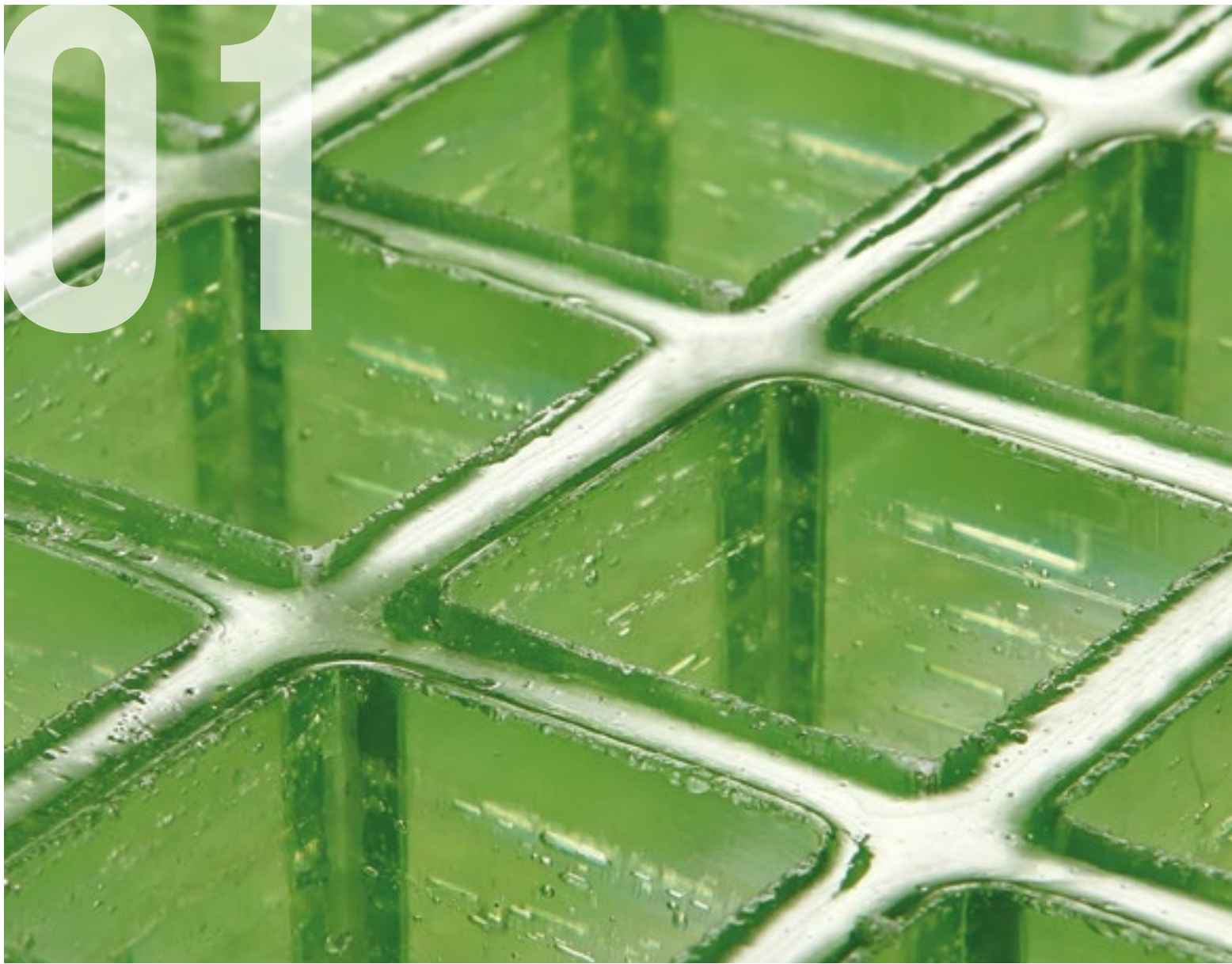


Fiberglass Reinforced Polymer
CATALOGUE

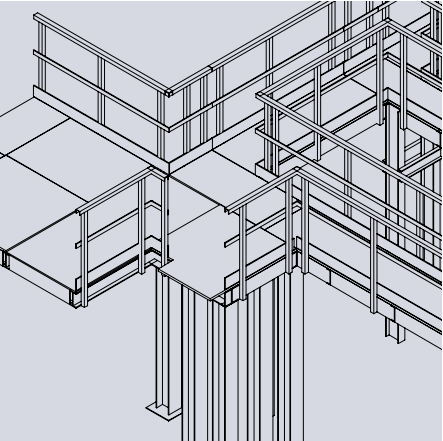


01



SERVICES

ENGINEERING



MECHANICAL TESTS



CHEMICAL RESISTANCE TEST



ABOUT US



Since its inception in 1977, M.M. has been operating in the **glass fibre reinforced plastics (FRP)** industry, producing **high quality gratings and structures** (handrail systems, walkways, stairways, ladders, fences, gates, etc.). The intrinsic properties of FRP allow to create light, resistant and easy to install structures that do not require maintenance and are characterised by great versatility of use.

The company offers **customized solutions and additional services** such as technical design, structural calculation for composite materials, chemical and mechanical resistance tests, any type of cut to size, shaping and finishing.

Every phase of the company process, from design to production, from the quotation to the follow-up service, is focused on **customer satisfaction**.

HIGH QUALITY RAW MATERIALS

CUSTOMIZED SOLUTIONS

RESEARCH AND INNOVATION

CUTTING AND SHAPING



SURFACE TREATMENTS

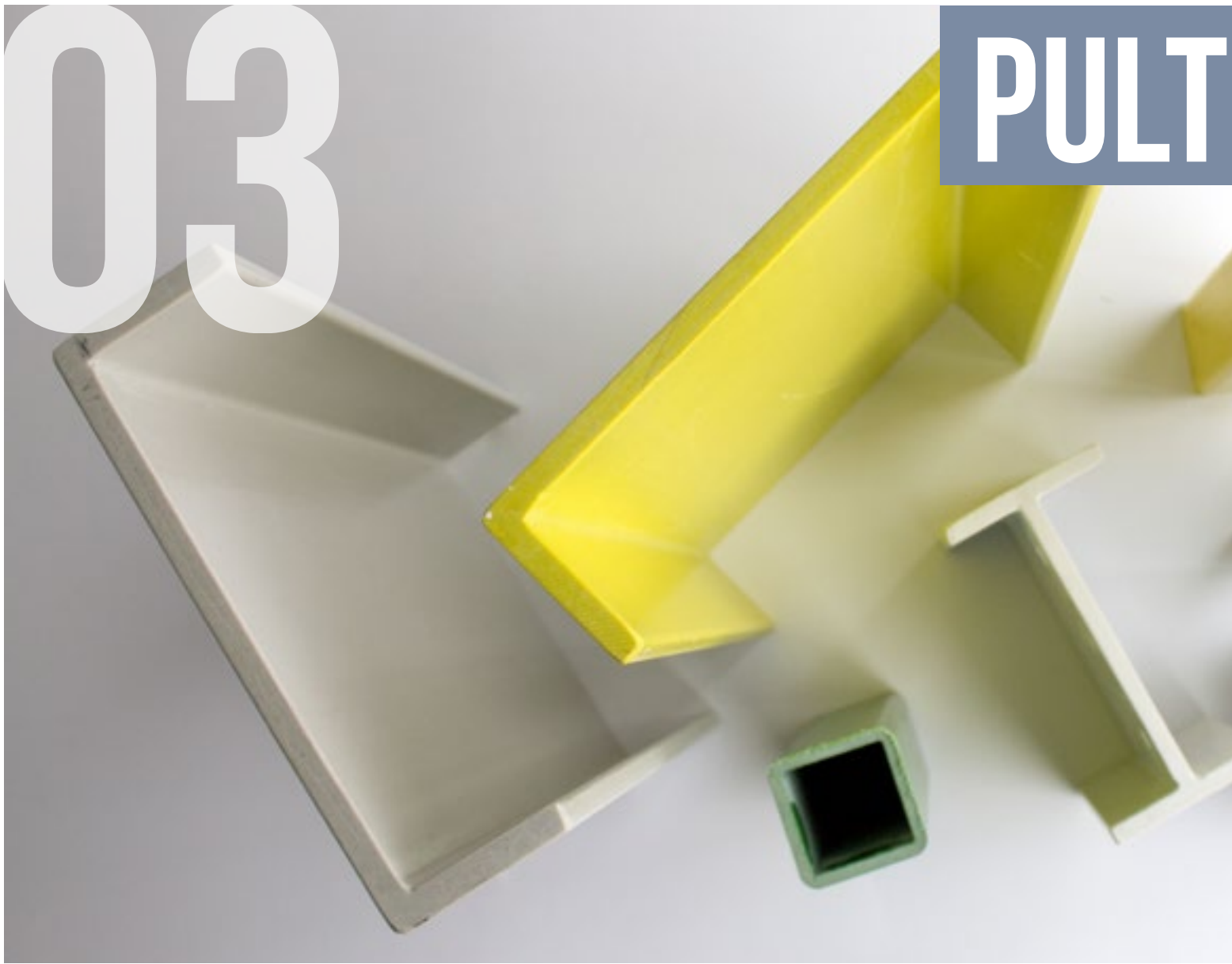


VERIFICATION OF PRODUCT CONFORMITY



03

PULT



PHYSICAL-MECHANICAL PROPERTIES

PROPERTIES	REFERENCE STANDARD	UNIT	AVERAGE VALUE
SPECIFIC WEIGHT	ASTM D792	g/cm ³	1,75 - 1,90
FIBREGLASS CONTENT IN WEIGHT	ASTM D2584	%	60,00
GLASS TRANSITION TEMPERATURE	ISO 11357	°C	100
THERMAL CONDUCTIVITY	EN 12667/ EN12664	W/mK	0,35
THERMAL EXPANSION COEFFICIENT	ISO 11359-2	k ⁻¹	11x10 ⁻⁶
BENDING EFFECTIVE ELASTIC MODULUS	UNI EN 13706-2	GPa	22 - 30
SHEAR EFFECTIVE ELASTIC MODULUS	UNI EN 13706-2	GPa	1,20 - 3,80
LONGITUDINAL TENSILE STRENGTH	ASTM D638	MPa	300 - 500
TRANSVERSAL TENSILE STRENGTH	ASTM D638	MPa	20 - 40
LONGITUDINAL COMPRESSIVE STRENGTH	ASTM D695	MPa	180 - 300
TRANSVERSAL COMPRESSIVE STRENGTH	ASTM D695	MPa	40 - 100
LONGITUDINAL BENDING STRENGTH	ASTM D790	MPa	300 - 500

RUDED PROFILES



Profiles are obtained with the **pultrusion technology** which, by allowing to use a very high percentage of fibreglass, guarantees high mechanical performance.

Standard profiles are made of **isophthalic resin**. On request they can be produced using other resins to meet specific customer needs.

The standard colours are grey (RAL 7035) or yellow (RAL 1018).

All profiles are finished with a **polyester surface veil** which, since impregnated with a large quantity of resin, seals the profile surface, ensuring the protection from UV rays and atmospheric agents and preventing the emerging of glass fibres.

The high mechanical performance, lightness, ease of processing, resistance to chemical and atmospheric agents of the profiles, allow to create versatile and long lasting structures.

LIGHTWEIGHT

EASY TO WORK

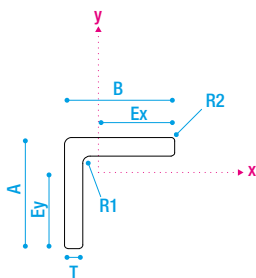
EXCELLENT MECHANICAL STRENGTH/WEIGHT RATIO

PROPERTIES	REFERENCE STANDARD	UNIT	AVERAGE VALUE
TRANSVERSAL BENDING STRENGTH	ASTM D790	MPa	40 - 100
LONGITUDINAL INTERLAMINAR SHEAR STRENGTH	ASTM D2344	MPa	20 - 36
TRANSVERSAL INTERLAMINAR SHEAR STRENGTH	ASTM D2344	MPa	5 - 10
LONGITUDINAL PIN BEARING STRENGTH	ASTM D953	MPa	100 - 200
TRANSVERSAL PIN BEARING STRENGTH	ASTM D953	MPa	30 - 70
LONGITUDINAL TENSILE ELASTIC MODULUS	ASTM D638	GPa	22 - 30
TRANSVERSAL TENSILE ELASTIC MODULUS	ASTM D638	GPa	5 - 10
LONGITUDINAL COMPRESSIVE ELASTIC MODULUS	ASTM D695	GPa	16 - 21
TRANSVERSAL COMPRESSIVE ELASTIC MODULUS	ASTM D695	GPa	5 - 9
LONGITUDINAL POISSON RATIO	ASTM D638	-	0,28
TRANSVERSAL POISSON RATIO	ASTM D638	-	0,12
SUPERFICIAL AND TRANSVERSAL ELECTRICAL RESISTIVITY AND RESISTANCE	EN 61340	Ω	10 ¹²

The values refer to tests made on various thicknesses and resin types. The values are reliable, but M.M. S.r.l. accepts no responsibility for their use. For further information and support in relation to the use of values for design purposes, please contact M.M. S.r.l. offices.

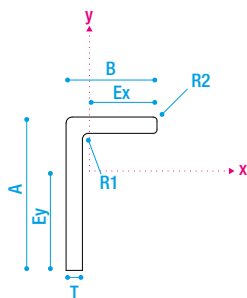
ANGULAR PROFILE "A"

1. ANGULAR PROFILE WITH EQUAL SIDES



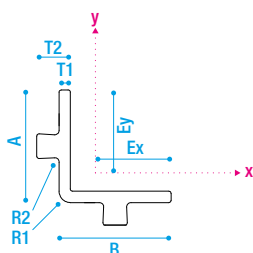
CODE	A	B	T	R1	R2	AREA	WEIGHT	MOMENT OF INERTIA		STRENGTH MODULUS		CENTRE OF GRAVITY	
								Jx	Jy	Wx	Wy	Ex	Ey
53A30305I	30 mm	30 mm	5 mm	2 mm	1 mm	274 mm ²	0,4 kg/m	21.907 mm ⁴	21.907 mm ⁴	1.059 mm ³	1.059 mm ³	20,7 mm	20,7 mm
53A35355I	35 mm	35 mm	5 mm	2 mm	2 mm	321 mm ²	0,5 kg/m	35.176 mm ⁴	35.176 mm ⁴	1.440 mm ³	1.440 mm ³	24,4 mm	24,4 mm
53A40405I	40 mm	40 mm	5 mm	2 mm	2 mm	371 mm ²	0,6 kg/m	54.059 mm ⁴	54.059 mm ⁴	1.919 mm ³	1.919 mm ³	28,2 mm	28,2 mm
53A45455I	45 mm	45 mm	5 mm	2 mm	2 mm	421 mm ²	0,7 kg/m	78.749 mm ⁴	78.749 mm ⁴	2.469 mm ³	2.469 mm ³	31,9 mm	31,9 mm
53A50505I	50 mm	50 mm	5 mm	2 mm	2 mm	471 mm ²	0,8 kg/m	110.025 mm ⁴	110.025 mm ⁴	3.085 mm ³	3.085 mm ³	35,7 mm	35,7 mm
53A60605I	60 mm	60 mm	5 mm	2 mm	2 mm	571 mm ²	1,0 kg/m	195.463 mm ⁴	195.463 mm ⁴	4.535 mm ³	4.535 mm ³	43,1 mm	43,1 mm

2. ANGULAR PROFILE WITH UNEQUAL SIDES



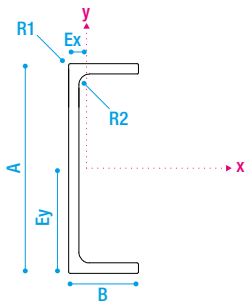
CODE	A	B	T	R1	R2	AREA	WEIGHT	MOMENT OF INERTIA		STRENGTH MODULUS		CENTRE OF GRAVITY	
								Jx	Jy	Wx	Wy	Ex	Ey
53A45358I	45 mm	35 mm	8 mm	3 mm	2 mm	574 mm ²	1,0 kg/m	107.515 mm ⁴	55.214 mm ⁴	3.652 mm ³	2.259 mm ³	24,4 mm	29,4 mm
53A75458I	75 mm	45 mm	8 mm	3 mm	2 mm	894 mm ²	1,6 kg/m	503.712 mm ⁴	135.220 mm ⁴	10.371 mm ³	4.029 mm ³	33,6 mm	48,6 mm
53A1006010I	100 mm	60 mm	10 mm	3 mm	2 mm	1.498 mm ²	2,7 kg/m	1.509.782 mm ⁴	408.729 mm ⁴	23.227 mm ³	9.083 mm ³	45,0 mm	65,0 mm
53A15010015I	150 mm	100 mm	15 mm	15 mm	2 mm	3.570 mm ²	6,2 kg/m	7.992.598 mm ⁴	2.836.683 mm ⁴	80.086 mm ³	38.076 mm ³	74,5 mm	99,8 mm

3. SELF-ANCHORING ANGULAR PROFILE



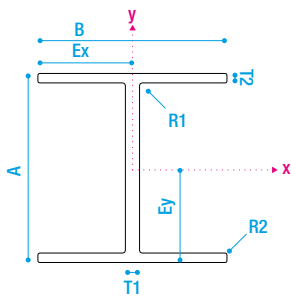
CODE	A	B	T1	T2	R1	R2	AREA	WEIGHT	MOMENT OF INERTIA		STRENGTH MODULUS		CENTRE OF GRAVITY	
									Jx	Jy	Wx	Wy	Ex	Ey
53AW50505I	50 mm	50 mm	5 mm	15 mm	1-5 mm	1-2 mm	681 mm ²	1,2 kg/m	163.610 mm ⁴	163.610 mm ⁴	4.434 mm ³	4.434 mm ³	36,9 mm	36,9 mm

“C” PROFILE



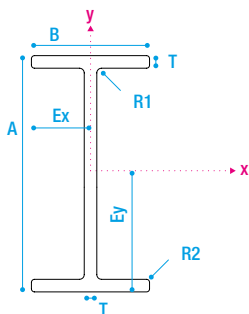
CODE	A	B	T	R1	R2	AREA	WEIGHT	MOMENT OF INERTIA		STRENGTH MODULUS		CENTRE OF GRAVITY	
								J _x	J _y	W _x	W _y	Ex	Ey
53C605051	60 mm	50 mm	5 mm	2 mm	7 mm	729 mm ²	1,3 kg/m	413.772 mm ⁴	181.848 mm ⁴	13.792 mm ³	5.595 mm ³	17,5 mm	30,0 mm
53C903581	90 mm	35 mm	8 mm	3 mm	3 mm	1.149 mm ²	2,1 kg/m	1.206.187 mm ⁴	110.428 mm ⁴	26.804 mm ³	4.519 mm ³	10,6 mm	45,0 mm
53C1504581	150 mm	45 mm	8 mm	3 mm	3 mm	1.789 mm ²	3,2 kg/m	5.215.729 mm ⁴	270.440 mm ⁴	69.543 mm ³	8.057 mm ³	11,4 mm	75,0 mm
53C20060101	200 mm	60 mm	10 mm	3 mm	3 mm	2.996 mm ²	5,3 kg/m	15.661.652 mm ⁴	817.458 mm ⁴	156.617 mm ³	18.166 mm ³	15,0 mm	100,0 mm
53C300100151	300 mm	100 mm	15 mm	3 mm	15 mm	7.139 mm ²	12,5 kg/m	87.097.204 mm ⁴	5.673.366 mm ⁴	580.648 mm ³	76.255 mm ³	25,6 mm	150,0 mm

“H” PROFILE



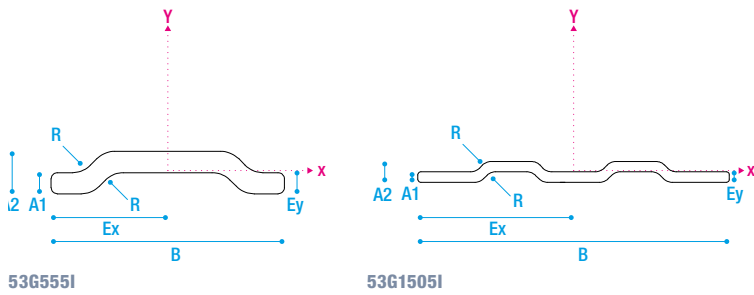
CODE	A	B	T1	T2	R1	R2	AREA	WEIGHT	MOMENT OF INERTIA		STRENGTH MODULUS		CENTRE OF GRAVITY	
									J _x	J _y	W _x	W _y	Ex	Ey
53H200200151	200 mm	200 mm	15 mm	10 mm	3 mm	2 mm	6.701 mm ²	12,3 kg/m	43.422.865 mm ⁴	13.316.415 mm ⁴	434.229 m ³	133.164 m ³	100 mm	100 mm

“I” PROFILE



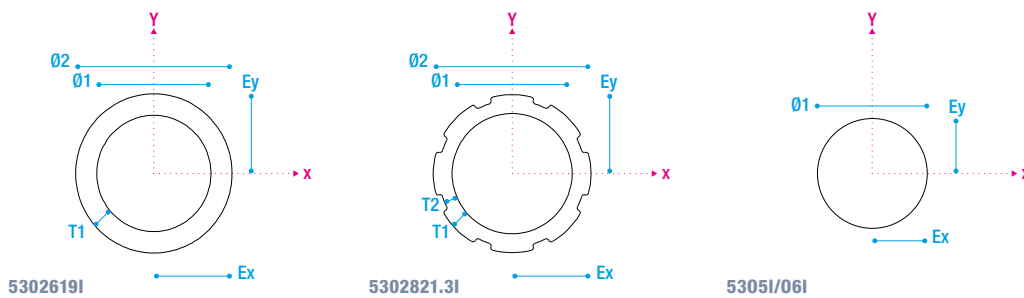
CODE	A	B	T	R1	R2	AREA	WEIGHT	MOMENT OF INERTIA		STRENGTH MODULUS		CENTRE OF GRAVITY	
								J _x	J _y	W _x	W _y	Ex	Ey
53I1507581	150 mm	75 mm	8 mm	3 mm	2 mm	2.273 mm ²	4,1 kg/m	7.658.956 mm ⁴	558.958 mm ⁴	102.119 mm ³	14.906 mm ³	37,5 mm	75 mm
53I200100101	200 mm	100 mm	10 mm	3 mm	2 mm	3.801 mm ²	6,5 kg/m	22.926.198 mm ⁴	1.665.053 mm ⁴	229.262 mm ³	33.301 mm ³	50,0 mm	100,0 mm

“SHAPED” PROFILE



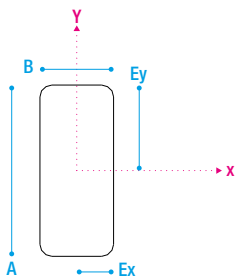
CODE	A1	A2	B	R	AREA	WEIGHT	MOMENT OF INERTIA		STRENGTH MODULUS		CENTRE OF GRAVITY	
							J _x	J _y	W _x	W _y	Ex	Ey
53G555I	5 mm	10 mm	55 mm	6 mm	294 mm ²	0,5 kg/m	2.101 mm ⁴	73.596 mm ⁴	383 mm ³	2.676 mm ³	27,5 mm	5,5 mm
53G1505I	5 mm	10 mm	150 mm	6 mm	789 mm ²	1,3 kg/m	5.686 mm ⁴	1.440.519 mm ⁴	1.006 mm ³	19.207 mm ³	75,0 mm	4,3 mm

“TUBULAR” PROFILE



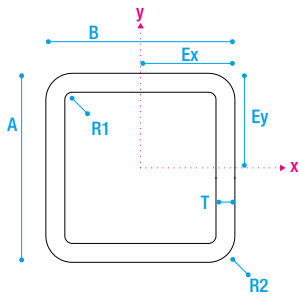
CODE	Ø1	Ø2	T1	T2	DEPTH EFFECT	AREA	WEIGHT	MOMENT OF INERTIA		STRENGTH MODULUS		CENTRE OF GRAVITY	
								J _x	J _y	W _x	W _y	Ex	Ey
5302619I	19 mm	25,4 mm	3,2 mm			247 mm ²	0,6 kg/m	16.034 mm ⁴	16.034 mm ⁴	1.263 mm ³	1.263 mm ³	12,7 mm	12,7 mm
5302821.3I	21,3 mm	28 mm	3,3 mm	2,5 mm	2 mm	235,5 mm ²	0,4 kg/m	17.874 mm ⁴	17.874 mm ⁴	1.277 mm ³	1.277 mm ³	14,0 mm	14,0 mm
5305I	5 mm					19 mm ²	0,025 kg/m	31 mm ⁴	31 mm ⁴	12 mm ³	12 mm ³	2,5 mm	2,5 mm
5306I	6 mm					28 mm ²	0,04 kg/m	63 mm ⁴	63 mm ⁴	21 mm ³	21 mm ³	3 mm	3 mm

FLAT “P” PROFILE



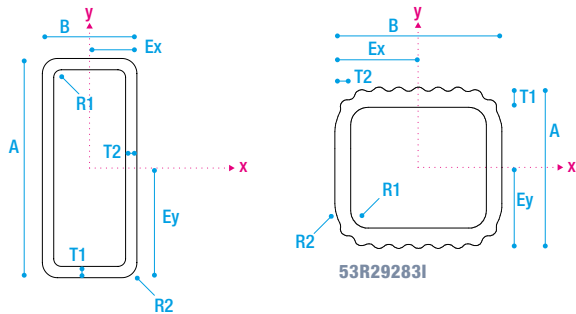
CODE	A	B	R	AREA	WEIGHT	MOMENT OF INERTIA		STRENGTH MODULUS		CENTRE OF GRAVITY	
						J _x	J _y	W _x	W _y	Ex	Ey
53P5825I	58 mm	25 mm	4 mm	1.436 mm ²	2,8 kg/m	395.625 mm ⁴	73.662 mm ⁴	13.642 mm ³	5.893 mm ³	12,5 mm	29,0 mm
53P405I	40 mm	5 mm	1,5 mm	198 mm ²	0,3 kg/m	25.919 mm ⁴	407 mm ⁴	1.296 mm ³	163 mm ³	2,5 mm	20,0 mm

SQUARE "Q" PROFILE



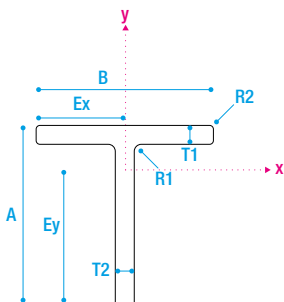
CODE	A	B	T	R1	R2	AREA	WEIGHT	MOMENT OF INERTIA		STRENGTH MODULUS		CENTRE OF GRAVITY	
								Jx	Jy	Wx	Wy	Ex	Ey
53Q50505I	50 mm	50 mm	5 mm	2 mm	7 mm	861,37 mm ²	1,5 kg/m	285.637 mm ⁴	285.637 mm ⁴	11.426 mm ³	11.426 mm ³	25,0 mm	25,0 mm
53Q90908I	90 mm	90 mm	8 mm	2 mm	4 mm	2.614 mm ²	4,8 kg/m	2.946.480 mm ⁴	2.946.480 mm ⁴	65.477 mm ³	65.477 mm ³	45,0 mm	45,0 mm
53Q1001008I	100 mm	100 mm	8 mm	1 mm	2 mm	2.941 mm ²	5,4 kg/m	4.177.471 mm ⁴	4.177.471 mm ⁴	83.549 mm ³	83.549 mm ³	50,0 mm	50,0 mm

RECTANGULAR "R" PROFILE



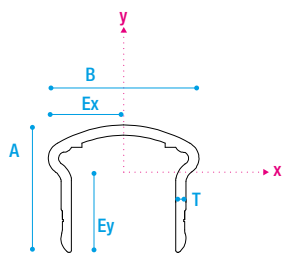
CODE	A	B	T1	T2	DEPTH EFFECT	R1	R2	AREA	WEIGHT	MOMENT OF INERTIA		STRENGTH MODULUS		CENTRE OF GRAVITY	
										Jx	Jy	Wx	Wy	Ex	Ey
53R58253I	58 mm	25 mm	3 mm	3 mm		2 mm	4 mm	451 mm ²	0,8 kg/m	175.239 mm ⁴	44.223 mm ⁴	6.043 mm ³	3.538 mm ³	12,5 mm	29,0 mm
53R80505I	80 mm	50 mm	5 mm	5 mm		2 mm	4 mm	1.189 mm ²	2,0 kg/m	973.087 mm ⁴	453.324 mm ⁴	24.327 mm ³	18.134 mm ³	25,0 mm	40,0 mm
53R85253I	85 mm	25 mm	4 mm	3 mm		3 mm	4 mm	656 mm ²	1,1 kg/m	543.858 mm ⁴	65.412 mm ⁴	12.797 mm ³	5.233 mm ³	12,5 mm	42,5 mm
53R29283I	28 mm	29 mm	3,5 mm	2,7 mm	0,8 mm	3 mm	7 mm	262,20 mm ²	0,46 kg/m	25.398 mm ⁴	26.151 mm ⁴	1.827 mm ³	1.803 mm ³	14,5 mm	13,9 mm

"T" PROFILE



CODE	A	B	T1	T2	R1	R2	AREA	WEIGHT	MOMENT OF INERTIA		STRENGTH MODULUS		CENTRE OF GRAVITY	
									Jx	Jy	Wx	Wy	Ex	Ey
53T75758I	75 mm	75 mm	8 mm	8 mm	3 mm	2 mm	1.136 mm ²	2 kg/m	601.353 mm ⁴	279.479 mm ⁴	11.282 mm ³	7.453 mm ³	37,5 mm	53,3 mm
53T10010010I	100 mm	100 mm	10 mm	10 mm	3 mm	2 mm	1.900 mm ²	3,4 kg/m	1.799.300 mm ⁴	832.527 mm ⁴	25.236 mm ³	16.650 mm ³	50,0 mm	71,3 mm
53T20010015I	100 mm	200 mm	10 mm	15 mm	3 mm	2 mm	3.350 mm ²	6,1 kg/m	2.942.187 mm ⁴	6.658.207 mm ⁴	39.281 mm ³	66.582 mm ³	100,0 mm	74,9 mm

ERGONOMIC PROFILE



CODE	A	B	T	AREA	WEIGHT	MOMENT OF INERTIA		STRENGTH MODULUS		CENTRE OF GRAVITY	
						Jx	Jy	Wx	Wy	Ex	Ey
53C606051	60 mm	60 mm	5 mm	845 mm ²	1,2 kg/m	278.214 mm ⁴	539.396 mm ⁴	7.134 mm ³	14.983 mm ³	36,2 mm	39,0 mm

E23 LINE PROFILES (EN13706)

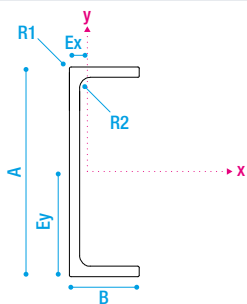
M.M. S.r.l. offers a line of profiles classified as E23 according to EN 13706 standard.

This standard defines some minimum requirements that must be met by the profiles in order to achieving a univocal classification for pultruded profiles. The E23 class profiles are produced with a RAL 1018 yellow colour.

MECHANICAL PROPERTIES	SYMBOL	VALUE	TEST METHOD
BENDING EFFECTIVE ELASTIC MODULUS	E_{eff}	GPa 23	Annex D EN 13706-2
LONGITUDINAL TENSILE ELASTIC MODULUS	E_{Lt}	GPa 23	EN ISO 527-4
TRANSVERSAL TENSILE ELASTIC MODULUS	E_{Tt}	GPa 7	EN ISO 527-4
LONGITUDINAL TENSILE STRENGTH	f_{Lt}	MPa 240	EN ISO 527-4
TRANSVERSAL TENSILE STRENGTH	f_{Tt}	MPa 50	EN ISO 527-4
LONGITUDINAL PIN BEARING STRENGTH	f_{Lr}	MPa 150	Annex E EN 13706-2
TRANSVERSAL PIN BEARING STRENGTH	f_{Tr}	MPa 70	Annex E EN 13706-2
LONGITUDINAL BENDING STRENGTH	f_{Lb}	MPa 240	EN ISO 14125
TRANSVERSAL BENDING STRENGTH	f_{Tb}	MPa 100	EN ISO 14125
SHEAR STRENGTH	f_v	MPa 25	EN ISO 14130

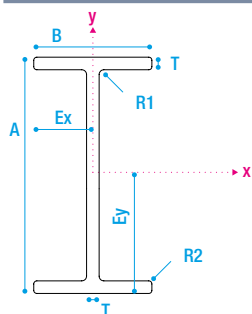
Dimensional tolerances according to EN 13706-2 standard annex b

"C" PROFILE



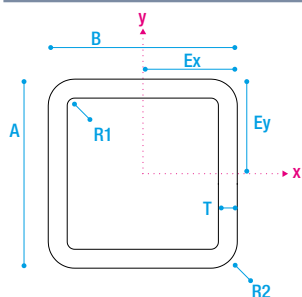
CODE	A	B	T	R1	R2	AREA	WEIGHT	MOMENT OF INERTIA		STRENGTH MODULUS		CENTRE OF GRAVITY	
								Jx	Jy	Wx	Wy	Ex	Ey
53C0003E23	60 mm	50 mm	5 mm	2 mm	7 mm	729 mm ²	1,3 kg/m	413.772 mm ⁴	181.848 mm ⁴	13.792 mm ³	5.595 mm ³	17,5 mm	30,0 mm
53C0002E23	300 mm	100 mm	15 mm	3 mm	15 mm	7.139 mm ²	12,5 kg/m	87.097.204 mm ⁴	5.673.366 mm ⁴	580.648 mm ³	76.255 mm ³	25,6 mm	150,0 mm
53C0001E23	200 mm	50 mm	10 mm	6 mm	4 mm	2.791,42 mm ²	4,9 kg/m	13.797.444 mm ⁴	478.659 mm ⁴	137.974,44 mm ³	12.633 mm ³	12,1 mm	100,0 mm

"I" PROFILE



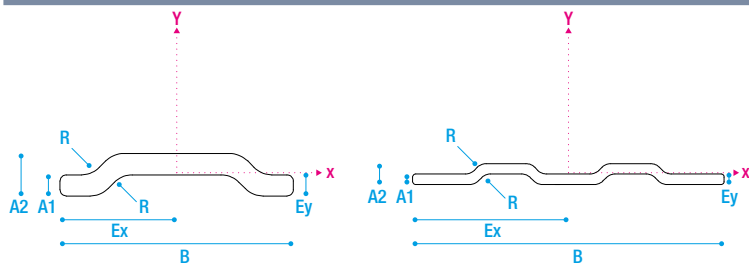
CODE	A	B	T	R1	R2	AREA	WEIGHT	MOMENT OF INERTIA		STRENGTH MODULUS		CENTRE OF GRAVITY	
								J _x	J _y	W _x	W _y	Ex	Ey
53I0001E23	203 mm	101 mm	10 mm	3 mm	2 mm	3.801 mm ²	6,5 kg/m	22.926.198 mm ⁴	1.655.053 mm ⁴	229.262 mm ³	33.301 mm ³	50,0 mm	100,0 mm

SQUARE "Q" PROFILE



CODE	A	B	T	R1	R2	AREA	WEIGHT	MOMENT OF INERTIA		STRENGTH MODULUS		CENTRE OF GRAVITY	
								J _x	J _y	W _x	W _y	Ex	Ey
53Q0001E23	100 mm	100 mm	8 mm	1 mm	2 mm	2.941 mm ²	5,4 kg/m	4.177.471 mm ⁴	4.177.471 mm ⁴	83.549 mm ³	83.549 mm ³	50,0 mm	50,0 mm
53Q0003E23	50 mm	50 mm	5 mm	2 mm	7 mm	861,37 mm ²	1,5 kg/m	285.637 mm ⁴	285.637 mm ⁴	11.426 mm ³	11.426 mm ³	25,0 mm	25,0 mm

"SHAPED" PROFILE



CODE	A1	A2	B	R	AREA	WEIGHT	MOMENT OF INERTIA		STRENGTH MODULUS		CENTRE OF GRAVITY	
							J _x	J _y	W _x	W _y	Ex	Ey
53G0001E23	5 mm	10 mm	150 mm	6 mm	789 mm ²	1,3 kg/m	5.686 mm ⁴	1.440.519 mm ⁴	1.006 mm ³	19.207 mm ³	75,0 mm	4,3 mm
53G0002E23	5 mm	10 mm	55 mm	6 mm	294 mm ²	0,5 kg/m	2.101 mm ⁴	73.596 mm ⁴	383 mm ³	2.676 mm ³	27,5 mm	5,5 mm

ACS POTABLE WATER LINE PROFILES

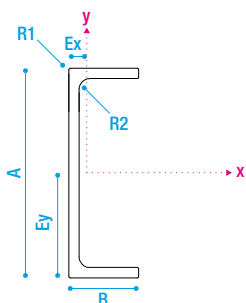


M.M. S.r.l. offers a special line of profiles produced with raw materials included in the positive list of **EU Regulation 10/2011** and registered by the French General Health Department with the Sanitary Conformity Certification (ACS), **suitable for contact with drinking water** as authorized by the Italian Ministry of Health.

These profiles can be used to build structures (walkways, stairways, handrail systems) in all areas and situations in direct contact with drinking water.

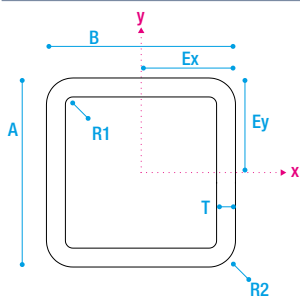
Profiles certified for contact with drinking water are produced in grey RAL 7035 with red filigree.

“C” PROFILE



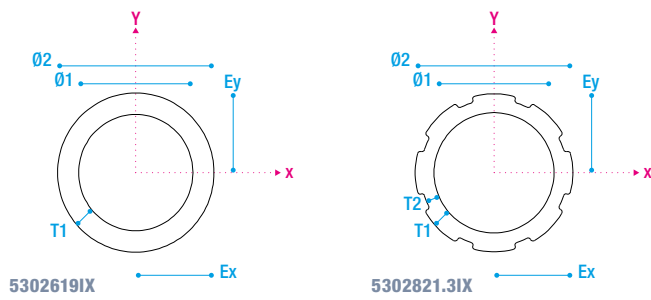
CODE	A	B	T	R1	R2	AREA	WEIGHT	MOMENT OF INERTIA		STRENGTH MODULUS		CENTRE OF GRAVITY	
								Jx	Jy	Wx	Wy	Ex	Ey
53C60505IX	60 mm	50 mm	5 mm	2 mm	7 mm	729 mm ²	1,3 kg/m	413.772 mm ⁴	181.848 mm ⁴	13.792 mm ³	5.595 mm ³	17,5 mm	30,0 mm
53C90358IX	90 mm	35 mm	8 mm	3 mm	3 mm	1.149 mm ²	2,1 kg/m	1.206.187 mm ⁴	110.428 mm ⁴	26.804 mm ³	4.519 mm ³	10,6 mm	45,0 mm
53C30010015IX	300 mm	100 mm	15 mm	3 mm	15 mm	7.139 mm ²	12,5 kg/m	87.097.204 mm ⁴	5.673.366 mm ⁴	580.648 mm ³	76.255 mm ³	25,6 mm	150,0 mm

SQUARE “Q” PROFILE



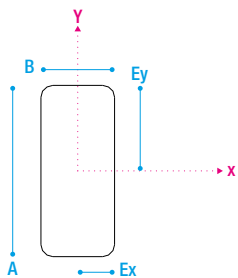
CODE	A	B	T	R1	R2	AREA	WEIGHT	MOMENT OF INERTIA		STRENGTH MODULUS		CENTRE OF GRAVITY	
								Jx	Jy	Wx	Wy	Ex	Ey
53Q50505IX	50 mm	50 mm	5 mm	2 mm	7 mm	861,37 mm ²	1,5 kg/m	285.637 mm ⁴	285.637 mm ⁴	11.426 mm ³	11.426 mm ³	25,0 mm	25,0 mm

“TUBULAR” PROFILE



CODE	Ø1	Ø2	T1	T2	DEPTH EFFECT	AREA	WEIGHT	MOMENT OF INERTIA		STRENGTH MODULUS		CENTRE OF GRAVITY	
								Jx	Jy	Wx	Wy	Ex	Ey
5302619IX	19 mm	25,4 mm	3,2 mm			247 mm ²	0,6 kg/m	16.034 mm ⁴	16.034 mm ⁴	1.263 mm ³	1.263 mm ³	12,7 mm	12,7 mm
5302821.3IX	21,3 mm	28 mm	3,3 mm	2,5 mm	2 mm	235,5 mm ²	0,4 kg/m	17.874 mm ⁴	17.874 mm ⁴	1.277 mm ³	1.277 mm ³	14,0 mm	14,0 mm

FLAT “P” PROFILE



CODE	A	B	R	AREA	WEIGHT	MOMENT OF INERTIA		STRENGTH MODULUS		CENTRE OF GRAVITY	
						Jx	Jy	Wx	Wy	Ex	Ey
53P5825IX	58 mm	25 mm	4 mm	1.436 mm ²	2,8 kg/m	395.625 mm ⁴	73.662 mm ⁴	13.642 mm ³	5.893 mm ³	12,5 mm	29,0 mm
53P504IX	50 mm	4 mm	1,5 mm	198 mm ²	0,3 kg/m	40.492 mm ⁴	261 mm ⁴	1.620 mm ³	130 mm ³	2,0 mm	25,0 mm

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