



Process Automation

IMI Orton
IMI Truflo Italy

O-Rex™



Breakthrough
engineering for
a better world

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The ideal ball valve for severe service

Key features

- Double Eccentric
- Cavity free
- Ball with surface coating
- Springless design
- Single Seated
- Torque Seated
- Quarter Turn
- Bi-directional tight shutoff
- Piggable
- Forged Ball available
- Simple design

IMI Truflo Italy ball valves are designed as a solution for critical service applications, combining the advantages of main critical service valve designs while eliminating their weakness or design limitations. Our O-REX™ valve combines the strength and performance of trunnion mounted ball valve with the low operating torque design of triple offset butterfly valve. This makes them ideal to meet the most stringent requirements in critical applications such as oil and gas, hydrogen, chemical, petrochemical, mining, liquefied natural gas (LNG).

Cavity Free	High Endurance Bearings	Quarter Turn Operation	Double Eccentric	Torque Seated
Eliminates the possibility of an over pressurized body cavity	Offers reliability and repeatable performance throughout valve life cycle	Provides simple and flexible automation, and near emission free performance	Provides friction free operation for thousands of cycles and a long service life	Ensures bi-directional tight shut-off performance through a mechanical seal



A Winning combination of benefits



Our O-REX™ valve is designed with a simple design and few components compared to traditional ball valves, fewer components mean lower operational costs, easier access, and a simpler less frequent maintenance.

Another important advantage is the weight reduction, allowed by the reduced number of valve components but also thanks to following elements:

- Face to face as per API 6D (even in class 150 and 300)
- Single seated
- No spring carrier

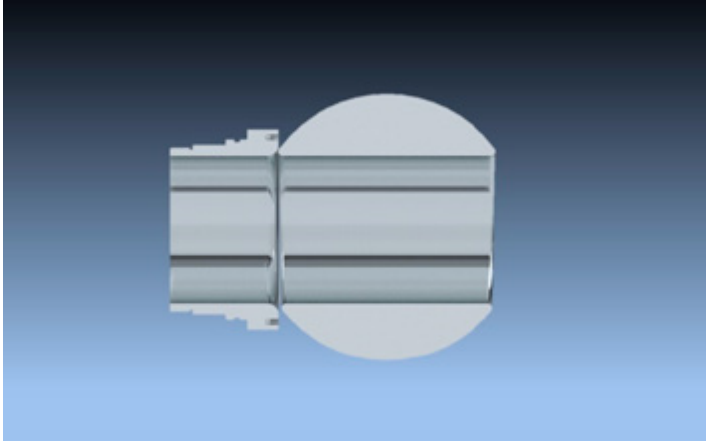
Main benefits

- Simple design
- Durable design
- Less weight
- Easy access
- Easy maintenance

Top Entry design allowing in-line access to the valve internals, facilitating easy maintenance and shorter down-times.
Top Trunnion is integral part of the ball thus protect the stem from internal force. Stem is protected against particle/medium by C-ring and primary gasket.
Where maintenance in line is not required Side Entry Option is available.

Hard facing a durable valve

The Full hard face coating with Tungsten or Chrome Carbide is available on sealing area, sinner and outer ball surface and all wetted part and provides the most durable hard surface available, perfect for severe service applications.
The absence of seams on the hard coating allows to have no weak points.



 Less Components

 Less Maintenance

 Less Operational Costs

 Less Weight (up to 50%)

O-REX™ for Refinery

Customer problems

- Solid particle due to catalyst
- High Temperature

Valve features

- No friction during rotation, reduced wear
- No soft goods and metal to metal seat, with dedicated hard facing Ball & Seat coating

Other suitable applications

Our O-REX™ valves can be installed in a wide range of application:

- Refinery
- Slurry Service
- Coal Gas
- Hydrogen
- Pulp & Paper
- Oil Sands
- Mining
- Steam injection
- Hydrocarbons
- Liquified Natural Gas (LNG)
- Fracking
- Oil&Gas



O-REXTM Double Eccentric Ball Valve

- Design**
Side Entry (2/3 pieces) or Top Entry

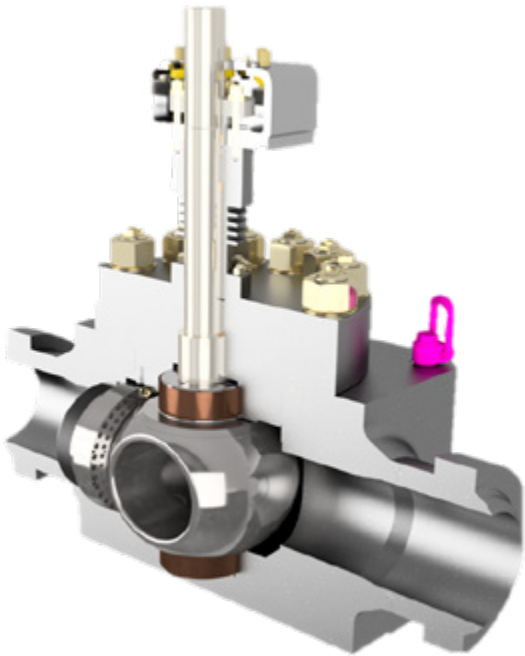
Size Range
DN 12 to 900

Pressure Class
Class 150 to 4500 (ANSI Rating)

Temperature Range
-254°C to +750 °C / -425 °F to +1382 °F
- End Connection**
ANSI Flanges B16.5 / B16.47
NORSOK L-005
HUB (all major Hub Design)
Welding ends BW / SW

Seal Material
Metal or Soft

Function
On/Off & Modulation



Bill of materials

**Standard Configuration:
CS metal seated**

Body bonnet ASTM A216 WCB	Ball 316 + Tungsten Carbide HVOF Coating (**)	Seat 316 + Tungsten Carbide HVOF Coating (**)	Stem Nitronic 50, 17-4 PH Bolting B7 - 2H	Bearings high endurance bearings	Gasket/packing low emission graphite
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**Cryogenic configuration:
SS resilient seated**

Body bonnet ASTM A351 CF8M	Ball 316 seat 316 + PCTFE	Stem Nitronic 50	Bolting B8 - 8	Bearings high endurance bearings	Gasket/packing low emission graphite
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(*) Other Bills of Material available upon request
(**) Chrome Carbide Coating above 250°C - Alternate HF/HVOF coatings available depending on application.

Dimensions

CLASS 150							
SIZE	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	Weight (Kg)
2"	178	89	75	285	300	70	26
3"	283 (#)	141.5	125	340	300	70	52
4"	305 (#)	157.5	130	390	300	70	117
6"	394	197	180	450	400	85	265
8"	457	228.5	230	550	400	110	395
10"	533	266.5	250	650	400	150	520
12"	610	305	300	750	500	150	710
14"	686	343	320	800	500	150	1250
16"	762	381	360	860	500	150	1550
18"	864	432	400	930	600	220	1680
20"	914	457	450	1070	600	220	2370
22"	1092 (#)	546	520	1130	700	280	2780
24"	1067	533	570	1200	700	280	3600

CLASS 300							
SIZE	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	Weight (Kg)
2"	216	108	75	285	300	70	45
3"	283	141.5	125	340	300	70	75
4"	305	152.5	130	390	300	70	150
6"	403	201.5	180	450	400	85	310
8"	502	251	230	550	400	110	420
10"	568	284	250	650	400	150	580
12"	648	324	300	750	500	150	735
14"	762	381	320	800	500	150	1350
16"	838	419	360	860	500	150	1540
18"	914	457	400	930	600	220	2010
20"	991	495.5	450	1070	600	220	2450
22"	1092	546	520	1130	700	280	3450
24"	1143	571.5	570	1200	700	280	4180

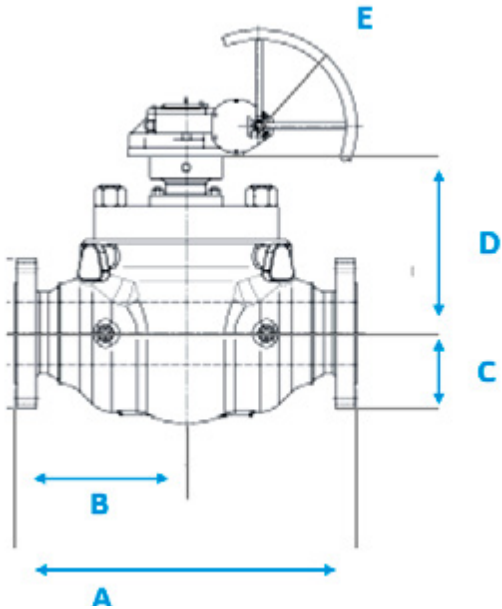
CLASS 600							
SIZE	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	Weight (Kg)
2"	294	147	100	350	300	70	75
3"	356	178	140	400	300	70	105
4"	432	216	170	550	400	110	255
6"	559	279.5	200	580	400	110	410
8"	660	330	250	630	400	110	610
10"	787	393.5	290	720	500	150	980
12"	838	419	320	830	500	150	1460
14"	889	444.5	350	920	600	220	1950
16"	991	495.5	380	950	600	220	2435
18"	1092	546	440	1020	600	220	3250
20"	1194	597	510	1150	700	280	4200
22"	1295	647.5	570	1260	700	280	5680
24"	1397	698.5	630	1300	700	280	7500

CLASS 900							
SIZE	A	B	C	D	E	F	Weight
	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(Kg)
2"	371	185.5	100	405	500	150	110
3"	384	192	130	480	500	150	170
4"	460	230	150	550	500	150	280
6"	613	306.5	210	550	600	250	510
8"	740	370	250	590	600	250	980
10"	841	420.5	310	660	600	250	1650
12"	968	484	350	760	1000	345	2150
14"	1038	519	350	820	1000	345	3150
16"	1140	570	370	900	1000	345	5290

CLASS 1500							
SIZE	A	B	C	D	E	F	Weight
	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(Kg)
2"	371	185.5	100	405	500	150	110
3"	473	236.5	130	530	500	150	225
4"	549	274.5	150	600	600	250	455
6"	711	355.5	240	620	600	250	750
8"	841	420.5	295	680	600	250	1325
10"	1000	500	330	770	700	280	2110
12"	1146	573	395	830	700	280	3150
14"	1276	638	430	900	1000	345	4150
16"	1407	703.5	490	1000	1000	345	7060

CLASS 2500							
SIZE	A	B	C	D	E	F	Weight
	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(Kg)
2"	454	225.5	125	165	500	150	230
3"	584	289	160	180	500	150	435
4"	683	336.5	200	360	600	250	760
6"	927	457	235	570	600	250	1600
8"	1038	511	380	490	600	250	2300
10"	1292	635	450	590	700	280	4600
12"	1445	711	530	640	700	280	5800
14"	1590	795	620	750	1000	345	9000
16"	1800	900	700	850	1000	345	12000

(*) All shown dimensions are in mm and weights in Kg (for full port valves).
(**) Other sizes, regular port and classes are available upon request.
(#) Face to Face Class 300



High Quality

Our Quality Management system meets the requirements of API Q1 9th and ISO 9001:2015.



High Performance



In addition our O-REX™ has the following product certifications:

Design
ASME B16.34 - API 6D & 6A

Fire safe
API 607 / ISO 10497 / API 6FA

Low Fugitive emission
ISO 15848-1 class AH

Bidirectional tightness
API 598

Marine approvals
ABS / DNV-GL / BV

PR2 approval
Endurance test
15K Cycles

Process Automation

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