




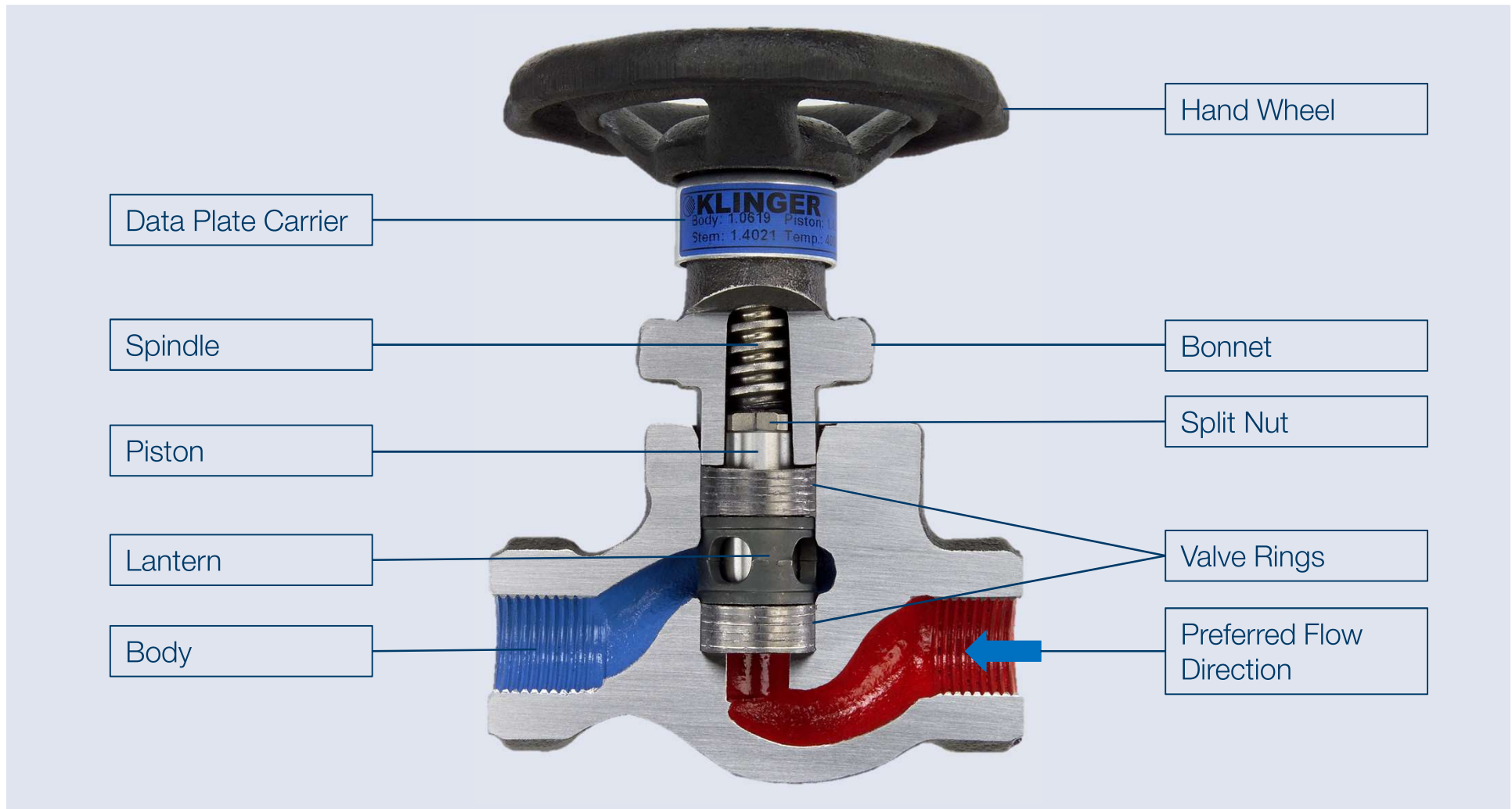
KLINGER PISTON VALVE KVN:



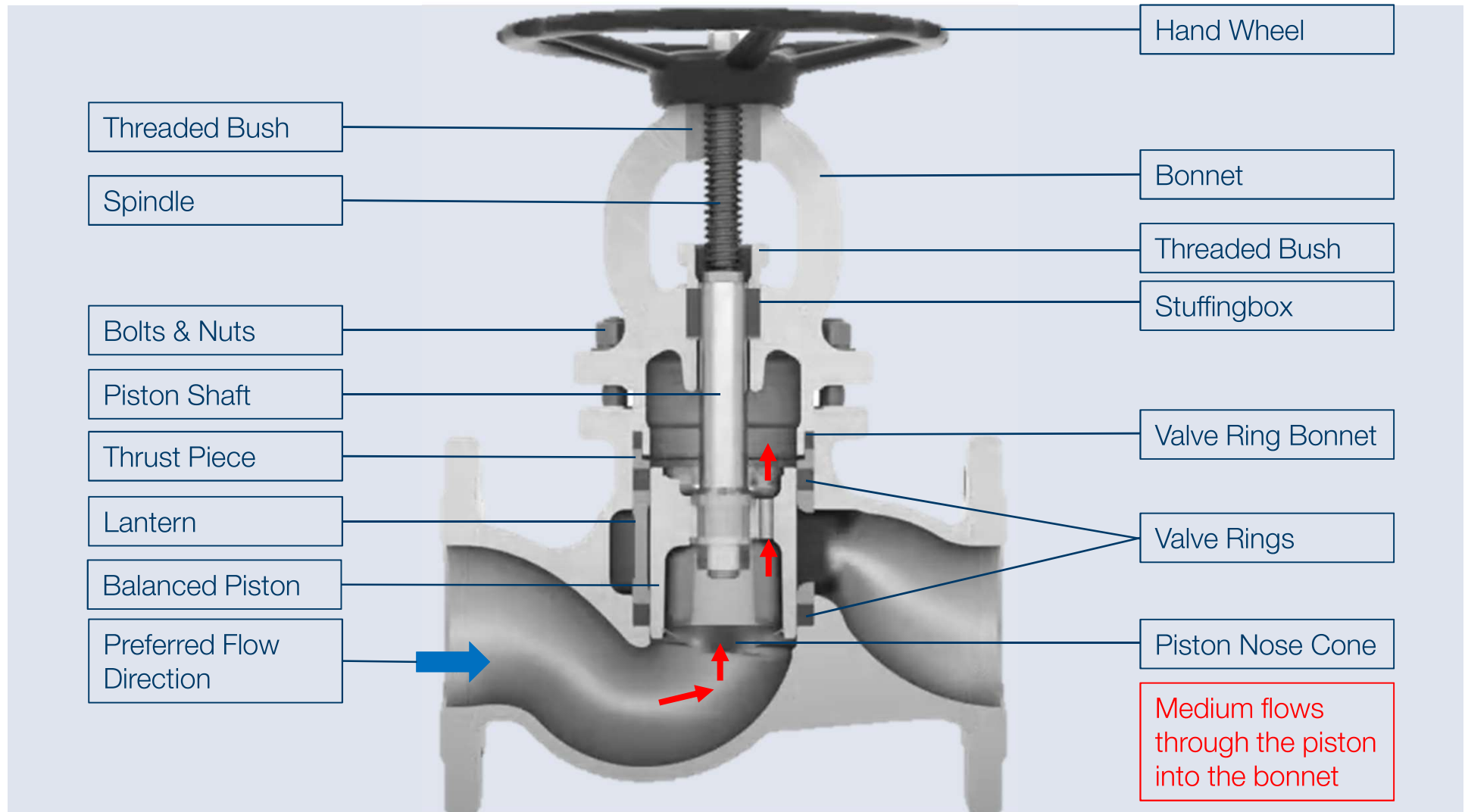
KVN - VARIANTS

Model	DN	PN	Connection	Face to Face	Body Material	Pressure Balanced	Valve Rings	°C	General
KVN 	15-200	16,25,40	Flanged EN1092-1	EN558-1 GR1	EN-GJL 250 EN-JS1049 1.0619 1.4581 (until DN50)	DN15 – DN50: Non pressure balanced	KX-GT KX1	Acc. P/T diagram	Certification Standard Version: Fire Safe acc. API6F and EN10497 Additional Certificates: TA-Luft VDI2440 Oxygen SIL2
	½" – 8"	CL150/ 300	Flanged ASME B16.5	ASME B16.10	A-216 WCB	DN65 – DN200: Pressure balanced			
KVSN 	15-50	63	Butt Weld Ends acc. EN12627	KLINGER Standard	1.0619	Non pressure balanced			
	½"-2"	63	Socket Weld Ends acc. EN12760	DIN3202- M9	1.0619				
KVMN 	½" – 2"	63	Threaded ends acc. ISO228-1	EN16722- 114	1.0619 EN-GJL 250	Non pressure balanced			
	½" – 2"	63	Threaded ends acc. NPT ANSI B2.1	ANSI B 1.20.1	1.0619 EN-GJL 250				

KVN DN15 - 50 NON PRESSURE BALANCED:

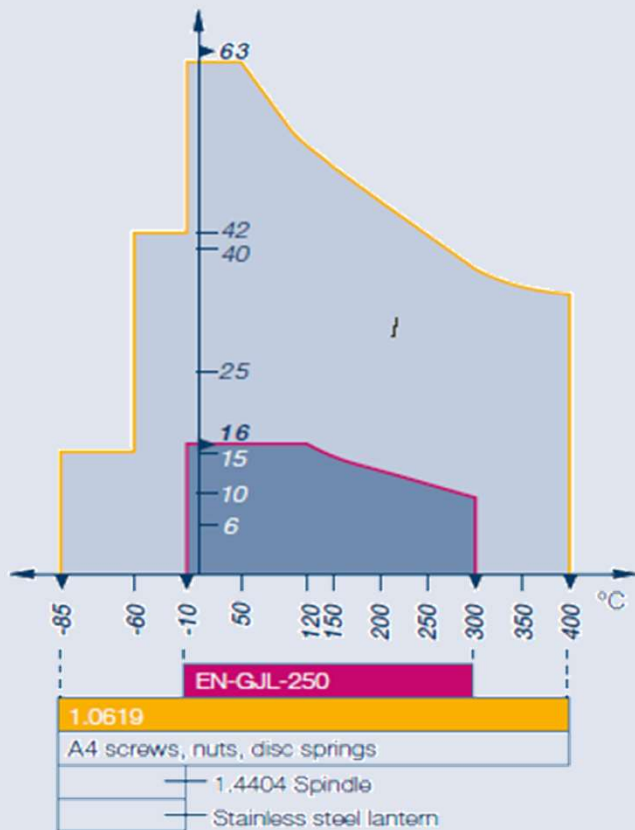


KVN DN65 - 200 PRESSURE BALANCED:

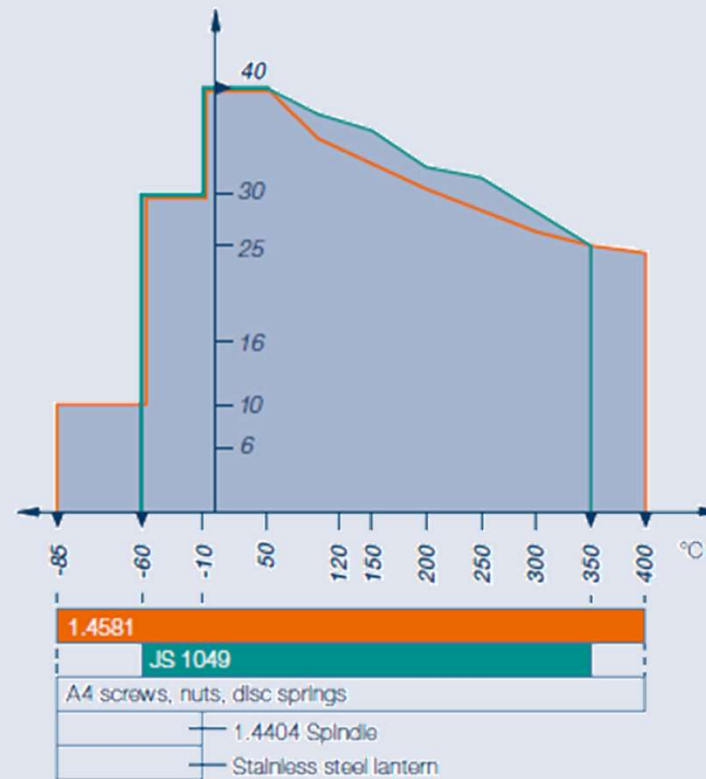


P/T DIAGRAMS WITH KX-GT VALVE RINGS:

P/T Diagram Carbon Steel, Cast Iron



P/T Diagram Stainless Steel, Spheroidal Steel



VALVE RING TYPE KX-GT:



Serrated stainless steel layers



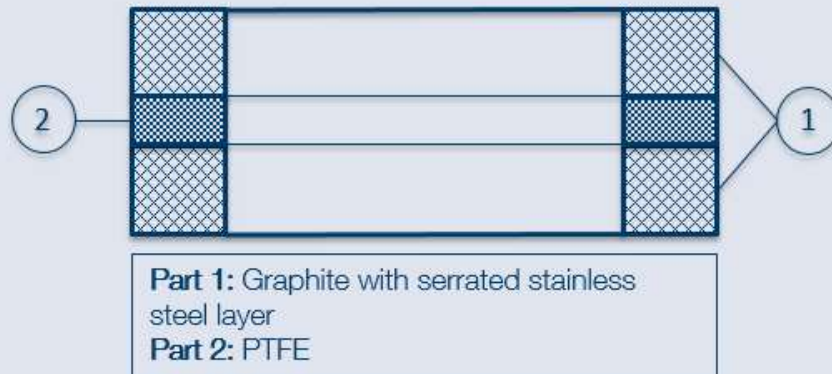
Graphite lamella, PTFE impregnated

Standard Valve Ring KX-GT:

- » Lamellar graphite, reinforced with serrated stainless steel
- » Asbestos free
- » High life cycle
- » Temperature range -85°C to 400°C
- » Temperature shock resistant
- » Max. pressure PN63
- » Resistant against corrosion
- » Suitable for high and low PH values

VALVE RING TYPE KX1:

DN15 to DN50



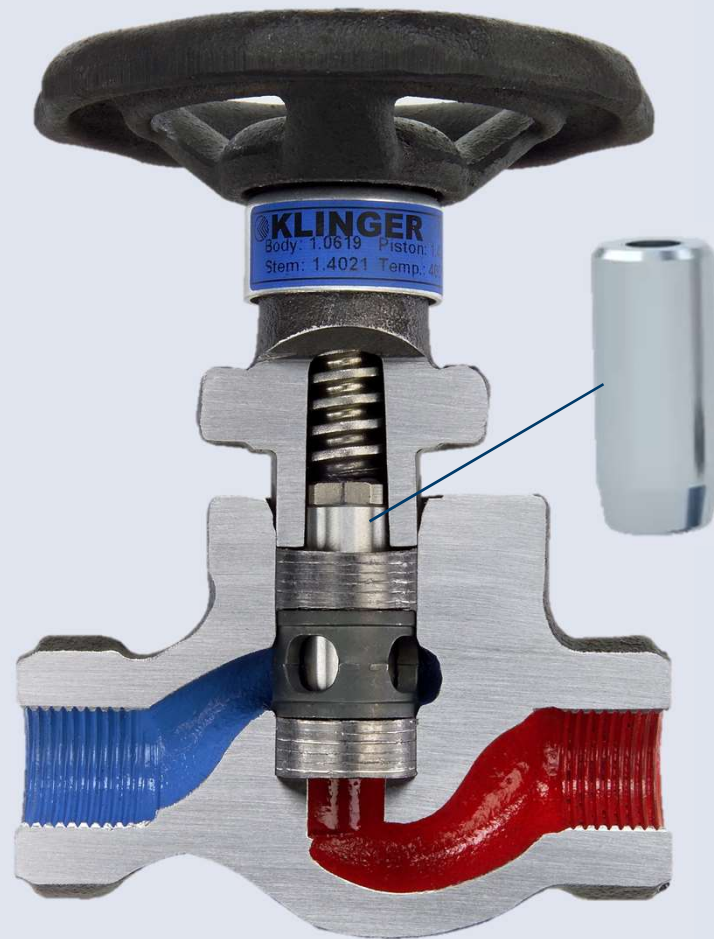
DN65 to DN200



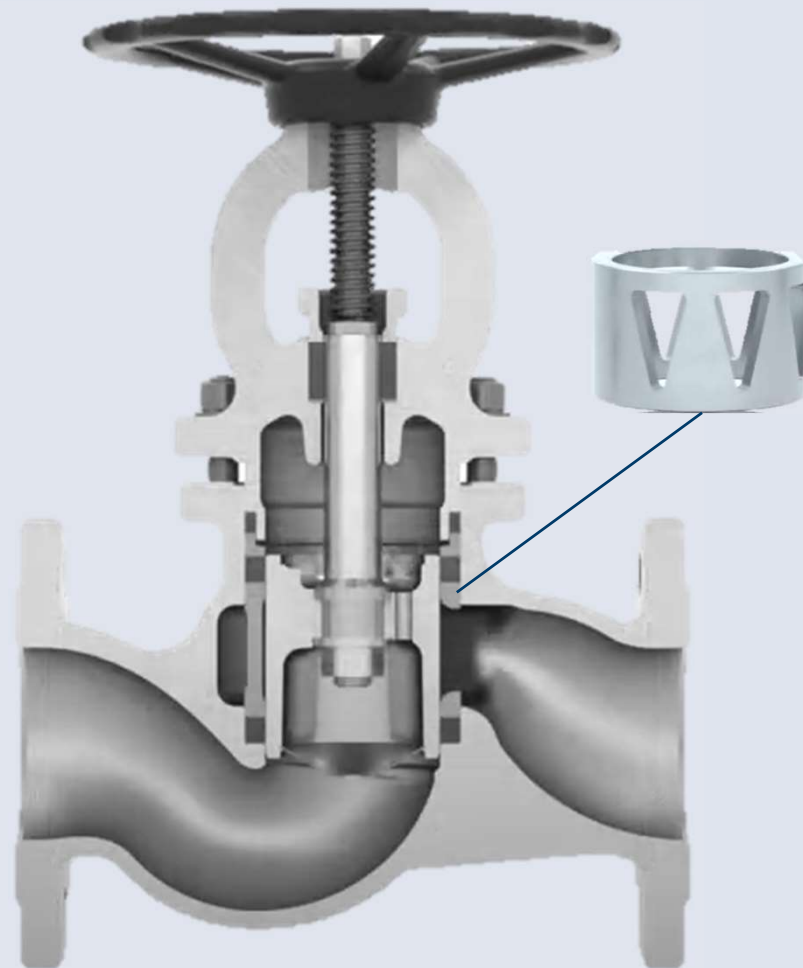
Standard Valve Ring KX1:

- » Design standard KX-GT with additional PTFE disc
- » Lowest leakage rate (2ppm) – best sealing performance
- » TA Luft / VDI2440 approved
- » Already installed KVN with standard valve rings could be easily upgraded with KX1 valve rings

REGULATION VERSION:

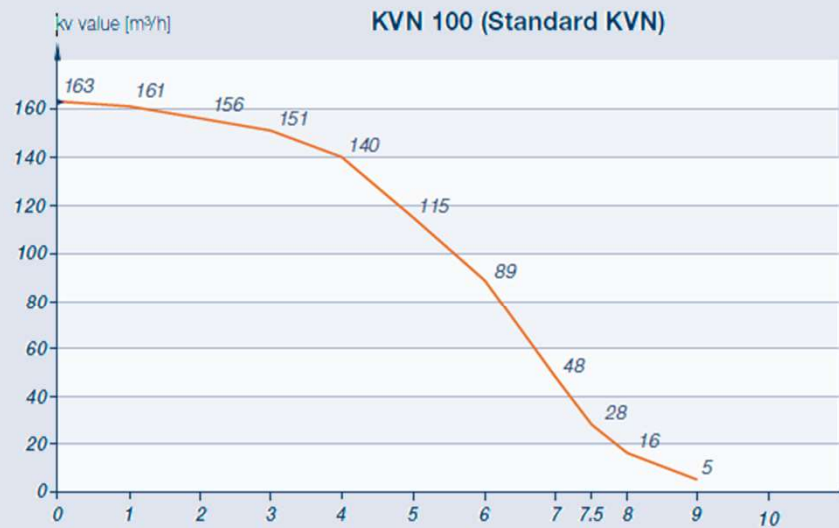


Regulation piston line size 15 to 50

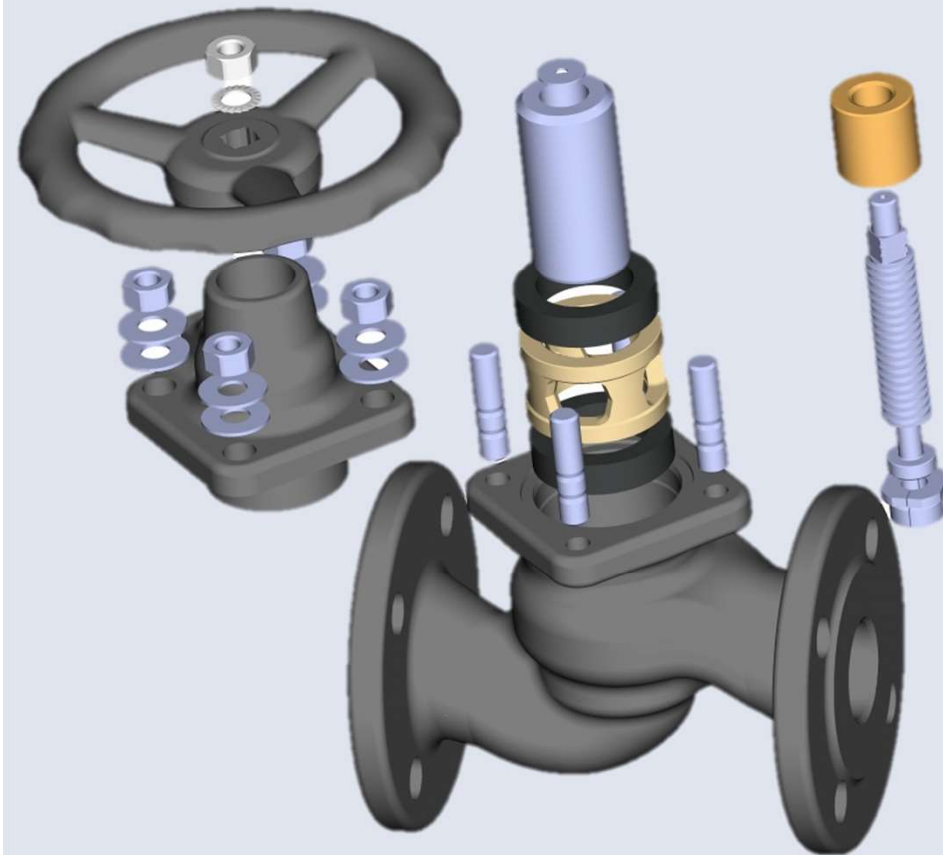


Regulation lantern line size 65 to 200

CLOSING CURVE STANDARD VS REGULATION:



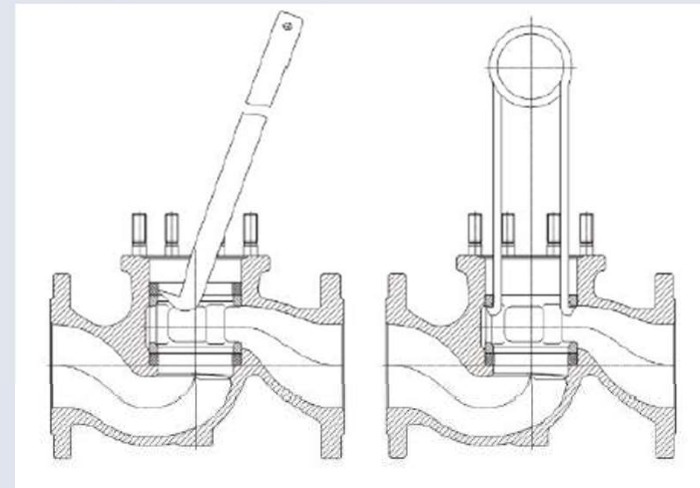
MAINTENANCE & SPARE PARTS:



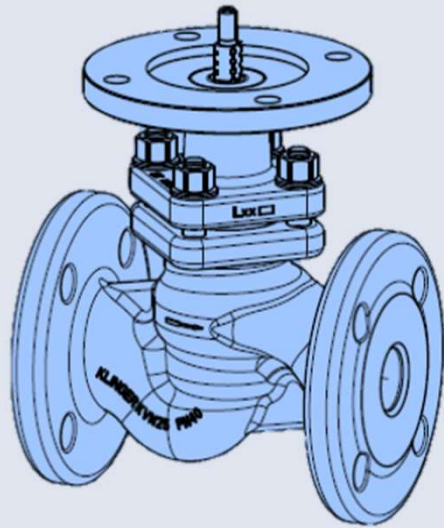
In-line maintenance without dismantling of the valve possible.

Lantern drawer and Ring extractor hook for replacing lantern and valve rings are available. Valve ring change can also performed with a simple screw driver.

Wide range of spare parts are available.



AUTOMATION



KVN prepared for Actuator installation (only for AUMA)



AUMA Electric Actuators
On/Off or Regulation
230, 380, 400V
ATEX Actuator Version
Actuator Controls AM or AC



SART Pneumatic Actuators
Single/Double acting
Open/Close or regulation
Limit switches
Solenoid valve

MARKING & PAINTING:



Up to DN50 marking with a sticker on a data plate carrier.

Information about DN, PN and body material.



From DN50 to DN200 marking with a disc beneath the hand wheel nut.

Information about DN, PN and body material.

Painting Until DN50:

Zinc phosphating ZnFe/ph, concentration 5,5 – 12%, coating thickness approx. 4 – 8 µm

Used oil: Castrol RUSTOL DWX 30 (DWX 32)

Painting from DN65 to 200:

Water soluble top coat lacquer system REM AQUA ESL, fast drying electrostatic sprayable lacquer,

Coating thickness approx. 30 – 80µm, colour azure RAL5015

TESTING ACC. EN12266-1, P10, P11 & P12

Test	Test Duration		Test pressure and media
	DN 15 – 150	DN 200 – 300	
P10 (Strength)	1 Minute	2 Minutes	1,5x PN Water
P11 (Tightness)	1 Minute	2 Minutes	1,5x PN Water
P12 (Seat Tightness)	1 Minute	2 Minutes	6 bar \pm 1bar Air or 1,1x PN Water



KVN BENEFITS



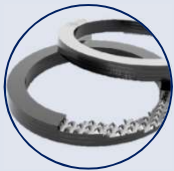
Seal system

Reliable valve ring - piston design → Constant low torque, „self cleaning function“ for milky or cloudy liquids
High temperature → Valid up to 400°C media temperature



Valve ring

Standard valve ring KX-GT (graphite with serrated stainless steel) → Valid up to 400°C, mechanical loadable – insensitive for pressure hammers
Valve ring type KX1 (graphite with serrated stainless steel + PTFE disc) → Valid up to 350°C, mechanical loadable – insensitive for pressure hammers, TA-Luft compliant



Body

Compact casted body → Insensitive to pipeline forces, pressure balanced version available
Valve bonnet acc. ISO5211 → Easy installation for actuators
Easy handling → Installation in every position possible, flow direction marked with an arrow on body
Body construction → Valve rings are not located directly in the flow

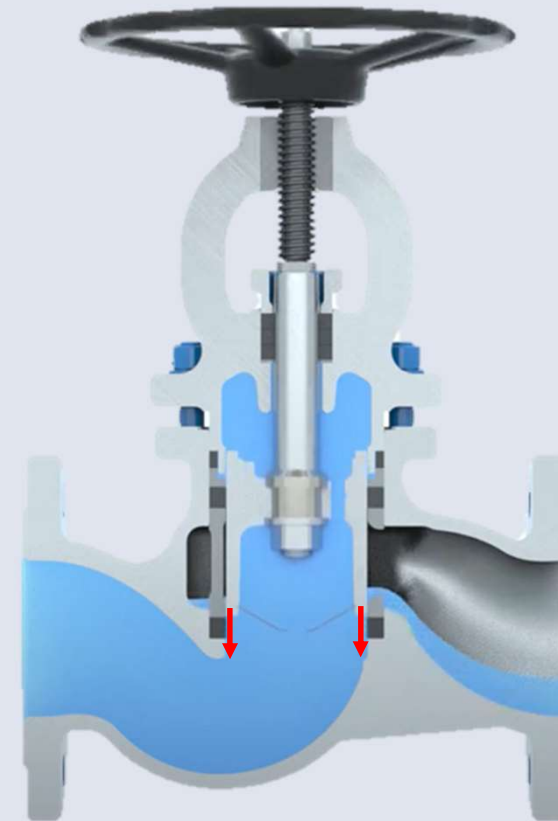


Quality

Long service life → Reduction of maintenance cycles
Service friendly → Inline service possible
Test acc. EN12266-1,P10,P11,P12 → Leakage rate A
Availability → All valve parts available as a spare part

Options

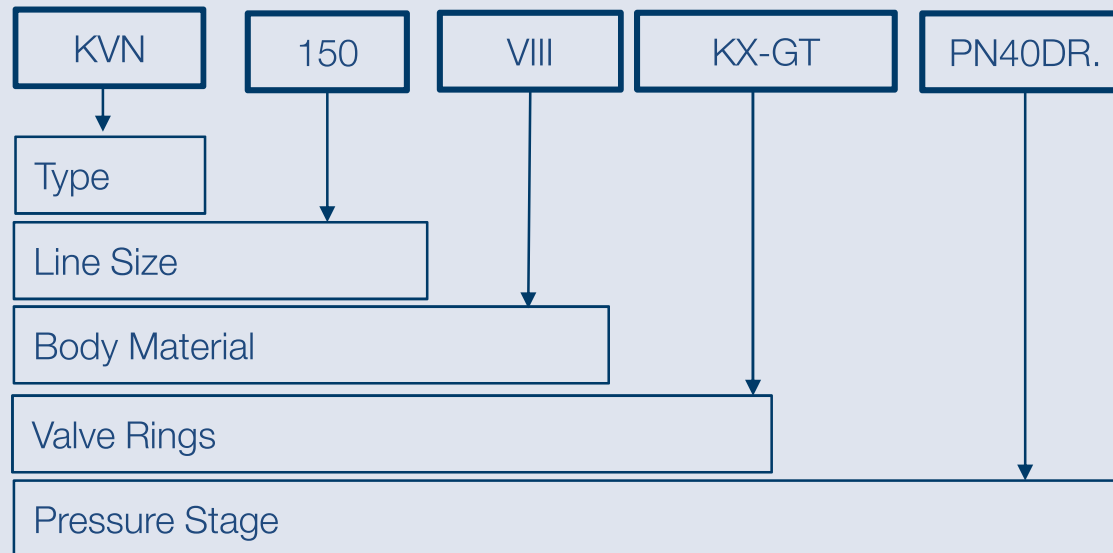
Regulation version, Heating jacket, Oxygen version



Due to the piston – lantern – sealing ring design, the valve rings are not totally exposed to the media.

Media particles only can stick on the inner ring surfaces of the valve rings. By closing the KVN, the piston is moving through the valve ring and lantern areas. Adherent particles will be pushed back in the pipe line. There is no possibility that particles can penetrate into the sealing surfaces (self cleaning effect).The lifetime will be increased based on the self cleaning effect.

PISTON VALVE KVN ARTICLE CODE:



Type	KVN = Flanged Ends, KVSN = Weld Ends, KVMN = Threaded Ends
Line Size	DN15 – DN200
Body Material	VIII = Carbon Steel (1.0619), Xc = Stainless Steel (1.4581), III = Grey Cast Iron, VI = Nodular Iron
Valve Rings	KX-GT = Graphite with Stainless Steel, KX1 = Graphite with PTFE (for TA Luft)
Pressure Stage	KVN = PN40, KVSN = PN63, KVMN = PN63