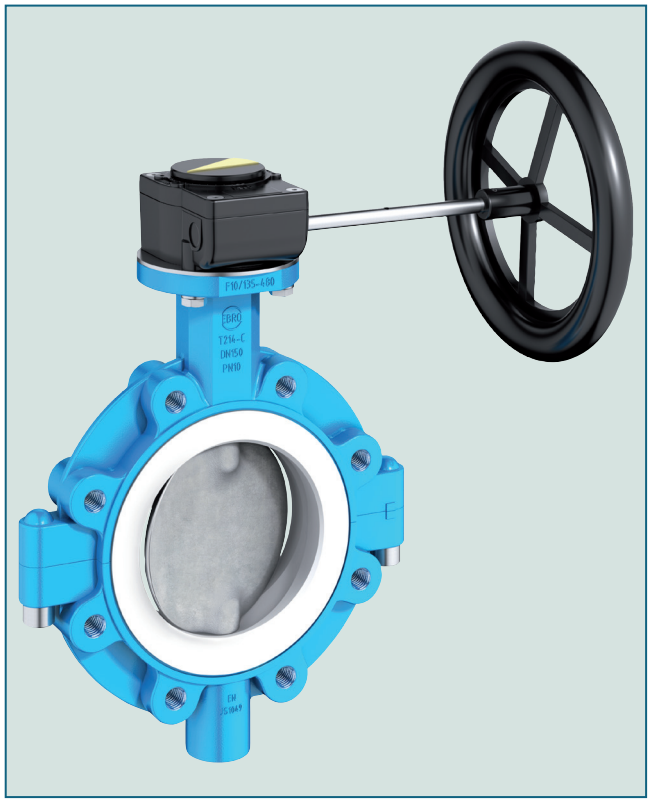
LUG TYPE PROCESS VALVE T 214-C



PTFE-lined lug type valve for chemically toxic and highly corrosive media.

TECHNICAL DATA

Nominal diameter:	DN (40)50 - DN 300
Face-to-face:	EN 558 Table 20
Flange accommodation:	EN 1092 PN 10/16 ASME Class 150
Flange Surface Design:	EN 1092 Form A/B ASME RF, FF
Top flange:	EN ISO 5211
Marking:	EN 19 PAS 1085
Tightness check:	EN 12266 (Leakage rate A)
Temperature range:	-40°C to +200°C (depending on working pressure)
Operating pressure:	max. 10 bar (16 bar special version)
Vacuum:	up to1 mbar absolute, (with silicon elastomer inserts) from -10°C to +160°C

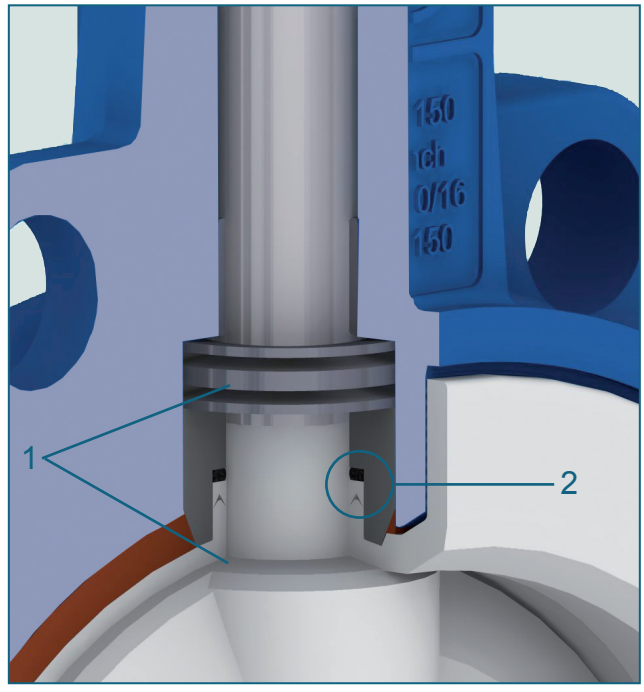
Valve Design acc. to PAS 1085

FEATURES

- Environmental protection via EBRO-Safety seal
- TA-Luft/ VDI 2440,RWTÜV certified
- Isolation height according to plant prescription
- Maintenance-free
- Can be disassembled, material-specific recycling possible
- Material conform to FDA to EG 1935/2004

DESIGN FEATURES

- Optimized low torques
- FEM dimensioned componets
- Double flat shaft acc. to EN standards
- Shaft/ disc: duplex (one-piece lost-wax casting)
- Triple shaft bearing



Safety seal at both shaft ends:

1. Primary sealing by means of a belleville spring washer, transmitting prestress on the spherical segment area.
2. Secondary sealing of the shaft by means of PTFE-Chevron and o-ring.

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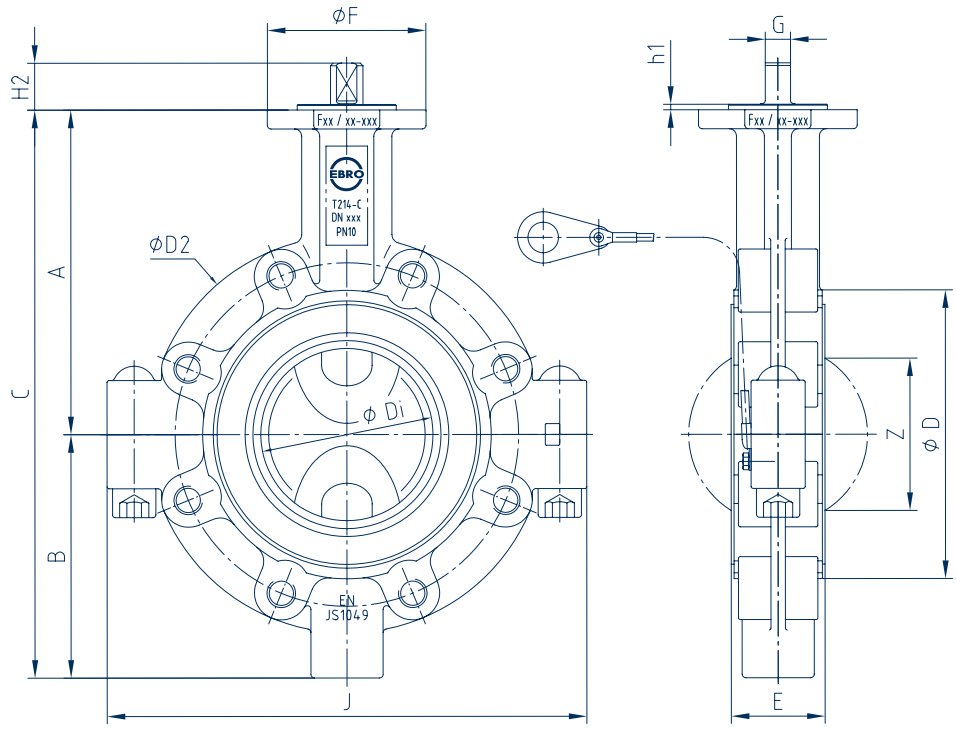

T 214-C with bare shaft end acc. to EN ISO 5211

DN [mm]	Size [in]	Dimensions [mm]														Weight [kg]
		A	B	C	ØD	ØD2	ØDi	E	Flange	ØF	G	h1	H2	J	Z	
40/50	**1½ 2**	126	95	221	104	155	49	43	F07	90	11	3	22	167	25	4,5
65	**2½**	150	103	253	120	175	61	46	F07	90	11	3	22	181	41	5,5
80	**3**	157	124	281	138	190	80	46	F07	90	14	3	26	227	66	8,0
100	**4**	180	135	315	160	210	100	52	F07	90	14	3	26	266	85	10,0
150	**6**	210	167	377	212	280	151	56	F10	125	17	3	31	322	141	15,0
200	**8**	240	190	430	268	336	196	60	F12	150	17	3	31	390	187	27,0
250	**10**	275	232	507	324	412	248	68	F12	150	22	3	40,5	481	239	45,0
300	**12**	298	260	558	374	460	293	78	F14	175	22	4	41,5	558	283	69,0

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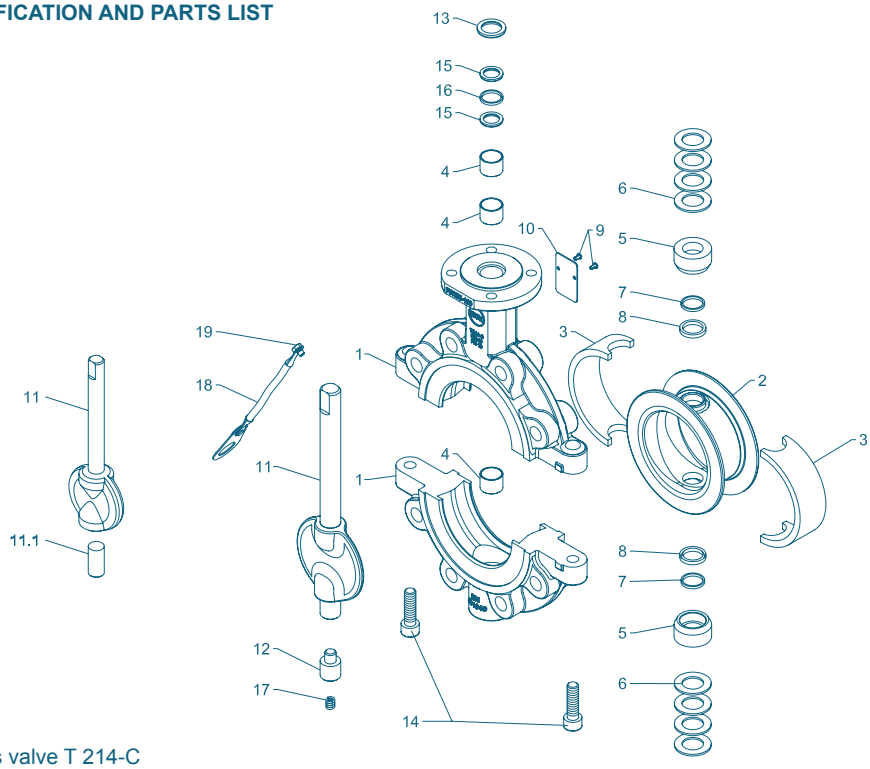
MATERIAL SPECIFICATION AND PARTS LIST



PTFE-lined process valve T 214-C

Pos.	Description	Material	Material-No.	ASTM	Pos.	Description	Material	Material-No.	ASTM
1	**Body**				**11****	**Shaft/Disc**	one-piece		
	Nodular Cast Iron	EN-JS 1049	EN 1563	A395		St. Steel /St. Steel	GX2CrNiMoN26-7-4	1.4469	EN 10213
2**	**Seat**					St. Steel /St. Steel PFA	GX2CrNiMoN26-7-4	1.4469	
	PTFE	Polytetrafluorethylene	PTFE	PTFE *			Perfluoroalkoxy	PFA	PFA
3**	**Elastomer insert**				**11.1**	**Lower shaft (DN 40/50 only)**			
	Silicon	Silicon - rubber	MVQ	VMQ		Stainless Steel	X2CrNiMoN22-5-3	1.4462	Duplex
4	**DU-bearing**				**12**	**Lower shaft stup (DN 65 - DN 200 only)**			
	PTFE coated					Stainless Steel	X39CrMo 17-1	1.4122	
5**	**Trust collar**				**13**	**Wiper ring**			
	Stainless Steel	X5CrNiMo17-12-2	1.4401	316		PTFE	Polytetrafluorethylene	PTFE	PTFE
6	**Belleville spring washer**				**14**	**Screw**			
	Stainless Steel	X12CrNi177	1.4568	631		Stainless Steel	A4-70	1.4401	A193-B8
7**	**O-Ring**				**15****	**Thrust ring**			
	FPM	Fluorocarbon caoutchouc	FPM	FKM		PTFE	Polytetrafluorethylene	PTFE	PTFE
8**	**Chevron seal**				**16****	**O-Ring**			
	PTFE	Polytetrafluorethylene	PTFE	PTFE		FPM	Fluorocarbon caoutchouc		FKM
9	**Groove pin**				**17**	**Spiral spring**			
	Stainless Steel	A2				Spring steel	X10CrNi 18-8	1.4310	301
10	**Type plate**				**18**	**Buttstrap**			
	Stainless Steel								
					19	**Screw**			
Above-mentioned materials of the basic version, other materials upon request						Stainless Steel	A2-70		A193-B8

* optional: electrically conductive
** recommended spare parts

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LUG TYPE PROCESS VALVE T 214-C

TORQUE

- The torque values specified (Md) are based on dry media and are measured with air at a temperature of 20 °C

- The values specified are based on the initial breakaway torque (disc disengages from seat, torque then drops)

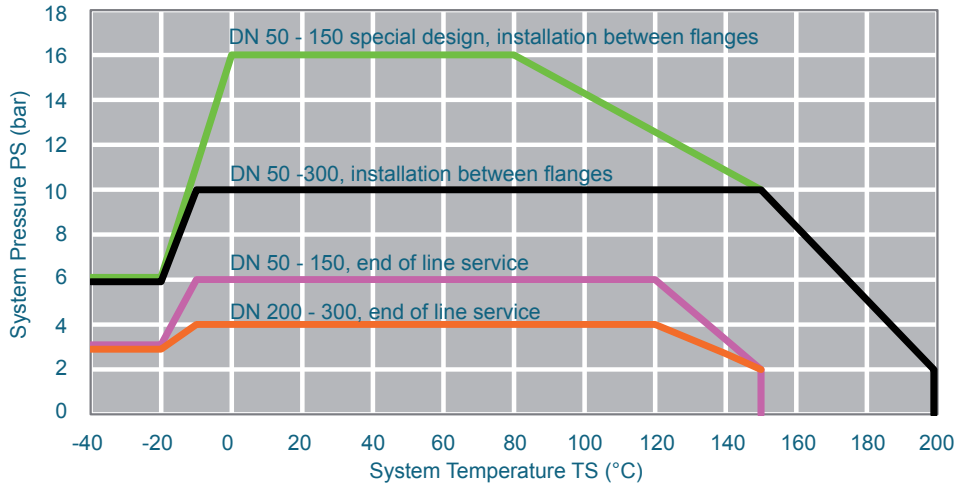
- Dynamic torque specification available upon request

Regarding the dimensioning of actuators, please contact our engineers.

DN (mm)	40/50	65	80	100	150	200	250	300
Size (in)	1½ 2	2½	3	4	6	8	10	12
MD (Nm)	35	35	55	70	135	170	320	380
MAST (Nm)*	105	105	250	250	480	480	1020	1020

*Maximum torques (Nm)

PRESSURE/TEMPERATURE DIAGRAM



Pressure-Temperature-Diagram for valves with Silicone elastomer inserts

Service limitation with Fluor carbon inserts (FPM) from -10°C up to +120°C

Service limitation with EPDM elatomer inserts from -10°C up to +180°C

Vacuum service to 1mbar absolute, from -10°C up to +160°C. Valve installation between flanges

K_V-VALUES

- The K_V-value [m³ per hour] is the flow of water at a temperature of 5°C to 30°C (41°F to 86°F) at Δp of 1 bar

- The K_V-values specified are based on tests carried out by the Delfter Hydraulics Laboratories, the Netherlands

- Permissible velocity of flow Vmax 4,5 m/s for liquids, Vmax 70 m/s for gases

- The throttle function is linear at an angle 30° to 70°

- Avoid cavitation

For further values, please contact our engineers.

DN [mm]	Size [in]	Opening angle α° 20°	30°	40°	50°	60°	70°	80°	90°
1) K_V-values metal disc									
40/50	1½ 2	1	8	18	32	53	81	107	111
65	2½	1	8	24	50	70	100	140	210
80	3	1,2	15	44	95	124	180	300	520
100	4	8	25	60	170	210	280	540	980
150	6	35	95	190	350	460	850	1300	2300
200	8	69	253	457	729	1110	1783	2570	3020
250	10	120	380	690	1200	1680	2650	4500	6600
300	12	165	504	937	1512	2275	3795	6810	12800
2) K_V-values PFA-disc									
40/50	1½ 2	0,8	6	13	24	40	54	63	66
65	2½	1,5	12	28	52	70	96	110	150
80	3	2,5	20	48	88	118	160	200	250
100	4	12	32	68	170	2210	260	500	780
150	6	45	105	205	370	490	720	1250	2200
200	8	88	297	520	695	1130	1700	2500	2700
250	10	148	430	695	1250	1800	2520	4350	5400
300	12	263	557	960	1560	2450	4300	6700	9400

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www.ebro-armaturen.com
post@ebro-armaturen.com

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