

PAT.P



# RED SCREW arbor

교환식 공구의 절삭 성능을 최대로 발휘!

- 초경의 특성을 이용한 고강성 설계
- 초경 일체형으로 슬립이 생기지 않음
- 깊은 측벽 가공도 안정적으로 가공
- 센터 스루 대응

교환식 공구용 아바  
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



일체형  
Integrated type

초경  
Carbide

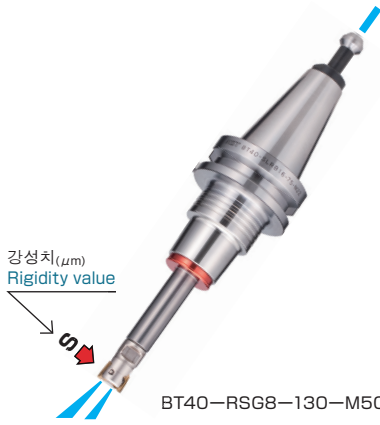
각 메이커 공구 대응!  
Compatible with other  
manufacturers' tools



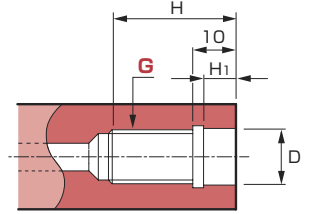
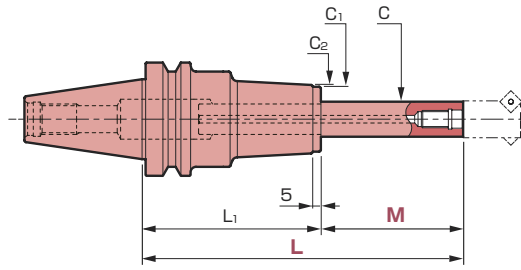
MST corporation



1302KE



BT40-RSG8-130-M50



교환식 공구 장착부  
Dimensions for the indexable end mill mounting

BT40

| CODE                       | G          | φD         | H   | H <sub>1</sub> | φC  | L          | M          | L <sub>1</sub> | φC <sub>1</sub> | φC <sub>2</sub> | Kg  | S   |
|----------------------------|------------|------------|-----|----------------|-----|------------|------------|----------------|-----------------|-----------------|-----|-----|
| <b>BT40-RSG 8-105-M 25</b> | <b>M8</b>  | 8.5        | 18  | 6.5            | 15  | <b>105</b> | <b>25</b>  | 80             | 30              | 32              | 1.4 | 0.6 |
| -135-M 25                  |            |            |     |                |     | <b>135</b> | <b>25</b>  | 110            |                 |                 | 1.8 | 0.7 |
| -130-M 50                  |            |            |     |                |     | <b>130</b> | <b>50</b>  | 80             |                 |                 | 1.4 | 1.5 |
| -160-M 50                  |            |            |     |                |     | <b>160</b> | <b>50</b>  | 110            |                 |                 | 1.8 | 1.7 |
| -155-M 75                  |            |            |     |                |     | <b>155</b> | <b>75</b>  | 80             |                 |                 | 1.5 | 3.1 |
| -185-M 75                  |            |            |     |                |     | <b>185</b> | <b>75</b>  | 110            |                 |                 | 1.9 | 3.4 |
| -165-M 85                  |            |            |     |                |     | <b>165</b> | <b>85</b>  | 80             |                 |                 | 1.5 | 4.0 |
| <b>-RSG10-125-M 25</b>     |            |            |     |                |     | <b>M10</b> | 10.5       | 22             |                 |                 | 6.5 | 19  |
| -155-M 25                  | <b>155</b> | <b>25</b>  | 130 | 2.2            | 0.5 |            |            |                |                 |                 |     |     |
| -150-M 50                  | <b>150</b> | <b>50</b>  | 100 | 1.9            | 0.9 |            |            |                |                 |                 |     |     |
| -180-M 50                  | <b>180</b> | <b>50</b>  | 130 | 2.3            | 1.0 |            |            |                |                 |                 |     |     |
| -175-M 75                  | <b>175</b> | <b>75</b>  | 100 | 2.0            | 1.6 |            |            |                |                 |                 |     |     |
| -205-M 75                  | <b>205</b> | <b>75</b>  | 130 | 2.4            | 1.8 |            |            |                |                 |                 |     |     |
| -200-M100                  | <b>200</b> | <b>100</b> | 100 | 2.0            | 2.8 |            |            |                |                 |                 |     |     |
| -230-M100                  | <b>230</b> | <b>100</b> | 130 | 2.4            | 3.0 |            |            |                |                 |                 |     |     |
| <b>-RSG12-125-M 25</b>     | <b>M12</b> | 12.5       | 22  | 6              | 24  | <b>125</b> | <b>25</b>  | 100            | 43              | 45              | 2.0 | 0.3 |
| -155-M 25                  |            |            |     |                |     | <b>155</b> | <b>25</b>  | 130            |                 |                 | 2.4 | 0.4 |
| -150-M 50                  |            |            |     |                |     | <b>150</b> | <b>50</b>  | 100            |                 |                 | 2.1 | 0.5 |
| -180-M 50                  |            |            |     |                |     | <b>180</b> | <b>50</b>  | 130            |                 |                 | 2.5 | 0.7 |
| -175-M 75                  |            |            |     |                |     | <b>175</b> | <b>75</b>  | 100            |                 |                 | 2.3 | 0.9 |
| -205-M 75                  |            |            |     |                |     | <b>205</b> | <b>75</b>  | 130            |                 |                 | 2.7 | 1.1 |
| -200-M100                  |            |            |     |                |     | <b>200</b> | <b>100</b> | 100            |                 |                 | 2.4 | 1.4 |
| -230-M100                  |            |            |     |                |     | <b>230</b> | <b>100</b> | 130            |                 |                 | 2.8 | 1.6 |

BT50

|                            |            |            |     |     |     |            |            |     |    |    |     |     |
|----------------------------|------------|------------|-----|-----|-----|------------|------------|-----|----|----|-----|-----|
| <b>BT50-RSG 8-120-M 25</b> | <b>M8</b>  | 8.5        | 18  | 6.5 | 15  | <b>120</b> | <b>25</b>  | 95  | 30 | 32 | 4.0 | 0.6 |
| -150-M 25                  |            |            |     |     |     | <b>150</b> | <b>25</b>  | 125 |    |    | 4.3 | 0.7 |
| -145-M 50                  |            |            |     |     |     | <b>145</b> | <b>50</b>  | 95  |    |    | 4.0 | 1.5 |
| -175-M 50                  |            |            |     |     |     | <b>175</b> | <b>50</b>  | 125 |    |    | 4.3 | 1.7 |
| -170-M 75                  |            |            |     |     |     | <b>170</b> | <b>75</b>  | 95  |    |    | 4.1 | 3.0 |
| -200-M 75                  |            |            |     |     |     | <b>200</b> | <b>75</b>  | 125 |    |    | 4.4 | 3.3 |
| -180-M 85                  |            |            |     |     |     | <b>180</b> | <b>85</b>  | 95  |    |    | 4.1 | 3.9 |
| <b>-RSG10-140-M 25</b>     |            |            |     |     |     | <b>M10</b> | 10.5       | 22  |    |    | 6.5 | 19  |
| -170-M 25                  | <b>170</b> | <b>25</b>  | 145 | 4.6 | 0.5 |            |            |     |    |    |     |     |
| -165-M 50                  | <b>165</b> | <b>50</b>  | 115 | 4.4 | 0.8 |            |            |     |    |    |     |     |
| -195-M 50                  | <b>195</b> | <b>50</b>  | 145 | 4.7 | 0.9 |            |            |     |    |    |     |     |
| -190-M 75                  | <b>190</b> | <b>75</b>  | 115 | 4.5 | 1.6 |            |            |     |    |    |     |     |
| -220-M 75                  | <b>220</b> | <b>75</b>  | 145 | 4.8 | 1.7 |            |            |     |    |    |     |     |
| -215-M100                  | <b>215</b> | <b>100</b> | 115 | 4.5 | 2.7 |            |            |     |    |    |     |     |
| -245-M100                  | <b>245</b> | <b>100</b> | 145 | 4.8 | 2.9 |            |            |     |    |    |     |     |
| <b>-RSG12-140-M 25</b>     | <b>M12</b> | 12.5       | 22  | 6   | 24  | <b>140</b> | <b>25</b>  | 115 | 43 | 45 | 4.6 | 0.2 |
| -170-M 25                  |            |            |     |     |     | <b>170</b> | <b>25</b>  | 145 |    |    | 5.0 | 0.3 |
| -165-M 50                  |            |            |     |     |     | <b>165</b> | <b>50</b>  | 115 |    |    | 4.7 | 0.5 |
| -195-M 50                  |            |            |     |     |     | <b>195</b> | <b>50</b>  | 145 |    |    | 5.1 | 0.6 |
| -190-M 75                  |            |            |     |     |     | <b>190</b> | <b>75</b>  | 115 |    |    | 4.9 | 0.8 |
| -220-M 75                  |            |            |     |     |     | <b>220</b> | <b>75</b>  | 145 |    |    | 5.3 | 1.0 |
| -215-M100                  |            |            |     |     |     | <b>215</b> | <b>100</b> | 115 |    |    | 5.0 | 1.3 |
| -245-M100                  |            |            |     |     |     | <b>245</b> | <b>100</b> | 145 |    |    | 5.4 | 1.5 |
| <b>-RSG16-140-M 25</b>     | <b>M16</b> | 17.0       | 25  | 6   | 29  | <b>140</b> | <b>25</b>  | 115 | 52 | 54 | 5.4 | 0.2 |
| -165-M 50                  |            |            |     |     |     | <b>165</b> | <b>50</b>  | 115 |    |    | 5.6 | 0.3 |
| -190-M 75                  |            |            |     |     |     | <b>190</b> | <b>75</b>  | 115 |    |    | 5.8 | 0.5 |
| -215-M100                  |            |            |     |     |     | <b>215</b> | <b>100</b> | 115 |    |    | 6.0 | 0.7 |
| -240-M125                  |            |            |     |     |     | <b>240</b> | <b>125</b> | 115 |    |    | 6.2 | 1.1 |

| CODE                              | G   | φD   | H   | H <sub>1</sub> | φC | L               | M   | L <sub>1</sub> | φC <sub>1</sub> | φC <sub>2</sub> | Kg  | S   |
|-----------------------------------|-----|------|-----|----------------|----|-----------------|-----|----------------|-----------------|-----------------|-----|-----|
| <b>A63</b><br>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             | 25  | 110            |                 |                 | 1.4 | 0.7 |
|                                   |     |      |     |                |    | 130             | 50  | 80             |                 |                 | 1.3 | 1.5 |
|                                   |     |      |     |                |    | 160             | 50  | 110            |                 |                 | 1.4 | 1.7 |
|                                   |     |      |     |                |    | 155             | 75  | 80             |                 |                 | 1.4 | 3.1 |
|                                   |     |      |     |                |    | 185             | 75  | 110            |                 |                 | 1.5 | 3.4 |
|                                   |     |      |     |                |    | 165             | 85  | 80             |                 |                 | 1.4 | 3.9 |
|                                   |     |      |     |                |    | -RSG10-125-M 25 | M10 | 10.5           |                 |                 | 22  | 6.5 |
| 155                               | 25  | 130  | 1.9 | 0.5            |    |                 |     |                |                 |                 |     |     |
| 150                               | 50  | 100  | 1.7 | 0.8            |    |                 |     |                |                 |                 |     |     |
| 180                               | 50  | 130  | 2.0 | 1.0            |    |                 |     |                |                 |                 |     |     |
| 175                               | 75  | 100  | 1.8 | 1.6            |    |                 |     |                |                 |                 |     |     |
| 205                               | 75  | 130  | 2.1 | 1.8            |    |                 |     |                |                 |                 |     |     |
| 200                               | 100 | 100  | 1.8 | 2.7            |    |                 |     |                |                 |                 |     |     |
| 230                               | 100 | 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             | 25  | 130            |                 |                 | 2.3 | 0.4 |
|                                   |     |      |     |                |    | 150             | 50  | 100            |                 |                 | 2.0 | 0.5 |
|                                   |     |      |     |                |    | 180             | 50  | 130            |                 |                 | 2.4 | 0.6 |
|                                   |     |      |     |                |    | 175             | 75  | 100            |                 |                 | 2.2 | 0.9 |
|                                   |     |      |     |                |    | 205             | 75  | 130            |                 |                 | 2.6 | 1.0 |
|                                   |     |      |     |                |    | 200             | 100 | 100            |                 |                 | 2.3 | 1.4 |
|                                   |     |      |     |                |    | 230             | 100 | 130            |                 |                 | 2.7 | 1.6 |

|                                    |     |      |     |     |    |                 |     |      |    |    |     |     |
|------------------------------------|-----|------|-----|-----|----|-----------------|-----|------|----|----|-----|-----|
| <b>A100</b><br>A100-RSG 8-120-M 25 | M 8 | 8.5  | 18  | 6.5 | 15 | 120             | 25  | 95   | 30 | 32 | 2.6 | 0.6 |
|                                    |     |      |     |     |    | 150             | 25  | 125  |    |    | 2.9 | 0.8 |
|                                    |     |      |     |     |    | 145             | 50  | 95   |    |    | 2.6 | 1.5 |
|                                    |     |      |     |     |    | 175             | 50  | 125  |    |    | 2.9 | 1.7 |
|                                    |     |      |     |     |    | 170             | 75  | 95   |    |    | 2.7 | 3.1 |
|                                    |     |      |     |     |    | 200             | 75  | 125  |    |    | 3.0 | 3.4 |
|                                    |     |      |     |     |    | 180             | 85  | 95   |    |    | 2.7 | 4.0 |
|                                    |     |      |     |     |    | -RSG10-140-M 25 | M10 | 10.5 |    |    | 22  | 6.5 |
| 170                                | 25  | 145  | 3.5 | 0.5 |    |                 |     |      |    |    |     |     |
| 165                                | 50  | 115  | 3.2 | 0.8 |    |                 |     |      |    |    |     |     |
| 195                                | 50  | 145  | 3.6 | 1.0 |    |                 |     |      |    |    |     |     |
| 190                                | 75  | 115  | 3.3 | 1.6 |    |                 |     |      |    |    |     |     |
| 220                                | 75  | 145  | 3.7 | 1.8 |    |                 |     |      |    |    |     |     |
| 215                                | 100 | 115  | 3.3 | 2.7 |    |                 |     |      |    |    |     |     |
| 245                                | 100 | 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             | 25  | 145  |    |    | 3.7 | 0.4 |
|                                    |     |      |     |     |    | 165             | 50  | 115  |    |    | 3.5 | 0.5 |
|                                    |     |      |     |     |    | 195             | 50  | 145  |    |    | 3.8 | 0.6 |
|                                    |     |      |     |     |    | 190             | 75  | 115  |    |    | 3.7 | 0.8 |
|                                    |     |      |     |     |    | 220             | 75  | 145  |    |    | 4.0 | 1.0 |
|                                    |     |      |     |     |    | 215             | 100 | 115  |    |    | 3.8 | 1.4 |
|                                    |     |      |     |     |    | 245             | 100 | 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  | 115  |    |    | 4.3 | 0.3 |
|                                    |     |      |     |     |    | 190             | 75  | 115  |    |    | 4.5 | 0.5 |
|                                    |     |      |     |     |    | 215             | 100 | 115  |    |    | 4.7 | 0.8 |
|                                    |     |      |     |     |    | 240             | 125 | 115  |    |    | 4.9 | 1.1 |

- 옵션
- 표준 부속품
- 비고
- 주의사항
- 폴스터볼트 (BT)
- 쿨런트 덕트(HSK-A)
- CAT/DIN상크도 제작합니다. 폐사에 문의해 주세요.
- 교환식 공구는 포함되어 있지 않습니다. 각 절삭공구 메이커로부터 구매하여 주세요.
- 사용할 교환식 공구가 장착이 가능한지는 (교환식 공구 장착부) 치수를 확인하여 주세요.

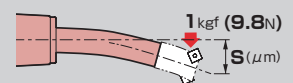
- Option
- Standard accessories
- Note
- Caution
- Retention knob(BT)
- Coolant duct(HSK-A)
- We can make CAT. and DIN standard shank, please contact us the detail.
- The indexable end mill is not a standard accessory. Please purchase it on the market.
- Please check your indexable end mills for conformance to the dimensions.

### S 강성치에 대하여

교환식 공구 끝부분에 1kgf·m(9.8N) 의 부하를 가했을때 홀더와 공구 전체의 휘는 정도를 나타냅니다. 수치가 작을수록 강성이 높기 때문에 안정적인 가공이 가능합니다.

### S About the rigidity value

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.

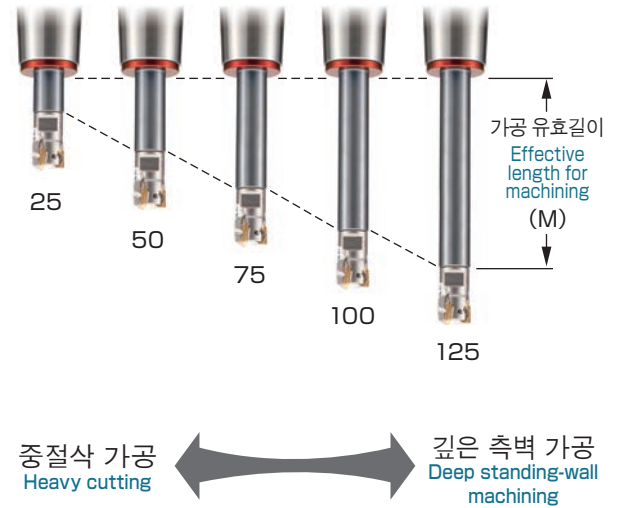


## 각 메이커 공구 대응 Compatible with other manufacturers' tools

교환식 공구 메이커  
Examples of indexable end mill manufacturers



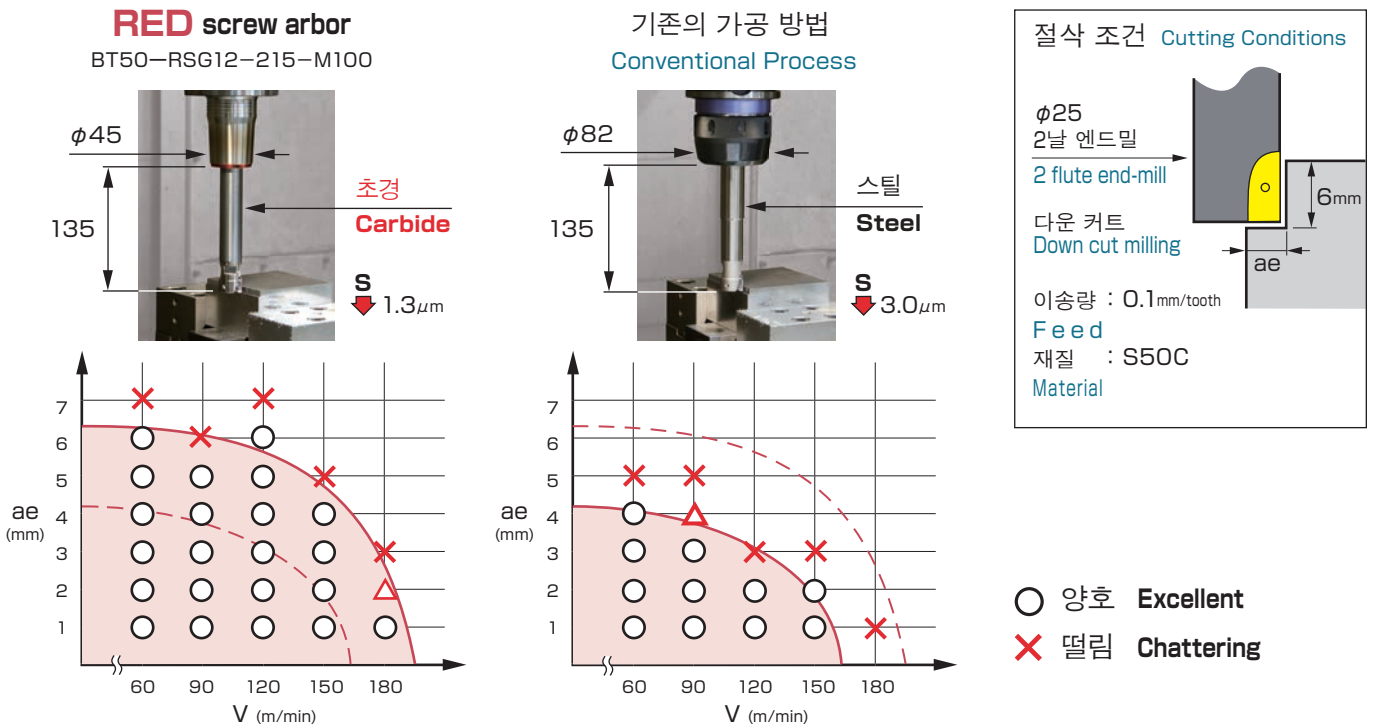
## 풍부한 가공 유효길이 Many effective lengths for machining



## 가공사례

## Machining example

초경 일체형인 RED screw arbor 는 고강성이기 때문에 긴 공구가 필요한 깊은 측벽가공에서도 떨림이 없는 안정적인 가공이 가능합니다. 일반 홀더와 스틸 샤홅크를 결합한 방식과 비교하였을때 압도적인 절삭 성능을 보입니다.  
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.



# MST corporation

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