

Instrumentation Products

KM Series I Metal Seated Ball Valve



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Ball Valve meets toughest requirements

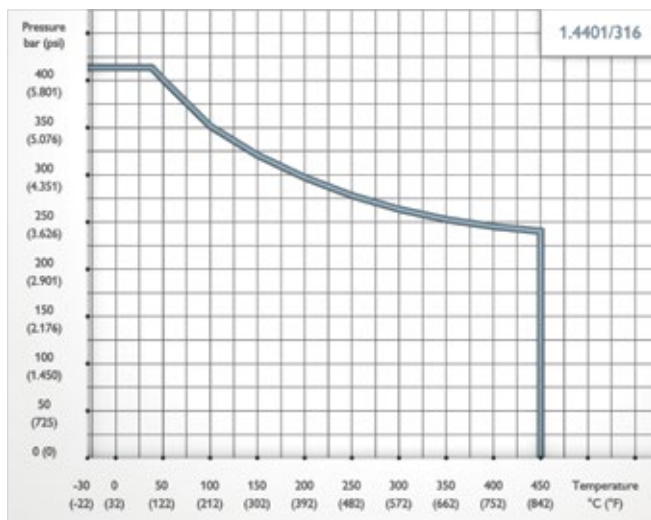
Extreme operating conditions with temperatures up to 450°C and pressures up to 420 bar require special sealing technology in ball valves. Standard soft seated ball valves simply aren't ready for this kind of requirements. Their plastic seals would fail. Metal seated ball valves don't have this problem. However, most metal seated ball valves are not available for high pressures and also not available for smooth operation. Now, AS-Schneider is entering this Metal Seated Ball Valve arena with the new KM Series.

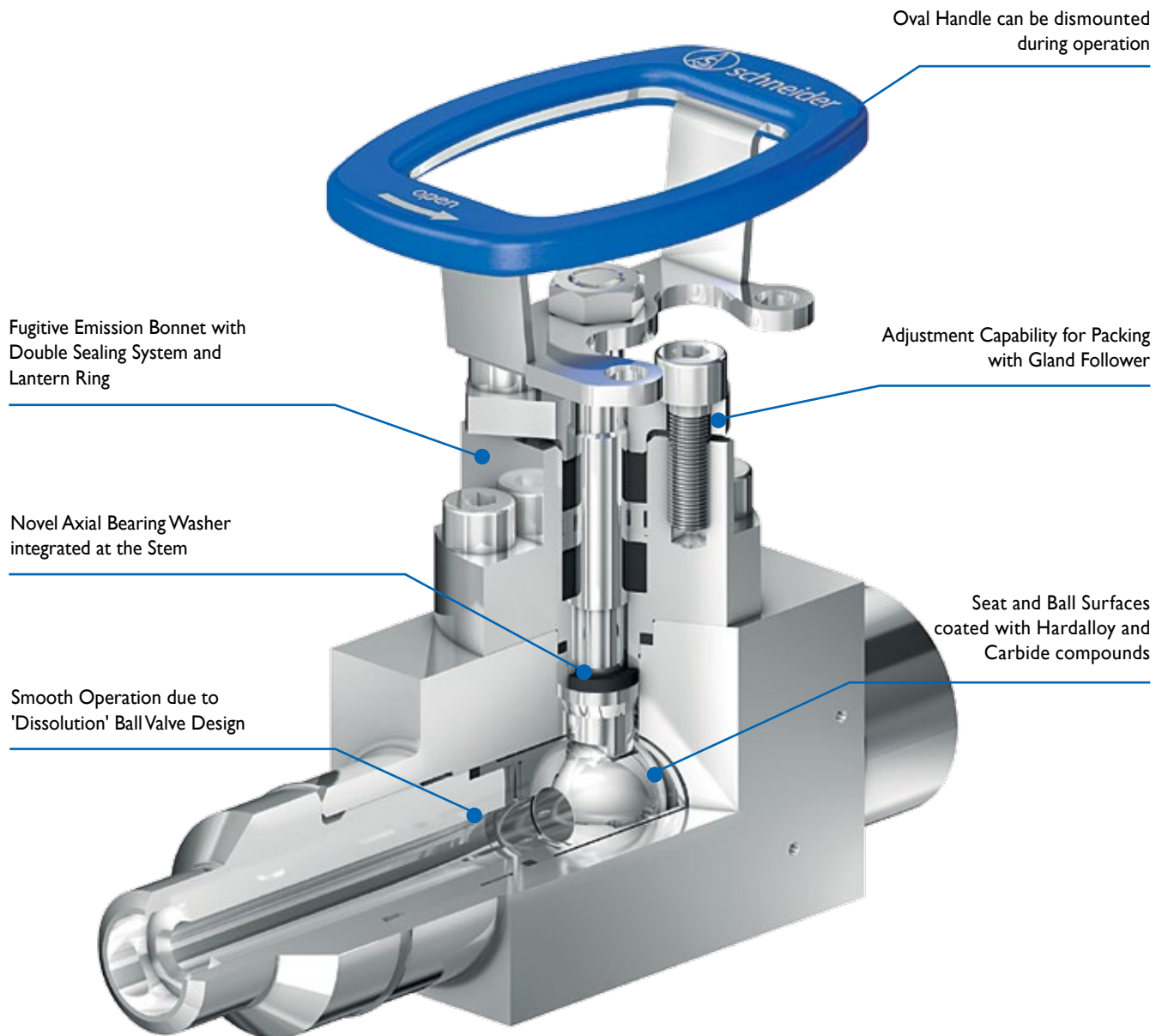
When developing the new KM Series AS-Schneider uses the latest surface and material knowledge combined with comprehensive engineering know-how. The result is a ball valve with zero leakage even under extreme operating conditions with respect to (working) pressure and temperature – even though a smooth operation is provided.

Features

- Seat and Ball Surfaces coated with Hardalloy and Carbide compounds
- 'Dissolution' Ball Valve Design and novel axial bearing washer at the stem - for smooth operation (even at high (working) pressures)
- Double Sealing System in fugitive emission bonnet consisting of premium-quality graphite sealing rings
- Blow-Out Proof Stem
- Can be locked in opened and closed position
- Oval Handle can be dismantled during operation
- Even non-wetted parts are made of 316 stainless steel for operation in corrosive environments
- PN 420 I Class 2,500 I 6,092 psi
- Working Temperature: -29°C to 450°C
- Seat leakage: ANSI / FCI 70-2 Class V
- Ball Bore Size: Ø 10 mm
- Body Material: 1.4401 / 316 or 1.0460 / A105
- Materials comply to NACE MR 0175 / MR0103 / ISO 15156
- Ball Valve meets requirements of TA-Luft (leak rate $< 4,6 \times 10^{-6}$ mbar x l/s)
- Fire Safe tested according to ISO 10497 and API 607
- Design Basis: ISO 17292, ASME B16.34, MESG SPE 77/170, MESG SPE 77/110

Pressure-Temperature Rating (1.4401 / 316)





Innovative 'Dissolution' Ball Valve Design



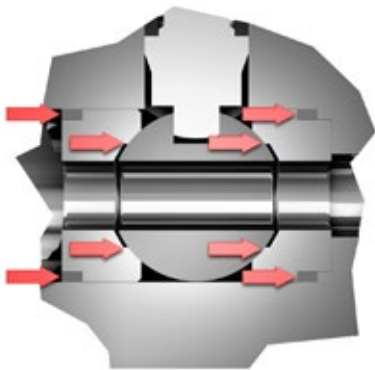
Best tightness performance with maximum comfort

Large forces are required to preserve the tightness between ball and ball seats and the tightness between ball seats and valve body. These forces are often applied by a screw connector or when assembling the ball valve body (for example a three piece body).

In a conventional design, the transmission of force of the ball seat to valve body sealing is being effected directly by the ball, so as the pressure increases, the actuation torque also rises significantly. The max. allowable (working) pressure of metal seated ball valves from most manufacturers is thus about 100 bar – because that is the limit that still permits actuation of the valve.

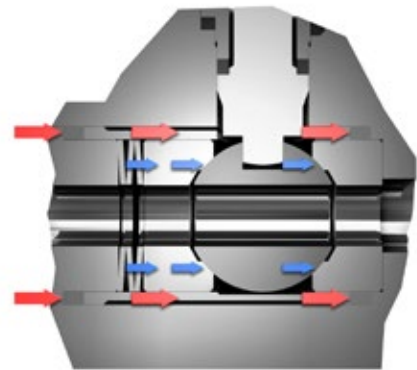
With the 'Dissolution' Ball Valve Design, AS-Schneider has introduced an innovative solution. This design, already registered for a patent, offers an optimum distribution of forces and loads in the valve, so they are only present where they are actually needed. The ball valve can thus be actuated without problems even under extreme conditions.

Conventional Ball Valve Design



The forces required to maintain the tightness are stressing all components - even the ball and seats. The operating torque is thus very high.

'Dissolution' Ball Valve Design



The forces needed to maintain the tightness between ball seat and valve body are only directed onto the corresponding graphite seal rings. The ball is only spring-loaded, which ensure a low, defined, minimum pressure off the balls on the ball seat. A smooth operation is the consequence.

Ordering Information

		1	2	3	4	5	6	7	8	9	10	11	12	13	14
		K	M	9	-	A	6	P	L	N	6	-	S	U	
KM	Ball Valve KM Series														
Packing															
9	Bonnet Seal: Graphite Ball Seat: Stainless Steel, Tungsten Carbide Coated														
Inlet															
Butt Weld End		Socket Weld End		Thread Type											
A4	1/2" Pipe	D4	1/2" Pipe	JN	NPT Male										
A6	3/4" Pipe	D6	3/4" Pipe	LN	NPT Female										
A8	1" Pipe	D8	1" Pipe												
Butt Weld End		A	Socket Weld End	Thread Size											
N	Schedule 40			4	1/2"										
P	Schedule 80			6	3/4"										
Q	Schedule 160			8	1"										
Outlet															
Butt Weld End		Socket Weld End		Thread Type		Transmitter Interface									
A4	1/2" Pipe	D4	1/2" Pipe	JN	NPT Male	RD1	DIN EN 61518-A								
A6	3/4" Pipe	D6	3/4" Pipe	LN	NPT Femal	RE1	DIN EN 61518-B								
A8	1" Pipe	D8	1" Pipe												
Butt Weld End		A	Socket Weld End	Thread Size											
N	Schedule 40			4	1/2"										
P	Schedule 80			6	3/4"										
Q	Schedule 160			8	1"										
Material Body															
C	1.0460 / A105*														
S	1.4401 / 316*														
Options – Specify in alphabetical order															
U	With Padlock														
M	Wetted parts with 3.1 certificate														

* Both materials certified in certificate.



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