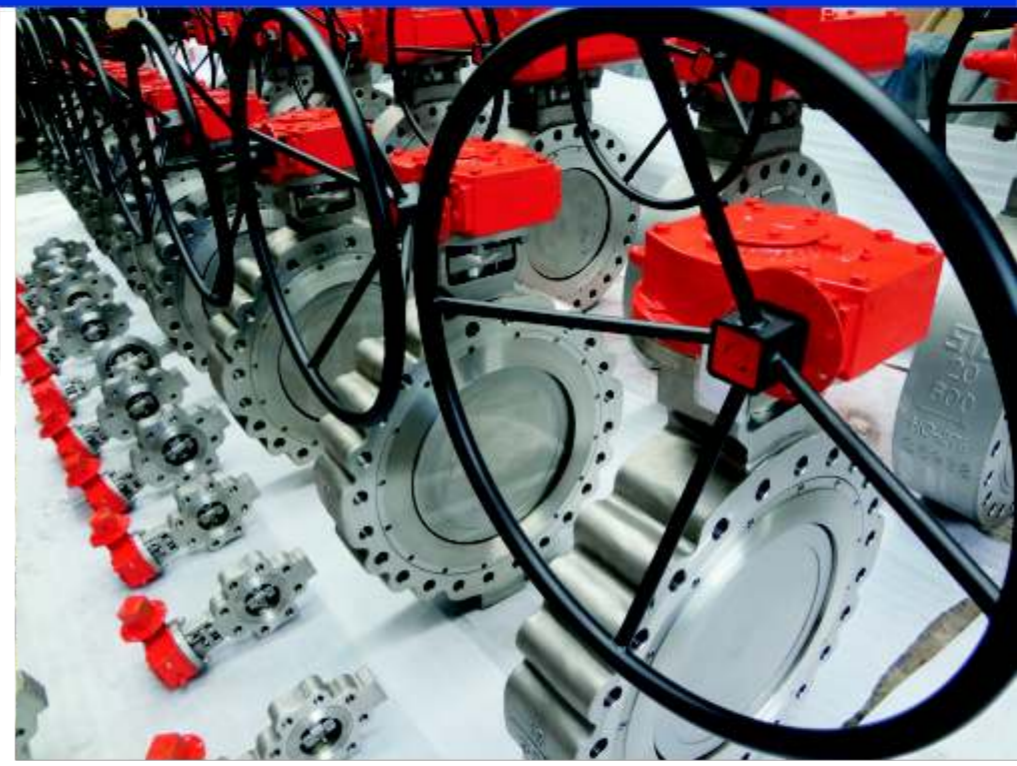




# STV<sup>®</sup>

## STONE VALVE GROUP LIMITED



### STV<sup>®</sup> STONE VALVE

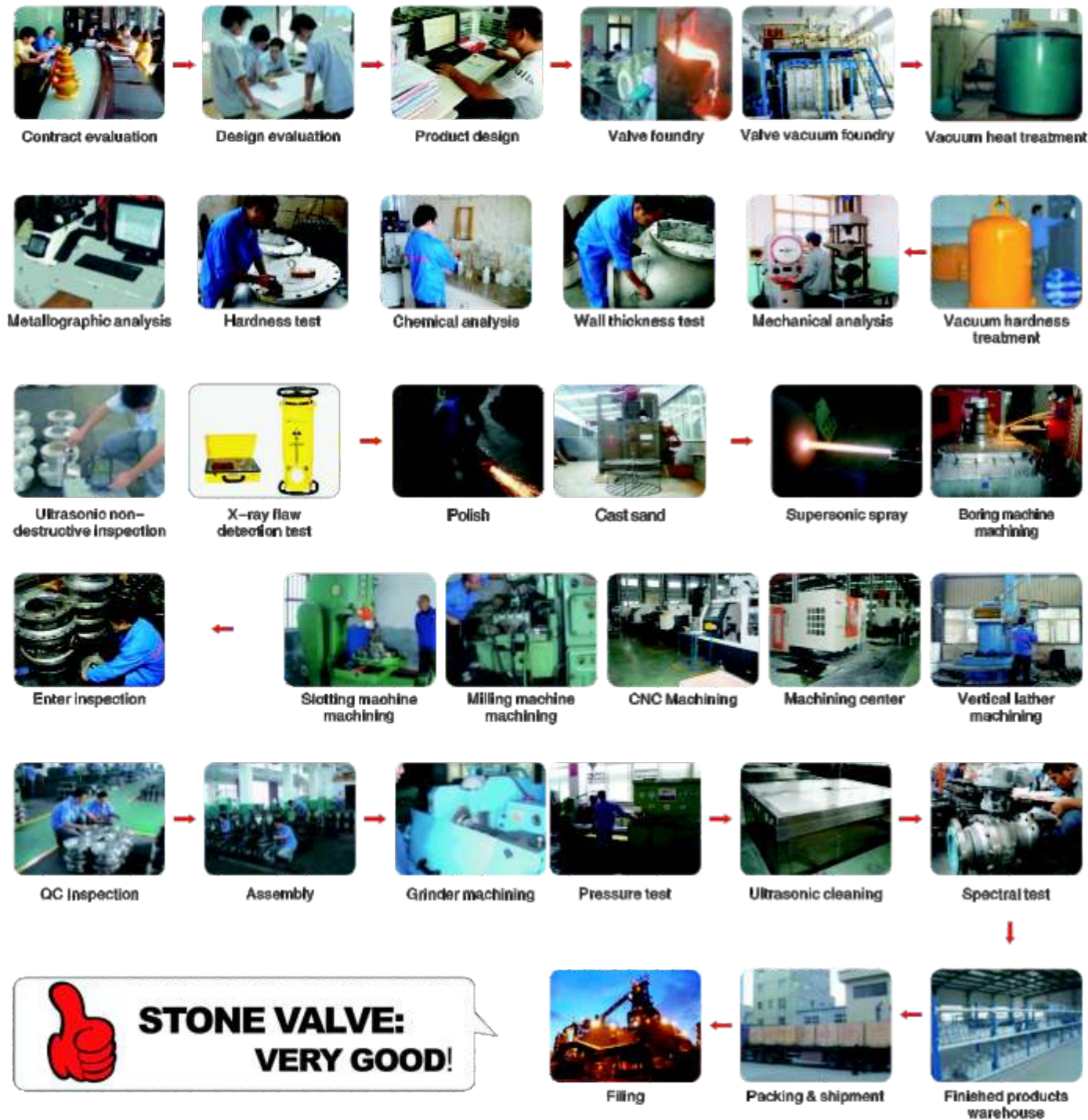
#### WENZHOU GUOYE VALVE CO.,LTD.

Address: An'Feng Industry Zone, Oubei, Wenzhou, Zhejiang, China 325102  
 Tel: +86-577-21882992 21882997 21882998 21882999 Fax: +86-577-21882966  
 E-mail: stone@stone-valve.com Http://www.stone-valve.com

### SPECIAL ALLOY VALVES

- Inconel alloy valves
- Incoloy alloy valves
- Monel alloy valves
- Duplex steel valves
- Titanium & titanium alloy valves
- Zirconium & zirconium alloy valves
- Nickel & nickel alloy valves
- Hastelloy alloy valves

#### WENZHOU GUOYE VALVE CO.,LTD.



**STONE VALVE:  
VERY GOOD!**



Stone valves functional quality management system complies with ISO9001, API, Q1, CE-PED requirements to ensure production process maintain international safety and quality standard.

Strictly production process!  
Strictly testing process!  
Strictly quality control system!  
Supply the users high quality products!

## Special Alloy Material Series

Material Group	Forgings	Castings	Bars	
	Spec.No.Grade	Spec.No.Grade	Spec.No.Grade	
Titanium alloy	<b>Titanium</b>			
	Titanium Gr2	B381 Gr F2	B367 Gr C2	B348 Gr2
	Titanium Gr3	B381 Gr F3	B367 Gr C3	B348 Gr3
	<b>Titanium Alloy</b>			
	Titanium Gr5	B381 Gr F5	B367 Gr C5	B348 Gr5
	Titanium Gr6	B381 Gr F6	B367 Gr C6	B348 Gr6
	Titanium Gr12	B381 Gr F12	B367 Gr C12	B348 Gr12
Titanium Pd7B	B381 Gr F7	B367 PD7B	B348 Gr7	
Nickel base alloy	<b>Nickel</b>			
	Nickel200	B160 N02200	A494 CZ100	B160 N02200
	Nickel201	B160 N02201		B160 N02201
	<b>Ni-alloy</b>			
	Monel 400	B564 N04400	A494 M35-1	B164 N04400
	Monel K500	B865 N05500		B865 N05500
	Inconel 600	B564 N06600	A494 Cy40	B166 N06600
	Inconel 625	B564 N06625	A494 CW6MC	B446 N06625
	Inconel 800	B564 N08800	A351 CT15C	B408 N08800
	Inconel 825	B564 N08825	A494 CU5MCuC	B425 N08825
	Hastelloy B	B335 N10001	A194 N12MV	B335 N10001
	Hastelloy B-2	B462 N10665	A494 N7M	B335 N10665
	Hastelloy C276	B574 N010278	A494 CW12MW/WC6M	B574 N10276
	Hastelloy C-22	B574 N06022	A494 CX2MW	B574 N06022
	Hastelloy C-4	B574 N06455	A494 CW2M	B574 N06455
	Hastelloy G	B462 N06007		B581 N06007
	Hastelloy G30	B462 N06030		B581 N06030
Zirconium	Zirconium702	B493 R60702	B752 702C	B550 R60702
	Zirconium705	B493 R60705	B752 705C	B550 R6075
	<b>Duplex stainless steel</b>			
Duplex S31803	A182 F51(2205)	A995 4A(CD3MN)	A276 S31803	
Super-Duplex S32750	A182 F53(2507)	A995 5A(CE3MN)	A276 S32750	
Super-Duplex S32760	A182 F55	A995 6A(CD3MWCuN)	A276 S32760	
<b>Super austenitic stainless steel</b>				
904L	A182 F904L		B649 N08094	
254SMO	A182 F44	A351 CK3MGuN	A276 S31254	
AL-6XN	B462 N08367	A351 CN3MN	B688 N08367	
<b>Austenitic stainless steel</b>				
304	A182 F304	A351 CF8	A276 304	
304L	A182 F304L	A351 CF3	A276 304L	
316	A182 F316	A351 CF8M	A376 316	
316L	A182 F316L	A351 CF3M	A276 316L	
316Ti	A182 F316Ti		A276 316Ti	
317	A182 F317	A351 CG8M	A276 317	
317L	A182 F317L	A351 CG3M	A276 317L	
347	A182 F347	A351 CF8C	A276 347	
310	A182 F310	A351 CK20	A276 310	
310S	A182 F310S	A351 CK20	A276 310S	
Alloy 20	B462 N08020	A351 CN7M	B473 N08020	

The above materials are applicable to valve shell, contact stone for the valve component materials. trademarks appeared on the book sandvik for sa2205/sa2507 special metals for inconel, monel, incoloy, haynes for hastelloy all egheny ludium for AL-6XN avesta for 254 SMO, Sumitomo for DP3WINAR

Notecary other special material see ASME B16.34, table 1 and ASTM Standard

### Material Character and Application

Material Group	Characteristics	Typical application
Titanium alloy	<b>Titanium</b>	
	Titanium Gr2	High resistance to pitting, crevice corrosion resistance, high resistance to stress corrosion cracking, corrosion fatigue and erosion.
	Titanium Gr3	
	<b>Titanium Alloy</b>	
	Titanium Gr5	Higher strength with (Al, Mo, Sn, V). Higher corrosion resistance in reductive acid with Pt Content.
	Titanium Gr6	
	Titanium Gr12	
Titanium Pd7B		
Nickel base alloy	<b>Nickel</b>	
	Nickel200	Superior corrosion resistance to carbon acid solution such as soda calcium carbonate.
	Nickel201	
	<b>Ni-alloy</b>	
	Monel 400	Superior corrosion resistance under reducing environment, and stress corrosion cracking resistance.
	Monel K500	
	Inconel 600	Superior corrosion resistance to pure water and alkali under oxidizing and high temperature environment, also resistance to stress corrosion cracking by clions.
	Inconel 625	Superior corrosion resistance under oxidizing and high temperature environment, and superior erosion resistance.
	Inconel 800	Superior mechanical strength at high temperature and resistance to carburizing with stabilized structure to be used for long duration also superior corrosion resistance under humid environment.
	Inconel 825	Superior corrosion resistance to sulfuric acid and phosphoric acid, also resistance to stress corrosion cracking and crevice corrosion.
	Hastelloy B	Resistance to hydrochloric acid of any concentration up to boiling point, resistance to reducing chloride such as sulfuric acid, phosphoric acid and copper chloride, resistant to high temperature but not suitable under highly oxidizing environment.
	Hastelloy B-2	Corrosion resistance processes handling chlorine, sulfuric acid, phosphoric acid, acetic acid and hydrogen chloride gas, also for processes handling chloride with high concentration at high temperature.
	Hastelloy C276	Superior resistance under oxidizing environment, such as wet chlorine gas and chlorine dioxide, also resistance to organic acid chloride such as acetic acid and seawater.
	Hastelloy C-22	Higher intergranular corrosion resistance than hastelloyB.
	Hastelloy C-4	Acetic acid, chemical manure, agricultural pesticide processes.
Hastelloy G	Superior corrosion resistance to mixed acid of phosphoric acid and oxidizing acid.	
Hastelloy G30	Processes handling sulfuric acid and phosphoric acid.	
Zirconium	Zirconium702	High resistance to pitting, crevice corrosion resistance, high resistance to stress corrosion cracking, corrosion fatigue and erosion, good in nearly all cases, excellent for high temperature acids.
	Zirconium705	
Iron base alloy	<b>Duplex stainless steel</b>	
	Duplex S31803	High cracking corrosion resistance to chloride environment, high corrosion resistance to dilute sulphuric acid and phosphoric acid.
	Super-Duplex S32760	Higher stress corrosion cracking resistance than austenitic stainless steel, higher weldability than ferritic stainless steel and higher acid, pitting and crevice corrosion resistance than CF8M with higher mechanical strength.
	Super-Duplex S32760	
	<b>Super austenitic stainless steel</b>	
	904L	The most superior acid and alkali resistance among all austenitic stainless steel and superior pitting and crevice corrosion resistance to chloride solution as seawater.
	254SMO	
	AL-6XN	
	<b>Austenitic stainless steel</b>	
	304	Super corrosion resistance to nitric acid, phosphoric acid and organic acid
	304L	Higher intergranular corrosion resistance than CF8.
	316	Higher pitting corrosion resistance than CF8.
	316L	Higher intergranular corrosion resistance than CF8M.
	316Ti	Higher intergranular corrosion resistance than CF8M with Ti.
	317	Higher pitting and crevice corrosion resistance than CF8.
	317L	
	347	Higher intergranular corrosion resistance than CF8M, carbide stabilized with Nb.
	310	Sulfurous acid and dilute sulphuric acid with higher Cr Ni content.
	310S	
	Alloy 20	Superior corrosion resistance to nitric acid of any concentration at 60°C and lower, and to heated dilute oxide.

Note: any other special material see ASME B16.34, table 1 and ASTM Standard

### List Stone Valve Special Alloys

ITEM	NAME	TYPE NO.	DECAY RESISTAN	CECHIEF APPLICATION
1	Austenitic heat-resistant steel	ST-1	<800 °C with good resistance to high temperature oxidation and corrosion resistance to SO <sub>2</sub> with good high temperature mechanical properties	700 °C the following diesel and aero-engine intake and exhaust valves, 650 °C metal seal butterfly valve and parts
2	Austenitic heat-resistant steel	ST-2	1100 °C high temperature oxidation resistance and good resistance to sulfur corrosion must	1100-1150 °C antioxidant heat parts, 1200 °C high temperature sulfuric acid industry control butterfly valve, shaft, etc.
3	Heat can not afford leather steel	ST-3	≤ 550 °C good oxidation resistance to sulfide corrosion	<650 °C heat-resistant parts, <550 °C metal seal butterfly valve
4	Austenitic heat-resistant steel	ST-4	1200 °C has good oxidation resistance, corrosion resistance to sulfur than 316 (C26N20), good high temperature mechanical properties	Replace the 2520 heat-resistant steel excellent heat-resistant material, 1200 °C high temperature control valve and butterfly valve shaft, and other heat-resistant parts and equipment
5	Ferrite steel high temperature oxidation	ST-5	Good oxidation resistance; continuous use in the air up to 1350 °C maximum temperature	Temperature <1350 °C heat from the original force
6	Nickel-based superalloy	ST-6	Good high temperature oxidation, carburization, chloride, nitride performance; temperature up to 1350 °C	For low stress conditions of high temperature oxidation environment of thermal components
7	High silicon austenitic stainless steel	STS-1	98% H <sub>2</sub> SO <sub>4</sub> corrosion rate analysis	Industrial sulfate drying tower, absorption tower, acid coolers, sub-acid, circulators tank, valve, piping and other components inside the tower
			80°C 0.0052, 80°C 0.00105, 100°C 0.0023, 100°C 0.007, 150°C 0.0025, 150°C 0.020	
8	Duplex stainless steel of high silicon	STS-3	In the oxidation of nitric acid corrosion and excellent performance; 60-85 °C, 50-98% HNO <sub>3</sub> corrosion rate of 0.018-0.092mm/a, high-temperature oxidation resistance are also concentrated sulfuric acid	Strong oxidation of nitric acid production facilities, strong oxidizing nitrate equipment, high-temperature equipment and parts concentrated sulfuric acid
9	High silicon austenitic precipitation hardening stainless steel	STS-4	80 °C, 20% H <sub>2</sub> SO <sub>4</sub> corrosion rate of 0.028mm/a; 80 °C, 40% H <sub>2</sub> SO <sub>4</sub> corrosion rate of 0.051mm/a; 110 °C, 98% H <sub>2</sub> SO <sub>4</sub> corrosion rate of 0.11mm/a	Concentrated sulfuric acid in dilute sulfuric acid and high temperature in both good corrosion resistance, suitable for making thick dilute acid concentration changes in the conditions where larger equipment and parts, which can be age hardened steel, suitable for making a valve and other corrosive-wear parts
10	High-molybdenum alloys high nitrogen austenitic stainless steel	STS-5	Maximum temperature: 20% sulfuric acid 75 °C, 30% sulfuric acid 68 °C. CFCs have excellent resistance to corrosion ion	Sulfuric acid, especially sulfuric acid manufacturing CFCs ion pumps, valves, tower, tank, tank and heat exchangers and other equipment
11	High-molybdenum alloys high nitrogen austenitic stainless steel	STS-6	The corrosion rate of temperature 100 °C: 20% sulfuric acid <0.025mm/a; 40% sulfuric acid <0.05mm/a; 80% sulfuric acid <0.023mm/a; excellent resistance to corrosion CFCs ion	Manufacture of sulfuric acid, especially sulfuric acid high chloride ion equipment, in dilute acid corrosion resistance superior to nickel-based alloys C276. C276 is replaced by the inexpensive stainless steel, can be used for power plant flue gas desulfurization and titanium dioxide waste acid recycling equipment
12	High-alloy austenitic stainless steel	STS-8	200 °C, 98.6-100% H <sub>2</sub> SO <sub>4</sub> , in the corrosion rate <0.1 mm/a. Excellent resistance to fuming sulfuric acid corrosion.	For the manufacture of 200 °C 98.6-100% H <sub>2</sub> SO <sub>4</sub> pumps, valves, tank, tanks, towers, pipelines and other equipment and fuming sulfuric acid equipment
13	Ultra-pure high-alloy austenitic stainless steel	STS-9	200 °C, 98.6-100% H <sub>2</sub> SO <sub>4</sub> , in the corrosion rate of <0.03mm/a.	The same application and STS-8, its mechanical properties and corrosion resistance is higher than the STS-8, is the current ultra-high-temperature sulfuric acid one of the best metal
14	Duplex stainless steel	STB-1	The corrosion rate of drying tower coupon 0.006-0.011mm/a, absorber coupon corrosion rate 0.026-0.126mm/a	Heat pump can produce concentrated sulfuric acid, such as the impeller, nozzle ring, impeller nut and so on. Hot concentrated sulfuric acid used in other equipment and parts
15	Corrosion resistant alloy cast iron	STB-2	Concentrated sulfuric acid at 93-98% in high-temperature corrosion rate of 0.10-0.30mm/a	Hot concentrated sulfuric acid pump pump, pump cover, section pipe, split tube, elbow and pipe, etc.
16	High-strength corrosion resistant alloy cast iron	STB-3	The use of complex alloying, dense black surface of a solid layer of protection, corrosion resistance than STB-2, after heat treatment, the level of mechanical properties of QT-800-2/700	The production of high-temperature heat treatment of concentrated sulfuric acid pump shaft, from tube to pack PTFE use, small and medium high-temperature sulfuric acid recirculating plant as a whole concentrated sulfuric acid pump, saving expenses
17	Duplex stainless steel	STB-4	Corrosion resistance close to the STB-1	The production of high-temperature alloys can be age hardened shaft sleeve and bushing concentrated sulfuric acid
18	Special high-alloy corrosion-resistant alloys	STB-5	104 °C concentrated sulfuric acid, the corrosion rate of 0.025mm/a; 120 °C concentrated sulfuric acid, the corrosion rate <0.1 mm/a, can be used 3-5 years	Traditional high-temperature sulfuric acid pump impeller
19	Special high-alloy corrosion-resistant alloys	STB-6	High-temperature sulfuric acid, concentrated sulfuric acid, fuming sulfuric acid and phosphoric acid. Aging treatment, up to 45-50 HRC	High-temperature sulfuric acid, concentrated sulfuric acid, fuming sulfuric acid, phosphoric acid corrosion-resistant pumps - and wear bushings and other corrosion-resistant lining-wear parts
20	High-alloy austenitic stainless steel	STB-7	Corrosion rate of ≤ 0.1 mm/a when the maximum temperature: 20% sulfuric acid 76 °C, 40-60% sulfuric acid 62.5 °C, 20-30 phosphate phosphate 105 °C, 40-90 110 °C	Dilute sulfuric acid pump, valve, tank, tank equipment and other equipment and WPA
21	Second-generation duplex stainless steel	STB-8	In the WPA has excellent corrosion resistance, such as 85 °C 38% P <sub>2</sub> O <sub>5</sub> , the corrosion rate is 0, the concentration of <20% H <sub>2</sub> SO <sub>4</sub> acid has excellent corrosion resistance	Dilute sulfuric acid pump and related equipment, wet phosphoric acid production valve and related equipment, sea water and chlorine ion media corrosion equipment
22	Second-generation duplex stainless steel casting	STB-9	Phosphoric acid in the corrosion rate of 0.1 mm/a maximum temperature: 20% phosphoric acid 103 °C, 30% phosphoric acid 105 °C, 60% phosphoric acid 100 °C	WPA tank pump pump, pump cover, impeller, the fluid tube, elbow and other corrosion/wear parts. Parts should be solid metal processing, wear parts should be hardening
23	High-carbon high-chromium stainless steel elements	STB-10	80 °C simulation of industrial phosphoric acid corrosion rate: cast 0.043mm/a, 1150 °C melt solid 0.023mm/a	Wet phosphoric acid corrosion-resistant - abrasion tank pump pump, pump cover, impeller, pipe and other parts, <1200 °C and high temperature heat resistant parts - wear parts



### Butterfly Valves

Designed and manufactured as a broad product range, in a wide choice of corrosion resistant materials, for long service life under arduous conditions in numerous industries.



Size Range:	DN80 – DN1600 / 3" – 64"
Design Standards:	API 609 , DIN 3354
Pressure Ratings:	Class 150, 300 , 600, 900
End Connections:	Welder/Lug, double flange(RF)
Description:	Anti-Static Device Open and Close Indicator Anti-Blow Out Shaft Resilient Seat / metal seat High Performance Double eccentric, tripple offset
Pressure Testing:	API 598 / BS EN 12266-1
Optional Extras:	Actuation Tagging / Marking Painting Locking Device Fire safe acc to API 607

### Main Materials

CODE	BODY	DISC	STEM
1	ASTM B62 C83600	ASTM B62 C83600	ASTM B124 C63200/ASTM B182 F304/F316
2	ASTM B148 C95800	ASTM B148 C9580	ASTM B124 C63200/ASTM B182 F304/F316
3	Monel 400	Monel 400	Monel K500
4	Monel K500	Monel K500	Monel K500
5	ASTM A351 CF8	ASTM A351 CF8	ASTM A182 F304
6	ASTM A351 CF8M	ASTM A351 CF8M	ASTM A182 F316/17-4PH
7	ASTM A351 CF3	ASTM A351 CF3	ASTM A182 F304L
8	ASTM A351 CF3M	ASTM A351 CF3M	ASTM A182 F316L
9	ASTM A351 CF8C	ASTM A351 CF8C	ASTM A182 F347
10	ASTM A995 4A	ASTM A995 4A	ASTM A182 F51
11	ASTM A995 5A	ASTM A995 5A	ASTM A182 F53
12	ASTM A995 6A	ASTM A995 6A	ASTM A182 F55
13	Inconel 600	Inconel 600	Inconel 600
14	Inconel 625	Inconel 625	Inconel 625
15	Inconel 718	Inconel 718	Inconel 718
16	Incoloy 825	Incoloy 825	Incoloy 825
17	904L	904L	904L
18	254 SMO	254 SMO	254 SMO
19	Alloy 20	Alloy 20	Alloy 20
20	Hastelloy B	Hastelloy B	Hastelloy B
21	Hastelloy B2	Hastelloy B2	Hastelloy B2
22	Hastelloy C	Hastelloy C	Hastelloy C
23	Hastelloy C-276	Hastelloy C-276	Hastelloy C-276
24	Titanium	Titanium	Titanium
25	Zirconium	Zirconium	Zirconium

Note: any other special material see ASME B16.34, table 1 and ASTM Standard



### Ball Valves (Floating Mounted)

Designed and manufactured as a broad product range, in a wide choice of corrosion resistant materials, for long service life under arduous conditions in numerous industries.



Size Range:	DN15 – DN300 / 1/2" – 12"
Design Standards:	API6D BS EN ISO 17292 (BS 5351)
Pressure Ratings:	Class 150,300,600,900,1500
End Connections:	Flanged ASME B16.5 BW ASME B16.25
Face to Face:	ASME B16.10
Description:	<b>Full Bore or Reduced Bore</b> 2 or 3-Piece Side Entry Bolted Construction Floating Ball PTFE or Reinforced PTFE Seats & Seals, metal seat Open and Close Indicator Lever Operated Anti-Static Device
Pressure Testing:	API 598 / BS EN 12266-1
Optional Extras:	Locking Devices Tagging / Marking Painting

### Main Materials

CODE	BODY/BONNET	BALL	STEM
1	ASTM B62 C83600	ASTM A13124 C63200/A182 F304/F316	ASTM B124 C63200/ASTM B182 F304/F316
2	ASTM B148 C95800	ASTM A13124 C63200/A182 F304/F316	ASTM B124 C63200/ASTM B182 F304/F316
3	Monel 400	Monel 400	Monel K500
4	Monel K500	Monel K500	Monel K500
5	ASTM A351 CF8	ASTM A182 F304	ASTM A182 F304
6	ASTM A351 CF8M	ASTM A182 F316	ASTM A182 F316/17-4PH
7	ASTM A351 CF3	ASTM A182 F304L	ASTM A182 F304L
8	ASTM A351 CF3M	ASTM A182 F316L	ASTM A182 F316L
9	ASTM A351 CF8C	ASTM A182 F347	ASTM A182 F347
10	ASTM A995 4A	ASTM A182 F51	ASTM A182 F51
11	ASTM A995 5A	ASTM A182 F53	ASTM A182 F53
12	ASTM A995 6A	ASTM A182 F55	ASTM A182 F55
13	Inconel 600	Inconel 600	Inconel 600
14	Inconel 625	Inconel 625	Inconel 625
15	Inconel 718	Inconel 718	Inconel 718
16	Incoloy 825	Incoloy 825	Incoloy 825
17	904L	904L	904L
18	254 SMO	254 SMO	254 SMO
19	Alloy 20	Alloy 20	Alloy 20
20	Hastelloy B	Hastelloy B	Hastelloy B
21	Hastelloy B2	Hastelloy B2	Hastelloy B2
22	Hastelloy C	Hastelloy C	Hastelloy C
23	Hastelloy C-276	Hastelloy C-276	Hastelloy C-276
24	Titanium	Titanium	Titanium
25	Zirconium	Zirconium	Zirconium

Note: any other special material see ASME B16.34 table 1 and ASTM Standard



**Ball Valves (Trunnion Mounted)**

Designed and manufactured as a broad product range, in a wide choice of corrosion resistant materials, for long service life under arduous conditions in numerous industries.



Size Range:	DN50 – DN1200 / 2" – 48"
Design Standards:	API6D, BS EN ISO 17292 (BS 5351)
Pressure Ratings:	Class 150,300,600,900,1500,2500
End Connections:	BW ASME B16.25 ASME B16.47 Flanged ASME B16.5
Description:	Full or Reduced Bore 2 or 3-Piece Construction Trunnion Mounted Ball PTFE, RPTFE, Nylon, Devlon, metal seat PEEK Seats & PTFE or Graphite Seats Lever or worm Operated Open Close and Indicator
Pressure Testing:	API 598 / BS EN 12266-1
Optional Extras:	Optional Extras: Anti-Static Devices Tagging & Marking Various bolting Materials Actuation

**Main Materials**

CODE	BODY/BONNET	BALL	STEM
1	ASTM B62 C83600	ASTM A13124 C63200/A182 F304/F316	ASTM B124 C63200/ASTM B182 F304/F316
2	ASTM B148 C95800	ASTM A13124 C63200/A182 F304/F316	ASTM B124 C63200/ASTM B182 F304/F316
3	Monel 400	Monel 400	Monel K500
4	Monel K500	Monel K500	Monel K500
5	ASTM A351 CF8	ASTM A182 F304	ASTM A182 F304
6	ASTM A351 CF8M	ASTM A182 F316	ASTM A182 F316/17-4PH
7	ASTM A351 CF3	ASTM A182 F304L	ASTM A182 F304L
8	ASTM A351 CF3M	ASTM A182 F316L	ASTM A182 F316L
9	ASTM A351 CF8C	ASTM A182 F347	ASTM A182 F347
10	ASTM A995 4A	ASTM A182 F51	ASTM A182 F51
11	ASTM A995 5A	ASTM A182 F53	ASTM A182 F53
12	ASTM A995 6A	ASTM A182 F55	ASTM A182 F55
13	Inconel 600	Inconel 600	Inconel 600
14	Inconel 625	Inconel 625	Inconel 625
15	Inconel 718	Inconel 718	Inconel 718
16	Incoloy 825	Incoloy 825	Incoloy 825
17	904L	904L	904L
18	254 SMO	254 SMO	254 SMO
19	Alloy 20	Alloy 20	Alloy 20
20	Hastelloy B	Hastelloy B	Hastelloy B
21	Hastelloy B2	Hastelloy B2	Hastelloy B2
22	Hastelloy C	Hastelloy C	Hastelloy C
23	Hastelloy C-276	Hastelloy C-276	Hastelloy C-276
24	Titanium	Titanium	Titanium
25	Zirconium	Zirconium	Zirconium

Note: any other special material see ASME B16.34 table 1 and ASTM Standard



### Gate Valves

Stone valve have vast experience of supplying and manufacturing Gate Valves, to a wide range of industries and applications.

Our gate valve range is renowned worldwide for been a quality product you can rely on. We manufacture our gates from a wide range specialist material and our engineers are on hand to ensure you make the correct product choice for your requirement



Size Range:	DN15 – DN1200 / 1/2" – 48"
Design Standards:	Generally in accordance with API 600, ASME B16.34, API 6D
Pressure Ratings:	Class 150, 300, 600, 900, 1500, 2500
End Connections:	BW ASME B16.25, ASME B16.47, Flanged ASME B16.5
Description:	Bolted Bonnet or pressure sealed bonnet Outside Screw & Yoke Rising Stem and non-rising handwheel Rising stem and handwheel Renewable Seat Solid Wedge flexible Handwheel Operated Graphite packing materials Hot dip galvanised
Pressure Testing:	API 598

### Main Materials

CODE	BODY/BONNET	WEGDE	STEM
1	ASTM B62 C83600	ASTM B62 C83600	ASTM B124 C63200/ASTM B182 F304/F316
2	ASTM B148 C95800	ASTM B148 C95800	ASTM B124 C63200/ASTM B182 F304/F316
3	Monel 400	Monel 400	Monel K500
4	Monel K500	Monel K500	Monel K500
5	ASTM A351 CF8 /A182 F304	ASTM A351 CF8 /A182 F304	ASTM A182 F304
6	ASTM A351 CF8M /A182 F316	ASTM A351 CF8M /A182 F316	ASTM A182 F316/17-4PH
7	ASTM A351 CF3 /A182 F304L	ASTM A351 CF3 /A182 F304L	ASTM A182 F304L
8	ASTM A351 CF3M /A182 F316L	ASTM A351 CF3M /A182 F316L	ASTM A182 F316L
9	ASTM A351 CF8C /A182 F347	ASTM A351 CF8C /A182 F347	ASTM A182 F347
10	ASTM A995 4A/A182 F51	ASTM A995 4A/A182 F51	ASTM A182 F51
11	ASTM A995 5A/A182 F53	ASTM A995 5A/A182 F53	ASTM A182 F53
12	ASTM A995 6A/A182 F55	ASTM A995 6A/A182 F55	ASTM A182 F55
13	Inconel 600	Inconel 600	Inconel 600
14	Inconel 625	Inconel 625	Inconel 625
15	Inconel 718	Inconel 718	Inconel 718
16	Incoloy 825	Incoloy 825	Incoloy 825
17	904L	904L	904L
18	254 SMO	254 SMO	254 SMO
19	Alloy 20	Alloy 20	Alloy 20
20	Hastelloy B	Hastelloy B	Hastelloy B
21	Hastelloy B2	Hastelloy B2	Hastelloy B2
22	Hastelloy C	Hastelloy C	Hastelloy C
23	Hastelloy C-276	Hastelloy C-276	Hastelloy C-276
24	Titanium	Titanium	Titanium
25	Zirconium	Zirconium	Zirconium

Note: any other special material see ASME B16.34, table 1 and ASTM Standard



### Globe Valve

Developed over the last 60 years Shiphams globe valves are installed throughout the world in major applications. The knowledge and technical understanding we have with the supply and manufacture of these valves ensures our customers are buying an outstanding, proven, quality product with a long life service second to none.



Size Range:	DN15 – DN900 / 1/2" – 36"
Design Standards:	BS 1873, ASME B16.34
Pressure Ratings:	Class 150,300,600,900,1500
End Connections:	BW all to ASME B16.25, Flanged ASME B16.5
Face to Face:	ANSI B16.10
Description:	Bolted Bonnet or pressure sealed bonnet Outside Screw Rising Stem Integral Seat Plug Type Disc Handwheel or gear operated
Pressure Testing:	API 598 / BS EN 12266-1
Optional Extras:	Locking Devices Painting Tagging / Marking Open and Close Indicator Renewable Seats 2" / DN50 and above Various Bolting Materials Various Packing & Gasket Materials Actuation

### Main Materials

CODE	BODY/BONNET	DISC	STEM
1	ASTM B62 C83600	ASTM B62 C83600	ASTM B124 C63200/ASTM B182 F304/F316
2	ASTM B148 C95800	ASTM B148 C95800	ASTM B124 C63200/ASTM B182 F304/F316
3	Monel 400	Monel 400	Monel K500
4	Monel K500	Monel K500	Monel K500
5	ASTM A351 CF8 /A182 F304	ASTM A351 CF8 /A182 F304	ASTM A182 F304
6	ASTM A351 CF8M /A182 F316	ASTM A351 CF8M /A182 F316	ASTM A182 F316/17-4PH
7	ASTM A351 CF3 /A182 F304L	ASTM A351 CF3 /A182 F304L	ASTM A182 F304L
8	ASTM A351 CF3M /A182 F316L	ASTM A351 CF3M /A182 F316L	ASTM A182 F316L
9	ASTM A351 CF8C /A182 F347	ASTM A351 CF8C /A182 F347	ASTM A182 F347
10	ASTM A995 4A/A182 F51	ASTM A995 4A/A182 F51	ASTM A182 F51
11	ASTM A995 5A/A182 F53	ASTM A995 5A/A182 F53	ASTM A182 F53
12	ASTM A995 6A/A182 F55	ASTM A995 6A/A182 F55	ASTM A182 F55
13	Inconel 600	Inconel 600	Inconel 600
14	Inconel 625	Inconel 625	Inconel 625
15	Inconel 718	Inconel 718	Inconel 718
16	Incoloy 825	Incoloy 825	Incoloy 825
17	904L	904L	904L
18	254 SMO	254 SMO	254 SMO
19	Alloy 20	Alloy 20	Alloy 20
20	Hastelloy B	Hastelloy B	Hastelloy B
21	Hastelloy B2	Hastelloy B2	Hastelloy B2
22	Hastelloy C	Hastelloy C	Hastelloy C
23	Hastelloy C-276	Hastelloy C-276	Hastelloy C-276
24	Titanium	Titanium	Titanium
25	Zirconium	Zirconium	Zirconium

Note: any other special material see ASME B16.34 table 1 and ASTM Standard





### Main Materials

CODE	BODY/BONNET	DISC	PIN
1	ASTM B62 C83600	ASTM B62 C83600	ASTM B124 C63200/ASTM B182 F304/F316
2	ASTM B148 C95800	ASTM B148 C95800	ASTM B124 C63200/ASTM B182 F304/F316
3	Monel 400	Monel 400	Monel 400
4	Monel K500	Monel K500	Monel K500
5	ASTM A351 CF8 /A182 F304	ASTM A351 CF8 /A182 F304	ASTM A182 F304
6	ASTM A351 CF8M /A182 F316	ASTM A351 CF8M /A182 F316	ASTM A182 F316/17-4PH
7	ASTM A351 CF3 /A182 F304L	ASTM A351 CF3 /A182 F304L	ASTM A182 F304L
8	ASTM A351 CF3M /A182 F316L	ASTM A351 CF3M /A182 F316L	ASTM A182 F316L
9	ASTM A351 CF8C /A182 F347	ASTM A351 CF8C /A182 F347	ASTM A182 F347
10	ASTM A995 4A/A182 F51	ASTM A995 4A/A182 F51	ASTM A182 F51
11	ASTM A995 5A/A182 F53	ASTM A995 5A/A182 F53	ASTM A182 F53
12	ASTM A995 6A/A182 F55	ASTM A995 6A/A182 F55	ASTM A182 F55
13	Inconel 600	Inconel 600	Inconel 600
14	Inconel 625	Inconel 625	Inconel 625
15	Inconel 718	Inconel 718	Inconel 718
16	Inconel 825	Inconel 825	Inconel 825
17	904L	904L	904L
18	254 SMO	254 SMO	254 SMO
19	Alloy 20	Alloy 20	Alloy 20
20	Hastelloy B	Hastelloy B	Hastelloy B
21	Hastelloy B2	Hastelloy B2	Hastelloy B2
22	Hastelloy C	Hastelloy C	Hastelloy C
23	Hastelloy C-276	Hastelloy C-276	Hastelloy C-276
24	Titanium	Titanium	Titanium
25	Zirconium	Zirconium	Zirconium

Note: any other special material see ASME B16.34 table 1 and ASTM Standard



### Swing Check Valves

Designed and manufactured in a wide choice of corrosion resistant materials to prevent potentially hazardous reverse flow in numerous industries.



Size Range:	DN15 – DN600 / 1/2" – 24"
Design Standards:	BS 1868 API 594
Pressure Rating:	Class 150, 300, 600, 900, 1500, 2500
End Connections:	BW all to ASME B16.25, Flanged ASME B16.5
Description:	Bolted Bonnet or pressure sealed bonnet Integral Seat Swing Check Disc
Pressure Testing:	API 598 / BS EN 12266-1
Optional Extras:	Painting Tagging / Marking Renewable Seats 2" / DN50 and above Anti-Stem Various Bolting Materials Various Gasket Materials



### Lift Check Valves

Designed and manufactured in a wide choice of corrosion resistant materials to prevent potentially hazardous reverse flow in numerous industries.



Size Range:	DN15 – DN400 / 1/2" – 16"
Design Standards:	ASME B16.34
Pressure Ratings:	Class 150,300,600,900,1500,2500
End Connections:	BW all to ASME B16.25, Flanged ASME B16.5
Description:	Bonnet Integral Seat Plug Check Disc or disc
Pressure Testing:	API 598 / BS EN 12266-1
Optional Extras:	Painting Tagging / Marking Spring Loaded

### Main Materials

CODE	BODY/BONNET	DISC
1	ASTM B62 C83600	ASTM B62 C83600
2	ASTM B148 C95800	ASTM B148 C95800
3	Monel 400	Monel 400
4	Monel K500	Monel K500
5	ASTM A351 CF8 /A182 F304	ASTM A351 CF8 /A182 F304
6	ASTM A351 CF8M /A182 F316	ASTM A351 CF8M /A182 F316
7	ASTM A351 CF3 /A182 F304L	ASTM A351 CF3 /A182 F304L
8	ASTM A351 CF3M /A182 F316L	ASTM A351 CF3M /A182 F316L
9	ASTM A351 CF8C /A182 F347	ASTM A351 CF8C /A182 F347
10	ASTM A995 4A/A182 F51	ASTM A995 4A/A182 F51
11	ASTM A995 5A/A182 F53	ASTM A995 5A/A182 F53
12	ASTM A995 6A/A182 F55	ASTM A995 6A/A182 F55
13	Inconel 600	Inconel 600
14	Inconel 625	Inconel 625
15	Inconel 718	Inconel 718
16	Incoloyl 825	Incoloy 825
17	904L	904L
18	254 SMO	254 SMO
19	Alloy 20	Alloy 20
20	Hastelloy B	Hastelloy B
21	Hastelloy B2	Hastelloy B2
22	Hastelloy C	Hastelloy C
23	Hastelloy C-276	Hastelloy C-276
24	Titanium	Titanium
25	Zirconium	Zirconium

Note: any other special material see ASME B16.34 table 1 and ASTM Standard



### Dual Plate Wafer Check Valves

Stone's range of Dual Plate Check valves have been specifically engineered to maximise the prevention of reverse flow. These Valves can be manufactured from a wide range of our specialist materials, enabling them to be used in arduous conditions where long service life and anti-corrosion and erosion is critical.



Size Range:	DN80 – DN600 / 3" – 24"
Design Standards:	API 594
Pressure Ratings:	Class 150,300,600,900
End Connections:	Wafer or Lugged or flange ASME B16.5, ASME B16.47
Description:	Dual Plate Check Integral Seat Retainerless Body Spring Assisted Lifting Lugs for 8" / DN200 and above
Pressure Testing:	API 598 / BS EN 12266-1:2003
Optional Extras:	Optional Soft Seat Painting Tagging / Marking

### Main Materials

CODE	BODY/BONNET	DISC PLATES	HINGE PIN
1	ASTM B62 C83600	ASTM B62 C83600	ASTM B124 C63200/ASTM B182 F304/F316
2	ASTM B148 C95800	ASTM B148 C95800	ASTM B124 C63200/ASTM B182 F304/F316
3	Monel 400	Monel 400	Monel K500
4	Monel K500	Monel K500	Monel K500
5	ASTM A351 CF8 /A182 F304	ASTM A351 CF8 /A182 F304	ASTM A182 F304
6	ASTM A351 CF8M /A182 F316	ASTM A351 CF8M /A182 F316	ASTM A182 F316/17-4PH
7	ASTM A351 CF3 /A182 F304L	ASTM A351 CF3 /A182 F304L	ASTM A182 F304L
8	ASTM A351 CF3M /A182 F316L	ASTM A351 CF3M /A182 F316L	ASTM A182 F316L
9	ASTM A351 CF8C /A182 F347	ASTM A351 CF8C /A182 F347	ASTM A182 F347
10	ASTM A995 4A/A182 F51	ASTM A995 4A/A182 F51	ASTM A182 F51
11	ASTM A995 5A/A182 F53	ASTM A995 5A/A182 F53	ASTM A182 F53
12	ASTM A995 6A/A182 F55	ASTM A995 6A/A182 F55	ASTM A182 F55
13	Inconel 600	Inconel 600	Inconel 600
14	Inconel 625	Inconel 625	Inconel 625
15	Inconel 718	Inconel 718	Inconel 718
16	Incoloy 825	Incoloy 825	Incoloy 825
17	904L	904L	904L
18	254 SMO	254 SMO	254 SMO
19	Alloy 20	Alloy 20	Alloy 20
20	Hastelloy B	Hastelloy B	Hastelloy B
21	Hastelloy B2	Hastelloy B2	Hastelloy B2
22	Hastelloy C	Hastelloy C	Hastelloy C
23	Hastelloy C-276	Hastelloy C-276	Hastelloy C-276
24	Titanium	Titanium	Titanium
25	Zirconium	Zirconium	Zirconium

Note: any other special material see ASME B16.34 table 1 and ASTM Standard



## PLUG VALVE

### Plug Valves

Plug valves are valves with cylindrical or conically-tapered "plugs" which can be rotated inside the valve body to control flow through the valve. The plugs in plug valves have one or more hollow passageways going sideways through the plug, so that fluid can flow through the plug when the valve is open. Plug valves are simple and often economical.



Size Range:	DN15 – DN600 / 1/2" – 24"
Design Standards:	API 6D, ASME B16.34
Pressure Ratings:	Class 150, 300, 600, 900, 1500
End Connections:	BW all to ASME B16.25, Flanged ASME B16.5
Description:	Plug disc lever or worm operated
Pressure Testing:	API 598 / BS EN 12286-1
Optional Extras:	Optional Soft Seat Painting Tagging / Marking

## ANGLE TYPE GLOBE VALVE

### Angle Type Globe Valve

Developed over the last 60 years Stone globe valves are installed throughout the world in major applications. The knowledge and technical understanding we have with the supply and manufacture of these valves ensures our customers are buying an outstanding, proven, quality product with a long life service second to none.



Size Range:	DN15 – DN250 / 1/2" – 8"
Design Standards:	ASME B16.34
Pressure Ratings:	Class 150, 300, 600, 900
End Connections:	BW all to ASME B16.25, Flanged ASME B16.5
Description:	Angle structure hand wheel or gear operated
Pressure Testing:	API 598 / BS EN 12286-1:2003
Optional Extras:	Painting Tagging / Marking

### Main Materials

CODE	BODY/BONNET	BALL	STEM
1	ASTM B62 C83600	ASTMA13124C63200A182F304F316	ASTM B124 C63200ASTMB182 F304F316
2	ASTM B148 C95800	ASTMA13124C63200A182F304F316	ASTM B124 C63200ASTMB182 F304F316
3	Monel 400	Monel 400	Monel K500
4	Monel K500	Monel K500	Monel K500
5	ASTM A351 CF8	ASTM A182 F304	ASTM A182 F304
6	ASTM A351 CF8M	ASTM A182 F316	ASTM A182 F316/17-4PH
7	ASTM A351 CF3	ASTM A182 F304L	ASTM A182 F304L
8	ASTM A351 CF3M	ASTM A182 F316L	ASTM A182 F316L
9	ASTM A351 CF8C	ASTM A182 F347	ASTM A182 F347
10	ASTM A995 4A	ASTM A182 F51	ASTM A182 F51
11	ASTM A995 5A	ASTM A182 F53	ASTM A182 F53
12	ASTM A995 6A	ASTM A182 F55	ASTM A182 F55
13	Inconel 600	Inconel 600	Inconel 600
14	Inconel 625	Inconel 625	Inconel 625
15	Inconel 718	Inconel 718	Inconel 718
16	Incoloy 825	Incoloy 825	Incoloy 825
17	904L	904L	904L
18	254 SMO	254 SMO	254 SMO
19	Alloy 20	Alloy 20	Alloy 20
20	Hastelloy B	Hastelloy B	Hastelloy B
21	Hastelloy B2	Hastelloy B2	Hastelloy B2
22	Hastelloy C	Hastelloy C	Hastelloy C
23	Hastelloy C-276	Hastelloy C-276	Hastelloy C-276
24	Titanium	Titanium	Titanium
25	Zirconium	Zirconium	Zirconium

Note: any other special material see ASME B16.34, table 1 and ASTM Standard

### Main Materials

CODE	BODY/BONNET	DISC	STEM
1	ASTM B62 C83600	ASTM B62 C83600	ASTM B124 C63200ASTMB182 F304F316
2	ASTM B148 C95800	ASTM B148 C95800	ASTM B124 C63200ASTMB182 F304F316
3	Monel 400	Monel 400	Monel K500
4	Monel K500	Monel K500	Monel K500
5	ASTM A351 CF8 /A182 F304	ASTM A351 CF8 /A182 F304	ASTM A182 F304
6	ASTM A351 CF8M /A182 F316	ASTM A351 CF8M /A182 F316	ASTM A182 F316/17-4PH
7	ASTM A351 CF3 /A182 F304L	ASTM A351 CF3 /A182 F304L	ASTM A182 F304L
8	ASTM A351 CF3M /A182 F316L	ASTM A351 CF3M /A182 F316L	ASTM A182 F316L
9	ASTM A351 CF8C /A182 F347	ASTM A351 CF8C /A182 F347	ASTM A182 F347
10	ASTM A995 4A/A182 F51	ASTM A995 4A/A182 F51	ASTM A182 F51
11	ASTM A995 5A/A182 F53	ASTM A995 5A/A182 F53	ASTM A182 F53
12	ASTM A995 6A/A182 F55	ASTM A995 6A/A182 F55	ASTM A182 F55
13	Inconel 600	Inconel 600	Inconel 600
14	Inconel 625	Inconel 625	Inconel 625
15	Inconel 718	Inconel 718	Inconel 718
16	Incoloy 825	Incoloy 825	Incoloy 825
17	904L	904L	904L
18	254 SMO	254 SMO	254 SMO
19	Alloy 20	Alloy 20	Alloy 20
20	Hastelloy B	Hastelloy B	Hastelloy B
21	Hastelloy B2	Hastelloy B2	Hastelloy B2
22	Hastelloy C	Hastelloy C	Hastelloy C
23	Hastelloy C-276	Hastelloy C-276	Hastelloy C-276
24	Titanium	Titanium	Titanium
25	Zirconium	Zirconium	Zirconium

Note: any other special material see ASME B16.34, table 1 and ASTM Standard