CARBON STEEL TUBES

MARCEGAGLIA
CARBON STEEL

EN • IT

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.

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INDICE

6.5 million tonnes of finished product

9.0 billion Euros in turnover

7,500 employees

36 plants across 4 continents

15,000 customers

1st player in steel processing sector in the world

1st producer of stainless steel welded tubes in the world

1st producer of carbon steel welded tubes in Europe

1st service center in Italy

INTERNATIONAL PLAYER IN STEEL

Marcegaglia is the italian industrial group leading the European and worldwide steel market.
A unique combination of the dynamic Italian family business model with the great operating capacity and presence in the international markets, typical of the large corporations.

Marcegaglia è un gruppo industriale italiano leader del mercato europeo e mondiale dell'acciaio. Un modello produttivo e di business unico, espressione tipica dell'imprenditoria familiare italiana in grado di coniugare la sua capacità operativa con una grande presenza sui mercati internazionali, propria delle multinazionali.

With 6.5 million tons of steel processed every year and 9 billion euros of yearly revenues, Marcegaglia is one of the leading players in the world steel scenario.

Con 6,5 milioni di tonnellate di acciaio lavorate e 9 miliardi di euro di fatturato all'anno, Marcegaglia è uno dei principali player del panorama siderurgico mondiale.

WORLDWIDE PRESENCE
PRESENZA MONDIALE

SALES OFFICE
DÜSSELDORF, GERMANY

PLANT
FAGERSTA, SE

SALES OFFICE
NORTH EUROPE SOLEUVRE LUXEMBOURG

PLANTS
DUDLEY, UK
OLDBURY, UK

STEEL MILL AND PLANTS
SHEFFIELD, UK

SALES OFFICE
LYON, FRANCE

SALES OFFICE
SANTA PERPETUA DE MOGODA
BARCELONA, SPAIN

PLANT
RICHBURG, USA

PLANT
QUERÉTARO, MEXICO

PLANT
FUNZA, COLOMBIA

PLANT
GARUVA, BRAZIL

PLANTS
RIGA, LATVIA

PLANT
KLUCZBORK, POLAND

PLANT
PRASZKA, POLAND

PLANT
VLADIMIR, RUSSIA

SALES OFFICE
CLUJ, ROMANIA

PLANT
ISTANBUL, TURKEY

PLANT
BIZERTE, TUNISIA

MARCEGAGLIA GULF
DOHA, QATAR

HEADQUARTERS
GAZOLDO DEGLI IPPOLITI, MN
ITALY

PLANT
CONTINO, MN

SALES OFFICE
MILANO, MI

TRISIDER
TEZZE SUL BRENTA, VI

PLANTS
SAN GIORGIO DI NOGARO, UD

PLANT
RAVENNA, RA

PLANT
FORLÌ, FC

ETA
OSTERIA GRANDE, BO

PLANT
BOLTIERE, BG

PLANT
LOMAGNA, LC

ETA
LAINATE, MI

PLANT
DUSINO SAN MICHELE, AT

PLANT
CORSICO, MI

PLANT
GORLA MINORE, VA

PLANT
RIVOLI, TO

PLANT
POZZOLO FORMIGARO , AL

PLANT
GRAFFIGNANA, LO

PLANT
CASALMAGGIORE, CR

CARBON STEEL TUBES PLANTS

CARBON STEEL

- Carbon steel coils
- Carbon steel strips and sheets
- Pre-painted coils
- Pre-painted strips and sheets
- Carbon steel welded and cold-drawn tubes
- Refrigeration tubes

SPECIALTY STEEL

- Stainless steel coils
- Stainless steel strips and sheets
- Stainless steel welded tubes
- Carbon and stainless steel cold-drawn bars
- Stainless steel flat bars
- Stainless steel cold formed sections
- Stainless steel semi-finished products
- Stainless steel wire rods
  Stainless steel drawn wires
- Stainless steel bars

BUILDING

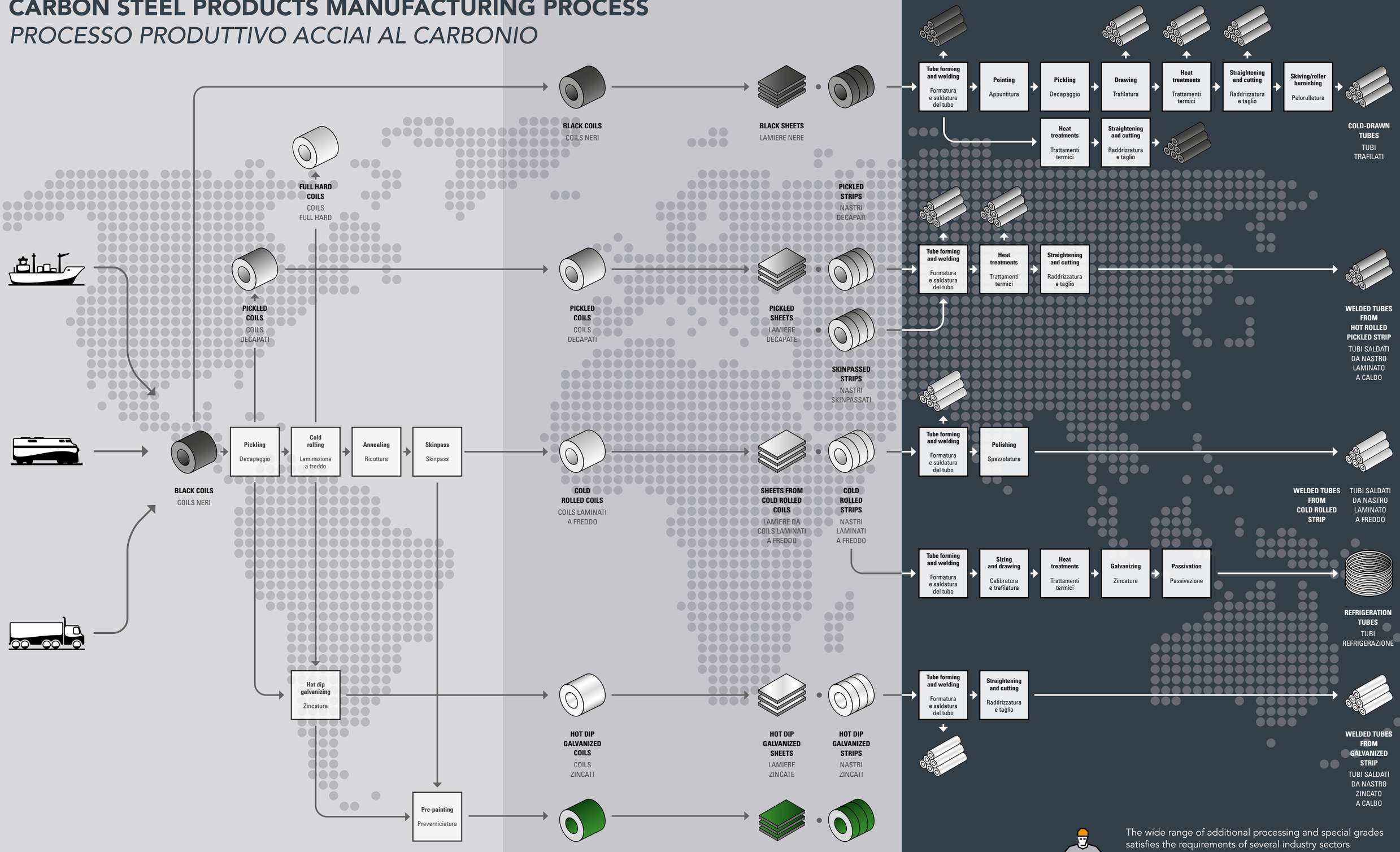
- Insulated roofing and wall panels
- Trapezoidal corrugated sheets
- Insulated panels for sectional doors
- Safety barriers
- Scaffolding equipment

HEAVY PLATES

- Heavy plates

CARBON STEEL PRODUCTS MANUFACTURING PROCESS

PROCESSO PRODUTTIVO ACCIAI AL CARBONIO



CUSTOM

The wide range of additional processing and special grades satisfies the requirements of several industry sectors with value added, highly customized solutions.
La vasta gamma di lavorazioni e di qualità impiegate consente di soddisfare i requisiti dei più diversi settori produttivi con soluzioni ad alto grado di personalizzazione e valore aggiunto.

STRATEGIC RESOURCES AND DISTINCTIVE SKILLS:

SOLID GLOBAL PROCUREMENT NETWORK

DIVERSIFIED RANGE OF PRODUCTS AND SERVICES

WORLDWIDE DISTRIBUTION (CUSTOMER BASE, GEOGRAPHIC MARKETS, AREAS OF USE)

OPERATIONAL EXCELLENCE AND LOGISTICS

FLEXIBILITY / REACTIVITY / SPEEDY DECISION MAKING

SERVICE ORIENTATION

COMPETENCE / MOTIVATION / STABILITY OF MANAGEMENT

FLEXIBLE SOUL

Independence, dynamism, agility, responsiveness, resilience and sustainability are the key elements of Marcegaglia corporate culture: factors that have helped make the company the main point of reference for steel processing both in Italy and abroad. Marcegaglia is able to successfully operate, even given the most difficult markets and geopolitical conditions, thanks to industrial synergies, economies of scale and the diversification of production and supply.

Group culture focuses on the role of people and on sharing specific values, which have become the cornerstones of its business model.

Indipendenza, dinamismo, agilità, reattività, resilienza e sostenibilità sono i fattori chiave della cultura d'impresa Marcegaglia: fattori che hanno permesso all'azienda di diventare il principale punto di riferimento nella trasformazione dell'acciaio sia in Italia, sia all'estero. Marcegaglia è capace di muoversi con successo anche nei mercati e nelle condizioni geopolitiche più difficili, grazie a sinergie industriali, economie di scala, diversificazione produttiva e di approvvigionamento.

La cultura del Gruppo ha focalizzato la sua attenzione sul ruolo delle persone e sulla condivisione di alcuni valori, divenuti elementi portanti del modello di business.

Ready to seize every opportunity for growth whilst paying constant attention to customers needs, Marcegaglia Group has created a network of 36 production plants that guarantee the very best skills, quality, service and know-how, along with a highly efficient logistics and distribution network.

The large number of hubs located in Europe's most strategic manufacturing districts and its privately-owned railway terminals and port facilities in the Mediterranean (Ravenna, San Giorgio di Nogaro and Bizerte) allow the company to meet requests from around the globe and ensuring its international customers prompt, flexible and punctual product delivery.

Pronto a cogliere ogni opportunità di crescita, con una costante attenzione alle esigenze della propria clientela, il gruppo Marcegaglia ha creato un network di 36 stabilimenti capaci di garantire un alto livello di competenze, qualità, servizio e know-how, insieme a un'efficiente rete logistica e distributiva.

Grazie a numerosi hub dislocati nei più strategici distretti produttivi europei, a terminal ferroviari e banchine portuali di proprietà nel Mediterraneo (Ravenna, San Giorgio di Nogaro e Bizerte), l'azienda riesce a rispondere alle richieste che provengono da tutto il mondo garantendo massima tempestività, flessibilità e puntualità nella consegna dei prodotti.

MOVING THE WORLD

A capillary presence and sophisticated logistic network to get closer to customers all over Europe and in the world

Una presenza capillare e un sofisticato network logistico per essere vicini ai clienti in ogni parte dell'Europa e del mondo

CARBON STEEL WELDED TUBES
TUBI SALDATI IN ACCIAIO AL CARBONIO

DIMENSIONAL RANGE - *GAMMA DIMENSIONALE*

MIN. OUTSIDE DIAMETER - *DIAMETRO ESTERNO MIN.*	**8 mm**
MAX. OUTSIDE DIAMETER - *DIAMETRO ESTERNO MAX.*	**406,4 mm**
MIN. THICKNESS - *SPESSORE MIN.*	**0,3 mm**
MAX. THICKNESS - *SPESSORE MAX.*	**16 mm**

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

Dalla prima trasformazione, nell'ambito della propria filiera produttiva controllata, Marcegaglia Carbon Steel ricava la gamma di tubi saldati in acciaio al carbonio più ampia al mondo, con 150 tubifici. La produzione Marcegaglia Carbon Steel di tubi ricavati da nastro laminato a caldo, a freddo e zincato copre una vasta gamma di impieghi, garantendo idoneità specifiche a successive rilavorazioni.

MAIN MANUFACTURING STANDARDS
PRINCIPALI NORME DI FABBRICAZIONE

MANUFACTURING STANDARD *Norma di fabbricazione*	**PRODUCT DESIGNATION** *Designazione prodotto*	**TREATMENT** *Tipologie di trattamento*	**GRADE*** *Qualità*	**SURFACE CONDITIONS** *Condizioni superficiali*
EN 10305-3	Round and shaped welded and cold sized steel tubes for precision applications *Tubi di acciaio tondi e speciali, saldati e calibrati a freddo per impieghi di precisione*	**+CR1** Welded and sized *Saldato e calibrato a freddo* **+CR2** Welded and sized *Saldato e calibrato a freddo* **+A** Annealed - *Ricotto* **+N** Normalized *Normalizzato*	E155, E190 E195, E220 E235, E260 E275, E320 E355, E370 E420, E460 E500, E550 E600, E700 **E780,E980** *(Marcegaglia Standards)*	**S1** From hot-rolled strip, black *Da nastro laminato a caldo nero* **S2** From hot-rolled strip, pickled *Da nastro laminato a caldo decapato* **S3** From cold-rolled strip *Da nastro laminato a freddo* **S4** From coated strip *Da nastro rivestito secondo condizioni stabilite*
EN 10305-5	Square and rectangular welded and cold sized steel tubes for precision applications *Tubi di acciaio di sezione quadrata e rettangolare, saldati e calibrati a freddo per impieghi di precisione*			
EN 10219	Cold formed welded structural tubes (CE homologation) *Tubi saldati formati a freddo per impieghi strutturali (omologazione CE)*		S235JRH, S275J0H S275J2H, S355J0H S355J2H, S355MH S420MH, S460MH	
EN 10210-1	Structural hollow sections of non-alloy and fine grain steels, hot finished or cold formed and heat treated *Profilati cavi di acciai non legati e a grano fine per impieghi strutturali, finiti a caldo o formati a freddo con trattamenti termici*	**Heat treatments** *Trattamenti termici*	S235JRH, S275J0H S275J2H, S355J0H S355J2H, S335K2H S275NH, S355NH S420NH, S460NH	
				STEEL QUALITY *Qualità di acciaio*
EN 10217-1	Tubes for pressure purposes, for use at room temperature *Tubi per impieghi a pressione, per utilizzi a temperature ambiente*	**Heat treatments upon request** *Trattamenti termici su richiesta*	P195 P235 P265	**TR1 TR2** **TR1 TR2** **TR1 TR2**
EN 10217-2	Tubes for pressure purposes, for use at high temperatures *Tubi per impieghi a pressione, per utilizzi a temperature elevate*		P195GH P235GH P265GH	**TEST CATEGORY** *Categoria di test* **TC1** **TC2**
EN 10208-1	Steel pipes for pipelines for combustible fluids *Tubi per condotte di fluidi combustibili*		L235GA L290GA L360GA	
EN 10224	Tubes for the conveyance of water and other aqueous liquids *Tubi per il convogliamento di acqua e altri liquidi acquosi*		L235 L275 L355	
EN 10255	Tubes suitable for welding and threading *Tubi adatti alla saldatura e alla filettatura*	**Heat treatments upon request** *Trattamenti termici su richiesta*	S195T	
EN 10296	Welded circular steel tubes for mechanical and general engineering purposes *Tubi d'acciaio circolari saldati per applicazioni meccaniche e di ingegneria generale*		E155, E190 E195, E220 E235, E260 E275, E320 E355, E370	

(*) Upon request: supply of grades not included in the above mentioned standards - *Su richiesta si forniscono anche qualità differenti dalla norma*

Supply conditions - *Condizioni di fornitura*

- Dimensional tolerances according to manufacturing standard - *Tolleranze dimensionali secondo le norme di fabbricazione*
- Special tolerances upon request *Tolleranze speciali su richiesta*
- Control documents 2.1, 2.2, 3.1, 3.2 according to EN 10204 and specific norm requirements
  Documenti di controllo 2.1, 2.2, 3.1, 3.2 secondo norma EN 10204 e indicazione specifiche di ciascuna norma

MANUFACTURING STANDARD *Norma di fabbricazione*	**PRODUCT DESIGNATION** *Designazione prodotto*	**GRADE*** *Qualità*
ASTM A53 A53M	Black and zinc-coated, welded and seamless tubes for structural steel or for low-pressure plumbing. *Tubi neri, zincati con e senza saldatura per impieghi strutturali o per impianti idraulici a bassa pressione*	A, B
ASTM A178 A178M	Electric-resistance-welded carbon steel tubes and carbon-manganese steel boiler and superheater tubes *Tubi in acciaio al carbonio saldati a resistenza elettrica e tubi in acciaio al manganese e surriscaldatori in acciaio al carbonio*	A, C
ASTM A500	Cold-formed welded and seamless carbon steel structural tubing in rounds and shapes *Tubi strutturali saldati a freddo e senza saldatura in acciaio al carbonio in forme rotonde e in altre forme*	B, C

MANUFACTURING STANDARD *Norma di fabbricazione*	**PRODUCT DESIGNATION** *Designazione prodotto*	**GRADE*** *Qualità*
API 5CT	Steel pipes for use as casing or tubing for wells - OCTG casing and tubing *Tubi per impianti di perforazione ed estrazione del petrolio – tubi OCTG*	J55
API 5L	Welded steel pipes for use in pipelines transportation systems in petroleum and natural gas industries *Tubi saldati per trasporto di liquidi nei settori petrolifero e di gas naturale*	X52

OPTIONAL PROCESSING
Lavorazioni opzionali

- Suitability for subsequent galvanizing - *Specifica idoneità alla zincabilità a caldo*
- Complete normalization or weld area normalization - *Normalizzazione completa o della sola zona di saldatura*
- Additional heat treatments - *Trattamenti termici aggiuntivi*
- Weld seam removing - *Scordonatura interna*
- Special end finishing - *Finiture speciali delle estremità*
- Cut to length - *Taglio a misura*
- Customer defined marking - *Marcature alternative*
- Restricted tolerances - *Tolleranze ridotte rispetto la norma*
- Welding position - *Posizione della saldatura*
- Surface roughness measurement - *Misurazione della rugosità superficiale*
- Delivery with no corrosion protection - *Consegne senza protettivi anticorrosivi*
- Specific corrosion protection - *Protezione anticorrosiva specifica*
- Specific packaging method - *Metodo di imballo specifico*
- Unit testing composed of tubes from a single casting - *Unità di collaudo composta da tubi provenienti da una unica colata*
- Hot galvanization - *Zincatura a caldo*

STANDARD LENGTHS	*Lunghezze standard*
Pipes are supplied in 6000 and 12000 mm lengths (tolerances ±50 mm) unless otherwise specified in order	*I tubi vengono forniti, salvo accordi diversi all'ordine, in barre commerciali da mm 6000 e 12000 (tolleranza ±50 mm)*

PRECISION TUBES
TUBI DI PRECISIONE

EN 10305-3 S1, S2, S3, S4

Marcegaglia is able to supply the widest offer in the world of **welded and cold sized steel tubes for precision** applications EN 10305-3 and EN 10305-5, to meet the needs of each market segment.

With great versatility and flexibility, Marcegaglia precision tubes allow to respond to the needs of specific uses such as radiators, winding cores, greenhouses, windows, fences, furnishings, sport equipments, automotive, mechanical industry and many others.

The range is divided into round, square, rectangular, oval, elliptical, triangular and semi-oval tubes and is completed by a very wide range of special shapes, with the possibility of customizing on customer needs.

*Marcegaglia è in grado di fornire la più ampia offerta al mondo di **tubi d'acciaio saldati e calibrati a freddo per impieghi di precisione** EN 10305-3 e EN 10305-5, per soddisfare le esigenze di ogni segmento di mercato.*

Con grande versatilità e flessibilità, i tubi di precisione Marcegaglia consentono di interpretare e rispondere alle necessità di specifici utilizzi quali radiatori, rullistica, serre, serramenti, recinzioni, arredamento, attrezzature sportive, automotive, industria meccanica e molti altri.

La gamma si articola in tubi tondi, quadrati, rettangolari, ovali, ellittici, triangolari e semiovali ed è completata da un amplissimo sagomario di forme speciali, con la possibilità di customizzazione su esigenze del cliente.

DIMENSIONAL RANGE - *GAMMA DIMENSIONALE*

MIN. OUTSIDE DIAMETER - *DIAMETRO ESTERNO MIN.*	**8 mm**
MAX. OUTSIDE DIAMETER - *DIAMETRO ESTERNO MAX.*	**406,4 mm**
MIN. THICKNESS - *SPESSORE MIN.*	**0,3 mm**
MAX. THICKNESS - *SPESSORE MAX.*	**16 mm**

MANUFACTURING STANDARD *Norma di fabbricazione*	**PRODUCT DESIGNATION** *Designazione prodotto*	**TREATMENT** *Tipologie di trattamento*	**GRADE*** *Qualità*	**SURFACE CONDITIONS** *Condizioni superficiali*
EN 10305-3	Round and shaped welded and cold sized steel tubes for precision applications *Tubi di acciaio tondi e speciali, saldati e calibrati a freddo per impieghi di precisione*	**+CR1** Welded and sized *Saldato e calibrato a freddo* **+CR2** Welded and sized *Saldato e calibrato a freddo* **+A** Annealed - *Ricotto* **+N** Normalized *Normalizzato*	E155, E190 E195, E220 E235, E260 E275, E320 E355, E370 E420, E460 E500, E550 E600, E700 **E780,E980** *(Marcegaglia Standards)*	**S1** From hot-rolled strip, black *Da nastro laminato a caldo nero* **S2** From hot-rolled strip, pickled *Da nastro laminato a caldo decapato* **S3** From cold-rolled strip *Da nastro laminato a freddo* **S4** From coated strip *Da nastro rivestito secondo condizioni stabilite*
EN 10305-5	Square and rectangular welded and cold sized steel tubes for precision applications *Tubi di acciaio di sezione quadrata e rettangolare, saldati e calibrati a freddo per impieghi di precisione*			

PRECISION TUBES FOR RADIATORS
TUBI DI PRECISIONE PER RADIATORI

EN 10305-3 S1, S2, S3, S4

Steel radiators are a key element for furnitures, since they can be manufactured in different shapes and in many types. The most used are standard multi-column, plate, lamellar, up to tubular towel dryers. Steel radiators are light and space-saving compared to traditional cast iron ones, they are characterized by a refined aesthetic, to sometimes become real design elements integrated into the furniture.

*I **radiatori in acciaio** sono un elemento chiave per il settore dell'arredo e possono essere realizzati in forme diverse e in varie tipologie. Le più utilizzate sono standard multicolonne, a piastra, a lamelle, fino agli scaldasalviette tubolari. I radiatori in acciaio sono leggeri e poco ingombranti rispetto ai tradizionali realizzati in ghisa, sono caratterizzati da un'estetica raffinata, per diventare a volte veri e propri elementi di design integrati nell'arredamento.*

MANUFACTURING STANDARD *Norma di fabbricazione*	PRODUCT DESIGNATION *Designazione prodotto*	TREATMENT *Tipologie di trattamento*	GRADE *Qualità*	SURFACE CONDITIONS *Condizioni superficiali*
EN 10305-3	Round and shaped welded and cold sized steel tubes for precision applications *Tubi di acciaio tondi e speciali, saldati e calibrati a freddo per impieghi di precisione*	**+CR2** Welded and sized *Saldato e calibrato a freddo*	E190 E220 E260	**S3** From cold-rolled strip *Da nastro laminato a freddo*

MOST REQUESTED SIZES
MISURE PIÙ RICHIESTE

E190

diameter	thickness			
	0,9	1	1,1	1,2
22	0,468	0,518	0,567	0,615
23	0,490	0,542	0,594	0,645
25	0,535	0,592	0,648	0,704

external dimensions	
A x B	1,5
50 x 10	1,270
70 x 11	1,795

external dimensions	
A x B	1,5
40 x 30	1,425

E220

diameter mm	thickness				
	0,8	0,9	1	1,1	1,2
22	0,418	0,468	0,518	0,567	0,615
23	0,438	0,490	0,542	0,594	0,645
25	0,477	0,535	0,592	0,648	0,704

external dimensions	thickness	
A x B	1,4	1,5
50 x 10	1,150	1,270
70 x 11	1,625	1,795

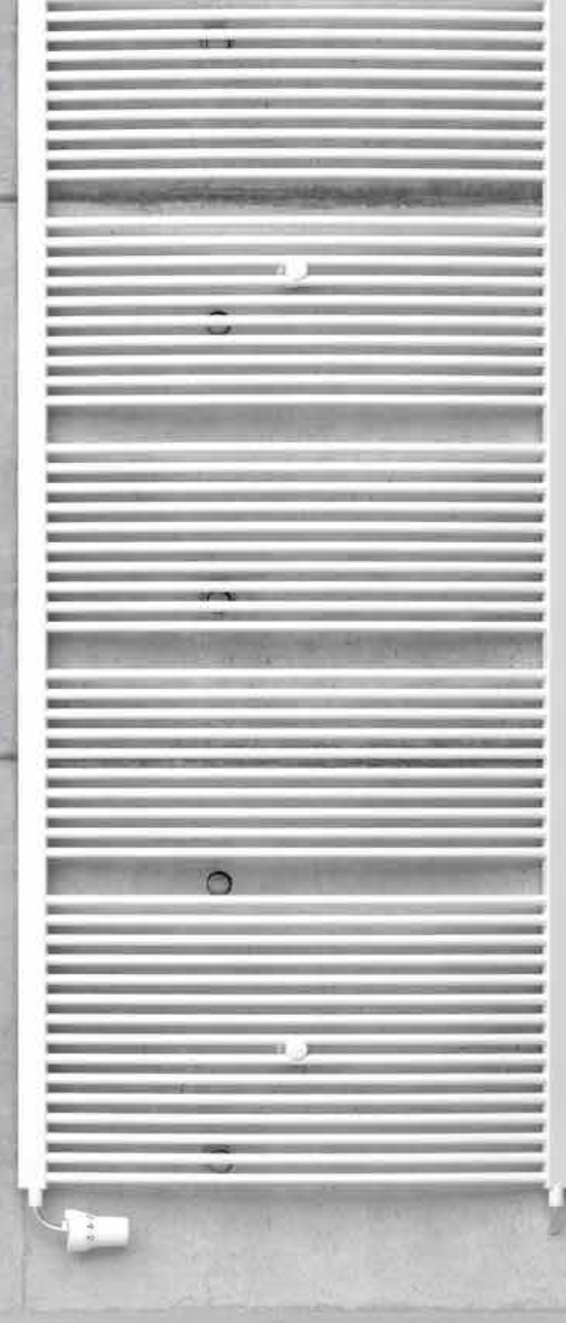
external dimensions	thickness	
A x B	1,4	1,5
40 x 30	1,287	1,425

E260

diameter	thickness			
	0,9	1	1,1	1,2
22	0,468	0,518	0,567	0,615
23	0,490	0,542	0,594	0,645
25	0,535	0,592	0,648	0,704

external dimensions	thickness	
A x B	1,4	1,5
50 x 10	1,150	1,270
70 x 11	1,625	1,795

external dimensions	thickness	
A x B	1,4	1,5
40 x 30	1,287	1,425



- **CONSTANT QUALITY**
- **SURFACE QUALITY SUITABLE FOR CHROME PLATING AND PAINTING**
- **GUARANTEED STRAIGHTNESS**
- **LENGTH 6,000 MM OR MULTIPLES**
- **NDT NON-DESTRUCTIVE TESTING**

- *QUALITÀ COSTANTE*
- *QUALITÀ SUPERFICIALE ATTA ALLA CROMATURA E VERNICIATURA*
- *RETTILINEITÀ GARANTITA*
- *LUNGHEZZA 6.000 MM O MULTIPLI*
- *TEST CND CONTROLLI NON DISTRUTTIVI*

WINDING CORE PRECISION TUBES
TUBI DI PRECISIONE PER LA RULLISTICA

EN 10305-3 S1, S2, S3, S4

Rolling for industrial **handling** and **automation** is of great importance in many sectors: the use of conveyor belts and winders allows an increase in production and a better quality of the production environment. Furthermore, the growing demand f or consumer products, required by the development of online commerce, ask logistics companies to reply more and more promptly.

*La **rullistica** per **movimentazione** e **automazione** industriale è di grande importanza in molti settori: l'impiego di nastri trasportatori e avvolgitori consente crescita e migliore qualità dell'ambiente produttivo. Inoltre, la crescente domanda di prodotti al consumo, determinata dallo sviluppo del commercio online, richiede alle aziende di logistica risposte sempre più tempestive.*

MANUFACTURING STANDARD *Norma di fabbricazione*	**PRODUCT DESIGNATION** *Designazione prodotto*	**GRADE** *Qualità*	**SURFACE CONDITIONS** *Condizioni superficiali*
EN 10305-3	Round and shaped welded and cold sized steel tubes for precision applications *Tubi di acciaio tondi e speciali, saldati e calibrati a freddo per impieghi di precisione*	E235 + CR1	**S1** From hot-rolled strip, black *Da nastro laminato a caldo nero* **S2** From hot-rolled strip, pickled *Da nastro laminato a caldo decapato* **S3** From cold-rolled strip *Da nastro laminato a freddo* **S4** From coated strip *Da nastro rivestito secondo condizioni stabilite*

MOST REQUESTED SIZES EN 10305-3 S1
MISURE PIÙ RICHIESTE DAL SETTORE EN 10305-3 S1

diameter/ *diametro* **mm**	89	108	133	159
thickness/ *spessore* **mm**	3	3,5	4	4,5

MOST REQUESTED SIZES EN 10305-3 S2 - S3 - S4
MISURE PIÙ RICHIESTE DAL SETTORE

diameter/ *diametro* **mm**	20	25	27	30	32	38	40	50	54	60	63	65	70	76	80	89
thickness/ *spessore* **mm**	1,5	2	3	3	1,5/2	3	1,5/2	1,5/2	1,5	1,5/2	2,5	1,5	2/3	2/3	1,5 - 3	2/3

ROLLERS FOR MATERIAL HANDLING
RULLI PER TRASPORTO MATERIALI SFUSI

Weight and resistant rollers for materials handling in sugar factories, salt works, plants for bituminous conglomerates, road machines, foundries, cement plants, mining industry, plants for bricks.

Rulli di peso e resistenti per movimentazione materiali in zuccherifici, saline, impianti per conglomerati bituminosi, macchine stradali, fonderie, cementifici, industria mineraria, impianti per laterizi.

EN 10305-3 S1

AUTOMOTIVE
AUTOMOTIVE

BUILDINGS
COSTRUZIONI

ROLLERS FOR BELT CONVEYORS
RULLI PER NASTRI TRASPORTATORI A CINGHIA

High technology rollers for industrial automation systems, automatic transport systems, bottling, packaging, palletizing, for the pharmaceutical and chemical industries; rollers for dynamic warehouses, to rationalize the management of goods in any type of industrial sector, with benefits in terms of time savings, safety and flow optimization; rollers for special handling for airports, marble working machines.

Rulli a elevato contenuto tecnologico per impianti di automazione industriale, impianti di trasporto automatico, imbottigliamento, imballaggio, palettizzazione, per industria farmaceutica, chimica; rulli per magazzini dinamici, per razionalizzare la gestione delle merci in qualsiasi tipo di settore industriale, con benefici in termini di risparmio di tempo, sicurezza e ottimizzazione dei flussi; rulli per movimentazioni speciali per aeroporti, macchine per la lavorazione del marmo.

EN 10305-3 S2,S3, S4

INDUSTRIAL
INDUSTRIA

FOOD INDUSTRY
INDUSTRIA ALIMENTARE

LOGISTICS
LOGISTICA

TUBES FOR GREENHOUSES
TUBI PER SERRE

EN 10219

Greenhouses are a key element for agriculture, horticulture and floriculture. The revolutionary hydroponic, aquaponic and aeroponic systems are revolutionizing the market also through the construction of "vertical farm" and "plantscraper". Marcegaglia serves the greenhouse sector with a range of welded tubes that is at the forefront both to meet structural needs, for the construction of roofs, with single-pitch, double-pitch, symmetrical, asymmetrical, hybrid, solar greenhouses, as well for the needs of heating and cooling.

Le serre sono un elemento chiave per l'agricoltura, l'orticoltura e la floricoltura. I rivoluzionari sistemi idroponici, acquaponici e aeroponici stanno rivoluzionando il mercato anche attraverso la costruzione di "vertical farm" e "plantscraper". Marcegaglia serve il settore delle serre con una gamma di tubi saldati che è all'avanguardia sia per rispondere alle esigenze strutturali, per la realizzazione di coperture, con serre monofalda, bifalda, simmetriche, asimmetriche, ibride, fotovoltaiche, sia per le necessità di impiantistica di riscaldamento e raffrescamento.

AGRICULTURE
AGRICOLTURA

protected crops, horticulture, flower growing, mushroom farms, tobacco drying
colture protette, orticoltura, floricoltura, fungaie, essicazione, tabacco

BREEDING
ALLEVAMENTO

poultry, cattle, sheep
pollame, bovini, ovini

OTHER USES
ALTRI IMPIEGHI

nurseries, hay shelters, warehouses, roofs (parking lots, sports facilities)
vivai, ricoveri fieno, magazzini, coperture (parcheggi, impianti sportivi)

MANUFACTURING STANDARD *Norma di fabbricazione*	PRODUCT DESIGNATION *Designazione prodotto*	TREATMENT *Tipologia di trattamento*	GRADE *Qualità*	SURFACE CONDITIONS *Condizioni superficiali*
EN 10305-3	Round and shaped welded and cold sized steel tubes for precision applications *Tubi di acciaio tondi e speciali, saldati e calibrati a freddo per impieghi di precisione*	**+CR2** Welded and sized *Saldato e calibrato a freddo*	E260	**S4** From coated strip *Da nastro rivestito secondo condizioni stabilite*
EN 10305-5	Square and rectangular weldedand cold sized steel tubes for precision applications *Tubi di acciaio di sezione quadrata e rettangolare, saldati e calibrati a freddo per impieghi di precisione*			
EN 10219-1 S*	Cold formed welded structural tubes (CE homologation) *Tubi saldati formati a freddo per impieghi strutturali (omologazione CE)*		S235JRH	

*CE marking for structural tubes EN 10219 (D.E. 89/106/EEC) *Marchio CE per tubi strutturali EN 10219 (D.E. 89/106/EEC)*

Marcegaglia is able to supply the most complete range of tubes for greenhouses manufactured from galvanized strip.

Marcegaglia è in grado di fornire la gamma più completa di tubi per serre prodotti con tubo zincato da nastro.

weight kg/m

ROUND TUBES
Tubi tondi

EN 10305-3 S1, S2, S3, S4

outside diameter mm	wall thickness mm															
	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					
9,8				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		
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	
19,8	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
22,6			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	
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
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	
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

outside diameter mm	wall thickness mm								
	3,3	3,7	4	4,2	4,5	4,7	5	5,6	6
28	2,010	2,217	2,367						
29	2,091	2,308	2,466						
30	2,173	2,399	2,564						
31,2	2,270	2,509	2,683	2,796	2,963	3,071	3,230	3,535	
32	2,335	2,582	2,762	2,879	3,051	3,164	3,329	3,645	
33	2,417	2,673	2,860	2,982	3,162	3,280	3,452	3,783	3,994
33,4 - 1N*	2,449	2,710	2,900	3,024	3,207	3,326	3,501	3,839	4,054
33,7	2,474	2,737	2,929	3,055	3,240	3,361	3,538	3,880	4,098
35	2,579	2,855	3,057						
35,5	2,620	2,901	3,107						
36	2,661	2,947	3,156	3,293	3,495	3,627	3,822	4,198	4,438
39	2,905	3,220	3,452	3,604	3,828	3,975	4,192	4,612	4,882
39,5	2,945	3,266	3,501	3,656	3,883	4,033	4,253	4,681	4,956

*N: nominal pipe size

ROUND TUBES
Tubi tondi

weight kg/m

outside diameter mm	0,8	0,9	1	1,1	1,2	1,4	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	7	7,6	8	8,6	9	9,6	10	10,5	11	11,5	12	12,5	13
40	0,773	0,868	0,962	1,055	1,148	1,332	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	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	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														
43	0,832	0,934	1,036	1,136	1,237	1,436	1,535	1,829	2,022	2,496	2,959	3,230	3,585	3,846																					
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	3,352	3,722	3,994	4,173	4,438	4,612	4,870	5,371	5,696															
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	3,393	3,768	4,044	4,225	4,494	4,670	4,931	5,440	5,770	6,012	6,249													
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	3,556	3,950	4,241	4,432	4,716	4,902	5,178	5,716	6,066	6,322	6,574													
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	3,637	4,041	4,340	4,536	4,827	5,018	5,301	5,854	6,213	6,478	6,737	7,076	7,571	7,890										
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	7,128	7,627	7,949										
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	7,163	7,664	7,989										
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	3,800	4,224	4,537	4,743	5,048	5,250	5,548	6,131	6,509	6,788	7,063	7,422	7,945	8,285										
52			1,257	1,381	1,503	1,747	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	7,767	8,320	8,679										
53			1,282	1,408	1,533	1,781	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	7,939	8,508	8,876										
54			1,307	1,435	1,562	1,816	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	8,112	8,695	9,074										
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	8,198	8,789	9,172										
55			1,331	1,462	1,592	1,850	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	8,285	8,882	9,271										
56			1,356	1,489	1,621	1,885	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	8,457	9,070	9,468										
57			1,381	1,516	1,651	1,919	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			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	4,614	5,136	5,523	5,779	6,158	6,409	6,781	7,511	7,989	8,342	8,690	9,148	9,819	10,257	10,899	11,317	11,930	12,328						
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	9,199	9,876	10,316	10,963	11,384	12,001	12,402						
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	9,493	10,194	10,652	11,323	11,761	12,403	12,821						
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	4,858	5,410	5,819	6,089	6,491	6,756	7,150	7,926	8,433	8,808	9,178	9,665	10,381	10,849	11,535	11,983	12,640	13,068						
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	5,020	5,592	6,016	6,296	6,713	6,988	7,397	8,202	8,728	9,118	9,504	10,011	10,756	11,243	11,959	12,427	13,113	13,561						
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	5,126	5,711	6,144	6,431	6,857	7,139	7,557	8,381	8,921															
68				1,814	1,976	2,299	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	10,528	11,318	11,835	12,596	13,093	13,824	14,301						
70				1,869	2,036	2,368	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	10,874	11,693	12,230	13,020	13,537	14,297	14,794	15,404	16,002	16,588			
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	10,960	11,787	12,328	13,126	13,647	14,415	14,917	15,534	16,138	16,730			
72				1,923	2,095	2,437	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	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
73				1,950	2,124	2,472	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				2,004	2,184	2,541	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	11,737	12,630	13,216	14,080	14,646	15,480	16,027						
76				2,031	2,213	2,575	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	11,909	12,818	13,413	14,292	14,868	15,717	16,273						
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	11,926	12,836	13,433	14,313	14,890	15,741	16,298						
80				2,140	2,332	2,713	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	12,600	13,567	14,202	15,140	15,756	16,664	17,260						
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	12,686	13,661	14,301	15,246	15,867	16,782	17,383						
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	12,945	13,942	14,597	15,564	16,199	17,137	17,753						
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	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
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	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
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															
89				2,384	2,598	3,024	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	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
90				2,411	2,627	3,058	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	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
90,5							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	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
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	15,189	16,378	17,161	18,321	19,084	20,215							
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	15,361	16,565	17,358	18,533	19,306	20,451							
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	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
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	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
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	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
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	18,123												
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	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
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	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

*N: nominal pipe size

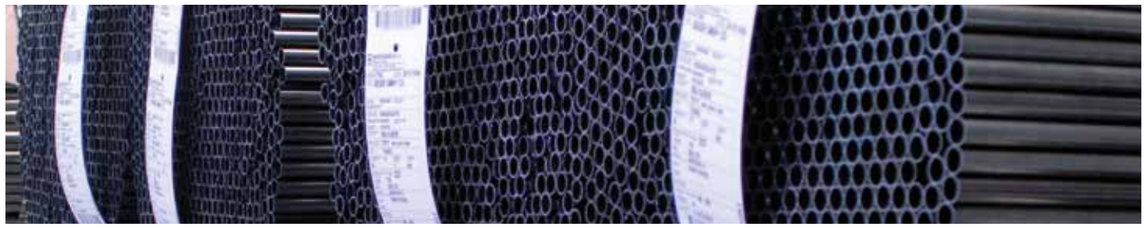
weight kg/m

ROUND TUBES
Tubi tondi

EN 10305-3 S1, S2, S3, S4

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
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
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
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
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

outside diameter (mm)	wall thickness mm															
	7	7,6	8	8,6	9	9,6	10	10,5	11	11,5	12	12,5	13	14	14,2	16
120	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			
121	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		
122	19,849	21,438	22,487	24,046	25,076	26,606										
124	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		
125	20,366	22,000	23,079	24,682	25,742	27,316										
128,5	20,971	22,656	23,769	25,425	26,518	28,144	29,218	30,550	31,869	33,176	34,470					
130	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			
133	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		
139	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		
139,70	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		
140	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		
141,30	23,180	25,054	26,294	28,139	29,359	31,174	32,374									
145	23,818	25,748	27,024	28,923	30,180	32,050	33,287									
146	23,991	25,935	27,221	29,135	30,402	32,286	33,533									
148	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
150	24,681	26,684	28,010	29,984	31,289	33,233	34,519									
152	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		
159	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
160	26,407	28,558	29,983	32,104	33,508	35,600	36,985									
168,30	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
170	28,133	30,432	31,955	34,224	35,728	37,967	39,451									
173	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
177,80	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
186,50	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
193,70	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
201,5	33,570	36,335	38,169	40,904	42,718	45,424	47,218									
203	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
219,08 - 8N	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
244,60	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
273,05 - 10N	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
323,85 - 12N	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
355,60 - 14N	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
406,40 - 16N	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



inches dimensions | weight kg/m

ROUND TUBES
Tubi tondi

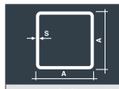
EN 10305-3 S1, S2, S3, S4

outside diameter (mm)	wall thickness mm																			
	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	3,3	3,7	4	4,2
9,52 - ⅜"				0,132	0,152	0,172	0,191	0,210	0,228	0,246	0,280									
15,87 - ⅝"	0,115	0,152	0,189	0,225	0,261	0,296	0,331	0,365	0,399	0,432	0,497									
19,05 - ¾"	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					
22,22 - ⅞"			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					
31,75 - 1¼"				0,461	0,536	0,610	0,685	0,758	0,831	0,904	1,048	1,119	1,329	1,467	1,803	2,130	2,319	2,564	2,742	2,858
38,1 - 1½"						0,736	0,826	0,915	1,004	1,092	1,267	1,354	1,611	1,780	2,194	2,589	2,832	3,138	3,363	3,511
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	3,881	4,315	4,635	4,847
76,2 - 3"												2,759	3,298	3,654	4,537	5,407				
88,9 - 3½" 3N*												3,232	3,866	4,285	5,326	6,354	6,965	7,773	8,373	8,771
101,60 - 4"													4,429	4,912	6,109	7,293	7,998	8,931	9,626	10,087
114,30 - 4½"													4,993	5,538	6,892	8,233	9,032	10,090	10,879	11,402
127 - 5"														6,164	7,674	9,172	10,065	11,249	12,131	12,717
152,40 - 6"															9,240	11,051	12,132	13,566	14,636	15,347

outside diameter (mm)	wall thickness mm																									
	4,5	4,7	5	5,6	6	6,3	6,6	7	7,6	8	8,6	9	9,6	10	10,5	11	11,5	12	12,5	13	14	14,2	16
9,52 - ⅜"																							
15,87 - ⅝"																							
19,05 - ¾"																							
22,22 - ⅞"																							
31,75 - 1¼"	3,029	3,141	3,304	3,618																			
38,1 - 1½"	3,728	3,871	4,081	4,488	4,749																		
50,8 - 2"	5,159	5,366	5,671	6,269	6,657	6,944	7,225	7,594	8,133	8,482													
76,2 - 3"																							
88,9 - 3½" 3N*	9,365	9,758	10,343	11,502	12,264	12,831	13,393	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			
101,60 - 4"	10,774	11,229	11,909	13,255	14,143	14,804	15,460	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			
114,30 - 4½"	12,183	12,701	13,475	15,009	16,022	16,776	17,526	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		
127 - 5"	13,592	14,173	15,041	16,763	17,901	18,749	19,593	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		
152,40 - 6"	16,410	17,116	18,172	20,270	21,658	22,695	23,727	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

*N: nominal pipe size

weight kg/m

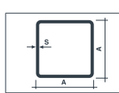


SQUARE TUBES
Tubi quadri

EN 10305-5 S1, S2, S3, S4

external dimensions	wall thickness mm												wall thickness mm												external dimensions
A x A mm	0,6	0,7	0,8	0,9	1	1,1	1,2	1,4	1,5	1,8	2	2,5	3	4	5	6	7	8	9,6	10	12	12,5	14	16	A x A mm
9 x 9	0,158	0,182	0,205	0,228	0,250	0,271	0,291	0,331																	9 x 9
10 x 10	0,176	0,204	0,230	0,256	0,281	0,305	0,329	0,375	0,397																10 x 10
12 x 12	0,214	0,248	0,280	0,312	0,344	0,374	0,405	0,463	0,491																12 x 12
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														13 x 13
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														14 x 14
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 x 15
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														15,5 x 15,5
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													16 x 16
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													17 x 17
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	1,261												18 x 18
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 x 19
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	1,450												20 x 20
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	1,638												22 x 22
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	1,827												24 x 24
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	1,921												25 x 25
27 x 27			0,657	0,736	0,815	0,893	0,970	1,122	1,197	1,419	1,563	1,913													27 x 27
28 x 28			0,682	0,764	0,846	0,927	1,007	1,166	1,244	1,475	1,626	1,991	2,203												28 x 28
30 x 30			0,732	0,821	0,909	0,996	1,083	1,254	1,339	1,588	1,752	2,148	2,392	2,996											30 x 30
34 x 34			0,833	0,934	1,035	1,134	1,233	1,430	1,527	1,814	2,003	2,462	2,769	3,498											34 x 34
35 x 35				0,962	1,066	1,169	1,271	1,474	1,574	1,871	2,066	2,541	2,863	3,624											35 x 35
38 x 38				1,047	1,160	1,272	1,384	1,606	1,715	2,041	2,254	2,776	3,145	4,001											38 x 38
40 x 40				1,104	1,223	1,342	1,460	1,694	1,810	2,154	2,380	2,933	3,334	4,252											40 x 40
42 x 42					1,286	1,411	1,535	1,781	1,904	2,267	2,505	3,090	3,522	4,503											42 x 42
45 x 45					1,380	1,514	1,648	1,913	2,045	2,436	2,694	3,326	3,805	4,880											45 x 45
48 x 48					1,474	1,618	1,761	2,045	2,186	2,606	2,882	3,561	4,087	5,257											48 x 48
50 x 50					1,537	1,687	1,836	2,133	2,281	2,719	3,008	3,718	4,276	5,508	6,644										50 x 50
53 x 53									2,422	2,888	3,196	3,954	4,558	5,885											53 x 53
54 x 54						1,825	1,987	2,309	2,469	2,945	3,259	4,032	4,653	6,010	7,272										54 x 54
55 x 55						1,860	2,025	2,353	2,516	3,001	3,322	4,111	4,747	6,136	7,429										55 x 55
59,3 x 59,3						2,008	2,187	2,542	2,719	3,244	3,592	4,448													59,3 x 59,3
60 x 60						2,032	2,213	2,573	2,752	3,284	3,636	4,503	5,218	6,764	8,214										60 x 60
63,5 x 63,5						2,153	2,345	2,727	2,916	3,482	3,855	4,778	5,547	7,204	8,763										63,5 x 63,5
64 x 64						2,171	2,364	2,749	2,940	3,510	3,887	4,817	5,595	7,266	8,842										64 x 64
65 x 65									2,987	3,567	3,950	4,896	5,689	7,392	8,999	10,509									65 x 65
67 x 67									3,081	3,680	4,075	5,053	5,877	7,643	9,313										67 x 67
70 x 70						2,378	2,590	3,012	3,223	3,849	4,264	5,288	6,160	8,020	9,784	11,451									70 x 70
73 x 73									3,364	4,019	4,452	5,524	6,442	8,397	10,255										73 x 73
75 x 75											4,578	5,681	6,631	8,648	10,569	12,393									75 x 75
80 x 80									3,694	4,414	4,892	6,073	7,102	9,276	11,354	13,335	15,220	17,008							80 x 80
90 x 90											5,520	6,858	8,044	10,532	12,924	15,219	17,418	19,520							90 x 90
100 x 100											6,148	7,643	8,986	11,788	14,494	17,103	19,616	22,032	25,698	26,575	30,733				100 x 100
110 x 110												8,428	9,928	13,044	16,064	18,987	21,814								110 x 110
120 x 120												9,213	10,870	14,300	17,634	20,871	24,012	27,056	31,726	32,855	38,269				120 x 120
125 x 125												9,606	11,341	14,928	18,419	21,813	25,111	28,312							125 x 125
130 x 130												9,998	11,812	15,556	19,204	22,755	26,210	29,568							130 x 130
140 x 140													12,754	16,812	20,774	24,639	28,408	32,080	37,755	39,135	45,805				140 x 140
150 x 150													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
160 x 160													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
175 x 175													16,051	21,208	26,269	31,233	36,101	40,872							175 x 175
180 x 180													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
200 x 200													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
220 x 220													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
250 x 250															38,044	45,363	52,586	59,712	70,914	73,675	87,253	90,587	100,444		250 x 250
260 x 260															39,614	47,247	54,784	62,224	73,928	76,815	91,021	94,512	104,840		260 x 260
300 x 300															45,894	54,783	63,576	72,272	85,986	89,375	106,093	110,212	122,424		300 x 300
325 x 325															49,819	59,493	69,071	78,552	93,522	97,225	115,513	120,024	133,414		325 x 325

inches dimensions | weight kg/m



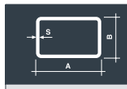
SQUARE TUBES
Tubi quadri

EN 10305-5 S1, S2, S3, S4

external dimensions	wall thickness mm												wall thickness mm												external dimensions
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	3	4	5	6	7	8	9,6	10	12	12,5	14	16	A x A mm - inch
12,7 x 12,7 - ½" x ½"	0,227	0,263	0,298	0,332	0,366	0,399	0,431	0,493	0,524	0,611	0,665														12,7 x 12,7 - ½" x ½"
15,87 x 15,87 - ⅝" x ⅝"	0,287	0,333	0,377	0,422	0,465	0,508	0,550	0,633	0,673	0,790	0,864	1,039													15,87 x 15,87 - ⅝" x ⅝"
19,05 x 19,05 - ¾" x ¾"	0,347	0,403	0,457	0,512	0,565	0,618	0,670	0,773	0,823	0,970	1,064	1,289													19,05 x 19,05 - ¾" x ¾"
22,2 x 22,2 - ⅞" x ⅞"	0,406	0,472	0,536	0,601	0,664	0,727	0,789	0,911	0,971	1,148	1,262	1,536													22,2 x 22,2 - ⅞" x ⅞"
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	1,958												25,4 x 25,4 - 1" x 1"
31,75 x 31,75 - 1¼" x 1¼"			0,776	0,870	0,964	1,057	1,149	1,331	1,421	1,687	1,862	2,286	2,557												31,75 x 31,75 - 1¼" x 1¼"
38,1 x 38,1 - 1½" x 1½"				1,050	1,163	1,276	1,388	1,610	1,720	2,046	2,260	2,784	3,155	4,013											38,1 x 38,1 - 1½" x 1½"
50,8 x 50,8 - 2" x 2"					1,562	1,715	1,867	2,168	2,318	2,764	3,058	3,781	4,351	5,609	6,769										50,8 x 50,8 - 2" x 2"
76,2 x 76,2 - 3" x 3"									3,515	4,200	4,653	5,775	6,744	8,799	10,757	12,619									76,2 x 76,2 - 3" x 3"
88,9 x 88,9 - 3½" x 3½"										4,917	5,451	6,772	7,940	10,394	12,751	15,012									88,9 x 88,9 - 3½" x 3½"
101,6 x 101,6 - 4" x 4"											6,248	7,769	9,137	11,989	14,745	17,405	19,968								101,6 x 101,6 - 4" x 4"
127 x 127 - 5" x 5"												9,763	11,529	15,179	18,733	22,190	25,551	28,815							127 x 127 - 5" x 5"
152,4 x 152,4 - 6" x 6"													13,922	18,370	22,721	26,975	31,133	35,195							152,4 x 152,4 - 6" x 6"

EN 10305-5 S2, S3, S4 | EN 10305-5 S1, S2, S3, S4 | EN 10305-5 S1, S2, S4

weight kg/m

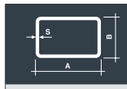


RECTANGULAR TUBES
Tubi rettangolari

EN 10305-5 S1, S2, S3, S4

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**	**4**	**5**
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 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	1,034	1,103	1,306	1,438	1,756	1,921		
30 x 25			0,670	0,750	0,830	0,910	0,989	1,144	1,221	1,447	1,595	1,952	2,156		
33 x 20			0,645	0,722	0,799	0,875	0,951	1,100	1,174	1,391	1,532				
34,9 x 15,8			0,616	0,690	0,763	0,836	0,908	1,050	1,120	1,326	1,460	1,783	1,954		
35 x 10			0,544	0,609	0,673	0,737	0,800	0,924	0,985	1,165	1,281	1,559			
35 x 15			0,607	0,680	0,752	0,823	0,894	1,034	1,103	1,306	1,438	1,756	1,921		
35 x 20			0,670	0,750	0,830	0,910	0,989	1,144	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	1,588	1,752	2,148	2,392		
35 x 30			0,795	0,892	0,987	1,083	1,177	1,364	1,456	1,730	1,909	2,344	2,627	3,310	
38 x 19			0,695	0,779	0,862	0,944	1,026	1,188	1,268	1,504	1,657	2,030			
40 x 10			0,607	0,680	0,752	0,823	0,894	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	1,447	1,595	1,952			
40 x 20			0,732	0,821	0,909	0,996	1,083	1,254	1,339	1,588	1,752	2,148	2,392	2,996	
40 x 22			0,758	0,849	0,940	1,031	1,120	1,298	1,386	1,645	1,814	2,227	2,486	3,122	
40 x 25			0,795	0,892	0,987	1,083	1,177	1,364	1,456	1,730	1,909	2,344	2,627	3,310	
40 x 27			0,820	0,920	1,019	1,117	1,215	1,408	1,503	1,786	1,971	2,423	2,721	3,436	
40 x 30			0,858	0,962	1,066	1,169	1,271	1,474	1,574	1,871	2,066	2,541	2,863	3,624	
40 x 35			0,921	1,033	1,144	1,255	1,365	1,584	1,692	2,012	2,223	2,737	3,098	3,938	
42,5 x 29			0,877	0,983	1,089	1,195	1,299	1,507	1,609	1,913	2,113	2,600	2,933	3,718	
45 x 10			0,670	0,750	0,830	0,910	0,989	1,144	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	1,588	1,752	2,148			
45 x 20			0,795	0,892	0,987	1,083	1,177	1,364	1,456	1,730	1,909	2,344	2,627	3,310	
45 x 25			0,858	0,962	1,066	1,169	1,271	1,474	1,574	1,871	2,066	2,541	2,863	3,624	
45 x 30			0,921	1,033	1,144	1,255	1,365	1,584	1,692	2,012	2,223	2,737	3,098	3,938	
45 x 35			0,984	1,104	1,223	1,342	1,460	1,694	1,810	2,154	2,380	2,933	3,334	4,252	
45 x 40			1,046	1,174	1,301	1,428	1,554	1,803	1,927	2,295	2,537	3,129	3,569	4,566	
48 x 20			0,833	0,934	1,035	1,134	1,233	1,430	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	1,588	1,752	2,148			
50 x 15			0,795	0,892	0,987	1,083	1,177	1,364	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	1,871	2,066	2,541	2,863		
50 x 25			0,921	1,033	1,144	1,255	1,365	1,584	1,692	2,012	2,223	2,737	3,098	3,938	
50 x 30			0,984	1,104	1,223	1,342	1,460	1,694	1,810	2,154	2,380	2,933	3,334	4,252	
50 x 35					1,301	1,428	1,554	1,803	1,927	2,295	2,537	3,129	3,569	4,566	
50 x 40					1,380	1,514	1,648	1,913	2,045	2,436	2,694	3,326	3,805	4,880	
50 x 45					1,458	1,601	1,742	2,023	2,163	2,578	2,851	3,522	4,040	5,194	
53,5 x 25					1,199	1,316	1,431	1,661	1,774	2,111	2,333	2,874			
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	4,817	
55 x 40					1,458	1,601	1,742	2,023	2,163	2,578	2,851	3,522	4,040	5,194	
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	4,252	
60 x 25					1,301	1,428	1,554	1,803	1,927	2,295	2,537	3,129	3,569	4,566	
60 x 30					1,380	1,514	1,648	1,913	2,045	2,436	2,694	3,326	3,805	4,880	
60 x 34					1,443	1,583	1,723	2,001	2,139	2,549	2,819	3,483	3,993	5,131	
60 x 35						1,601	1,742	2,023	2,163	2,578	2,851	3,522	4,040	5,194	
60 x 40						1,687	1,836	2,133	2,281	2,719	3,008	3,718	4,276	5,508	6,644
60 x 45						1,773	1,931	2,243	2,398	2,860	3,165	3,914	4,511	5,822	7,036

weight kg/m



RECTANGULAR TUBES
Tubi rettangolari

EN 10305-5 S1, S2, S3, S4

external dimensions	wall thickness mm												
A x B mm	**1,1**	**1,2**	**1,4**	**1,5**	**1,8**	**2**	**2,5**	**3**	**4**	**5**	**6**	**7**	**8**
60 x 50	1,860	2,025	2,353	2,516	3,001	3,322	4,111	4,747	6,136	7,429			
65 x 35	1,687	1,836	2,133	2,281	2,719	3,008	3,718	4,276	5,508				
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	4,566				
70 x 20	1,514	1,648	1,913	2,045	2,436	2,694	3,326	3,805	4,880				
70 x 25	1,601	1,742	2,023	2,163	2,578	2,851	3,522	4,040	5,194				
70 x 30	1,687	1,836	2,133	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	1,860	2,025	2,353	2,516	3,001	3,322	4,111	4,747	6,136	7,429			
70 x 50	2,032	2,213	2,573	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	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	7,455				
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	5,822				
80 x 30	1,860	2,025	2,353	2,516	3,001	3,322	4,111	4,747	6,136				
80 x 35	1,946	2,119	2,463	2,634	3,143	3,479	4,307	4,982	6,450	7,821			
80 x 40	2,032	2,213	2,573	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			
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
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				
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			
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	

PRECISION TUBES
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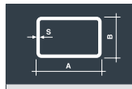
EN 10305-5 S1, S2, S3, S4

weight kg/m

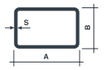


RECTANGULAR TUBES
Tubi rettangolari

EN 10305-5 S1, S2, S3, S4

external dimensions	wall thickness mm												
A x B mm	**2**	**2,5**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**12**	**12,5**	**14**
150 x 100			11,341	14,928	18,419	21,813	25,111	28,312	31,417	34,425	40,153		
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					
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

inches dimensions | weight kg/m

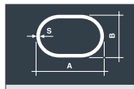


RECTANGULAR TUBES
Tubi rettangolari

EN 10305-5 S1, S2, S3, S4

external dimensions	wall thickness mm																	
A x B mm - inches	**0,7**	**0,8**	**0,9**	**1**	**1,1**	**1,2**	**1,4**	**1,5**	**1,8**	**2**	**2,5**	**3**	**4**	**5**	**6**	**7**	**8**
25,4 x 12,7 - 1" x ½"	0,403	0,457	0,512	0,565	0,618	0,670	0,773	0,823	0,970	1,064	1,289	1,360					
31,75 x 19,05 - 1¼" x ¾"		0,617	0,691	0,764	0,837	0,909	1,052	1,122	1,328	1,463	1,787	1,958					
38,1 x 19,05 - 1½" x ¾"		0,697	0,781	0,864	0,947	1,029	1,191	1,271	1,508	1,662	2,036	2,258					
38,1 x 25,4 - 1½" x 1"		0,776	0,870	0,964	1,057	1,149	1,331	1,421	1,687	1,862	2,286	2,557					
50,8 x 25,4 - 2" x 1"				1,163	1,276	1,388	1,610	1,720	2,046	2,260	2,784	3,155	4,013				
50,8 x 38,1 - 2" x 1½"				1,363	1,495	1,627	1,889	2,019	2,405	2,659	3,283	3,753	4,811	5,772			
63,5 x 38,1 - 2½" x 1½"					1,715	1,867	2,168	2,318	2,764	3,058	3,781	4,351	5,609	6,769			
76,2 x 25,4 - 3" x 1"					1,715	1,867	2,168	2,318	2,764	3,058	3,781	4,351	5,609	6,769			
76,2 x 38,1 - 3" x 1½"					1,934	2,106	2,447	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			
88,9 x 38,1 - 3½" x 1½"								2,916	3,482	3,855	4,778	5,547	7,204	8,763			
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		
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	
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	
203,2 x 101,6 - 8" x 4"												13,922	18,370	22,721	26,975	31,133	35,195

weight kg/m

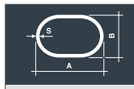


OVAL TUBES
Tubi ovali

EN 10305-3 S2, S3, S4

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
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	

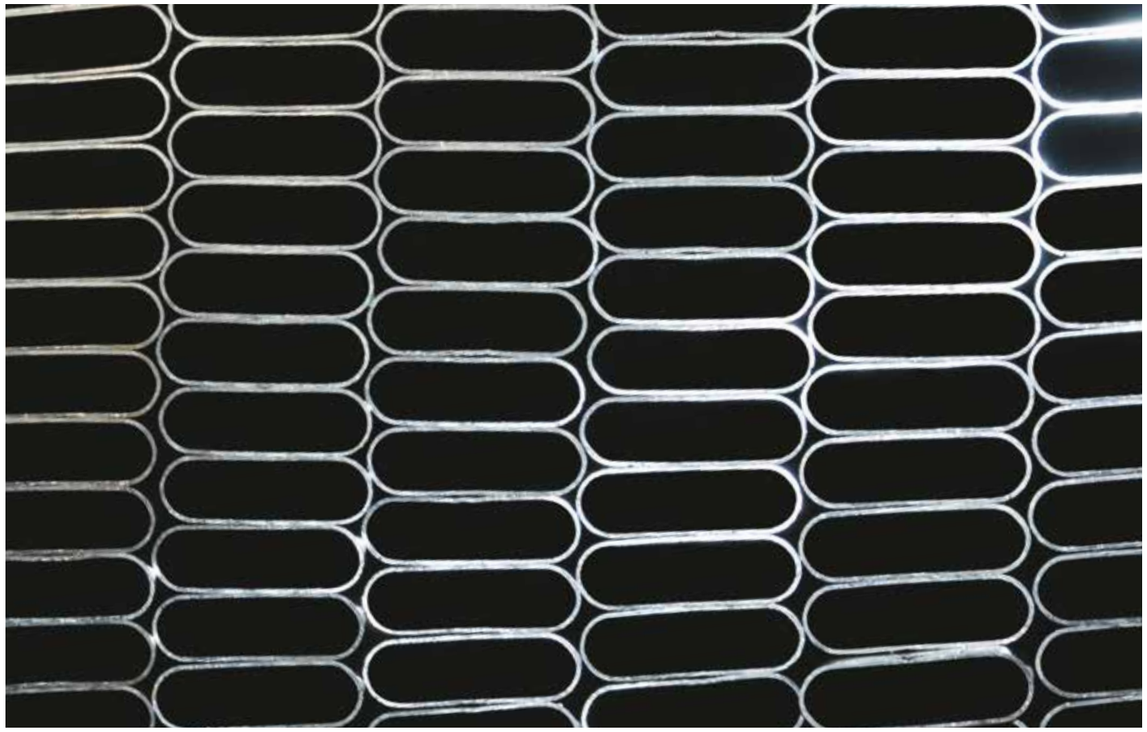
weight kg/m



OVAL TUBES
Tubi ovali

EN 10305-3 S2, S3, S4

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
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

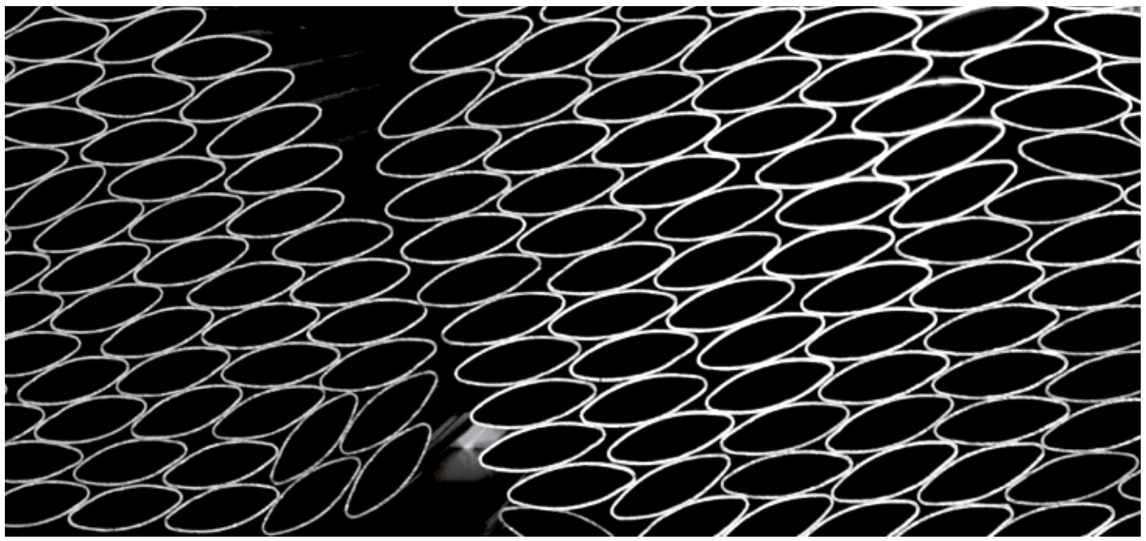


weight kg/m

ELLIPTICAL TUBES
Tubi ellittici

EN 10305-3 S2, S3, S4

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



weight kg/m

TRIANGULAR TUBES
Tubi triangolari

EN 10305-3 S2, S4

external dimensions		wall thickness mm			
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

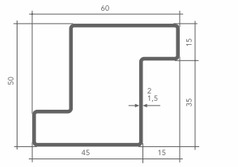
weight kg/m

SEMIOVAL TUBULAR SECTIONS
Tubi semiovali

EN 10305-3 S3

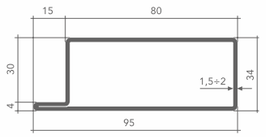
external dimensions	wall thickness mm											
A x B mm	0,6	0,7	0,8	0,9	1	1,1	1,2	1,4	1,5	1,8	2	2,5
14 x 10			0,260	0,290	0,320	0,350	0,379	0,421	0,462			
25 x 25			0,534	0,601	0,667	0,734	0,800	0,894	0,988	1,161	1,289	
30 x 15			0,510	0,730	0,637	0,701	0,765	0,843	0,921	1,080	1,200	
30 x 20			0,576	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

16Z (T. 616) • 40%



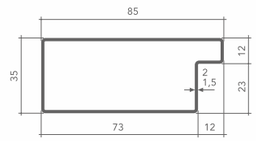
Thickness (mm)	kg/m
1,5	2,56
2	3,39

S41 (T. 1308) • 35%



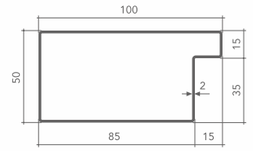
Thickness (mm)	kg/m
1,5	3,02
2	3,94

2D (T. 1528) • 35%



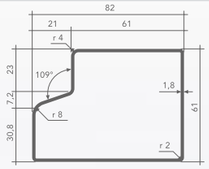
Thickness (mm)	kg/m
1,5	2,78
2	3,66

16D (T. 1527) • 30%



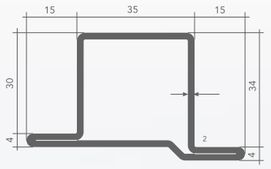
Thickness (mm)	kg/m
2	4,65

T. 1965 • 30%



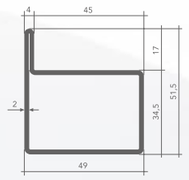
Thickness (mm)	kg/m
1,8	3,87

BST9-RP140 (PN) • 55%



Thickness (mm)	kg/m
2	–

T. 1372 • 40%

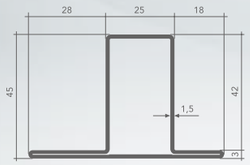


Thickness (mm)	kg/m
2	3,06

BSD5 (PN) • 60%

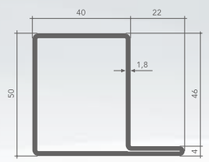
Thickness (mm)	kg/m
1,5	1,52

LS15D (PN) • 45%



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

E8-RP1072 (PN) • 40%



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

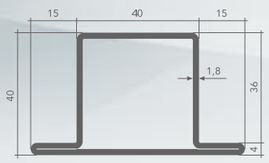
E1-RP1114 (PN) • 50%

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

E4-RP1008 (PN) • 50%

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

E5-RP152 (PN) • 50%

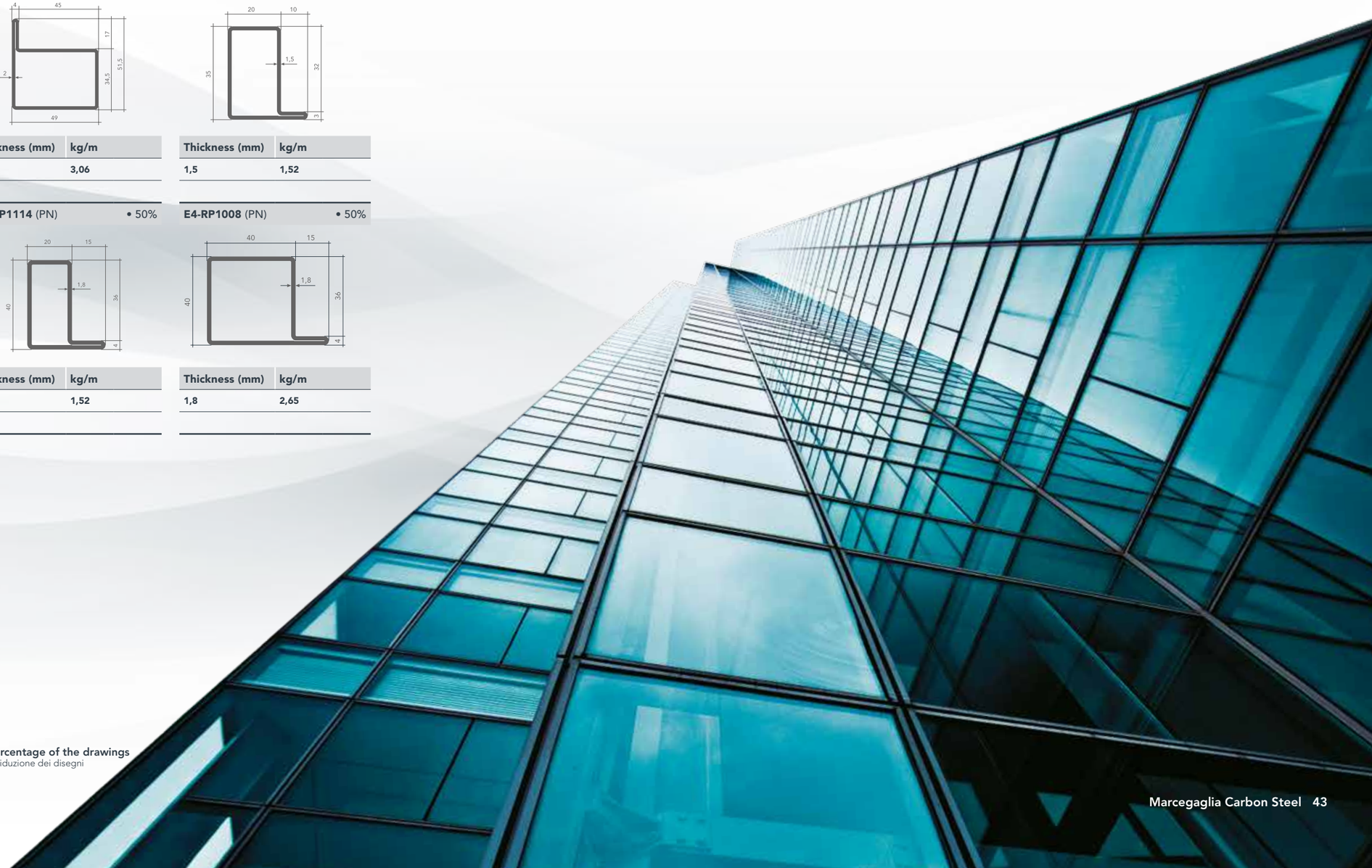


Thickness (mm)	kg/m
1,8	3,07

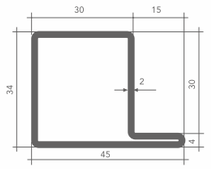
- **Enlargement or reduction percentage of the drawings**
  Percentuale di ingrandimento o di riduzione dei disegni

Marcegaglia manufactures a wide range of precision tubes EN 10305-3 S1, S2, S4 for windows: thanks to its versatility and efficiency, steel is the best choice in for constructions, to guarantee multiple shapes and every possible geometry.

Marcegaglia produce una vasta gamma di tubi di precisione EN 10305-3 S1, S2, S4 per serramenti: grazie alla sua versatilità ed efficienza, l'acciaio rappresenta la scelta migliore nel settore edilizio per garantire molteplici forme e ogni possibile geometria.

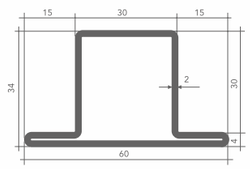


L30-34x15x2 • 55%



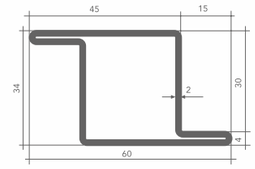
Thickness (mm)	kg/m
2	2,3

T30-34x15x2 • 55%



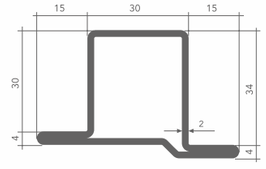
Thickness (mm)	kg/m
2	2,76

Z30-34x15x2 • 55%



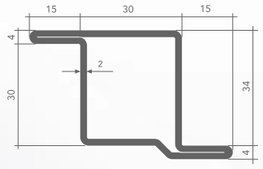
Thickness (mm)	kg/m
2	2,76

TD28-34x15x2 • 55%



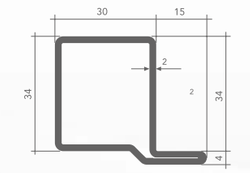
Thickness (mm)	kg/m
2	2,84

ZD28-34x15x2 • 55%



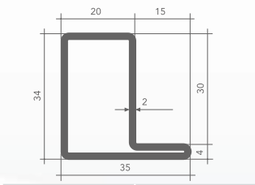
Thickness (mm)	kg/m
2	2,84

LD30-34x15x2 • 55%



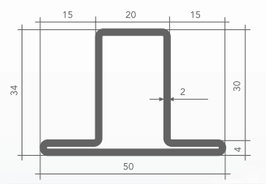
Thickness (mm)	kg/m
2	2,38

L20-34x15x2 • 60%



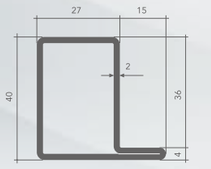
Thickness (mm)	kg/m
2	1,99

T20-34x15x2 • 60%



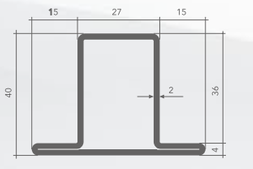
Thickness (mm)	kg/m
2	2,45

L27-40x15x2 • 50%



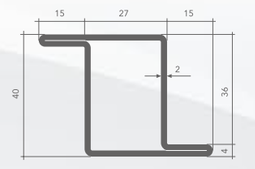
Thickness (mm)	kg/m
2	2,48

T27-40x15x2 • 50%



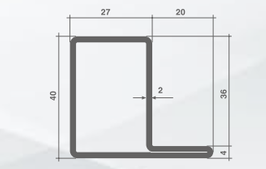
Thickness (mm)	kg/m
2	2,85

Z27-40x15x2 • 50%



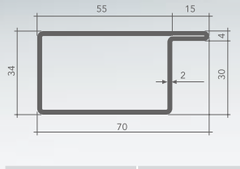
Thickness (mm)	kg/m
2	2,85

L27-40x20x2 • 50%



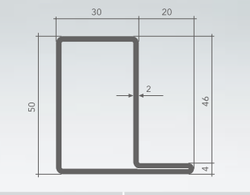
Thickness (mm)	kg/m
2	2,51

L55-34x15x2 • 40%



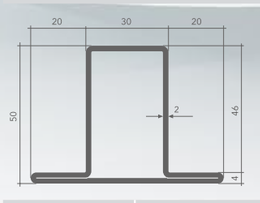
Thickness (mm)	kg/m
2	3,07

L30-50x20x2 • 45%



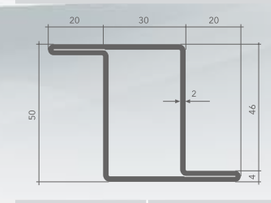
Thickness (mm)	kg/m
2	2,97

T30-50x20x2 • 45%



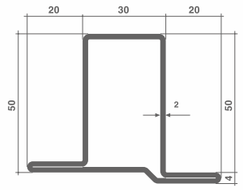
Thickness (mm)	kg/m
2	3,58

Z30-50x20x2 • 45%



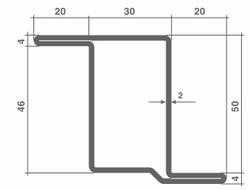
Thickness (mm)	kg/m
2	3,58

TD30-50x20x2 • 45%



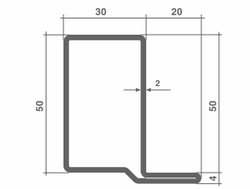
Thickness (mm)	kg/m
2	3,67

ZD30-50x20x2 • 45%



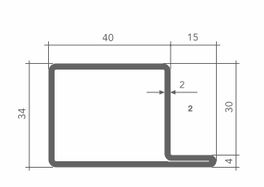
Thickness (mm)	kg/m
2	3,67

LD30-50x20x2 • 45%



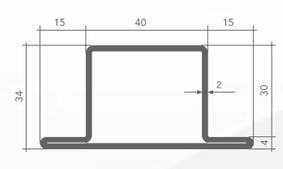
Thickness (mm)	kg/m
2	3,06

L40-34x15x2 • 50%



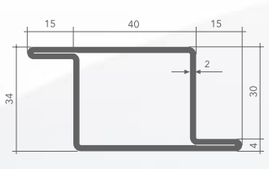
Thickness (mm)	kg/m
2	2,6

T40x34x15x2 • 50%



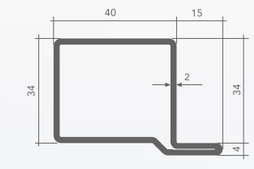
Thickness (mm)	kg/m
2	3,07

Z40x34x15x2 • 50%



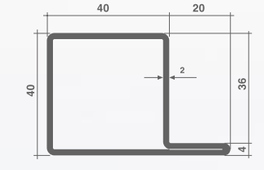
Thickness (mm)	kg/m
2	3,07

LD40x34x15x2 • 50%



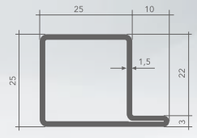
Thickness (mm)	kg/m
2	2,69

L40x40x20x2 • 50%



Thickness (mm)	kg/m
2	2,98

L25x25x10x1,5 • 60%



Thickness (mm)	kg/m
1,5	1,31

SPECIAL SHAPES ARE ENGINEERED ACCORDING TO CUSTOMER SPECIFICATIONS
ULTERIORI SAGOME SPECIALI SONO STUDIATE E FORNITE IN ACCORDO CON IL CLIENTE

- **Enlargement or reduction percentage of the drawings**
  Percentuale di ingrandimento o di riduzione dei disegni

STRUCTURAL TUBES
TUBI PER IMPIEGHI STRUTTURALI

EN 10219 EN 10210

Cost-efficiency, durability, versatility, recyclability: steel is the sustainable choice for contemporary architecture.

Marcegaglia reply to the sector's requests with a wide range of **cold formed welded tubes for structural uses (CE homologation) and structural hollow sections of non-alloy and fine grain steels, hot finished or cold formed with heat treatments**.

Efficienza, durata, versatilità, riciclabilità: l'acciaio è la scelta sostenibile per l'architettura contemporanea.

Marcegaglia fornisce una vasta gamma di ***tubi saldati formati a freddo per impieghi strutturali (omologazione CE) e di profilati cavi di acciai non legati e a grano fine, finiti a caldo o formati a freddo con trattamenti termici per impieghi strutturali speciali***.

DIMENSIONAL RANGE - *GAMMA DIMENSIONALE*

MIN. OUTSIDE DIAMETER - *DIAMETRO ESTERNO MIN.* **50 mm**
MAX. OUTSIDE DIAMETER - *DIAMETRO ESTERNO MAX.* **406,4 mm**

MIN. THICKNESS - *SPESSORE MIN.* **3 mm**
MAX. THICKNESS - *SPESSORE MAX.* **16 mm**

MANUFACTURING STANDARD *Norma di fabbricazione*	PRODUCT DESIGNATION *Designazione prodotto*	TREATMENT *Tipologie di trattamento*	GRADE *Qualità*
EN 10219	Cold formed welded structural tubes (CE homologation) *Tubi saldati formati a freddo per impieghi strutturali (omologazione CE)*	CE 0474	**S235JRH, S275J0H S275J2H, S355J0H S355J2H, S355MH S420MH, S460MH**
EN 10210-1	Structural hollow sections of non-alloy and fine grain steels, hot finished or cold formed and heat treated *Profilati cavi di acciai non legati e a grano fine per impieghi strutturali, finiti a caldo o formati a freddo con trattamenti termici*	Heat treatments *Trattamenti termici*	**S235JRH, S275J0H S275J2H, S355J0H S355J2H, S335K2H S275NH, S355NH S420NH, S460NH**
ASTM A500	Cold-formed welded and seamless carbon steel structural tubing in rounds and shapes *Tubi strutturali saldati a freddo e senza saldatura in acciaio al carbonio in forme rotonde e in altre forme*		B, C

COLOUR

Easier, faster to build and cheaper to paint, with about 20% less of the exposed surface.

Più semplice, più veloce da realizzare e meno costoso da dipingere, con circa il 20% in meno della superficie esposta.

BUILD

Better strength-to-weight ratio, compared to the use of similar products, for a more structural efficiency.

Migliore rapporto tra resistenza e peso rispetto all'utilizzo di prodotti simili, per un'efficienza più strutturale.

DESIGN

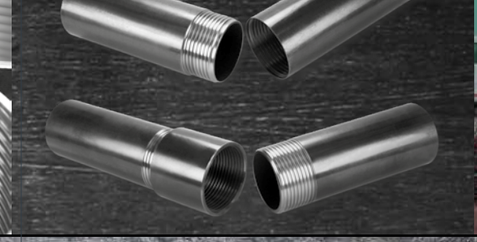
Different forms, architectures and engineering solutions.

Molteplici forme, architetture e soluzioni ingegneristiche.

FILL

Using the internal vacuum to increase the structural resistance, creating technical rooms for wires and cables, for lighter and optimized buildings.

Utilizzando il vuoto interno è possibile aumentare la resistenza della struttura, creare vani tecnici per inserire fili e cavi, per costruzioni più leggere e ottimizzate.



TUBES FOR MICROPILES
TUBI PER MICROPALI

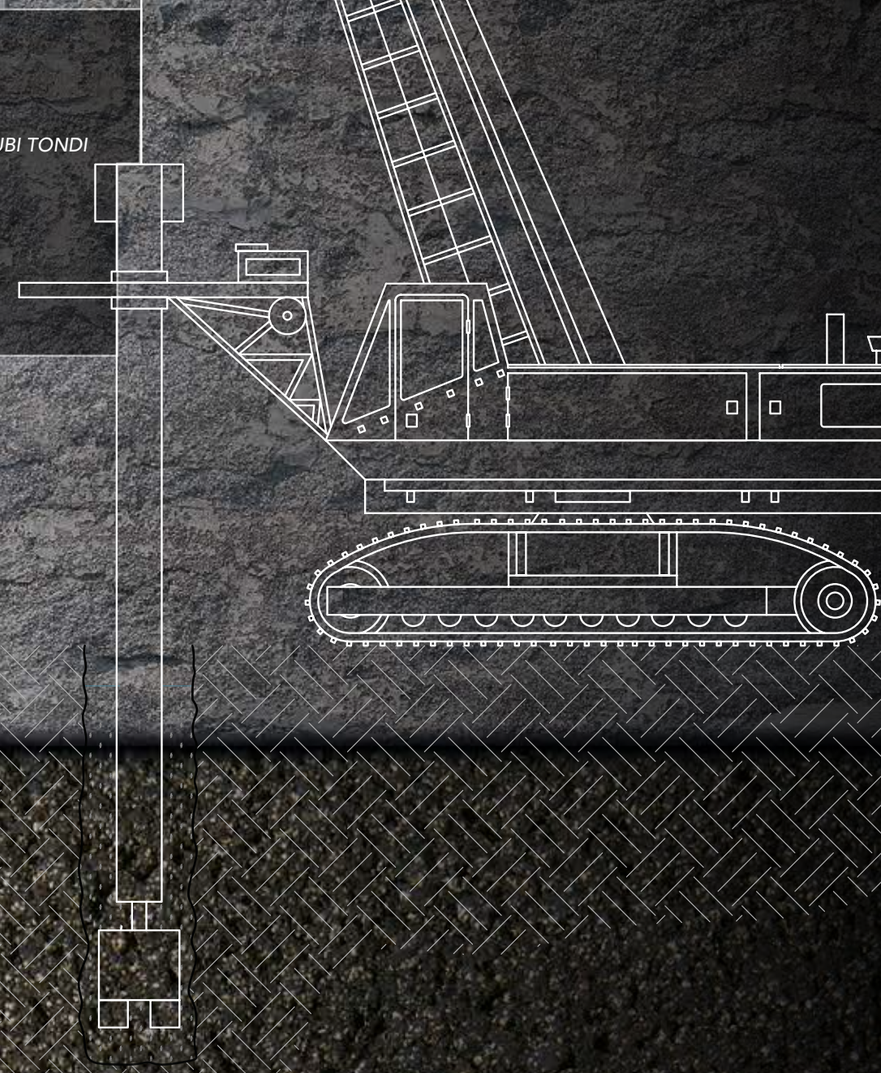
EN 10219

Tubes for micropiles are structural foundation elements used in the building sector, for consolidation and foundations. Their main function is to transfer the load, applied to their top, to the deeper soil layers, in order to counteract the geostatic forces and to give stability to the structures in elevation. They are used to limit the structure's sagging, to protect the foundations of bridges that fall into the riverbed from erosion or even to create off-shore structures and underpinning interventions.

I tubi per micropali *sono elementi strutturali di fondazione utilizzati nel settore edilizio nel consolidamento e nelle fondazioni. Hanno la funzione prevalente di trasferire il carico, applicato alla loro sommità, agli strati di terreno più profondi, in modo da contrastare le spinte geostatiche e di conferire stabilità alle strutture in elevazione. Sono utilizzati per limitare i cedimenti della struttura, difendere da fenomeni di erosione le fondazioni di ponti che ricadano in alveo o anche per realizzare strutture off-shore e interventi di sottofondazione.*

DIMENSIONAL RANGE
GAMMA DIMENSIONALE

CIRCULAR HOLLOW SECTIONS *TUBI TONDI*
THICKNESS *SPESSORE*
from 6 to 16,00 mm
DIAMETERS
DIAMETRI
from 76 to 406,4 mm



MANUFACTURING STANDARD *Norma di fabbricazione*	**PRODUCT DESIGNATION** *Designazione prodotto*	**GRADE** *Qualità*
EN 10219-1	Cold formed welded structural hollow sections of non-alloy steels *Profilati cavi saldati formati a freddo per impieghi strutturali di acciai non legati*	**SS235JHR** **S275J0H S275J2H** **S355J0H S355J2H**
EN 10219-1	Cold formed welded structural hollow sections of fine grain steels *Profilati cavi saldati formati a freddo per impieghi strutturali di acciai a grano fine*	**SS355MH** **S420MH S460MH**

MARCEGAGLIA MANUFACTURES THE **LARGEST RANGE** OF TUBES FOR MICROPILES IN THE **WORLD**.
MARCEGAGLIA PRODUCE ***LA GAMMA PIÙ VASTA AL MONDO*** *DI TUBI PER MICROPALI.*

EN 10219 Cold formed welded structural tubes
Tubi saldati formati a freddo per impieghi strutturali

CE
0474

EN 10210-1 Structural hollow sections of non-alloy and fine grain steels, hot finished or cold formed and heat treated
Profilati cavi di acciai non legati e a grano fine per impieghi strutturali, finiti a caldo o formati a freddo con trattamenti termici

weight kg/m

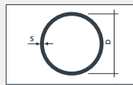
ROUND TUBES
Tubi tondi

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
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
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
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
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
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
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
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
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
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
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
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

outside diameter mm	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	
50														**50**
54														**54**
55														**55**
63	11,535	11,983	12,640	13,068										**63**
65	11,959	12,427	13,113	13,561										**65**
70	13,020	13,537	14,297	14,794	15,404	16,002	16,588							**70**
80	15,140	15,756	16,664	17,260										**80**
83	15,776	16,421	17,374	17,999	18,770	19,528	20,274	21,008	21,729	22,438				**83**
90	17,261	17,975	19,031	19,725	20,582	21,427	22,259	23,079	23,886	24,681				**90**
100	19,381	20,194	21,398	22,191	23,171	24,139	25,094	26,037	26,968	27,887				**100**
108	21,078	21,969	23,292	24,164	25,242	26,309	27,363	28,405	29,434	30,451				**108**
110	21,502	22,413	23,765	24,657	25,760	26,851	27,930	28,996	30,050	31,092				**110**
120	23,622	24,632	26,132	27,122	28,349	29,563	30,765	31,955	33,132	34,297				**120**
121	23,834	24,854	26,369	27,369	28,608	29,835	31,049	32,251	33,441	34,618	36,936			**121**
130	25,743	26,851	28,499	29,588	30,938	32,276	33,601	34,914	36,215	37,503				**130**
133	26,379	27,517	29,209	30,328	31,715	33,089	34,452	35,802	37,139	38,464	41,078			**133**
146	29,135	30,402	32,286	33,533										**146**
148	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**
159	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**
168,30	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**
173	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**
177,80	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**
203	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**

inches dimensions | weight kg/m



ROUND TUBES
Tubi tondi

EN 10219 / EN 10210 - S235JRH, S275J0H/J2H, S355J0H/J2H

outside diameter mm - inches	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
50,8 - 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
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
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
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
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
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
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
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
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
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
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

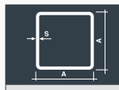
outside diameter mm - inches	wall thickness mm													outside diameter mm
	8,6	9	9,6	10	10,5	11	11,5	12	12,5	13	14	14,2	16	
48,3 - 1½"														**48,3 - 1½"**
50,8 - 2"														**50,8 - 2"**
60,30 - 2"	10,963	11,384	12,001	12,402										**60,30 - 2"**
76,1 - 2½"	14,313	14,890	15,741	16,298										**76,1 - 2½"**
88,9 - 3½"	17,027	17,731	18,771	19,454	20,297	21,128	21,947	22,753	23,547	24,329				**88,9 - 3½"**
101,60 - 4"	19,720	20,549	21,777	22,586	23,585	24,573	25,548	26,511	27,461	28,400				**101,60 - 4"**
114,30 - 4½"	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"**
127 - 5"	25,106	26,185	27,789	28,848	30,161	31,462	32,750	34,026	35,290	36,541	39,007			**127 - 5"**
139,70 - 5½"	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"**
152,40 - 6"	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"**
193,70 - 7"	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"**
219,10 - 8"	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"**
244,60 - 9"	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"**
273 - 10"	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"**
323,90 - 12"	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"**
355,60 - 14"	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"**
406,40 - 16"	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"**

EN 10219 Cold formed welded structural tubes
Tubi saldati formati a freddo per impieghi strutturali

CE
0474

EN 10210-1 Structural hollow sections of non-alloy and fine grain steels, hot finished or cold formed and heat treated
Profilati cavi di acciai non legati e a grano fine per impieghi strutturali, finiti a caldo o formati a freddo con trattamenti termici

weight kg/m

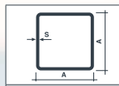


SQUARE TUBES
Tubi quadri

EN 10219 / EN 10210 - S235JRH, S275J0H/J2H, S355J0H/J2H

external dimensions	wall thickness mm										
A x A mm	4	5	6	7	8	9,6	10	12	12,5	14	16
50 x 50	5,454	6,559									
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								
80 x 80	9,222	11,269	13,212	14,722	16,358						
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			
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						
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	
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

inches dimensions | weight kg/m

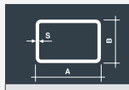


SQUARE TUBES
Tubi quadri

EN 10219 / EN 10210 - S235JRH, S275J0H/J2H, S355J0H/J2H

external dimensions	wall thickness mm										
A x A mm - inch	4	5	6	7	8	9,6	10	12	12,5	14	16
50,8 x 50,8 - 2" x 2"	5,554	6,684									
76,2 x 76,2 - 3" x 3"	8,744	10,672	12,497								
88,9 x 88,9 - 3½" x 3½"	10,339	12,666	14,889								
101,6 x 101,6 - 4" x 4"	11,935	14,660	17,282	19,470							
127 x 127 - 5" x 5"	15,125	18,648	22,067	25,053	28,165						
152,4 x 152,4 - 6" x 6"	18,315	22,635	26,853	30,636	34,545						

weight kg/m



RECTANGULAR TUBES
Tubi rettangolari

EN 10219 / EN 10210 - S235JRH, S275J0H/J2H, S355J0H/J2H

external dimensions	wall thickness mm										
A x B 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							
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

TUBES FOR PRESSURE PURPOSES
TUBI PER IMPIEGHI A PRESSIONE

EN 10217

Tubes for pressure purposes are distinguished according to the type of fluid conveyed, the mass of the fluid contained and the operating pressure, which determines the use of alloyed or unalloyed carbon steels, according to the manufacturing standards EN 10217-1 (ambient temperature), EN 10217-2 (high temperatures).
They have multiple applications such as heat exchangers, heating and ventilation, gas and water pipes and all the chemical industry sector.

I tubi per impieghi a pressione *si distinguono in funzione del tipo di fluido convogliato, della massa del fluido contenuto e della pressione di esercizio, che determina l'utilizzo di acciai al carbonio legati o non legati seguendo le norme di produzione EN 10217-1 (temperatura ambiente), EN 10217-2 (alte temperature), trovando molteplici applicazioni come scambiatori di calore, riscaldamento e ventilazione, tubazioni del gas e dell'acqua e tutto il settore dell'industria chimica.*

Marcegaglia tubes for pressure purposes complies to ASTM A53 standards for steel, black and hot-dipped, zinc-coated, welded and seamless pipes.
This manufacturing standard is used for low pressure liquid delivery, such as water, gas, oil drilling.
In addition, Marcegaglia tubes for pressure purposes complies to ASTM A178 standards regarding electric-resistance-welded tubes made of carbon steel and carbon-manganese steel intended for boiler tubes, boiler flues, superheater flues, and safe ends.

I tubi Marcegaglia per impieghi a pressione rispondono ai requisiti della norma ASTM A53 per tubi in acciaio, neri e a caldo, zincati, con o senza saldatura.
Questo standard di fabbricazione è utilizzato per tubi per liquidi a bassa pressione, come acqua, gas, trivellazioni petrolifere.
Inoltre, i tubi Marcegaglia per impieghi a pressione sono conformi alla norma ASTM A178 relativa a tubi e surriscaldatori in acciaio al carbonio saldati a resistenza elettrica e ai tubi in acciaio al manganese.

DIMENSIONAL RANGE - *GAMMA DIMENSIONALE*

MIN. OUTSIDE DIAMETER - *DIAMETRO ESTERNO MIN.*	**21,25 mm**
MAX. OUTSIDE DIAMETER - *DIAMETRO ESTERNO MAX.*	**406,4 mm**
MIN. THICKNESS - *SPESSORE MIN.*	**1,8 mm**
MAX. THICKNESS - *SPESSORE MAX.*	**16 mm**

MANUFACTURING STANDARD *Norma di fabbricazione*	**PRODUCT DESIGNATION** *Designazione prodotto*	**TREATMENT** *Tipologie di trattamento*	**GRADE** *Qualità*	**STEEL QUALITY** *Qualità di acciaio*
EN 10217-1	Tubes for pressure purposes, for use at room temperature *Tubi per impieghi a pressione, per utilizzi a temperature ambiente*	**Heat treatments upon request** *Trattamenti termici su richiesta*	P195 P235 P265	**TR1 TR2** **TR1 TR2** **TR1 TR2**
EN 10217-2	Tubes for pressure purposes, for use at high temperatures *Tubi per impieghi a pressione, per utilizzi a temperature elevate*		P195GH P235GH P265GH	**TEST CATEGORY** *Categoria di test* **TC1 TC2**
ASTM A53 A53M	Black and zinc-coated, welded and seamless tubes for structural steel or for low-pressure plumbing. *Tubi neri, zincati con e senza saldatura per impieghi strutturali o per impianti idraulici a bassa pressione*		A, B	
ASTM A178 A178M	Electric-resistance-welded carbon steel tubes and carbon-manganese steel boiler and superheater tubes *Tubi in acciaio al carbonio saldati a resistenza elettrica e tubi in acciaio al manganese e surriscaldatori in acciaio al carbonio*		A, C	

TUBES FOR COMBUSTIBLE FLUIDS
TUBI PER CONDOTTE DI FLUIDI COMBUSTIBILI

EN 10208

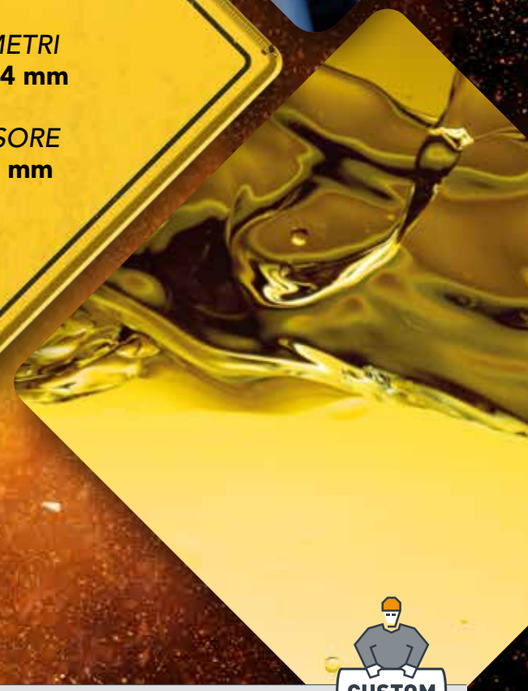
Steel pipes for pipelines for combustible fluids are regulated by EN 10208-1 standards which specifies the technical conditions of supply. These are seamless and welded steel pipes used for the transport of combustible fluids on the ground and mainly used in gas supply systems.

I tubi per condotte di fluidi combustibili *sono disciplinati dalla norma EN 10208-1 che specifica le condizioni tecniche di fornitura. Si tratta di tubi di acciaio senza saldatura e saldati utilizzati per il trasporto di fluidi combustibili su terreno e impiegati principalmente nei sistemi di fornitura del gas.*

DIMENSIONAL RANGE
GAMMA DIMENSIONALE

DIAMETERS *DIAMETRI*
from 21,25 to 406,4 mm

THICKNESS *SPESSORE*
from 1,8 to 16,00 mm



MANUFACTURING STANDARD *Norma di fabbricazione*	PRODUCT DESIGNATION *Designazione prodotto*	GRADE *Qualità*
EN 10208-1	Steel pipes for pipelines for combustible fluids *Tubi per condotte di fluidi combustibili*	**L235GA** **L290GA** **L360GA**

OPTIONAL PROCESSING *Lavorazioni opzionali*
Complete normalization or weld area normalization - *Normalizzazione completa o della sola zona di saldatura*
Additional heat treatments - *Trattamenti termici aggiuntivi*
Weld seam removing - *Scordonatura interna*
Special end finishing - *Finiture speciali delle estremità*
Cut to length - *Taglio a misura*
Customer defined marking - *Marcature alternative*
Specific corrosion protection - *Protezione anticorrosiva specifica*

TUBES FOR THE CONVEYANCE OF WATER AND AQUEOUS LIQUIDS
TUBI PER IL CONVOGLIAMENTO DI ACQUA E LIQUIDI ACQUOSI

Tubes for the conveyance of water and other aqueous liquids are made of non-alloy steel and can be welded or without welding. They are regulated by EN 10224 standards which envolves industrial water transportation and distribution systems. Marcegaglia answers to the market needs by offering a wide range carbon steel tubes, in steel grades L235, L275, L355 and of multiple sizes.

I tubi per il convogliamento di acqua e altri liquidi acquosi *sono tubi realizzati in acciaio non legato e possono essere saldati o senza saldatura. Sono regolati dalla norma EN 10224 e concernono sistemi di trasporto e distribuzione di acqua industriale. Marcegaglia è in grado di rispondere alle esigenze del settore offrendo un'ampia gamma di tubi in acciaio al carbonio, nelle qualità L235, L275, L355, in molteplici dimensioni.*

DIMENSIONAL RANGE - *GAMMA DIMENSIONALE*

MIN. OUTSIDE DIAMETER - *DIAMETRO ESTERNO MIN.*	**21,25 mm**
MAX. OUTSIDE DIAMETER - *DIAMETRO ESTERNO MAX.*	**406,4 mm**
MIN. THICKNESS - *SPESSORE MIN.*	**1,8 mm**
MAX. THICKNESS - *SPESSORE MAX.*	**16 mm**

MANUFACTURING STANDARD *Norma di fabbricazione*	**PRODUCT DESIGNATION** *Designazione prodotto*	**GRADE** *Qualità*
EN 10224	Tubes for the conveyance of water and other aqueous liquids *Tubi per il convogliamento di acqua e altri liquidi acquosi*	**L235** **L275** **L355**

OPTIONAL PROCESSING *Lavorazioni opzionali*
Complete normalization or weld area normalization - *Normalizzazione completa o della sola zona di saldatura*
Additional heat treatments - *Trattamenti termici aggiuntivi*
Weld seam removing - *Scordonatura interna*
Special end finishing - *Finiture speciali delle estremità*
Cut to length - *Taglio a misura*
Customer defined marking - *Marcature alternative*
Specific corrosion protection - *Protezione anticorrosiva specifica*

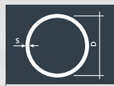
weight kg/m

ROUND TUBES
Tubi tondi

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

outside diameter (mm)	wall thickness mm																					outside diameter (mm)
	1,8	2,1	2,3	2,6	2,9	3,2	3,6	4	4,2	4,5	5	5,6	6	6,3	7,1	8	10	11	12,5	14,2	16	
22	0,897	1,030	1,117	1,244	1,366																	**22**
23	0,941	1,082	1,174	1,308	1,437																	**23**
25	1,030	1,186	1,287	1,436	1,580																	**25**
28	1,163	1,341	1,457	1,628	1,795	1,957	2,166	2,367														**28**
29	1,207	1,393	1,514	1,692	1,866	2,036	2,255	2,466														**29**
30	1,252	1,445	1,571	1,757	1,938	2,115	2,343	2,564														**30**
31,8	1,331	1,538	1,673	1,872	2,066	2,257	2,503	2,742	2,858	3,029	3,304	3,618										**31,8**
32	1,340	1,548	1,684	1,885	2,081	2,272	2,521	2,762	2,879	3,051	3,329	3,645										**32**
35	1,473	1,704	1,854	2,077	2,295	2,509	2,787	3,057														**35**
38	1,607	1,859	2,025	2,269	2,510	2,746	3,053	3,353	3,500	3,717	4,068	4,474	4,734									**38**
39	1,651	1,911	2,081	2,334	2,581	2,825	3,142	3,452	3,604	3,828	4,192	4,612	4,882									**39**
40	1,695	1,962	2,138	2,398	2,653	2,904	3,231	3,551	3,707	3,939	4,315	4,750	5,030	5,235								**40**
44,5	1,895	2,195	2,393	2,686	2,975	3,259	3,630	3,994	4,173	4,438	4,870	5,371	5,696									**44,5**
50	2,139	2,480	2,705	3,039	3,368	3,693	4,119	4,537	4,743	5,048	5,548	6,131	6,509	6,788	7,510	8,285						**50**
51	2,184	2,532	2,762	3,103	3,439	3,771	4,207	4,635	4,847	5,159	5,671	6,269	6,657	6,944	7,685	8,482						**51**
52	2,228	2,584	2,819	3,167	3,511	3,850	4,296	4,734	4,950	5,270	5,794	6,407	6,805	7,099	7,860	8,679						**52**
54	2,317	2,687	2,932	3,295	3,654	4,008	4,474	4,931	5,157	5,492	6,041	6,683	7,101	7,410	8,210	9,074						**54**
55	2,361	2,739	2,989	3,359	3,725	4,087	4,562	5,030	5,261	5,603	6,164	6,821	7,249	7,565	8,385	9,271						**55**
56	2,406	2,791	3,045	3,423	3,797	4,166	4,651	5,129	5,364	5,714	6,287	6,959	7,397	7,720	8,561	9,468						**56**
57	2,450	2,843	3,102	3,487	3,868	4,245	4,740	5,227	5,468	5,825	6,411	7,097	7,545		8,736							**57**
63	2,716	3,153	3,442	3,872	4,297	4,718	5,273	5,819	6,089	6,491	7,150	7,926	8,433	8,808	9,786	10,849	13,068					**63**
65	2,805	3,257	3,556	4,000	4,440	4,876	5,450	6,016	6,296	6,713	7,397	8,202	8,728	9,118	10,136	11,243	13,561					**65**
68	2,938	3,412	3,726	4,193	4,655	5,113	5,716	6,312	6,607	7,046	7,767	8,616	9,172	9,584	10,661	11,835	14,301					**68**
70	3,027	3,516	3,839	4,321	4,798	5,271	5,894	6,509	6,814	7,268	8,013	8,892	9,468	9,895	11,011	12,230	14,794	16,002				**70**
73	3,160	3,671	4,009	4,513	5,012	5,507	6,160	6,805	7,125	7,600	8,383	9,306	9,912		11,537							**73**
75	3,249	3,775	4,123	4,641	5,155	5,665	6,338	7,003	7,332	7,822	8,630	9,583	10,208	10,672	11,887	13,216	16,027					**75**
80	3,471	4,034	4,406	4,962	5,513	6,060	6,782	7,496	7,850	8,377	9,246	10,273	10,948	11,448	12,762	14,202	17,260					**80**
82,5	3,582	4,163	4,548	5,122	5,692	6,257	7,003	7,742	8,109	8,655	9,554	10,618	11,317	11,837	13,200	14,695	17,876	19,392	21,575			**82,5**
87	3,781	4,396	4,803	5,411	6,014	6,612	7,403	8,186	8,575	9,154	10,109	11,240	11,983		13,987							**87**
95	4,136	4,810	5,257	5,924	6,586	7,243	8,113	8,975	9,403	10,041	11,096	12,344	13,167	13,778	15,388	17,161						**95**
96		4,862	5,314	5,988	6,657	7,322	8,202	9,074	9,507	10,152	11,219	12,482	13,315	13,934	15,563	17,358						**96**
100	4,358	5,069	5,541	6,244	6,943	7,638	8,557	9,468	9,921	10,596	11,712	13,035	13,906	14,555	16,263	18,147	22,191	24,139	26,968			**100**
108	4,713	5,483	5,994	6,757	7,515	8,269	9,267	10,257	10,749	11,484	12,698	14,139	15,090	15,798	17,664	19,725	24,164	26,309	29,434			**108**
110	4,802	5,587	6,108	6,885	7,658	8,427	9,445	10,454	10,956	11,706	12,945	14,415	15,386	16,108	18,014	20,120	24,657	26,851	30,050			**110**
115		5,846	6,391	7,206	8,016	8,821	9,888	10,948	11,474	12,261	13,561	15,106	16,125	16,885	18,889	21,106	25,890	28,207	31,591			**115**
120		6,105	6,675	7,526	8,373	9,216	10,332	11,441	11,992	12,815	14,178	15,796	16,865	17,662	19,765	22,092	27,122	29,563	33,132			**120**
121		6,157	6,732	7,590	8,445	9,295	10,421	11,539	12,096	12,926	14,301	15,934	17,013	17,817	19,940	22,290	27,369	29,835	33,441			**121**
130			7,242	8,167	9,088	10,005	11,220	12,427	13,028	13,925	15,410	17,177	18,345	19,215	21,515	24,065	29,588	32,276	36,215			**130**
133			7,412	8,360	9,303	10,241	11,486	12,723	13,338	14,258	15,780	17,591	18,788	19,681	22,040	24,657	30,328	33,089	37,139			**133**
141,30			7,883	8,892	9,896	10,896	12,223	13,541	14,198	15,179	16,804	18,737	20,016	20,971	23,493	26,294	32,374					**141,30**
146				9,193	10,232	11,267	12,640	14,005	14,685	15,700	17,383	19,386	20,712	21,701	24,316	27,221	33,533					**146**
148			8,263	9,321	10,375	11,425	12,818	14,202	14,892	15,922	17,630	19,662	21,008	22,011	24,666	27,616	34,026	37,158	41,762	46,847	52,075	**148**
150				9,449	10,518	11,583	12,995	14,400	15,099	16,144	17,876	19,938	21,303	22,322	25,016	28,010	34,519					**150**
159			8,887	10,026	11,162	12,293	13,794	15,287	16,031	17,143	18,986	21,181	22,635	23,720	26,592	29,785	36,738	40,141	45,153	50,698	56,415	**159**
168,30					11,827	13,027	14,619	16,204	16,994	18,174	20,132	22,465	24,011	25,165	28,220	31,620	39,032	42,663	48,019	53,954	60,083	**168,30**
170					11,948	13,161	14,770	16,372	17,170	18,363	20,342	22,700	24,262	25,429	28,518	31,955	39,451					**170**
177,80					12,506	13,776	15,463	17,141	17,978	19,229	21,303	23,777	25,416	26,640	29,883	33,494	41,374	45,240	50,947	57,280	63,831	**177,80**
186,50					13,128	14,463	16,235	17,999	18,879	20,194	22,376	24,978	26,703	27,992	31,406	35,210	43,519	47,600	53,628	60,327	67,263	**186,50**
203					14,322	15,780	17,717	19,646	20,608	22,047	24,435	27,284	29,174	30,586	34,330	38,504	47,637	52,129	58,775	66,174	73,852	**203**

weight kg/m



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

Tubi tondi EN 10217-1, -2 / EN 10208-1 / EN 10224 DIMENSIONI IN POLLICI

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

outside diameter mm - inches	wall thickness mm											wall thickness mm										outside diameter (mm)
	1,8	2,1	2,3	2,6	2,9	3,2	3,6	4	4,2	4,5	5	5,6	6	6,3	7,1	8	10	11	12,5	14,2	16	
21,25 - ½"	0,863	0,992	1,075	1,196	1,312																	**21,25 - ½"**
25,40 - 1"	1,047	1,206	1,310	1,462	1,609																	**25,40 - 1"**
26,75 - ¾"	1,107	1,276	1,387	1,548	1,705																	**26,75 - ¾"**
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	3,839	4,054									**33,4 - 1"**
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	5,081	5,385	5,608								**42,4 - 1¼"**
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	5,896	6,258	6,524	7,213	7,949						**48,3 - 1½"**
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	7,553	8,033	8,388	9,313	10,316	12,402					**60,30 - 2"**
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	9,734	10,371	10,843	12,079	13,433	16,298					**76,1 - 2½"**
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	11,502	12,264	12,831	14,320	15,958	19,454	21,128	23,547			**88,9 - 3½"**
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	13,255	14,143	14,804	16,543	18,463	22,586	24,573	27,461			**101,60 - 4"**
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	15,009	16,022	16,776	18,767	20,968	25,717	28,017	31,376			**114,30 - 4½"**
127 - 5"		6,467	7,072	7,975	8,874	9,768	10,953	12,131	12,717	13,592	15,041	16,763	17,901	18,749	20,990	23,473	28,848	31,462	35,290			**127 - 5"**
139,70 - 5½"			7,792	8,789	9,782	10,770	12,081	13,384	14,032	15,001	16,606	18,516	19,780	20,722	23,213	25,978	31,980	34,906	39,204			**139,70 - 5½"**
152,40 - 6"			8,512	9,603	10,690	11,772	13,208	14,636	15,347	16,410	18,172	20,270	21,658	22,695	25,437	28,483	35,111	38,351	43,118	48,387	53,811	**152,40 - 6"**
193,70 - 7"					13,643	15,031	16,874	18,710	19,624	20,993	23,264	25,972	27,768	29,110	32,667	36,630	45,294	49,553	55,847	62,847	70,104	**193,70 - 7"**
219,10 - 8"					15,459	17,035	19,129	21,215	22,255	23,811	26,395	29,480	31,526	33,056	37,113	41,640	51,557	56,442	63,676	71,741	80,124	**219,10 - 8"**
244,60 - 9"					17,283	19,047	21,392	23,730	24,895	26,640	29,539	33,001	35,299	37,017	41,577	46,670	57,845	63,358	71,535	80,669	90,184	**244,60 - 9"**
273 - 10"					19,313	21,288	23,913	26,531	27,836	29,791	33,040	36,922	39,500	41,428	46,549	52,272	64,847	71,061	80,288	90,612	101,388	**273 - 10"**
323,90 - 12"									33,108	35,439	39,315	43,950	47,030	49,335	55,460	62,312	77,397	84,866	95,976	108,434	121,469	**323,90 - 12"**
355,60 - 14"									36,390	38,956	43,223	48,327	51,720	54,259	61,009	68,565	85,214	93,464	105,746	119,533	133,975	**355,60 - 14"**
406,40 - 16"									41,651	44,593	49,486	55,341	59,235	62,150	69,902	78,586	97,739	107,242	121,403	137,319	154,016	**406,40 - 16"**

OIL COUNTRY TUBULAR GOODS (OCTG)
TUBI PER L'ESTRAZIONE PETROLIFERA (OCTG)

API 5CT, API 5L



OCTG Country Tubular Goods are standardized by API, American Petroleum Institute and there are three main types of OCTG tubes, which includes **drill pipes**, **casing pipes** and **tubing pipes**.

Drill pipes are seamless tubes manufactured to transfer drilling torque the entire length of the pipe, often several kilometers.
Casing pipes are tubes used to line the borehole, which is the actual hole dug into the ground to get to the oil.
Tubing pipes are tubes that goes inside the casing pipe, for delivery the oil and gas to the surface.

I tubi OCTG *rispondono alle esigenze dell'API, l'American Petroleum Institute e si distinguono in tre principali categorie, che includono tubi di* ***perforazione****, tubi di* ***rivestimento*** *e tubi per il* ***trasporto****.*

I tubi di ***perforazione*** *sono tubi generalmente senza saldatura, realizzati per la perforazione lungo l'intera lunghezza del tubo, spesso diverse miglia.*
I tubi di ***rivestimento*** *sono utilizzati per rivestire il foro, scavato nel terreno per raggiungere il petrolio o il gas.*
I tubi per il ***trasporto*** *sono i condotti che vengono inseriti all'interno del tubo di rivestimento, per il trasporto in superficie di petrolio e gas.*

DIMENSIONAL RANGE - *GAMMA DIMENSIONALE*

MIN. OUTSIDE DIAMETER - *DIAMETRO ESTERNO MIN.*	**21,25 mm**
MAX. OUTSIDE DIAMETER - *DIAMETRO ESTERNO MAX.*	**406,4 mm**
MIN. THICKNESS - *SPESSORE MIN.*	**1,8 mm**
MAX. THICKNESS - *SPESSORE MAX.*	**16 mm**

MANUFACTURING STANDARD *Norma di fabbricazione*	**PRODUCT DESIGNATION** *Designazione prodotto*	**GRADE** *Qualità*
API 5CT	Steel pipes for use as casing or tubing for wells - OCTG casing and tubing *Tubi per impianti di perforazione ed estrazione del petrolio – tubi OCTG*	J55
API 5L	Welded steel pipes for use in pipelines transportation systems in petroleum and natural gas industries *Tubi saldati per trasporto di liquidi nei settori petrolifero e di gas naturale*	X52

OPTIONAL PROCESSING *Lavorazioni opzionali*
Additional heat treatments - *Trattamenti termici aggiuntivi*
Drift expanding test - *Prova di allargamento*
Hydraulic test - *Prova idraulica*
Electromagnetic Interference (EMI) Testing - *Prova di interferenza elettromagnetica*

TUBES FOR WELDING AND THREADING
TUBI ADATTI ALLA SALDATURA E ALLA FILETTATURA

EN 10255

Tubes for welding and threading are unalloyed carbon steel round tubes whose manufacturing standards are regulated by EN 10255.

These tubes are used for conveying gas and water in plumbing and heating systems, in sprinklers or in firefighting systems.

EN 10255 tubes are applied in civil and industrial systems.

*I **tubi atti alla saldatura e alla filettatura** sono tubi tondi in acciaio al carbonio non legato i cui standard sono regolati dalla norma EN 10255.*

Si tratta dei tubi impiegati per la veicolazione di gas e di acqua negli impianti idrotermosanitari, in sprinkler o negli antincendio.

I tubi EN 10255 sono applicati nell'impiantistica civile e industriale.

FIREFIGHTING SYSTEMS
SISTEMI ANTINCENDIO

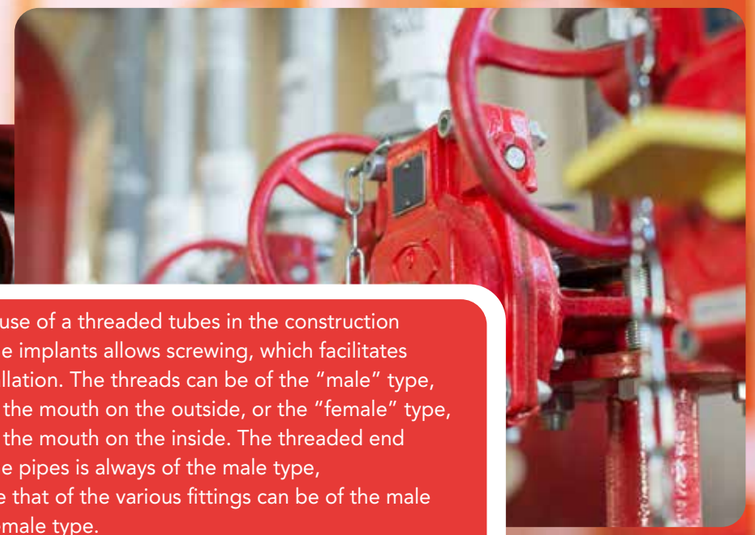
PLUMBING AND HEATING
IMPIANTISTICA IDROTERMOSANITARIA

DIMENSIONAL RANGE - *GAMMA DIMENSIONALE*

MIN. OUTSIDE DIAMETER - *DIAMETRO ESTERNO MIN.* **21,3 mm**
MAX. OUTSIDE DIAMETER - *DIAMETRO ESTERNO MAX.* **168,3 mm**

MIN. THICKNESS - *SPESSORE MIN.* **2,6 mm**
MAX. THICKNESS - *SPESSORE MAX.* **5,4 mm**

MANUFACTURING STANDARD *Norma di fabbricazione*	PRODUCT DESIGNATION *Designazione prodotto*	TREATMENT *Tipologie di trattamento*	GRADE *Qualità*
EN 10255	Tubes suitable for welding and threading *Tubi adatti alla saldatura e alla filettatura*	**Heat treatments upon request** *Trattamenti termici su richiesta*	S195T



The use of a threaded tubes in the construction of the implants allows screwing, which facilitates installation. The threads can be of the "male" type, with the mouth on the outside, or the "female" type, with the mouth on the inside. The threaded end of the pipes is always of the male type, while that of the various fittings can be of the male or female type.

L'utilizzo di un tubo filettato nella realizzazione degli impianti consente l'avvitamento, che agevola la posa in opera. Le filettature possono essere di tipo "maschio", con imboccatura all'esterno, o "femmina", con imboccatura all'interno. L'estremità filettata dei tubi è sempre di tipo maschio, mentre quella dei vari raccordi può essere di tipo maschio o femmina.

ROUND TUBES
Tubi tondi

EN 10255

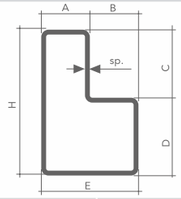
outside diameter (mm)	Wall thickness mm						
	2,6	3,2	3,6	4,0	4,5	5	5,4
21,3	•	•					
26,9	•	•					
33,7		•		•			
42,4		•		•			
48,3		•		•			
60,3			•		•		
76,1			•		•		
88,9				•		•	
114,3					•		•
139,7						•	•
168,3						•	•

PRECISION TUBES
TUBI DI PRECISIONE

EN 10305-3 S1, S2, S4
Special shapes *Sagome speciali*

SPECIAL SHAPES ARE ENGINEERED ACCORDING TO CUSTOMER SPECIFICATIONS
ULTERIORI SAGOME SPECIALI SONO STUDIATE E FORNITE IN ACCORDO CON IL CLIENTE

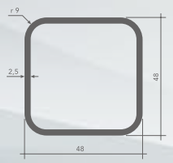
CUSTOM



SPECIAL TUBE SECTIONS
Tubi sagome speciali

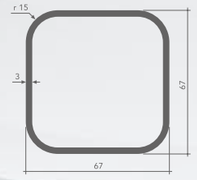
drawing	dimensions mm						thickness	weight	static data		
	H	A	B	C	D	E	mm	kg/m	W x (cm³)	I x (cm⁴)	Ø
1793	30	18	12	12	18	30	1,50	1,35	1,32	1,80	38
610	42	12	23	12	30	35	1,50	1,76	2,25	4,24	50
1827	42	20	15	25	17	35	1,50	1,76	2,45	4,52	50
2085	50	18	22	30	20	40	1,50	2,05	3,31	7,03	57
1951	50	20	20	25	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. 1667 • 40%



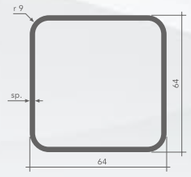
Thickness (mm)	kg/m
2,5	3,39

T. 1839 • 35%



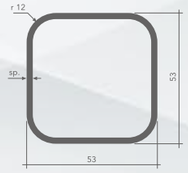
Thickness (mm)	kg/m
3	5,58

T. 1759 • 35%



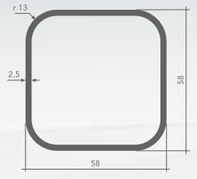
Thickness (mm)	kg/m
2	3,7
2,35	4,33
2,5	4,61
2,7	5,05
3	5,51

T. 1657 •40%



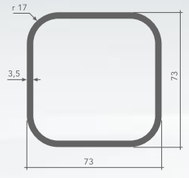
Thickness (mm)	kg/m
2,35	2,46
2,5	3,69
2,75	4,03

T. 1595 • 40%



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

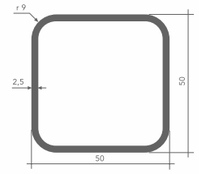
T. 1938 • 30%



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

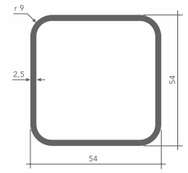
- **Enlargement or reduction percentage of the drawings**
  Percentuale di ingrandimento o di riduzione dei disegni

T. 1946 • 45%



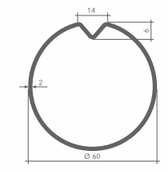
Thickness (mm)	kg/m
2,5	3,69

T. 1956 • 40%



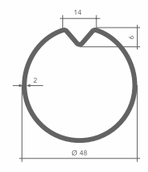
Thickness (mm)	kg/m
2,5	3,79

T. 1768 • 35%



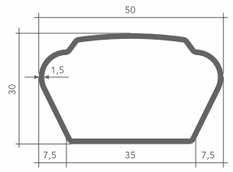
Thickness (mm)	kg/m
2	3,01

T. 1823 • 40%



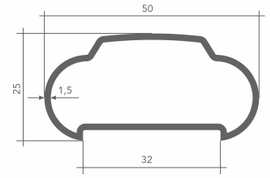
Thickness (mm)	kg/m
2	2,37

MT5 Handrail (T. 1312) • 60%



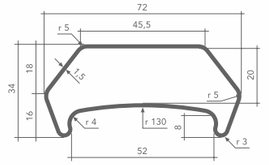
Thickness (mm)	kg/m
1,5	1,65

MT9 Handrail (T. 1313) • 60%



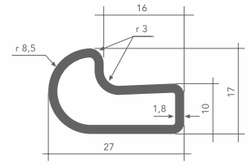
Thickness (mm)	kg/m
1,5	1,60

T. 1616 • 45%



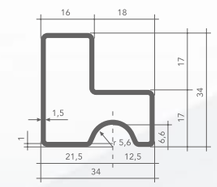
Thickness (mm)	kg/m
1,5	2,276

TR2 (T. 1974) • 80%



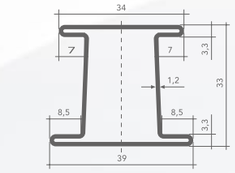
Thickness (mm)	kg/m
1,8	1,03

T. 735 • 55%



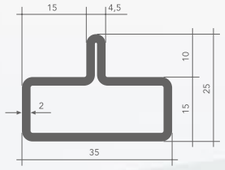
Thickness (mm)	kg/m
1,5	1,61

T. 1254 • 60%



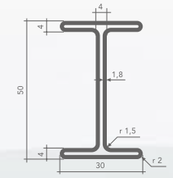
Thickness (mm)	kg/m
1,2	1,58

T. 1303 • 70%



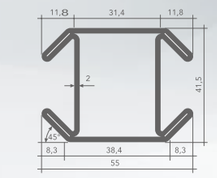
Thickness (mm)	kg/m
2	1,78

T. 1426 • 45%



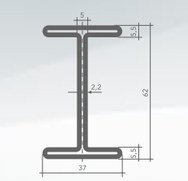
Thickness (mm)	kg/m
1,8	2,8

T. 1025 • 45%



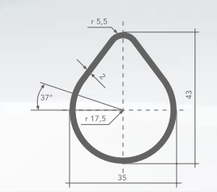
Thickness (mm)	kg/m
2	3,65

T. 1071 • 35%



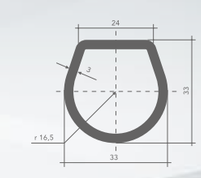
Thickness (mm)	kg/m
2,2	4,3

T. 700 • 50%



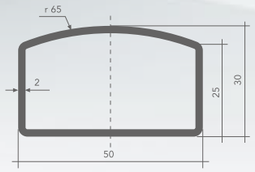
Thickness (mm)	kg/m
2	1,78

T. 792 • 50%



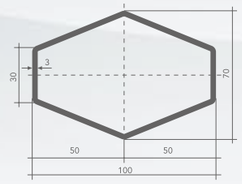
Thickness (mm)	kg/m
3	2,37

T. 1201 • 60%



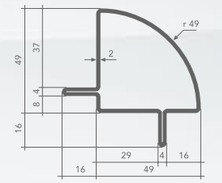
Thickness (mm)	kg/m
2	2,27

T. 942 • 30%



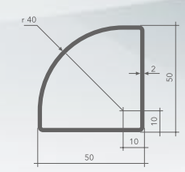
Thickness (mm)	kg/m
3	6,36

T. 1121 • 35%



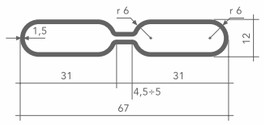
Thickness (mm)	kg/m
2	3,65

T. 1078 • 35%



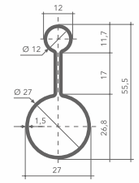
Thickness (mm)	kg/m
2	2,76

T.537 • 50%



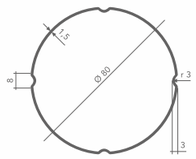
Thickness (mm)	kg/m
1,5	1,79

T. 701 • 40%



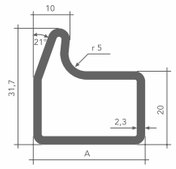
Thickness (mm)	kg/m
1,5	1,72

T. 1801 • 30%



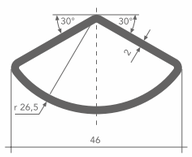
Thickness (mm)	kg/m
1,5	2,9

T. 1191 - T. 994 • 60%



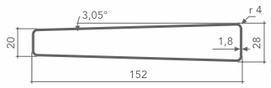
A	kg/m
25	1,87
30,5	2,14

T. 1310 • 60%



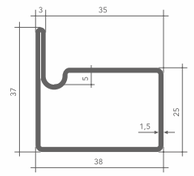
Thickness (mm)	kg/m
2	1,63

T. 1697 • 23%



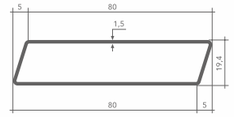
Thickness (mm)	kg/m
1,8	5

T. 574 • 55%



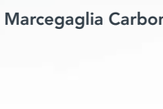
Thickness (mm)	kg/m
1,5	1,87

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

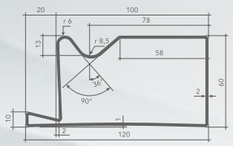
T. 774 • 30%

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

T. 770 • 35%

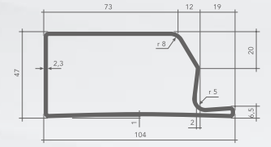
Thickness (mm)	kg/m
2,5	4,53

T. 1746 • 25%



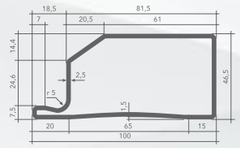
Thickness (mm)	kg/m
2	5,87

T. 1755 • 30%



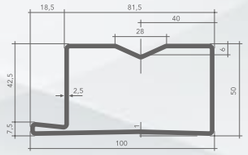
Thickness (mm)	kg/m
2,3	5,2

T. 1787 • 30%



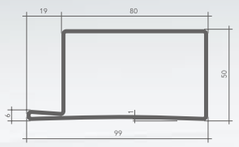
Thickness (mm)	kg/m
2,5	5,7

T. 902 • 30%



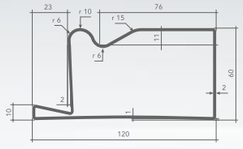
Thickness (mm)	kg/m
2,5	5,7

T. 1074 • 30%



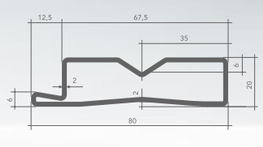
Thickness (mm)	kg/m
1	5,11

T. 1376 • 25%



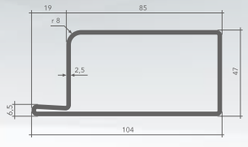
Thickness (mm)	kg/m
2	5,87

T. 1088 • 40%



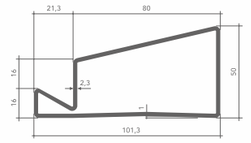
Thickness (mm)	kg/m
2	3,1

T. 845 • 30%



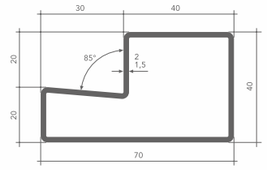
Thickness (mm)	kg/m
2,5	5,7

T. 1092 • 30%



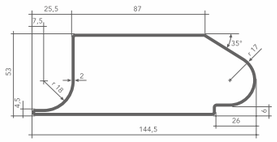
Thickness (mm)	kg/m
2,3	5,35

T. 660 BFTM - 5M • 45%



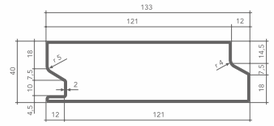
Thickness (mm)	kg/m
1,5	2,53
2	3,35

T. 1110 • 25%



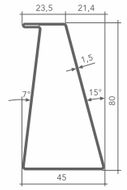
Thickness (mm)	kg/m
2	5,52

T. 1779 • 25%



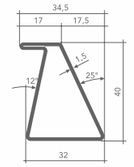
Thickness (mm)	kg/m
1,5	4,2

T. 1081 • 30%



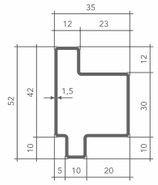
Thickness (mm)	kg/m
1,5	2,75

T. 724 • 40%



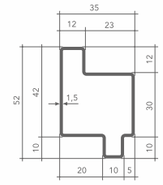
Thickness (mm)	kg/m
1,5	1,61

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

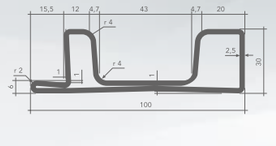
T. 1268 • 35%

Thickness (mm)	kg/m
2	4,29

T. 1292 • 40%

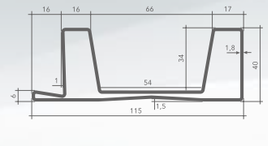
Thickness (mm)	kg/m
2	3,35

T. 1437 • 35%



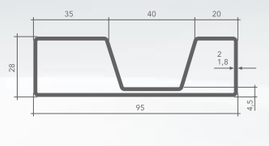
Thickness (mm)	kg/m
2,5	5,70

T. 1316 • 30%



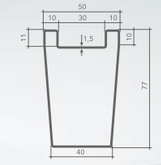
Thickness (mm)	kg/m
1,8	4,14

T. 1719 • 35%



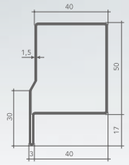
Thickness (mm)	kg/m
2	4,29

T. 1525 • 25%



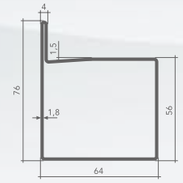
Thickness (mm)	kg/m
1,5	3,16

T. 1393 • 30%



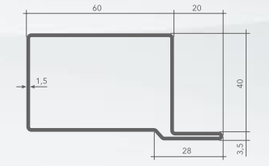
Thickness (mm)	kg/m
1,5	2,53

T. 1398 • 30%



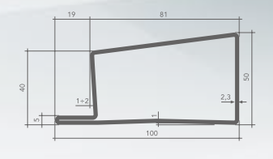
Thickness (mm)	kg/m
1,8	3,78

T. 1709 • 40%



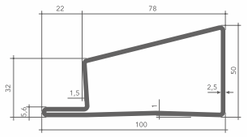
Thickness (mm)	kg/m
1,5	2,9

T. 1433 • 30%



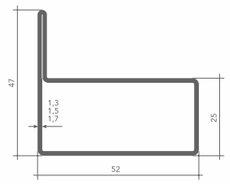
Thickness (mm)	kg/m
2,3	5,57

T. 1092/B • 30%



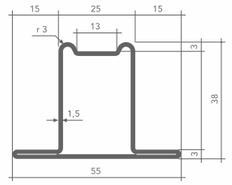
Thickness (mm)	kg/m
2,5	5,39

T. 1448 • 50%



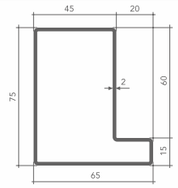
Thickness (mm)	kg/m
1,3	1,98
1,5	2,28
1,7	2,57

T. 1471 • 50%



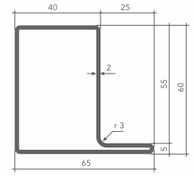
Thickness (mm)	kg/m
1,5	2,13

T. 1514 • 30%



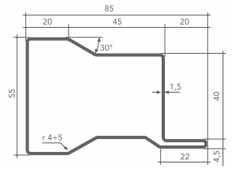
Thickness (mm)	kg/m
2	4,29

T. 1581 • 35%



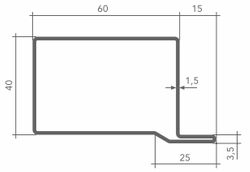
Thickness (mm)	kg/m
2	3,849

T. 1680 • 35%



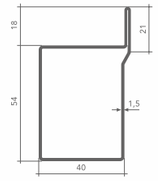
Thickness (mm)	kg/m
1,5	3,784

T. 1663 • 40%



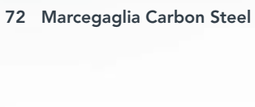
Thickness (mm)	kg/m
1,5	2,757

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

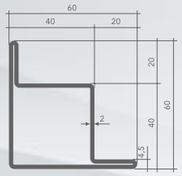
T. 1693 • 30%

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

T. 742 • 45%

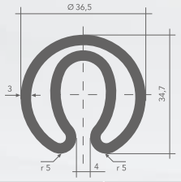
Thickness (mm)	kg/m
1,8	2,270

T. 420 • 35%



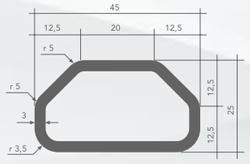
Thickness (mm)	kg/m
2	3,65

T. 1912 • 55%



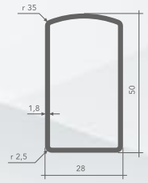
Thickness (mm)	kg/m
3	3,812

T. 1891 • 60%



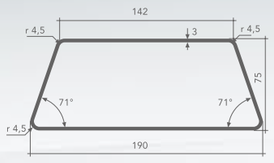
Thickness (mm)	kg/m
3	1,875

T. 1876 • 45%



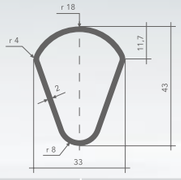
Thickness (mm)	kg/m
1,8	2,270

T. 1845 • 20%



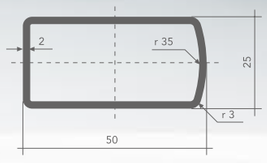
Thickness (mm)	kg/m
3	11,550

T.1939 • 45%



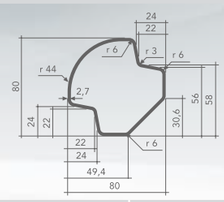
Thickness (mm)	kg/m
2	1,78

T. 2003 • 60%



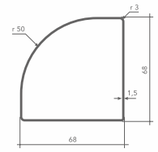
Thickness (mm)	kg/m
2	2,17

T. 1931 • 20%



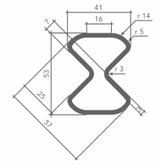
Thickness (mm)	kg/m
2,7	5,63

T. 1934 • 25%



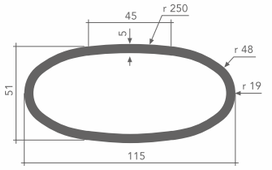
Thickness (mm)	kg/m
1,5	2,91

T. 2051 • 25%



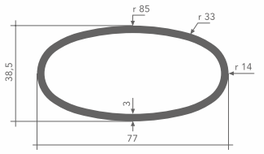
Thickness (mm)	kg/m
3	4,24

T. 2036 • 30%



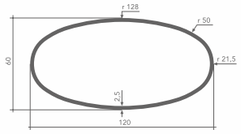
Thickness (mm)	kg/m
5	10,36

T. 1999 • 40%



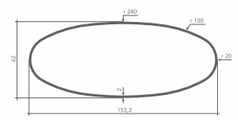
Thickness (mm)	kg/m
3	4,24

T. 1980 • 25%



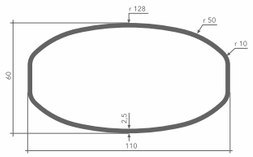
Thickness (mm)	kg/m
2,5	5,7

T. 2052 • 20%



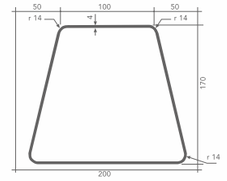
Thickness (mm)	kg/m
2	5,54

T. 2056 • 30%



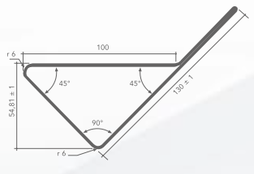
Thickness (mm)	kg/m
2,5	5,49

T. 2082 • 15%



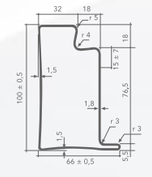
Thickness (mm)	kg/m
4	18,72

T. 2091 • 25%



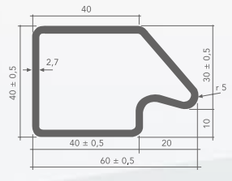
Thickness (mm)	kg/m
2	5,54

T.2096 • 20%



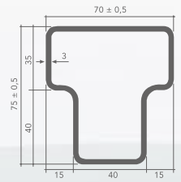
Thickness (mm)	kg/m
1,8	4,71

T. 2100 • 45%



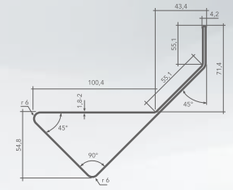
Thickness (mm)	kg/m
2,7	3,95

T. 2101 • 30%



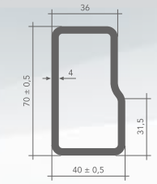
Thickness (mm)	kg/m
3	6,81

T. 2110 • 20%



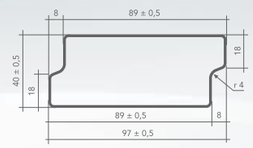
Thickness (mm)	kg/m
1,8	6,12
2	6,79

T. 2111 • 30%



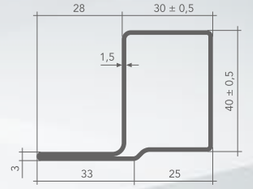
Thickness (mm)	kg/m
4	6,51

T. 2120 • 30%



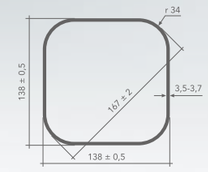
Thickness (mm)	kg/m
1,5	3,16

T. 2121 • 50%



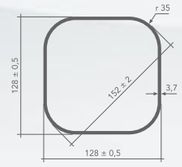
Thickness (mm)	kg/m
1,5	2,28

T. 2151 • 20%



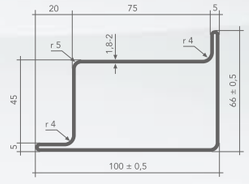
Thickness (mm)	kg/m
3,5	13,42
3,7	14,18

T. 2152 • 15%



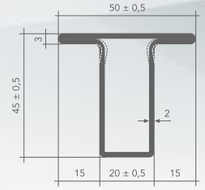
Thickness (mm)	kg/m
3,7	13,17

T. 2166 • 100%



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

T. 2169 • 45%



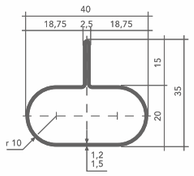
Thickness (mm)	kg/m
2	2,86

PRECISION TUBES
TUBI DI PRECISIONE

EN 10305-3 S1, S2, S4
Special shapes *Sagome speciali*

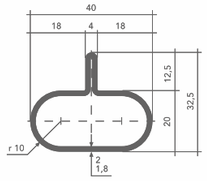
- **Enlargement or reduction percentage of the drawings**
  Percentuale di ingrandimento o di riduzione dei disegni

T. 787 • 50%



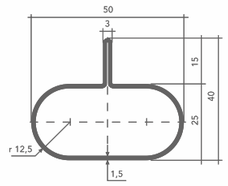
Thickness (mm)	kg/m
1,2	1,2
1,5	1,49

T.536 • 50%



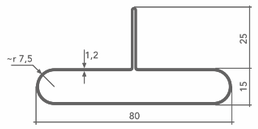
Thickness (mm)	kg/m
1,8	1,70
2	1,87

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

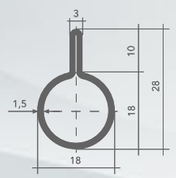
T. 1396 • 45%

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

T. 1639 • 80%

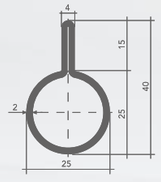
Thickness (mm)	kg/m
1,5	0,795

BTL (T. 1346) • 70%



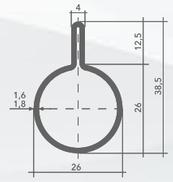
Thickness (mm)	kg/m
1,5	0,81

T. 1192 • 55%



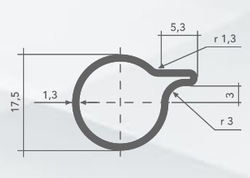
Thickness (mm)	kg/m
2	1,63

T. 1094 • 55%



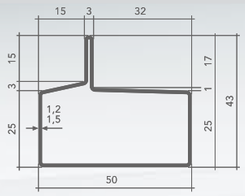
Thickness (mm)	kg/m
1,6	1,43
1,8	1,6

T. 1127 • 90%



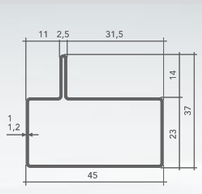
Thickness (mm)	kg/m
1,3	0,64

3M (T. 723) • 50%



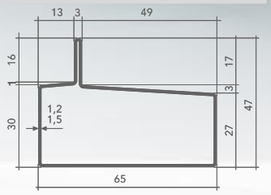
Thickness (mm)	kg/m
1,2	1,67
1,5	2,05

4M (T. 751) • 50%



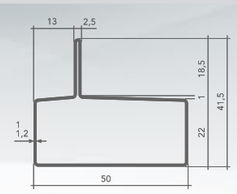
Thickness (mm)	kg/m
1	1,2
1,2	1,44

6M (T. 990) • 45%



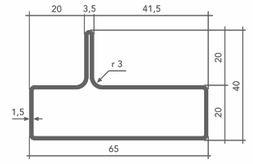
Thickness (mm)	kg/m
1,2	2,05
1,5	2,53

7M (T. 1004) • 50%



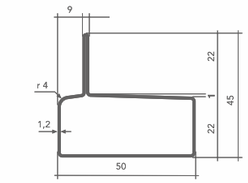
Thickness (mm)	kg/m
1	1,39
1,2	1,67

T. 1380 • 45%



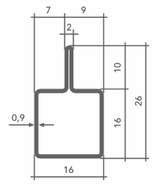
Thickness (mm)	kg/m
1,5	2,35

T. 1990 • 45%



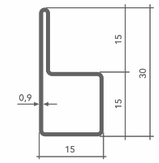
Thickness (mm)	kg/m
1,2	1,74

T. 1914 • 70%



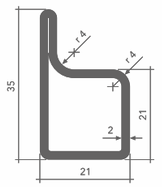
Thickness (mm)	kg/m
0,9	0,557

T. 1508 • 70%



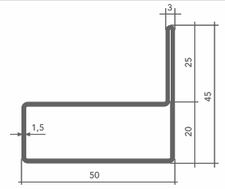
Thickness (mm)	kg/m
0,9	0,624

T. 1641 • 70%



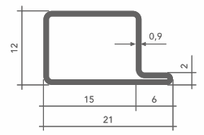
Thickness (mm)	kg/m
2	1,63

T. 1163 • 50%



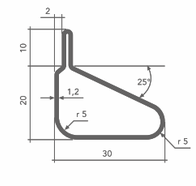
Thickness (mm)	kg/m
1,5	2,16

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

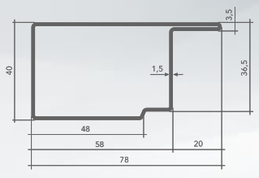
T. 1846 • 40%

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

T. 1866 • 35%

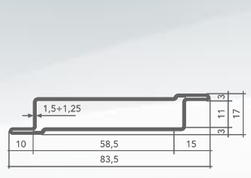
Thickness (mm)	kg/m
1,5	2,75

T. 1920 • 40%



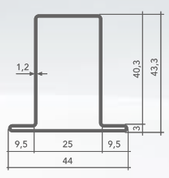
Thickness (mm)	kg/m
1,5	2,758

T. 1371 • 40%



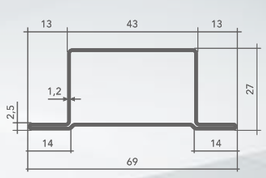
Thickness (mm)	kg/m
1,25	1,85
1,5	2,21

T. 1575 • 45%



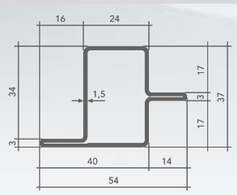
Thickness (mm)	kg/m
1,2	1,593

T. 746 • 50%



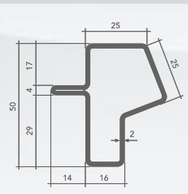
Thickness (mm)	kg/m
1,2	1,74

T. 1659 • 45%



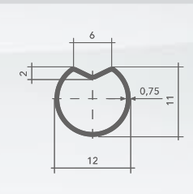
Thickness (mm)	kg/m
1,5	1,98

T. 1660 • 40%



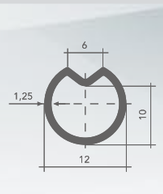
Thickness (mm)	kg/m
2	2,61

T. 1742 • 100%



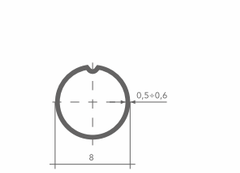
Thickness (mm)	kg/m
0,75	0,21

T. 1529 • 100%



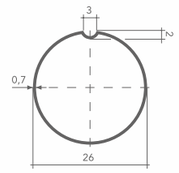
Thickness (mm)	kg/m
1,25	0,393

T. 1138 • 150%



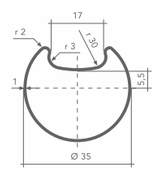
Thickness (mm)	kg/m
0,5	0,92
0,6	0,11

T. 1239 • 70%



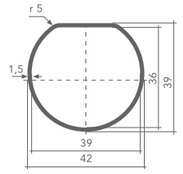
Thickness (mm)	kg/m
0,7	0,43

T. 1995 • 50%



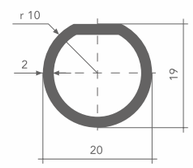
Thickness (mm)	kg/m
1	0,898

T. 2015 • 45%



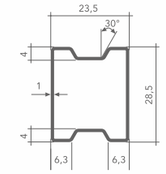
Thickness (mm)	kg/m
1,5	3,32

T. 1294 • 90%



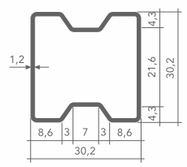
Thickness (mm)	kg/m
2	0,89

T. 1276 • 55%



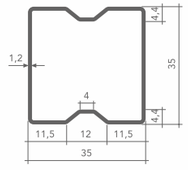
Thickness (mm)	kg/m
1	0,86

T. 1443 • 60%



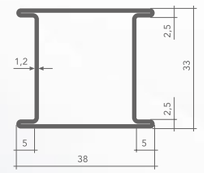
Thickness (mm)	kg/m
1,2	0,624

T. 1199 • 55%



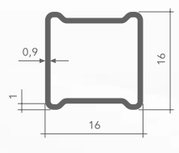
Thickness (mm)	kg/m
1,2	1,63

T. 1288 • 60%



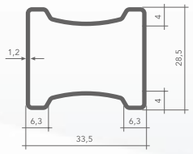
Thickness (mm)	kg/m
1,2	1,38

T. 1907 • 100%



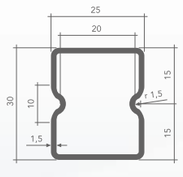
Thickness (mm)	kg/m
0,9	0,424

T. 1277 • 60%



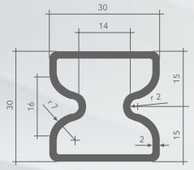
Thickness (mm)	kg/m
1,2	1,2

T. 1648 • 60%



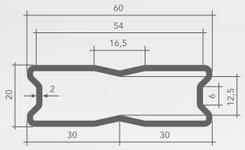
Thickness (mm)	kg/m
1,5	1,27

T. 1649 • 60%



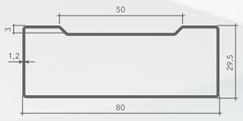
Thickness (mm)	kg/m
2	1,97

T. 1647 • 50%



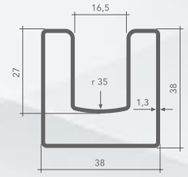
Thickness (mm)	kg/m
2	2,61

T. 1622 • 40%



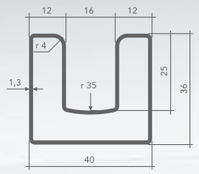
Thickness (mm)	kg/m
1,2	2,096

T. 1286 • 50%



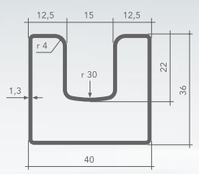
Thickness (mm)	kg/m
1,3	2,00

T. 1384 • 50%



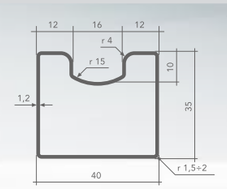
Thickness (mm)	kg/m
1,3	1,97

T. 1718 • 50%



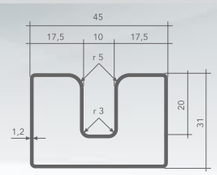
Thickness (mm)	kg/m
1,3	1,95

T. 1544 • 50%



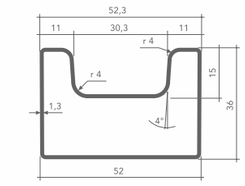
Thickness (mm)	kg/m
1,2	1,563

T. 2016 • 50%



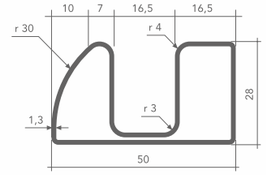
Thickness (mm)	kg/m
1,2	1,74

T. 1510 • 50%



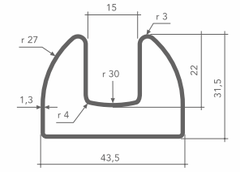
Thickness (mm)	kg/m
1,3	2,04

T. 1713 • 60%



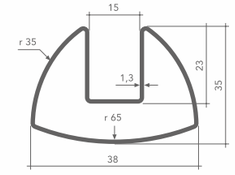
Thickness (mm)	kg/m
1,3	1,95

T. 1447 • 55%



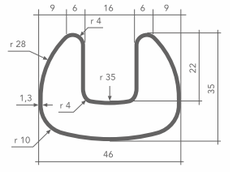
Thickness (mm)	kg/m
1,3	1,75

T. 1601 • 55%



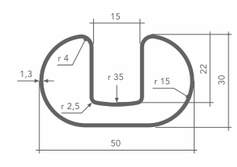
Thickness (mm)	kg/m
1,3	1,883

T. 1770 • 50%



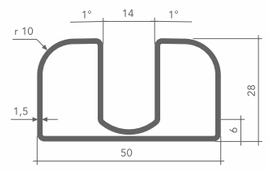
Thickness (mm)	kg/m
1,3	1,78

T. 1428 • 50%



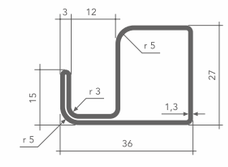
Thickness (mm)	kg/m
1,3	1,78

T. 1538 • 60%



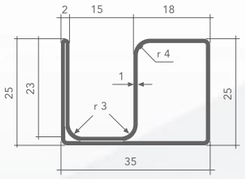
Thickness (mm)	kg/m
1,5	2,276

T. 1780 • 60%



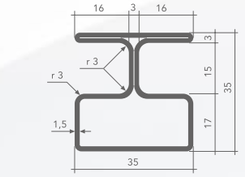
Thickness (mm)	kg/m
1,3	1,52

T. 1840 • 70%



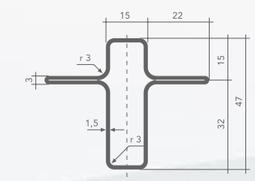
Thickness (mm)	kg/m
1	1,21

T. 1853 • 55%



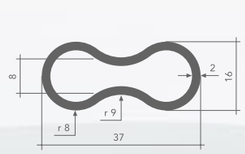
Thickness (mm)	kg/m
1,5	2,18

T. 1843 • 45%



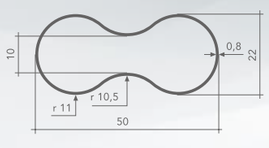
Thickness (mm)	kg/m
1,5	2,46

T. 1715 • 70%



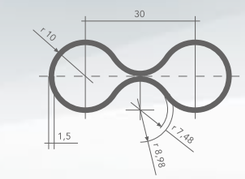
Thickness (mm)	kg/m
2	1,38

T. 975 • 60%



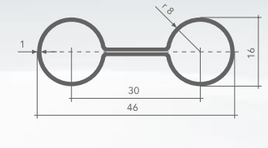
Thickness (mm)	kg/m
0,8	1,208

T. 1716 • 60%



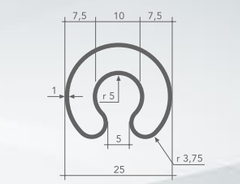
Thickness (mm)	kg/m
1,5	1,54

T. 1652 • 70%



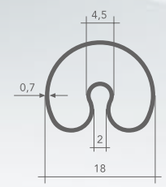
Thickness (mm)	kg/m
1	0,96

T. 1194 • 70%



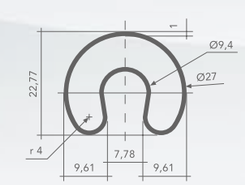
Thickness (mm)	kg/m
1	0,81

T. 1223 • 100%



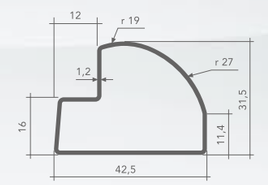
Thickness (mm)	kg/m
0,7	0,36

T. 1937 • 75%



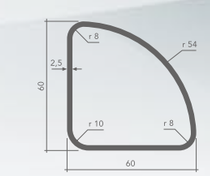
Thickness (mm)	kg/m
1	0,84

T. 1603 • 60%



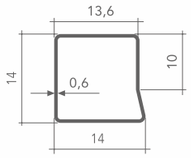
Thickness (mm)	kg/m
1,2	1,208

T. 1552 •35%



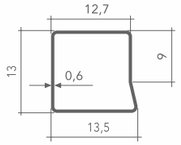
Thickness (mm)	kg/m
2,5	3,885

T. 2094 • 100%



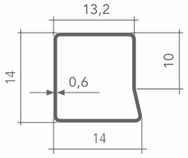
Thickness (mm)	kg/m
0,6	0,25

T. 1888 • 100%



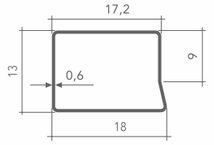
Thickness (mm)	kg/m
0,6	0,23

T. 1120 • 100%



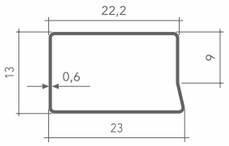
Thickness (mm)	kg/m
0,6	0,25

T. 1889 • 100%



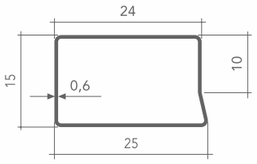
Thickness (mm)	kg/m
0,6	0,29

T. 1890 • 00%



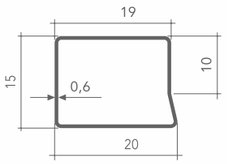
Thickness (mm)	kg/m
0,6	0,31

T. 1733 • 00%



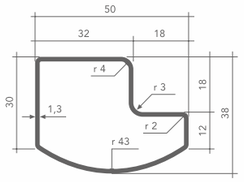
Thickness (mm)	kg/m
0,6	0,36

T. 1732 • 00%



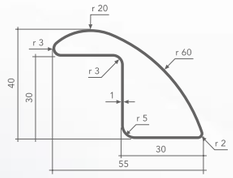
Thickness (mm)	kg/m
0,6	0,27

T. 1887 • 50%



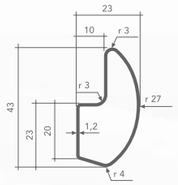
Thickness (mm)	kg/m
1,3	1,52

T. 1655 • 45%



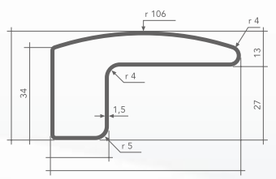
Thickness (mm)	kg/m
1	1,209

T. 1953 • 45%



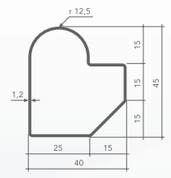
Thickness (mm)	kg/m
1,2	1,070

T. 1954 • 45%



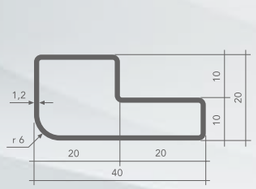
Thickness (mm)	kg/m
1,5	2,350

T. 1162 • 40%



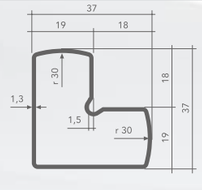
Thickness (mm)	kg/m
1,2	1,38

T. 1567 • 70%



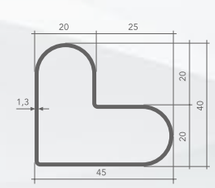
Thickness (mm)	kg/m
1,2	1,089

T. 1513 • 55%



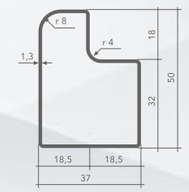
Thickness (mm)	kg/m
1,3	1,5

T. 1423 • 50%



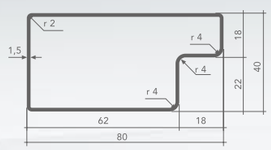
Thickness (mm)	kg/m
1,3	1,55

T. 1986 • 45%



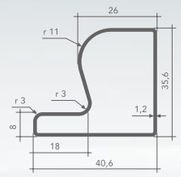
Thickness (mm)	kg/m
1,3	1,69

T. 1973 • 40%



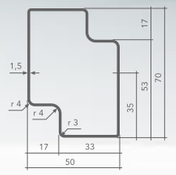
Thickness (mm)	kg/m
1,5	2,758

T. 1957 • 50%



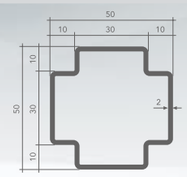
Thickness (mm)	kg/m
1,2	1,380

T. 1992 • 30%



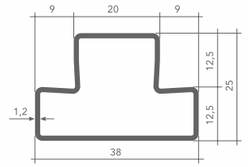
Thickness (mm)	kg/m
1,5	2,758

T. 971 • 40%



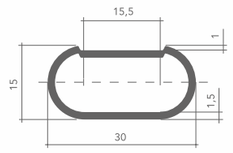
Thickness (mm)	kg/m
2	3,01

T. 1414/B • 70%



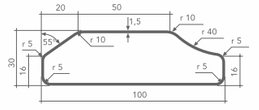
Thickness (mm)	kg/m
1,2	1,49

T. 1797 • 80%



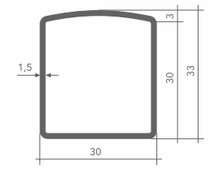
Thickness (mm)	kg/m
1	0,87

T. 2008 • 30%



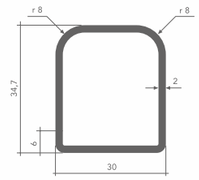
Thickness (mm)	kg/m
1,5	2,758

T. 863 • 70%



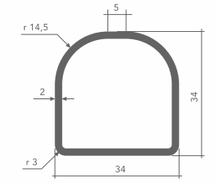
Thickness (mm)	kg/m
1,5	1,35

T. 1894 • 60%



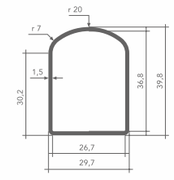
Thickness (mm)	kg/m
2	1,87

T. 1883 • 60%



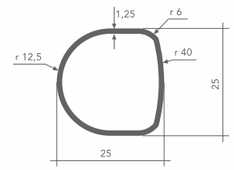
Thickness (mm)	kg/m
2	1,87

T. 1928 • 45%



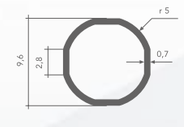
Thickness (mm)	kg/m
1,5	1,49

T. 1795 • 70%



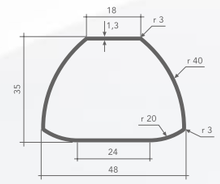
Thickness (mm)	kg/m
1,25	0,76

T. 1982 • 150%



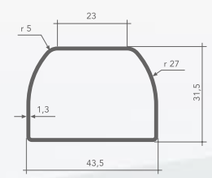
Thickness (mm)	kg/m
0,7	0,16

T. 1778 • 50%



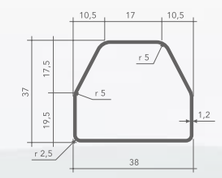
Thickness (mm)	kg/m
1,3	1,4

T. 1971 • 50%



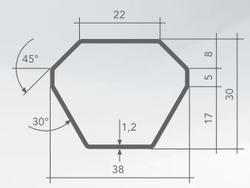
Thickness (mm)	kg/m
1,3	1,34

T. 1918 • 50%



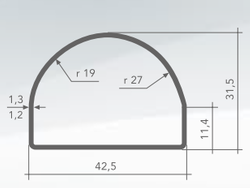
Thickness (mm)	kg/m
1,2	1,20

T. 1188 • 60%



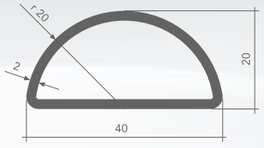
Thickness (mm)	kg/m
1,2	1,03

T. 1446 • 60%



Thickness (mm)	kg/m
1,2	1,18
1,3	1,27

T. 1645 • 80%

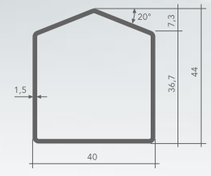


Thickness (mm)	kg/m
2	1,52

T. 1668 • 60%

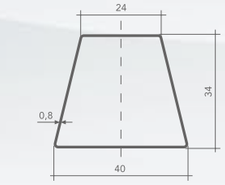
Thickness (mm)	kg/m
1,5	1,49

T. 1367 • 50%



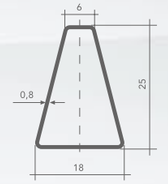
Thickness (mm)	kg/m
1,5	1,79

T. 1329/B • 55%



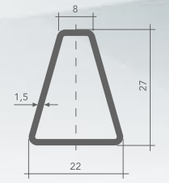
Thickness (mm)	kg/m
0,8	0,73

T. 1329 • 80%



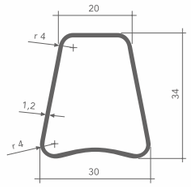
Thickness (mm)	kg/m
0,8	0,46

T. 1785 • 70%



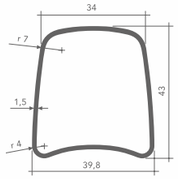
Thickness (mm)	kg/m
1,5	0,98

T. 1651 • 60%



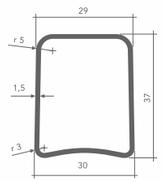
Thickness (mm)	kg/m
1,2	1,09

T. 1653 • 55%



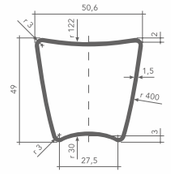
Thickness (mm)	kg/m
1,5	1,79

T. 1650 • 55%



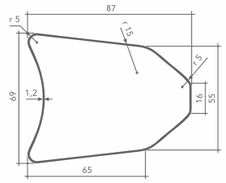
Thickness (mm)	kg/m
1,5	1,72

T. 1925 • 35%



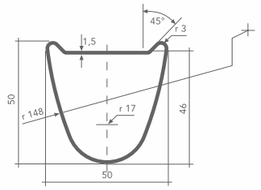
Thickness (mm)	kg/m
1,5	2,05

T. 1654 • 30%



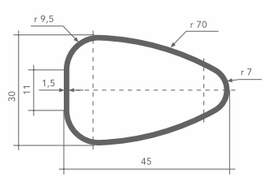
Thickness (mm)	kg/m
1,2	2,60

T. 1767 • 40%



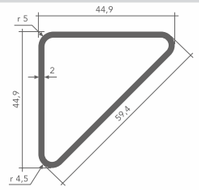
Thickness (mm)	kg/m
1,5	1,98

T. 2020 • 60%



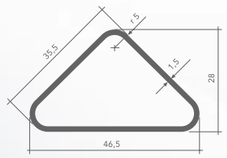
Thickness (mm)	kg/m
1,5	1,42

T. 1802 • 50%



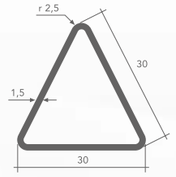
Thickness (mm)	kg/m
2	2,27

T. 1644 • 60%



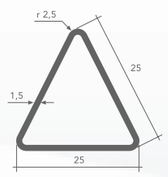
Thickness (mm)	kg/m
1,5	1,35

T. 1490 • 70%



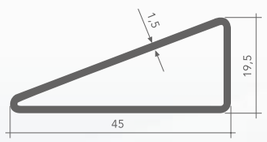
Thickness (mm)	kg/m
1,5	0,02

T. 1781 • 80%



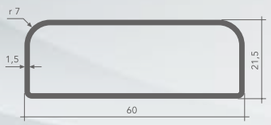
Thickness (mm)	kg/m
1,5	0,83

T. 1643 • 80%



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

T. 862 • 60%

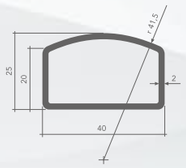


Thickness (mm)	kg/m
1,5	1,79

T. 1800 • 60%

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

T. 1646 • 50%

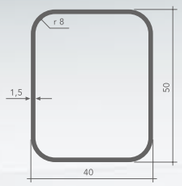


Thickness (mm)	kg/m
2	1,97

T. 1155 • 40%

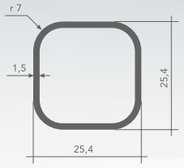
Thickness (mm)	kg/m
1,5	2,16

T. 1714 • 50%



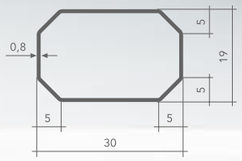
Thickness (mm)	kg/m
1,5	1,87

T. 2007 • 70%



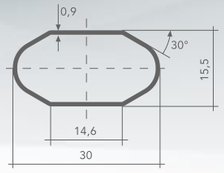
Thickness (mm)	kg/m
1,5	1,003

T. 1218 • 80%



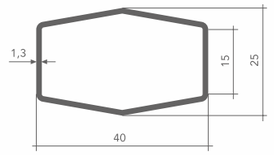
Thickness (mm)	kg/m
0,8	0,53

T. 1275 • 80%



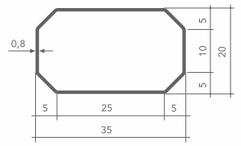
Thickness (mm)	kg/m
0,9	0,53

T. 1063 • 70%



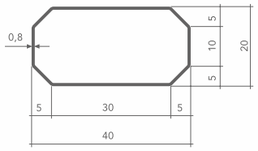
Thickness (mm)	kg/m
1,3	1,14

T. 1217 • 70%



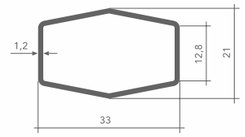
Thickness (mm)	kg/m
0,8	0,61

T. 1975 • 65%



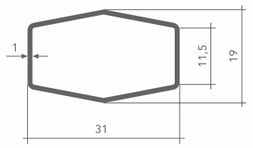
Thickness (mm)	kg/m
0,8	0,675

T. 960 • 70%



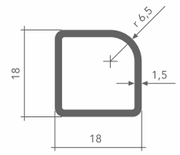
Thickness (mm)	kg/m
1,2	0,85

T. 1258 • 80%



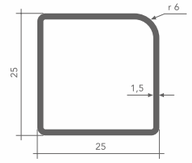
Thickness (mm)	kg/m
1	0,66

T. 1640 • 80%



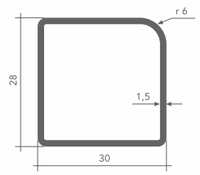
Thickness (mm)	kg/m
1,5	0,758

T. 1330 • 80%



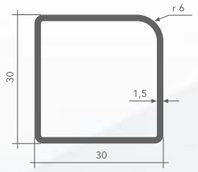
Thickness (mm)	kg/m
1,5	1,13

T. 892 • 70%



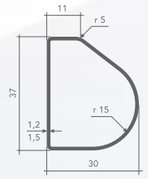
Thickness (mm)	kg/m
1,5	1,28

T. 891 • 70%



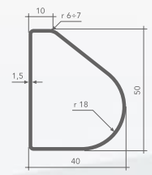
Thickness (mm)	kg/m
1,5	1,33

T. 1112 • 50%



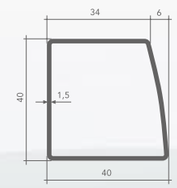
Thickness (mm)	kg/m
1,2	1,09
1,5	1,35

T. 1240 • 40%



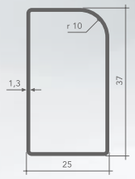
Thickness (mm)	kg/m
1,5	1,79

T. 1241 • 50%



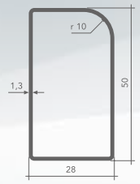
Thickness (mm)	kg/m
1,5	1,79

T. 1522 • 55%



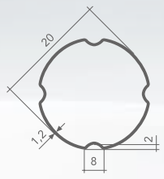
Thickness (mm)	kg/m
1,3	1,18

T. 1698 • 50%



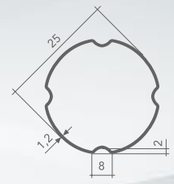
Thickness (mm)	kg/m
1,3	1,5

T. 1242 • 45%



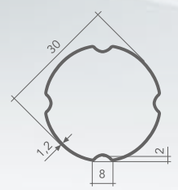
Thickness (mm)	kg/m
1,2	0,550

T. 1590 • 45%



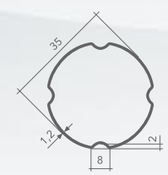
Thickness (mm)	kg/m
1,2	0,704

T. 1600 • 45%



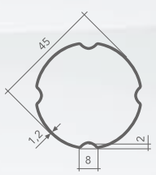
Thickness (mm)	kg/m
1,2	0,852

T. 1606 • 40%



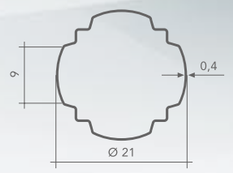
Thickness (mm)	kg/m
1,2	1,000

T. 1658 • 40%



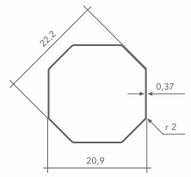
Thickness (mm)	kg/m
1,2	1,300

T. 1789 • 100%



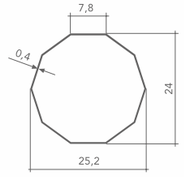
Thickness (mm)	kg/m
0,4	0,20

T. 1784 • 75%



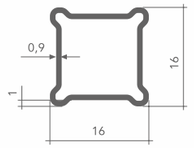
Thickness (mm)	kg/m
0,37	0,21

T. 1993 • 75%



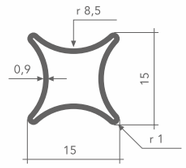
Thickness (mm)	kg/m
0,4	0,24

T. 1910 • 100%



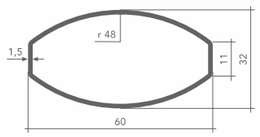
Thickness (mm)	kg/m
0,9	0,468

T. 1882 • 100%



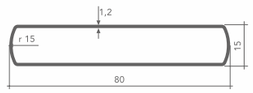
Thickness (mm)	kg/m
0,9	0,401

T. 1618 • 50%



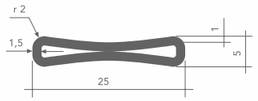
Thickness (mm)	kg/m
1,5	1,79

T. 1632 • 45%



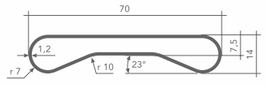
Thickness (mm)	kg/m
1,2	1,652

T. 1747 • 100%



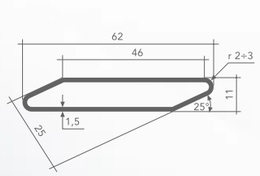
Thickness (mm)	kg/m
1,5	0,6

T. 1685 • 45%



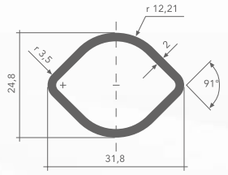
Thickness (mm)	kg/m
1,2	1,504

T. 1572 • 50%



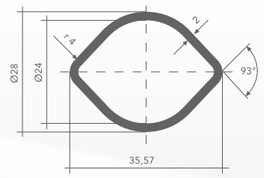
Thickness (mm)	kg/m
1,5	1,610

T. 1799 • 70%



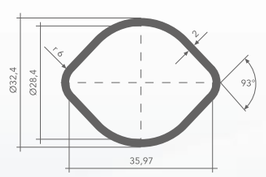
Thickness (mm)	kg/m
2	1,23

T. 1988 • 70%



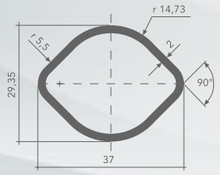
Thickness (mm)	kg/m
2	1,48

T. 1987 • 65%



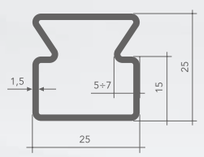
Thickness (mm)	kg/m
2	1,67

T. 1669 • 65%



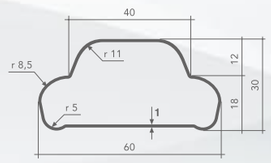
Thickness (mm)	kg/m
2	1,48

T. 1414 • 70%



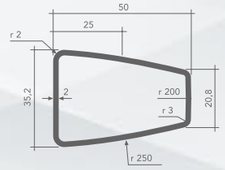
Thickness (mm)	kg/m
1,5	1,35

T. 941 • 50%



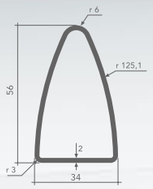
Thickness (mm)	kg/m
1	1,21

T. 1879 • 45%



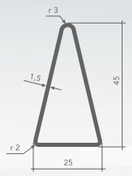
Thickness (mm)	kg/m
2	2,37

T. 1966 • 40%



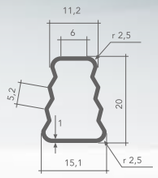
Thickness (mm)	kg/m
2	2,37

T. 1963 • 45%



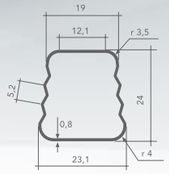
Thickness (mm)	kg/m
1,5	1,42

T. 1969 • 70%



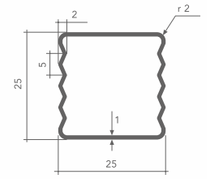
Thickness (mm)	kg/m
1	0,398

T. 1968 • 60%



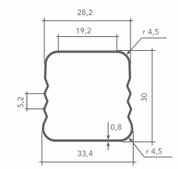
Thickness (mm)	kg/m
0,8	0,517

T. 1964 • 70%



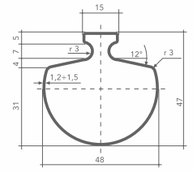
Thickness (mm)	kg/m
1	1,48

T. 1967 • 50%



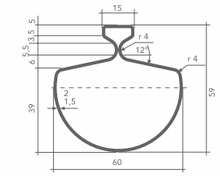
Thickness (mm)	kg/m
0,8	0,722

T. 1952 • 40%



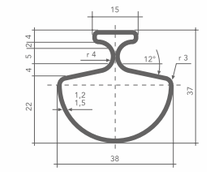
Thickness (mm)	kg/m
1,2	1,650
1,5	2,050

T. 1959 • 35%



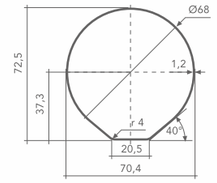
Thickness (mm)	kg/m
1,5	2,46
2	3,26

T. 1960 • 50%



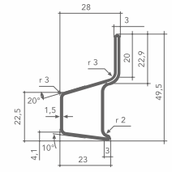
Thickness (mm)	kg/m
1,2	1,300
1,5	1,610

T. 1933 • 30%



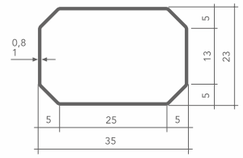
Thickness (mm)	kg/m
1,2	2,096

T. 1930 • 35%



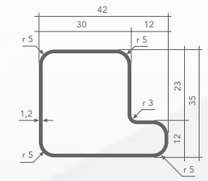
Thickness (mm)	kg/m
1,5	1,72

T. 2022 • 70%



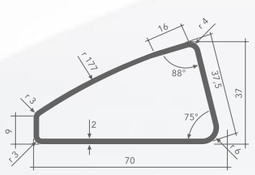
Thickness (mm)	kg/m
0,8	0,64
1	0,79

T. 2024 • 50%



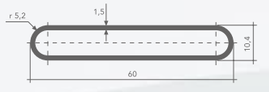
Thickness (mm)	kg/m
1,2	1,33

T. 2021 • 45%



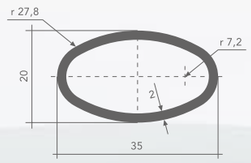
Thickness (mm)	kg/m
2	2,71

T. 2023 • 50%



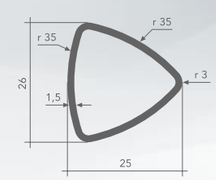
Thickness (mm)	kg/m
1,5	1,49

T. 1989 • 75%



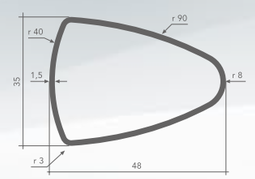
Thickness (mm)	kg/m
2	1,28

T. 2054 • 75%



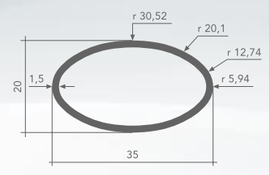
Thickness (mm)	kg/m
1,5	0,91

T. 2055 • 60%



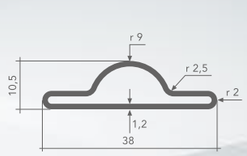
Thickness (mm)	kg/m
1,5	1,57

T. 2039 • 75%



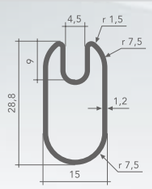
Thickness (mm)	kg/m
1,5	0,98

T. 2058 • 75%



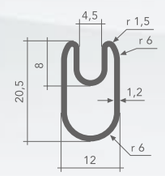
Thickness (mm)	kg/m
1,2	0,79

T. 2065 • 70%



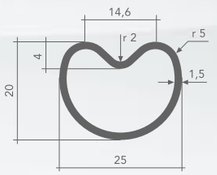
Thickness (mm)	kg/m
1,2	0,82

T. 2066 • 80%



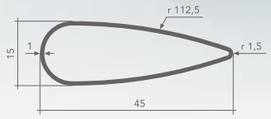
Thickness (mm)	kg/m
1,2	0,62

T. 2062 • 80%



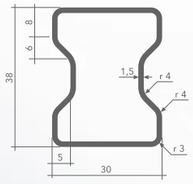
Thickness (mm)	kg/m
1,5	0,87

T. 2048 • 70%



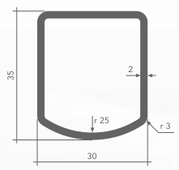
Thickness (mm)	kg/m
1	0,76

T. 2050 • 60%



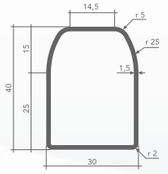
Thickness (mm)	kg/m
1,5	1,61

T. 2057 • 60%



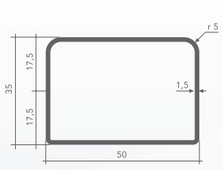
Thickness (mm)	kg/m
2	1,78

T. 2059 • 50%



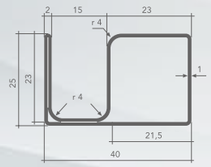
Thickness (mm)	kg/m
1,5	1,49

T. 1985 • 50%



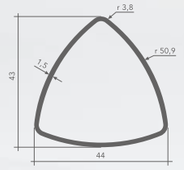
Thickness (mm)	kg/m
1,5	1,87

T. 2040 • 60%



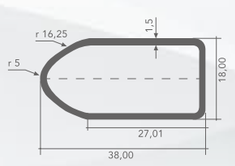
Thickness (mm)	kg/m
1	1,36

T. 2064 • 50%



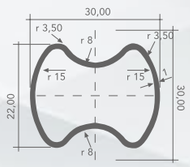
Thickness (mm)	kg/m
1,5	1,57

T. 2073 • 70%



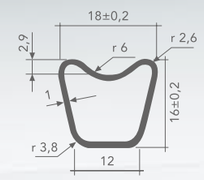
Thickness (mm)	kg/m
1,5	1,13

T. 2074 • 70%



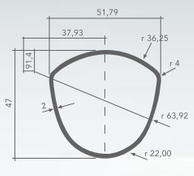
Thickness (mm)	kg/m
1	0,72

T. 2078 • 100%



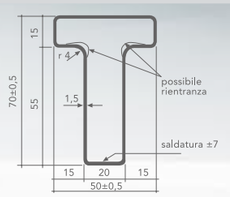
Thickness (mm)	kg/m
1	0,45

T. 2083 • 35%



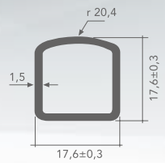
Thickness (mm)	kg/m
2	2,45

T. 2084 • 35%



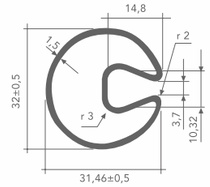
Thickness (mm)	kg/m
1,5	2,65

T. 2086 • 80%



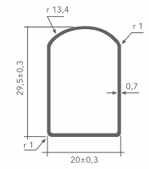
Thickness (mm)	kg/m
1,5	0,72

T. 2093 • 60%



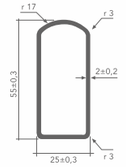
Thickness (mm)	kg/m
1,5	1,50

T. 2095 • 60%



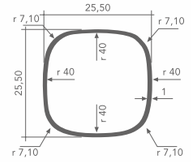
Thickness (mm)	kg/m
0,7	0,51

T. 2097 • 35%



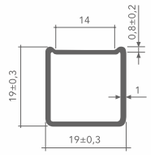
Thickness (mm)	kg/m
2±0,2	2,31

T. 2099 • 70%



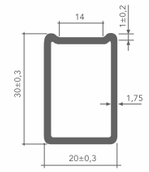
Thickness (mm)	kg/m
1	0,67

T. 2102 • 70%



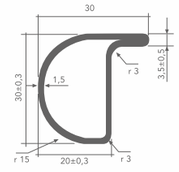
Thickness (mm)	kg/m
1	0,57

T. 2103 • 60%



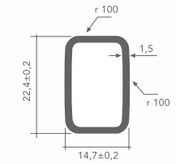
Thickness (mm)	kg/m
1±0,2	1,30

T. 2104 • 60%



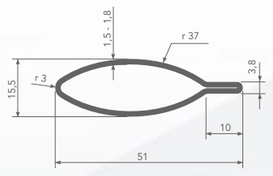
Thickness (mm)	kg/m
1,5	1,20

T. 2106 • 70%



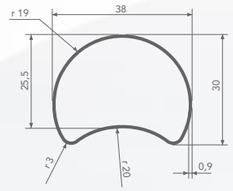
Thickness (mm)	kg/m
1,5	0,83

T. 2192 • 60%



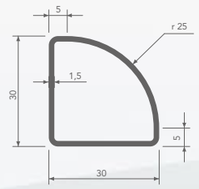
Thickness (mm)	kg/m
1,5	1,28
1,8	1,52

T. 2191 • 60%



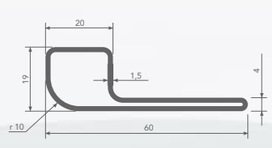
Thickness (mm)	kg/m
0,9	0,802

T. 2186 • 60%



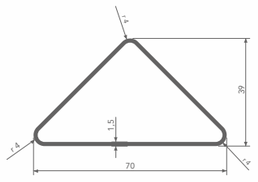
Thickness (mm)	kg/m
1,5	1,24

T. 2183 • 55%



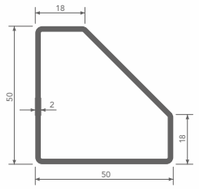
Thickness (mm)	kg/m
1,5	1,72

T. 2172 • 45%



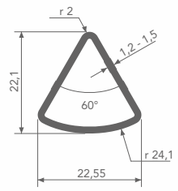
Thickness (mm)	kg/m
1,5	2,02

T. 2165 • 45%



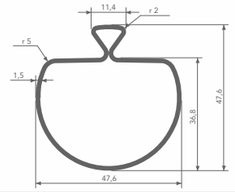
Thickness (mm)	kg/m
2	2,71

T. 2162 • 75%



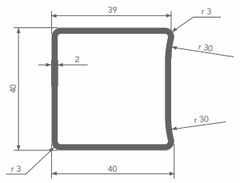
Thickness (mm)	kg/m
1,2	1,52
1,5	0,795

T. 2150 • 60%



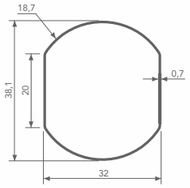
Thickness (mm)	kg/m
1,5	1,94

T. 2148 • 50%



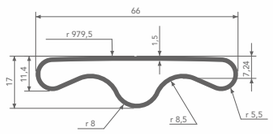
Thickness (mm)	kg/m
2	2,37

T. 2146 • 60%



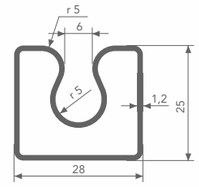
Thickness (mm)	kg/m
0,7	0,63

T. 2145 • 50%



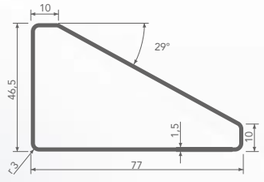
Thickness (mm)	kg/m
1,5	1,79

T. 2144 • 75%



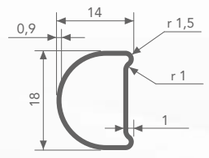
Thickness (mm)	kg/m
1,2	1,2

T. 2143 • 45%



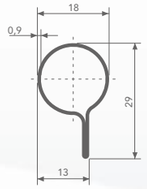
Thickness (mm)	kg/m
1,5	2,53

T. 2135 • 90%



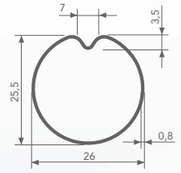
Thickness (mm)	kg/m
0,9	0,379

T. 2134 • 65%



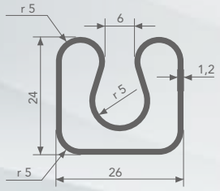
Thickness (mm)	kg/m
0,9	0,535

T. 2132 • 70%



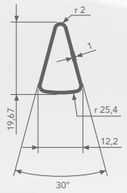
Thickness (mm)	kg/m
0,8	0,517

T. 2131 • 80%



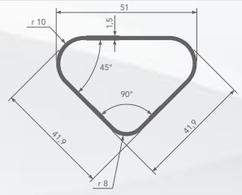
Thickness (mm)	kg/m
1,2	1,15

T. 2130 • 60%



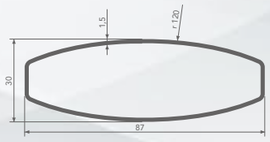
Thickness (mm)	kg/m
1	0,388

T. 2112 • 45%



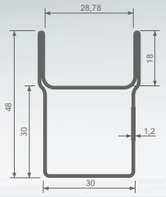
Thickness (mm)	kg/m
1,5	1,61

T. 2117 • 45%



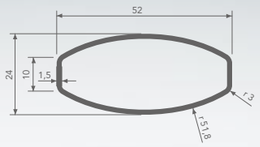
Thickness (mm)	kg/m
1,5	2,35

T. 2122 • 50%



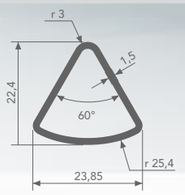
Thickness (mm)	kg/m
1,2	1,82

T. 2124 • 55%



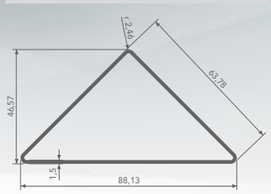
Thickness (mm)	kg/m
1,5	1,46

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

SPECIAL SHAPES ARE ENGINEERED ACCORDING TO CUSTOMER SPECIFICATIONS

ULTERIORI SAGOME SPECIALI SONO STUDIATE E FORNITE IN ACCORDO CON IL CLIENTE

WELDED TUBES: QUALITY AND ENVIRONMENT
TUBI SALDATI: QUALITÀ E AMBIENTE

CLOSE ATTENTION TO EXCELLENCE NOT ONLY IN TERMS OF PRODUCT QUALITY, BUT ALSO OF PROCESS AND SERVICE

Marcegaglia R&D team, thanks to its deep knowledge of raw materials and manufacturing process, develops products on customers' most demanding requirements. The R&D division's commitment is to continuously expand the production chain and to develop new process and finishings.
The support provided to some technologically advanced industries is a genuine partnership with customers aimed to develop new products and solutions.
Marcegaglia is often considered the pioneer to new
and higher quality standards.

GRANDE ATTENZIONE ALL'ECCELLENZA NON SOLO PER LA QUALITÀ DEL PRODOTTO, MA ANCHE PER LA QUALITÀ DI PROCESSO E DI SERVIZIO

La Ricerca e Sviluppo Marcegaglia, grazie all'approfondita conoscenza delle materie prime impiegate e dei loro processi di lavorazione, mette a punto prodotti in grado di soddisfare le più sofisticate esigenze della clientela. L'impegno della divisione Ricerca e Sviluppo si concentra su una continua implementazione della filiera e nella realizzazione di nuove lavorazioni e finiture. Il supporto fornito ad alcuni settori tecnologicamente avanzati si traduce in un aiuto alla clientela per l'individuazione di nuovi prodotti e di nuove soluzioni d'impiego, nonché in un punto di riferimento internazionale e per la ricerca di nuovi e più alti standard qualitativi.

The production facilities are equipped with state-of-the-art machinery and are at the core of a **continuous investment policy** by Marcegaglia aimed to increase and sustain their production capacity and range, the **quality** of processes and **safety** and environmental standards.

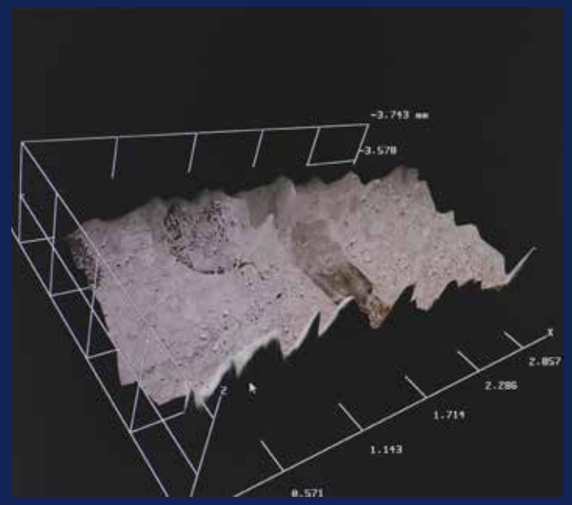
The Quality Management System of Marcegaglia Carbon Steel welded tube division has the following certifications:
- **ISO 9001:2015** (Quality System)
- **ISO 14001:2015** (Environmental System)
- **BS OHSAS 18001:2007** (Health and Safety System)
- **ISO 50001:2011** (Energy System)

Marcegaglia Carbon Steel tube division is also certified with **IATF 16949:2016** (automotive industry), **ISO/TS 29001:2011** (petroleum, petrochemical and natural gas industries), **RINA approval** for tubes for naval construction (EN 10219-1, EN 10210-1), **CE marking** for structural tubes according to European Directive - Regulation N. 305/2011/EU (EN 10219, EN 10210), **AD 2000 - W0** for tubes for pressure purposes according to Directive 2014/68/UE with TÜV Rheinland (EN 10217-1/2), **API-5CT** certification (tubes for the oil sector) group 1 H40/PSL1 and J55/PSL1, **API-5L** certification (tubes for the oil sector) X52-PSL1.

*Le sedi produttive sono all'avanguardia per la tecnologia dei loro impianti e sono al centro degli **investimenti costanti** di Marcegaglia per incrementare e migliorare le proprie capacità, gamme produttive e **qualità** dei processi, oltre alla **sicurezza** e alla tutela dell'ambiente.*

Il Sistema di Gestione per la Qualità della divisione tubi saldati Marcegaglia Carbon Steel possiede le seguenti certificazioni:
- ***ISO 9001:2015** (Sistema di Qualità)*
- ***ISO 14001:2015** (Sistema di Qualità Ambientale)*
- ***BS OHSAS 18001:2007** (Sistema di Salute e Sicurezza)*
- ***ISO 50001:2011** (Sistema di Energia)*

*La divisione tubi saldati Marcegaglia Carbon Steel è inoltre certificata **IATF 16949:2016** (industria automobilistica), **ISO/TS 29001:2011** (settore petrolifero, petrolchimico, gas naturale), **approvazione RINA** per tubi per applicazioni navali (EN 10219-1, EN 10210-1), **marcatura CE** per tubi strutturali in accordo con la Direttiva Europea - Regolamento N. 305/2011/EU (EN 10219-1, EN 10210-1), **AD 2000 - W0** per tubi per impieghi a pressione in accordo con la Direttiva 2014/68/UE con TÜV Rheinland (EN 10217-1/2), certificazione **API-5CT** (tubi per settore petrolifero) gruppo 1 H40/PSL1 e J55/PSL1, certificazione **API-5L** (tubi per settore petrolifero) X52-PSL1.*



STANDARD AND OPTIONAL TESTING *Prove e controlli standard e opzionali*
Chemical composition - *Analisi chimica*
Tensile test - *Prova di trazione*
Flattening test - *Prova di schiacciamento*
Drift expanding test - *Prova di allargamento*
Impact test - *Prova di resilienza*
Eddy current test - *Prova a correnti indotte*
Flux leakage test - *Prova a flusso disperso*
Ultrasonic test - *Controllo a ultrasuoni*
Visual test - *Controllo visivo*
Hydraulic test - *Prova idraulica*
Dimensional test - *Controllo dimensionale*
Micrographic analysis - *Esami micrografici*
Issue of specific certificates - *Emissione di certificati specifici*

COLD-DRAWN WELDED TUBES
TUBI SALDATI TRAFILATI A FREDDO

DIMENSIONAL RANGE - *GAMMA DIMENSIONALE*

MIN. OUTSIDE DIAMETER - *DIAMETRO ESTERNO MIN.*	**15 mm**
MAX. OUTSIDE DIAMETER - *DIAMETRO ESTERNO MAX.*	**245 mm**
MIN. THICKNESS - *SPESSORE MIN.*	**1,5 mm**
MAX. THICKNESS - *SPESSORE MAX.*	**15 mm**

Superior thicknesses (in execution seamless) and different sizes on request
Spessori superiori (in esecuzione senza saldatura) e misure differenti su richiesta

Marcegaglia Carbon Steel offers a wide range of precision cold-drawn tubes, welded and seamless, in all carbon steel and low-alloy steel varieties, for automotive, hydraulic and mechanical applications. Cold-drawn tubes production takes place in the Boltiere and Rivoli plants. Marcegaglia Boltiere stands out as one of the largest cold-drawn tube production plants in Europe, in terms of production capacity and product range, with a global distribution.

Marcegaglia Carbon Steel vanta un'ampia offerta di tubi trafilati a freddo di precisione, saldati e senza saldatura, in tutte le varietà di acciai al carbonio e di acciai basso legati, per applicazioni automobilistiche, oleodinamiche e meccaniche. La produzione di tubi trafilati a freddo avviene negli stabilimenti di Boltiere e Rivoli. Marcegaglia Boltiere si distingue come uno dei più grandi impianti di produzione di tubi trafilati a freddo in Europa, in termini di capacità produttiva e gamma di prodotti, con una distribuzione a livello globale.

MAIN MANUFACTURING STANDARD
PRINCIPALE NORMA DI FABBRICAZIONE

COLD-DRAWN WELDED TUBES
TUBI SALDATI TRAFILATI A FREDDO

EN 10305-2

MANUFACTURING STANDARD *Norma di fabbricazione*	**PRODUCT DESIGNATION** *Designazione prodotto*	**GRADE*** *Qualità*	**TREATMENT** *Tipologie di trattamento*
EN 10305-2	Cold-drawn welded tubes *Tubi saldati trafilati a freddo*	**E195** **E235** **E275** **E355** **E460**	**+C Hard**. No final treatment after final cold drawing. ***Crudo***. *Senza trattamento termico dopo la trafilatura a freddo conclusiva.* **+LC Soft**. Final heat treatment is followed by a suitable drawing pass (limited reduction of area). ***Crudo malleabile***. *La trafilatura a freddo avviene in una passata dopo l'ultimo trattamento termico.* **+SR Stress Relieved**. After final cold drawing, the tubes are stress relieved in a controlled atmosphere. ***Disteso***. *Dopo l'ultima trafilatura a freddo, si procede alla ricottura di distensione in condizioni di atmosfera controllata.* **+A Annealed**. After final cold drawing, the tubes are annealed in a controlled atmosphere. ***Ricotto***. *I tubi sono ricotti in condizioni di atmosfera controllata dopo l'ultima trafilatura a freddo.* **+N Normalized**. After final cold drawing, the tubes are normalized in a controlled atmosphere. ***Normalizzato***. *I tubi sono normalizzati in condizioni di atmosfera controllata dopo l'ultima trafilatura a freddo.*

(*) Upon request: supply of grades not included in the above mentioned standards - *Su richiesta si forniscono anche qualità differenti dalla norma*

SUPPLY CONDITIONS - *Condizioni di fornitura*

- Tubes are supplied in 5000/8000 mm lengths unless otherwise specified in order
  I tubi vengono forniti in barre commerciali da mm 5000/8000. Lunghezze fisse su specifico accordo all'ordine

- Dimensional tolerances according to manufacturing standard
  Tolleranze dimensionali secondo le norme di fabbricazione

- Special tolerances upon request *Tolleranze speciali su richiesta*

- Control documents 2.1, 2.2, 3.1, 3.2 according to EN 10204 and other specific norm requirements
  Documenti di controllo 2.1, 2.2, 3.1, 3.2 secondo norma EN 10204 e indicazione specifiche di ciascuna norma

STANDARD AND OPTIONAL TESTING *Prove e controlli standard e opzionali*
Chemical composition *Analisi chimica*
Impact test *Prova di resilienza*
Visual and dimensional test 100% *Controllo visivo e dimensionale 100%*
Eddy current test 100% acc. to EN 10246-3 *Controllo a correnti indotte 100% sec. EN 10246-3*
Ultrasonic test 100% acc. to EN 10246-7 *Controllo ultrasuoni 100% sec. EN 10246-7*

weight kg/m

ROUND TUBES
Tubi saldati trafilati

EN 10305-2

outside diameter 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
10	0,31	0,39	0,46	0,52	0,56	0,59	0,61	0,62										
15	0,50	0,64	0,77	0,89	0,99	1,09	1,17	1,23										
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								19,11	20,95	22,79	24,60	26,41	28,20	29,99	22,34	36,99	45,47	53,64
170								20,34	22,31	24,27	26,21	28,14	30,05	31,96	23,82	39,46	48,55	57,33
180								21,58	23,67	25,75	27,81	29,86	31,90	33,93	25,30	41,92	51,63	61,03
190								22,81	25,02	27,22	29,41	31,59	33,75	35,90	26,78	44,39	54,71	64,73
200								24,04	26,38	28,70	31,02	33,32	35,60	37,88	28,26	46,85	57,80	68,43
210								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
245													43,93	46,76	52,38	57,95	71,67	85,08

Other dimensions on request - *Altre dimensioni su richiesta*

READY-TO-USE CYLINDER TUBES H9
TUBI TRAFILATI PER CILINDRI PRONTI ALL'USO H9

EN 10305-2

TECHNICAL CHARACTERISTICS *CARATTERISTICHE TECNICHE*	
GRADE *QUALITÀ*	E355
TREATMENT *TIPOLOGIA DI TRATTAMENTO*	+C
SURFACE FINISHING *FINITURA SUPERFICIALE*	• **Outside diameter** smooth as drawn (EN 10305-2) ***Diametro esterno*** *liscio e trafilato sec. EN 10305-2* • **Inside diameter** roughness Ra < 0.80 μ (average 0.50÷0.60 μ) ***Diametro interno*** *rugosità Ra < 0,80 μ (media 0,50÷0,60 μ)*
DIMENSIONAL TOLERANCES *TOLLERANZE DIMENSIONALI*	• **Outside diameter** 50% EN 10305-2 ***Diametro esterno*** *50% EN 10305-2* • **Inside diameter** ISO H9 (ISO H10 for thickness < 4 mm) ***Diametro interno*** *ISO H9 (ISO H10 per spessori < 4 mm)* • **Eccentricity** - ***Eccentricità*** < 3% • **Straightness** - ***Rettilinearità*** 1:1000 mm

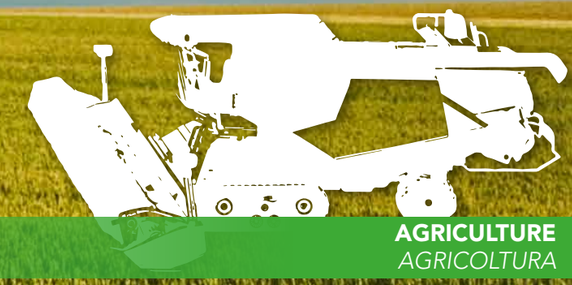
weight kg/m

COLD-DRAWN TUBES				**EN 10305-2**
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
130,0	145,0	7,5	H9	25,4

Imperial unit sizes on request *Misure in pollici su richiesta*

DELIVERY CONDITIONS - *Condizioni di fornitura*

- Commercial lengths 5000-8000 mm, custom lengths upon request *Lunghezze commerciali mm 5000-8000, lunghezze specifiche su richiesta*
- Surface protection *Protezione superficiale*
- Marking: MM E355 OD x ID EN 10305-2 +C - Heath *Marcatura: MM E355 DE x DI EN 10305-2 +C - Colata*

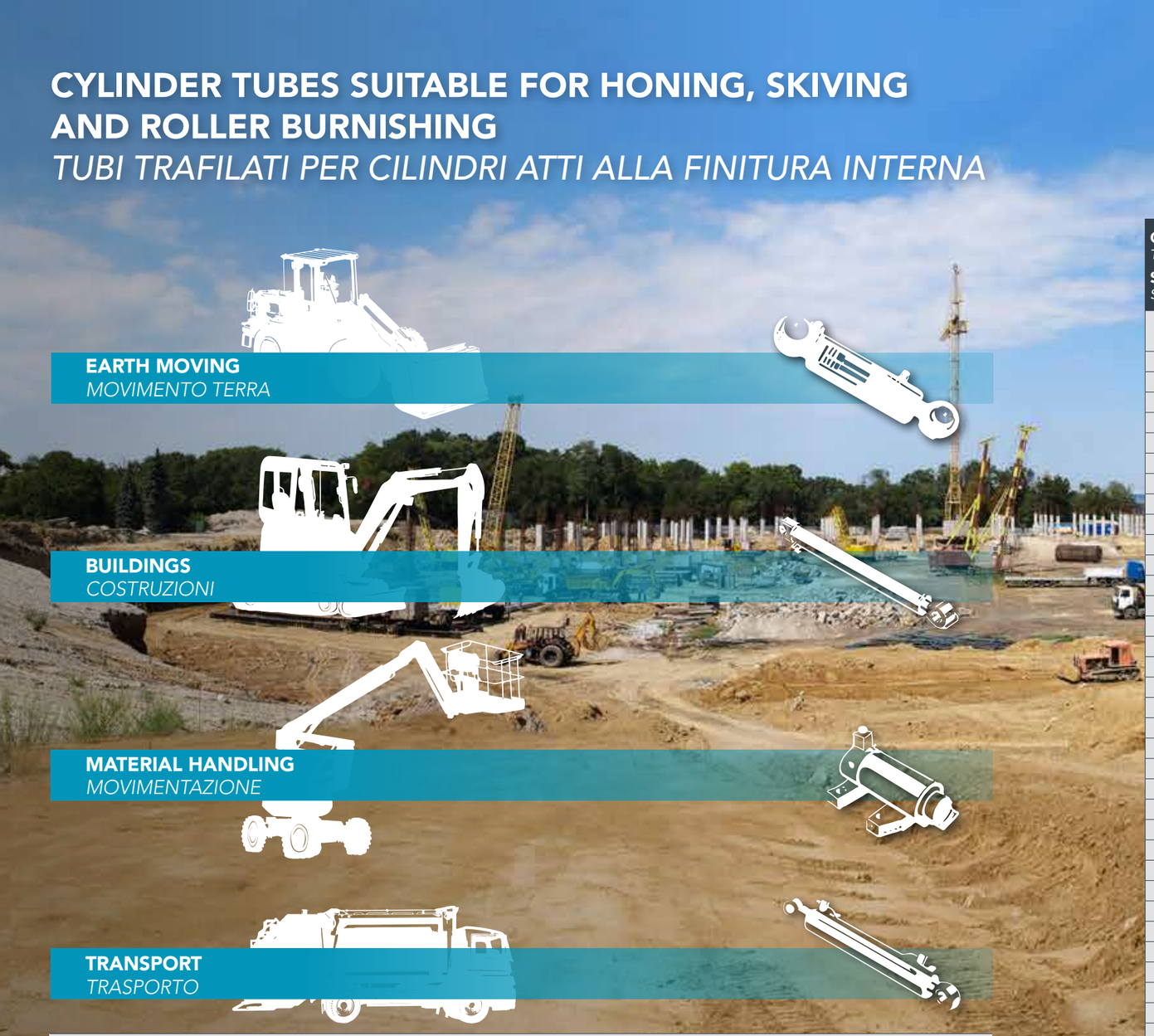


AGRICULTURE
AGRICOLTURA

LIFTING
SOLLEVAMENTO

CYLINDER TUBES SUITABLE FOR HONING, SKIVING AND ROLLER BURNISHING

TUBI TRAFILATI PER CILINDRI ATTI ALLA FINITURA INTERNA



TECHNICAL CHARACTERISTICS *CARATTERISTICHE TECNICHE*	
GRADE *QUALITÀ*	E355
TREATMENT *TIPOLOGIA DI TRATTAMENTO*	+SR
SURFACE FINISHING *FINITURA SUPERFICIALE*	• **Outside diameter** smooth as drawn (EN 10305-2) ***Diametro esterno*** *liscio e trafilato sec. EN 10305-2* • **Inside diameter** with stock allowance (skiving/roller burnishing) ***Diametro interno*** *con sovrametalli (pelorullatura)*
DIMENSIONAL TOLERANCES *TOLLERANZE DIMENSIONALI*	• **Outside diameter** 50% EN 10305-2 ***Diametro esterno*** *50% EN 10305-2* • **Eccentricity** - ***Eccentricità*** < 3% • **Straightness** - ***Rettilineità*** 1:1000 mm

DELIVERY CONDITIONS - *Condizioni di fornitura*

- Commercial lengths 5000-8000 mm, custom lengths upon request *Lunghezze commerciali mm 5000-8000, altre lunghezze su richiesta*
- Surface protection *Protezione superficiale*
- Marking: Marcegaglia E355 OD x WT - EN10305-2 +SR - Heath *Marcatura: Marcegaglia E355 DE x SP - EN10305-2 +SR - Colata*

CYLINDER TUBES *TUBI PER CILINDRI* — **EN 10305-1/2**

STOCK ALLOWANCE FOR HONING *SOVRAMETALLI PER LEVIGATURA*

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

- -0,15/-0,30
- -0,25/-0,45
- -0,25/-0,55
- -0,30/-0,70
- -0,50/-1,00

CYLINDER TUBES *TUBI PER CILINDRI* — **EN 10305-1/2**

STOCK ALLOWANCE FOR SKIVING AND ROLLER BURNISHING *SOVRAMETALLI PER PELATURA E RULLATURA*

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

- -0,30/-0,55
- -0,40/-0,70
- -0,50/-0,85
- -0,50/-0,90
- -0,60/-1,20

SKIVED AND ROLLER BURNISHED CYLINDER TUBES H8
TUBI TRAFILATI PER CILINDRI PELORULLATI FINITI H8

EN 10305-2

TECHNICAL CHARACTERISTICS *Caratteristiche tecniche*	
GRADE ***QUALITÀ***	E355
TREATMENT ***TIPOLOGIA DI TRATTAMENTO***	+SR (BKS)
SURFACE FINISHING ***FINITURA SUPERFICIALE***	• **Outside diameter**: smooth as drawn (EN 10305-2) ***Diametro esterno****: liscio e trafilato sec. EN 10305-2* • **Inside diameter**: skived and roller-burnished H8 Ra max 0.3 µ ***Diametro interno****: pelati e rullati H8 Ra max 0,3 µ*
DIMENSIONAL TOLERANCES ***TOLLERANZE DIMENSIONALI***	• **Insidel diameter**: ISO H8, min. 40 mm - max. 220 mm ***Diametro interno****: ISO H8, min. 40 mm - max. 220 mm*

STANDARD DELIVERY PROGRAM
TABELLE DIMENSIONALI DEL PROGRAMMA DI FORNITURA STANDARD

weight kg/m

SKIVED AND ROLLER BURNISHED CYLINDER TUBES
Tubi trafilati per cilindri finiti internamente

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
	60,0	7,5	9,71
50,0	60,0	5,0	6,78
	62,0	6,0	8,29
	65,0	7,5	10,63
55,0	65,0	5,0	7,40
	67,0	6,0	9,03
	70,0	7,5	11,56
60,0	70,0	5,0	8,01
	72,0	6,0	9,77
	75,0	7,5	12,48
	80,0	10,0	17,26
63,0	73,0	5,0	8,38
	75,0	6,0	10,21
	78,0	7,5	13,04
	83,0	10,0	18,00
65,0	75,0	5,0	8,63
	77,0	6,0	10,51
	80,0	7,5	13,41
	85,0	10,0	18,50
70,0	80,0	5,0	9,25
	82,0	6,0	11,24
	85,0	7,5	14,33
	90,0	10,0	19,73
75,0	85,0	5,0	9,86
	87,0	6,0	11,98
	90,0	7,5	15,26
	95,0	10,0	20,96
80,0	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

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
	160,0	15,0	53,64
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
	190,0	15,0	64,73
170,0	185,0	7,5	32,83
	190,0	10,0	44,39
	195,0	12,5	56,26
	200,0	15,0	68,43
180,0	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

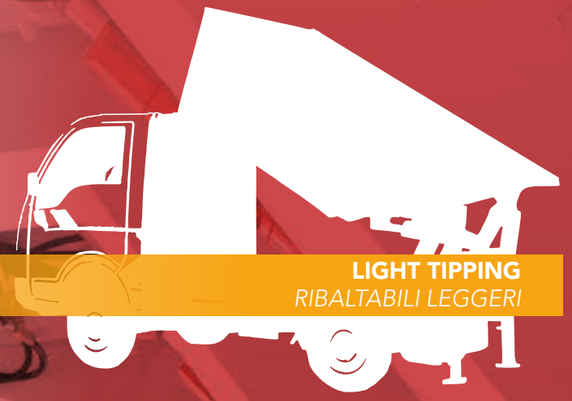
COLD-DRAWN TUBES FOR TELESCOPIC CYLINDERS
TUBI TRAFILATI PER CILINDRI TELESCOPICI

EN 10305-2

DIMENSIONS AND SHAPES DEVELOPED ACCORDING TO CUSTOMER SPECIFICATIONS
DIMENSIONI E SAGOME SONO SVILUPPATE IN CONFORMITÀ AI REQUISITI DEL CLIENTE

DIMENSIONAL TOLERANCES UPON CUSTOMER SPECIFICATIONS
TOLLERANZE DIMENSIONALI SECONDO ACCORDI SPECIFICI

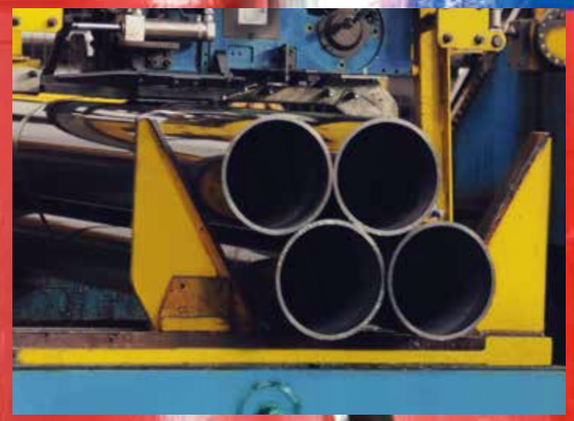
LIGHT TIPPING
RIBALTABILI LEGGERI



INDUSTRIAL
INDUSTRIALI

AGRICULTURAL
AGRICOLI

TECHNICAL CHARACTERISTICS *CARATTERISTICHE TECNICHE*	
GRADE ***QUALITÀ***	E355
TREATMENT ***TIPOLOGIA DI TRATTAMENTO***	+SR
SURFACE FINISHING ***FINITURA SUPERFICIALE***	• **Outside diameter** smooth as drawn (EN 10305-2) ***Diametro esterno*** *liscio e trafilato sec. EN 10305-2* • **Inside diameter**: roughness Ra < 1.6 µ ***Diametro interno:*** *rugosità Ra < 1,6 µ*
DIMENSIONAL TOLERANCES ***TOLLERANZE DIMENSIONALI***	• **Straightness** - ***Rettilineità*** 0,50 mm/m max



COLD-DRAWN TUBES SUITABLE FOR CHROME PLATING
TUBI TRAFILATI PER STELI ATTI ALLA CROMATURA

EN 10305-2

DIMENSIONS AND SHAPES DEVELOPED ACCORDING TO CUSTOMER SPECIFICATIONS
DIMENSIONI E SAGOME SONO SVILUPPATE IN CONFORMITÀ AI REQUISITI DEL CLIENTE

DIMENSIONAL TOLERANCES UPON CUSTOMER SPECIFICATIONS
TOLLERANZE DIMENSIONALI SECONDO ACCORDI SPECIFICI

TECHNICAL CHARACTERISTICS *CARATTERISTICHE TECNICHE*	
GRADE *QUALITÀ*	E355
TREATMENT *TIPOLOGIA DI TRATTAMENTO*	+N, +SR
SURFACE FINISHING *FINITURA SUPERFICIALE*	• **Outside diameter** with stock allowance (for subsequent reworking) ***Diametro esterno*** *con sovrametalli (per lavorazione successiva)* • **Inside diameter**: smooth as drawn (EN 10305-2) ***Diametro interno***: *liscio e trafilato sec. EN 10305-2*

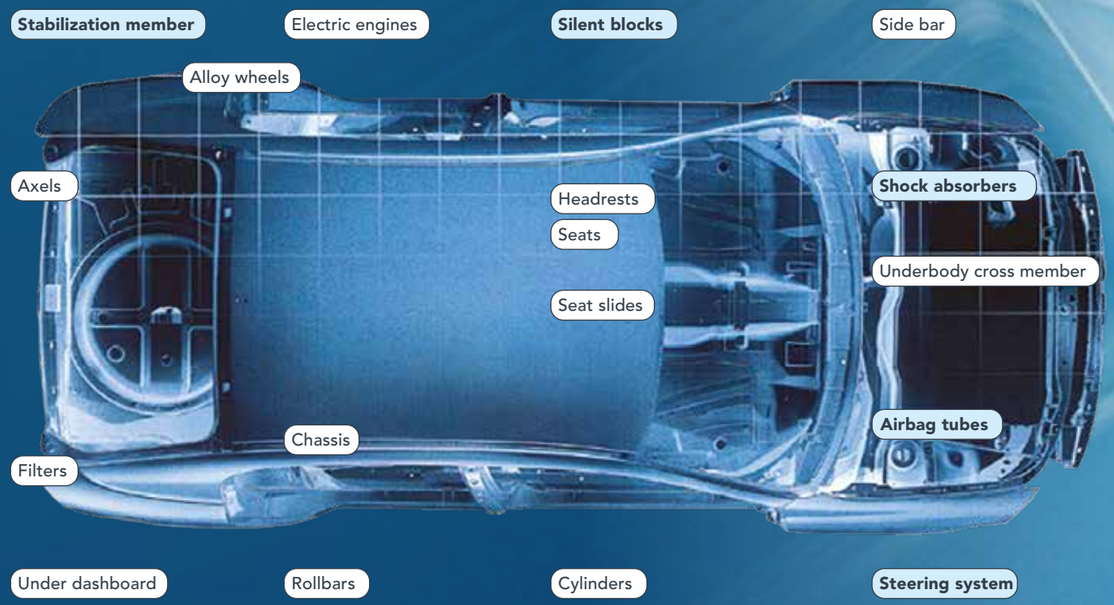
OUTSIDE DIAMETER TOLERANCE *Tolleranze diametro esterno*

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

COLD-DRAWN TUBES FOR AUTOMOTIVE AND MECHANICAL APPLICATIONS

TUBI TRAFILATI PER APPLICAZIONI AUTOMOTIVE E MECCANICHE

EN 10305-2



TECHNICAL CHARACTERISTICS *CARATTERISTICHE TECNICHE*	
GRADE ***QUALITÀ***	E155, E195, E235, E275, E355, E410
TREATMENT ***TIPOLOGIA DI TRATTAMENTO***	+C, +LC, +SR, +A, +N
SURFACE FINISHING ***FINITURA SUPERFICIALE***	• **Outside diameter and inside diameter**: smooth as drawn (EN 10305-2) ***Diametro esterno e interno**: liscio e trafilato sec. EN 10305-2* • **On request**: roughness Ra < 0.4 µ ***Su richiesta**: rugosità Ra < 0,4 µ*
DIMENSIONAL TOLERANCE ***TOLLERANZE DIMENSIONALI***	• **Standard**: according to EN 10305-2 ***Standard**: secondo EN 10305-2* • **Special**: on request ***Speciali**: su richiesta*
OPTIONAL PROCESSING ***LAVORAZIONI OPZIONALI***	• **Drawing in reactive oil** ***Trafilatura in olio reattivo*** • **Dephosphating** ***Defosfatazione***

STABILIZATION MEMBERS
STABILIZZATORI

SILENT BLOCKS
SILENT BLOCKS

SHOCK ABSORBERS
AMMORTIZZATORI

AIRBAG TUBES
TUBI AIRBAG

STEERING SYSTEMS
SISTEMI DI STERZO

COLD-DRAWN TUBES FOR CARDANS
TUBI TRAFILATI A FREDDO PER CARDANI

EN 10305-2

DIMENSIONS AND SHAPES DEVELOPED ACCORDING TO CUSTOMER SPECIFICATIONS
DIMENSIONI E SAGOME SONO SVILUPPATE IN CONFORMITÀ AI REQUISITI DEL CLIENTE

DIMENSIONAL TOLERANCES UPON CUSTOMER SPECIFICATIONS
TOLLERANZE DIMENSIONALI SECONDO ACCORDI SPECIFICI

TECHNICAL CHARACTERISTICS *Caratteristiche tecniche*	
GRADE *QUALITÀ*	E235, E355
TREATMENT *TIPOLOGIA DI TRATTAMENTO*	+C, +LC, +N

CAR AXLES
ASSALI PER AUTO

TRUCK AXLES
ASSALI PER CAMION

LAND TREATMENT
TRATTAMENTO TERRA

HARVESTING
RACCOLTA

FORESTRY
FORESTALE

PACKAGING: COLD-DRAWN TUBES
IMBALLAGGI: TUBI TRAFILATI

STANDARD PACKAGING - *IMBALLO STANDARD*

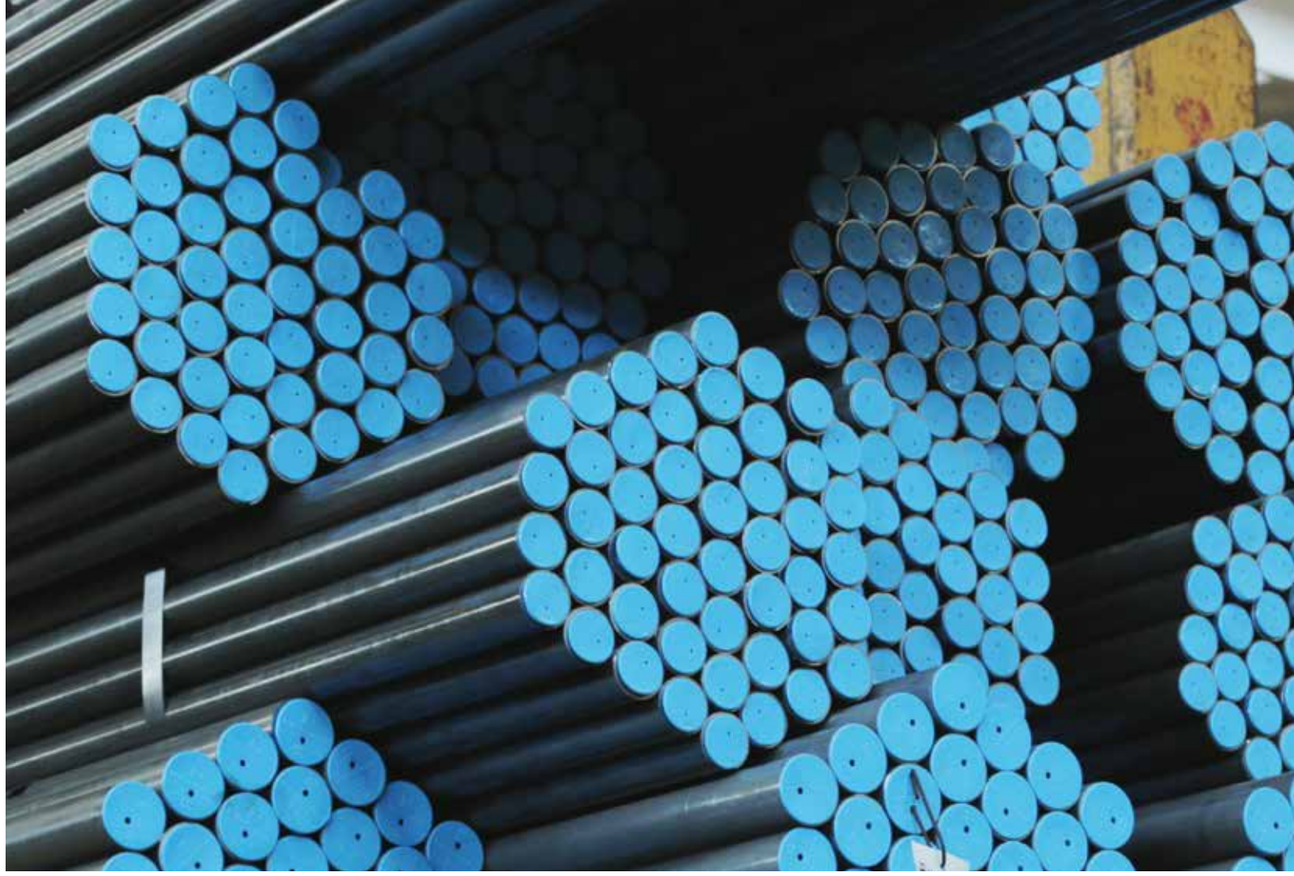
Strapped bundles*
standard weight: approx. 1.5 tonnes - maximum weight: 2 tonnes

*Fasci reggiati**
peso standard: circa 1,5 tonnellate - peso massimo: 2 tonnellate

* Each package is identified for complete tracking
* *Ciascun pacco è corredato da un cartellino identificativo per la completa tracciatura*

NON-STANDARD PACKAGING IS DEVELOPED ACCORDING TO CUSTOMER REQUEST

IMBALLI SPECIFICI SONO STUDIATI E FORNITI IN ACCORDO CON IL CLIENTE



OPTIONAL PACKAGING - *IMBALLO OPZIONALE*

Internal and external oiling, for temporary storage
Oliatura interna ed esterna per stoccaggio temporaneo

Aluminium-plastic foil
Rivestimento in alluminio plastificato

Plastic caps at the ends*
*Tappi in plastica alle estremità**

* standard supply condition for:
  - Ready-to-use cylinder tubes
  - Skived and roller burnished cylinder tubes
* *Condizione di fornitura standard per:*
  - *Tubi trafilati per cilindri pronti all'uso*
  - *Tubi trafilati per cilindri finiti internamente*

Special packaging for sea shipments
Imballo specifico per spedizioni via mare

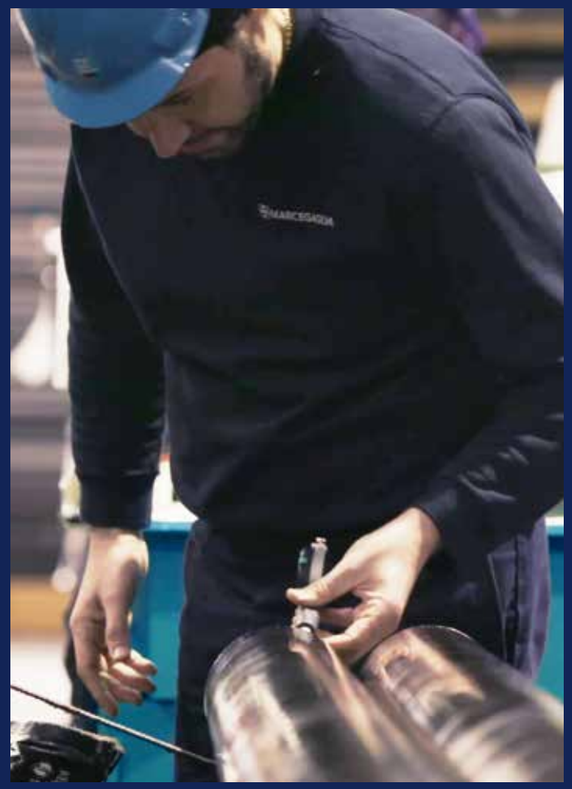
COLD-DRAWN TUBES: QUALITY AND ENVIRONMENT
TUBI TRAFILATI: QUALITÀ E AMBIENTE

The production facilities are equipped with state-of-the-art machinery and are at the core of a **continuous investment policy** by Marcegaglia aimed to increase and sustain their production capacity and range, the **quality** of processes and **safety** and environmental standards.

The **quality laboratory** staff and the **technical-sales assistance** team are dedicated to support the sales and production activities, from the processing of requests to the research and development of new product and quality specifications.

*Le sedi produttive sono all'avanguardia per la tecnologia dei loro impianti e sono al centro degli **investimenti costanti** di Marcegaglia per incrementare e migliorare le proprie capacità, le proprie gamme produttive e la **qualità** dei processi, oltre alla **sicurezza** e alla tutela dell'ambiente.*

*Il supporto del **laboratorio qualità** e del **servizio di assistenza tecnico-commerciale** consente di fornire risposte mirate sia in termini di elaborazione dell'offerta, sia nello studio di nuove specifiche di prodotto e qualità speciali.*



The production chain of Marcegaglia Carbon Steel cold-drawn tubes is **ISO 9001:2015** and **IATF 16949:2016** certified. In 2019 RINA awarded the Boltiere plant "**Best4 ISO 26000:2010**" certification, reserved for companies certified in the Quality, Environment, Safety and Social Responsibility sectors.

The Quality Management System of the Boltiere plant has the following certifications:
- **ISO 9001:2015** (Quality System)
- **ISO 14001:2015** (Environmental System)
- **BS OHSAS 18001:2007** (Health and Safety System)
- **ISO 26000:2010** (Social Responsibility)

The Boltiere plant, like other companies in the Marcegaglia group, is also **ISO 50001:2011** certified for energy.

*La produzione del tubo trafilato Marcegaglia Carbon Steel è certificata **ISO 9001:2015** e **IATF 16949:2016**. Nel 2019 RINA ha conferito allo stabilimento di Boltiere la certificazione "**Best4 ISO 26000:2010**", riservata alle Aziende certificate nei settori Qualità, Ambiente, Sicurezza e Responsabilità Sociale.*

Il Sistema di Gestione per la Qualità dello stabilimento di Boltiere è conforme a:
- ***ISO 9001:2015** (Sistema di Qualità)*
- ***ISO 14001:2015** (Sistema di Qualità Ambientale)*
- ***BS OHSAS 18001:2007** (Sistema di Salute e Sicurezza)*
- ***ISO 26000:2010** (Responsabilità Sociale)*

*Lo stabilimento di Boltiere, come altre realtà del gruppo Marcegaglia, è anche certificato **ISO 50001:2011** per l'energia.*

Technical norms are referred to in the latest release valid at the publication date of the present catalogue.
Le norme citate si riferiscono all'edizione in vigore alla data di pubblicazione del catalogo.

Concept: StudioChiesa

Pursuant to the provisions of Legislative Decree 231 of 8 June 2001, Marcegaglia Carbon Steel s.p.a. now has an "Organization, management and control model" in place, in the belief that this model is a useful awareness-building tool for all the company's directors and employees and all other stakeholders (customers, suppliers, partners and sundry collaborators), so that when they perform their own particular activities they act with integrity and avoid the risk of committing the offences set forth in the Decree. Marcegaglia Carbon Steel s.p.a. has thus put in place a structured and integrated prevention and control system designed to cut down the risk of committing offences linked to the company's business activity, with a focus on preventing and/or combating possible unlawful conduct.

In linea con le prescrizioni del Decreto Legislativo 8 giugno 2001, n°231, Marcegaglia Carbon Steel s.p.a, si é dotata di un "Modello di organizzazione, gestione e controllo", nella convinzione lo stesso sia un valido strumento di sensibilizzazione nei confronti di tutti gli Amministratori e i dipendenti della società e di tutti gli altri soggetti alla medesima cointeressati (clienti, fornitori, partners, collaboratori a diverso titolo), affinché gli stessi, nell'espletamento delle proprie attività, adottino comportamenti corretti e lineari, tali da prevenire il rischio di commissione dei reati contemplati nel Decreto. Marcegaglia Carbon Steel s.p.a., in tale modo, pone in essere un sistema strutturato ed organico di prevenzione e controllo, finalizzato alla riduzione del rischio di commissione dei reati connessi all'attività aziendale, con particolare riguardo alla prevenzione/contrasto di eventuali comportamenti illeciti.

studiochiesa • November 2023 EN-IT

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CARBON STEEL

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