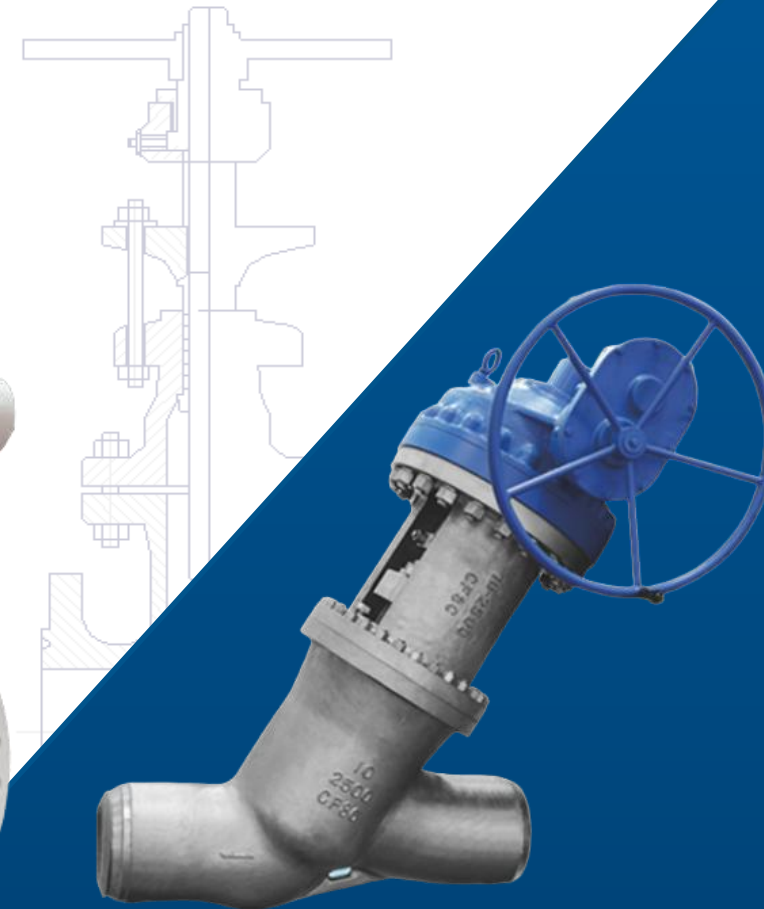
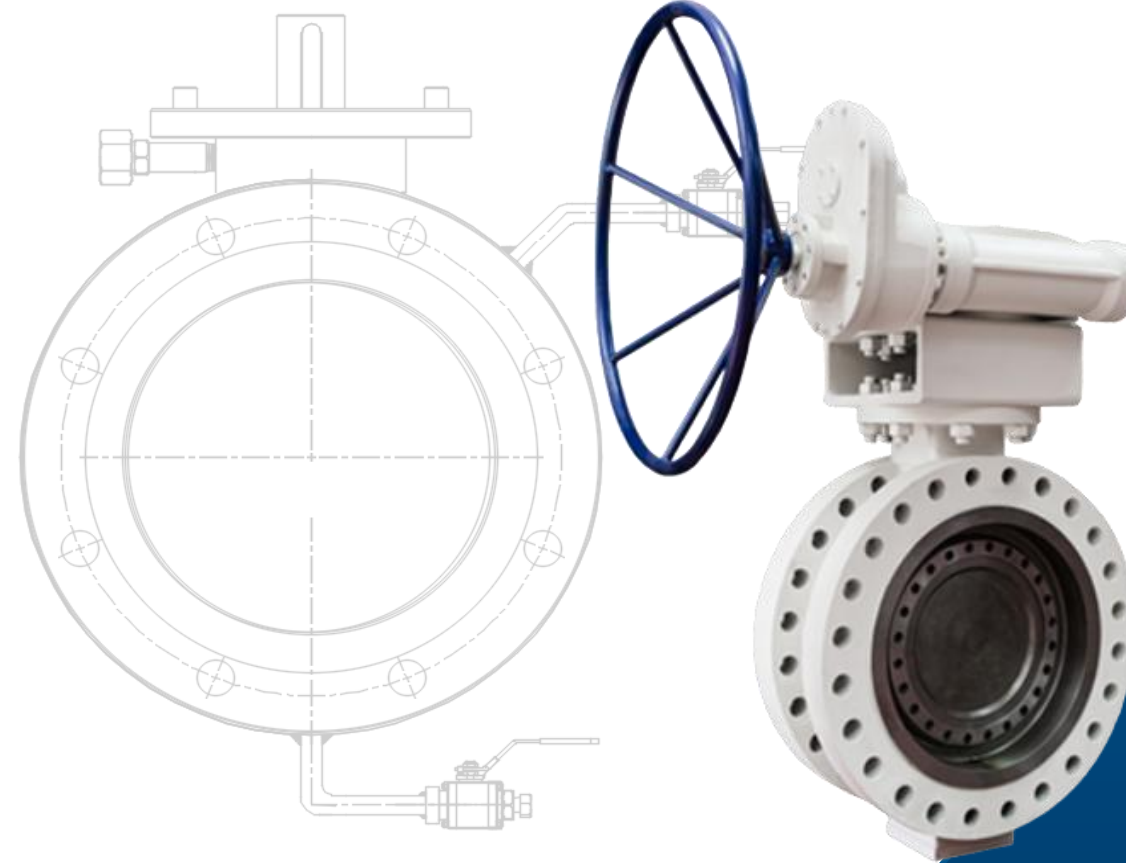
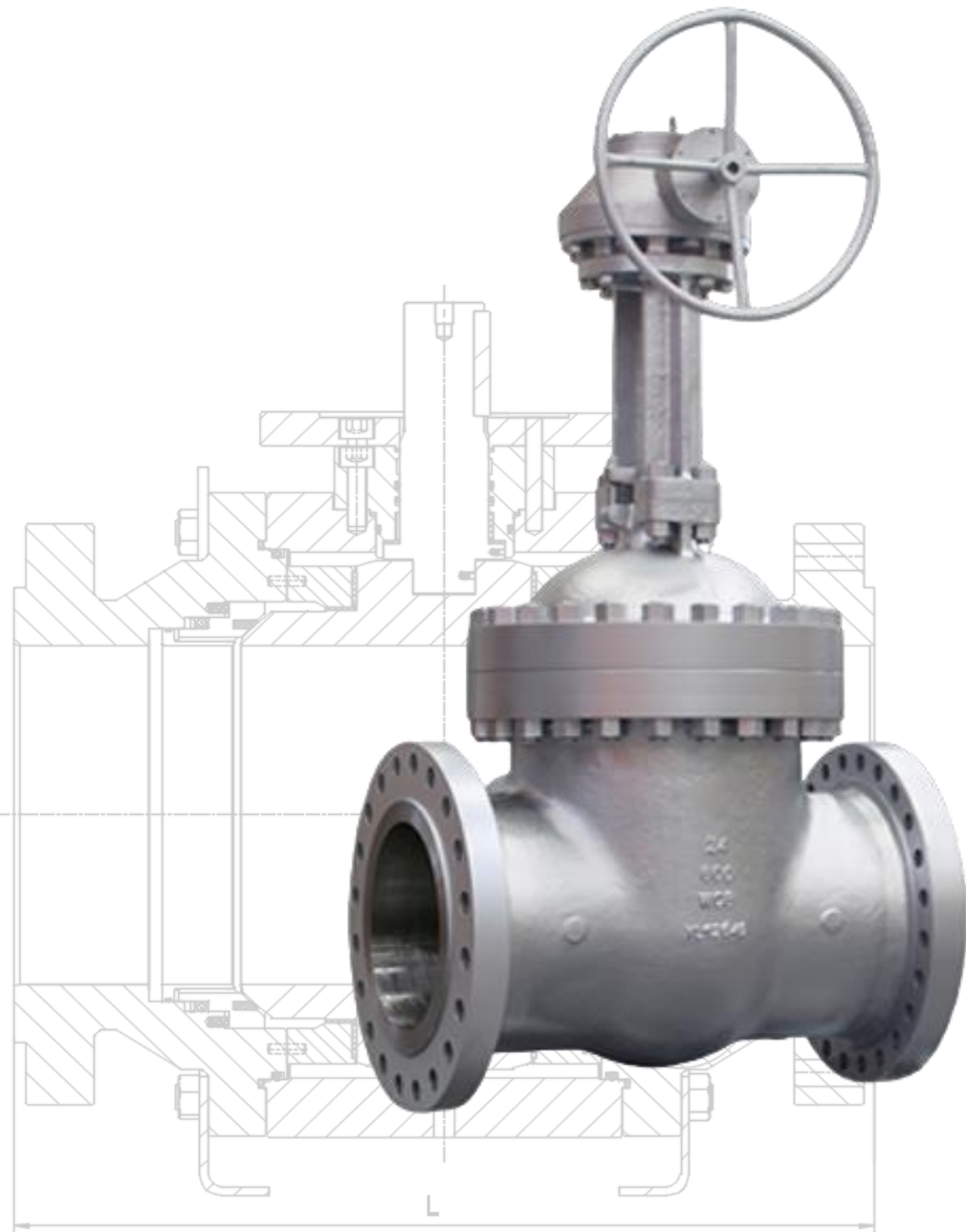




PRODUCTS RANGE



SCIEBEL ENGINEERED PRODUCTS LTDA
CNPJ MATRIZ SP: 52.802.940/0001-06
Rua Campinas 165, Jardim Leocádia
Sorocaba / SP
CEP 18085-400
vendas@sciebel.com.br



T01K.050FB RFS150.AB7PBC20SPE.0CA01C09C19Z01.104-A00/A19

Valve Type	De- sign	Size	Bore	Valve End	Pressure Class	Bolting	Actua- tion	Body Assembly	Body Construction	Sealing Design	Body Sealing Material	Body Material	Stem Material	Disc Material	Seat Material	Stem Sealing Material	Special Requirements
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Valve type		Bore		Valve End		Actuation		Body Material		Stem Material		Seat Material	
B01	Concentric butterfly valve	FB	Full bore	BWS	BW end (the SCH need to be confirmed)	E	Actuator - Electric	A01	ASTM A105N	A01	ASTM A105N + ENP	A00	Integral to the body
B02	Double offset butterfly valve	RB	Reduced bore	FFC	Flanged FF (concentric finished)	S	Actuator - Electric+Hydraulic	A07	AISI 4130	B01	ASTM B62 (C83600)	A01	SS410 overlay
B03	Triple offset butterfly valve	RP	Regular port	FFO	Flanged FF (smooth finished)	H	Actuator - Hydraulic	B01	ASTM A126 cl B	B03	ASTM B150 UNS63200	A02	SS304 overlay
C01	Swing check valve	TC	Through conduit	FFS	Flanged FF (spiral finished)	P	Actuator - Pneumatic	B02	ASTM B62 (C83600)	C01	ASTM A182 F304	A03	SS316 overlay
C02	Axial flow check valve	DS	Design Standard	GLH	Grayloc hub	B	Bare shaft	B03	ASTM B150 UNS63200	C02	ASTM A182 F316	A04	Stellite .6 overlay
C03	Dual plate check valve			HUB	HUB	G	Manual - Gearbox with handwheel	C02	ASTM A182 F11 class 1	C03	ASTM A182 F304L	A05	Stellite .12 overlay
C04	Single plate check valve			LUG	LUG RF (spiral finished)	V	Manual - Handwheel	C03	ASTM A182 F11 class 2	C04	ASTM A182 F316L	B01	ASTM A105N + Stellite .6
C06	Ball check valve			NES	NPT (female threaded) + SW (socket welding)	L	Manual - Lever	C04	ASTM A182 F11 class 3	C05	ASTM A182 F51	B02	ASTM A105N + SS410 overlay
C07	Piston check valve			NIP	Nipple 100mm (SCH to be confirmed)	N	not applicable	C08	ASTM A182 F304	C06	ASTM A182 F53	B03	ASTM A105N + SS304 overlay
F01	Floating ball valve			NPT	NPT (female threaded)	C	Actuator - Hydraulic (helical)	C09	ASTM A182 F304H	C07	ASTM A182 F55	B04	ASTM A105N + SS316 overlay
F02	Floating ball valve (double ball)			RFS	Flanged RF (spiral finished)			C10	ASTM A182 F304L	C08	ASTM A182 F61	B05	ASTM B62 (C83600)
G01	Gate valve			RTJ	Flanged RTJ			C11	ASTM A182 F316	C09	ASTM A182 F6a	B06	ASTM A105N + B62 (C83600)
G02	Double expanding seated through conduit Gate			SWE	SW (socket welding)			C12	ASTM A182 F316L	C10	17-4PH	C05	ASTM A182 F304 + Stellite .6
G04	Expanding Gate valve			WRJ	Wafer RTJ			C13	ASTM A182 F317	C14	INCONEL 625	C06	ASTM A182 F316 + Stellite .6
G05	Gate valve conduit type (full bore)			WRS	Wafer RF (spiral finished)			C14	ASTM A182 F317L	C15	INCONEL 718	C07	ASTM A182 F304L + Stellite .6
G06	Slab Gate valve							C18	ASTM A182 F5	C17	INCONEL 750	C08	ASTM A182 F316L + Stellite .6
G07	Control Globe Valve							C19	ASTM A182 F51	C18	MONEL 400 (UNS N04400)	C14	ASTM A182 F51 + TCC
L01	Globe valve							C20	ASTM A182 F53	C23	MONEL K500	C15	ASTM A182 F53 + TCC
L02	Globe valve (non-return - globe+check valve)							C21	ASTM A182 F55	C25	XM-19	C16	ASTM A182 F55 + TCC
L04	Angular Globe valve							C23	ASTM A182 F60			C17	ASTM A182 F61 + TCC
L06	Globe Control Valve (single seat - cage guided)							C24	ASTM A182 F61			C18	ASTM A182 F6a + TCC
L07	Choke Valve							C26	ASTM A182 F9			C23	ASTM A182 F316 + Stellite .6
P01	DBB Plug valve							C27	ASTM A182 F91			C24	ASTM A182 F91 + Stellite .6
P02	Plug valve (non-lubricated)							D01	ASTM A216 WCB			C25	ASTM A182 F316 + HCr
T01	Trunnion ball valve							D05	ASTM A216 WCC			C27	ASTM A182 F6a + Stellite .6
T02	Trunnion ball valve (double ball)							E01	ASTM A217 C12			C30	ASTM A182 F51 + Stellite .6
Design		Pressure Class		Sealing Design		Body Construction		Body Sealing material		Disc Material		Stem Sealing Material	
A	API 590	150	150#	SPE	SPE & DBB	10	Normal	00	N/A	A01	ASTM A105N + SS304 overlay	100	Graphite
B	API 594	15C	1500#	DB1	DIB-I (DPExDPE)	20	Side entry	01	Pressure Seal metal sealing	A02	ASTM A105N + SS316 overlay	101	Graphite with INCONEL wire
C	API 599	15P	150psi	DB2	DIB-II (DPExSPE)	30	Top entry	0A	SPW + Graphite	A03	ASTM A105N + SS410 overlay	104	Graphite + VITON
D	API 600 (ISO 10434)	25C	2500#	MXM	Metal x Metal	40	"Y" type	0B	SPW + PTFE	A04	ASTM A105N + Stellite .6	106	Graphite + VITON AED
E	API 602 (ISO 15761)	45C	4500#	SFT	Soft			0C	SPW + Viton	A05	ASTM A105N + TCC	201	PTFE
H	API 609 type A	600	600#					0D	SPW + soft material	A06	ASTM A105N + ENP	301	Lip seal (Elgiloy + PTFE)
I	API 609 type B	800	800#					0E	SPW + Viton AED	A07	ASTM A105N+INCONEL 625 overlay	999	N/A
K	API 6D (ISO 14313)	900	900#					0F	SPW + Buna	A08	AISI 4130 + TCC		
L	ASME B16.34	A02	API 2000					0G	SPW + Viton FKM	B01	ASTM B148 C95500		
N	BS 1868	A03	API 3000					0H	SPW + HNBR	B02	ASTM B62 (C83600)		
O	BS 1873	A05	API 5000					0I	SPW + HNBR 985	B03	ASTM B148 C95800		
Q	ISO 17292	A07	API 7500					0J	SPW + HNBR LT	B04	ASTM A126 cl B + B62		
T	API 6A	A10	API 10000					1A	EPDM	B05	ASTM B150 UNS63200		
U	MSS SP-70	A15	API 15000					1B	Viton	C03	ASTM A182 F304		
Size (mm)		Bolting		Body Assembly		Body Construction		Body Sealing material		Disc Material		Stem Sealing Material	
012	1/2"	000	N/A	BB	Bolted bonnet	10	Normal	00	N/A	A01	ASTM A105N + SS304 overlay	100	Graphite
020	3/4"	AB7	ASTM A193 B7 / ASTM A194 2H	BC	Bolted cover	20	Side entry	01	Pressure Seal metal sealing	A02	ASTM A105N + SS316 overlay	101	Graphite with INCONEL wire
025	1"	AB8	ASTM A193 B8 / ASTM A194 8	WB	Welded bonnet	30	Top entry	0A	SPW + Graphite	A03	ASTM A105N + SS410 overlay	104	Graphite + VITON
037	1.1/2"	AL7	ASTM A320 L7 / ASTM A194 7L	WC	Welded cover	40	"Y" type	0B	SPW + PTFE	A04	ASTM A105N + Stellite .6	106	Graphite + VITON AED
050	2"	B16	ASTM A193 B16 / ASTM A194 7	PS	Pressure seal			0C	SPW + Viton	A05	ASTM A105N + TCC	201	PTFE
076	3"	B1H	ASTM A193 B16 / ASTM A194 2H	TB	Threaded bonnet (union bonnet)			0D	SPW + soft material	A06	ASTM A105N + ENP	301	Lip seal (Elgiloy + PTFE)
079	3.1/8"	B6M	ASTM A193 B16 / ASTM A194 7M	TC	Threaded cover (union cover)			0E	SPW + Viton AED	A07	ASTM A105N+INCONEL 625 overlay	999	N/A
101	4"	B7M	ASTM A193 B7M / ASTM A194 2HM	NA	N/A			0F	SPW + Buna	A08	AISI 4130 + TCC		
127	5"	B8A	ASTM A193 B8A / ASTM A194 8A					0G	SPW + Viton FKM	B01	ASTM B148 C95500		
152	6"	B8M	ASTM A193 B8M / ASTM A194 8M					0H	SPW + HNBR	B02	ASTM B62 (C83600)		
203	8"	L7M	ASTM A320 L7M / ASTM A194 7M					0I	SPW + HNBR 985	B03	ASTM B148 C95800		
254	10"	L72	ASTM A320 L7 / ASTM A194 2H					0J	SPW + HNBR LT	B04	ASTM A126 cl B + B62		
304	12"							1A	EPDM	B05	ASTM B150 UNS63200		
355	14"							1B	Viton	C03	ASTM A182 F304		
406	16"							1C	Viton AED	C04	ASTM A182 F304 + TCC		
Not all combinations shown above are possible. We recommend contacting our Applications Engineering team to determine a feasible configuration for the selected product.		Sealing Design		Body Assembly		Body Construction		Body Sealing material		Disc Material		Stem Sealing Material	
		</											

			SIZE					ASME RATING CLASS								
			1/2-2 "	2-4 "	6~12 "	12-24 "	≥ 26 "	150 PSI	150	300	600	800	900	1500	2500	4500
Butterfly Valve	Valve Type	Design Standard														
	Concentric Butterfly Valve	API 609		●	●	●	●		●							
	Double Off-Set Butterfly Valve	API 609		●	●	●	●		●	●	●					
	Triple Off-Set Butterfly Valve	API 609		●	●	●	●		●	●	●		●		●	
Ball Valve	1 PC Floating Ball Valve	ISO 17292API 608/API 6D	●	●	●				●	●						
	2 PC Floating Ball Valve	ISO 17292API 608/API 6D	●	●	●				●	●	●	●	●	●	●	
	3 PC Floating Ball Valve	ISO 17292API 608/API 6D	●						●	●	●	●	●	●	●	
	Top Entry Floating Ball Valve	ISO 17292API 608/API 6D	●	●					●	●	●	●	●	●		
	Metal Seated Floating Ball Valve	ISO 17292API 608/API 6D	●	●	●				●	●	●	●	●	●	●	
	2 PC Trunnion Mounted Ball Valve	API 6D		●	●	●			●	●	●	●	●	●		
	3 PC Trunnion Mounted Ball Valve	API 6D		●	●	●	●		●	●	●	●	●	●	●	
	Top Entry Trunnion Mounted Ball Valve	API 6D		●	●	●	●		●	●	●	●	●	●		
	Metal Seated Trunnion Mounted Ball Valve	API 6D		●	●	●	●		●	●	●	●	●	●	●	
	Fully Welded Ball Valve	API 6D		●	●	●	●		●	●	●	●	●	●		
	Gasting Steel Trunion Mounted Ball Valve(2pc)	API 6D		●	●	●	●		●	●	●	●	●	●		
	Gasting Steel Trunion Mounted Ball Valve(3pc)	API 6D		●	●	●	●		●	●	●	●	●	●		
	High Temperature Hemisphere Discharge Valves	API 6D			●	●	●		●	●						
Gate Valve	Gate Valve	API 600		●	●	●	●		●	●	●		●	●	●	
	Stainless Steel Gate Valve	API 603	●	●	●	●			●	●	●					
	Forged Steel Gate Valve	API 602	●						●	●	●	●	●	●	●	
	Pressure Seal Gate Valve	ASME B16.34		●	●	●	●				●		●	●	●	
	Through Conduit Gate Valve	API 6D	●	●	●	●			●	●	●		●	●	●	
	Knife Gate Valve	MSS SP-81		●	●	●			●							
Globe Valve	Globe Valve	BS 1873		●	●	●			●	●	●		●	●	●	
	Globe valve	API 603		●	●	●			●	●	●				●	
	Stainless Steel Globe Valve	ASME B16.34	●	●	●	●			●	●	●					
	Forged Steel Globe Valve	API 602	●						●	●	●	●	●	●	●	
	Pressure Seal Globe Valve	ASME B16.34		●	●	●					●		●	●	●	
	Y Type Globe Valve	BS 1873	●	●	●				●	●	●					
Check Valve	Conventional Check Valve	BS 1868		●	●	●	●		●	●	●		●	●	●	
	Stainless Steel Check Valve	ASME B16.34	●	●	●	●			●	●	●					
	Forged Steel Piston Check Valve	API 602	●						●	●	●	●	●	●	●	
	Forged Steel Swing Check Valve	API 602	●						●	●	●	●	●	●	●	
	Pressure Seal Check Valve	ASME B16.34		●	●	●					●		●	●	●	
	Fully Opening Check Valve	API 6D		●	●	●	●		●	●	●		●	●	●	
	Swing / Lift Check Valve	API 594		●	●	●	●		●	●	●		●	●	●	
	Globe Check Valve	BS 1873	●	●	●				●	●	●					
	Tilting Disc Check Calve	ASME B16.34		●	●	●	●		●	●	●		●	●	●	

[illegible]



Resilient Seated Concentric Butterfly Valve

Resilient seated concentric butterfly valve is a device that allows, obstructs and regulates a fluid to flow through, widely applied to various industrial fluid controls. Compared to conventional globe and ball valve, the butterfly valve has advantages of light weight and low cost. With the rapid development of artificial rubber, the valve serves not only traditional sector of water treatment, but also ship-building, marine, food and modern chemical industry, etc. SCIEBEL resilient seated concentric butterfly valve is designed with the concentricity in conformity with API609.

Design Features:

- Concentric design for the disc, shaft and body
- Low torque
- Optional bi-directional installation
- Self-cleaning seat
- Blow-out proof shaft
- ISO 5211 top flange
- Two-piece shaft
- Optional extended shaft

Product Range:

Size:	2"~72" (DN50~DN1800)
Pressure Rating:	232 PSI (PN6~PN16)
Body Material:	Gray Cast Iron, Ductile Cast Iron, Cast Steel, Stainless Steel
Sealing Material:	EPDM, NBR, PTFE, VITON
End Connection:	Wafer, Lug, Double Flange
Operation:	Lever, Gear, Electric, Pneumatic

High performace Butterfly Valve

SCIEBEL High performace butterfly valve is of double essentric construction which minimizes the contact between seat and disc in opening-closing stroke, accordingly considerably decreases the process torque and prolongs the service life. applications: petrochemical, lng, air separation, steel plant, ship-building and marine.

Design Features:

- Offset design for disc and shaft
- Bi-directional seal
- Blow-out proof shaft
- Optimized seat ring to realize bi-directional end service (only limited in lug and double flange connections)
- Optional fire safe design proved by API607 fire safe certification

Product Range:

Size:	2"~60" (DN50~DN1500)
Pressure Rating:	Class150~600 (PN16~PN100)
Body Material:	Carbon Steel, Stainless Steel, Nickel-based Alloy, Duplex Steel
Trim Material:	Stainless Steel, Nickel-based Alloy, Al bronze, Duplex Steel
Soft-seat Material :	PTFE, RPTFE, EPDM, NBR, VITON
End Connection:	Wafer, Lug, Double Flange

For more technical details, please refer to SCIEBEL catalogue E-HDB



Metal-seated Triple Offset Butterfly Valve

Triple essentric valve breaks through the limitation on temperature and pressure of traditional resilient seated ones. SCIEBEL triple essentric (four) designed as per API609 and features optional bi-directional inst- allation, light weight and low and torque. The working temperature

ranges from -196°C to 816°C, with different body materials available. In multiple service conditions, the valve applies not only for flow interruption but also fluid control, taking place of conventional gate, globe and ball valve. camparing with traditional triple off-set valves, SCIEBEL triple (four) essentric valve with one more eccentricity and the seat can be integrated with stellite overlay which provides more stability under high temperature.

Design Features:

- Triple offset and bi-directional seal design
- Zero leakage
- Frictionless close
- Blow-out proof shaft
- ISO 5211 top flange
- Optional extended stem
- Optional hard-alloy seat
- Optional Intuqrat seat

Product Range:

Size:	2"~48" (DN50~DN1200)
Pressure Rating:	Class150~2500 (PN16~PN420)
Body Material:	Carbon Steel, Stainless Steel, Alloy Steel, Duplex Steel
Disc Sealing Material:	Multilayer Metal + Graphite, Metal + PTFE, Metal Seal Ring, Integrated Seat With Stellite Overlay
End Connection:	Wafer, Lug, Double Flange, Butt-welding
Operation:	Gear, Electric, Pneumatic

For more technical details, please refer to SCIEBEL catalogue E-TEB



Floating Ball Valve

SCIEBEL floating ball valve is designed according to ISO 17292, API 608 and API 6D, which serves at working temperature: -196~425°C
API 607 or API 6FA fire-safe certificates have been acquired for all the valves subject to fire safe test witnessed by Third party.

Design Feature:

- Full bore or reduced bore
- Fire safe certification
- Anti-blowout stem
- Anti-static device
- Bi-directional soft seal
- Bi-directional seal is alternative for meta-seated valves
- Cavity pressure self-relief
- ISO 5211 Top flange
- On-off position indicator
- Locking device
- Optional fugitive emission design

Product Range:

Body Material: Carbon Steel, Stainless Steel, Nickel-based Alloy

Trim Material: Carbon Steel, Stainless Steel, Nickel-based Alloy

Operation: Handle, Gearbox, Pneumatic / Electric Actuator.

End Connection: Flange, Thread, Socket or Butt-welded.

For detailed technical information, see SCIEBEL floating ball valve catalog: G-FLB

Valve Type	Body Material	Size	Pressure Rating	Advantage
One piece	Cast Steel	1/2"~10" (DN15~DN250)	Class 150~300 (PN16~PN40)	Reduced bore as standard design of compact dimension and low cost
Two-piece	Cast Steel	1/2"~10" (DN15~DN250)	Class 150~300 (PN16~PN40)	Standard design is full bore which is economical
	Forged Steel	1/2"~6" (DN15~DN150)	Class 150~2500 (PN16~PN420)	Available for ≥Class 600 valves Optional for high-pressure service Design for cryogenic applications
Three-piece	Forged Steel	1/2"~2" (DN15~DN50)	Class 150~2500 (PN16~PN420)	Socket welded or threaded
Top entry	Cast Steel	1/2"~4" (DN15~DN100)	Class 150~1500 (PN16~PN250)	On-line service available
Metal-seated	Cast Steel	1/2"~4" (DN15~DN100)	Class 150~300 (PN16~PN40)	Excellent resistance against abrasion and high temperature & low cost
	Forged Steel	1/2"~8" (DN15~DN200)	Class 150~2500 (PN16~PN420)	available for ≥Class 600 valves and higher pressure service
DBB Ball Valve	Forged Steel	1/2"~10" (DN15~DN250)	Class 150~2500 (PN16~PN420)	Compact dimension and DBB functionality

Trunnion Mounted Ball Valve

SCIEBEL trunnion mounted ball valve is designed in conformity with ISO 17292, API 608 and API 6D, which serves at working temperature: -196~425 °C. It is applicable for large-sized and high- pressure piping and fluid flow control. API 607 or API 6FA fire-safe certificates have been obtained for all the valves subject to fire safe

Design Feature:

- Full bore or reduced bore
- Fire safe certification
- Anti-blowout stem
- Anti-static device
- DPE and cavity relief
- Optional injection system for stem and seat
- Cavity pressure self-relief
- Standard ISO 5211 top flange design
- Valve on-off position indicator
- Lock device
- Optional fugitive emission design
- Optional double piston seat
- Optional stem extension design for underground application

Product Range:

Body Material: Carbon Steel, Stainless Steel, Nickel-based Alloy

Trim Material: Carbon Steel, Stainless Steel, Nickel-based Alloy

Operation: Handle, Gearbox, Pneumatic, Electric, Pneumatic-hydraulic Actuator, Electric-hydraulic Actuator.

End Connection: Flange, Butt-welded, HUB

See detailed technical information for SCIEBEL Trunnion mounted ball valve catalog: E-TMB

Valve Type	Body Material	Size	Pressure Rating	Advantage
Side Entry	Cast steel	2"~24"(DN50~DN600)	Class 150~1500 (PN16~PN250)	Economic
Side Entry	Forged steel	2"~60"(DN50~DN1500)	Class 150~2500 (PN16~PN420)	Wide application range and fast delivery
Top Entry	Cast steel	2"~36"(DN50~DN900)	Class 150~1500 (PN16~PN250)	On-line maintenance available
Metal-seated	Forged steel	2"~36"(DN50~DN900)	Class 150~2500 (PN16~PN420)	Suit for ambient temperature and abrasion service
	Forged steel	2"~30"(DN50~DN750)	Class 150~1500 (PN16~PN250)	Impervious to abrasion and high temperature
Fully Welded	Forged steel	2"~60"(DN50~DN1500)	Class 150~1500 (PN16~PN250)	No fugitive emission and freedom from maintenance
DBB Ball Valve	Forged steel	2"~24"(DN50~DN600)	Class 150~2500 (PN16~PN420)	Compact dimension and DBB functionality



High Temperature Hemisphere Discharge Valve

High temperature hemisphere discharge valve is a new developed valve type, and it is one of Feida's patented product. The valve is suitable to be used on high temperature pipeline and on-off position to cut off the medium. This solves the technical problem for the high pressure, high corrosion, poisonous and hazardous conditions in Coal chemical industry, power plant or smelting metallurgy industry.

Design Feature:

- Low torque operation
- High temperature and abrasion resistant structure design
- Scraper structure design for the seat
- High temperature heat emission design for stem
- Spline connection, precise and smooth transmission
- Jacket design

Product Range:

Body Material: Stainless Steel

Trim Material: High temperature, Stainless Steel

Operation: Handle, Gearbox, Pneumatic, Electric, Pneumatic-hydraulic Actuator, Electric-hydraulic Actuator.

End Connection: Flange, Butt-welded, HUB

See detailed technical information for SCIEBEL Trunnion mounted ball valve catalog: E-HDV

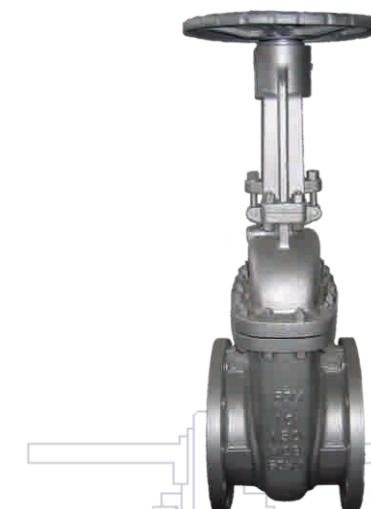
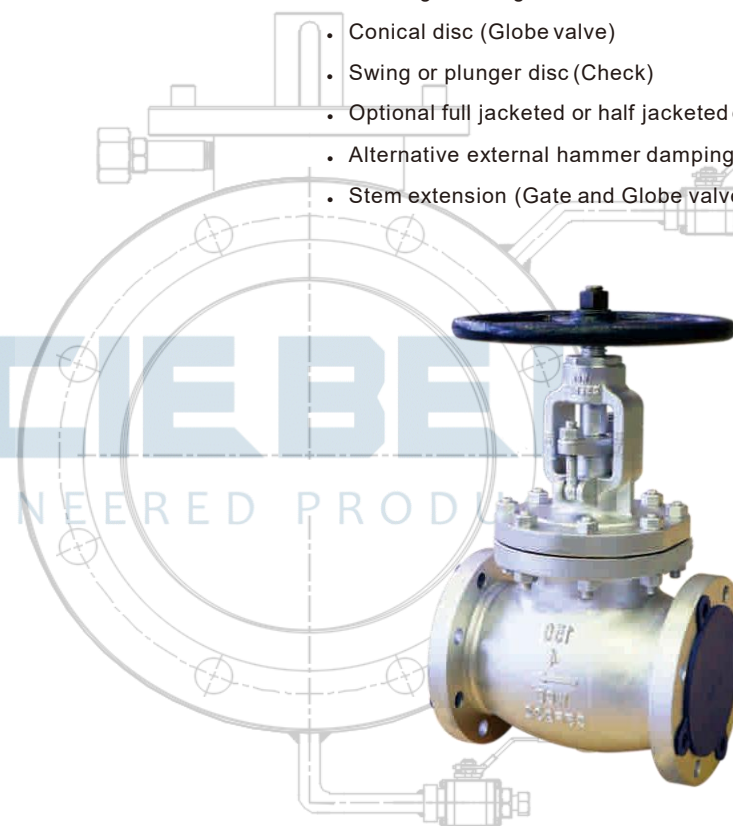


Gate, Globe and Check Valve

SCIEBEL is able to provide complete set of Gate, Globe and check valves size from 2 to 64 inch, and class from 150LB to 300LB. Materials cover carbon steel, stainless steel and alloy steels, most of parts are designed with high compatibility and easy to maintenance on site. All valves are designed with fugitive emission features.

Design Features:

- Fugitive emission design
- Flexible wedge (Gate valve)
- Welding seat ring
- Conical disc (Globe valve)
- Swing or plunger disc (Check)
- Optional full jacketed or half jacketed design
- Alternative external hammer damping disc (Check)
- Stem extension (Gate and Globe valve) available



Products Range:

Type:	Gate, Globe, Check
Size:	2"~60" (DN50~DN1500)
Pressure Rating:	CLASS 150-2500 (PN16~PN420)
Body Materials:	Carbon Steel, Stainless Steel, Alloy Steel, Duplex Steel
Trim Material:	Per API600
Operation:	Hand Wheel, Gear Box, Electric and Pneumatic Actuator
End Connection:	Flange, BW, RTJ

For more technical details, please refer to SCIEBEL catalogue: E-GGC





Pressure Seal Valve

SCIEBEL pressure-seal valve is design and manufactured in accordance with API 600, working in high temperature and high pressure conditions. It serves a wide range of demanding applications, such as nuclear power plant. Characterized by simple structure and better rigidity, it is competitive in maintenance costs, providing reliable body-bonnet seal.

Design Features:

- Hard alloy for seating surface
- Flexible wedge
- Guide design for full stroke
- Leakage prevention at the valve body in contact with bonnet
- Optional by-pass valve design

Product Range:

Type:	Gate, Globe, Check
Size:	2"~40" (DN50~1000)
Pressure Rating:	Class 600~2500 (PN100~PN420)
Body Material:	Carbon Steel, Stainless Steel Alloy Steel
Trim Material:	Based on API 600
Operation:	Hand Wheel, Gear Box, Electric and Pneumatic Actuator
End Connection:	Butted-welding

For more technical details, please refer to SCIEBEL catalogue: E-GGC

Full-bore Pipeline Valve

SCIEBEL full-bore pipeline Gate Through conduit valve is designed to serve long transportation of crude oil and natural gas.

Satisfying API 6D requirements, it functions as double-block-and-bleed (DBB) valves, used for bi-directional shut-off. Single slab gate and expanding through conduit slab gate valve are available for option as per service condition.

Design Features:

- Fire-safe design
- Optional single or double slab wedge
- DBB
- Cavity pressure self-relief
- Emergency sealant injection for leakage avoiding

Product Range:

Size:	2~60 inch (DN50~1500)
Pressure Rating:	Class 150~2500 (PN16~PN420)
Body Material:	Carbon Steel, Stainless Steel
Trim Material:	Soft Seat, Metal Seat
Operation:	Hand Wheel, Gear Box, Electric and Pneumatic Actuator
End Connection:	Flange, BW, RTJ

For more technical details, please refer to SCIEBEL catalogue: E-GGC



Full Opening Check Valve

SCIEBEL full opening check valve is designed according to API 6D, applied in crude oil and natural gas pipeline to prevent service medium backflow. Full opening allows pigging ball to flow through, convenient to maintain the pipeline. For large-sized valve, buffer damper can be accessible to delay disc closing time for seating surface protection. Both soft-seat and metal-seat types are available.

Design Features:

- Swing disc design
- Applicable for pigging ball
- Optional soft-seat and metal-seat structure
- Welded or threaded seat
- Alternative hammer damping device

Product Range:

Size:	2"~50" (DN50~DN1250)
Pressure Rating:	Class 150~2500 (PN16~PN420)
Body Material:	Carbon Steel, Stainless Steel
End Connection:	Flange, BW, RTJ

Dual-plate Check Valve

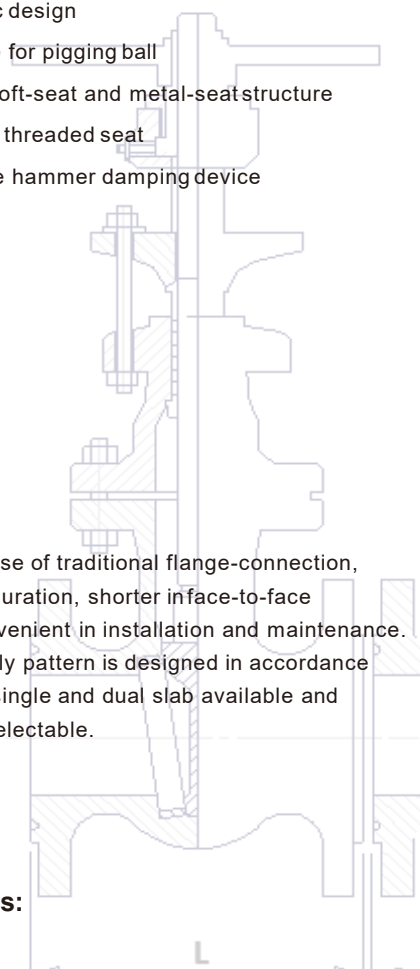
Product Range:

Size:	2-64" (DN50~DN1600)
Pressure Rating:	Class 150~2500 (PN16~PN420)
Body Material:	Carbon Steel, Stainless Steel, Alloy Steel
End Connection:	Flange, Wafer, Lug, BW

Compared with those of traditional flange-connection, it is simple in configuration, shorter in face-to-face dimension and convenient in installation and maintenance. The valve in butterfly pattern is designed in accordance with API 594, with single and dual slab available and various materials selectable.

Design Features:

- Dual-slab
- Compact and low-weight design
- Disc with dynamically loaded spring
- Optional soft-seat or metal-seat structure



Tilting Disc Check Valve

Tilting disc check valve features quick-closing, low opening pressure, no water hammer and can be installed in vertical pipe. A wide spectrum of application covers pipelines containing high temperature steam, oil refining, petrochemical, oil field production, hydrogenation, etc.



Design Features:

- Dual-disk structure serves as balance
- Weight to achieve fast closing
- Torsional spring mounted on hinge pin for assisting closing
- Low opening pressure with no water hammer
- Acceptable to be installed in vertical pipe

Product Range:

Size:	2"~16" (DN50~DN400)
Pressure Rating:	Class 150~2500 (PN16~PN420)
Body Material:	Carbon Steel, Stainless Steel
End Connection:	Flange, Wafer, Lug, BW

For more technical details, please refer to SCIEBEL catalogue: E-GGC

API 603 Stainless Steel Gate Valve

The thickness of this series is designed according to ASME B16.34. In comparison with general API 600 valve, it is light-weighter and price-competitive, widely applied in fine chemicals and food factories, in particular, the extended-bonnet construction can fulfill requirements of cryogenic service.



Design Features:

- Precision casting of silica solution
- PTFE gasket and packing
- Integral seat
- Light weight design
- Flexible wedge

Product Range:

Type:	Gate, Globe, Check
Size:	1/2"~24" (DN15~DN600)
Pressure Rating:	Class 150~300 (PN16~PN40)
Body Material:	Stainless Steel, Alloy Steel and Duplex Steel
End Connection:	Flange, SW



Product Range:

Type:	Gate, Globe and Check Valves
Size:	1/2"~2" (DN15~DN50)
Pressure Rating:	Class 150~2500
Body Material:	Carbon Steel, Stainless Steel, Duplex Steel and Alloy Steel
End Connection:	Flanged, SW, Threaded, BW

For more technical details, please refer to SCIEBEL catalogue: E-FSV

Forged Steel Pressure-seal Valve

Forged steel pressure-seal valves, broadly used in nuclear and petro-chemical power plants, can serve harsh conditions such as high pressure and high temperature, designed according to ASTM B16.34. Compared with bolted-bonnet valves, it features succinct appearance, superior rigidity and low cost of maintenance, more reliable in body-bonnet sealing.

Design Features:

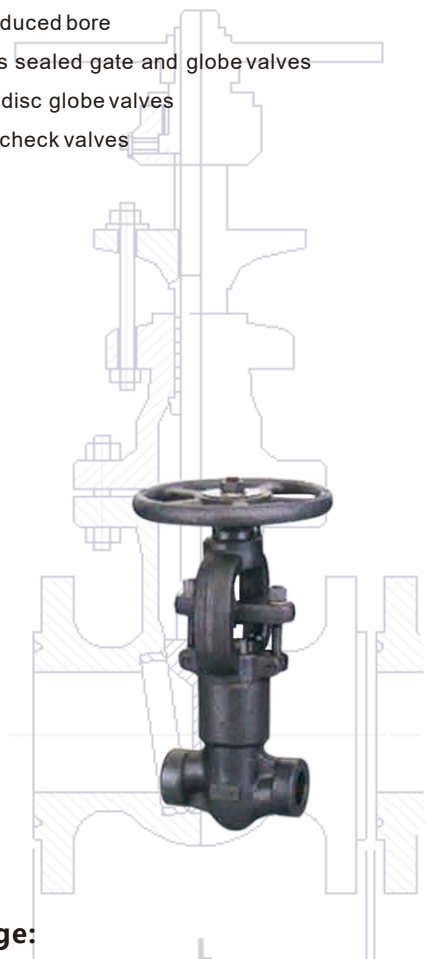
- Hard alloy overlaid on seating surface
- Solid wedge
- Full-stroke guide
- No leakage for body-bonnet connection
- Optional bypass valves: Y-type globe and check valves

API 602 Forged Steel Valve

Forged valves, including gate, globe and check valves, comply with API 602. SCIEBEL provides forged gate and globe valves, with standard bolted bonnet, special welded bonnet valves or bellows seal. Besides, weld-overlay hard alloy on seating surface is standard design.

Design Features:

- Solid wedge design
- Bolted or welded bonnet
- Full bore and reduced bore
- Optional bellows sealed gate and globe valves
- Cone or needle disc globe valves
- Lifting or swing check valves



Product Range:

Type:	Gate, Globe and Check Valves
Size:	1/2"~2" (DN15~DN50)
Pressure Rating:	CLASS 900~2500 (PN150~PN420)
Body Material:	Carbon Steel, Cr-Mo Alloy Steel and Austenitic Steel
Trim Material:	According to API 600
Operation:	Hand Wheel, Electric Actuator, Gearbox
End Connection:	Flanged End, BW, RTJ



Forged Steel Bellows Seal Valve

Leakage around stuffing box of valve bonnet remains a long-standing trouble for environmental protection. It is also rather dangerous in case of highly hazardous service fluids leakage. SCIEBEL bellows seal valve is of the construction that bellows is welded onto bonnet and stem. The up-and-down movement of stem drives expansion and contraction of the bellows, eliminating the leaking possibilities during sliding and rotation.

Design Features:

- Formed bellows
- Two secondary stem seals: bellows + packing
- Zero leakage at stem

Product Range:

Type:	Gate, Globe
Size:	1/2"~2" (DN15~DN50)
Pressure Rating:	CLASS 150~1500 (PN16~PN260)
Body Material:	Carbon Steel, Stainless Steel, Alloy Steel, Duplex Steel
Bellows Material:	Stainless Steel, Inconel Steel, Hastelloy Steel
End Connection:	Flanged SW, BW, RTJ

Forged Steel Valve for Cryogenic Applications

The valves working below -110° C are normally defined as cryogenic valves, which are extensively found in LNG and other low-temperature industries. SCIEBEL can manufacture gate, globe and check valves serving the temperature up to -196° C.

Design Features:

- Extended bonnet and stem for safety
- Relief hole to the upstream side for avoiding cavity pressure rise
- Keep sealing performance at low temperature by using low-leakage packing

Product Range:

Type:	Gate, Globe And Check Valves
Size:	1/2"~2" (DN15~DN50)
Pressure Rating:	CLASS 150~1500 (PN16~PN260)
Body Material:	Austenitic Steel
End Connection:	Flanged SW, BW and RTJ



Valves for Cryogenic Service

Valves for cryogenic service generally refer to those at working temperature below -101°C, broadly used in LNG, LPG and other low-temperature applications. With novel design philosophy, SCIEBEL strictly controls production process to supply the cryogenic valves having superior sealing capability, low operating torque, consistent endurance in low-temperature condition and prolonged service life. SCIEBEL is capable of providing Gate, Globe, Check, Ball and Butterfly valves for cryogenic service up to -196°C.

Design Features:

- Extension of stuffing box
- Reliable sealing structure
- Fire safe, anti-static design
- Material selection for cryogenic service
- Structural design applicable for different services

Product Range:

Type:	Gate, Globe, Check, Ball, Butterfly Valves
Size:	1/2"~36" (DN15~DN1050)
Pressure Rating:	ASME CLASS 150~2500 (PN16~PN420)
Body Material:	CF3M / CF3 / CF8M / CF8 / Dual Certified (F316L / F304L / F316 / F304)
End Connection:	BW, RF, SW, NPT.
Temperature Range:	-196°C ~ 400°C
Operation:	Manual / Pneumatic / Hydraulic
Application:	Cryogenic Industry, e.g. LNG / LPG / LEG / Air Separation.

Cryogenic Gate Valve

Design Features:

- Flexible wedge
- Round flange in cavity is designed to improve the body stress
- PCTFE shaft sleeve at the middle of stem to keep stem stable
- Extend backseat to secure cavity
- Drill a hole in upstream end of wedge to avoid cavity pressure rise
- Extend stuffing box to protect packing effectively
- Drip plate prevents condensate from flowing into insulation

Product Range:

Size:	1/2"~42" (DN15~DN1050)
Pressure Rating:	ASME CLASS 150~2500 (PN20~PN420)
Body Material:	CF3M / CF3 / CF8M / CF8 / Dual Certified (F316L / F304L / F316 / F304)
End Connection:	BW, RF, SW.
Temperature Range:	-196°C ~ 400°C
Operation:	Manual / Pneumatic / Hydraulic
Structure:	Flexible Wedge

Cryogenic Globe Valve

Design Features:

- PCTFE shaft sleeve at the middle of stem to keep stem stable
- Extend backseat to secure cavity
- To improve the service life, the seal surface is made of hard alloy by weld overlay
- Extend stuffing box to protect packing effectively
- Drip plate prevents condensate from flowing into insulation

Product Range:

Size:	1/2"~24" (DN15~DN600)
Pressure Rating:	ASME CLASS 150~2500 (PN20~PN420)
Body Material:	CF3M / CF3 / CF8M / CF8 / Dual Certified (F316L / F304L / F316 / F304)
End Connection:	BW. RF. SW.
Temperature Range:	-196°C ~ 400°C
Operation:	Manual / Pneumatic / Hydraulic
Structure:	Rising Stem



Cryogenic Check Valve (Swing Check Valve)

Design Features:

- Ball-like pin could achieve self-alignment, which makes it easier to seal at low temperature
- Ensure the optimal flow design & the maximum flow capacity by fluid analysis software calculation
- Metal-seat structure, with sealing surface subject to hard-alloy weld overlay, which performs well in scouring & particle resistance and improves service life
- Dedicated accurate and match grinding to guarantee the sealing performance in low temperature

Product Range:

Size:	1/2"~36" (DN15~DN1050)
Pressure Rating:	ASME CLASS 150~2500 (PN20~PN420)
Body Material:	CF3M / CF3 / CF8M / CF8 / Dual Certified (F316L / F304L / F316 / F304)
End Connection:	BW. RF. SW.
Temperature Range:	-196°C ~ 400°C
Structure:	Swing



Lift Check Valve for Cryogenic Applications

Design Features:

- Integral closed die forging is used in body, without welding flange
- Disc guided & spring return structure. The valve is closed with no jamming and can be installed vertically or horizontally
- To prolong the service life, the seal surface is made of cobalt-based alloy by weld overlay

Product Range:

Size:	1/2"~2" (DN15~DN50)
Pressure Rating:	ASME CLASS 150~1500 (PN20~PN260)
Body Material:	F316L / F304L / F316 / F304 / Dual Certified
End Connection:	BW. RF. SW.
Temperature Range:	-196°C ~ 400°C
Structure:	Lift Check Valve



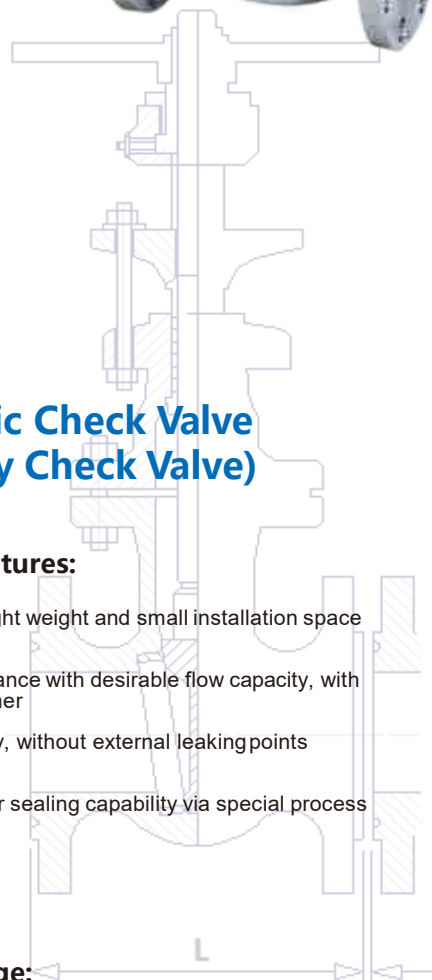
Cryogenic Check Valve (Butterfly Check Valve)

Design Features:

- Short length, light weight and small installation space
- Low flow resistance with desirable flow capacity, with no water hammer
- One-piece body, without external leaking points
- Ensure superior sealing capability via special process

Product Range:

Size:	2"~24" (DN50~DN600)
Pressure Rating:	ASME CLASS 150~900 (PN20~PN150)
Body Material:	CF3M / CF3 / CF8M / CF8 / Dual Certified
End Connection:	Wafer. Lug. Double Flange.
Temperature Range:	-196°C ~ 400°C
Structure:	Butterfly (Dual Plate Wafer Check Valve)



Cryogenic Floating Ball Valve

Design Features:

- Spring-preloaded seat structure is designed to effectively avoid conflict between sealing and torque
- To avoid risks, drill a hole on yoke or stem to keep connection between stem extension and cavity
- To make sure cavity pressure relief, a hole is drilled on the ball's upstream side
- Fire-safe & anti-static design
- Imported PCTFE, which has excellent stability in low temperature, or other high-strength seat, are chosen as seat material
- High-strength grade 2 stud is applied as cavity pressure-bearing bolting, which could control gasket preload
- To fulfill low leaking requirements, the special packing is used in stem sealing
- On-line maintenance could be achieved in top-entry series

Product Range:

Size:	3/8"~6" (DN10~DN150)
Pressure Rating:	ASME CLASS 150~1500 (PN20~PN260)
Body Material:	CF3M / CF3 / CF8M / CF8 / Dual Certified (F316L / F304L / F316 / F304)
End Connection:	BW, RF, SW, NPT
Temperature Range:	-196°C~150°C
Operation:	Manual / Pneumatic / Hydraulic
Structure:	Top Entry or Side Entry

Cryogenic Triple Offset Butterfly Valve

Design Features:

- Triple offset structure design, low torque, and long service life
- Stuffing box extension adequately protects packing
- Drip plate prevents condensate from flowing into insulation
- To develop abrasive resistance, weld-overlay hard alloy is used in body seal surface
- Multi-layer metal sealing ring or metal seal ring is accessible for disc selection
- Blow-out proof stem to secure proper use
- The specific grinding machine was used to grind sealing surface, which could improve product sealing performance at low temperature
- Special design could be achieved upon customer requests, such as top entry structure, lateral holes used for maintenance

Product Range:

Size:	3"~56" (DN80~DN1400)
Pressure Rating:	ASME CLASS 150~600 (PN20~PN100)
Body Material:	CF3M / CF3 / CF8M / CF8 / Dual Certified
End Connection:	Lug, Wafer, BW, RF
Temperature Range:	-196°C~400°C
Operation:	Manual / Manual Device / Pneumatic Device / Hydraulic Device
Structure:	Triple Offset, Side Entry, Top Entry

Cryogenic Trunnion Mounted Ball Valve

Design Features:

- Fire safe & anti-static device
- To ensure the sealing performance, the Imported lipseal is used for primary sealing
- To ensure the seal capability, the design of unique patent was adopted
- To fulfill low leakage requirements, double-sealing configuration is applied for high-pressure-class products
- Multiple seat structures are available to satisfy different service conditions
- A plenty of pressure relief structures are available for service conditions to ensure cavity relief
- On-line maintenance could be achieved for top-entry construction

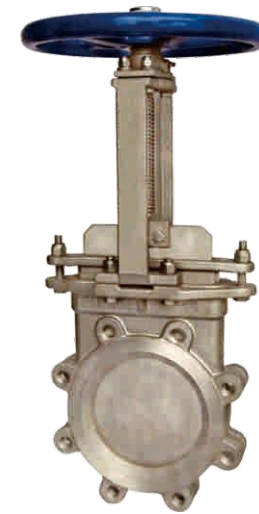
Product Range:

Size:	2"~24" (DN50~DN600)
Pressure Rating:	ASME CLASS 150~900 (PN20~PN150)
Body Material:	CF3M / CF3 / CF8M / CF8 / Dual Certified
End Connection:	BW, RF
Temperature Range:	-196°C~150°C
Operation:	Manual / Pneumatic / Hydraulic
Structure:	Top Entry

Product Range:

Size:	2"~40" (DN50~DN1000)
Pressure Rating:	ASME CLASS 150~900 (PN20~PN150)
Body Material:	F316L / F304L / F316 / F304 / Dual Certified
End Connection:	BW. RF.
Temperature Range:	-196°C~150°C
Operation:	Manual / Pneumatic / Hydraulic
Structure:	Side Entry

Cryogenic valve in LNG applications



Knife Gate Valve

Comparing with gate, globe, check, butterfly and ball valve, knife gate valve is a super-thin-face-to-face valve broadly used in modern industries, like tailings, papermaking, oil, food, shipbuilding and sewage treatment etc.. The product has the advantages of compact structure, flexible operation, smooth wedge working, no vibration, no noise, easy maintenance, safety and reliability. The valve can be driven by pneumatic, electric and hydraulic device at discretion of customers for remote control.

Design Features:

Metal-seated Knife gate valve is of integral seat or weld-overlay stainless steel/hard alloy, not only keeping sealing, but also extending service life
High performance soft seat is constructed of RTFE sealing ring to ensure bi-directional seal and zero leakage
Stop nut is designed to prevent the valve from excessive closing and damaging the wedge
The wedge is engineered with great arc for packing protection and longer service life

Product Range:

Size:	2"~24" (DN50~DN600)
Pressure Rating:	100PSI~150PSI (PN6~PN10)
Body Material:	Stainless Steel, Carbon Steel
Sealing Surface Material:	PTFE, Elastomeric, RTFE, Stainless Steel, Hard Alloy
Operation:	Hand Wheel, Gear Box, Electric and Pneumatic Actuator
End Connection:	Wafer, Lug



TURNING CONCEPTS TO ACHIEVEMENTS



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