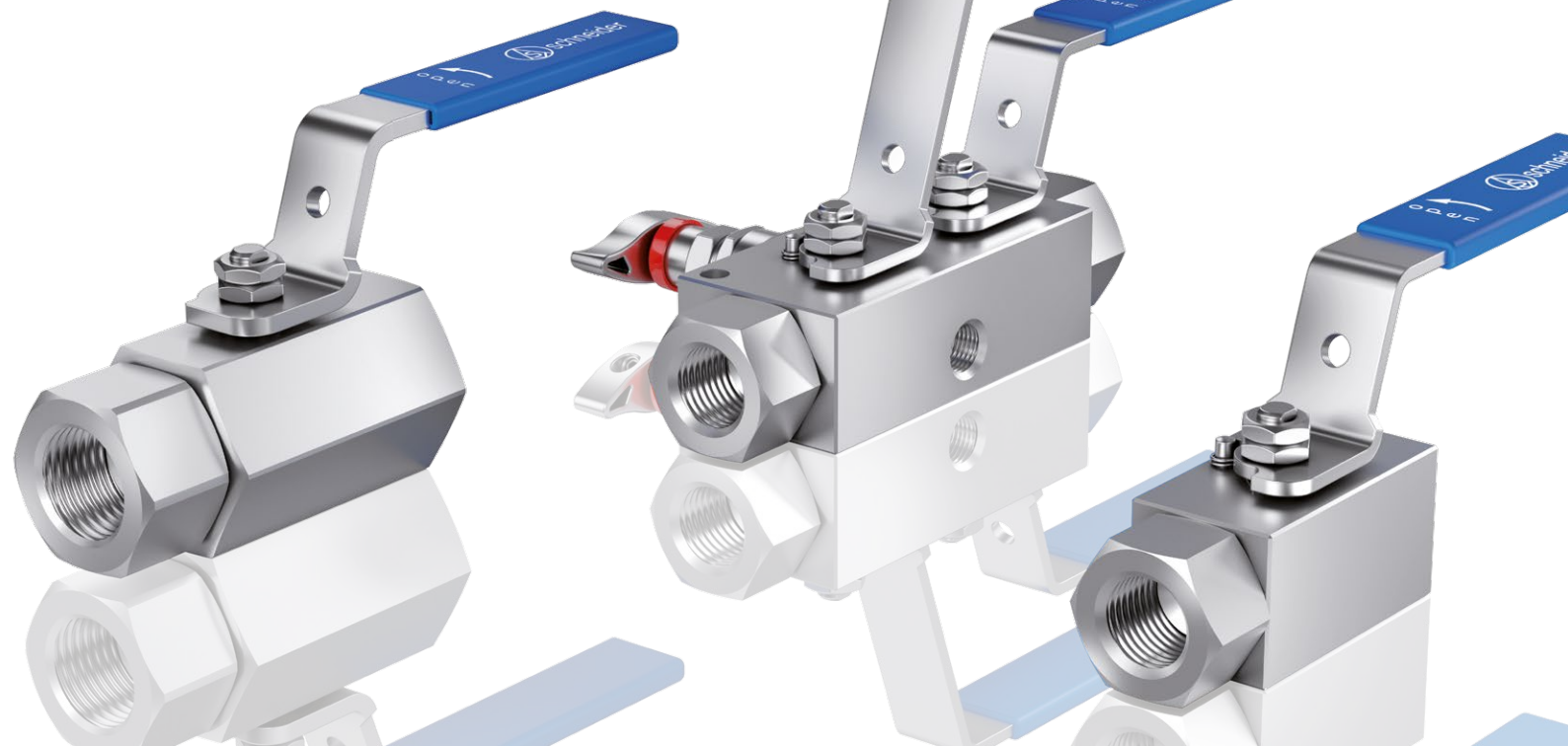


Instrumentation Products

Ball Valves and Ball Valve Manifolds



KM Series I Metal Seated Ball Valves

KM Series I Metal Seated Ball Valves

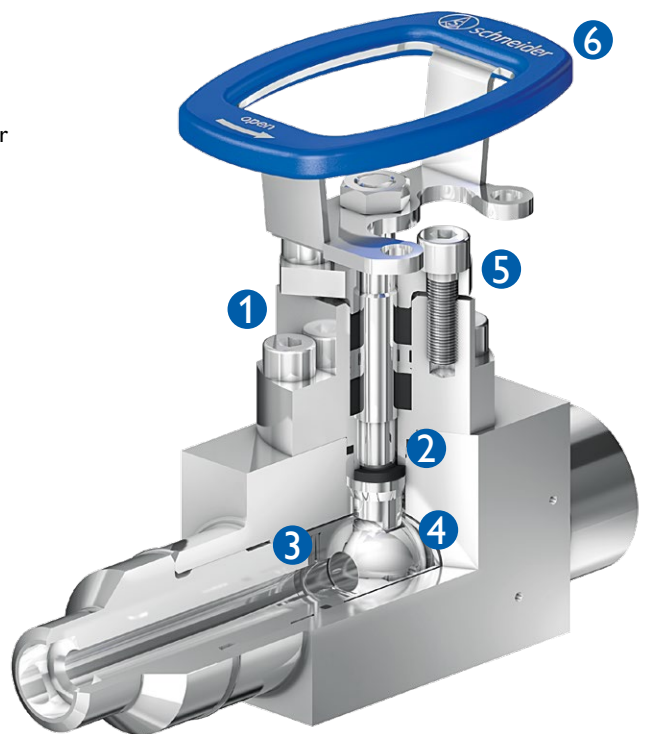
Extreme operating conditions with temperatures up to 450°C (842°F) and pressures up to 420 bar (6,092 psi) require special sealing technology in ball valves.

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. AS-Schneider entered the Metal Seated Ball Valve arena with the KM Series.

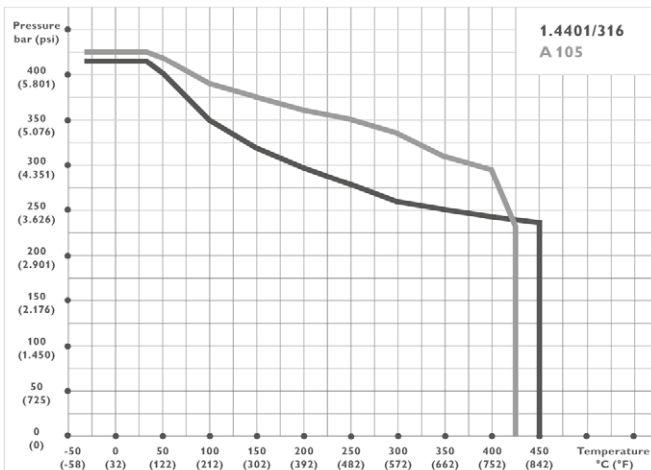
When developing the KM Series AS-Schneider uses the latest surface and material knowledge combined with comprehensive engineering know-how. The result is a ball valve with zero leakage even under extreme operating conditions with respect to working pressure and temperature – even though a smooth operation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

Features

- 2 Piece Design – Fully Welded
- Ball Bore Size 10 mm (0.39")
- Seat and Ball Surfaces coated with Hardalloy and Carbide compounds
- 'Dissolution' Ball Valve Design and an outstanding 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
- Pressure Rating: Class 2,500
- Max. allowable Temperature (TS): -29°C (-20°F) to 450°C (842°F)
- Anti-Blowout Stem Design
- 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
- Seat Leakage: ANSI / FCI 70-2 Class V
- Body Material: 1.4401 / 316 or LF2 / A105N
- Materials comply to NACE MR 0175 / MR0103 / ISO 15156
- Ball Valve meets requirements of TA-Luft (leak rate < 4,6 x 10⁻⁶ mbar x l/s)
- Fire Safe tested acc. to ISO 10497 and API 607
- Design Basis: ISO 17292, ASME B16.34, MESC SPE 77/170, MESC SPE 77/110



Pressure-Temperature Rating



1. Fugitive Emission Bonnet with Double Sealing System and Lantern Ring
2. Outstanding Axial Bearing washer integrated at the Stem
3. Smooth Operation due to 'Dissolution' Ball Valve Design
4. Seat and Ball Surfaces coated with Hardalloy and Carbide compounds
5. Adjustment Capability for Packing with Gland Follower
6. Oval Handle can be dismantled during operation

KM Series I Innovative 'Dissolution' Ball Valve Design

Best tightness performance with maximum comfort

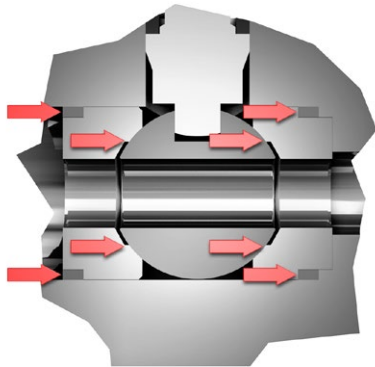
Large forces are required to preserve the tightness between ball and ball seats and the tightness between ball seats and valve body. These forces are often applied by a screw connector or when assembling the ball valve body (for example a three piece body).

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 (PS) of Metal Seated Ball Valves from most manufacturers is thus about 100 bar – because this is the limit that still permits actuation of the valve.

With the 'Dissolution' Ball Valve Design, AS-Schneider has introduced an innovative solution. This patented design 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.

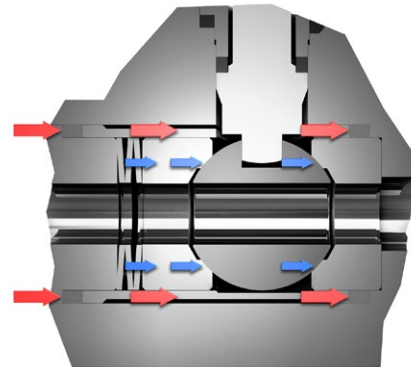


Conventional Ball Valve Design



The forces required to maintain the tightness are stressing all components - even the ball and ball 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.

KM Series I Ordering Information

					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
					K	M	9	-	L	N	4	L	N	4	-	S	x	x	x	x	-	x
KM Metal Seated Ball Valve Series																						
Seal Material																						
Packing		Ball / Seat				End Connector Seal Ring																
9	Graphite	Coated 1.4401/316				Graphite																
Inlet																						
Thread Type		Butt Weld End				Butt Weld End				Flange												
LN	NPT	4	1/2" pipe			A	1/2" pipe			T Flange Interface												
		6	3/4" pipe			C	3/4" pipe															
		8	1" pipe			D	1" pipe															
		9	2" pipe			F	1/2" pipe															
		Socket Weld End		For 1/2" pipe		G	3/4" pipe															
		4				J	1" pipe															
						K	1/2" pipe															
						M	3/4" pipe															
						N	1" pipe															
						Q	1/2" pipe															
Thread Size		Wall Thickness BW				1 Flange Interface																
4	1/2	N Schedule 40				A Special Groove 25,5x21,3x1,2																
6	3/4	P Schedule 80				D IEC 61518-A																
		A Socket Weld End				E IEC 61518-B																
Outlet																						
Thread Type		Butt Weld End				Flange																
LN	NPT Female	A4 1/2" pipe				TD Acc. IEC 61518 - Type A																
LH	BSP Parallel (G) Female - DIN3852	A6 3/4" pipe																				
		A8 1" pipe																				
		Socket Weld End		For 1/2" pipe																		
				For 3/4" pipe																		
Thread Size		Wall Thickness BW				1 Flange Interface																
4	1/2	N Schedule 40				A Special Groove 25,5x21,3x1,2																
6	3/4	P Schedule 80				D IEC 61518-A																
		A Socket Weld End				E IEC 61518-B																
Material Body Ball and Ball Seat																						
C	1.0460/A105 (Body) 1.4401/316 incl. coating (Ball and Ball Seat)																					
S	1.4401/316 (Body) 1.4401/316 incl. coating (Ball and Ball Seat)																					
Options – Specify in alphabetical order																						
B	Cleaned for Oxygen Service																					
E	Extended Body																					
M	Wetted Parts with 3.1 certificate																					
P	Pressure Testing acc. to API 598																					
T	Multiport Design - Three outlet ports of same size																					
U	Padlock for Lockable Handle																					
W	Accessory kit - 2x 7/16-20UNFx1", ASTM A193 B8M Cl. 2, 1x seal ring (material same as ball valve packing, either graphite or PTFE)																					
Options - Instrumentation Hardware Sets																						
Configuration (Outlet 1 x Outlet 2 x Outlet 3) - thread or flange interface specified in digit 8 to 10																						
A	Thread x vent valve x plug																Accessories					
B	Plug x thread x vent valve																None					
C	Thread x hand valve - seal welded x plug - seal welded																None					
D	Plug - seal welded x thread x hand valve - seal welded																None					
E	Flange interface x vent valve x plug																2x 7/16-20UNFx1", ASTM A449 Type 1, 1x seal ring*					
F	Plug x flange interface x vent valve																2x 7/16-20UNFx1", ASTM A449 Type 1, 1x seal ring*					
G	Flange interface x hand valve - seal welded x plug - seal welded																2x 7/16-20UNFx1", ASTM A449 Type 1, 1x seal ring*					
H	Plug - seal welded x flange interface x hand valve - seal welded																2x 7/16-20UNFx1", ASTM A449 Type 1, 1x seal ring*					

* seal ring material same as ball valve packing, either graphite or PTFE

Wetted Parts according to a.m. material list are supplied according to NACE MR0175/MR0103 and ISO 15156/17945 (latest issue)

Notes: Not every configuration which can be created in the ordering information is feasible / available.

KM Series Ball Valve | Examples

