

Floating Ball Valve



LEADING
THROUGH
INNOVATION

www.womgroup.com



WORLDWIDE OILFIELD MACHINE

TABLE OF
CONTENTS



Floating Ball Valve..... 4

Features and Benefits..... 5-6

General Design Standards..... 7

Exploded View..... 8

Class and Dimensional Data..... 9

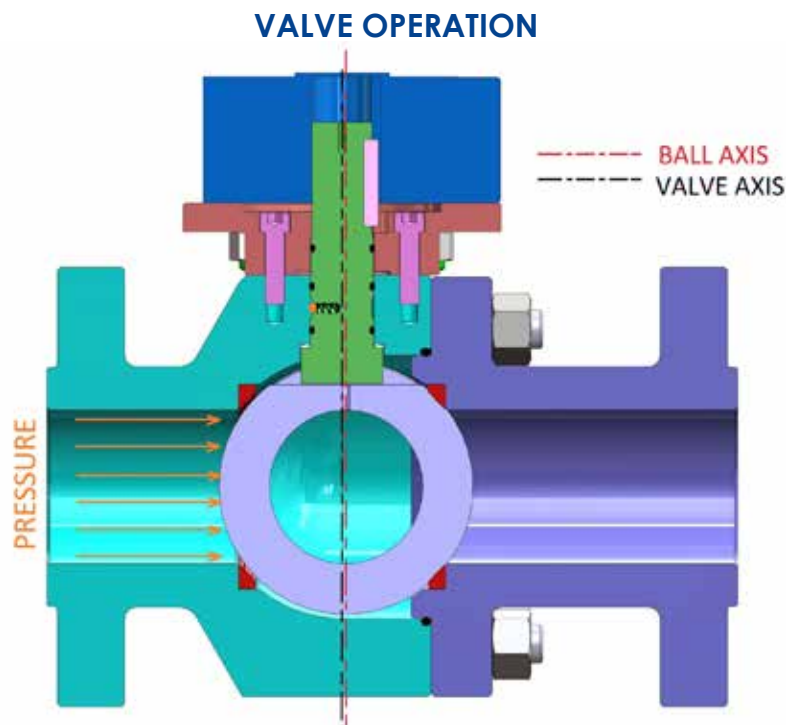
Operating Options..... 10

Quality Policy..... 11

Floating Ball Valve

WOM's Floating Ball Valves provide the user with an exceedingly reliable and proven design offering maximum sealing against leaks. WOM's Floating Ball Valves have separate ball and stem design with a free floating ball preloaded between the seats during assembly.

When pressure enters the valve from the upstream side, the ball stem slot allows the ball to float freely under pressure moving from its axis to seal on the downstream side, resulting in a pressure assisted seal. The stem remains in the valve axis, enhancing stem seal performance for a tight seal joint.



WOM Floating Ball Valves are suitable for the following applications:

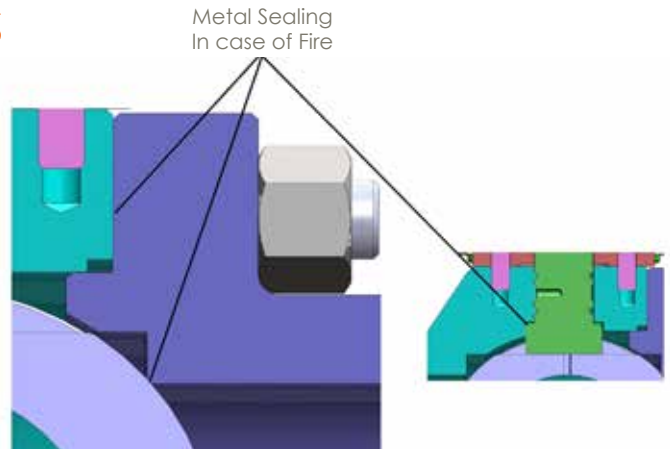
- Oil and gas service with NACE and Non-Nace based material selections.
- Pharmaceutical and Chemical Industry based material selection.
- Standard temperature range of -20°F to 250°F
- Temperature range of -40°F to 250°F can be supplied on demand.

Floating Ball Valve

Features and Benefits

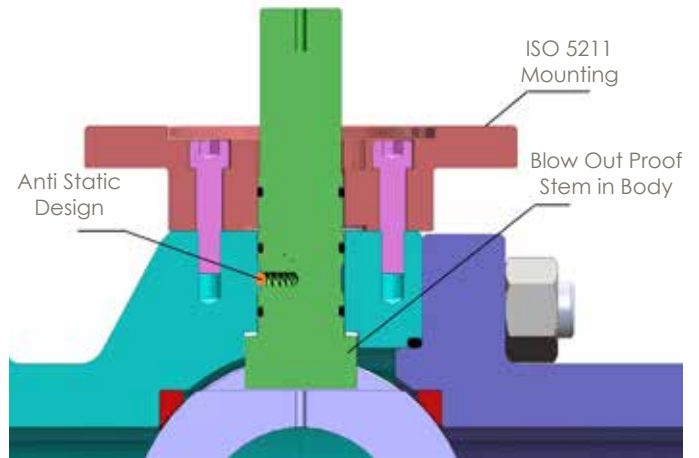
FIRE SAFE DESIGN

WOM Floating Ball Valves are designed to be in-line fire safe. In the event of a fire, if the polymer seats burn out, the ball touches the seat pocket fillet in the body or end connector leading to a metal seated sealing. Acceptable leakage rate as per ISO 5208.



STEM DESIGN

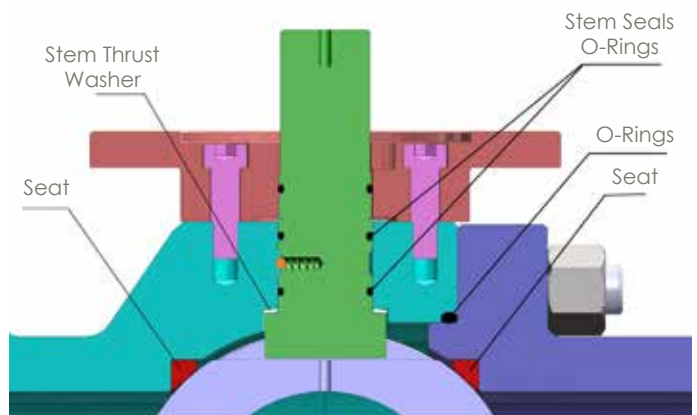
- Blow out proof stem design
- Antistatic stem design ensures continuous contact between the stem and the body
- The stem has multiple seals to prevent any outside leakage
- Larger stem diameter with larger MAST values as per ISO 5211



STEM FEATURES

SEALS

- Seats are made from Nylatron and have a multiple seal design providing enhanced sealing performance than that of other valves in the market
- A tapered stem thrust washer made from reinforced PTFE acts as primary stem seal joint
- Thrust washer reduces friction and hence reduces torque
- Body and end connector joint o-ring provides tight static seal joint
- Closed diametrical clearance between ball outside diameter and body inside diameter leads to less pressure build up within body cavity



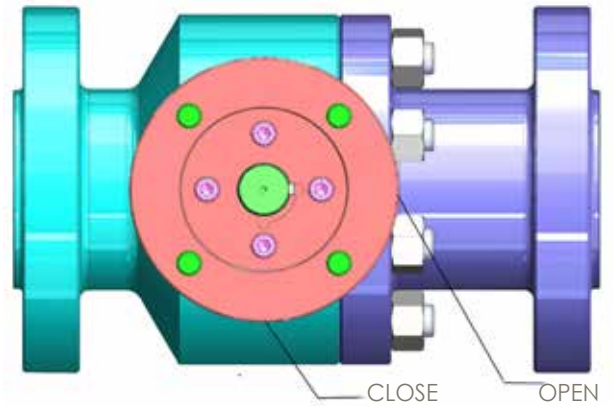
SEALS INSIDE VALVE

Floating Ball Valve

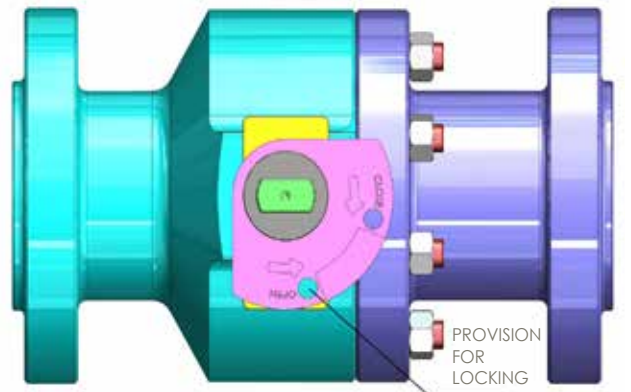
Features and Benefits

OPEN & CLOSE MARKINGS LOCKING DEVICE

- Valve closes in the clockwise direction and opens in the counter-clockwise direction.
- For Gear / Actuator Operated: The gland plate has the provision for open and close markings
- For Lever Operated: The lock plate has the provision for open and close markings
- For Lever Operated: The lock plate has the provision of locking the valve in open and closed positions.
- The valve has a built-in feature to allow only a 90-degree rotation. sealing. Acceptable leakage rate as per ISO 5208.



OPEN & CLOSE MARKINGS



HEAVY DUTY BOLTED CONSTRUCTION

Body and end connector joint are provided with heavy duty bolted construction for longer life and withstanding pressures.

LARGE WALL THICKNESS

Body and end connector are designed with a wall thickness greater than ASME B16.34 for longer life and withstanding pressures.

General Design Standards

STANDARDS AND SPECIFICATIONS

- API 6D
- ASME B16.10
- ASME B16.34
- ASME B16.5
- ASME B 16.25
- ASME sec VIII
- ASME sec II
- ISO5211
- ISO 5208
- API 6FA

STANDARD MATERIALS

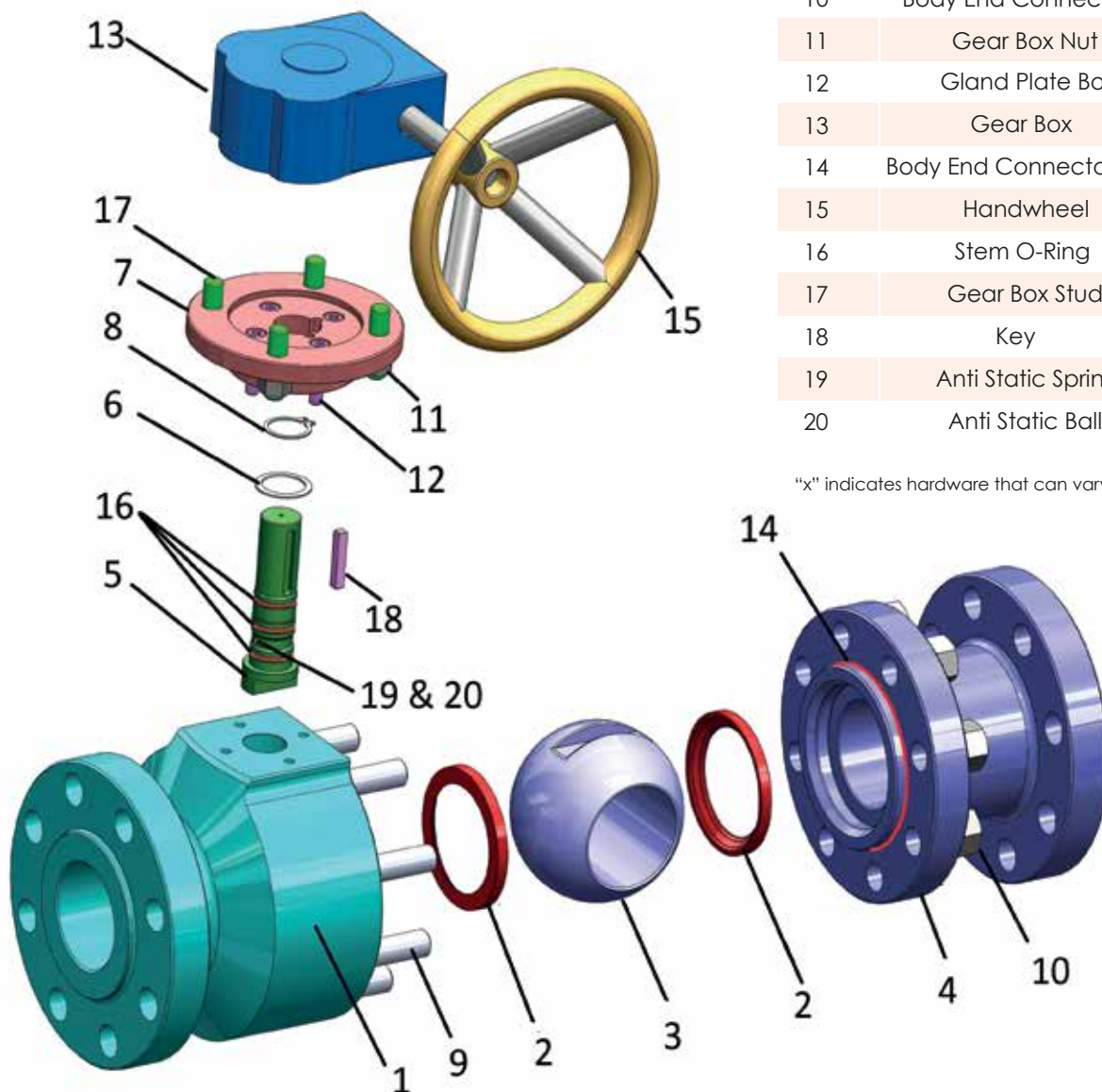
WOM Floating Ball Valves can be supplied in a large assortment of materials for optimal performance in a variety of operating conditions.

DESCRIPTION	MATERIAL
Body	A216 WCC; A105; A352 LCC; CF8M/SS316 ; DUPLEX STEEL
Seat	NYLATRON; DEVLON; RPTFE
Ball	A216 WCC; A105; A352 LCC; CF8M/SS316; DUPLEX STEEL; 17-4PH; INCONEL
End Connector	A216 WCC; A105; A352 LCC; CF8M/SS316; DUPLEX STEEL
Stem	AISI4130; F316/SS316; 17-4PH; INCONEL
Stem Thrust Washer	NYLATRON; DEVLON; RPTFE
Gland Plate	A216 WCC; A105; AISI4130
Stud and Nut	ASTM A193 B7/B7M; ASTM A193 2H/2HM
Seals /O-Rings	VITON SHORE 70/90; LOW TEMP V1289
Name Plate	SS316; 304SS
Plates	A36; EN19



Exploded View

FLOATING BALL VALVE WITH GEAR OPERATOR PARTS



No.	DESCRIPTION	QTY
1	Body	1
2	Seat	2
3	Ball	1
4	End Connector	1
5	Stem	1
6	Stem Thrust Washer	1
7	Gland Plate	1
8	Retainer Ring	1
9	Body End Connector Stud	x
10	Body End Connector Nut	x
11	Gear Box Nut	x
12	Gland Plate Bolt	x
13	Gear Box	1
14	Body End Connector O-Ring	1
15	Handwheel	1
16	Stem O-Ring	3
17	Gear Box Stud	x
18	Key	1
19	Anti Static Spring	1
20	Anti Static Ball	1

"x" indicates hardware that can vary with size and class

Class and Dimensional Data

CLASS 150								
NPS	DN	"L" Face to Face Full Bore as per API 6D			Bore DIA B	For RF & RTJ as per B16.5		
		Raised Face	Welding End	Ring Joint		N	DIA C	PCD
2"	50	7	8.5	7.5	2	4	3/4	4.75
3"	80	8	11.3	8.5	3	4	3/4	6
4"	100	9	12	9.5	4	8	3/4	7.5
6"	150	15.5	18	16	6	8	7/8	9.5

CLASS 300								
NPS	DN	"L" Face to Face Full Bore as per API 6D			Bore DIA B	For RF & RTJ as per B16.5		
		Raised Face	Welding End	Ring Joint		N	DIA C	PCD
2"	50	8.5	8.5	9.13	2	8	3/4	5
3"	80	11.13	11.3	11.75	3	8	3/4	6.62
4"	100	12	12	12.63	4	8	3/4	7.88
6"	150	15.88	18	16.5	6	12	7/8	10.62

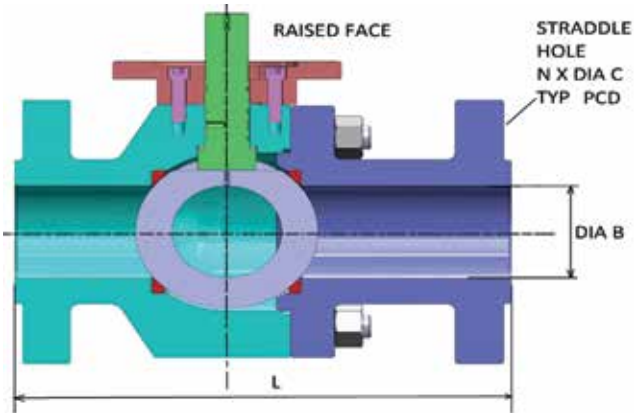
CLASS 600								
NPS	DN	"L" Face to Face Full Bore as per API 6D			Bore DIA B	For RF & RTJ as per B16.5		
		Raised Face	Welding End	Ring Joint		N	DIA C	PCD
2"	50	11.5	11.5	11.63	2	8	3/4	5
3"	80	14	14	14.13	3	8	7/8	6.62
4"	100	17	17	17.13	4	8	1	8.5
6"	150	22	22	22.13	6	12	1-1/8	11.5

CLASS 900								
NPS	DN	"L" Face to Face Full Bore as per API 6D			Bore DIA B	For RF & RTJ as per B16.5		
		Raised Face	Welding End	Ring Joint		N	DIA C	PCD
2"	50	14.5	14.5	14.63	2	8	1	6.5
3"	80	15	15	15.13	3	8	1-1/4	8
4"	100	18	18	18.13	4	8	1-1/4	9.25
6"	150	24	24	24.13	6	12	1-1/4	12.5

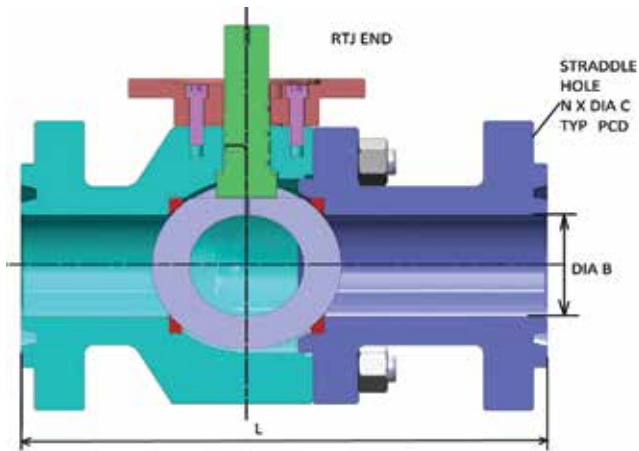


Operating Options

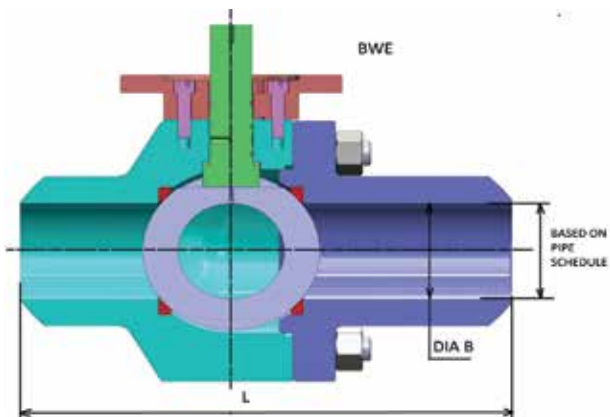
END CONNECTIONS



RF FLANGED

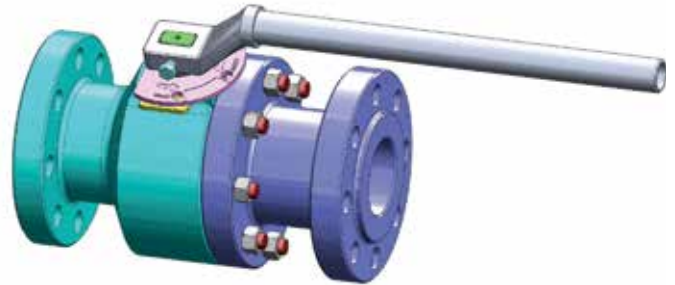


RTJ FLANGED



BUTT WELD END

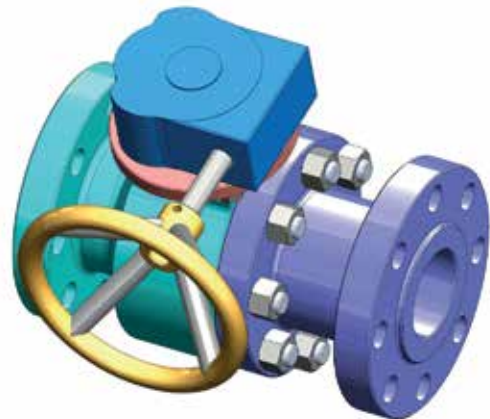
OPERATING OPTIONS



LEVER OPERATED



ACTUATOR OPERATED



GEAR OPERATED

Quality Policy

The primary purpose of Worldwide Oilfield Machine, Inc. is to provide products and services that meet the customer's needs and provide them with value. This philosophy will create gainful work for our employees and a profit for our stakeholders. Worldwide Oilfield Machine, Inc. is dedicated to providing the best possible product and/or service to its customers by having well-trained, enthusiastic employees and the effective implementation of this management system.

It is the policy of Worldwide Oilfield Machine, Inc. to:

- Operate in a safe, consistent and economical manner
- Maintain conformance to the documented quality management system, including the applicable industry codes, standards and/or specifications and customer-specified requirements
- Maintain compliance with statutory and regulatory requirements
- Prevent nonconformities at all stages of design and manufacturing by implementing the requirements of this manual and supporting procedures
- Ensure customer satisfaction
- Foster an environment of continual improvement
- Communicate this policy throughout Worldwide Oilfield Machine, Inc. and ensure that it is understood
- Aggressively pursue the Mitigation of Systemic Risk™ through the implementation of this management system
- Monitor and periodically review the management system, including stated objectives, and this policy for suitability and effectiveness





WORLDWIDE OILFIELD MACHINE



VALVES & CONTROLS
A WOM group company



Magnum Technology Center
A WOM Group Company

We are Worldwide Oilfield Machine (WOM) - a global company pioneering Flow Control Solutions for the Surface & Subsea sectors of the oil & gas industry. Headquartered in Houston, Texas, we have manufacturing facilities, engineering centers, sales offices and assembly/testing workshops all over the world.

Our strength is our robust infrastructure that allows us complete control over quality, costs and delivery. With more than 20 patents and noted accreditations, our very own R&D facilities and 24x7 service centers across the globe we have the required capabilities & resources to deliver all your manufacturing needs for the industry.

www.womgroup.com



facebook.com/womglobalgroup
instagram.com/womglobalgroup
twitter.com/womglobalgroup
linkedin.com/company/worldwideoilfieldmachine