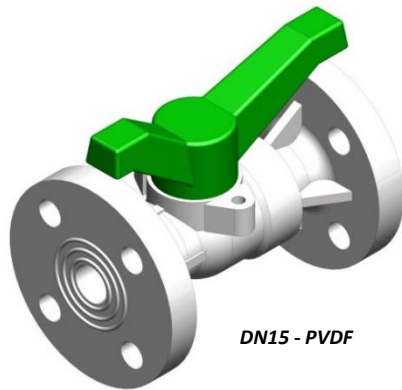


CR-TEC Engineering

Automated Valve Solutions

CRPSF150F - 2 WAY - BALL VALVE - FLANGED COMPACT DN15 (1/2") TO DN50 (2") IN PPGF, PVDF, PP- EL DN40 (1"1/2) TO DN50 (2") IN PVC-U

Conform to the 2014/68/EU Directive



MAIN FEATURES

- Flanged compact ball valve, 2-piece construction limiting interfaces for an optimal sealing.
- Solid Flanges for an optimum resistance.
- Full Bore.
- Safety plate locking body and adjusting piece, avoiding any accidental adjustment and ensuring a perfect alignment of the flange holes.
- Color Handle and safety plate indicating type of Seals (Red = EPDM, Green = FPM, blue = FEP/FFPM)
- Inner Shape promoting flow and limiting retention zones.
- Moulded Sealing rings on Flanges. (Prevents the deformation of the Gasket).
- Protected Handle Stops.
- 2 lateral fixing points for valve installation or actuation
- Easy to actuate manual valve to desired control (Electric or Pneumatic) by removable handle.
- The PP-EL version is electro conductive due to a load of graphite (Electric Surface's Resistance inferior to 10^5 Ohm).

STANDARDS & APPROVALS



DGS/SD7A N°571 : Circular on the terms and conditions for the verification of the sanitary conformity of the constituent materials of accessories or subassembly accessories, consisting of organic elements in contact with water intended for human consumption (Food Grade Approval)



Products complying with the requirements of EN ISO Standard 15848-1 (Class B) and German standard TA-Luft VDI 2440, which define external leak criteria for leaktight systems



NR320 : Certification scheme of materials and equipment for the classification of marine units

DIMENSIONS

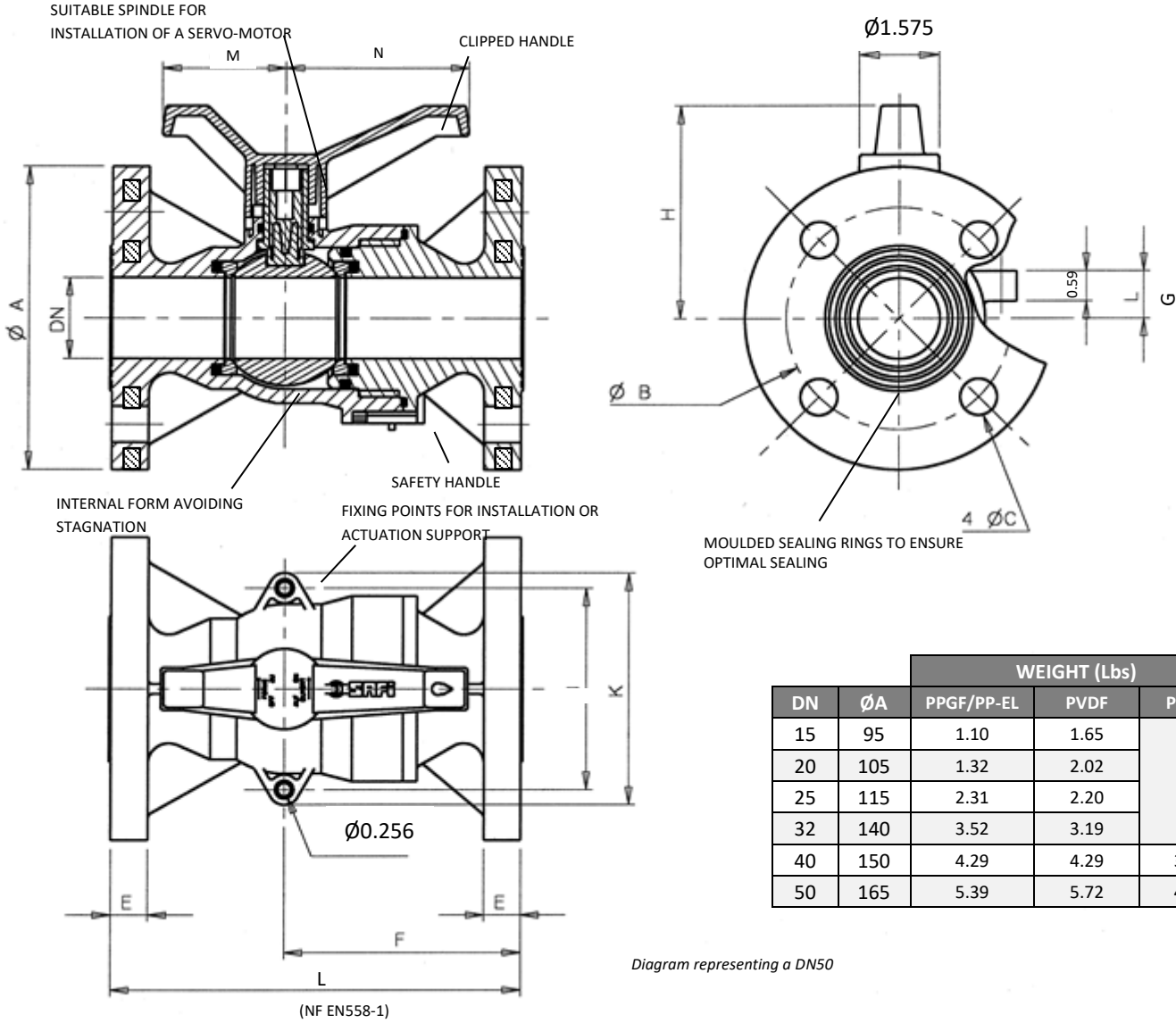
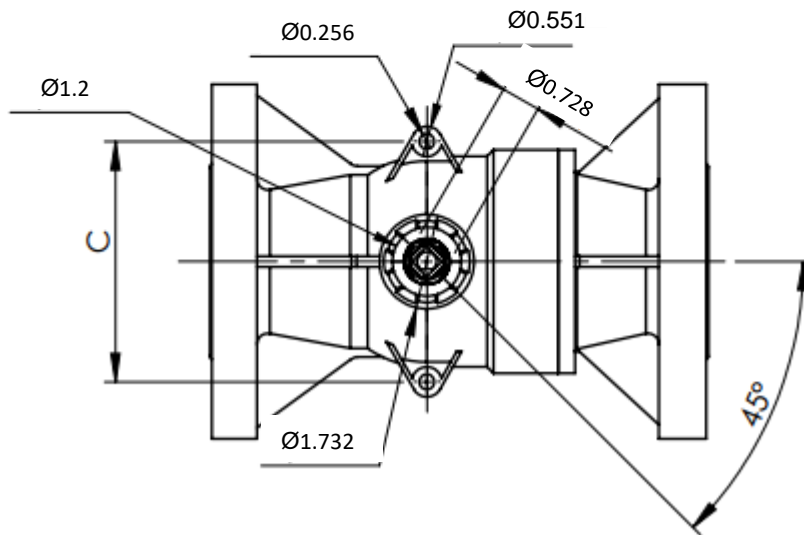
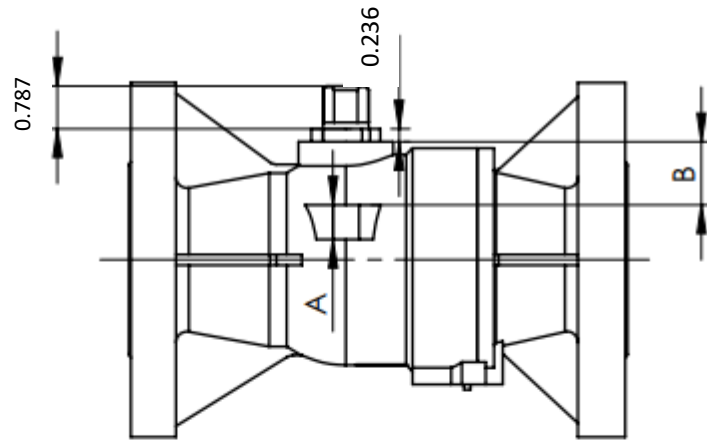


Diagram representing a DN50

DN	ØA	WEIGHT (Lbs)		
		PPGF/PP-EL	PVDF	PVC-U
15	95	1.10	1.65	-
20	105	1.32	2.02	
25	115	2.31	2.20	
32	140	3.52	3.19	
40	150	4.29	4.29	3.59
50	165	5.39	5.72	4.80

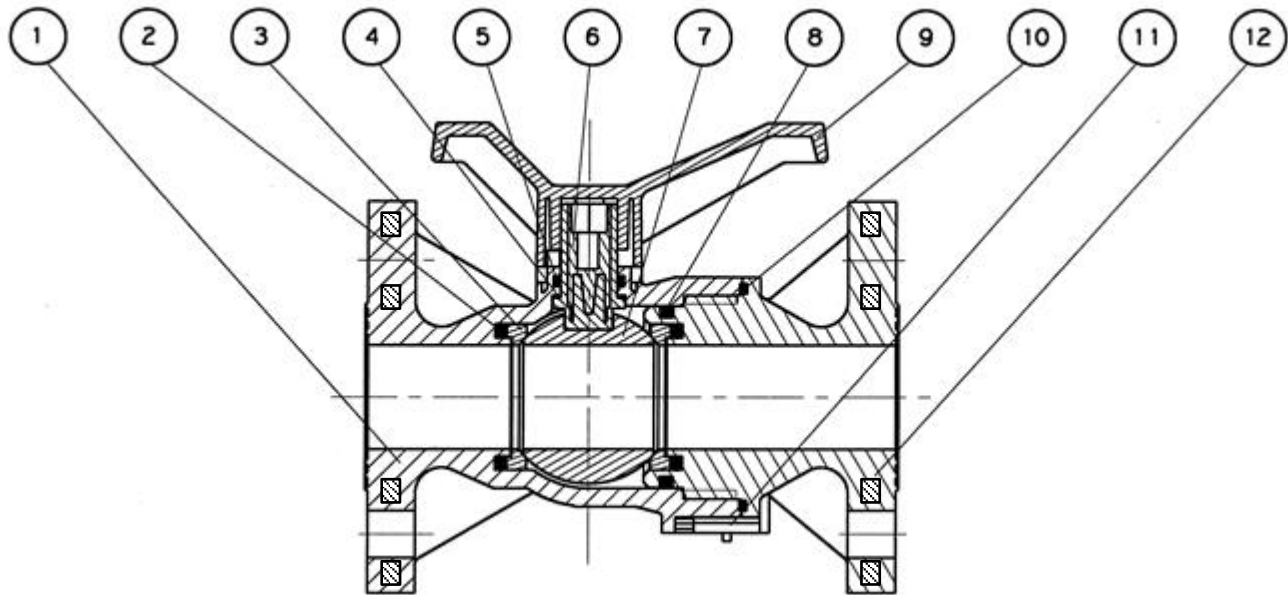
DN	ØA	ØB			ØC			E	F	G	H	PPGF/PP-EL/PVC-U		PVDF		L	M	N
		DIN	ANSI	BS	DIN	ANSI	BS					J	K	J	K			
15	3.740	2.559	2.362	2.626	0.551	0.630	0.551	0.551	2.874	0.236	2.953	2.244	2.756	2.205	2.717	5.118	2.244	2.874
20	4.134	2.953	2.756	2.874	0.551	0.630	0.551	0.630	3.268	0.236	2.953	2.244	2.756	2.205	2.717	5.906	2.244	2.874
25	4.528	3.346	3.130	3.228	0.551	0.630	0.551	0.630	3.543	0.492	3.740	2.874	3.425	2.835	3.378	6.299	2.362	3.543
32	5.512	3.937	3.504	3.437	0.709	0.630	0.551	0.709	4.193	0.650	3.898	3.543	4.094	3.484	4.055	7.087	2.362	3.543
40	5.906	4.331	3.874	3.874	0.709	0.630	0.551	0.709	4.567	0.925	4.173	3.937	4.528	3.878	4.469	7.874	2.362	3.543
50	6.496	4.921	4.748	4.500	0.709	0.748	0.709	0.787	5.157	1.122	4.370	4.409	5.000	4.350	4.921	9.055	2.362	3.543

DIN = Drilling in accordance with EN 1092-1 PN10/PN - ANSI = Drilling in accordance with EN1759-1/ASME B16.5 Class 150 BS = Drilling in accordance with BS10-Table D



DN	A	B	C
25	0.591	1.024	2.874
32	0.591	1.024	3.543
40	0.591	1.024	3.937
50	0.591	1.024	4.409

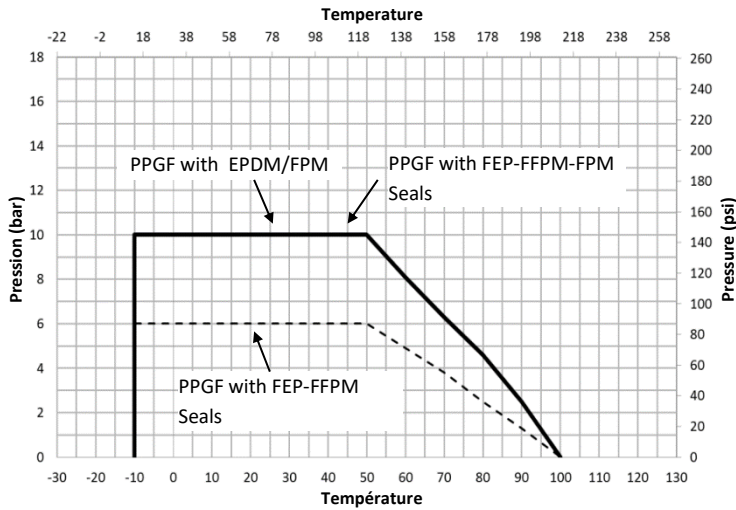
PARTS LIST



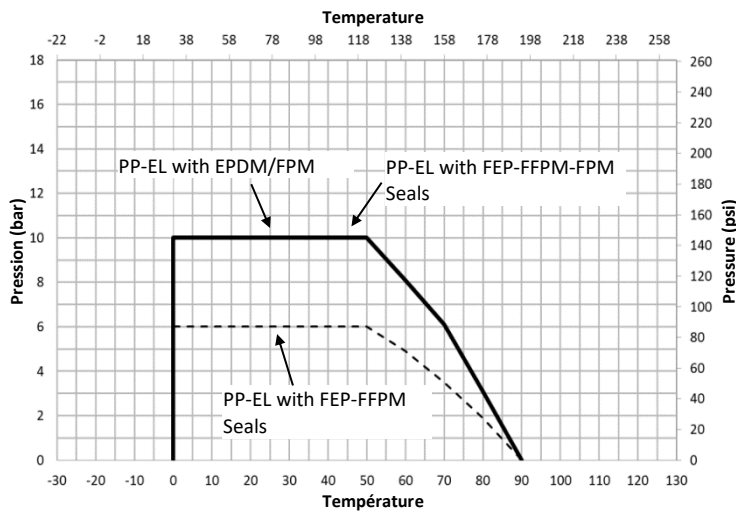
N°	DESCRIPTION	With EPDM seals		With FPM seals		With FEP-FFPM seals Type « FFP »		With FEP-FFPM seals Type « FFPP »	
		PPGF, PP-EL, PVDF, PVC-U		PPGF, PP-EL, PVDF, PVC-U		(FEP under seat + FPM on spindle + FEP & FPM on adjusting end)		(FEP under seat + FPM on spindle + FEP on adjusting end)	
		Material	Qty	Material	Qty	Material	Qty	Material	Qty
1	FLANGED MAIN BODY (with metal insert)	PPGF, PP-EL	1	PPGF, PP-EL	1	PPGF, PP-EL	1	PPGF, PP-EL	1
	FLANGED MAIN BODY (without metal insert)	PVDF, PVC-U		PVDF, PVC-U		PVDF		PVDF	
2*	SEAT O-RING	EPDM	2	FPM**	2	FEP	2	FEP	2
3*	SEAT	PTFE	2	PTFE	2	PTFE	2	PTFE	2
4*	FRICTION WASHER	PTFE	1	PTFE	1	PTFE	1	PTFE	1
5*	SPINDLE O-RING***	EPDM	1	FPM**	1	FFPM	1	FFPM	1
6*	SPINDLE	PPGF, PVDF, PP-EL, PVC-U	1	PPGF, PVDF, PP-EL, PVC-U	1	PPGF, PVDF, PP-EL	1	PPGF, PVDF, PP-EL	1
7*	BALL	PP-H, PVDF, PVC-U	1	PP-H, PVDF, PVC-U	1	PP-H, PVDF	1	PP-H, PVDF	1
8*	SECONDARY BODY O-RING	EPDM	1	FPM**	1	FPM**	1	-	-
9	HANDLE	PPGF (Red)	1	PPGF (Green)	1	PPGF (Blue)	1	PPGF (Blue)	1
10*	O-RING	-	-	-	-	FEP	1	FEP	1
11	SAFETY PLATE	PPGF (Red)	1	PPGF (Green)	1	PPGF (Blue)	1	PPGF (Blue)	1
12	FLANGED SECONDARY BODY (with metal insert)	PPGF, PP-EL	1	PPGF, PP-EL	1	PPGF, PP-EL	1	PPGF, PP-EL	1
	FLANGED SECONDARY BODY (without metal insert)	PVDF, PVC-U		PVDF, PVC-U		PVDF		PVDF	

(*) Spare parts (**) FPM type SAFKM5 (***) 2x spindle o-ring for DN15 to DN20 and 1x spindle o-ring for DN25 to DN50
 DIN = Drilling in accordance with EN 1092-1 PN10/PN16 ANSI = Drilling in accordance with EN1759-1/ASME B16.5 Class 150

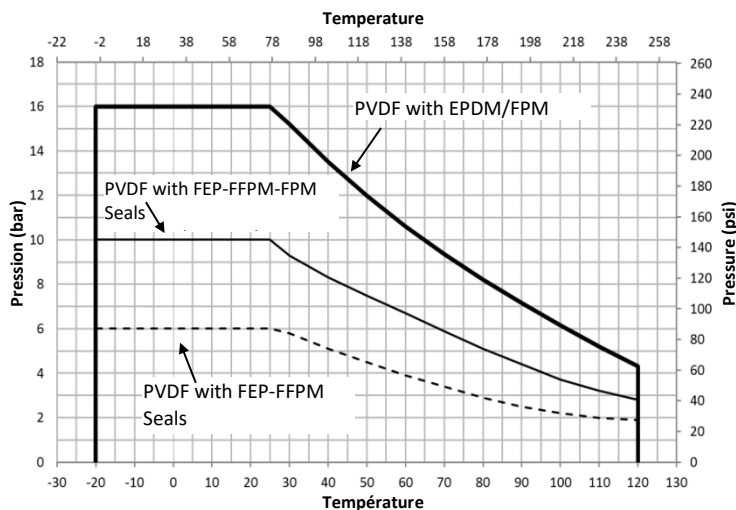
PRESSURE/ TEMPERATURE CURVES



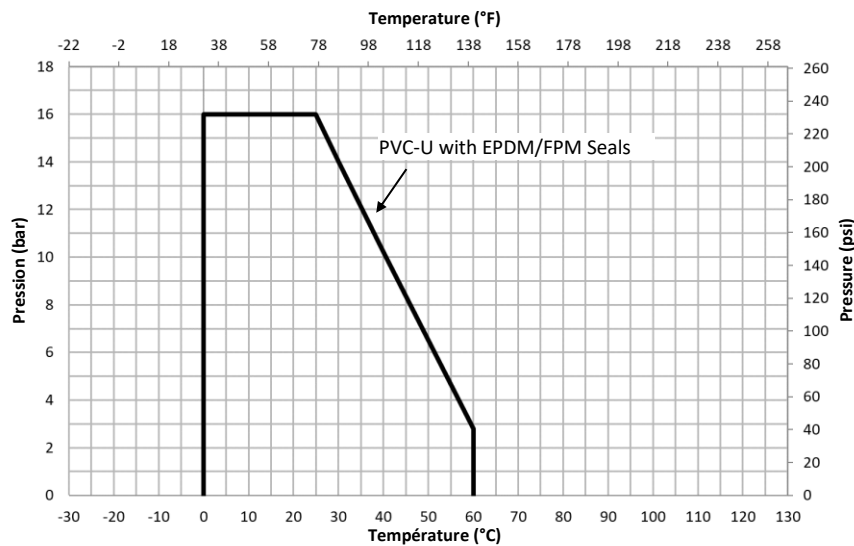
PPGF



PP-EL



PVDF



PVC-U

Pressure/Temperature Summary

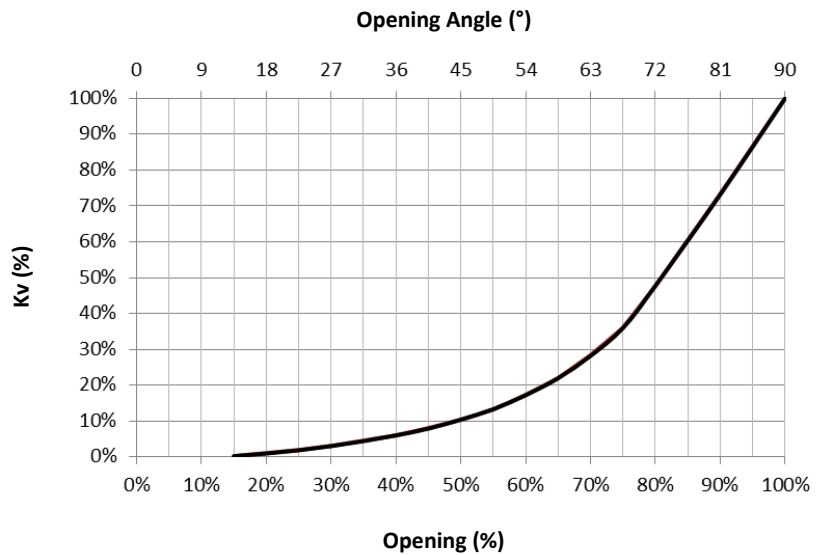
Type of Seals	Working Pressure	Working Temperature	
		PPGF	PP-EL
EPDM	145 psi at 68°F	14°F to +212°F	32°F to +194°F
FPM	145 psi at 68°F	14°F to +212°F	32°F to +194°F
FEP-FFPM-FPM - Type « FFP » (FEP under seats + FFPM on spindle + FEP & FPM on adjusting end)	145 psi at 68°F	14°F to +212°F	32°F to +194°F
FEP-FFPM - Type « FFPP » (FEP under seats + FFPM on spindle + FEP on adjusting end)	232 psi at 68°F	14°F to +212°F	32°F to +194°F

Type of Seal	Working Pressure	Working Temperature	
		PVDF	PVC-U
EPDM	232 psi at 68°F	68°F to +248°F	32°F to +140°F
FPM	232 psi at 68°F	68°F to +248°F	32°F to +140°F
FEP-FFPM-FPM - Type « FFP » (FEP under seats + FFPM on spindle + FEP & FPM on adjusting end)	145 psi at 68°F	68°F to +248°F	Consult us
FEP-FFPM - Type « FFPP » (FEP under seats + FFPM on spindle + FEP on adjusting end)	232 psi at 68°F	68°F to +248°F	Consult us

PRESSURE LOSS

DN	Kv (Gal/min)
15	55.476
20	106.550
25	196.369
32	290.590
40	481.235
50	836.107

Our valves are guaranteed for an average fluid velocity in the pipeline of ≤ 4.47388 mph. Please contact us with the working conditions for any higher speed.



CHEMICAL RESISTANCE

The chemical resistance of the valve is subject to the type of fluid, the temperature, the pressure, as well as the materials and seals of the valve.

OPTION: MOUNTING KIT (ISO 5211)

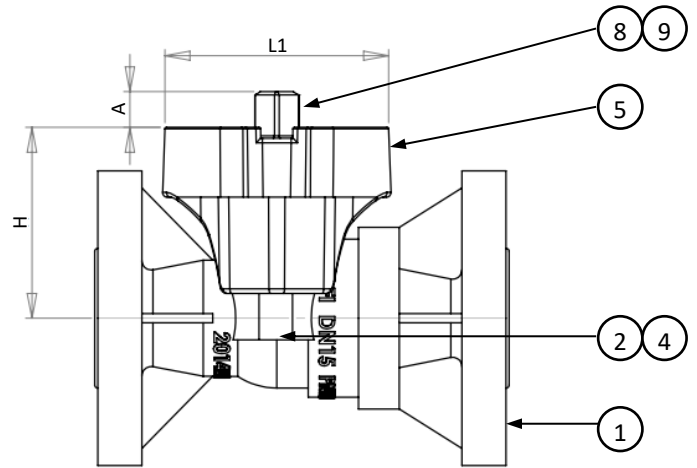
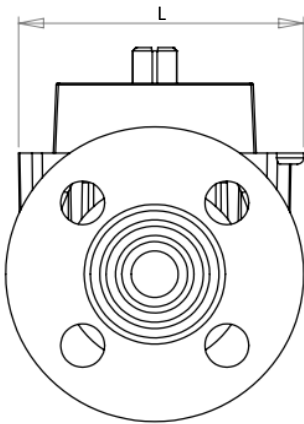
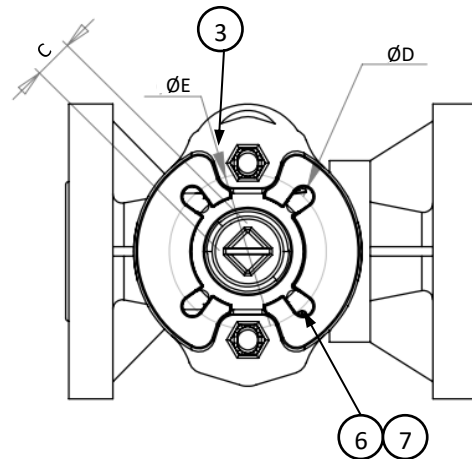


Diagram representing assembly on a DN50

N°	QTY	DESCRIPTION	MATERIAL
1	1	2-Way Ball Valve DN15 to DN50	PPGF, PVDF, PP-EL, PVC-U
2	2	Screw TCHC 6x50	SS 316
3	2	Nut HU6 nylock	SS 316
4	2	Washer MU6x0.551	SS 316
5	1	Bracket F04/F05/F07 Fixings	PPGF
6	4	Screw TCHC M5x0.984 for a F04 Fixing	SS 316
		Screw TCHC M6x0.984 for a F05 Fixing	
		Screw TCHC M8x0.984 for a F07 Fixing	
7	4	Washer MU5x0.472 for a F04 Fixing	SS 316
		Washer MU6x0.551 for a F05 Fixing	
		Washer MU8x0.63 for a F07 Fixing	
8	1	Drive MS14 ou MS17	SS 316
9	1	Adapter FS14/MS17	SS 316
		Adapter FS14/Male Star of 0.866	



DN	A	H	L	L1	ISO 5211 FIXINGS								
					F04			F05			F07		
					C*	ØD**	ØE**	C*	ØD**	ØE**	C*	ØD**	ØE**
15	0.591	2.441	3.583	2.795	0.433 or 0.551	Ø0.197	Ø1.654	0.433 or 0.551	Ø0.236	Ø1.969	-	-	-
20	0.591	2.441	3.583	2.795	0.433 or 0.551	Ø0.197	Ø1.654	0.433 or 0.551	Ø0.236	Ø1.969	-	-	-
25	0.669	2.717	4.488	3.583	0.433, 0.551, 0.669 or 0.866	Ø0.197	Ø1.654	0.433, 0.551, 0.669 or 0.866	Ø0.236	Ø1.969	0.433, 0.551, 0.669 or 0.866	Ø0315	Ø2.756
32	0.669	2.874	4.488	3.583	0.433, 0.551, 0.669 or 0.866	Ø0.197	Ø1.654	0.433, 0.551, 0.669 or 0.866	Ø0.236	Ø1.969	0.433, 0.551, 0.669 or 0.866	Ø0315	Ø2.756
40	0.669	3.150	5.197	3.583	0.433, 0.551, 0.669 or 0.866	Ø0.197	Ø1.654	0.433, 0.551, 0.669 or 0.866	Ø0.236	Ø1.969	0.433, 0.551, 0.669 or 0.866	Ø0315	Ø2.756
50	0.669	3.307	5.197	3.583	0.433, 0.551, 0.669 or 0.866	Ø0.197	Ø1.654	0.433, 0.551, 0.669 or 0.866	Ø0.236	Ø1.969	0.433, 0.551, 0.669 or 0.866	Ø0315	Ø2.756

Other Dimensions: On Request *According to ** Multistandard bracket PVC-U versions : only DN40 and DN50

Available Kits

DN	ISO 5211 FIXINGS		WEIGHT OF KIT (Lbs)
	(CONNECTION/SQ* 45°)		
DN15-20	F04/F05	0.433	0.502
	F04/F05	0.551	0.517
	F04/F05	0.669	0.537
DN25-32	F04/F05/F07	0.433	0.631
	F04/F05/F07	0.551	0.770
	F04/F05/F07	0.669	0.790
	F04/F05/F07	0.866**	0.878
DN40-50	F04/F05/F07	0.433	0.634
	F04/F05/F07	0.551	0.772
	F04/F05/F07	0.669	0.792
	F04/F05/F07	0.866**	0.880

*SQ = Square Drive 45°

**DSQ = Double Square Drive

PVC-U versions : only DN40 and DN50

Valve torque for actuation

DN	VALVE TORQUE FOR ACTUATION	
	PPGF/PP-EL	PVDF
DN15	10 N.m	8 N.m
DN20		
DN25	10 N.m	10 N.m
DN32		
DN40		
DN50	14 N.m	16 N.m

The « valve torque for actuation » is the required torque to open the valve when $dP=PN$ and including a safety coefficient.

OPTION: FLOW REGULATION PLATE

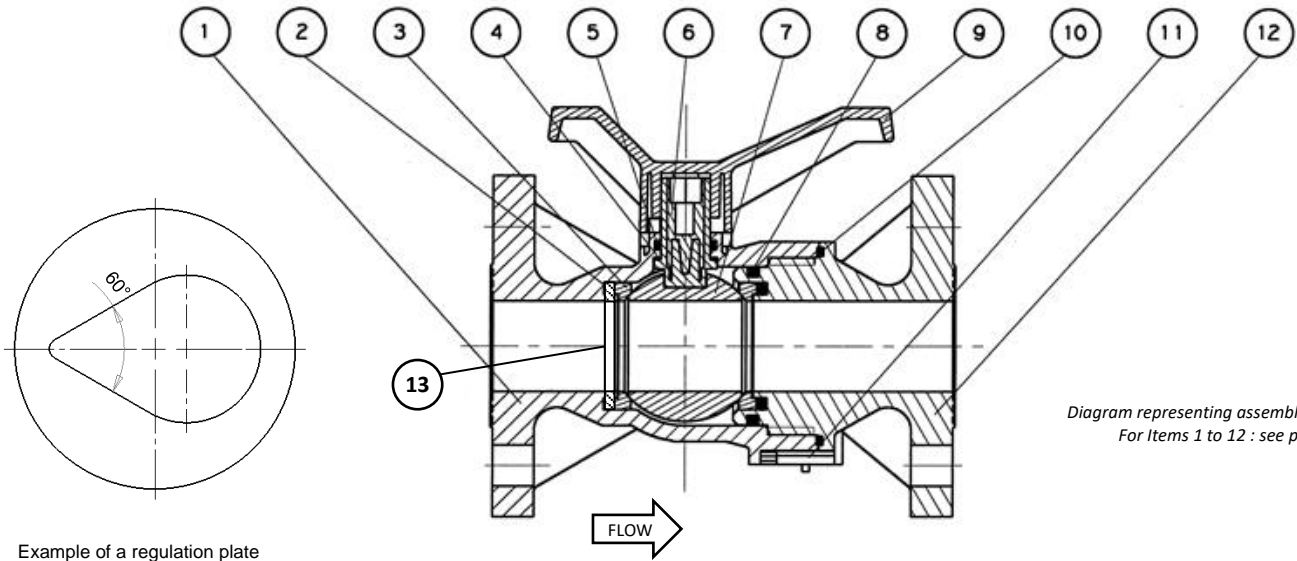


Diagram representing assembly on a DN50
For Items 1 to 12 : see page 2

Example of a regulation plate

N°	DESCRIPTION	MATERIAL	QUANTITY
13	REGULATION PLATE	PVDF	1

DN	Kv (Gal/min)
15	18.492
20	35.223
25	65.163
32	96.423
40	159.384
50	276.941

Kv defined according to EN 1267

