



Process Automation

IMI Orton
IMI Truflo Italy



Breakthrough
engineering for
a better world

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A Winning combination of benefits

C-REX™ for high cycling applications

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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
- 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 C-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	Single seated	Quarter Turn Operation	Double Eccentric	Torque Seated
Eliminates the possibility of an over pressurized body cavity	Springless seat and Mechanical sealing independent from process pressure	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



Main benefits

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

Our C-REXTM 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 ANSI B16.10 (even in class 150 and 300)
- Single seated
- No spring carrier
- Reduced flange diameter of body cover

Top Entry design allowing in-line access to the valve internals, facilitating easy maintenance and shorter down-times.

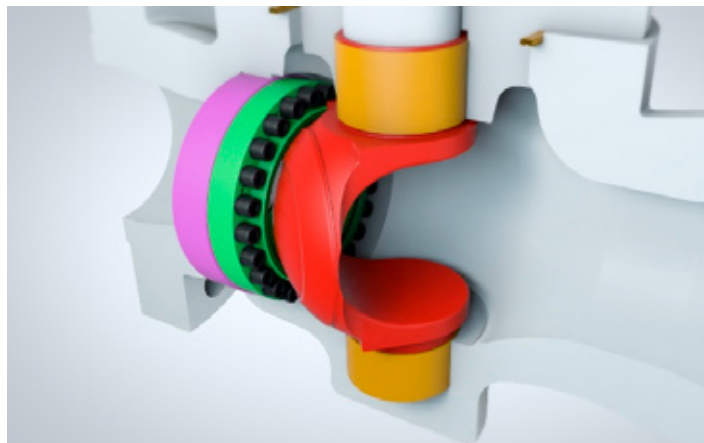
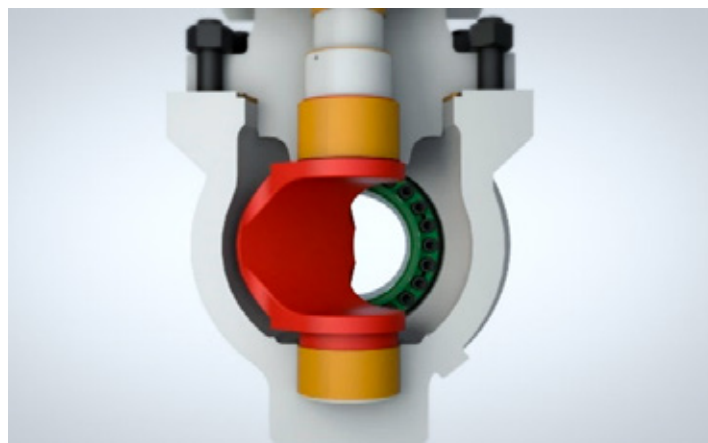
Top Trunnion is integral part of the ball thus protect the stem from internal force. Stem is protected against particle/medium by C-ring and primary gasket.

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, inner 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%)

C-REX™ high cycling applications

C-REX™ valve with its double eccentric design offers non rubbing, low running torque and high-performance mechanical sealing.

The special ball & seat coating, provides superior durability, reducing wear and extending valve life in high-cycle and abrasive applications. Friction-free operation between the ball and seat makes the C-REX™ valve a perfect candidate for high-cycle and high endurance processes like molecular sieve switching, high/low temperatures or other critical services.

The C-REX™ valve has been extensively tested with daily high cycle operations, in extreme conditions, withstanding more than 15,000 cycles.

Other suitable applications

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

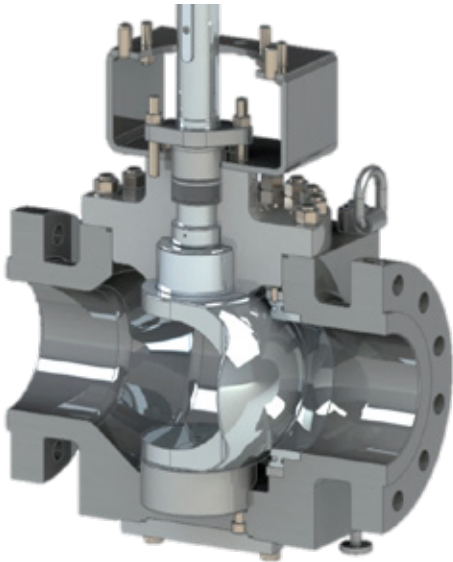
- Refinery
- Slurry Service
- Coal Gas
- Hydrogen
- Pulp & Paper
- Oil Sands
- Mining
- Steam injection
- Hydrocarbons
- Liquefied Natural Gas (LNG)
- Fracking
- Oil&Gas



C-REX™

Double Eccentric Ball Valve

Design Side Entry (2/3 pieces) or Top Entry	End Connection ANSI Flanges B16.5 / B16.47 NORSOK L-005 HUB (all major Hub Design) Welding ends BW / SW
Size Range DN 12 to 900 / 0.5" to 36"	Seal Material Metal or Soft
Pressure Class Class 150 to 1500 (ANSI Rating)	Function On/Off & Modulation
Temperature Range -254°C to +650 °C / -425 °F to +1200 °F	



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	20
3"	283 (#)	141.5	125	340	300	70	40
4"	305 (#)	157.5	130	390	300	70	90
6"	394	197	180	450	400	85	170
8"	457	228,5	230	550	400	110	250
10"	533	266,5	250	650	400	150	390
12"	610	305	300	750	500	150	530
14"	686	343	320	800	500	150	880
16"	762	381	360	860	500	150	990
18"	864	432	400	930	600	220	1220
20"	914	457	450	1070	600	220	1680
22"	1092 (#)	546	520	1130	700	280	2370
24"	1067	533	570	1200	700	280	2780

CLASS 300							
SIZE	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	Weight (Kg)
2"	216	108	75	285	300	70	30
3"	283	141,5	125	340	300	70	50
4"	305	152,5	130	390	300	70	105
6"	403	201,5	180	450	400	85	210
8"	502	251	230	550	400	110	300
10"	568	284	250	650	400	150	430
12"	648	324	300	750	500	150	550
14"	762	381	320	800	500	150	1020
16"	838	419	360	860	500	150	1180
18"	914	457	400	930	600	220	1460
20"	991	495.5	450	1070	600	220	1700
22"	1092	546	520	1130	700	280	2530
24"	1143	571.5	570	1200	700	280	3100

CLASS 600							
SIZE	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	Weight (Kg)
2"	294	147	100	350	300	70	55
3"	356	178	140	400	300	70	75
4"	432	216	170	550	400	110	195
6"	559	279,5	200	580	400	110	310
8"	660	330	250	630	400	110	450
10"	787	393,5	290	720	500	150	720
12"	838	419	320	830	500	150	1010
14"	889	444.5	350	920	600	220	1360
16"	991	495.5	380	950	600	220	1730
18"	1092	546	440	1020	600	220	2350
20"	1194	597	510	1150	700	280	3100
22"	1295	647.5	570	1260	700	280	4180
24"	1397	698.5	630	1300	700	280	5430

Dimensions

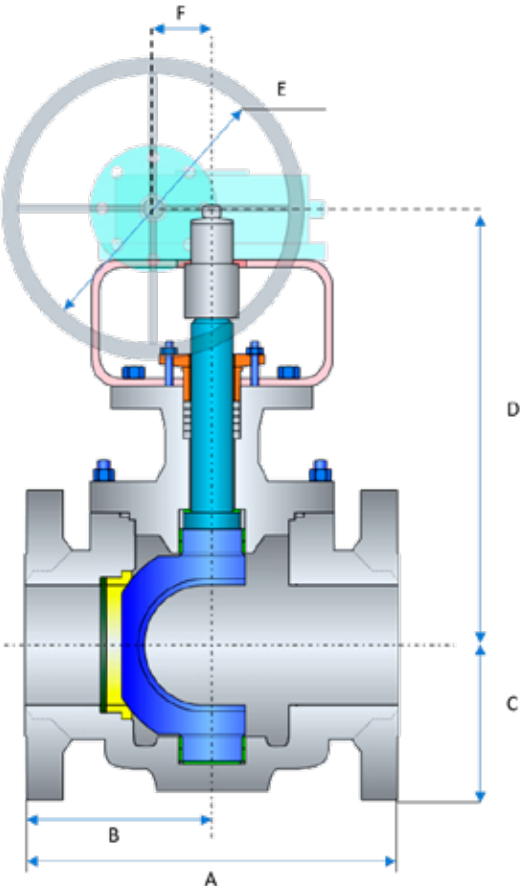
CLASS 900							
SIZE	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	Weight (Kg)
2"	371	185.5	100	405	500	150	85
3"	384	192	130	480	500	150	120
4"	460	230	150	550	500	150	210
6"	613	306.5	210	550	600	250	390
8"	740	370	250	590	600	250	700
10"	841	420.5	310	660	600	250	1100
12"	968	484	350	760	1000	345	1470
14"	1038	519	350	820	1000	345	2080
16"	1140	570	370	900	1000	345	2450

CLASS 1500							
SIZE	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	Weight (Kg)
2"	371	185.5	100	405	500	150	85
3"	473	236.5	130	530	500	150	170
4"	549	274.5	150	600	600	250	325
6"	711	355.5	240	620	600	250	530
8"	841	420.5	295	680	600	250	980
10"	1000	500	330	770	700	280	1560
12"	1146	573	395	830	700	280	2210
14"	1276	638	430	900	1000	345	2860
16"	1407	703.5	490	1000	1000	345	5230

(*) 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 10th edition** and **ISO 9001:2015**.



High Performance



In addition our C-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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