



400 SERIES · TECHNICAL CATALOG

# 400 SERIES

## STAINLESS & ALLOY TUBE

### SPECIFICATIONS

Ferritic & Martensitic Stainless Steel

7

GRADES COVERED

ASTM

STANDARDS

100%

MTC CERTIFIED

20+

YRS EXPERIENCE

**BRAVA STAINLESS STEEL**

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**TECHNICAL DATASHEET**

FOR PROFESSIONAL USE

INTRODUCTION

# 400 Series — Ferritic & Martensitic Stainless Steel

Straight-chromium stainless steels engineered for wear resistance, formability, magnetic response, and high-temperature stability. Widely deployed in automotive, appliance, and high-temperature furnace applications.

## ABOUT BRAVA

BRAVA Stainless Steel is an international distributor specializing in seamless stainless and alloy tubes and pipes. Transformed from a manufacturer with 20+ years of experience in the tube and pipe industry, we bring extensive technical knowledge and industry know-how to every shipment. Our products are sourced through a rigorous three-point validation process (quality, experience, growth) and shipped from warehouses in China, Korea, Australia, and Indonesia — backed by 24/7 customer service.

## GRADES IN THIS BROCHURE

#	GRADE	UNS	STANDARDS
01	<b>TP410</b>	S41000	A268/SA268
02	<b>TP405</b>	S40500	A268/SA268
03	<b>TP430</b>	S43000	A268/SA268
04	<b>TP430Ti</b>	S43036	A268/SA268
05	<b>TP439</b>	S43035	A268/SA268
06	<b>TP446</b>	S44600	A268/SA268
07	<b>TP444</b>	S44400	A268/SA268

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# TP410

## PRODUCT INFORMATION

Type 410 is hardenable, straight-chromium stainless that combines the superior wear resistance of high-carbon alloys with the excellent corrosion resistance of chromium stainless steels. Oil quenching from temperatures between 1800°F to 1950°F (982–1066°C) produces the highest strength, wear resistance, and corrosion resistance. Used where strength, hardness, and wear resistance must combine with corrosion resistance.

## APPLICABLE STANDARDS

- ASTM A268 / ASME SA268

## SIZE RANGE

Outside Diameter (inch)	Wall Thickness (inch)	Length (m)
0.6252 – 8.6260	0.0472 – 0.50	< 15

## CHEMICAL COMPOSITION (% BY WEIGHT)

Grade	UNS	Standard	C max	Mn max	P max	S max	Si max	Cr
TP410	S41000	A/SA 268	0.15	1.00	0.04	0.03	1.00	11.5–13.5

## MECHANICAL PROPERTIES

Grade	UNS	Standard	Tensile Strength (MPa min)	Yield Strength (MPa min)	Elongation (% min)	Hardness (HRB max)
TP410	S41000	A/SA 268	415	205	20	95

**Packing Condition:** Polywooden cases. Alternative packing styles available on request to ensure product integrity throughout international transit.

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# TP405

## PRODUCT INFORMATION

Alloy 405 is a 12% chromium stainless steel designed to be used in the as-welded condition. Unlike other grades of 12% chromium stainless, 405 is not vulnerable to extensive hardening through air cooling from high temperatures.

## APPLICABLE STANDARDS

- ASTM A268 / ASME SA268

## SIZE RANGE

Outside Diameter (inch)	Wall Thickness (inch)	Length (m)
0.6252 – 8.6260	0.0472 – 0.50	< 15

## CHEMICAL COMPOSITION (% BY WEIGHT)

Grade	UNS	Standard	C max	Mn max	P max	S max	Si max	Cr	Ni max	Al
TP405	S40500	A/SA 268	0.08	1.00	0.04	0.03	1.00	11.5–14.5	0.50	0.10–0.30

## MECHANICAL PROPERTIES

Grade	UNS	Standard	Tensile Strength (MPa min)	Yield Strength (MPa min)	Elongation (% min)	Hardness (HRB max)
TP405	S40500	A/SA 268	415	205	20	95

**Packing Condition:** Polywooden cases. Alternative packing styles available on request to ensure product integrity throughout international transit.

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# TP430

## PRODUCT INFORMATION

Grade 430 is a ferritic, straight-chromium, non-hardenable grade combining good corrosion resistance and formability with useful mechanical properties. Its ability to resist nitric acid attack permits its use in specific chemical applications, while automotive trim and appliance components represent its largest fields of application.

## APPLICABLE STANDARDS

- ASTM A268 / ASME SA268

## SIZE RANGE

Outside Diameter (inch)	Wall Thickness (inch)	Length (m)
0.6252 – 8.6260	0.0472 – 0.50	< 15

## CHEMICAL COMPOSITION (% BY WEIGHT)

Grade	UNS	Standard	C max	Mn max	P max	S max	Si max	Cr
TP430	S43000	A/SA 268	0.12	1.00	0.04	0.03	1.00	16.0–18.0

## MECHANICAL PROPERTIES

Grade	UNS	Standard	Tensile Strength (MPa min)	Yield Strength (MPa min)	Elongation (% min)	Hardness (HRB max)
TP430	S43000	A/SA 268	415	240	20	90

**Packing Condition:** Polywooden cases. Alternative packing styles available on request to ensure product integrity throughout international transit.

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# TP430Ti

## PRODUCT INFORMATION

Stainless steel type 430Ti is a non-hardenable steel containing chromium and titanium, belonging to the ferritic family. It is widely valued for its formability and good corrosion properties — used across automotive, appliance, and architectural applications.

## APPLICABLE STANDARDS

- ASTM A268 / ASME SA268

## SIZE RANGE

Outside Diameter (inch)	Wall Thickness (inch)	Length (m)
0.6252 – 8.6260	0.0472 – 0.50	< 15

## CHEMICAL COMPOSITION (% BY WEIGHT)

Grade	UNS	Standard	C max	Mn max	P max	S max	Si max	Cr	Ni max	Ti
TP430Ti	S43036	A/SA 268	0.10	1.00	0.04	0.03	1.00	16.0–19.5	0.75	5xC – 0.75

## MECHANICAL PROPERTIES

Grade	UNS	Standard	Tensile Strength (MPa min)	Yield Strength (MPa min)	Elongation (% min)	Hardness (HRB max)
TP430Ti	S43036	A/SA 268	415	240	20	90

**Packing Condition:** Polywooden cases. Alternative packing styles available on request to ensure product integrity throughout international transit.

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# TP439

## PRODUCT INFORMATION

439 is a ferritic stainless steel designed to resist corrosion in oxidizing environments from fresh water to boiling acids. Type 439 is a titanium-stabilized 18% chromium alloy that may be used in many oxidizing environments where Type 304 is considered adequate in terms of general corrosion but is subject to chloride stress-corrosion cracking.

## APPLICABLE STANDARDS

- ASTM A268 / ASME SA268

## SIZE RANGE

Outside Diameter (inch)	Wall Thickness (inch)	Length (m)
0.6252 – 8.6260	0.0472 – 0.50	< 15

## CHEMICAL COMPOSITION (% BY WEIGHT)

Grade	UNS	Standard	C max	Mn max	P max	S max	Si max	Cr	Ni max	N max	Al
TP439	S43035	A/SA 268	0.07	1.00	0.04	0.03	1.00	17.0–19.0	0.50	0.04	0.15

## MECHANICAL PROPERTIES

Grade	UNS	Standard	Tensile Strength (MPa min)	Yield Strength (MPa min)	Elongation (% min)	Hardness (HRB max)
TP439	S43035	A/SA 268	415	205	20	90

**Packing Condition:** Polywooden cases. Alternative packing styles available on request to ensure product integrity throughout international transit.

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# TP446

## PRODUCT INFORMATION

ASTM A268 TP446 is a ferritic, non-heat-treatable stainless that offers good resistance to high-temperature corrosion and oxidation. Suitable for service between 1500–2100°F, although elevated-temperature strength is quite low. 446 stainless tube is widely used for furnace parts, oil burners, heat exchangers, kiln liners, glass molds, and stationary soot blowers in steam boilers.

## APPLICABLE STANDARDS

- ASTM A268 / ASME SA268

## SIZE RANGE

Outside Diameter (inch)	Wall Thickness (inch)	Length (m)
0.6252 – 8.6260	0.0472 – 0.50	< 15

## CHEMICAL COMPOSITION (% BY WEIGHT)

Grade	UNS	Standard	C max	Mn max	P max	S max	Si max	Cr	Ni max	N max
TP446-1	S44600	A/SA 268	0.20	1.50	0.04	0.03	1.00	23.0–27.0	0.75	0.25
TP446-2	S44600	A/SA 268	0.12	1.50	0.04	0.03	1.00	23.0–27.0	0.50	0.25

## MECHANICAL PROPERTIES

Grade	UNS	Standard	Tensile Strength (MPa min)	Yield Strength (MPa min)	Elongation (% min)	Hardness (HRB max)
TP446-1	S44600	A/SA 268	485	275	18	95
TP446-2	S44600	A/SA 268	450	275	20	95

**Packing Condition:** Polywooden cases. Alternative packing styles available on request to ensure product integrity throughout international transit.

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# TP444

## PRODUCT INFORMATION

Grade 444 is a 2% molybdenum-alloyed ferritic stainless with medium chromium that can be used in many corrosive environments. As a ferritic stainless, it has high resistance to chloride-induced stress-corrosion cracking. Because of its titanium alloying, 444 can be welded in all section thicknesses without becoming susceptible to intergranular corrosion.

## APPLICABLE STANDARDS

- ASTM A268 / ASME SA268

## SIZE RANGE

Outside Diameter (inch)	Wall Thickness (inch)	Length (m)
0.6252 – 8.6260	0.0472 – 0.50	< 15

## CHEMICAL COMPOSITION (% BY WEIGHT)

Grade	UNS	Standard	C max	Mn max	P max	S max	Si max	Cr	Ni max	Mo	N max
18Cr-2Mo	S44400	A/SA 268	0.025	1.00	0.04	0.03	1.00	17.5–19.5	1.00	1.75–2.50	0.035

## MECHANICAL PROPERTIES

Grade	UNS	Standard	Tensile Strength (MPa min)	Yield Strength (MPa min)	Elongation (% min)	Hardness (HRB max)
18Cr-2Mo	S44400	A/SA 268	415	275	20	95

**Packing Condition:** Polywooden cases. Alternative packing styles available on request to ensure product integrity throughout international transit.

HOW TO ORDER

# Request a Quote in Three Steps

## 01 · GETTING STARTED

Submit your specifications — grade, ASTM standard, OD, wall thickness, length, quantity, surface finish, and target delivery date. We respond within one business day with our most competitive quote drawn from our global supplier network.

## 02 · SOURCING & QUALITY CHECK

Based on your request, we locate the best options across our global inventories and run them through our rigorous QC process. Our dedicated QC teams in sourcing geographies physically inspect every item before clearance for shipment.

## 03 · GET YOUR PRODUCTS

We prepare packing per your specification and handle every customs document. Mill test certificates accompany each shipment. Your only job is to receive the product on time, in spec, and ready to install.

### CONTACT A BRAVA SPECIALIST

Phone	+1 (636) 591-5760
General Inquiries	info@brava-steel.com
Technical Support	tech@brava-steel.com
Warehouses	China · Korea · Australia · Indonesia
Customer Service	24/7 (US Eastern & Asia-Pacific time zones)
Standard Lead Time	35 – 40 days
Minimum Order Quantity	20 ft (straight tubing)
Documentation	Mill Test Certificate (MTC) included with every shipment

**Disclaimer:** The information in this brochure is provided for general guidance based on industry-standard ASTM/ASME specifications. Actual deliverable products are subject to mill test certificates and the specifications agreed in the purchase order. BRAVA reserves the right to update specifications and dimensions without prior notice. For binding specifications, please request a formal quotation.