


CARBON STEEL TUBES

EN • ES



MARCEGAGLIA
CARBON STEEL





we give shape to steel

Marcegaglia Carbon Steel is dedicated to the manufacturing and processing of **carbon steel flat products** and **welded tubes**.

The company is part of Marcegaglia group which was **founded in 1959** and, today, still fully owned by the Marcegaglia family and headquartered in Gazoldo degli Ippoliti, Mantova.

Steel coil processing is at the core of Marcegaglia activities. The complete range of first transformation processes is carried out within facilities worldwide.

La fuerza de Marcegaglia reside en la transformación del acero. En las plantas de producción del grupo en el mundo entero se lleva a cabo el ciclo completo de la primera transformación.



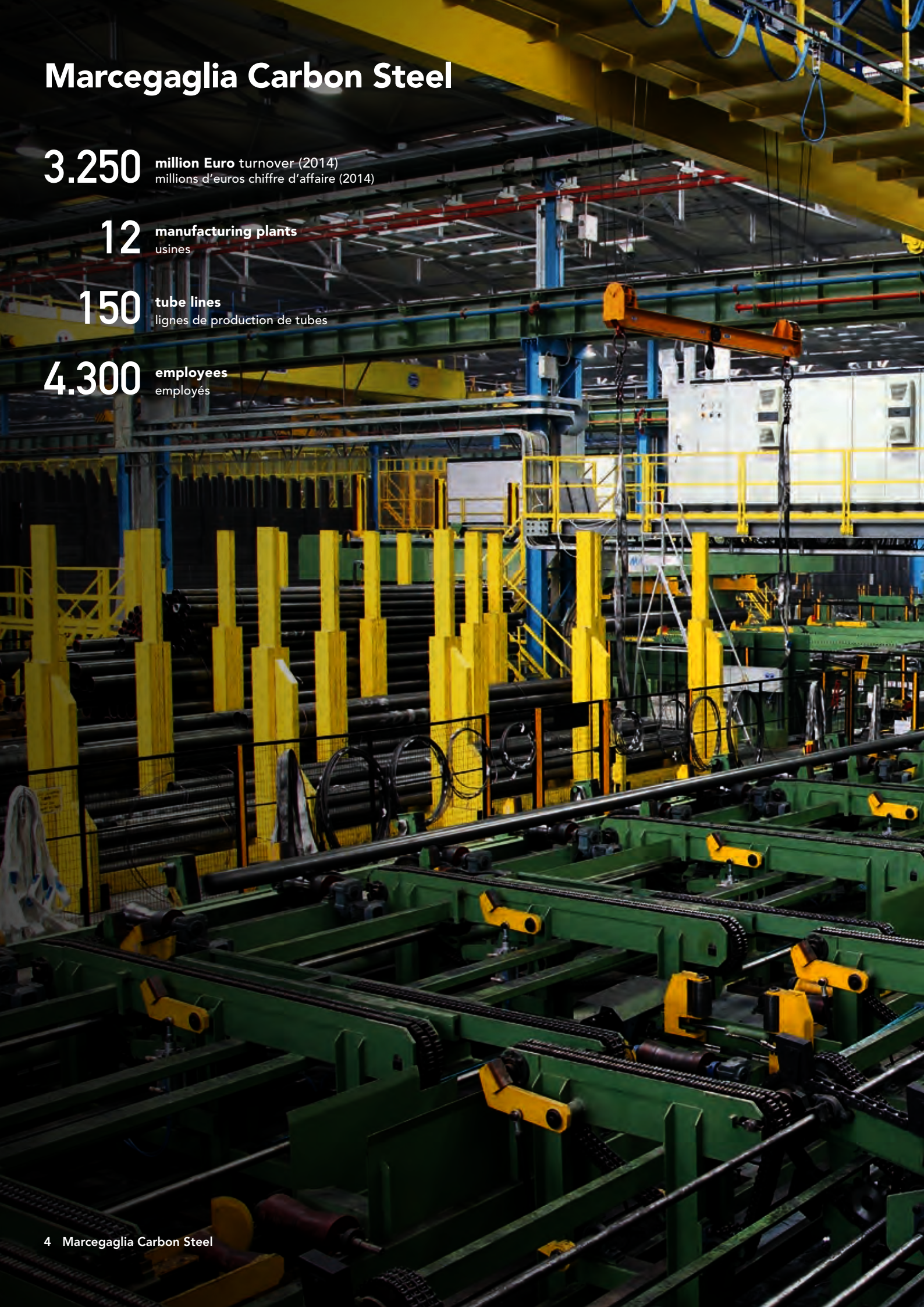


Marcegaglia stands among the steel market's top independent players in the world.

A worldwide network of partnership agreements provides reliable supply of raw materials of all grades to our facilities.

Marcegaglia se encuentra entre las más importantes realidades industriales independientes en el sector del acero. Una red global de acuerdos de partenariado garantiza continuidad en los suministros de acero para nuestros procesos de fabricación.

Marcegaglia Carbon Steel



3.250 million Euro turnover (2014)
millones de euros de facturación (2014)

12 manufacturing plants
establecimientos

150 tube lines
líneas de producción

4.300 employees
trabajadores



After first transformation, within its controlled value chain Marcegaglia Carbon Steel develops the world's widest range of carbon steel welded tubes, thanks to 150 processing lines and a global manufacturing capacity in excess of 3 million tons per year.

De la primera transformación, que lleva a cabo en su propia cadena de producción controlada, Marcegaglia Carbon Steel obtiene la gama de tubos soldados de acero al carbono más amplia del mundo, con 150 plantas de fabricación de tubos y una capacidad de producción anual global superior a 3 millones de toneladas.

Marcegaglia Steel worldwide presence

Sales offices
Benelux Diegem, BELGIUM
North Europe Soleuvre, LUXEMBOURG

MARCEGAGLIA CARBON STEEL	Hot dip galvanized strips	MARCEGAGLIA SPECIALTIES
Carbon steel coils	Hot dip galvanized sheets	Stainless steel coils
Carbon steel strips	Pre-painted coils	Stainless steel strips
Carbon steel sheets	Pre-painted strips	Stainless steel sheets
Carbon steel welded tubes	Pre-painted sheets	Stainless steel welded tubes
Cold-drawn welded tubes	MARCEGAGLIA PLATES	Carbon and Stainless steel cold-drawn bars
Refrigeration tubes	Heavy plates	Stainless steel flat bars
Hot dip galvanized coils		Stainless steel cold formed sections

Plant
Dudley, UK



UK

Sales office
Lyon, FRANCE

E

Sales office
Santa Perpetua de Mogoda Barcelona, SPAIN

Plant
Munhall, USA

US



Plant
Garuva, BRAZIL



BR

Plant
Dusino San Michele, AT



Plant
Corsico, MI



Sales office
Düsseldorf, GERMANY

Plant
Vladimir, RUSSIA

Plant
Yangzhou, CHINA

Plant
Kluczbork, POLAND

Plant
Praszka, POLAND

Plant
Istanbul, TURKEY

Distribution
Pune, INDIA

ITALIA • HEADQUARTERS
Gazoldo degli Ippoliti, MN

TRISIDER
Tezze sul Brenta, VI

Plant
Boltiere, BG

Plant
Lomagna, LC

Plant
Albignasego, PD

Plant
San Giorgio di Nogaro, UD

Plant
Contino, MN

Plant
Montechiarugolo, PR

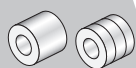
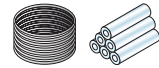
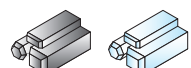
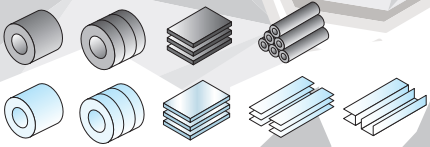
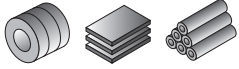
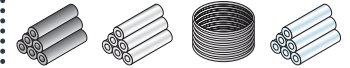
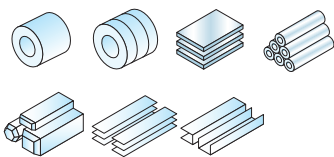
Plant
Forlì, FC

Plant
Ravenna, RA

ETA
Lainate, MI

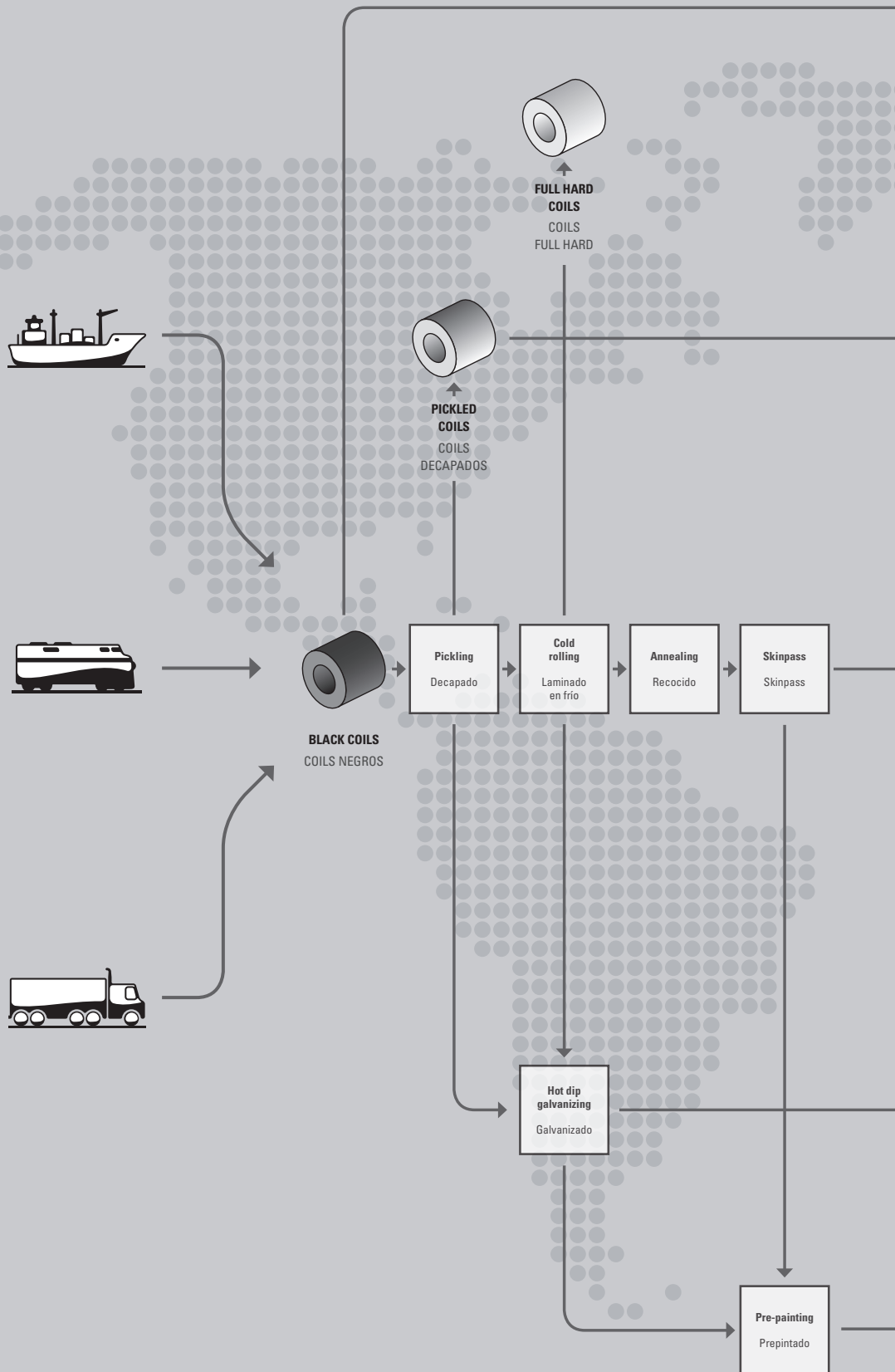
Plant
Casalmaggiore, CR

ETA
Osteria Grande, BO



Carbon steel products manufacturing process

Proceso de fabricación aceros al carbono



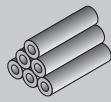
BLACK SHEETS
CHAPAS NEGRAS



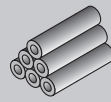
Tube forming and welding
Moldeo y soldadura del tubo

Pointing
Apuntado

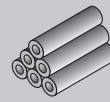
Pickling
Decapado



Drawing
Trefilado



Heat treatments
Tratamientos térmicos



Straightening and cutting
Enderizado y corte

Skiving/roller burnishing
Pelado-laminado

COLD-DRAWN TUBES
TUBOS TREFILADOS

PICKLED STRIPS
CINTAS DECAPADAS



Tube forming and welding
Moldeo y soldadura del tubo

Heat treatments
Tratamientos térmicos

Straightening and cutting
Enderizado y corte

WELDED TUBES FROM HOT ROLLED PICKLED STRIP
TUBOS SOLDADOS CON CINTA LAMINADA EN CALIENTE

PICKLED SHEETS
CHAPAS DECAPADAS



SKINPASSED STRIPS
SKINPASS DE CINTAS



Tube forming and welding
Moldeo y soldadura del tubo

Polishing
Cepillado

WELDED TUBES FROM COLD ROLLED STRIP
TUBOS SOLDADOS CON CINTA LAMINADA EN FRÍO

SHEETS FROM COLD ROLLED COILS
CHAPAS DE COILS LAMINADOS EN FRÍO



COLD ROLLED STRIPS
CINTAS LAMINADAS EN FRÍO

Tube forming and welding
Moldeo y soldadura del tubo

Sizing and drawing
Calibrado y trefilado

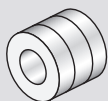
Heat treatments
Tratamientos térmicos

Galvanizing
Galvanizado

Passivation
Pasivación

REFRIGERATION TUBES
TUBOS REFRIGERACIÓN

HOT DIP GALVANIZED SHEETS
CHAPAS GALVANIZADAS



HOT DIP GALVANIZED STRIPS
CINTAS GALVANIZADAS

Tube forming and welding
Moldeo y soldadura del tubo

Straightening and cutting
Enderizado y corte

WELDED TUBES FROM GALVANIZED STRIP
TUBOS SOLDADOS CON CINTA GALVANIZADA EN CALIENTE

PRE-PAINTED SHEETS
CHAPAS PREPINTADAS



PRE-PAINTED STRIPS
CINTAS PREPINTADAS



The wide range of additional processing and special grades satisfies the requirements of several industry sectors with value added, highly customized solutions. *La amplia gama de mecanizaciones y calidades utilizadas permite satisfacer los requisitos de los más variados sectores de producción con soluciones de alto nivel de personalización y valor añadido.*




MARCEGAGLIA

CARBON STEEL TUBES

TUBOS DE ACERO AL CARBONO


01 CARBON STEEL WELDED TUBES

tubi@marcegaglia.com 

13

TUBOS SOLDADOS DE ACERO AL CARBONO

02 COLD-DRAWN WELDED TUBES

tubitrafilati@marcegaglia.com 

81

TUBOS SOLDADOS TREFILADOS EN FRÍO



CE

0474

Min. thickness (mm) / <i>espesor mín.</i>	0,3
Max. thickness (mm) / <i>espesor máx.</i>	16
Min. diameter (mm) / <i>diámetro mín.</i>	8
Max. diameter (mm) / <i>diámetro máx.</i>	406,4

Carbon steel welded tubes

Tubos soldados de acero al carbono



Typical applications

Ejemplos de las principales aplicaciones

The production program of Marcegaglia Carbon Steel tubes from hot rolled, cold rolled and galvanized strip covers a wide range of structural and precision mechanical applications, guaranteeing specific suitability for subsequent processing.

La producción de Marcegaglia Carbon Steel de tubos obtenidos de cinta laminada en caliente, en frío y galvanizada cubre una amplia gama de usos estructurales y en la mecánica de precisión, garantizando idoneidades específicas para sucesivas reelaboraciones.

Tubes for steel structural work

Tubos para carpintería estructural

Tubes for lifting equipment

Tubos para ascensores

Tubes for piling

Tubos para entibación





Roller conveyor tubes

Tubos para rodillos

Tubes for district heating

Tubos para calefacción centralizada de barrios



Tubes for pressure purposes include applications for the heat exchanger industry, heating and ventilation, gas and water line pipes, district heating and chemical industry among others.

La gama de tubos para usos a presión incluye aplicaciones en la producción de intercambiadores de calor, en el sector termohidrosanitario, en las tuberías para agua y gas, en la industria química.





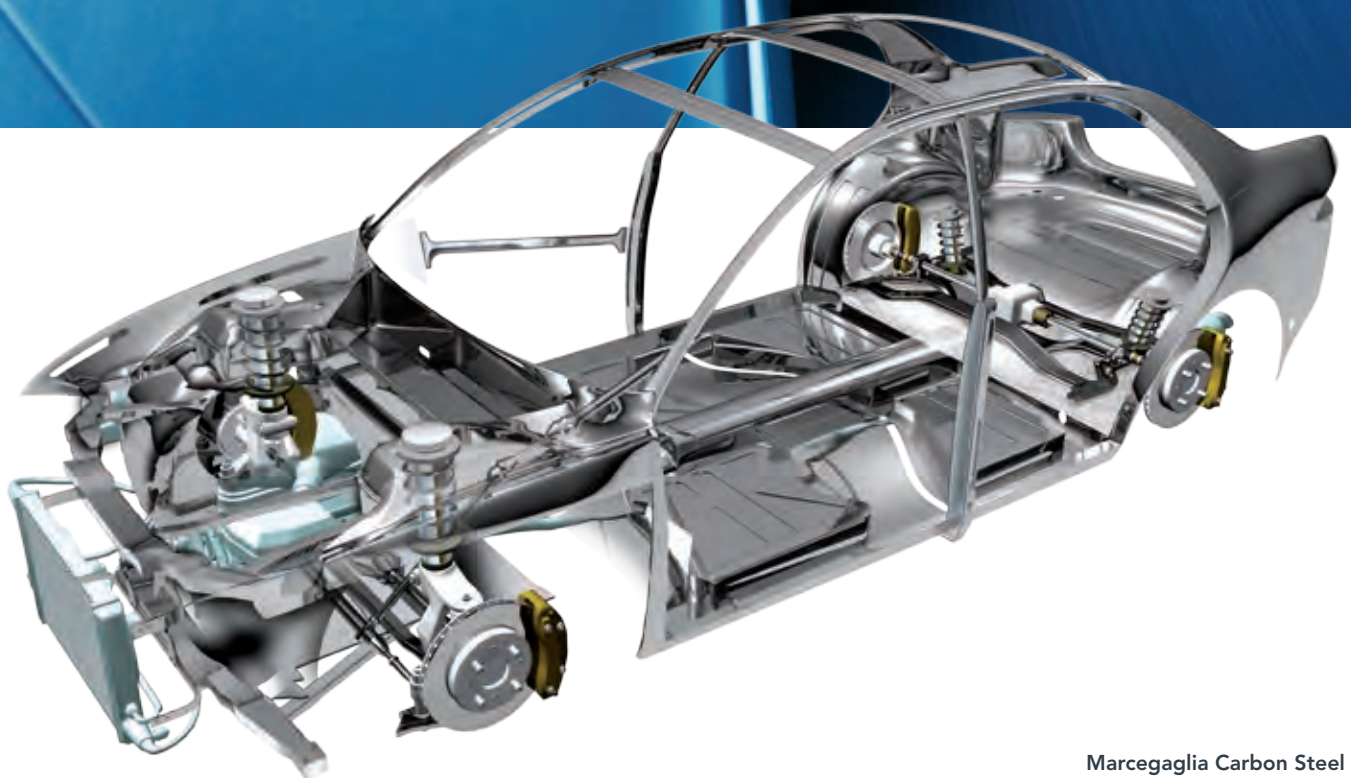
With a dedicated production for the automotive sector, Marcegaglia is the supplier of choice for carmakers and OEM manufacturers of structural parts, components and interior details, thanks to its production plants located near to major specialized districts.

Con su propia gama de tubos soldados dedicada al sector automovilístico, Marcegaglia está en condiciones, hoy en día, de suministrar a las casas productoras y a los proveedores de componentes estructurales, partes internas y acabados gracias a unidades de producción situadas en los mayores centros de producción especializados.



Tubes for automotive applications

Tubos para usos automovilísticos





Tubes for the furniture industry

Tubos para sector decoración

Tubes for other industrial applications

Tubos para aplicaciones industriales

Tubes for the cycle and motorcycle industry

Tubos para sector ciclo y motociclo

Tubes for heating and plumbing systems

Tubos para aplicaciones termohidrosanitarias

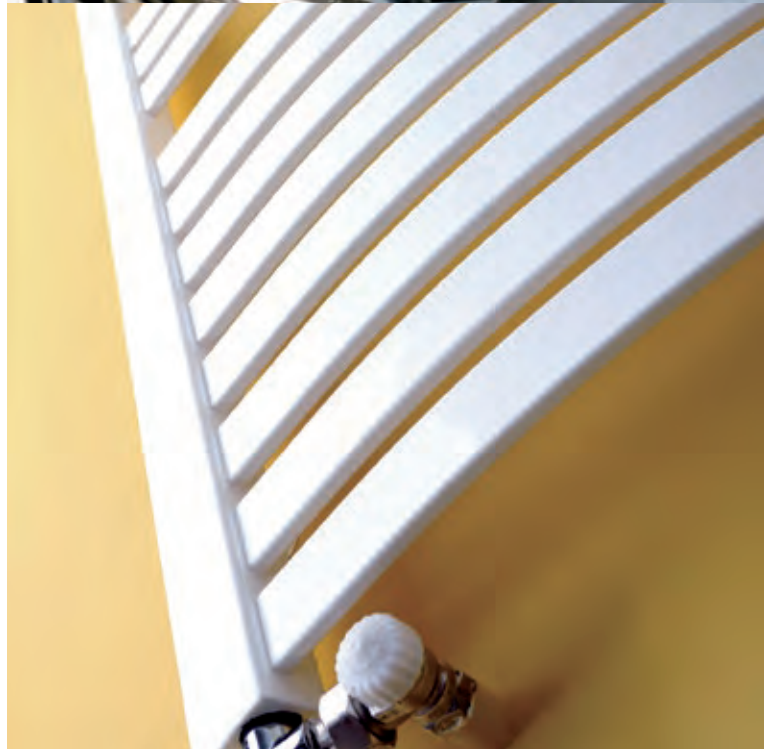
Tubes for fitness equipment

Tubos para artículos deportivos



Marcegaglia Carbon Steel has developed a unique know-how in the manufacturing of precision tubes to meet the strict dimensional and surface specifications required by manufacturers in sectors such as furniture, sports equipment or mechanical engineering.

Marcegaglia Carbon Steel ha logrado un nivel de competencia único en el mundo en la fabricación de tubos de precisión que se ajustan a los requisitos dimensionales y de aspecto superficial típicos de sectores como la decoración, los artículos deportivos y la industria mecánica.



Carbon steel welded tubes

Tubos soldados de acero al carbono

Main manufacturing standards *Principales normas de fabricación*

MANUFACTURING STANDARD <i>Norma de fabricación</i>	PRODUCT DESIGNATION <i>Designación de producto</i>	TREATMENT <i>Tipos de tratamiento</i>	GRADE* <i>Calidad</i>	SURFACE CONDITIONS <i>Condiciones superficiales</i>
EN 10305-3	Round and shaped precision tubes <i>Tubos de precisión redondos y especiales</i>	+CR1 Welded and sized <i>Soldado y calibrado en frío</i> +CR2 Welded and sized <i>Saldado e calibrado a freddo</i> +A Annealed - <i>Recocido</i> +N Normalized	E190, E320, E220, E370, E260, E420, E155, E195, E235, E275, E355	S1 From hot-rolled strip, black <i>De cinta laminada en caliente negra</i> S2 From hot-rolled strip, pickled <i>De cinta laminada en caliente decapada</i> S3 From cold-rolled strip <i>De cinta laminada en frío</i> S4 From coated strip <i>De cinta revestida según condiciones establecidas</i>
EN 10305-5	Square and rectangular precision tubes <i>Tubos de precisión cuadrados y rectangulares</i>	+N Normalized <i>Estandarizado</i>		
EN 10219	Cold formed welded structural tubes (CE homologation) <i>Tubos soldados moldeados en frío para usos estructurales (homologación CE)</i>		S235JRH S275J0H S275J2H S355J0H S355J2H	
EN 10210	Structural hollow sections of non-alloy and fine grain steels, hot finished or cold formed and heat treated <i>Perfiles huecos de aceros no aleados y de grano fino para usos estructurales, acabados en caliente o formados en frío con tratamientos térmicos</i>	Heat treatments <i>Tratamientos térmicos</i>	S235JRH S275J0H S275J2H S355J0H S355J2H	
				TEST CATEGORIES <i>Categorías de control</i>
EN 10217-1	Tubes for pressure purposes, for use at room temperature <i>Tubos para usos a presión, para utilizar a temperatura ambiente</i>	Heat treatments upon request <i>Tratamientos térmicos bajo pedido</i>	P195 P235 P265	TR1 TR2
EN 10217-2	Tubes for pressure purposes, for use at high temperatures <i>Tubos para usos a presión, para utilizar a temperaturas elevadas</i>		P195GH P235GH P265GH	TC1 TC2
EN 10208-1	Steel pipes for pipelines for combustible fluids <i>Tubos para conductos de fluidos combustibles</i>		L235GA L290GA L360GA	
EN 10224	Tubes for the conveyance of water and other aqueous liquids <i>Tubos para conductos de agua y otros líquidos acuosos</i>		L235 L275 L355	
EN 10255	Tubes suitable for welding and threading <i>Tubos aptos para soldadura y roscado</i>	Heat treatments upon request <i>Tratamientos térmicos bajo pedido</i>	S195T	

(*) Upon request: supply of grades not included in the above mentioned standards - *Bajo pedido también se suministran calidades diferentes de la norma*

Supply conditions - *Condiciones de suministro*

- Dimensional tolerances according to manufacturing standard *Tolerancias dimensionales según normas de fabricación*
- Special tolerances upon request *Tolerancias especiales bajo pedido*
- Control documents 2.1, 2.2, 3.1, 3.2 according to EN 10204 and specific norm requirements
Documentos de control 2.1, 2.2, 3.1, 3.2 según norma EN 10204 e indicaciones específicas de cada norma



OPTIONAL PROCESSING

Mecanizaciones opcionales

Suitability for subsequent galvanizing

Específica idoneidad a la galvanización en caliente

Complete normalization or weld area normalization

Estandarización completa o sólo de la zona de soldadura

Additional heat treatments - *Tratamientos térmicos adicionales*

Weld seam removing - *Descordonado interno*

Special end finishing - *Acabados especiales de las extremidades*

Cut to length - *Corte a medida*

Customer defined marking - *Marcados alternativos*

Restricted tolerances - *Tolerancias reducidas respecto a la norma*

Welding position - *Posición de la soldadura*

Surface roughness measurement

Medición de la rugosidad superficial

Delivery with no corrosion protection

Entregas sin protección anticorrosiva

Specific corrosion protection - *Protección anticorrosiva específica*

Specific packaging method - *Método de embalaje específico*

Unit testing composed of tubes from a single casting

Unidad de ensayo compuesta de tubos procedentes de una única colada

Hot galvanization - *Galvanizado en caliente*

STANDARD AND OPTIONAL TESTING

Pruebas y controles estándar y opcionales

Chemical composition - *Análisis químico*

Tensile test - *Prueba de tracción*

Flattening test - *Prueba de aplastamiento*

Expansion test - *Prueba de ensachamiento*

Impact test - *Prueba de resiliencia*

Eddy current test - *Prueba de corrientes de inducción*

Flux leakage test - *Prueba de flujo disperso*

Ultrasonic test - *Control por ultrasonidos*

Visual test - *Control visual*

Hydraulic test - *Prueba hidráulica*

Dimensional test - *Control dimensional*

Micrographic analysis - *Análisis micrográficos*

Release of special certificates - *Expedición de certificados especiales*

STANDARD LENGTHS

Pipes are supplied in 6000 and 12000 mm lengths (tolerances ± 50 mm) unless otherwise specified in order

Largos estándar

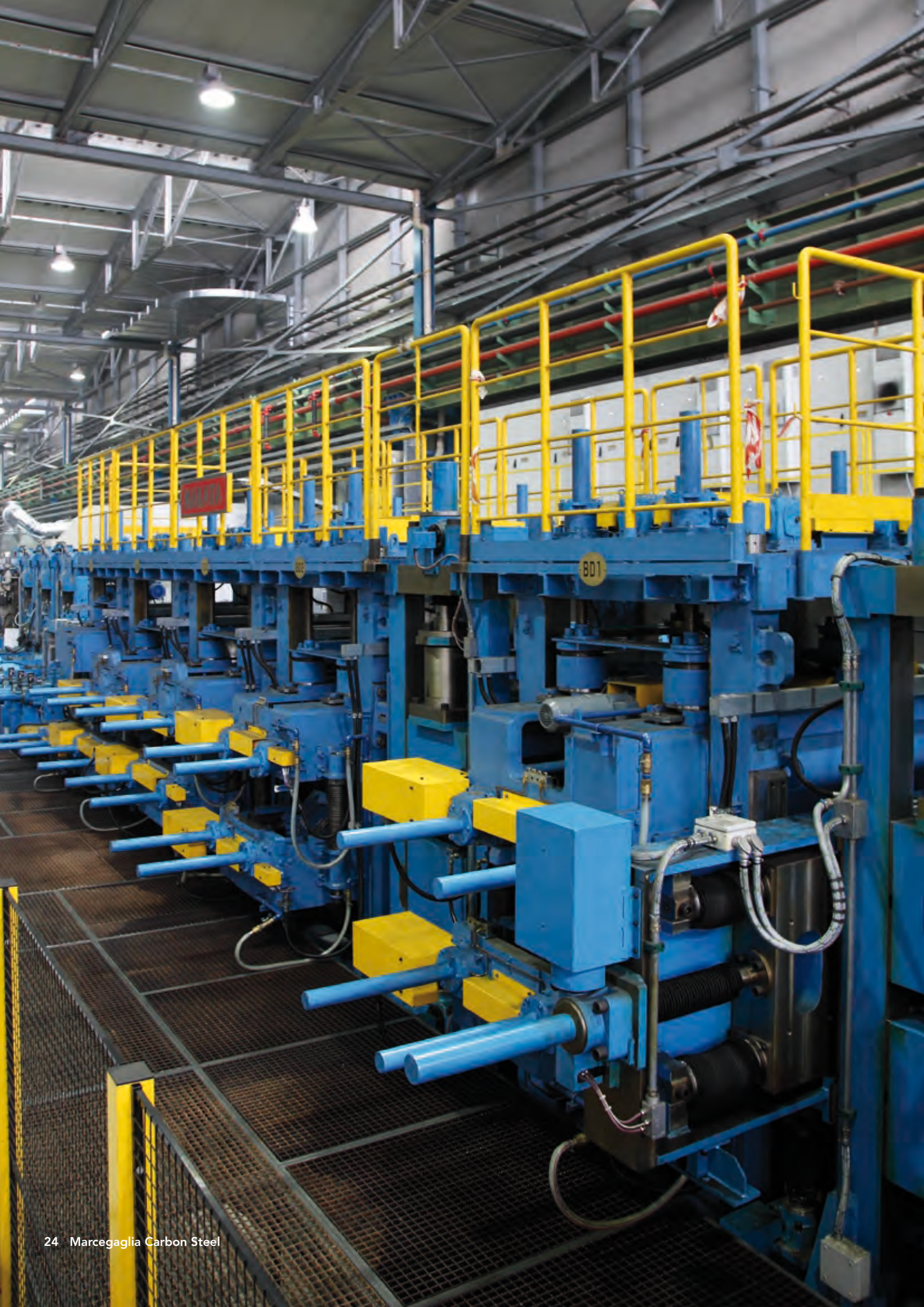
Los tubos se suministran, salvo acuerdo diferente en el momento del pedido, en barras comerciales de 6.000 y 12.000 mm (tolerancia ± 50 mm)

Round carbon steel welded precision tubes

Tubos redondos soldados de acero al carbono de precisión

outside diameter (mm - inches)	wall thickness mm																weight kg/m
	0,3	0,4	0,5	0,6	0,7	0,8	0,9	1	1,1	1,2	1,4	1,5	1,8	2	2,5	3	
8			0,092	0,109	0,126	0,142	0,158	0,173	0,187	0,201	0,228						
9				0,124	0,143	0,162	0,180	0,197	0,214	0,231	0,262						
9,52 - 3/8"				0,132	0,152	0,172	0,191	0,210	0,228	0,246	0,280						
9,8				0,136	0,157	0,178	0,198	0,217	0,236	0,254	0,290						
10			0,117	0,139	0,161	0,181	0,202	0,222	0,241	0,260	0,297	0,314					
10,4			0,122	0,145	0,167	0,189	0,211	0,232	0,252	0,272	0,311	0,329					
11			0,129	0,154	0,178	0,201	0,224	0,247	0,269	0,290	0,331	0,351					
12			0,142	0,169	0,195	0,221	0,246	0,271	0,296	0,320	0,366	0,388					
12,7			0,150	0,179	0,207	0,235	0,262	0,288	0,315	0,340	0,390	0,414					
13			0,154	0,183	0,212	0,241	0,269	0,296	0,323	0,349	0,400	0,425	0,497				
13,5			0,160	0,191	0,221	0,251	0,280	0,308	0,336	0,364	0,418	0,444	0,519				
14	0,311	0,134	0,166	0,198	0,230	0,260	0,291	0,321	0,350	0,379	0,435	0,462	0,541	0,592			
15	0,109	0,144	0,179	0,213	0,247	0,280	0,313	0,345	0,377	0,408	0,469	0,499	0,586	0,641			
15,87 - 5/8"	0,115	0,152	0,189	0,225	0,261	0,296	0,331	0,365	0,399	0,432	0,497	0,529	0,621	0,681			
16	0,116	0,154	0,191	0,228	0,264	0,300	0,335	0,370	0,404	0,438	0,504	0,536	0,630	0,690	0,832		
16,75	0,122	0,161	0,200	0,239	0,277	0,315	0,352	0,388	0,424	0,460	0,530	0,564	0,664	0,727	0,878		
17	0,124	0,164	0,203	0,243	0,281	0,320	0,357	0,395	0,431	0,467	0,539	0,573	0,675	0,740	0,894		
17,20		0,166	0,206	0,246	0,285	0,323	0,362	0,399	0,437	0,473	0,545	0,581	0,683	0,750	0,906		
17,5	0,127	0,169	0,210	0,250	0,290	0,329	0,368	0,407	0,445	0,482	0,556	0,592	0,697	0,764	0,925		
18	0,131	0,174	0,216	0,257	0,299	0,339	0,379	0,419	0,458	0,497	0,573	0,610	0,719	0,789	0,955		
18,2	0,132	0,176	0,218	0,260	0,302	0,343	0,384	0,424	0,464	0,503	0,580	0,618	0,728	0,799	0,968		
19,5 - 3/4"	0,139	0,184	0,229	0,273	0,317	0,360	0,403	0,445	0,487	0,528	0,609	0,649	0,766	0,841	1,020		
19,8	0,144	0,191	0,238	0,284	0,330	0,375	0,419	0,464	0,507	0,550	0,635	0,677	0,799	0,878	1,066		
20	0,146	0,193	0,240	0,287	0,333	0,379	0,424	0,468	0,513	0,556	0,642	0,684	0,808	0,888	1,079		
20,15	0,147	0,195	0,242	0,289	0,336	0,382	0,427	0,472	0,517	0,561	0,647	0,690	0,814	0,895	1,088		
21	0,153	0,203	0,253	0,302	0,350	0,398	0,446	0,493	0,540	0,586	0,677	0,721	0,852	0,937	1,140		
21,25	0,155	0,206	0,256	0,305	0,355	0,403	0,452	0,499	0,547	0,593	0,685	0,730	0,863	0,949	1,156	1,350	
21,6			0,260	0,311	0,361	0,410	0,459	0,508	0,556	0,604	0,697	0,743	0,879	0,967	1,177		
21,8			0,263	0,314	0,365	0,415	0,465	0,514	0,563	0,611	0,706	0,888	0,976	1,190	1,391		
22			0,265	0,317	0,368	0,418	0,468	0,518	0,567	0,615	0,711	0,758	0,897	0,986	1,202	1,405	
22,22 - 7/8"			0,268	0,320	0,371	0,423	0,473	0,523	0,573	0,622	0,719	0,766	0,906	0,997	1,216		
22,6			0,272	0,325	0,378	0,430	0,482	0,533	0,583	0,633	0,732	0,780	0,923	1,016	1,239		
22,8			0,275	0,328	0,381	0,434	0,486	0,538	0,589	0,639	0,739	0,788	0,932	1,026	1,251		
23			0,277	0,331	0,385	0,438	0,490	0,542	0,594	0,645	0,746	0,795	0,941	1,036	1,264	1,479	
23,5			0,284	0,339	0,394	0,448	0,502	0,555	0,608	0,660	0,763	0,814	0,963	1,060	1,294		
24			0,290	0,346	0,402	0,458	0,513	0,567	0,621	0,675	0,780	0,832	0,985	1,085	1,325		
24,2			0,292	0,349	0,406	0,462	0,517	0,572	0,627	0,681	0,787	0,840	0,994	1,095	1,338		
24,6			0,297	0,355	0,413	0,469	0,526	0,582	0,637	0,692	0,801	0,854	1,012	1,114	1,362		
24,7			0,298	0,357	0,414	0,471	0,528	0,584	0,640	0,695	0,804	0,858	1,016	1,119	1,368		
25			0,302	0,361	0,419	0,477	0,535	0,592	0,648	0,704	0,815	0,869	1,030	1,134	1,387	1,627	
25,1			0,303	0,362	0,421	0,479	0,537	0,594	0,651	0,707	0,818	0,873	1,034	1,139	1,393	1,635	
25,4			0,307	0,367	0,426	0,485	0,544	0,602	0,659	0,716	0,828	0,884	1,047	1,154	1,412	1,657	
26			0,314	0,376	0,437	0,497	0,557	0,616	0,675	0,734	0,849	0,906	1,074	1,184	1,449	1,701	
26,2			0,379	0,440	0,501	0,561	0,621	0,681	0,740	0,856	0,914	1,083	1,193	1,461			
26,6			0,385	0,447	0,509	0,570	0,631	0,692	0,752	0,870	0,928	1,101	1,213	1,486			
26,75			0,387	0,450	0,512	0,574	0,635	0,696	0,756	0,875	0,934	1,107	1,221	1,495	1,757		
26,9			0,389	0,452	0,515	0,577	0,639	0,700	0,760	0,880	0,939	1,114	1,228	1,504	1,768		
27			0,391	0,454	0,517	0,579	0,641	0,702	0,763	0,884	0,943	1,118	1,233	1,510	1,775		
28			0,405	0,471	0,537	0,601	0,666	0,730	0,793	0,918	0,980	1,163	1,282	1,572	1,849		
28,57			0,414	0,481	0,548	0,614	0,680	0,745	0,810	0,938	1,001	1,188	1,310	1,607			
29			0,420	0,488	0,556	0,624	0,690	0,757	0,823	0,953	1,017	1,207	1,331	1,634	1,923		
29,2			0,423	0,492	0,560	0,628	0,695	0,762	0,828	0,960	1,024	1,216	1,341	1,646			
29,5			0,428	0,497	0,566	0,635	0,703	0,770	0,837	0,970	1,036	1,229	1,356	1,664			
30			0,435	0,506	0,576	0,646	0,715	0,784	0,852	0,987	1,054	1,252	1,381	1,695	1,997		
31			0,450	0,523	0,596	0,668	0,740	0,811	0,882	1,022	1,091	1,296	1,430	1,757			
31,2												1,098	1,305	1,440	1,769	2,086	
31,6			0,459	0,533	0,608	0,681	0,754	0,827	0,899	1,042	1,113	1,323	1,460	1,794			
31,75 - 1 1/4"			0,461	0,536	0,610	0,685	0,758	0,831	0,904	1,048	1,119	1,329	1,467	1,803			
32			0,465	0,540	0,615	0,690	0,764	0,838	0,911	1,056	1,128	1,340	1,479	1,818	2,145		
33			0,479	0,557	0,635	0,712	0,789	0,865	0,941	1,091	1,165	1,385	1,529	1,880	2,219		
33,4 - 1N			0,564	0,643	0,721	0,799	0,876	0,953	1,105	1,180	1,402	1,548	1,905	2,249			
33,7			0,570	0,649	0,728	0,806	0,884	0,962	1,115	1,191	1,416	1,563	1,923	2,271			
34			0,575	0,655	0,735	0,814	0,892	0,970	1,125	1,202	1,429	1,578	1,942	2,293			
35			0,592	0,675	0,757	0,838	0,919	1,000	1,160	1,239	1,473	1,627	2,003	2,367			
35,5											1,257	1,496	1,652	2,034	2,404		

outside diameter (mm - inches)	wall thickness mm																weight kg/m
	0,3	0,4	0,5	0,6	0,7	0,8	0,9	1	1,1	1,2	1,4	1,5	1,8	2	2,5	3	
36						0,694	0,779	0,863	0,947	1,030	1,194	1,276	1,518	1,677	2,065	2,441	
37						0,714	0,801	0,888	0,974	1,059	1,229	1,313	1,562	1,726	2,127		
37,4						0,722	0,810	0,898	0,985	1,071	1,243	1,328	1,580	1,746	2,151		
38,1 - 1½"						0,736	0,826	0,915	1,004	1,092	1,267	1,354	1,611	1,780	2,194		
39						0,754	0,845	0,937	1,028	1,118	1,298	1,387	1,651	1,825	2,250	2,663	
39,5													1,405	1,673	1,849	2,281	2,700
39,7						0,767	0,861	0,954	1,047	1,139	1,322	1,413	1,682	1,859	2,293	2,715	
40						0,773	0,868	0,962	1,055	1,148	1,332	1,424	1,695	1,874	2,312	2,737	
41						0,793	0,890	0,986	1,082	1,178	1,367	1,461	1,740	1,923	2,373	2,811	
41,3						0,799	0,897	0,994	1,090	1,186	1,377	1,472	1,753	1,938	2,392	2,833	
41,5						0,803	0,901	0,999	1,096	1,192	1,384	1,479	1,762	1,948	2,404	2,848	
42						0,813	0,912	1,011	1,109	1,207	1,401	1,498	1,784	1,973	2,435	2,885	
42,4													1,513	1,802	1,992	2,460	2,914
43						0,832	0,934	1,036	1,136	1,237	1,436	1,535	1,829	2,022	2,496	2,959	
44						0,852	0,956	1,060	1,164	1,266	1,471	1,572	1,873	2,071	2,558	3,033	
44,5													1,590	1,895	2,096	2,589	3,070
44,6						0,864	0,970	1,075	1,180	1,284	1,491	1,594	1,900	2,101	2,595	3,077	
45						0,872	0,979	1,085	1,191	1,296	1,505	1,609	1,917	2,120	2,620	3,107	
46						0,892	1,001	1,110	1,218	1,326	1,540	1,646	1,962	2,170	2,681	3,181	
46,7						0,905	1,016	1,127	1,237	1,346	1,564	1,672	1,993	2,204	2,725	3,232	
47													1,683	2,006	2,219	2,743	3,255
47,6						0,923	1,036	1,149	1,261	1,373	1,595	1,705	2,033	2,249	2,780	3,299	
48						0,931	1,045	1,159	1,272	1,385	1,609	1,720	2,050	2,268	2,805	3,329	
48,3													1,731	2,064	2,283	2,823	3,351
48,5													1,738	2,073	2,293	2,836	3,366
49,3						0,957	1,074	1,191	1,307	1,423	1,653	1,768	2,108	2,333	2,885	3,425	
49,7						0,965	1,083	1,201	1,318	1,435	1,667	1,783	2,126	2,352	2,909	3,454	
50						0,970	1,090	1,208	1,326	1,444	1,678	1,794	2,139	2,367	2,928	3,477	
50,8 - 2"						0,986	1,107	1,228	1,348	1,468	1,705	1,823	2,175	2,406	2,977	3,536	
52								1,257	1,381	1,503	1,747	1,868	2,228	2,466	3,051	3,625	
53								1,282	1,408	1,533	1,781	1,905	2,272	2,515	3,113	3,699	
54								1,307	1,435	1,562	1,816	1,942	2,317	2,564	3,175	3,772	
54,50													1,960	2,339	2,589	3,205	3,809
55								1,331	1,462	1,592	1,850	1,979	2,361	2,614	3,236	3,846	
56								1,356	1,489	1,621	1,885	2,016	2,406	2,663	3,298	3,920	
57								1,381	1,516	1,651	1,919	2,053	2,450	2,712	3,359	3,994	
58								1,405	1,543	1,681	1,954	2,090	2,494	2,762	3,421	4,068	
59								1,430	1,570	1,710	1,988	2,127	2,539	2,811	3,483	4,142	
60								1,455	1,598	1,740	2,023	2,164	2,583	2,860	3,544	4,216	
60,30 - 2N													2,175	2,596	2,875	3,563	4,238
61													2,201	2,627	2,909	3,606	4,290
62													2,238	2,672	2,959	3,668	4,364
62,7								1,521	1,671	1,820	2,116	2,263	2,703	2,993	3,711	4,416	
63								1,529	1,679	1,829	2,126	2,275	2,716	3,008	3,729	4,438	
63,50									1,692	1,843	2,144	2,293	2,738	3,033	3,760	4,475	
65									1,733	1,888	2,195	2,349	2,805	3,107	3,853	4,586	
66									1,760	1,917	2,230	2,386	2,849	3,156	3,914	4,660	
66,30													2,397	2,863	3,171	3,933	4,682
68									1,814	1,976	2,299	2,460	2,938	3,255	4,038	4,808	
70									1,869	2,036	2,368	2,533	3,027	3,353	4,161	4,956	
70,5													2,552	3,049	3,378	4,192	4,993
72									1,923	2,095	2,437	2,607	3,116	3,452	4,284	5,104	
73									1,950	2,124	2,472	2,644	3,160	3,501	4,346	5,178	
75									2,004	2,184	2,541	2,718	3,249	3,600	4,469	5,326	
76									2,031	2,213	2,575	2,755	3,293	3,649	4,531	5,400	
76,2 - 3"													2,759	3,298	3,654	4,537	5,407
80									2,140	2,332	2,713	2,903	3,471	3,846	4,777	5,696	
80,5													2,922	3,493	3,871	4,808	5,733
82													2,977	3,559	3,945	4,901	5,844
82,5													2,996	3,582	3,970	4,931	5,881
83													3,014	3,604	3,994	4,962	5,918
87														3,781	4,192	5,209	6,213
88,9 - 3½" 3N													3,232	3,866	4,285	5,326	6,354
89									2,384	2,598	3,024	3,236	3,870	4,290	5,332	6,361	
90									2,411	2,627	3,058	3,273	3,914	4,340	5,394	6,435	



Round carbon steel welded precision tubes

Tubos redondos soldados de acero al carbono de precisión

N: nominal pipe size

outside diameter (mm)	wall thickness mm																weight kg/m
	1,5	1,8	2	2,5	3	3,3	3,7	4	4,2	4,5	4,7	5	5,6	6	6,3	6,6	
16,75	0,564	0,664	0,727														
17	0,573	0,675	0,740	0,894													
17,20	0,581	0,683	0,750	0,906													
17,5	0,592	0,697	0,764	0,925													
18	0,610	0,719	0,789	0,955													
18,2	0,618	0,728	0,799	0,968													
19,05 - ¾"	0,649	0,766	0,841	1,020													
19,8	0,677	0,799	0,878	1,066													
20	0,684	0,808	0,888	1,079													
20,15	0,690	0,814	0,895	1,088													
21	0,721	0,852	0,937	1,140													
21,25	0,730	0,863	0,949	1,156	1,350												
21,6	0,743	0,879	0,967	1,177													
21,8	0,751	0,888	0,976	1,190	1,391												
22	0,758	0,897	0,986	1,202	1,405												
22,22 - 7/8"	0,766	0,906	0,997	1,216													
22,6	0,780	0,923	1,016	1,239													
22,8	0,788	0,932	1,026	1,251													
23	0,795	0,941	1,036	1,264	1,479												
23,5	0,814	0,963	1,060	1,294													
24	0,832	0,985	1,085	1,325													
24,2	0,840	0,994	1,095	1,338													
24,6	0,854	1,012	1,114	1,362													
24,7	0,858	1,016	1,119	1,368													
25	0,869	1,030	1,134	1,387	1,627												
25,1	0,873	1,034	1,139	1,393	1,635												
25,4	0,884	1,047	1,154	1,412	1,657												
26	0,906	1,074	1,184	1,449	1,701												
26,2	0,914	1,083	1,193	1,461													
26,6	0,928	1,101	1,213	1,486													
26,75	0,934	1,107	1,221	1,495	1,757												
26,9	0,939	1,114	1,228	1,504	1,768												
27	0,943	1,118	1,233	1,510	1,775												
28	0,980	1,163	1,282	1,572	1,849	2,010	2,217	2,367									
28,57	1,001	1,188	1,310	1,607													
29	1,017	1,207	1,331	1,634	1,923	2,091	2,308	2,466									
29,2	1,024	1,216	1,341	1,646													
29,5	1,036	1,229	1,356	1,664													
30	1,054	1,252	1,381	1,695	1,997	2,173	2,399	2,564									
31	1,091	1,296	1,430	1,757													
31,2	1,098	1,305	1,440	1,769	2,086	2,270	2,509	2,683	2,796	2,963	3,071	3,230	3,535				
31,6	1,113	1,323	1,460	1,794													
31,75 - 1¼"	1,119	1,329	1,467	1,803	2,130	2,319	2,564	2,742	2,858	3,029	3,141	3,304	3,618				
32	1,128	1,340	1,479	1,818	2,145	2,335	2,582	2,762	2,879	3,051	3,164	3,329	3,645				
33	1,165	1,385	1,529	1,880	2,219	2,417	2,673	2,860	2,982	3,162	3,280	3,452	3,783	3,994			
33,4 - 1N	1,180	1,402	1,548	1,905	2,249	2,449	2,710	2,900	3,024	3,207	3,326	3,501	3,839	4,054			
33,7	1,191	1,416	1,563	1,923	2,271	2,474	2,737	2,929	3,055	3,240	3,361	3,538	3,880	4,098			
34	1,202	1,429	1,578	1,942	2,293												
35	1,239	1,473	1,627	2,003	2,367	2,579	2,855	3,057									
35,5	1,257	1,496	1,652	2,034	2,404	2,620	2,901	3,107									
36	1,276	1,518	1,677	2,065	2,441	2,661	2,947	3,156	3,293	3,495	3,627	3,822	4,198	4,438			
37	1,313	1,562	1,726	2,127													
37,4	1,328	1,580	1,746	2,151													
38,1 - 1½"	1,354	1,611	1,780	2,194	2,589	2,832	3,138	3,363	3,511	3,728	3,871	4,081	4,488	4,749			
39	1,387	1,651	1,825	2,250	2,663	2,905	3,220	3,452	3,604	3,828	3,975	4,192	4,612	4,882			
39,5	1,405	1,673	1,849	2,281	2,700	2,945	3,266	3,501	3,656	3,883	4,033	4,253	4,681	4,956			
39,7	1,413	1,682	1,859	2,293	2,715												
40	1,424	1,695	1,874	2,312	2,737	2,986	3,312	3,551	3,707	3,939	4,091	4,315	4,750	5,030	5,235		
41	1,461	1,740	1,923	2,373	2,811												
41,3	1,472	1,753	1,938	2,392	2,833												
41,5	1,479	1,762	1,948	2,404	2,848												
42	1,498	1,784	1,973	2,435	2,885	3,149	3,494	3,748	3,914	4,161	4,323	4,561	5,026	5,326	5,546		
42,4	1,513	1,802	1,992	2,460	2,914	3,181	3,531	3,787	3,956	4,205	4,369	4,611	5,081	5,385	5,608		



ROUND TUBES EN 10305-3 S1, S2, S4 / EN 10217 / EN 10219 / EN 10224 / EN 10208-1 / EN 10255

Tubos redondos EN 10305-3 S1, S2, S4 / EN 10217 / EN 10219 / EN 10224 / EN 10208-1 / EN 10255

outside diameter (mm)	wall thickness mm															
	1,5	1,8	2	2,5	3	3,3	3,7	4	4,2	4,5	4,7	5	5,6	6	6,3	6,6
43	1,535	1,829	2,022	2,496	2,959	3,230	3,585	3,846								
44	1,572	1,873	2,071	2,558	3,033											
44,5	1,590	1,895	2,096	2,589	3,070	3,352	3,722	3,994	4,173	4,438	4,612	4,870	5,371	5,696		
44,6	1,594	1,900	2,101	2,595	3,077											
45	1,609	1,917	2,120	2,620	3,107	3,393	3,768	4,044	4,225	4,494	4,670	4,931	5,440	5,770	6,012	6,249
46	1,646	1,962	2,170	2,681	3,181											
46,7	1,672	1,993	2,204	2,725	3,232											
47	1,683	2,006	2,219	2,743	3,255	3,556	3,950	4,241	4,432	4,716	4,902	5,178	5,716	6,066	6,322	6,574
47,6	1,705	2,033	2,249	2,780	3,299											
48	1,720	2,050	2,268	2,805	3,329	3,637	4,041	4,340	4,536	4,827	5,018	5,301	5,854	6,213	6,478	6,737
48,3	1,731	2,064	2,283	2,823	3,351	3,662	4,069	4,369	4,567	4,860	5,053	5,338	5,896	6,258	6,524	6,786
48,5	1,738	2,073	2,293	2,836	3,366	3,678	4,087	4,389	4,588	4,882	5,076	5,363	5,924	6,287	6,555	6,819
49,3	1,768	2,108	2,333	2,885	3,425											
49,7	1,783	2,126	2,352	2,909	3,454											
50	1,794	2,139	2,367	2,928	3,477	3,800	4,224	4,537	4,743	5,048	5,250	5,548	6,131	6,509	6,788	7,063
50,8 - 2"	1,823	2,175	2,406	2,977	3,536	3,881	4,315	4,635	4,847	5,159	5,366	5,671	6,269	6,657	6,944	7,225
52	1,868	2,228	2,466	3,051	3,625	3,963	4,406	4,734	4,950	5,270	5,481	5,794	6,407	6,805	7,099	7,388
53	1,905	2,272	2,515	3,113	3,699	4,044	4,498	4,833	5,054	5,381	5,597	5,918	6,545	6,953	7,254	7,551
54	1,942	2,317	2,564	3,175	3,772	4,125	4,589	4,931	5,157	5,492	5,713	6,041	6,683	7,101	7,410	7,714
54,50	1,960	2,339	2,589	3,205	3,809	4,166	4,634	4,981	5,209	5,548	5,771	6,103	6,752	7,175	7,487	7,795
55	1,979	2,361	2,614	3,236	3,846	4,207	4,680	5,030	5,261	5,603	5,829	6,164	6,821	7,249	7,565	7,876
56	2,016	2,406	2,663	3,298	3,920	4,288	4,771	5,129	5,364	5,714	5,945	6,287	6,959	7,397	7,720	8,039
57	2,053	2,450	2,712	3,359	3,994	4,369	4,863	5,227	5,468	5,825	6,061	6,411	7,097	7,545		
58	2,090	2,494	2,762	3,421	4,068											
59	2,127	2,539	2,811	3,483	4,142											
60	2,164	2,583	2,860	3,544	4,216	4,614	5,136	5,523	5,779	6,158	6,409	6,781	7,511	7,989	8,342	8,690
60,30 - 2N	2,175	2,596	2,875	3,563	4,238	4,638	5,164	5,553	5,810	6,191	6,443	6,818	7,553	8,033	8,388	8,739
61	2,201	2,627	2,909	3,606	4,290	4,695	5,227	5,622								
62	2,238	2,672	2,959	3,668	4,364	4,776	5,319	5,720	5,986	6,380	6,640	7,027	7,788	8,285	8,652	9,015
62,7	2,263	2,703	2,993	3,711	4,416											
63	2,275	2,716	3,008	3,729	4,438	4,858	5,410	5,819	6,089	6,491	6,756	7,150	7,926	8,433	8,808	9,178
63,50	2,293	2,738	3,033	3,760	4,475											
65	2,349	2,805	3,107	3,853	4,586	5,020	5,592	6,016	6,296	6,713	6,988	7,397	8,202	8,728	9,118	9,504
66	2,386	2,849	3,156	3,914	4,660											
66,30	2,397	2,863	3,171	3,933	4,682	5,126	5,711	6,144	6,431	6,857	7,139	7,557	8,381	8,921		
68	2,460	2,938	3,255	4,038	4,808	5,264	5,866	6,312	6,607	7,046	7,336	7,767	8,616	9,172	9,584	9,992
70	2,533	3,027	3,353	4,161	4,956	5,427	6,049	6,509	6,814	7,268	7,567	8,013	8,892	9,468	9,895	10,317
70,5	2,552	3,049	3,378	4,192	4,993	5,468	6,094	6,559	6,866	7,323	7,625	8,075	8,961	9,542	9,973	10,399
72	2,607	3,116	3,452	4,284	5,104	5,590	6,231	6,707	7,021	7,489	7,799	8,260	9,168	9,764	10,206	10,643
73	2,644	3,160	3,501	4,346	5,178	5,671	6,322	6,805	7,125	7,600	7,915	8,383	9,306	9,912		
75	2,718	3,249	3,600	4,469	5,326	5,834	6,505	7,003	7,332	7,822	8,147	8,630	9,583	10,208	10,672	11,131
76	2,755	3,293	3,649	4,531	5,400	5,915	6,596	7,101	7,435	7,933	8,263	8,753	9,721	10,356	10,827	11,294
76,1	2,759	3,298	3,654	4,537	5,407	5,924	6,605	7,111	7,446	7,944	8,274	8,765	9,734	10,371	10,843	11,310
80	2,903	3,471	3,846	4,777	5,696	6,241	6,961	7,496	7,850	8,377	8,726	9,246	10,273	10,948	11,448	11,945
80,5	2,922	3,493	3,871	4,808	5,733	6,282	7,006	7,545	7,901	8,433	8,784	9,308	10,342	11,022	11,526	12,026
82	2,977	3,559	3,945	4,901	5,844	6,404	7,143	7,693	8,057	8,599	8,958	9,493	10,549	11,243	11,759	12,270
82,5	2,996	3,582	3,970	4,931	5,881	6,444	7,189	7,742	8,109	8,655	9,016	9,554	10,618	11,317	11,837	12,352
83	3,014	3,604	3,994	4,962	5,918	6,485	7,235	7,792	8,160	8,710	9,074	9,616	10,687	11,391	11,914	12,433
87		3,781	4,192	5,209	6,213	6,810	7,599	8,186	8,575	9,154	9,537	10,109	11,240	11,983		
88,9 - 3 1/2"	3,232	3,866	4,285	5,326	6,354	6,965	7,773	8,373	8,771	9,365	9,758	10,343	11,502	12,264	12,831	13,393
89	3,236	3,870	4,290	5,332	6,361	6,973	7,782	8,383	8,782	9,376	9,769	10,356	11,516	12,279	12,846	13,409
90	3,273	3,914	4,340	5,394	6,435	7,055	7,873	8,482	8,885	9,487	9,885	10,479	11,654	12,427	13,002	13,572
90,5	3,292	3,937	4,364	5,424	6,472	7,095	7,919	8,531	8,937	9,542	9,943	10,541	11,723	12,501	13,079	13,653
95		4,136	4,586	5,702	6,805	7,461	8,329	8,975	9,403	10,041	10,465	11,096	12,344	13,167	13,778	14,386
96			4,635	5,764	6,879	7,543	8,421	9,074	9,507	10,152	10,580	11,219	12,482	13,315	13,934	14,548
100		4,358	4,833	6,010	7,175	7,868	8,785	9,468	9,921	10,596	11,044	11,712	13,035	13,906	14,555	15,199
101,60 - 4"		4,429	4,912	6,109	7,293	7,998	8,931	9,626	10,087	10,774	11,229	11,909	13,255	14,143	14,804	15,460
108		4,713	5,227	6,503	7,767	8,519	9,515	10,257	10,749	11,484	11,971	12,698	14,139	15,090	15,798	16,501
110		4,802	5,326	6,626	7,915	8,682	9,698	10,454	10,956	11,706	12,203	12,945	14,415	15,386	16,108	16,827
112		4,891	5,424	6,750	8,063	8,845	9,880	10,652	11,164	11,928	12,435	13,191	14,691	15,682	16,419	17,152
114,30 - 4 1/2"		4,993	5,538	6,892	8,233	9,032	10,090	10,879	11,402	12,183	12,701	13,475	15,009	16,022	16,776	17,526
115			5,572	6,935	8,285	9,089	10,154	10,948	11,474	12,261	12,782	13,561	15,106	16,125	16,885	17,640
120			5,819	7,243	8,655	9,496	10,610	11,441	11,992	12,815	13,362	14,178	15,796	16,865	17,662	18,454

																weight kg/m
wall thickness mm																outside diameter (mm)
7	7,6	8	8,6	9	9,6	10	10,5	11	11,5	12	12,5	13	14	14,2	16	
																43
																44
																44,5
																44,6
																45
																46
																46,7
																47
																47,6
7,076	7,571	7,890														48
7,128	7,627	7,949														48,3
7,163	7,664	7,989														48,5
																49,3
																49,7
7,422	7,945	8,285														50
7,594	8,133	8,482														50,8 - 2"
7,767	8,320	8,679														52
7,939	8,508	8,876														53
8,112	8,695	9,074														54
8,198	8,789	9,172														54,50
8,285	8,882	9,271														55
8,457	9,070	9,468														56
																57
																58
																59
9,148	9,819	10,257	10,899	11,317	11,930	12,328										60
9,199	9,876	10,316	10,963	11,384	12,001	12,402										60,30 - 2N
																61
9,493	10,194	10,652	11,323	11,761	12,403	12,821										62
																62,7
9,665	10,381	10,849	11,535	11,983	12,640	13,068										63
																63,50
10,011	10,756	11,243	11,959	12,427	13,113	13,561										65
																66
																66,30
10,528	11,318	11,835	12,596	13,093	13,824	14,301										68
10,874	11,693	12,230	13,020	13,537	14,297	14,794	15,404	16,002	16,588							70
10,960	11,787	12,328	13,126	13,647	14,415	14,917	15,534	16,138	16,730							70,5
11,219	12,068	12,624	13,444	13,980	14,770	15,287	15,922	16,545	17,155	17,753	18,338	18,912				72
																73
11,737	12,630	13,216	14,080	14,646	15,480	16,027										75
11,909	12,818	13,413	14,292	14,868	15,717	16,273										76
11,926	12,836	13,433	14,313	14,890	15,741	16,298										76,1
12,600	13,567	14,202	15,140	15,756	16,664	17,260										80
12,686	13,661	14,301	15,246	15,867	16,782	17,383										80,5
12,945	13,942	14,597	15,564	16,199	17,137	17,753										82
13,031	14,036	14,695	15,670	16,310	17,256	17,876	18,640	19,392	20,132	20,860	21,575	22,277				82,5
13,117	14,129	14,794	15,776	16,421	17,374	17,999	18,770	19,528	20,274	21,008	21,729	22,438				83
																87
14,136	15,235	15,958	17,027	17,731	18,771	19,454	20,297	21,128	21,947	22,753	23,547	24,329				88,9 - 3 1/2"
14,153	15,254	15,978	17,049	17,753	18,794	19,479	20,323	21,155	21,975	22,783	23,578	24,361				89
14,326	15,441	16,175	17,261	17,975	19,031	19,725	20,582	21,427	22,259	23,079	23,886	24,681				90
14,412	15,535	16,273	17,367	18,086	19,149	19,849	20,712	21,562	22,401	23,227	24,040	24,842				90,5
15,189	16,378	17,161	18,321	19,084	20,215											95
15,361	16,565	17,358	18,533	19,306	20,451											96
16,052	17,315	18,147	19,381	20,194	21,398	22,191	23,171	24,139	25,094	26,037	26,968	27,887				100
16,328	17,615	18,463	19,720	20,549	21,777	22,586	23,585	24,573	25,548	26,511	27,461	28,400				101,60 - 4"
17,432	18,814	19,725	21,078	21,969	23,292	24,164	25,242	26,309	27,363	28,405	29,434	30,451				108
17,777	19,189	20,120	21,502	22,413	23,765	24,657	25,760	26,851	27,930	28,996	30,050	31,092				110
18,123																112
18,520	19,995	20,968	22,413	23,367	24,783	25,717	26,873	28,017	29,149	30,269	31,376	32,470	34,623			114,30 - 4 1/2"
18,640	20,126	21,106	22,562	23,522	24,949	25,890	27,055	28,207	29,348	30,476	31,591	32,695				115
19,503	21,063	22,092	23,622	24,632	26,132	27,122	28,349	29,563	30,765	31,955	33,132	34,297				120

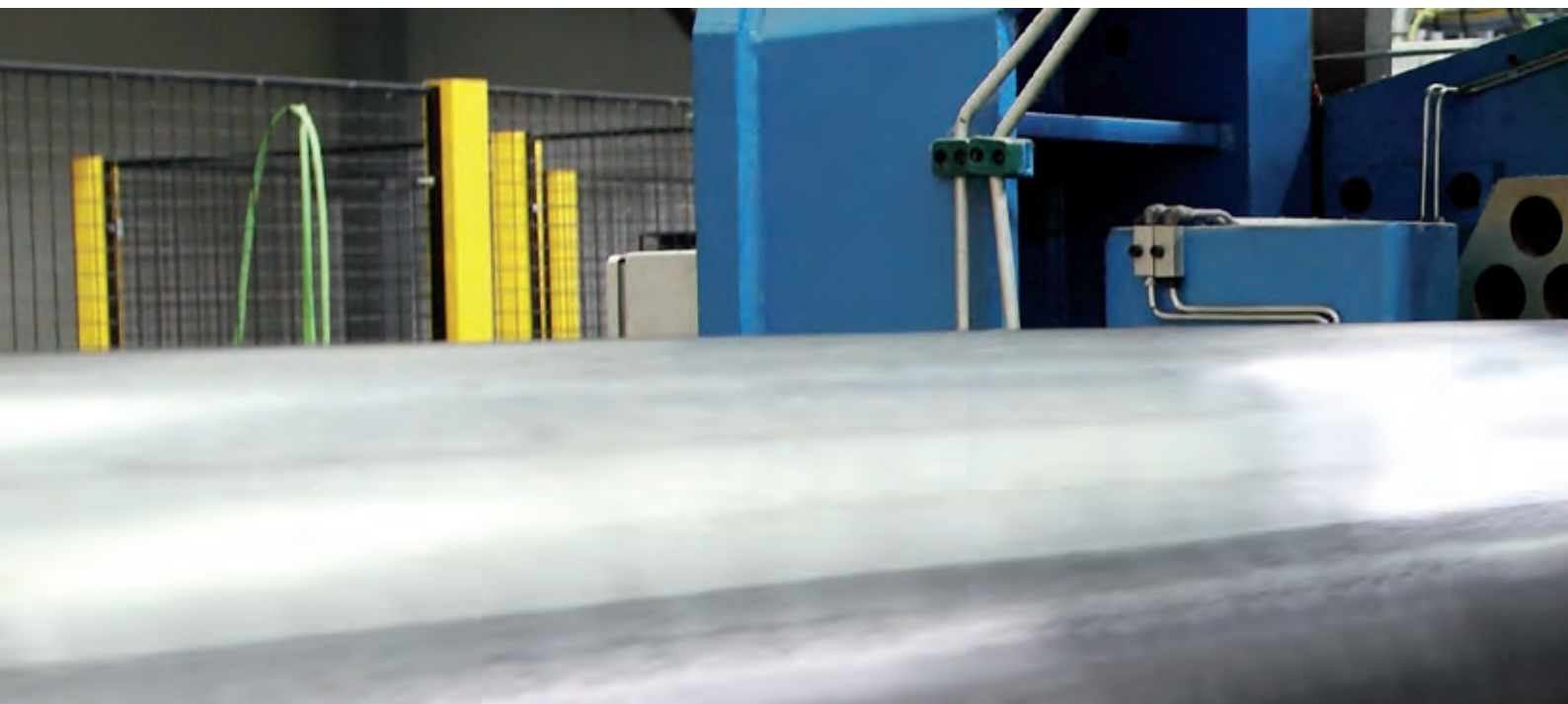


ROUND TUBES EN 10305-3 S1, S2, S4 / EN 10217 / EN 10219 / EN 10224 / EN 10208-1 / EN 10255

Tubos redondos EN 10305-3 S1, S2, S4 / EN 10217 / EN 10219 / EN 10224 / EN 10208-1 / EN 10255

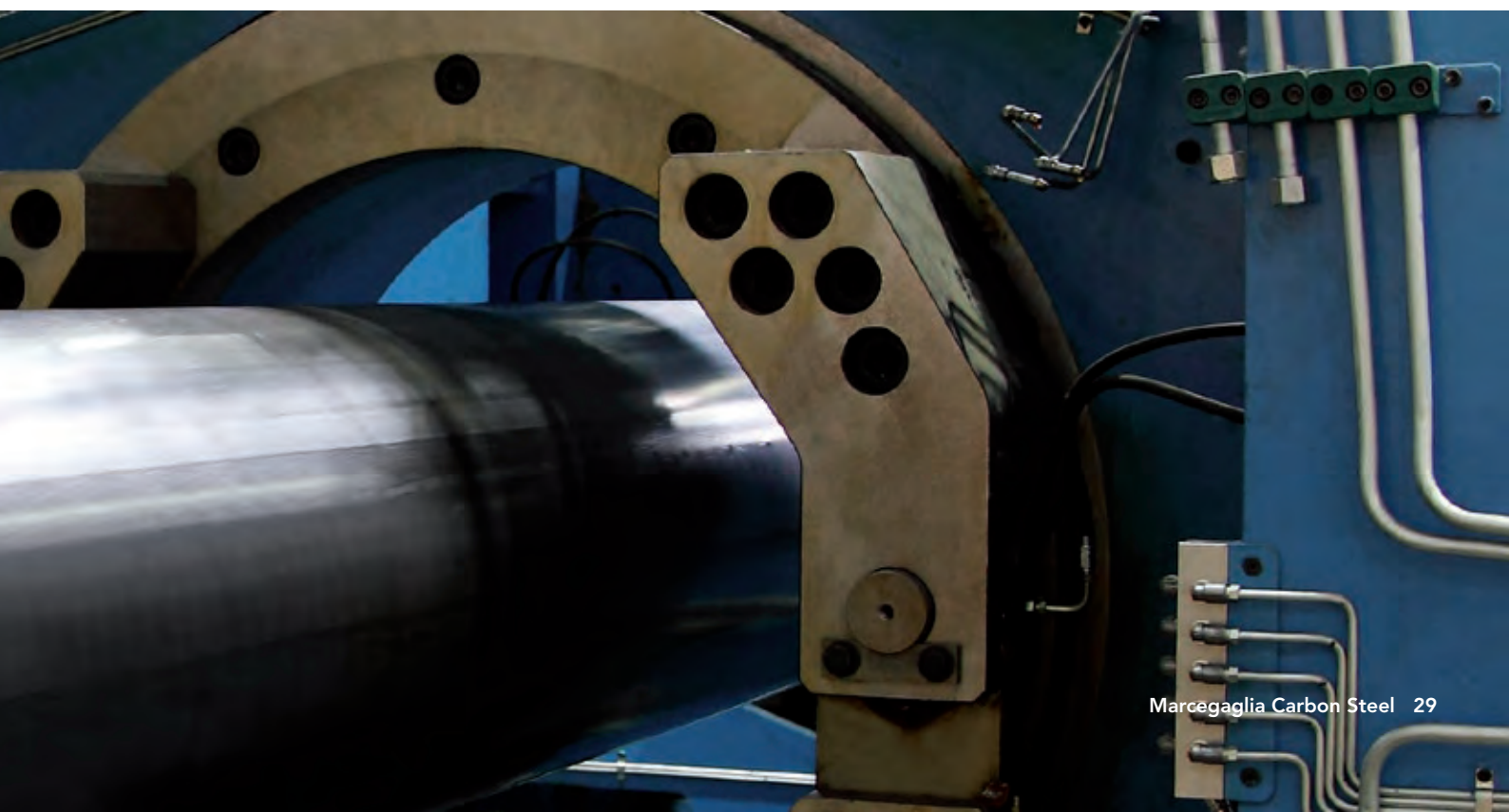
outside diameter (mm)	wall thickness mm																
	1,5	1,8	2	2,5	3	3,3	3,7	4	4,2	4,5	4,7	5	5,6	6	6,3	6,6	
121			5,868	7,305	8,728	9,577	10,701	11,539	12,096	12,926	13,478	14,301	15,934	17,013	17,817	18,617	
122			5,918	7,366	8,802	9,658	10,792	11,638	12,199	13,037	13,593	14,424	16,072	17,161	17,973	18,780	
124			6,016	7,489	8,950	9,821	10,975	11,835	12,406	13,259	13,825	14,671	16,348	17,457	18,283	19,105	
125			6,066	7,551	9,024	9,902	11,066	11,934	12,510	13,370	13,941	14,794	16,486	17,605	18,439	19,268	
127 - 5"			6,164	7,674	9,172	10,065	11,249	12,131	12,717	13,592	14,173	15,041	16,763	17,901	18,749	19,593	
128,5				7,767	9,283	10,187	11,385	12,279	12,872	13,758	14,347	15,226	16,970	18,123	18,982	19,837	
130				7,859	9,394	10,309	11,522	12,427	13,028	13,925	14,521	15,410	17,177	18,345	19,215	20,081	
133				8,044	9,616	10,553	11,796	12,723	13,338	14,258	14,868	15,780	17,591	18,788	19,681	20,570	
139				8,414	10,060	11,042	12,343	13,315	13,960	14,923	15,564	16,520	18,420	19,676	20,613	21,546	
139,70				8,457	10,112	11,098	12,407	13,384	14,032	15,001	15,645	16,606	18,516	19,780	20,722	21,660	
140				8,476	10,134	11,123	12,435	13,413	14,063	15,034	15,679	16,643	18,558	19,824	20,769	21,709	
141,30				8,556	10,230	11,229	12,553	13,541	14,198	15,179	15,830	16,804	18,737	20,016	20,971	21,920	
145				8,784	10,504	11,530	12,891	13,906	14,581	15,589	16,259	17,260	19,248	20,564	21,545	22,522	
146				8,846	10,578	11,611	12,982	14,005	14,685	15,700	16,375	17,383	19,386	20,712	21,701	22,685	
148				8,969	10,726	11,774	13,164	14,202	14,892	15,922	16,607	17,630	19,662	21,008	22,011	23,011	
150				9,092	10,874	11,937	13,347	14,400	15,099	16,144	16,838	17,876	19,938	21,303	22,322	23,336	
152				9,215	11,022	12,099	13,529	14,597	15,306	16,366	17,070	18,123	20,215	21,599	22,633	23,662	
152,40 - 6"				9,240	11,051	12,132	13,566	14,636	15,347	16,410	17,116	18,172	20,270	21,658	22,695	23,727	
159				9,647	11,539	12,669	14,168	15,287	16,031	17,143	17,881	18,986	21,181	22,635	23,720	24,801	
160					11,613	12,750	14,259	15,386	16,134	17,254	17,997	19,109	21,319	22,783	23,875	24,963	
168,30					12,227	13,426	15,016	16,204	16,994	18,174	18,959	20,132	22,465	24,011	25,165	26,314	
170					12,353	13,564	15,172	16,372	17,170	18,363	19,156	20,342	22,700	24,262	25,429	26,591	
173					12,575	13,808	15,445	16,668	17,481	18,696	19,504	20,712	23,114	24,706	25,895	27,079	
177,80					12,930	14,199	15,883	17,141	17,978	19,229	20,060	21,303	23,777	25,416	26,640	27,860	
186,50					13,574	14,906	16,677	17,999	18,879	20,194	21,068	22,376	24,978	26,703	27,992	29,276	
193,70					14,106	15,492	17,334	18,710	19,624	20,993	21,903	23,264	25,972	27,768	29,110	30,448	
201,5					14,683	16,127	18,045	19,479	20,432	21,858	22,806	24,225	27,049	28,922	30,322	31,717	
203					14,809	16,265	18,200	19,646	20,608	22,047	23,003	24,435	27,284	29,174	30,586	31,994	
219,08 - 8N					15,985	17,559	19,651	21,215	22,255	23,811	24,846	26,395	29,480	31,526	33,056	34,581	
244,60					17,871	19,634	21,977	23,730	24,895	26,640	27,801	29,539	33,001	35,299	37,017	38,731	
273,05 - 10N					19,972	21,945	24,568	26,531	27,836	29,791	31,092	33,040	36,922	39,500	41,428	43,352	
323,85 - 12N										33,108	35,439	36,991	39,315	43,950	47,030	49,335	51,636
355,60 - 14N										36,390	38,956	40,665	43,223	48,327	51,720	54,259	56,794
406,40 - 16N										41,651	44,593	46,552	49,486	55,341	59,235	62,150	65,061

Round carbon steel welded precision tubes Tubos redondos soldados de acero al carbono de precisión



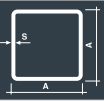
																weight kg/m
wall thickness mm																outside diameter (mm)
7	7,6	8	8,6	9	9,6	10	10,5	11	11,5	12	12,5	13	14	14,2	16	
19,676	21,250	22,290	23,834	24,854	26,369	27,369	28,608	29,835	31,049	32,251	33,441	34,618	36,936			121
19,849	21,438	22,487	24,046	25,076	26,606											122
20,194	21,812	22,881	24,470	25,520	27,079	28,109	29,385	30,648	31,900	33,139	34,365	35,580	37,971			124
20,366	22,000	23,079	24,682	25,742	27,316											125
20,712	22,374	23,473	25,106	26,185	27,789	28,848	30,161	31,462	32,750	34,026	35,290	36,541	39,007			127 - 5"
20,971	22,656	23,769	25,425	26,518	28,144	29,218	30,550	31,869	33,176	34,470						128,5
21,229	22,937	24,065	25,743	26,851	28,499	29,588	30,938	32,276	33,601	34,914	36,215	37,503				130
21,747	23,499	24,657	26,379	27,517	29,209	30,328	31,715	33,089	34,452	35,802	37,139	38,464	41,078			133
22,783	24,623	25,840	27,651	28,848	30,630	31,807	33,268	34,717	36,153	37,577	38,988	40,388	43,149			139
22,904	24,754	25,978	27,799	29,004	30,795	31,980	33,449	34,906	36,351	37,784	39,204	40,612	43,391			139,70
22,955	24,811	26,037	27,863	29,070	30,866	32,054	33,527	34,988	36,436	37,873	39,297	40,708	43,494			140
23,180	25,054	26,294	28,139	29,359	31,174	32,374										141,30
23,818	25,748	27,024	28,923	30,180	32,050	33,287										145
23,991	25,935	27,221	29,135	30,402	32,286	33,533										146
24,336	26,310	27,616	29,559	30,846	32,760	34,026	35,598	37,158	38,705	40,240	41,762	43,273	46,256	46,847	52,075	148
24,681	26,684	28,010	29,984	31,289	33,233	34,519										150
25,027	27,059	28,405	30,408	31,733	33,707	35,013	36,634	38,243	39,839	41,423	42,995	44,555	47,637			152
25,096	27,134	28,483	30,492	31,822	33,801	35,111	36,737	38,351	39,952	41,542	43,118	44,683	47,775	48,387	53,811	152,40 - 6"
26,235	28,371	29,785	31,892	33,287	35,364	36,738	38,446	40,141	41,824	43,494	45,123	46,798	50,053	50,698	56,415	159
26,407	28,558	29,983	32,104	33,508	35,600	36,985										160
27,840	30,114	31,620	33,864	35,350	37,565	39,032	40,854	42,663	44,461	46,246	48,019	49,779	53,263	53,954	60,083	168,30
28,133	30,432	31,955	34,224	35,728	37,967	39,451										170
28,651	30,994	32,547	34,861	36,393	38,677	40,190	42,070	43,938	45,794	47,637	49,468	51,286	54,886	55,600	61,938	173
29,480	31,894	33,494	35,878	37,458	39,814	41,374	43,313	45,240	47,155	49,057	50,947	52,825	56,543	57,280	63,831	177,80
30,981	33,524	35,210	37,723	39,389	41,873	43,519	45,566	47,600	49,622	51,631	53,628	55,613	59,546	60,327	67,263	186,50
32,224	34,873	36,630	39,250	40,987	43,577	45,294	47,430	49,553	51,663	53,761	55,847	57,921	62,031	62,847	70,104	193,70
33,570	36,335	38,169	40,904	42,718	45,424	47,218										201,5
33,864	36,654	38,504	41,264	43,095	45,826	47,637	49,889	52,129	54,357	56,572	58,775	60,966	65,311	66,174	73,852	203
36,608	39,633	41,640	44,636	46,623	49,590	51,557	54,006	56,442	58,865	61,277	63,676	66,063	70,799	71,741	80,124	219,08 - 8N
41,009	44,412	46,670	50,043	52,282	55,626	57,845	60,607	63,358	66,096	68,822	71,535	74,236	79,602	80,669	90,184	244,60
45,911	49,734	52,272	56,065	58,584	62,348	64,847	67,960	71,061	74,149	77,225	80,288	83,340	89,405	90,612	101,388	273,05 - 10N
54,696	59,272	62,312	66,859	69,880	74,396	77,397	81,138	84,866	88,582	92,285	95,976	99,655	106,976	108,434	121,469	323,85 - 12N
60,167	65,212	68,565	73,581	76,914	81,900	85,214	89,345	93,464	97,570	101,665	105,746	109,816	117,918	119,533	133,975	355,60 - 14N
68,935	74,731	78,586	84,353	88,187	93,924	97,739	102,497	107,242	111,975	116,695	121,403	126,099	135,454	137,319	154,016	406,40 - 16N

Round carbon steel welded precision tubes *Tubos redondos soldados de acero al carbono de precisión*



Square carbon steel welded precision tubes

Tubos cuadrados soldados de acero al carbono de precisión

 SQUARE TUBES EN 10305-5 S1, S2, S3, S4 Tubos cuadrados EN 10305-3 S1, S2, S3, S4												
external dimensions	wall thickness mm											
A x A mm - inch	0,6	0,7	0,8	0,9	1	1,1	1,2	1,4	1,5	1,8	2	2,5
9 x 9	0,158	0,182	0,205	0,228	0,250	0,271	0,291	0,331				
10 x 10	0,176	0,204	0,230	0,256	0,281	0,305	0,329	0,375	0,397			
12 x 12	0,214	0,248	0,280	0,312	0,344	0,374	0,405	0,463	0,491			
12,7 x 12,7 - 1/2" x 1/2"	0,227	0,263	0,298	0,332	0,366	0,399	0,431	0,493	0,524	0,611	0,665	
13 x 13	0,233	0,270	0,305	0,341	0,375	0,409	0,442	0,507	0,538	0,628	0,684	
14 x 14	0,252	0,292	0,331	0,369	0,407	0,444	0,480	0,551	0,585	0,684	0,747	
15 x 15	0,271	0,313	0,356	0,397	0,438	0,478	0,518	0,595	0,632	0,741	0,810	
15,5 x 15,5	0,280	0,324	0,368	0,411	0,454	0,495	0,536	0,617	0,656	0,769	0,841	
15,87 x 15,87 - 5/8" x 5/8"	0,287	0,333	0,377	0,422	0,465	0,508	0,550	0,633	0,673	0,790	0,864	1,039
16 x 16	0,290	0,335	0,381	0,425	0,469	0,513	0,555	0,639	0,679	0,797	0,872	1,049
17 x 17	0,308	0,357	0,406	0,454	0,501	0,547	0,593	0,682	0,726	0,854	0,935	1,128
18 x 18	0,327	0,379	0,431	0,482	0,532	0,582	0,631	0,726	0,773	0,910	0,998	1,206
19 x 19	0,346	0,401	0,456	0,510	0,564	0,616	0,668	0,770	0,820	0,967	1,061	1,285
19,05 x 19,05 - 3/4" x 3/4"	0,347	0,403	0,457	0,512	0,565	0,618	0,670	0,773	0,823	0,970	1,064	1,289
20 x 20	0,365	0,423	0,481	0,538	0,595	0,651	0,706	0,814	0,868	1,023	1,124	1,363
22 x 22	0,403	0,467	0,531	0,595	0,658	0,720	0,781	0,902	0,962	1,136	1,249	1,520
22,2 x 22,2 - 7/8" x 7/8"	0,406	0,472	0,536	0,601	0,664	0,727	0,789	0,911	0,971	1,148	1,262	1,536
24 x 24	0,440	0,511	0,582	0,651	0,721	0,789	0,857	0,990	1,056	1,249	1,375	1,677
25 x 25	0,459	0,533	0,607	0,680	0,752	0,823	0,894	1,034	1,103	1,306	1,438	1,756
25,4 x 25,4 - 1" x 1"	0,467	0,542	0,617	0,691	0,764	0,837	0,909	1,052	1,122	1,328	1,463	1,787
27 x 27			0,657	0,736	0,815	0,893	0,970	1,122	1,197	1,419	1,563	1,913
28 x 28			0,682	0,764	0,846	0,927	1,007	1,166	1,244	1,475	1,626	1,991
30 x 30			0,732	0,821	0,909	0,996	1,083	1,254	1,339	1,588	1,752	2,148
31,75 x 31,75 - 1 1/4" x 1 1/4"			0,776	0,870	0,964	1,057	1,149	1,331	1,421	1,687	1,862	2,286
34 x 34			0,833	0,934	1,035	1,134	1,233	1,430	1,527	1,814	2,003	2,462
35 x 35				0,962	1,066	1,169	1,271	1,474	1,574	1,871	2,066	2,541
38 x 38				1,047	1,160	1,272	1,384	1,606	1,715	2,041	2,254	2,776
38,1 x 38,1 - 1 1/2" x 1 1/2"				1,050	1,163	1,276	1,388	1,610	1,720	2,046	2,260	2,784
40 x 40				1,104	1,223	1,342	1,460	1,694	1,810	2,154	2,380	2,933
42 x 42					1,286	1,411	1,535	1,781	1,904	2,267	2,505	3,090
45 x 45					1,380	1,514	1,648	1,913	2,045	2,436	2,694	3,326
48 x 48					1,474	1,618	1,761	2,045	2,186	2,606	2,882	3,561
50 x 50					1,537	1,687	1,836	2,133	2,281	2,719	3,008	3,718
50,8 x 50,8 - 2" x 2"					1,562	1,715	1,867	2,168	2,318	2,764	3,058	3,781
53 x 53									2,422	2,888	3,196	3,954
54 x 54						1,825	1,987	2,309	2,469	2,945	3,259	4,032
55 x 55						1,860	2,025	2,353	2,516	3,001	3,322	4,111
59,3 x 59,3						2,008	2,187	2,542	2,719	3,244	3,592	4,448
60 x 60						2,032	2,213	2,573	2,752	3,284	3,636	4,503
63,5 x 63,5						2,153	2,345	2,727	2,916	3,482	3,855	4,778
64 x 64						2,171	2,364	2,749	2,940	3,510	3,887	4,817
65 x 65									2,987	3,567	3,950	4,896
67 x 67									3,081	3,680	4,075	5,053
70 x 70						2,378	2,590	3,012	3,223	3,849	4,264	5,288
73 x 73									3,364	4,019	4,452	5,524
75 x 75											4,578	5,681
76,2 x 76,2 - 3" x 3"									3,515	4,200	4,653	5,775
80 x 80									3,694	4,414	4,892	6,073
88,9 x 88,9 - 3 1/2" x 3 1/2"										4,917	5,451	6,772
90 x 90											5,520	6,858
100 x 100											6,148	7,643
101,6 x 101,6 - 4" x 4"											6,248	7,769
110 x 110												8,428
120 x 120												9,213
125 x 125												9,606
127 x 127 - 5" x 5"												9,763
130 x 130												9,998
140 x 140												
150 x 150												
152,4 x 152,4 - 6" x 6"												
160 x 160												
175 x 175												
180 x 180												
200 x 200												
220 x 220												
250 x 250												
260 x 260												
300 x 300												
325 x 325												

EN 10305-5 S2, S3, S4


EN 10305-5 S1, S2, S3, S4

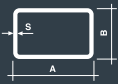
EN 10305-5 S1, S2, S4

												weight kg/m
wall thickness mm												external dimensions
3	4	5	6	7	8	9,6	10	12	12,5	14	16	A x A mm - inch
												9 x 9
												10 x 10
												12 x 12
												12,7 x 12,7 - 1/2" x 1/2"
												13 x 13
												14 x 14
												15 x 15
												15,5 x 15,5
												15,87 x 15,87 - 5/8" x 5/8"
												16 x 16
												17 x 17
1,261												18 x 18
												19 x 19
												19,05 x 19,05 - 3/4" x 3/4"
1,450												20 x 20
1,638												22 x 22
												22,2 x 22,2 - 7/8" x 7/8"
1,827												24 x 24
1,921												25 x 25
1,958												25,4 x 25,4 - 1" x 1"
												27 x 27
2,203												28 x 28
2,392	2,996											30 x 30
2,557												31,75 x 31,75 - 1 1/4" x 1 1/4"
2,769	3,498											34 x 34
2,863	3,624											35 x 35
3,145	4,001											38 x 38
3,155	4,013											38,1 x 38,1 - 1 1/2" x 1 1/2"
3,334	4,252											40 x 40
3,522	4,503											42 x 42
3,805	4,880											45 x 45
4,087	5,257											48 x 48
4,276	5,508	6,644										50 x 50
4,351	5,609	6,769										50,8 x 50,8 - 2" x 2"
4,558	5,885											53 x 53
4,653	6,010	7,272										54 x 54
4,747	6,136	7,429										55 x 55
												59,3 x 59,3
5,218	6,764	8,214										60 x 60
5,547	7,204	8,763										63,5 x 63,5
5,595	7,266	8,842										64 x 64
5,689	7,392	8,999	10,509									65 x 65
5,877	7,643	9,313										67 x 67
6,160	8,020	9,784	11,451									70 x 70
6,442	8,397	10,255										73 x 73
6,631	8,648	10,569	12,393									75 x 75
6,744	8,799	10,757	12,619									76,2 x 76,2 - 3" x 3"
7,102	9,276	11,354	13,335	15,220	17,008							80 x 80
7,940	10,394	12,751	15,012									88,9 x 88,9 - 3 1/2" x 3 1/2"
8,044	10,532	12,924	15,219	17,418	19,520							90 x 90
8,986	11,788	14,494	17,103	19,616	22,032	25,698	26,575	30,733				100 x 100
9,137	11,989	14,745	17,405	19,968								101,6 x 101,6 - 4" x 4"
9,928	13,044	16,064	18,987	21,814								110 x 110
10,870	14,300	17,634	20,871	24,012	27,056	31,726	32,855	38,269				120 x 120
11,341	14,928	18,419	21,813	25,111	28,312							125 x 125
11,529	15,179	18,733	22,190	25,551	28,815							127 x 127 - 5" x 5"
11,812	15,556	19,204	22,755	26,210	29,568							130 x 130
12,754	16,812	20,774	24,639	28,408	32,080	37,755	39,135	45,805				140 x 140
13,696	18,068	22,344	26,523	30,606	34,592	40,770	42,275	49,573	51,337	56,484		150 x 150
13,922	18,370	22,721	26,975	31,133	35,195							152,4 x 152,4 - 6" x 6"
14,638	19,324	23,914	28,407	32,804	37,104	43,784	45,415	53,341	55,262	60,880		160 x 160
16,051	21,208	26,269	31,233	36,101	40,872							175 x 175
16,522	21,836	27,054	32,175	37,200	42,128	49,813	51,695	60,877	63,112	69,672	78,081	180 x 180
18,406	24,348	30,194	35,943	41,596	47,152	55,842	57,975	68,413	70,962	78,464		200 x 200
20,290	26,860	33,334	39,711	45,992	52,176	61,870	64,255	75,949	78,812	87,256		220 x 220
		38,044	45,363	52,586	59,712	70,914	73,675	87,253	90,587	100,444		250 x 250
		39,614	47,247	54,784	62,224	73,928	76,815	91,021	94,512	104,840		260 x 260
		45,894	54,783	63,576	72,272	85,986	89,375	106,093	110,212	122,424		300 x 300
		49,819	59,493	69,071	78,552	93,522	97,225	115,513	120,024	133,414		325 x 325

Rectangular carbon steel welded tubes

Tubos rectangulares soldados de acero al carbono

 RECTANGULAR TUBES EN 10305-5 S2, S3, S4 Tubos rectangulares EN 10305-5 S2, S3, S4		weight kg/m											
external dimensions		wall thickness mm											
A x B mm - inches	0,6	0,7	0,8	0,9	1	1,1	1,2	1,4	1,5	1,8	2	2,5	3
12 x 10	0,195	0,226	0,255	0,284	0,312	0,340	0,367	0,419	0,444				
15 x 10	0,224	0,259	0,293	0,326	0,359	0,392	0,423	0,485	0,514				
16 x 10	0,233	0,270	0,305	0,341	0,375	0,409	0,442	0,507	0,538				
16 x 18	0,308	0,357	0,406	0,454	0,501	0,547	0,593	0,682	0,726				
16,5 x 13,5	0,271	0,313	0,356	0,397	0,438	0,478	0,518	0,595	0,632				
18 x 5	0,205	0,237	0,268	0,298	0,328	0,357	0,386	0,441	0,467				
18 x 10	0,252	0,292	0,331	0,369	0,407	0,444	0,480	0,551	0,585				
18 x 11	0,261	0,302	0,343	0,383	0,422	0,461	0,499	0,573	0,609				
20 x 9	0,261	0,302	0,343	0,383	0,422	0,461	0,499	0,573	0,609				
20 x 10	0,271	0,313	0,356	0,397	0,438	0,478	0,518	0,595	0,632	0,741	0,810		
20 x 15		0,368	0,418	0,468	0,516	0,564	0,612	0,704	0,750	0,882	0,967		
20 x 15,5		0,374	0,425	0,475	0,524	0,573	0,621	0,715	0,762	0,896	0,982		
24 x 18		0,445	0,506	0,567	0,626	0,685	0,744	0,858	0,915	1,080	1,186		
25 x 10		0,368	0,418	0,468	0,516	0,564	0,612	0,704	0,750	0,882	0,967		
25,4 x 12,7 - 1" x 1/2"		0,403	0,457	0,512	0,565	0,618	0,670	0,773	0,823	0,970	1,064	1,289	1,360
25 x 15		0,423	0,481	0,538	0,595	0,651	0,706	0,814	0,868	1,023	1,124		
25 x 20		0,478	0,544	0,609	0,673	0,737	0,800	0,924	0,985	1,165	1,281	1,559	1,685
28 x 25		0,566	0,645	0,722	0,799	0,875	0,951	1,100	1,174	1,391	1,532		
30 x 10		0,423	0,481	0,538	0,595	0,651	0,706	0,814	0,868	1,023	1,124		
30 x 12		0,445	0,506	0,567	0,626	0,685	0,744	0,858	0,915	1,080	1,186		
30 x 15		0,478	0,544	0,609	0,673	0,737	0,800	0,924	0,985	1,165	1,281	1,559	
30 x 18		0,511	0,582	0,651	0,721	0,789	0,857	0,990	1,056	1,249	1,375		
30 x 20		0,607	0,680	0,752	0,823	0,894	0,989	1,103	1,103	1,306	1,438	1,756	1,921
30 x 25		0,670	0,750	0,830	0,910	0,989	1,089	1,221	1,221	1,447	1,595	1,952	2,156
31,75 x 19,05 - 1 1/4" x 3/4"		0,617	0,691	0,764	0,837	0,909	1,002	1,122	1,122	1,328	1,463	1,787	1,958
33 x 20		0,645	0,722	0,799	0,875	0,951	1,034	1,100	1,174	1,391	1,532		
34,9 x 15,8		0,616	0,690	0,763	0,836	0,908	1,000	1,100	1,120	1,326	1,460	1,783	1,954
35 x 10		0,544	0,609	0,673	0,737	0,800	0,874	0,924	0,985	1,165	1,281	1,559	
35 x 15		0,607	0,680	0,752	0,823	0,894	0,989	1,103	1,103	1,306	1,438	1,756	1,921
35 x 20		0,670	0,750	0,830	0,910	0,989	1,089	1,221	1,221	1,447	1,595	1,952	2,156
35 x 25		0,732	0,821	0,909	0,996	1,083	1,254	1,339	1,339	1,588	1,752	2,148	2,392
35 x 30		0,795	0,892	0,987	1,083	1,177	1,364	1,456	1,456	1,730	1,909	2,344	2,627
38 x 19		0,695	0,779	0,862	0,944	1,026	1,188	1,268	1,268	1,504	1,657	2,030	
38,1 x 19,05 - 1 1/2" x 3/4"		0,697	0,781	0,864	0,947	1,029	1,191	1,271	1,271	1,508	1,662	2,036	2,258
38,1 x 25,4 - 1 1/2" x 1"		0,776	0,870	0,964	1,057	1,149	1,331	1,421	1,421	1,687	1,862	2,286	2,557
40 x 10		0,607	0,680	0,752	0,823	0,894	1,034	1,034	1,103	1,306	1,438	1,756	
40 x 15		0,670	0,750	0,830	0,910	0,989	1,144	1,221	1,221	1,447	1,595	1,952	
40 x 20		0,732	0,821	0,909	0,996	1,083	1,254	1,339	1,339	1,588	1,752	2,148	2,392
40 x 22		0,758	0,849	0,940	1,031	1,120	1,298	1,386	1,386	1,645	1,814	2,227	2,486
40 x 25		0,795	0,892	0,987	1,083	1,177	1,364	1,456	1,456	1,730	1,909	2,344	2,627
40 x 27		0,820	0,920	1,019	1,117	1,215	1,408	1,503	1,503	1,786	1,971	2,423	2,721
40 x 30		0,858	0,962	1,066	1,169	1,271	1,474	1,574	1,574	1,871	2,066	2,541	2,863
40 x 35		0,921	1,033	1,144	1,255	1,365	1,584	1,692	1,692	2,012	2,223	2,737	3,098
42,5 x 29		0,877	0,983	1,089	1,195	1,299	1,507	1,609	1,609	1,913	2,113	2,600	2,933
45 x 10		0,670	0,750	0,830	0,910	0,989	1,144	1,221	1,221	1,447	1,595	1,952	2,156
45 x 15		0,732	0,821	0,909	0,996	1,083	1,254	1,339	1,339	1,588	1,752	2,148	
45 x 20		0,795	0,892	0,987	1,083	1,177	1,364	1,456	1,456	1,730	1,909	2,344	2,627
45 x 25		0,858	0,962	1,066	1,169	1,271	1,474	1,574	1,574	1,871	2,066	2,541	2,863
45 x 30		0,921	1,033	1,144	1,255	1,365	1,584	1,692	1,692	2,012	2,223	2,737	3,098
45 x 35		0,984	1,104	1,223	1,342	1,460	1,694	1,810	1,810	2,154	2,380	2,933	3,334
45 x 40		1,046	1,174	1,301	1,428	1,554	1,803	1,927	1,927	2,295	2,537	3,129	3,569
48 x 20		0,833	0,934	1,035	1,134	1,233	1,430	1,527	1,527	1,814	2,003	2,462	2,769
50 x 10		0,732	0,821	0,909	0,996	1,083	1,254	1,339	1,339	1,588	1,752	2,148	
50 x 15		0,795	0,892	0,987	1,083	1,177	1,364	1,456	1,456	1,730	1,909	2,344	2,627
50 x 20		0,858	0,962	1,066	1,169	1,271	1,474	1,574	1,574	1,871	2,066	2,541	2,863
50 x 25		0,921	1,033	1,144	1,255	1,365	1,584	1,692	1,692	2,012	2,223	2,737	3,098
50 x 30		0,984	1,104	1,223	1,342	1,460	1,694	1,810	1,810	2,154	2,380	2,933	3,334
50 x 35					1,301	1,428	1,554	1,803	1,803	2,295	2,537	3,129	3,569
50 x 40					1,380	1,514	1,648	1,913	1,913	2,436	2,694	3,326	3,805
50 x 45					1,458	1,601	1,742	2,023	2,023	2,578	2,851	3,522	4,040
50,8 x 25,4 - 2" x 1"					1,163	1,276	1,388	1,610	1,610	2,046	2,260	2,784	3,155
50,8 x 38,1 - 2" x 1 1/2"					1,363	1,495	1,627	1,889	1,889	2,405	2,659	3,283	3,753
53,5 x 25					1,199	1,316	1,431	1,661	1,661	2,111	2,333	2,874	



RECTANGULAR TUBES EN 10305-5 S2, S3, S4

Tubos rectangulares EN 10305-5 S2, S3, S4

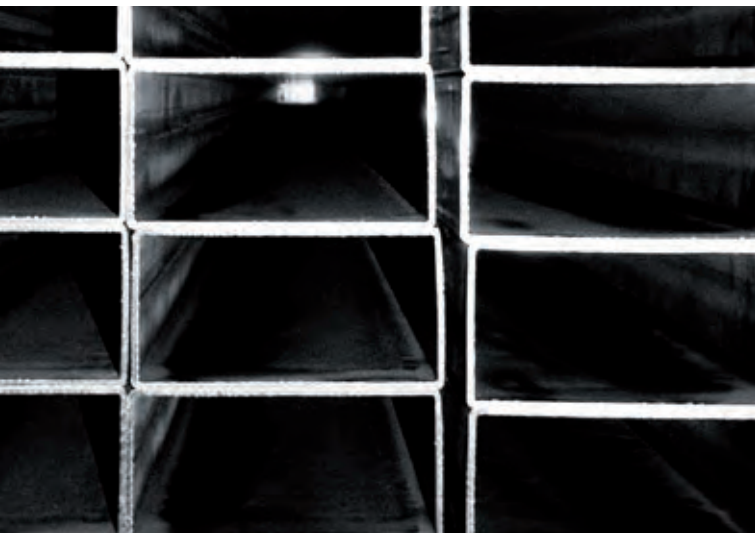
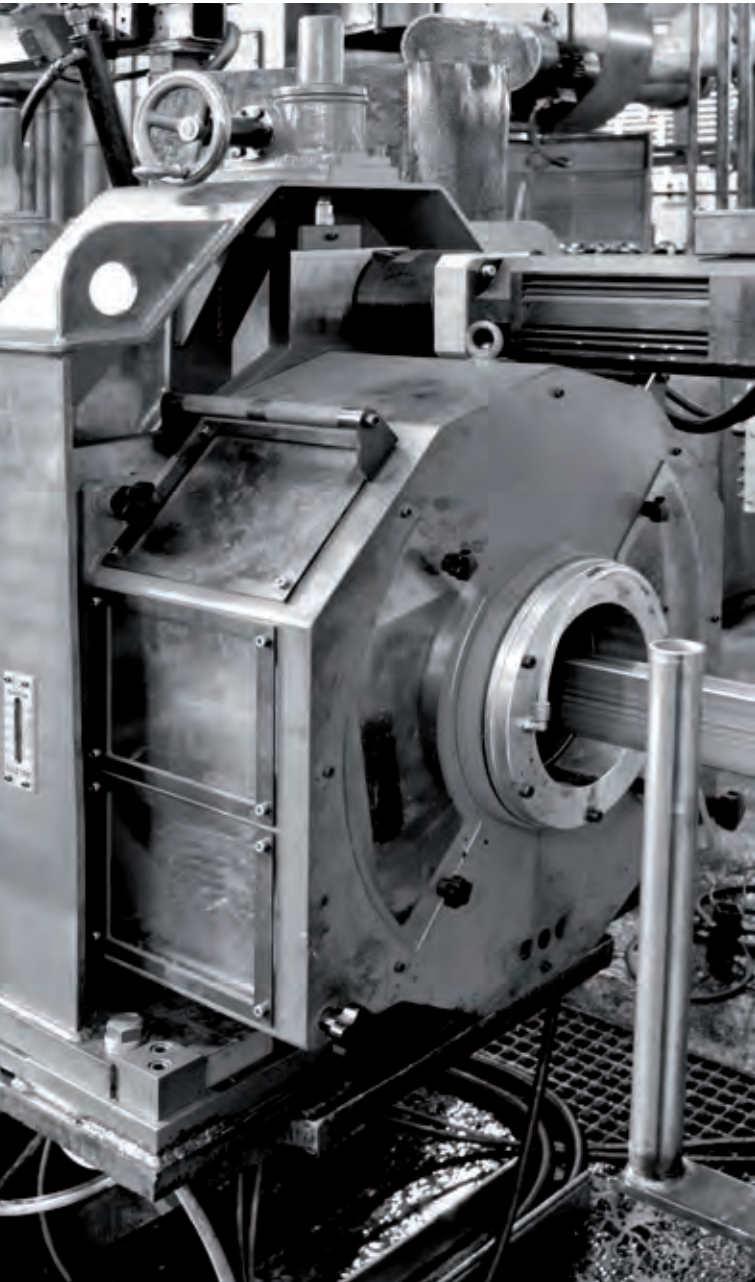
weight
kg/m

external dimensions A x B mm - inches	wall thickness mm												
	0,6	0,7	0,8	0,9	1	1,1	1,2	1,4	1,5	1,8	2	2,5	3
55 x 20					1,144	1,255	1,365	1,584	1,692	2,012	2,223	2,737	3,098
55 x 34									2,022	2,408	2,662	3,286	3,758
55 x 40					1,458	1,601	1,742	2,023	2,163	2,578	2,851	3,522	4,040
60 x 10					1,066	1,169	1,271	1,474	1,574	1,871	2,066	2,541	2,863
60 x 15					1,144	1,255	1,365	1,584	1,692	2,012	2,223	2,737	3,098
60 x 20					1,223	1,342	1,460	1,694	1,810	2,154	2,380	2,933	3,334
60 x 25					1,301	1,428	1,554	1,803	1,927	2,295	2,537	3,129	3,569
60 x 30					1,380	1,514	1,648	1,913	2,045	2,436	2,694	3,326	3,805
60 x 34					1,443	1,583	1,723	2,001	2,139	2,549	2,819	3,483	3,993
60 x 35						1,601	1,742	2,023	2,163	2,578	2,851	3,522	4,040
60 x 40						1,687	1,836	2,133	2,281	2,719	3,008	3,718	4,276
60 x 45						1,773	1,931	2,243	2,398	2,860	3,165	3,914	4,511
60 x 50						1,860	2,025	2,353	2,516	3,001	3,322	4,111	4,747
63,5 x 38,1 - 2½" x 1½"						1,715	1,867	2,168	2,318	2,764	3,058	3,781	4,351
65 x 35						1,687	1,836	2,133	2,281	2,719	3,008	3,718	4,276
70 x 10					1,342	1,460	1,694	1,810	2,154	2,380	2,933		
70 x 11					1,359	1,478	1,716	1,833	2,182	2,411	2,972		
70 x 15					1,428	1,554	1,803	1,927	2,295	2,537	3,129	3,569	
70 x 20					1,514	1,648	1,913	2,045	2,436	2,694	3,326	3,805	
70 x 25					1,601	1,742	2,023	2,163	2,578	2,851	3,522	4,040	
70 x 30					1,687	1,836	2,133	2,281	2,719	3,008	3,718	4,276	
70 x 35								2,398	2,860	3,165	3,914	4,511	
70 x 40					1,860	2,025	2,353	2,516	3,001	3,322	4,111	4,747	
70 x 50					2,032	2,213	2,573	2,752	3,284	3,636	4,503	5,218	
75 x 50								2,869	3,425	3,793	4,699	5,453	
76 x 34					1,860	2,025	2,353	2,516	3,001	3,322	4,111	4,747	
76 x 55								3,011	3,595	3,981	4,935	5,736	
76,2 x 25,4 - 3" x 1"					1,715	1,867	2,168	2,318	2,764	3,058	3,781	4,351	
76,2 x 38,1 - 3" x 1½"					1,934	2,106	2,447	2,617	3,123	3,457	4,279	4,949	
76,2 x 50,8 - 3" x 2"								2,916	3,482	3,855	4,778	5,547	
80 x 10					1,514	1,648	1,913	2,045	2,436	2,694	3,326		
80 x 15					1,601	1,742	2,023	2,163	2,578	2,851	3,522		
80 x 20					1,687	1,836	2,133	2,281	2,719	3,008	3,718	4,276	
80 x 22					1,722	1,874	2,177	2,328	2,775	3,070	3,797		
80 x 25					1,773	1,931	2,243	2,398	2,860	3,165	3,914	4,511	
80 x 30					1,860	2,025	2,353	2,516	3,001	3,322	4,111	4,747	
80 x 35					1,946	2,119	2,463	2,634	3,143	3,479	4,307	4,982	
80 x 40					2,032	2,213	2,573	2,752	3,284	3,636	4,503	5,218	
80 x 45								2,869	3,425	3,793	4,699	5,453	
80 x 50								2,987	3,567	3,950	4,896	5,689	
80 x 60								3,223	3,849	4,264	5,288	6,160	

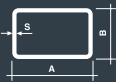


Rectangular carbon steel welded tubes

Tubos rectangulares soldados de acero al carbono



external dimensions A x B mm - inches	wall thickness mm							weight kg/m
	1,5	1,8	2	2,5	3	4	5	
12 x 10	0,444							
15 x 10	0,514							
16 x 10	0,538							
16 x 18	0,726							
16,5 x 13,5	0,632							
18 x 5	0,467							
18 x 10	0,585							
18 x 11	0,609							
20 x 9	0,609							
20 x 10	0,632	0,741	0,810					
20 x 15	0,750	0,882	0,967					
20 x 15,5	0,762	0,896	0,982					
24 x 18	0,915	1,080	1,186					
25 x 10	0,750	0,882	0,967					
25,4 x 12,7 - 1" x 1/2"	0,823	0,970	1,064	1,289	1,360			
25 x 15	0,868	1,023	1,124					
25 x 20	0,985	1,165	1,281	1,559	1,685			
28 x 25	1,174	1,391	1,532					
30 x 10	0,868	1,023	1,124					
30 x 12	0,915	1,080	1,186					
30 x 15	0,985	1,165	1,281	1,559				
30 x 18	1,056	1,249	1,375					
30 x 20	1,103	1,306	1,438	1,756	1,921			
30 x 25	1,221	1,447	1,595	1,952	2,156			
31,75 x 19,05 - 1 1/4" x 3/4"	1,122	1,328	1,463	1,787	1,958			
33 x 20	1,174	1,391	1,532					
34,9 x 15,8	1,120	1,326	1,460	1,783	1,954			
35 x 10	0,985	1,165	1,281	1,559				
35 x 15	1,103	1,306	1,438	1,756	1,921			
35 x 20	1,221	1,447	1,595	1,952	2,156			
35 x 25	1,339	1,588	1,752	2,148	2,392			
35 x 30	1,456	1,730	1,909	2,344	2,627	3,310		
38 x 19	1,268	1,504	1,657	2,030				
38,1 x 19,05 - 1 1/2" x 3/4"	1,271	1,508	1,662	2,036	2,258			
38,1 x 25,4 - 1 1/2" x 1"	1,421	1,687	1,862	2,286	2,557			
40 x 10	1,103	1,306	1,438	1,756				
40 x 15	1,221	1,447	1,595	1,952				
40 x 20	1,339	1,588	1,752	2,148	2,392	2,996		
40 x 22	1,386	1,645	1,814	2,227	2,486	3,122		
40 x 25	1,456	1,730	1,909	2,344	2,627	3,310		
40 x 27	1,503	1,786	1,971	2,423	2,721	3,436		
40 x 30	1,574	1,871	2,066	2,541	2,863	3,624		
40 x 35	1,692	2,012	2,223	2,737	3,098	3,938		
42,5 x 29	1,609	1,913	2,113	2,600	2,933	3,718		
45 x 10	1,221	1,447	1,595	1,952	2,156			
45 x 15	1,339	1,588	1,752	2,148				
45 x 20	1,456	1,730	1,909	2,344	2,627	3,310		
45 x 25	1,574	1,871	2,066	2,541	2,863	3,624		
45 x 30	1,692	2,012	2,223	2,737	3,098	3,938		
45 x 35	1,810	2,154	2,380	2,933	3,334	4,252		
45 x 40	1,927	2,295	2,537	3,129	3,569	4,566		
48 x 20	1,527	1,814	2,003	2,462	2,769			
50 x 10	1,339	1,588	1,752	2,148				
50 x 15	1,456	1,730	1,909	2,344	2,627			
50 x 20	1,574	1,871	2,066	2,541	2,863			
50 x 25	1,692	2,012	2,223	2,737	3,098	3,938		
50 x 30	1,810	2,154	2,380	2,933	3,334	4,252		
50 x 35	1,927	2,295	2,537	3,129	3,569	4,566		
50 x 40	2,045	2,436	2,694	3,326	3,805	4,880		
50 x 45	2,163	2,578	2,851	3,522	4,040	5,194		
50,8 x 25,4 - 2" x 1"	1,720	2,046	2,260	2,784	3,155	4,013		
50,8 x 38,1 - 2" x 1 1/2"	2,019	2,405	2,659	3,283	3,753	4,811	5,772	
53,5 x 25	1,774	2,111	2,333	2,874				
55 x 20	1,692	2,012	2,223	2,737	3,098			
55 x 34	2,022	2,408	2,662	3,286	3,758	4,817		

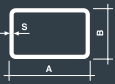


RECTANGULAR TUBES
EN 10305-5 S1, S2, S4

Tubos rectangulares EN 10305-5 S1, S2, S4

weight
kg/m

external dimensions	wall thickness mm															
	A x B mm - inches	1,5	1,8	2	2,5	3	4	5	6	7	8	9	10	12	12,5	14
55 x 40	2,163	2,578	2,851	3,522	4,040	5,194										
60 x 10	1,574	1,871	2,066	2,541	2,863											
60 x 15	1,692	2,012	2,223	2,737	3,098											
60 x 20	1,810	2,154	2,380	2,933	3,334	4,252										
60 x 25	1,927	2,295	2,537	3,129	3,569	4,566										
60 x 30	2,045	2,436	2,694	3,326	3,805	4,880										
60 x 34	2,139	2,549	2,819	3,483	3,993	5,131										
60 x 35	2,163	2,578	2,851	3,522	4,040	5,194										
60 x 40	2,281	2,719	3,008	3,718	4,276	5,508	6,644									
60 x 45	2,398	2,860	3,165	3,914	4,511	5,822	7,036									
60 x 50	2,516	3,001	3,322	4,111	4,747	6,136	7,429									
63,5 x 38,1 - 2 1/2" x 1 1/2"	2,318	2,764	3,058	3,781	4,351	5,609	6,769									
65 x 35	2,281	2,719	3,008	3,718	4,276	5,508										
70 x 10	1,810	2,154	2,380	2,933												
70 x 11	1,833	2,182	2,411	2,972												
70 x 15	1,927	2,295	2,537	3,129	3,569	4,566										
70 x 20	2,045	2,436	2,694	3,326	3,805	4,880										
70 x 25	2,163	2,578	2,851	3,522	4,040	5,194										
70 x 30	2,281	2,719	3,008	3,718	4,276	5,508										
70 x 35	2,398	2,860	3,165	3,914	4,511	5,822										
70 x 40	2,516	3,001	3,322	4,111	4,747	6,136	7,429									
70 x 50	2,752	3,284	3,636	4,503	5,218	6,764	8,214									
75 x 50	2,869	3,425	3,793	4,699	5,453	7,078										
76 x 34	2,516	3,001	3,322	4,111	4,747											
76 x 55	3,011	3,595	3,981	4,935	5,736	7,455										
76,2 x 25,4 - 3" x 1"	2,318	2,764	3,058	3,781	4,351	5,609	6,769									
76,2 x 38,1 - 3" x 1 1/2"	2,617	3,123	3,457	4,279	4,949	6,406	7,766									
76,2 x 50,8 - 3" x 2"	2,916	3,482	3,855	4,778	5,547	7,204	8,763									
80 x 10	2,045	2,436	2,694	3,326												
80 x 15	2,163	2,578	2,851	3,522												
80 x 20	2,281	2,719	3,008	3,718	4,276											
80 x 22	2,328	2,775	3,070	3,797												
80 x 25	2,398	2,860	3,165	3,914	4,511	5,822										
80 x 30	2,516	3,001	3,322	4,111	4,747	6,136										
80 x 35	2,634	3,143	3,479	4,307	4,982	6,450	7,821									
80 x 40	2,752	3,284	3,636	4,503	5,218	6,764	8,214									
80 x 45	2,869	3,425	3,793	4,699	5,453	7,078	8,606									
80 x 50	2,987	3,567	3,950	4,896	5,689	7,392	8,999									
80 x 60	3,223	3,849	4,264	5,288	6,160	8,020	9,784	11,451								
83 x 37	2,752	3,284	3,636	4,503	5,218	6,764										
86 x 46	3,034	3,623	4,012	4,974	5,783	7,518	9,156									
88,9 x 38,1 - 3 1/2" x 1 1/2"	2,916	3,482	3,855	4,778	5,547	7,204	8,763									
90 x 20	2,516	3,001	3,322	4,111	4,747											
90 x 30	2,752	3,284	3,636	4,503	5,218	6,764										
90 x 40	2,987	3,567	3,950	4,896	5,689	7,392	8,999	10,509								
90 x 50	3,223	3,849	4,264	5,288	6,160	8,020	9,784	11,451								
90 x 60			4,578	5,681	6,631	8,648	10,569	12,393								
90 x 70			4,892	6,073	7,102	9,276	11,354	13,335								
100 x 20	2,752	3,284	3,636	4,503	5,218	6,764										
100 x 25	2,869	3,425	3,793	4,699	5,453	7,078										
100 x 30	2,987	3,567	3,950	4,896	5,689	7,392										
100 x 35 b.t.	3,105	3,708	4,107	5,092	5,924	7,706										
100 x 40	3,223	3,849	4,264	5,288	6,160	8,020	9,784	11,451								
100 x 50			4,578	5,681	6,631	8,648	10,569	12,393								
100 x 60			4,892	6,073	7,102	9,276	11,354	13,335	15,220	17,008						
100 x 70			5,206	6,466	7,573	9,904	12,139	14,277								
100 x 80			5,520	6,858	8,044	10,532	12,924	15,219	17,418	19,520						
101,6 x 50,8 - 4" x 2"		4,200	4,653	5,775	6,744	8,799	10,757	12,619								
101,6 x 76,2 - 4" x 3"		4,917	5,451	6,772	7,940	10,394	12,751	15,012								
103 x 87			5,834	7,251	8,515	11,160										
106 x 34	3,223	3,849	4,264	5,288	6,160	8,020										
110 x 30			4,264	5,288	6,160	8,020										
110 x 50			4,892	6,073	7,102	9,276	11,354	13,335								
110 x 70			5,520	6,858	8,044	10,532	12,924	15,219								
120 x 30			4,578	5,681	6,631	8,648										



RECTANGULAR TUBES EN 10305-5 S1, S2, S4

Tubos rectangulares EN 10305-5 S1, S2, S4

weight
kg/m

external dimensions A x B mm - inches	wall thickness mm														
	1,5	1,8	2	2,5	3	4	5	6	7	8	9	10	12	12,5	14
120 x 40			4,892	6,073	7,102	9,276	11,354	13,335							
120 x 50			5,206	6,466	7,573	9,904	12,139	14,277							
120 x 60			5,520	6,858	8,044	10,532	12,924	15,219	17,418	19,520					
120 x 80			6,148	7,643	8,986	11,788	14,494	17,103	19,616	22,032					
120 x 100				8,428	9,928	13,044	16,064	18,987							
126 x 34			4,892	6,073	7,102	9,276	11,354								
127 x 50,8 - 5" x 2"			5,451	6,772	7,940	10,394	12,751	15,012							
127 x 76,2 - 5" x 3"			6,248	7,769	9,137	11,989	14,745	17,405	19,968						
130 x 50			5,520	6,858	8,044	10,532	12,924	15,219							
130 x 60			5,834	7,251	8,515	11,160	13,709	16,161	18,517						
140 x 40			5,520	6,858	8,044	10,532	12,924	15,219							
140 x 50			5,834	7,251	8,515	11,160	13,709	16,161	18,517						
140 x 60			6,148	7,643	8,986	11,788	14,494	17,103	19,616						
140 x 70				8,036	9,457	12,416	15,279	18,045	20,715	23,288					
140 x 80				8,428	9,928	13,044	16,064	18,987	21,814	24,544					
140 x 100					10,870	14,300	17,634								
150 x 30			5,520	6,858	8,044	10,532	12,924								
150 x 40			5,834	7,251	8,515	11,160	13,709	16,161							
150 x 50			6,148	7,643	8,986	11,788	14,494	17,103							
150 x 60				8,036	9,457	12,416	15,279	18,045	20,715						
150 x 70				8,428	9,928	13,044	16,064	18,987	21,814						
150 x 75				8,624	10,163	13,358	16,456	19,458	22,363						
150 x 100					11,341	14,928	18,419	21,813	25,111	28,312	31,417	34,425	40,153		
152,4 x 50,8 - 6" x 2"			6,248	7,769	9,137	11,989	14,745	17,405	19,968						
152,4 x 76,2 - 6" x 3"				8,766	10,333	13,584	16,739	19,797							
152,4 x 101,6 - 6" x 4"				9,763	11,529	15,179	18,733	22,190	25,551						
160 x 50				8,036	9,457	12,416	15,279	18,045	20,715						
160 x 60				8,428	9,928	13,044	16,064	18,987	21,814						
160 x 80					10,870	14,300	17,634	20,871	24,012	27,056					
160 x 90					11,341	14,928	18,419	21,813	25,111	28,312	31,417	34,425	40,153		
160 x 100					11,812	15,556	19,204	22,755	26,210	29,568					
160 x 120					12,754	16,812	20,774	24,639	28,408	32,080					
160 x 140					13,696	18,068	22,344	26,523	30,606	34,592					
180 x 50					10,399	13,672	16,849	19,929	22,913	25,800					
180 x 60					10,870	14,300	17,634	20,871	24,012	27,056					
180 x 80					11,812	15,556	19,204	22,755	26,210	29,568					
180 x 100					12,754	16,812	20,774	24,639	28,408	32,080	35,656	39,135	45,805	47,412	52,088
180 x 120					13,696	18,068	22,344	26,523	30,606	34,592					
180 x 140					14,638	19,324	23,914	28,407	32,804	37,104					
180 x 150					15,109	19,952	24,699	29,349	33,903	38,360					
200 x 40					10,870	14,300	17,634	20,871	24,012	27,056					
200 x 60					11,812	15,556	19,204	22,755	26,210	29,568					
200 x 70					12,283	16,184	19,989	23,697	27,309	30,824					
200 x 80					12,754	16,812	20,774	24,639	28,408	32,080					
200 x 100					13,696	18,068	22,344	26,523	30,606	34,592	38,482	42,275	49,573	51,337	56,484
200 x 120					14,638	19,324	23,914	28,407	32,804	37,104	41,308	45,415	53,341	55,262	60,880
200 x 150					16,051	21,208	26,269	31,233	36,101	40,872	45,547	50,125	58,993		
200 x 160					16,522	21,836	27,054	32,175	37,200	42,128					
203,2 x 101,6 - 8" x 4"					13,922	18,370	22,721	26,975	31,133	35,195					
220 x 120					15,580	20,580	25,484	30,291	35,002	39,616					
220 x 140					16,522	21,836	27,054	32,175	37,200	42,128	46,960	51,695	60,877	63,112	69,672
230 x 80					14,167	18,696	23,129	27,465	31,705	35,848					
250 x 100					16,051	21,208	26,269	31,233	36,101	40,872	45,547	50,125	58,993		
250 x 150					18,406	24,348	30,194	35,943	41,596	47,152	52,612	57,975	68,413	70,962	78,464
250 x 200					20,761	27,488	34,119	40,653	47,091	53,432					
260 x 140					18,406	24,348	30,194	35,943	41,596	47,152	52,612	57,975	68,413	70,962	78,464
300 x 100					18,406	24,348	30,194	35,943	41,596	47,152	52,612	57,975	68,413	70,962	78,464
300 x 150					20,761	27,488	34,119	40,653	47,091	53,432	59,677	65,825	77,833	80,774	89,454
300 x 200							38,044	45,363	52,586	59,712	66,742	73,675	87,253	90,587	100,444
300 x 220							39,614	47,247	54,784	62,224					
350 x 150							38,044	45,363	52,586	59,712	66,742	73,675	87,253	90,587	100,444
350 x 250							45,894	54,783	63,576	72,272					
400 x 200							45,894	54,783	63,576	72,272	80,872	89,375	106,093	110,212	122,424
400 x 250							49,819	59,493	69,071	78,552	87,937	97,225	115,513	120,024	133,414



Structural round tubes

Tubos estructurales redondos



STRUCTURAL ROUND TUBES EN 10219 / EN 10210 - S235JRH, S275J0H/J2H, S355J0H/J2H

Tubos estructurales redondos EN 10219 / EN 10210 - S235JRH, S275J0H/J2H, S355J0H/J2H

outside diameter mm	wall thickness mm												
	3	4	4,2	4,5	4,7	5	5,6	6	6,3	6,6	7	7,6	8
48,3 - 1½"	3,351	4,369	4,567	4,860	5,053	5,338	5,896	6,258	6,524	6,786	7,128	7,627	7,949
50	3,477	4,537	4,743	5,048	5,250	5,548	6,131	6,509	6,788	7,063	7,422	7,945	8,285
50,8 - 2"	3,536	4,635	4,847	5,159	5,366	5,671	6,269	6,657	6,944	7,225	7,594	8,133	8,482
54	3,772	4,931	5,157	5,492	5,713	6,041	6,683	7,101	7,410	7,714	8,112	8,695	9,074
55	3,846	5,030	5,261	5,603	5,829	6,164	6,821	7,249	7,565	7,876	8,285	8,882	9,271
60,30 - 2"	4,238	5,553	5,810	6,191	6,443	6,818	7,553	8,033	8,388	8,739	9,199	9,876	10,316
63	4,438	5,819	6,089	6,491	6,756	7,150	7,926	8,433	8,808	9,178	9,665	10,381	10,849
65	4,586	6,016	6,296	6,713	6,988	7,397	8,202	8,728	9,118	9,504	10,011	10,756	11,243
70	4,956	6,509	6,814	7,268	7,567	8,013	8,892	9,468	9,895	10,317	10,874	11,693	12,230
76,1 - 2½"	5,407	7,111	7,446	7,944	8,274	8,765	9,734	10,371	10,843	11,310	11,926	12,836	13,433
80	5,696	7,496	7,850	8,377	8,726	9,246	10,273	10,948	11,448	11,945	12,600	13,567	14,202
83	5,918	7,792	8,160	8,710	9,074	9,616	10,687	11,391	11,914	12,433	13,117	14,129	14,794
88,9 - 3½"	6,354	8,373	8,771	9,365	9,758	10,343	11,502	12,264	12,831	13,393	14,136	15,235	15,958
90	6,435	8,482	8,885	9,487	9,885	10,479	11,654	12,427	13,002	13,572	14,326	15,441	16,175
100	7,175	9,468	9,921	10,596	11,044	11,712	13,035	13,906	14,555	15,199	16,052	17,315	18,147
101,60 - 4"	7,293	9,626	10,087	10,774	11,229	11,909	13,255	14,143	14,804	15,460	16,328	17,615	18,463
108	7,767	10,257	10,749	11,484	11,971	12,698	14,139	15,090	15,798	16,501	17,432	18,814	19,725
110	7,915	10,454	10,956	11,706	12,203	12,945	14,415	15,386	16,108	16,827	17,777	19,189	20,120
114,30 - 4½"	8,233	10,879	11,402	12,183	12,701	13,475	15,009	16,022	16,776	17,526	18,520	19,995	20,968
120	8,655	11,441	11,992	12,815	13,362	14,178	15,796	16,865	17,662	18,454	19,503	21,063	22,092
121	8,728	11,539	12,096	12,926	13,478	14,301	15,934	17,013	17,817	18,617	19,676	21,250	22,290
127 - 5"	9,172	12,131	12,717	13,592	14,173	15,041	16,763	17,901	18,749	19,593	20,712	22,374	23,473
130	9,394	12,427	13,028	13,925	14,521	15,410	17,177	18,345	19,215	20,081	21,229	22,937	24,065
133	9,616	12,723	13,338	14,258	14,868	15,780	17,591	18,788	19,681	20,570	21,747	23,499	24,657
139,70 - 5½"	10,112	13,384	14,032	15,001	15,645	16,606	18,516	19,780	20,722	21,660	22,904	24,754	25,978
146	10,578	14,005	14,685	15,700	16,375	17,383	19,386	20,712	21,701	22,685	23,991	25,935	27,221
148	10,726	14,202	14,892	15,922	16,607	17,630	19,662	21,008	22,011	23,011	24,336	26,310	27,616
152,40 - 6"	11,051	14,636	15,347	16,410	17,116	18,172	20,270	21,658	22,695	23,727	25,096	27,134	28,483
159	11,539	15,287	16,031	17,143	17,881	18,986	21,181	22,635	23,720	24,801	26,235	28,371	29,785
168,30	12,227	16,204	16,994	18,174	18,959	20,132	22,465	24,011	25,165	26,314	27,840	30,114	31,620
173	12,575	16,668	17,481	18,696	19,504	20,712	23,114	24,706	25,895	27,079	28,651	30,994	32,547
177,80	12,930	17,141	17,978	19,229	20,060	21,303	23,777	25,416	26,640	27,860	29,480	31,894	33,494
193,70 - 7"	14,106	18,710	19,624	20,993	21,903	23,264	25,972	27,768	29,110	30,448	32,224	34,873	36,630
203	14,809	19,646	20,608	22,047	23,003	24,435	27,284	29,174	30,586	31,994	33,864	36,654	38,504
219,10 - 8"	15,985	21,215	22,255	23,811	24,846	26,395	29,480	31,526	33,056	34,581	36,608	39,633	41,640
244,60 - 9"	17,871	23,730	24,895	26,640	27,801	29,539	33,001	35,299	37,017	38,731	41,009	44,412	46,670
273 - 10"	19,972	26,531	27,836	29,791	31,092	33,040	36,922	39,500	41,428	43,352	45,911	49,734	52,272
323,90 - 12"			33,108	35,439	36,991	39,315	43,950	47,030	49,335	51,636	54,696	59,272	62,312
355,60 - 14"			36,390	38,956	40,665	43,223	48,327	51,720	54,259	56,794	60,167	65,212	68,565
406,40 - 16"			41,651	44,593	46,552	49,486	55,341	59,235	62,150	65,061	68,935	74,731	78,586

Cost-efficiency, durability, flexibility, recyclability: steel is the sustainable choice for modern architecture, with Marcegaglia Carbon Steel certified product range of structural hollow section for steel structures. Other applications in the sector include piling, scaffolding and shoring systems.

Eficacia, duración, versatilidad, reciclabilidad: el acero es la elección sostenible para la arquitectura contemporánea, con la gama certificada Marcegaglia Carbon Steel de tubos redondos, cuadrados y rectangulares dedicada a la realización de estructuras en acero. Otras aplicaciones en el sector incluyen la entibación, la producción de andamios y de sistemas de apuntalamiento.



wall thickness mm													outside diameter mm
8,6	9	9,6	10	10,5	11	11,5	12	12,5	13	14	14,2	16	
													48,3 - 1½"
													50
													50,8 - 2"
													54
													55
10,963	11,384	12,001	12,402										60,30 - 2"
11,535	11,983	12,640	13,068										63
11,959	12,427	13,113	13,561										65
13,020	13,537	14,297	14,794	15,404	16,002	16,588							70
14,313	14,890	15,741	16,298										76,1 - 2½"
15,140	15,756	16,664	17,260										80
15,776	16,421	17,374	17,999	18,770	19,528	20,274	21,008	21,729	22,438				83
17,027	17,731	18,771	19,454	20,297	21,128	21,947	22,753	23,547	24,329				88,9 - 3½"
17,261	17,975	19,031	19,725	20,582	21,427	22,259	23,079	23,886	24,681				90
19,381	20,194	21,398	22,191	23,171	24,139	25,094	26,037	26,968	27,887				100
19,720	20,549	21,777	22,586	23,585	24,573	25,548	26,511	27,461	28,400				101,60 - 4"
21,078	21,969	23,292	24,164	25,242	26,309	27,363	28,405	29,434	30,451				108
21,502	22,413	23,765	24,657	25,760	26,851	27,930	28,996	30,050	31,092				110
22,413	23,367	24,783	25,717	26,873	28,017	29,149	30,269	31,376	32,470	34,623			114,30 - 4½"
23,622	24,632	26,132	27,122	28,349	29,563	30,765	31,955	33,132	34,297				120
23,834	24,854	26,369	27,369	28,608	29,835	31,049	32,251	33,441	34,618	36,936			121
25,106	26,185	27,789	28,848	30,161	31,462	32,750	34,026	35,290	36,541	39,007			127 - 5"
25,743	26,851	28,499	29,588	30,938	32,276	33,601	34,914	36,215	37,503				130
26,379	27,517	29,209	30,328	31,715	33,089	34,452	35,802	37,139	38,464	41,078			133
27,799	29,004	30,795	31,980	33,449	34,906	36,351	37,784	39,204	40,612	43,391			139,70 - 5½"
29,135	30,402	32,286	33,533										146
29,559	30,846	32,760	34,026	35,598	37,158	38,705	40,240	41,762	43,273	46,256	46,847	52,075	148
30,492	31,822	33,801	35,111	36,737	38,351	39,952	41,542	43,118	44,683	47,775	48,387	53,811	152,40 - 6"
31,892	33,287	35,364	36,738	38,446	40,141	41,824	43,494	45,123	46,798	50,053	50,698	56,415	159
33,864	35,350	37,565	39,032	40,854	42,663	44,461	46,246	48,019	49,779	53,263	53,954	60,083	168,30
34,861	36,393	38,677	40,190	42,070	43,938	45,794	47,637	49,468	51,286	54,886	55,600	61,938	173
35,878	37,458	39,814	41,374	43,313	45,240	47,155	49,057	50,947	52,825	56,543	57,280	63,831	177,80
39,250	40,987	43,577	45,294	47,430	49,553	51,663	53,761	55,847	57,921	62,031	62,847	70,104	193,70 - 7"
41,264	43,095	45,826	47,637	49,889	52,129	54,357	56,572	58,775	60,966	65,311	66,174	73,852	203
44,636	46,623	49,590	51,557	54,006	56,442	58,865	61,277	63,676	66,063	70,799	71,741	80,124	219,10 - 8"
50,043	52,282	55,626	57,845	60,607	63,358	66,096	68,822	71,535	74,236	79,602	80,669	90,184	244,60 - 9"
56,065	58,584	62,348	64,847	67,960	71,061	74,149	77,225	80,288	83,340	89,405	90,612	101,388	273 - 10"
66,859	69,880	74,396	77,397	81,138	84,866	88,582	92,285	95,976	99,655	106,976	108,434	121,469	323,90 - 12"
73,581	76,914	81,900	85,214	89,345	93,464	97,570	101,665	105,746	109,816	117,918	119,533	133,975	355,60 - 14"
84,353	88,187	93,924	97,739	102,497	107,242	111,975	116,695	121,403	126,099	135,454	137,319	154,016	406,40 - 16"

Structural square tubes

Tubos estructurales cuadrados



STRUCTURAL SQUARE TUBES EN 10219 - S235JRH, S275J0H/J2H, S355J0H/J2H

Tubos estructurales cuadrados EN 10219 - S235JRH, S275J0H/J2H, S355J0H/J2H

weight
kg/m

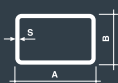
external dimensions A x A mm - inch	wall thickness mm											
	4	5	6	7	8	9,6	10	12	12,5	14	16	
50 x 50	5,454	6,559										
50,8 x 50,8 - 2" x 2"	5,554	6,684										
53 x 53	5,830											
54 x 54	5,956	7,187										
55 x 55	6,082	7,344										
59,3 x 59,3												
60 x 60	6,710	8,129										
63,5 x 63,5	7,149	8,678										
64 x 64	7,212	8,757										
65 x 65	7,338	8,914	10,386									
67 x 67	7,589	9,228										
70 x 70	7,966	9,699	11,328									
73 x 73	8,342	10,170										
75 x 75	8,594	10,484	12,270									
76,2 x 76,2 - 3" x 3"	8,744	10,672	12,497									
80 x 80	9,222	11,269	13,212	14,722	16,358							
88,9 x 88,9 - 3½" x 3½"	10,339	12,666	14,889									
90 x 90	10,478	12,839	15,096	16,920	18,870							
100 x 100	11,734	14,409	16,980	19,118	21,382	24,761	25,560	28,298				
101,6 x 101,6 - 4" x 4"	11,935	14,660	17,282	19,470								
110 x 110	12,990	15,979	18,864	21,316								
120 x 120	14,246	17,549	20,748	23,514	26,406	30,790	31,840	35,834				
125 x 125	14,874	18,334	21,690	24,613	27,662							
127 x 127 - 5" x 5"	15,125	18,648	22,067	25,053	28,165							
130 x 130	15,502	19,119	22,632	25,712	28,918							
140 x 140	16,758	20,689	24,516	27,910	31,430	36,819	38,120	43,370				
150 x 150	18,014	22,259	26,400	30,108	33,942	39,833	41,260	47,138	48,695	53,170		
152,4 x 152,4 - 6" x 6"	18,315	22,635	26,853	30,636	34,545							
160 x 160	19,270	23,829	28,284	32,306	36,454	42,848	44,400	50,906	52,620	57,566		
175 x 175	21,154	26,184	31,110	35,603	40,222							
180 x 180	21,782	26,969	32,052	36,702	41,478	48,877	50,680	58,442	60,470	66,358	73,752	
200 x 200	24,294	30,109	35,820	41,098	46,502	54,905	56,960	65,978	68,320	75,150	83,800	
220 x 220	26,806	33,249	39,588	45,494	51,526	60,934	63,240	73,514	76,170	83,942	93,848	
250 x 250		37,959	45,240	52,088	59,062	69,977	72,660	84,818	87,945	97,130	108,920	
260 x 260		39,529	47,124	54,286	61,574	72,992	75,800	88,586	91,870	101,526	113,944	
300 x 300		45,809	54,660	63,078	71,622	85,049	88,360	103,658	107,570	119,110	134,040	
325 x 325		49,734	59,370	68,573	77,902	92,585	96,210	113,078	117,382	130,100	146,600	

Structural rectangular tubes

Tubos estructurales rectangulares



0474



STRUCTURAL RECTANGULAR TUBES EN 10219 - S235JRH, S275J0H/J2H, S355J0H/J2H


Tubos estructurales rectangulares EN 10219 - S235JRH, S275J0H/J2H, S355J0H/J2H

weight
kg/m

external dimensions	wall thickness mm											
	4	5	6	7	8	9	10	12	12,5	14	16	
40 x 20	2,942											
50 x 30	4,198											
60 x 40	5,454	6,559										
60 x 50	6,082	7,344										
70 x 30	5,454											
70 x 35	5,768											
70 x 40	6,082	7,344										
70 x 50	6,710	8,129										
80 x 40	6,710	8,129										
80 x 50	7,338	8,914										
80 x 60	7,966	9,699	11,328									
90 x 40	7,338	8,914	10,386									
90 x 50	7,966	9,699	11,328									
100 x 30	7,338											
100 x 40	7,966	9,699	11,328									
100 x 50	8,594	10,484	12,270									
100 x 60	9,222	11,269	13,212	14,722	16,358							
100 x 80	10,478	12,839	15,096	16,920	18,870							
110 x 50	9,222	11,269	13,212									
120 x 40	9,222	11,269	13,212									
120 x 50	9,850	12,054	14,154									
120 x 60	10,478	12,839	15,096	16,920	18,870							
120 x 80	11,734	14,409	16,980	19,118	21,382							
140 x 60	11,734	14,409	16,980	19,118	21,382							
140 x 70	12,362	15,194	17,922	20,217	22,638							
140 x 80	12,990	15,979	18,864	21,316	23,894							
150 x 50	11,734	14,409	16,980									
150 x 100	14,874	18,334	21,690	24,613	27,662	30,594	33,410	37,718				
160 x 80	14,246	17,549	20,748	23,514	26,406							
160 x 90	14,874	18,334	21,690	24,613	27,662	30,594	33,410	37,718				
180 x 80	15,502	19,119	22,632	25,712	28,918							
180 x 100	16,758	20,689	24,516	27,910	31,430	34,833	38,120	43,370	44,770	48,774		
200 x 80	16,758	20,689	24,516	27,910	31,430							
200 x 100	18,014	22,259	26,400	30,108	33,942	37,659	41,260	47,138	48,695	53,170		
200 x 120	19,270	23,829	28,284	32,306	36,454	40,485	44,400	50,906	52,620	57,566		
200 x 150	21,154	26,184	31,110	35,603	40,222	44,724	49,110	56,558				
250 x 100	21,154	26,184	31,110	35,603	40,222	44,724	49,110	56,558				
250 x 150	24,294	30,109	35,820	41,098	46,502	51,789	56,960	65,978	68,320	75,150	83,800	
260 x 140	24,294	30,109	35,820	41,098	46,502	51,789	56,960	65,978	68,320	75,150	83,800	
300 x 100	24,294	30,109	35,820	41,098	46,502	51,789	56,960	65,978	68,320	75,150	83,800	
300 x 150	27,434	34,034	40,530	46,593	52,782	58,854	64,810	75,398	78,132	86,140	96,360	
300 x 200		37,959	45,240	52,088	59,062	65,919	72,660	84,818	87,945	97,130	108,920	
350 x 150		37,959	45,240	52,088	59,062	65,919	72,660	84,818	87,945	97,130	108,920	
350 x 250		45,809	54,660	63,078	71,622	80,049	88,360	103,658	107,570	119,110	134,040	
400 x 200		45,809	54,660	63,078	71,622	80,049	88,360	103,658	107,570	119,110	134,040	
400 x 250		49,734	59,370	68,573	77,902	87,114	96,210	113,078	117,382	130,100	146,600	

Round tubes for pressure purposes, for pipelines, for the conveyance of water

Tubos redondos para usos a presión, para tuberías, para conductos de aguas

 ROUND TUBES EN 10217-1, -2 / EN 10208-1 / EN 10224 Tubos redondos EN 10217-1, -2 / EN 10208-1 / EN 10224											
outside diameter (mm)	wall thickness mm										
	1,8	2,1	2,3	2,6	2,9	3,2	3,6	4	4,2	4,5	5
21,25 - ½"	0,863	0,992	1,075	1,196	1,312						
22	0,897	1,030	1,117	1,244	1,366						
23	0,941	1,082	1,174	1,308	1,437						
25	1,030	1,186	1,287	1,436	1,580						
25,40 - 1"	1,047	1,206	1,310	1,462	1,609						
26,75 - ¾"	1,107	1,276	1,387	1,548	1,705						
28	1,163	1,341	1,457	1,628	1,795	1,957	2,166	2,367			
29	1,207	1,393	1,514	1,692	1,866	2,036	2,255	2,466			
30	1,252	1,445	1,571	1,757	1,938	2,115	2,343	2,564			
31,8	1,331	1,538	1,673	1,872	2,066	2,257	2,503	2,742	2,858	3,029	3,304
32	1,340	1,548	1,684	1,885	2,081	2,272	2,521	2,762	2,879	3,051	3,329
33,4 - 1"	1,402	1,621	1,764	1,975	2,181	2,383	2,645	2,900	3,024	3,207	3,501
35	1,473	1,704	1,854	2,077	2,295	2,509	2,787	3,057			
38	1,607	1,859	2,025	2,269	2,510	2,746	3,053	3,353	3,500	3,717	4,068
39	1,651	1,911	2,081	2,334	2,581	2,825	3,142	3,452	3,604	3,828	4,192
40	1,695	1,962	2,138	2,398	2,653	2,904	3,231	3,551	3,707	3,939	4,315
42,4 - 1¼"	1,802	2,087	2,274	2,551	2,824	3,093	3,444	3,787	3,956	4,205	4,611
44,5	1,895	2,195	2,393	2,686	2,975	3,259	3,630	3,994	4,173	4,438	4,870
48,3 - 1½"	2,064	2,392	2,609	2,930	3,246	3,558	3,968	4,369	4,567	4,860	5,338
50	2,139	2,480	2,705	3,039	3,368	3,693	4,119	4,537	4,743	5,048	5,548
51	2,184	2,532	2,762	3,103	3,439	3,771	4,207	4,635	4,847	5,159	5,671
52	2,228	2,584	2,819	3,167	3,511	3,850	4,296	4,734	4,950	5,270	5,794
54	2,317	2,687	2,932	3,295	3,654	4,008	4,474	4,931	5,157	5,492	6,041
55	2,361	2,739	2,989	3,359	3,725	4,087	4,562	5,030	5,261	5,603	6,164
56	2,406	2,791	3,045	3,423	3,797	4,166	4,651	5,129	5,364	5,714	6,287
57	2,450	2,843	3,102	3,487	3,868	4,245	4,740	5,227	5,468	5,825	6,411
60,30 - 2"	2,596	3,014	3,289	3,699	4,104	4,505	5,033	5,553	5,810	6,191	6,818
63	2,716	3,153	3,442	3,872	4,297	4,718	5,273	5,819	6,089	6,491	7,150
65	2,805	3,257	3,556	4,000	4,440	4,876	5,450	6,016	6,296	6,713	7,397
68	2,938	3,412	3,726	4,193	4,655	5,113	5,716	6,312	6,607	7,046	7,767
70	3,027	3,516	3,839	4,321	4,798	5,271	5,894	6,509	6,814	7,268	8,013
73	3,160	3,671	4,009	4,513	5,012	5,507	6,160	6,805	7,125	7,600	8,383
75	3,249	3,775	4,123	4,641	5,155	5,665	6,338	7,003	7,332	7,822	8,630
76,1 - 2½"	3,298	3,832	4,185	4,712	5,234	5,752	6,435	7,111	7,446	7,944	8,765
80	3,471	4,034	4,406	4,962	5,513	6,060	6,782	7,496	7,850	8,377	9,246
82,5	3,582	4,163	4,548	5,122	5,692	6,257	7,003	7,742	8,109	8,655	9,554
87	3,781	4,396	4,803	5,411	6,014	6,612	7,403	8,186	8,575	9,154	10,109
88,9 - 3½"	3,866	4,494	4,911	5,532	6,149	6,762	7,572	8,373	8,771	9,365	10,343
95	4,136	4,810	5,257	5,924	6,586	7,243	8,113	8,975	9,403	10,041	11,096
96		4,862	5,314	5,988	6,657	7,322	8,202	9,074	9,507	10,152	11,219
100	4,358	5,069	5,541	6,244	6,943	7,638	8,557	9,468	9,921	10,596	11,712
101,60 - 4"	4,429	5,152	5,631	6,347	7,057	7,764	8,699	9,626	10,087	10,774	11,909
108	4,713	5,483	5,994	6,757	7,515	8,269	9,267	10,257	10,749	11,484	12,698
110	4,802	5,587	6,108	6,885	7,658	8,427	9,445	10,454	10,956	11,706	12,945
114,30 - 4½"	4,993	5,810	6,352	7,161	7,966	8,766	9,826	10,879	11,402	12,183	13,475
115		5,846	6,391	7,206	8,016	8,821	9,888	10,948	11,474	12,261	13,561
120		6,105	6,675	7,526	8,373	9,216	10,332	11,441	11,992	12,815	14,178
121		6,157	6,732	7,590	8,445	9,295	10,421	11,539	12,096	12,926	14,301
127 - 5"		6,467	7,072	7,975	8,874	9,768	10,953	12,131	12,717	13,592	15,041
130			7,242	8,167	9,088	10,005	11,220	12,427	13,028	13,925	15,410
133			7,412	8,360	9,303	10,241	11,486	12,723	13,338	14,258	15,780
139,70 - 5½"			7,792	8,789	9,782	10,770	12,081	13,384	14,032	15,001	16,606
141,30			7,883	8,892	9,896	10,896	12,223	13,541	14,198	15,179	16,804
146				9,193	10,232	11,267	12,640	14,005	14,685	15,700	17,383
148				8,263	9,321	10,375	11,425	12,818	14,202	14,892	15,922
150					9,449	10,518	11,583	12,995	14,400	15,099	16,144
152,40 - 6"				8,512	9,603	10,690	11,772	13,208	14,636	15,347	16,410
159				8,887	10,026	11,162	12,293	13,794	15,287	16,031	17,143
168,30					11,827	13,027	14,619	16,204	16,994	18,174	20,132
170					11,948	13,161	14,770	16,372	17,170	18,363	20,342
177,80					12,506	13,776	15,463	17,141	17,978	19,229	21,303
186,50					13,128	14,463	16,235	17,999	18,879	20,194	22,376
193,70 - 7"					13,643	15,031	16,874	18,710	19,624	20,993	23,264

										weight kg/m
wall thickness mm										outside diameter (mm)
5,6	6	6,3	7,1	8	10	11	12,5	14,2	16	
										21,25 - ½"
										22
										23
										25
										25,40 - 1"
										26,75 - ¾"
										28
										29
										30
3,618										31,8
3,645										32
3,839	4,054									33,4 - 1"
										35
4,474	4,734									38
4,612	4,882									39
4,750	5,030	5,235								40
5,081	5,385	5,608								42,4 - 1¼"
5,371	5,696									44,5
5,896	6,258	6,524	7,213	7,949						48,3 - 1½"
6,131	6,509	6,788	7,510	8,285						50
6,269	6,657	6,944	7,685	8,482						51
6,407	6,805	7,099	7,860	8,679						52
6,683	7,101	7,410	8,210	9,074						54
6,821	7,249	7,565	8,385	9,271						55
6,959	7,397	7,720	8,561	9,468						56
7,097	7,545		8,736							57
7,553	8,033	8,388	9,313	10,316	12,402					60,30 - 2"
7,926	8,433	8,808	9,786	10,849	13,068					63
8,202	8,728	9,118	10,136	11,243	13,561					65
8,616	9,172	9,584	10,661	11,835	14,301					68
8,892	9,468	9,895	11,011	12,230	14,794	16,002				70
9,306	9,912		11,537							73
9,583	10,208	10,672	11,887	13,216	16,027					75
9,734	10,371	10,843	12,079	13,433	16,298					76,1 - 2½"
10,273	10,948	11,448	12,762	14,202	17,260					80
10,618	11,317	11,837	13,200	14,695	17,876	19,392	21,575			82,5
11,240	11,983		13,987							87
11,502	12,264	12,831	14,320	15,958	19,454	21,128	23,547			88,9 - 3½"
12,344	13,167	13,778	15,388	17,161						95
12,482	13,315	13,934	15,563	17,358						96
13,035	13,906	14,555	16,263	18,147	22,191	24,139	26,968			100
13,255	14,143	14,804	16,543	18,463	22,586	24,573	27,461			101,60 - 4"
14,139	15,090	15,798	17,664	19,725	24,164	26,309	29,434			108
14,415	15,386	16,108	18,014	20,120	24,657	26,851	30,050			110
15,009	16,022	16,776	18,767	20,968	25,717	28,017	31,376			114,30 - 4½"
15,106	16,125	16,885	18,889	21,106	25,890	28,207	31,591			115
15,796	16,865	17,662	19,765	22,092	27,122	29,563	33,132			120
15,934	17,013	17,817	19,940	22,290	27,369	29,835	33,441			121
16,763	17,901	18,749	20,990	23,473	28,848	31,462	35,290			127 - 5"
17,177	18,345	19,215	21,515	24,065	29,588	32,276	36,215			130
17,591	18,788	19,681	22,040	24,657	30,328	33,089	37,139			133
18,516	19,780	20,722	23,213	25,978	31,980	34,906	39,204			139,70 - 5½"
18,737	20,016	20,971	23,493	26,294	32,374					141,30
19,386	20,712	21,701	24,316	27,221	33,533					146
19,662	21,008	22,011	24,666	27,616	34,026	37,158	41,762	46,847	52,075	148
19,938	21,303	22,322	25,016	28,010	34,519					150
20,270	21,658	22,695	25,437	28,483	35,111	38,351	43,118	48,387	53,811	152,40 - 6"
21,181	22,635	23,720	26,592	29,785	36,738	40,141	45,153	50,698	56,415	159
22,465	24,011	25,165	28,220	31,620	39,032	42,663	48,019	53,954	60,083	168,30
22,700	24,262	25,429	28,518	31,955	39,451					170
23,777	25,416	26,640	29,883	33,494	41,374	45,240	50,947	57,280	63,831	177,80
24,978	26,703	27,992	31,406	35,210	43,519	47,600	53,628	60,327	67,263	186,50
25,972	27,768	29,110	32,667	36,630	45,294	49,553	55,847	62,847	70,104	193,70 - 7"



ROUND TUBES EN 10217-1, -2 / EN 10208-1 / EN 10224

Tubos redondos EN 10217-1, -2 / EN 10208-1 / EN 10224

outside diameter (mm)	wall thickness mm										
	1,8	2,1	2,3	2,6	2,9	3,2	3,6	4	4,2	4,5	5
203					14,322	15,780	17,717	19,646	20,608	22,047	24,435
219,10 - 8"					15,459	17,035	19,129	21,215	22,255	23,811	26,395
244,60 - 9"					17,283	19,047	21,392	23,730	24,895	26,640	29,539
273 - 10"					19,313	21,288	23,913	26,531	27,836	29,791	33,040
323,90 - 12"									33,108	35,439	39,315
355,60 - 14"									36,390	38,956	43,223
406,40 - 16"									41,651	44,593	49,486



										weight kg/m
wall thickness mm										outside diameter (mm)
5,6	6	6,3	7,1	8	10	11	12,5	14,2	16	
27,284	29,174	30,586	34,330	38,504	47,637	52,129	58,775	66,174	73,852	203
29,480	31,526	33,056	37,113	41,640	51,557	56,442	63,676	71,741	80,124	219,10 - 8"
33,001	35,299	37,017	41,577	46,670	57,845	63,358	71,535	80,669	90,184	244,60 - 9"
36,922	39,500	41,428	46,549	52,272	64,847	71,061	80,288	90,612	101,388	273 - 10"
43,950	47,030	49,335	55,460	62,312	77,397	84,866	95,976	108,434	121,469	323,90 - 12"
48,327	51,720	54,259	61,009	68,565	85,214	93,464	105,746	119,533	133,975	355,60 - 14"
55,341	59,235	62,150	69,902	78,586	97,739	107,242	121,403	137,319	154,016	406,40 - 16"

Round tubes suitable for welding and threading


Tubos redondos aptos para soldadura y roscado

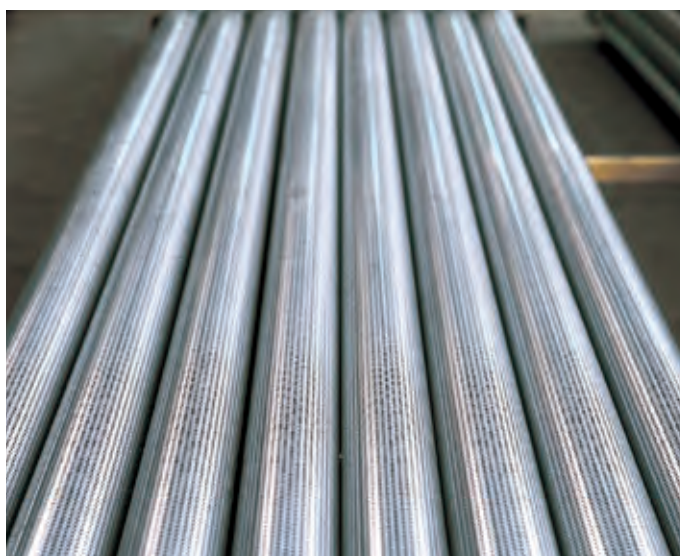
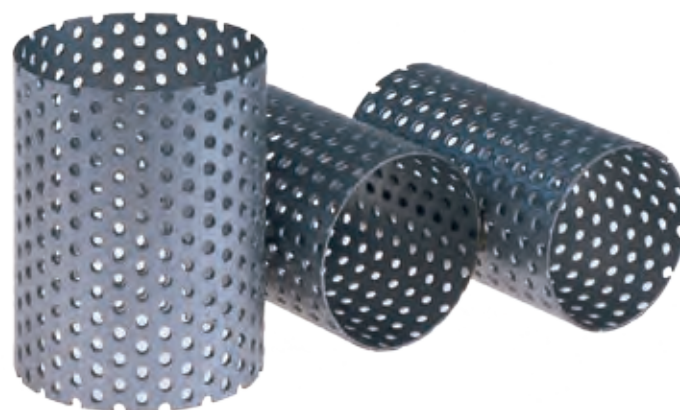
outside diameter (mm)	Wall thickness mm						
	2,6	3,2	3,6	4,0	4,5	5	5,4
21,3	•	•					
26,9	•	•					
33,7		•		•			
42,4		•		•			
48,3		•		•			
60,3			•		•		
76,1			•		•		
88,9				•		•	
114,3					•		•
139,7						•	•
168,3						•	•

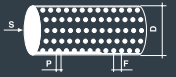


Exhaust aluminised round tubes

Tubos redondos aluminizados para tubos de escape

 EXHAUST ALUMINISED ROUND TUBES Tubos redondos aluminizados para tubos de escape				
outside diameter (mm)	wall thickness mm			
	1,2	1,5	1,8	2
12				•
15				•
30	•	•	•	•
32	•	•	•	•
33	•	•	•	•
35	•	•	•	•
36	•	•	•	•
38	•	•	•	•
40	•	•	•	•
41	•	•	•	•
42	•	•	•	•
43	•	•	•	•
45	•	•	•	•
46	•	•	•	•
48	•	•	•	•
50	•	•	•	•
51	•	•	•	•
52	•	•	•	•
54	•	•	•	•
55	•	•	•	•
57	•	•	•	•
58	•	•	•	•
60	•	•	•	•
63	•	•	•	•
63,5	•	•	•	•
65	•	•	•	•
70	•	•	•	•
75	•	•	•	•
76	•	•	•	•
80	•	•	•	•
89	•	•	•	•
90	•	•	•	•

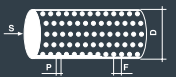




DRILLED ALUMINISED ROUND TUBES
Tubos redondos aluminizados perforados

F3 P6

outside diameter (mm)	wall thickness mm			
	1,2	1,5	1,8	2
32	•	•	•	•
35	•	•	•	•
38	•	•	•	•
40	•	•	•	•
42	•	•	•	•
45	•	•	•	•
48		•	•	•
50		•	•	•
52		•	•	•
55		•	•	•
60		•	•	•
65		•	•	•
70		•	•	•
76		•	•	•
80		•	•	•
89		•	•	•



DRILLED ALUMINISED ROUND TUBES
Tubos redondos aluminizados perforados

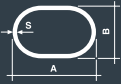
F4 P8

outside diameter (mm)	wall thickness mm			
	1,2	1,5	1,8	2
32	•	•	•	•
35	•	•	•	•
38	•	•	•	•
40	•	•	•	•
42	•	•	•	•
45	•	•	•	•
48		•	•	•
50		•	•	•
52		•	•	•
55		•	•	•
60		•	•	•
65		•	•	•
70		•	•	•
76		•	•	•
80		•	•	•
89		•	•	•

Oval carbon steel welded tubes

Tubos ovalados soldados de acero al carbono

external dimensions A x B mm	wall thickness mm													weight kg/m
	0,6	0,7	0,8	0,9	1	1,1	1,2	1,4	1,5	1,8	2	2,5	3	
12,8 x 3,8	0,131	0,152	0,171	0,190	0,209	0,227	0,245	0,280						
13,5 x 4,5	0,139	0,160	1,181	0,202	0,222	0,241	0,260	0,300						
14 x 8	0,168	0,195	0,221	0,246	0,271	0,296	0,320	0,359	0,398					
17,5 x x5	0,183	0,212	0,240	0,268	0,296	0,323	0,349	0,387	0,425					
18 x 10	0,213	0,247	0,280	0,313	0,345	0,377	0,408	0,454	0,499					
20 x 10	0,228	0,264	0,300	0,335	0,370	0,404	0,438	0,487	0,536	0,630	0,691			
20 x 15	0,260	0,300	0,340	0,380	0,420	0,460	0,500	0,570	0,610	0,720	0,790			
21,5 x 4	0,213	0,247	0,280	0,313	0,345	0,377	0,408	0,454	0,499	0,630	0,691			
22 x 10	0,250	0,290	0,333	0,372	0,411	0,449	0,487	0,542	0,597	0,717	0,796			
22 x 12	0,263	0,305	0,347	0,388	0,429	0,469	0,509	0,567	0,625	0,737	0,809			
22 x 14	0,272	0,316	0,359	0,401	0,444	0,486	0,527	0,587	0,647	0,763	0,838			
22 x 15	0,279	0,324	0,369	0,413	0,456	0,499	0,541	0,604	0,666	0,786	0,863			
23 x 13	0,279	0,324	0,369	0,413	0,456	0,499	0,541	0,604	0,666	0,786	0,863			
24 x 16	0,300	0,350	0,400	0,450	0,490	0,540	0,590	0,680	0,720	0,850	0,940			
25 x 12	0,279	0,324	0,385	0,480	0,476	0,521	0,565	0,630	0,695	0,884	0,927			
25 x 8,6	0,272	0,316	0,359	0,401	0,444	0,486	0,527	0,587	0,647	0,763	0,838			
25 x 15	0,307	0,357	0,406	0,455	0,503	0,551	0,598	0,667	0,736	0,870	0,957			
26 x 16		0,367	0,418	0,468	0,518	0,567	0,616	0,687	0,758	0,897	0,986			
27,6 x 12,7		0,367	0,418	0,468	0,518	0,567	0,616	0,687	0,758	0,897	0,986			
28 x 15		0,380	0,440	0,490	0,540	0,590	0,650	0,750	0,790	0,940	1,030			
30 x 10		0,380	0,429	0,482	0,536	0,587	0,637	0,712	0,786	0,921	1,023			
30 x 15		0,419	0,477	0,535	0,592	0,648	0,704	0,787	0,869	1,030	1,130			
30 x 17		0,420	0,485	0,544	0,602	0,659	0,716	0,800	0,884	1,040	1,150			
30 x 20		0,454	0,548	0,615	0,681	0,746	0,811	0,906	1,000	1,190	1,310			
31 x 16		0,430	0,500	0,562	0,622	0,681	0,740	0,827	0,914	1,085	1,194			
32 x 16		0,440	0,501	0,561	0,621	0,681	0,740	0,827	0,914	1,080	1,190			
33 x 10		0,410	0,467	0,525	0,583	0,639	0,694	0,775	0,856	1,006	1,117			
34 x 16		0,482	0,549	0,615	0,681	0,746	0,811	0,940	1,003	1,190	1,313			
34 x 17,5		0,472	0,537	0,602	0,660	0,730	0,794	0,888	0,981	1,164	1,283			
35 x 11		0,440	0,501	0,561	0,621	0,681	0,740	0,860	0,914	1,080	1,190			
35 x 12		0,449	0,512	0,574	0,635	0,696	0,756	0,845	0,934	1,100	1,220			
35 x 15			0,537	0,602	0,666	0,730	0,793	0,887	0,980	1,163	1,283			
35 x 20			0,576	0,646	0,715	0,784	0,852	0,953	1,054	1,252	1,381			
36 x 18			0,576	0,646	0,715	0,784	0,852	0,951	1,050	1,250	1,380	1,700		
38 x 16			0,576	0,646	0,715	0,784	0,852	0,951	1,050	1,250	1,380	1,700		
38 x 20			0,615	0,690	0,764	0,838	0,912	1,016	1,120	1,340	1,480	1,810		
39,7 x 14,7			0,576	0,646	0,715	0,784	0,852	0,951	1,050	1,250	1,380	1,700		
40 x 10			0,576	0,646	0,715	0,784	0,852	0,951	1,050	1,250	1,380	1,700		
40 x 14			0,576	0,646	0,715	0,784	0,852	0,951	1,054	1,252	1,381	1,730		
40 x 20			0,635	0,712	0,789	0,865	0,941	1,051	1,160	1,380	1,520	1,880	2,220	
40 x 22			0,640	0,721	0,801	0,878	0,955	1,069	1,182	1,400	1,555	1,910		
40 x 25			0,675	0,757	0,839	0,920	1,001	1,121	1,240	1,475	1,629	2,005		
40 x 28			0,690	0,780	0,860	0,950	1,030	1,190	1,270	1,510	1,670	2,060		
44,5 x 15			0,655	0,735	0,814	0,893	0,971	1,130	1,200	1,430	1,570	1,940		
45 x 15			0,657	0,736	0,816	0,896	0,976	1,088	1,200	1,430	1,580	1,950		
45 x 17			0,657	0,757	0,838	0,919	1,000	1,120	1,240	1,470	1,630	1,990		
45 x 20			0,690	0,779	0,863	0,947	1,030	1,150	1,270	1,510	1,670	2,060		
45 x 25			0,730	0,823	0,913	1,001	1,089	1,220	1,351	1,607	1,776	2,180		
47 x 18			0,695	0,780	0,864	0,947	1,030	1,154	1,277	1,519	1,678	2,067		
48 x 20			0,730	0,823	0,912	1,001	1,090	1,220	1,350	1,610	1,780	2,190		
48,5 x 10,2			0,675	0,757	0,839	0,920	1,001	1,121	1,240	1,474	1,628	2,005		
50 x 10			0,694	0,779	0,863	0,947	1,030	1,150	1,270	1,510	1,670	2,000		
50 x 11			0,690	0,780	0,860	0,950	1,030	1,190	1,270	1,510	1,670	2,060		
50 x 20			0,770	0,868	0,962	1,055	1,148	1,287	1,425	1,696	1,875	2,313	2,730	
50 x 25			0,808	0,912	1,010	1,105	1,200	1,345	1,490	1,780	1,970	2,430	2,880	
50 x 30			0,832	0,934	1,036	1,137	1,237	1,387	1,536	1,829	2,023	2,498		
56 x 11			0,773	0,868	0,962	1,056	1,149	1,287	1,425	1,696	1,875	2,313		
57 x 12			0,773	0,881	0,978	1,076	1,173	1,320	1,467	1,761	1,907	2,360		
57,5 x 10			0,813	0,868	0,962	1,056	1,150	1,285	1,420	1,700	1,870	2,310		
60 x 10,4			0,813	0,912	1,010	1,105	1,200	1,400	1,490	1,780	1,970	2,430		
60 x 15				0,979	1,090	1,195	1,300	1,455	1,610	1,920	2,120	2,620		
60 x 20				0,990	1,097	1,204	1,310	1,468	1,626	1,930	2,144	2,650		
60 x 25				1,030	1,142	1,257	1,371	1,542	1,713	2,011	2,234	2,760		



OVAL TUBES EN 10305-3 S1, S2, S3, S4

Tubos ovalados EN 10305-3 S1, S2, S3, S4


weight
kg/m

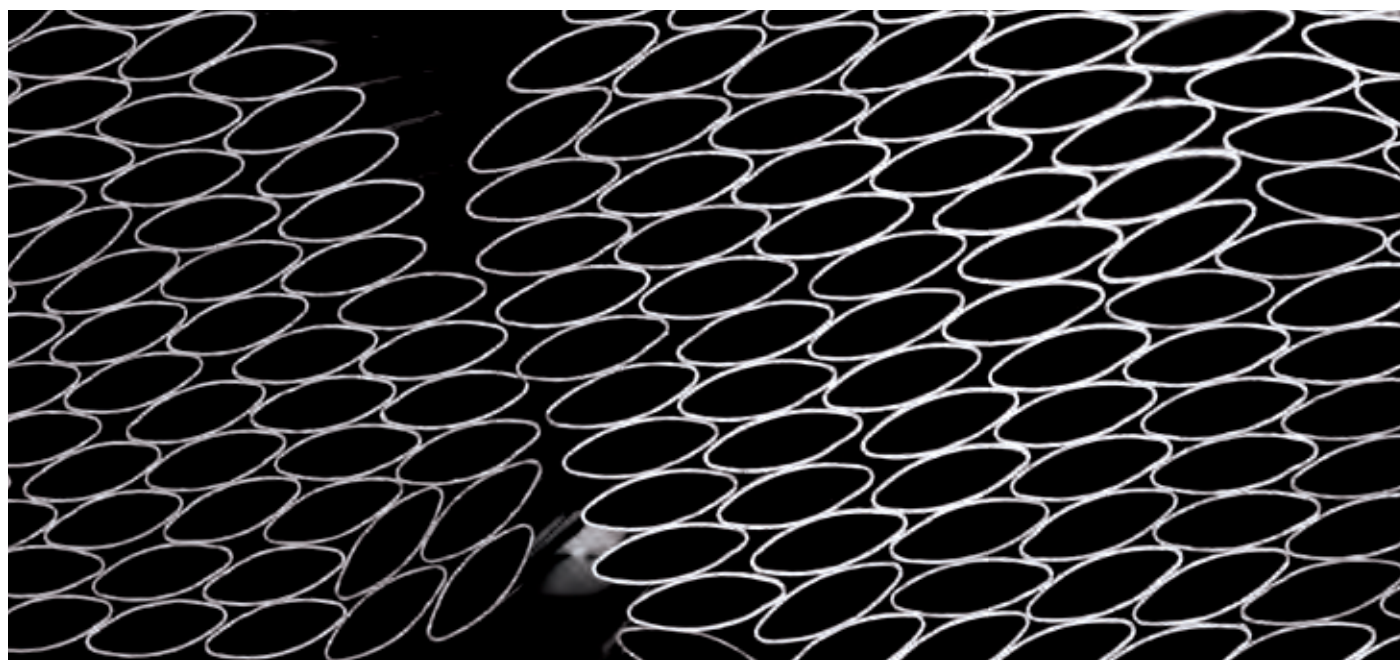
external dimensions	wall thickness mm												
	0,6	0,7	0,8	0,9	1	1,1	1,2	1,4	1,5	1,8	2	2,5	3
A x B mm													
60 x 30				1,090	1,220	1,330	1,440	1,615	1,790	2,140	2,370	2,930	3,470
63 x 9				0,979	1,085	1,191	1,296	1,453	1,610	1,918	2,122	2,620	
65 x 30				1,135	1,258	1,381	1,504	1,687	1,869	2,230	2,468	3,054	
68 x 45				1,310	1,450	1,595	1,740	2,020	2,160	2,580	2,860	3,550	
69,3 x 8				1,040	1,150	1,265	1,380	1,610	1,720	2,050	2,270	2,800	
70 x 8				0,646	0,716	0,785	0,853	0,952	1,055	2,052	1,382	1,696	
70 x 10				1,090	1,210	1,325	1,440	1,615	1,790	2,140	2,370	2,930	
70 x 11				1,090	1,209	1,332	1,455	1,625	1,795	2,141	2,369	2,930	
70 x 20					1,260	1,380	1,500	1,685	1,870	2,230	2,470	3,050	
70 x 25					1,330	1,460	1,590	1,785	1,980	2,360	2,610	3,160	
75 x 14					1,280	1,405	1,530	1,715	1,900	2,260	2,510	3,100	
77 x 38					1,520	1,670	1,820	2,045	2,270	2,710	3,010	3,730	4,440
80 x 20					1,410	1,545	1,680	1,885	2,090	2,490	2,760	3,420	
80 x 25						1,600	1,740	1,950	2,160	2,580	2,860	3,550	
80 x 30						1,670	1,820	2,130	2,270	2,710	3,010	3,730	
80 x 45						1,790	2,036	2,283	2,530	3,030	3,350	4,160	
85 x 25						1,680	1,827	2,055	2,283	2,718	3,019	3,740	
90 x 30						1,810	1,975	2,222	2,468	2,939	3,265	4,160	
95 x 30						1,920	2,096	2,440	2,609	3,230	3,445	4,287	
100 x 20						1,920	2,096	2,440	2,609	3,230	3,455	4,287	
98 x 38									2,750	3,290	3,650	4,530	5,400
100 x 30						2,030	2,215	2,580	2,758	3,420	3,652	4,534	
103 x 16									2,640	3,160	3,500	4,350	5,180
110 x 25									2,906	3,473	3,848	4,410	4,781
140 x 50										4,710	5,230	6,500	7,770
250 x 50										7,820	8,680	10,810	12,940
245 x 100										8,490	9,430	11,750	14,070



Elliptical carbon steel welded tubes

Tubos elípticos soldados de acero al carbono

 ELLIPTICAL TUBES EN 10305-3 S1, S2, S3, S4 Tubos elípticos EN 10305-3 S1, S2, S3, S4		weight kg/m													
external dimensions		wall thickness mm													
A x B mm		0,6	0,7	0,8	0,9	1	1,1	1,2	1,4	1,5	1,8	2	2,5	3	3,7
18,5 x 13,4			0,264	0,300	0,335	0,370	0,404	0,438	0,487	0,536	0,630				
22 x 14			0,333	0,379	0,424	0,469	0,513	0,556	0,605	0,654	0,808	0,888			
24 x 16			0,333	0,379	0,424	0,469	0,513	0,556	0,605	0,654	0,808	0,888			
26 x 17			0,367	0,418	0,468	0,513	0,565	0,616	0,687	0,758	0,897	0,986			
26 x 18			0,370	0,420	0,470	0,520	0,570	0,620	0,710	0,760	0,900	0,990			
28 x 20			0,402	0,457	0,513	0,567	0,621	0,675	0,780	0,832	0,986	1,080			
29 x 20			0,419	0,477	0,535	0,592	0,648	0,704	0,787	0,869	1,030	1,130			
30 x 14			0,385	0,438	0,490	0,542	0,594	0,645	0,750	0,795	0,941	1,030			
30 x 15			0,367	0,418	0,468	0,513	0,565	0,616	0,687	0,758	0,897	0,986			
30 x 18			0,402	0,457	0,513	0,567	0,621	0,675	0,754	0,832	0,986	1,080			
30 x 19			0,419	0,477	0,535	0,592	0,648	0,704	0,810	0,869	1,030	1,130			
30 x 22			0,471	0,536	0,601	0,666	0,730	0,793	0,887	0,980	1,160	1,280			
31 x 18			0,419	0,477	0,535	0,592	0,648	0,704	0,787	0,869	1,030	1,130			
33 x 16			0,419	0,477	0,535	0,592	0,648	0,704	0,787	0,869	1,030	1,130			
35 x 20			0,481	0,548	0,615	0,681	0,746	0,811	0,906	1,000	1,190	1,310			
36 x 12			0,440	0,501	0,561	0,621	0,681	0,740	0,827	0,914	1,080	1,190	1,462		
40 x 20			0,506	0,576	0,646	0,715	0,784	0,852	0,951	1,050	1,250	1,380	1,696		
40,5 x 15,5			0,506	0,576	0,646	0,715	0,784	0,852	0,951	1,050	1,250	1,380	1,696		
41 x 15			0,506	0,576	0,646	0,715	0,784	0,852	0,951	1,050	1,250	1,380	1,696		
42,3 x 14,2			0,506	0,576	0,646	0,715	0,784	0,852	0,951	1,050	1,250	1,380	1,696		
45 x 15			0,540	0,615	0,690	0,764	0,838	0,912	1,016	1,120	1,340	1,480	1,820		
48 x 25				0,723	0,810	0,898	0,984	1,070	1,199	1,328	1,580	1,740	2,150		
50 x 20				0,723	0,810	0,898	0,984	1,070	1,199	1,328	1,580	1,740	2,150		
50 x 25				0,734	0,823	0,912	1,001	1,090	1,220	1,350	1,610	1,780	2,210		
55 x 15					0,823	0,912	1,001	1,090	1,220	1,350	1,610	1,780	2,190		
60 x 30					0,981	1,095	1,202	1,308	1,464	1,619	1,921	2,121	2,623		
60 x 32					1,046	1,160	1,273	1,386	1,554	1,721	2,052	2,270	2,807		
65 x 18					0,979	1,090	1,195	1,300	1,455	1,610	1,920	2,120	2,620		
70 x 42						1,380	1,515	1,650	1,920	2,050	2,450	2,710	3,360		
73 x 46										2,165	2,585	2,862	3,547	4,219	
76 x 25						1,330	1,460	1,590	1,785	1,980	2,360	2,610	3,240		
76 x 45						1,530	1,670	1,820	2,130	2,270	2,710	3,010	3,730		
93,5 x 59										2,646	3,162	3,504	4,349	5,182	
101 x 50,8							2,140	2,331	2,620	2,908	3,462	3,846	4,776		
120 x 60											4,540	4,590	5,710	6,810	8,340
165 x 125														10,730	13,20



Triangular carbon steel welded tubes

Tubos triangulares soldados de acero al carbono

external dimensions		wall thickness mm				weight kg/m
A x B mm	TAV	1,5	2	2,5	3	
30 x 15	1338	0,86	1,13			
40 x 22	633	1,18	1,55			
36,5 x 37,5	1871	1,35	1,78			
43 x 43	1870	1,61	2,12	2,62		
49,5 x 46,5	1858	1,79	2,37	2,93		
126 x 145	1874		6,79	8,46	10,12	



Semioval carbon steel welded tubes

Tubos semiovalados soldados de acero al carbono

external dimensions		wall thickness mm											weight kg/m	
A x B mm		0,6	0,7	0,8	0,9	1	1,1	1,2	1,4	1,5	1,8	2		2,5
14 x 10				0,260	0,290	0,320	0,350	0,379	0,421	0,462				
25 x 25				0,534	0,601	0,667	0,734	0,800	0,894	0,988	1,161	1,289		
30 x 15				0,510	0,730	0,637	0,701	0,765	0,843	0,921	1,080	1,200		
30 x 20				0,576	0,646	0,715	0,784	0,852	0,951	1,050	1,250	1,380	1,700	
30 x 30				0,655	0,735	0,814	0,893	0,971	1,086	1,200	1,430	1,570	1,940	
35 x 20				0,615	0,690	0,764	0,838	0,912	1,016	1,120	1,340	1,480	1,810	
35 x 25				0,632	0,710	0,789	0,852	0,941	1,051	1,160	1,380	1,520	1,880	
35 x 30				0,729	0,818	0,906	0,994	1,082	1,212	1,341	1,596	1,764	2,174	
35 x 35				0,773	0,868	0,962	1,056	1,150	1,285	1,420	1,700	1,870	2,320	
38 x 20				0,655	0,735	0,814	0,893	0,971	1,086	1,200	1,430	1,570	1,940	
38 x 22				0,675	0,757	0,838	0,919	1,000	1,120	1,239	1,474	1,628	2,004	
40 x 15				0,635	0,712	0,789	0,865	0,941	1,051	1,160	1,380	1,520	1,880	
40 x 20				0,694	0,779	0,863	0,947	1,030	1,150	1,270	1,520	1,670	2,005	
40 x 25				0,734	0,823	0,912	0,956	1,000	1,175	1,350	x	1,780	2,190	
40 x 30				0,774	0,868	0,962	1,055	1,148	1,287	1,425	1,696	1,875	2,313	
40 x 32				0,813	0,912	1,010	1,105	1,200	1,400	1,490	1,780	1,970	2,430	
41 x 35				0,883	0,934	1,034	1,133	1,232	1,379	1,525	1,811	1,999		
45 x 40				0,930	1,040	1,150	1,270	1,380	1,610	1,720	2,050	2,270	2,810	
48,5 x 35				0,931	1,040	1,150	1,265	1,380	1,550	1,720	2,050	2,270	2,800	
50 x 25				0,872	0,979	1,090	1,195	1,300	1,455	1,610	1,920	2,120	2,660	
50 x 30				0,908	1,019	1,130	1,240	1,350	1,570	1,676	1,998	2,210	2,732	
55 x 35						1,260	1,380	1,510	1,750	1,870	2,230	2,470	3,060	
60 x 30						1,310	1,430	1,560	1,820	1,940	2,310	2,560	3,170	
60 x 40						1,380	1,515	1,650	1,850	2,050	2,450	2,710	3,360	
80 x 40						1,738	1,917	2,096	2,353	2,609	3,118	3,454	4,287	
90 x 15						1,684	1,853	2,021	2,262	2,502	3,032	3,305	4,108	
102 x 20							2,000	2,213	2,540	2,755	3,294	3,649	4,543	

Special shapes for window and door frames

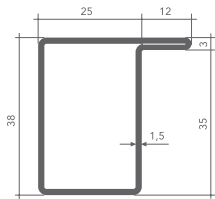
EN 10305-3 S1, S2, S4

Tubos perfiles especiales para puertas y ventanas
EN 10305-3 S1, S2, S4



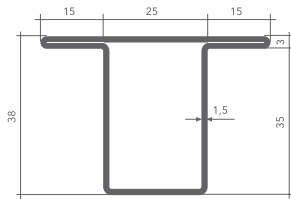
- **Enlargement or reduction percentage of the drawings**
Porcentaje de ampliación o reducción de planos

1A (T. 873) • 55%



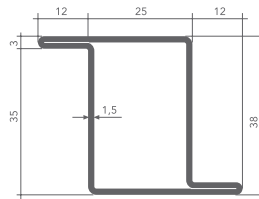
Thickness (mm)	kg/m
1,5	1,72

1B (T. 572) • 55%



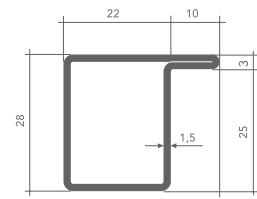
Thickness (mm)	kg/m
1,5	2,10

1C (T. 573) • 55%



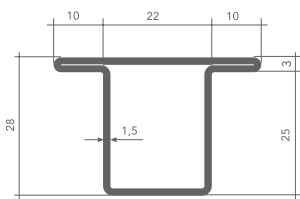
Thickness (mm)	kg/m
1,5	1,99

11A (T. 668) • 65%



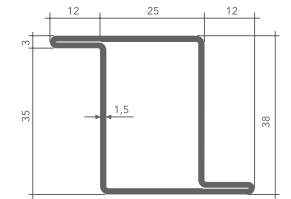
Thickness (mm)	kg/m
1,5	1,34

11B (T. 658) • 65%



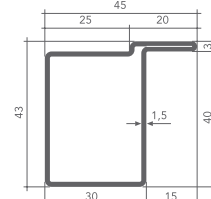
Thickness (mm)	kg/m
1,5	1,57

11C (T. 667) • 55%



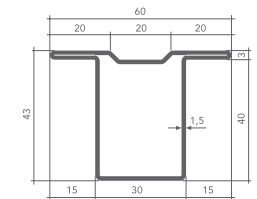
Thickness (mm)	kg/m
1,5	1,57

15A (T. 625) • 45%



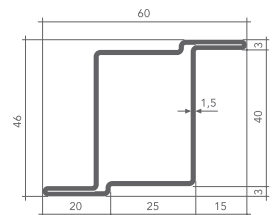
Thickness (mm)	kg/m
1,5	2,04

15T (T. 626) • 40%



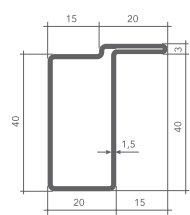
Thickness (mm)	kg/m
1,5	2,45

15Z (T. 635) • 45%



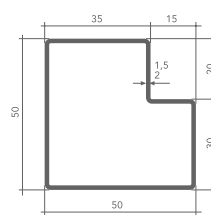
Thickness (mm)	kg/m
1,5	2,45

14A (T. 1183) • 45%



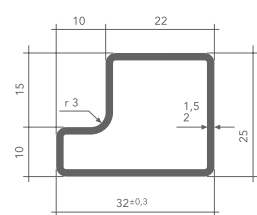
Thickness (mm)	kg/m
1,5	1,79

12A (T. 1141) • 40%



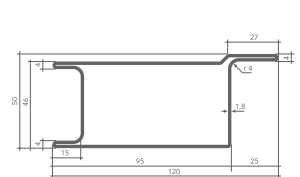
Thickness (mm)	kg/m
1,5	2,30

10A (T. 1908) • 65%



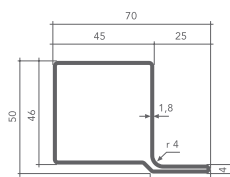
Thickness (mm)	kg/m
1,5	1,27

TS 20 D (T. 2037) • 25%



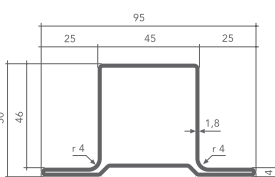
Thickness (mm)	kg/m
1,8	4,99

TS 20 L (T. 2014) • 30%



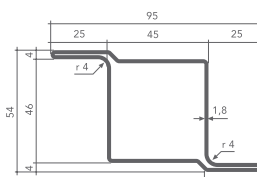
Thickness (mm)	kg/m
1,8	3,29

TS 20 T (T. 2012) • 30%

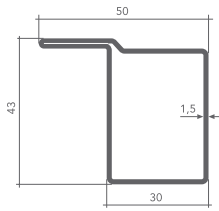


Thickness (mm)	kg/m
1,8	4,06

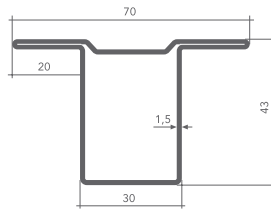
TS 20 Z (T. 2013) • 30%



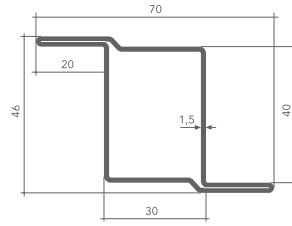
Thickness (mm)	kg/m
1,8	4,06

TS 21 L (T. 1865) • 45%

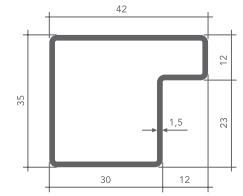
Thickness (mm)	kg/m
1,5	2,05

TS 21 L (T. 1996) • 45%

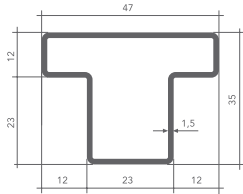
Thickness (mm)	kg/m
1,5	2,64

TS 21 Z (T. 1972) • 45%

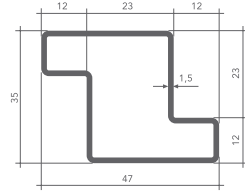
Thickness (mm)	kg/m
1,5	2,64

2A (T. 610) • 50%

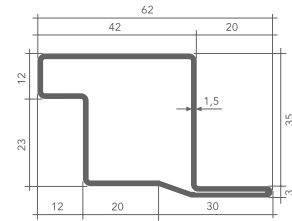
Thickness (mm)	kg/m
1,5	1,76

2B (T. 601) • 50%

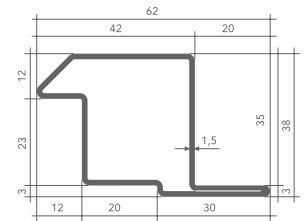
Thickness (mm)	kg/m
1,5	1,88

2Z (T. 595) • 50%

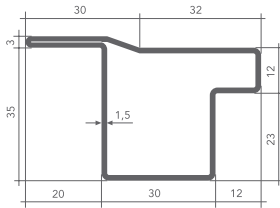
Thickness (mm)	kg/m
1,5	1,88

2N (T. 609) • 50%

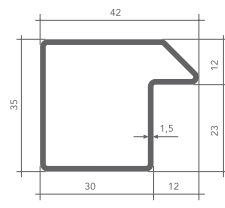
Thickness (mm)	kg/m
1,5	2,30

3N (T. 672) • 50%

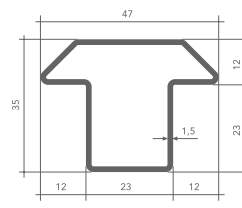
Thickness (mm)	kg/m
1,5	2,25

2T (T. 606) • 50%

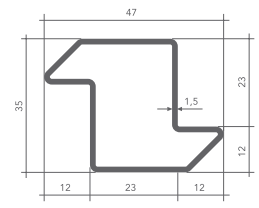
Thickness (mm)	kg/m
1,5	2,30

3A (T. 637) • 50%

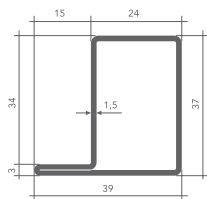
Thickness (mm)	kg/m
1,5	1,70

3B (T. 670) • 50%

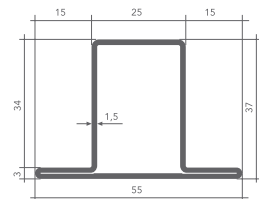
Thickness (mm)	kg/m
1,5	1,77

3Z (T. 669) • 50%

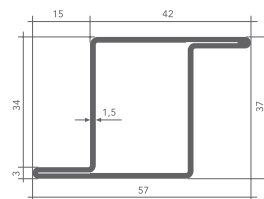
Thickness (mm)	kg/m
1,5	1,77

SA (T. 1816) • 50%

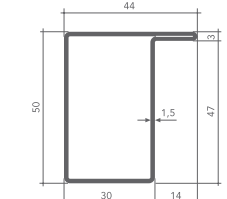
Thickness (mm)	kg/m
1,5	1,72

ST (T. 1817) • 50%

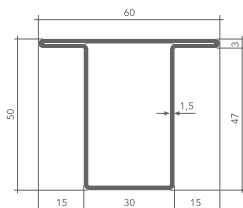
Thickness (mm)	kg/m
1,5	2,16

SZ (T. 1818) • 50%

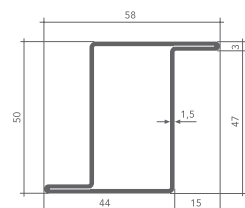
Thickness (mm)	kg/m
1,5	2,76

SF 1/B (T. 1317) • 40%

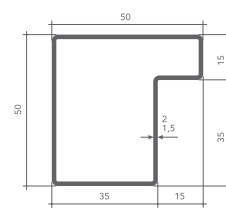
Thickness (mm)	kg/m
1,5	2,15

SF 2/B (T. 1318) • 40%

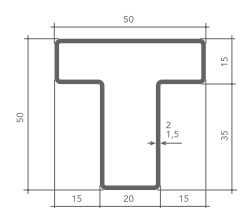
Thickness (mm)	kg/m
1,5	2,52

SF 3/B (T. 1319) • 40%

Thickness (mm)	kg/m
1,5	2,52

16A (T. 618) • 40%

Thickness (mm)	kg/m
1,5	2,33
2	3,08

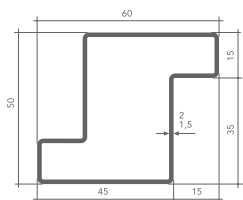
16B (T. 614) • 40%

Thickness (mm)	kg/m
1,5	2,33
2	3,08

Special shapes for window and door frame EN 10305-3 S1, S2, S4

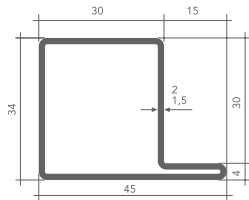
Tubos perfiles especiales para puertas y ventanas EN 10305-3 S1, S2, S4

16Z (T. 616) • 40%



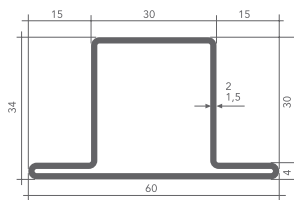
Thickness (mm)	kg/m
1,5	2,56
2	3,39

BSP1-S715-S44 (T. 1295) • 55%



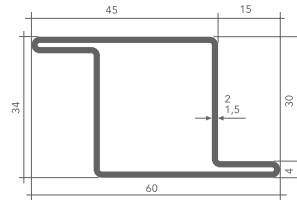
Thickness (mm)	kg/m
1,5	1,70
2	2,37

BSP2-S714-S43 (T. 1296) • 55%



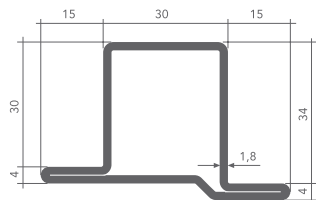
Thickness (mm)	kg/m
1,5	2,16
2	2,86

BSP3-S713-S42 (T. 1297) • 55%



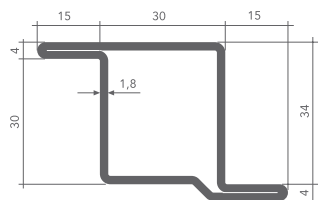
Thickness (mm)	kg/m
1,5	2,16
2	2,86

BSP4 (PN) • 55%



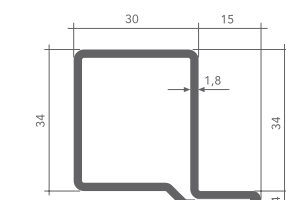
Thickness (mm)	kg/m
1,8	2,72

BSP5 (PN) • 55%



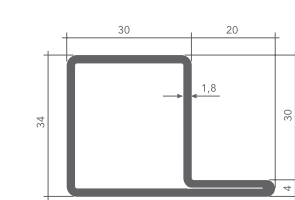
Thickness (mm)	kg/m
1,8	2,72

BSP6 (PN) • 55%



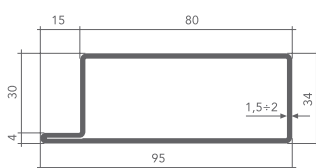
Thickness (mm)	kg/m
1,8	2,28

BSP7 (PN) • 55%



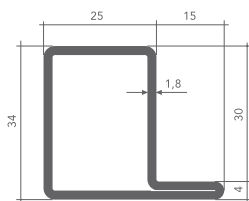
Thickness (mm)	kg/m
1,8	2,53

S41 (T. 1308) • 35%



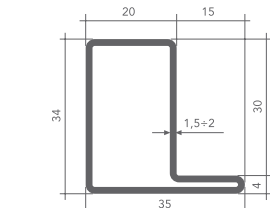
Thickness (mm)	kg/m
1,5	3,02
2	3,94

BST1 (T. 2149) • 60%



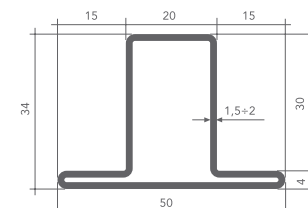
Thickness (mm)	kg/m
1,8	2,06

BST2-S703-S222-S47 (T. 1499) • 60%



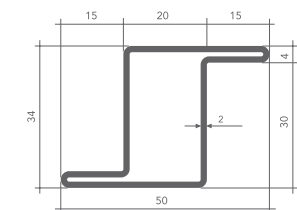
Thickness (mm)	kg/m
1,5	1,61
2	2,12

BST3-S703-S221-S46 (T. 1323) • 60%



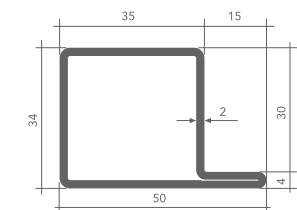
Thickness (mm)	kg/m
1,5	1,94
2	2,56

BST4-S701-S45 (T. 1786) • 55%



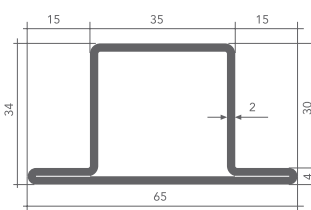
Thickness (mm)	kg/m
2	2,56

BST5 (T. 1324) • 55%



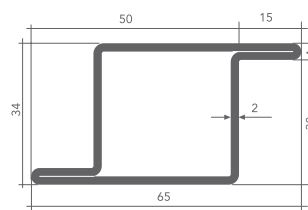
Thickness (mm)	kg/m
2	2,56

BST7 (T. 1612) • 55%



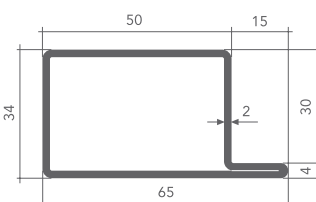
Thickness (mm)	kg/m
2	3,04

BST8 (T. 1613) • 55%



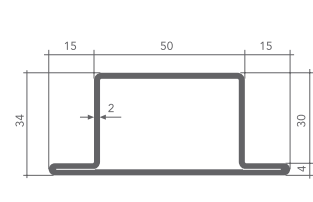
Thickness (mm)	kg/m
2	3,04

BST6-S25 (T. 1377) • 50%



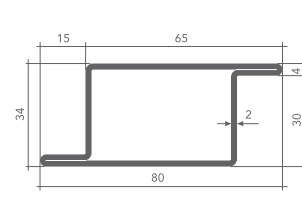
Thickness (mm)	kg/m
2	3,01

BST6A-S24-RP103 (PN) • 40%



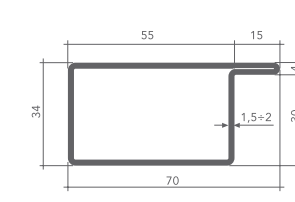
Thickness (mm)	kg/m
2	3,2

BST6B-S23 (T. 1378) • 40%

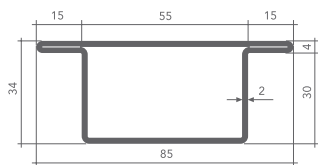


Thickness (mm)	kg/m
2	3,45

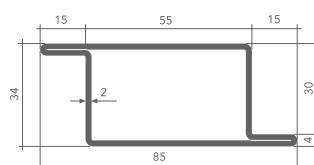
BSV1-S28-RP104 (T. 1387) • 40%



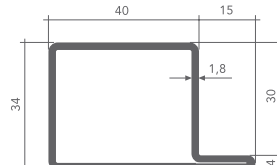
Thickness (mm)	kg/m
1,5	2,15
2	2,86

BSV2-S27-RP150 (T. 1386) • 40%

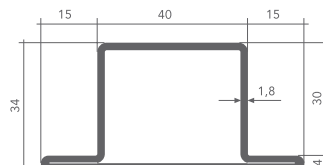
Thickness (mm)	kg/m
2	3,65

BSV3-S26-RP1190 (T. 1388) • 40%

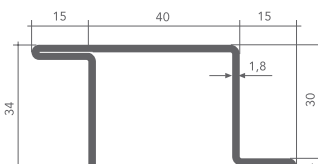
Thickness (mm)	kg/m
2	3,65

BSV4 (PN) • 50%

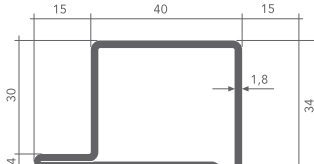
Thickness (mm)	kg/m
1,8	2,47

BSV5-RP1050 (PN) • 50%

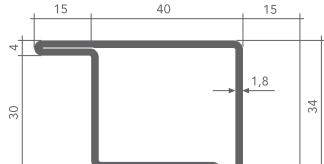
Thickness (mm)	kg/m
1,8	2,91

BSV6 (PN) • 50%

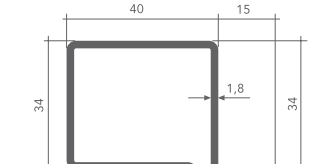
Thickness (mm)	kg/m
1,8	2,91

BSV7 (PN) • 50%

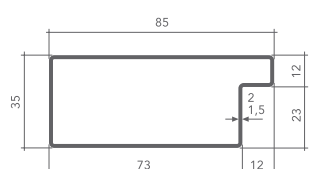
Thickness (mm)	kg/m
1,8	3,03

BSV8 (PN) • 50%

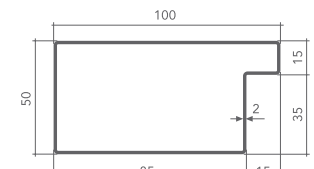
Thickness (mm)	kg/m
1,8	3,03

BSV9 (PN) • 50%

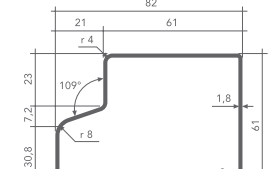
Thickness (mm)	kg/m
1,8	2,55

2D (T. 1528) • 35%

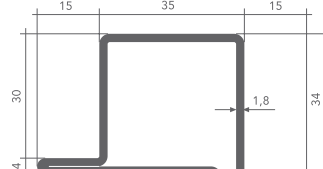
Thickness (mm)	kg/m
1,5	2,78
2	3,66

16D (T. 1527) • 30%

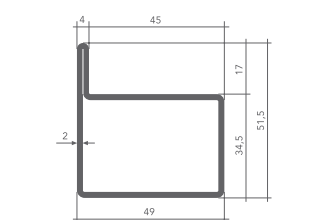
Thickness (mm)	kg/m
2	4,65

T. 1965 • 30%

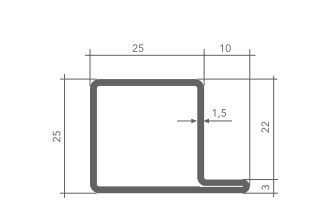
Thickness (mm)	kg/m
1,8	3,87

BST9-RP140 (PN) • 55%

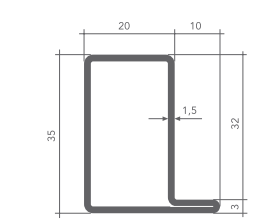
Thickness (mm)	kg/m
1,8	2,88

T. 1372 • 40%

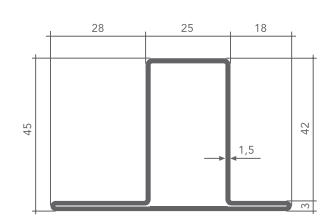
Thickness (mm)	kg/m
2	3,06

D4 (PN) • 60%

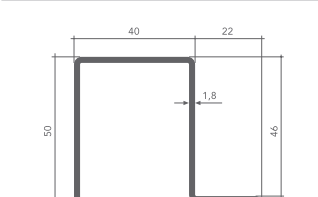
Thickness (mm)	kg/m
1,5	1,39

BSD5 (PN) • 60%

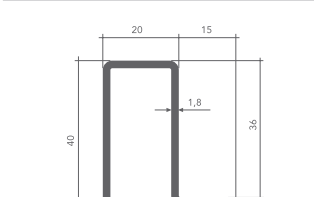
Thickness (mm)	kg/m
1,5	1,52

LS15D (PN) • 45%

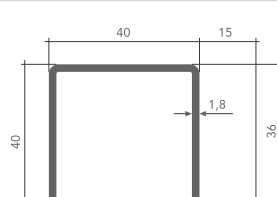
Thickness (mm)	kg/m
1,5	2,68

E8-RP1072 (PN) • 40%

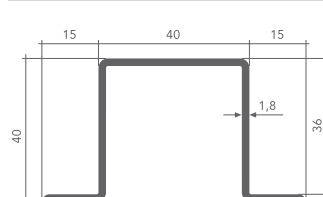
Thickness (mm)	kg/m
1,8	3,13

E1-RP1114 (PN) • 50%

Thickness (mm)	kg/m
1,8	1,52

E4-RP1008 (PN) • 50%

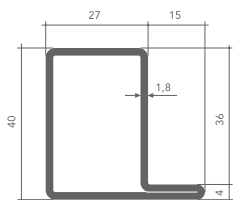
Thickness (mm)	kg/m
1,8	2,65

E5-RP152 (PN) • 50%

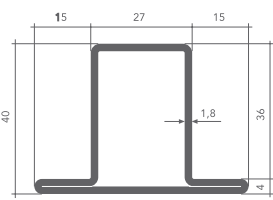
Thickness (mm)	kg/m
1,8	3,07

Special shapes for window and door frame EN 10305-3 S1, S2, S4

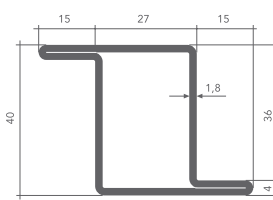
Tubos perfiles especiales para puertas y ventanas EN 10305-3 S1, S2, S4

BSL1 (T. 2173) • 50%

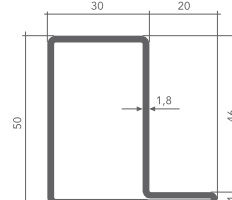
Thickness (mm)	kg/m
1,8	2,27

BSL2 (PN) • 50%

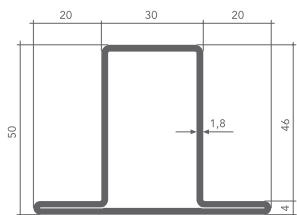
Thickness (mm)	kg/m
1,8	2,7

BSL3 (PN) • 50%

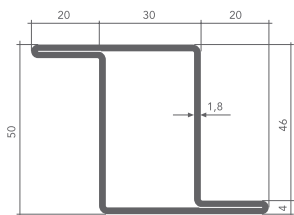
Thickness (mm)	kg/m
1,8	2,7

BSM1 (PN) • 45%

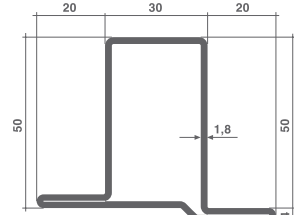
Thickness (mm)	kg/m
1,8	2,8

BSM2 (PN) • 45%

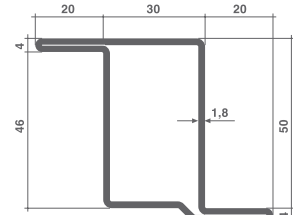
Thickness (mm)	kg/m
1,8	3,36

BSM3 (T. 2107) • 45%

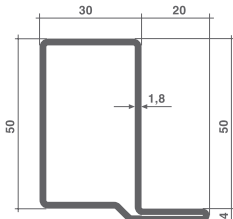
Thickness (mm)	kg/m
1,8	3,36

BSM4 (PN) • 45%

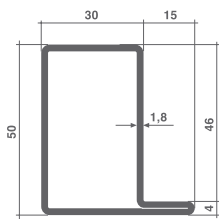
Thickness (mm)	kg/m
1,8	3,41

BSM5 (PN) • 45%

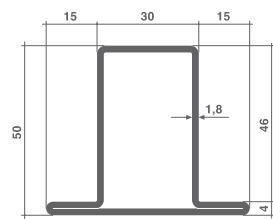
Thickness (mm)	kg/m
1,8	3,44

BSM6 (PN) • 45%

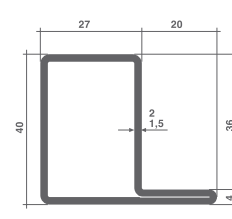
Thickness (mm)	kg/m
1,8	2,91

BSM1bis (PN) • 45%

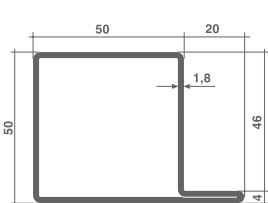
Thickness (mm)	kg/m
1,8	2,7

BSM2bis (PN) • 45%

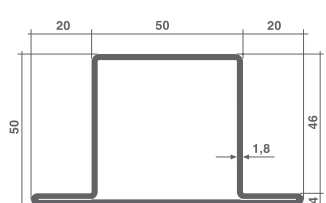
Thickness (mm)	kg/m
1,8	3,1

BSL4 (T. 1596) • 50%

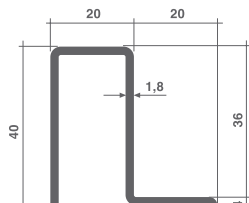
Thickness (mm)	kg/m
1,5	2,05
2	2,70

SN1 (PN) • 50%

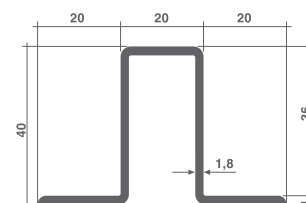
Thickness (mm)	kg/m
1,8	3,37

SN2 (PN) • 50%

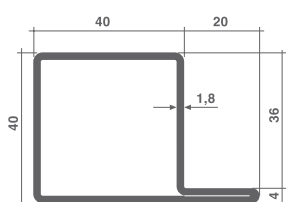
Thickness (mm)	kg/m
1,8	3,95

SH1 (PN) • 55%

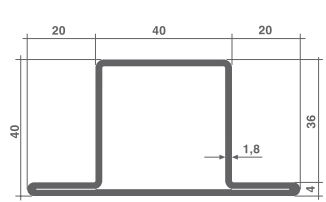
Thickness (mm)	kg/m
1,8	2,22

SH2 (PN) • 55%

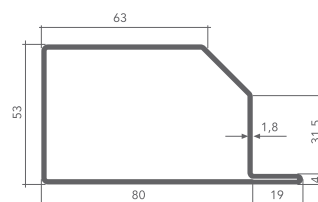
Thickness (mm)	kg/m
1,8	2,8

SI1-RP1683 (PN) • 50%

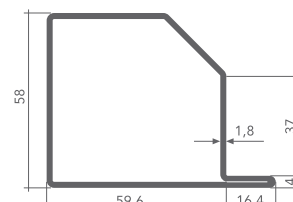
Thickness (mm)	kg/m
1,8	2,8

SI2 (PN) • 45%

Thickness (mm)	kg/m
1,8	3,37

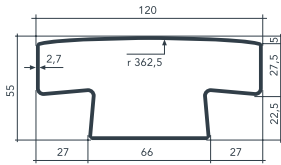
ML1 (PN) • 35%

Thickness (mm)	kg/m
1,8	4,23

ML2 (PN) • 40%

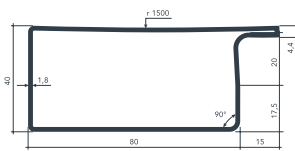
Thickness (mm)	kg/m
1,8	3,69

S8 (T. 2090) • 25%



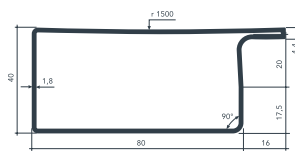
Thickness (mm)	kg/m
2,7	7,12

TU15 (PN) • 35%



Thickness (mm)	kg/m
1,8	3,89

TU16 (PN) • 35%



Thickness (mm)	kg/m
1,8	3,92

SPECIAL SHAPES ARE ENGINEERED ACCORDING TO CUSTOMER SPECIFICATIONS

PERFILES ESPECIALES ESTUDIADOS Y SUMINISTRADOS DE ACUERDO CON EL CLIENTE



Standard and custom profiles meet the specific requirements of window and door frame construction.

Perfiles estándar y especiales dedicados a las exigencias específicas del sector de producción de puertas y ventanas.



Special shapes EN 10305-3 S1, S2, S4

Tubos perfiles especiales EN 10305-3 S1, S2, S4

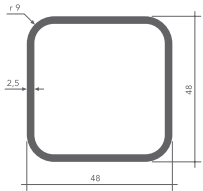
- **Enlargement or reduction percentage of the drawings**
Porcentaje de ampliación o reducción de planos

SPECIAL SHAPES
ARE ENGINEERED
ACCORDING TO
CUSTOMER
SPECIFICATIONS

OTROS PERFILES
ESPECIALES ESTUDIADOS
Y SUMINISTRADOS
DE ACUERDO CON
EL CLIENTE

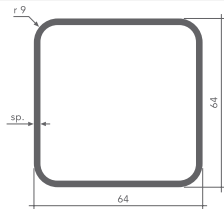


T. 1667 • 40%



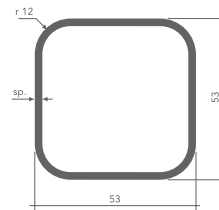
Thickness (mm)	kg/m
2,5	3,39

T. 1759 • 35%



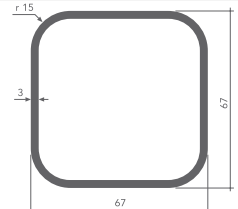
Thickness (mm)	kg/m
2	3,7
2,35	4,33
2,5	4,61
2,7	5,05
3	5,51

T. 1657 • 40%



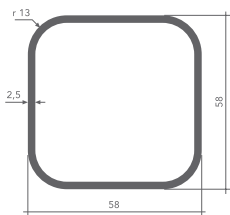
Thickness (mm)	kg/m
2,35	2,46
2,5	3,69
2,75	4,03

T. 1839 • 35%



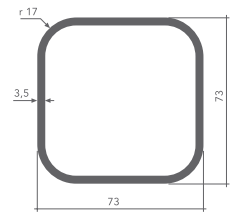
Thickness (mm)	kg/m
3	5,58

T. 1595 • 40%



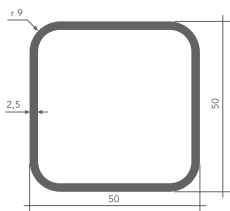
Thickness (mm)	kg/m
2,5	4,04

T. 1938 • 30%



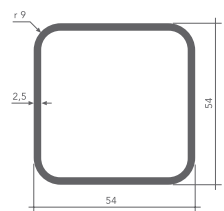
Thickness (mm)	kg/m
3,5	7,06

T. 1946 • 45%



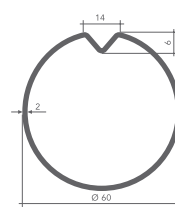
Thickness (mm)	kg/m
2,5	3,69

T. 1956 • 40%



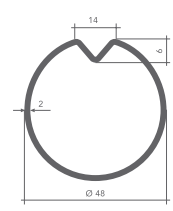
Thickness (mm)	kg/m
2,5	3,79

T. 1768 • 35%



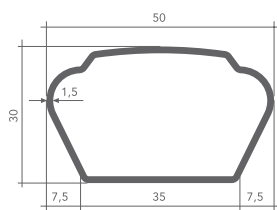
Thickness (mm)	kg/m
2	3,01

T. 1823 • 40%



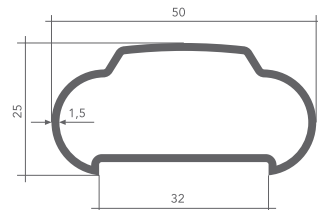
Thickness (mm)	kg/m
2	2,37

MT5 Handrail (T. 1312) • 60%



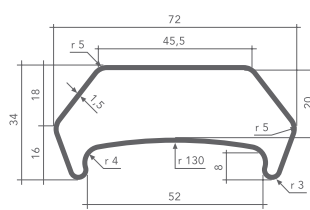
Thickness (mm)	kg/m
1,5	1,65

MT9 Handrail (T. 1313) • 60%



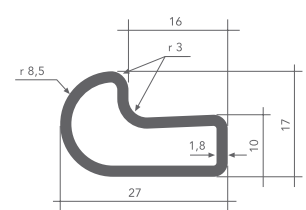
Thickness (mm)	kg/m
1,5	1,60

T. 1616 • 45%



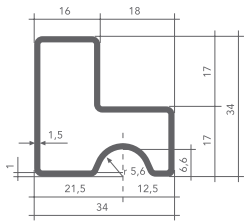
Thickness (mm)	kg/m
1,5	2,276

TR2 (T. 1974) • 80%



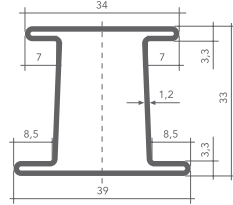
Thickness (mm)	kg/m
1,8	1,03

T. 735 • 55%



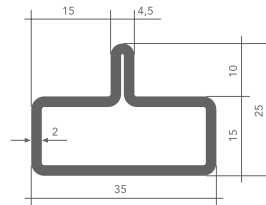
Thickness (mm)	kg/m
1,5	1,61

T. 1254 • 60%



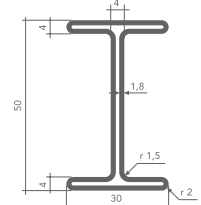
Thickness (mm)	kg/m
1,2	1,58

T. 1303 • 70%



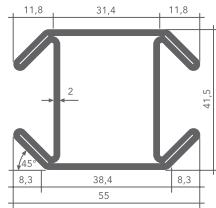
Thickness (mm)	kg/m
2	1,78

T. 1426 • 45%



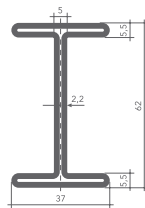
Thickness (mm)	kg/m
1,8	2,8

T. 1025 • 45%



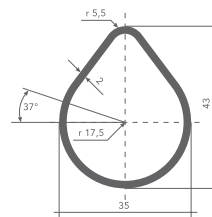
Thickness (mm)	kg/m
2	3,65

T. 1071 • 35%



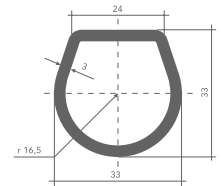
Thickness (mm)	kg/m
2,2	4,3

T. 700 • 50%



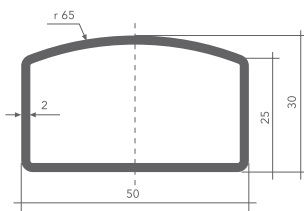
Thickness (mm)	kg/m
2	1,78

T. 792 • 50%



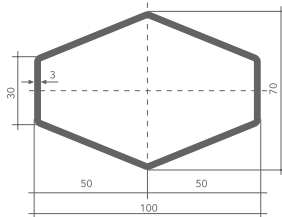
Thickness (mm)	kg/m
3	2,37

T. 1201 • 60%



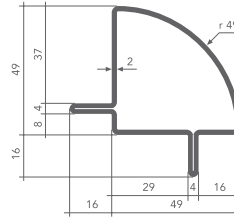
Thickness (mm)	kg/m
2	2,27

T. 942 • 30%



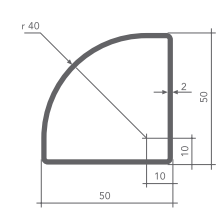
Thickness (mm)	kg/m
3	6,36

T. 1121 • 35%



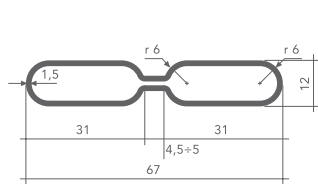
Thickness (mm)	kg/m
2	3,65

T. 1078 • 35%



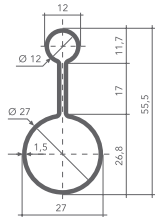
Thickness (mm)	kg/m
2	2,76

T.537 • 50%



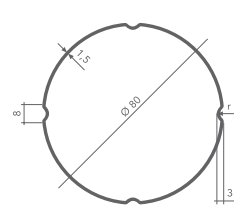
Thickness (mm)	kg/m
1,5	1,79

T. 701 • 40%



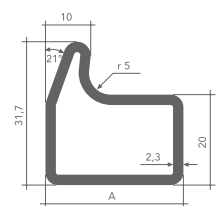
Thickness (mm)	kg/m
1,5	1,72

T. 1801 • 30%



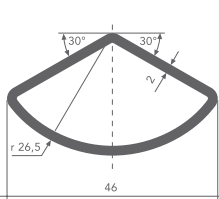
Thickness (mm)	kg/m
1,5	2,9

T. 1191 - T. 994 • 60%



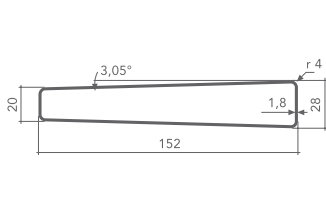
A	kg/m
25	1,87
30,5	2,14

T. 1310 • 60%



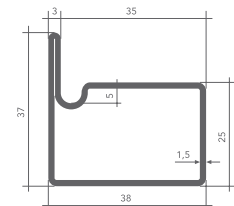
Thickness (mm)	kg/m
2	1,63

T. 1697 • 23%



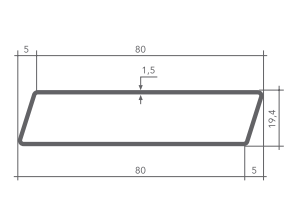
Thickness (mm)	kg/m
1,8	5

T. 574 • 55%

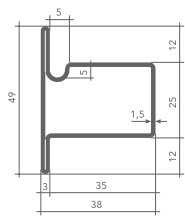


Thickness (mm)	kg/m
1,5	1,87

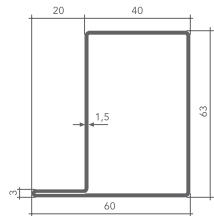
T. 1113 • 40%



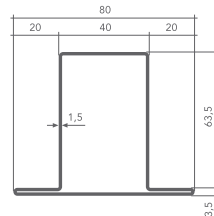
Thickness (mm)	kg/m
1,5	2,27

T. 1164 • 40%

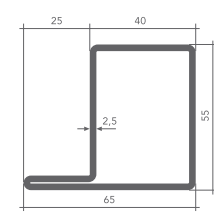
Thickness (mm)	kg/m
1,5	2,16

T. 776 • 35%

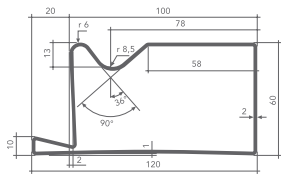
Thickness (mm)	kg/m
1,5	2,75

T. 774 • 30%

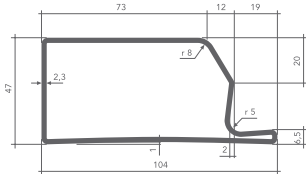
Thickness (mm)	kg/m
1,5	3,23

T. 770 • 35%

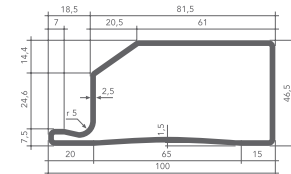
Thickness (mm)	kg/m
2,5	4,53

T. 1746 • 25%

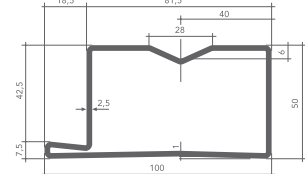
Thickness (mm)	kg/m
2	5,87

T. 1755 • 30%

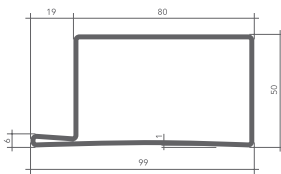
Thickness (mm)	kg/m
2,3	5,2

T. 1787 • 30%

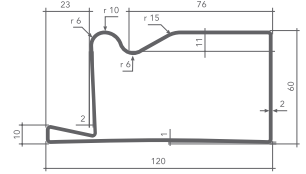
Thickness (mm)	kg/m
2,5	5,7

T. 902 • 30%

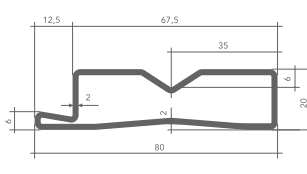
Thickness (mm)	kg/m
2,5	5,7

T. 1074 • 30%

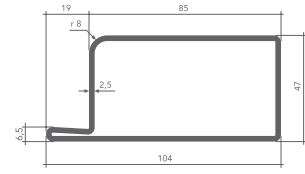
Thickness (mm)	kg/m
1	5,11

T. 1376 • 25%

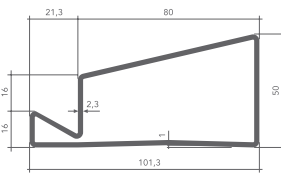
Thickness (mm)	kg/m
2	5,87

T. 1088 • 40%

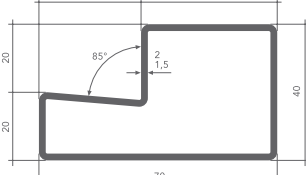
Thickness (mm)	kg/m
2	3,1

T. 845 • 30%

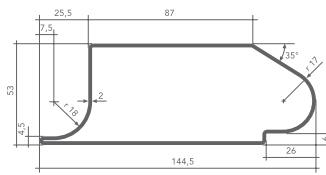
Thickness (mm)	kg/m
2,5	5,7

T. 1092 • 30%

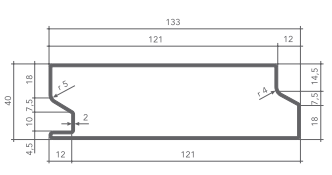
Thickness (mm)	kg/m
2,3	5,35

T. 660 BFTM - 5M • 45%

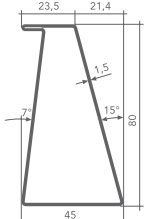
Thickness (mm)	kg/m
1,5	2,53

T. 1110 • 25%

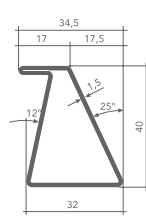
Thickness (mm)	kg/m
2	5,52

T. 1779 • 25%

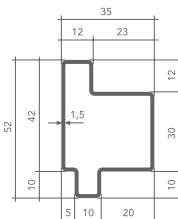
Thickness (mm)	kg/m
1,5	4,2

T. 1081 • 30%

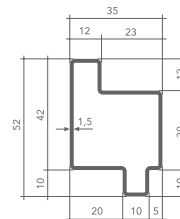
Thickness (mm)	kg/m
1,5	2,75

T. 724 • 40%

Thickness (mm)	kg/m
1,5	1,61

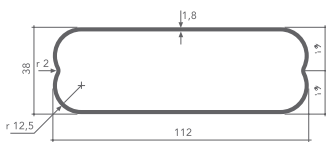
T. 1356 • 35%

Thickness (mm)	kg/m
1,5	1,99

T. 1355 • 35%

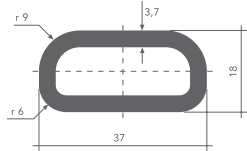
Thickness (mm)	kg/m
1,5	1,99

T. 1533 • 30%



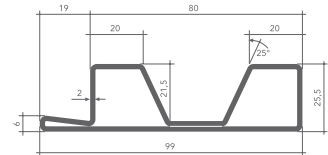
Thickness (mm)	kg/m
1,8	3,87

T. 1855 • 60%



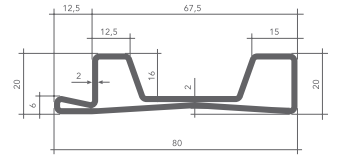
Thickness (mm)	kg/m
3,7	1,382

T. 1268 • 35%



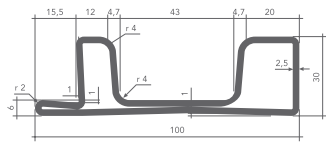
Thickness (mm)	kg/m
2	4,29

T. 1292 • 40%



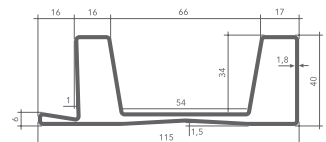
Thickness (mm)	kg/m
2	3,35

T. 1437 • 35%



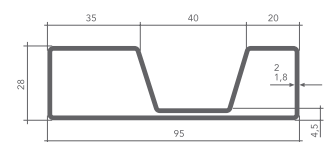
Thickness (mm)	kg/m
2,5	5,70

T. 1316 • 30%



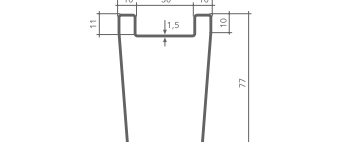
Thickness (mm)	kg/m
1,8	4,14

T. 1719 • 35%



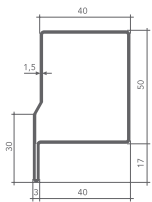
Thickness (mm)	kg/m
2	4,29

T. 1525 • 25%



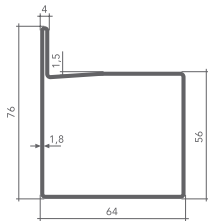
Thickness (mm)	kg/m
1,5	3,16

T. 1393 • 30%



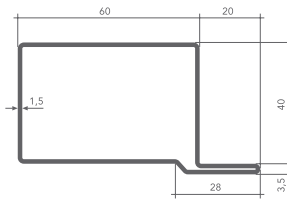
Thickness (mm)	kg/m
1,5	2,53

T. 1398 • 30%



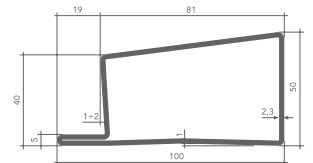
Thickness (mm)	kg/m
1,8	3,78

T. 1709 • 40%



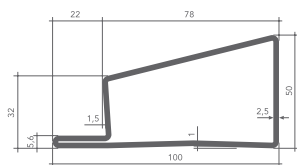
Thickness (mm)	kg/m
1,5	2,9

T. 1433 • 30%



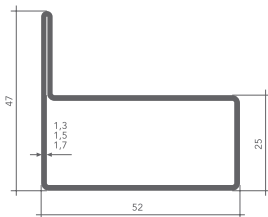
Thickness (mm)	kg/m
2,3	5,57

T. 1092/B • 30%



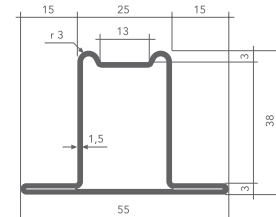
Thickness (mm)	kg/m
2,5	5,39

T. 1448 • 50%



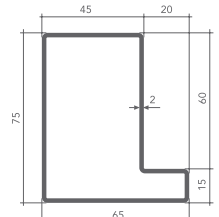
Thickness (mm)	kg/m
1,3	1,98
1,5	2,28
1,7	2,57

T. 1471 • 50%



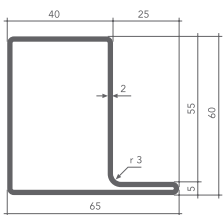
Thickness (mm)	kg/m
1,5	2,13

T. 1514 • 30%



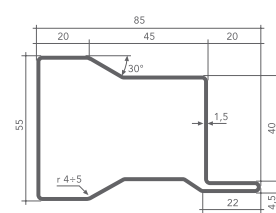
Thickness (mm)	kg/m
2	4,29

T. 1581 • 35%



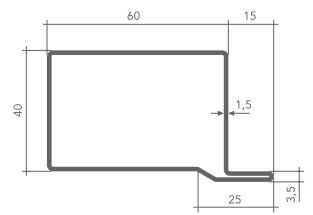
Thickness (mm)	kg/m
2	3,849

T. 1680 • 35%



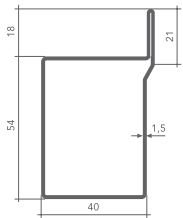
Thickness (mm)	kg/m
1,5	3,784

T. 1663 • 40%



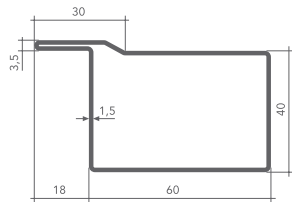
Thickness (mm)	kg/m
1,5	2,757

T. 1582 • 35%



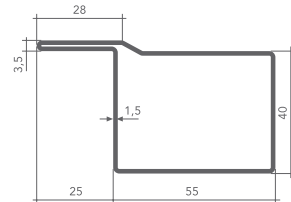
Thickness (mm)	kg/m
1,5	2,64

T. 1636 • 40%



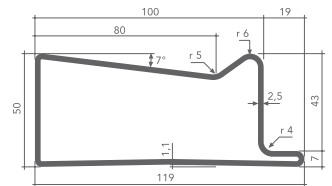
Thickness (mm)	kg/m
1,5	2,757

T. 1687 • 40%



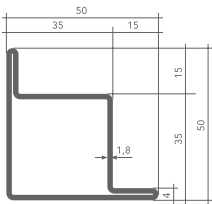
Thickness (mm)	kg/m
1,5	2,757

T. 1693 • 30%



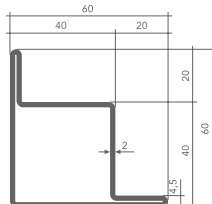
Thickness (mm)	kg/m
2,5	6,508

T. 742 • 45%



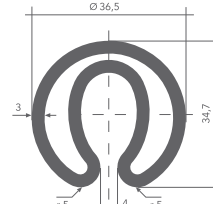
Thickness (mm)	kg/m
1,8	2,270

T. 420 • 35%



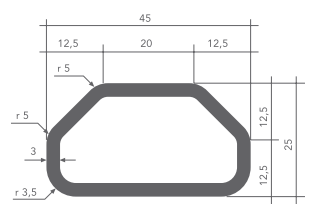
Thickness (mm)	kg/m
2	3,65

T. 1912 • 55%



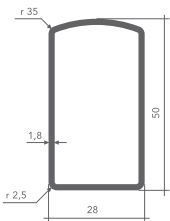
Thickness (mm)	kg/m
3	3,812

T. 1891 • 60%



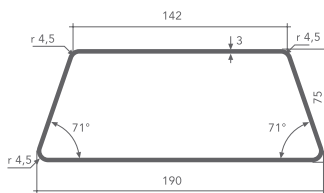
Thickness (mm)	kg/m
3	1,875

T. 1876 • 45%



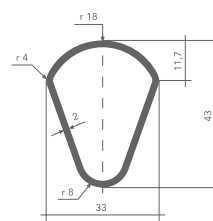
Thickness (mm)	kg/m
1,8	2,270

T. 1845 • 20%



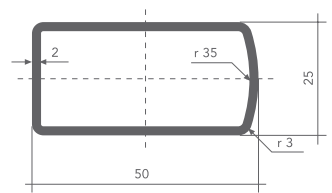
Thickness (mm)	kg/m
3	11,550

T.1939 • 45%



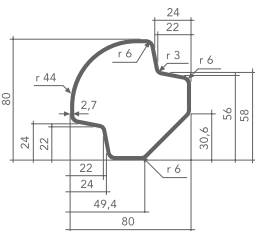
Thickness (mm)	kg/m
2	1,78

T. 2003 • 60%



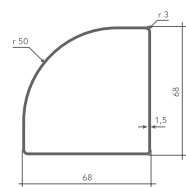
Thickness (mm)	kg/m
2	2,17

T. 1931 • 20%



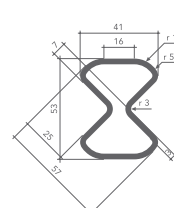
Thickness (mm)	kg/m
2,7	5,63

T. 1934 • 25%



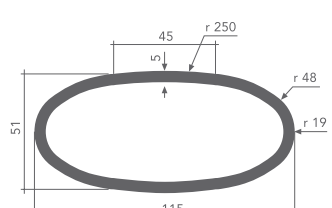
Thickness (mm)	kg/m
1,5	2,91

T. 2051 • 25%



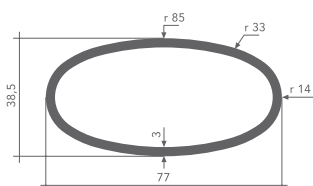
Thickness (mm)	kg/m
3	4,24

T. 2036 • 30%



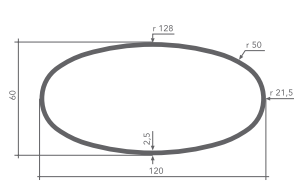
Thickness (mm)	kg/m
5	10,36

T. 1999 • 40%



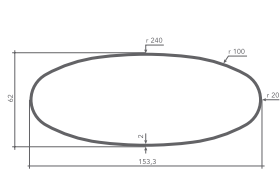
Thickness (mm)	kg/m
3	4,24

T. 1980 • 25%



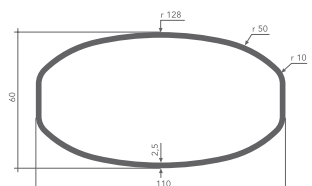
Thickness (mm)	kg/m
2,5	5,7

T. 2052 • 20%



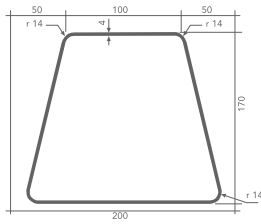
Thickness (mm)	kg/m
2	5,54

T. 2056 • 30%



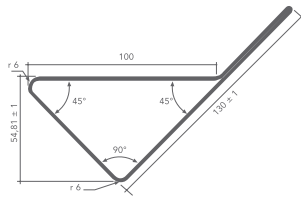
Thickness (mm)	kg/m
2,5	5,49

T. 2082 • 15%



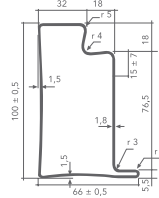
Thickness (mm)	kg/m
4	18,72

T. 2091 • 25%



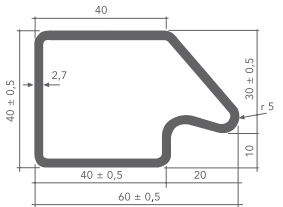
Thickness (mm)	kg/m
2	5,54

T.2096 • 20%

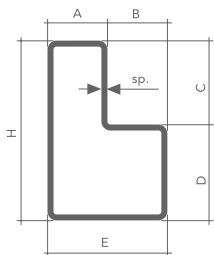


Thickness (mm)	kg/m
1,8	4,71

T. 2100 • 45%



Thickness (mm)	kg/m
2,7	3,95

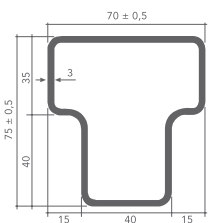


SPECIAL TUBE SECTIONS

Tubos perfiles especiales

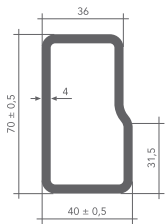
drawing	dimensions mm						thickness mm	weight kg/m	static data		
	H	A	B	C	D	E			W x (cm ³)	I x (cm ⁴)	Ø
1793	30	18	12	12	18	30	1,50	1,35	1,32	1,80	38
610	42	12	23	12	30	35	1,50	1,76	2,25	4,24	50
1827	42	20	15	25	17	35	1,50	1,76	2,45	4,52	50
2085	50	18	22	30	20	40	1,50	2,05	3,31	7,03	57
1951	50	20	20	25	25	40	1,50	2,05	3,36	7,37	57
1262	60	20	20	25	35	40	1,50	2,19	4,27	11,66	63
1262	60	20	20	25	35	40	2,00	3,01	5,55	15,13	63
1369	60	18	22	30	30	40	1,50	2,19	4,23	11,21	63
1369	60	18	22	30	30	40	2,00	3,01	5,49	14,55	63
1559	60	32	18	31	29	50	2,00	3,35	6,84	18,79	70
1826	69	17	33	14	55	50	1,50	2,76	5,92	20,59	76
1118	70	20	20	25	45	40	2,00	3,35	6,98	22,66	70
660•B	70	20	20	30	40	40	2,00	3,35	6,97	22,33	70
1432	80	18	22	30	50	40	2,00	3,46	8,41	31,11	76
1560	80	32	18	31	49	50	2,00	3,99	10,21	38,43	83
1306	90	20	20	40	50	40	2,00	3,99	10,21	42,60	83
1320	100	18	22	30	70	40	2,00	4,08	11,97	56,69	89
1093	100	20	20	25	75	40	2,00	4,08	12,19	58,40	89
1304	110	20	20	40	70	40	2,00	4,59	13,98	72,85	95
1561	110	32	18	31	79	50	2,00	4,93	16,39	86,87	102
1370	120	18	22	30	90	40	2,00	4,71	16,13	92,90	102
1305	130	20	20	40	90	40	2,00	5,29	18,36	114,53	108
1877	70	20	20	20	50	40	2,00	3,35	6,99	22,99	70
1917	80	20	20	25	55	40	2,00	3,46	8,86	33,22	76

T. 2101 • 30%



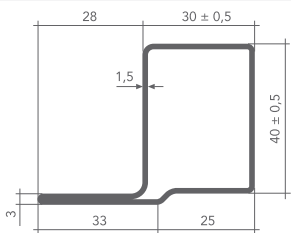
Thickness (mm)	kg/m
3	6,81

T. 2111 • 30%



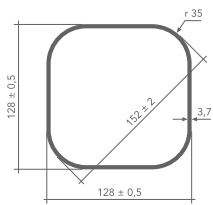
Thickness (mm)	kg/m
4	6,51

T. 2121 • 50%



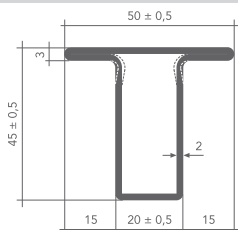
Thickness (mm)	kg/m
1,5	2,28

T. 2152 • 15%



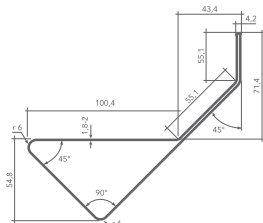
Thickness (mm)	kg/m
3,7	13,17

T. 2169 • 45%



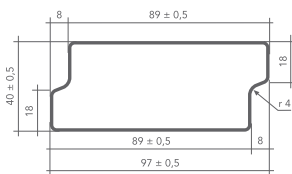
Thickness (mm)	kg/m
2	2,86

T. 2110 • 20%



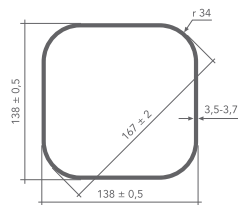
Thickness (mm)	kg/m
1,8	6,12
2	6,79

T. 2120 • 30%



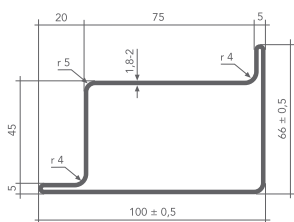
Thickness (mm)	kg/m
1,5	3,16

T. 2151 • 20%



Thickness (mm)	kg/m
3,5	13,42
3,7	14,18

T. 2166 • 100%



Thickness (mm)	kg/m
1,8	4,71
2	5,23



Special shapes
EN 10305-3 S1, S2, S4



Special shapes EN 10305-3 S3, S4

Tubos perfiles especiales EN 10305-3 S3, S4

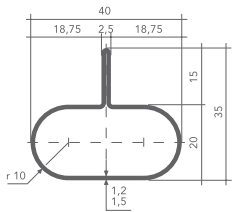
SPECIAL SHAPES
ARE ENGINEERED
ACCORDING TO
CUSTOMER
SPECIFICATIONS

OTROS PERFILES
ESPECIALES ESTUDIADOS
Y SUMINISTRADOS
DE ACUERDO CON
EL CLIENTE



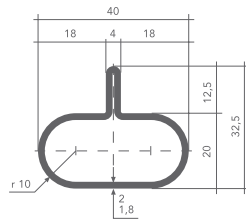
- **Enlargement or reduction percentage of the drawings**
Porcentaje de ampliación o reducción de planos

T. 787 • 50%



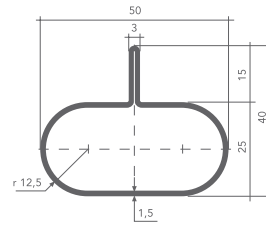
Thickness (mm)	kg/m
1,2	1,2
1,5	1,49

T.536 • 50%



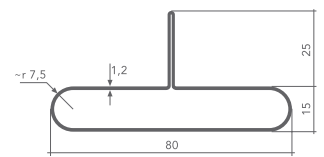
Thickness (mm)	kg/m
1,8	1,70
2	1,87

T. 1157 • 50%



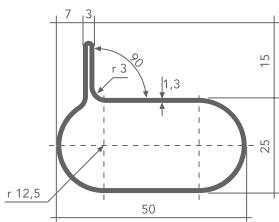
Thickness (mm)	kg/m
1,5	1,79

T. 1072 • 40%



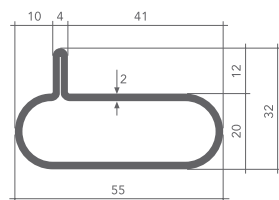
Thickness (mm)	kg/m
1,2	2,04

T. 1852 • 50%



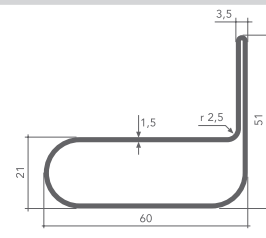
Thickness (mm)	kg/m
1,3	1,47

T. 1798 • 50%



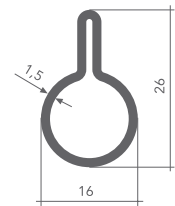
Thickness (mm)	kg/m
2	2,37

T. 1396 • 45%



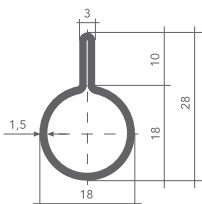
Thickness (mm)	kg/m
1,5	2,35

T. 1639 • 80%



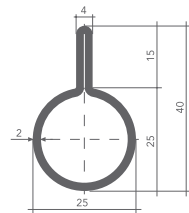
Thickness (mm)	kg/m
1,5	0,795

BTL (T. 1346) • 70%



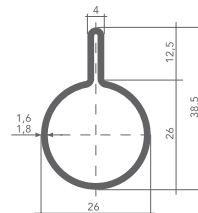
Thickness (mm)	kg/m
1,5	0,81

T. 1192 • 55%



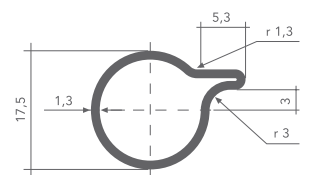
Thickness (mm)	kg/m
2	1,63

T. 1094 • 55%



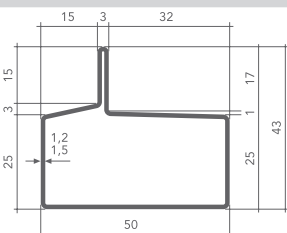
Thickness (mm)	kg/m
1,6	1,43

T. 1127 • 90%



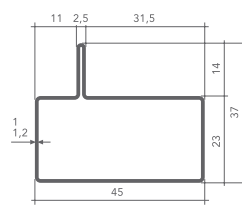
Thickness (mm)	kg/m
1,3	0,64

3M (T. 723) • 50%



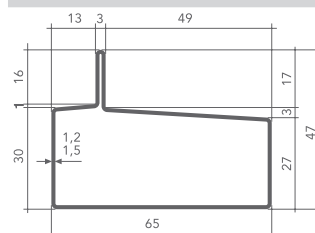
Thickness (mm)	kg/m
1,2	1,67
1,5	2,05

4M (T. 751) • 50%



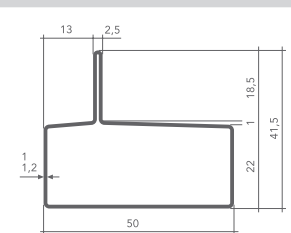
Thickness (mm)	kg/m
1	1,2
1,2	1,44

6M (T. 990) • 45%

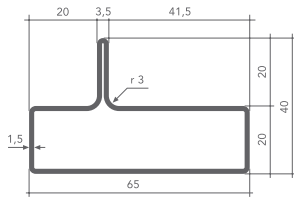


Thickness (mm)	kg/m
1,2	2,05
1,5	2,53

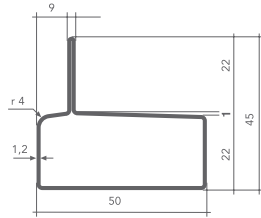
7M (T. 1004) • 50%



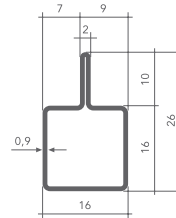
Thickness (mm)	kg/m
1	1,39
1,2	1,67

T. 1380 • 45%

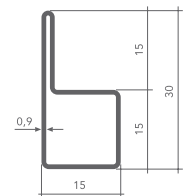
Thickness (mm)	kg/m
1,5	2,35

T. 1990 • 45%

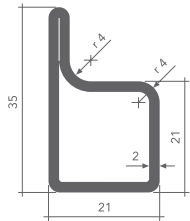
Thickness (mm)	kg/m
1,2	1,74

T. 1914 • 70%

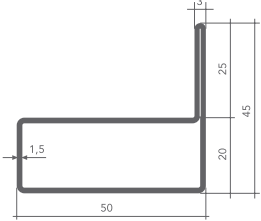
Thickness (mm)	kg/m
0,9	0,557

T. 1508 • 70%

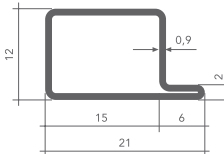
Thickness (mm)	kg/m
0,9	0,624

T. 1641 • 70%

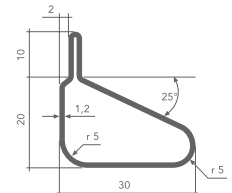
Thickness (mm)	kg/m
2	1,63

T. 1163 • 50%

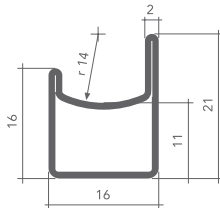
Thickness (mm)	kg/m
1,5	2,16

T.1147 • 100%

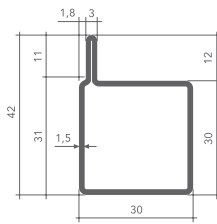
Thickness (mm)	kg/m
0,9	0,44

T. 1214 • 60%

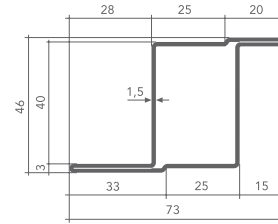
Thickness (mm)	kg/m
1,2	0,94

T. 1642 • 90%

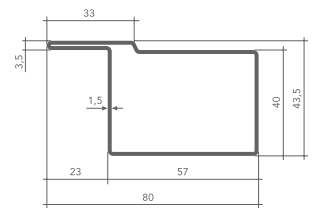
Thickness (mm)	kg/m
1	0,592

T. 1302 • 50%

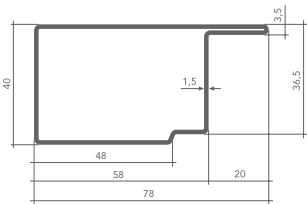
Thickness (mm)	kg/m
1,5	1,61

T. 1846 • 40%

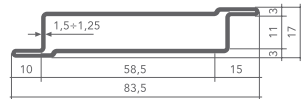
Thickness (mm)	kg/m
1,5	2,75

T. 1866 • 35%

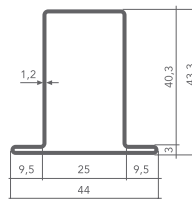
Thickness (mm)	kg/m
1,5	2,75

T. 1920 • 40%

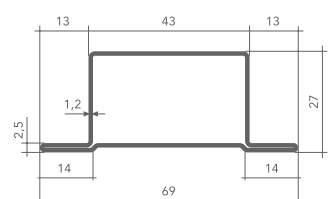
Thickness (mm)	kg/m
1,5	2,758

T. 1371 • 40%

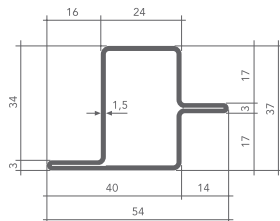
Thickness (mm)	kg/m
1,25	1,85

T. 1575 • 45%

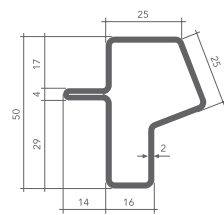
Thickness (mm)	kg/m
1,2	1,593

T. 746 • 50%

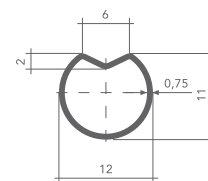
Thickness (mm)	kg/m
1,2	1,74

T. 1659 • 45%

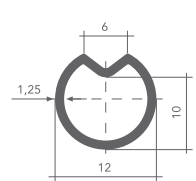
Thickness (mm)	kg/m
1,5	1,98

T. 1660 • 40%

Thickness (mm)	kg/m
2	2,61

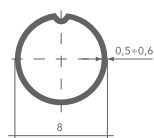
T. 1742 • 100%

Thickness (mm)	kg/m
0,75	0,21

T. 1529 • 100%

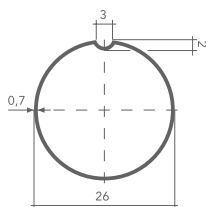
Thickness (mm)	kg/m
1,25	0,393

T. 1138 • 150%



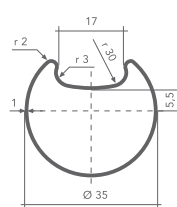
Thickness (mm)	kg/m
0,5	0,92
0,6	0,11

T. 1239 • 70%



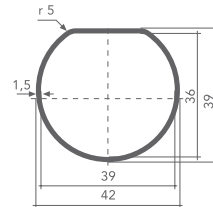
Thickness (mm)	kg/m
0,7	0,43

T. 1995 • 50%



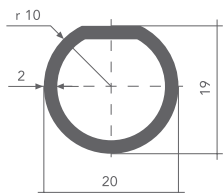
Thickness (mm)	kg/m
1	0,898

T. 2015 • 45%



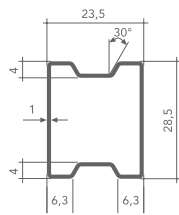
Thickness (mm)	kg/m
1,5	3,32

T. 1294 • 90%



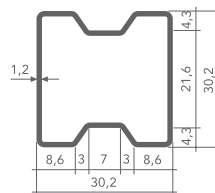
Thickness (mm)	kg/m
2	0,89

T. 1276 • 55%



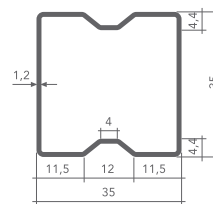
Thickness (mm)	kg/m
1	0,86

T. 1443 • 60%



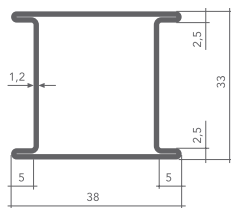
Thickness (mm)	kg/m
1,2	0,624

T. 1199 • 55%



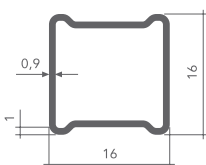
Thickness (mm)	kg/m
1,2	1,63

T. 1288 • 60%



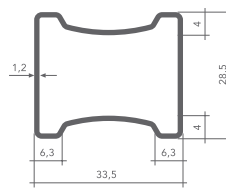
Thickness (mm)	kg/m
1,2	1,38

T. 1907 • 100%



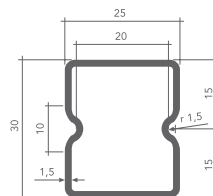
Thickness (mm)	kg/m
0,9	0,424

T. 1277 • 60%



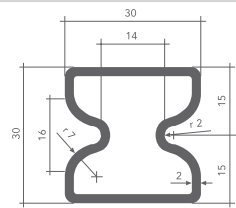
Thickness (mm)	kg/m
1,2	1,2

T. 1648 • 60%



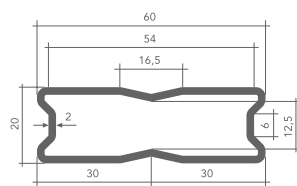
Thickness (mm)	kg/m
1,5	1,27

T. 1649 • 60%



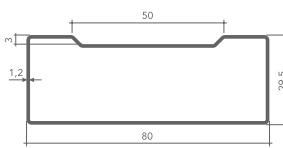
Thickness (mm)	kg/m
2	1,97

T. 1647 • 50%



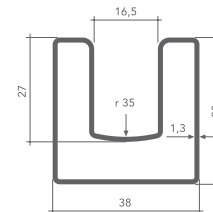
Thickness (mm)	kg/m
2	2,61

T. 1622 • 40%



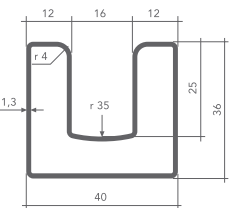
Thickness (mm)	kg/m
1,2	2,096

T. 1286 • 50%



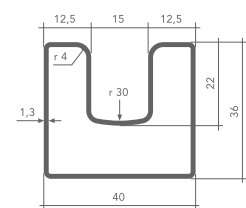
Thickness (mm)	kg/m
1,3	2,00

T. 1384 • 50%



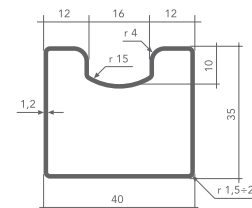
Thickness (mm)	kg/m
1,3	1,97

T. 1718 • 50%



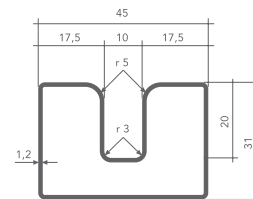
Thickness (mm)	kg/m
1,3	1,95

T. 1544 • 50%



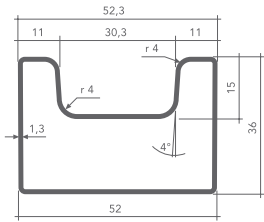
Thickness (mm)	kg/m
1,2	1,563

T. 2016 • 50%



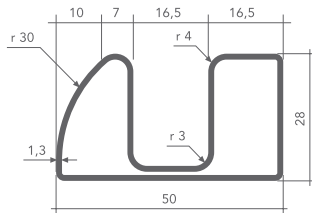
Thickness (mm)	kg/m
1,2	1,74

T. 1510 • 50%



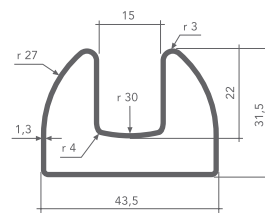
Thickness (mm)	kg/m
1,3	2,04

T. 1713 • 60%



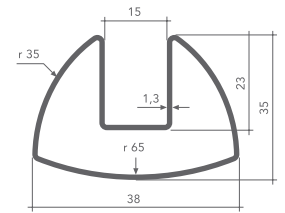
Thickness (mm)	kg/m
1,3	1,95

T. 1447 • 55%



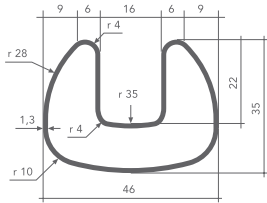
Thickness (mm)	kg/m
1,3	1,75

T. 1601 • 55%



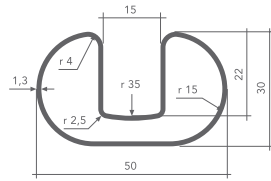
Thickness (mm)	kg/m
1,3	1,883

T. 1770 • 50%



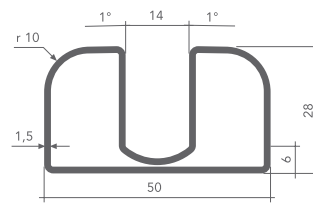
Thickness (mm)	kg/m
1,3	1,78

T. 1428 • 50%



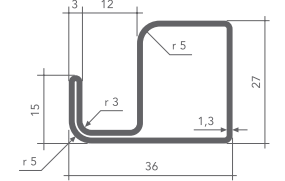
Thickness (mm)	kg/m
1,3	1,78

T. 1538 • 60%



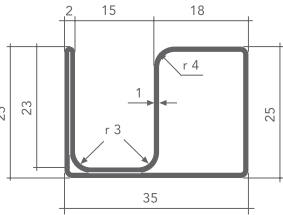
Thickness (mm)	kg/m
1,5	2,276

T. 1780 • 60%



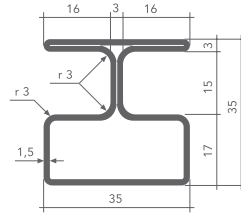
Thickness (mm)	kg/m
1,3	1,52

T. 1840 • 70%



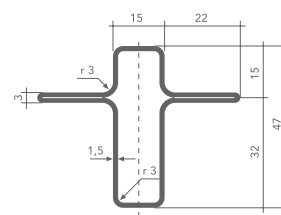
Thickness (mm)	kg/m
1	1,21

T. 1853 • 55%



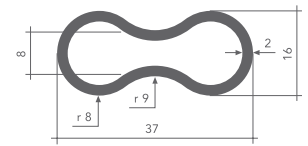
Thickness (mm)	kg/m
1,5	2,18

T. 1843 • 45%



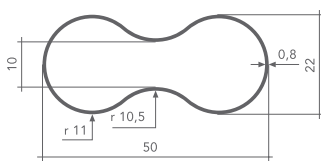
Thickness (mm)	kg/m
1,5	2,46

T. 1715 • 70%



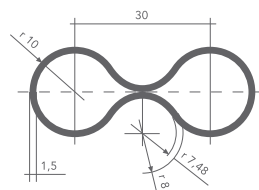
Thickness (mm)	kg/m
2	1,38

T. 975 • 60%



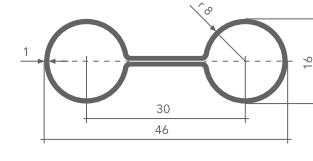
Thickness (mm)	kg/m
0,8	1,208

T. 1716 • 60%



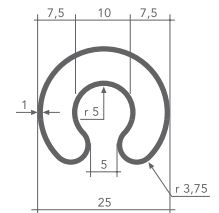
Thickness (mm)	kg/m
1,5	1,54

T. 1652 • 70%



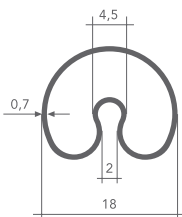
Thickness (mm)	kg/m
1	0,96

T. 1194 • 70%



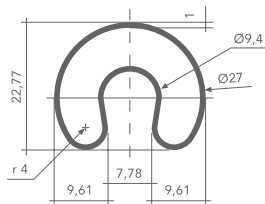
Thickness (mm)	kg/m
1	0,81

T. 1223 • 100%



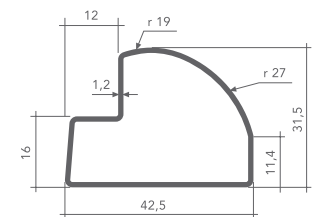
Thickness (mm)	kg/m
0,7	0,36

T. 1937 • 75%



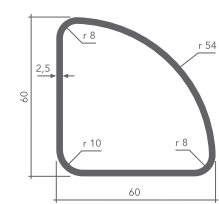
Thickness (mm)	kg/m
1	0,84

T. 1603 • 60%



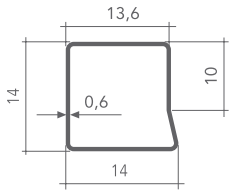
Thickness (mm)	kg/m
1,2	1,208

T. 1552 • 35%



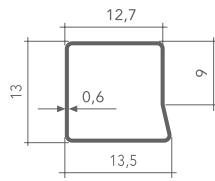
Thickness (mm)	kg/m
2,5	3,885

T. 2094 • 100%



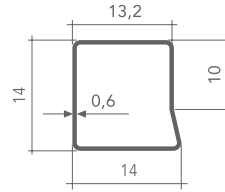
Thickness (mm)	kg/m
0,6	0,25

T. 1888 • 100%



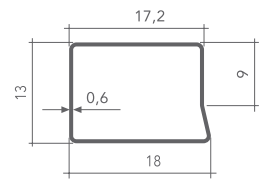
Thickness (mm)	kg/m
0,6	0,23

T. 1120 • 100%



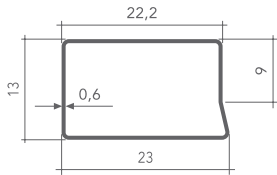
Thickness (mm)	kg/m
0,6	0,25

T. 1889 • 100%



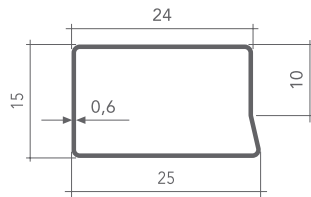
Thickness (mm)	kg/m
0,6	0,29

T. 1890 • 00%



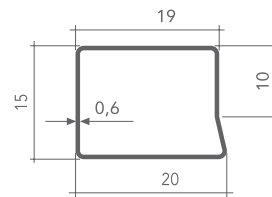
Thickness (mm)	kg/m
0,6	0,31

T. 1733 • 00%



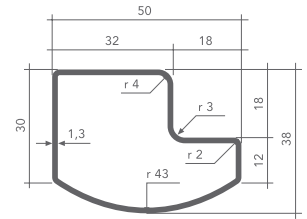
Thickness (mm)	kg/m
0,6	0,36

T. 1732 • 00%



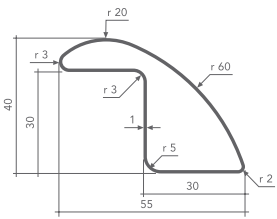
Thickness (mm)	kg/m
0,6	0,27

T. 1887 • 50%



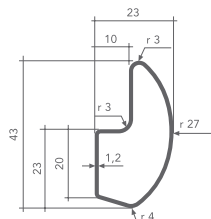
Thickness (mm)	kg/m
1,3	1,52

T. 1655 • 45%



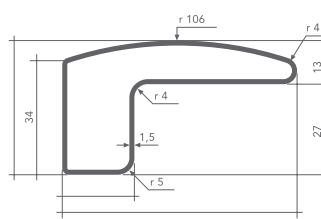
Thickness (mm)	kg/m
1	1,209

T. 1953 • 45%



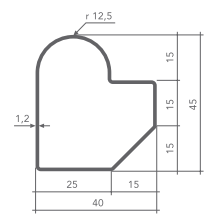
Thickness (mm)	kg/m
1,2	1,070

T. 1954 • 45%



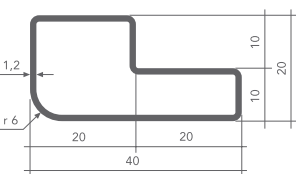
Thickness (mm)	kg/m
1,5	2,350

T. 1162 • 40%



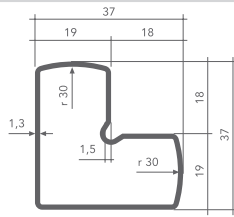
Thickness (mm)	kg/m
1,2	1,38

T. 1567 • 70%



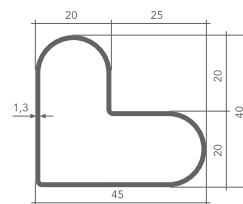
Thickness (mm)	kg/m
1,2	1,089

T. 1513 • 55%



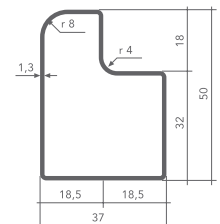
Thickness (mm)	kg/m
1,3	1,5

T. 1423 • 50%



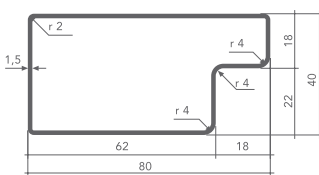
Thickness (mm)	kg/m
1,3	1,55

T. 1986 • 45%



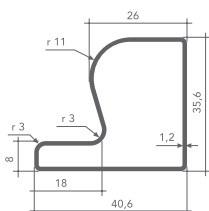
Thickness (mm)	kg/m
1,3	1,69

T. 1973 • 40%



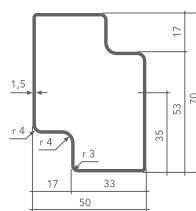
Thickness (mm)	kg/m
1,5	2,758

T. 1957 • 50%



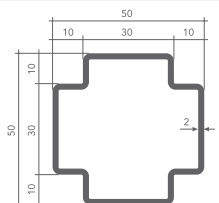
Thickness (mm)	kg/m
1,2	1,380

T. 1992 • 30%

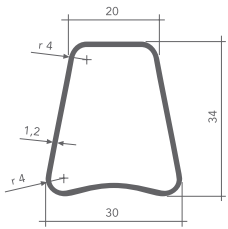


Thickness (mm)	kg/m
1,5	2,758

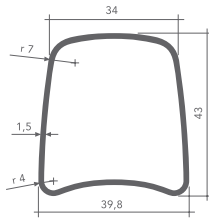
T. 971 • 40%



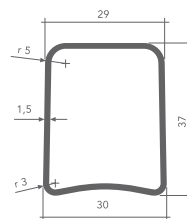
Thickness (mm)	kg/m
2	3,01

T. 1651 • 60%

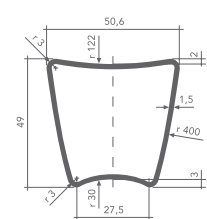
Thickness (mm)	kg/m
1,2	1,09

T. 1653 • 55%

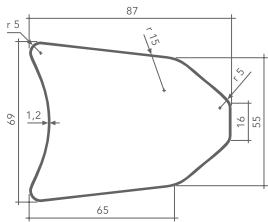
Thickness (mm)	kg/m
1,5	1,79

T. 1650 • 55%

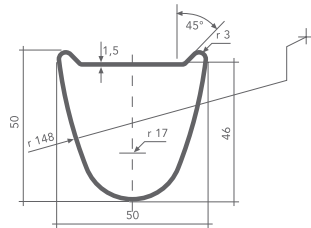
Thickness (mm)	kg/m
1,5	1,72

T. 1925 • 35%

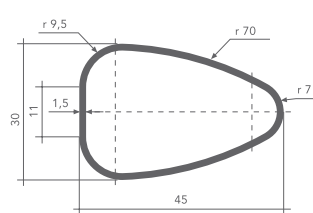
Thickness (mm)	kg/m
1,5	2,05

T. 1654 • 30%

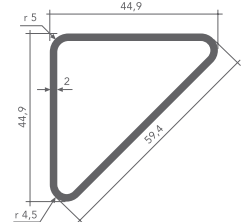
Thickness (mm)	kg/m
1,2	2,60

T. 1767 • 40%

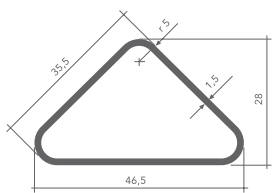
Thickness (mm)	kg/m
1,5	1,98

T. 2020 • 60%

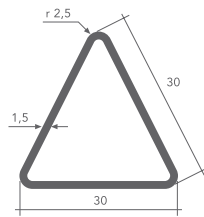
Thickness (mm)	kg/m
1,5	1,42

T. 1802 • 50%

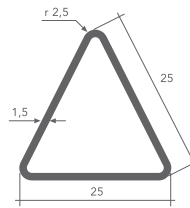
Thickness (mm)	kg/m
2	2,27

T. 1644 • 60%

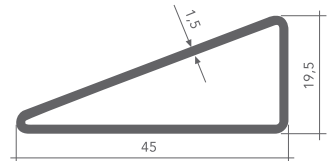
Thickness (mm)	kg/m
1,5	1,35

T. 1490 • 70%

Thickness (mm)	kg/m
1,5	0,02

T. 1781 • 80%

Thickness (mm)	kg/m
1,5	0,83

T. 1643 • 80%

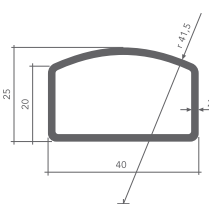
Thickness (mm)	kg/m
1,5	1,27

T. 862 • 60%

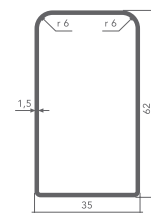
Thickness (mm)	kg/m
1,5	1,79

T. 1800 • 60%

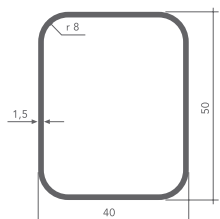
Thickness (mm)	kg/m
1,3	1,52

T. 1646 • 50%

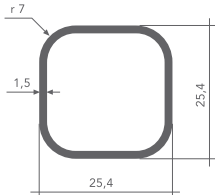
Thickness (mm)	kg/m
2	1,97

T. 1155 • 40%

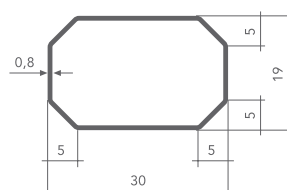
Thickness (mm)	kg/m
1,5	2,16

T. 1714 • 50%

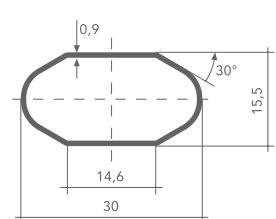
Thickness (mm)	kg/m
1,5	1,87

T. 2007 • 70%

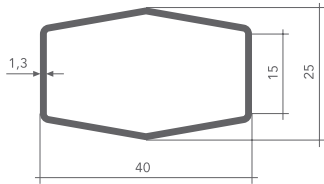
Thickness (mm)	kg/m
1,5	1,003

T. 1218 • 80%

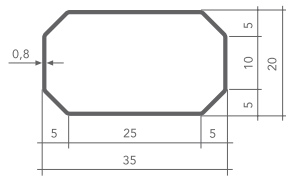
Thickness (mm)	kg/m
0,8	0,53

T. 1275 • 80%

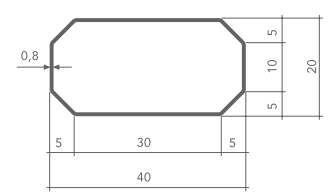
Thickness (mm)	kg/m
0,9	0,53

T. 1063 • 70%

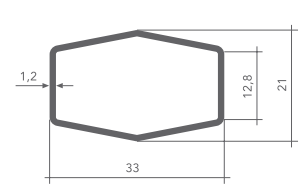
Thickness (mm)	kg/m
1,3	1,14

T. 1217 • 70%

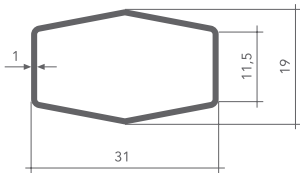
Thickness (mm)	kg/m
0,8	0,61

T. 1975 • 65%

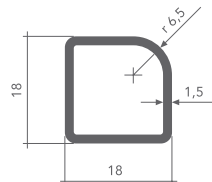
Thickness (mm)	kg/m
0,8	0,675

T. 960 • 70%

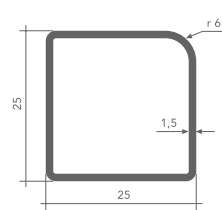
Thickness (mm)	kg/m
1,2	0,85

T. 1258 • 80%

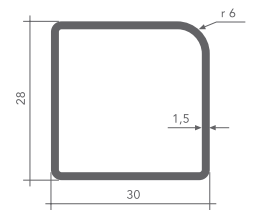
Thickness (mm)	kg/m
1	0,66

T. 1640 • 80%

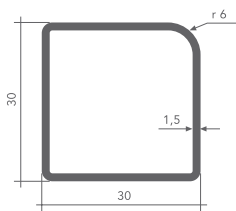
Thickness (mm)	kg/m
1,5	0,758

T. 1330 • 80%

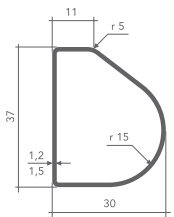
Thickness (mm)	kg/m
1,5	1,13

T. 892 • 70%

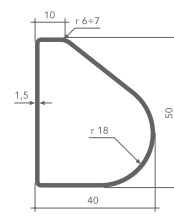
Thickness (mm)	kg/m
1,5	1,28

T. 891 • 70%

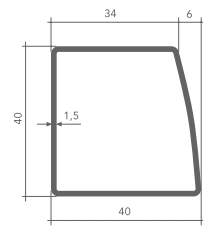
Thickness (mm)	kg/m
1,5	1,33

T. 1112 • 50%

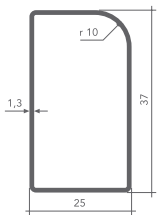
Thickness (mm)	kg/m
1,2	1,09
1,5	1,35

T. 1240 • 40%

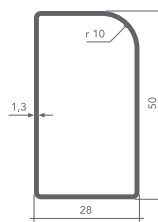
Thickness (mm)	kg/m
1,5	1,79

T. 1241 • 50%

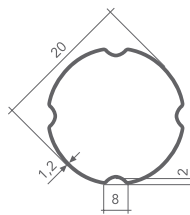
Thickness (mm)	kg/m
1,5	1,79

T. 1522 • 55%

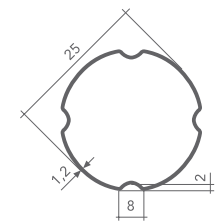
Thickness (mm)	kg/m
1,3	1,18

T. 1698 • 50%

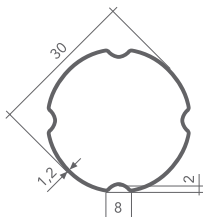
Thickness (mm)	kg/m
1,3	1,5

T. 1242 • 45%

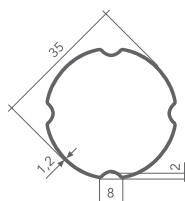
Thickness (mm)	kg/m
1,2	0,550

T. 1590 • 45%

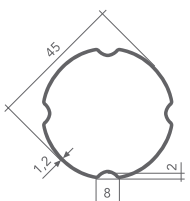
Thickness (mm)	kg/m
1,2	0,704

T. 1600 • 45%

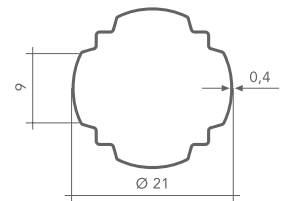
Thickness (mm)	kg/m
1,2	0,852

T. 1606 • 40%

Thickness (mm)	kg/m
1,2	1,000

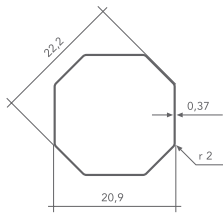
T. 1658 • 40%

Thickness (mm)	kg/m
1,2	1,300

T. 1789 • 100%

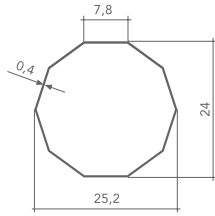
Thickness (mm)	kg/m
0,4	0,20

T. 1784 • 75%



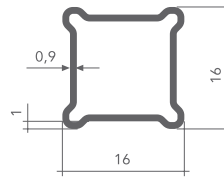
Thickness (mm)	kg/m
0,37	0,21

T. 1993 • 75%



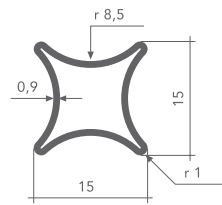
Thickness (mm)	kg/m
0,4	0,24

T. 1910 • 100%



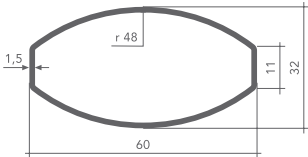
Thickness (mm)	kg/m
0,9	0,468

T. 1882 • 100%



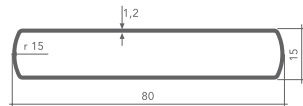
Thickness (mm)	kg/m
0,9	0,401

T. 1618 • 50%



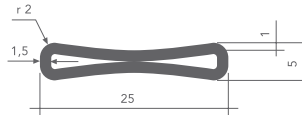
Thickness (mm)	kg/m
1,5	1,79

T. 1632 • 45%



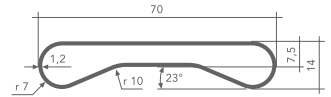
Thickness (mm)	kg/m
1,2	1,652

T. 1747 • 100%



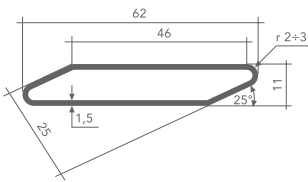
Thickness (mm)	kg/m
1,5	0,6

T. 1685 • 45%



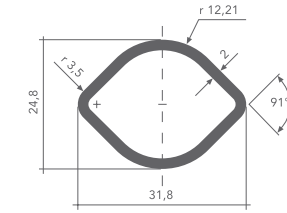
Thickness (mm)	kg/m
1,2	1,504

T. 1572 • 50%



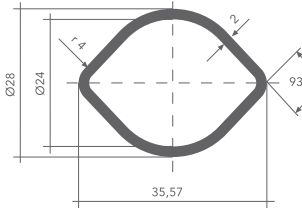
Thickness (mm)	kg/m
1,5	1,610

T. 1799 • 70%



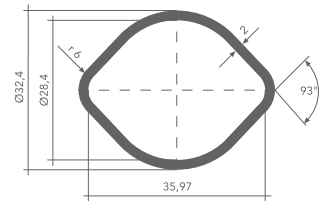
Thickness (mm)	kg/m
2	1,23

T. 1988 • 70%



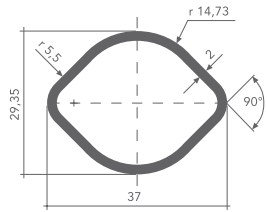
Thickness (mm)	kg/m
2	1,48

T. 1987 • 65%



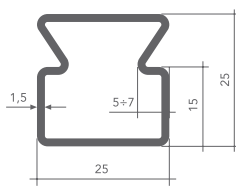
Thickness (mm)	kg/m
2	1,67

T. 1669 • 65%



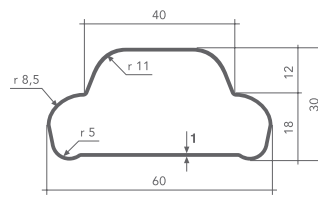
Thickness (mm)	kg/m
2	1,48

T. 1414 • 70%



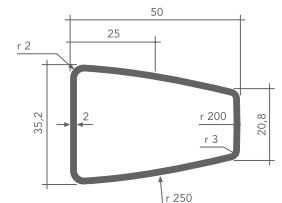
Thickness (mm)	kg/m
1,5	1,35

T. 941 • 50%



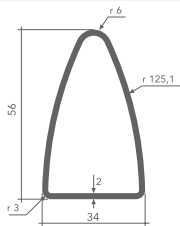
Thickness (mm)	kg/m
1	1,21

T. 1879 • 45%



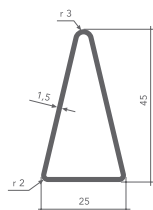
Thickness (mm)	kg/m
2	2,37

T. 1966 • 40%



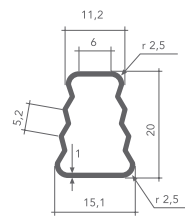
Thickness (mm)	kg/m
2	2,37

T. 1963 • 45%



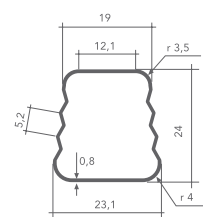
Thickness (mm)	kg/m
1,5	1,42

T. 1969 • 70%



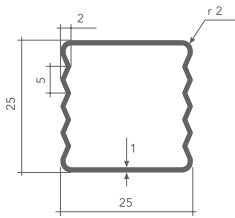
Thickness (mm)	kg/m
1	0,398

T. 1968 • 60%



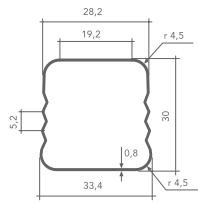
Thickness (mm)	kg/m
0,8	0,517

T. 1964 • 70%



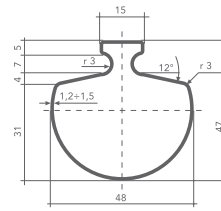
Thickness (mm)	kg/m
1	1,48

T. 1967 • 50%



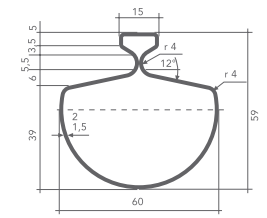
Thickness (mm)	kg/m
0,8	0,722

T. 1952 • 40%



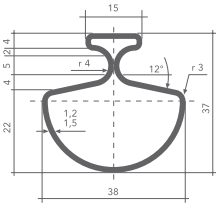
Thickness (mm)	kg/m
1,2	1,650
1,5	2,050

T. 1959 • 35%



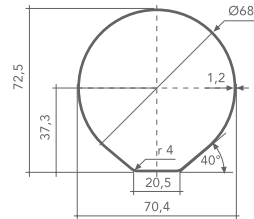
Thickness (mm)	kg/m
1,5	2,46
2	3,26

T. 1960 • 50%



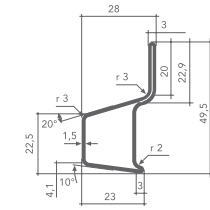
Thickness (mm)	kg/m
1,2	1,300
1,5	1,610

T. 1933 • 30%



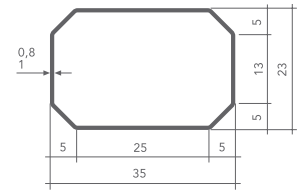
Thickness (mm)	kg/m
1,2	2,096

T. 1930 • 35%



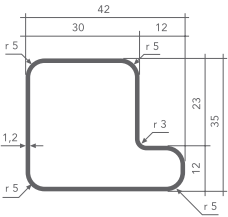
Thickness (mm)	kg/m
1,5	1,72

T. 2022 • 70%



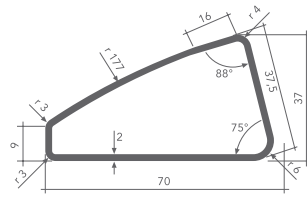
Thickness (mm)	kg/m
0,8	0,64
1	0,79

T. 2024 • 50%



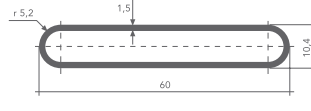
Thickness (mm)	kg/m
1,2	1,33

T. 2021 • 45%



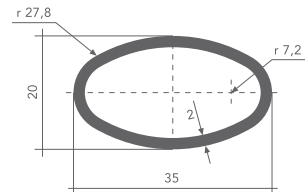
Thickness (mm)	kg/m
2	2,71

T. 2023 • 50%



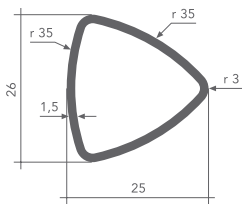
Thickness (mm)	kg/m
1,5	1,49

T. 1989 • 75%



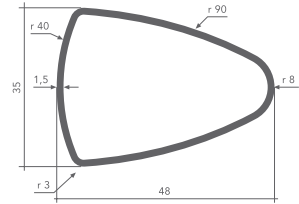
Thickness (mm)	kg/m
2	1,28

T. 2054 • 75%



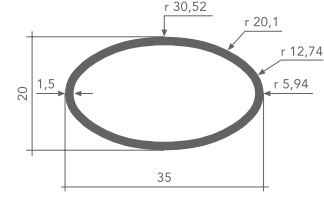
Thickness (mm)	kg/m
1,5	0,91

T. 2055 • 60%



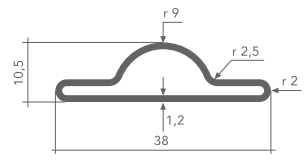
Thickness (mm)	kg/m
1,5	1,57

T. 2039 • 75%



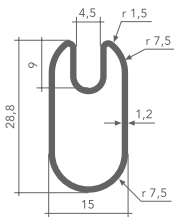
Thickness (mm)	kg/m
1,5	0,98

T. 2058 • 75%



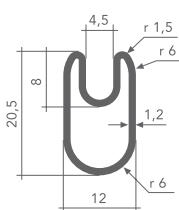
Thickness (mm)	kg/m
1,2	0,79

T. 2065 • 70%



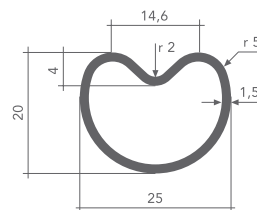
Thickness (mm)	kg/m
1,2	0,82

T. 2066 • 80%



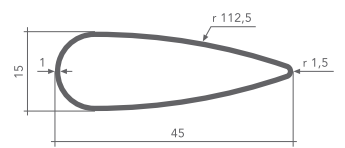
Thickness (mm)	kg/m
1,2	0,62

T. 2062 • 80%



Thickness (mm)	kg/m
1,5	0,87

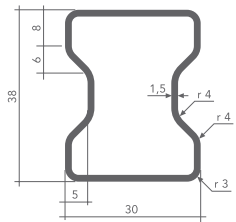
T. 2048 • 70%



Thickness (mm)	kg/m
1	0,76

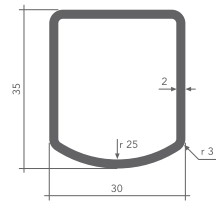


T. 2050 • 60%



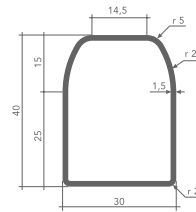
Thickness (mm)	kg/m
1,5	1,61

T. 2057 • 60%



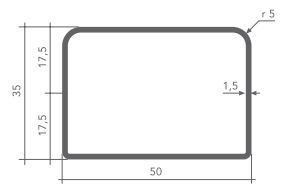
Thickness (mm)	kg/m
2	1,78

T. 2059 • 50%



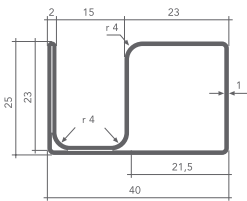
Thickness (mm)	kg/m
1,5	1,49

T. 1985 • 50%



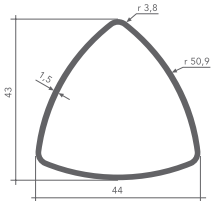
Thickness (mm)	kg/m
1,5	1,87

T. 2040 • 60%



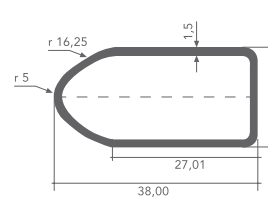
Thickness (mm)	kg/m
1	1,36

T. 2064 • 50%



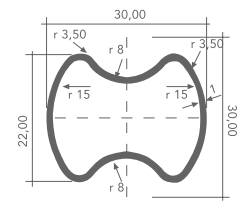
Thickness (mm)	kg/m
1,5	1,57

T. 2073 • 70%



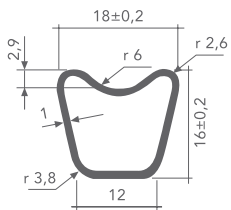
Thickness (mm)	kg/m
1,5	1,13

T. 2074 • 70%



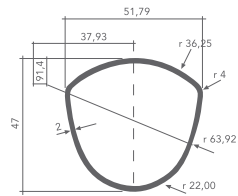
Thickness (mm)	kg/m
1	0,72

T. 2078 • 100%



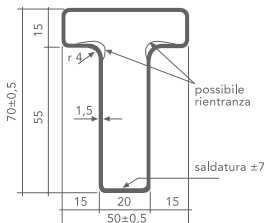
Thickness (mm)	kg/m
1	0,45

T. 2083 • 35%



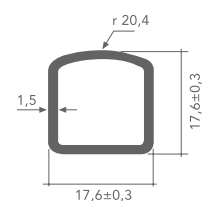
Thickness (mm)	kg/m
2	2,45

T. 2084 • 35%



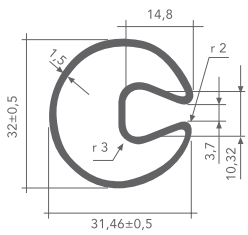
Thickness (mm)	kg/m
1,5	2,65

T. 2086 • 80%



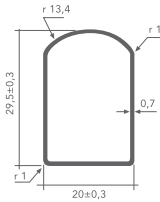
Thickness (mm)	kg/m
1,5	0,72

T. 2093 • 60%



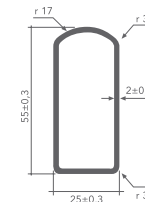
Thickness (mm)	kg/m
1,5	1,50

T. 2095 • 60%



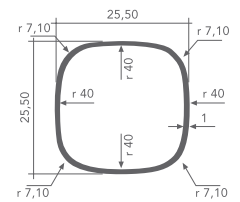
Thickness (mm)	kg/m
0,7	0,51

T. 2097 • 35%



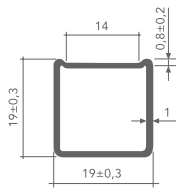
Thickness (mm)	kg/m
2±0,2	2,31

T. 2099 • 70%



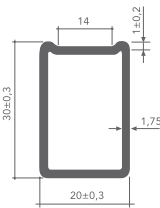
Thickness (mm)	kg/m
1	0,67

T. 2102 • 70%



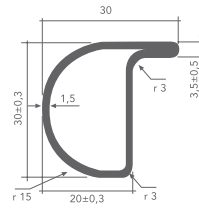
Thickness (mm)	kg/m
1	0,57

T. 2103 • 60%



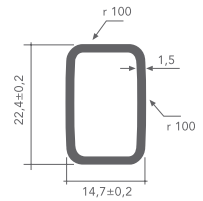
Thickness (mm)	kg/m
1±0,2	1,30

T. 2104 • 60%



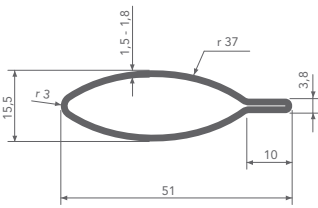
Thickness (mm)	kg/m
1,5	1,20

T. 2106 • 70%



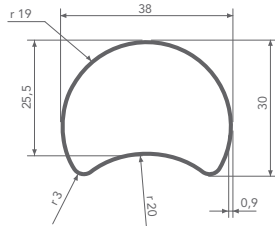
Thickness (mm)	kg/m
1,5	0,83

T. 2192 • 60%



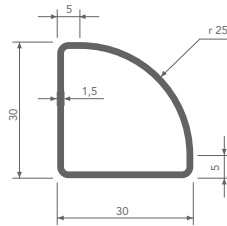
Thickness (mm)	kg/m
1,5	1,28
1,8	1,52

T. 2191 • 60%



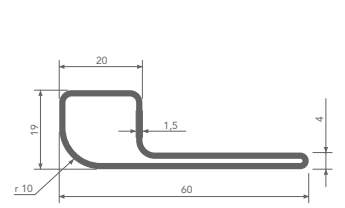
Thickness (mm)	kg/m
0,9	0,802

T. 2186 • 60%



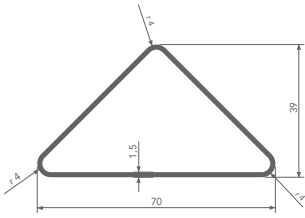
Thickness (mm)	kg/m
1,5	1,24

T. 2183 • 55%

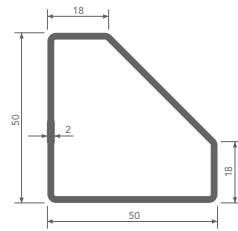


Thickness (mm)	kg/m
1,5	1,72

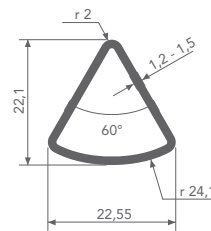


T. 2172 • 45%

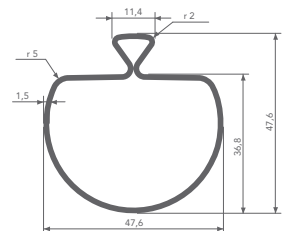
Thickness (mm)	kg/m
1,5	2,02

T. 2165 • 45%

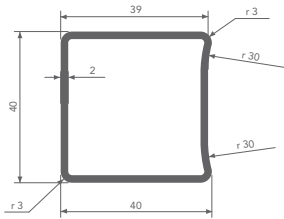
Thickness (mm)	kg/m
2	2,71

T. 2162 • 75%

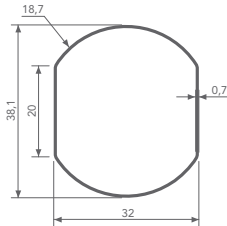
Thickness (mm)	kg/m
1,2	1,52
1,5	0,795

T. 2150 • 60%

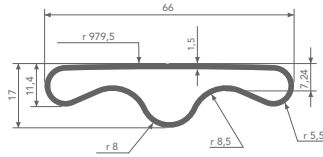
Thickness (mm)	kg/m
1,5	1,94

T. 2148 • 50%

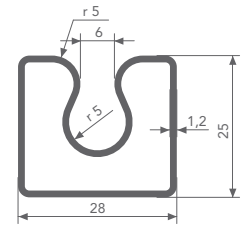
Thickness (mm)	kg/m
2	2,37

T. 2146 • 60%

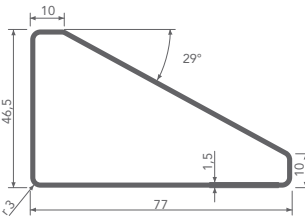
Thickness (mm)	kg/m
0,7	0,63

T. 2145 • 50%

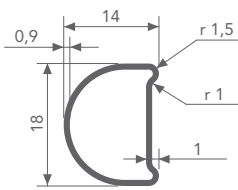
Thickness (mm)	kg/m
1,5	1,79

T. 2144 • 75%

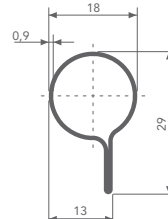
Thickness (mm)	kg/m
1,2	1,2

T. 2143 • 45%

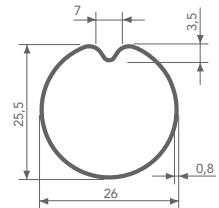
Thickness (mm)	kg/m
1,5	2,53

T. 2135 • 90%

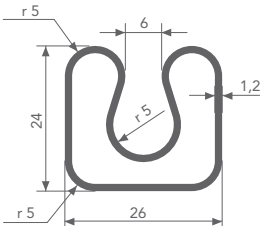
Thickness (mm)	kg/m
0,9	0,379

T. 2134 • 65%

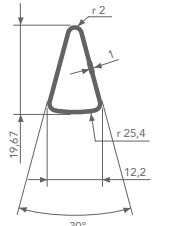
Thickness (mm)	kg/m
0,9	0,535

T. 2132 • 70%

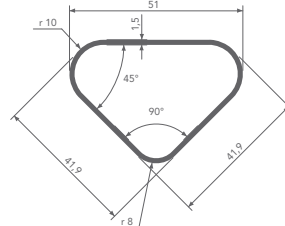
Thickness (mm)	kg/m
0,8	0,517

T. 2131 • 80%

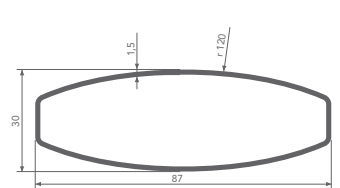
Thickness (mm)	kg/m
1,2	1,15

T. 2130 • 60%

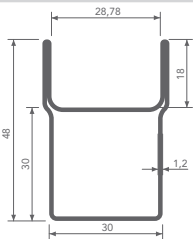
Thickness (mm)	kg/m
1	0,388

T. 2112 • 45%

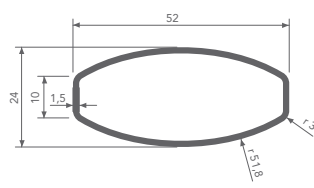
Thickness (mm)	kg/m
1,5	1,61

T. 2117 • 45%

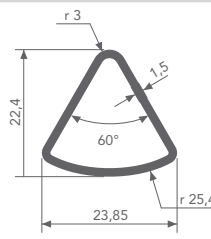
Thickness (mm)	kg/m
1,5	2,35

T. 2122 • 50%

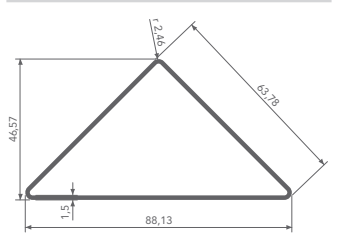
Thickness (mm)	kg/m
1,2	1,82

T. 2124 • 55%

Thickness (mm)	kg/m
1,5	1,46

T. 2127 • 75%

Thickness (mm)	kg/m
1,2	0,645
1,5	0,795

T. 2129 • 40%

Thickness (mm)	kg/m
1,5	2,53





The certified product range of Marcegaglia Carbon Steel cold-drawn welded tubes is manufactured within Europe's largest specialized plant in Boltiere, as well as in the new Chinese production complex in Yangzhou. Mechanical properties, as well as strictly controlled dimensional tolerances, give cold-drawn tubes significant advantages for several precision applications.

La gama certificada de tubos trefilados en frío Marcegaglia Carbon Steel cold-drawn welded tubes se fabrica en Boltiere, en la mayor planta europea especializada del sector, así como en el nuevo complejo de producción chino de Yangzhou. Propiedades mecánicas y rigurosas tolerancias dimensionales son algunas de las ventajas significativas del uso de tubos soldados trefilados en frío en numerosas aplicaciones de precisión.

Cold-drawn welded tubes

Tubos soldados trefilados en frío

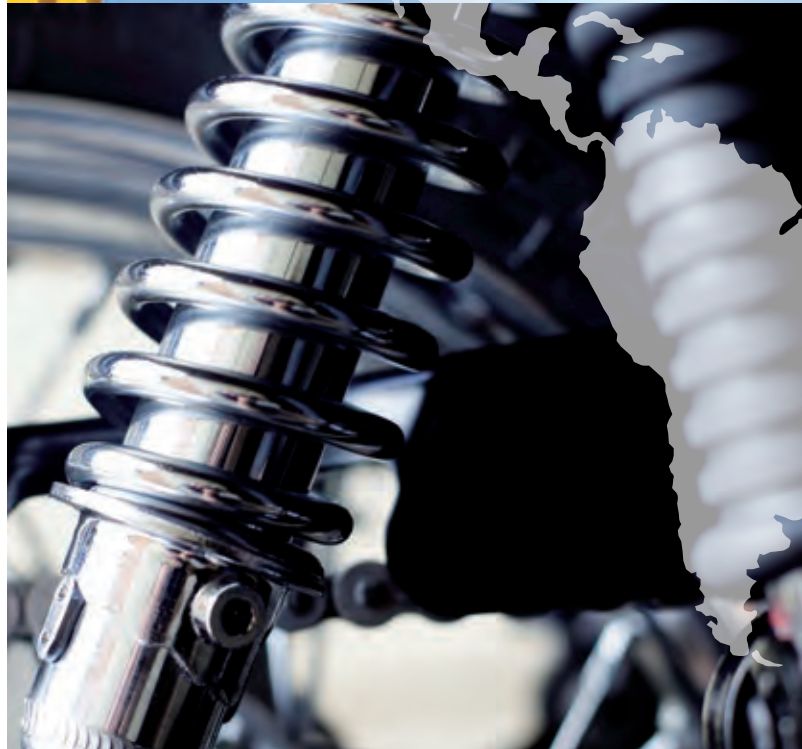


Typical applications

Ejemplos de las principales aplicaciones

Dedicated manufacturing plants based in Europe and Asia regularly supply the world markets with a specialized production program for the hydraulic cylinder industry and other automotive applications.

Las plantas de fabricación especializadas de Marcegaglia Carbon Steel en Europa y Asia abastecen el mercado mundial con las gamas dedicadas al sector de la producción de cilindros hidráulicos y a la industria del automóvil y de los vehículos industriales.





Italy

China

Tubes for hydraulic applications

Tubos para aplicaciones hidráulicas y oleodinámicas

Tubes for automotive and mechanical applications

Tubos para aplicaciones automovilísticas y mecánicas



Cold-drawn welded tubes

Tubos soldados trefilados en frío

Main manufacturing standards *Principales normas de fabricación*

MANUFACTURING STANDARD <i>Norma de fabricación</i>	PRODUCT DESIGNATION <i>Designación de producto</i>	GRADE* <i>Calidad</i>	TREATMENT <i>Tipos de tratamiento</i>
EN 10305-2	Cold-drawn welded tubes <i>Tubos soldados trefilados en frío</i>	E195 E235 E275 E355	<p>+C Hard. No final treatment after final cold drawing. <i>Crudo.</i> Sin tratamiento térmico tras el trefilado en frío final.</p> <p>+LC Soft. Final heat treatment is followed by a suitable drawing pass (limited reduction of area). <i>Crudo maleable.</i> El trefilado en frío tiene lugar en una pasada tras el último tratamiento térmico.</p> <p>+SR Stress Relieved. After final cold drawing, the tubes are stress relieved in a controlled atmosphere. <i>Estabilizado.</i> Tras el último trefilado en frío, se procede con el recocido de estabilización en condiciones de atmósfera controlada.</p> <p>+A Annealed. After final cold drawing, the tubes are annealed in a controlled atmosphere. <i>Recocido.</i> Los tubos se recuecen en condiciones de atmósfera controlada tras el último trefilado en frío.</p> <p>+N Normalized. After final cold drawing, the tubes are normalized in a controlled atmosphere. <i>Normalizado.</i> Los tubos se normalizan en condiciones de atmósfera controlada tras el último trefilado en frío.</p>

(*) Upon request: supply of grades not included in the above mentioned standards - Bajo pedido también se suministran calidades diferentes de la norma

Supply conditions - *Condiciones de suministro*

- Tubes are supplied in 5000/8000 mm lengths unless otherwise specified in order
Los tubos se suministran en barras comerciales de 5.000/8.000 mm. Largos fijos bajo específico acuerdo en el momento del pedido
- Dimensional tolerances according to manufacturing standard
Tolerancias dimensionales según normas de fabricación
- Special tolerances upon request *Tolerancias especiales bajo pedido*
- Control documents 2.1, 2.2, 3.1, 3.2 according to EN 10204 and other specific norm requirements
Documentos de control 2.1, 2.2, 3.1, 3.2 según norma EN 10204 e indicaciones específicas de cada norma



STANDARD AND OPTIONAL TESTING - <i>Pruebas y controles estándar y opcionales</i>
Visual and dimensional test 100% - <i>Control visual y dimensional 100%</i>
Eddy current test 100% acc. to EN 10246-3 - <i>Prueba de corrientes de inducción 100% según EN 10246-3</i>
Ultrasonic test 100% acc. to EN 10246-7 - <i>Control por ultrasonidos 100% según EN 10246-7</i>
Chemical composition - <i>Análisis químico</i>
Impact test - <i>Pruebas de resiliencia</i>

Cold-drawn welded tubes

Tubos soldados trefilados en frío

outside diameter mm	ROUND TUBES EN 10305-2 Tubos soldados trefilados EN 10305-2																	weight kg/m	
	1,5	2,0	2,5	3,0	3,5	4,0	4,5	5,0	5,5	6,0	6,5	7,0	7,5	8,0	9,0	10,0	12,5	15,0	
18	0,61	0,79	0,96	1,11	1,25	1,38	1,50	1,60											
20	0,68	0,89	1,08	1,26	1,42	1,58	1,72	1,85	1,97	2,07									
25	0,87	1,13	1,39	1,63	1,86	2,07	2,27	2,47	2,64	2,81	2,97	3,11							
30	1,05	1,38	1,70	2,00	2,29	2,56	2,83	3,08	3,32	3,55	3,77	3,97							
35	1,24	1,63	2,00	2,37	2,72	3,06	3,38	3,70	4,00	4,29	4,57	4,83	5,09	5,33					
40	1,42	1,87	2,31	2,74	3,15	3,55	3,94	4,32	4,68	5,03	5,37	5,70	6,01	6,31					
45	1,61	2,12	2,62	3,11	3,58	4,04	4,49	4,93	5,36	5,77	6,17	6,56	6,94	7,30					
50	1,79	2,37	2,93	3,48	4,01	4,54	5,05	5,55	6,04	6,51	6,97	7,42	7,86	8,29					
55	1,98	2,61	3,24	3,85	4,44	5,03	5,60	6,17	6,71	7,25	7,77	8,29	8,79	9,27					
60	2,16	2,86	3,54	4,22	4,88	5,52	6,16	6,78	7,39	7,99	8,58	9,15	9,71	10,26					
65	2,35	3,11	3,85	4,59	5,31	6,02	6,71	7,40	8,07	8,73	9,38	10,01	10,63	11,24					
70	2,53	3,35	4,16	4,96	5,74	6,51	7,27	8,01	8,75	9,47	10,18	10,88	11,56	12,23	9,03	14,80			
75	2,72	3,60	4,47	5,33	6,17	7,00	7,82	8,63	9,43	10,21	10,98	11,74	12,48	13,22	9,77	16,03			
80	2,90	3,85	4,78	5,70	6,60	7,50	8,38	9,25	10,10	10,95	11,78	12,60	13,41	14,20	10,51	17,26			
85	3,09	4,09	5,09	6,07	7,03	7,99	8,93	9,86	10,78	11,69	12,58	13,46	14,33	15,19	11,24	18,50			
90	3,27	4,34	5,39	6,44	7,47	8,48	9,49	10,48	11,46	12,43	13,38	14,33	15,26	16,18	11,98	19,73	23,89		
95	3,46	4,59	5,70	6,81	7,90	8,98	10,04	11,10	12,14	13,17	14,19	15,19	16,18	17,16	12,72	20,96	25,43		
100	3,64	4,83	6,01	7,18	8,33	9,47	10,60	11,71	12,82	13,91	14,99	16,05	17,11	18,15	13,46	22,19	26,97		
105	3,83	5,08	6,32	7,55	8,76	9,96	11,15	12,33	13,50	14,65	15,79	16,92	18,03	19,14	14,20	23,43	28,51		
110	4,01	5,33	6,63	7,92	9,19	10,46	11,71	12,95	14,17	15,39	16,59	17,78	18,96	20,12	14,94	24,66	30,05		
115	4,20	5,57	6,94	8,29	9,62	10,95	12,26	13,56	14,85	16,13	17,39	18,64	19,88	21,11	15,68	25,89	31,60		
120	4,38	5,82	7,24	8,66	10,06	11,44	12,82	14,18	15,53	16,87	18,19	19,51	20,81	22,10	16,42	27,13	33,14		
130	4,75	6,31	7,86	9,40	10,92	12,43	13,93	15,41	16,89	18,35	19,80	21,23	22,66	24,07	17,90	29,59	36,22		
135			8,17	9,77	11,35	12,92	14,48	16,03	17,56	19,09	20,60	22,10	23,58	25,05	18,64	30,83	37,76	44,39	
150			8,48	10,14	11,78	13,42	15,04	16,65	18,24	19,83	21,40	22,96	24,51	26,04	19,38	32,06	39,30	46,24	
145			8,79	10,51	12,21	13,91	15,59	17,26	18,92	20,57	22,20	23,82	25,43	27,03	20,12	33,29	40,84	48,09	
150			9,09	10,88	12,64	14,40	16,15	17,88	19,60	21,31	23,00	24,68	26,36	28,01	20,86	34,52	42,38	49,94	
160			9,71	11,61	13,51	15,39	17,26	19,11	20,95	22,79	24,60	26,41	28,20	29,99	22,34	36,99	45,47	53,64	
170			10,33	12,35	14,37	16,37	18,37	20,34	22,31	24,27	26,21	28,14	30,05	31,96	23,82	39,46	48,55	57,33	
180			10,94	13,09	15,23	17,36	19,48	21,58	23,67	25,75	27,81	29,86	31,90	33,93	25,30	41,92	51,63	61,03	
190			11,56	13,83	16,10	18,35	20,58	22,81	25,02	27,22	29,41	31,59	33,75	35,90	26,78	44,39	54,71	64,73	
200			12,18	14,57	16,96	19,33	21,69	24,04	26,38	28,70	31,02	33,32	35,60	37,88	28,26	46,85	57,80	68,43	
210			12,79	15,31	17,82	20,32	22,80	25,28	27,74	30,18	32,62	35,04	37,45	39,85	29,74	49,32	60,88	72,13	
215													38,38	40,84	30,48	50,55	62,42	73,98	
220													39,30	41,82	31,22	51,79	63,96	75,83	
225													40,23	42,81	31,96	53,02	65,50	77,68	
230													41,15	43,80	32,70	54,25	67,04	79,53	

Other dimensions on request - Otras dimensiones bajo pedido



Cold-drawn tubes for automotive and mechanical applications

Tubos trefilados para aplicaciones automovilísticas y mecánicas

TECHNICAL CHARACTERISTICS *Características técnicas*

GRADE
CALIDAD E195, E235, E275, E355

TREATMENT
TIPOS DE TRATAMIENTO +C, +LC, +SR, +A, +N

SURFACE FINISHING
ACABADO SUPERFICIAL

- **Outside diameter and inside diameter:** smooth as drawn (EN 10305-2)
Diámetro externo e interno: liso y trefilado según EN 10305-2
- **On request:** roughness Ra < 0.4 μ
Bajo pedido: rugosidad Ra < 0,4 μ

DIMENSIONAL TOLERANCE
TOLERANCIAS DIMENSIONALES

- **Standard:** according to EN 10305-2
Estándar: según EN 10305-2
- **Special:** on request
Especiales: bajo pedido

OPTIONAL PROCESSING
MECANIZACIONES OPCIONALES

- **Drawing in reactive oil**
Trefilado en aceite reactivo
- **Dephosphating**
Desfosfatación



Standard delivery program

Tabla dimensional del programa de suministro estándar



COLD-DRAWN TUBES FOR MECHANICAL APPLICATIONS EN 10305-2																				
Tubos soldados trefilados para aplicaciones mecánicas según EN 10305-2																				
outside diameter mm	wall thickness mm																			
	1,5	2,0	2,5	3,0	3,5	4,0	4,5	5,0	5,5	6,0	6,5	7,0	7,5	8,0	9,0	10,0	12,5	15,0		
18	•	•	•	•	•	•														
20	•	•	•	•	•	•	•	•												
25	•	•	•	•	•	•	•	•	•	•										
30	•	•	•	•	•	•	•	•	•	•	•									
35	•	•	•	•	•	•	•	•	•	•	•	•								
40	•	•	•	•	•	•	•	•	•	•	•	•	•	•						
45	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•					
50	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•					
55	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•					
60	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•					
65	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•					
70	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•			
75	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
80	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
85	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
90	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
95	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
100	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
105		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
110		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
115		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
120		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
130		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
135		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
140		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
145		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
150		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
160		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
170			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
180			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
190			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
200			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
205			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
210								•	•	•	•	•	•	•	•	•	•	•	•	•
215								•	•	•	•	•	•	•	•	•	•	•	•	•
220								•	•	•	•	•	•	•	•	•	•	•	•	•
225								•	•	•	•	•	•	•	•	•	•	•	•	•
230								•	•	•	•	•	•	•	•	•	•	•	•	•





Cold-drawn tubes for cardans

Tubos trefilados para cardanes



TECHNICAL CHARACTERISTICS *Características técnicas*

GRADE E195, E235, E275, E355
CALIDAD

TREATMENT +C, +LC, +SR, +A, +N
TIPOS DE TRATAMIENTO



- DIMENSIONS AND SHAPES DEVELOPED ACCORDING TO CUSTOMER SPECIFICATIONS
DIMENSIONES Y PERFILES DISEÑADOS DE CONFORMIDAD CON LOS REQUISITOS DEL CLIENTE
- SURFACE FINISH AND SPECIAL TOLERANCES UPON REQUEST
ACABADOS SUPERFICIALES Y TOLERANCIAS ESPECIALES SEGÚN ACUERDOS ESPECÍFICOS



Ready-to-use cylinder tubes

Tubos trefilados para cilindros listos para usar



TECHNICAL CHARACTERISTICS *Características técnicas*

GRADE
CALIDAD E355

TREATMENT
TIPOS DE TRATAMIENTO +C

SURFACE FINISHING
TRATAMIENTOS SUPERFICIALES

- **Outside diameter:** smooth as drawn (EN 10305-2)
Diámetro externo: liso y trefilado según EN 10305-2
- **Inside diameter:** roughness Ra < 0.80 μ (average 0.50 \pm 0.60 μ)
Diámetro interno: rugosidad Ra < 0,80 μ (media 0,50 \pm 0,60 μ)

DIMENSIONAL TOLERANCES
TOLERANCIAS DIMENSIONALES

- **Inside diameter:** ISO H9 (ISO H10 for thickness < 4 mm)
Diámetro interno: ISO H9 (ISO H10 de espesor < 4 mm)

Delivery conditions - *Condiciones de suministro*

- Standard packaging with plastic caps and strapped bundles, standard weight approx. 1500 kg
Embalaje estándar con tapas de plástico en los extremos y precintado con peso estándar de 1500 kg aprox.

- Commercial lengths 5000-8000 mm, custom lengths upon request *Longitudes comerciales 5000-8000 mm, longitudes específicas bajo pedido*

- Surface protection *Protección superficial*

- Marking: MM E355 OD x ID EN 10305-2 +C - Heath *Marcado: MM E355 DE x DI EN 10305-2 +C - Colada*

Standard delivery program

Tabla dimensional del programa de suministro estándar

COLD-DRAWN TUBES EN 10305-2 - E355 +C				
inside diameter mm	outside diameter mm	wall thickness mm	tolerance ISO	weight kg/m
20,0	30,0	5,0	H 9	3,1
25,0	35,0	5,0	H 9	3,7
32,0	40,0	4,0	H 10	3,5
	42,0	5,0	H 9	4,6
35,0	45,0	5,0	H 9	4,9
40,0	45,0	2,5	H 10	2,6
	50,0	5,0	H 9	5,5
45,0	55,0	5,0	H 9	6,2
	60,0	7,5	H 9	9,7
50,0	55,0	2,5	H 10	3,2
	60,0	5,0	H 9	6,8
	65,0	7,5	H 9	10,6
55,0	65,0	5,0	H 9	7,4
	70,0	7,5	H 9	11,6
60,0	70,0	5,0	H 9	8,0
	72,0	6,0	H 9	9,8
	75,0	7,5	H 9	12,5
63,0	73,0	5,0	H 9	8,4
	75,0	6,0	H 9	10,2
65,0	75,0	5,0	H 9	8,6
	80,0	7,5	H 9	13,4
70,0	80,0	5,0	H 9	9,2
	85,0	7,5	H 9	14,3
75,0	85,0	5,0	H 9	9,9
	90,0	7,5	H 9	15,3
80,0	90,0	5,0	H 9	10,5
	92,0	6,0	H 9	12,7
	95,0	7,5	H 9	16,2
85,0	95,0	5,0	H 9	11,1
	100,0	7,5	H 9	17,1
90,0	100,0	5,0	H 9	11,7
	105,0	7,5	H 9	18,0
95,0	105,0	5,0	H 9	12,3
	110,0	7,5	H 9	18,9
100,0	110,0	5,0	H 9	12,9
	115,0	7,5	H 9	19,9
110,0	125,0	7,5	H 9	21,7
115,0	130,0	7,5	H 9	22,6
125,0	140,0	7,5	H 9	24,5

Imperial unit sizes on request - Medidas imperiales bajo pedido



Cylinder tubes suitable for honing, skiving and roller burnishing

Tubos trefilados para cilindros aptos para acabado interno



TECHNICAL CHARACTERISTICS *Características técnicas*

GRADE
CALIDAD E355

TREATMENT
TIPOS DE TRATAMIENTO +SR

SURFACE FINISHING
TRATAMIENTOS SUPERFICIALES

- **Outside diameter:** smooth as drawn (EN 10305-2)
Diámetro externo: liso y trefilado según EN 10305-2
- **Inside diameter:** with stock allowance (for honing or skiving and roller burnishing)
Diámetro interno: con sobreespesores de metal (para pulido o pelado-laminado)

Delivery conditions - *Condiciones de suministro*

- Standard packaging with strapped bundles, standard weight approx. 1500 kg *Embalaje estándar precintado con peso estándar de 1500 kg aprox.*
- Commercial lengths 5000-8000 mm, custom lengths upon request *Longitudes comerciales 5000-8000 mm, longitudes específicas bajo pedido*
- Surface protection *Protección superficial*
- Marking: Marcegaglia E355 OD x WT - EN10305-2 +SR - Heath *Markado: Marcegaglia E355 DE x SP - EN10305-2 +SR - Colada*

Standard delivery program

Tablas dimensionales del programa de suministro estándar

CYLINDER TUBES EN 10305-1/2 - E355 +SR Tubos treñados para cilindros EN 10305-1/2 - E355 +SR						
STOCK ALLOWANCE FOR HONING Sobreespesor de metal para pulido						
inside diameter mm	wall thickness mm					
	5,0	6,0	7,5	10,0	12,5	15,0
30,0						
35,0						
40,0						
45,0						
50,0						
55,0						
60,0						
63,0						
65,0						
70,0						
75,0						
80,0						
85,0						
90,0						
95,0						
100,0						
105,0						
110,0						
115,0						
120,0						
125,0						
130,0						
135,0						
140,0						
145,0						
150,0						
155,0						
160,0						
165,0						
170,0						
175,0						
180,0						
185,0						
190,0						
195,0						
200,0						

Inside diameter tolerance

<p>□ -0,15/-0,30</p> <p>□ -0,25/-0,45</p> <p>□ -0,25/-0,55</p>	<p>□ -0,30/-0,70</p> <p>□ -0,50/-1,00</p>
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CYLINDER TUBES EN 10305-1/2 - E355 +SR Tubos treñados para cilindros EN 10305-1/2 - E355 +SR						
STOCK ALLOWANCE FOR SKIVING AND ROLLER BURNISHING Sobreespesor de metal para pelado y laminado						
inside diameter mm	wall thickness mm					
	5,0	6,0	7,5	10,0	12,5	15,0
30,0						
35,0						
40,0						
45,0						
50,0						
55,0						
60,0						
63,0						
65,0						
70,0						
75,0						
80,0						
85,0						
90,0						
95,0						
100,0						
105,0						
110,0						
115,0						
120,0						
125,0						
130,0						
135,0						
140,0						
145,0						
150,0						
155,0						
160,0						
165,0						
170,0						
175,0						
180,0						
185,0						
190,0						
195,0						
200,0						
210,0						
220,0						

Inside diameter tolerance

<p>□ -0,30/-0,55</p> <p>□ -0,40/-0,70</p> <p>□ -0,50/-0,85</p>	<p>□ -0,50/-0,90</p> <p>□ -0,60/-1,20</p>
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Skived and roller burnished cylinder tubes

Tubos trefilados para cilindros acabados interiormente

TECHNICAL CHARACTERISTICS <i>Características técnicas</i>	
GRADE CALIDAD	E355
TREATMENT TIPOS DE TRATAMIENTO	+SR
SURFACE FINISHING TRATAMIENTOS SUPERFICIALES	<ul style="list-style-type: none"> • Outside diameter: smooth as drawn (EN 10305-2) <i>Diámetro externo:</i> liso y trefilado según EN 10305-2 • Inside diameter: roughness Ra < 0.40 μ (average 0.15±0.35 μ) <i>Diámetro interno:</i> rugosidad Ra < 0,40 μ (media 0,15±0,35 μ)
DIMENSIONAL TOLERANCES TOLERANCIAS DIMENSIONALES	<ul style="list-style-type: none"> • Inside diameter: ISO H8 <i>Diámetro interno:</i> ISO H8

Standard delivery program

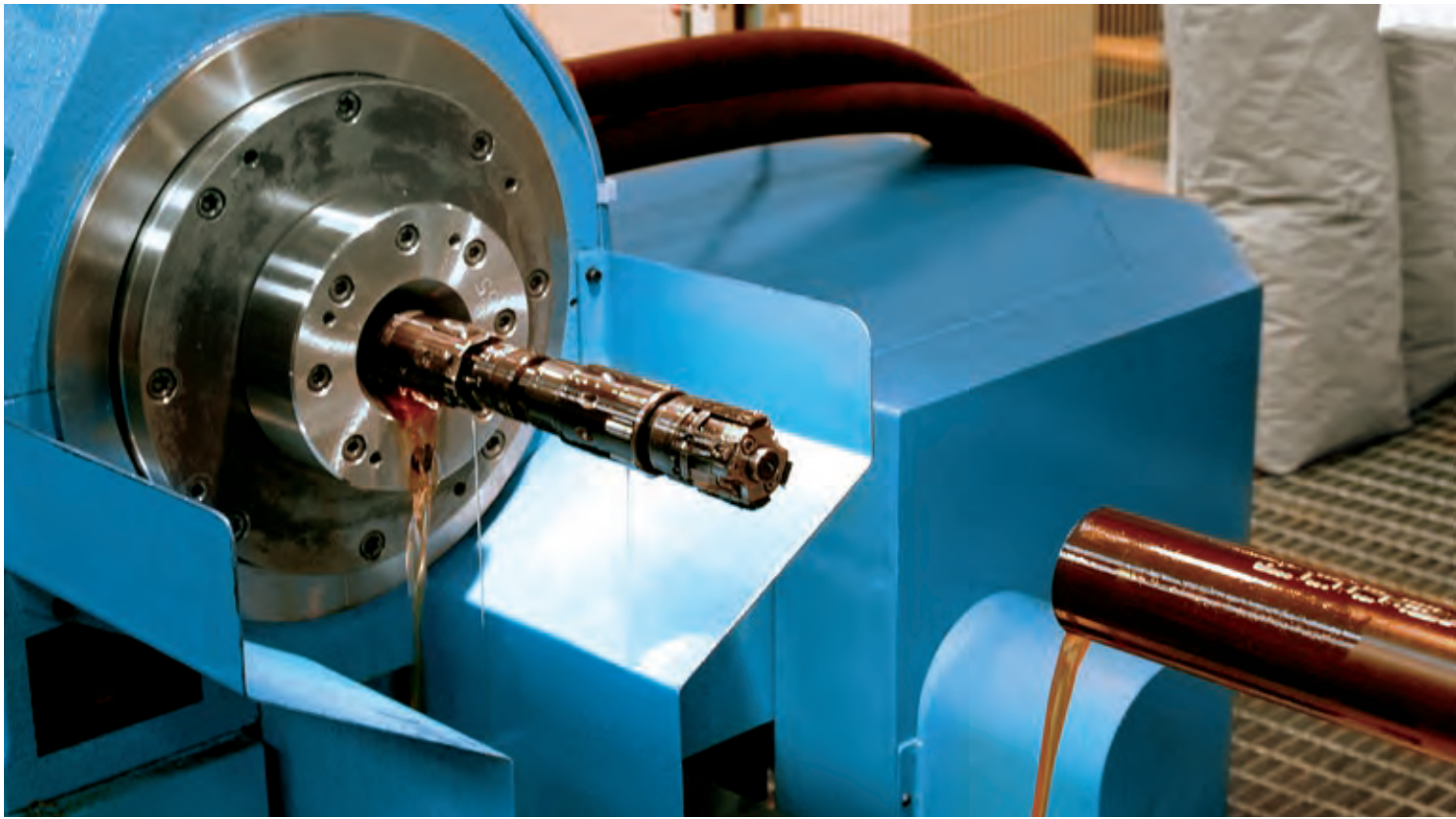
Tablas dimensionales del programa de suministro estándar

SKIVED AND ROLLER BURNISHED CYLINDER TUBES EN 10305-1/2 - E355 +SR <i>Tubos trefilados para cilindros acabados interiormente</i> EN 10305-1/2 - E355 +SR			
inside Ø mm	outside Ø mm	wall thickness mm	weight kg/m
40,0	50,0	5,0	5,55
	52,0	6,0	6,81
	55,0	7,5	8,79
45,0	55,0	5,0	6,17
	57,0	6,0	7,55
50,0	60,0	7,5	9,71
	60,0	5,0	6,78
	62,0	6,0	8,29
55,0	65,0	7,5	10,63
	65,0	5,0	7,40
	67,0	6,0	9,03
60,0	70,0	7,5	11,56
	70,0	5,0	8,01
	72,0	6,0	9,77
	75,0	7,5	12,48
63,0	80,0	10,0	17,26
	73,0	5,0	8,38
	75,0	6,0	10,21
	78,0	7,5	13,04
65,0	83,0	10,0	18,00
	75,0	5,0	8,63
	77,0	6,0	10,51
	80,0	7,5	13,41
70,0	85,0	10,0	18,50
	80,0	5,0	9,25
	82,0	6,0	11,24
	85,0	7,5	14,33
75,0	90,0	10,0	19,73
	85,0	5,0	9,86
	87,0	6,0	11,98
	90,0	7,5	15,26
80,0	95,0	10,0	20,96
	90,0	5,0	10,48
	92,0	6,0	12,72
	95,0	7,5	16,18
	100,0	10,0	22,19

inside Ø mm	outside Ø mm	wall thickness mm	weight kg/m
85,0	95,0	5,0	11,10
	97,0	6,0	13,46
	100,0	7,5	17,11
	105,0	10,0	23,43
90,0	100,0	5,0	11,71
	102,0	6,0	14,20
	105,0	7,5	18,03
	110,0	10,0	24,66
95,0	105,0	5,0	12,33
	107,0	6,0	14,94
	110,0	7,5	18,96
	115,0	10,0	25,89
100,0	110,0	5,0	12,95
	112,0	6,0	15,68
	115,0	7,5	19,88
	120,0	10,0	27,13
105,0	115,0	5,0	13,56
	117,0	6,0	16,42
	120,0	7,5	20,81
	125,0	10,0	28,36
110,0	120,0	5,0	14,18
	122,0	6,0	17,16
	125,0	7,5	21,73
	130,0	10,0	29,59
	135,0	12,5	37,76
	140,0	15,0	46,24
115,0	125,0	5,0	14,80
	127,0	6,0	17,90
	130,0	7,5	22,66
	135,0	10,0	30,83
	140,0	12,5	39,30
	145,0	15,0	48,09
120,0	130,0	5,0	15,41
	132,0	6,0	18,64
	135,0	7,5	23,58
	140,0	10,0	32,06

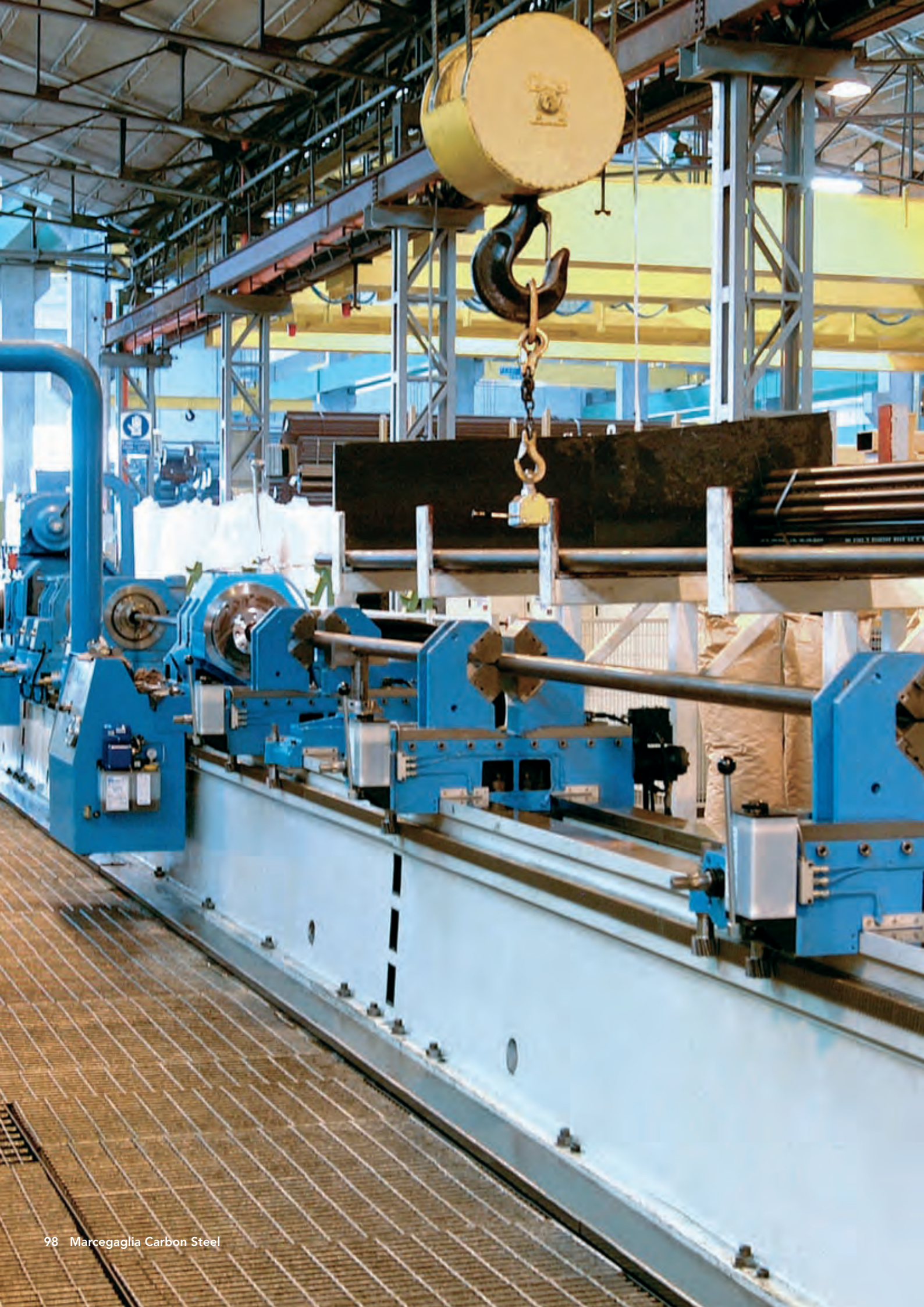
Delivery conditions - Condiciones de suministro

- Standard packaging with plastic caps and strapped bundles, standard weight approx. 1500 kg
 Embalaje estándar con tapas de plástico en los extremos y precintado con peso estándar de 1500 kg aprox.



inside Ø mm	outside Ø mm	wall thickness mm	weight kg/m
120,0	145,0	12,5	40,84
	150,0	15,0	49,94
125,0	135,0	5,0	16,03
	137,0	6,0	19,38
	140,0	7,5	24,51
	145,0	10,0	33,29
	150,0	12,5	42,38
	155,0	15,0	51,79
130,0	140,0	5,0	16,65
	142,0	6,0	20,12
	145,0	7,5	25,43
	150,0	10,0	34,52
	155,0	12,5	43,93
135,0	145,0	5,0	17,26
	147,0	6,0	20,86
	150,0	7,5	26,36
	155,0	10,0	35,76
	160,0	12,5	45,47
	165,0	15,0	55,49
140,0	150,0	5,0	17,88
140,0	152,0	6,0	21,60
	155,0	7,5	27,28
	160,0	10,0	36,99
	165,0	12,5	47,01
	170,0	15,0	57,33
145,0	155,0	5,0	18,50
	157,0	6,0	22,34
	160,0	7,5	28,20
	165,0	10,0	38,22
	170,0	12,5	48,55
	175,0	15,0	59,18

inside Ø mm	outside Ø mm	wall thickness mm	weight kg/m
150,0	160,0	5,0	19,11
	162,0	6,0	23,08
	165,0	7,5	29,13
	170,0	10,0	39,46
	175,0	12,5	50,09
	180,0	15,0	61,03
160,0	170,0	5,0	20,34
	172,0	6,0	24,56
	175,0	7,5	30,98
	180,0	10,0	41,92
	185,0	12,5	53,17
170,0	190,0	15,0	64,73
	185,0	7,5	32,83
	190,0	10,0	44,39
	195,0	12,5	56,26
180,0	200,0	15,0	68,43
	195,0	7,5	34,68
	200,0	10,0	46,85
	205,0	12,5	59,34
	210,0	15,0	72,13
190,0	205,0	7,5	36,53
	210,0	10,0	49,32
	215,0	12,5	62,42
	220,0	15,0	75,83
200,0	215,0	7,5	38,38
	220,0	10,0	51,79
	225,0	12,5	65,50
	230,0	15,0	79,53





Cold-drawn tubes for telescopic cylinders

Tubos trefilados para cilindros telescópicos

TECHNICAL CHARACTERISTICS *Características técnicas*

GRADE
CALIDAD E355

TREATMENT
TIPOS DE TRATAMIENTO +SR

SURFACE FINISHING
TRATAMIENTOS SUPERFICIALES

- **Outside diameter:**
smooth as drawn
(EN 10305-2)
Diámetro externo:
liso y trefilado según
EN 10305-2
- **Inside diameter:**
roughness Ra < 1.6 μ
Diámetro interno:
rugosidad Ra < 1,6 μ

• DIMENSIONS AND SHAPES
DEVELOPED ACCORDING
TO CUSTOMER SPECIFICATIONS
*DIMENSIONES Y PERFILES DISEÑADOS DE
CONFORMIDAD CON LOS REQUISITOS DEL
CLIENTE*

• DIMENSIONAL TOLERANCES UPON
CUSTOMER SPECIFICATIONS
*TOLERANCIAS DIMENSIONALES SEGÚN
ACUERDOS ESPECÍFICOS*



Cold-drawn tubes suitable for chrome plating

Tubos trefilados para vástagos cromados

TECHNICAL CHARACTERISTICS *Características técnicas*

GRADE
CALIDAD E355

TREATMENT
TIPOS DE TRATAMIENTO +N, +SR

SURFACE FINISHING
TRATAMIENTOS SUPERFICIALES

- **Outside diameter:** with stock allowance (for subsequent reworking)
Diámetro externo: con sobreespesores de metal (para posterior mecanización)
- **Inside diameter:** smooth as drawn (EN 10305-2)
Diámetro interno: liso y trefilado según EN 10305-2

OUTSIDE DIAMETER TOLERANCE *Diámetro tolerancias externas*

outside diameter mm	wall thickness mm	tolerance (1/100 mm)
20 ÷ 28	2,5 ÷ 4	+0,15 +0,35
30 ÷ 38	3 ÷ 7,5	+0,20 +0,40
40 ÷ 45	4 ÷ 7,5	+0,20 +0,40
50 ÷ 63	4 ÷ 7,5	+0,25 +0,45
65 ÷ 75	5 ÷ 10	+0,25 +0,50
80 ÷ 95	5 ÷ 10	+0,30 +0,60
100 ÷ 115	5 ÷ 12,5	+0,35 +0,70
120 ÷ 130	5 ÷ 12,5	+0,40 +0,80
135 ÷ 140	5 ÷ 15	+0,45 +0,90
145 ÷ 155	6 ÷ 15	+0,45 +0,90
160 ÷ 170	6 ÷ 15	+0,50 +1,00
175 ÷ 185	7,5 ÷ 15	+0,50 +1,00
190 ÷ 200	7,5 ÷ 15	+0,60 +1,20
205 ÷ 220	10 ÷ 15	+0,60 +1,20









NON-STANDARD
PACKAGING
IS DEVELOPED
ACCORDING TO
CUSTOMER REQUEST

EMBALAJES
ESPECÍFICOS SON
DISEÑADOS Y
SUMINISTRADOS
DE ACUERDO CON
EL CLIENTE



CUSTOM



STANDARD PACKAGING *Embalaje estándar*

STRAPPED BUNDLES * HACES PRECINTADOS

Maximum weight 2 tonnes
Peso máximo 2 toneladas

* Each package is identified for complete tracking

Cada paquete consta de un rótulo de identificación que permite su completa trazabilidad

OPTIONS *Opciones*

- Internal and external oiling, for temporary storage - *Engrase interno y externo para almacenamiento provisional*
- Aluminum-plastic foil - *Revestimiento en aluminio plastificado*
- Plastic caps at the ends - *Tapones de plástico en las extremidades*
- Special packaging for sea shipments - *Embalaje específico para expediciones por mar*
- Wood box - *Cajas de madera*



Technical norms are referred to in the latest release valid at the publication date of the present catalogue.
Las normas citadas se refieren a la edición vigente hasta la fecha de publicación del catálogo.

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Concept: StudioChiesa





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