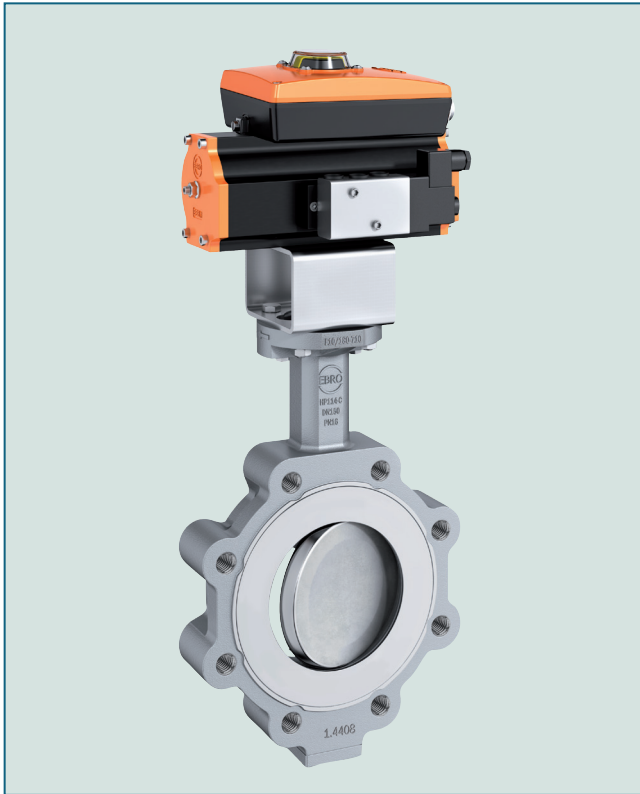


# HIGH PERFORMANCE BUTTERFLY VALVE HP 114-C



High Performance valve for the chemical industry.

## TECHNICAL DATA

Nominal diameter:	3 inch - 16 inch
Face-to-face:	EN 558 Table 25
Design:	Lug type (optional: through holes)
Body:	1.0619 (WCB); 1.4408 (CF8M)
Temperature range:	-76°F to +446°F (R-PTFE-Seat) -76°F to +1,112°F (Inconel-Seat)
Nominal pressure:	max. 600 psi
Leakage rate:	R-PTFE, EN 12266, Leakage rate A Inconel, EN 12266, Leakage rate B
Flange drilling:	EN 1092 PN 10/16/25/40
Marking:	EN 19 PAS 1085 TA-Luft

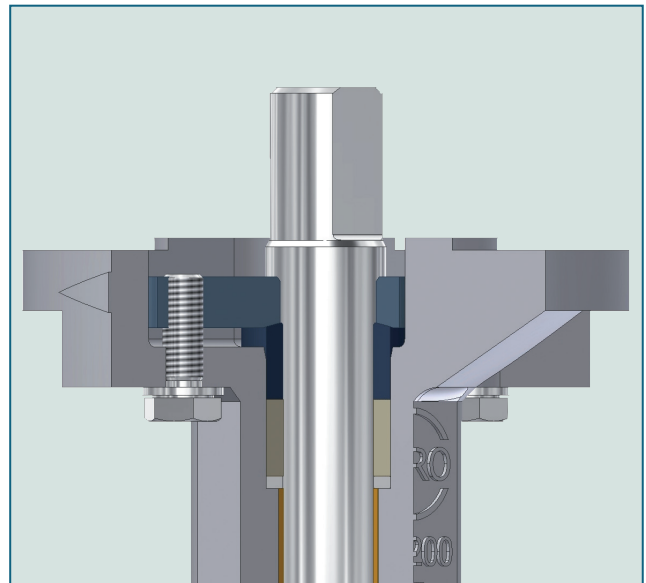
Valve Design  
acc. to PAS 1085

## FEATURES

- Plane sealing surface without interference (groove acc. to EN 1092 optional)
- Clamping ring without bore holes
- Long valve neck (for complete isolation)
- Distortion stop outside of media flow
- Integrated gland flange
- Quick and easy mounting
- Can be installed in any desired position
- Maintenance-free
- Integrated primary shaft seal

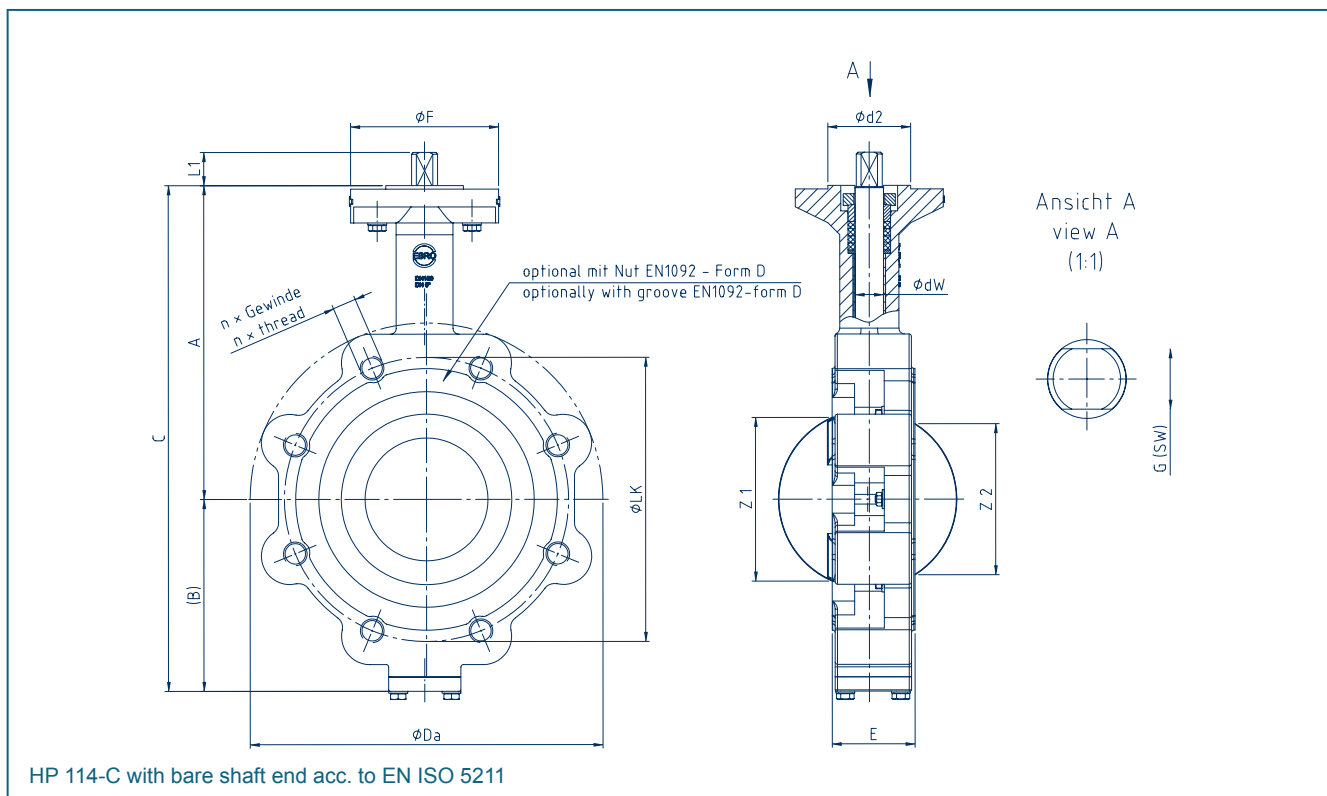
## GENERAL APPLICATIONS

- Chemical and petrochemical Industry
- Heavy-Duty applications



Gland flange integrated in top flange.

# HIGH PERFORMANCE BUTTERFLY VALVE HP 114-C



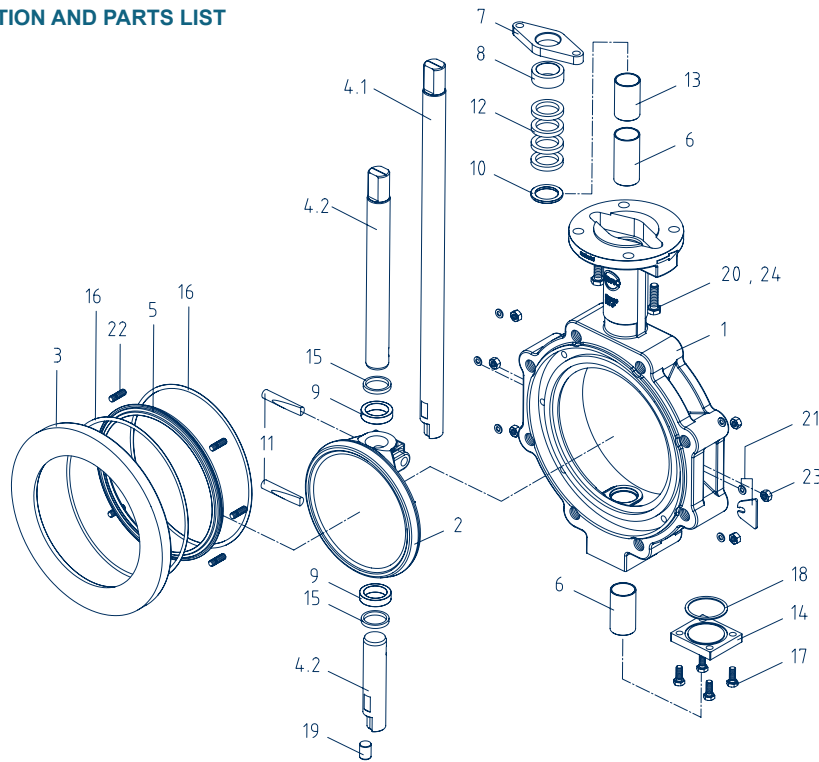
DN [mm]	Size [in]	Dimensions [in]																Weight [lb]
		ØdW	A	(B)	C	ØDa	ØLK	n	Thread	Z1	Z2	E	Flange	ØF	Ød2	G	L1	
80	3	0.79	8.27	4.33	12.60	7.48	6.30	0.31	M16	2.83	1.81	1.93	F 07	3.54	2.17	0.55	0.93	18.70
100	4	0.79	8.86	5.16	14.02	9.29	7.09	0.31	M16	3.74	3.03	2.20	F 07	3.54	2.17	0.55	0.93	25.40
150	6	0.94	10.43	6.38	16.81	11.73	9.45	0.31	M20	5.47	5.04	2.76	F 10	4.92	2.76	0.67	1.10	50.70
200	8	1.18	12.20	7.87	20.08	14.76	11.61	0.47	M20	7.28	6.93	2.80	F 12	5.91	3.35	0.87	1.46	87.10
250	10	1.42	14.17	9.45	23.62	16.14	13.98	0.47	M24	9.25	8.86	2.99	F 14	6.89	3.94	1.06	1.81	116.80
300	12	1.65	15.79	10.83	26.61	18.90	16.14	0.47	M24	11.06	10.75	3.27	F 14/16*	6.89	3.94	1.06	1.81	152.10
350	14	1.65	17.13	12.20	29.33	20.47	18.50	0.63	M24	12.76	12.40	3.62	F 16	8.27	5.12	1.06	1.81	202.80
400	16	1.97	18.74	13.78	32.52	22.64	20.67	0.63	M27	14.69	14.29	4.02	F 16/25*	8.27	5.12	1.42	2.42	291.00

\* for PN 25/40 12 inch = F16  
16 inch = F25

Subject to change without notice

# HIGH PERFORMANCE BUTTERFLY VALVE HP 114-C

## MATERIAL SPECIFICATION AND PARTS LIST



Pos.	Description	Material	Material-No.	ASTM	Pos.	Description	Material	Material-No.	ASTM
<b>1 Body</b>	Carbon Steel	GP240GH	1.0619	WCB	<b>12 Seal</b>	Graphite			
	Stainless Steel	GX5CrNiMo 19-11-2	1.4408	CF8M		PTFE			
<b>2 Disc</b>	Stainless Steel	GX5CrNiMo 19-11-2	1.4408	CF8M	<b>13 Spacer sleeve</b>	Stainless Steel	X6CrNiMoTi 17-12-2		316 Ti
	Steel	S235JR	1.0038	283-C	<b>14 Cover plate</b>	Stainless Steel	X8CrNiS 18-9	1.4305	304
	Stainless Steel	X5CrNiMo 17-12-2	1.4401	316	Stainless Steel	X5CrNiS 18-10	1.4301		304
<b>3 Clamping ring</b>	Stainless Steel	X2CrNiMo 17-12-2	1.4404	316 L	<b>15 Turcon-Variseal-M2</b>				
					PTFE / Metal spring				
					<b>16 Graphite seal</b>				
<b>4.1 Through shaft (TS-version)</b>	Stainless Steel	X5CrNiCuNb 16-4	1.4542		<b>17 Hex. bolt</b>	Stainless Steel	A4-70		B 8 M
<b>4.2 Splitted shaft</b>	Stainless Steel	X4CrNiMo 16-5-1	1.4418		<b>18 Seal</b>				
<b>5 Seat ring</b>	R-PTFE	PTFE-Compound			PTFE				
	Inconel	Inconel 625			<b>19 Taper pin / distertion stop</b>				
<b>6 Shaft bearing</b>	Stainless Steel	X5CrNiMo 17-12-2	1.4401 / PTFE	316 PTFE	Stainless Steel	X5CrNiCuNb 16-4	1.4542		
	Stainless Steel	X6CrNiMoTi 17-12-2	1.4571 nitrite	316 Ti	Stainless Steel	X4CrNiMo 16-5-1	1.4418		
<b>7 Gland flange</b>	Stainless Steel	GX2CrNiMoN 26-7-4	1.4469	A995	<b>20 Hex. bolt</b>	Stainless Steel	A4-70		B 8 M
	Stainless Steel	X2CrNiMoN 22-5-3	1.4462	F51	<b>21 Washer</b>	Stainless Steel	A4		8
<b>8 Thrust collar</b>	Stainless Steel	X8CrNiS 18-9	1.4305	304	Stainless Steel	X6CrNiMoTi 17-12-2	1.4571		316 Ti
	Stainless Steel	X5CrNiS 18-10	1.4301	304	<b>22 Threaded pin</b>	Stainless Steel	A4-70		B 8 M
<b>9 Bearing ring</b>	Stainless Steel	X6CrNiMoTi 17-12-2	1.4571 chr-pld	316 Ti	<b>23 Hex. nut</b>	Stainless Steel	A4-70		B 8 M
	Stainless Steel	X6CrNiMoTi 17-12-2	1.4571	316 Ti					
<b>10 Suppor. washer</b>	Stainless Steel	X6CrNiMoTi 17-12-2	1.4571	316 Ti					
<b>11 Taper pin</b>	Stainless Steel	X5CrNiCuNb 16-4	1.4542						
	Stainless Steel	X4CrNiMo 16-5-1	1.4418						

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# HIGH PERFORMANCE BUTTERFLY VALVE HP 114-C

## TORQUE

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

DN [mm]	Size [in]	Operating pressure							
		150 [psi]		200 [psi]		300 [psi]		600 [psi]	
		R-PTFE	Inconel	R-PTFE	Inconel	R-PTFE	Inconel	R-PTFE	Inconel
80	3	256	503	229	496	249	659	348	915
100	4	467	824	465	763	586	879	870	1282
150	6	1144	1556	1037	1678	1230	2197	2014*	3295*
200	8	1877	3204	1983	3280	2050	3698	2883*	5767*
250	10	4440	4623	4195	4729	4394	6298	6270*	11534*
300	12	5346	6774	5340	7399	6261	9373	10206*	16477*
350	14	6774	7460	7094	8009	8788	10032	15104*	17392*
400	16	10527	14005	12510	17087	18015	21237	35059*	36615*

\* with through shaft only (TS-version)

All values in Inch Lbs

## K<sub>V</sub>-VALUES

- The K<sub>V</sub>-value [US Gallon per minute] is the flow of water at a temperature of 41°F to 86°F at Δp of 15 psi

- The K<sub>V</sub>-values specified are based on tests carried out by the Delfter Hydraulics Laboratories, the Netherlands

- Permissible velocity of flow  
V<sub>max</sub> 4,5 m/s for liquids,  
V<sub>max</sub> 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° HP-C splitted shaft (PN 10 - PN 25)							
		20°	30°	40°	50°	60°	70°	80°	90°
80	3	88	181	286	401	484	581	660	687
100	4	106	181	343	520	806	1061	1264	1422
150	6	387	660	947	1409	2091	2809	3588	3720
200	8	854	1259	1911	2915	4205	5878	7335	7538
250	10	1123	1893	2730	4068	6028	8154	10320	10699
300	12	1889	2783	4095	6221	9035	12636	15947	16678
350	14	2488	4148	6208	9140	12839	17066	20918	21966
400	16	3117	5217	7802	11813	17118	23243	29992	30719

DN [mm]	Size [in]	Opening angle α° HP-C through shaft (PN 40)							
		20°	30°	40°	50°	60°	70°	80°	90°
80*	3	88	181	286	401	484	581	660	687
100*	4	106	181	343	520	806	1061	1264	1422
150	6	352	748	1132	1519	2039	2584	3179	3333
200	8	788	1352	1955	2831	3993	5327	6340	6428
250	10	1026	1717	2510	3742	5548	7485	9466	9818
300	12	1629	2730	3919	5856	8674	11756	14882	15410
350	14	2351	3919	5939	8665	12192	16445	20033	20914
400	16	3038	5107	7353	11007	16291	22067	27914	28971

\* splitted shaft only

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