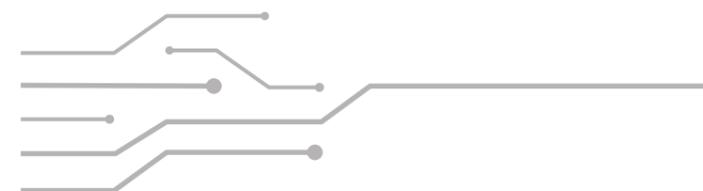


CONTENTS

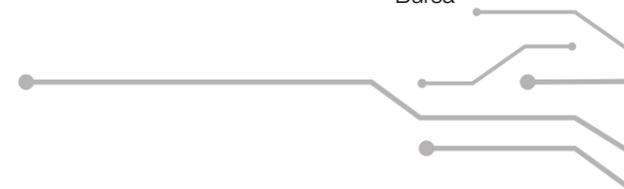


Milestones	2
Borusan Holding at a Glance	4
Borusan Mannesmann in Brief	5
Global Presence	6
Your Total Solution Provider	8
QEHS Management	10
Standards & Certificates	12
Automotive Tubes	14
Hydraulic Applications	16
Industrial Applications	18
Production Ranges	20
Further Processing	24



MILESTONES

1944	1958	1968	1969	1976	1979	1994	1998	2001	2004	2009	2011	2014	2016	2019
Foundation of Borusan	Borusan Boru was founded	Halkalı ERW Pipe Plant started production, İstanbul	First exports	Gemlik ERW Pipe Plant started production, Bursa	Borusan Port inaugurated	Borusan Boru quoted on İstanbul Stock Exchange	Borusan and Mannesmann merged their pipe business activities in Turkey	Acquisition of cold drawn pipe plant in Vobarno, Italy	The company name is amended as "Borusan Mannesmann"	Borusan Port expansion completed	Gemlik HSAW Pipe Plant started production, Bursa	Houston OCTG Plant started production, Texas	Bursa Service Center started operations, Bursa	Gemlik Cold Drawn Tube Plant started production, Bursa



BORUSAN HOLDING AT A GLANCE

IN 4 MAJOR BUSINESS AREAS, WITH 11.000 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

Borusan Mannesmann **Borçelik**



LOGISTICS

Borusan Lojistik



DISTRIBUTORSHIP

Borusan Cat



Borusan Otomotiv Group



Supsan



Borusan Araç İhale



ENERGY

Borusan EnBW Enerji



OUR BUSINESS PARTNERS



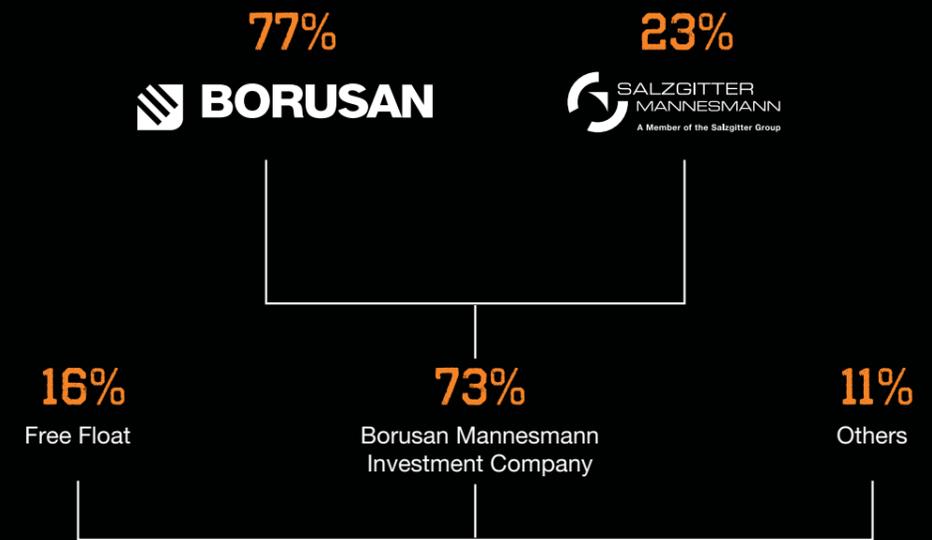
BORUSAN MANNESMANN IN BRIEF

"BORUSAN MANNESMANN IS AMONG THE LEADING MANUFACTURER OF STEEL PIPES IN THE WORLD."

Steel pipe manufacturing is the core business of the Borusan Group, a conglomerate spread over four different industries; steel, distributorship, logistics and energy with around 4.8 billion USD consolidated turnover. Borusan Mannesmann currently continues its production activities with its 7 facilities in 3 different countries in Turkey, Italy and USA.

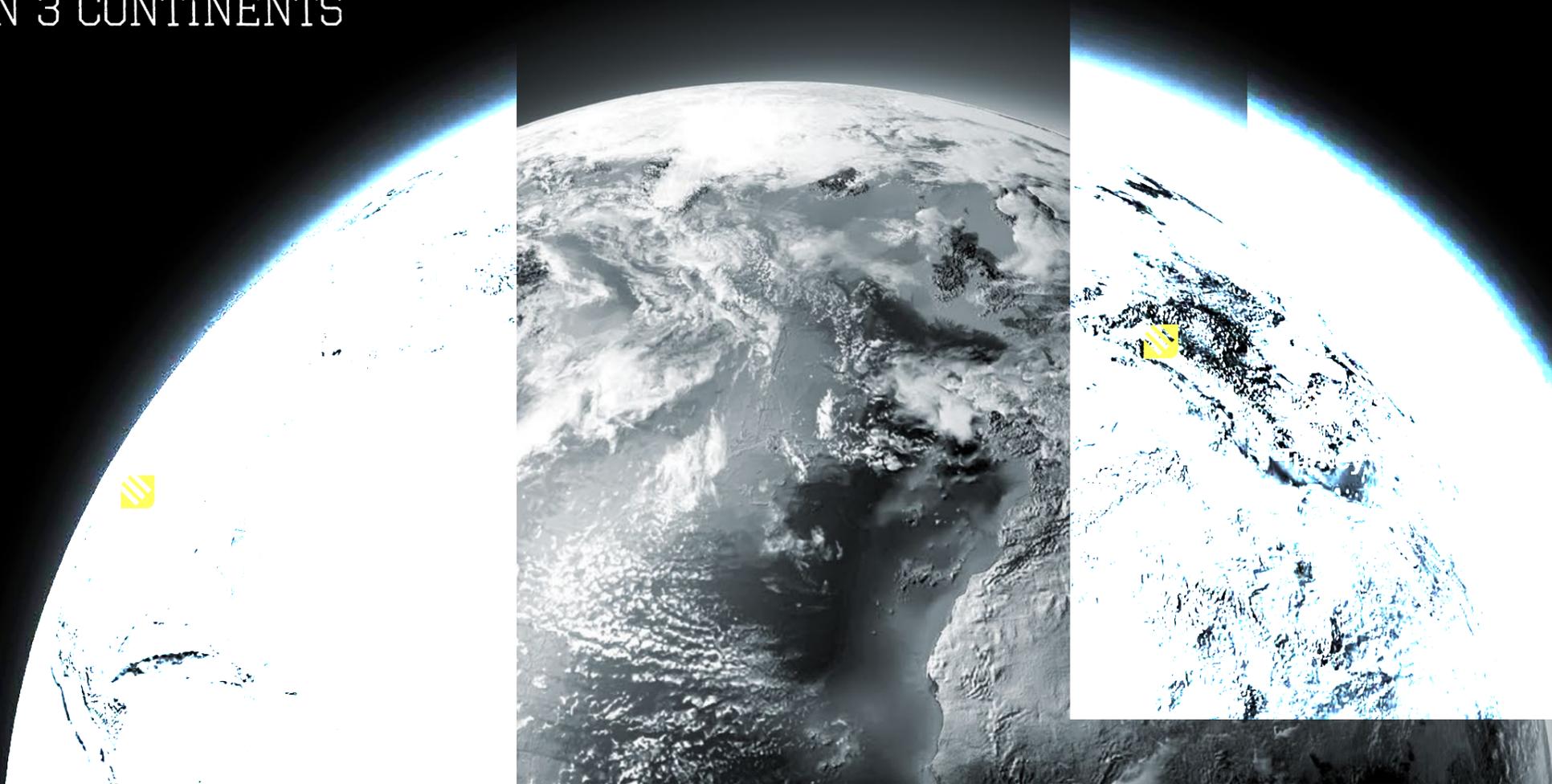
The company's product range includes; water pipes, oil and gas line pipes, industrial pipes and profiles, installation pipes, OCTG pipes and hollow sections. Borusan Mannesmann has wide experience and range of track records in oil and gas pipeline projects both in domestic and international markets with 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 1.800 highly qualified employees and the continuously improving work force.



BORUSAN MANNESMANN

7 FACILITIES IN 3 CONTINENTS



USA / Texas

Houston Plant

Sectors served : Energy Sector
 Workforce : 300
 Area : 500.000 m²

Italy

Vobarno Plant

Sectors served : Engineering Technologies
 Workforce : 90
 Area : 24.000 m²

Turkey

Gemlik ERW Pipe Plant

Sectors served : Energy, Construction,
 Water Transmission
 Workforce : 750
 Area : 388.000 m²

Gemlik HSAW Pipe Plant

Sectors served : Energy, Construction,
 Water Transmission
 Workforce : 140
 Area : 70.000 m²

Gemlik Cold Drawn Tube Plant

Sectors served : Engineering
 Technologies
 Workforce : 50
 Area : 20.000 m²

Halkalı Plant

Sectors served : Engineering
 Technologies
 Workforce : 450
 Area : 67.000 m²

Bursa Service Center

Sectors served : Automotive
 Workforce : 60
 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.

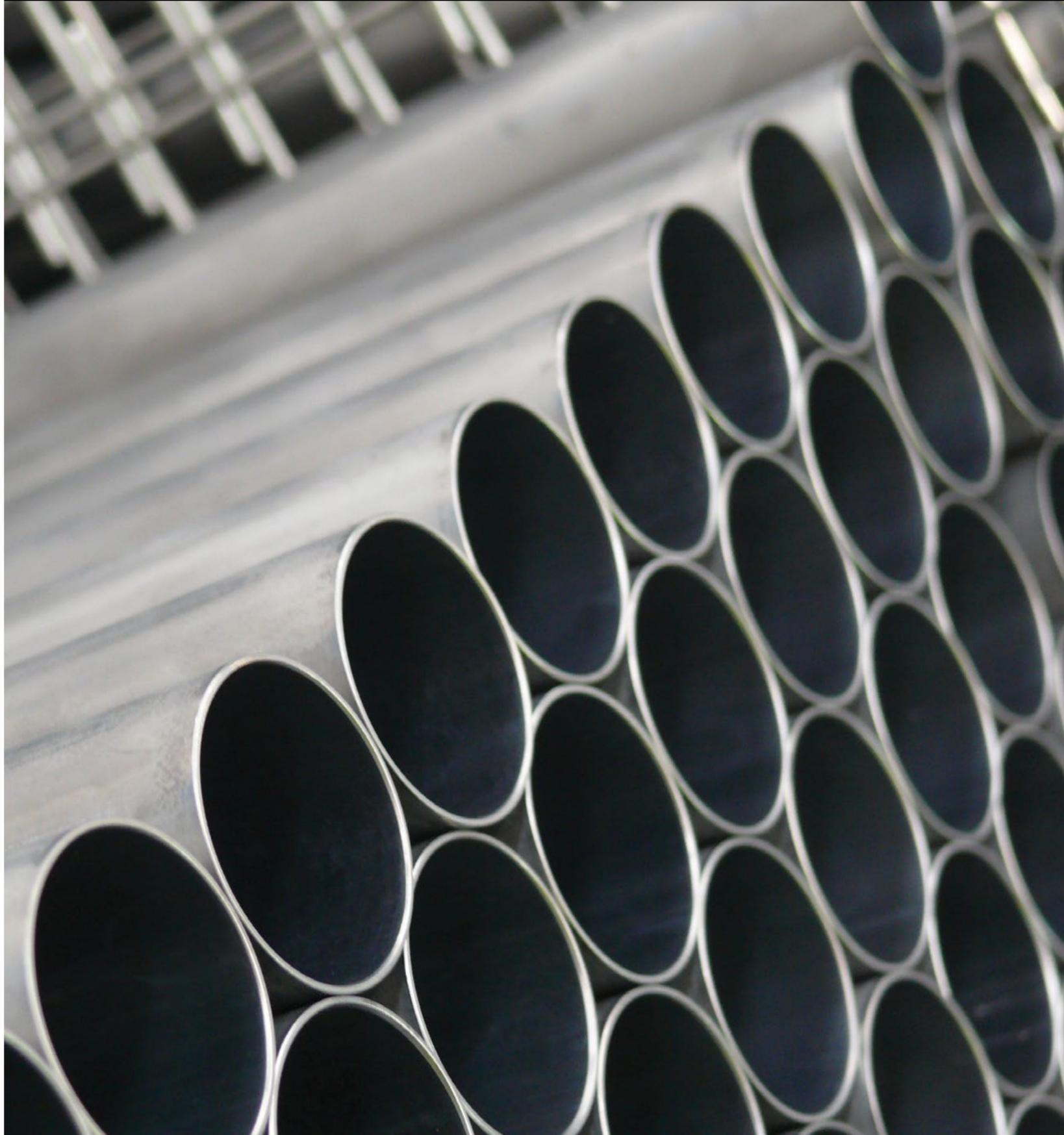
VOC - MOST VALUABLE DRIVING FORCE

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 IATF 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 (ISO 45001) 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 Management Certificates

IATF 16949 Quality Management Systems Standard For The Automotive Industry
ISO 9001 Quality Management Systems
ISO 14001 Environmental Management Systems
ISO 10002 Quality Management Systems For Customer Satisfaction
ISO 45001 Occupational Health and Safety Management Systems

Quality System Certificates



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 : S235, S275, S355
 DQ Steels : DC01, DC03, DC04
 HSLA Steels : S315MC, S355MC, S420MC, S460MC, S500MC, S550MC, S600MC, S700MC
 Dual Phase Steels : DP500, DP600, DP800, DP1000
 Heat Treatable Steels : 20MnB5, 22MnB5, 26MnB5, 30MnB5, 34MnB5
 Coated (Galvanized, aluminized) Steels : DX51, DX52, DX53, S220, S350

Note: Other grades upon request

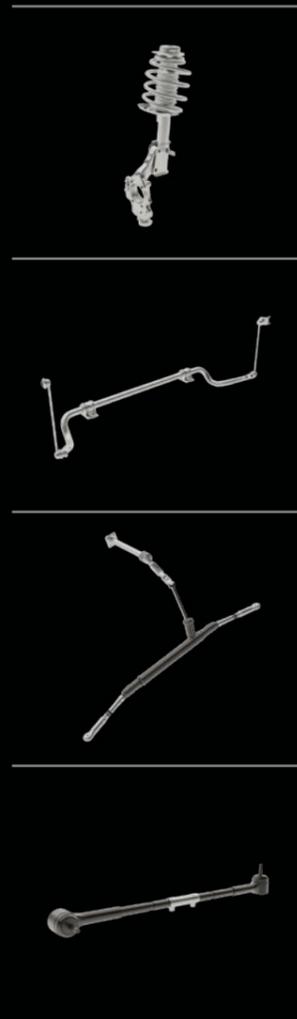
TESTS & INSPECTIONS

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

INSPECTION DOCUMENTS

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

AUTOMOTIVE TUBES

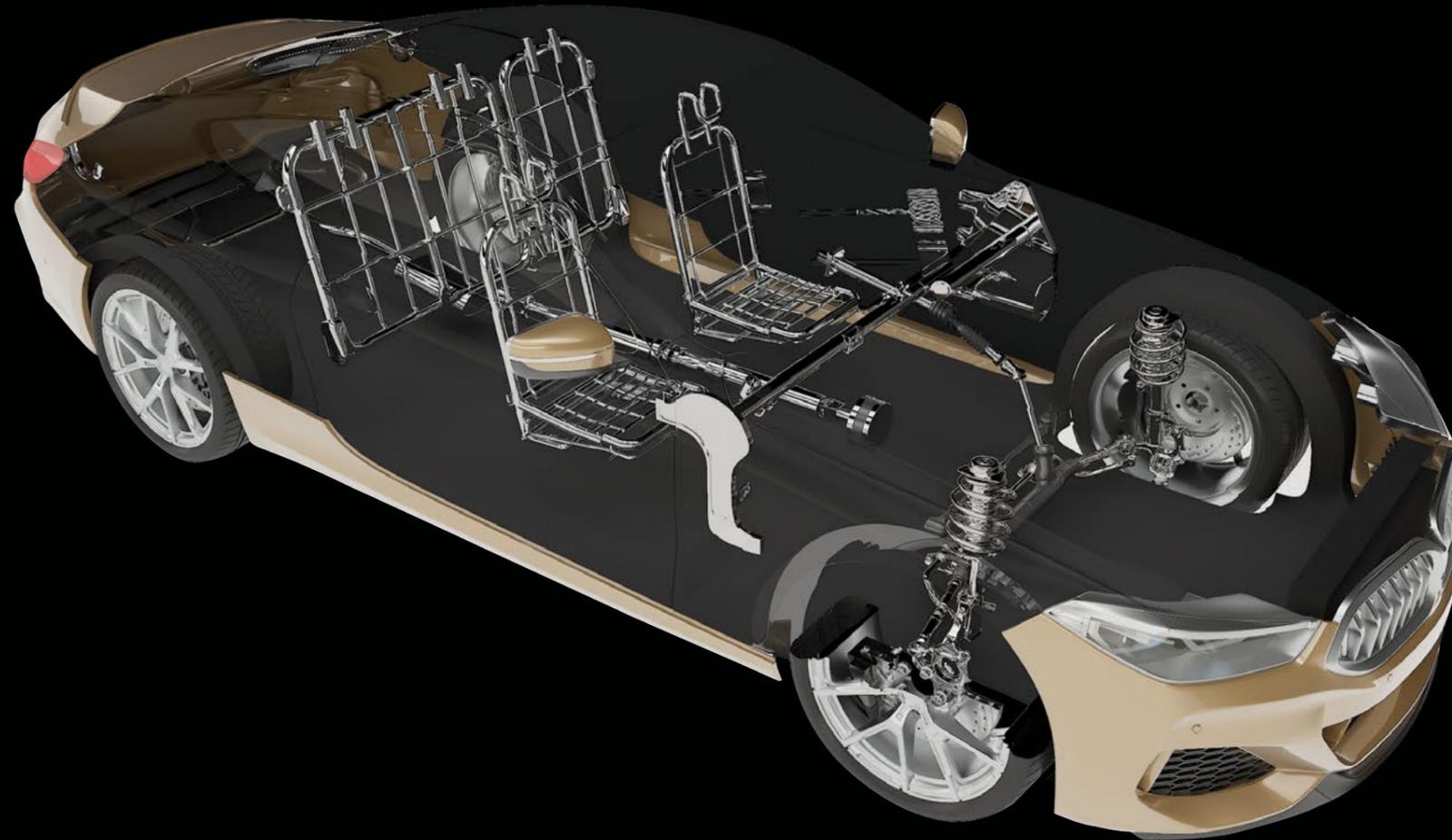


SHOCK
ABSORBER
TUBES

STABILIZER

STEERING
COLUMN
TUBES

TIE
ROD
TUBES



AXLE



TRUNK
HINGE



CARDAN
SHAFT
TUBES



CROSS CAR
BEAMS



DOOR
IMPACT
BEAMS



BORUSAN MANNESMANN IS A HIGHLY RECOGNIZED MANUFACTURER FOR ITS PRODUCT AND SERVICE QUALITY IN AUTOMOTIVE INDUSTRY.

Our plants, one in Vobarno-Italy, one in Gemlik-Turkey 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.

Products are commonly used in passenger cars, light and heavy commercial vehicles which are travelling around the globe.



GAS
SPRING

EXHAUST
TUBES

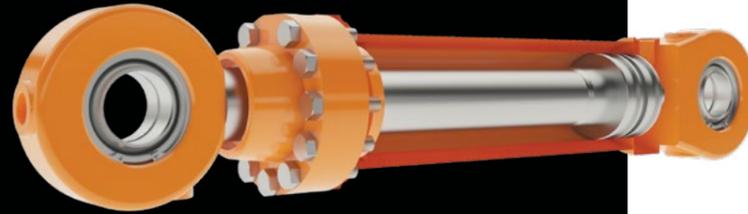
FRONT SEAT
FRAME TUBES

HEAD REST
TUBES

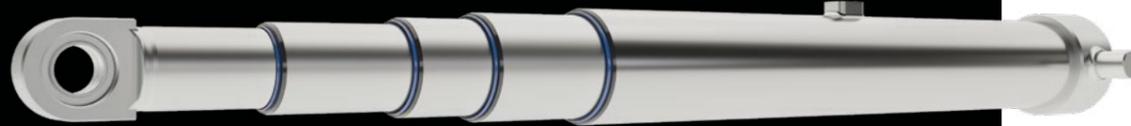
REAR SEAT
FRAME TUBES

Tubes of Borusan Mannesmann are used in earth moving machines, agricultural machines, trucks and several machineries. With the ability of producing ready to use tubes and suitable for honing and roller burnishing tubes, Borusan Mannesmann is an ideal supplier for hydraulic applications.

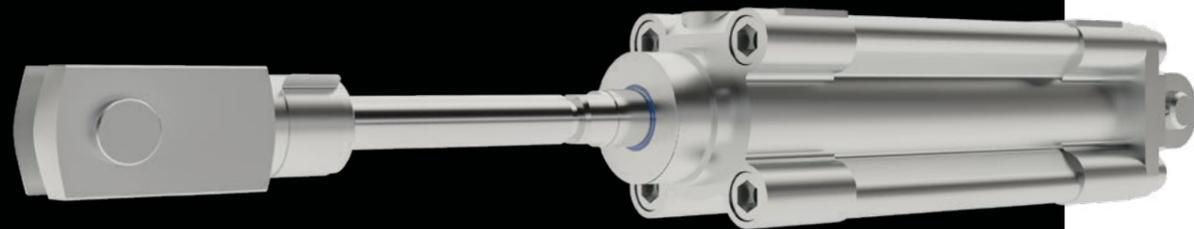
HYDRAULIC APPLICATIONS



HYDRAULIC CYLINDERS



TELESCOPIC CYLINDERS



PNEUMATIC CYLINDERS

INDUSTRIAL APPLICATIONS CUSTOM SHAPED STEEL PROFILES



Borusan Mannesmann manufactures custom shaped profiles with the highest degree of functionality according to customer expectations. Custom designed profiles are used in a variety of applications for different sectors such as automotive, construction, agricultural machinery, towel rails, furniture etc...

We supply profiles with most accurate tolerances to meet customers' requirements and drawings. Borusan Mannesmann has the knowledge to select the most suitable forming technologies to meet specific requirements.

TECHNOLOGIES FOR SPECIAL SHAPE PROFILES

- Direct Roll Forming
- HFW + Cold Forming
- Forming by Cold Drawing

We are ready to produce according to different type of standards and/or customers specialized technical requirements.

Steel grades, wall thickness, dimensions and tolerances may vary according requirements of final product. Different pre-coated raw materials and final coating methods are available upon request.

FURTHER PROCESSING

- Length Cutting
- Bending
- Hole Drilling
- Online Die Stamping

TESTS & INSPECTIONS

- Visual Examination
- Dimensional Inspection
- Metallographic Inspection
- Tensile Test
- Chemical Analysis
- Flattening Test
- Hardness Testing (HV, HRB, HRC)
- Eddy Current Testing
- 3D Scanning

INSPECTION DOCUMENTS

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

WELDED COLD SIZED SQUARE AND RECTANGULAR TUBES FOR PRECISION APPLICATIONS

Side Length b x h (mm)	Wall Thickness (mm)										
	0,80	0,90	1,00	1,20	1,50	2,00	2,50	3,00	3,50	4,00	5,00
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											
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											
20 x 20											
20 x 25											
20 x 30											
20 x 35											
20 x 40											
20 x 45											
20 x 50											
20 x 55											
20 x 60											
20 x 80											
21 x 21											
23 x 30											
25 x 25											
25,4 x 25,4											
25,4 x 50,80											
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 x 60											
70x70											
80x80											
90x90											
100x100											
110x110											
120x120											
120x130											
120x140											
130x130											

(Thicknesses bigger than 5mm must be examined.)
Grades stronger than S700 must be examined.

ASTM A 513 MECHANICAL TUBING (TYPE V-VI)

OD (inch)	Wall Thickness (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																									
2.000																									
2.125																									
2.250																									
2.375																									
2.438																									
2.500																									
2.563																									
2.625																									
2.750																									
2.875																									
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3.125																									
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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

FURTHER PROCESSING

With more than 60 years of experience in tube production, we provide competitive prices in-line with the demands and special requests for both our export and domestic customers

PROVIDED SERVICES ACCORDING TO CUSTOMER SPECIFIC DEMANDS;

- Cut-to-length and emptying with laser tube cutting
- Cutting, brushing, washing (according to customer specifications)
- Double end chamfering
- Heat treatment (induction hardening)
- CNC bending
- CNC milling, CNC Turning
- Tube forming, end forming (diameter expanding, reduction, flattening,...etc.)

PACKING AND DELIVERY SERVICES;

- Loading directly into the customer strongboxes
- Packing as hexagon bundle
- Packing as square bundle
- Packing into cartoon box or wooden crate
- Packing with VCI, silica gel, jute matting, oil paper
- Protection against corrosion

