 | 1 | 4.2 |
| | -MTB5-105 | 5 | 44.399 | 105 | 70 | — | M20×2.5 | 2 | 4.0 |

★Adapter in Fig.1 is supplied with a special draw bolt.

★Morse Taper Adapters B type as illustrated in Fig.2 need the special pull stud. The pull stud is optional accessory. When ordering, please specify the pull stud code number.

PULL STUD for MORSE TAPER ADAPTER B TYPE



| TAPER | Standard pull stud Code No. | MTB2 | MTB3 | MTB4 | MTB5 |
|-------|-----------------------------|-------|--------|--------|-------|
| No.30 | PS- 16 | PS-27 | PS- 32 | — | — |
| | - 17 | -28 | - 33 | — | — |
| No.40 | PS- 1 | — | PS- 7 | PS- 8 | — |
| | - 2 | — | - 29 | - 10 | — |
| | - 08-1 | — | - 017 | - 018 | — |
| | - P5-1 | — | - P51 | - P52 | — |
| | - G51 | — | - G56 | - G57 | — |
| No.50 | PS- 5 | — | — | PS- 57 | PS-15 |
| | - 6 | — | — | - 65 | -61 |
| | - 0 | — | — | - 016 | -06 |

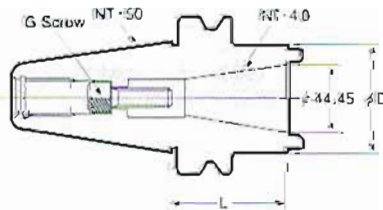
★For standard pull stud Code No. Please refer P.163

★The other type of pull stud is available, please specify the pull stud Code No.

SLEEVE for NT40 TOOL

NIKKEN

TSA



| Code No. | L | D | G | Weight (Kg) |
|------------------|----|----|---------|-------------|
| BT50-TSA40M-75 | 75 | 70 | M16P=2 | 4.8 |
| (IT50)-TSA40U-75 | | | ⅜-11UNC | 4.6 |

★G Screw is standard ANSI/ASME, when ordering, please specify M (metric) or U (inch).

★Above Code No. is the sleeve which internal taper is for conventional T40 (INT. 40) or internal taper is BT40. G screw/TSA40-M16-70L (right) is necessary.