Series W-STBV-25T

Static Balancing Valve

Size: DN15-DN50

The Series W-STBV static balancing valves are designed for flow balancing in cooling, heating or process water systems. Its measuring points enable convenient system troubleshooting.

Features

- Accurate flow control
- Numerical indicator of opening degree on the hand wheel
- Lockable set position
- Shut-off function for troubleshooting or maintenance
- Self-sealing measuring points to protect against leakage
- Variable orifice
- Nonrising-stem

Pressure-Temperature

- Nominal Pressure: PN25
- Temperature Range: -10°C~120°C

Test Pressures

Pneumatic	Hydraulic
Shell: 6 bar(600kPa)	Shell: 37.5 bar(3750kPa)

Material

No.	Component	Material
1	Body	Bronze
2	Core	DZR Brass
3	Valve Base Sealing	PTFE
4	Bonnet	Bronze
5	Stem	DZR Brass
6	Core Rod	DZR Brass
7	Hand wheel	ABS Plastic
8	Shaft Sealing	EPDM O-ring
9	Measuring Orifices	DZR Brass

Installation Dimensions

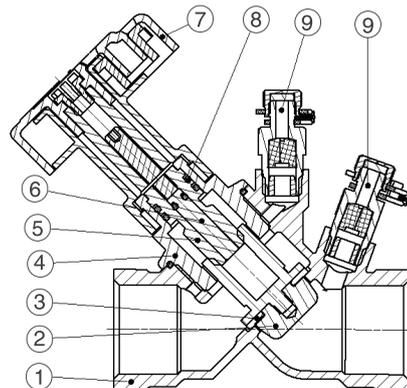| Size	L(mm)	L'(mm)	H(mm)	W(mm)	Weight(Kg)	Kvs
DN15	85	133	103.5	70.3	0.64	4.18
DN20	85	133	103.5	70.3	0.67	7.45
DN25	100	141	107.5	70.3	0.89	11.11
DN32	115	154	116.0	70.3	1.22	19.02
DN40	120	157	120.0	70.3	1.45	25.95
DN50	140	174	131.0	70.3	2.05	38.08
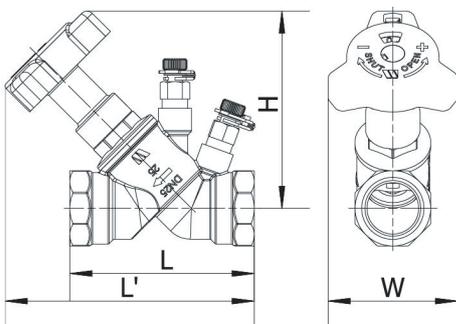
Specification

- Connection Standard: AS3688
- Working Medium: Non corrosive liquids

Approval

- WaterMark No. : WMK26060

WMK26060

Kv Values

Turns	DN15	DN20	DN25	DN32	DN40	DN50
0.5	0.90	0.87	1.66	2.10	2.73	3.32
1.0	1.17	1.22	2.35	3.37	4.15	5.02
1.5	1.78	1.78	3.21	5.38	6.49	8.34
2.0	2.31	2.46	3.95	7.27	8.89	11.56
2.5	2.71	3.21	5.01	9.40	11.50	15.49
3.0	3.27	4.36	6.65	12.38	15.70	21.37
3.5	3.80	5.91	8.53	15.40	19.84	27.77
4.0	4.02	6.99	9.98	17.40	23.22	33.37
4.5	4.18	7.45	11.11	19.02	25.95	38.08

Characteristic Curves

DN15

DN20

DN25

DN32

DN40

DN50
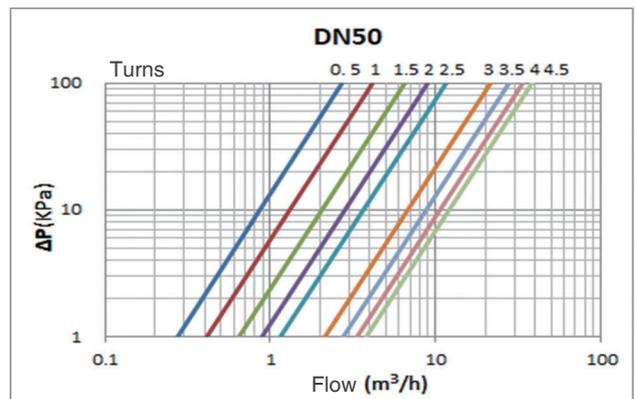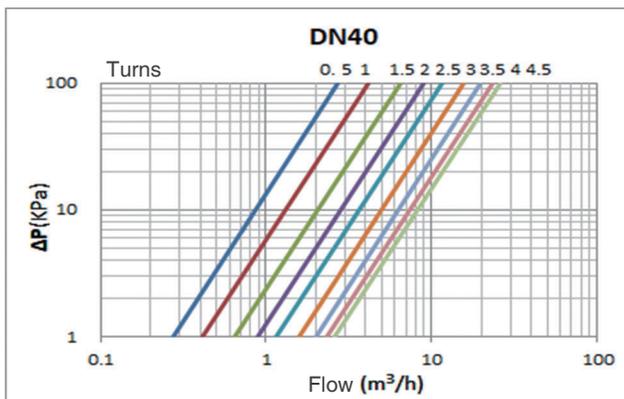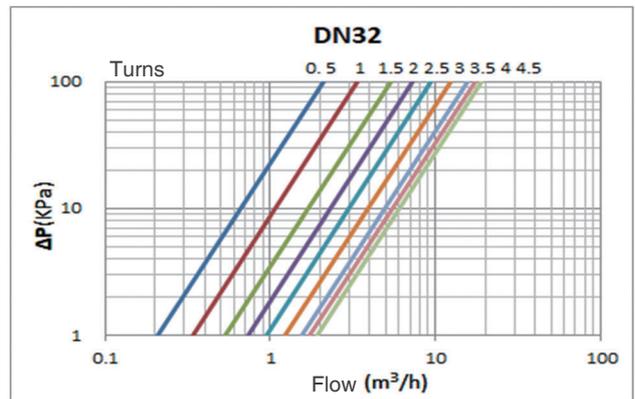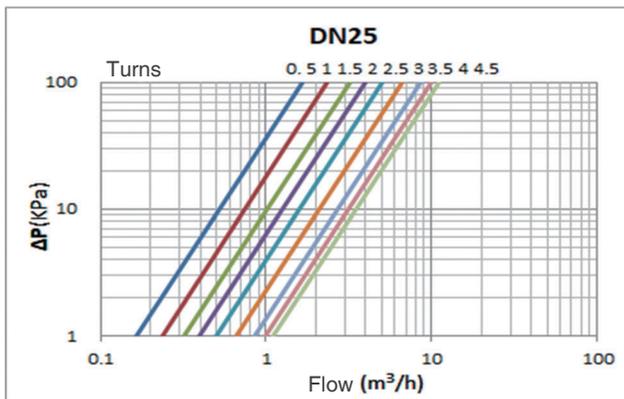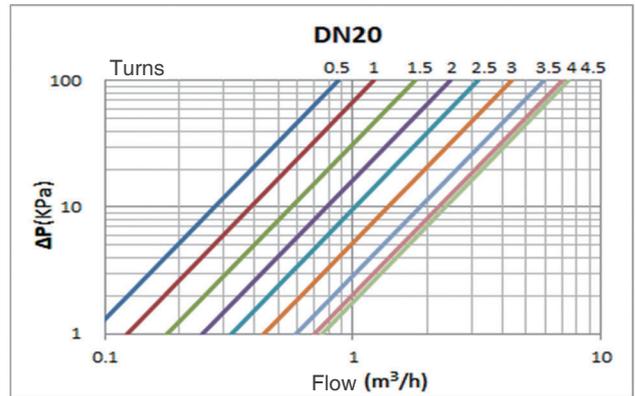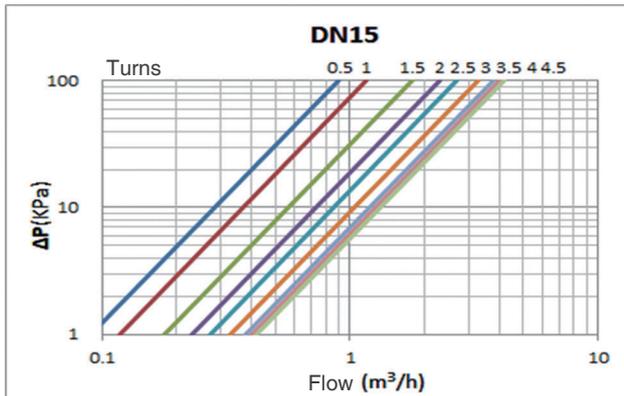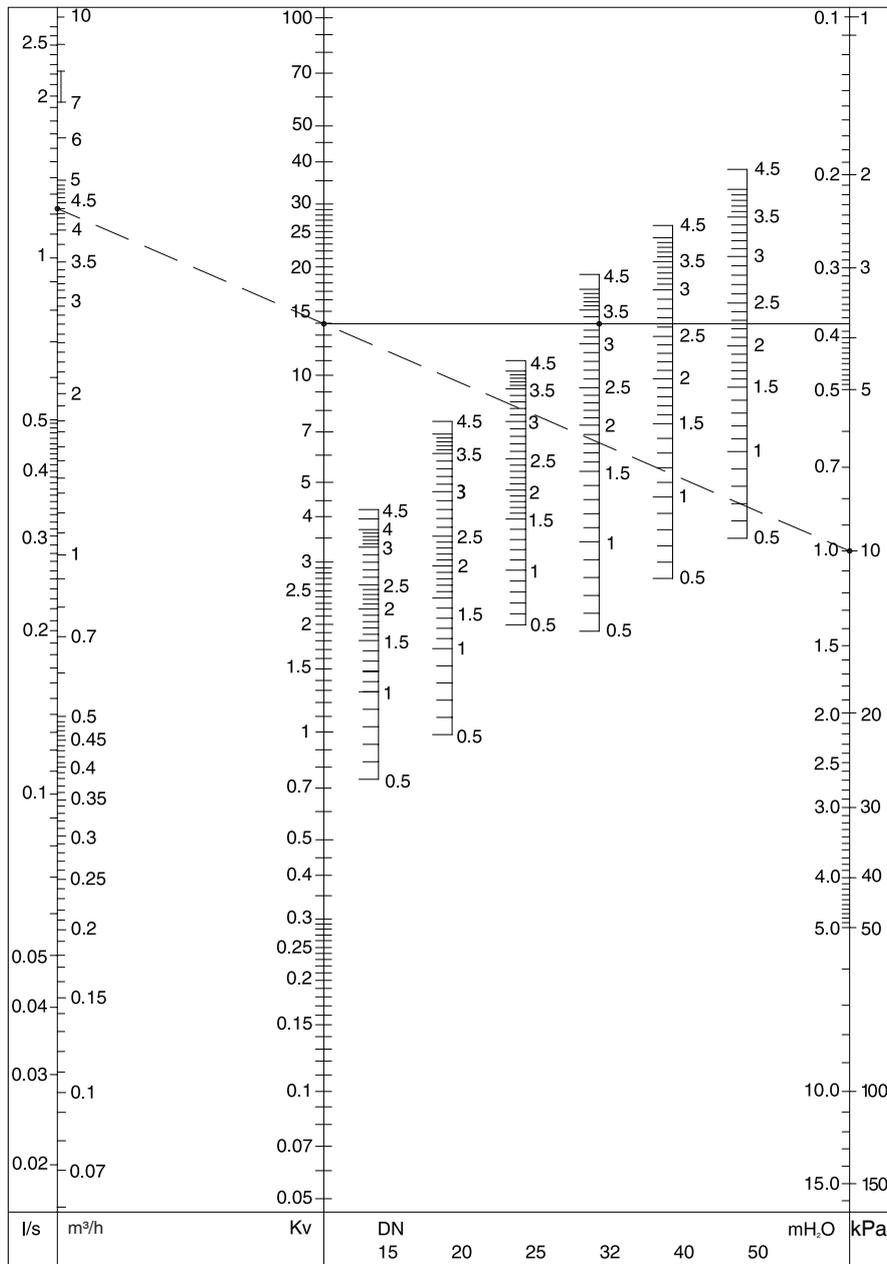
Selection Drawing

Example of Type Selection:
Q: It is needed to install a Static Balancing valve on the bypass on an air-conditioning system.
   Given that the design flow is Q = 4.4 m³/hr, and the design pressure loss is ΔP = 10 kPa, select a Static Balancing Valve of proper size.
A: Draw a straight line between Q = 4.4 m³/hr (1.23 L/s) and ΔP = 10 kPa, creating an intersection of this line and the Kv scale in the middle: Kv = 14. Based on the intersection, draw a horizontal line crossing 3 opening scales of the different sized valves. These three new intersections are 3.3 turns for DN32, 2.6 turns for DN40 and 2.3 turns for DN50 respectively. Since it is recommended to set the valve at around 75% opening rate, choose the Static Balancing Valve of DN40.