

# Production of small diameter and thickness stainless steel tubes



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Part of the CSM GROUP, **CSM TUBE has its** production sites in Italy, the United States, **Brazil and a sales office** in Germany.

# A world leader in the **PRODUCTION** of small diameter and thickness **STAINLESS STEEL TUBES.**

CSM TUBE produces welded stainless steel tubes, with and without heat treatment, in a controlled atmosphere, either in straightened and cut-to-length bars in lengths up to 20 meters, or in coils up to 2000 meters in length.

The tubes produced have diameters ranging from 5.00 mm to 32.00 mm and thicknesses ranging from 0.30 mm to 2.00 mm. Meeting the highest international quality standards, CSM TUBE produces OVER 70 million meters of tube per year.



**Key strengths:** 



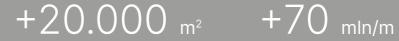
**Highly specialized** personnel







**Certified quality of** stainless steel tubes **CSM TUBE in numbers:** 



grounds

in production capacity



countries we export to

### Set **NEW STANDARDS** in the **PRODUCTION OF STAINLESS STEEL TUBES.**

CSM TUBE, thanks to ongoing competitiveness and technological innovation, has diversified its product range and increased its production capacity, becoming a market leader.

**Product types:** 

#### This is what CSM TUBE offers:

- Dimensional tolerances in conformity with EN 10217-7 and ISO 1127, D4, T3 standards.
- Delivery conditions W0, W2R, W2Rb.
- Mechanical properties in accordance with EN10217-7 and ASTM A269 - A249.
- Roll tube wrapped in coils of lengths up to 2000m and tested at pressures up to 70 bar.

\*Special tolerances and specific tests upon request



**Marking** All tubes are marked in accordance with current regulations.





## **PRODUCT RANGE**

Diameter						Thickne	ess (mm)					Dian	Diameter Thickness (mm) m inch 0,30 0,40 0,50 0,60 0,70 0,80 0,90 1,00 1,20 1,50 1,65 2,0												
mm	inch	0,30	0,40	0,50	0,60	0,70	0,80	0,90	1,00	1,20	1,50	mm	inch	0,30	0,40	0,50	0,60	0,70	0,80	0,90	1,00	1,20	1,50	1,65	2,00
5,00		•	•	•	•							15,00		•	•	•	•	•	•	•	•	•	•		
5,20		•	•	•	•							15,50		•	•	•	•	•	•	•	•	•	•		
5,35		•	•	•	•	•						15,70		•	•	•	•	•	•	•	•	•	•		
6,00		•	•	•	•	•	•	•	•			15,88	5/8"	•	•	•	•	•	•	•	•	•	•	•	
6,35	1/4"	•	•	•	•	•	•	•	•			16,00		•	•	•	•	•	•	•	•	•	•	•	
6,60		•	•	•	•		•	•	•			17,00			•	•	•	•	•	•	•	•	•	•	
7,00		•	•	•	•	•	•	•	•			17,40			•	•	•	•	•	•	•	•	•	•	
7,20		•	•	•	•	•	•	•	•			18,00			•	•	•	•	•	•	•	•	•	•	
7,50		•	•	•	•	•	•	•	•			19,00			•	•	•	•	•	•	•	•	•	•	
8,00		•	•	•	•	•	•	•	•			19,05	3/4"		•	•	•	•	•	•	•	•	•	•	
8,50		•	•	•	•	•	•	•	•			19,30			•	•	•	•	•	•	•	•	•	•	
9,50	3/8"	•	•	•	•	•	•	•	•			19,50			•	•	•	•	•	•	•	•	•	•	
9,53		•	•	•	•	•	•	•	•			19,70			•	•	•	٠	•	•	•	•	•	•	
9,90		•	•	•	•	•	•	•	•			20,00			•	•	•	٠	•	•	•	•	•	•	•
10,00		•	•	•	•	•	•	•	•	•	•	21,00				•	•	•	•	•	•	•	•	•	•
10,50		•	•	•	•	•	•	•	•	•	•	21,30				•	•	•	•	•	•	•	•	•	•
10,80		•	•	•	•	•	•	•	•	•	•	21,60				•	•	•	•	•	•	•	•	•	•
11,00		•	•	•	•	•	•	•	•	•	•	22,00				•	•	•	•	•	•	•	•	•	•
11,20		•	•	•	•	•	•	•	•	•	•	22,22	7/8"			•	•	•	•	•	•	•	•	•	•
11,50		•	•	•	•	•	•	•	•	•	•	23,00				•	•	•	•	•	•	•	•	•	•
11,80		•	•	•	•	•	•	•	•	•	•	24,00				•	•	•	•	•	•	•	•	•	•
12,00		•	•	•	•	•	•	•	•	•	•	25,00	1"			•	•	•	•	•	•	•	•	•	•
12,70	1/2"	•	•	•	•	•	•	•	•	•	•	25,40				•	•	•	•	•	•	•	•	•	•
13,00		•	•	•	•	•	•	•	•	•	•	26,00				•	•	٠	•	•	•	•	•	•	•
13,20		•	•	•	•	•	•	•	•	•	•	26,90					•	٠	•	•	•	•	•	•	•
13,50		•	•	•	•	•	•	•	•	•	•	27,00					•	•	•	•	•	•	•	•	•
13,80		•	•	•	•	•	•	•	•	•	•	28,00					•	•	•	•	•	•	•	•	•
14,00		•	•	•	•	•	•	•	•	•	•	30,00					•	•	•	•	•	•	•	•	•
14,30		•	•	•	•	•	•	•	•	•	•	31,75	1-1/4"				•	•	•	•	•	•	•	•	•
14,50		•	•	•	•	•	•	•	•	•	•	32,00					•	٠		•	•	•	•	•	•



We are able to provide HEAT TREATED tube, the treatment is made with an "in line" induction oven working at 1050°C, working in a protected atmosphere above the re-crystallization temperature.

#### Available alloys

# **WIDE RANGE** of applications for **ENDLESS PARTNERSHIPS.**

All	oys						C	hemical com				
EN	ASTM	C% max	Si%	Mn% max	P% max	S% max	N%	Cr%	Cu%	Mo%	Ni%	Others
							AUSTE	NITIC				
1.4301	TP 304	0,070	<1,00	2,00	0,045	0,015		18-19,5			8-10,5	
1.4306		0,030	<1,00	2,00	0,045	0,015	<0,1	18-20			10-12	
1.4307	TP 304L	0,030	<1,00	2,00	0,045	0,015		18-19,5			8-10,5	
1.4541	TP 321	0,080	<1,00	2,00	0,045	0,015		17-19			9-12	Ti: 5*C%-0,70
1.4404	TP 316L	0,030	<1,00	2,00	0,045	0,015	<0,1	16,5-18		2-2,5	10-13	
1.4571		0,080	<1,00	2,00	0,045	0,015		16,5-18,5		2-2,5	10,5- 13,5	Ti: 5*C%-0,70
1.4828	(TP 309)	0,200	1,5-2,5	2,00	0,045	0,015	<0,11	19-21			11-13	
1.4833	TP 309S	0,080	<1,00	2,00	0,045	0,015	<0,11	22-24			12-14	

\*(TP 309) Not normed in ASTM tables

Alle	oys		Chemical composition													
EN	ASTM	C% max	Si%	Mn% max	P% max	S% max	N%	Cr%	Cu%	Mo%	Ni%	Others				
							FERRI	TIC								
1.4512	TP 409	0,030	<1,00	1,00	0,040	0,015	<0,03	10,5-11,7								
1.4510	TP 439	0,050	<1,00	1,00	0,040	0,015		16-18				4*(C%+N%)+0,15 <ti<0,80< th=""></ti<0,80<>				
1.4509	(TP 441)	0,030	<1,00	1,00	0,040	0,015		17,5-18,5				"3*C%+0,3 <nb<1 0,10<ti<0,69"< th=""></ti<0,69"<></nb<1 				
1.4521	TP 444	0,025	<1,00	1,00	0,040	0,015	<0,03	17-20		1,8-2,5		4*(C%+N%)+0,15 <ti<0,80< td=""></ti<0,80<>				

\*(TP 441) Not normed in ASTM tables

Alle	oys						C					
EN	ASTM	C% max	Si%	Mn% max	P% max	S% max	N%	Cr%	Cu%	Mo%	Ni%	Others
							NICHEL A	LLOYS				
1.4876	800	0,100	1,00	1,50	0,045	0,015		19-23	0-0,75		30-35	"0,15 <al<0,60 0,15<ti<0,60"< td=""></ti<0,60"<></al<0,60 
1.4847	840	0,080	1,00	1,00	0,030	0,015		18-22			18-22	Al<0,6; Ti<0,6
2.4858	825	0,050	0,50	1,00		0,030		19,5-23,5	1,5-3	2,5-3,5	38-46	0,6 <ti<1,2 ;="" al<0,2<="" td=""></ti<1,2>
2.4816	600	0,150	0,50	1,00		0,015		14-17	<0,5		>72	
2.4851	601	0,03-0,1	0,5	1	0,02	0,015		21-25	<0,5		58-63	1 <al<1,7; td="" ti<0,5<=""></al<1,7;>

answer to all their needs with the highest

Our products are used in many industries including:





Food and beverage





Energy

### We believe that **INVESTING IN** QUALITY IS the KEY TO FUTURE SUCCESS.

**Corporate integrity and quality:** an unbreakable bond for excellence.



Our Quality Control Center continuously monitors and controls every phase of the stainless steel tube production process. It consists of a team of highly specialized technicians who receive ongoing training and advanced testing

equipment that checks product compliance 24 hours a day, 7 days a week. The goal is to provide customers with a reliable product that meets their specific needs.

О

**Optimization of** 

production processes

#### **Non-destructive testing**





Eddy Current Test

Penetrant liquid test





Micrographic analysis

#### **Destructive test**





Flattening test

Expansion test

#### **Mechanical tests**





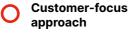
Tensile test

Effectiveness, Ο efficiency and data analysis

Production

excellence

Ο



Employee

growth

CSM TUBE's "Quality Policies" focus on the following topics:

Ο

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Roughness measurement









### "TRANSFORMING" TUBES for **ALL YOUR PROJECTS**.



### CSM TUBE and CSM **TRANSFORMING: together to offer** a complete service from tube production to processing.

The tubes produced by CSM TUBE can be custom processed by CSM TRANSFORMING and transformed into components to be assembled into the final product, such as heat exchangers, motors, coffee machines, boilers, solar collectors, etc.

#### **CSM TRANSFORMING's specialties:**

- Precision cutting
- Drilling
- Forming
- Bending
- Profiling
- Milling
- Curving
- Hammering
- Edge workings





Customization and innovation, quality and reliability are the keywords of this service that, starting from a specific request, allows for a shorter supply chain and reduced operating costs.



### SAFETY, ETHICS and **ENVIRONMENTAL AWARENESS,** our SUSTAINABLE BUSINESS model.

At CSM TUBE we believe that being a market leader also means being a fair and sustainable company. For this reason, we have identified three pillars on the road to sustainability: safety, ethics and environmental awareness.

#### Social policies and local initiatives

Inheriting the legacy passed down by founder Giorgio Trolese in support of sports and youth, we support numerous local sport initiatives and organizations dedicated to cancer and health.

#### Safetv

01

02

03

04

We protect people in the workplace with a man-forklift anti-collision system, with defibrillators located in designated places, and with significant investments in cybersecurity.

#### **Environmental awareness**

This is evident in the numerous energy efficiency measures and carbon footprint reduction efforts, such as the new 600 kWp solar photovoltaic system (13% of electricity self-produced in 2024), the reuse of packaging (49%), the new high-efficiency cooling system with heat recovery for heating, and the promotion of Carpooling for employees. All of these initiatives are aimed at reducing CO2 emissions.

#### Ethics

This is represented by our code of ethics, a guide to adopt transparent and correct behaviors towards colleagues, customers, suppliers, authorities and all the entities we come in contact with.

With concrete and shared actions, we commit to generating a positive and lasting impact in the community.

#### **People First**

Every day, we are committed to fostering strong and lasting relationships within our companies through the creation of a collaborative, professionally stimulating, inclusive, and safe work environment.



We do this with continuous training programs and career opportunities in Italy and abroad to enhance and develop the skills of our staff, because every member of our team is an integral part of the company's and the group's success.

### QUALITY, HEALTH, SAFETY, and **ENVIRONMENT**: our certifications.



#### **Building a sustainable future** together starting with the level of service we provide.

From work safety to environmental management, each certification we have achieved is a demonstration of our **commitment to maintaining** 

- 14001:2015
- Annex I, Section 4.3



# The strength of a cohesive Group to create stainless bonds.



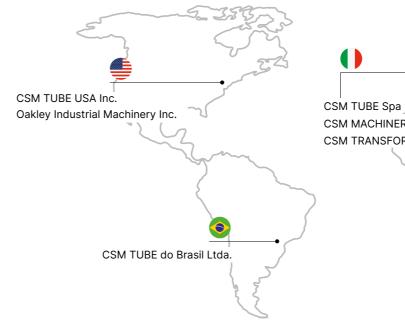
**CSM TUBE** is one of the 7 companies of **CSM GROUP**. The unbreakable bond between the company and the Group is characterized by the **synergy between technology and quality** to streamline the supply chain and reduce operating and production costs.

CSM GROUP was founded **over 40 years ago** with the ambition to bring innovation and excellence to the construction of machinery and the production of stainless steel tubes. **The seven companies that belong to the Group** allow to best serve each market segment with readiness and in short period of time.

#### 7 companies worldwide

#### 40+ years of growth

### 200+ employees





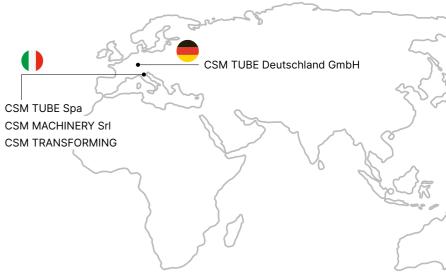


Production of small diameter and thickness stainless steel tubes.



Machinery for the production of heating elements and stainless steel tubes.

### **CSM GROUP**





Custom tube processing for tailormade solutions.



Manufacture of terminal pins and machinery for the production of heating elements.



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