

CONTROL VALVES



VALVE SOLUTIONS for Corrosive Applications



UNPPolyvalves

Manufacturer of PFA/FEP/PTFE Lined & Plastic Valves,
Pipes & Pipe Fittings



VALVE SOLUTIONS for Corrosive Applications



ABOUT US

UNP Polyvalves is manufacturing and supplying valve solutions for corrosive applications since 1988.

Considering Indian market not having a good valve manufacturing plants for corrosive application valves in 80's and huge project requirements coming up during these years UNP promoters decided to install a corrosive application valve manufacturing plant in Vadodara, Gujarat.

UNP with its possession of highly knowledgeable and skilled work force along with technically qualified and experienced promoters having vision to grow and guide their team to be the world leading brand, market leaders and make products which are high in performance and having unmatched quality and reliability, has excelled in all these requirements of market.

Taking up the challenge UNP started its first manufacturing plant just admeasuring 1600 square feet, it started with manufacturing of solid plastic valves in very few options in terms of material of construction, type of valves and size range.

UNP started working very closely with the chemical process industries in India, Understanding their difficulties and requirements UNP always worked towards solutions to the problems in industries and earned very good name not only in domestic market but also in international market.

UNP understanding the changing market trends and requirements, entered in the business of Lined Valves and Piping systems in the year 1992 and has now become a leading brand in providing most reliable Lined Valves and Piping system to the chemical process industries.

Envisioned for quality and reliability, UNP Polyvalves aims for highest level of customer satisfaction through its solutions with commitment for excellence in all spheres of business.

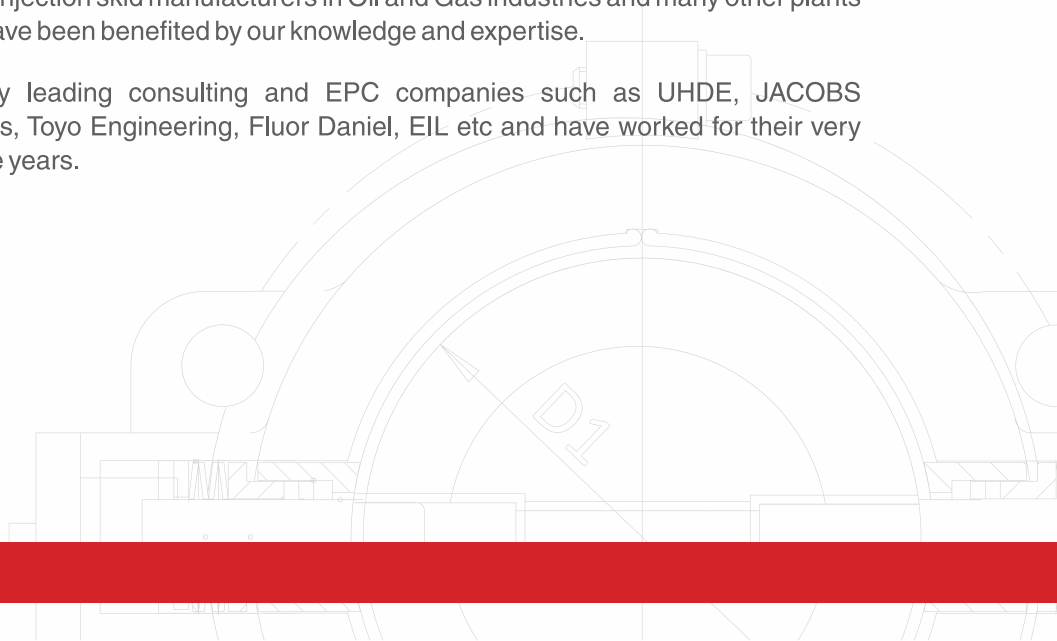
UNP today provides both Solid Plastic and Lined, Ball Valves, Plug Valves, Butterfly Valves, Diaphragm Valves, Ball Check Valves, Swing Check Valves, Sampling Valves, Double Window and Full View Sight Glasses, Y and T type strainers, Lined Pipes and Fittings with sizes ranging from ½" to 24".

UNP has marked its presence across the globe and are having establishments in countries like North America and exporting to 35+ countries through its distribution networks and to the direct end users.

ACHIEVEMENTS

UNP through its knowledge about the exact process conditions and technical expertise has helped chemical industries in resolving their corrosion problems and operational problems related to Plastic valves, Lined Valves and Piping systems. Chlor Alkali Plants, Pickling Lines and Acid regeneration plants in steel industries, Chemical injection skid manufacturers in Oil and Gas industries and many other plants having corrosion problems have been benefited by our knowledge and expertise.

UNP is approved brand by leading consulting and EPC companies such as UHDE, JACOBS Engineering, Mott McDonalds, Toyo Engineering, Fluor Daniel, EIL etc and have worked for their very prestigious project over these years.

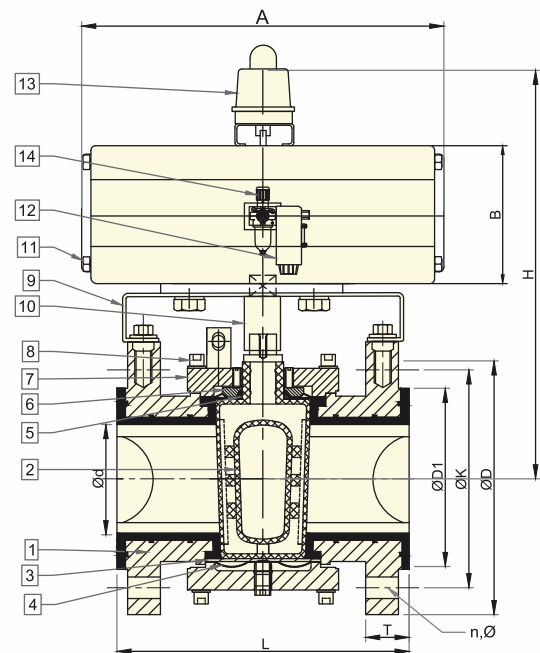


PLUG ON-OFF & CONTROL VALVE

PLUG VALVE (ON-OFF)



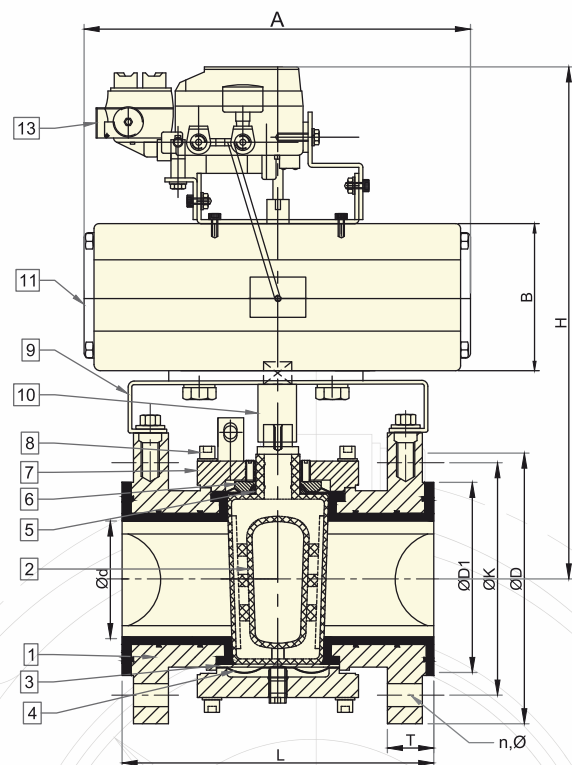
SECTIONAL VIEW



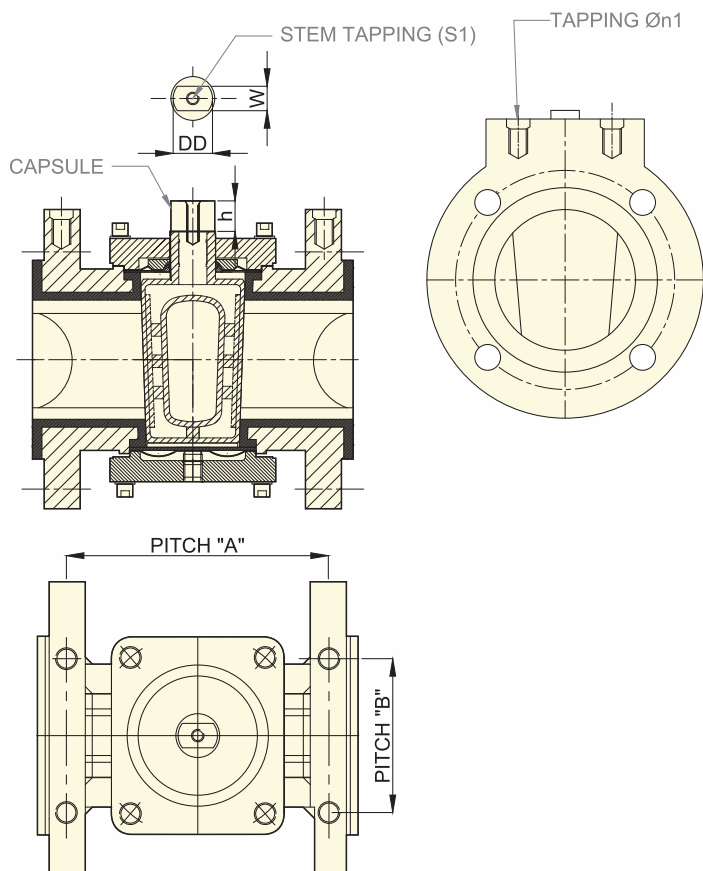
PLUG VALVE (CONTROL)



SECTIONAL VIEW



TOP MOUNTING DETAILS



PART LIST

PART NO.	DESCRIPTION	MATERIAL OF CONSTRUCTION	QTY.
1	Body	ASTM A 216 GR. WCB + PFA LINED	1
2	Plug	ASTM A 890 GR. 4A (CD3MN) + PFA OR TEFCOR LINED	1
3	Diaphragm (Top & Bottom)	PTFE	2
4	Shim (Top & Bottom)	SS 304	2
5	Wedge Ring	PTFE	1
6	Thrust Collar	SS 304	1
7	Cover Plate (Top & Bottom)	ASTM A 216 GR. WCB	2
8	Fasteners (Top & Bottom)	ASTM A 193 GR. B7	8
9	Clamp	SS 304	1
10	Coupler	SS 304	1
11	Actuator	TO CUSTOMER REQUEST	1
12	Solenoid Valve	TO CUSTOMER REQUEST	1
13	E2P Positioner	TO CUSTOMER REQUEST	1
14	Air Filter Regulator	TO CUSTOMER REQUEST	1

DIMENSIONS

Size	Ød ±0.04		L ±0.12		ØD ±0.04		ØD1 ±0.04		ØK ±0.062		PITCH "A"		PITCH "B"		DOUBLE D DD X W	h HEIGHT		T +0.11/-0.00		n	Ø		FLANGE TAPPING	STEM TAPPING
INCH	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM		INCH	MM	INCH	MM		INCH	MM	Øn1	ØS1
½"	0.59	15	4.25	108	3.50	89	1.38	35	2.36	60	3.62	92	1.37	35	Ø12.8 X 8	3.80	8.00	0.51	13	4	0.63	16	M6 X 12MM	M5 X 12MM
1"	0.98	25	5.00	127	4.25	108	2.00	51	3.11	79	4.33	110	1.57	40	Ø15.8 X 11	0.22	12.00	0.63	16	4	0.63	16	M6 X 20MM	M6 X 20MM
1½"	1.50	39	6.49	165	5.00	127	2.87	73	3.86	98	5.59	142	1.57	40	Ø15.8 X 11	0.35	15.00	0.74	19	4	0.63	16	M6 X 20MM	M6 X 20MM
2"	1.97	50	7.00	178	5.98	152	3.62	92	4.76	121	5.90	150	1.96	50	Ø25 X 16	0.31	15.00	0.80	21	4	0.75	19	M8 X 20MM	M8 X 20MM
3"	2.95	75	7.99	203	7.48	190	5.00	127	5.98	152	6.69	170	2.75	70	Ø27.1 X 18.8	0.35	15.00	0.98	25	4	0.75	19	M8 X 20MM	M10 X 25MM
4"	3.70	94	9.01	229	9.01	229	6.18	157	7.52	191	7.75	197	3.14	80	Ø30.8 X 19	0.33	18.00	0.98	25	8	0.75	19	M10 X 15MM	M10 X 25MM
6"	5.90	150	10.51	267	11.00	280	8.50	216	8.50	216	9.21	234	3.93	100	Ø40 X 25	1.18	19.00	1.10	28	8	0.87	22	M12 X 15MM	M12 X 25MM
8"	7.60	194	11.69	297	13.50	343	10.55	268	10.55	268	10.10	257	4.43	110	Ø40 X 32	1.22	26.50	1.18	30	8	0.87	22	M12 X 20MM	M16 X 30MM

NOTE : 1. A, B & H DIMENSIONS MAY VARY AS PER ACTUATOR MAKE & MODEL AND WILL BE PROVIDED AS PER CUSTOMER REQUIREMENT
2. TOLERANCES ARE GIVEN IN INCHES

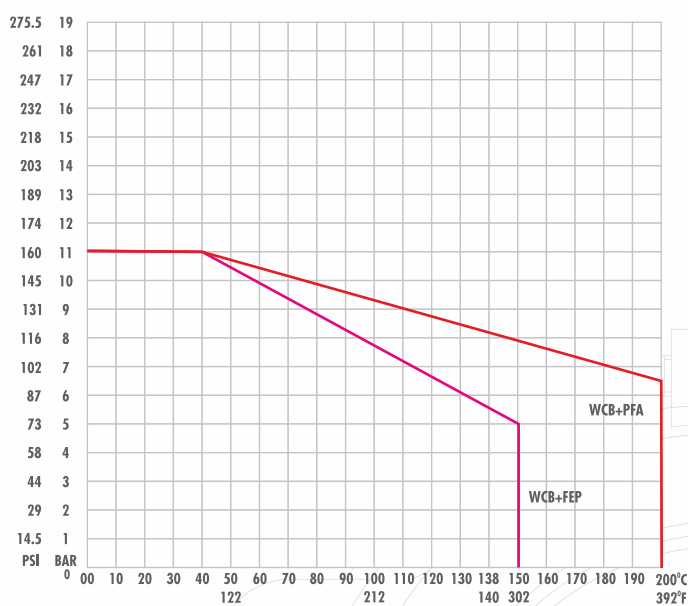
PRODUCT DESIGN AND TESTS PERFORMED

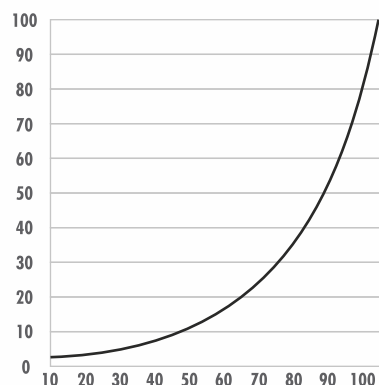
DESIGN PARAMETERS	STANDARD
DESIGN STD	API 599
SHELL DESIGN	ANSI B 16.34
FACE TO FACE DIM.	ANSI B 16.10
FLANGE CONNECTION RATING	ANSI B 16.5, 150# / DIN PN 10 / JIS
TESTING STANDARD	BS EN 12266-1
CONNECTION	FLANGED, RF
TEST PERFORMED	API 598
SIZES	½" TO 4"
HIGH PR. SHELL TEST HYDRO	225 PSI (15 kg/cm ²)
HIGH PR. SEAT TEST HYDRO	165 PSI (11 kg/cm ²)
LOW PR. SEAT PNEUMATIC	85 PSI (6 kg/cm ²)
SPARK TEST	KVDC
SPARK TEST	20 KVDC

VALVE Cv & TORQUE VALUES

Size		Cv FULL PORT	TORQUE FULL PORT	TORQUE FULL PORT
INCH	MM		MM	INCH-LBS
½"	15	15	25	221
1"	25	41	35	310
1½"	40	91	50	443
2"	50	169	75	664
3"	80	297	140	1239
4"	100	539	235	2080
6"	150	1123	525	4646
8"	200	1591	1300	11505

PRESSURE - TEMPERATURE GRAPH



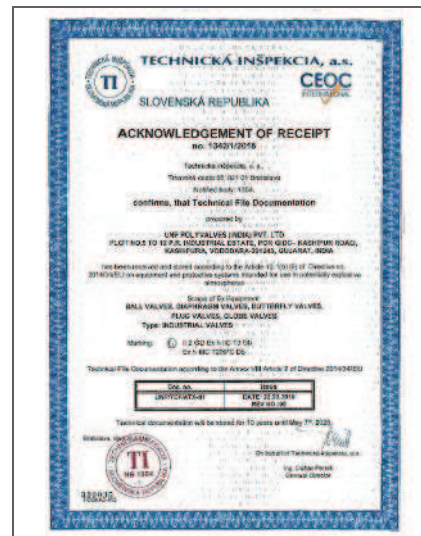


% of Opening

Flow Value Cv (%) for Equal Percentage Characteristics

Size NB		V PORT	VALVE OPENING ANGLE											
INCH	MM	DEGREE	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°
1"	25	15°	-	-	-	-	-	0.01	0.05	0.11	0.20	0.31	0.42	0.56
		30°	-	-	-	-	-	0.02	0.09	0.22	0.40	0.63	0.85	1.01
		45°	-	-	-	-	-	0.03	0.14	0.34	0.62	0.97	1.31	1.76
		60°	-	-	-	-	-	0.05	0.20	0.47	0.86	1.36	1.83	2.46
		90°	-	-	-	-	-	0.08	0.35	0.82	1.49	2.35	3.16	4.24
1½"	40	15°	-	-	-	0.01	0.05	0.13	0.26	0.43	0.64	0.89	1.17	1.42
		30°	-	-	-	0.01	0.10	0.27	0.53	0.87	1.30	1.80	2.38	2.89
		45°	-	-	-	0.02	0.15	0.42	0.81	1.34	2.01	2.79	3.68	4.47
		60°	-	-	-	0.03	0.41	0.58	1.14	1.88	2.80	3.90	5.15	6.25
		90°	-	-	-	0.05	0.37	1.01	1.97	3.25	4.85	6.74	8.90	10.73
2"	50	15°	-	-	0.01	0.09	0.24	0.47	0.77	1.16	1.62	2.14	2.73	3.37
		30°	-	-	0.02	0.20	0.48	0.95	1.57	2.35	3.29	4.35	5.55	6.86
		45°	-	-	0.04	0.28	0.75	1.47	2.43	3.64	5.08	6.72	8.59	10.61
		60°	-	-	0.05	0.39	1.05	2.05	3.40	5.09	7.11	9.40	12.01	14.84
		90°	-	-	0.09	0.67	1.81	3.54	5.87	9.90	12.28	16.24	20.75	25.10
3"	80	15°	0.01	0.10	0.27	0.54	1.00	1.48	2.07	2.75	3.52	4.36	5.26	6.20
		30°	0.02	0.20	0.55	1.10	2.03	3.02	4.22	5.60	7.16	8.87	10.70	12.62
		45°	0.04	0.31	0.85	1.70	3.13	4.67	6.52	8.66	11.07	13.71	16.54	19.51
		60°	0.05	0.43	1.19	2.38	4.38	6.54	9.12	12.12	15.49	19.18	23.14	27.29
		90°	0.09	0.74	2.06	4.11	7.57	11.29	15.76	20.94	26.76	33.14	39.98	46.79
4"	100	15°	0.13	0.36	0.73	1.23	1.88	2.66	3.58	4.62	5.78	7.01	8.35	9.74
		30°	0.26	0.74	1.49	2.51	3.82	5.42	7.29	9.41	11.77	14.26	17.01	19.82
		45°	0.41	1.15	2.30	3.88	5.91	8.38	11.27	14.55	18.19	22.05	26.29	30.64
		60°	0.57	1.60	3.21	5.43	8.27	11.72	15.76	20.36	25.44	30.85	36.77	42.85
		90°	0.98	2.77	5.55	9.38	14.28	20.25	27.23	35.17	43.96	53.30	63.53	73.54
6"	150	15°	0.10	0.44	1.03	1.89	3.04	4.47	6.17	8.13	10.31	12.70	15.25	17.39
		30°	0.20	0.89	2.09	3.86	6.19	9.10	12.56	16.54	21.00	25.86	31.04	35.39
		45°	0.32	1.37	3.24	5.96	9.57	14.06	1.93	25.57	32.46	39.97	47.99	54.72
		60°	0.44	1.92	4.53	8.34	13.38	19.67	27.15	35.76	45.40	55.91	67.12	76.53
		90°	0.76	3.31	7.82	14.40	23.12	33.98	46.91	61.79	78.44	96.60	115.98	132.23
8"	200	15°	0.13	0.54	1.27	2.32	3.73	5.48	7.55	9.94	12.61	15.53	18.79	21.92
		30°	0.26	1.10	2.58	4.73	7.58	11.15	15.36	20.23	25.67	31.62	38.24	44.62
		45°	0.40	1.70	3.99	7.32	11.72	17.24	23.74	31.27	39.69	48.88	59.12	68.98
		60°	0.56	2.38	5.58	10.23	16.40	24.12	33.21	43.74	55.51	68.37	82.69	96.48
		90°	0.98	4.12	9.64	17.68	28.33	41.67	57.38	75.57	95.92	118.14	142.88	166.70

CERTIFICATION



APPROVED

ISO 15848-1

FUGITIVE EMISSION CERTIFICATION
PFA LINED SIDE SPLIT
FULL PORT BALL VALVES
Size Range : 1/2" to 6"

APPROVED

ISO 15848-1

FUGITIVE EMISSION CERTIFICATION
PFA LINED PLUG VALVES
Size Range : 1/2" to 8"

APPROVED

ISO 15848-1

FUGITIVE EMISSION CERTIFICATION
PFA LINED BUTTERFLY VALVE
Size Range : 2" to 24"

APPROVED

DIN EN 14432:2014 PFA LINED BUTTERFLY VALVES

Size Range : 2" to 8"

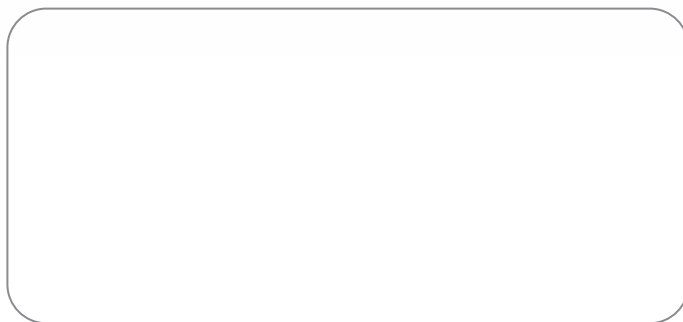
APPROVED

DIN EN 14432:2014 PFA LINED SIDE SPLIT DESIGN BALL VALVES

Size Range : 1" to 4"



Distributor



VADODARA



CORPORATE OFFICE

946, GIDC, Makarpura,
Vadodara - 390 010, INDIA
Phone : +91 - 265 - 2649248, 2632628
Fax : +91 - 265 - 2637379
Email : sales.baroda@polyvalve.com | mktg@polyvalve.com

FACTORY

5 to 12 PR Industrial Estate,
Por GIDC - Kashipura Road,
Moje : Kashipura - 391 243,
Dist. Vadodara. INDIA
Phone : +91 70434 30467/77 , 70430 20707

MUMBAI

THANE

207, Orion Business Park, Next to Cine Max, Kapurbawdi,
Ghodbunder Road, Thane (W) - 400 607. INDIA.
Phone : +91 - 22 - 25896422, 25896524 / 25
Fax : + 91 - 22 - 2589 - 4221
Email : sales.thane@polyvalve.com | mktg@polyvalve.com

USA



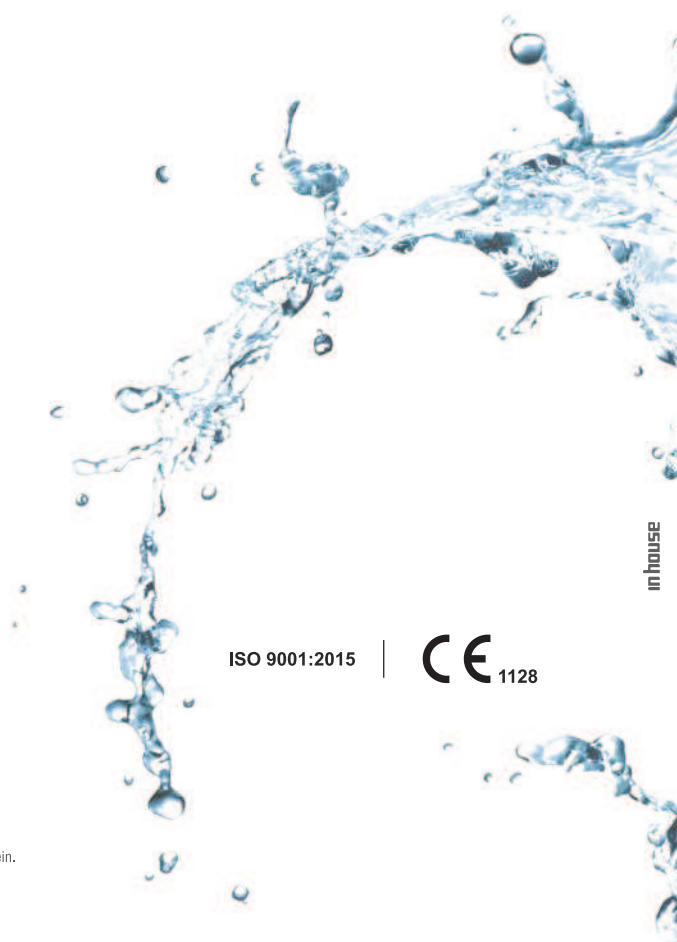
DJK - Energy Houston

BRANCH OFFICE

DJK-ENERGY HOUSTON INC.
13201, NW FWY, Suite 800,
Houston, Texas - 77040, USA
Phone : +1 832 213 9674
Email : djklinedvalvesamerica.us

www.polyvalve.com | www.polyvalve.in

- UNP Polyvalves reserves the right, without notice to alter improve the designs, specifications, dimensions of the products described herein.
- UNP Polyvalves does not assume any responsibility for the data given in this brochure. It is necessary for the customers to carry out necessary tests before selecting the MOC for their applications.



ISO 9001:2015

