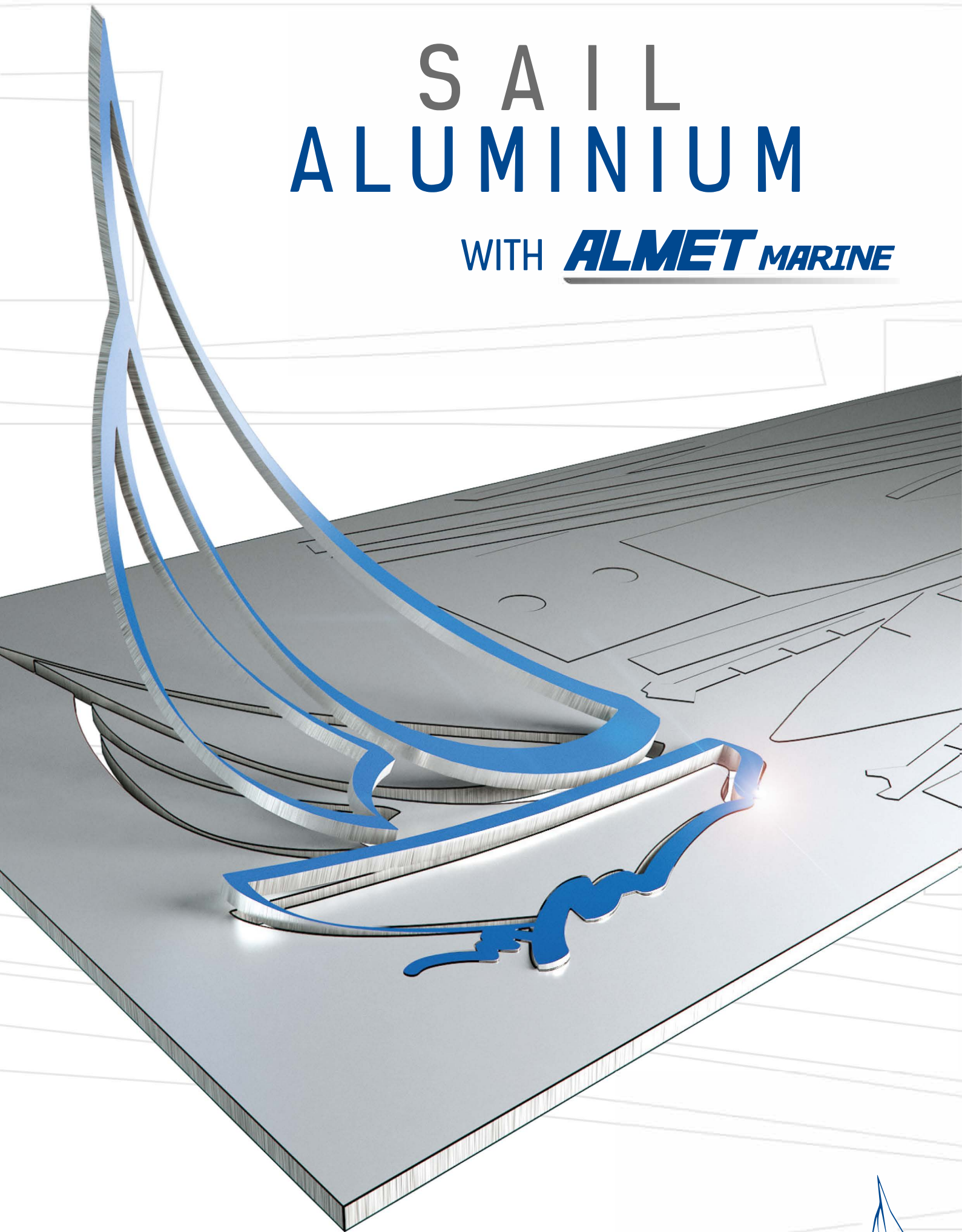


SAIL ALUMINIUM

WITH **ALMET** MARINE



OUR SKILLS

ZI - 6, rue de la Métallurgie - 44476 CARQUEFOU
Tél: +33(0)251851580 - Fax: +33(0)251851589

NESTING



Analysis, cleaning and correction of .DXF & .DWG files, to save up to 15% of the metal used.



CUTTING - INK MARKING

Inscription of folding / welding / assembly and drilling marks. Cutting PLASMA technology is suitable for shipbuilding.

Water jet is used on the thicknesses above 15mm or pieces that require high precision.

TRACEABILITY



1500 Tons available from stock.

PREPARATION



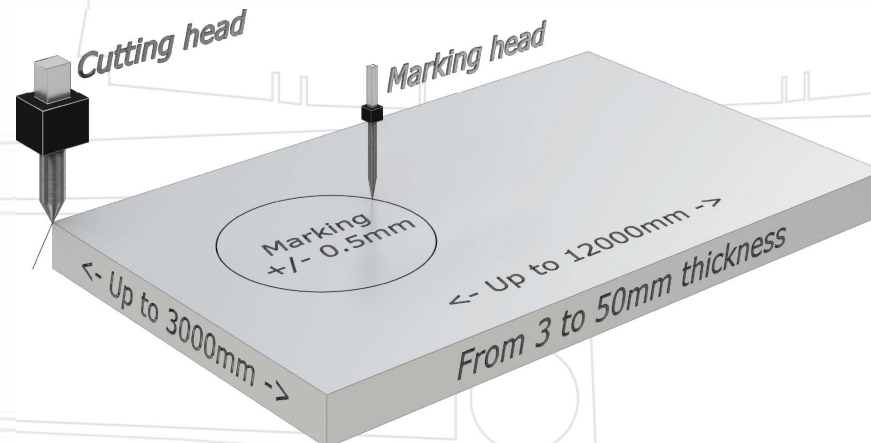
SHIPPING

Suitable logistic solutions.
Possibility for specific packing.
20 or 40 feet, 5,90 to 11,90 meters.

PLASMA CUTTING TOLERANCES :

Thickness (mm)	Tolerances (mm)	Relief angle	Openings	Drillings	Radius	Dimension of a segment between 2 points
3	+/-1	0-1	6mm	Ø 20mm	>3mm	>3mm
4-10	+/-1	0-1	Thickness+2mm	Ø 20mm	>3mm	>3mm
12-20	+/-1.5	0-2	Please contact us	Thickness x 2	>3mm	>3mm
25-50	+/-2	0-4	Please contact us	Thickness x 2	>3mm	>3mm

PLASMA CUTTING CAPACITIES :



DATA OF NESTING FILES :

1 FILE - 3 LAYERS
FONT HEIGHT 20MM

1 FOLDER - 1 THICKNESS

1 - CUTTING

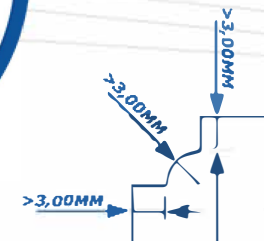
2 - MARKING

3 - TEXT

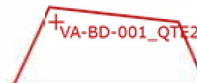
NESTABLE PARTS

INTERVAL TO RESPECT BETWEEN PARTS & PLATES EDGES :
THICKNESSES ≤ TO 16MM : 15MM
THICKNESSES ≥ TO 20MM : 30MM

SEGMENTS & MINIMUM RADIUS >3MM :



NAME OF PART'S ORIGIN
IN THE SURFACE AREA :



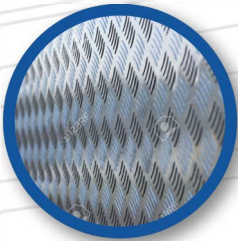
PLATES :

Thickness (mm)	1000 x 2000	1250 x 2500	1500 x 3000	1500 x 4000	2000 x 4000	2000 x 6000	2000 x 8000	2500 x 6000	2500 x 8000
0.5									
0.6									
0.8									
1									
1.2									
1.5									
1.6									
2									
2.5									
3									
4									
5									
6									
7									
8									
10									
12									
15									
16									
20									
25									
30									
35									
40									
45									
50									
60									
70									
80									
100									
120									
150									

5754 H111 5086 H111 5083 H111 5083 H321 Please contact us 5xxx HMC INOX 316L HMC : High Marine Characteristics

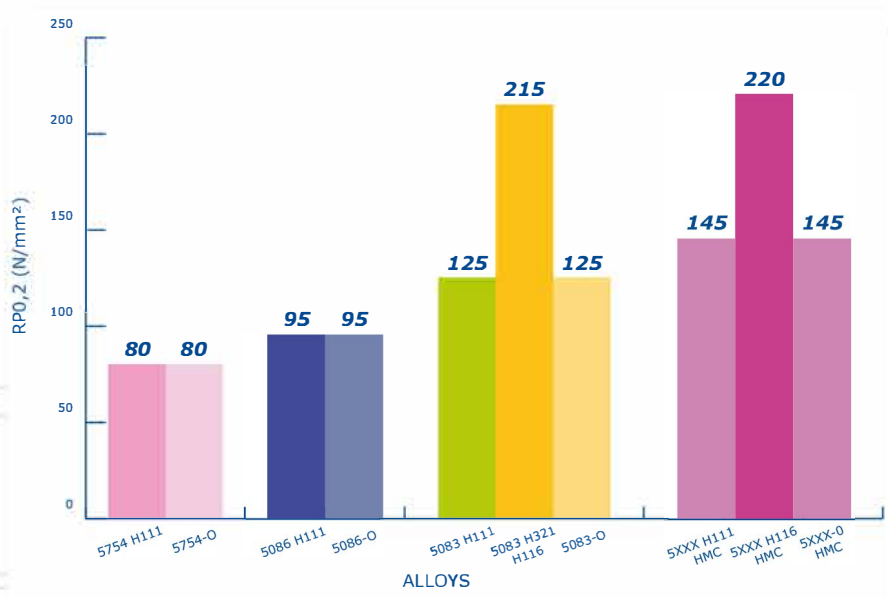
TREAD PLATES :

Thickness (mm)	1000 x 2000	1250 x 2500	1500 x 3000
1.5-2			
2-3.5			
3-4.5			
4-5.5			
5-6.5			
5.5-7			



- - Cut to length / width possibilities.

PLATES YIELD STRENGTH - BEFORE & AFTER WELDING



Thickness tolerances according to EN 485-3 : 2003 standard

Specified thickness		Thickness tolerance for a specified width	
Above	Below or equal to	Above 1600 up to 2000 included	Above 2000 up to 2500 included
≥ 2.5	4	± 0.32	± 0.35
4	5	± 0.35	± 0.40
5	6	± 0.40	± 0.45
6	8	± 0.40	± 0.50
8	10	± 0.50	± 0.55
10	15	± 0.65	± 0.65

These average mechanical specifications are given as an indication for 3 up to 50 mm thicknesses. They can not be guaranteed in any way. Rp0.2 value before welding (N / mm²) based on average mechanical properties at 20°C. Rp0.2 value after welding (N / Mm²) issued from BV rule NR561.

WELDING

Filler metal according to welding alloys :

Welding alloys	5005 / 5050	5052 / 5454 / 5754	5083 / 5006	6000 serie
6000 serie	Serie 4000	Serie 4000 Serie 5000	Serie 4000 Serie 5000	Serie 4000 Serie 5000
5083 / 5086	Serie 4000	Serie 5000	Serie 5000	
5052 / 5454 / 5754	Serie 4000	Serie 5000		
5005 / 5050	Serie 1000			

All the alloys of 1000, 3000, 5000, and 6000 series can be arc-welded together if the appropriate filler metal is chosen.

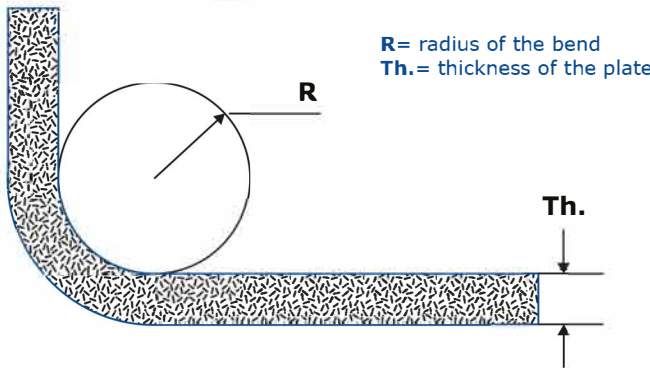
Most common filler alloys are :

1000 serie : 1050A, 1080.
4000 serie : 4043A, 4045, 4047A.
5000 serie : 5356, 5556, 5183, 5087.

BENDING

R ≥ 'value' x e		Inside radius typical value for bending at 90° (e = thickness)		
Alloy	Thickness (mm)	Thickness ≤ 3mm	> 3 to > 6	≤ 6 to ≤ 12
5083	H111	1.25e	1.5e	2.5e
	H116 / H321	2e	2.5e	4e
5383	H116	2e	2.5e	4e
5xxx HMC	H111	1e	1.5e	2e
	H116		2.5e	4e

HMC : High Marine Characteristics.
These average mechanical specifications are given as an indication. They can not be guaranteed in any way.



R = radius of the bend
Th = thickness of the plate

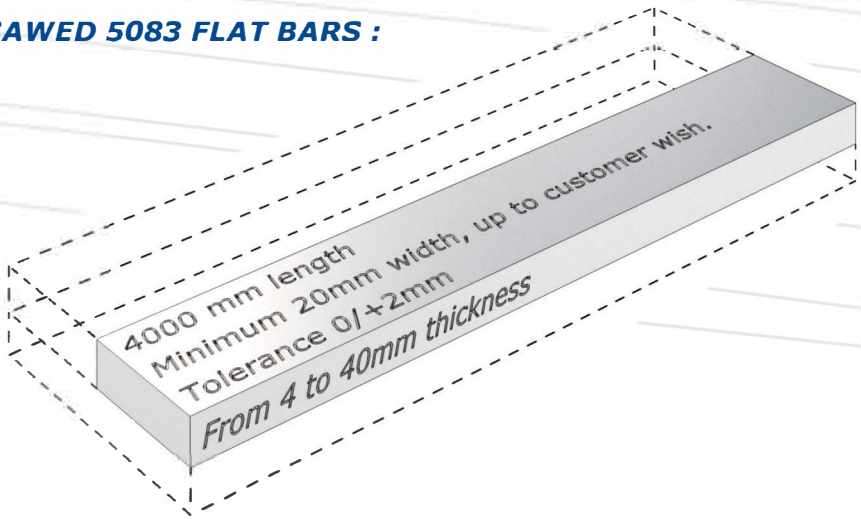


PROFILES :

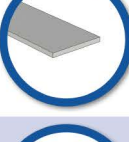
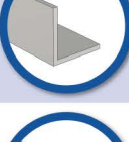
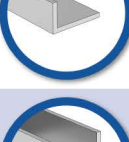
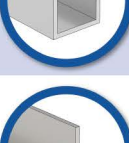
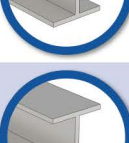
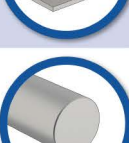
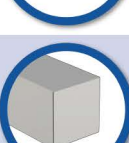
Profile sections		FTT	FDM	FDT	FDL
Section	Thickness				
30	3.0	0.71			
30	5.0	1.32			
33.4	4.55	1.15			
40	4.00			0.82	0.82
40	5.0	1.49	0.54		
40	8.0		0.86		
40	10.0		1.08		
42.2	4.85	1.55			
48.3	5.08	1.85			
50	5.0	1.91	0.67	1.28	1.28
50	10.0				
60	5.0	2.34			
60	6.0				1.84
60	8.0		1.30		
60.3	5.54	2.57			
70	4	2.24			
70	5.0	2.76			
76.1	7.01	4.13			
80	5.0	3.18			
80	6.0		1.30		
80	8.0		1.73		
88.9	7.62	5.25			
90	5.0	3.58			
100	5.0	4.03			
100	10.0	7.92			
101.6	8.08	6.40			
110	5	4.45			
114.3	8.56	7.68			
120	10	9.33			
120	15		4.86		
125	5.0	5.09			
140	5.0	5.73			
150	5.0	6.05			
160	5.0	5.67			
200	5.0	8.27			

5754 H111 6082 T6 *weight by linear meter

BV SAWED 5083 FLAT BARS :



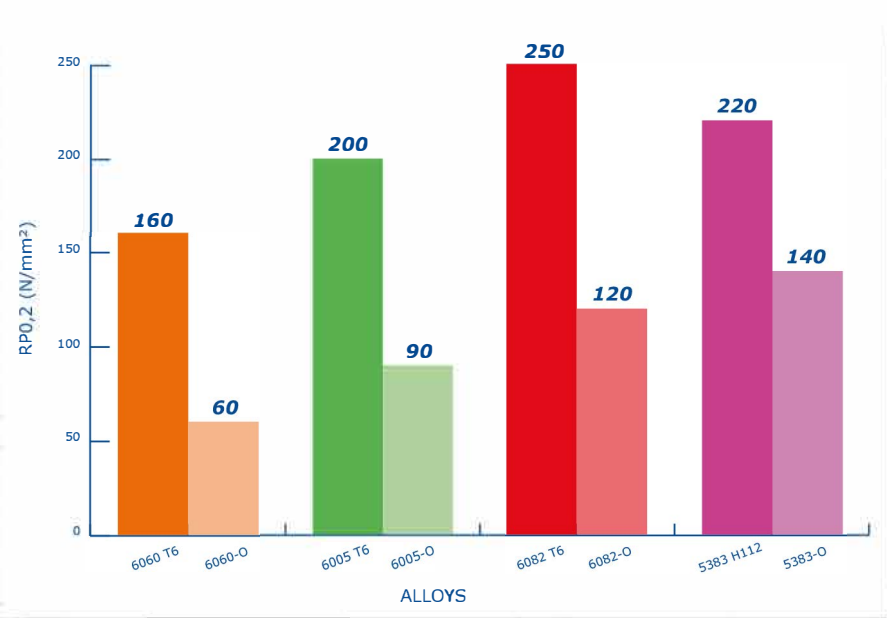
6060 RANGE :

Section	From	To
	16x2	250x5
	20x20x1.5	150x150x5
	25x15x2	200x100x4
	10x5	200x10
	15x15x1.5	100x100x10
	15x10x2	100x50x5
	10x10x2	160x80x10
	25x25x2	80x80x8
	140x90x8	
	Ø10	Ø50
	10	50

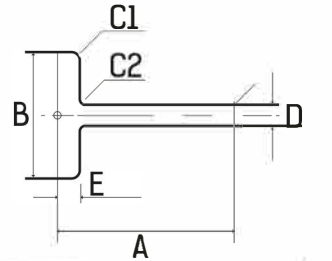
Please contact us for round bars cut to length, drilling and machining.

5083 H111

PROFILES YIELD STRENGTH - BEFORE & AFTER WELDING

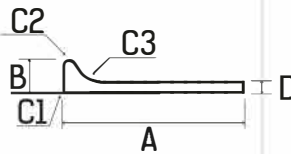


These average mechanical specifications are given as an indication for 3 up to 50 mm thicknesses. They can not be guaranteed in any way. Rp0.2 value before welding (N / mm²) based on average mechanical properties at 20°C. Rp0.2 value after welding (N / mm²) issued from BV rule NR561.



5383 H112 «T» PROFILES : (PLEASE CONTACT US)

Sections (mm)	40x30x4	50x45x4.5	60x50x5
A	40	50	60
B	30	45	50.0
E	4.5	4.5	5.1
C1	R2.3	R2.3	R2.6
C2	R3	R3	R3
D	4.0	4.5	5.0
Theoretical weight Kgs/Ml	0.75	1.09	1.41
Area mm²	278	409	530
IX cm⁴	0.984	3.340	5.194
IY cm⁴	8.602	18.853	36.167



5383 H112 BULB BARS :

Sections (mm)	45x4	50x4.5	60x4.8	70x5	85x4	90x5.5	100x5.5	120x6
A	40	50	60	70	80	90	100	120
B	8.0	10.0	12.0	14.0	16.6	18.0	21.0	30.0
C1	R2	R2	R2	R2	R2	R2	R2	R2
C2	R4	R4	R4	R4	R4	R4	R4	R3
C3	R6	R10	R10	R12	R14	R16	R18	R2
D	4.0	4.5	4.8	5.0	5.0	5.5	5.5	6.0
Theoretical weight Kgs/Ml	0.50	0.72	0.95	1.15	1.37	1.66	2.02	2.65
Area mm²	186	268	348	432	515	625	722	996
IX cm⁴	0.174	0.357	0.608	0.956	1.521	2.074	3.168	8.661
IY cm⁴	8.583	18.864	34.735	57.455	85.825	134.283	184.322	701.564

6082 T6 BULB BARS :

Sections (mm)	45x4	60x5	45x4	100x6	120x6	150x8
A	45	60	85	100	120	150
B	11.5	15.0	20.0	24.0	28.0	60.0
C	8	11	15	18	22	20
D	4	5	5	6	6	8
R	2	2	2	2	3	3
Theoretical weight Kgs/Ml	0.65	1.11	1.76	2.50	3.25	6.05
Area mm²	238	408	648	922	1200	2236
IX cm⁴	0.141	0.430	1.333	2.761	5.143	45.483
IY cm⁴	4.597	13.993	44.457	87.255	159.710	491.002

ALUMINIUM & 316L STAINLESS STEEL FITTINGS

ALUMINIUM ELBOWS :

5754 2D AT 90° ISO :

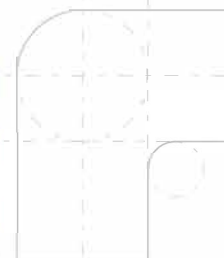
Diam Ext (mm)	Thk (mm)	Radius to axis (mm)	Straight length (mm)
26.7	3.91	53	50/50
33.4	4.55	68	80/80
42.2	4.85	80	85/85
48.3	5.08	97	100/100
60.3	5.54	120	150/150
76.1	7.01	152	180/180
88.9	7.62	178	200/200
101.6	8.08	203	250/250
114.3	8.56	250	300/300

5754 05 FDA

6082 AT 90° MÉTRIQUES 1D :

Diam Ext (mm)	Thickness (mm)	Radius to axis (mm)	Straight length (mm)
30	5	27.5 +/- 2.5	0
40	5	38 +/- 2.5	0
50	5	51 +/- 2.5	0
60	5	72 +/- 2.5	0
80	5	95 +/- 2.5	0
90	5	114.5 +/- 3	0
100	5	133.5 +/- 3	0

6082 05 FDA



ALUMINIUM PN 10 FLANGES :

AISI12Cu ISO LOOSE CAST FLANGES (C TYPE) :

DN	ØD (mm)	ØD (mm)	Thk (mm)	ØD (mm)	Hole diam (mm)	Center Distance (mm)
DN 15	95	24	12	4	14	65
DN 20	105	30	12	4	14	75
DN 25	115	36	12	4	14	85
DN 32	140	46	16	4	18	100
DN 40	150	54	16	4	18	110
DN 50	165	65	16	4	18	125
DN 65	185	81	16	4	18	145
DN 80	200	94	18	8	18	160
DN 100	220	119	18	8	18	180
DN 125	250	145	18	8	18	210
DN 150	285	173	18	8	22	240
DN 200	340	225	20	8	22	295
DN 250	395	279	22	12	22	350
DN 300	445	329	22	12	22	400
DN 350	505	362	26	16	23	460
DN 400	565	413	32	16	27	515
DN 450	615		32	20	27	565
DN 500	670	517	34	20	27	620
DN 600	780	618	36	20	30	725

300 04 160

AISI12Cu METRIC LOOSE CAST FLANGES (A TYPE) :

DN	ØD (mm)	ØD (mm)	Thk (mm)	ØD (mm)	Thk (mm)	Center Distance (mm)
DN 20	105	28	16	4	14	75
DN 25	115	33	16	4	14	85
DN 32	140	42	16	4	18	100
DN 40	150	48	16	4	18	110
DN 50	165	60	16	4	18	125
DN 65	185	75	16	4	18	145
DN 80	200	90	18	8	18	160
DN 100	220	111	18	8	18	180
DN 125	250	136	18	8	18	210
DN 150	285	161	18	8	22	240
DN 200	340	212	20	8	22	295
DN 250	395	264	22	12	22	350
DN 300	445	315	22	12	22	400

300 04 150

5083 ISO FLAT WELDING MACHINED FLANGES (TYPE C) :

DN	ØD (mm)	ØD (mm)	Thk (mm)	Thk (mm)	Thk (mm)	Center Distance (mm)
DN 20	105	27.6	16	4	14	75
DN 25	115	34.7	16	4	14	85
DN 32	140	43.1	16	4	18	100
DN 40	150	49.0	16	4	18	110
DN 50	165	61.1	20	4	18	125
DN 65	185	77.1	20	4	18	145
DN 80	200	90.0	25	8	18	160
DN 100	220	115.7	25	8	18	180

5083 05 FDA

ALUMINIUM WELDING WIRE :

Wire Ø (mm)	Alloy	Packaging
1.2	5356	Coil Ø300mm - 7kgs

5356 03 ETF

Coil of MIG ALGS (FIAL6) 12/10 electrode wire



Aluminium can be recycled indefinitely !

316L STAINLESS STEEL TUBES AND FITTINGS :



	From Ø	To Ø
Round tubes for chandlery	20 x 1.5	60.3 x 2
Rolled and welded round tubes	10 x 1	609.6 x 3
Seamless round tubes	6 x 1	219.1 x 8.18
Square tubes	15 x 15 x 1.5	100 x 100 x 4
Rectangular tubes	40 x 20 x 1.5	100 x 50 x 3

**FLANGES : welding neck, loose, with socket...
ELBOWS, CAPS, REDUCERS, CONNECTIONS, NECKS,
COLLARS, NIPPLES, TEE-PIECES...**

