Qingdao Casting Quality Industrial Co., Ltd

CE3MN (SS2507) Super Duplex Stainless Steel

CE3MN (UNS S32750), is super duplex stainless steel, with greater corrosive resistance than standard SS2205 and 18-8 Cr-Ni and 18-14-2/18-14-3 Cr-Ni-Mo stainless steel parts, mainly used for service in corrosive conditions.

Casting Material Standard: <u>ASTM A890 and ASTM A995 Grade 5A; Type 25Cr-7Ni-Mo-N; Casting UNS</u> J93404; ACI CE3MN;

Other similar Metal grade in different application:

ASTM A789 /ASTM A790/ASTM A276: Wrought UNS S32750; Wrought grade SS2507;

A182 F53

EN: X2CrNiMoN 25-7-4; WNr 1.4410;

AFNOR Z5CND20.12M

ASTM A890/890M Standard Specification for Castings, Iron-Chromium-Nickel-Molybdenum Corrosion-Resistant, Duplex (Austenitic/Ferritic) for General Application

ASTM A995/995M Standard Specification for Castings, Austenitic-Ferritic (Duplex) Stainless Steel, for Pressure-Containing Parts

CE3MN (SS2507) Chemical composition (nominal) %:

Carbon, max 0.03;

Manganese, max 1.50

Silicon, max 1.00

Phosphorus, max 0.04

Sulfur, max 0.04

Chromium 24.0-26.0

Nickel 6.0-8.0

Molybdenum 4.0-5.0

Nitrogen 0.10-0.30

CE3MN (SS2507) Mechanical Property:

Tensile Strength, min 100ksi [690Mpa];

Yield strength, min 75Ksi [515Mpa];

Elongation 18%



CE3MN Heat treatment process:

Heat to 2050°F [1120°C] minimum, hold for sufficient time to heat casting to temperature, furnace cool to 1910°F [1045°C] minimum, quench in water or rapid cool by other means.

CE3MN Hardness (not required): ≤HB300(HRC32)

Same steel material in other standards:

ASTM A182 Standard Specification for Forged or Rolled Alloy-Steel Pipe Flanges, Forged Fittings, and Valves and Parts for High-Temperature Service

ASTM A790 Standard Specification for Seamless and Welded Ferritic/Austenitic Stainless Steel Pipe

ASTM A789 Standard Specification for Seamless and Welded Ferritic/Austenitic Stainless Steel Tubing for General Service

ASTM A479 Standard Specification for Stainless Steel Bars and Shapes for Use in Boilers and Other Pressure



Material Data Sheet

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Vessels

Steel Grade		С	Mn	P	S	Si	Ni	Cr	Mo	N	Cu
A182	S32750	0.03	1.2	0.035	0.02	0.8	6-8	24-26	3-5	0.24-0.32	0.5
F53											
A790	S32750	0.03	1.2	0.035	0.02	0.8	6-8	24-26	3-5	0.24-0.32	0.5
A789											
A479	S32750	0.03	1.2	0.035	0.02	0.8	6-8	24-26	3-5	0.24-0.32	0.5
Steel Grade		Tensile			Yield		Elongation		Hardness		
A182 S32750		116Ksi(800Mpa)			80Ksi		15%		310HB		
F53				(550Mpa)							
A790	S32750	116Ksi(800Mpa)			80Ksi		15%		300HB (32HRC)		
A789					(550M _J	pa)			(4.3)		170
A479											

CE3MN is also named as SS2705 in market. It's a good super duplex stainless steel for offshore piping systems, couplings, centrifuge, dewatering equipment, pump, valves and, pulp digesters

CE3MN Typical Application

- I SUBSEA CONTROL LINES
- I HEAT EXCHANGERS
- I WATER SYSTEMS
- I OFFSHORE PLATFORMS
- I FIRE-FIGHTING SYSTEMS

As a professional casting manufacture, Qingdao Casting Quality Industrial pay much attention to the quality and technology, our products are much more casting and forging parts. We are mainly do Sand Casting, Investment Casting (Lost Wax Casting or Precision Casting) and Die Casting .Today, its products are marketed globally through many countries.

Our Services

Casting Quality focus on Metal Parts industry, we provide professional service in Metal Casting field.

- 1. Sand Casting
- 2. Investment Casting
- 3. Shell Casting
- 4. CNC Machining
- 5. CAD Design
- 6. Tools/Mold Design

Many buyers from all over the world purchase products from China. But do you know the quality of products in China? Maybe you only pay the surface and price, but the inner quality is lost .



Material Data Sheet

Qingdao Casting Quality Industrial Co., Ltd

Housing Casting Design in Solidworks

What makes Casting Quality the best?

Innovation

Our engineers are more than just designers....they're pioneers. Our team use CAD/CAM to do the simulation of casting parts. Through the advanced technology, we can know the weight and structure. We also visited so many factories to know their difference and improve our products every year.

Quality

We're obsessed with quality. Casting Quality constantly strives to exceed our customers' expectations in durability and performance. In fact, we will control the whole process from the original material to the finished parts, include the technology. Uniquely-designed Quality Control System focuses on ensuring four product goals: 1) Eligible Chemistry, 2) Hardness 3) Property and 4) Affordable Pricing. The result is the best casting products value in the industry.

Service

We're in Qingdao, China, It has convenient transportation of road and sea. Courteous service is part of who we are, and we do it better than anyone in the industry. With Casting Quality you can expect friendly, knowledgeable, and prompt customer service.

Fulfillment

Shipping orders complete and on-time is of paramount importance to our customers. We will count the delivery date and result before accept your order. Casting Quality consistently ranks as one of the best in speed of delivery and fill rates.

SERVICE IN QINGDAO CASTING QUALITY INDUSTIRAL

- I SAND CASTING
- I INVESTMENT CASTING
- I SHELL CASTING
- PERMANENT MOLD CASTING
- I CNC MACHINING
- I CAD/CAM DESIGN