



Precision Tubes

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Milestones





2014	Houston OCTG Plant started production, Texas
2011	Gemlik HSAW Pipe Plant started production, Bursa
2009	Borusan Port expansion completed
2004	The company name is amended as “Borusan Mannesmann”
2001	Acquistion of cold drawn pipe plant in Vobarno, Italy
1998	Borusan and Mannesmann merged their pipe business activities in Turkey
1994	Borusan Pipe quoted on İstanbul Stock Exchange
1979	Borusan Port inagurated
1976	Gemlik ERW Pipe Plant started production, Bursa
1969	First exports
1968	Halkalı ERW Pipe Plant started production, İstanbul
1958	Borusan Pipe was founded
1944	Foundation of Borusan







Borusan Holding at a Glance


In 4 major business areas,with 9.500 dedicated employees...

Borusan Group has been among the pioneers of industrialization and corporate governance in Turkey throughout its 75 years of history. The group currently operates in four major business areas including steel, distributorship, logistics and energy. In 2006 Borusan Group signed the United Nations' Global Compact Policy and it supports and adheres by the principles of "good corporate governance" and "sustainability" as a prerequisite component for long-term and permanent success.

Steel	
The Pipe Group	The Flat Steel Group
Borusan Mannesmann Borusan Engineering Borusan İstikbal Trading	Borçelik

Partners	
	

Distributorship	
The Earth Moving Equipments Group	The Automotive Group
Borusan CAT	Borusan Oto & Otomotiv Supsan Engine Valves Manheim Turkey
	    

Partners	
	  

Logistics	
Borusan Logistics Borusan Logistics International	

Energy	
Borusan EnBW Energy	
Partners	
	

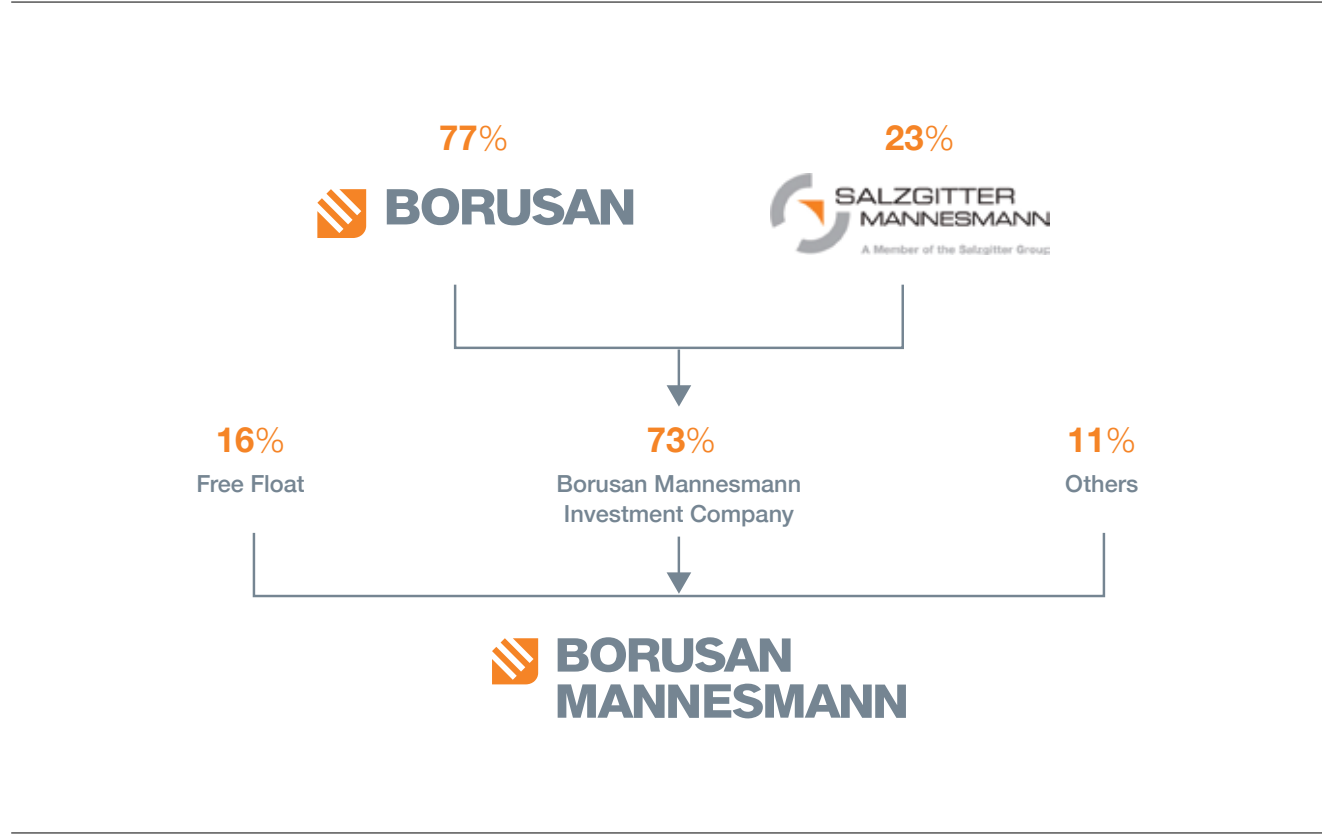
Borusan Mannesmann In Brief

“Celebrating its 60th anniversary, Borusan Mannesmann is among the leading manufacturer of steel pipes in the world with its 1.4 million tons of annual production capacity.”

Steel pipe manufacturing is the core business of the Borusan Group, a conglomerate made up of 15 companies spread over four different industries; steel, distributorship, logistics and energy with around 7 billion USD turnover and more than 9.500 employees. Borusan Mannesmann currently continues its production activities with its 6 facilities in 3 different countries in Turkey, Italy and USA.

The company's product range includes; water pipes, oil and gas line pipes, industrial pipes and profiles, installation pipes, OCTG pipes and hollow sections. Borusan Mannesmann has wide experience and range of track records in oil and gas pipeline projects both in domestic and international markets with high grade API standards.

A dynamic, highly qualified staff, regularly trained to keep abreast of new manufacturing and management, ensure that production conforms to exacting quality standards. Borusan Mannesmann has become the standard-bearer for trust and quality in the sector by bringing added value to products and services with 1.700 highly qualified employees and the continuously improving work force.



6 Facilities In 3 Continents

USA / Texas	Italy	Turkey			
Houston Plant	Vobarno Plant	Gemlik ERW Pipe Plant	Gemlik HSAW Pipe Plant	Halkalı Plant	Bursa Service Center
Sectors served: Energy Sector	Sectors served: Engineering Technologies	Sectors served: Energy, Construction, Water Transmission	Sectors served: Energy, Construction, Water Transmission	Sectors served: Engineering Technologies	Sectors served: Automotive
Capacity : 300 kton	Capacity : 30 kton	Capacity : 650 kton	Capacity : 300 kton	Capacity : 100 kton	Capacity : 20 million piece/year
Workforce : 300	Workforce : 90	Workforce : 750	Workforce : 140	Workforce : 450	Workforce : 60
Area : 500.000 m²	Area : 24.000 m²	Area : 388.000 m²	Area : 70.000 m²	Area : 67.000 m²	Area : 10.000 m²



Your Total Solution Provider; Borusan Mannesmann



Exceeding Limits with Continuous R&D

R&D is a joint activity embracing almost all departments within the company for advanced product quality. In Borusan Mannesmann, R&D means developing new products as well as launching new technologies concerning precision tube making. This twofold meaning leads the staff to a broad understanding of development activities that involve both the search for advanced products and the search for the improvement of production and process control technologies.

Borusan Mannesmann conducts joint projects together with raw material suppliers in developing special materials to meet the requirements of the production processes towards the production of tubes to specific customer requirements. Those projects involve many aspects of raw material in a broad scope from selection of chemical analysis to specifying rolling schedules. Parties collaborate in performing trial productions and trouble shooting activities to maintain excellence in product and process design and implementation to the best possible extent.

Technical training is considered as the major part of the whole activity. Training involves steel making and tube making technologies, implementation of defect analysis, process control techniques, quality improvement team works, reengineering of processes, automation in production, management information systems.

In Borusan Mannesmann, we value and pursue “continuous improvement.” As a company that embraces Lean 6 Sigma methodology; launching breakthrough technologies, improving production and process control steps, is a part of our daily life.

VOC- Most Valuable Driving Force

Borusan Mannesmann has been capturing the requirements and feedbacks of our customers to provide the best product and service quality. We have been applying VOC- Voice of Customer process since 2003. Guiding our customers and delivering synergetic solutions in the most cost effective way is a consistent discipline in Borusan Mannesmann. We aim to compose special recipes for special market needs. This approach leads us to go beyond ourselves and present valuable services for our customers.

Well Established Sales Organization

There is no limit of the human potential. Success brings the desire to achieve more. Having a principle of ‘being one step ahead’, our talented workforce is dedicated to achieve a high level of customer service. Our sales organization consists of the experts of their fields, both in planning, sales and trade operations. And also our professional local representatives in your country are among the best of “highly qualified distributors”. We provide the best solutions; in your country, in your language with best people.

QEHS Management

Borusan Group companies all share a common set of guiding principles, which help this vast enterprise to operate in complete harmony. These principles are commitments to productivity, innovation and environmental responsibility.

With its modern management approach, supported by TS 16949 Automotive Quality Management System Certificate and Lean Six Sigma methodology, Borusan Mannesmann provides products to meet customers’ high quality expectations with high efficiency and Just-in-time delivery.

The Lean Six Sigma is a highly disciplined business management methodology that seeks to remove the causes of defects in production and business processes, and to continuously improve productivity and customer satisfaction as well as a guide to innovation.

Besides, with the VOC system, we capture the requirements and feedback from our customers to provide the best product and service quality.

From raw material to finished product, Borusan Mannesmann determines the impacts on environment and in order to reduce impacts, controls each step of the process. Our Environmental Management System Certificate (ISO 14001) proves our commitment to environment. In addition all products of Borusan Mannesmann are produced in accordance with REACH regulation.

Stable high performance can only be delivered through healthy people. In compliance with Occupational Health and Safety Management Systems Certificate (OHSAS 18001) Borusan Mannesmann endeavors to protect health and safety of its work force and service providers.

With its ongoing efforts to improve customer satisfaction, Borusan Mannesmann is awarded with ISO 10002, Complaints Handling Management Systems Certificate; which is a first in global steel pipe sector.

Quality System Certificates



Quality Management Certificates

- ISO / TS 16949
- ISO 9001
- ISO 14001
- ISO 10002
- OHSAS 18001





Standards & Certificates

Production Standards

Welded Cold Sized Tubes	: EN 10305-3
Welded Cold Drawn Tubes	: EN 10305-2
Welded Cold Sized Square and Rectangular Tubes	: EN 10305-5

Note: Other standards such as ASTM A513, JIS G 3445 etc. upon request

Steel Grades

Structural Steels	: E235, E275, E355
DQ Steels	: DC01, DC03, DC04
HSLA Steels	: S315MC, S355MC, S420MC, S460MC, S500MC, S550MC, S600MC, S700MC
Dual Phase Steels	: DP500, DP600, DP800
Heat Treatable Steels	: 20MnB5, 22MnB5, 26MnB5, 30MnB5, 34MnB5
Coated (Galvanized, aluminized) Steels	: DX51, DX52, DX53, S220, S350

Note: Other grades upon request

Tests & Inspections

- | | |
|----------------------------------|-----------------------------------|
| • Visual Examination | • Hardness Testing (HV, HRB, HRC) |
| • Dimensional Inspection | • Ultrasonic Testing |
| • Metallographic Inspection | • Flanging Test |
| • Tensile Test | • Chemical Analysis |
| • Drift Expanding / Flaring Test | • Eddy Current Testing |
| • Flattening Test | • Surface Roughness Measurement |

Inspection Documents

MTC (Mill Test Certificates) acc. to EN 10204 3.1; 2.2

Automotive Tubes



Door Impact Beams



Tie Rod Tubes



Cardan Shaft Tubes



Steering Column Tubes



Head Rest Tubes



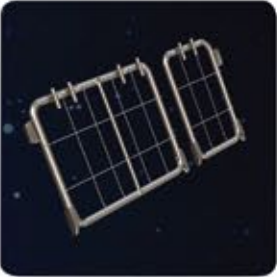
Exhaust Tubes



Shock Absorber Tubes



Cross Car Beams



Rear Seat Back Frame Tubes

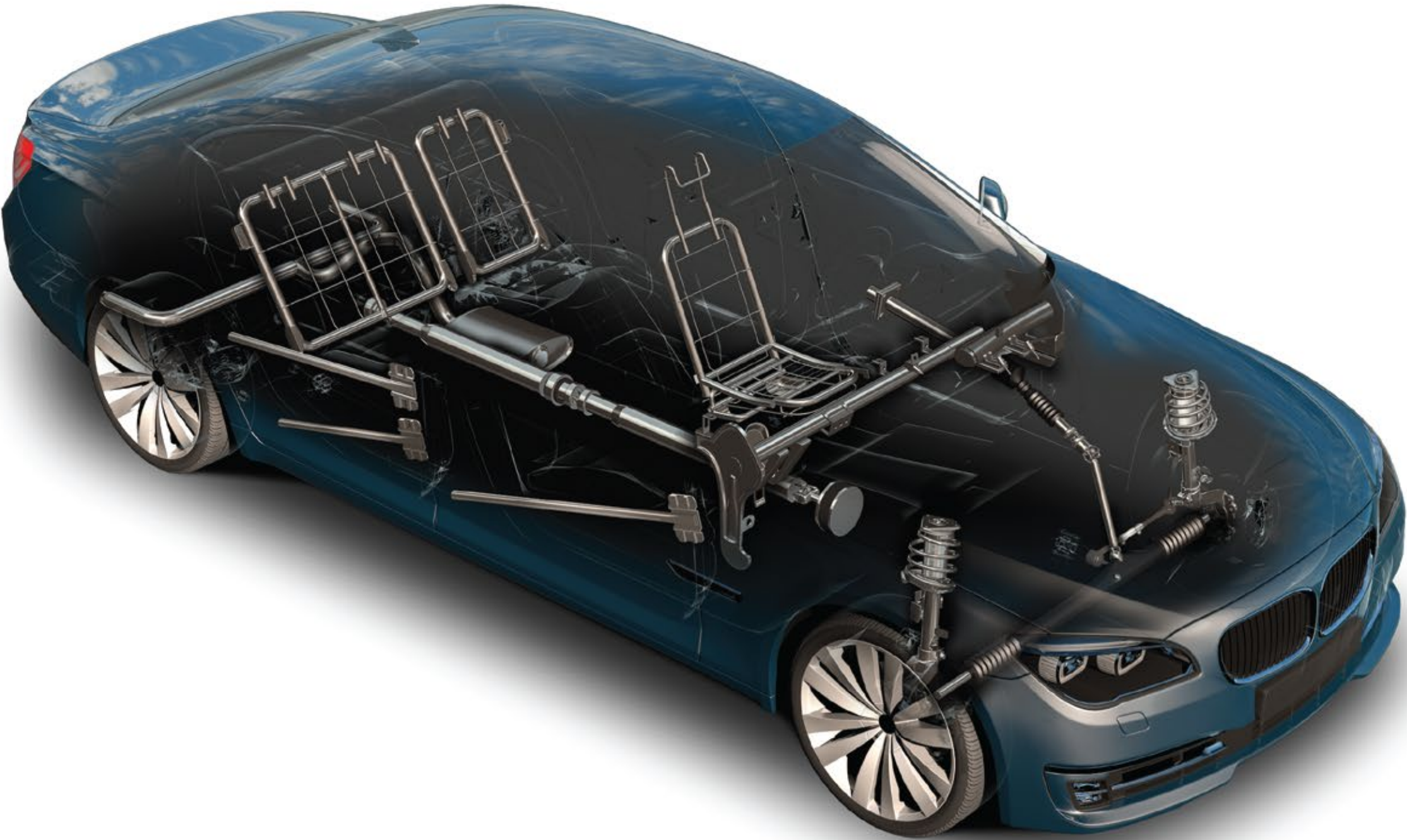


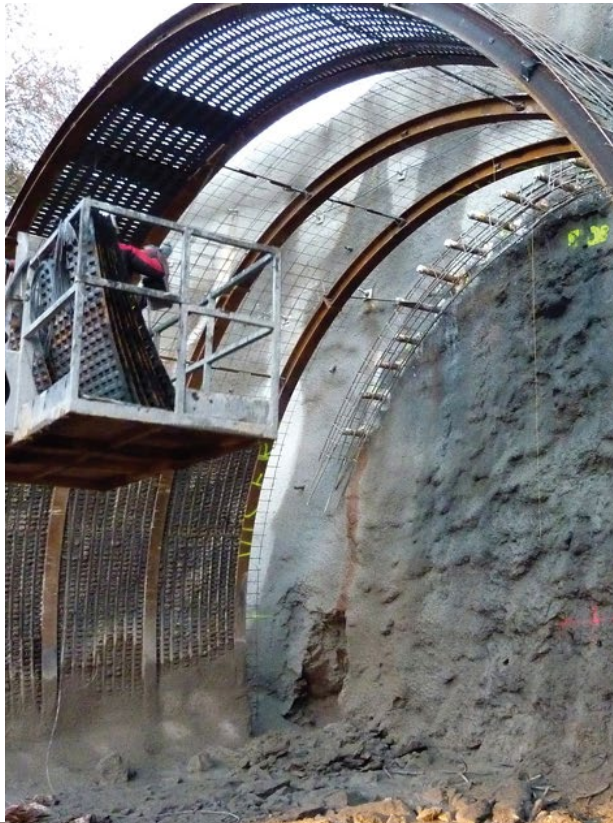
Front Seat Frame Tubes

Borusan Mannesmann is a highly recognized manufacturer for its product and service quality in automotive industry.

Our plants, one in Vobarno-Italy and one in Halkali-Turkey are specialized in production of value added precision tubes that are used in crucial parts of vehicles. Working together; our sales, quality and design teams manage all kinds of technical, schematic inquiries and response our customers with custom made solutions.

As a reliable supplier of automotive sector for years Borusan Mannesmann's products are commonly used in; shock absorbers, cardan shafts, exhausts, gas springs, car&bus seat frames, head rests, door impact beams, cross car beams, steering columns and tie rods.





Industrial Applications

Special Industries, Requires Special Suppliers

Borusan Mannesmann's wide production range in precision business, enables company to serve in various kinds of industries ranging from hydraulic cylinder and design elements to furniture and home appliances. We're proud of being a preferred supplier of these industries for years with our delicate approach in meeting the most stringent customer requirements.

Welded Cold Sized Square and Rectangular Tubes for Precision Applications

Side Length		Wall Thickness (mm)									
		0,8	0,9	1,00	1,20	1,50	2,00	2,50	3,00	3,50	4,00
8	x 20										
10	x 10										
10	x 15										
10	x 18										
10	x 20										
10	x 25										
10	x 30										
10	x 33										
10	x 35										
10	x 40										
10	x 50										
12,7	x 12,7										
15	x 15										
15	x 20										
15	x 25										
21	x 21										
15	x 30										
15	x 35										
15	x 40										
15	x 50										
16	x 16										
17	x 21										
17	x 35										
18	x 18										
18	x 30										
19	x 19										
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20	x 25										
20	x 30										
20	x 35										
20	x 40										
20	x 45										
20	x 50										
20	x 55										
20	x 80										
20	x 60										
23	x 30										
25	x 25										
25,4	x 25,4										
25,4	x 50,8										
25	x 30										
25	x 35										
25	x 40										
25	x 45										
25	x 50										
25	x 55										
25	x 60										
27	x 27										
30	x 30										
30	x 35										
30	x 40										
30	x 45										
30	x 50										
30	x 60										
30	x 70										
30	x 80										
30	x 90										
32	x 32										
32	x 60										
33	x 60										
35	x 35										
35	x 40										
35	x 45										
35	x 50										
35	x 75										
38	x 38										
40	x 40										
40	x 50										
40	x 60										
40	x 70										
40	x 80										
44,5	x 44,5										
45	x 45										
50	x 50										
50	x 60										
50	x 80										
50,8	x 50,8										
60	60										

Welded Cold Sized Square and Rectangular Tubes (EN 10305-5)

Please contact our sales department for intermediate sizes and other shapes such as oval, flat oval etc.

Delivery Conditions:

- + CR1 : Welded and cold sized, suitable for final annealing
- + CR2 : Welded and cold sized, not intended for heat treatment
- + N : Normalized
- + A : Annealed

ASTM A 513 Mechanical Tubing (Type V-VI)

	Wall Thickness (inch)																							
OD (inch)	0.035	0.049	0.058	0.065	0.083	0.095	0.109	0.120	0.125	0.134	0.156	0.165	0.180	0.188	0.207	0.219	0.238	0.250	0.281	0.284	0.313	0.344	0.375	0.406
0.625																								
0.688																								
0.750																								
0.813																								
0.875																								
0.938																								
1.000																								
1.063																								
1.125																								
1.188																								
1.250																								
1.313																								
1.375																								
1.500																								
1.563																								
1.625																								
1.688																								
1.750																								
1.768																								
1.875																								
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2.563																								
2.625																								
2.750																								
2.875																								
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3.375																								
3.500																								
3.555																								
3.625																								
3.688																								
3.750																								
3.875																								
4.000																								
4.022																								
4.062																								
4.095																								
4.125																								
4.250																								
4.375																								
4.500																								
4.562																								
4.593																								
4.625																								
4.750																								
5.000																								
5.125																								

Delivery Conditions: M.D., S.S.I.D.
M.D.: Mandrel Drawn
S.S.I.D.: Special Smooth Inside Diameter
Standard Norms Supplied: ASTM A 513
Steel Grades Mainly Used: 1008-1040

Please contact our sales department for any inquiries.