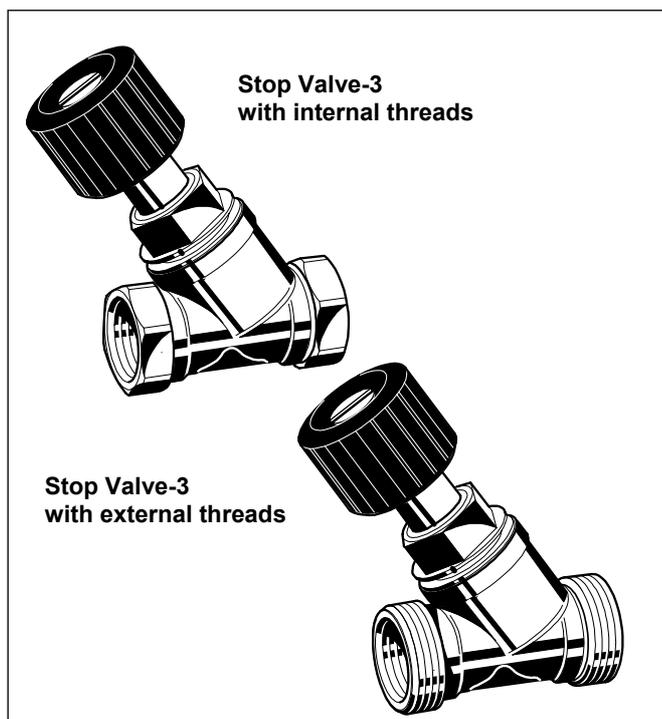


## V5100 Stop Valve-3

### RED BRONZE Y-PATTERN SHUTOFF VALVE

#### PRODUCT DATA



#### Application

V5100 type valves are used as shutoff valves in hydronic heating and cooling systems. The valves further have an integrated draining support. The draining function can be used with the standard Kombi-System draining adapter (see 'Accessories' further below).

They can also be used to connect the impulse tube of Kombi-3-plus, Kombi-2-plus and Kombi-PC differential pressure controllers.

#### Features

- Valve body made of corrosion-resistant red bronze
- Integrated draining function with adapter
- High flow rates
- Available from DN10 to DN40

#### Specifications

<b>Medium</b>	Water or water-glycol mixture		
<b>pH-value</b>	8...9,5		
<b>Operating temperature</b>	2...130°C (36...266°F)		
<b>Operating pressure</b>	max. 16 bar (232 psi)		
<b>kvs (cv)-values</b>	DN10	2.5	(2.9)
	DN15	2.5	(2.9)
	DN20	7.0	(8.2)
	DN25	7.0	(8.2)
	DN32	22.0	(25.7)
	DN40	22.0	(25.7)

#### Design

The valve consists of:

- Y-pattern valve body PN16, DN10...DN40 with internal threads to DIN2999 (ISO7) for threaded pipe. DN10...DN20 also for copper and precision steel pipe 10...22 mm using compression pipe fittings (see 'Accessories' on page 4), or
- Y-pattern valve body PN16, DN10...DN40 with external threads to ISO228 for use with connections (see 'Accessories')
- Valve insert
- Handwheel

#### Materials

- Valve housing made of red bronze
- Valve insert made of brass
- Seat seal made of PTFE
- Spindle seals made of EPDM
- Handwheel made of black plastic

#### Function

The valve is normally open so the medium can flow. The valve is closed by turning the handwheel clockwise until tight and the pipeline is shutoff.

## Dimensions

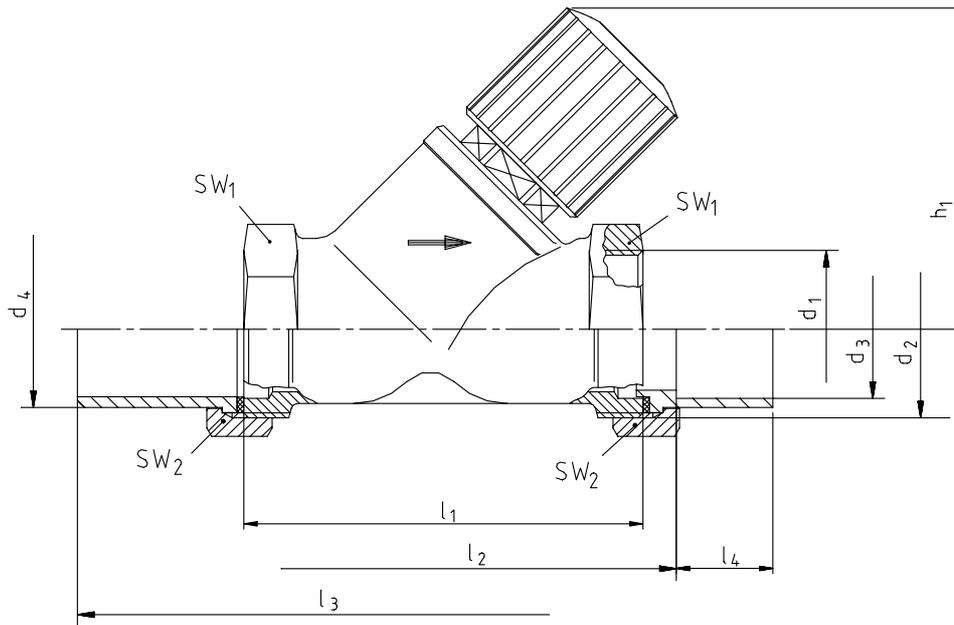


Fig. 1. Side view

Table 1. Dimensions

DN	k <sub>vs</sub> (cv)-value	h <sub>1</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	d <sub>4</sub>	SW <sub>1</sub>	SW <sub>2</sub>
10	2.5 (2.9)	60	60	74	110	10	Rp3/8"	G5/8"A	12	16	22	27
15	2.5 (2.9)	65	65	81	125	12	Rp1/2"	G3/4"A	15	20,5	27	30
20	7.0 (8.2)	70	75	92	146	17	Rp3/4"	G1"A	22	26	32	37
25	7.0 (8.2)	72	90	108	170	20	Rp1"	G1 1/4"A	28	33	41	47
32	22.0 (25.7)	120	110	128	200	25	Rp1 1/4"	G1 1/2"A	35	41	50	52
40	22.0 (25.7)	120	120	140	220	29	Rp1 1/2"	G1 3/4"A	42	47,5	55	60

NOTE: All dimensions in mm unless otherwise stated.

Table 4. Abbreviations used for dimensions

<b>DN</b>	Nominal size	<b>l<sub>1</sub></b>	Body length according to DIN3502
<b>d<sub>1</sub></b>	Internal thread on body (connection size)	<b>l<sub>2</sub></b>	Installed length with soldering connections
<b>d<sub>2</sub></b>	External thread on body	<b>l<sub>3</sub></b>	Installed length with welding connections
<b>d<sub>3</sub></b>	Inner Ø of connection	<b>l<sub>4</sub></b>	Length of pipe penetration
<b>d<sub>4</sub></b>	Outer Ø of connection	<b>SW<sub>1</sub></b>	Wrench size
<b>h<sub>1</sub></b>	Height with valve fully open	<b>SW<sub>2</sub></b>	Wrench size union-nut (not supplied with valve)

NOTE: The V5100X... is not supplied with union-nuts and sealing rings.

## Ordering Information

Table 1. OS-Nos. (OS=Ordering System)

Order text	DN	Thread	k <sub>vs</sub> (cv)-value	OS-No.
Stop Valve-3 shutoff valve with internal threads to DIN2999 (ISO7)	10	Rp 3/8"	2.5 (2.9)	V5100Y0010
	15	Rp 1/2"	2.5 (2.9)	V5100Y0015
	20	Rp 3/4"	7.0 (8.2)	V5100Y0020
	25	Rp 1"	7.0 (8.2)	V5100Y0025
	32	Rp 1 1/4"	22.0 (25.7)	V5100Y0032
	40	Rp 1 1/2"	22.0 (25.7)	V5100Y0040
Stop Valve-3 shutoff valve with external threads to ISO228	10	G 5/8" A	2.5 (2.9)	V5100X0010
	15	G 3/4" A	2.5 (2.9)	V5100X0015
	20	G 1" A	7.0 (8.2)	V5100X0020
	25	G 1 1/4" A	7.0 (8.2)	V5100X0025
	32	G 1 1/2" A	22.0 (25.7)	V5100X0032
	40	G 1 3/4" A	22.0 (25.7)	V5100X0040

## Application Examples

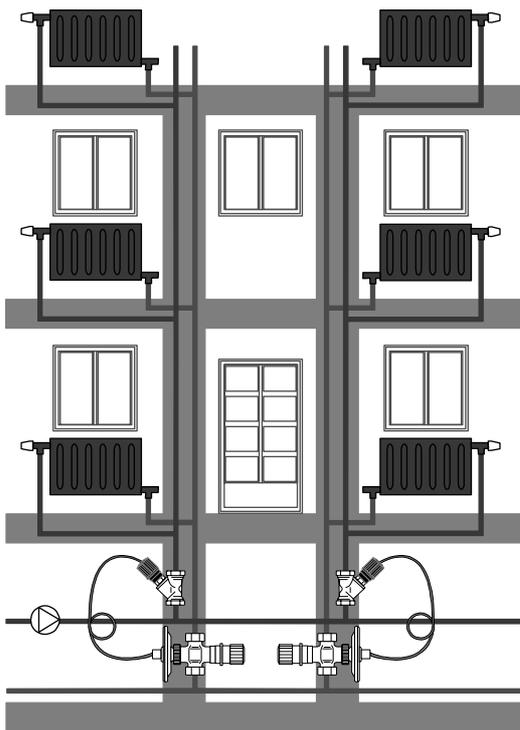


Fig. 2. Stop Valve-3 as supply shutoff valve and impulse tube connection with a Kombi-PC in a two-pipe system

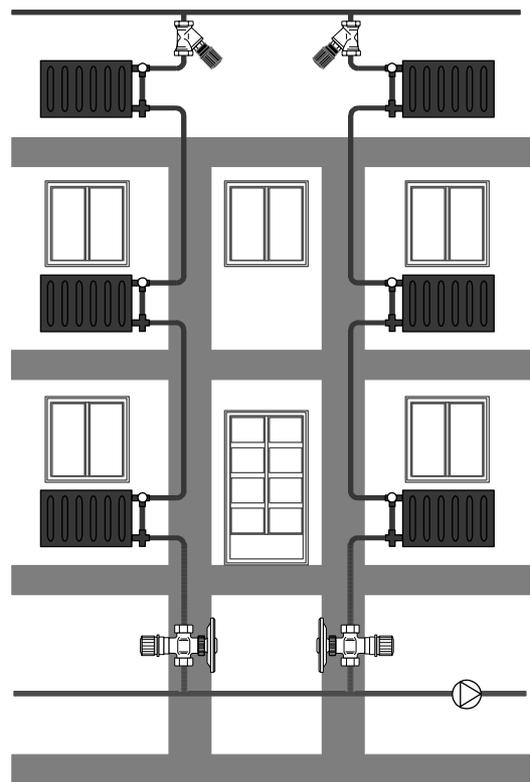


Fig. 3. Stop Valve-3 as supply shutoff valve with a Kombi-FC in a vertical one-pipe system

## Accessories

### Connections for valves with internal threads

#### Set of compression ring and nut for copper and soft steel pipe

	3/8" x 10 mm	VA650A1010
	3/8" x 12 mm	VA650A1012
	1/2" x 10 mm	VA650A1510
	1/2" x 12 mm	VA650A1512
	1/2" x 14 mm	VA650A1514
	1/2" x 15 mm	VA650A1515
	1/2" x 16 mm	VA650A1516
	3/4" x 18 mm	VA650A2018
	3/4" x 22 mm	VA650A2022

NOTE: Support inserts have to be used for soft copper and steel pipe (wall thickness 1 mm).

#### Set of compression ring, nut and support insert (2 pcs each) for copper and soft steel pipe

	3/8" x 12 mm	VA651A1012
	1/2" x 12 mm	VA651A1512
	1/2" x 15 mm	VA651A1515
	1/2" x 16 mm	VA651A1516
	3/4" x 18 mm	VA651A2018

### Connections for valves with external threads

#### Brass union-nut

	3/8", for valves DN10	VA5000A010
	1/2", for valves DN15	VA5000A015
	3/4", for valves DN20	VA5000A020
	1", for valves DN25	VA5000A025
	1 1/4", for valves DN32	VA5000A032
	1 1/2", for valves DN40	VA5000A040

#### Sealing ring

	3/8", for valves DN10	VA5090A010
	1/2", for valves DN15	VA5090A015
	3/4", for valves DN20	VA5090A020
	1", for valves DN25	VA5090A025
	1 1/4", for valves DN32	VA5090A032
	1 1/2", for valves DN40	VA5090A040

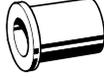
#### Externally threaded brass connection

	3/8", for valves DN10	VA5500A010
	1/2", for valves DN15	VA5500A015
	3/4", for valves DN20	VA5500A020
	1", for valves DN25	VA5500A025
	1 1/4", for valves DN32	VA5500A032
	1 1/2", for valves DN40	VA5500A040

#### Brass sweat connection

	12 mm, for valves DN10	VA5530A010
	15 mm, for valves DN15	VA5530A015
	22 mm, for valves DN20	VA5530A020
	28 mm, for valves DN25	VA5530A025
	35 mm, for valves DN32	VA5530A032
	42 mm, for valves DN40	VA5530A040

#### Steel welding connection

	for valves DN10	VA5540A010
	for valves DN15	VA5540A015
	for valves DN20	VA5540A020
	for valves DN25	VA5540A025
	for valves DN32	VA5540A032
	for valves DN40	VA5540A040

#### Mapress System connection set (stainless steel)

	DN15, for 15 mm pipe-Ø	VA7403A015
	DN15, for 18 mm pipe-Ø	VA7403A018
	DN20, for 22 mm pipe-Ø	VA7403A020
	DN25, for 28 mm pipe-Ø	VA7403A025
	DN32, for 35 mm pipe-Ø	VA7403A032
	DN40, for 42 mm pipe-Ø	VA7403A040

#### Sanpress/Profipress System connection set (red bronze)

	DN15, for 15 mm pipe-Ø	VA7404A015
	DN15, for 18 mm pipe-Ø	VA7404A018
	DN20, for 22 mm pipe-Ø	VA7404A020
	DN25, for 28 mm pipe-Ø	VA7404A025
	DN32, for 35 mm pipe-Ø	VA7404A032
	DN40, for 42 mm pipe-Ø	VA7404A040

## Accessories

#### Draining adapter

	for all types and sizes	VA3500A001
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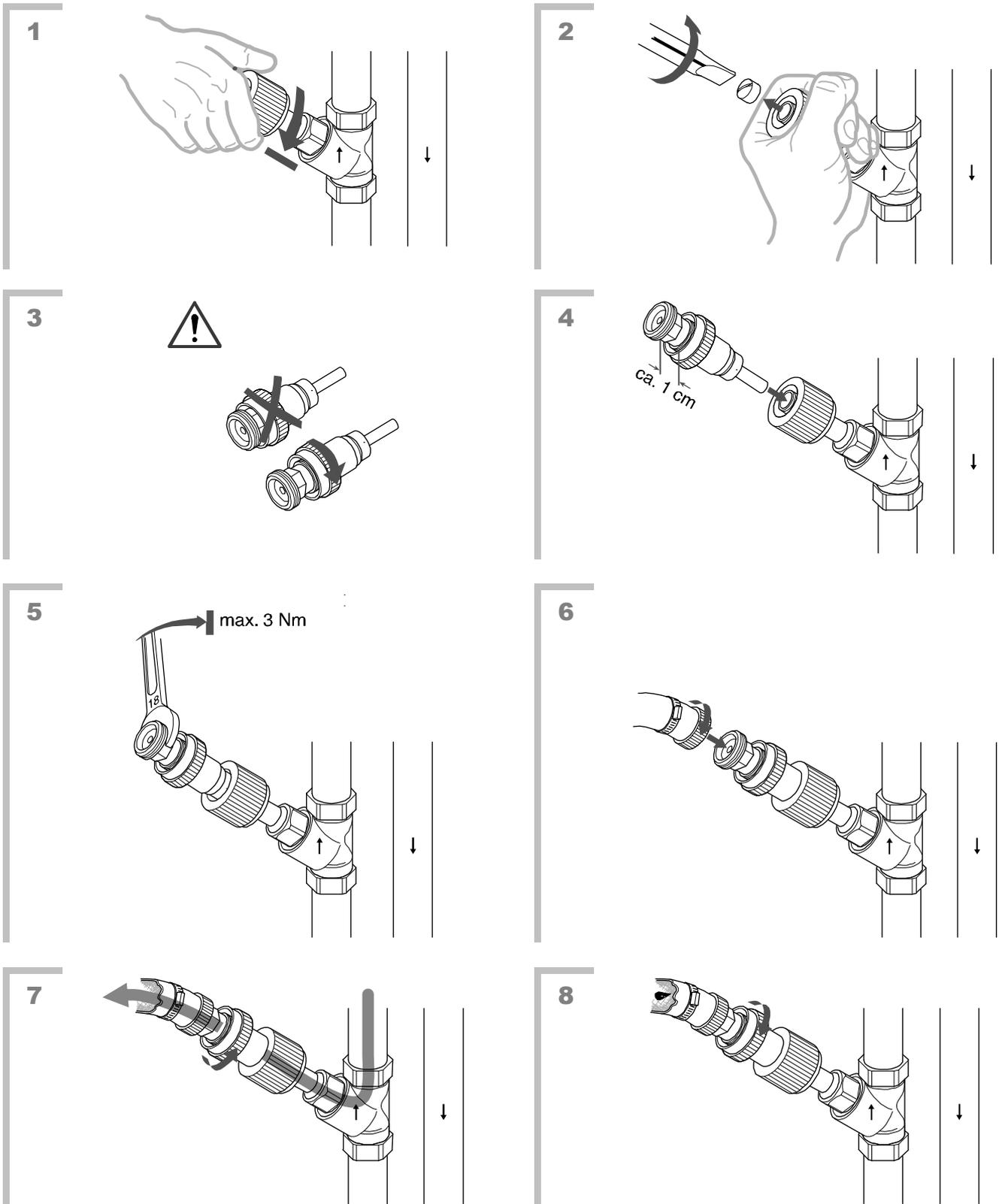
NOTE: The draining adapter can also be used for all Kombi-System valves.

## Service Parts

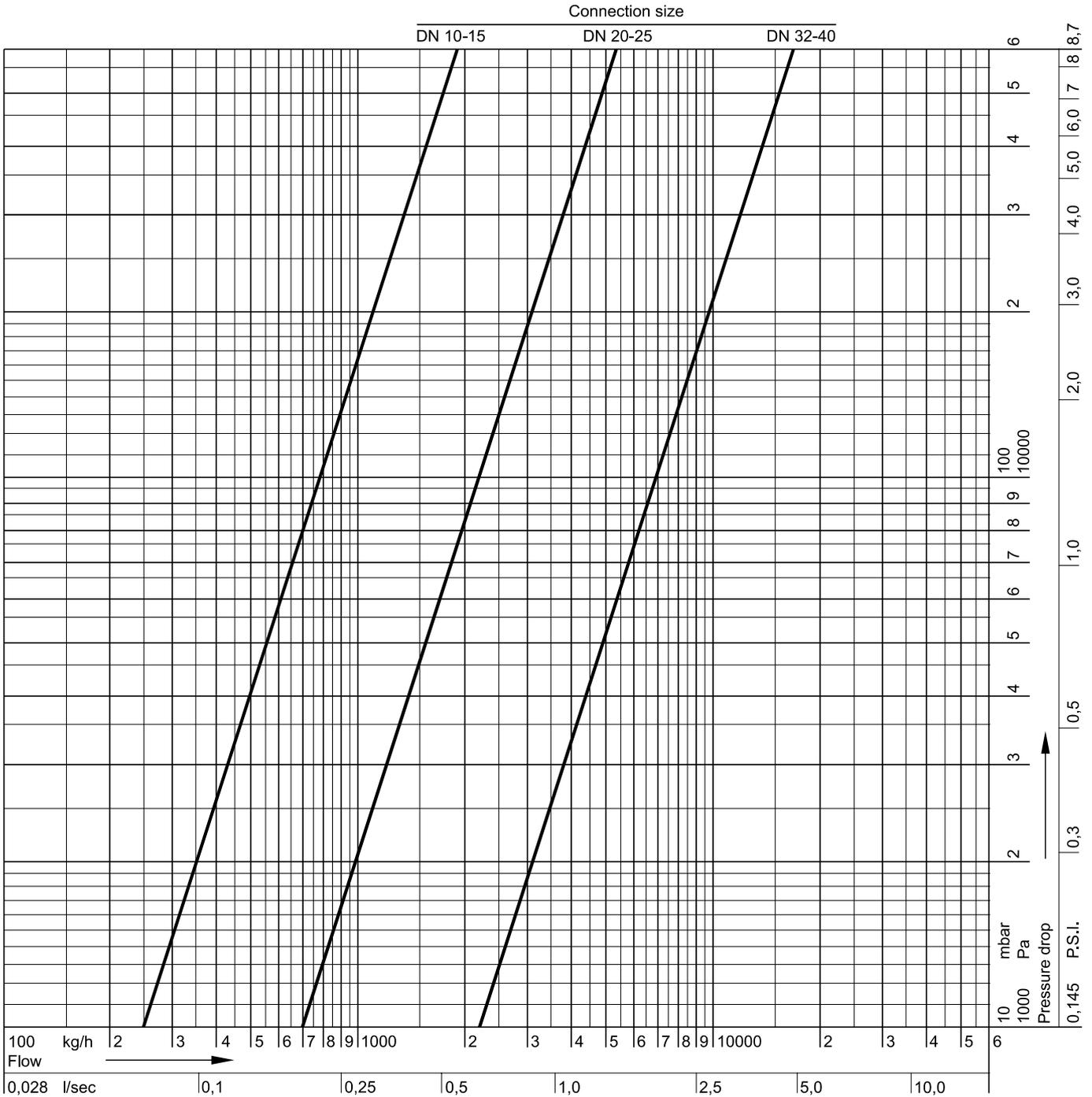
#### Replacement insert

	for valves DN10 and 15	VS1501S015
	for valves DN20 and 25	VS1501S025
	for valves DN32 and 40	VS1501S040

## Draining and Filling



## Flow Diagram



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