Series W-STBV-16Q

Static Balancing Valve

Size: DN65-DN500

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
- Using balanced valve core, easy to adjust
- Self-sealing measuring points to protect against leakage
- No-Rising stem, Variable Orifice

Pressure-Temperature

- Nominal Pressure: PN16
- Temperature Range: -10°C~120°C

Test Pressures

| Hydraulic | |
|---------------|--|
| Shell: 24 bar | |
| Seat: 18bar | |

Material

| No. | Component | Material | Standard |
|-----|--------------------|---|---------------|
| 1 | Body | Ductile Iron | |
| 2 | Core | Bronze(DN65-DN150) Ductile Iron(DN200-DN300) Stainless Steel(DN350-DN500) | C84400 304 |
| 3 | Seat Sealing | EPDM | |
| 4 | Stem | Brass(DN65-DN150) Stainless Steel(DN200-DN500) | |
| 5 | Bonnet | Ductile Iron | |
| 6 | Core Rod | Stainless Steel | |
| 7 | Handwheel | Nylon(DN65-DN200) Cast Aluminum(DN250-DN500) | |
| 8 | Stem Sealing | EPDM(DN65-DN300) PTFE(DN350-DN500) | |
| 9 | Measuring Orifices | Brass | |

Installation Dimensions

| Size | L(mm) | H(mm) | W(mm) | Weight(Kg) | Kvs |
|-------|-------|-------|-------|------------|---------|
| DN65 | 290 | 195 | 185 | 15.6 | 94.47 |
| DN80 | 310 | 215 | 200 | 20.0 | 137.31 |
| DN100 | 350 | 230 | 220 | 26.3 | 211.20 |
| DN125 | 400 | 330 | 250 | 38.1 | 330.22 |
| DN150 | 480 | 350 | 285 | 52.6 | 408.32 |
| DN200 | 600 | 420 | 340 | 91.7 | 759.21 |
| DN250 | 730 | 460 | 405 | 152.3 | 1162.44 |
| DN300 | 850 | 600 | 460 | 230.0 | 1703.45 |
| DN350 | 980 | 595 | 520 | 300.0 | 2115.00 |
| DN400 | 1100 | 635 | 580 | 413.0 | 3050.00 |
| DN450 | 1200 | 688 | 640 | 567.0 | 3720.00 |
| DN500 | 1250 | 745 | 715 | 682.0 | 4180.00 |

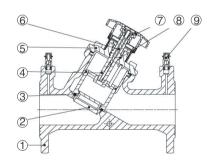


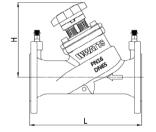
Specification

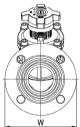
- Connection Standard: BS EN 1092-2
- Medium: cold and hot water/glycol
- Patent No: ZL 2013 2 0890615.7

Approval

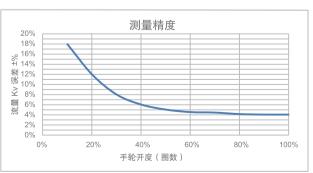








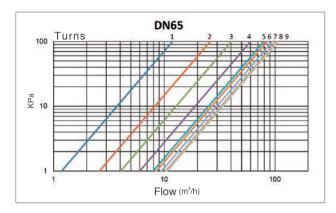
Kv Values

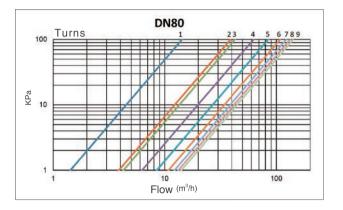


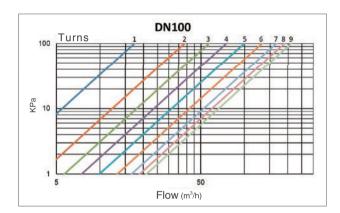
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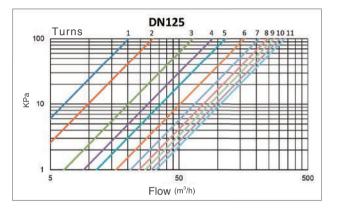


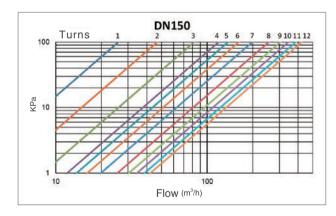
Characteristic Curves

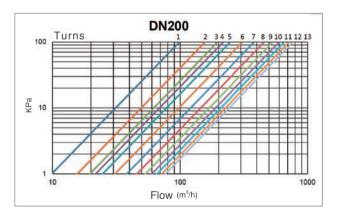






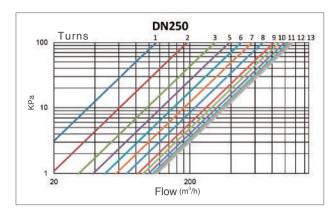


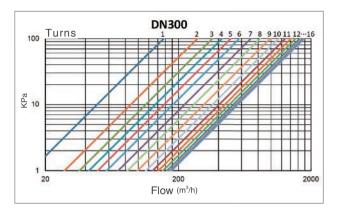


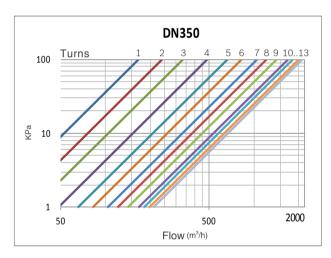


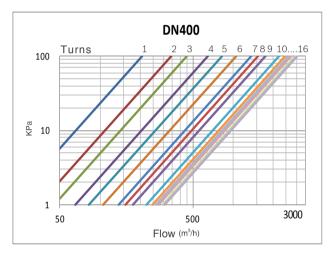


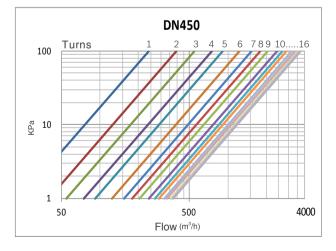
Characteristic Curves

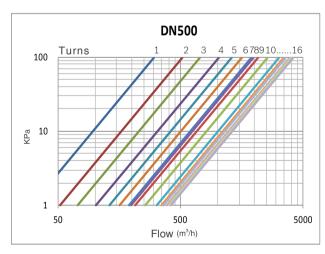












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Balancing

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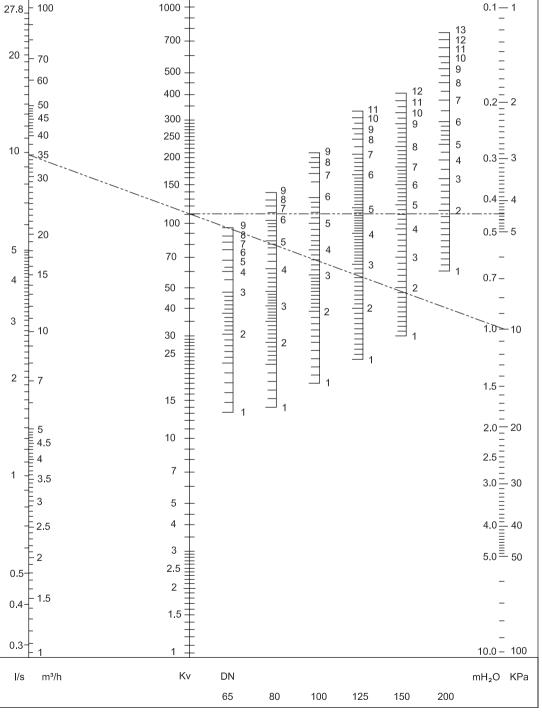


Selection Drawing

For example:

Q: An air conditioning system is equipped with a static balancing valve, with a design flow of 35 m³/h and a pressure drop of 10 kPa. Now we need to select a suitable static balancing valve.

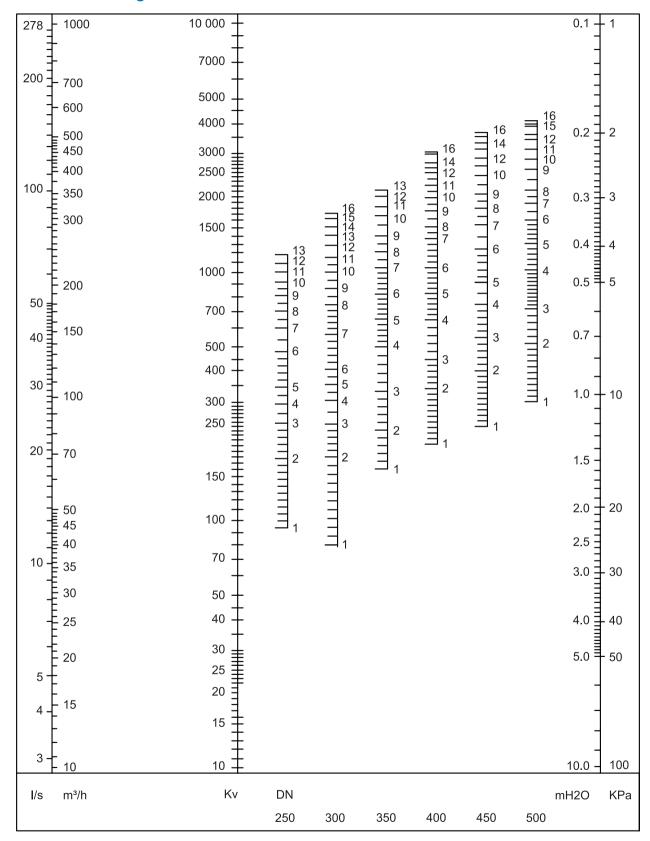
A: As shown in the below model selection line diagram, read out the position point with Q=35m³/h from the left flow scale line, read the position point of 10 kPa from the right pressure drop scale line, connect the two points and the intersection point of Kv value scale line, and make the intersection point of horizontal line and the opening scale line of balance valve of different caliber. The intersection of DN80 intersection point is 6.9 circle, that of DN 100 intersection point is 5.4 circle, that of DN 125 intersection point is 4.8 circle, that of DN150 intersection point is 4.6 circle, and that of DN200 intersection point is 2.25 circle Based on the principle that the setting value is 75%, the DN80 balancing valve is recommended.



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Selection Drawing



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Balancing