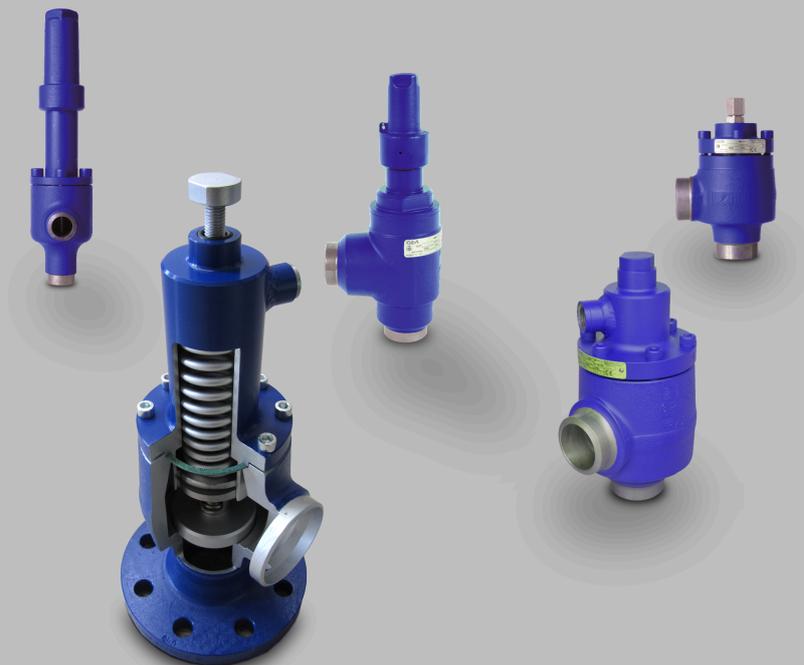


# OVERFLOW VALVES FOR HEATING TECHNOLOGIES

UVA, RVD, RVR, UVR, UVRK, GPV

05.02.2026





## Table of contents

1 UVA / RVD / RVR / UVR / UVRK / GPV .....	5
2 UVA / RVD / UVR / UVRK / GPV .....	6
3 UVA materials.....	7
4 UVAA AE HT .....	8
5 UVAA AE NIRO HT .....	9
6 UVAA FL HT .....	10
7 UVAA FL NIRO HT .....	12
8 UVAA LE HT .....	14
9 UVAA LE NIRO HT .....	15
10 UVAA SE HT .....	16
11 UVAA SE NIRO HT .....	17
12 RVD materials.....	18
13 RVD E AE HT .....	19
14 RVD E FL HT .....	21
15 RVR materials .....	23
16 RVR E AE HT .....	24
17 RVR E FL HT .....	26
18 UVR materials.....	28
19 UVR D AE HT .....	29
20 UVR D AE NIRO HT .....	30
21 UVR E AE HT .....	31
22 UVR E AE NIRO HT .....	32
23 UVR D FL HT .....	33
24 UVR E FL HT .....	34
25 UVRK materials .....	35
26 UVRK D AE HT .....	36
27 UVRK D AE NIRO HT .....	37
28 UVRK E AE HT .....	38
29 UVRK E AE NIRO HT .....	39
30 UVRK D FL HT .....	40
31 UVRK E FL HT.....	41

<b>32 GPV materials</b> .....	<b>42</b>
<b>33 GPV D AE HT</b> .....	<b>43</b>
<b>34 GPV D AE NIRO HT</b> .....	<b>44</b>
<b>35 GPV E AE HT</b> .....	<b>45</b>
<b>36 GPV E AE NIRO HT</b> .....	<b>46</b>
<b>37 GPV D FL HT</b> .....	<b>47</b>
<b>38 GPV E FL HT</b> .....	<b>48</b>
<b>39 Valve stem sealing system</b> .....	<b>49</b>
<b>40 Accessories</b> .....	<b>50</b>
<b>41 Set pressure ranges of springs for overflow valves and oil pressure-regulating valves</b> .....	<b>51</b>
<b>42 Comparison of European / American materials</b> .....	<b>52</b>
<b>43 Coding of connections for small and service valves</b> .....	<b>53</b>
<b>44 Welding neck flanges - DIN 2634/2635</b> .....	<b>55</b>
<b>45 Welding neck flanges - DIN 2634/2636/2637</b> .....	<b>57</b>
<b>46 Welding neck flanges - DIN EN 1092-1</b> .....	<b>59</b>
<b>47 Welding neck flanges - DIN EN 1092-1</b> .....	<b>61</b>
<b>48 Welding neck flanges - ANSI B16.5 raised face</b> .....	<b>63</b>
<b>49 Welding neck flanges - AWP</b> .....	<b>65</b>
<b>50 Legal notices</b> .....	<b>67</b>

# 1 UVA / RVD / RVR / UVR / UVRK / GPV

HT: Temperature up to +200°C

UVA: Overflow valve - back-pressure dependent

UVA	Connection	Form	Material	Valve type
UVA	Materials			
UVAA PS25 / PS40 / PS63	Welding ends		St	UVAA/ E
			NIRO	UVAA AE NIRO
	Flanged ends		St	UVAA FL
			NIRO	UVAA FL NIRO
	Soldering ends		St	UVAA LE
			NIRO	UVAA LE NIRO
	Screwed ends		St	UVAA SE
			NIRO	UVAA SE NIRO

RVD: Pressure-maintaining valve

RVD	Connection	Form	Material	Valve type
RVD	Materials			
RVD PS25 / PS40 / PS63	Welding ends	Angle	St	RVD E AE
	Flanged ends	Angle	St	RVD E FL

RVR: Pressure-maintaining valve with check function

RVR	Connection	Form	Material	Valve type
RVR	Materials			
RVR PS25 / PS40 / PS63	Welding ends	Angle	St	RVR E AE
	Flanged ends	Angle	St	RVR E FL

UVR: Overflow valve - back-pressure dependent - for hot-gas defrosting

UVR	Connection	Form	Material	Valve type
UVR	Materials			
UVR PS25 / PS40	Welding ends	Straight-way	St	UVR D AE
			NIRO	UVR D AE NIRO
		Angle	St	UVR E AE
			NIRO	UVR E AE NIRO
	Flanged ends	Straight-way	St	UVR D FL
			St	UVR E FL

St = steel SS = stainless steel

## 2 UVA / RVD / UVR / UVRK / GPV

**HT:** Temperature up to +200°C

UVRK: Overflow valve - back-pressure dependent - with regulating cone - for hot-gas defrosting

UVRK	Connection	Form	Material	Valve type
UVRK	Materials			
UVRK PS25 / PS40	Welding ends	Straight-way	St	UVRK D AE
			NIRO	UVRK D AE NIRO
		Angle	St	UVRK E AE
			NIRO	UVRK E AE NIRO
	Flanged ends	Straight-way	St	UVRK D FL
		Angle	St	UVRK E FL

GPV: Pressure-controlled valve – application in the oil return line

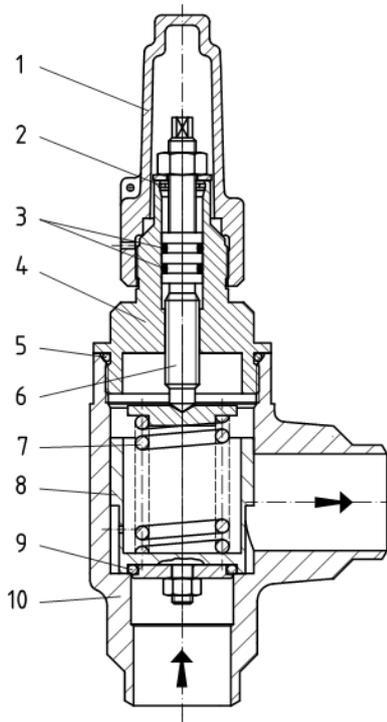
GPV	Connection	Form	Material	Valve type
GPV	Materials			
GPV PS25 / PS40	Welding ends	Straight-way	St	GPV D AE
			NIRO	GPV D AE NIRO
		Angle	St	GPV E AE
			NIRO	GPV E AE NIRO
	Flanged ends	Straight-way	St	GPV D FL
		Angle	St	GPV E FL
Information	Valve stem sealing system			
	UV UM + ST screwed ends			
	Pressure range springs			
	Comparison of European/American materials			
	Coding of connections for small and service valves			
	DIN-FL welding neck flanges - DIN			
	EN-FL welding neck flanges - EN			
	ANSI-FL welding neck flanges - smooth			
	AWP-FL welding neck flanges - AWP			
	Legal notices			

St = steel SS = stainless steel

### 3 UVA materials

Designation and materials

UVA HT - overflow valve



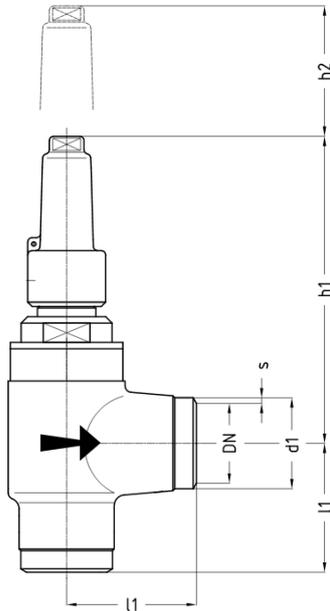
Part		Material for steel valves	Material for stainless steel valves
1	Cap	Aluminium AlSi10Mg	Aluminium AlSi10Mg
2	Retaining ring	DH, SM / DM	DH, SM / DM
3	Valve stem O-ring	CR, HNBR, EPDM*	CR, HNBR, EPDM*
4	Bonnet	S355J2 1.0577	X8CrNiS18-9 1.4305
5	Bonnet O-ring	CR, HNBR, EPDM*	CR, HNBR, EPDM*
6	Stem	X8CrNiS18-9 1.4305	X8CrNiS18-9 1.4305
7	Tongue	SH	SH
8	Sealing piston	X8CrNiS18-9 1.4305	X8CrNiS18-9 1.4305
9	Valve disc O-ring	CR, NBR, HNBR, EPDM, PTFE*	CR, NBR, HNBR, EPDM, PTFE*
10	Body	S355J2 1.0577	X5CrNi18-10 1.4301

\* depending on the refrigerant used

## 4 UVAA AE HT

**O:** PTFE seat seal, **AE:** Welding ends, **HT:**Temperature up to +200°C

UVA steel overflow valve - back-pressure dependent for natural gases and liquids (e.g. NH<sub>3</sub>, CO<sub>2</sub>) and non-corrosive media according to EN 378-1



Application: The tight closing of the valve after response is guaranteed at temperatures above -10 °C.

Note: DN40-50 please select ORVA.

Pressure / temperature operating limits:

**PS:** Max. permissible operating pressure in bar

**TS:** Permissible operating temperature in °C associated with the permissible operating pressures (PS)

**PN:** Nominal pressure rating

DN / INCH UVAA	PN	-10	+50	+200	TS [°C]
UVAA	PN25	25	25	25	PS [bar]
DN 10...32	PN40	40	40	40	PS [bar]
3/8" ... 1 1/4"	PN63	63	63	63	PS [bar]

Nominal size: Welding ends acc. to:												
		ISO Series 1			ISO Series 2		ANSI Sched 40					Opening pressure range
DN	INCH	d1	s1)	s2)	d1	s	d1	s	l1	h1	h2	bar
10	3/8"	17.2	1.8	1.8	15	2.5	17.1	2.3	40	138	50	1-25
15	1/2"	21.3	2.0	2.0	20	2.5	21.3	2.8	40	138	50	1-25
20	3/4"	26.9	2.3	2.6	25	2.5	26.7	2.9	60	143	50	1-25
25	1"	33.7	2.6	2.6	32	3.0	33.4	3.4	60	143	50	1-25
32	1 1/4"	42.4	2.6	2.9	38	3.0	42.2	3.6	60	143	50	1-25

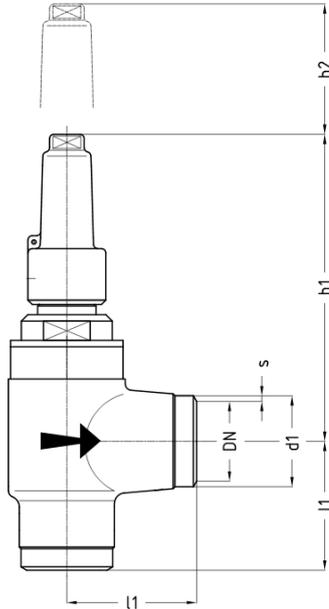
Table 1: Dimensions

1) PN25 / PN40 2) PN63 h2 = dismantling dimension

## 5 UVAA AE NIRO HT

**O:** PTFE seat seal, **AE:** Welding ends, **HT:** Temperature up to +200°C

UVA stainless steel overflow valve - back-pressure dependent for natural gases and liquids (e.g. NH<sub>3</sub>, CO<sub>2</sub>) and non-corrosive media according to EN 378-1



Application: The tight closing of the valve after response is guaranteed at temperatures above -10 °C.

Pressure / temperature operating limits:

**PS:** Max. permissible operating pressure in bar

**TS:** Permissible operating temperature in °C associated with the permissible operating pressures (PS)

**PN:** Nominal pressure rating

DN / INCH UVAA	PN	-10	+50	+200	TS [°C]
UVAA	PN25	25	25	25	PS [bar]
DN 10...32	PN40	40	40	40	PS [bar]
3/8" ... 1 1/4"	PN63	63	63	63	PS [bar]

Nominal size: Welding ends acc. to:												
		ISO Series 1			ISO Series 2		ANSI Sched 40					Opening pressure range
DN	INCH	d1	s1)	s2)	d1	s	d1	s	l1	h1	h2	bar
10	3/8"	17.2	1.8	1.8	15	2.5	17.1	2.3	40	138	50	1-25
15	1/2"	21.3	2.0	2.0	20	2.5	21.3	2.8	40	138	50	1-25
20	3/4"	26.9	2.3	2.6	25	2.5	26.7	2.9	60	143	50	1-25
25	1"	33.7	2.6	2.6	32	3.0	33.4	3.4	60	143	50	1-25
32	1 1/4"	42.4	2.6	2.9	38	3.0	42.2	3.6	60	143	50	1-25

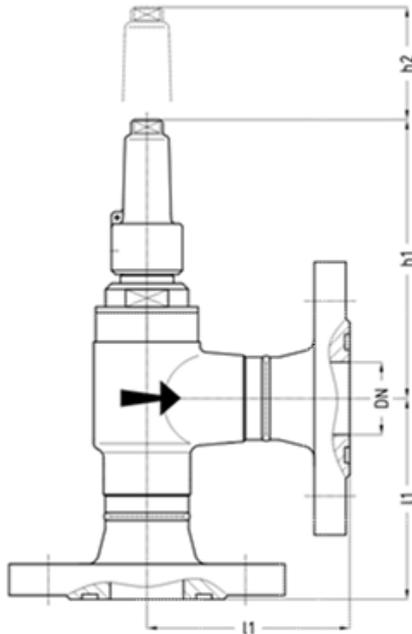
Table 2: Dimensions

1) PN25 / PN40 2) PN63 h2 = dismantling dimension

## 6 UVAA FL HT

**O:** PTFE seat seal, **FL:** Flanged ends, **HT:** Temperature up to +200°C

UVA steel overflow valve - back-pressure dependent for natural gases and liquids (e.g. NH<sub>3</sub>, CO<sub>2</sub>) and non-corrosive media according to EN 378-1



Application: The tight closing of the valve after response is guaranteed at temperatures above -10 °C.

Note: DN40-50 please select ORVA.

Pressure / temperature operating limits:

**PS:** Max. permissible operating pressure in bar

**TS:** Permissible operating temperature in °C associated with the permissible operating pressures (PS)

**PN:** Nominal pressure rating

DN / INCH UVAA	PN	-10	+50	+200	TS [°C]
UVAA	PN25	25	25	25	PS [bar]
DN 10...32	PN40	40	40	40	PS [bar]
3/8" ... 1 1/4"	PN63	63	63	63	PS [bar]

Nominal size:		Flanged ends acc. to:								
		AWP DN10-20 PN25 DN25-32 PN40	PN25 DIN 2634 EN1092-1	PN40 DIN 2635 EN1092-1	PN63 DIN 2636 EN1092-1	ANSI 150 RF	ANSI 300 RF			Opening pressure range
DN	INCH	l1	l1	l1	l1		l1	h1	h2	bar
10	3/8"	72	76	76	86			138	50	1-25
15	1/2"	72	79	79	86	88	93	138	50	1-25
20	3/4"	92	101	101	109	113	118	143	50	1-25
25	1"	105	101	101	119	117	123	143	50	1-25

Nominal size:		Flanged ends acc. to:								
32	1 1/4"	105	103	103	121	118	126	143	50	1-25

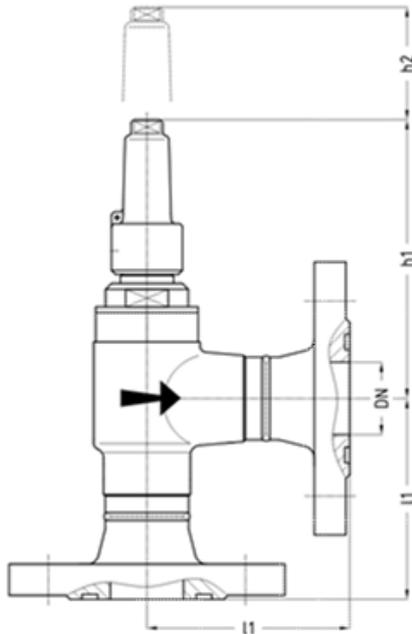
Table 3: Dimensions

h2 = dismantling dimension, DIN/EN flange facings as standard: groove DIN 2512

## 7 UVAA FL NIRO HT

**O:** PTFE seat seal, **FL:** Flanged ends, **HT:** Temperature up to +200°C

UVA stainless steel overflow valve - back-pressure dependent for natural gases and liquids (e.g. NH<sub>3</sub>, CO<sub>2</sub>) and non-corrosive media according to EN 378-1



Application: The tight closing of the valve after response is guaranteed at temperatures above -10 °C.

Pressure / temperature operating limits:

**PS:** Max. permissible operating pressure in bar

**TS:** Permissible operating temperature in °C associated with the permissible operating pressures (PS)

**PN:** Nominal pressure rating

DN / INCH UVAA	PN	-10	+50	+200	TS [°C]
UVAA	PN25	25	25	25	PS [bar]
DN 10...32	PN40	40	40	40	PS [bar]
3/8" ... 1 1/4"	PN63	63	63	63	PS [bar]

Nominal size:		Flanged ends acc. to:								Opening pressure range
DN	INCH	AWP DN10-20 PN25 DN25-32 PN40	PN25 DIN 2634 EN1092-1	PN40 DIN 2635 EN1092-1	PN63 DIN 2636 EN1092-1	ANSI 150 RF	ANSI 300 RF			
10	3/8"	72	76	76	86			138	50	1-25
15	1/2"	72	79	79	86	88	93	138	50	1-25
20	3/4"	92	101	101	109	113	118	143	50	1-25
25	1"	105	101	101	119	117	123	143	50	1-25
32	1 1/4"	105	103	103	121	118	126	143	50	1-25

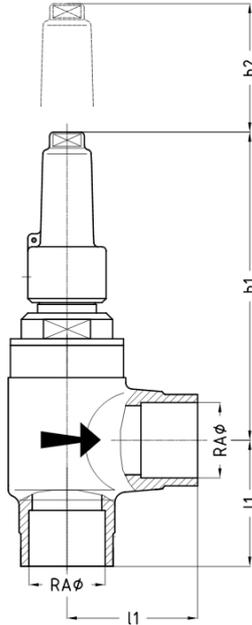
Table 4: Dimensions

h2 = dismantling dimension, DIN/EN flange facings as standard: groove DIN 2512

## 8 UVAA LE HT

**O:** PTFE seat seal, **LE:** Soldering ends, **HT:** Temperature up to +200°C

UVA steel overflow valve - back-pressure dependent for natural gases and liquids (e.g. NH<sub>3</sub>, CO<sub>2</sub>) and non-corrosive media according to EN 378-1



Application: The tight closing of the valve after response is guaranteed at temperatures above -10 °C.

Pressure / temperature operating limits:

**PS:** Max. permissible operating pressure in bar

**TS:** Permissible operating temperature in °C associated with the permissible operating pressures (PS)

**PN:** Nominal pressure rating

DN / INCH UVAA	PN	-10	+50	+200	TS [°C]
UVAA DN 10...32	PN25	25	25	25	PS [bar]
	PN40	40	40	40	PS [bar]
	PN63	63	63	63	PS [bar]

Nominal size:		Soldering ends acc. to:			Opening pressure range:	
DN	RAØ	l1	h1	h2	bar	
10	12	40	138	50	1-25	
15	15	40	138	50	1-25	
15	18	40	138	50	1-25	
20	22	60	143	50	1-25	
25	28	60	143	50	1-25	
32	35	60	143	50	1-25	

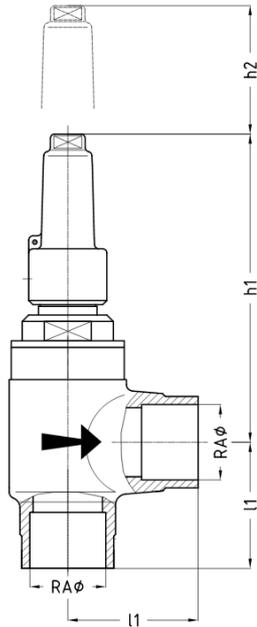
Table 5: Dimensions

h2 = dismantling dimension

## 9 UVAA LE NIRO HT

**O:** PTFE seat seal, **LE:** Soldering ends, **HT:** Temperature up to +200°C

UVA stainless steel overflow valve - back-pressure dependent for natural gases and liquids (e.g. NH<sub>3</sub>, CO<sub>2</sub>) and non-corrosive media according to EN 378-1



Application: The tight closing of the valve after response is guaranteed at temperatures above -10 °C.

Pressure / temperature operating limits:

**PS:** Max. permissible operating pressure in bar

**TS:** Permissible operating temperature in °C associated with the permissible operating pressures (PS)

**PN:** Nominal pressure rating

DN / INCH UVAA	PN	-10	+50	+200	TS [°C]
UVAA DN 10...32	PN25	25	25	25	PS [bar]
	PN40	40	40	40	PS [bar]
	PN63	63	63	63	PS [bar]

Nominal size:	Soldering ends acc. to:	Opening pressure range			
DN	RAφ	l1	h1	h2	bar
10	12	40	138	50	1-25
15	15	40	138	50	1-25
15	18	40	138	50	1-25
20	22	60	143	50	1-25
25	28	60	143	50	1-25
32	35	60	143	50	1-25

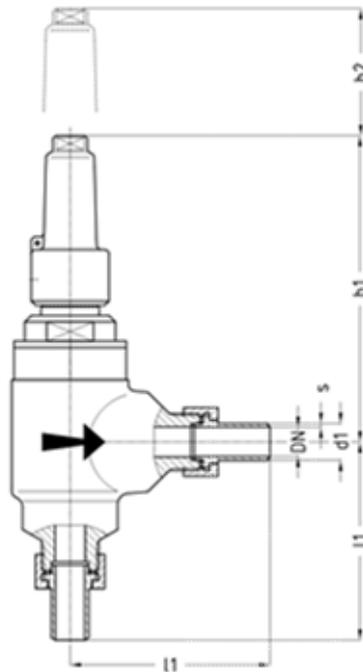
Table 6: Dimensions

h2 = dismantling dimension

## 10 UVAA SE HT

**O:** PTFE seat seal, **SE:** Screwed ends, **HT:** Temperature up to +200°C

UVA steel overflow valve - back-pressure dependent for natural gases and liquids (e.g. NH<sub>3</sub>, CO<sub>2</sub>) and non-corrosive media according to EN 378-1



Application: The tight closing of the valve after response is guaranteed at temperatures above -10 °C.

Pressure / temperature operating limits:

**PS:** Max. permissible operating pressure in bar

**TS:** Permissible operating temperature in °C associated with the permissible operating pressures (PS)

**PN:** Nominal pressure rating

DN / INCH UVAA	PN	-10	+50	+200	TS [°C]
UVAA	PN25	25	25	25	PS [bar]
DN 10...20	PN40	40	40	40	PS [bar]
G3/8" ... G3/4"	PN63	63	63	63	PS [bar]

Nominal size: Screwed ends acc. to:		Opening pressure range					
DN	Thread	d1	s1	l1	h1	h2	bar
6	G3/8"	10.2	1.6	72	138	50	1-25
8	G1/2"	13.5	1.8	73	138	50	1-25
10	G3/4"	17.2	1.8	93	143	50	1-25

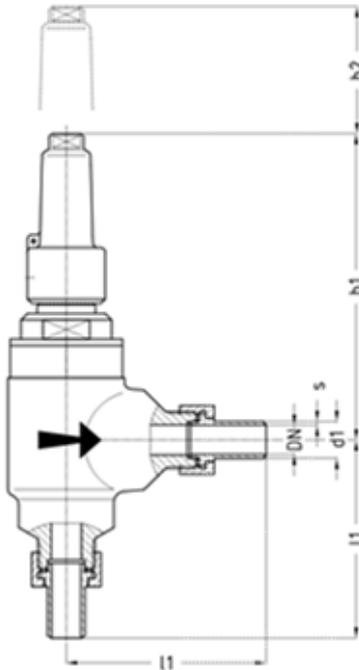
Table 7: Dimensions

h2 = dismantling dimension

## 11 UVAA SE NIRO HT

**O:** PTFE seat seal, **SE:** Screwed ends, **HT:** Temperature up to +200°C

UVA stainless steel overflow valve - back-pressure dependent for natural gases and liquids (e.g. NH<sub>3</sub>, CO<sub>2</sub>) and non-corrosive media according to EN 378-1



Application: The tight closing of the valve after response is guaranteed at temperatures above -10 °C.

Pressure / temperature operating limits:

**PS:** Max. permissible operating pressure in bar

**TS:** Permissible operating temperature in °C associated with the permissible operating pressures (PS)

**PN:** Nominal pressure rating

DN / INCH UVAA	PN	-10	+50	+200	TS [°C]
UVAA	PN25	25	25	25	PS [bar]
DN 10...20	PN40	40	40	40	PS [bar]
G3/8"...G3/4"	PN63	63	63	63	PS [bar]

Nominal size: Screwed ends acc. to:						Opening pressure range	
DN	Thread	d1	s1	l1	h1	h2	bar
6	G3/8"	10.2	1.6	72	138	50	1-25
8	G1/2"	13.5	1.8	73	138	50	1-25
10	G3/4"	17.2	1.8	93	143	50	1-25

Table 8: Dimensions

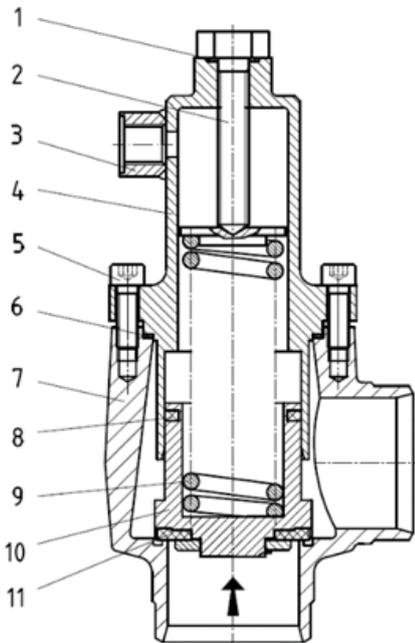
h2 = dismantling dimension

## 12 RVD materials

Designation and materials

RVD HT - pressure-maintaining valve

DN 40 - 200



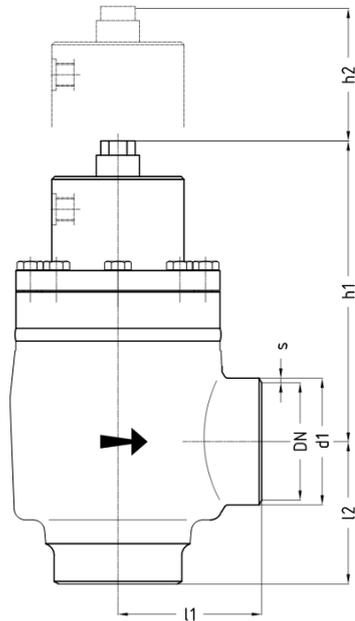
	Part	Material for steel valves	Material for stainless steel valves
1	Tensioning screw O-ring	CR, NBR, HNBR, EPDM, PTFE*	CR, NBR, HNBR, EPDM, PTFE*
2	Tensioning screw	8.8	A2-70
3	Bypass	S355J2 1.0577	X5CrNi18-10 1.4301
4	Bonnet	S355J2 1.0577	X5CrNi18-10 1.4301
5	Bonnet screw	8.8	A2-70
6	Flat sealing ring for bonnet	AFM30	AFM30
7	Body	P235GH 1.0345 S355J2 1.0577 P355N 1.0562	X5CrNi18-10 1.4301
8	Spring-loaded U-ring	PTFE	PTFE
9	Tongue	SH	SH
10	Valve disc	S355J2 1.0577	X8CrNiS18-9 1.4305
11	Flat sealing ring for valve disc	PTFE	PTFE

\* depending on the refrigerant used

### 13 RVD E AE HT

**E:** Angle, **AE:** Welding ends, **HT:** Temperature up to +200°C

RVD steel pressure-maintaining valve for natural gases and liquids (e.g. NH<sub>3</sub>, CO<sub>2</sub>) and non-corrosive media according to EN 378-1



Note: When the compressor starts up, the RVD increase the pressure on the discharge side and open when the oil circuit is secured.

Pressure / temperature operating limits:

**PS:** Max. permissible operating pressure in bar

**TS:** Permissible operating temperature in °C associated with the permissible operating pressures (PS)

**PN:** Nominal pressure rating

DN / INCH	PN	-10	+50	+200	TS [°C]
DN 40...200 1 1/2" ...8"	PN25	25	25	25	PS [bar]
	PN40	40	40	40	PS [bar]
	PN63	63	63	63	PS [bar]

Other operating pressures on request

Nominal size:		Welding ends acc. to:											
		ISO Series 1			ANSI Sched 40		ANSI Sched 80						Opening pressure range
DN	INCH	d1	s1)	s2)	d1	s	d1	s	l1	l2	h1	h2	bar
40	1 1/2"	48.3	2.6	2.9	48.3	3.7	48.3	5.1	70	70	139	110	1-5
40	1 1/2"	48.3	2.6	2.9	48.3	3.7	48.3	5.1	70	70	169	110	6-9
50	2"	60.3	2.9	2.9	60.3	3.9			70	70	139	110	1-5
50	2"	60.3	2.9	2.9	60.3	3.9			70	70	169	110	6-9
65	2 1/2"	76.1	2.9	3.2	73.0	5.2			85	85	170	130	1-4
65	2 1/2"	76.1	2.9	3.2	73.0	5.2			85	85	190	130	5-10
80	3"	88.9	3.2	3.6	88.9	5.5			100	100	212	150	1-10

Nominal size:		Welding ends acc. to:											
100	4"	114.3	3.6	4.0	114.3	6.0			120	120	215	170	1-4
100	4"	114.3	3.6	4.0	114.3	6.0			120	120	270	170	5-9
125	5"	139.7	4.0	4.5	141.3	6.6			135	135	206	250	1-5
150	6"	168.3	4.5	5.6	168.3	7.1			150	150	225	280	1-3
200	8"	219.1	6.3	7.1	168.3	8.2			195	195		380	1-3

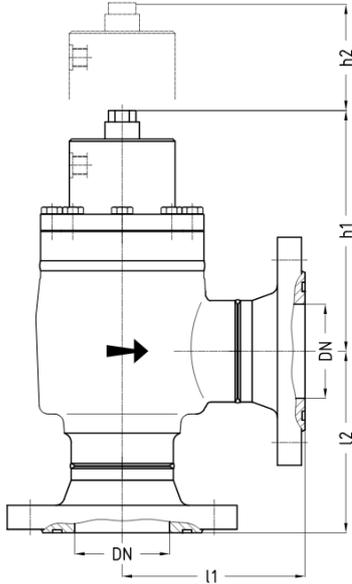
Table 9: Dimensions

1) PN25 / PN40 2) PN63 h2 = dismantling dimension

## 14 RVD E FL HT

**I:** Angle, **FL:** Flanged ends, **HT:** Temperature up to +200°C

RVD steel pressure-maintaining valve for natural gases and liquids (e.g. NH<sub>3</sub>, CO<sub>2</sub>) and non-corrosive media according to EN 378-1



Note: When the compressor starts up, the RVD increase the pressure on the discharge side and open when the oil circuit is secured.

Pressure / temperature operating limits:

**PS:** Max. permissible operating pressure in bar

**TS:** Permissible operating temperature in °C associated with the permissible operating pressures (PS)

**PN:** Nominal pressure rating

DN / INCH	PN	-10	+50	+200	TS [°C]
DN 40...200 1 1/2" ...8"	PN25	25	25	25	PS [bar]
	PN40	40	40	40	PS [bar]
	PN63	63	63	63	PS [bar]

Other operating pressures on request

Nominal size:		Flanged ends acc. to:										Opening pressure range
		PS25 DIN 2634 EN1092-1		PS40 DIN 2635 EN1092-1		PS63 DIN 2636 EN1092-1		ANSI 300 RF				
	INCH	l1	l2	l1	l2	l1	l2	l1	l2	h1	h2	bar
40	1 1/2"	116	116	116	116	133	133	139	139	139	110	1-5
40	1 1/2"	116	116	116	116	133	133	139	139	169	110	6-9
50	2"	119	119	119	119	133	133	141	141	139	110	1-5
50	2"	119	119	119	119	133	133	141	141	169	110	6-9
65	2 1/2"	138	138	138	138	154	154	162	162	170	130	1-4

Nominal size:		Flanged ends acc. to:										
65	2 1/2"	138	138	138	138	154	154	162	162	190	130	5-10
80	3"	159	159	159	159	173	173	180	180	212	150	1-10
100	4"	186	186	186	186	199	199	207	207	215	170	1-4
100	4"	186	186	186	186	199	199	207	207	270	170	5-9
125	5"	204	204	204	204	224	224	235	235	206	250	1-5
150	6"	226	226	226	226	246	246	250	250	225	280	1-3
200	8"	276	276	284	284	306	306	308	308		380	1-3

Table 10: Dimensions

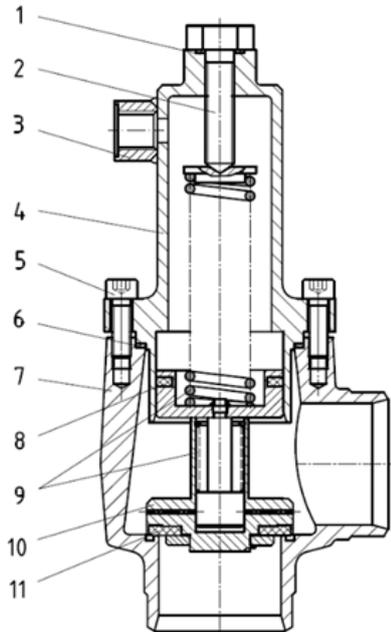
h2 = dismantling dimension, DIN/EN flange facings as standard: groove DIN 2512

## 15 RVR materials

Designation and materials

RVR HT - pressure-maintaining valve with check function

DN 40 - 200



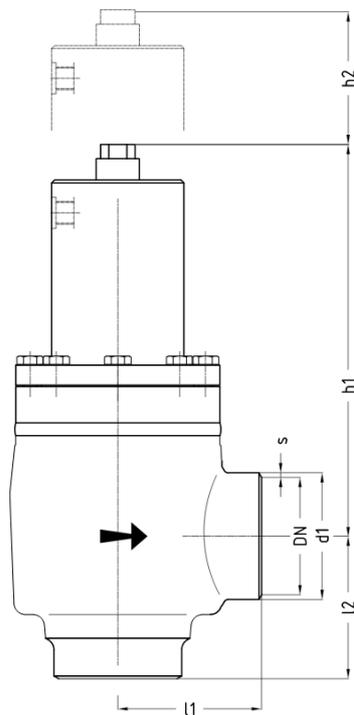
Part	Material for steel valves	Material for stainless steel valves
1 Tensioning screw O-ring	CR, NBR, HNBR, EPDM, PTFE*	CR, NBR, HNBR, EPDM, PTFE*
2 Tensioning screw	8.8	A2-70
3 Bypass	S355J2 1.0577	X5CrNi18-10 1.4301
4 Bonnet	S355J2 1.0577	X5CrNi18-10 1.4301
5 Bonnet screw	8.8	A2-70
6 Flat sealing ring for bonnet	AFM30	AFM30
7 Body	P235GH 1.0345 S355J2 1.0577 P355N 1.0562	X5CrNi18-10 1.4301
8 Spring-loaded U-ring	PTFE	PTFE
9 Tongue	SH	SH
10 Valve disc	S355J2 1.0577	X8CrNiS18-9 1.4305
11 Flat sealing ring for valve disc	PTFE	PTFE

\* depending on the refrigerant used

## 16 RVR E AE HT

**E:** Angle, **AE:** Welding ends, **HT:** Temperature up to +200°C

RVR steel pressure-maintaining valve with check function for natural gases and liquids (e.g. NH<sub>3</sub>, CO<sub>2</sub>) and non-corrosive media according to EN 378-1



Note: When the compressor starts up, the RVR increase the pressure on the discharge side and open when the oil circuit is secured.

Pressure / temperature operating limits:

**PS:** Max. permissible operating pressure in bar

**TS:** Permissible operating temperature in °C associated with the permissible operating pressures (PS)

**PN:** Nominal pressure rating

DN / INCH	PN	-10	+50	+200	TS [°C]
DN 40...200 1 1/2" ...8"	PN25	25	25	25	PS [bar]
	PN40	40	40	40	PS [bar]
	PN63	63	63	63	PS [bar]

Other operating pressures on request

Nominal size:		Welding ends acc. to:											
		ISO Series 1			ANSI Sched 40		ANSI Sched 80						Opening pressure range
DN	INCH	d1	s1)	s2)	d1	s	d1	s	l1	l2	h1	h2	bar
40	1 1/2"	48.3	2.6	2.9	48.3	3.7	48.3	5.1	70	70	185	110	1-5
40	1 1/2"	48.3	2.6	2.9	48.3	3.7	48.3	5.1	70	70	215	110	6-9
50	2"	60.3	2.9	2.9	60.3	3.9			70	70	185	110	1-5
50	2"	60.3	2.9	2.9	60.3	3.9			70	70	215	110	6-9
65	2 1/2"	76.1	2.9	3.2	73.0	5.2			85	85	222	130	1-4
65	2 1/2"	76.1	2.9	3.2	73.0	5.2			85	85	242	130	5-10
80	3"	88.9	3.2	3.6	88.9	5.5			100	100	280	150	1-10

Nominal size:		Welding ends acc. to:											
100	4"	114.3	3.6	4.0	114.3	6.0			120	120	288	170	1-4
100	4"	114.3	3.6	4.0	114.3	6.0			120	120	343	170	5-9
125	5"	139.7	4.0	4.5	141.3	6.6			135	135	316	250	1-5
150	6"	168.3	4.5	5.6	168.3	7.1			150	150	334	280	1-3
200	8"	219.1	6.3	7.1	168.3	8.2			195	195		380	1-3

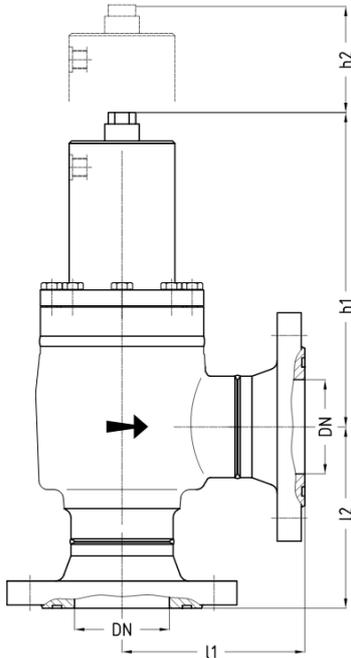
Table 11: Dimensions

1) PN25 / PN40 2) PN63 h2 = dismantling dimension

## 17 RVR E FL HT

**I:** Angle, **FL:** Flanged ends, **HT:** Temperature up to +200°C

RVR steel pressure-maintaining valve with check function for natural gases and liquids (e.g. NH<sub>3</sub>, CO<sub>2</sub>) and non-corrosive media according to EN 378-1



Note: When the compressor starts up, the RVR increase the pressure on the discharge side and open when the oil circuit is secured.

Pressure / temperature operating limits:

**PS:** Max. permissible operating pressure in bar

**TS:** Permissible operating temperature in °C associated with the permissible operating pressures (PS)

**PN:** Nominal pressure rating

DN / INCH	PN	-10	+50	+200	TS [°C]
DN 40...200 1 1/2" ...8"	PN25	25	25	25	PS [bar]
	PN40	40	40	40	PS [bar]
	PN63	63	63	63	PS [bar]

Other operating pressures on request

Nominal size:		Flanged ends acc. to:										Opening pressure range
		PS25 DIN 2634 EN1092-1		PS40 DIN 2635 EN1092-1		PS63 DIN 2636 EN1092-1		ANSI 300 RF				
	INCH	l1	l2	l1	l2	l1	l2	l1	l2	h1	h2	bar
40	1 1/2"	116	116	116	116	133	133	139	139	185	110	1-5
40	1 1/2"	116	116	116	116	133	133	139	139	215	110	6-9
50	2"	119	119	119	119	133	133	141	141	185	110	1-5
50	2"	119	119	119	119	133	133	141	141	215	110	6-9
65	2 1/2"	138	138	138	138	154	154	162	162	222	130	1-4

Nominal size:	Flanged ends acc. to:											
65	2 1/2"	138	138	138	138	154	154	162	162	242	130	5-10
80	3"	159	159	159	159	173	173	180	180	280	150	1-10
100	4"	186	186	186	186	199	199	207	207	288	170	1-4
100	4"	186	186	186	186	199	199	207	207	343	170	5-9
125	5"	204	204	204	204	224	224	235	235	316	250	1-5
150	6"	226	226	226	226	246	246	250	250	334	280	1-3
200	8"	276	276	284	284	306	306	308	308		380	1-3

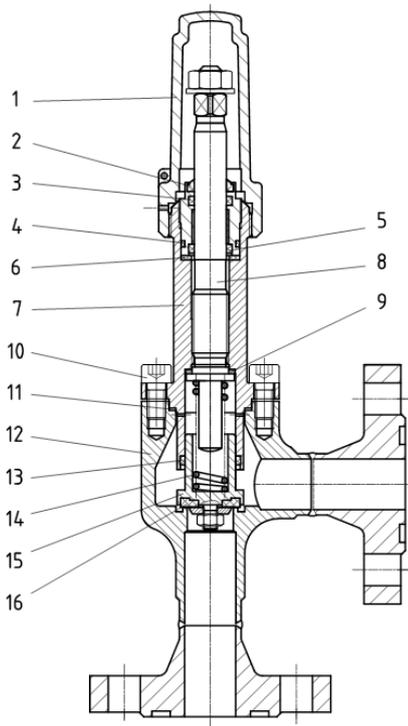
Table 12: Dimensions

h2 = dismantling dimension, DIN/EN flange facings as standard: groove DIN 2512

## 18 UVR materials

Designation and materials

UVR HT – overflow valve for hot-gas defrosting



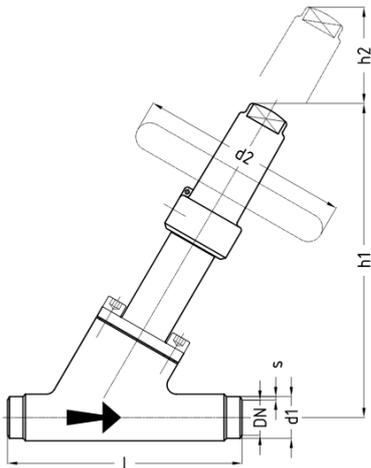
	Part	Material for steel valves	Material for stainless steel valves
1	Cap	Aluminium AlSi10Mg	Aluminium AlSi10Mg
2	Wiper ring	NBR	NBR
3	O-ring A	CR, NBR, HNBR, EPDM*	CR, NBR, HNBR, EPDM*
4	O-ring B	CR, NBR, HNBR, EPDM*	CR, NBR, HNBR, EPDM*
5	Spring-loaded U-ring	PTFE	PTFE
6	Flat sealing ring for threaded bush	AFM30	AFM30
7	Bonnet	S355J2 1.0577	X8CrNiS18-9 1.4305
8	Stem	X8CrNiS18-9 1.4305	X8CrNiS18-9 1.4305
9	Back seal	PTFE	PTFE
10	Bonnet screw	8.8	A2-70
11	Flat sealing ring for bonnet	AFM30	AFM30
12	Body	S355J2 1.0577 P235GH 1.0345	X5CrNi18-10 1.4301
13	Spring-loaded U-ring	PTFE	PTFE
14	Tongue	SH	SH
15	Valve disc	S355J2 1.0577	X8CrNiS18-9 1.4305
16	Flat sealing ring for valve disc	PTFE	PTFE

\* depending on the refrigerant used

## 19 UVR D AE HT

**D:** Straight-way, **AE:** Welding ends, **HT:** Temperature up to +200°C

UVR steel overflow valve - back-pressure dependent - for hot-gas defrosting for natural gases and liquids (e.g. NH<sub>3</sub>, CO<sub>2</sub>) and non-corrosive media according to EN 378-1



Pressure / temperature operating limits:

**PS:** Max. permissible operating pressure in bar

**TS:** Permissible operating temperature in °C associated with the permissible operating pressures (PS)

**PN:** Nominal pressure rating

Application: This valve has three functions in one and combines overflow, check and shut-off valve.

Nominal size:		Welding ends acc. to:												Setting range
DN	INCH	ISO Series 1		ISO Series 2		ANSI Sched 40		ANSI Sched 80		l	h1	h2	d2	
20	3/4"	d1	s	d1	s	d1	s	d1	s	150	202	55	140	2-8
		26.9	2.3	25.0	2.5	26.7	2.9	26.7	3.9					

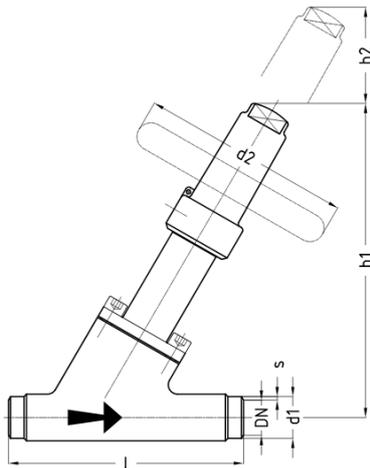
Table 13: Dimensions

h2 = dismantling dimension

## 20 UVR D AE NIRO HT

**D:** Straight-way, **AE:** Welding ends, **HT:** Temperature up to +200°C

UVR stainless steel overflow valve - back-pressure dependent - for hot-gas defrosting for natural gases and liquids (e.g. NH<sub>3</sub>, CO<sub>2</sub>) and non-corrosive media according to EN 378-1



Application: This valve has three functions in one and combines overflow, check and shut-off valve.

Pressure / temperature operating limits:

**PS:** Max. permissible operating pressure in bar

**TS:** Permissible operating temperature in °C associated with the permissible operating pressures (PS)

**PN:** Nominal pressure rating

DN / INCH	PN	-10	+50	+200	TS [°C]
DN 20 3/4"	PN25	25	25	25	PS [bar]
	PN40	40	40	40	PS [bar]

Nominal size:		Welding ends acc. to:														Setting range
DN	INCH	ISO Series 1		ISO Series 2		ANSI Sched 40		ANSI Sched 80								
		d1	s	d1	s	d1	s	d1	s	l	h1	h2	d2	bar		
20	3/4"	26.9	2.3	25.0	2.5	26.7	2.9	26.7	3.9	150	202	55	140	2-8		

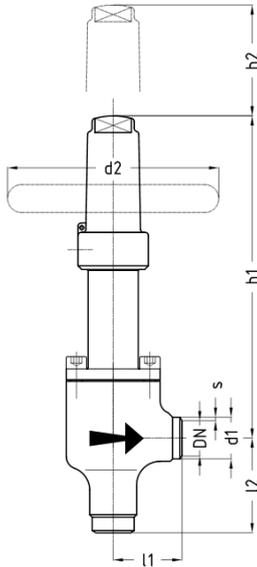
Table 14: Dimensions

h2 = dismantling dimension

## 21 UVR E AE HT

**E:** Angle, **AE:** Welding ends, **HT:** Temperature up to +200°C

UVR steel overflow valve - back-pressure dependent - for hot-gas defrosting for natural gases and liquids (e.g. NH<sub>3</sub>, CO<sub>2</sub>) and non-corrosive media according to EN 378-1



Application: This valve has three functions in one and combines overflow, check and shut-off valve.

Pressure / temperature operating limits:

**PS:** Max. permissible operating pressure in bar

**TS:** Permissible operating temperature in °C associated with the permissible operating pressures (PS)

**PN:** Nominal pressure rating

DN / INCH	PN	-10	+50	+200	TS [°C]
DN 20 3/4"	PN25	25	25	25	PS [bar]
	PN40	40	40	40	PS [bar]

Nominal size:		Welding ends acc. to:													
		ISO Series 1		ISO Series 2		ANSI Sched 40		ANSI Sched 80						Setting range	
DN	INCH	d1	s	d1	s	d1	s	d1	s	l1	l2	h1	h2	d2	bar
20	3/4"	26.9	2.3	25.0	2.5	26.7	2.9	26.7	3.9	44	61	208	85	140	2-8

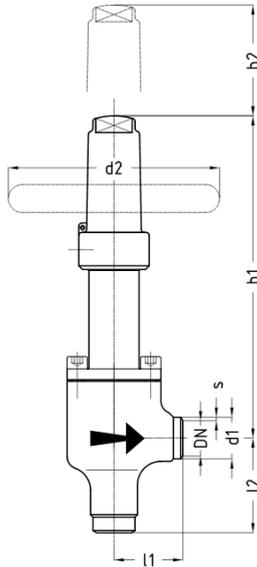
Table 15: Dimensions

h2 = dismantling dimension

## 22 UVR E AE NIRO HT

**E:** Angle, **AE:** Welding ends, **HT:** Temperature up to +200°C

UVR stainless steel overflow valve - back-pressure dependent - for hot-gas defrosting for natural gases and liquids (e.g. NH<sub>3</sub>, CO<sub>2</sub>) and non-corrosive media according to EN 378-1



Application: This valve has three functions in one and combines overflow, check and shut-off valve.

Pressure / temperature operating limits:

**PS:** Max. permissible operating pressure in bar

**TS:** Permissible operating temperature in °C associated with the permissible operating pressures (PS)

**PN:** Nominal pressure rating

DN / INCH	PN	-10	+50	+200	TS [°C]
DN 20 3/4"	PN25	25	25	25	PS [bar]
	PN40	40	40	40	PS [bar]

Nominal size:		Welding ends acc. to:										Setting range			
		ISO Series 1		ISO Series 2		ANSI Sched 40		ANSI Sched 80							
DN	INCH	d1	s	d1	s	d1	s	d1	s	l1	l2	h1	h2	d2	bar
20	3/4"	26.9	2.3	25.0	2.5	26.7	2.9	26.7	3.9	44	61	208	85	140	2-8

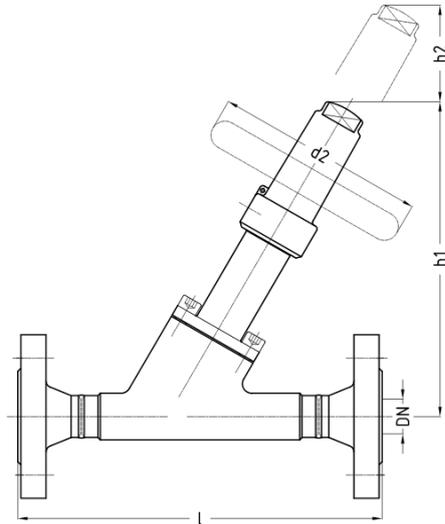
Table 16: Dimensions

h2 = dismantling dimension

## 23 UVR D FL HT

**D:** Straight-way, **FL:** flanged ends, **HT:** Temperature up to +200°C

UVR steel overflow valve - back-pressure dependent - for hot-gas defrosting for natural gases and liquids (e.g. NH<sub>3</sub>, CO<sub>2</sub>) and non-corrosive media according to EN 378-1



Application: This valve has three functions in one and combines overflow, check and shut-off valve.

Pressure / temperature operating limits:

**PS:** Max. permissible operating pressure in bar

**TS:** Permissible operating temperature in °C associated with the permissible operating pressures (PS)

**PN:** Nominal pressure rating

DN / INCH	PN	-10	+50	+200	TS [°C]
DN 20 3/4"	PN25	25	25	25	PS [bar]
	PN40	40	40	40	PS [bar]

Nominal size:		Flanged ends acc. to:							
	AWP DN20 PN25	PN25 DIN 2634 EN1092-1	PN40 DIN 2635 EN1092-1	ANSI 300 RF					Setting range
DN	INCH	l	l	l	l	h1	h2	d2	bar
20	3/4"	216	232	232	266	202	55	140	2-8

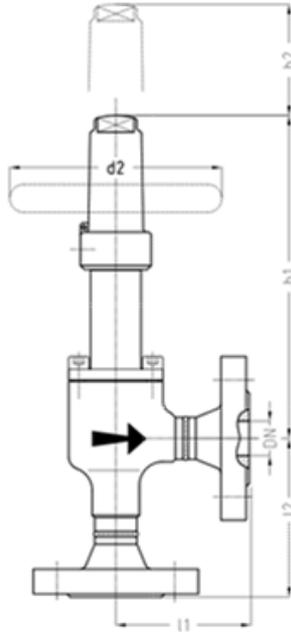
Table 17: Dimensions

h2 = dismantling dimension, DIN/EN flange facings as standard: groove DIN 2512

## 24 UVR E FL HT

**I:** Angle, **FL:** Flanged ends, **HT:** Temperature up to +200°C

UVR steel overflow valve - back-pressure dependent - for hot-gas defrosting for natural gases and liquids (e.g. NH<sub>3</sub>, CO<sub>2</sub>) and non-corrosive media according to EN 378-1



Application: This valve has three functions in one and combines overflow, check and shut-off valve.

Pressure / temperature operating limits:

**PS:** Max. permissible operating pressure in bar

**TS:** Permissible operating temperature in °C associated with the permissible operating pressures (PS)

**PN:** Nominal pressure rating

DN / INCH	PN	-10	+50	+200	TS [°C]
DN 20 3/4"	PN25	25	25	25	PS [bar]
	PN40	40	40	40	PS [bar]

Nominal size:		Flanged ends acc. to:											
		AWP DN20 PN25		PN25 DIN 2634 EN1092-1		PN40 DIN 2635 EN1092-1		ANSI 300 RF					Setting range
DN	INCH	l1	l2	l1	l2	l1	l2	l1	l2	h1	h2	d2	bar
20	3/4"	77	94	85	102	85	102	102	119	208	85	140	2-8

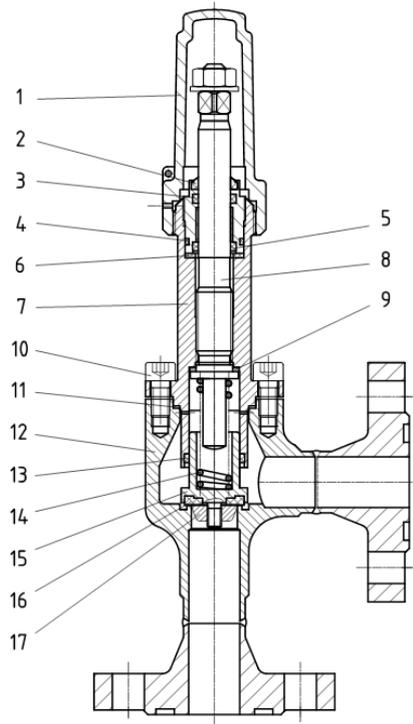
Table 18: Dimensions

h2 = dismantling dimension, DIN/EN flange facings as standard: tongue/groove DIN 2512

## 25 UVRK materials

Designation and materials

UVRK HT- overflow valve with regulating cone for hot-gas defrosting



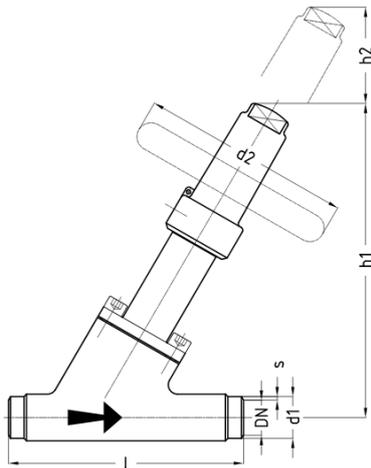
Part	Material for steel valves	Material for stainless steel valves
1 Cap	Aluminium AlSi10Mg	Aluminium AlSi10Mg
2 Wiper ring	NBR	NBR
3 O-ring A	CR, NBR / HNBR /EPDM*	CR, FKM, HNBR, EPDM*
4 O-ring B	CR, NBR / HNBR /EPDM*	CR, FKM, HNBR, EPDM*
5 Spring-loaded U-ring	PTFE	PTFE
6 Flat sealing ring for threaded bush	AFM30	AFM30
7 Bonnet	S355J2 1.0577	X8CrNiS18-9 1.4305
8 Stem	X8CrNiS18-9 1.4305	X8CrNiS18-9 1.4305
9 Back seal	AFM30	AFM30
10 Bonnet screw	8.8	A2-70
11 Flat sealing ring for bonnet	AFM30	AFM30
12 Body	S355J2 1.0577	X5CrNi18-10 1.4301
13 Spring-loaded U-ring	PTFE	PTFE
14 Tongue	SH	SH
15 Valve disc	S355J2 1.0577	X8CrNiS18-9 1.4305
16 Flat sealing ring for valve disc	PTFE	PTFE
17 Regulating cone	S355J2 1.0577	X8CrNiS18-9 1.4305

\* depending on the refrigerant used

## 26 UVRK D AE HT

**D:** Straight-way, **AE:** Welding ends, **HT:** Temperature up to +200°C

UVRK steel overflow valve - back-pressure dependent - with regulating cone - for hot-gas defrosting for natural gases and liquids (e.g. NH<sub>3</sub>, CO<sub>2</sub>) and non-corrosive media according to EN 378-1



Application: This valve has three functions in one and combines overflow, check and shut-off valve.

Pressure / temperature operating limits:

**PS:** Max. permissible operating pressure in bar

**TS:** Permissible operating temperature in °C associated with the permissible operating pressures (PS)

**PN:** Nominal pressure rating

DN / INCH	PN	-10	+50	+200	TS [°C]
DN 20 3/4"	PN25	25	25	25	PS [bar]
	PN40	40	40	40	PS [bar]

Nominal size:		Welding ends acc. to:														Setting range
DN	INCH	ISO Series 1		ISO Series 2		ANSI Sched 40		ANSI Sched 80		l	h1	h2	d2	bar		
		d1	s	d1	s	d1	s	d1	s							
20	3/4"	26.9	2.3	25.0	2.5	26.7	2.9	26.7	3.9	150	202	55	140	2-8		

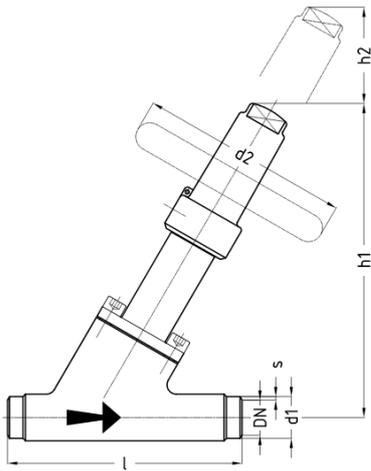
Table 19: Dimensions

h2 = dismantling dimension

## 27 UVRK D AE NIRO HT

**D:** Straight-way, **AE:** Welding ends, **HT:** Temperature up to +200°C

UVRK stainless steel overflow valve - back-pressure dependent - with regulating cone - for hot-gas defrosting for natural gases and liquids (e.g. NH<sub>3</sub>, CO<sub>2</sub>) and non-corrosive media according to EN 378-1



Application: This valve has three functions in one and combines overflow, check and shut-off valve.

Pressure / temperature operating limits:

**PS:** Max. permissible operating pressure in bar

**TS:** Permissible operating temperature in °C associated with the permissible operating pressures (PS)

**PN:** Nominal pressure rating

DN / INCH	PN	-10	+50	+200	TS [°C]
DN 20 3/4"	PN25	25	25	25	PS [bar]
	PN40	40	40	40	PS [bar]

Nominal size:		Welding ends acc. to:										Setting range		
DN	INCH	ISO Series 1		ISO Series 2		ANSI Sched 40		ANSI Sched 80		l	h1	h2	d2	bar
20	3/4"	d1	s	d1	s	d1	s	d1	s	150	202	55	140	2-8

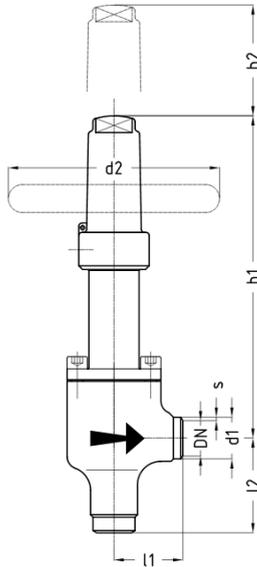
Table 20: Dimensions

h2 = dismantling dimension

## 28 UVRK E AE HT

**E:** Angle, **AE:** Welding ends, **HT:** Temperature up to +200°C

UVRK steel overflow valve - back-pressure dependent - with regulating cone - for hot-gas defrosting for natural gases and liquids (e.g. NH<sub>3</sub>, CO<sub>2</sub>) and non-corrosive media according to EN 378-1



Application: This valve has three functions in one and combines overflow, check and shut-off valve.

Pressure / temperature operating limits:

**PS:** Max. permissible operating pressure in bar

**TS:** Permissible operating temperature in °C associated with the permissible operating pressures (PS)

**PN:** Nominal pressure rating

DN / INCH	PN	-10	+50	+200	TS [°C]
DN 20	PN25	25	25	25	PS [bar]
3/4"	PN40	40	40	40	PS [bar]

Nominal size:		Welding ends acc. to:													
		ISO Series 1		ISO Series 2		ANSI Sched 40		ANSI Sched 80						Setting range	
DN	INCH	d1	s	d1	s	d1	s	d1	s	l1	l2	h1	h2	d2	bar
20	3/4"	26.9	2.3	25	2.5	26.7	2.9	26.7	3.9	44	61	208	85	140	2-8

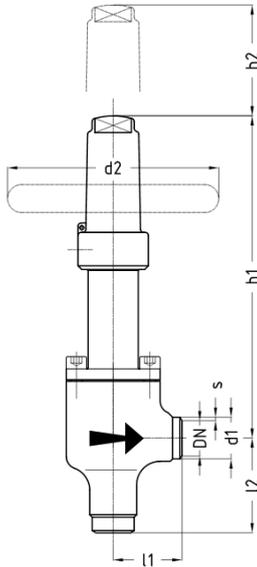
Table 21: Dimensions

h2 = dismantling dimension

## 29 UVRK E AE NIRO HT

**E:** Angle, **AE:** Welding ends, **HT:** Temperature up to +200°C

UVRK stainless steel overflow valve - back-pressure dependent - with regulating cone - for hot-gas defrosting for natural gases and liquids (e.g. NH<sub>3</sub>, CO<sub>2</sub>) and non-corrosive media according to EN 378-1



Application: This valve has three functions in one and combines overflow, check and shut-off valve.

Pressure / temperature operating limits:

**PS:** Max. permissible operating pressure in bar

**TS:** Permissible operating temperature in °C associated with the permissible operating pressures (PS)

**PN:** Nominal pressure rating

DN / INCH	PN	-10	+50	+200	TS [°C]
DN 20 3/4"	PN25	25	25	25	PS [bar]
	PN40	40	40	40	PS [bar]

Nominal size:		Welding ends acc. to:													
		ISO Series 1		ISO Series 2		ANSI Sched 40		ANSI Sched 80						Setting range	
DN	INCH	d1	s	d1	s	d1	s	d1	s	l1	l2	h1	h2	d2	bar
20	3/4"	26.9	2.3	25.0	2.5	26.7	2.9	26.7	3.9	44	61	208	85	140	2-8

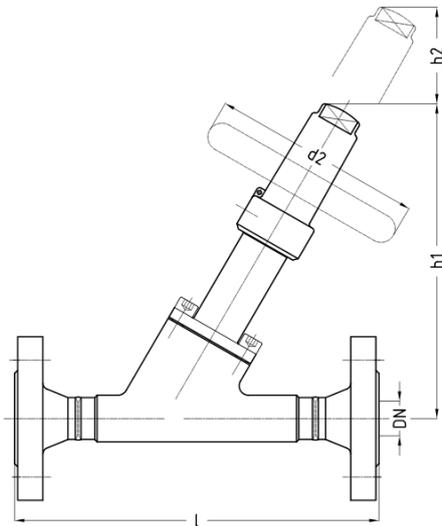
Table 22: Dimensions

h2 = dismantling dimension

### 30 UVRK D FL HT

**D:** Straight-way, **FL:** flanged ends, **HT:** Temperature up to +200°C

UVRK steel overflow valve - back-pressure dependent - with regulating cone - for hot-gas defrosting for natural gases and liquids (e.g. NH<sub>3</sub>, CO<sub>2</sub>) and non-corrosive media according to EN 378-1



Application: This valve has three functions in one and combines overflow, check and shut-off valve.

Pressure / temperature operating limits:

**PS:** Max. permissible operating pressure in bar

**TS:** Permissible operating temperature in °C associated with the permissible operating pressures (PS)

**PN:** Nominal pressure rating

DN / INCH	PN	-10	+50	+200	TS [°C]
DN 20 3/4"	PN25	25	25	25	PS [bar]
	PN40	40	40	40	PS [bar]

Nominal size:		Flanged ends acc. to:							
		AWP DN20 PN25	PN25 DIN 2634  EN1092-1	PN40 DIN 2635  EN1092-1	ANSI 300 RF				Setting range
DN	INCH	l	l	l	l	h1	h2	d2	bar
20	3/4"	216	232	232	266	202	55	140	2-8

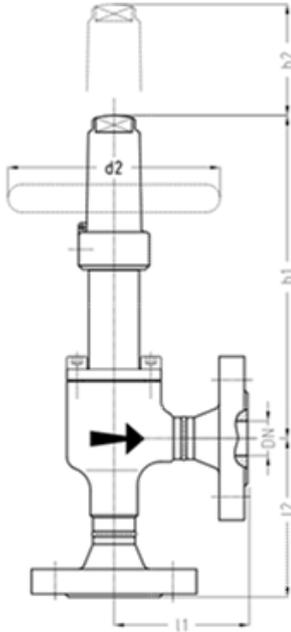
Table 23: Dimensions

h2 = dismantling dimension, DIN/EN flange facings as standard: groove DIN 2512

### 31 UVRK E FL HT

**I:** Angle, **FL:** Flanged ends, **HT:** Temperature up to +200°C

UVRK steel overflow valve - back-pressure dependent - with regulating cone - for hot-gas defrosting for natural gases and liquids (e.g. NH<sub>3</sub>, CO<sub>2</sub>) and non-corrosive media according to EN 378-1



Application: This valve has three functions in one and combines overflow, check and shut-off valve.

Pressure / temperature operating limits:

**PS:** Max. permissible operating pressure in bar

**TS:** Permissible operating temperature in °C associated with the permissible operating pressures (PS)

**PN:** Nominal pressure rating

DN / INCH	PN	-10	+50	+200	TS [°C]
DN 20 3/4"	PN25	25	25	25	PS [bar]
	PN40	40	40	40	PS [bar]

Nominal size:		Flanged ends acc. to:												Setting range
DN	INCH	AWP DN20 PN25		PN25 DIN 2634 EN1092-1		PN40 DIN 2635 EN1092-1		ANSI 300 RF		h1	h2	d2	bar	
20	3/4"	l1	l2	l1	l2	l1	l2	l1	l2	h1	h2	d2	bar	
		77	94	85	102	85	102	102	119	208	85	140	2-8	

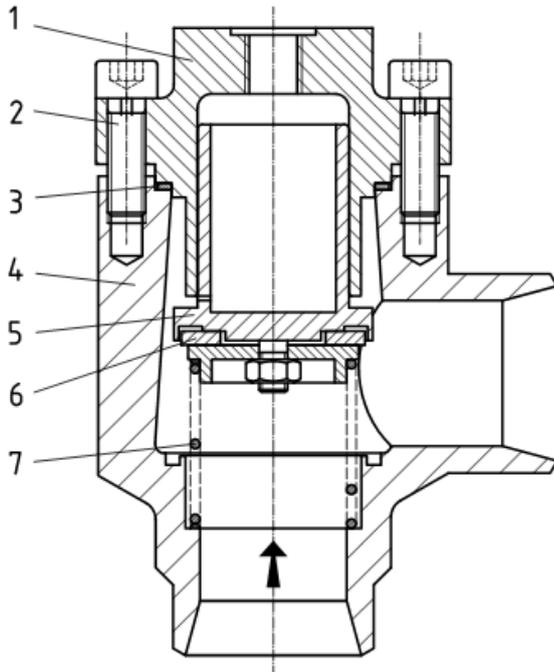
Table 24: Dimensions

h2 = dismantling dimension, DIN/EN flange facings as standard: groove DIN 2512

## 32 GPV materials

Designation and materials

GPV HT – pressure-controlled valve

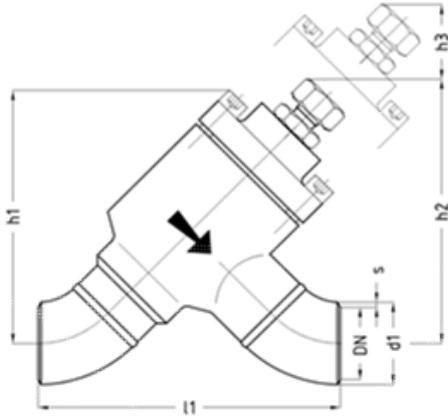


	Part	Material for steel valves	Material for stainless steel valves
1	Bonnet	S355J2 1.0577	X8CrNi18-9 1.4305
2	Bonnet screw	8.8	A2-70
3	Flat sealing ring for bonnet	AFM30	AFM30
4	Body	S355J2 1.0577	X5CrNi18-10 1.4301
5	Valve disc	S355J2 1.0577	X8CrNi18-9 1.4305
6	Flat sealing ring for valve disc	PTFE	PTFE
7	Tongue	X10CrNi18-8 1.4310	X10CrNi18-8 1.4310

\* depending on the refrigerant used

### 33 GPV D AE HT

**D:** Straight-way, **AE:** Welding ends, **HT:** Temperature up to +200°C  
 GPV steel pressure-controlled valve



Application: GPVs are installed in the oil return line between the lowest point of the flooded evaporator and the compressor. The valves are functionally open so that the oil/refrigerant mixture flows into the oil collection vessel. If this is filled, the GPV are closed with hot gas and at the same time the pressure on the collected oil is increased by means of an overflow bore to lead it back to the compressor.

Pressure / temperature operating limits:

**PS:** Max. permissible operating pressure in bar

**TS:** Permissible operating temperature in °C associated with the permissible operating pressures (PS)

**PN:** Nominal pressure rating

DN / INCH	PN	-10	+50	+200	TS [°C]
DN 25...32 1" ... 1 1/4"	PN40	40	40	40	PS [bar]

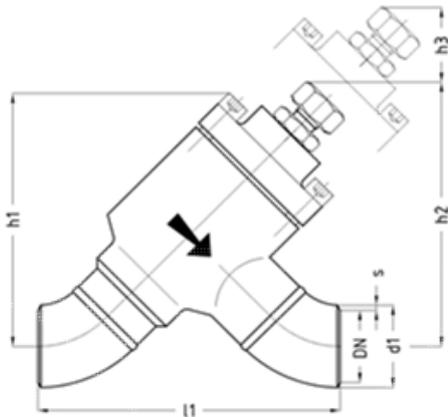
Nominal size:		Welding ends acc. to:									
		ISO Series 1		ISO Series 2		ANSI Sched 40					
DN	INCH	d1	s	d1	s	d1	s	l1	h1	h2	h3
25	1"	33.7	2.6	32	3.0	33.4	3.4	140	127	133	35
32	1 1/4"	42.4	2.6	38	3.0	42.2	3.6	154	130	136	35

Table 25: Dimensions

h3 = dismantling dimension

### 34 GPV D AE NIRO HT

**D:** Straight-way, **AE:** Welding ends, **HT:** Temperature up to +200°C  
 GPV stainless steel pressure-controlled valve



Application: GPVs are installed in the oil return line between the lowest point of the flooded evaporator and the compressor. The valves are functionally open so that the oil/refrigerant mixture flows into the oil collection vessel. If this is filled, the GPV are closed with hot gas and at the same time the pressure on the collected oil is increased by means of an overflow bore to lead it back to the compressor.

Pressure / temperature operating limits:

**PS:** Max. permissible operating pressure in bar

**TS:** Permissible operating temperature in °C associated with the permissible operating pressures (PS)

**PN:** Nominal pressure rating

DN / INCH	PN	-10	+50	+200	TS [°C]
DN 25...32 1"...1 1/4"	PN40	40	40	40	PS [bar]

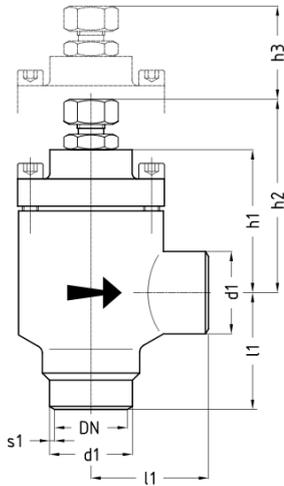
Nominal size:		Welding ends acc. to:									
		ISO Series 1		ISO Series 2		ANSI Sched 40					
DN	INCH	d1	s	d1	s	d1	s	l1	h1	h2	h3
25	1"	33.7	2.6	32	3.0	33.4	3.4	140	127	133	35
32	1 1/4"	42.4	2.6	38	3.0	42.2	3.6	154	130	136	35

Table 26: Dimensions

h3 = dismantling dimension

### 35 GPV E AE HT

**E:** Angle, **AE:** Welding ends, **HT:** Temperature up to +200°C  
 GPV steel pressure-controlled valve



Application: GPVs are installed in the oil return line between the lowest point of the flooded evaporator and the compressor. The valves are functionally open so that the oil/refrigerant mixture flows into the oil collection vessel. If this is filled, the GPV are closed with hot gas and at the same time the pressure on the collected oil is increased by means of an overflow bore to lead it back to the compressor.

Pressure / temperature operating limits:

**PS:** Max. permissible operating pressure in bar

**TS:** Permissible operating temperature in °C associated with the permissible operating pressures (PS)

**PN:** Nominal pressure rating

DN / INCH	PN	-10	+50	+200	TS [°C]
DN 25...32 1" ... 1 1/4"	PN40	40	40	40	PS [bar]

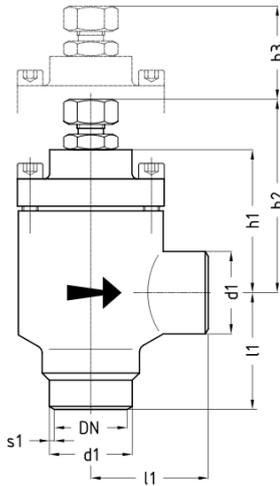
Nominal size:		Welding ends acc. to									
		ISO Series 1		ISO Series 2		ANSI Sched 40					
DN	INCH	d1	s	d1	s	d1	s	l1	h1	h2	h3
25	1"	33.7	2.6	32	3.0	33.4	3.4	60	74	100	45
32	1 1/4"	42.4	2.6	38	3.0	42.2	3.6	60	74	100	45

Table 27: Dimensions

h3 = dismantling dimension

### 36 GPV E AE NIRO HT

**E:** Angle, **AE:** Welding ends, **HT:** Temperature up to +200°C  
 GPV stainless steel pressure-controlled valve



Application: GPVs are installed in the oil return line between the lowest point of the flooded evaporator and the compressor. The valves are functionally open so that the oil/refrigerant mixture flows into the oil collection vessel. If this is filled, the GPV are closed with hot gas and at the same time the pressure on the collected oil is increased by means of an overflow bore to lead it back to the compressor.

Pressure / temperature operating limits:

**PS:** Max. permissible operating pressure in bar

**TS:** Permissible operating temperature in °C associated with the permissible operating pressures (PS)

**PN:** Nominal pressure rating

DN / INCH	PN	-10	+50	+200	TS [°C]
DN 25...32 1"...1 1/4"	PN40	40	40	40	PS [bar]

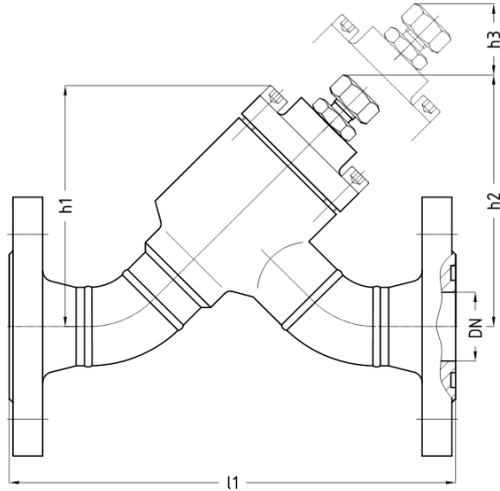
Nominal size:		Welding ends acc. to:									
		ISO Series 1		ISO Series 2		ANSI Sched 40					
DN	INCH	d1	s	d1	s	d1	s	l1	h1	h2	h3
25	1"	33.7	2.6	32	3.0	33.4	3.4	60	74	100	45
32	1 1/4"	42.4	2.6	38	3.0	42.2	3.6	60	74	100	45

Table 28: Dimensions

h3 = dismantling dimension

### 37 GPV D FL HT

**D:** Straight-way, **FL:** flanged ends, **HT:** Temperature up to +200°C  
 GPV steel pressure-controlled valve



Application: GPVs are installed in the oil return line between the lowest point of the flooded evaporator and the compressor. The valves are functionally open so that the oil/refrigerant mixture flows into the oil collection vessel. If this is filled, the GPV are closed with hot gas and at the same time the pressure on the collected oil is increased by means of an overflow bore to lead it back to the compressor.

Pressure / temperature operating limits:

**PS:** Max. permissible operating pressure in bar

**TS:** Permissible operating temperature in °C associated with the permissible operating pressures (PS)

**PN:** Nominal pressure rating

DN / INCH	PN	-10	+50	+200	TS [°C]
DN 25...32 1" ... 1 1/4"	PN40	40	40	40	PS [bar]

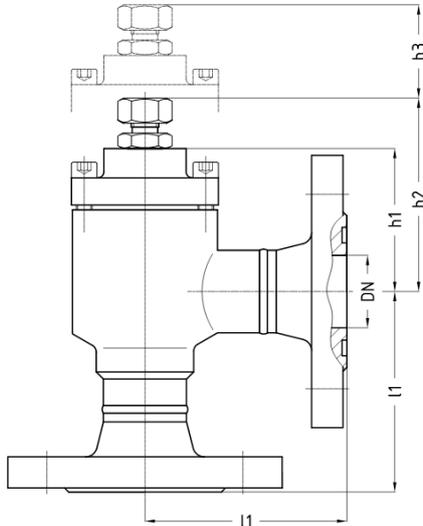
Nominal size:		Flange connection acc. to:			
		PS40 DIN 2635 EN1092-1			
DN	INCH	l1	h1	h2	h3
25	1"	222	127	133	35
32	1 1/4"	240	130	136	35

Table 29: Dimensions

h3 = dismantling dimension, DIN/EN flange facings as standard: groove DIN 2512

### 38 GPV E FL HT

**I:** Angle, **FL:** Flanged ends, **HT:** Temperature up to +200°C  
GPV steel pressure-controlled valve



Application: GPVs are installed in the oil return line between the lowest point of the flooded evaporator and the compressor. The valves are functionally open so that the oil/refrigerant mixture flows into the oil collection vessel. If this is filled, the GPV are closed with hot gas and at the same time the pressure on the collected oil is increased by means of an overflow bore to lead it back to the compressor.

Pressure / temperature operating limits:

**PS:** Max. permissible operating pressure in bar

**TS:** Permissible operating temperature in °C associated with the permissible operating pressures (PS)

**PN:** Nominal pressure rating

DN / INCH	PN	-10	+50	+200	TS [°C]
DN 25...32 1"...1 1/4"	PN40	40	40	40	PS [bar]

Nominal size:		Flange connection acc. to:			
		PS40 DIN 2635 EN1092-1			
DN	INCH	l1	h1	h2	h3
25	1"	101	127	133	35
32	1 1/4"	103	130	136	35

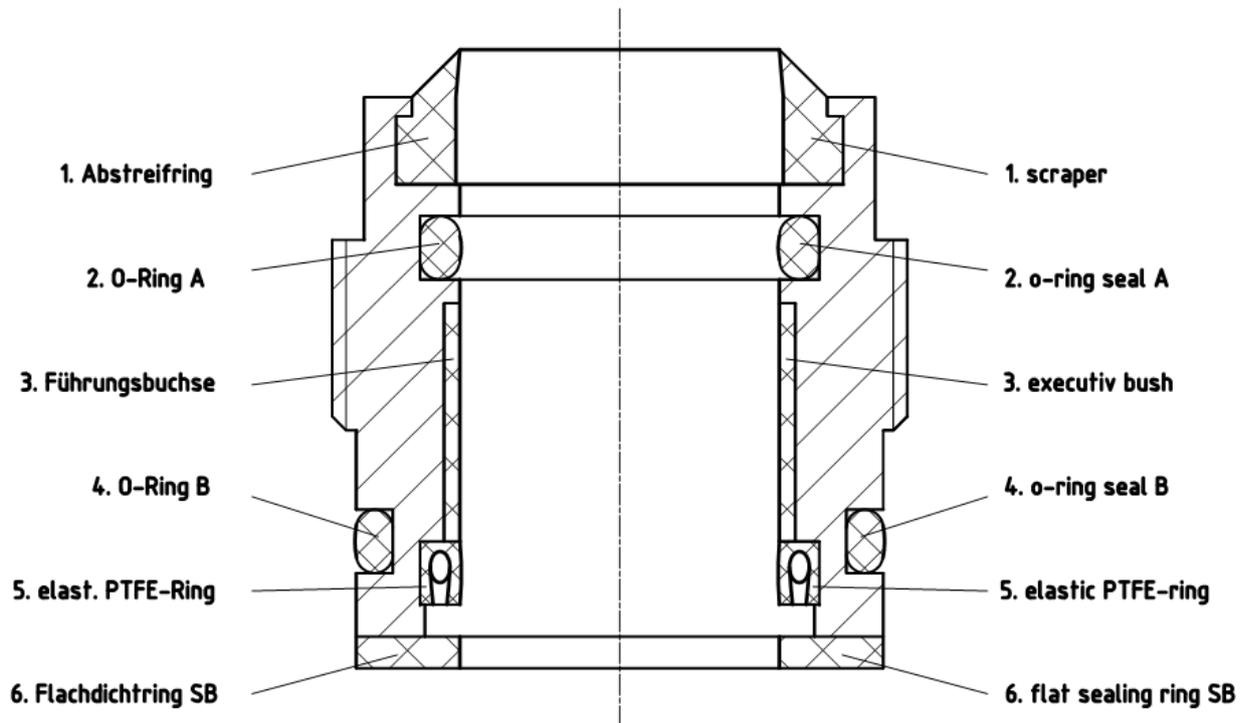
Table 30: Dimensions

h3 = dismantling dimension, DIN/EN flange facings as standard: groove DIN 2512

### 39 Valve stem sealing system

The valve stem sealing system is maintenance-free.

The sealing system consists of the following components:



1. Wiper ring

The wiper ring prevents the ingress of dirt and water from the outside.

2. O-ring A

O-ring A makes the valve vacuum-tight. (Valve operation in the vacuum range at low temperatures)

3. Guide bush

The guide bush prevents damage to the stem.

4. O-ring B

O-ring B seals the outer part of the sealing system in addition to the flat sealing ring SB.

5. Resilient PTFE ring

The resilient PTFE ring is the primary seal of the sealing system. It consists of a high-performance PTFE compound with a wound stainless steel spring. This seal seals the valve to the atmosphere.

6. Flat sealing ring SB

The flat sealing ring SB seals the outer part of the sealing system.

Note: GEA AWP valves have a back seal. Therefore, the removal and replacement of the sealing system is possible during operation of the plant. Please observe the instructions in our operating regulations regarding this.

## 40 Accessories

UV UM + ST screwed ends

GEA AWP – valves with screwed ends can be ordered with a variety of screw connections to meet the respective requirements. The list below shows accessories / valve combinations that are currently manufactured.

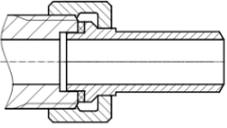
Accessory group	Valve designation	Code fittings	Connections	
UM+ST union nut with welding nipple				
UM + ST 	UVAA SE G3/8" / G3/8"	00060F07A5A0AK01	I:	G 3/8" with UM + ST 10.2x1.6 mm
	UVAB SE G3/8" / G3/8"		O:	
	UVAA SE G1/2" / G1/2"	00060F07A5A0A101	I:	G 1/2" mit UM + ST 13.5x1.8 mm
	UVAB SE G1/2" / G1/2"		O:	
	UVAA SE G3/4" / G3/4"	00060F07A5A0AE01	I:	G 3/4" mit UM + ST 17,2x2.0 mm
	UVAB SE G3/4" / G3/4"		O:	
	UVUA SE G1/2" / G1/2"	00060F07A5A0A101	I:	G1/2" with UM + ST 13.5 x 1.8 mm
	UVUB SE G1/2" / G1/2"		O:	
UVUA SE G1/2" / G1"	00060F07A5A0A101	I:	G1/2" with UM + ST 13.5 x 1.8 mm	
UVUB SE G1/2" / G1"	00060F07A5A0B601	O:	G1" with UM + ST 21.3 x 2.0 mm	

Table 31: Accessories overflow valves

I: = inlet/ O: = outlet

## 41 Set pressure ranges of springs for overflow valves and oil pressure-regulating valves

	Valve type UVAA / UVAB		Valve type UVUA / UVUB	Valve type UVUB (installation length F)	Valve type UVR/UVRK	Valve type ORVA	
PS	DN 6/15	DN 20/32	all DN	Replacement ORVA	DN 20	DN40/65	DN 50/65
25	1-1.9	1-1.9	4-7.9 (bar)	1-6	2-8	1-6	1-6
	2-4.9	2-4.9	8-11.9				
	5-7.9	5-9.9	12-19.9				
	8-13.9	10-15.9	20-25.0				
	14-19.9	16-19.9					
	20-25	20-25					
40			20-27.9				
			28-35.9				
			36-40.0				
63			36-44.9				
			45-63				

Table 32: Response pressure range in bar

## 42 Comparison of European / American materials

GEA AWP valves contain individual parts in different materials. The following table contains all materials that GEA AWP uses for pressure-retaining parts and lists the equivalent American materials.

European material			American equivalent material	
Material number	Short name	Standard	Material standard	Grade
Valves made of carbon steel				
1.0345	P235GH, TC1 +N	DIN EN 10216-2	ASME SA-106	A + B
1.0038	S235JR +N	DIN EN 10025-2	ASME SA-570	36
1.0425	P265GH	DIN EN 10028-2	ASME SA-516	60
1.0577	S355J2 +N	DIN EN 10025-2	ASME SA-516	65
1.0562	P355N	DIN EN 10028-3		
1.0460	C22.8	VdTÜV 350/3	ASME SA-105	-
Valves made of low-temperature steel				
1.0451	P215NL +N	DIN EN 10216-4	ASME SA-333	6
1.0452	P255QL +QT	DIN EN 10216-4		
1.0566	P355NL1 +N	DIN EN 10028-3	ASME SA-662	B
		DIN 17103	ASME SA-420	WPL6
		VdTÜV 354/3	ASME SA-350	LF2
1.0488	TStE 285	DIN 17103	ASME SA-662	A
		VdTÜV 352/3	ASME SA-350	LF2
Valves made of stainless steel				
1.4301	X5CrNi18-10	DIN EN 10216-5	ASME SA-312	TP304
		DIN EN 10028-7	ASME SA-240	304
		DIN EN 10222-5		
		DIN EN 1092-1	ASME SA-182	F304

Straight-way valves in non-standard design (e.g. deviating materials, third-party inspection) are only available in angle-seat form.

## 43 Coding of connections for small and service valves

GEA AWP valves can be manufactured with a variety of connection variants:

DN	Thread	Cod e	Welding ends	Dimensions	Cod e
DN8	M12x1.5 RA6	AL	DN6 R1	Ø10.2x1.6	C0
DN8	M12x1.5-taper	AY	ANSI 40	Ø1/8"x1.7	C1
DN8	M14x1.5 RA8	A4	ANSI 80	Ø1/8"x2.4	C2
DN8	M16x1.5 RA8	A5			
DN8	M16x1.5 RA10	A6	DN8 R1	Ø13.5x1.8	D0
DN8	M16x1.5-i	AZ	ANSI 40	Ø1/4"x2.2	D1
DN8	M16x1.5-taper	AC	ANSI 80	Ø1/4"x3.0	D2
DN8	M18x1.5 RA10	A7	12x2	Ø12x2.0	D3
DN8	M18x1.5 RA12	A8	12x3	Ø12x3.0	D4
DN8	M20x1.5 RA12	A9	R1 ext. L2=130 Niro	Ø13.5x1.8	D5
DN8	M22x1.5 RA14	AA	R1 ext. L2=130 C-St.	Ø13.5x1.8	D6
DN8	M22x1.5 RA15	AB			
DN8	M22x1.5	A0	DN10 R1	Ø17.2x1.8	E0
DN8	M22x1.5-taper	AD	ANSI 40	Ø3/8"x2.3	E1
DN20	M26x1.5 RA18	AS	ANSI 80	Ø3/8"x3.2	E2
DN20	M30x2 RA22	AT	R2	Ø15x2.5	E3
DN8	G1/4"	AF	18x3	Ø18x3.0	E4
DN8	G1/4"-taper	AG	R1 ext. L2=130 Niro	Ø17.2x1.8	E5
DN8	G1/4"-i	AH	R1 ext. L2=130 C-St.	Ø17.2x1.8	E6
DN8	G3/8"	AK	16x4 ext.L2=130 NIRO	Ø16x4.0	E7
DN8	G3/8"-i	AM	17,2x2	Ø17.2x2.0	E8
DN8	G3/8" RA10	AJ	R1 ext. L2=120 C-St.	Ø17.2x1.8	E9
DN8	G1/2"	A1	R1 ext. L2=140 Niro	Ø17.2x1.8	EA
DN8	G1/2"-LH	A2	R1 ext. L2=140 C-St.	Ø17.2x1.8	EB
DN8	G1/2" RA12	AN	R1 ext. L2=60 Niro	Ø17.2x1.8	EC
DN8	G1/2"-i	AU	R1 ext. L2=60 C-St.	Ø17.2x1.8	ED
DN8	G1/2" UM *)	AV	18x4 ext.L2=140 Niro	Ø18x4.0	EE
DN8	G1/2" **)	AW	18x4 ext.L2=140C-St	Ø18x4.0	EF
DN8	G1/2"-taper	AX	18x4 ext.L2=60 Niro	Ø18x4.0	EG
DN20	G3/4"	AE	18x4 ext.L2=60 C-St.	Ø18x4.0	EH
DN20	G3/4" RA18	AP			
DN8	1/4"NPT-male	A3	DN15 R1	Ø21.3x2.0	F0
DN8	1/4"NPT-female	AR	ANSI 40	Ø1/2"x2.8	F1
DN8	3/8"NPT-male	AI	ANSI 80	Ø1/2"x3.7	F2
DN8	3/8"NPT-female	B2	R2	Ø20x2.5	F3
DN8	1/2"NPT-male	B0	R1 ext. L2=130 Niro	Ø21.3x2.0	F5
DN8	1/2"NPT-female	B1	R1 ext. L2=130 C-St.	Ø21.3x2.0	F6
DN20	3/4"NPT-male	B3	R1 ext. L2=180 NIRO	Ø21.3x2.0	F7

DN	Thread	Cod e	Welding ends	Dimensions	Cod e
DN8	M10-a	B4	ANSI 80 L2=130 C-St	Ø21.3x3.7	F8
DN20	G1"	B6	*) rotatable, welded to body /		
DN8	G3/8" BSPT-male	B7	rotatable, welded to body		
DN8	G3/8" BSPT-female	B8	**) for one-piece blind nut		
DN8	3/8-18 NPTF-male	B9			
DN8	R3/8"-taper	BA			

i = female thread, a = male thread

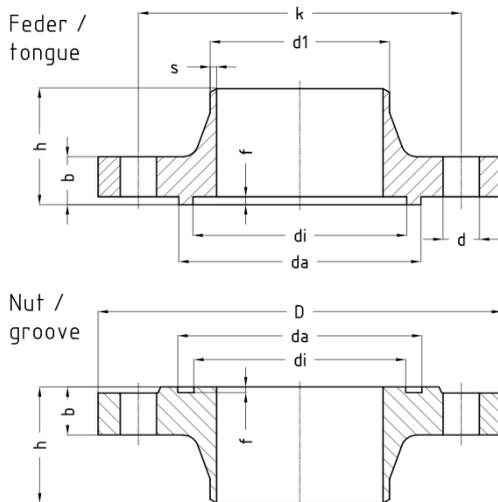
These connections can be equipped with accessories.

Accessories		Short designation	Code
UM+ST	Union nut with welding nipple	UM+ST	1
BM	Blind nut	BM	2
DM	Double nut left/right	DM	3
UM+SKB	Union nut with weld ball nipple	UM+SKB	4
UM+SR	Union nut with cutting ring	UM+SR	5
UM+SLT	Union nut with hose nipple	UM+SLT	6
DM+ad- apter	Double nut with adapter G1/2"-a/ G1/4"-i	DM+adapter	7
UM+KKR	Union nut with clamping ring	UM+KKR	9

## 44 Welding neck flanges - DIN 2634/2635

- DIN-FL
- DIN-FL N
- DIN-FL F
- DIN-FL C
- DIN-FL D
- FL - flange
- Form N - groove, DIN 2512
- Form F - tongue, DIN 2512
- Form C - smooth flange facing, (Rz 160) DIN 2526
- Form D - smooth flange facing (Rz 40) DIN 2526

DN 10-150 DIN 2635 PN 40,  
DN 200 DIN 2634 PN 25



### DIN2634 PN25 DN10-150 / DIN 2635 PN40 DN10-400

DN	Welding ends				Flange facing design											Screws DIN 931			Sealing ring DIN 2691	
	Series 1		Series 2		Groove						Tongue					Quant- ity	Thread	Lengt h	di	da
d1	s	d1	s	b	k	h	d	D	d <sub>i</sub>	d <sub>a</sub>	f	d <sub>i</sub>	d <sub>a</sub>	f						
10	17.2	1.8	15.0	2.5	1 6	60	35	1 4	90	23	35	2. 5	24	34	4. 0	4	M 12	45	24	34
15	21.3	2.0	20.0	2.5	1 6	65	38	1 4	95	28	40	2. 5	29	39	4. 0	4	M 12	45	29	39
20	26.9	2.3	25.0	2.5	1 8	75	40	1 4	10 5	35	51	2. 5	36	50	4. 0	4	M 12	50	36	50
25	33.7	2.6	32.0	3.0	1 8	85	40	1 4	11 5	42	58	2. 5	43	57	4. 0	4	M 12	50	43	57

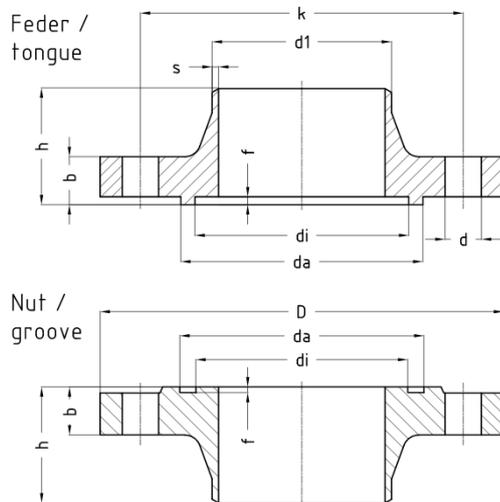
DIN2634 PN25 DN10-150 / DIN 2635 PN40 DN10-400																				
32	42.4	2.6	38.0	3.0	1 8	10 0	42	1 8	14 0	50	66	2. 5	51	65	4. 0	4	M 16	55	51	65
40	48.3	2.6	45.0	3.0	1 8	11 0	45	1 8	15 0	60	76	2. 5	61	75	4. 0	4	M 16	55	61	75
50	60.3	2.9	57.0	3.2	2 0	12 5	48	1 8	16 5	72	88	2. 5	73	87	4. 0	4	M 16	60	73	87
65	76.1	2.9	76.1	3.6	2 2	14 5	52	1 8	18 5	94	11 0	2. 5	95	10 9	4. 0	8	M 16	60	95	109
80	88.9	3.2	88.9	4.0	2 4	16 0	58	1 8	20 0	10 5	12 1	2. 5	10 6	12 0	4. 0	8	M 16	65	106	120
100	114.3	3.6	108.0	4.0	2 4	19 0	65	2 2	23 5	12 8	15 0	3. 0	12 9	14 9	4. 5	8	M 20	70	129	149
125	139.7	4.0	133.0	4.0	2 6	22 0	68	2 6	27 0	15 4	17 6	3. 0	15 5	17 5	4. 5	8	M 24	80	155	175
150	168.3	4.5	159.0	4.5	2 8	25 0	75	2 6	30 0	18 2	20 4	3. 0	18 3	20 3	4. 5	8	M 24	80	183	203
200	219.1	6.3			3 4	32 0	88	3 0	37 5	23 8	26 0	3. 0	23 9	25 9	4. 5	12	M 27	100	239	259
250	273.0	7.1			3 8	38 5	105	3 3	45 0	29 1	31 3	3. 0	29 2	31 2	4. 5	12	M 30	110	292	312
300	323.9	8.0			4 2	45 0	115	3 3	51 5	34 2	36 4	3. 0	34 3	36 3	4. 5	16	M 30	120	343	363
350	355.6	8.8			4 6	51 0	125	3 6	58 0	39 4	42 2	3. 5	39 5	42 1	5. 0	16	M 33	130	395	421
400	406.4	11.0			5 0	58 5	135	3 9	66 0	44 6	47 4	3. 5	44 7	47 3	5. 0	16	M 36	140	447	473

Table 33: Installation lengths

## 45 Welding neck flanges - DIN 2634/2636/2637

- DIN-FL
- DIN-FL N
- DIN-FL F
- DIN-FL C
- DIN-FL D
- FL - flange
- Form N - groove, DIN 2512
- Form F - tongue, DIN 2512
- Form C - smooth flange facing, (Rz 160) DIN 2526
- Form D - smooth flange facing (Rz 40) DIN 2526

DN 10-150 DIN 2635 PN 40,  
DN 200 DIN 2634 PN 25



### DIN 2634 PN25 DN200-500

DN	Welding ends							Flange facing design						Screws DIN 931			Sealing ring DIN 2691	
	Series 1							Groove			Tongue			Quant- ity	Thread	Lengt h	di	da
d1	s	b	k	h	d	D	di	da	f	di	da	f						
200	219.1	6.3	30	310	80	26	360	238	260	3.0	239	259	4.5	12	M 24	90	239	259
250	273.0	7.1	32	370	88	3.0	425	291	313	3.0	292	312	4.5	12	M 27	90	292	312
300	323.9	8.0	34	430	92	3.0	485	342	364	3.0	343	363	4.5	16	M 27	100	343	363
350	355.6	8.0	38	490	100	3.0	553	394	425	3.0	395	421	5.0	16	M 30	110	395	421

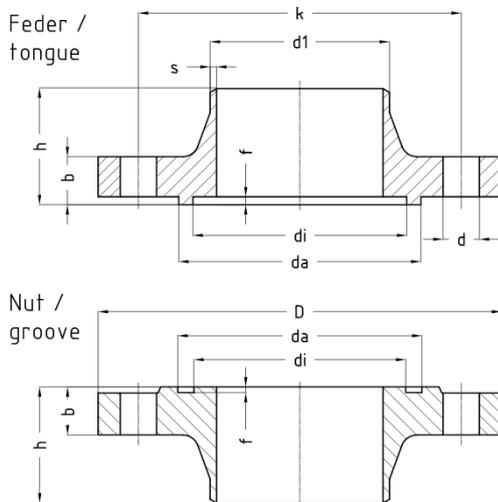
DIN 2634 PN25 DN200-500																		
400	406.4	8.8	40	550	110	36	620	446	474	3.5	447	473	5.0	16	M 33	120	447	473
500	508.0	10.0	44	660	125	36	730	548	576	3.9	549	575	5.0	20	M 33	130	549	575
DIN2636 PN63 DN10-40 / DIN 2637 PN100 DN10-40																		
DN	d1	s	b	k	h	d	D	di	da	f	di	da	f	Quantity	Thread	Length	di	Da
10	17.2	2.0	20	70	45	14	100	23	35	2.5	24	34	4.0	4	M 12	55	24	34
15	21.3	2.0	20	75	45	14	105	28	40	2.5	29	39	4.0	4	M 12	55	29	39
20	26.9	2.6	22	90	48	18	130	35	51	2.5	36	50	4.0	4	M 16	60	36	50
25	33.7	2.6	24	100	58	18	140	42	58	2.5	43	57	4.0	4	M 16	65	43	57
32	42.4	2.9	24	110	60	22	150	50	66	2.5	51	65	4.0	4	M 20	70	51	65
40	48.3	2.9	26	120	62	22	170	60	76	2.5	61	75	4.0	4	M 20	70	61	75
DIN 2636 PN63 DN50-125																		
DN	d1	S	b	k	h	d	D	di	da	f	di	da	f	Quantity	Thread	Length	di	da
50	60.3	2.9	26	130	62	22	180	72	88	2.5	73	87	4.0	4	M 20	75	73	87
65	76.1	3.2	26	160	68	22	205	94	110	2.5	95	109	4.0	8	M 20	75	95	109
80	88.9	3.6	28	170	72	22	215	105	121	2.5	106	120	4.0	8	M 20	75	106	120
100	114.3	4.0	30	200	78	26	250	120	150	3.0	129	149	4.5	8	M 24	90	129	149
125	139.7	4.5	34	240	88	30	290	150	175	3.0	155	175	4.5	8	M 27	100	155	175

Table 34: Installation lengths

## 46 Welding neck flanges - DIN EN 1092-1

- DIN EN-FL
- DIN EN-FL D
- DIN EN-FL C
- DIN EN-FL B1
- DIN EN-FL B2
- FL - flange
- Form D - groove, DIN EN 1092-1
- Form C - tongue, DIN EN 1092-1
- Form B1 - raised face (Rz 50) DIN EN 1092-1
- Form B2 - raised face (Rz 12.5) DIN EN 1092-1

DN 10-150 DIN 2635 PN 40,  
DN 200 DIN 2634 PN 25



DIN EN 1092-1 PN25 DN10-150 / PN40 DN10-400																				
Welding ends					Flange facing design											Screws DIN 931			Sealing ring DIN 2691	
Series 1		Series 2			Groove						Tongue					Quant- ity	Thread	Lengt h	di	da
DN	d1	s	d1	s	b	k	h	d	D	di	da	f	di	da	f					
10	17.2	1.8	15.0	2.5	1 6	60	35	1 4	90	23	35	4. 0	24	34	4. 5	4	M 12	45	24	34
15	21.3	2.0	20.0	2.5	1 6	65	38	1 4	95	28	40	4. 0	29	39	4. 5	4	M 12	45	29	39
20	26.9	2.3	25.0	2.5	1 8	75	40	1 4	10 5	35	51	4. 0	36	50	4. 5	4	M 12	50	36	50
25	33.7	2.6	32.0	3.0	1 8	85	40	1 4	11 5	42	58	4. 0	43	57	4. 5	4	M 12	50	43	57

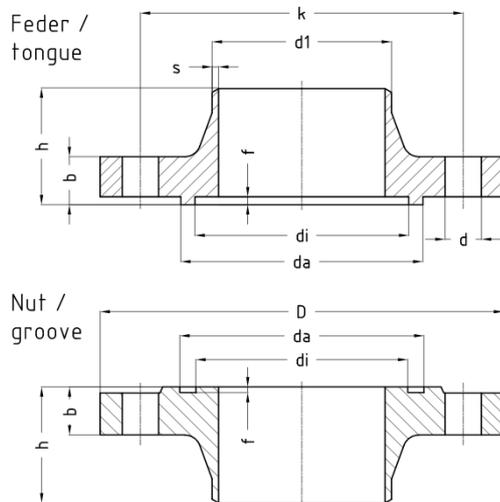
DIN EN 1092-1 PN25 DN10-150 / PN40 DN10-400																				
32	42.4	2.6	38.0	3.0	1 8	10 0	42	1 8	14 0	50	66	4. 0	51	65	4. 5	4	M 16	55	51	65
40	48.3	2.6	45.0	3.0	1 8	11 0	45	1 8	15 0	60	76	4. 0	61	75	4. 5	4	M 16	55	61	75
50	60.3	2.9	57.0	3.2	2 0	12 5	48	1 8	16 5	72	88	4. 0	73	87	4. 5	4	M 16	60	73	87
65	76.1	2.9	76.1	3.6	2 2	14 5	52	1 8	18 5	94	11 0	4. 0	95	10 9	4. 5	8	M 16	60	95	109
80	88.9	3.2	88.9	4.0	2 4	16 0	58	1 8	20 0	10 5	12 1	4. 0	10 6	12 0	4. 5	8	M 16	65	106	120
100	114.3	3.6	108.0	4.0	2 4	19 0	65	2 2	23 5	12 8	15 0	4. 5	12 9	14 9	5. 0	8	M 20	70	129	149
125	139.7	4.0	133.0	4.0	2 6	22 0	68	2 6	27 0	15 4	17 6	4. 5	15 5	17 5	5. 0	8	M 24	80	155	175
150	168.3	4.5	159.0	4.5	2 8	25 0	75	2 6	30 0	18 2	20 4	4. 5	18 3	20 3	5. 0	8	M 24	80	183	203
200	219.1	6.3			3 4	32 0	88	3 0	37 5	23 8	26 0	4. 5	23 9	25 9	5. 0	12	M 27	100	239	259
250	273.0	7.1			3 8	38 5	105	3 3	45 0	29 1	31 3	4. 5	29 2	31 2	5. 0	12	M 30	110	292	312
300	323.9	8.0			4 2	45 0	115	3 3	51 5	34 2	36 4	4. 5	34 3	36 3	5. 0	16	M 30	120	343	363
350	355.6	8.8			4 6	51 0	125	3 6	58 0	39 4	42 2	5. 0	39 5	42 1	5. 5	16	M 33	130	395	421
400	406.4	11.0			5 0	58 5	135	3 9	66 0	44 6	47 4	5. 0	44 7	47 3	5. 5	16	M 36	140	447	473

Table 35: Installation lengths

## 47 Welding neck flanges - DIN EN 1092-1

- DIN EN-FL
- DIN EN-FL D
- DIN EN-FL C
- DIN EN-FL B1
- DIN EN-FL B2
- FL - flange
- Form D - groove, DIN EN 1092-1
- Form C - tongue, DIN EN 1092-1
- Form B1 - raised face (Rz 50) DIN EN 1092-1
- Form B2 - raised face (Rz 12.5) DIN EN 1092-1

DN 10-150 DIN 2635 PN 40,  
DN 200 DIN 2634 PN 25



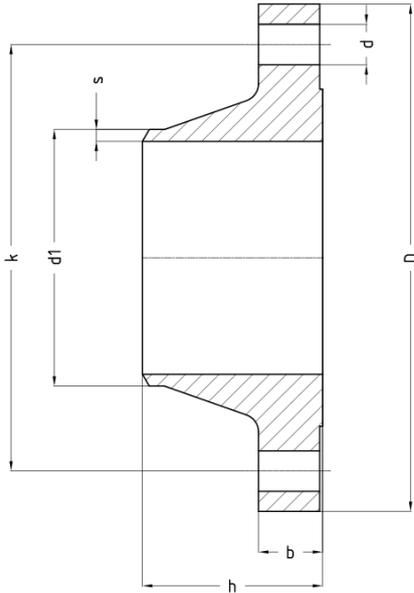
DIN EN 1092-1 PN25 DN200-500																			
Welding ends									Flange facing design						Screws DIN 931			Sealing ring DIN 2691	
Series 1									Groove			Tongue							
DN	$d_1$	$s$	$b$	$k$	$h$	$d$	$D$	$d_i$	$d_a$	$f$	$d_i$	$d_a$	$f$	Quantity	Thread	Length $h$	$d_i$	$d_a$	
200	219.1	6.3	30	310	80	26	360	238	260	4.5	239	259	5.0	12	M 24	90	239	259	
250	273.0	7.1	32	370	88	30	425	291	313	4.5	292	312	5.0	12	M 27	90	292	312	
300	323.9	8.0	34	430	92	30	485	342	364	4.5	343	363	5.0	16	M 27	100	343	363	
350	355.6	8.0	38	490	100	33	555	394	422	5.0	395	421	5.5	16	M 30	110	395	421	

DIN EN 1092-1 PN25 DN200-500																		
400	406.4	8.8	40	550	110	36	620	446	474	5.0	447	473	5.5	16	M 33	120	447	473
500	508.0	10.0	44	660	125	36	730	548	576	5.0	549	575	5.5	20	M 33	130	549	575
DIN EN 1092-1 PN63 DN10-40 / PN100 DN10-40																		
DN	d1	s	b	k	h	d	D	di	da	F	di	da	f	Quantity	Thread	Length	di	Da
10	17.2	2.0	20	70	45	14	100	23	35	4.0	24	34	4.5	4	M 12	55	24	34
15	21.3	2.0	20	75	45	14	105	28	40	4.0	29	39	4.5	4	M 12	55	29	39
20	26.9	2.6	22	90	48	18	130	35	51	4.0	36	50	4.5	4	M 16	60	36	50
25	33.7	2.6	24	100	58	18	140	42	58	4.0	43	57	4.5	4	M 16	65	43	57
32	42.4	2.9	24	110	60	22	155	50	66	4.0	51	65	4.5	4	M 20	70	51	65
40	48.3	2.9	26	125	62	22	170	60	76	4.0	61	75	4.5	4	M 20	70	61	75
DIN EN 1092-1 PN63 DN50-125																		
DN	d1	S	b	k	h	d	D	di	da	f	di	da	F	Quantity	Thread	Length	di	da
50	60.3	2.9	26	135	62	22	180	72	88	4.0	73	87	4.5	4	M 20	75	73	87
65	76.1	3.2	26	160	68	22	205	94	110	4.0	95	109	4.5	8	M 20	75	95	109
80	88.9	3.6	28	170	72	22	215	105	121	4.0	106	120	4.5	8	M 20	75	106	120
100	114.3	4.0	30	200	78	26	250	128	150	4.5	129	149	5.0	8	M 24	90	129	149
125	139.7	4.5	34	240	88	30	295	154	176	4.5	155	175	5.0	8	M 27	100	155	175

Table 36: Installation lengths

## 48 Welding neck flanges - ANSI B16.5 raised face

- ANSI-FL
- ANSI-FL 150lbs RF
- ANSI-FL 300lbs RF
- FL - flange
- Facing with large and small male / female
- Facing with large and small tongue / groove according to ANSI B16.5



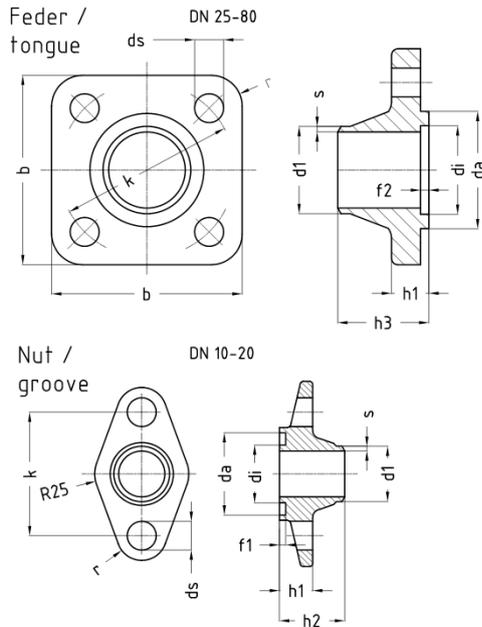
Nominal size	Welding ends acc. to:														
	ANSI		ANSI-FL 150lbs RF / sq. in						Screws DIN 931	ANSI-FL 300lbs RF / sq. in					Screws DIN 931
DN	INCH	d1	s	b	k	h	d	D	Quantity	b	k	h	d	D	Quantity
15	1/2"	21.3	2.8	11.2	60.5	47.8	15.7	88.9	4	14.2	66.5	52.3	15.7	95.2	4
20	3/4"	26.7	2.9	12.7	69.9	52.3	15.7	98.6	4	15.7	82.5	57.1	19.0	117.3	4
25	1"	33.4	3.4	14.2	79.2	55.6	15.7	108.0	4	17.5	88.9	62.0	19.0	123.9	4
32	1 1/4"	42.2	3.6	15.7	88.9	57.2	15.7	117.3	4	19.0	98.5	65.0	19.0	133.3	4
40	1 1/2"	48.3	3.7	17.5	98.6	62.0	15.7	127.0	4	20.6	114.3	68.3	22.3	155.4	4
50	2"	60.3	3.9	19.1	120.7	63.5	19.1	152.4	4	22.3	127.0	69.8	19.0	165.1	6
65	2 1/2"	73.0	5.2	22.4	139.7	69.9	19.1	177.8	4	25.4	149.3	76.2	22.3	190.5	8
80	3"	88.9	5.5	23.9	152.4	69.9	19.1	190.5	4	28.4	168.1	79.2	22.3	209.5	8
100	4"	114.3	6.0	23.9	190.5	76.2	19.1	228.6	8	31.7	200.1	85.8	22.3	254.0	8
125	5"	141.3	6.6	23.9	215.9	88.9	22.4	254.0	8	35.0	234.9	98.5	22.3	279.4	8
150	6"	168.3	7.1	25.4	241.3	88.9	22.4	279.4	8	36.5	269.7	98.5	22.3	317.5	12
200	8"	219.1	8.2	28.4	298.5	101.6	22.4	342.9	8	41.1	330.2	111.2	25.4	381.0	12
250	10"	273.0	9.3	30.2	362.0	101.6	25.4	406.4	12	47.7	387.3	117.3	28.4	444.5	16

Nominal size		Welding ends acc. to:													
300	12"	323.8	10.3	31.8	431.8	114.3	25.4	482.6	12	50.8	450.8	130.0	31.7	520.7	16
350	14"	355.6	11.1	35.1	476.3	127.0	28.4	533.4	12	53.8	514.3	142.7	31.7	584.2	20
400	16"	406.4	12.7	36.6	539.8	127.0	28.4	596.9	16	57.1	571.5	146.0	35.0	647.7	20

Table 37: Installation lengths

## 49 Welding neck flanges - AWP

- AWP-FL
- AWP-FL N
- AWP-FL F
- FL - flange
- N - groove
- F - tongue



### AWP-FL PN25 DN10-20 / PN40 DN25-80

Welding ends						Flange facing design										Screws DIN 931			Sealing ring DIN 2691					
Series 1		Series 2		ANSI		Groove					Tongue					Quant- ity	Thread	Lengt h	di	da				
D	d1	s	d1	s	d1	s	b	k	r	h1	ds	di	da	f1	h2	di	da	f2	h3				di	da
10	17.2	1.8	15.0	2.5	17.1	2.3	88	60	13	16	14	28	40	3	31.5	29	39	4	32.0	2	M 12	45	29	39
15	21.3	2.0	20.0	2.5	21.3	2.8	88	60	13	16	14	28	40	3	31.5	29	39	4	32.0	2	M 12	45	29	39
20	26.9	2.3	25.0	2.5	26.7	2.9	88	60	13	16	14	28	40	3	31.5	29	39	4	32.0	2	M 12	45	29	39
25	33.7	2.6	32.0	3.0	33.4	3.4	92	85	15	18	14	42	58	3	44.0	43	57	4	44.0	4	M 12	50	43	57
32	42.4	2.6	38.0	3.0	42.2	3.6	92	85	15	18	14	42	58	3	44.0	43	57	4	44.0	4	M 12	50	43	57
40	48.3	2.6	45.0	3.0	48.3	3.7	92	85	15	18	14	42	58	3	38.5	43	57	4	38.5	4	M 12	50	43	57

AWP-FL PN25 DN10-20 / PN40 DN25-80																							
50	60.3	2.9	57.0	3.2	60.3	3.9	13	13	20	28	18	84	96	3	43.0	85	95	4	43.0	4	M 16	75	A85x95*
65	76.1	2.9	76.1	3.6	73.0	5.2	13	13	20	28	18	84	96	3	53.5	85	95	4	53.5	4	M 16	75	A85x95*
80	88.9	3.2	88.9	4.0	88.9	5.5	13	13	20	28	18	84	96	3	53.5	85	95	4	53.5	4	M 16	75	A85x95*

Table 38: Installation lengths

\* = acc. to DIN 7603

## 50 Legal notices

- GEA AWP valves must be handled in accordance with the GEA AWP operating regulations.
- The safety instructions mentioned in the operating regulations must be observed.
- A hazard analysis is available for GEA AWP valves.
- GEA AWP valves must only be handled by authorised persons.
- The instructions for the use of personal protective equipment (PPE) must be observed.
- GEA AWP valves must be used for their intended purpose.
- This catalogue has been carefully created and checked; however, it may still contain errors. The technical specifications given in the catalogue are not contractually guaranteed properties. Technical specifications are only binding if they have been confirmed by us in writing.
- We reserve the right to make technical changes.
- Further information on our declarations of conformity, operating regulations, calculation software and the general terms and conditions can be found on our website [www.awpvalves.com](http://www.awpvalves.com) under the Tools/Downloads tab.
- Our general terms and conditions apply.

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