

KTN X2 / X3

PLUG

DN150-600|PN10-64

SLEEVE TYPE SOFT SEALING PLUG VALVE



Sleeve Type Soft Sealing Plug Valve

The sleeve type soft sealing plug valve, designed according to **DIN/ANSI standards**, is suitable for cutting and connecting pipeline media in a wide range of industries, including petroleum, chemical processing, pharmaceuticals, fertilizer production, and power generation. It is applicable for systems operating under nominal pressures from **PN10 to PN64**, and within a temperature range of **-29°C to 180°C**.

Key Features:

Optimized Design: Engineered with a robust structure, reliable sealing performance, and a refined appearance.

Advanced Sealing Mechanism: Sealing is achieved through the sleeve's sealing surface, reinforced by a unique 360° metal edge that ensures secure sleeve fixation.

Cavity-Free Construction: The valve body is designed without internal cavities, preventing medium accumulation and minimizing contamination risks.

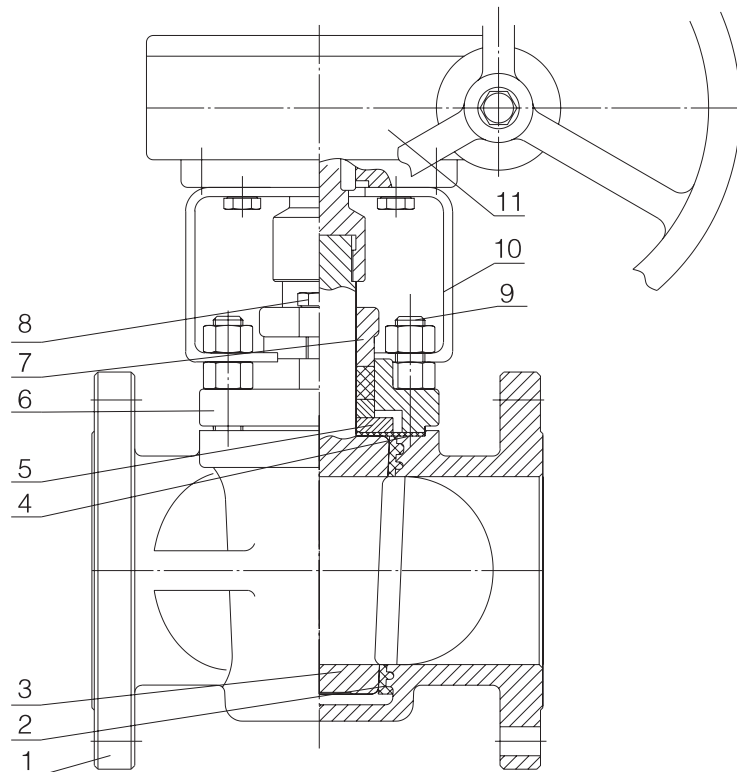
Self-Cleaning Functionality: The metal edge provides a self-cleaning effect during plug rotation, ideal for viscous or scaling-prone media.

Bidirectional Flow Capability: Supports flow in both directions, simplifying installation and enhancing operational flexibility.

Customizable Materials & Flange Dimensions: Component materials and flange sizes can be tailored to meet specific engineering requirements.

TECHNICAL SPECIFICATION	
Structural formation:	BC
Driving manner:	Handwheel, worm & worm gear, pneumatic, electric-actuated
Design standard:	API 599, API 6D
Face-to-face dimension:	DIN 3202F1
Flange ends:	DIN 2543 2549
Test & inspection:	DIN 3230

PRODUCT PERFORMANCE SPECIFICATION				
Nominal Pressure (LB)	Shell Test Pressure (MPa)	Sealing Test Pressure (MPa)	Suitable Temperature (°C)	Suitable Medium
1.6	2.4	1.76	≤ 180°C	Water, steam, oil & gas
2.5	3.75	2.75		Water, steam, oil & gas
4.0	6.0	4.4		Water, steam, oil & gas
6.4	9.6	7.04		Water, steam, oil & gas



MAIN PARTS MATERIALS		
NO.	PART NAME	MATERIAL
1	Body	GS - C25 17363, 14308, 14408, 14306, 14301
2	Sleeve	PTFE
3	Plug	ASTM A182 Gr F6a, ASTM A182 F22, ASTM A182 F304, F316, F321, F304L, F316L
4	Gasket	Flexible graphite + stainless steel, PTFE
5	Adjusting gasket	ASTM A182 Gr F6a, ASTM A182 F22, ASTM A182 F304, F316, F321, F304L, F316L
6	Cover	GS - C25 17363, 14308, 14408, 14306, 14301
7	Gland	GS C251 7363, 14308, 14408, 14306, 14301
8	Nut	ASTM A194 2H, A194 8, A194 8M
9	Bolt	ASTM A193 B7, A320 B8, A193 B8M
10	Yoke	Q235, WCB
11	Worm	

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1 PLUG

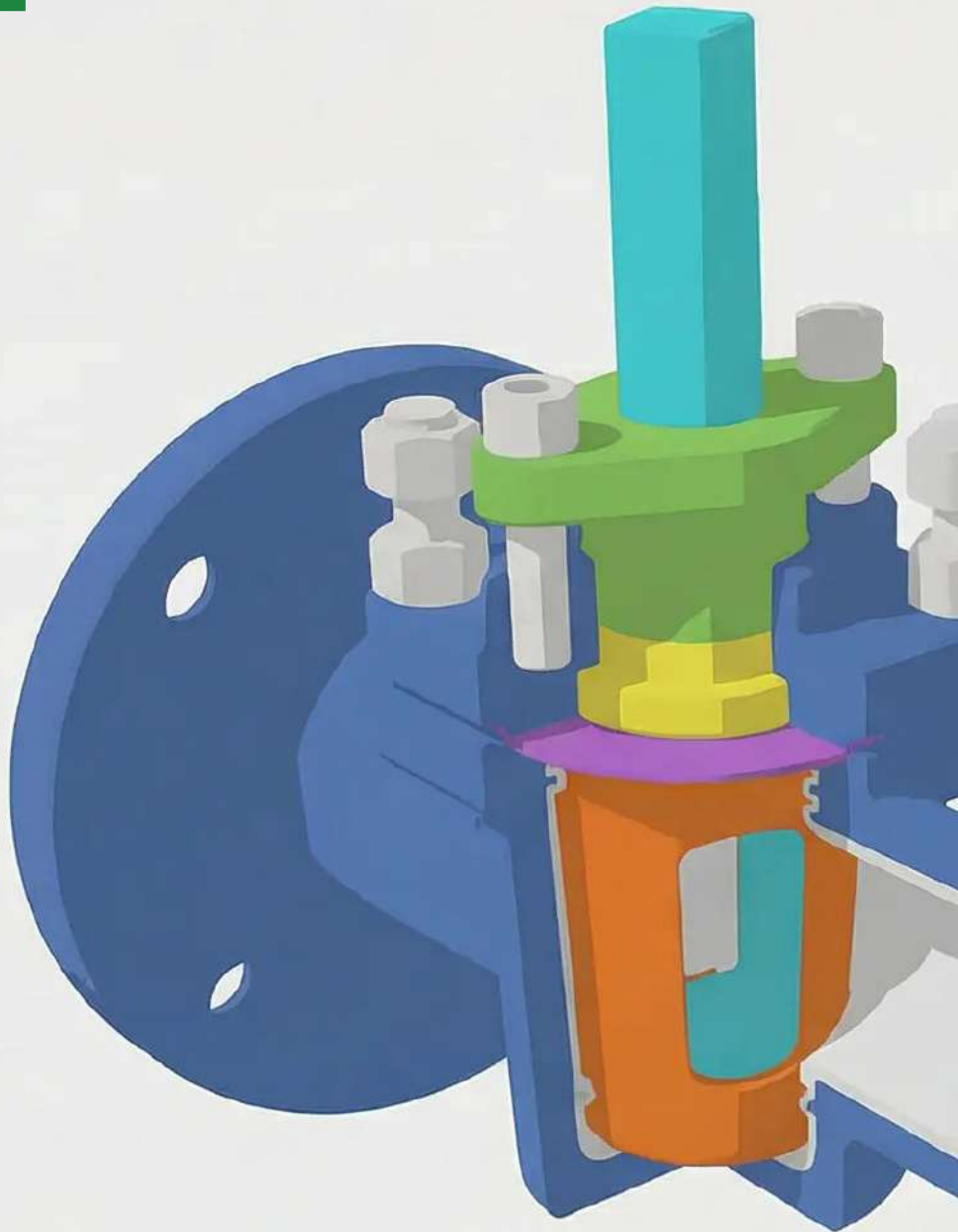
The cavity-free full-port plug design ensures unrestricted flow while preventing media entrapment, reducing contamination risk and pressure loss. Its conical geometry provides uniform contact with the sealing surface, ensuring reliable shut-off and long service life. Available in materials such as ASTM A182 F304, F316, F304L and F316L to suit a wide range of corrosive and industrial applications.

2 BODY

The heavy-duty body construction provides excellent mechanical strength and resistance to pressure, temperature and aggressive media. Manufactured in materials such as 1.4308, 1.4408, WCB or GS-C25, it ensures durability and adaptability across a wide range of industrial environments.

3 STEM

The direct stem-to-plug connection delivers precise torque transmission with no backlash, ensuring immediate response and smooth operation. This simplified and robust design improves reliability and is well-suited for both manual and automated actuation. Material options include treated carbon steel (e.g. 1045 + ENP) and stainless steel variants depending on service requirements.



4**SEALING INTERFACE**

The optimized sealing interface between plug and sleeve ensures consistent shut-off performance and uniform load distribution, reducing wear and extending service life. This design enhances reliability even under demanding operating conditions.

5**SPACING COLLAR**

The precision spacing collar maintains optimal compression of internal components, ensuring consistent sealing performance over time. It allows fine adjustment of the assembly, balancing tight shut-off with low operating torque.

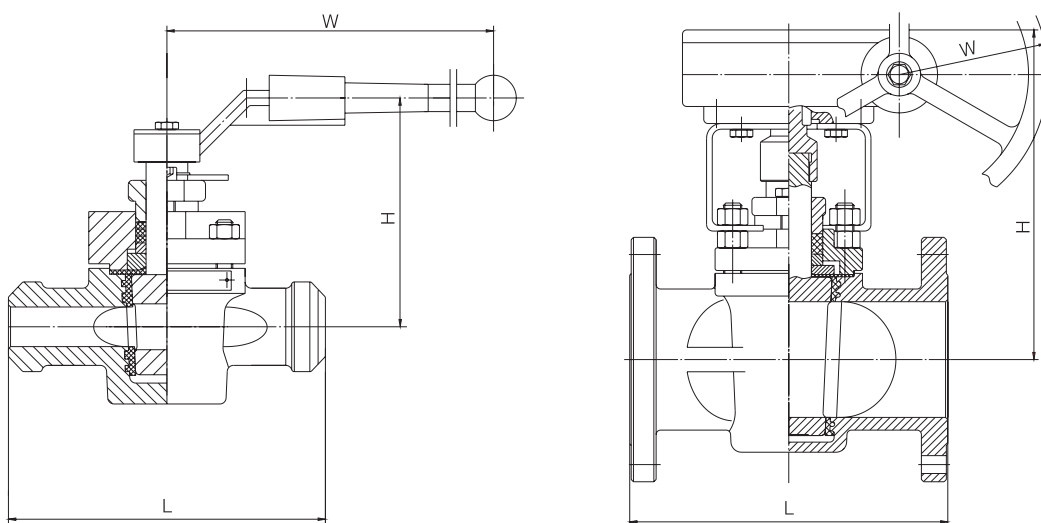
6**PACKING & GLAND SYSTEM**

The advanced PTFE-based packing system, combined with a stainless steel gland, ensures leak-free stem sealing and excellent chemical resistance. This design enhances operational safety, minimizes emissions and allows easy maintenance in long-term service.

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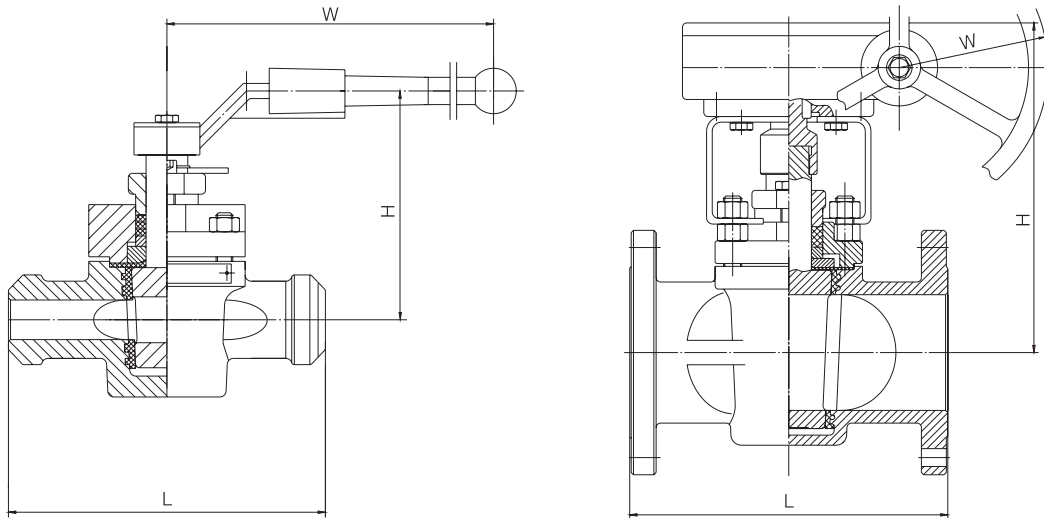
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DIN



MODEL		X2-PN10/16														
Size	m	15	20	25	32	40	50	65	80	100	125	150	200	250	300	350
	in	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	5"	6"	8"	10"	12"	14"
L		130	150	160	180	200	230	290	310	350	400	480	600	730	850	980
H		150	155	160	180	190	200	220	230	380	460	520	580	620	680	740
W		300	300	300	350	400	500	500	550	300	300	320	320	350	380	380
(Kg) Weight		9	10	11	13	14	19	23	27	43	62	75	155	222	390	580
MODEL		X2-PN25														
Size	m	15	20	25	32	40	50	65	80	100	125	150	200	250	300	350
	in	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	5"	6"	8"	10"	12"	14"
L		130	150	160	180	200	230	290	310	350	400	480	600	730	850	980
H		150	155	160	180	190	200	220	230	380	460	520	580	620	680	740
W		300	300	300	350	400	500	500	550	300	300	320	320	350	380	380
(Kg) Weight		10	11	13	15	17	22	31	55	77	88	190	190	235	399	630
MODEL		X2-PN40														
Size	m	15	20	25	32	40	50	65	80	100	125	150	200	250	300	350
	in	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	5"	6"	8"	10"	12"	14"
L		130	150	160	180	200	230	290	310	350	400	480	600	730	850	980
H		190	195	225	260	280	310	340	395	435	470	535	590	630	680	720
W		300	300	300	350	400	500	500	550	300	340	400	450	450	500	500
(Kg) Weight		12	14	18	21	24	29	33	39	75	103	146	251	337	521	720
MODEL		X2-PN64														
Size	m	15	20	25	32	40	50	65	80	100	125	150	200	250	300	350
	in	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	5"	6"	8"	10"	12"	14"
L		130	150	160	180	200	230	290	310	350	400	480	600	730	850	980
H		190	195	225	260	280	310	340	395	435	470	535	590	630	680	720
W		300	300	300	350	400	500	500	550	300	340	400	450	450	500	500
(Kg) Weight		14	17	22	25	29	34	43	50	94	123	170	291	430	625	875

ANSI



MODEL		X3 - 150LB														
Size	m	15	20	25	32	40	50	65	80	100	125	150	200	250	300	350
	in	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	5"	6"	8"	10"	12"	14"
L		108	117	127	140	165	178	290	203	229	254	267	292	330	356	381
H		110	115	115	135	140	150	165	180	380	460	520	580	620	680	760
W		175	175	175	220	280	305	350	405	300	300	320	320	350	380	450
(Kg) Weight		8.5	9.5	10.5	12	14	18	22	26	40	60	70	130	219	381	570
MODEL		X3 - 300LB														
Size	m	15	20	25	32	40	50	65	80	100	125	150	200	250	300	350
	in	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	5"	6"	8"	10"	12"	14"
L		140	152	165	178	190	216	241	283	305	381	403	419	457	502	762
H		110	115	115	135	140	150	165	180	380	460	502	580	620	680	760
W		175	175	175	220	280	305	350	405	300	300	320	320	350	380	450
(Kg) Weight		9.5	10.5	12	14	16	24	24	29	53	75	85	185	230	390	550
MODEL		X3 - 600LB														
Size	m	15	20	25	32	40	50	65	80	100	125	150	200	250	300	350
	in	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	5"	6"	8"	10"	12"	14"
L		165	190	216	229	241	292	330	356	432	508	559	660	787	838	889
H		110	115	115	135	140	150	165	180	380	460	520	580	620	680	760
W		175	175	175	220	280	305	350	405	300	300	320	320	350	380	450
(Kg) Weight		11	13	17	20	23	27	31	36	72	98	141	245	330	515	710