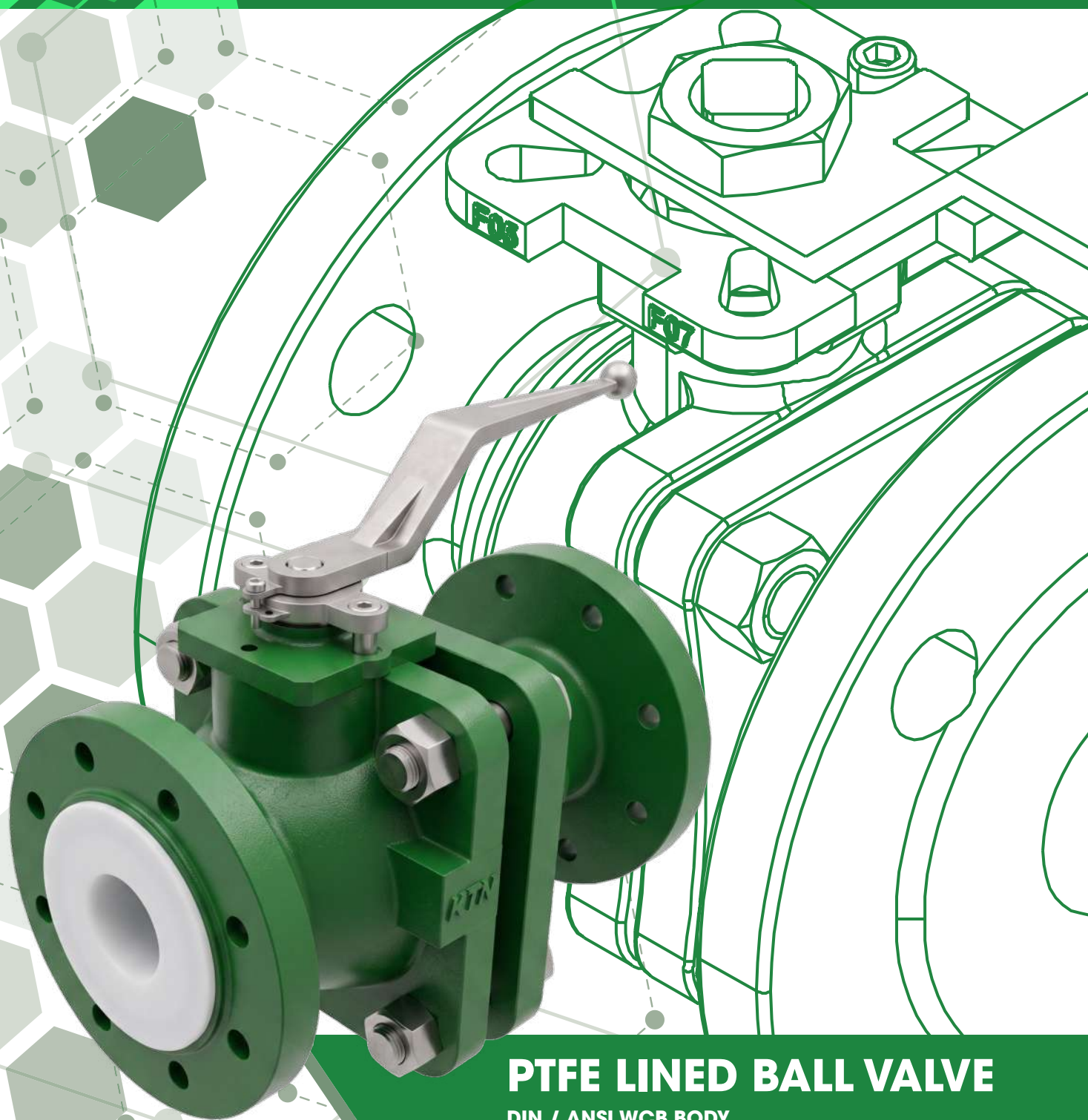




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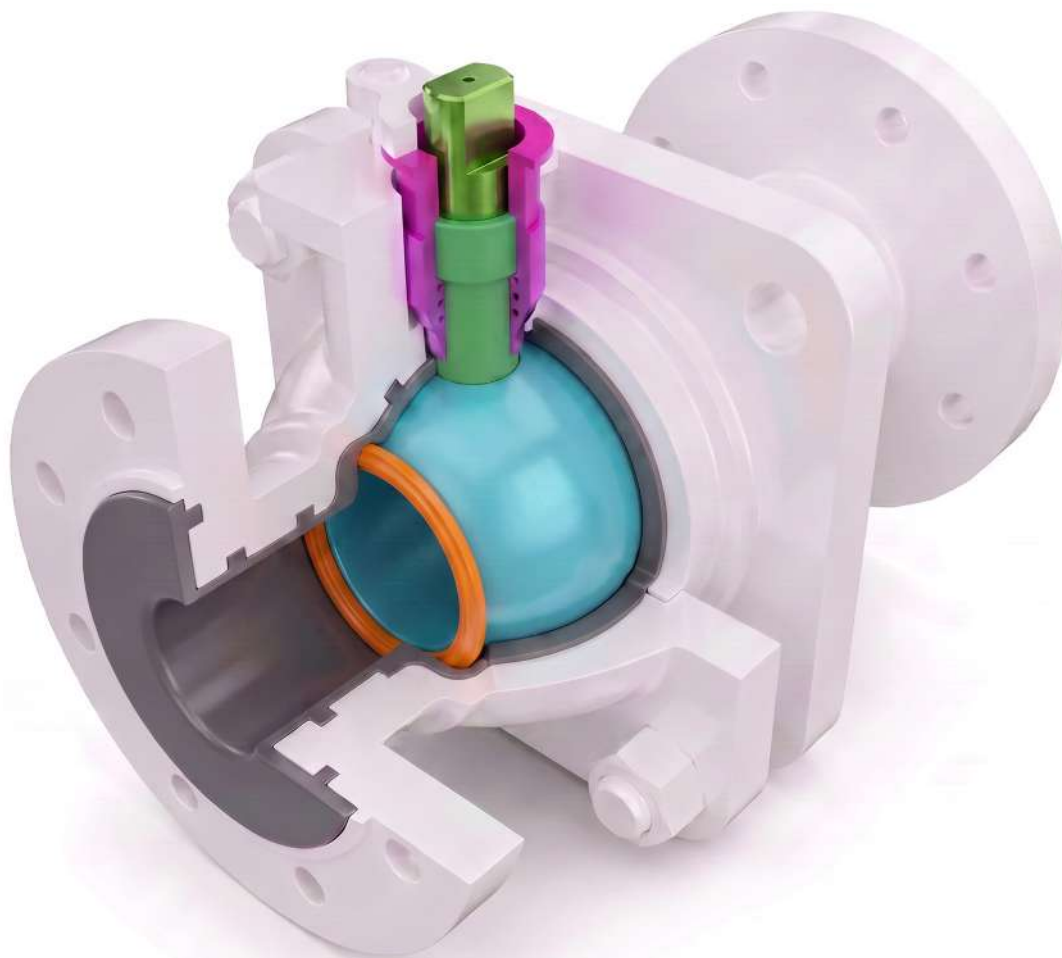
KTN
Kara Technology News



PTFE LINED BALL VALVE

DIN / ANSI WCB BODY

DN15 - DN 300 | PN10-16



PFA LINED BALL VALVES

Fully PFA lined full port ball valves designed to deliver bubble-tight shut-off in highly corrosive and high-purity process applications.

DESIGN FEATURES

Locked-In Fluoropolymer Lining

- Dovetail groove design securely locks the PFA lining in place, preventing liner displacement under pressure.

Anti-Crystallization Cavity Design

- Reduced clearance between the ball and body minimizes media accumulation and helps prevent crystallization or product build-up.

Self-Compensating Seats

- The grooved seat sealing surface reduces friction and compensates for wear, maintaining reliable shut-off throughout the valve service life.

Optimized PTFE Packing

- Advanced conical packing design delivers long-term stem sealing and reduced operating torque.

ATEX Compliant design

- Group II, Category 2 equipment suitable for gas and dust hazardous areas. II 2 G D c · EPL Gb / Db

Full Port Lined Ball

- Virgin PFA lined full-port ball provides maximum corrosion resistance and unrestricted flow.
- Ultra-Low Torque Ball Design
- High Surface Finish for Bubble-Tight Sealing

Anti-Blowout Stem

- Low-friction thrust bearing ensures smooth operation and reduced operating torque.

ISO 5211 Mounting Pad

- Standardized top mounting interface for direct installation of pneumatic or electric actuators.

Lockable Lever

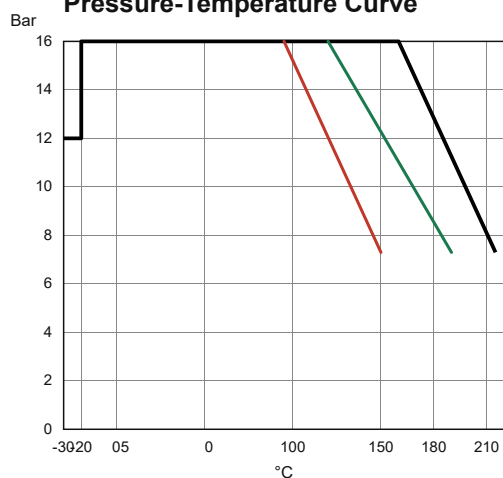
- Integrated locking device secures the valve in the open or closed position, preventing unintended operation.

KTN 123T / 133T | GENERAL SPECIFICATIONS

DIN/ ANSI CARBON STEEL BALL VALVE WITH FLANGES AND PFA LINING

SPECIFICATION	KTN 123T	KTN 133T
DESIGN STANDARDS	ASME B16.34 API 608	
FLANGE STANDARD	EN 1092-1	ASME B16.5
INSPECTION & TEST	GB/T 13927	API 598
AVAILABLE BODY MATERIAL	WCB	
LINER THICKNESS	> 3 mm	
LINING MATERIAL	PFA	PTFE, FEP, PO
AVAILABLE TEMPERATURE	PFA: -29°C ~ 180°C / FEP: -29°C ~ 150°C	
SPARK TEST	14 KV	
APPLICABLE MEDIUM	Engineered for severe corrosive applications, including hydrochloric acid, nitric acid, hydrofluoric acid, liquid chlorine, sulfuric acid, aqua regia and a wide range of aggressive chemical media.	

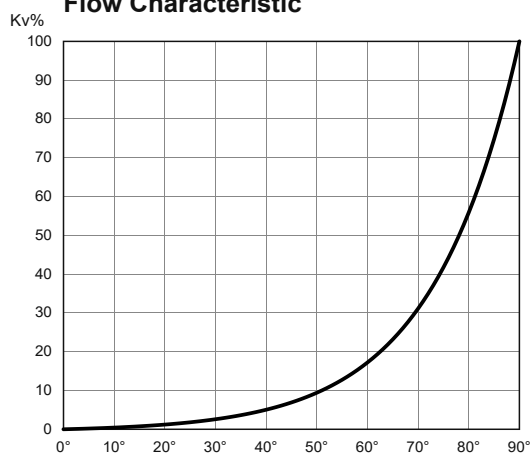
Pressure-Temperature Curve



Vacuum
0.1mbar

Note: — PFA — PTFE — FEP

Flow Characteristic



Valve Position Angle

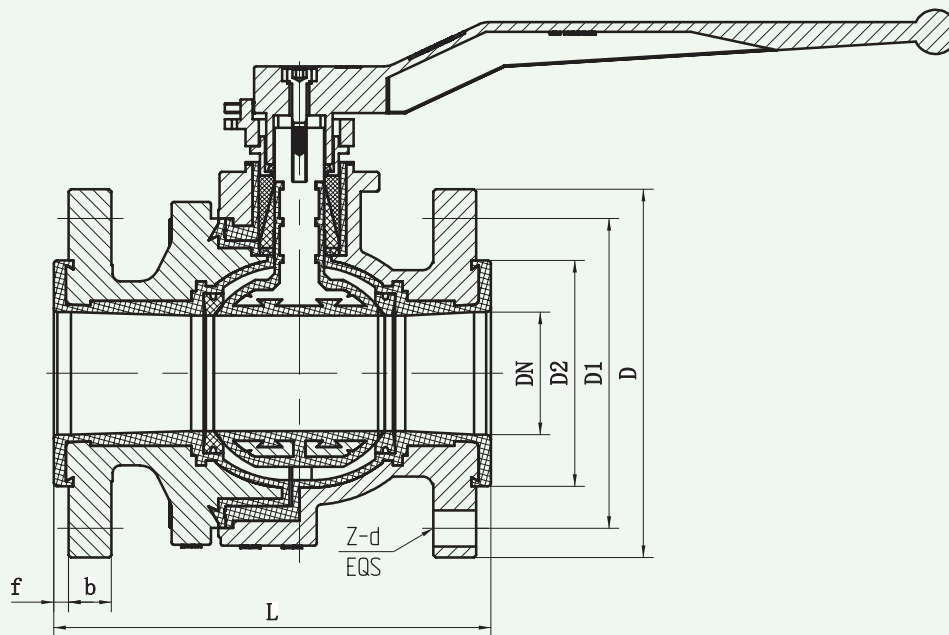
1Cv=1.167Kv



11	Bolts / Nuts	ASTM A276 304SS
10	Lockable lever	A351 CF8
9	Packing gland	A351 CF8
8	Gland follower	A351 CF8
7	Conical Packing	PTFE
6	Packing Support Ring	PTFE
5	Stem	A351 CF8+PFA
4	Ball	A351 CF8+PFA
3	Seat	PTFE
2	Bonnet	ASTM A216 WCB/PFA
1	Body	ASTM A216 WCB/PFA

KTN 123T | DIMENSIONS

LONG PATTERN DIN CARBON STEEL BALL VALVE WITH FLANGES AND PFA LINING



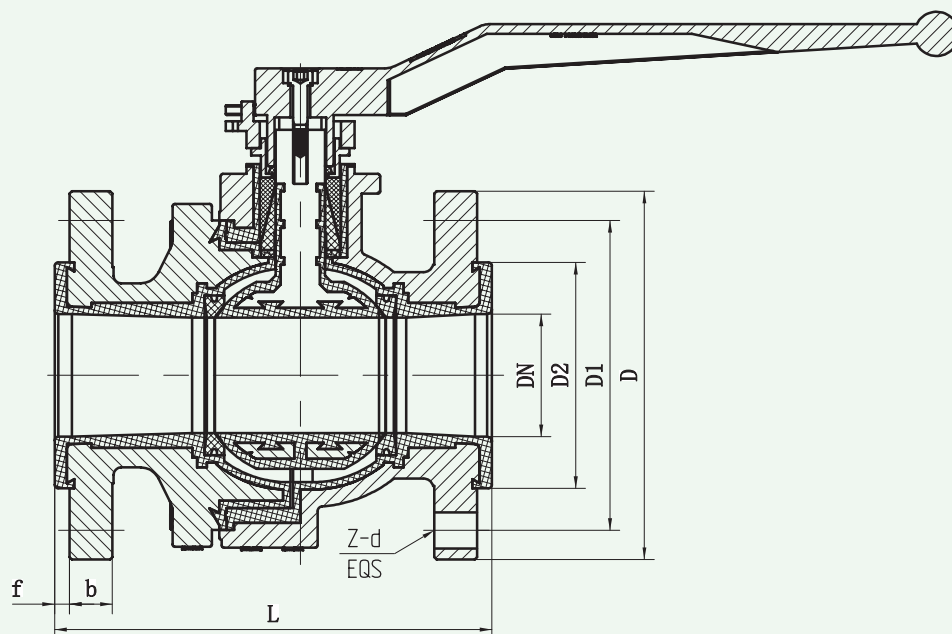
OUTLINE DIMENSIONS

DN	L	D	D1	D2	b	f	N-ø	ISO 5211	□	J
15	130	95	65	45	14	2.5	4-ø14	F05/F07	11	12
20	150	105	75	55	16	3	4-ø14	F05/F07	11	12
25	160	115	85	65	16	2.5	4-ø14	F05/F07	11	12
40	200	150	110	85	16	3	4-ø18	F05/F07	14	16
50	230	165	125	100	16	3	4-ø18	F05/F07	14	16
65	290	185	145	116	20	2	4-ø18	F05/F07	14	16
80	310	200	160	135	18	3	8-ø18	F07/F10	19	21
100	350	220	180	157	26.5	2	8-ø18	F07/F10	22	24
150	480	285	240	216	27	2	8-ø22	F10/F12	27	29
200	600	340	295	264	29	2	12-ø22	F14	36	38
300*	610	460	410	378	29	2	12-ø26	F16	46	48

* Under special request

KTN 123T | DIMENSIONS

SHORT PATTERN DIN CARBON STEEL BALL VALVE WITH FLANGES AND PFA LINING



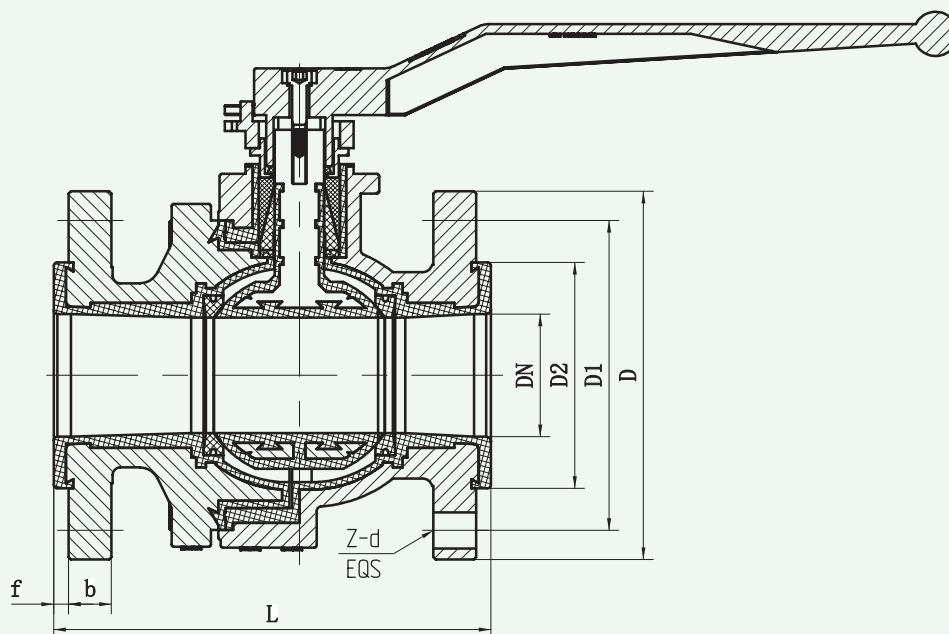
OUTLINE DIMENSIONS

DN	L	D	D1	D2	b	f	N-ø	ISO 5211	□	J
15	130	95	65	45	14	2.5	4-ø14	F05/F07	11	12
20	150	105	75	55	16	3	4-ø14	F05/F07	11	12
25	160	115	85	65	16	2.5	4-ø14	F05/F07	11	12
40	200	150	110	85	16	3	4-ø18	F05/F07	14	16
50	230	165	125	100	16	3	4-ø18	F05/F07	14	16
65	290	185	145	116	16	3	4-ø18	F05/F07	14	16
80	310	200	160	135	18	3	8-ø18	F07/F10	19	21

* Under special request

KTN 133T | DIMENSIONS

ANSI CARBON STEEL BALL VALVE WITH FLANGES AND PFA LINING



OUTLINE DIMENSIONS

NPS	L	D	D1	D2	C	f	N-ø	ISO 5211	□	J
1"	127	110	79.4	51	12.7	3.5	4-ø16	F05/F07	11	12
1 1/2"	165	127	98.4	73	14.3	3.5	4-ø16	F05/F07	11	12
2"	178	152	120.7	92	17.5	4	4-ø19	F05/F07	11	12
2 1/2"	190	180	139.7	105	20.7	5	4-ø19	F05/F07	14	16
3"	203	190	152.4	127	22.3	5	4-ø19	F05/F07	14	16
4"	229	230	190.3	157	22.3	6	8-ø18	F05/F07	14	16

* Under special request



Installation & Operation

- Flush and clean the pipeline thoroughly before installation to remove welding residues, scale and foreign particles.
- Install the valve in accordance with the flow direction and applicable piping specifications.
- Do not exceed the specified pressure and temperature limits.
- Operate the valve fully open or fully closed for optimum performance.
- Do not use the valve to compensate for pipeline misalignment or excessive piping loads.

Maintenance

- Low maintenance design.
- Periodically inspect the stem packing and flange bolting.
- Operate the valve periodically to ensure smooth operation.
- Use only genuine replacement parts for maintenance.

Important Notice

- KTN valves shall be installed, operated and maintained by qualified personnel following good engineering practice.
- Damage caused by improper installation, contamination, misuse or operation outside the specified service conditions is not covered by the product warranty.
- The purchaser is responsible for verifying material compatibility with the intended service conditions before installation.

Storage & Handling

- Store the valve in a clean, dry environment with the end protectors in place.
- Keep the valve in the fully open position during storage whenever possible.
- Protect sealing surfaces from impact, dirt and moisture.
- Do not remove protective covers until immediately before installation.