

## **SUPER ALLOY SERIES**





The typical Austenitic Stainless Steel -18%Cr + 10% Ni have been used in corrosion resistant applications for decades. There are processes and environments that demand higher corrosion resistant metals and alloys such as Hastelloys, Monels, Titaniums, Inconels and Duplex Stainless Steels. Triad Process Equipment is announcing that their super alloy and duplex stainless steel valves will now be offered under a new **quick ship program** that dramatically reduces lead time. Please contact Triad Process Equipment at **sales@triadprocess.com**.

Material Code	Elements Content (%)	Casting		
		ASTM	DIN	UNS
Austenitic Stainless Ste	el			
General				
SS304	19Cr-9Ni	CF8	1.4308	J92600
SS304L	19Cr-9Ni-C<0.03%	CF3	1.4306	J92500
SS347	19Cr-10Ni-Nb	CF8C	1.4552	J92710
Specific	•			
SS316	19Cr-10Ni-2.5Mo	CF8M	1.4408	J92900
SS316L	19Cr-10Ni-2.5Mo-C<0.03%	CF3M	1.4404	J92800
SS317	19Cr-11Ni-3.5Mo	CG8M	1.4437	J93000
SS317L	19Cr-11Ni-3.5Mo-C<0.03%	CG3M	1.4438	J92999
Super Austenitic Stainle	ess Steel	•	•	•
904L	21Cr-25Ni-4.5Mo-1.5Cu-N	-	1.4539	
254 SMo	20Cr-18Ni-6.5Mo-Cu-N	A351 CK3MCuN	1.4547	J93254
Highly Corrosion Resist	tant Alloys			
Austenitic Stainless Ste	eel ( Iron base )			
Alloy 20	29Ni-20Cr-3.5Cu-2.5Mo	A351 CN7M	2.4660	J95150
Ni-Mo Alloy	<u> </u>	<u>'</u>	•	<b>'</b>
Hastelloy B	28Mo-5Fe-V	A494 N-12MV	2.4882	N30012
Hastelloy B2	28Mo-1Fe	A494 N-7M	2.4617	N30007
Ni-Cr-Mo Alloys		•	•	•
Hastelloy C276	16Cr-17Mo-6Fe-4W-V	A494 CW12MW	2.4686	N30002
Hastelloy C22	21Cr-13.5Mo-4Fe-3W	A494 CX2MW	2.4602	N26022
Ni-Cu Alloy		<u>'</u>	•	<u>'</u>
Monel 400	65Ni-32Cu	A494 M-35-1	2.4365	N24135
Nickel	•	•	•	•
Nickel CZ100	97Ni	A494 CZ-100	2.4066	N02100
Titanium	•	•	•	•
Grade 2	99Ti	B367 C2		
Grade 5	6Al-4V	B367 C5		
High Temperature Alloy	s ( Nickel base)			
Inconel 600	15Cr-8Fe	A494 CY-40	2.4816	N06040
Inconel 625	22Cr-9Mo-3.5Nb-2.5Fe	A494 CW6MC	2.4856	N26625
Duplex Stainless Steel				
1A	25Cr-5Ni-2Mo-3Cu	A890 Gr.1A CD4MCu	1.4517	J93370
1B	25Cr-5Nii-2Mo-3Cu-N	A890 Gr.1B CD4MCuN		J93372
2A	24Cr-10Ni-3.5Mo-N	A955 Gr.2A CE8MN		J93345
2205/4A	22Cr-5Ni-3Mo-N	A955 Gr.4A CD3MN	1.4470	J92205
Super Duplex Stainless	Steel			
2507/5A	25Cr-7Ni-4Mo-N	A890 Gr.5A CE3MN	1.4469	J93404
Z100/6A	25Cr-7Ni-3.5Mo-Cu-N-W	A890 Gr.6A CD3MWCuN	1.4471	J93380
329	25Cr-4Ni-Mo		1.4460	
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### **Material Selection**

Material Code	Typical Application		
Austenitic Stainless	s Steel		
General			
SS304			
SS304L	Pulp and paper mills, Industrial water and oil pipelines.		
SS347			
Specific			
SS316			
SS316L	Food and biotechnology, seawater service, fertilizers processes, textile and dyeing service. Industrial wastewater reclamation.		
SS317			
SS317L			
Super Austenitic Stair	nless Steel		
904L	Chemical and pharmaceutical industries, flue gas desulfurization, acid and alkali reactor, salt manufacturing processes,		
254 SMo	seawater desalination and chemical processes for highly concentrated chloride.		
Highly Corrosion Res	istant Alloys		
Austenitic Stainless S	teel ( Iron base )		
Alloy 20	Sulfuric acid, acetic acid, phosphoric acid, nitrate acid, dilute hydrochloric acid, dilute hydrofluoric acid and dilute alkali.		
Ni-Mo Alloy			
Hastelloy B	Corrosion resistant processes handling chlorine, sulfuric acid, phosphoric acid, acetic acid and hydrogen chloride gas.		
Hastelloy B2	Also for processes handling chloride with high concentration at high temperature. (max. temp 212°F)		
Ni-Cr-Mo Alloy			
Hastelloy C276	Processes handling oxidizing acid, formic acid, dilute sodium hydroxide, acetic anhydride, also for chemical processes		
Hastelloy C22	handling fluoride. (max. temp 140°F)		
Ni-Cu Alloy			
Monel 400	Harsh corrosive chemical processes, hydrofluoric acid, caustic soda, potash liquor and sulfuric acid. (max. temp 100°F)		
Nickel			
Nickel CZ100	Corrosion resistant to many kinds of alkali, especially caustic soda.		
Titanium	_		
Grade 2	Chemical and pharmaceutical industries, medical and biotechnology, seawater service. Corrosion resistant to most		
Grade 5	kinds of acid and alkali, however could be not used in hydrofluoric acid (HF).		
High Temperature Alle			
Inconel 600	Combustion chambers, heat-treating equipment, chemical and petrochemical applications, phenol condensers,		
Inconel 625	soap manufacture, vegetable and fatty acid vessels and many other processes. (high tensile strength at 1500°F)		
Duplex Stainless Stee			
1A	M		
1B	More corrosive resistant and higher tensile strength than CF3M (316L). Food and biotechnology, seawater service, fertilizers		
2A	processes textile and dyeing service, Industry wastewater reclamation. Also for dilute sulfuric acid, dilute phosphoric acid, dilute acetic acid.		
2205/4A	(Tensile srength >650MPa)		
Super Duplex Stainless Steel			
2507/5A	More corrosive resistant and higher tensile strength than CF3M (316L). Food and biotechnology, seawater service, fertilizers		
Z100/6A	processes textile and dyeing service, Industry wastewater reclamation. Also for dilute sulfuric acid, dilute phosphoric acid, dilute		
329	acetic acid. (Tensile strength >650MPa)		

### Super Alloy Valves

#### Series 22



Series 22 2 PIECE, Full Port, Threaded End PRESSURE: 1000 psi SIZE: 1/2" ~ 2"

#### Series 66



Series 66 3 PIECE, Full Port Threaded / Socket / Butt Weld End PRESSURE: 2000 / 1500 psi SIZE: 1/2" ~ 2"

OPTION: API607 Fire Safe Approved

Series 9150



Series 9150 2 PIECE, Full Port, Flanged End ANSI Class 150 / 300 / PN16 / PN40 SIZE: 1/2" ~ 12" OPTION: API607 Fire Safe Approved

### Series B1000



Series B1000 3 PIECE, Full Port Threaded / Socket / Butt Weld End PRESSURE: 1000 psi SIZE: 1/4" ~ 2"

Triad Process Equipment is ISO 9001:2008 certified.