



SPECIAL ALLOY VALVES

Titanium Alloy Valves

Zirconium Alloy Valves

Nickel Alloy Valves

Hastelloy Alloy Valves

Inconel Alloy Valves

Incoloy Alloy Valves

Monel Alloy Valves

Duplex Steel Valves

WEIDOU LI VALVES CO., LTD.

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Weidouli company committed to the manufacturing of exotic material valves since 1989, with long term history and abundant experience on severe service valves for critical applications.

Valves can be designed, manufactured, assembled and tested in accordance with ANSI/API/ASME norms, DIN/ ISO/BS specifications, Norsok requirements, JIS standards and tailor-made.

Weidouli factory area 32000m², with modern technology and the new facilities including CNC machine shop, fabrication and inspection and test facilities.

Weidouli advanced manufacturing processes enable to produce a wide range of valves from bars and forgings, castings. Moreover, sizeable stock allows Weidouli to offer a broad selection of exotic materials whilst keeping production time to a minimum.

Weidouli have ISO 9001/API 6D/ISO 14001 OHSAS 18001/API 607/API 6FA/CE/EAC/ATEX/ISO 15848/ TS etc. qualifications to guarantee the realizable quality.

Weidouli system includes the selection of raw material from approved vendors, and rigorous oversight of our manufacturing process that is vital to quality control.

Our extensive quality control system carefully monitors our manufacturing processes to assure a product that performs to the highest industry standards. Quality assurance procedures include 100% hydrostatic and pneumatic testing of all valves in full conformance to applicable API standards and industry codes.





API 6D



API 607/6FA



ISO9001



CE 1155



ATEX



ISO 14001



OHSAS 18001



EAC



TS



ISO 15848-1

Cooperate Sincerely Create Win-win

The history of Weidouli dates back to 1989, the initial company named Lixin established in that year with prospective view to begin with exotic material valves manufacturing.

With an increase of its production capacity and satisfaction of domestic and oversea clients' requirements, Weidouli furnish with a new modern factory filled with advance and large CNC machine facilities.

Weidouli has worked diligently in past decades to secure our advantageous industry position and become a highly respected and valuable enterprise to the area of anti-corrosive valves application and come to being an culture: Cooperate Sincerely, Create Win-win.

Weidouli will continue to play a good role and make its unceasing efforts in the valve markets with our goals in mind : Premier Service, Premier Quality.

CEO, Chengrui Xia

Solution for Anti-corrosive Valve



Petro-Chemical

Utilities
Potable Water
PTA Process
Acetic Acid Process



Offshore Oil&Gas

Seawater Injection
Oil/Water Separation
Fire Fighting
Cooling System
Ballast System



Pulp&Paper Industries

CLO₂ Bleaching System
Displacement Cooking
Process
Black Liquid Evaporator
Waste Water&Acid
Recovery

Weidouli valves for critical applications in chemical and petrochemical process
 (PTA process, Acetic acid, sulfuric and nitric acid, and chlorine services ,Caustic Soda etc.),
 Onshore/Offshore (Desalination processing, oil/water separation, Fire Fighting, Cooling system) ,
 FPSO/FSO, Oil&Gas, Water treatment, Refinery, Pulp & Paper, Mining, Power generation etc.



LNG

Fire Water Ring Main
 Cooling System
 Ballast Water Treatment
 Utilities



Power Generation

Power Generation
 Sea Water Inlets
 Cooling System
 Desalination
 Desulfurize
 Utilities



Naval Marine

HVAC
 Ballast System
 Chilled Water
 Grey Water
 Black Water
 Fuel System



↓ Contract evaluation



↓ Design evaluation



↓ Product design



↓ Vacuum foundry



↓ Incoming inspection



Wall thickness test



↑ Metallographic analysis



↑ Vacuum heat treatment



↑ Direct-reading spectrometer



↑ Mechanical test



↑ Chemical analysis



Spectral test



↓ Hardness test



↓ Liquid Permeate test



↓ Ultrasonic non-destructive inspection



↓ X-ray flaw detection test



↓ Supersonic spray



QC inspection



↑ CNC grinding ball



↑ Driller



↑ CNC machining



↑ Machining center



↑ Vertical lather machining



Boring machine machining



↓ Vacuum welding



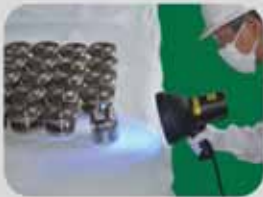
↑ Packing & shipment



↓ Vacuum hardness treatment



↑ Finished products warehouse



↓ Oil test by Ultraviolet Rays



↑ Iron pollution test



↓ Cleaning room



↑ Ultrasonic cleaning



Assembly



Pressure test

Weidouli valves functional quality management system complies with ISO 9001 and API 6D requirements to ensure production process maintain international safety and quality standard.

Weidouli valves complete production process from start to finish: design, manufacture, test and sale, products are tested rigorously and certified for quality assurance, is carried out with safe highest quality and to be one of global best corrosion resistant valve manufacturer in mind.



WSV ERP System



SPECIAL ALLOY MATERIAL SERIES

	Material Group	Forgings	Castings	Bars
		Spec.No.Grade	Spec.No.Grade	Spec.No.Grade
Titanium alloy	Titanium			
	Titanium Gr. 2	B381 Gr. F-2	B367 Gr. C-2	B348 Gr. 2
	Titanium Gr. 3	B381 Gr. F-3	B367 Gr. C-3	B348 Gr. 3
	Titanium alloy			
	Titanium Gr. 5	B381 Gr. F-5	B367 Gr. C-5	B348 Gr. 5
	Titanium Gr. 6	B381 Gr. F-6	B367 Gr. C-6	B348 Gr. 6
	Titanium Gr. 12	B381 Gr. F-12	B367 Gr. C-12	B348 Gr. 12
	Titanium Gr. 7	B381 Gr. F-7	B367 Gr. C-7	B348 Gr. 7
Nickel base alloy	Ni			
	Nickel200	B564 N02200	A494 CZ100	B160 N02200
	Nickel201	B160 N02201		B160 N02201
	Ni-alloy			
	Monel 400	B564 N04400	A494 M35-1/M35-C	B164 N04400
	Monel K500	B865 N05500		B865 N05500
	Inconel 600	B564 N06600	A494 CY40	B166 N06600
	Inconel 625	B564 N06625	A494 CW6MC	B446 N06625
	Incoloy 800	B564 N08800	A351 CT15C	B408 N08800
	Incoloy 825	B564 N08825	A494 CU5MCuC	B425 N08825
	Hastelloy B	B335 N10001	A494 N12MV	B335 N10001
	Hastelloy B-2	B462 N10665	A494 N7M	B335 N10665
	Hastelloy C276	B564 N10276	A494 CW12MW / CW6M	B574 N10276
	Hastelloy C-22	B564 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 R60705
Iron base alloy	Duplex stainless steel			
	Duplex S31803	A182 F51(2205)	A890/A995 4A(CD3MN)	A276 S31803
	Super-Duplex S32750	A182 F53(2507)	A890/A995 5A(CE3MN)	A276 S32750
	Super-Duplex S32760	A182 F55	A890/A995 6A(CD3MWCuN)	A276 S32760
	Super austenitic stainless steel			
	904L	A182 F904L		B649 N08904
	254SMO	A182 F44	A351 CK3MCuN	A276 S31254
	AL-6XN	B462 N08367	A351 CN3MN	B688 N08367
	Alloy 20	A182 F20/B462 N08020	A351 CN7M	B473 N08020
	austenitic stainless steel			
	304	A182 F304	A351 CF8	A276 304
	304L	A182 F304L	A351 CF3	A276 304L
	316	A182 F316	A351 CF8M	A276 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
Copper	Copper alloy			
	Ni-Al-Br		B148 C95800	B150 C63200

The above materials are applicable to valve shell. Contact WSV for the valve component materials. Trademarks appeared on the book: SandvikAB for SAF2205/ SAF2507 SPECIALS METALS for Inconel, Monel, Incoloy, Haynes for Hastelloy Allegheny Ludlum for AL-6XN Avesta for 254SMO, SUMITOMO for DP3W/NAR.

MATERIAL CHARACTER AND APPLICATION

Material Group	Characteristics	Typical application
Titanium alloy	Titanium	
	Titanium Gr. 2	High resistance to pitting, crevice corrosion resistance, High resistance to stress corrosion cracking, corrosion fatigue and erosion.
	Titanium Gr. 3	
	Titanium alloy	
	Titanium Gr. 5	Higher strength with (Al, Mo, Sn, V). Higher corrosion resistance in reductive acid with Pt content.
	Titanium Gr. 6	
	Titanium Gr. 12	
Titanium Gr. 7		
Nickel base alloy	Nickel	
	Nickel200	Superior corrosion resistance to carbon acid solution such as soda calcium carbonate.
	Nickel201	
	Ni-alloy	
	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 Cl ions.
	Inconel 625	Superior corrosion resistance under oxidizing and high temperature environment; and superior erosion resistance.
	Incoloy 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.
	Incoloy 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	
	Hastelloy C276	Superior resistance under oxidizing environment, such as wet chlorine gas and chlorine dioxide; also resistance to organic and chloride such as acetic acid and seawater.
	Hastelloy C-22	
	Hastelloy C-4	Higher intergranular corrosion resistance than Hastelloy B.
Hastelloy G	Superior corrosion resistance to mixed acid of phosphoric acid and oxidizing acid.	
Hastelloy G30		
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	
	Duplex stainless steel	
Duplex S31803	High cracking corrosion resistance to chloride environment, high corrosion resistance to dilute sulphuric acid and phosphoric acid.	
Super-Duplex S32750	Higher stress corrosion cracking resistance than austenitic stainless steel, Higher weldability than ferritic stainless steel and higher acid, pitting and crevice corrosion resistance than CF3M with higher mechanical strength.	
Super-Duplex S32760		
Super austenitic stainless steel		
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		
Alloy 20	Superior corrosion resistance to nitric acid of any concentration at 60°C and lower, and to heated dilute oxide.	
Austenitic stainless steel		
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 CF3M with T.	
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		
Copper	Copper alloy	
	B148 C95800	Specialized anti-corrosive applications.

BALL VALVES

Design standard: API, ASME, EN, ISO, JIS, DIN, BS, GB
Connecting type: Flanged, Wafer, SW, BW, Thread type, etc.
Pressure rating: Class150 LB~2500 LB, 1.0 MPa~42.0 MPa, JIS10K~40K
Size range: NPS3/8"~48", DN8~DN1200
Operation: Lever, Gear

Design Feature:

- 1pc-2pc-3pc
- Soft sealing / Metal sealing
- Full bore / Reduce bore
- Fire-safe design, Anti-static, Blow-out proof stem
- Anti-leakage design packing & packing box
- Stem&seat grease feeding system
- Cavity pressure automatic relief structure
- Double block and bleed (DBB) function
- ISO 5211 mounting pad
- Optional locking device



2-PC ball valve



3-PC ball valve



Metal seated ball valve



Floating ball valve



C95800 ball valve



High temp ball valve



Zirconium ball valve



Trunnion ball valve



Jacketed ball valve

GATE VALVES

Design standard: API, ASME, EN, ISO, JIS, DIN, BS, GB
Connecting type: Flanged, SW, BW, Thread type, etc.
Pressure rating: Class 150 LB~2500 LB, PN1.0 MPa~42.0 MPa, JIS10K~40K
Size range: NPS1/2"~60", DN15~DN1500
Operation: Hand wheel, Gear

Design Feature:

- Flexible / Solid wedge disc
- Full bore / Reduce bore
- Bolted bonnet / Pressure seal
- Renewable seat / Integral seat



API 602 gate valve



API 600 gate valve



Duplex gate valve



Pressure seal gate valve



904L gate valve



Titanium gate valve



Titanium knife gate valve



Ni-Al-Br C95800 gate valve



Large size gate valve

GLOBE VALVES

Design standard: API, ASME, EN, ISO, JIS, DIN, BS, GB

Connecting type: Flanged, SW, BW, Thread type, etc.

Pressure rating: Class150 LB~2500 LB, PN1.0 MPa~42.0 MPa, JIS10K~40K

Size range: NPS3/8"~16", DN8~DN400

Operation: Hand wheel, Gear

Design Feature:

- Full bore / Reduce bore
- Bolted bonnet / Pressure seal
- Integral seat
- Conical sealing surface / Flat sealing surface



Pressure seal globe valve



ASME globe valve



Zirconium globe valve



Y pattern globe valve



DIN globe valve



Ni-Al-Br C95800 globe valve



Large size globe valve



Monel globe valve



904L globe valve

CHECK VALVES

Design standard: API, ASME, EN, ISO, JIS, DIN, BS, GB
Connecting type: Flanged, Wafer, SW, BW, Thread type, etc.
Pressure rating: Class150 LB~2500 LB, PN1.0 MPa~42.0 MPa, JIS10K~40K
Size range: NPS1/2" ~60", DN15~DN1500

Design Feature:

- Lift / Swing / Dual plate / Vertical type
- Full bore / Reduced bore
- Bolted bonnet / Pressure seal
- Renewable seat / Integral seat



Lift check valve



Dual plate check valve



Retaineriess check valve



904L vertical check valve



Pure nickel vertical check valve



Pressure seal check valve



Zirconium swing check valve



Titanium swing check valve



Hastelloy swing check valve

PLUG VALVES

Design standard: API, ASME, EN, ISO, JIS, DIN, BS, GB

Connecting type: Flanged, SW, BW, Thread type, etc.

Pressure rating: Class150 LB~600 LB, PN1.0 MPa~11.0 MPa, JIS10 K~40 K

Size range: NPS1/2"~24", DN15~DN600

Operation: Lever, Gear

Design Feature:

- Full bore/reduce bore
- Soft sealing/metal sealing
- Packing box structure
- Anti erosion adjustable structure
- 2-Way/3-Way
- Double gland
- Trunnion design



Metal sealing plug valve



Double gland plug valve



Zirconium plug valve



Piston plug valve



Lockable plug valve



Hastelloy sample valve



904L plug valve



Titanium plug valve



Trunnion plug valve

BUTTERFLY VALVES

Design standard: API, ASME, EN, ISO, JIS, DIN, BS, GB
Connecting type: Flanged, Wafer, Lug, BW type, etc.
Pressure rating: Class150 LB~300 LB, PN1.0 MPa~4.0 MPa, JIS10K~20K
Size range: NPS 2"~100", DN50~2500
Operation: Lever, Gear

Design Feature:

- Concentric / Double offset / Triple offset
- Zero leakage
- Uni-directional or Bi-directional seal
- Soft or metal seated
- Blow-out proof stem
- ISO 5211 mounting pad



Large size butterfly valve



Double offset butterfly valve



Wafer type butterfly valve



Ni-Al-Br C95800 butterfly valve



Hastelloy butterfly valve



Flanged type butterfly valve



Triple offset butterfly valve



Alloy 20 butterfly valve



Lug type butterfly valve



CONTROL VALVES

- Type: Linear (Globe, Gate) or Rotary (Ball, Plug, Butterfly),
Special control valve
- Operation: Electric, pneumatic, hydraulic, electro-hydraulic,
electro-pneumatic
- Size Range: NPS 1/2"–24"
- Pressure rating: 150 LB– 900 LB
- Connection type: Flanged, Wafer



Titanium globe control valve



Special control valve



Titanium V-ball control valve



Duplex plug control valve



904L plug control valve



3-Way control valve



Titanium butterfly control valve



Zirconium ball control valve



Discharge control valve

OTHERS



Ball type discharge valve



Jacketed discharge valve



Open upward discharge valve



Hastelloy discharge valve



Open downward discharge valve



Needle valve



Pure nickel strainer



Duplex Y strainer



Titanium basket strainer



Titanium ball



Titanium stem



Flange

Engineering Data— Soft Seat Material

Seat

Properties		Nylon	Teflon (unfilled)	PEEK	Delrin	Polyphenylene
Temperature Range °F		-30~250	-100~425	-60~500	-50~200	-50~450
Pressure Rating		900~1500	150~600	150~1500	150~1500	150~300
Mechanical Property	Hardness	D75	D58	D85	R-120	D80
	Tensile Strength (psi)	8700(min)	2100~2400	11000(min)	6600~7500 (min)	2000~2350 (min)
	Elongation (%)	250~290	250	30(min)	220	275~310
Physical Property	Specific Gravity	1.04	2.2	1.3	1.41	1.9~2.1
	Water Absorption (%)	0.2	<0.01	0.18	0.15	0.1~0.2
	Radiation	5*10 ⁸ RAD	10 ⁸ RAD	10 ⁹ RAD	107RAD	9*10 ⁶ RAD
Service Application		High pressure & Low temperature service	Chemical & Cryogenic service	High pressure & temperature service with steam in radiation environment	High pressure & Low temperature service	High temperature High Corrosion service

Sealing

Type	Viton®	EPDM	25% Glass Filled PTFE	NBR	Buna.N
Temperature range °F	-20~400	-60~300	-328~1000	-50~300	-30~250
Service Application	1.85	---	2.24	1.2	1.31
Hardness	D75	D90	D65	D50	D90

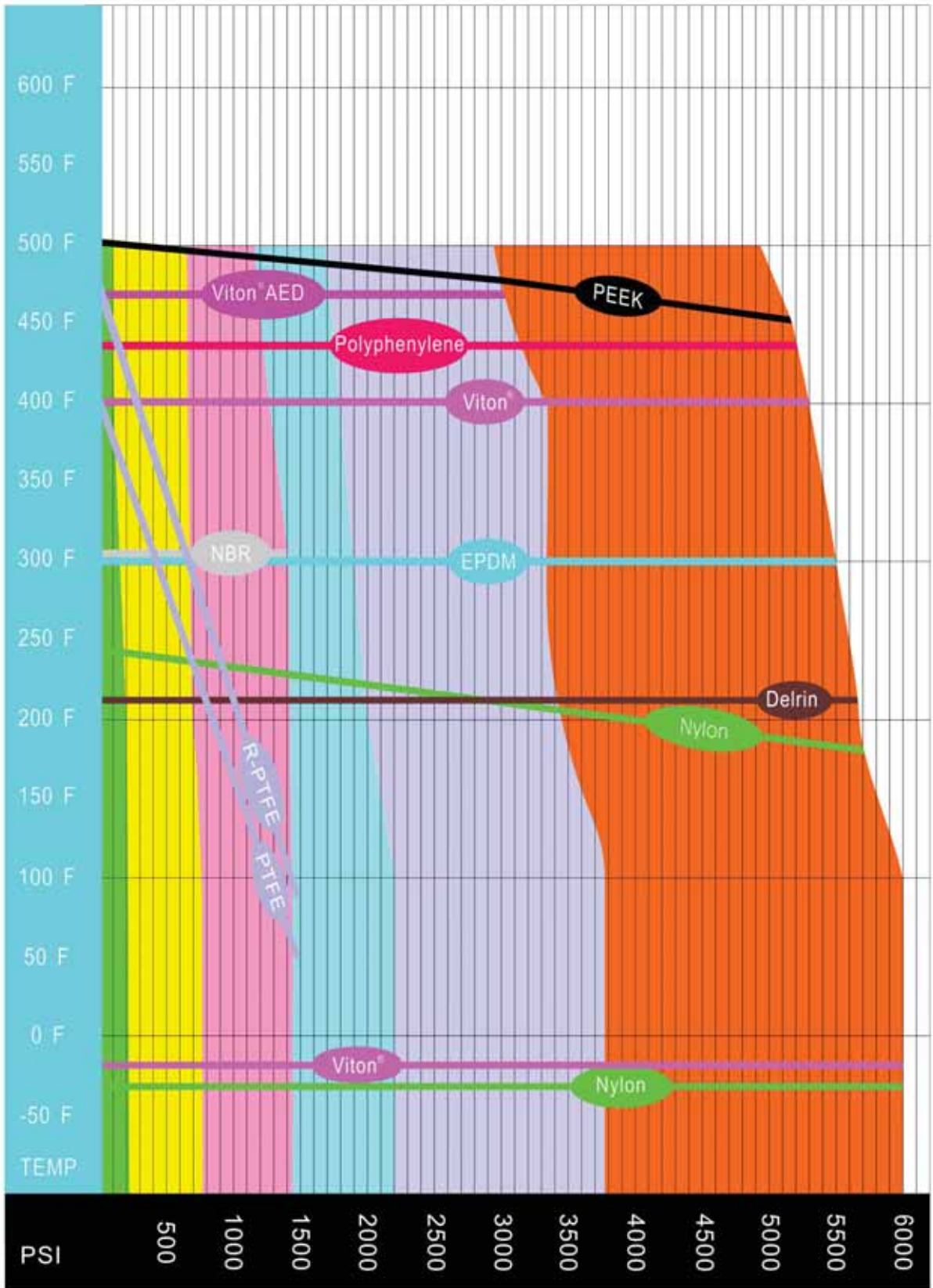
Gasket

Type	Flexible Graphite	Spiral Wound Metal+Graphite	Spiral Wound Metal+PTFE
Temperature range °F	-328~1000	-328~1000	-328~500
Service Application	100% Fire-safe	100% Fire-safe	Cryogenic High Corrosion
Hardness	0~14	0~14	0~14

Contact Weidouli for optional requirement of gasket or gland packing other than listed above.

Engineering Data—Pressure Temperature Chart

Class 150LB Class 300LB Class 600LB Class 900LB Class 1500LB Class 2500LB



This chart is just for reference.



ISO9001



API607



6D-0559



1155



TS2710457-2018



ISO 14001



OHSAS 18001

WSV® TZNT®

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