Steel Shape Cutters

FACT SHEET : RPC 1200

PLASMA CUTTING in a cell with robot-arm of Beams, Hollow Sections and Plate					
RANGE	Width max. 1220 mm, Height max. 475 mm, Length 900 - 18000 mm				
ROBOT	Stäubli TX90	**Accuracy :**	Repeatability ISO9283: 0.02mm; Positioning: 1.0mm		
Minimum infeed material length :			2400 mm	**Max. Material Wt. (kgs)**	12,000
Minimum outfeed (except last part):			900 mm	**Max. Infeed Length (mm)**	18,000
			Section Range		Acceptable tolerances
Materials supported for profiling:			Min.	Max.	according to standard
H / I Beams : theor. metric beam dims.			100 x 50	1220 x 430	EN 10034 : 1993
IPE Parallel Flange I-Sections			IPE 100	IPE 750	EN 10034 : 1993
IPN Taper Flange I-Sections			IPN 100	IPN 600	EN 10034 : 1993
HE Wide Flange Beams (AA/A/B/M)			HE 100	HE 1000	EN 10034 : 1993
HL Extra Wide Flange Beams			HL 920	HL 1100	EN 10034 : 1993
HD Wide Flange Columns			HD 260	HD 400	EN 10034 : 1993
HP Wide Flange Bearing Piles			HP 200	HP 400	EN 10034 : 1993
H / I Beams : theor. imperial beam dims.			3.15/16 x 2"	48 x 16.7/8"	ASTM A/A 6M - 12
W Wide Flange Beams			w 4	W 44	ASTM A/A 6M - 12
S Standard Beams			S 4	S 24	ASTM A/A 6M - 12
HP Wide Flange Bearing Piles			HP 8	HP 14	ASTM A/A 6M - 12
U-Channels			Min.	Max.	according to standard
Theoretical metric channel dims. (mm)			100 x 50	475 x 150	EN 10279 : 2000
UPE Parallel Flange Channels			UPE 100	UPE 400	EN 10279 : 2000
UNP European Standard Channels			UNP 100	UNP 400	EN 10279 : 2000
Theoretical imperial channel dims. (inch)			3.15/16 x 2"	18.1/2 x 6"	ASTM A/A 6M - 12
C Standard Channels			C 4	C 15	ASTM A/A 6M - 12
MC Channels			MC 6	MC18	ASTM A/A 6M - 12
Angle bars (equal/unequal)			Min.	Max.	according to standard
Angle Bar Equal metric			L 75	L 300	EN 10056-2 : 1993
Angle bar Unequal metric			L 100 x 50	L 200 x 100	EN 10056-2 : 1993
Angle Bar Equal imperial			L 3	L 12	ASTM A/A 6M - 12
Angle Bar Unequal imperial			L 4 x 2	L 8 x 4	ASTM A/A 6M - 12
Hollow Sections (RHS/SHS)			Min.	Max.	according to standard
RHS / SHS (metric)			100 x 100 x 8	600 x 400	EN 10305-5 : 2010
RHS / SHS (imperial)			4x 4 x 5/16"	23 x 16 "	ASTM A500
Other Bars			Min.	Max.	according to standard
Narrow flat bar			100 x 15	150 x 40	EN 10058 : 2003
Flat bar			160 x 15	400 x 40	EN 10058 : 2003
Bulb			100 x 6	430 x 20	EN 10067 : 1997
T-bar			T 100 x 50	T 140	EN 10055 : 1996

PLASMA CUTTING (Mild Steel)	max. cutting length	min. cutting wall thk	max. cutting wall thk	max. bevel angle
Kjellberg HiFocus 440i neo	80-120 mm	5 mm	50 mm	45°

PLASMA CUTTING ACCURACY		
Cutting Length	0°	45°
5 - 15 mm	0.5 mm	1.0 mm
15 - 30 mm	0.8 mm	1.5 mm
30 - 50 mm	1.5 mm	2.5 mm
50 - 75 mm	2.0 mm	-

CUTTING HOLES :

Min. hole dia. depends on wall thk (*t*):

- ≤ 5 mm = not possible
- 5 - 10 mm = 2 x *t*
- 10 - 15 mm = 1.5 x *t*
- 15 - 40 mm = 1 x *t*
- ≥ 40 mm = not dependent on *t*

DOUBLE BEVELLING : Constraints of thermal cutting process, depending on wall thk (t)

Double bevel : *t* ≥ 15 mm; Single with nose: t ≥ 15mm; Double with nose : t ≥ 20 mm

Nose : height ≥ 5 mm (smaller possible but results are inaccurate)

CUTTING ACCURACY : All accuracy data acc. to ISO 9013; bevel deviation ± 2 degrees