

PAT.P



レッド スクリューアーバ

RED SCREW arbor

交換式工具の切削性能を最大限に発揮!

- 超合金の特性 (高いヤング率) を生かした高剛性設計
- 超硬一体化でスリップなし
- 深い立ち壁加工でも安定した加工
- センタースルー対応

交換式工具用
アーバ

The arbor for
Indexable End Mill

Displaying the highest cutting performance of any indexable end mill!

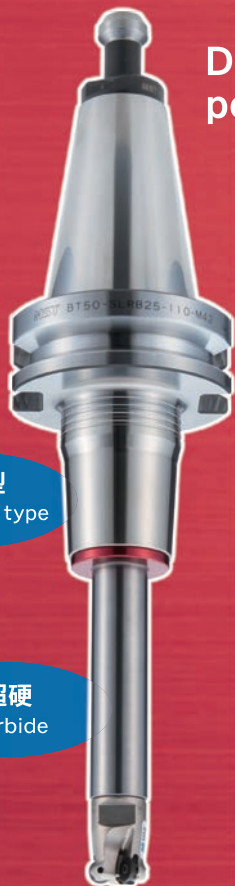
- Highly rigid design makes the best use of Carbide alloy properties (high Young's modulus).
- Carbide, integral type eliminates slipping.
- Steady processing for deep standing-wall machining.
- Compatible with center-through coolant

各社工具に対応!

Compatible with other manufacturers' tools

一体型
Integrated type

超硬
Carbide



三菱マテリアル製
Mitsubishi Materials

タンガロイ製
Tungaloy

ダイジェット製
DIJET

オーエスジー製
OSG

サンドビック製
SANDVIK

イスカル製
ISCAR

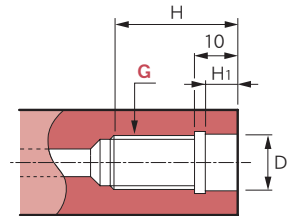
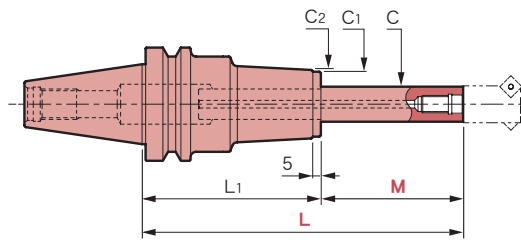
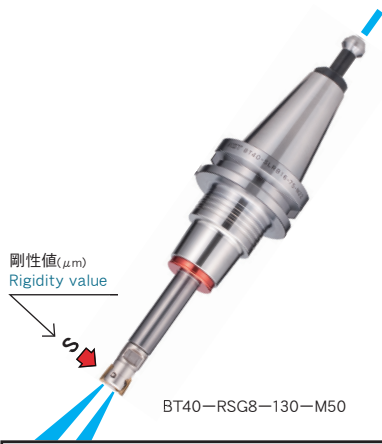
三菱日立ツール製
Mitsubishi Hitachi
Tool Engineering



MST corporation



1411



交換式工具 取付け部
Dimensions for the indexable end mill mounting

| CODE | G | φD | H | H1 | φC | L | M | L1 | φC1 | φC2 | kg | S | | | | | | | | |
|------------------------------------|-----|------|-----|-----|----|-----------------|-----|------|-----|-----|-----|-----|----|-----|----|-----|----|----|-----|-----|
| BT40 BT40-RSG 8-105-M 25 | M 8 | 8.5 | 18 | 6.5 | 15 | 105 | 25 | 80 | 30 | 32 | 1.4 | 0.6 | | | | | | | | |
| | | | | | | 135 | | 110 | | | 1.8 | 0.7 | | | | | | | | |
| | | | | | | 130 | 50 | 80 | | | 1.4 | 1.5 | | | | | | | | |
| | | | | | | 160 | | 110 | | | 1.8 | 1.7 | | | | | | | | |
| | | | | | | 155 | 75 | 80 | | | 1.5 | 3.1 | | | | | | | | |
| | | | | | | 185 | | 110 | | | 1.9 | 3.4 | | | | | | | | |
| | | | | | | 165 | 85 | 80 | | | 1.5 | 4.0 | | | | | | | | |
| | | | | | | 165 | | 80 | | | 1.5 | 4.0 | | | | | | | | |
| -RSG10-125-M 25 | M10 | 10.5 | 22 | 6.5 | 19 | 125 | 25 | 100 | 36 | 38 | 1.8 | 0.4 | | | | | | | | |
| | | | | | | 155 | | 130 | | | 2.2 | 0.5 | | | | | | | | |
| | | | | | | 150 | 50 | 100 | | | 1.9 | 0.9 | | | | | | | | |
| | | | | | | 180 | | 130 | | | 2.3 | 1.0 | | | | | | | | |
| | | | | | | 175 | 75 | 100 | | | 2.0 | 1.6 | | | | | | | | |
| | | | | | | 205 | | 130 | | | 2.4 | 1.8 | | | | | | | | |
| | | | | | | 200 | 100 | 100 | | | 2.0 | 2.8 | | | | | | | | |
| | | | | | | 230 | | 130 | | | 2.4 | 3.0 | | | | | | | | |
| | | | | | | -RSG12-125-M 25 | M12 | 12.5 | | | 22 | 6 | 24 | 125 | 25 | 100 | 43 | 45 | 2.0 | 0.3 |
| | | | | | | | | | | | | | | 155 | | 130 | | | 2.4 | 0.4 |
| 150 | 50 | 100 | 2.1 | 0.5 | | | | | | | | | | | | | | | | |
| 180 | | 130 | 2.5 | 0.7 | | | | | | | | | | | | | | | | |
| 175 | 75 | 100 | 2.3 | 0.9 | | | | | | | | | | | | | | | | |
| 205 | | 130 | 2.7 | 1.1 | | | | | | | | | | | | | | | | |
| 200 | 100 | 100 | 2.4 | 1.4 | | | | | | | | | | | | | | | | |
| 230 | | 130 | 2.8 | 1.6 | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|-----|------|-----|-----|----|-----------------|-----|------|----|----|-----|-----|----|-----|----|-----|----|----|-----|-----|
| BT50 BT50-RSG 8-120-M 25 | M 8 | 8.5 | 18 | 6.5 | 15 | 120 | 25 | 95 | 30 | 32 | 4.0 | 0.6 | | | | | | | | |
| | | | | | | 150 | | 125 | | | 4.3 | 0.7 | | | | | | | | |
| | | | | | | 145 | 50 | 95 | | | 4.0 | 1.5 | | | | | | | | |
| | | | | | | 175 | | 125 | | | 4.3 | 1.7 | | | | | | | | |
| | | | | | | 170 | 75 | 95 | | | 4.1 | 3.0 | | | | | | | | |
| | | | | | | 200 | | 125 | | | 4.4 | 3.3 | | | | | | | | |
| | | | | | | 180 | 85 | 95 | | | 4.1 | 3.9 | | | | | | | | |
| | | | | | | 180 | | 95 | | | 4.1 | 3.9 | | | | | | | | |
| -RSG10-140-M 25 | M10 | 10.5 | 22 | 6.5 | 19 | 140 | 25 | 115 | 36 | 38 | 4.3 | 0.4 | | | | | | | | |
| | | | | | | 170 | | 145 | | | 4.6 | 0.5 | | | | | | | | |
| | | | | | | 165 | 50 | 115 | | | 4.4 | 0.8 | | | | | | | | |
| | | | | | | 195 | | 145 | | | 4.7 | 0.9 | | | | | | | | |
| | | | | | | 190 | 75 | 115 | | | 4.5 | 1.6 | | | | | | | | |
| | | | | | | 220 | | 145 | | | 4.8 | 1.7 | | | | | | | | |
| | | | | | | 215 | 100 | 115 | | | 4.5 | 2.7 | | | | | | | | |
| | | | | | | 245 | | 145 | | | 4.8 | 2.9 | | | | | | | | |
| | | | | | | -RSG12-140-M 25 | M12 | 12.5 | | | 22 | 6 | 24 | 140 | 25 | 115 | 43 | 45 | 4.6 | 0.2 |
| | | | | | | | | | | | | | | 170 | | 145 | | | 5.0 | 0.3 |
| 165 | 50 | 115 | 4.7 | 0.5 | | | | | | | | | | | | | | | | |
| 195 | | 145 | 5.1 | 0.6 | | | | | | | | | | | | | | | | |
| 190 | 75 | 115 | 4.9 | 0.8 | | | | | | | | | | | | | | | | |
| 220 | | 145 | 5.3 | 1.0 | | | | | | | | | | | | | | | | |
| 215 | 100 | 115 | 5.0 | 1.3 | | | | | | | | | | | | | | | | |
| 245 | | 145 | 5.4 | 1.5 | | | | | | | | | | | | | | | | |
| 240 | 125 | 115 | 5.2 | 2.0 | | | | | | | | | | | | | | | | |
| 240 | | 115 | 5.2 | 2.0 | | | | | | | | | | | | | | | | |
| -RSG16-140-M 25 | M16 | 17.0 | 25 | 6 | 29 | 140 | 25 | 115 | 52 | 54 | 5.4 | 0.2 | | | | | | | | |
| | | | | | | 165 | | 50 | | | 5.6 | 0.3 | | | | | | | | |
| | | | | | | 190 | 75 | 5.8 | | | 0.5 | | | | | | | | | |
| | | | | | | 215 | 100 | 6.0 | | | 0.7 | | | | | | | | | |
| | | | | | | 240 | 125 | 6.2 | | | 1.1 | | | | | | | | | |

| CODE | G | φD | H | H ₁ | φC | L | M | L ₁ | φC ₁ | φC ₂ | kg | S |
|-----------------------------------|-----|------|-----|----------------|----|-----------------|-----|----------------|-----------------|-----------------|-----|-----|
| A63 A 63-RSG 8-105-M 25 | M 8 | 8.5 | 18 | 6.5 | 15 | 105 | 25 | 80 | 30 | 32 | 1.3 | 0.6 |
| | | | | | | 135 | | 110 | | | 1.4 | 0.7 |
| | | | | | | 130 | 50 | 80 | | | 1.3 | 1.5 |
| | | | | | | 160 | | 110 | | | 1.4 | 1.7 |
| | | | | | | 155 | 75 | 80 | | | | 3.1 |
| | | | | | | 185 | | 110 | | | 1.5 | 3.4 |
| | | | | | | 165 | 85 | 80 | | | 1.4 | 3.9 |
| | | | | | | -RSG10-125-M 25 | M10 | 10.5 | | | 22 | 6.5 |
| 155 | | 130 | 1.9 | 0.5 | | | | | | | | |
| 150 | 50 | 100 | 1.7 | 0.8 | | | | | | | | |
| 180 | | 130 | 2.0 | 1.0 | | | | | | | | |
| 175 | 75 | 100 | 1.8 | 1.6 | | | | | | | | |
| 205 | | 130 | 2.1 | 1.8 | | | | | | | | |
| 200 | 100 | 100 | 1.8 | 2.7 | | | | | | | | |
| 230 | | 130 | 2.1 | 2.9 | | | | | | | | |
| -RSG12-125-M 25 | M12 | 12.5 | 22 | 6 | 24 | 125 | 25 | 100 | 43 | 45 | 1.9 | 0.3 |
| 155 | | | | | | | 130 | 2.3 | | | 0.4 | |
| 150 | | | | | | 50 | 100 | 2.0 | | | 0.5 | |
| 180 | | | | | | | 130 | 2.4 | | | 0.6 | |
| 175 | | | | | | 75 | 100 | 2.2 | | | 0.9 | |
| 205 | | | | | | | 130 | 2.6 | | | 1.0 | |
| 200 | | | | | | 100 | 100 | 2.3 | | | 1.4 | |
| 230 | | | | | | | 130 | 2.7 | | | 1.6 | |

| | | | | | | | | | | | | |
|------------------------------------|-----|------|-----|-----|----|-----------------|-----|------|----|----|-----|-----|
| A100 A100-RSG 8-120-M 25 | M 8 | 8.5 | 18 | 6.5 | 15 | 120 | 25 | 95 | 30 | 32 | 2.6 | 0.6 |
| | | | | | | 150 | | 125 | | | 2.9 | 0.8 |
| | | | | | | 145 | 50 | 95 | | | 2.6 | 1.5 |
| | | | | | | 175 | | 125 | | | 2.9 | 1.7 |
| | | | | | | 170 | 75 | 95 | | | 2.7 | 3.1 |
| | | | | | | 200 | | 125 | | | 3.0 | 3.4 |
| | | | | | | 180 | 85 | 95 | | | 2.7 | 4.0 |
| | | | | | | -RSG10-140-M 25 | M10 | 10.5 | | | 22 | 6.5 |
| 170 | | 145 | 3.5 | 0.5 | | | | | | | | |
| 165 | 50 | 115 | 3.2 | 0.8 | | | | | | | | |
| 195 | | 145 | 3.6 | 1.0 | | | | | | | | |
| 190 | 75 | 115 | 3.3 | 1.6 | | | | | | | | |
| 220 | | 145 | 3.7 | 1.8 | | | | | | | | |
| 215 | 100 | 115 | 3.3 | 2.7 | | | | | | | | |
| 245 | | 145 | 3.7 | 2.9 | | | | | | | | |
| -RSG12-140-M 25 | M12 | 12.5 | 22 | 6 | 24 | 140 | 25 | 115 | 43 | 45 | 3.4 | 0.3 |
| 170 | | | | | | | 145 | 3.7 | | | 0.4 | |
| 165 | | | | | | 50 | 115 | 3.5 | | | 0.5 | |
| 195 | | | | | | | 145 | 3.8 | | | 0.6 | |
| 190 | | | | | | 75 | 115 | 3.7 | | | 0.8 | |
| 220 | | | | | | | 145 | 4.0 | | | 1.0 | |
| 215 | | | | | | 100 | 115 | 3.8 | | | 1.4 | |
| 245 | | | | | | | 145 | 4.1 | | | 1.6 | |
| -RSG16-140-M 25 | M16 | 17.0 | 25 | 6 | 29 | 140 | 25 | 115 | 52 | 54 | 4.1 | 0.2 |
| 165 | | | | | | 50 | | 4.3 | | | 0.3 | |
| 190 | | | | | | 75 | | 4.5 | | | 0.5 | |
| 215 | | | | | | 100 | | 4.7 | | | 0.8 | |
| 240 | | | | | | 125 | | 4.9 | | | 1.1 | |

- オプション ● プルスタッド (BT)
- 標準付属品 ● クーラントダクト (HSK-A)

■ 備考 ● CAT./DINシャンクも制作します。弊社までお問い合わせください。

- 注意事項 ● 交換式工具は付属しません。各切削工具メーカーでお買い求めください。
● ご使用になる交換式工具が取付可能か「交換式工具取付部」で寸法をご確認ください。

- Option ● Retention knob(BT)

- Std. Access. ● Coolant duct(HSK)

- Note

- Caution

- We can make CAT. and DIN standard shank, please contact us the detail.

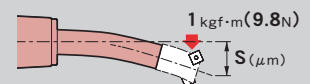
- The indexable end mill is not a standard accessory. Please purchase it on the market.

- Please check your indexable end mills for conformance to the dimensions.

S 剛性値について About the rigidity value

交換式工具先端に1kgf・m(9.8N)の曲げ荷重をかけた時のホルダと工具全体がたわむ量を表しています。数値が小さい程剛性があり安定した加工が可能です。

A rigidity value represents the amount of deflection for the entire holder and tool when a bending load of 1 kgf (9.8 N) is applied to the tip of the tool. The smaller the numerical value is, the higher the rigidity and the more accurate the machining.



各社工具に対応

Compatible with other manufacturers' tools

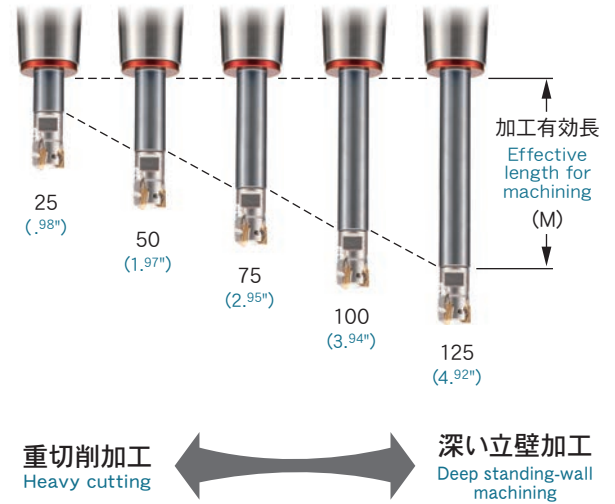
交換式工具メーカー 一例

Examples of indexable end mill manufacturers



豊富な加工有効長

Many effective lengths for machining



加工事例

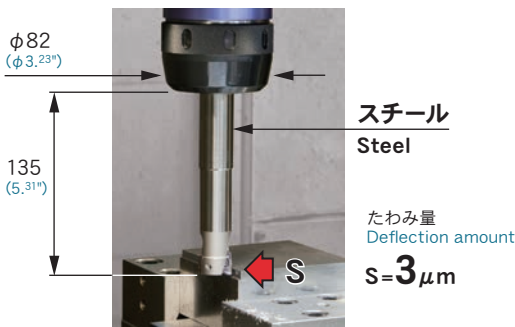
Machining example

超硬と一体型のレッドスクリューアーバは、高剛性でたわみが少なく、工具突出しが長くなる深い立ち壁加工においても、ビビリのない安定した加工を実現します。

一般のホルダとスチールシャンク（別体式）の組合せに比べ、圧倒的な切削性能を発揮します。

A carbide, integrated-type RED screw arbor is highly rigid with low deflection, achieving steady machining without chatter even for deep standing-wall machining in which tool projection is long. A RED screw arbor demonstrates its overwhelming cutting performance as compared to a combination of a general holder and a steel shank.

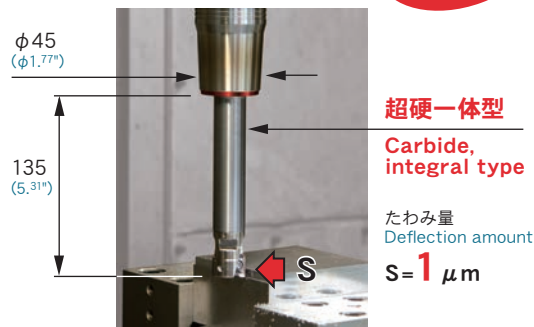
一般的なホルダ A general holder + スチールシャンク A steel shank



レッドスクリューアーバ RED screw arbor

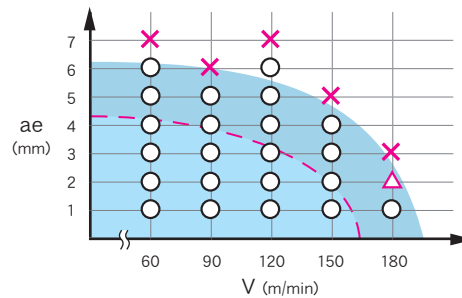
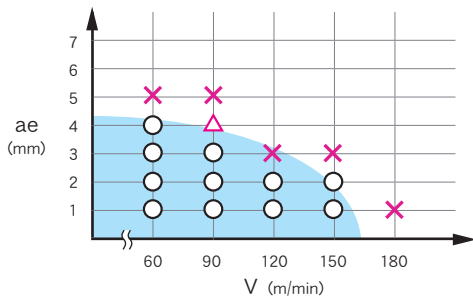
BT50-RSG12-215-M100

剛性UP Increase rigidity



切削条件 Cutting conditions

2枚刃エンドミル 2-flutes end-mill
ダウンカット Down cut milling
送り: 0.1mm/tooth Feed (.004"/tooth)
材質: S50C Material



○ 良好 Excellent
× ビビリ Chattering

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