



INCH

METRIC

Recommended Cutting Data for QM Max - Side Finishing

Material	Parameters	ZPMT-PL	YPHW-F	YPHW-15/-24	YPHW-F1	ZPMT-NL	ZPMT-SL
Gray Cast Iron	SFM	1,200	1,200	1,200	2,500	*	*
	IPT	.010"	.008"	.008"	.004"	*	*
	DOC	.125"	.080"	.040"	.030"	*	*
	WOC	.010"	.008"	.008"	.004"	*	*
	Grade	DH102	JC8015	DH102	JBN795	*	*
Nodular Cast Iron	SFM	1,100	1,100	1,100	2,500	*	*
	IPT	.010"	.008"	.008"	.004"	*	*
	DOC	.080"	.080"	.040"	.030"	*	*
	WOC	.010"	.008"	.008"	.004"	*	*
	Grade	DH102	JC8015	DH102	JBN795	*	*
Carbon Steel	SFM	1,000	1,000	1,000	*	*	*
	IPT	.010"	.008"	.008"	*	*	*
	DOC	.125"	.080"	.040"	*	*	*
	WOC	.008"	.008"	.008"	*	*	*
	Grade	DH102	JC8015	DH102	*	*	*
Low Alloy Steel	SFM	1,000	1,000	1,000	*	*	*
	IPT	.008"	.008"	.008"	*	*	*
	DOC	.125"	.080"	.040"	*	*	*
	WOC	.008"	.008"	.008"	*	*	*
	Grade	DH102	JC8015	DH102	*	*	*
Mold Steel	SFM	900	900	900	*	*	*
	IPT	.008"	.008"	.008"	*	*	*
	DOC	.125"	.080"	.040"	*	*	*
	WOC	.010"	.008"	.008"	*	*	*
	Grade	DH102	JC8015	DH102	*	*	*
Tool & Die Steel (40-50 HRC)	SFM	750	750	750	2,000	*	*
	IPT	.006"	.006"	.006"	.004"	*	*
	DOC	.100"	.080"	.040"	.020"	*	*
	WOC	.008"	.008"	.008"	.003"	*	*
	Grade	DH102	JC8015	DH102	JBN795	*	*
Hardened Die Steel (50-60 HRC)	SFM	600	600	600	1,500	*	*
	IPT	.004"	.004"	.004"	.003"	*	*
	DOC	.080"	.060"	.030"	.015"	*	*
	WOC	.004"	.004"	.004"	.003"	*	*
	Grade	DH102	JC8015	DH102	JBN795	*	*
Stainless Steel	SFM	250	250	250	*	*	*
	IPT	.008"	.008"	.008"	*	*	*
	DOC	.080"	.060"	.030"	*	*	*
	WOC	.008"	.008"	.008"	*	*	*
	Grade	JC8118	JC8015	JC8015	*	*	*
Titanium	SFM	*	*	*	*	*	300
	IPT	*	*	*	*	*	.005"
	DOC	*	*	*	*	*	.040"
	WOC	*	*	*	*	*	.004"
	Grade	*	*	*	*	*	JC7518
Inconel	SFM	*	*	*	*	*	300
	IPT	*	*	*	*	*	.005"
	DOC	*	*	*	*	*	.040"
	WOC	*	*	*	*	*	.004"
	Grade	*	*	*	*	*	JC7518
Aluminum	SFM	*	*	*	*	2,000	*
	IPT	*	*	*	*	.008"	*
	DOC	*	*	*	*	.080"	*
	WOC	*	*	*	*	.010"	*
	Grade	*	*	*	*	FC18	*

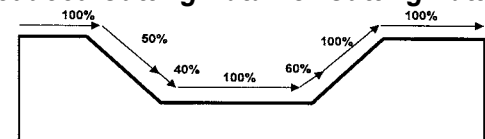
NOTE: 1. These parameters are for stable machining with steel bodies at lengths 4XD. See table below for longer applications.
 2. RPM = 3.82 x SFM / Dia.
 3. IPM = RPM x IPT x # of flutes (or teeth)

Additional Cutting Data For Longer Tools

Reach/Dia.	~4.0	4.0~4.5	4.5~5.3	5.3~5.7	5.7~6.2	6.3~
rpm %	100	90	80	80	75	70
Feed %	100	90	90	80	75	70

NOTE: The above percentages should be applied, according to tool ratio.

Reduced Cutting Data For Cutting Pattern



NOTE: Feed should be reduced when cutting the above pattern



QM Max

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Recommended Cutting Data for QM Max - Bottom Finishing

Material	Parameters	ZPMT-PL	YPHW-F	YPHW-15/-24	YPHW-F1	ZPMT-NL	ZPMT-SL
Gray Cast Iron	SFM	840	840	840	1,750	*	*
	IPT	.008"	.010"	.012"	.004"	*	*
	DOC	.008"	.008"	.010"	.003"	*	*
	WOC	60%	60%	60%	60%	*	*
	Grade	DH102	JC8015	DH102	JBN795	*	*
Nodular Cast Iron	SFM	770	770	770	1,750	*	*
	IPT	.008"	.010"	.012"	.004"	*	*
	DOC	.008"	.008"	.010"	.003"	*	*
	WOC	60%	60%	60%	60%	*	*
	Grade	DH102	JC8015	DH102	JBN795	*	*
Carbon Steel	SFM	700	700	700	*	*	*
	IPT	.010"	.010"	.012"	*	*	*
	DOC	.008"	.008"	.010"	*	*	*
	WOC	60%	60%	60%	*	*	*
	Grade	DH102	JC8015	DH102	*	*	*
Low Alloy Steel	SFM	700	700	700	*	*	*
	IPT	.008"	.010"	.012"	*	*	*
	DOC	.006"	.008"	.010"	*	*	*
	WOC	60%	60%	60%	*	*	*
	Grade	DH102	JC8015	DH102	*	*	*
Mold Steel	SFM	630	630	630	*	*	*
	IPT	.006"	.008"	.010"	*	*	*
	DOC	.006"	.008"	.010"	*	*	*
	WOC	60%	60%	60%	*	*	*
	Grade	DH102	JC8015	DH102	*	*	*
Tool & Die Steel (40-50 HRC)	SFM	525	525	525	1,400	*	*
	IPT	.006"	.006"	.008"	.004"	*	*
	DOC	.005"	.008"	.008"	.003"	*	*
	WOC	60%	60%	60%	60%	*	*
	Grade	DH102	JC8015	DH102	JBN795	*	*
Hardened Die Steel (50-60 HRC)	SFM	420	420	420	1,050	*	*
	IPT	.004"	.004"	.006"	.003"	*	*
	DOC	.004"	.005"	.005"	.003"	*	*
	WOC	40%	40%	40%	60%	*	*
	Grade	DH102	JC8015	DH102	JBN795	*	*
Stainless Steel	SFM	175	175	175	*	*	*
	IPT	.008"	.010"	.012"	*	*	*
	DOC	.006"	.008"	.010"	*	*	*
	WOC	60%	60%	60%	*	*	*
	Grade	JC8118	JC8015	JC8015	*	*	*
Titanium	SFM	*	*	*	*	*	210
	IPT	*	*	*	*	*	.005"
	DOC	*	*	*	*	*	.006"
	WOC	*	*	*	*	*	40%
	Grade	*	*	*	*	*	JC7518
Inconel	SFM	*	*	*	*	*	70
	IPT	*	*	*	*	*	.003"
	DOC	*	*	*	*	*	.005"
	WOC	*	*	*	*	*	40%
	Grade	*	*	*	*	*	JC7518
Aluminum	SFM	*	*	*	*	1,400	*
	IPT	*	*	*	*	.008"	*
	DOC	*	*	*	*	.080"	*
	WOC	*	*	*	*	.010"	*
	Grade	*	*	*	*	FC18	*

NOTE: 1. These parameters are for stable machining with steel bodies at lengths 4XD. See table below for longer applications.

2. RPM = 3.82 x SFM / Dia.

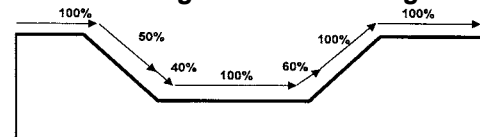
3. IPM = RPM x IPT x # of flutes (or teeth)

Additional Cutting Data For Longer Tools

Reach/Dia.	~4.0	4.0~4.5	4.5~5.3	5.3~5.7	5.7~6.2	6.3~
rpm %	100	90	80	80	75	70
Feed %	100	90	90	80	75	70

NOTE: The above percentages should be applied, according to tool ratio.

Reduced Cutting Data For Cutting Pattern



NOTE: Feed should be reduced when cutting the above pattern

**INCH****METRIC****Recommended Cutting Data for QM Max - Vertical Side Finishing**

Material	Parameters	YPHW-15	YPHW-F
Gray Cast Iron	SFM	1,800	1,800
	IPT	.006"	.006"
	Peck Feed	.020" x D	.020" x D
	WOC	< .008"	< .008"
	Grade	JC8015	JC8015
Nodular Cast Iron	SFM	1,800	1,800
	IPT	.006"	.006"
	Peck Feed	.020" x D	.020" x D
	WOC	< .008"	< .008"
	Grade	JC8015	JC8015
Carbon Steel	SFM	1,480	1,480
	IPT	.007"	.007"
	Peck Feed	.020" x D	.020" x D
	WOC	< .008"	< .008"
	Grade	JC8015	JC8015
Low Alloy Steel	SFM	1,310	1,310
	IPT	.007"	.007"
	Peck Feed	.020" x D	.020" x D
	WOC	< .008"	< .008"
	Grade	JC8015	JC8015
Mold Steel	SFM	1,150	1,150
	IPT	.006"	.006"
	Peck Feed	.020" x D	.020" x D
	WOC	< .008"	< .008"
	Grade	JC8015	JC8015
Tool & Die Steel (40-50 HRC)	SFM	560	560
	IPT	.004"	.004"
	Peck Feed	.020" x D	.020" x D
	WOC	< .006"	< .006"
	Grade	DH102	JC8015
Hardened Die Steel (50-60 HRC)	SFM	*	*
	IPT	*	*
	Peck Feed	*	*
	WOC	*	*
	Grade	*	*
Stainless Steel	SFM	*	*
	IPT	*	*
	Peck Feed	*	*
	WOC	*	*
	Grade	*	*
Titanium	SFM	*	*
	IPT	*	*
	Peck Feed	*	*
	WOC	*	*
	Grade	*	*
Inconel	SFM	*	*
	IPT	*	*
	Peck Feed	*	*
	WOC	*	*
	Grade	*	*

- NOTE:** 1. These parameters are for stable machining with steel bodies at lengths 4XD. See table below for longer applications.
 2. RPM = 3.82 x SFM / Dia.
 3. IPM = RPM x IPT x # of flutes (or teeth)