

# 9565XL

Commissioning Kit Fig.4325 + Fig.9450



Via Circonvallazione, 10  
13018 Valduggia (VC), Italy  
Tel: +39 0163 47891  
Fax: +39 0163 47895  
www.vironline.com



Ductile iron Lug butterfly valve Fig.4325

For EN1092 PN16 flanges

Lengths according to EN558-1 series 20 (ex DIN3202 K1)

Design according to EN593

Testing according to EN12266-1

Epoxy coating (min. 150µm)

Stainless steel Wafer metering station Fig.9450

For EN1092 PN16 flanges

Tolerance on nominal  $K_{vs} \pm 5\%$

TR CU 010 compliant

PN16

Working conditions

- Suitable for: water, -10°C to +110°C  
below 0°C only for water with added antifreeze fluids  
over 100°C only for water with added anti-boiling fluids
- Not suitable for: gases group 1 & 2, liquids group 1 (Dir. 2014/68/EU)

## PARTLIST

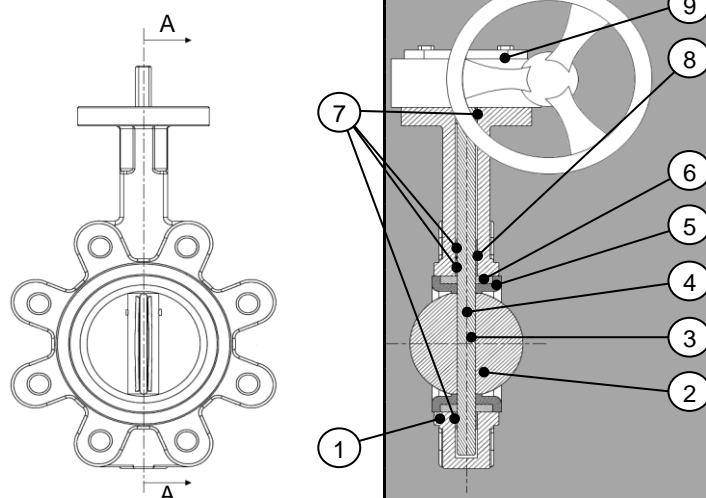
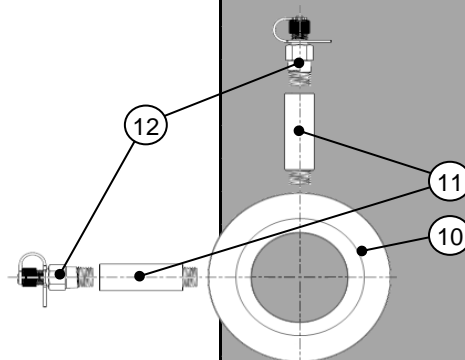
N.	Part	Material	Norm
1	Body	Ductile iron	GGG40
2	Disc	Stainless steel	SS316
3	Stem	Stainless steel	SS316
4	Taper pin	Stainless steel	-
5	Seat	EPDM	-
6	Seat support	Plastic	-
7	Bushing	PTFE	-
8	O-ring	EPDM	-
9	Manual gear	Cast iron	-
10	Body	Stainless steel	AISI 304 <sup>1</sup>
11	Extension	Stainless steel	AISI 304 <sup>1</sup>
12	Test point	DZR Brass <sup>2</sup>	EN12164 CW602N

<sup>1</sup>AISI 316 for DN350 and DN400

<sup>2</sup>Test points with EPDM gaskets and polypropylene ties



EAC

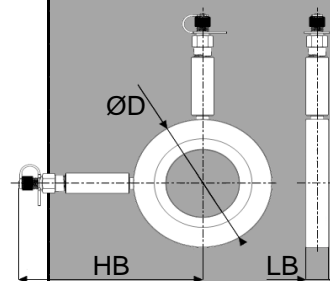
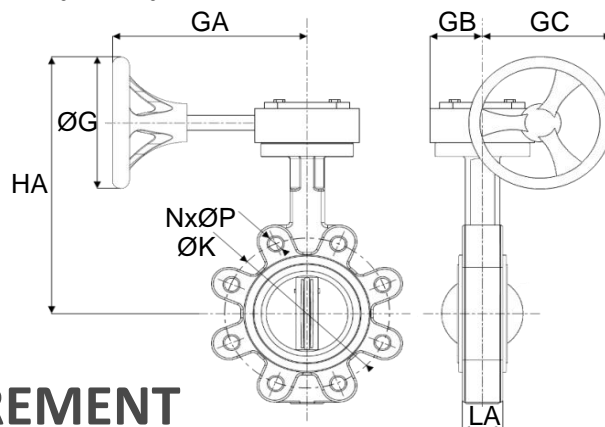


190304

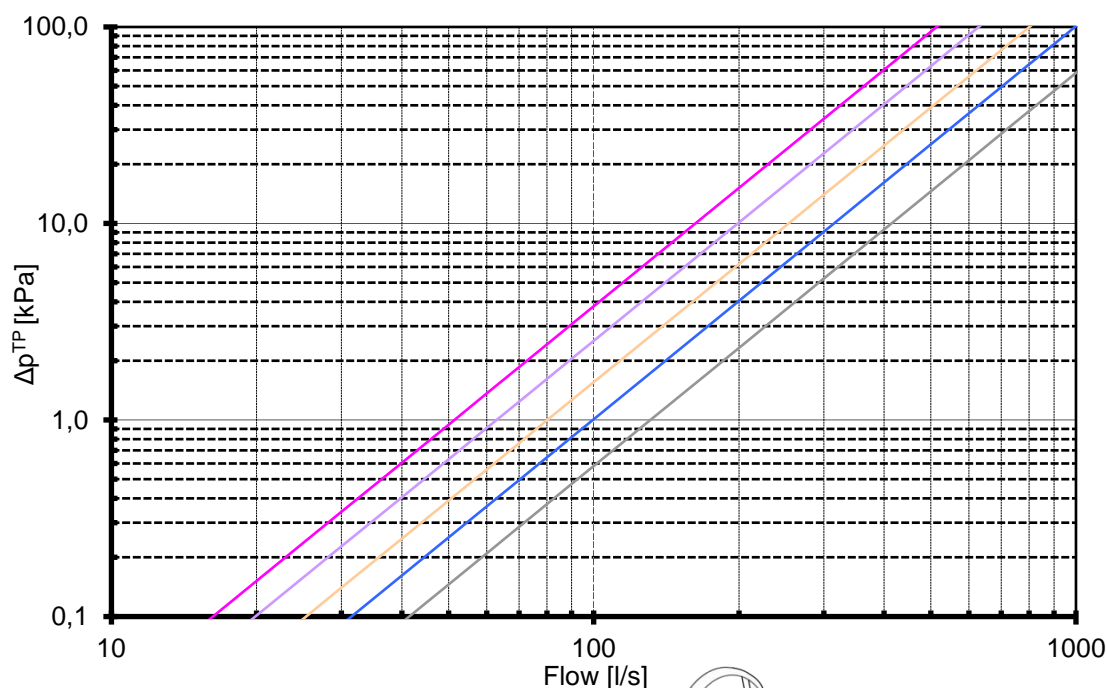
## DIMENSIONS

DN	HA [mm]	LA [mm]	NxØP [mm]	ØK [mm]	GA [mm]	GB [mm]	GC [mm]	ØG [mm]	HB [mm]	LB [mm]	ØD [mm]	Weight <sup>1</sup> [kg]	Flow [l/s]
350	552	78	16xM24	470	231	80	237	289	313	21	445	81,3 / 11,0	96-261
400	680	102	16xM27	525	243	111	319	290	338	21	496	138,2 / 14,0	117-320
450	702	114	20xM27	585	243	111	319	290	368	21	556	158,7 / 17,0	150-408
500	759	127	20xM30	650	243	111	319	290	399	21	618	226,6 / 21,0	186-506
600	902	154	20xM33	770	296	133	385	375	458	25	735	315,5 / 35,0	245-667

<sup>1</sup>VIR Fig.4325G butterfly valve weight / VIR Fig.9450 metering station weight



## FLOW MEASUREMENT



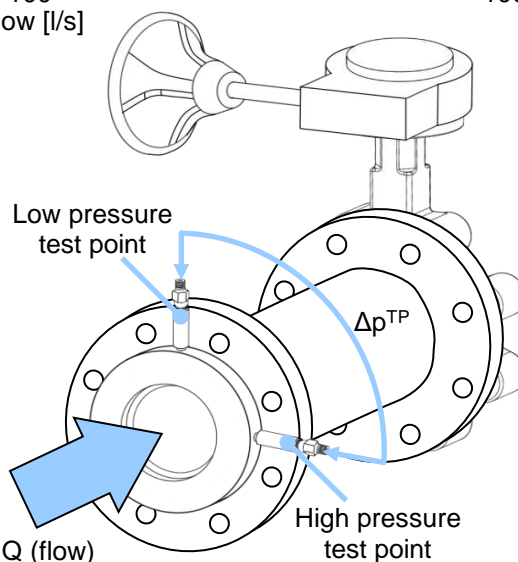
- DN350,  $K_{vs}$  1849
- DN400,  $K_{vs}$  2264
- DN450,  $K_{vs}$  2886
- DN500,  $K_{vs}$  3582
- DN600,  $K_{vs}$  4716

$$Q = \frac{K_{vs} \cdot \sqrt{\Delta p^{TP}}}{36}$$

Formula linking flow Q (in l/s) and  $\Delta p$  measured at test points (in kPa) of the VIR Fig. 9450 metering station.

Minimum flow that can be measured for each diameter may be calculated by using in the formula minimum  $\Delta p$  that can be measured by used manometer.

Valves are anyway designed for best performances when used on range previously suggested.



Via Circonvallazione, 10  
13018 Valduggia (VC), Italy  
Tel: +39 0163 47891  
Fax: +39 0163 47895  
www.vironline.com

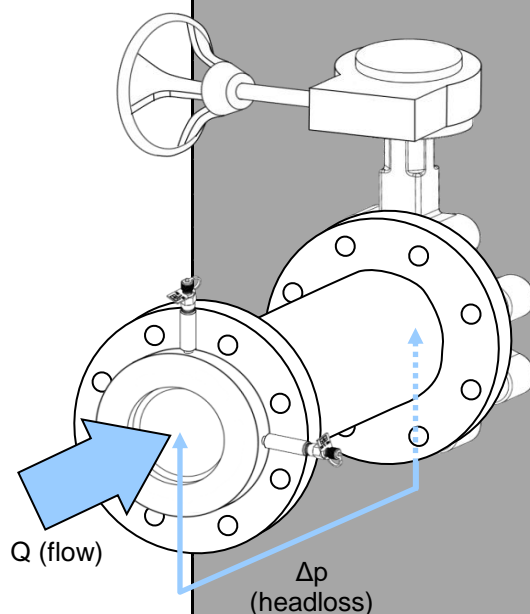
## HEADLOSS CALCULATION

Butterfly regulation	K <sub>v</sub> [m³/h @ 1bar]				
	350	400	450	500	600
30° <sup>1</sup>	587	796	1049	1342	2022
40°	1085	1429	1864	2360	3380
50°	1462	1864	2405	3016	4140
60°	1675	2090	2679	3340	4479
70°	1773	2189	2798	3479	4617
80°	1814	2230	2846	3535	4671
90°	1820	2236	2852	3543	4679

<sup>1</sup>VIR suggests to avoid using butterfly valves in opening positions below 30°

$$\Delta p = \left( \frac{36 \cdot Q}{K_v} \right)^2$$

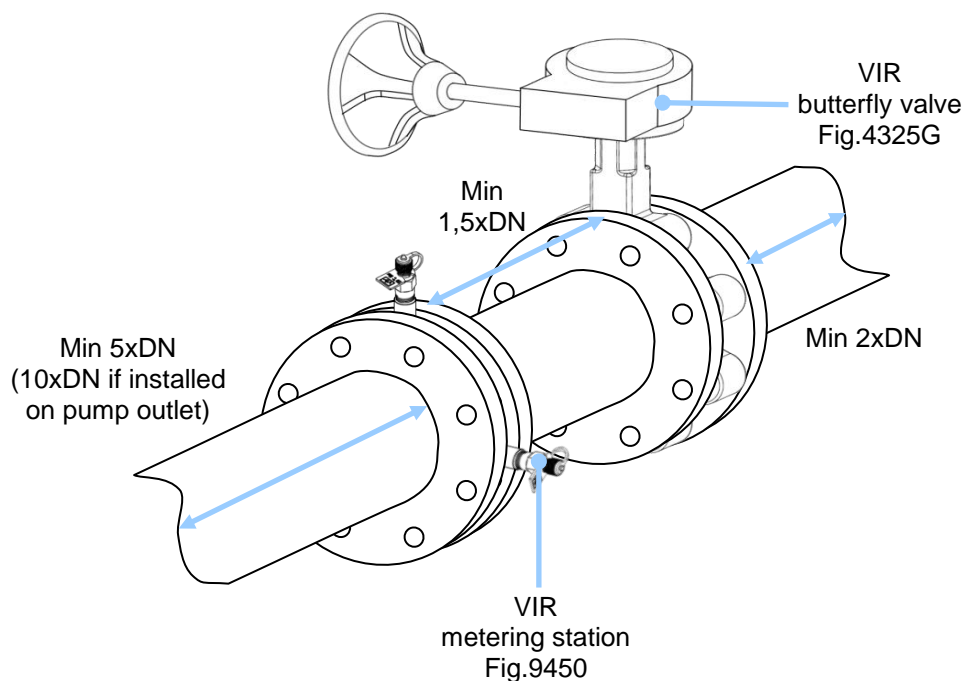
Formula linking flow Q (in l/s) and theoretical valve headloss Δp (in kPa).  
K<sub>v</sub> depends on butterfly regulation as indicated on table.



## INSTALLATION

To obtain the best performances valve must be installed on a pipe with its same nominal size preceded and followed by straight pipe lengths as per figure indications.

VIR Fig.9450 metering station and VIR Fig.4325G butterfly valve should be separated by a piece of pipe long at least 1,5xDN (not included).



Via Circonvallazione, 10  
13018 Valduggia (VC), Italy  
Tel: +39 0163 47891  
Fax: +39 0163 47895  
www.vironline.com