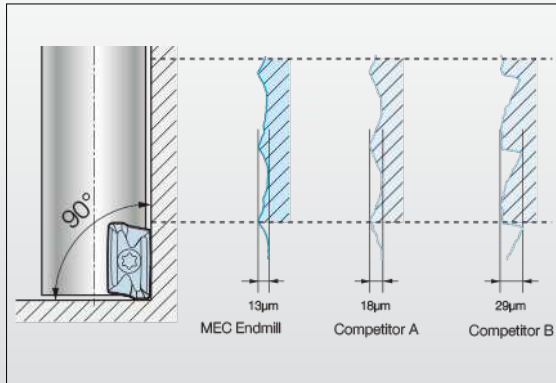


● Features of MEC

● Perfect 90° Shoulders

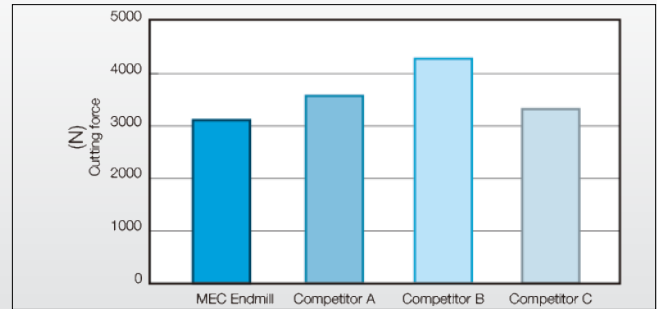
<Cutting Surface Comparison>



(Internal evaluation)

● Low cutting force

<Cutting Force Comparison>



Tool diameter $\varnothing 0.787''$ 1049
 $V_c=328$ sfm Shouldering $ap \times ae=0.354'' \times 0.3936''$
 $fz=0.008$ ipt Dry (In house evaluation)

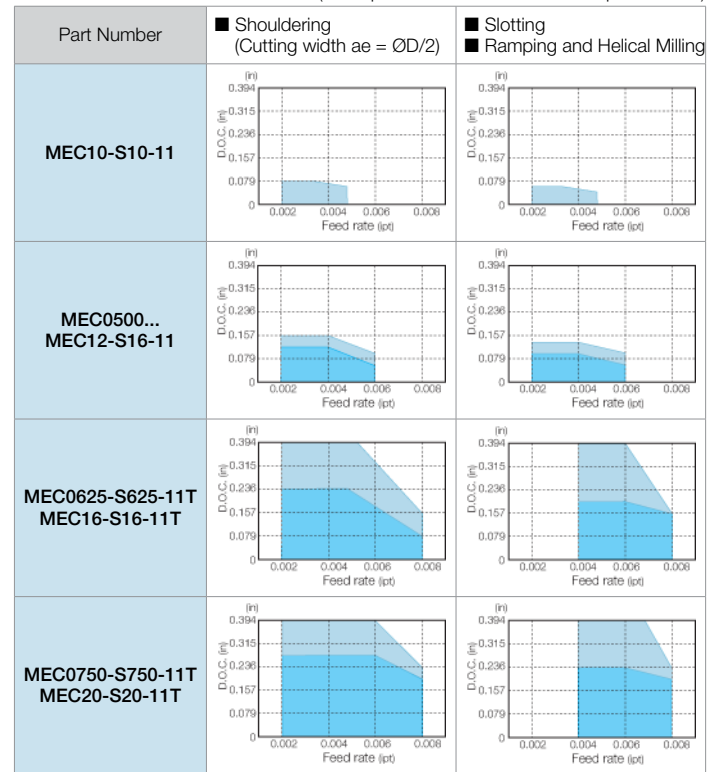
(Internal evaluation)

■ Cutting Performance of MEC End Mill

① Overhang Length When Using BDMT 11mm-type Insert (Standard / Straight Shank)

Cutting Dia.	Part Number (mm / inch)	Overhang Length A (in)	
		(Colors Refer to charts on right)	
$\varnothing 8$ mm	MEC10-S10-11	0.670	-
$\varnothing 12$ mm	MEC0500... MEC12-S16-11	0.787	1.180
$\varnothing 0.625$ in $\varnothing 16$ mm	MEC0625-S625-11T MEC16-S16-11T	1.180	1.790
$\varnothing 0.750$ in $\varnothing 20$ mm	MEC0750-S750-11T MEC20-S20-11T	1.180	1.790

(JT chipbreaker $V_c=400$ SFM Workpiece :1049)



■ Case Studies

RC55 (Prehardened Tool Steel)

- Test Piece (54~56HRC)
- $V_c=175$ sfm ($n=800$ min-1)
- $ap \times ae=0.08'' \times 0.55''$
- $fz=0.005$ ipt ($V_f=11.8$ ipm)
- Dry
- MEC20-S20-11T
- 3 Teeth
- BDMT11T308ER-JT (PR830)

Tool	Metal Removal Volume
MEC	4.35 in ³ (continuable)
Competitor A	0.18 in ³ (Chipping)

• Competitor A ($\varnothing 25 : 2$ Teeth) caused chipping after 10 minutes machining with the conditions of $V_c=131$ sfm, $fz=0.003$ ipt, $ap \times ae=0.08'' \times 0.12''$, and it was noisy. Also, higher feed rate was not possible because it would cause breakage.
 • MEC maintained a good edge condition even after 10 minutes and was still available for further machining.

(User Evaluation)

Structural Steel

- Plate
- $V_c=300$ sfm ($n=1400$ min-1)
- $ap=0.20'' \times 2$ Passes
- $fz=0.005$ ipt ($V_f=19.7$ ipm)
- Dry
- MEC20-S20-11T
- 3 Teeth
- BDMT11T308ER-JT (PR830)

Tool	Performance
MEC	23 pcs/edge
Competitor B	10~11 pcs/edge

• MEC doubled Competitor B's tool life under the same machining conditions.

(User Evaluation)

GRADES A
 INSERTS B
 CBN & POD C
 TURNING E
 BORING F
 GROOVING G
 CUT-OFF H
 THREADING J
 SOLID END MILLS L
 MILLING M
 SPARE PARTS P
 TECHNICAL R
 INDEX T