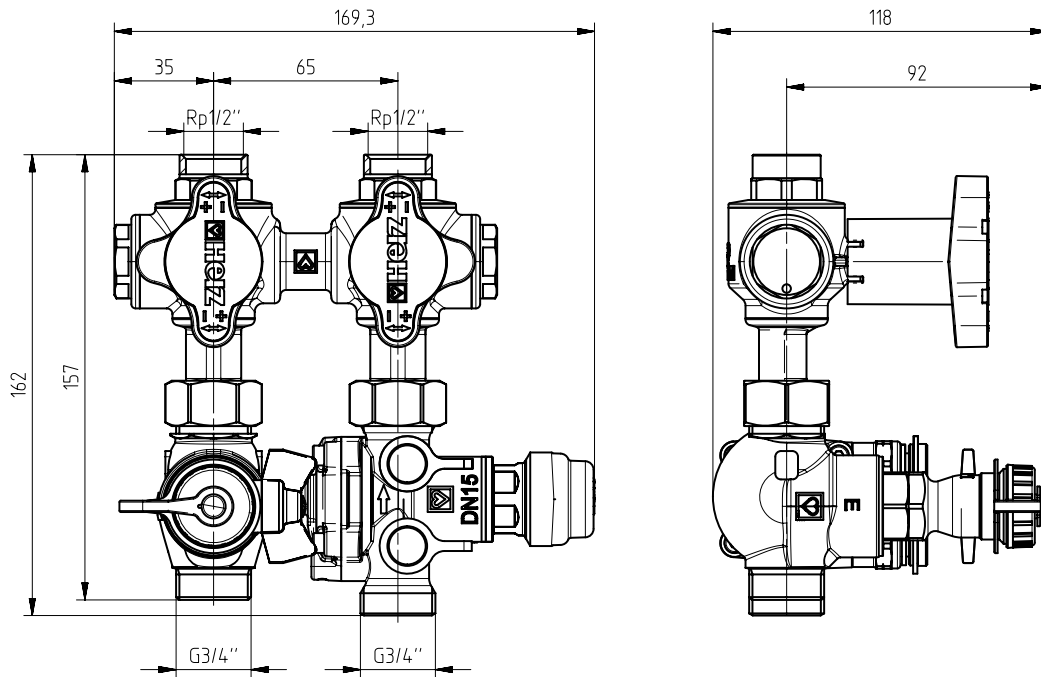


# HerzCON. Fan-coils and terminal units connection.

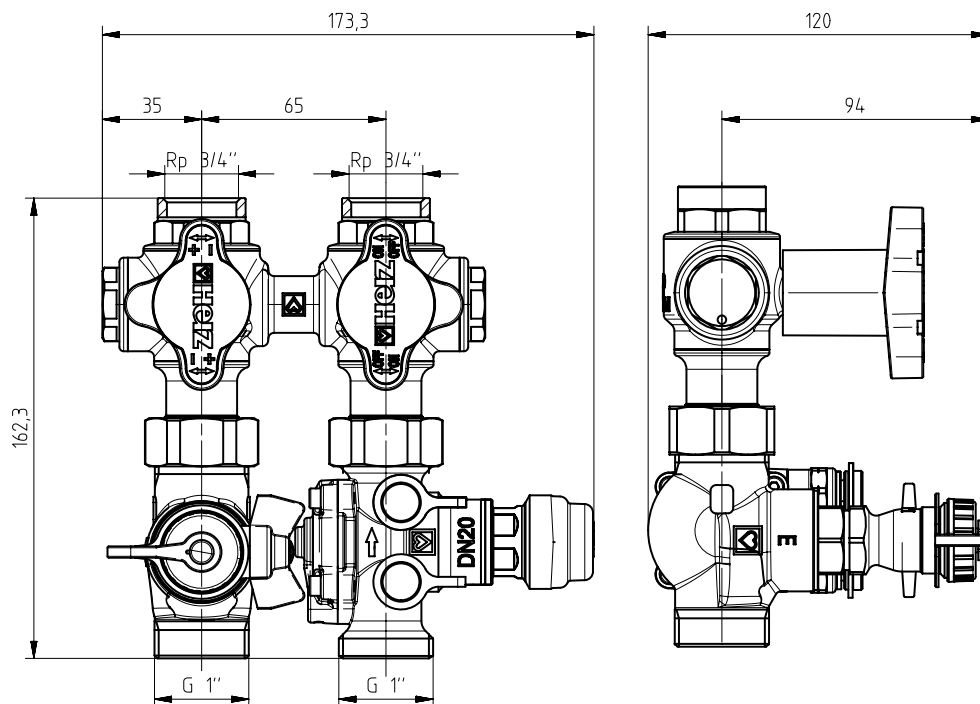
Data sheet HerzCON, Issue 0420

Dimensions in mm

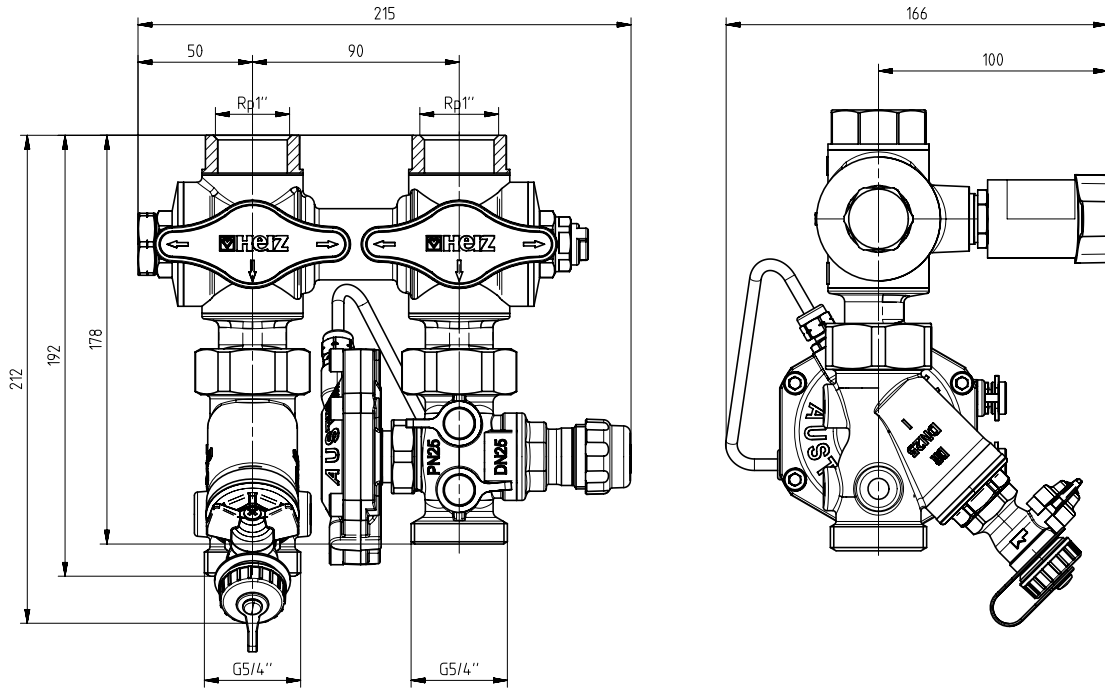
DN 15



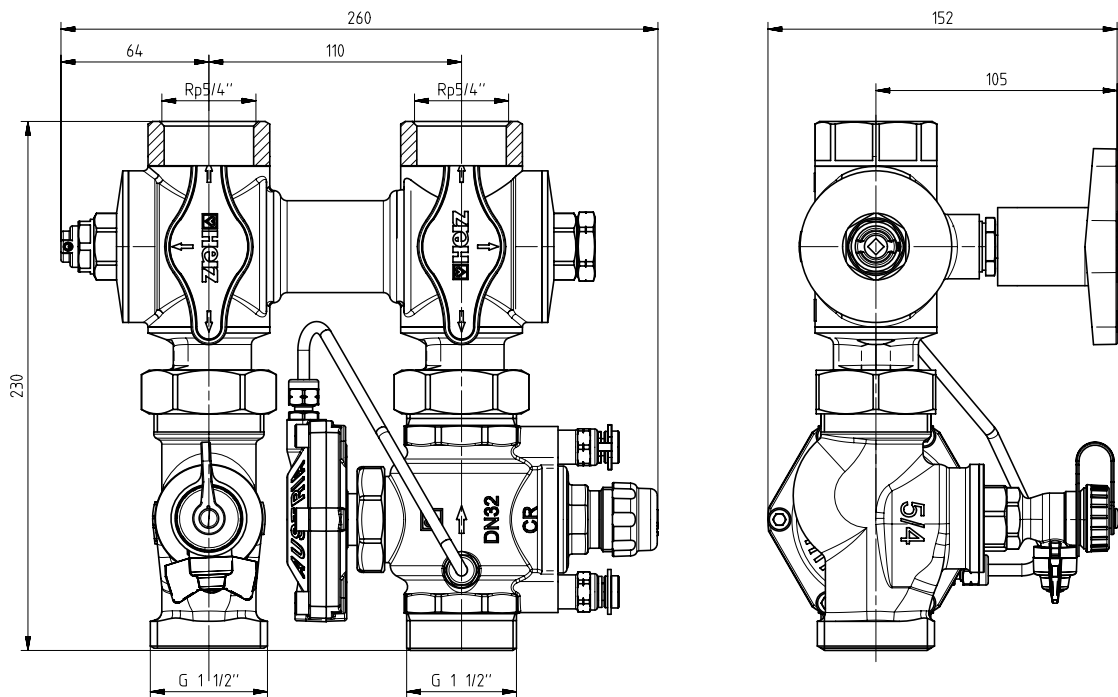
DN 20



DN 25

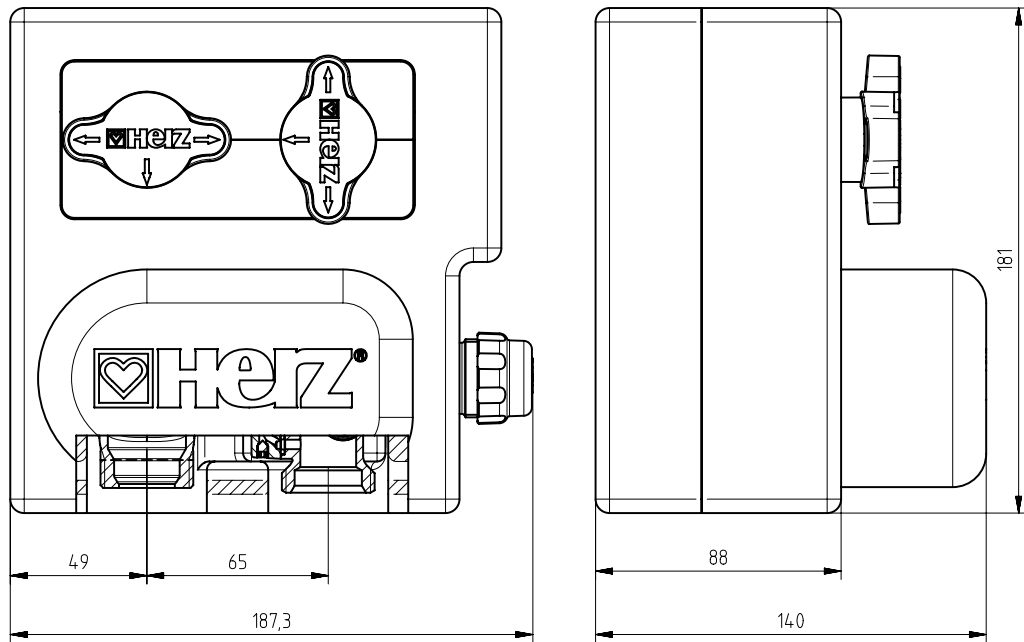


DN 32

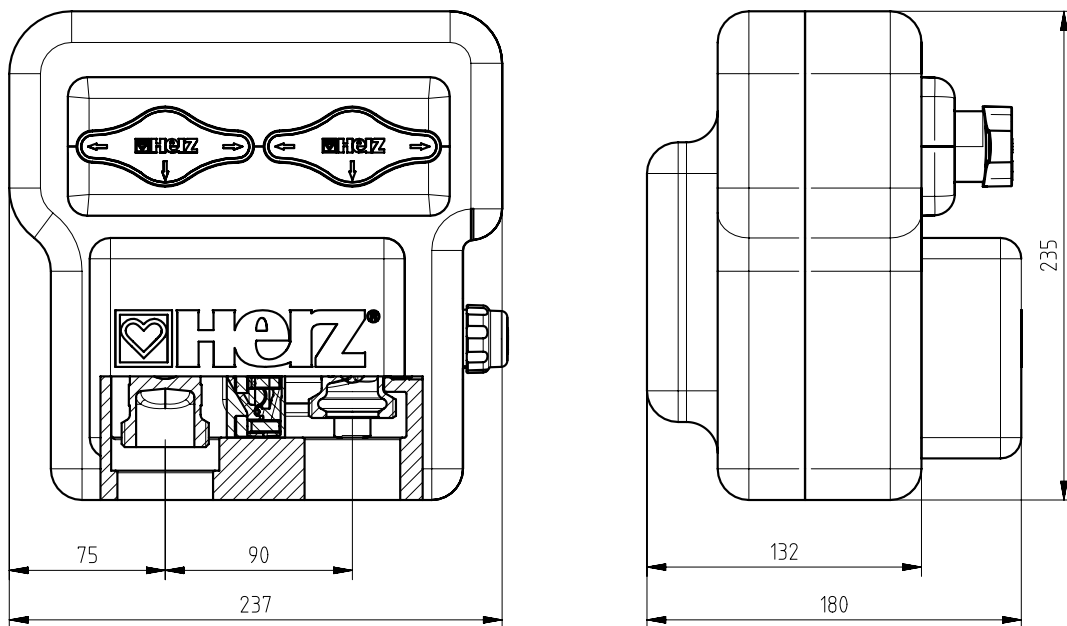


Dimensions in mm of the insulation box

DN15 - DN20



DN25



DN32 - supplied without insulation box.

**☑ Order numbers**

	With standard insulation box	With FR <sup>1</sup> insulation box	Only standard insulation box	Only FR <sup>1</sup> box	Without insulation
DN15	1 4600 51	1 4700 61	1 4700 96	1 4700 91	1 4600 91
DN15LF	1 4600 50	1 4700 60	1 4700 96	1 4700 91	1 4600 90
DN15MF	1 4600 59	1 4700 69	1 4700 96	1 4700 91	1 4600 99
DN20	1 4600 52	1 4700 62	1 4700 97	1 4700 92	1 4600 92
DN20 HF	1 4600 57	-	-	-	-
DN25	1 4600 58	1 4700 63	1 4700 98	1 4700 93	1 4600 53
DN32	-	-	-	-	1 4600 54

<sup>1</sup>-“FR” stands for higher degree of fire resistance, compared to standard insulation box.

**☑ Technical data**

Max. operating pressure	25 bar
Min. operating temperature	- 20 °C
Max. operating temperature	130 °C
Lift	4 mm

The integrated control unit together with the actuating drive is responsible for modular control. Various actuating drives might be used (see also chapter: Accessories and spare parts).

**☑ Materials**

Body: dezincification-resistant brass  
 Membranes and O-rings: EPDM

Water purity in accordance with the ÖNORM H 5195 and VDI 2035 standards  
 Ethylene and propylene glycol can be mixed to a ratio of 25 - 50 vol. [%].

Pursuant to Article 33 of the REACH Regulation (EC No. 1907/2006), we are obliged to point out that the material lead is listed on the SVHC list and that all brass components manufactured in our products exceed 0.1% (w / w) lead (CAS: 7439-92-1 / EINECS: 231-100-4). Since lead is a component part of an alloy, actual exposure is not possible and therefore no additional information on safe use is necessary.

**☑ kvs values**

	Normal Function [m³/h]	Bypass Function [m³/h]	Flow rate [l/h] @100% presetting	Flow rate [l/s] @100% presetting
DN 15	0,55	4,8	400	0,111
DN 15LF	0,20	4,8	120	0,033
DN 15MF	0,34	4,8	190	0,053
DN 20	1,26	5,4	830	0,228
DN 20 HF	3,2	5,4	1750	0,486
DN 25	2,75	10	1900	0,528
DN 32	4,57	14,2	2500	0,694

**☑ Application**

HerzCON has been designed to give a simple connection to fan-coils, or other terminal units, and utilises the HERZ 4006 SMART Pressure Independent Balancing Control Valve with HERZ multifunctional ball valve and a HERZ strainer with HERZ drain valve 2512. On/off or modulating 0 – 10 V DC actuators can be fitted and integrated to a BMS if required.

The unit allows pressure independent control ensuring full stroke regardless of pressure fluctuations, while guaranteeing a constant flow rate to the terminal unit maximising energy efficiency for the system. The HerzCON unit also permits flushing and isolating operations to be undertaken.

This means there is no product differentiation between heating and chilled, one unit does both applications. The drain cock fitted to the strainer allows flushing without the need to remove the strainer basket and also allows the strainer basket to be cleaned in-situ.

### ☑ Components

- 4006** HERZ-Pressure Independent Balancing Control Valve (PIBCV)  
HERZ- Multifunctionalball valve  
HERZ-Strainer
- 2512** HERZ-Blow down Drain Valve

### ☑ Accessories and spare parts

- 1 **4006** .. HERZ-Pressure Independent Balancing Control Valve (PIBCV)  
1 **0284** .. test point for HERZ-Valves  
1 **7708** .. HERZ actuating drive for two-point or выполне  
1 **7711** .. HERZ actuating drive for two-point or pulse control  
1 **7990** .. HERZ actuating drive for continuous control  
1 **0273 09** screw plug 1/4

### ☑ Tips

The HerzCON must be installed for the correct application using clean fittings. A HERZ strainer is fitted to prevent impurities.

EPDM gaskets can be affected by Mineral oils lubricants and thus lead to failure of the EPDM seals. Please refer to manufacturers documentation when using ethylene glycol products for frost and corrosion protection.

### ☑ Pre-setting

The valve setting is clearly shown in percent. The preset value can be easily adjusted. The preset PIBCV can be isolated at any time or adjusted to the required flow rate.

### ☑ Fire Behavior (insulation box)

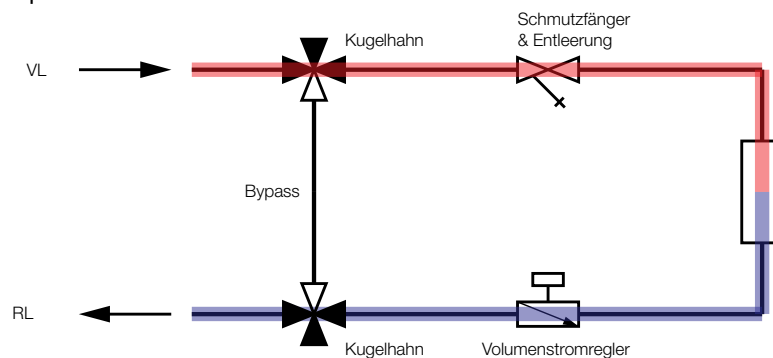
При Method	Type of insulation	Standard [Class]	FR <sup>1</sup> [Class]
DIN EN ISO 11925-2		E	B, C, D
DIN 4102-1		B2	B1
FMVSS 302		Fulfilled	Fulfilled
UL 94		HBF	HF1

<sup>1</sup> - "FR" stands for higher degree of fire resistance, compared to standard insulation box.

### ☑ Operations

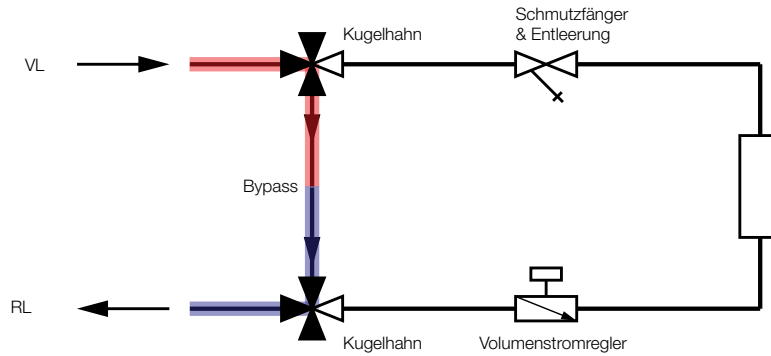
#### Normal Operation

For normal operation the Bypass is closed, Strainer Drain Valve is closed, Ball valves are in the position as showed in the scheme, PIBCV preset to flow rate.



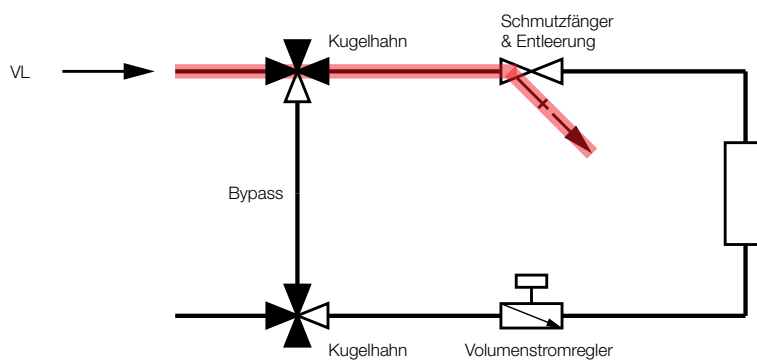
**Bypass Operation**

For the normal flushing method the Bypass is open, PIBCV is closed, Strainer Drain Valve closed, Ball valves are in the position as showed in the scheme.



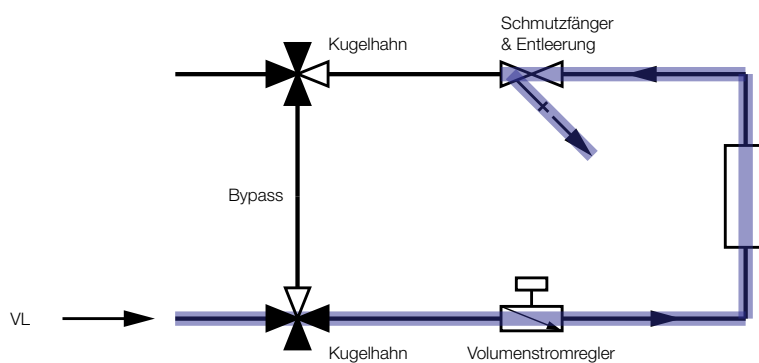
**Forward flush Operation**

For forward flushing operation the Bypass is closed, Ball valve in the supply is open, Strainer Drain Valve is open, Ball valves are in the position as showed in the scheme and flushing through the strainer to atmosphere.



**Backflush Operation**

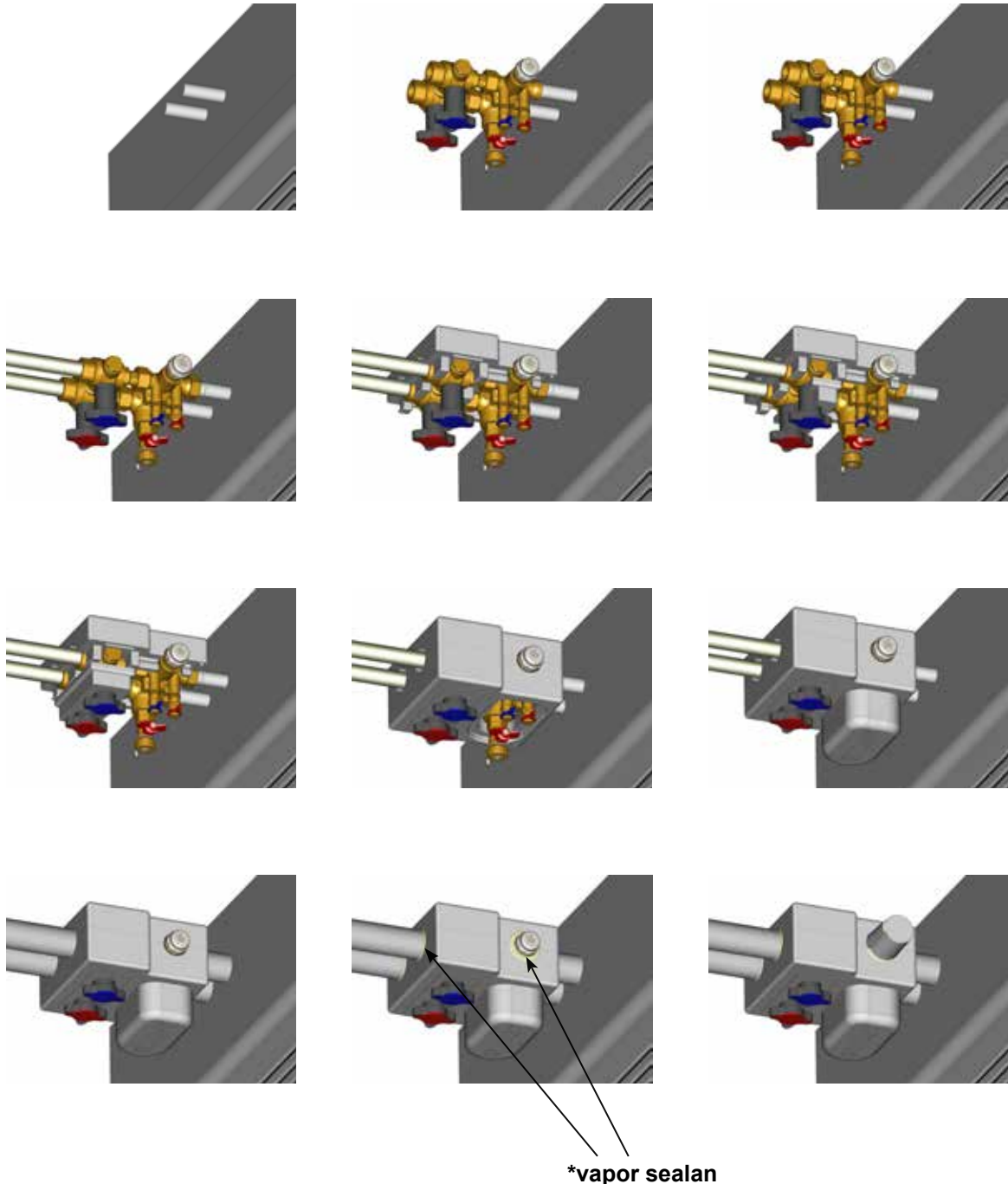
For Backflush operation the Bypass is closed, Strainer Drain Valve is open, Ball valves are in the position as showed in the scheme and PIBCV is open. Flushing through Ball valve, PIBCV, FCU and strainer to atmosphere.



**☑ Installation**

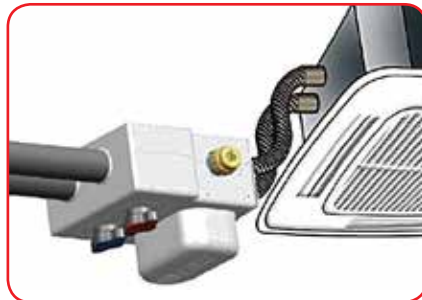
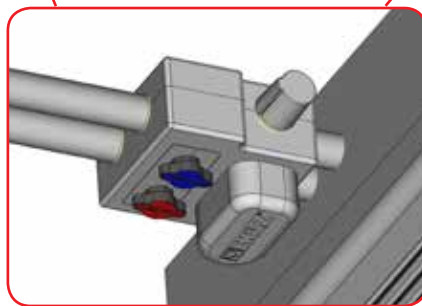
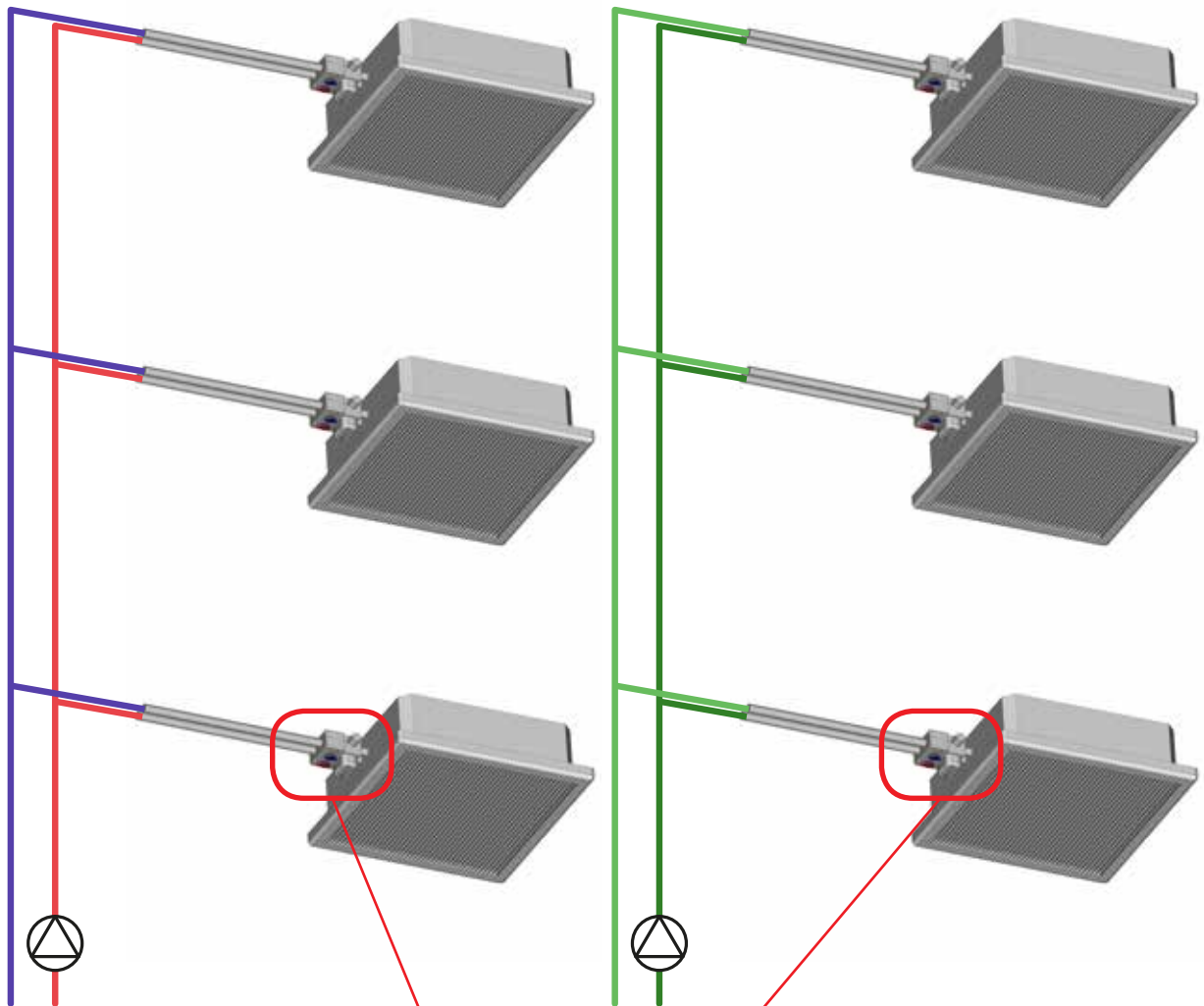
The unit is supplied in an insulated box, totally vapour sealed for chilled water circuits.

Install the Insulation box, as shown in the following figures.

**Note !**

The unit is supplied in an insulated box, vapor sealed for chilled water circuits. Although it is necessary to ensure an additional vapor sealant for pipes and actuator connections, as shown at the picture above. \*

Example for Installation

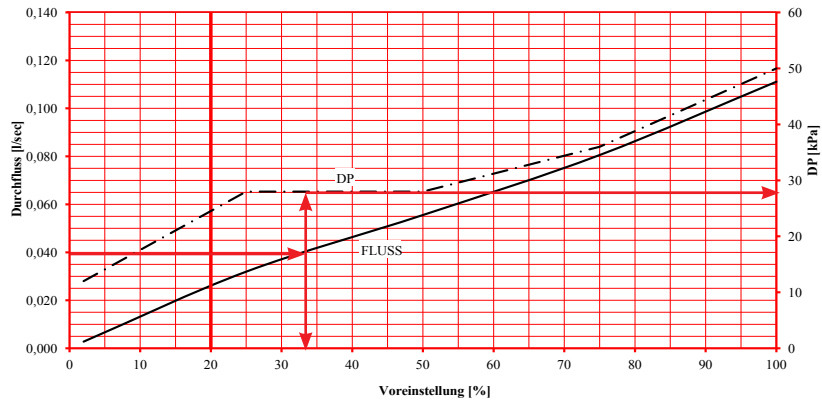


Application example for heating and cooling

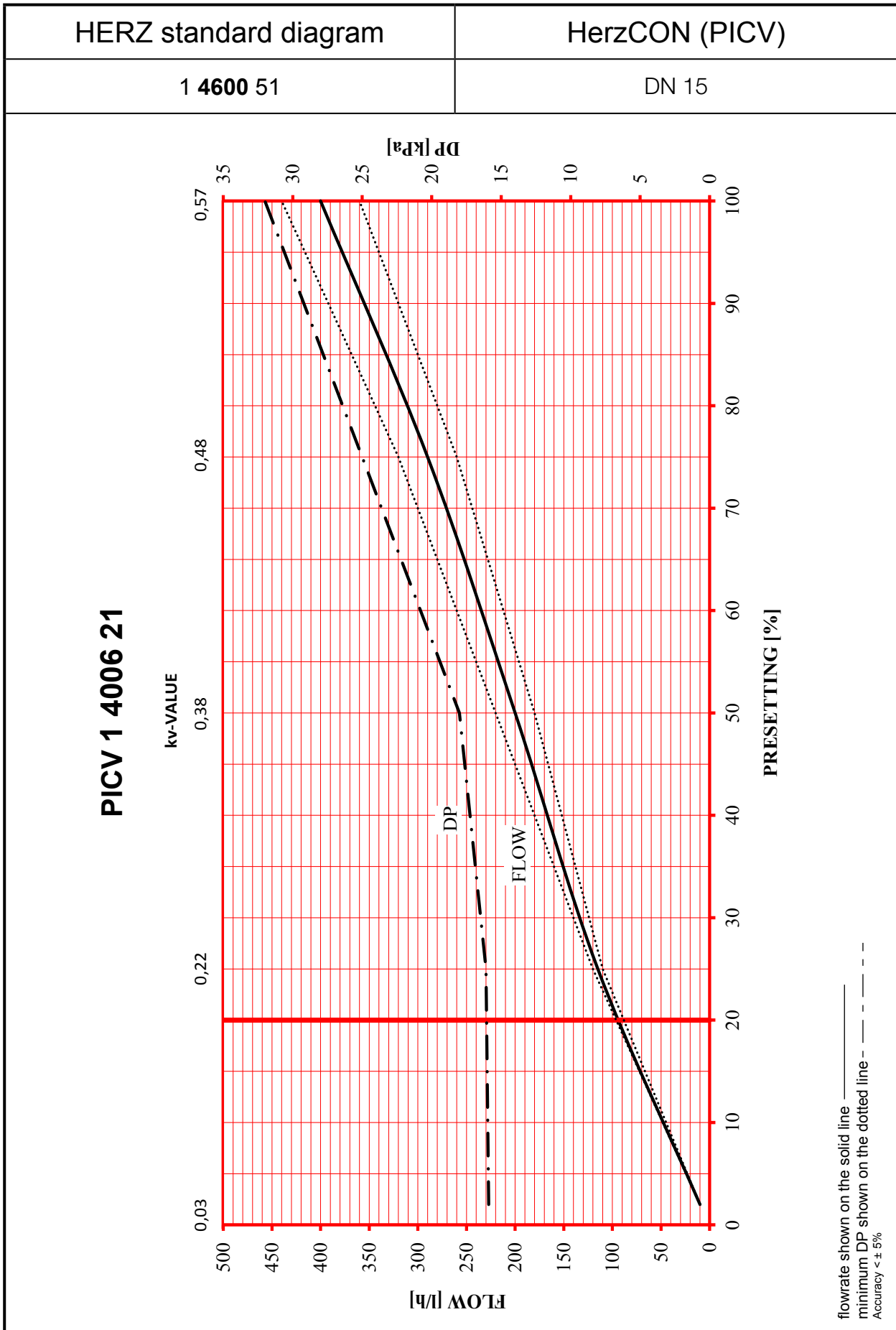


**☑ Pre-setting example**

To select the correct setting and the required minimum differential pressure at the desired flow rate, follow the steps shown in the diagram. The setting % for a specified flowrate shown on the left of the chart can be read from the solid line and the minimum DP for that particular setting can be read from the dotted line and the corresponding DP on the right side of the chart.

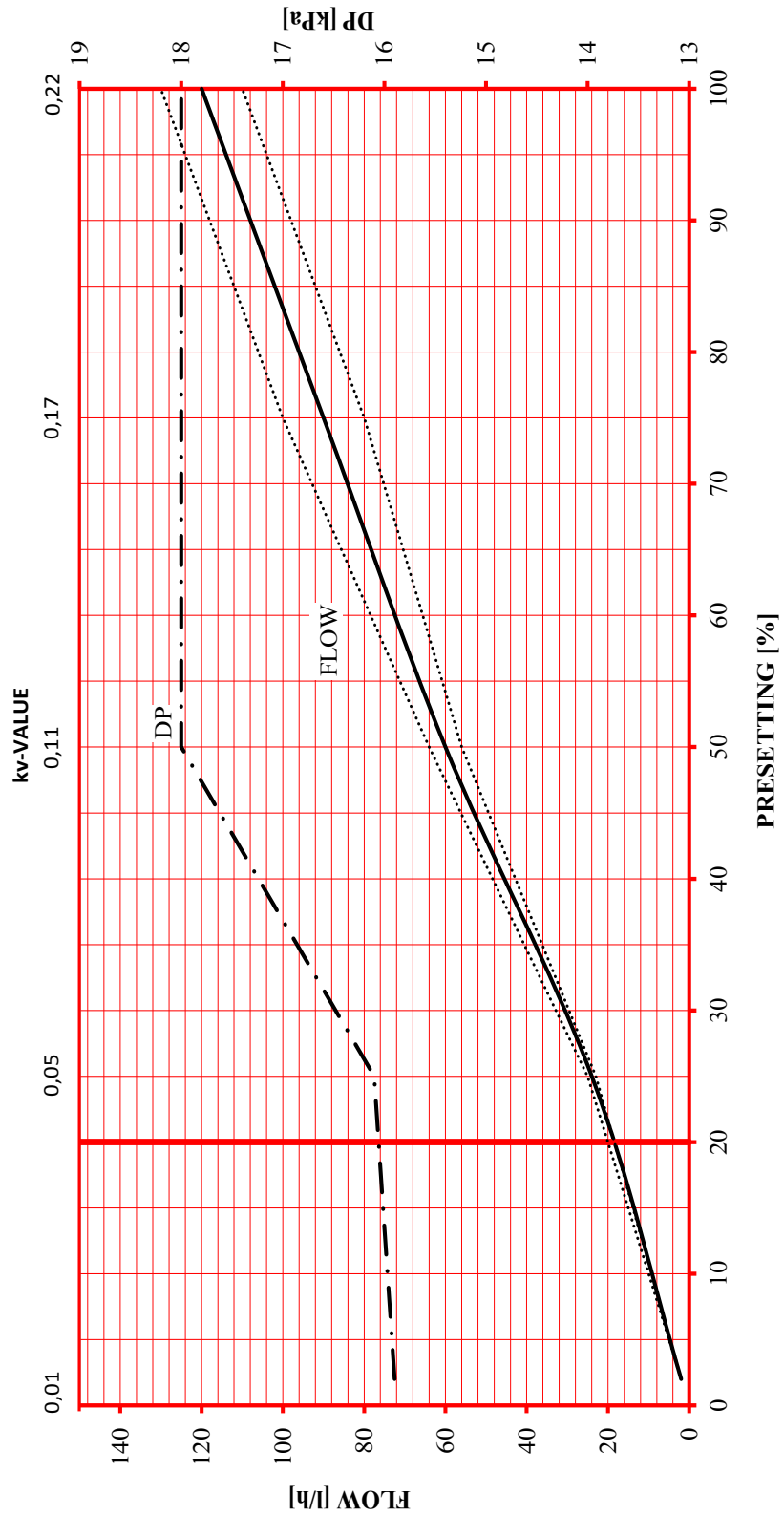


**Please note:** all diagrams are indicative in nature and do not claim to be complete. All specifications and statements within this document are according to information available at the time of printing and meant for informational purpose only. Herz Armaturen reserves the right to modify and change products as well as its technical specifications and/or its functioning according to technological progress and requirements. It is understood that all images of Herz products are symbolic representations and therefore may visually differ from the actual product. Colours may differ due to printing technology used. In case of any further questions don't hesitate to contact your closest HERZ Branch-office.

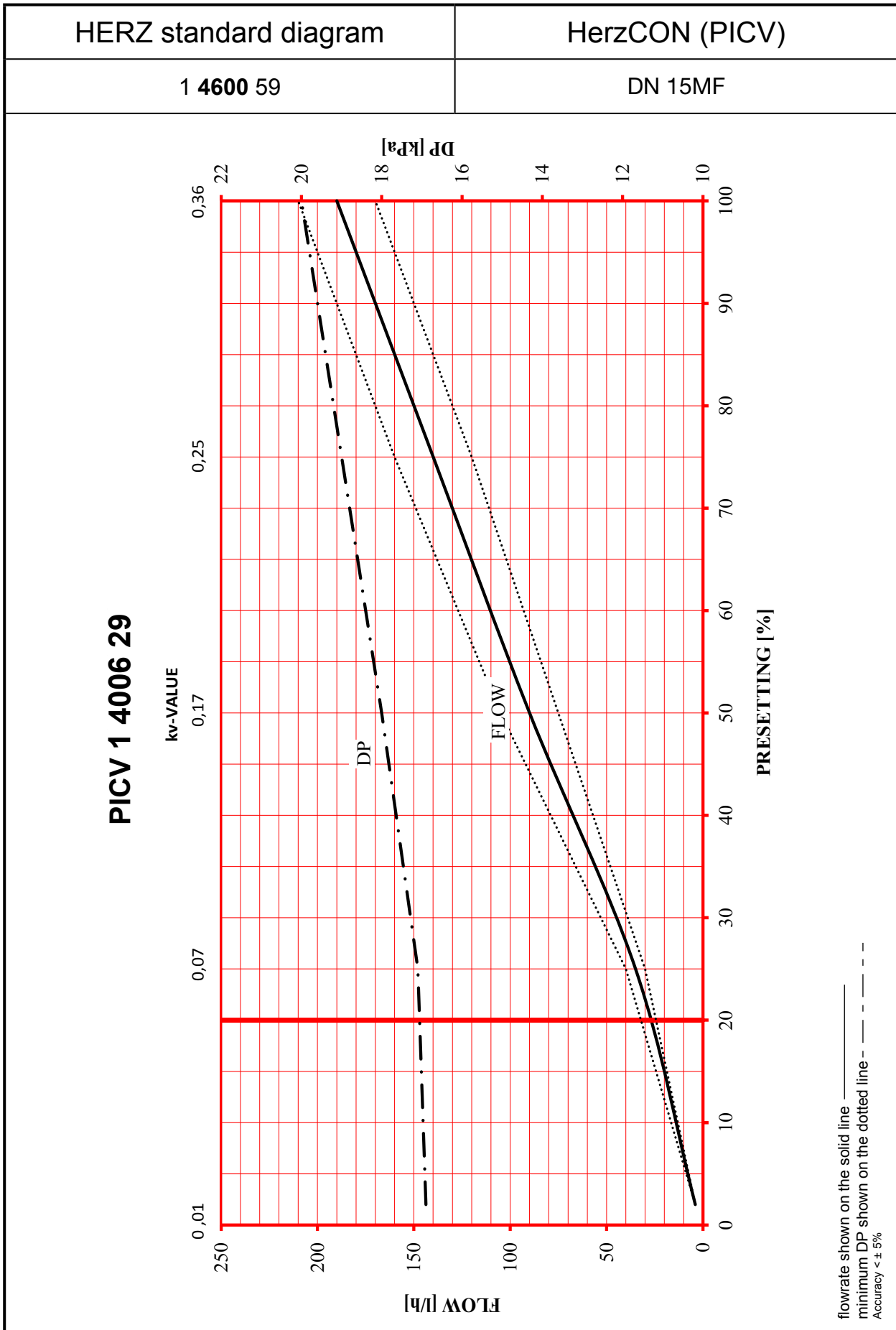


HERZ standard diagram	HerzCON (PICV)
1 4600 50	DN 15LF

**PICV 1 4006 20**

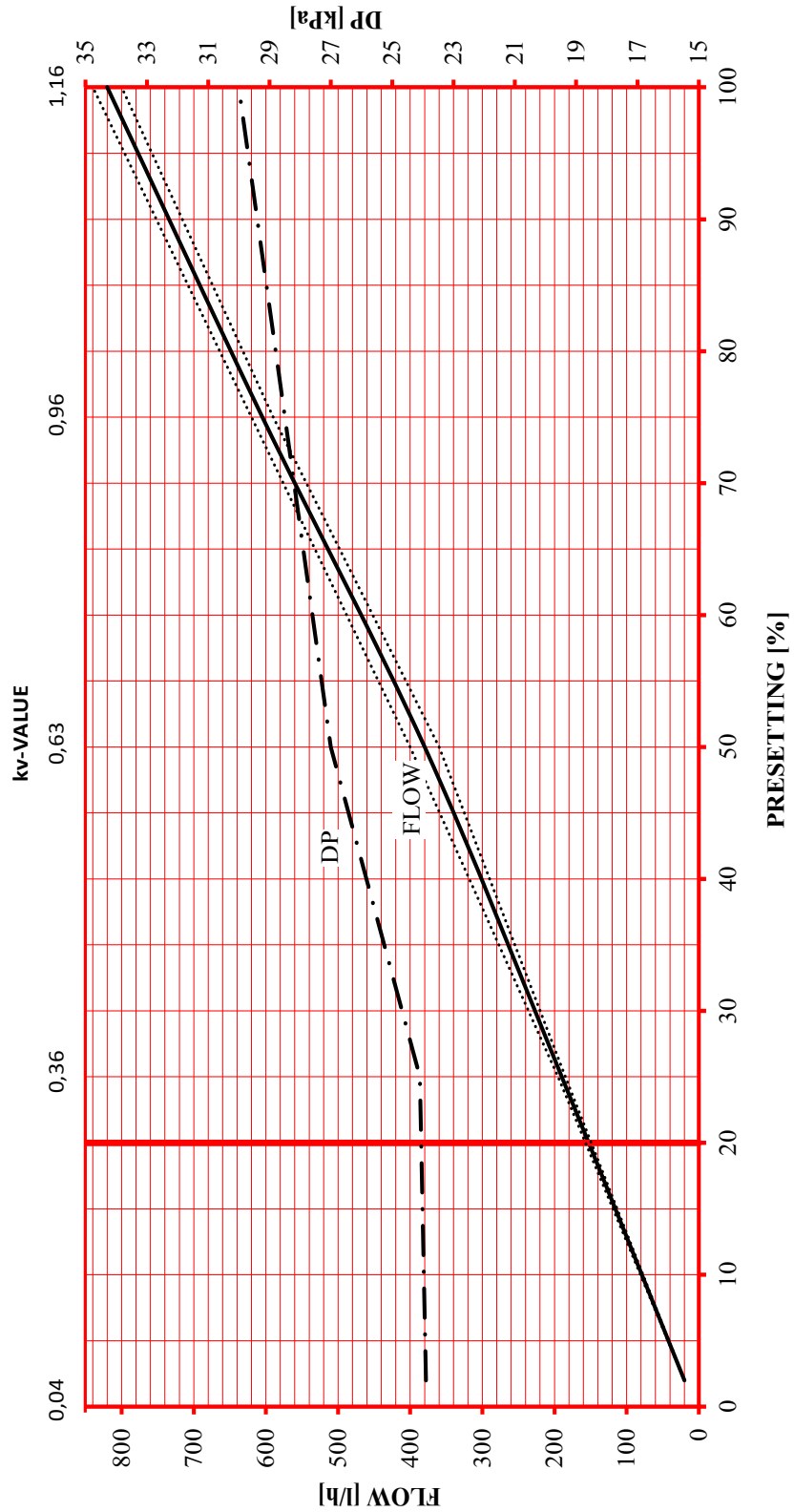


flowrate shown on the solid line  
 minimum DP shown on the dotted line  
 Accuracy  $\pm 5\%$



HERZ standard diagram	HerzCON (PICV)
1 4600 52	DN 20

**PICV 1 4006 22**



flowrate shown on the solid line —  
 minimum DP shown on the dotted line - - -  
 Accuracy  $\pm 5\%$

