

Tubi saldati da nastro a caldo e zincati

Tubi tondi, quadri, rettangolari, ellittici, ovali, triangolari e sagome speciali

Round, square, rectangular, elliptical, oval, triangular and special tubes
Rund-, Vierkant- und Rechteckrohre, elliptische Rohre, Ovalrohre, dreieckige und Sonderrohre

Tubes ronds, carrés, rectangulaires, elliptiques, ovales, triangulaires et spéciaux
Tubos redondos, cuadrados, rectangulares, elípticos, ovalados, triangulares y perfiles especiales

ERW steel tubing from hot-rolled strip/galvanized strip

Geschweisste Rohre aus Warmband und verzinkte Rohre

Tubes soudés issus de feuillards laminés à chaud/zingués

Tubos soldados obtenidos de fleje laminado en caliente y galvanizado

Tubi per serramenti

Tubular sections for windows and door frames

Rohre für Türen und Fenster

Tubes pour menuiseries métalliques

Tubos para puertas y ventanas

Tubi per impieghi automotive

Tubes for automotive applications

Rohre für die Autoindustrie

Tubes pour l'industrie automobile

Tubos para la industria del automóvil

Tubi per carpenteria strutturale

Welded tubes for steel structural work

Konstruktionsrohre

Tubes pour structures métalliques

Tubos para carpintería estructurales

Tubi per palificazione

Tubes for piling

Rohre für Gründungen

Tubes pour poteaux / pieux

Tubos para pilotaje

Tubi per rulli

Roller conveyor tubes

Tragrollenrohre

Tubes pour rouleaux

Tubos para rodillos

Tubi per scambiatori di calore e caldareria

Heat exchanger and boiler tubes

Rohre für Boiler und Wärmetauscher

Tubes pour échangeurs de chaleur et chaudières

Tubos para intercambiadores de calor y caldereria

Tubi per condotte, acqua e gas

Gas and water line pipes

Gas- und Wasserleitungsrohre

Tubes pour canalisation, eau/gaz

Tubos para conducción agua y gas

Tubi per ponteggi e puntellazione

Tubes for scaffolding and propping

Rohre für Metallgerüste und Stützstrukturen

Tubes pour échafaudages et support

Tubos para andamios y apuntalamiento



Tubi saldati da nastro a caldo e zincati

ERW steel tubing from hot-rolled strip/galvanized strip
Geschweisste Rohre aus Warmband und verzinkte Rohre
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Condizioni di fornitura

I tubi vengono forniti con i seguenti trattamenti di finitura:

Simbolo (a): Designazione e descrizione:

- +CR1 (b)** = **Saldato e calibrato a freddo.** Crudo di tubatura, ma adatto a ricottura finale.
- +CR2 (c)** = **Saldato e calibrato a freddo.** Crudo di tubatura, non adatto a trattamento termico dopo saldatura e calibrazione a freddo.
- +A** = **Ricotto.** Dopo la saldatura e la calibrazione viene sottoposto ad un trattamento di ricottura in atmosfera controllata.
- +N** = **Normalizzato.** Dopo il processo di saldatura e di calibrazione i tubi sono normalizzati in atmosfera controllata. Questo prodotto può essere eseguito con un processo diretto.

(a) Vedi tavola di conversione dei simboli trattamenti utilizzati frequentemente.

(b) Dopo eventuale trattamento di ricottura o normalizzazione, vedere tabella di pag. 4 per i valori meccanici ottenuti normalmente rispettivamente per il trattamento +A o +N.

(c) Se vengono applicati ulteriori trattamenti termici, i valori meccanici ottenuti potrebbero essere fuori dai requisiti specificati.

Nota: il tubo normalmente prodotto calibrato e saldato pronto all'uso è da intendersi con il simbolo +CR2.

Tubes may be supplied in the final conditions listed below:

Symbol (a): Designation and description:

- +CR1 (b)** = **Welded and sized.** Cold formed, suitable for heat treatment
- +CR2 (c)** = **Welded and sized.** Cold formed, not suitable for heat treatment
- +A** = **Annealed.** After welding and sizing, tubes undergo heat treatment in controlled atmosphere
- +N** = **Normalized.** After welding and sizing, tubes undergo normalizing treatment in controlled atmosphere. This condition may be achieved through direct processing.

(a) See reference table of final treatment symbols commonly in use.

(b) The mechanical values resulting after annealing or normalization are specified in table (page 4), concerning conditions +A or +N respectively.

(c) In case of further heat treatments, the tubes' mechanical values can not comply with the given limits.

Notice: the untreated tube, welded and sized, is designated by the symbol +CR2.



Supply conditions
Lieferzustand
Conditions de livraison
Condiciones de suministro

Die Rohre werden in den folgenden Zuständen geliefert:

Abkürzung (a): Bezeichnung und Beschreibung:

+CR1 (b) = Kaltgeschweißt, maßgewalzt. Maschinenfertig, zur Wärmebehandlung geeignet.

+CR2 (c) = Kaltgeschweißt, maßgewalzt. Maßgewalzt bzw. maschinenfertig, zur Wärmebehandlung ungeeignet.

+A = Geglüht. Nach der Fertigung sind die Rohre unter Schutzgas geglüht.

+N = Normalgeglüht. Nach der Fertigung sind die Rohre unter Schutzgas normalgeglüht. Dies Produkt kann durch direktes Verfahren erzeugt werden.

(a) Siehe Tabelle mit den Abkürzungen der Standard-Behandlungen.

(b) Die Tabelle (Seite 4) enthält die mechanischen Werte nach Wärmebehandlung, die bei den Rohren in den Lieferzuständen +A o +N auftreten.

(c) Falls die Rohre weiteren Wärmebehandlungen untergehen, dürfen die dadurch erzielten mechanischen Werte von den angegebenen Grenzen abweichen.

Bemerkung: das normal kaltgeschweißte, maßgewalzte Rohr ist mit der Abk. +CR2 bezeichnet.

Nos tubes peuvent être fournis avec des traitements de finissage, soit:

Symbole (a): Désignation et description

+CR1 (b) = Tubes soudés finis à froid. Brut d'étirage, mais apte au traitement final de recuit.

+CR2 (c) = Tubes soudés finis à froid. Brut d'étirage, qui n'est pas apte au traitement de recuit après fabrication

+A = Recuit. Après soudure et finissage à froid les tubes subissent un recuit sous atmosphère contrôlée.

+N = Normalisé. Après soudure et finissage à froid les tubes subissent un traitement thermique de normalisation sous atmosphère contrôlée. Cette opération peut être effectuée directement après fabrication.

(a) Voir tableau de conversion pour les symboles plus courants.

(b) Voir tableau (page 4) pour les valeurs mécaniques standard après recuit ou normalisation (valeurs +A et +N, à suivre).

(c) En cas de traitements thermiques supplémentaires, les caractéristiques mécaniques pourraient être différentes

Remarque: en cas de tubes soudés, finis à froid et prêts à l'emploi il faut se baser sur valeurs indiqués par +CR.

Los tubos vienen suministrados con los siguientes tratamientos de terminado:

Símbolo (a): Indicación y descripción:

+CR1 (b) = Soldado y calibrado en frío. Crudo para conducto, pero adecuado a recocición final.

+CR2 (c) = Soldado y calibrado en frío. Crudo para conducto, no adecuado para tratamiento térmico después de soldadura y calibración en frío

+A = Recocido. Después de la soldadura y la calibración se somete a un tratamiento de recocición en atmósfera controlada.

+N = Normalizado. Después del proceso de soldadura y de calibración los tubos vienen normalizados en atmósfera controlada. Este proceso puede realizarse con un procedimiento directo.

(a) Ver tabla de conversión de los símbolos de tratamientos utilizados frecuentemente.

(b) Después del eventual tratamiento de recocición o normalización, ver tabla (página 4) para los valores mecánicos obtenidos normalmente sea para el tratamiento +A o +N.

(c) Si se aplican ulteriores tratamientos térmicos, los valores mecánicos obtenidos podrían quedar fuera de los requisitos especificados.

Nota: el tubo producido normalmente, calibrado y soldado listo para el uso debe proponerse con el símbolo +CR2.

CONDIZIONI DI FINITURA SUPERFICIALE sec. EN10305-3 e EN10305-5

Surface condition according to EN10305-3 and EN10305-5

Oberflächenbeschaffenheit nach EN10305-3 und EN10305-5

État de surface selon . EN10305-3 et EN10305-5

Condiciones de terminado superficial sec. EN10305-3 y EN10305-5

Codice	Descrizione dello stato - State description
S1	Da nastro laminato a caldo nero - From hot-rolled strip, black
S2	Da nastro laminato a caldo decapato - From hot-rolled strip, pickled
S3	Da nastro laminato a freddo - From cold-rolled strip
S4	Da nastro rivestito secondo condizioni stabilite - From coated strip

Norme di produzione

Manufacturing standards
Produktionsnormen
Normes de production
Normas de producción

EN 10219

UNI 7091

UNI 7288

DIN 2393-2394-2395-59411-2458 - BS 4360

DIN 1626

BS 1175-1387

NF A49 643

NF A49 541-542

ASTM A 500

ASTM A 120

EN 10305-3

EN 10305-5

CARATTERISTICHE MECCANICHE MINIME PER LA QUALITÀ +CR2^(a)

Limit values of mechanical properties for +CR2 tubes (a) - Mechanische Eigenschaften - Mindestwerte für Rohrzustand +CR2 (a)

Valeurs mécaniques minimum pour la qualité +CR2 (a) - Características mecánicas mínimas para la calidad +CR2 (a)

Grade	n° Qlt	R _m MPa	ReH MPa	A %
E190	1.0031	270	190	26
E220	1.0215	310	220	23
E260	1.0220	340	260	21
E320	1.0237	410	320	19
E370	1.0261	450	370	15
E420	1.0575	490	420	12

Le proprietà meccaniche e tecnologiche della zona di saldatura possono, nel caso di +CR1 e +A, essere diverse da quelle del materiale base.

(a) Vedi tavola di conversione dei simboli trattamenti utilizzati frequentemente.

The mechanical and technological properties in the weld seam area may differ from the material properties of +CR1 and +A tubes.

(a) See reference table of final treatment symbols commonly in use.

CARATTERISTICHE MECCANICHE A TEMPERATURA AMBIENTE PER LE CONDIZIONI +CR1, +A e +N (destinati a trattamento)

Mechanical properties at room temperature for +CR1, +A, and +N tubes (for heat treatment)

Mechanische Eigenschaften bei Raumtemperatur für Rohrzustände +CR1, +A und +N (zur Behandlung bestimmt)

Valeurs mécaniques à température ambiante pour les tubes en condition +CR1, +A et +N (tubes destinés au traitement)

Características mecánicas a temperatura ambiente para las condiciones +CR1, +A y +N (destinados a tratamiento)

Grado acciaio - Grado acciaio		+CR1 ^(b) (c)		+A ^(c)		+N		
Grade	n° Qlt	R _m MPa	A %	R _m MPa	A %	R _m MPa	ReH MPa ^(d)	A %
E155	1.0033	290	15	260	28	270÷410	155	28
E195	1.0034	330	8	290	28	300÷440	195	28
E235	1.0308	390	7	315	25	340÷480	235	25
E275	1.0225	440	6	390	21	410÷550	275	21
E355	1.0580	540	5	450	22	490÷630	355	22

(a) R_m resistenza alla trazione, ReH valore di snervamento superiore, A allungamento dopo rottura.

(b) Il valore di snervamento può essere pressoché uguale al valore della rottura in funzione del grado di calibrazione e del materiale di partenza.

A scopo di progettazione i valori di ReH ≥ 0,7 R_m sono raccomandati per la condizione +CR1.

(c) Le proprietà meccaniche e tecnologiche della zona di saldatura possono, nel caso di +CR1 e +A essere diverse da quelle del materiale base.

(d) Per tubi con un diametro ≤ 30 mm e spessore ≤ 3 mm il valore di ReH in tabella va diminuito di 10 Mpa.

(a) R_m tensile strength, ReH yield strength, A elongation at fracture.

(b) The yield strength value may almost equal the tensile strength value depending on the tube's raw material and sizing grade.

For calculation purposes yield strength values of ReH ≥ 0,7 R_m are recommended in the +CR1 condition.

(c) The mechanical and technological properties in the weld seam area may differ from the material properties of +CR1 and +A tubes.

(d) For tubes with an outside diameter ≤ 30 mm and a wall thickness ≤ 3 mm, the ReH value may be 10 Mpa lower.



COMPOSIZIONE CHIMICA PER COLATA (a)

Ladle analysis - Schmelzanalyse - Composition chimique par coulée - Composición química para colada

Grade	n° Qlt	C % max	Si % max	Mn % max	P % max	S % max
E155	1.0033	0.11				
E190	1.0031	0.10	0.35	0.70	0.025	0.025
E195	1.0034	0.15				
E220	1.0215	0.14	0.35	0.70	0.025	0.025
E235	1.0308	0.17				
E260	1.0220	0.16	0.35	1.20	0.025	0.025
E275	1.0225	0.21				
E320	1.0237	0.20	0.35	1.40	0.025	0.025
E355 (b)	1.0580	0.22				
E370 (b)	1.0261	0.21	0.55	1.60	0.025	0.025
E420 (b)	1.0575	0.16	0.5	1.70	0.025	0.025

(a) Elementi non compresi in questa tabella (vedere anche nota b)) non devono essere aggiunti intenzionalmente all'acciaio senza accordo con l'acquirente, eccetto per gli elementi per aggiustamento della colata. Tutti gli appropriati interventi devono essere presi per evitare aggiunte indesiderate mediante rottame od altri materiali utilizzati nel processo di fabbricazione dell'acciaio.

(b) Aggiunte di Nb, Ti e V sono ammesse a discrezione del produttore. Il contenuto di questi elementi deve essere riportato.

(a) Except for purposes of ladle adjustment, without buyer permission it is not allowed to add chemical elements to a given steel grade that are not reported by this table (see also note b).

All necessary countermeasures must be undertaken to exclude the presence of undesired chemical elements due to scrap or other materials used in the steel production process.

(b) Additions of Nb, Ti and V are at the discretion of the steel producer, and their respective content shall be declared.

NORME DI RIFERIMENTO PER I TUBI DA NASTRO A CALDO

Reference standards for tubes from hot-rolled strip - Produktionsnormen für Rohre aus Warmband

Normes applicables pour les tubes issus de bande LAC - Normas de referéncia para tubos de fleje en caliente

En 10305 S1 o S2	UNI 7947	Din 2394	NFA 49643	BS 6323P5	JIS 3445
E190	Fe280	-	TS30.1	ERW1	STKM11A
E220	Fe320	St34.2 Ust34.2 RSt34.2	TS30.2	ERW2	STKM12A
E260	Fe360	St37.2 Ust37.2 RSt37.2	TS34.2 TS37.2	ERW3	STKM12B
E320 E370	Fe410 Fe490	St44.2 St52.3	TS42.2 TS47.2	ERW4 ERW5	STKM12A
E420	-	-	-	-	-



DIN 1615 TUBI TONDI di acciaio non legato a requisiti particolari (per impiego generico)
DIN 1615 Round steel tubes for general purposes

Qualità Quality	Nr. qualità Nbr quality	Snervamento Re Yield strength	Resistenza Rm Tensile strength	Allungamento A ₅ Elongation	
		N/mm ²	N/mm ²	Longitudinale Longitudinal elongation	Trasversale Transversal elongation
St33	1.0035	175	290÷540	17	15

LUNGHEZZE

Lengths - Längen - Longueurs - Longitudes

I tubi vengono forniti, salvo accordi diversi all'ordine, in barre commerciali da mm 6000

Pipes are supplied in 6000 mm lengths unless otherwise specified in order

Falls nicht anders bestellt, werden die Rohre in handelsüblichen Längen von 6000 mm geliefert

Les tubes sont fournis, sauf accord contraire spécifié dans la commande, en barres marchandes de 6000mm

Los tubos se suministran, excepto acuerdo previo al pedido, en barras comerciales de 6000 mm

TOLLERANZE

Tolerances - Toleranzen - Tolérances - Tolerancias

Spessore ±10% esclusa zona di saldatura

Thickness ±10% excluding welding area

Stärke ±10% ausserhalb der Schweissnaht

Épaisseur ±10%, zone de soudure exclue

Espesor ±10%, excepto en la zona de soldadura

DIMENSIONI

Sizes - Abmessungen - Dimensions - Dimensiones

±1% della dimensione esterna (rilievo effettuato a 150 mm dall'estremità)

±1% of outside diameter (survey made at 150 mm from end)

±1% des äusseren Durchmessers (die Messung erfolgt 150 mm vom Ende)

±1% de la dimension extérieure (test effectué à 150 mm de l'extrémité)

± 1% de la dimensión exterior (medición realizada a 150 mm. del extremo)

TIPDI ACCIAI IMPIEGATI

Type of steel used - Art der verwendeten stähle - Types d'aciers utilisés - Tipos de aceros empleados

S185 (Fe310) / S235 (Fe360) / S275 (Fe430) / S355 (Fe510)

TOLLERANZA SULLA QUANTITÀ

Quantity tolerance - Mengentoleranz - Tolérance sur la quantité - Tolerancia en la cantidad

±10%

TOLLERANZA SULLA LUNGHEZZA

Length tolerance - Die Toleranz der Länge beträgt - Tolérance sur la longueur - Tolerancia en la longitud

±50mm

RAGGIO DEGLI SPIGOLI

Corner radius - Kantenradius

Rayon des arêtes - Rayo de los ángulos

Per i sagomati 3 volte lo spessore

For the shapes 3 times the wall thickness

Für geformte Teile dreimal die Stärke

Pour les profilés 3 fois l'épaisseur

Para los perfilados 3 veces el espesor



Tubi rettangolari

Rectangular tubes

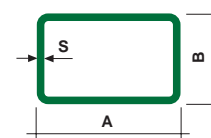
Rechteckrohre

Tubes rectangulaires

Tubos rectangulares

TUBI RETTANGOLARI Rectangular tubes

Dimensioni esterne External dimensions		Spessore - Thickness									
		1,5	1,8	2	2,5	3	4	5	6	7	8
A x B inch	A x B mm	Peso kg/m - Weight kg/m									
	20 x 10	0,647	0,763	0,839							
	20 x 15	0,758	0,897	0,986							
	25 x 10	0,758	0,897	0,986							
	25 x 15	0,869	1,030	1,140							
	25 x 20	0,980	1,260	1,280	1,570	1,850					
1" x 1/2"	25,4 x 12,7	0,832	0,986	1,080	1,320	1,550					
	30 x 10	0,869	1,030	1,114							
	30 x 15	0,980	1,163	1,281	1,573						
	30 x 20	1,120	1,340	1,480	1,810	2,140					
	30 x 25	1,240	1,470	1,630	2,000	2,370					
1 1/4" x 3/4"	31,75 x 19,05	1,120	1,340	1,480	1,810	2,140					
1 3/8" x 5/8"	34,9 x 15,8	1,120	1,340	1,480	1,810	2,140					
	35 x 10	0,980	1,160	1,280	1,570						
	35 x 15	1,120	1,340	1,480	1,810	2,140					
	35 x 20	1,240	1,470	1,630	2,000	2,370					
	35 x 25	1,350	1,610	1,780	2,190	2,590					
	35 x 30	1,490	1,780	1,970	2,430	2,880	3,750				
1 1/2" x 3/4"	38,1 x 19,05	1,270	1,510	1,670	2,060	2,370					
1 1/2" x 1"	38,1 x 25,4	1,350	1,610	1,780	2,190	2,590					
	40 x 10	1,120	1,340	1,480	1,810						
	40 x 15	1,240	1,470	1,630	2,000						
	40 x 20	1,350	1,610	1,780	2,190	2,590	3,350				
	40 x 22	1,425	1,696	1,875	2,313	2,739	3,550				
	40 x 25	1,490	1,780	1,970	2,430	2,880	3,750				
	40 x 27	1,490	1,780	1,970	2,430	2,880	3,750				
	40 x 30	1,610	1,920	2,120	2,620	3,100	4,040				
	40 x 35	1,720	2,050	2,270	2,800	3,330	4,340				
	42,5 x 29	1,610	1,920	2,120	2,620	3,100	4,040				
	45 x 10	1,240	1,470	1,630	2,000	2,370					
	45 x 15	1,350	1,610	1,780	2,190						
	45 x 20	1,490	1,780	1,970	2,430	2,880	3,750				
	45 x 25	1,610	1,920	2,120	2,620	3,100	4,040				
	45 x 30	1,720	2,050	2,270	2,800	3,330	4,340				
	45 x 35	1,830	2,180	2,410	2,990	3,550	4,630				
	45 x 40	1,940	2,310	2,560	3,170	3,770	4,930				

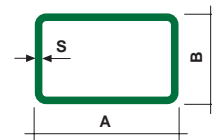


TUBI RETTANGOLARI Rectangular tubes

Dimensioni esterne External dimensions		Spessore - Thickness									
		1,5	1,8	2	2,5	3	4	5	6	7	8
A x B inch	A x B mm	Peso kg/m - Weight kg/m									
	48 x 20	1,610	1,910	2,120	2,620	3,110					
	50 x 10	1,350	1,610	1,780	2,190						
	50 x 15	1,490	1,780	1,970	2,430	2,880					
	50 x 20	1,610	1,920	2,120	2,620	3,100					
	50 x 25	1,720	2,050	2,270	2,800	3,330	4,340				
	50 x 30	1,830	2,180	2,410	2,990	3,550	4,630				
	50 x 35	1,940	2,310	2,560	3,170	3,770	4,930				
	50 x 40	2,050	2,450	2,710	3,360	3,990	5,230				
	50 x 45	2,160	2,580	2,860	3,550	4,210	5,520				
2" x 1"	50,8 x 25,4	1,720	2,050	2,270	2,800	3,330	4,340				
2" x 1 1/2"	50,8 x 38,1	2,050	2,450	2,710	3,360	3,990	5,230	6,410			
	55 x 20	1,720	2,050	2,270	2,800	3,330					
	55 x 34	2,020	2,410	2,660	3,300	3,920	5,130				
	55 x 40	2,160	2,580	2,860	3,550	4,210	5,520				
	60 x 10	1,610	1,920	2,120	2,620	3,100					
	60 x 15	1,720	2,050	2,270	2,800	3,330					
	60 x 20	1,830	2,180	2,410	2,990	3,550	4,630				
	60 x 25	1,940	2,310	2,560	3,170	3,770	4,930				
	60 x 30	2,050	2,450	2,710	3,360	3,990	5,230				
	60 x 34	2,130	2,540	2,810	3,480	4,140	5,430				
	60 x 35	2,160	2,580	2,860	3,550	4,210	5,520				
	60 x 40	2,270	2,710	3,010	3,730	4,440	5,820	7,150			
	60 x 45	2,350	2,800	3,100	3,850	4,580	6,020	7,400			
	60 x 50	2,530	3,030	3,350	4,160	4,960	6,510	8,010			
2 1/2" x 1 1/2"	63,5 x 38,1	2,350	2,800	3,100	3,850	4,440	5,820	7,150			
	65 x 35	2,270	2,710	3,010	3,730	4,440	5,820				
	70 x 15	1,940	2,310	2,560	3,170	3,770	4,930				
	70 x 20	2,050	2,450	2,710	3,360	3,990	5,230				
	70 x 25	2,160	2,580	2,860	3,550	4,210	5,520				
	70 x 30	2,270	2,710	3,010	3,730	4,440	5,820				
	70 x 35	2,390	2,850	3,160	3,920	4,660	6,120				
	70 x 40	2,530	3,030	3,350	4,160	4,960	6,510	8,010			
	70 x 50	2,750	3,290	3,650	4,530	5,400	7,100	8,750			
	75 x 50	2,900	3,470	3,850	4,780	5,700	7,500				
	76 x 34	2,530	3,030	3,350	4,160	4,960					

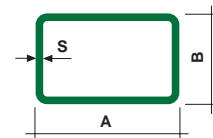
TUBI RETTANGOLARI Rectangular tubes

Dimensioni esterne External dimensions		Spessore - Thickness									
		1,5	1,8	2	2,5	3	4	5	6	7	8
A x B inch	A x B mm	Peso kg/m - Weight kg/m									
	76 x 55	3,010	3,600	3,990	4,960	5,920	7,800				
3" x 1"	76,2 x 25,4	2,270	2,710	3,010	3,730	4,440	5,820	7,150			
3" x 1½"	76,2 x 38,1	2,530	3,030	3,350	4,160	4,960	6,510	8,010			
3" x 2"	76,2 x 50,8	2,906	3,473	3,849	4,410	4,781	5,150	5,700			
	80 x 15	2,160	2,580	2,860	3,550						
	80 x 20	2,270	2,710	3,010	3,730	4,440					
	80 x 25	2,350	2,800	3,100	3,850	4,580	6,020				
	80 x 30	2,530	3,030	3,350	4,160	4,960	6,510				
	80 x 35	2,640	3,160	3,500	4,340	5,180	6,810	8,380			
	80 x 40	2,750	3,290	3,650	4,530	5,400	7,100	8,750			
	80 x 45	2,900	3,470	3,850	4,780	5,700	7,500	9,250			
	80 x 50	3,010	3,600	3,990	4,960	5,920	7,800	9,620			
	80 x 60	3,230	3,870	4,290	5,330	6,360	8,390	10,360	12,280		
	83 x 37	2,750	3,290	3,650	4,530	5,400	7,100				
	86 x 46	3,017	3,607	3,998	4,580	4,996	5,350	9,922			
3½" x 1½"	88,9 x 38,1	2,906	3,473	3,849	4,410	4,781	5,150	5,700			
	90 x 20	2,530	3,030	3,350	4,160	4,960					
	90 x 30	2,750	3,290	3,650	4,530	5,400	7,100				
	90 x 40	3,010	3,600	3,990	4,960	5,920	7,800	9,620	11,400		
	90 x 50	3,230	3,870	4,290	5,330	6,360	8,390	10,360	12,280		
	90 x 60			4,590	5,710	6,810	8,980	11,100	13,170		
	90 x 70			4,930	6,130	7,320	9,670	11,960	14,210		
	100 x 20	2,750	3,290	3,650	4,530	5,400	7,100				
	100 x 25	2,900	3,470	3,850	4,780	5,700	7,500				
	100 x 30	3,010	3,600	3,990	4,970	5,920	7,800				
	100 x 35 b.t.	3,230	3,870	4,290	5,330	6,360	8,390				
	100 x 40	3,230	3,870	4,290	5,330	6,360	8,390	10,860	12,280		
	100 x 50			4,590	5,700	6,810	8,980	11,100	13,170		
	100 x 60			4,930	6,130	7,320	9,670	11,960	14,120		
	100 x 70			5,230	6,500	7,770	10,260	12,700	15,100		
	100 x 80			5,520	6,870	8,210	10,900	13,440	15,990	18,480	
4" x 2"	101,6 x 50,8		4,140	4,590	5,700	6,810	8,980	11,100	13,700		
4" x 3"	101,6 x 76,2		4,717	5,231	6,508	7,772	10,265	12,708	14,210		
	103 x 87			4,290	5,330	6,360	8,390				
	106 x 34	3,230	3,870	4,290	5,330	6,360	8,390				



TUBI RETTANGOLARI Rectangular tubes

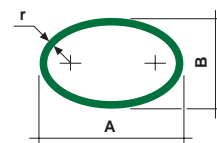
Dimensioni esterne External dimensions		Spessore - Thickness									
		1,5	1,8	2	2,5	3	4	5	6	7	8
A x B inch	A x B mm	Peso kg/m - Weight kg/m									
	110 x 30			4,290	5,330	6,360	8,390				
	110 x 50			4,930	6,130	7,320	9,670	11,960	14,210		
	120 x 30			4,590	5,700	6,810	8,980				
	120 x 40			4,930	6,130	7,320	9,670	11,960	14,210		
	120 x 50			5,260	6,500	7,770	10,260	12,700	15,100		
	120 x 60			5,520	6,870	8,210	10,900	13,440	15,990	18,450	
	120 x 80			6,160	7,680	9,170	12,140	15,020	17,910	20,720	
	120 x 100				8,460	10,110	13,390	16,530	19,690		
	126 x 34			4,930	6,140	7,330	9,670	11,970			
5" x 2"	127 x 50,8			5,231	6,508	7,772	10,265	12,708	14,210		
5" x 3"	127 x 76,2			6,160	7,680	9,170	12,140	15,050	17,020	19,690	
	130 x 50			5,520	6,870	8,210	10,900	13,440	15,990		
	130 x 60			5,870	7,310	8,730	11,540	14,310	17,020	19,600	
	140 x 40			5,520	6,870	8,210	10,900	13,440	15,990		
	140 x 50			5,870	7,310	8,730	11,540	14,310	17,020	19,600	
	140 x 60			6,160	7,680	9,170	12,140	15,020	17,910	20,720	
	140 x 70				8,650	9,620	12,730	15,790	18,800	21,760	
	140 x 80				8,460	10,110	13,390	16,530	19,690	22,800	
	140 x 100					11,030	14,610	18,140	21,610	25,050	28,620
4" x 2"	150 x 30			5,530	6,880	8,220	10,860	13,450			
4" x 3"	150 x 40			5,870	7,310	8,730	11,540	14,310	17,020		
	150 x 50			6,160	7,680	9,170	12,140	15,050	17,910		
	150 x 60				8,650	9,620	12,730	15,790	18,800	21,760	
	150 x 75				8,420	10,060	13,320	16,530	19,690	22,800	
	150 x 100					11,500	15,300	19,000	22,650	26,250	29,810
6" x 2"	152,4 x 50,8			6,160	7,680	9,170	12,140	15,050	17,910	20,720	
6" x 3"	152,4 x 76,2				8,540	10,210	13,520	16,770	19,980		
6" x 4"	152,4 x 101,6				9,220	11,030	14,610	18,140	21,610	25,050	
	160 x 50				8,650	9,620	12,730	15,790	18,800	21,760	
	160 x 60				8,420	10,060	13,320	16,530	19,690	22,800	
	160 x 80					11,050	14,640	18,190	21,610	25,050	28,430
	160 x 90					11,540	15,290	19,000	22,650	26,250	29,810
	160 x 100					12,230	16,210	20,140	24,020	27,810	31,590
	160 x 120					12,580	16,670	20,720	24,710	28,660	32,550
	180 x 60					11,050	14,640	18,190	21,610	25,050	28,490



TUBI RETTANGOLARI Rectangular tubes

Dimensioni esterne External dimensions		Spessore - Thickness									
A x B inch		Peso kg/m - Weight kg/m									
A x B mm		1,5	1,8	2	2,5	3	4	5	6	7	8
	180 x 80					12,230	16,210	20,140	24,020	27,810	31,590
	180 x 100					12,580	16,670	20,720	24,710	28,660	32,550
	200 x 70					11,990	15,880	19,730	23,530	27,280	30,970
	200 x 80					12,230	16,210	20,140	24,020	27,810	31,590
	200 x 100					14,100	18,720	23,280	27,790	32,250	36,660
	200 x 150					15,990	21,230	26,410	31,550	36,630	41,670
8" x 4"	203,2 x 101,6					14,120	18,720	23,280	27,790	32,250	36,660
	230 x 80					14,107	18,630	23,065	27,411	31,667	35,834
	250 x 100					15,990	21,230	26,410	31,550	36,630	41,670
	250 x 150					18,530	24,610	30,640	36,620	42,550	48,440
	300 x 100					18,530	24,610	30,640	36,620	42,550	48,440
	300 x 150					20,860	27,720	34,530	41,280	47,990	54,650
	300 x 200							38,470	46,020	53,520	60,960
	350 x 150							38,470	46,020	53,520	60,960
	400 x 200							46,360	55,490	64,560	73,590
	400 x 250							50,310	60,220	70,090	79,900

Tubi ellittici Elliptical tubes Elliptische Rohre Tubes elliptiques Tubos elípticos



TUBI ELLITTICI Elliptical tubes

Dimensioni esterne External dimensions		Spessore - Thickness					
A x B mm		Peso kg/m - Weight kg/m					
		1,5	1,8	2	2,5	3	3,7
	73 x 46	2,165	2,585	2,862	3,547	4,219	
	93,5 x 59	2,646	3,162	3,504	4,349	5,182	
	165 x 125						13,2