






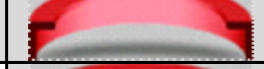








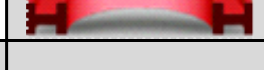

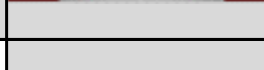


Models		HAR-85	HAR-110	HAR-140	HAR 190	HAR 240	HAR 300	HAR 360
Shaft diameter (top / lower)	mm	85/85	110/110	140/140	190/170	240/220	300/280	360/340
Roll diameter (Larger / drive)	mm	Ø250 / Ø200	Ø315 / Ø255	Ø390 / Ø310	Ø460 / Ø380	Ø560 / Ø450	Ø740 / Ø590	Ø800 / Ø640
Free shaft length	mm	175	215	330	380	450	670	1020
Max. Passthrough in drive rolls	mm	125	170	180	230	280	400	640
Motor Power	Kw	7.5	11	15	22	37	45+15	55+22
Rotation speed at 50Hz	RPM	2 - 10	2 - 10	1.4 - 7	1 - 4.6	0.8 - 3.5	0.7 - 3	0.6 - 2.7
Rated capacity	cm ³	30	60	100	220	600	1600	6500
Max. capacity solid sections	cm ³	27	50	85	135	400	800	2600
Max capacity hollow sections	cm ³	30	60	90	150	500	1100	3000
Max capacity beams X-X	cm ³	N/A	N/A	100	220	600	1600	6500
Hydraulic Tank Capacity	lt	85	125	190	400	650	950	2500
Dimesions (LxWxH)	mm	1450x1350x1350	1600x1650x1520	2050x1880x1700	2500x2000x1900	3200x2300x2000	3850x3050x2800	6000x5000x3500
Weight	Kg	1650	3200	4600	8100	16000	24000	45000
Drive on all three rolls		Standard	Standard	Standard	Standard	Standard	Standard	Standard
Type of drive rolls		Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic
Guide rolls adjustment		Hydraulic 6 axis	Hydraulic 6 axis	Hydraulic 6 axis	Hydraulic 4 axis with autocurve	Hydraulic 4 axis with autocurve	Hydraulic 4 axis with autocurve	Hydraulic 4 axis with autocurve
Digital display for bending rolls		Standard	Standard	Standard	Standard	Standard	Standard	Standard
Digital display for guide rolls		Optional	Optional	Optional	Optional	Optional	Optional	Optional
Speed compensation top / lower rolls		Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic
Working Position		Horizontal / Vertical	Horizontal / Vertical	Horizontal / Vertical	Horizontal	Horizontal	Horizontal	Horizontal

Models		HAR-85		HAR-110		HAR-140		HAR 190		HAR 240		HAR 300		HAR 360		NOTES
NO	PROFILE TYPE	DIMS (mm)	MIN.ID (Ømm)	DIMS (mm)	MIN.ID (Ømm)	DIMS (mm)	MIN.ID (Ømm)	DIMS (mm)	MIN.ID (Ømm)	DIMS (mm)	MIN.ID (Ømm)	DIMS (mm)	MIN.ID (Ømm)	DIMS (mm)	MIN.ID (Ømm)	
1	 Solid - Square	55x55 (SM=27.7cm ³)	1000	65x65 (SM=45.7cm ³)	750	80x80 (SM=85.3cm ³)	1500	90x90 (SM=121.5cm ³)	1000	130x130 (SM=366.1cm ³)	1500	160x160 (SM=682.6cm ³)	2000	250x250 (SM=2604.1cm ³)	3000	○
2	 Flat-Hard way	90x20 (SM=27cm ³)	800	100x30 (SM=50cm ³)	800	130x30 (SM=84.5cm ³)	1500	150x35 (SM=131.2cm ³)	1100	200x50 (SM=333.3cm ³)	1400	260x60 (SM=676cm ³)	1950	400x80 (SM=2133.3cm ³)	2500	○
3	 Flat-Easy way	160x25 (SM=16.6cm ³)	600	200x35 (SM=40.8cm ³)	500	250x40 (SM=66.6cm ³)	1200	250x50 (SM=104.1cm ³)	1200	400x60 (SM=240cm ³)	1100	450x80 (SM=480cm ³)	1500	650x120 (SM=1560cm ³)	2000	○ ●
4	 T Section Leg-Down	80x9 (SM=9.3cm ³)	800	120x12 (SM=29.1cm ³)	1200	130x13 (SM=26.9cm ³)	1300	150x15 (SM=56.7cm ³)	1400	160x20 (SM=86.5cm ³)	1500	200x20 (SM=134.5cm ³)	2000	200x20 (SM=134.5cm ³)	1600	○ ●
5	 T Section Leg-Out	80x9 (SM=12.8cm ³)	800	100x11 (SM=27.5cm ³)	1000	120x12 (SM=43.6cm ³)	1100	130x13 (SM=55.4cm ³)	1300	160x20 (SM=126.3cm ³)	1500	200x20 (SM=201.9cm ³)	2000	200x20 (SM=201.9cm ³)	1500	○ ●
6	 T Section Leg-In	80x9 (SM=12.8cm ³)	1100	100x10 (SM=25.2cm ³)	1300	100x11 (SM=27.5cm ³)	1300	120x12 (SM=43.6cm ³)	1600	150x20 (SM=110.2cm ³)	2000	200x20 (SM=201.9cm ³)	2800	200x20 (SM=201.9cm ³)	2300	○ ●
7	 Angle Leg-Out	80x8 (SM=12.6cm ³)	800	100x12 (SM=29.1cm ³)	1500	120x15 (SM=52.4cm ³)	1400	120x15 (SM=52.4cm ³)	1300	160x20 (SM=126.3cm ³)	1600	200x24 (SM=235cm ³)	2300	200x28 (SM=272.8cm ³)	1800	○ ●
8	 Angle Leg-In	80x8 (SM=12.6cm ³)	1100	100x10 (SM=24.6cm ³)	1500	100x12 (SM=29.1cm ³)	1400	120x12 (SM=42.7cm ³)	1400	150x18 (SM=100.4cm ³)	1600	200x20 (SM=199cm ³)	2300	200x28 (SM=272.8cm ³)	2100	○ ●
9	 Tubing - Square	70x70x6 (SM=30.2cm ³)	2500 (1)	90x90x6 (SM=52.9cm ³)	3500 (1)	100x100x8 (SM=83.7cm ³)	5000 (1)	120x120x10 (SM=149.1cm ³)	5000 (1)	180x180x12 (SM=423.6cm ³)	10000 (1)	200x200x16 (SM=669.5cm ³)	10000 (1)	400x400x16 (SM=3025.1cm ³)	30000 (1)	○ ●
10	 Tubing - Rectangle	90x50x5 (SM=29.5cm ³)	2500 (1)	120x50x6 (SM=53.5cm ³)	3500 (1)	120x60x10 (SM=88.4cm ³)	5000 (1)	160x80x8 (SM=142.2cm ³)	5000 (1)	250x150x10 (SM=508cm ³)	10000 (1)	300x200x12 (SM=944.2cm ³)	16000 (1)	500x300x12.5 (SM=2675.9cm ³)	30000 (1)	○ ●
11	 Solid - Round	Ø65 (SM=27cm ³)	1000	Ø75 (SM=41.4cm ³)	800	Ø95 (SM=84.1cm ³)	1500	Ø110 (SM=130.6cm ³)	1100	Ø150 (SM=331.3cm ³)	1600	Ø180 (SM=572.5cm ³)	1800	Ø280 (SM=2155.1cm ³)	2500	○ ●
12	 Pipe SCH40	Ø3" (Ø89x5.5) (SM=28.3cm ³)	1100	Ø4" (Ø114x6.1) (SM=53cm ³)	1500	Ø5" (Ø141x6.6) (SM=89.5cm ³)	1500	Ø6" (Ø168x7.1) (SM=138.5cm ³)	2000	Ø8" (Ø219x8.1) (SM=272.9cm ³)	2700	Ø12" (Ø324x10.4) (SM=778.3cm ³)	5000	Ø20" (Ø508x15) (SM=2781.3cm ³)	40000	●
13	 C Section Leg-Out	UPN 140 (SM=14.8cm ³)	1200	UPN 180 (SM=22.4cm ³)	800	UPN 220 (SM=33.6cm ³)	800	UPN 320 (SM=89.3cm ³)	1000	UPN 400 (SM=110.6cm ³)	2000	UPN 400 (SM=110.6cm ³)	2000	UPN 400 (SM=110.6cm ³)	2000	○ ●
14	 C Section Leg-In	UPN 140 (SM=14.8cm ³)	1400	UPN 180 (SM=22.4cm ³)	800	UPN 220 (SM=33.6cm ³)	800	UPN 320 (SM=89.3cm ³)	1000	UPN 400 (SM=110.6cm ³)	2000	UPN 400 (SM=110.6cm ³)	2000	UPN 400 (SM=110.6cm ³)	2000	○ ●
15	 C Section Hard Way	UPN 80 (SM=26.5cm ³)	4000 (1)	UPN 100 (SM=41.2cm ³)	5000 (1)	UPN 140 (SM=86.4cm ³)	10000 (1)	UPN 180 (SM=150cm ³)	10000 (1)	UPN 240 (SM=300cm ³)	12000 (1)	UPN 300 (SM=535cm ³)	12000 (1)	UNP 400 (SM=1115.1cm ³)	20000 (1)	● ▲
16	 I Section Easy Way	IPE 140 (SM=12.3cm ³)	1100	IPE 180 (SM=22.2cm ³)	800	IPE 220 (SM=37.3cm ³)	800	IPE 330 (SM=98.5cm ³)	1100	IPE 450 (SM=176cm ³)	1200	IPE 600 (SM=308cm ³)	2000	IPE 600 (SM=308cm ³)	1500	○ ●
17	 I Section Hard Way	IPE 80 (SM=20cm ³)	1400	IPE 100 (SM=34.2cm ³)	1600	IPE 140 (SM=77.3cm ³)	3500	IPE 180 (SM=146cm ³)	4000	IPE 240 (SM=324cm ³)	10000	IPE 360 (SM=904cm ³)	20000	IPE 600 (SM=3070cm ³)	30000	● ▲
18	 H Section Easy Way	HEA 100 (SM=27cm ³)	1000	HEA 120 (SM=38cm ³) HEB 100 (SM=33cm ³)	800 900	HEA 140 (SM=56cm ³) HEB 120 (SM=53cm ³)	950 900	HEA 160 (SM=103cm ³) HEB 160 (SM=111cm ³)	1100 1200	HEA 280 (SM=340cm ³) HEB 240 (SM=327cm ³)	1600 1500	HEA 600 (SM=751cm ³) HEB 400 (SM=721cm ³)	4000 3900	HEA 1000 (SM=934cm ³) HEB 1000 (SM=1090cm ³)	4000 5000	○ ●
19	 H Section Hard Way	Max. SM=30cm ³	3000	Max. SM=60cm ³	4000	HEA 120 (SM=106cm ³) HEB 100 (SM=90cm ³)	4000 3400	HEA 160 (SM=220cm ³) HEB 140 (SM=216cm ³)	5000 4900	HEA 220 (SM=515cm ³) HEB 200 (SM=570cm ³)	8000 8900	HEA 300 (SM=1260cm ³) HEB 280 (SM=1380cm ³)	20000 22000	HEA 600 (SM=4790cm ³) HEB 600 (SM=5700cm ³)	42000 50000	● ▲

(1) Can be changed according to deformation.

○ Standart Rolls

● Special Rolls

▲ Special Apparatus

All datas given according to 240 N/mm² yield point.