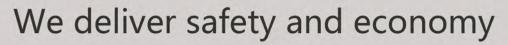
# Savvy Valves Co., Limited











#### Company Brief:

Savvy Valves (Former name International Machinery Development Inc. (IMD)) is a leading designer and manufacturer of industrial valves. Based on huge production capacity in China mainland, Savvy has been providing OEM (Original Equipment Manufacturer) services, for years already, with different standards valves and control units as well as accessories for clients from all over of the world.with 20 years global market experience in Petroleum & Gas line & water treatment and 30 years in manufacture of valves, we constantly to win customers' satisfaction with the strong high quality, reliable and effective design and professional technical support & service, strongly hold lots of market shares in Europe and America. After several reorganizations inside, we've continually combined the resource for our strategy in product design and quality control to guarantee our strong foundation to grow business in the top market. we are on the way, and we will .......

With the basis of honesties, credit, and reliability, welcome you to join with Savvy Valves and enjoy our products and services.

# Product Category











Ball Valves
Floating or trunnion design
Casting or forging materials
2 or 3 piece split body



Butterfly Valves concentric disc double eccentric disc triple eccentric disc ruber seatd or metal seated

Check Valves
Swing single disc or dual plate
Piston/lifting disc
Axial disc
Casting or forging materials



Category



Cryogenic Valves
Type ball/gate/globe/butterfly
Casting or forging in materials

Gate Valves
Wedge disc type
slab disc type
parallel disc type
Casting or forging materials





Control Valves
Type globe/ball/gate/buterfly
Electric actuated
Pneumatic actuated
Electric or pneumatic Hydraulic actuated
On-off or modulating control
EQ% characteristic as normal



# s Project in The Past

OIL AND GAS
PETROCHEMICAL AND REFINING
MARINE
POWER GENERATION
MINING
WATER SUPPLY AND DRAINAGE
LNG AND LPG
THERMAL





S.N.	Project	Country	Content
1	Irrigation System	Ecuador	Butterfly valve, gate valve, check valve
2	Municipal water supply system	UK	Butterfly valve
3	Pump station	Venezuela	Ball valve, butterfly valve, gate valve, check valve, plug valve
4	Crude oil transportation	Venezuela	Ball valve, butterfly valve, gate valve, check valve, plug valve
5	Power Station	Abu Dhabi	Parallel gate valve
6	Power Station	Canada	Butterfly valve, dome valve
7	LNG storage	UK	Cryogenic ball valve, Cryogenic globe valve
8	Seawater desalination system	UAE	Butterfly valve, check valve
9	Refinery	Venezuela	Control gate valve, control globe valve, control ball valve
10	Oil transportation line	Russia	Slab gate valve, gate valve, plug valve
11	Seawater desalination system	Singapore	Buttefly valve, check valve
12	Petroleum chemical	Thailand	PTFE and PFA lined valve, DBB valve
13	Compressor system	Italy	Safety valve
14	Chemical material transportaion	Thailand	Ball valve, control valve



# CONCENTRIC BUTTERFLY VALVE CENTERLINE

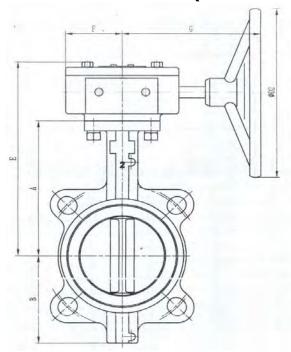
WAFER AND LUG TYPE REPLACEABLE OR VULCANIZED RUBBER SEAT MODEL D71X

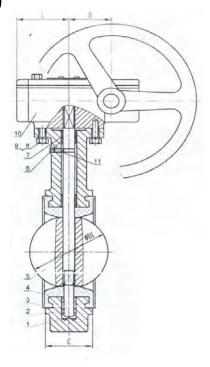
#### PHOTO SHOW (loose liner)





#### **CUTAWAY DRAWING(loose liner)**



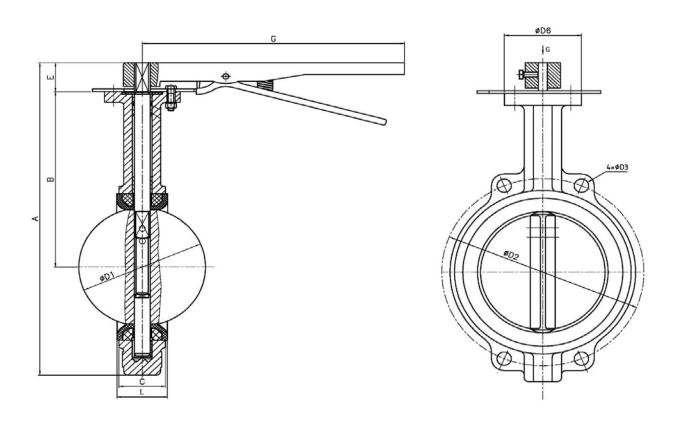




# PHOTO SHOW (cartridge liner)



## **CUTAWAY DRAWING(cartridge liner)**



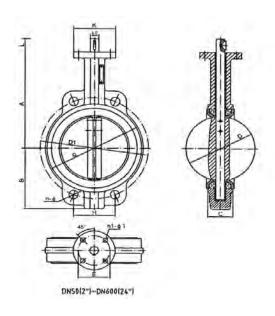


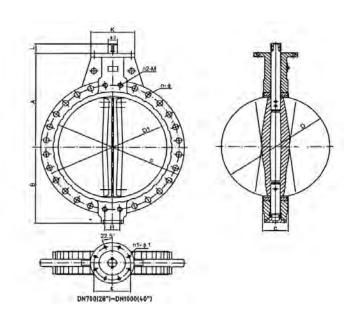
# PHOTO SHOW (vulcanized liner)





## **CUTAWAY DRAWING(vulcanized liner)**







1 Economical compact design, easy to maintain

- 2 Lower weight can be installed in any position.
- 3 Simple structure, quick on-off action, small torque required
- 4 Long service life
- 5 Flow characteristic quite close to linear, better modulating performance
- Very good sealing in W.O.GBest money saving option
- 8 Variety of design suit for full range of applications.

#### **BRIEF DESCRIPTION**

1 SIZE 1" and above 2 DESIGN PRESSURE up to 25 bar max. 3 DESIGN TEMPERATURE up to 120°C

4 DESIGN CODE

Design and manufacture API 609, EN593, AWWA C504,

BS 5155

Face to face dimension API 609, ASME B16.10, EN558 Ends flanges in ASME B16.58/16.47

ds flanges in ASME B16.5&16.47 or EN1092, wafer or fully

lugged

Testing API 598

Others Special-made is available

5 DUTY Flow modulating or tight shut off

#### MAIN PARTS MATERIALS

S.N.	PART NAME		COMMONLY USED					
1	BODY	CI	DI	SS	DSS	AL-BR		
2	DISC	DI	SS	DSS	AL-BR	MONEL		
3	SHAFT	SS	DSS	17-4PH	XM-19	AL-BR	MONEL	
4	SEAT	NBR	EPDM	VITON	PTFE			
5								
6								

NOTE: DI disc normally comes with ENP plated, it could be coated with rubber or nylon or PTFE as well .

- 1 Water supply and drainage
- 2 Petroleum and chemical
- 3 Food industry
- 4 Energy system
- 5 Thermal power station
- 6 Pump station system
- 7 Other W.O.G duty



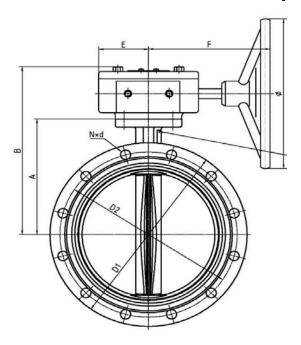
# CONCENTRIC BUTTERFLY VALVE CENTERLINE

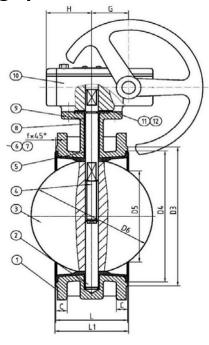
DOUBLE FLANGE (U-SECTION)
RUBBER SEAT
MODEL D341X

#### PHOTO SHOW (double flange)



#### **CUTAWAY DRAWING(double flange)**



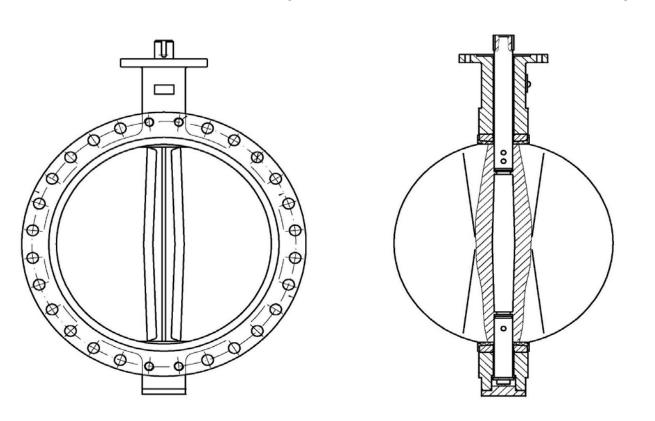




# PHOTO SHOW (U-section double flange wafer)



## **CUTAWAY DRAWING(U-section double flange wafer)**





Bidirectional seal
Vulcanized seat (U-section can be cartridge seat)
Installation at the end of pipeline is available.
Long service life
Concentric disc design asks for small operationg torque
Very good sealing performance in W.O.G

7

**BRIEF DESCRIPTION** 

1 SIZE 1" and above 2 DESIGN PRESSURE up to 25 bar max. 3 DESIGN TEMPERATURE up to 120°C

4 DESIGN CODE

Design and manufacture API 609, EN593, AWWA C504,

BS 5155

Face to face dimension API 609, ASME B16.10, EN558 Ends Flanges in ASME B16.5&16.47

or EN1092

Testing API 598

Others Special-made is available

5 DUTY Flow modulating or tight shut off

#### MAIN PARTS MATERIALS

S.N.	PART NAME		COMMONLY USED					
1	BODY	CI	DI	SS	DSS	AL-BR		
2	DISC	DI	SS	DSS	AL-BR	MONEL		
3	SHAFT	SS	DSS	17-4PH	XM-19	AL-BR	MONEL	
4	SEAT	NBR	EPDM	VITON	PTFE			
5								
6								

NOTE: DI disc normally comes with ENP plated, it could be coated with rubber or nylon or PTFE as well .

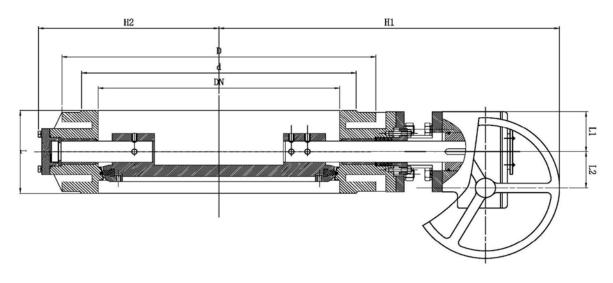
- 1 Water supply and drainage
- 2 Petroleum and chemical
- 3 Food industry
- 4 Energy system
- 5 Thermal power station
- 6 Pump station system
- 7 Other W.O.G duty



# **DOUBLE OFFSET BUTTERFLY VALVE**

#### U SECTION DOUBLE FLANGE WAFER TYPE DOUBLE OFFSET RUBBER SEATED MODEL D34A2X







1 Economical compact design, short pattern

2 Double offset trims, rubber seated

3 Replaceable trims

Weight light, Easy disassembly to maintain High performance,safety and reliability

6 Long service life

7 Two mounting methods, wafer and double flange

8 Low maintaince cost

#### **BRIEF DESCRIPTION**

1 SIZE 10" and above 2 DESIGN PRESSURE up to 25 bar max.

3 DESIGN TEMPERATURE 0~80°C

4 DESIGN CODE

Design and manufacture API 609, AWWA C504, BS

Face to face dimension API 609, BS 5155

Ends Wafer, flanges in ASME

B16.5&16.47 or EN1092

Testing API 598

Others Special-made is available

5 DUTY Flow modulating or tight shut off

#### MAIN PARTS MATERIALS

S.N.	PART NAME		COMMONLY USED					
1	BODY	CI	WCB+NYLON	DI	SS/DSS	AL-BR		
2	DISC	DI	WCB+NYLON	SS/DSS	AL-BR	MONEL		
3	SHAFT	SS	DSS	17-4PN	XM-19	AL-BR	MONEL	
4	SEAT	NBR	EPDM	VITON				
5								
6								

- 1 Water supply and drainage
- 2 Petroleum and chemical
- 3 Food industry
- 4 Energy system
- 5 Waste gas
- 6 Pump station system 7 Other W.O.G duty

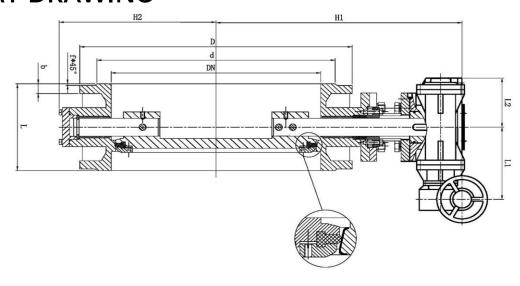


# **DOUBLE OFFSET BUTTERFLY VALVE**

#### DOUBLE FLANGE TYPE DOUBLE OFFSET RUBBER SEATED MODEL D34B2X

#### **PHOTO SHOW**







1 Strong heavy design

2 Double offset trims, rubber seated

3 Replaceable trims

4 Easy disassembly to maintain

5 High performance, safety and reliability

6 Long service life7 Low maintance cost

#### **BRIEF DESCRIPTION**

1 SIZE 8" and above 2 DESIGN PRESSURE up to 25 bar max.

3 DESIGN TEMPERATURE 0~80°C

4 DESIGN CODE

Design and manufacture API 609, AWWA C504, BS API 609, BS 5155, EN558 series

13 & 14, ASME B16.10

Ends Flanges in ASME B16.5&16.47

or EN1092

Testing API 598

Others Special-made is available

5 DUTY Flow modulating or tight shut off

#### MAIN PARTS MATERIALS

S.N.	PART NAME		COMMONLY USED					
1	BODY	CI	DI	WCB+NYLON	SS/DSS	AL-BR		
2	DISC	DI	WCB+NYLON	SS/DSS	AL-BR	MONEL		
3	SHAFT	SS	DSS	17-4PN	XM-19	AL-BR	MONEL	
4	SEAT	NBR	EPDM	VITON				
5								
6								

- 1 Water supply and drainage
- 2 Petroleum and chemical
- 3 Food industry
- 4 Energy system
- 5 Waste gas
- 6 Pump station system 7 Other W.O.G duty



# TRIPLE OFFSET BUTTERFLY VALVE

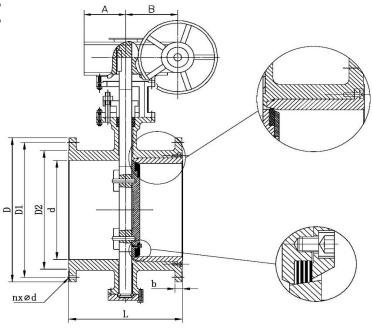
#### DOUBLE FLANGE TYPE REPLACEABLE METAL SEATED MODEL D343Y

#### **PHOTO SHOW**











1 Strong heavy design

2 Triple offset trims replaceable

3 Split replaceable metal seat

4 Easy disassembly to maintain

5 High performance, safety and reliability

6 Long service life

7 Low maintance cost

8 Especially suit for thermal duty

#### **BRIEF DESCRIPTION**

1 SIZE 8" and above 2 DESIGN PRESSURE up to 100 bar max. 3 DESIGN TEMPERATURE up to 1200℃

4 DESIGN CODE

Design and manufacture API 609, EN593

Face to face dimension API 609, ASME B16.10, EN558 Flanges in ASME B16.5&16.47

or EN1092

Testing API 598

Others Special-made is available

5 DUTY Flow modulating or tight shut off

#### MAIN PARTS MATERIALS

S.N.	PART NAME		COMMONLY USED					
1	BODY	WCB	WCC	WC6	WC9	C5	C12A	
2	DISC	WCB	WCC	WC6	WC9	C5	C12A	
3	SHAFT	17-4PH	XM-19	INCONEL	INCOLOY	HASTELLOY	MONEL	
4	SEAT	STELLITE HF						
5								
6								

- 1 Water supply and drainage
- 2 Petroleum and chemical
- 3 Food industry
- 4 Energy system
- 5 Thermal power station
- 6 Pump station system
- 7 Other thermal duty



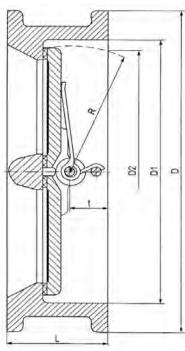
# **DUO PLATE CHECK VALVE**

#### WAFER OR DOUBLE FLANGE TYPE RUBBER SEATED MODEL H7(4)6X

#### **PHOTO SHOW**









1 Economical compact design

2 Dual plates swing type

3 Rubber seated

4 Weight light

5 High performance, safety and reliability

6 Low flow resistance

7 Single direction, non-return

#### **BRIEF DESCRIPTION**

1 SIZE 2"-24" as normal, special-made is available

2 DESIGN PRESSURE up to 25 bar max.

3 DESIGN TEMPERATURE 0~80℃

4 DESIGN CODE

Design and manufacture API 594, AWWA C508, MSS

SP-71, EN 12334

Face to face dimension API 594, API 609

Ends Wafer, mounting between

flanges in ASME B16.5 or

EN1092

Testing API 598

Others Special-made is available

5 DUTY Flow non return, single direction

#### MAIN PARTS MATERIALS

S.N.	PART NAME		COMMONLY USED					
1	BODY	CI	DI	SS/DSS	AL-BR			
2	DISC	DI	SS/DSS	AL-BR				
3	SHAFT	SS	DSS	AL-BR	MONEL			
4	SPRING	SS	INCONEL					
5	SEAT	NBR	EPDM	VITON				

- 1 Water supply and drainage
- 2 Petroleum and chemical
- 3 Food industry
- 4 Energy system
- 5 Waste gas
- 6 Pump station system

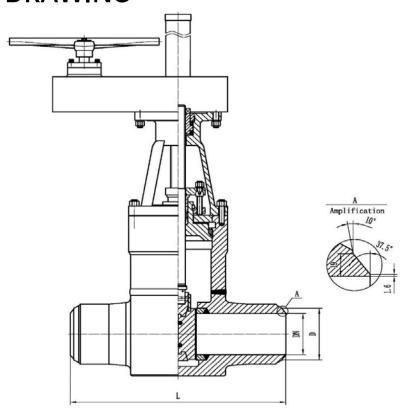


# **PARALLEL GATE VALVE**

#### DOUBLE FLANGE OR BW TYPE HARD FACED METAL SEAT MODEL Z464Y

#### **PHOTO SHOW**







www.savvyvalve.com

#### **FEATURES**

- Strong heavy forged design
- 2 Parallel discs, bidirectional seal
- 3 Suitable for thermal duty
- 4 Suitable for powder medium
- 5 Perfect discs design avoid of being blocked when temper climbing.
- 6 High performance, safety and reliability
- 7 Super long service life

#### **BRIEF DESCRIPTION**

1 SIZE 2" and above 2 DESIGN PRESSURE up to 4500LB 3 DESIGN TEMPERATURE up to 1200 °C

4 DESIGN CODE

Design and manufacture API 6D, ASME B16.34

Face to face dimension API 6D, ASME B16.10, EN 558

Ends Flange or BW

Testing API 598
Others Special-made is available

5 DUTY On off

#### MAIN PARTS MATERIALS

S.N.	PART NAME		COMMONLY USED					
1	BODY	WCB	WCC	WC6	WC9	C5	C12A	
2	DISC	WCB	WCC	WC6	WC9	C5	C12A	
3	SHAFT	17-4PH	XM-19	INCONEL	INCOLOY	HASTELLC	MONEL	
4	SPRING	INCONEL						
5	SEAT	STELLITE	TCC					

- 1 High temper steam duty
- 2 Boiler system
- 3 Power station
- 4 Refinery
- 5 Steel company
- 6 Other thermal duty



# WEDGE GATE VALVE

#### DOUBLE FLANGE OR BW TYPE HARD FACED METAL SEAT MODEL Z41H/W/Y

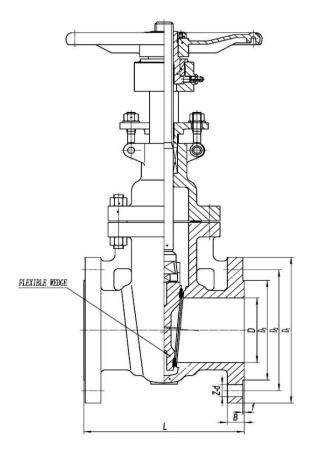
#### **PHOTO SHOW**

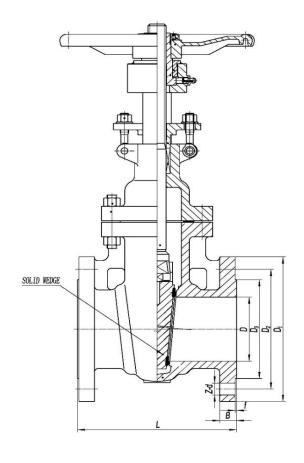




#### **CUTAWAY DRAWING**

Co., Limited





#### **FEATURES**

- Economical compact designFlexible or solid wedge disc
- 3 Bidirectional seal
- 4 Integral seats or replaceable welded seats
- 5 BB,OS&Y,RS
- 6 High performance, safety and reliability
- 7 Long service life

#### **BRIEF DESCRIPTION**

1 2 3 4	DESIGN PRESSURE DESIGN TEMPERATURE DESIGN CODE	2" and above up to 4500LB up to 1200 °C	
		Design and manufacture Face to face dimension Ends Testing Others	API 6D, API 600 API 6D, ASME B16.10, EN 558 Flange or BW API 598, API 6D Special-made is available
5	DUTY	On off	·



#### **MAIN PARTS MATERIALS**

Co., Limited

S.N.	PART NAME		COMMONLY USED					
1	BODY	WCB	LCC	SS	DSS	BRONZE		
2	DISC	WCB	LCC	SS	DSS	BRONZE		
3	SHAFT	F6A	F304	F316				
4	SEAT	STELLITE	TCC					
5								

#### **TYPICAL APPLICATIONS**

1	Crude	oil	pipeline
^	_		. •

2 Pump station

3 Waste processing gas

4 Other W.O.G duty

5

6



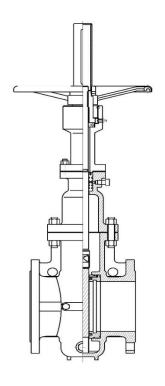
# **SLAB GATE VALVE**

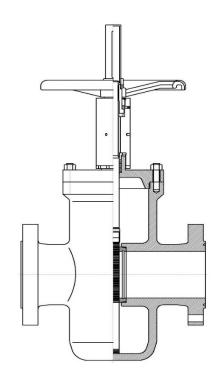
#### THROUGH CONDUIT DESIGN HARD FACED METAL SEAT MODEL Z43F/Y

#### **PHOTO SHOW**











#### **FEATURES**

Strong heavy forged design

2 Parallel discs, bidirectional seal

3 Suitable for thermal duty

4 Suitable for powder medium

5 Perfect discs design avoid of being blocked when temper climbing.

6 High performance, safety and reliability

7 Super long service life

#### **BRIEF DESCRIPTION**

1 SIZE 2" and above 2 DESIGN PRESSURE up to 4500LB 3 DESIGN TEMPERATURE up to 1200 ℃

4 DESIGN CODE

Design and manufacture API 6D, ASME B16.34

Face to face dimension API 6D, ASME B16.10, EN 558

Ends Flange or BW Testing API 598

Others Special-made is available

5 DUTY On off

#### MAIN PARTS MATERIALS

S.N.	PART NAME		COMMONLY USED					
1	BODY	WCB	WCC	WC6	WC9	C5	C12A	
2	DISC	WCB	WCC	WC6	WC9	C5	C12A	
3	SHAFT	17-4PH	XM-19	INCONEL	INCOLOY	HASTELLC	MONEL	
4	SPRING	INCONEL						
5	SEAT	STELLITE	TCC					

- 1 High temper steam duty
- 2 Boiler system
- 3 Power station
- 4 Refinery
- 5 Steel company
- 6 Other thermal duty



# **CRYOGENIC BALL VALVE**

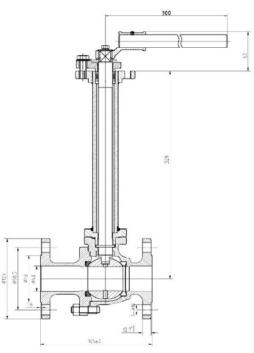
#### FLANGE OR BW TYPE FLOATING BALL DESIGN MODEL DQ41F

#### **PHOTO SHOW**



**CUTAWAY DRAWING** 







Floating ball, extended bonnet
Fire proof and antistatic design
Anti-blow out stem design
Lockable operator for safety
Cavity relief design
Single direction or bi-direction seal
Economical compact design
Weight light, installation easy

9 High performance,safety and reliability10 Low operating torque

#### **BRIEF DESCRIPTION**

1 SIZE 1/8"-8" as normal 2 DESIGN PRESSURE 150LB and above 3 DESIGN TEMPERATURE -196°C

4 DESIGN CODE

Design and manufacture BS 6364

Face to face dimension API 6D, ASME B16.10, EN 558

Ends ASME B16.5 or EN1092
Testing API 598 , BS 6364
Others Special-made is available

5 DUTY Flow tight shut off

#### MAIN PARTS MATERIALS

S.N.	PART NAME	COMMONLY USED						
1	BODY	CF8	CF8M	CF3	CF3M			
2	BALL	F304	F316	F304L	F316L			
3	SHAFT	F304	F316	F304L	F316L	XM-19		
4	SPRING	SS	X-750					
5	SEAT	PCTFE	PEEK	METAL HF				

#### TYPICAL APPLICATIONS

1 LNG,LPG PIPELINE OR STORAGE TANK

2 LIQUID CO2 FOR FOOD INDUSTRY

3 LIQUID N2 STORAGE TANK

4 OTHER SUPER CRYOGENIC FACILITIES

5

6

7

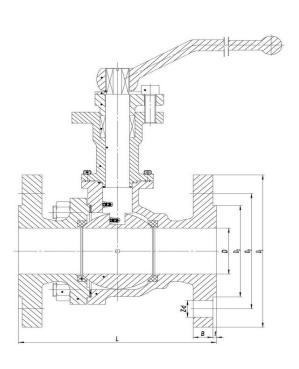


# FLOATING BALL VALVE

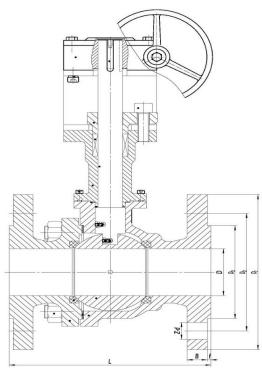
#### 2 or 3 PIECE SPLIT BODY SOFT SEAT OR METAL SEAT MODEL Q41F/Y

#### **PHOTO SHOW**











1 Cast or forged body

2 piece split design is economical, 3 piece split design is easy to maintain.

3 Bidirectional seal

4 Floating ball

5 Fire proof, antistatic, anti-blow out stem

6 High performance, safety and reliability

7 Soft seat or metal seat

8 Long service life

#### **BRIEF DESCRIPTION**

1 SIZE 1/8"~8" 2 DESIGN PRESSURE up to 4500LB

3 DESIGN TEMPERATURE -196 ℃ and above

4 DESIGN CODE

Design and manufacture API 6D, ASME B16.34, API 608 Face to face dimension API 6D, ASME B16.10, EN 558 Flange or BW or SW or NPT

Testing API 598 , API 6D

Others Special-made is available

5 DUTY On off or modulating

#### MAIN PARTS MATERIALS

S.N.	PART NAME	COMMONLY USED						
1	BODY	WCB	A105	304SS	316SS	ALLOY		
2	BALL	A105	F6	F304	F316	ALLOY		
3	STEM AND TRUNNION	F6	F316	17-4PH	MONEL			
4	SPRING	X-750						
5	SEAT	A105	F6	F304	F316	ALLOY		
6	SEAT INSERT	PTFE	DEVLON	NYLON	PCTFE	PEEK	METAL HF	

- 1 Crude oil pipeline
- 2 Nature gas pipeline
- 3 Petroleum and chemical facilities
- 4 Refinery
- 5 Steel company
- 6 Other W.O.G duty

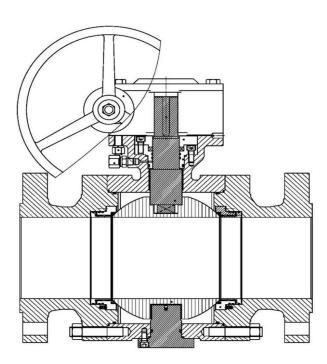


# TRUNNION BALL VALVE

#### 2 PIECE OR 3 PIECE SPLIT BODY SOFT SEAT OR METAL SEAT MODEL Q47F/Y

#### **PHOTO SHOW**







#### **FEATURES**

1 Cast or forged body

2 2 piece or 3 piece split design

3 Bidirectional seal

Double block and bleed, trunnion design Fire proof, antistatic, anti-blow out stem High performance, safety and reliability

7 Soft seat or metal seat

8 Long service life

#### **BRIEF DESCRIPTION**

1 SIZE 2" and above 2 DESIGN PRESSURE up to 4500LB 3 DESIGN TEMPERATURE up to 1200 °C

4 DESIGN CODE

Design and manufacture API 6D, ASME B16.34, API 608 Face to face dimension API 6D, ASME B16.10, EN 558

Ends Flange or BW Testing API 598 , API 6D

Others Special-made is available

5 DUTY On off or modulating

#### MAIN PARTS MATERIALS

S.N.	PART NAME	COMMONLY USED						
1	BODY	WCB	A105	304SS	316SS	ALLOY		
2	BALL	A105	F6	F304	F316	ALLOY		
3	STEM AND TRUNNION	F6	F316	17-4PH	MONEL			
4	SPRING	X-750						
5	SEAT	A105	F6	F304	F316	ALLOY		
6	SEAT INSERT	PTFE	DEVLON	NYLON	PCTFE	PEEK	METAL HF	

- 1 Crude oil pipeline
- 2 Nature gas pipeline
- 3 Petroleum and chemical facilities
- 4 Refinery
- 5 Steel company
- Other W.O.G duty



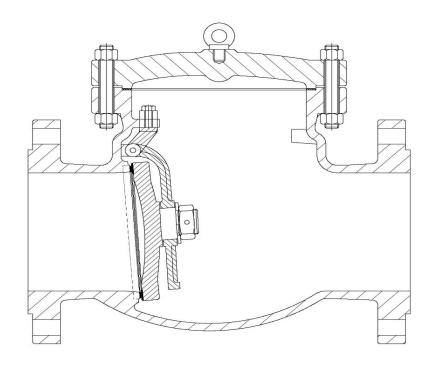
# **SWING CHECK VALVE**

#### DOUBLE FLANGE TYPE METAL OR RUBBER SEATED MODEL H44X/H/W/Y

#### **PHOTO SHOW**









FEATURES Co., Limited

Economical compact designSwing disc completely open

3 Rubber or metal seat

Simple structure, easy to maintain
High performance, safety and reliability

6 Single direction, non-return

7 Long service life

#### **BRIEF DESCRIPTION**

1 SIZE 2" and above 2 DESIGN PRESSURE up to 4500LB max. 3 DESIGN TEMPERATURE Up to 1200 °C

4 DESIGN CODE

Design and manufacture API 594, API 6D, AWWA C508,

MSS SP-71, EN 12334

Face to face dimension API 594

Ends Flanges in ASME B16.5 or

Testing API 598

Others Special-made is available

5 DUTY Flow non return, single direction

#### MAIN PARTS MATERIALS

S.N.	PART NAME		COMMONLY USED						
1	BODY	CI	DI	SS/DSS	AL-BR	ALLOY			
2	DISC	DI	SS/DSS	AL-BR	ALLOY				
3	SHAFT	SS	DSS	AL-BR	MONEL				
4	SPRING								
5	SEAT	RUBBER	13CR	SS/DSS	BRONZE	ALLOY			

- 1 Water supply and drainage system
- 2 Petroleum and chemical industry
- 3 Food industry
- 4 Energy system
- 5 Waste processing gas
- 6 Pump station system
- 7 Other W.O.G applications



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