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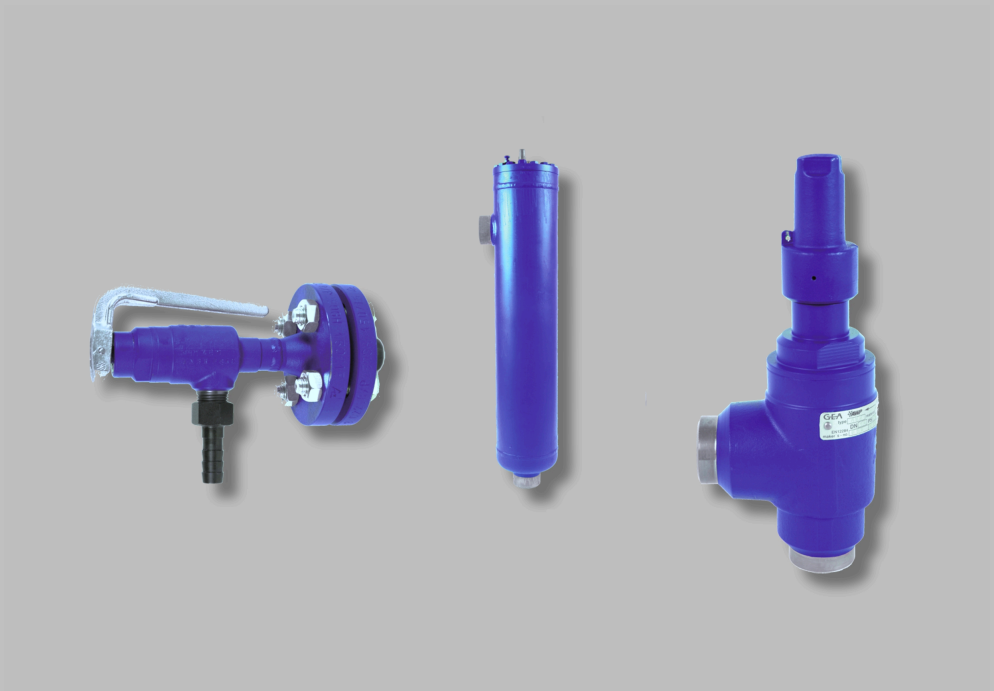
OIL MANAGEMENT VALVES FOR HEATING TECHNOLOGIES

SSO, UVU, ORV

17.02.2026



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1 SSO / UVU / ORV / TRplus

HT: Temperature up to +200°C

SSO: Quick-closing valve for oil drainage

SSO	Connection	Form	Material	Valve type
SSO	Materials			
SSO PS25 / PS40 / PS63	Welding ends		St	SSO AE
			NIRO	SSO AE NIRO
	Flanged ends		St	SSO FL
SSO-AVR PS25 / PS40 / PS63	Welding ends	Straight-way	St	SSO-AVR D AE / DV
			NIRO	SSO-AVR D AE / DV NIRO
		Angle	St	SSO-AVR E AE / DV
			NIRO	SSO-AVR E AE / DV NIRO
	Flanged ends	Straight-way	St	SSO-AVR D FL / DV
		Angle	St	SSO-AVR E FL / DV

UVU: Overflow valve - back-pressure independent

UVU	Connection	Form	Material	Valve type
UVU	Materials			
UVU PS25 / PS40 / PS63	Welding ends		St	UVUA AE
			NIRO	UVUA AE NIRO
	Flanged ends		St	UVUA FL
			NIRO	UVUA FL NIRO
	Solder End		St	UVUA LE
			NIRO	UVUA LE NIRO
	Screwed ends		St	UVUA SE
			NIRO	UVUA SE NIRO

ORV: Oil pressure-regulating valve

ORV	Connection	Form	Material	Valve type
ORV	Materials			
ORV PS25 / PS40	Welding ends		St	ORVA AE
	Flanged ends		St	ORVA FL

St = steel SS = stainless steel

2 SSO / UVU / ORV / TRplus

HT: Temperature up to +200°C
TRplus: Temperature regulator

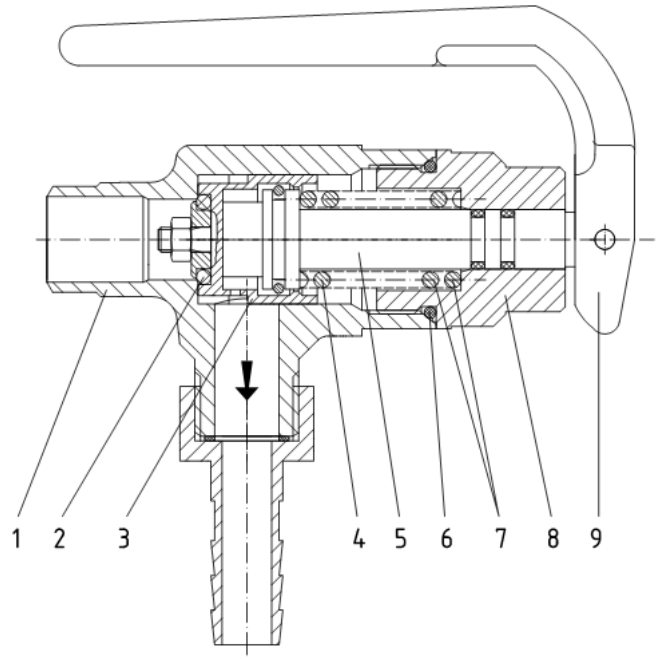
TRplus	Connection	Form	Material	Valve type
TRplus	Materials			
TRplus PS25 / PS40 / PS63	Welding ends		St	TRplus AE / NH3
	Welding ends		NIRO	TRplus AE / NH3 NIRO
	Flanged ends		St	TRplus FL / NH3
	Flanged ends		NIRO	TRplus FL / NH3 NIRO
Information	UV UM + ST screwed ends			
	Pressure range springs			
	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			
	Legal notices			

St = steel SS = stainless steel

3 SSO materials

Designation and materials

SSO HT - quick-closing valve for oil drainage

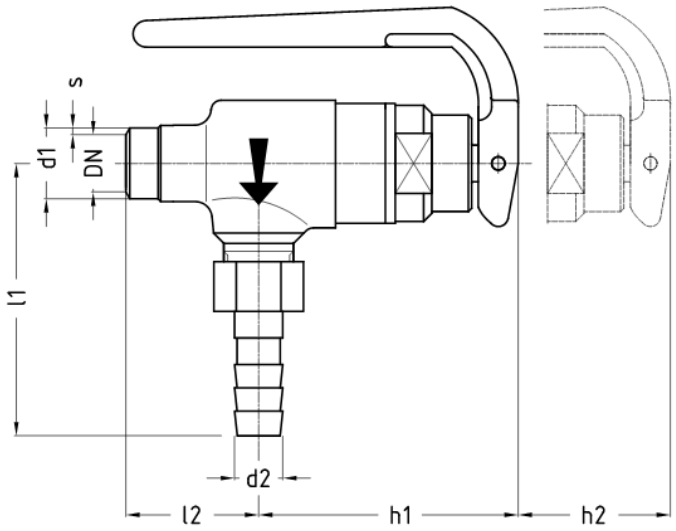


	Part	Material for steel valves	Material for stainless steel valves
1	Body	S355J2 1.0577	X5CrNi18-10 1.4301
2	Valve disc O-ring	CR, NBR, HNBR, EPDM, FPM*	CR, NBR, HNBR, EPDM, FPM*
3	Sealing piston	X8CrNiS18-9 1.4305	X8CrNiS18-9 1.4305
4	Tongue	SH	SH
5	Stem	X8CrNiS18-9 1.4305	X8CrNiS18-9 1.4305
6	Bonnet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

* depending on the refrigerant used

4 SSO AE HT

AE: Welding ends, **HT:**Temperature up to +200°C
SSO steel quick-closing valve for oil drainage for natural gases and liquids (e.g. NH3, CO2) 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

DN / INCH	PN	-10	+50	+200	TS [°C]
DN 15 1/2"	PN25	25	25	25	PS [bar]
	PN40	40	40	40	PS [bar]
	PN63	63	63	63	PS [bar]

DN / INCH	Opening pressure [bar]	
DN 15 ½"	26 - 28	
	46 - 50	(customer-spec. solution)

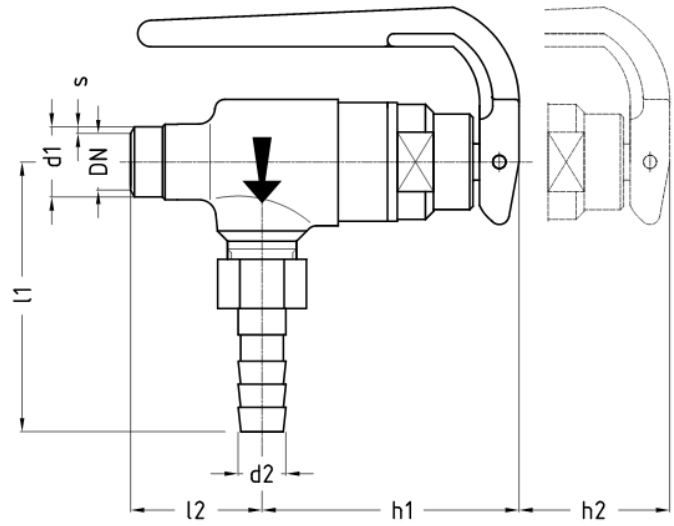
Table 1: Opening pressure

Nominal size:		Welding ends acc. to:									
		ISO Series 1			ANSI Sched 40						
DN	INCH	d1	s1)	s2)	d1	s	l1	l2	d2	h1	h2
15	1/2"	21.3	2.0	2.0	21.3	2.8	82	40	14.5	78	40

Table 2: Dimensions
1) PN25 / PN40 2) PN63, h2 = dismantling dimension

5 SSO AE NIRO HT

AE: Welding ends, **HT:**Temperature up to +200°C
SSO stainless steel quick-closing valve for oil drainage for natural gases and liquids (e.g. NH3, CO2) 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

DN / INCH	PN	-10	+50	+200	TS [°C]
DN 15 1/2"	PN25	25	25	25	PS [bar]
	PN40	40	40	40	PS [bar]
	PN63	63	63	63	PS [bar]

DN / INCH	Opening pressure [bar]	
DN 15 ½"	26 - 28	
	46 - 50	(customer-spec. solution) /

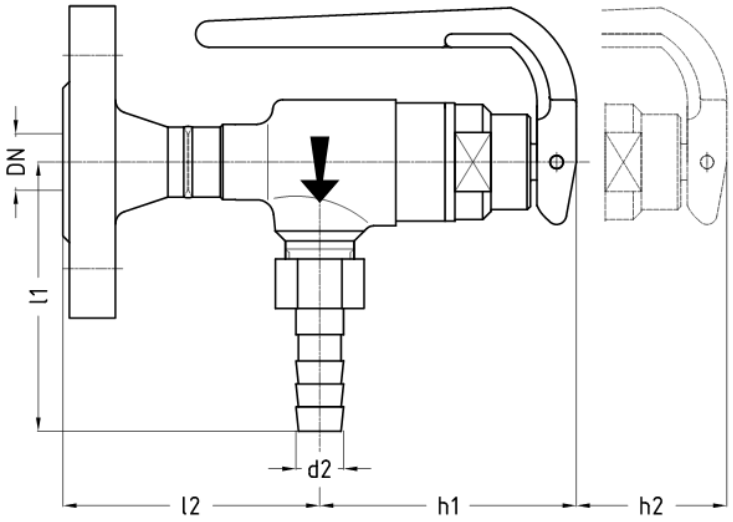
Table 3: Opening pressure

Nominal size:		Welding ends acc. to:									
		ISO Series 1			ANSI Sched 40						
DN	INCH	d1	s1)	s2)	d1	s	l1	l2	d2	h1	h2
15	1/2"	21.3	2.0	2.0	21.3	2.8	82	40	14.5	78	40

Table 4: Dimensions
1) PN25 / PN40 2) PN63 h2 = dismantling dimension

6 SSO FL HT

FL: Flanged ends, **HT:** Temperature up to +200°C
SSO steel quick-closing valve for oil drainage for natural gases and liquids (e.g. NH3, CO2) 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

DN / INCH	PN	-10	+50	+200	TS [°C]
DN 15 1/2"	PN25	25	25	25	PS [bar]
	PN40	40	40	40	PS [bar]
	PN63	63	63	63	PS [bar]

DN / INCH	Opening pressure [bar]	
DN 15 ½"	26 - 28	
	46 - 50	(customer-spec. solution) /

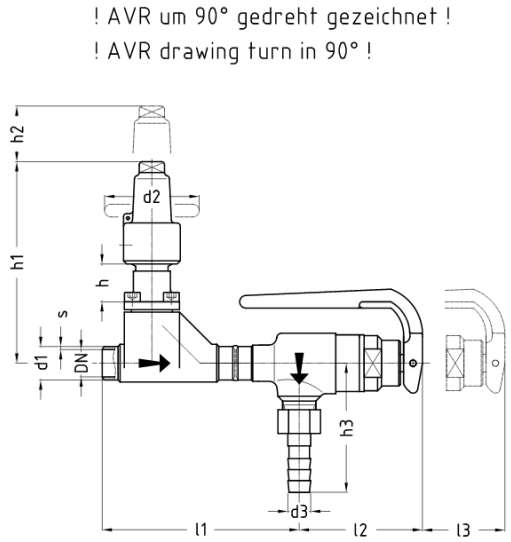
Table 5: Opening pressure

Nominal size:			Flanged ends acc. to:							
		AWP DN15 PN25	PN25 DIN 2634 EN1092-1	PN40 DIN 2635 EN1092-1	PN63 DIN 2636 EN1092-1	ANSI 300 RF				
DN	INCH	l2	l2	l2	l2	l2	l1	d2	h1	h2
15	1/2"	72.5	79	79	86	94	82	14.5	78	40

Table 6: Dimensions
h2 = dismantling dimension, DIN/EN flange facings as standard: groove DIN 2512

7 SSO-AVR D AE HT / SSO-AVR D AE DV HT

D: Straight-way, **AE:** Welding ends, **DV:** Bonnet extension, **HT:** Temperature up to +200°C
SSO-AVR steel quick-closing valve for oil drainage - with shut-off valve for natural gases and liquids (e.g. NH3, CO2) 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

DN / INCH	PN	-10	+50	+200	TS [°C]
DN 15 1/2"	PN25	25	25	25	PS [bar]
	PN40	40	40	40	PS [bar]
	PN63	63	63	63	PS [bar]

DN / INCH	Opening pressure [bar]	
DN 15 ½"	26 - 28	
	46 - 50	(customer-spec. solution) /

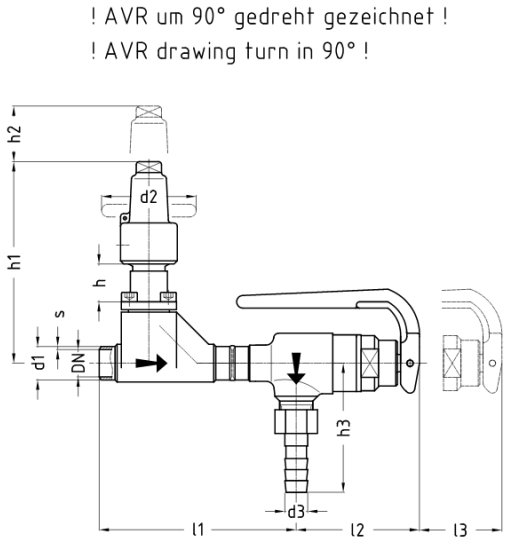
Table 7: Opening pressure

Nominal size:		Welding ends acc. to:																
			ISO Series 1			ANSI Sched 40												
DN	INCH	PN	d1	s1)	s2)	d1	s	l1	l2	l3	h	h*)	h1	h1*)	h2	h3	d3	d2
15	1/2"	25	21.3	2.0		21.3	2.8	125	78	40	22	54	128	160	35	82	14.5	60
		40		2.0				151	78	40	31	68	148	185	45	82	14.5	60
		63			2.0			151	78	40	31	68	148	185	45	82	14.5	60

Table 8: Dimensions
*) = for valves with bonnet extension, l3 + h2 = dismantling dimension, 1) PN25 / PN40 2) PN63

8 SSO-AVR D AE NIRO HT / SSO-AVR D AE DV NIRO HT

D: Straight-way, **AE:** Welding ends, **DV:** Bonnet extension, **HT:** Temperature up to +200°C
SSO-AVR stainless steel quick-closing valve for oil drainage - with shut-off valve for natural gases and liquids (e.g. NH3, CO2) 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

DN / INCH	PN	-10	+50	+200	TS [°C]
DN 15 1/2"	PN25	25	25	25	PS [bar]
	PN40	40	40	40	PS [bar]
	PN63	63	63	63	PS [bar]

DN / INCH	Opening pressure [bar]	
DN 15 ½"	26 - 28	
	46 - 50	(customer-spec. solution) /

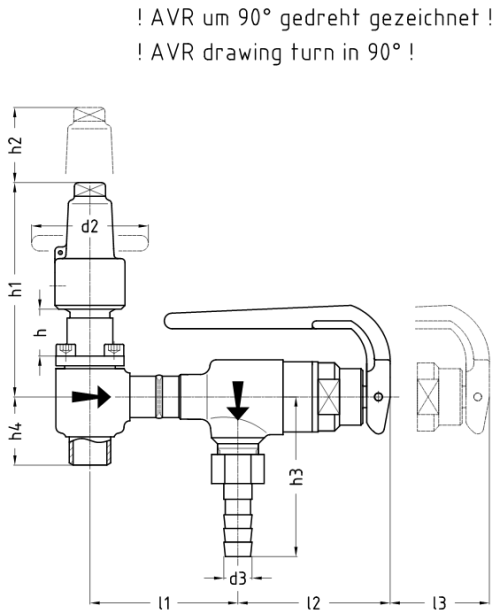
Table 9: Opening pressure

Nominal size:		Welding ends acc. to:																
			ISO Series 1			ANSI Sched 40												
DN	INCH	PN	d1	s1)	s2)	d1	s	l1	l2	l3	h	h*)	h1	h1*)	h2	h3	d3	d2
15	1/2"	25	21.3	2.0		21.3	2.8	151	78	40	31	68	148	185	45	82	14.5	60
		40		2.0				151	78	40	31	68	148	185	45	82	14.5	60
		63			2.0			151	78	40	31	68	148	185	45	82	14.5	60

Table 10: Dimensions
*) = for valves with bonnet extension, l3 + h2 = dismantling dimension, 1) PN25 / PN40 2) PN63

9 SSO-AVR E AE HT / SSO-AVR E AE DV HT

E: Angle, **AE:** Welding ends, **DV:** Bonnet extension, **HT:** Temperature up to +200°C
SSO-AVR steel quick-closing valve for oil drainage - with shut-off valve for natural gases and liquids (e.g. NH3, CO2) 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

DN / INCH	PN	-10	+50	+200	TS [°C]
DN 15 1/2"	PN25	25	25	25	PS [bar]
	PN40	40	40	40	PS [bar]
	PN63	63	63	63	PS [bar]

DN / INCH	Opening pressure [bar]	
DN 15 ½"	26 - 28	
	46 - 50	(customer-spec. solution) /

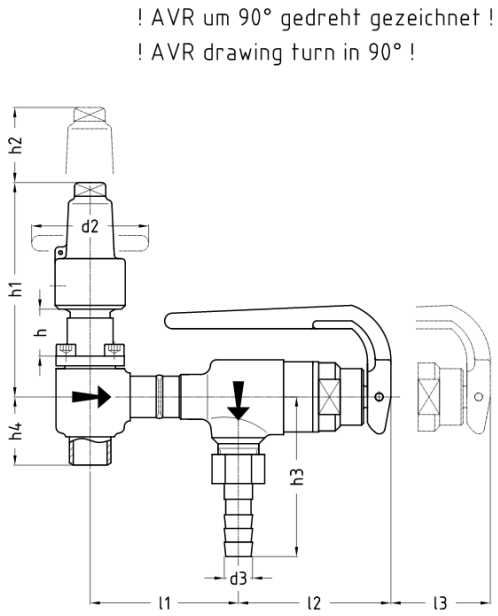
Table 11: Opening pressure

Nominal size:		Welding ends acc. to:																	
			ISO Series 1			ANSI Sched 40													
DN	INCH	PN	d1	s1)	s2)	d1	s	l1	l2	l3	h	h*)	h1	h1*)	h2	h3	d3	d2	
15	1/2"	25	21.3	2.0		21.3	2.8	76	78	40	22	54	110	143	35	82	14.5	60	
		40		2.0				82	78	40	31	68	125	162	45	82	14.5	60	
		63			2.0			82	78	40	31	68	125	162	45	82	14.5	60	

Table 12: Dimensions
l3 + h2 = dismantling dimension, *) = for valves with bonnet extension, 1) PN25 / PN40 2) PN63

10 SSO-AVR E AE NIRO HT / SSO-AVR E AE DV NIRO HT

E: Angle, **AE:** Welding ends, **DV:** Bonnet extension, **HT:** Temperature up to +200°C
SSO-AVR stainless steel quick-closing valve for oil drainage - with shut-off valve for natural gases and liquids (e.g. NH3, CO2) 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

DN / INCH	PN	-10	+50	+200	TS [°C]
DN 15 1/2"	PN25	25	25	25	PS [bar]
	PN40	40	40	40	PS [bar]
	PN63	63	63	63	PS [bar]

DN / INCH	Opening pressure [bar]	
DN 15 ½"	26 - 28	
	46 - 50	(customer-spec. solution) /

Table 13: Opening pressure

Nominal size:		Welding ends acc. to:																
			ISO Series 1			ANSI Sched 40												
DN	INCH	PN	d1	s1)	s2)	d1	s	l1	l2	l3	h	h*)	h1	h1*)	h2	h3	d3	d2
15	1/2"	25	21.3	2.0		21.3	2.8	82	78	40	31	68	125	162	45	82	14.5	60
		40		2.0				82	78	40	31	68	125	162	45	82	14.5	60
		63			2.0			82	78	40	31	68	125	162	45	82	14.5	60

Table 14: Dimensions
*) = for valves with bonnet extension, l3 + h2 = dismantling dimension, 1) PN25 / PN40 2) PN63

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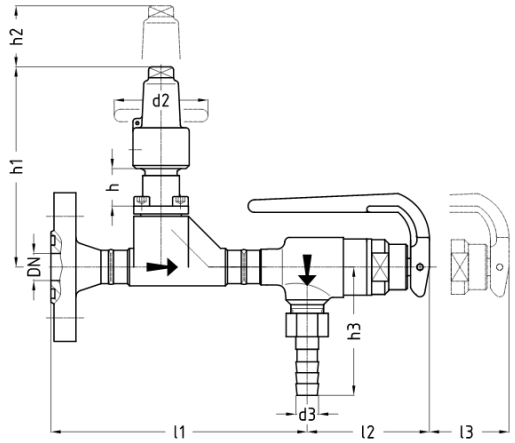
11 SSO-AVR D FL HT / SSO-AVR D FL DV HT

AVR: Shut-off valve**D:** Straight-way, **FL:** Flanged ends, **DV:** Bonnet extension, **HT:** Temperature up to +200°C
SSO steel quick-closing valve for oil drainage with shut-off valve - stem seal with resilient PTFE ring for natural gases and liquids (e.g. NH3, CO2) and non-corrosive media according to EN 378-1

! AVR um 90° gedreht gezeichnet !
! AVR drawing turn in 90° !



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 15 1/2"	PN25	25	25	25	PS [bar]
	PN40	40	40	40	PS [bar]
	PN63	63	63	63	PS [bar]

DN / INCH	Opening pressure [bar]	
DN 15 ½"	26 - 28	
	46 - 50	(customer-spec. solution) /

Table 15: Opening pressure

Nominal size:		Welding ends acc. to:															
			AWP DN15 PN25	PN25 DIN 2634 EN1092-1	PN40 DIN 2635 EN1092-1	PN63 DIN 2636 EN1092-1	ANSI 300 RF										
DN	INCH	PN	l1	l1	l1	l1	l1	l2	l3	h	h*)	h1	h1*)	h2	h3	d3	d2
15	1/2"	25	158	164	164	---	179	78	40	22	54	128	160	35	82	14.5	60
		40	---	190	190	---	205	78	40	31	68	148	185	45	82	14.5	60

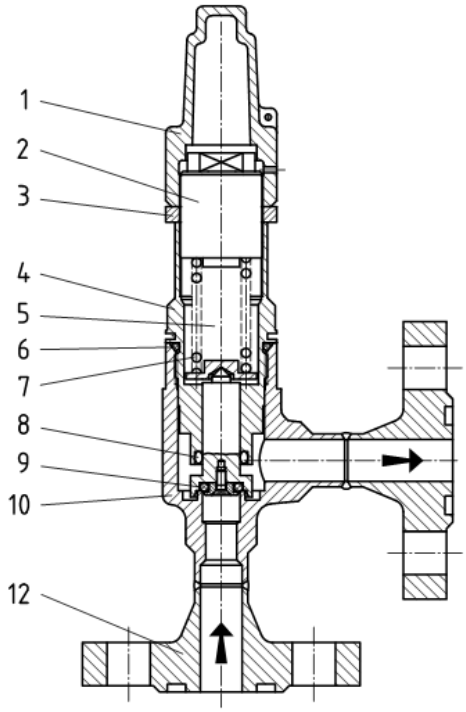
Nominal size:		Welding ends acc. to:														
		63	---	---	---	197	205	78	40	31	68	148	185	45	82	14.5	60

Table 16: Dimensions

*) for valves with bonnet extension, l3/h2 = dismantling dimension, DIN/EN flange facings with DIN 2512 groove as standard

12 UVU materials

Designation and materials
UVU HT - overflow valves

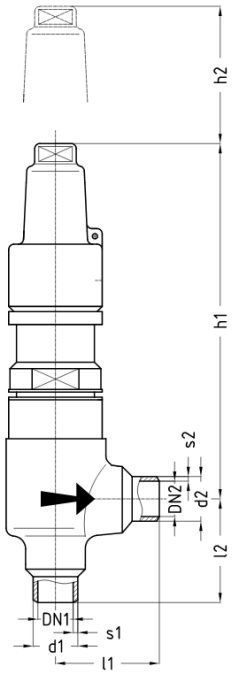


	Part	Material for steel valves	Material for stainless steel valves
1	Cap	Aluminium AlSi10Mg	Aluminium AlSi10Mg
2	Adjustment screw	X8CrNiS18-9 1.4305	X8CrNiS18-9 1.4305
3	Bonnet	S355J2 1.0577	X8CrNiS18-9 1.4305
4	Tongue	SH	SH
8	Valve disc O-ring	CR, NBR, HNBR, EPDM, PTFE*	CR, NBR, HNBR, EPDM, PTFE*
9	Body	X5CrNi18-10 1.4301	X5CrNi18-10 1.4301
12	Flange	P250GH 1.0460	X6CrNiTi18-10 1.4541
14	Bonnet O-ring	CR, NBR, HNBR, EPDM, FPM*	CR, NBR, HNBR, EPDM, FPM*
15	Spring-loaded U-ring	PTFE	PTFE

* depending on the refrigerant used

13 UVUA AE HT

O: PTFE seat seal, **AE:** Welding ends, **HT:**Temperature up to +200°C
UVU steel overflow valve - back-pressure independent for natural gases and liquids (e.g. NH3, CO2) and non-corrosive media according to EN 378-1



Note: The UVU is an overflow valve that has also proven itself excellently in the oil circuit.
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 UVUA	PN	-10	+50	+200	TS [°C]
UVUA DN 8...15	PN25	25	25	25	PS [bar]
	PN40	40	40	40	PS [bar]
	PN63	63	63	63	PS [bar]

Nominal size:		Welding ends acc. to:																
		ISO Series 1						ANSI Sched 40									Response pressure range	
DN1	DN2	d1	s11)	s12)	d2	s21)	s22)	d1	s1	d2	s2	l1	l2	h1	h1*)	h2	bar	h1*) for bar
8	8	13.5	1.8	1.8	13.5	1.8	1.8	13.7	2.2	13.7	2.2	40	40	148	175	32	4-63	28-63
10	10	17.2	1.8	1.8	17.2	1.8	1.8	17.1	2.3	17.1	2.3	40	40	148	175	32	4-63	28-63
15	15	21.3	2.0	2.0	21.3	2.0	2.0	21.3	2.8	21.3	2.8	40	40	148	175	32	4-63	28-63

Table 17: Dimensions
1) PN25 / PN40 2) PN63, h1*) = only for response pressures 28-63 bar, h2 = dismantling dimension

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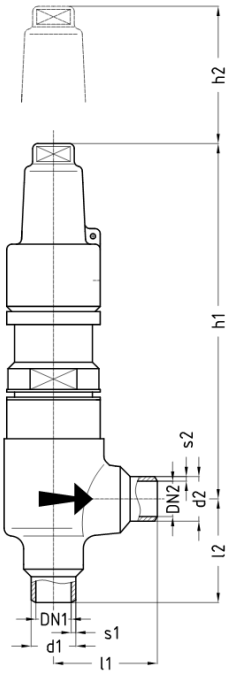
14 UVUA AE NIRO HT

O: PTFE seat seal, **AE:** Welding ends, **HT:**Temperature up to +200°C
UVU stainless steel overflow valve - back-pressure independent for natural gases and liquids (e.g. NH3, CO2) and non-corrosive media according to EN 378-1



Note: The UVU is an overflow valve that has also proven itself excellently in the oil circuit.
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

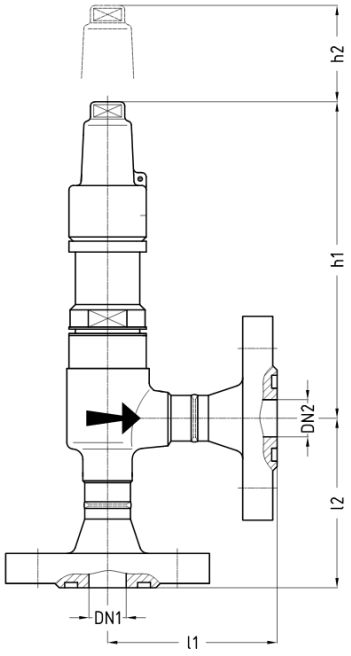
DN / INCH UVUA	PN	-60	-10	+50	+180	TS [°C]
UVUA DN 8...15	PN25	25	25	25	25	PS [bar]
	PN40	40	40	40	40	PS [bar]
	PN63	63	63	63	63	PS [bar]

Nominal size:		Welding ends acc. to:															Response pressure range	
		ISO Series 1						ANSI Sched 40										h1*) for
DN1	DN2	d1	s11)	s12)	d2	s21)	s22)	d1	s1	d2	s2	l1	l2	h1	h1*)	h2	bar	bar
8	8	13.5	1.8	1.8	13.5	1.8	1.8	13.7	2.2	13.7	2.2	40	40	148	175	32	4-63	28-63
10	10	17.2	1.8	1.8	17.2	1.8	1.8	17.1	2.3	17.1	2.3	40	40	148	175	32	4-63	28-63
15	15	21.3	2.0	2.0	21.3	2.0	2.0	21.3	2.8	21.3	2.8	40	40	148	175	32	4-63	28-63

Table 18: Dimensions
1) PN25 / PN40 2) PN63, h1*) = only for response pressures 28-63 bar, h2 = dismantling dimension

15 UVUA FL HT

O: PTFE seat seal, **FL:** Flanged ends, **HT:**Temperature up to +200°C
UVU steel overflow valve - back-pressure independent for natural gases and liquids (e.g. NH3, CO2) and non-corrosive media according to EN 378-1



Note: The UVU is an overflow valve that has also proven itself excellently in the oil circuit.
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

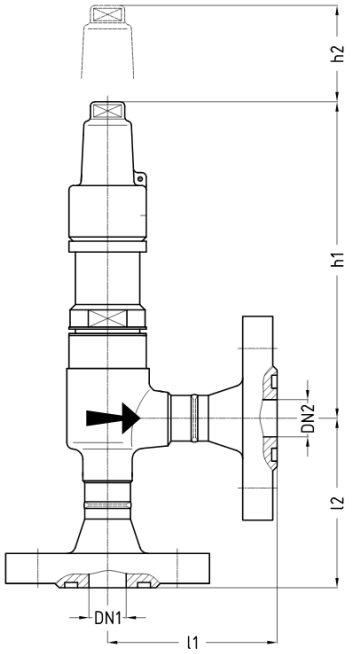
DN / INCH UVUA	PN	-10	+50	+200	TS [°C]
UVUA DN 10...15	PN25	25	25	25	PS [bar]
	PN40	40	40	40	PS [bar]
	PN63	63	63	63	PS [bar]

Nominal size:		Flanged ends acc. to:													Response pressure range	
		AWP DN10-15 PN25		PN25 DIN 2634 EN1092-1		PN40 DIN 2635 EN1092-1		PN63 DIN 2636 EN1092-1		ANSI 300 RF						h1*) for
DN1	DN2	l1	l2	l1	l2	l1	l2	l1	l2	l1	l2	h1	h1*)	h2	bar	bar
10	10	72	72	76	76	76	76	86	86			148	175	32	4-63	28-63
15	15	72	72	79	79	79	79	86	86	93	93	148	175	32	4-63	28-63

Table 19: Dimensions
h1*) only for response pressures 28-63 bar, h2 = dismantling dimension, DIN/EN flange facings with DIN 2512 groove as standard

16 UVUA FL NIRO HT

O: PTFE seat seal, **FL:** Flanged ends, **HT:**Temperature up to +200°C
UVU stainless steel overflow valve - back-pressure independent for natural gases and liquids (e.g. NH3, CO2) and non-corrosive media according to EN 378-1



Note: The UVU is an overflow valve that has also proven itself excellently in the oil circuit.
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

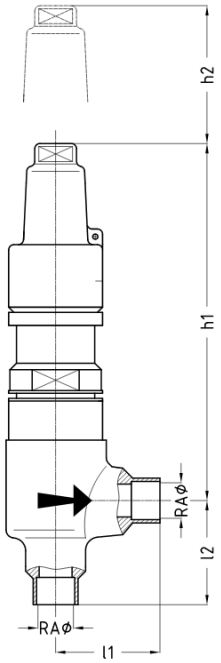
DN / INCH UVUA	PN	-10	+50	+200	TS [°C]
UVUA DN 10...15	PN25	25	25	25	PS [bar]
	PN40	40	40	40	PS [bar]
	PN63	63	63	63	PS [bar]

Nominal size:		Flanged ends acc. to:														Response pressure range
		AWP DN10-15 PN25		PN25 DIN 2634 EN1092-1		PN40 DIN 2635 EN1092-1		PN63 DIN 2636 EN1092-1		ANSI 300 RF						h1*) for
DN1	DN2	l1	l2	l1	l2	l1	l2	l1	l2	l1	l2	h1	h1*)	h2	bar	bar
10	10	72	72	76	76	76	76	86	86			148	175	32	4-63	28-63
15	15	72	72	79	79	79	79	86	86	93	93	148	175	32	4-63	28-63

h1*) only for response pressures 28-63 bar, h2 = dismantling dimension, DIN/EN flange facings with DIN 2512 groove as standard

17 UVUA LE HT

O: PTFE seat seal, **LE:** Soldering ends, **HT:**Temperature up to +200°C
UVU steel overflow valve - back-pressure independent for natural gases and liquids (e.g. NH3, CO2) and non-corrosive media according to EN 378-1



Note: The UVU is an overflow valve that has also proven itself excellently in the oil circuit.
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

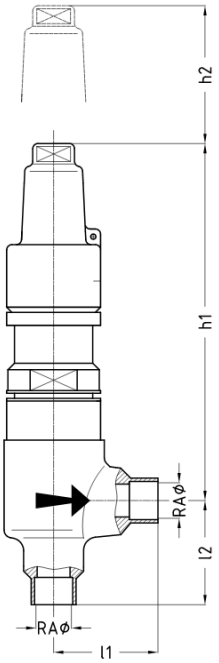
DN / INCH UVUA	PN	-10	+50	+200	TS [°C]
UVUA DN 10...15	PN25	25	25	25	PS [bar]
	PN40	40	40	40	PS [bar]
	PN63	63	63	63	PS [bar]

Nominal size:		Soldering ends acc. to:						Response pressure range	
									h1*) for
DN1	DN2	RAØ	l1	l2	h1	h1*)	h2	bar	bar
10	10	12	40	40	148	175	32	4-63	28-63
15	15	15	40	40	148	175	32	4-63	28-63
15	15	18	40	40	148	175	32	4-63	28-63

Table 20: Dimensions
h1*) = only for response pressures 28-63 bar, h2 = dismantling dimension

18 UVUA LE NIRO HT

O: PTFE seat seal, **LE:** Soldering ends, **HT:**Temperature up to +200°C
UVU stainless steel overflow valve - back-pressure independent for natural gases and liquids (e.g. NH3, CO2) and non-corrosive media according to EN 378-1



Note: The UVU is an overflow valve that has also proven itself excellently in the oil circuit.
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

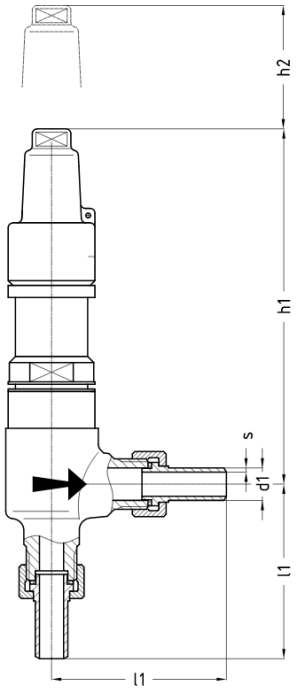
DN / INCH UVUA	PN	-10	+50	+200	TS [°C]
UVUA DN 10...15	PN25	25	25	25	PS [bar]
	PN40	40	40	40	PS [bar]
	PN63	63	63	63	PS [bar]

Nominal size:		Soldering ends acc. to:						Response pressure range	
									h1*) for
DN1	DN2	RAØ	l1	l2	h1	h1*)	h2	bar	bar
10	10	12	40	40	148	175	32	4-63	28-63
15	15	15	40	40	148	175	32	4-63	28-63
15	15	18	40	40	148	175	32	4-63	28-63

Table 21: Dimensions
h1*) = only for response pressures 28-63 bar, h2 = dismantling dimension

19 UVUA SE HT

O: PTFE seat seal, **SE:** Screwed ends, **HT:**Temperature up to +200°C
UVU steel overflow valve - back-pressure independent for natural gases and liquids (e.g. NH3, CO2) and non-corrosive media according to EN 378-1



Note: The UVU is an overflow valve that has also proven itself excellently in the oil circuit.
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 UVUA	PN	-10	+50	+200	TS [°C]
UVUA DN 15	PN25	25	25	25	PS [bar]
	PN40	40	40	40	PS [bar]
	PN63	63	63	63	PS [bar]

Nominal size:		Soldering ends acc. to:							Response pressure range	
										h1*) for
DN	DN	Thread	d1	s	l1	h1	h1*)	h2	bar	bar
15	G 1/2″	M22x1.5 RA15	15.0	2.0	73	148	175	32	4-63	28-63
15	G 1/2″/G 1″	G1/2″			40	148	175	32	4-63	28-63

Table 22: Dimensions
h1*) = only for response pressures 28-63 bar, h2 = dismantling dimension

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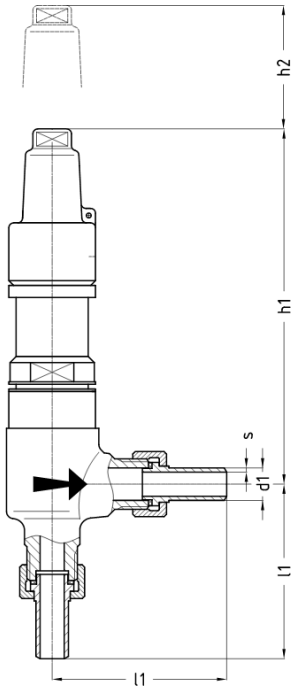
20 UVUA SE NIRO HT

O: PTFE seat seal, **SE:** Screwed ends, **HT:**Temperature up to +200°C
UVU stainless steel overflow valve - back-pressure independent for natural gases and liquids (e.g. NH3, CO2) and non-corrosive media according to EN 378-1



Note: The UVU is an overflow valve that has also proven itself excellently in the oil circuit.
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 UVUA	PN	-10	+50	+200	TS [°C]
UVUA DN 15	PN25	25	25	25	PS [bar]
	PN40	40	40	40	PS [bar]
	PN63	63	63	63	PS [bar]

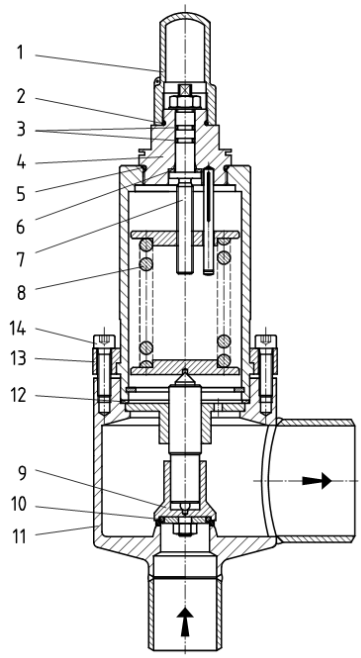
Nominal size:		Soldering ends acc. to:							Response pressure range	
										h1*) for
DN	DN	Thread	d1	s	l1	h1	h1*)	h2	bar	bar
15	G 1/2″	M22x1.5 RA15	15.0	2.0	73	148	175	32	4-63	28-63
15	G 1/2″/G 1″	G1/2″			40	148	175	32	4-63	28-63

Table 23: Dimensions
h1*) = only for response pressures 28-63 bar, h2 = dismantling dimension

21 ORV materials

Designation and materials
ORV HT - oil pressure-regulating valves

DN 40 – 50



	Part	Material for steel valves	Material for stainless steel valves
1	Cap	Aluminium AlSi10Mg	Aluminium AlSi10Mg
2	Valve cap O-ring	CR, NBR, HNBR, EPDM, FPM*	CR, NBR, HNBR, EPDM, FPM*
3	Valve stem O-ring	CR, NBR, HNBR, EPDM, FPM*	CR, NBR, HNBR, EPDM, FPM*
4	Bonnet	S355J2 1.0577	X8CrNiS18-9 1.4305 X5CrNi18-10 1.4301 X2CrNi19-11 1.4306
5	Bonnet O-ring	CR, NBR, HNBR, EPDM, PTFE*	CR, NBR, HNBR, EPDM, PTFE*
6	Back seal	PTFE	PTFE
7	Stem	X8CrNiS18-9 1.4305	X8CrNiS18-9 1.4305
8	Tongue	SH	SH
9	Sealing piston	X8CrNiS18-9 1.4305	X8CrNiS18-9 1.4305
10	Valve disc O-ring	CR, NBR, HNBR, EPDM, PTFE*	CR, NBR, HNBR, EPDM, PTFE*
11	Body	S355J2 1.0577 P235GH 1.0345	X5CrNi18-10 1.4301 GX5CrNiMoNb19-11-2 1.4581
12	Flat sealing ring for bonnet	AFM30	AFM30
13	Loose ring	S355J2 1.1.0570	X8CrNiS18-9 1.4305

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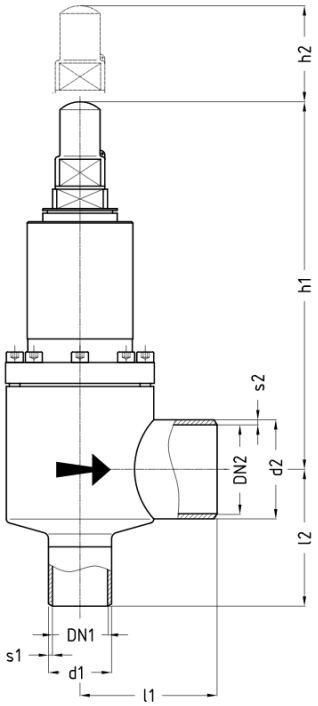
	Part	Material for steel valves	Material for stainless steel valves
14	Screws	8.8	A2-70

* depending on the refrigerant used

22 ORVA AE HT

O: PTFE seat seal, **AE:** Welding ends, **HT:**Temperature up to +200°C
ORV steel oil pressure-regulating valve for natural gases and liquids (e.g. NH3, CO2) and non-corrosive media according to EN 378-1



Note: The ORV is a back-pressure dependent overflow valve. For DN15 – 32 select UVAB.
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...50 1 1/2"...2"	PN25	25	25	25	PS [bar]
	PN40	40	40	40	PS [bar]

Nominal size:		Welding ends acc. to:												
		ISO Series 1				ANSI Sched 40								Setting range
DN1	DN2	d1	s1	d2	s2	d1	s1	d2	s2	l1	l2	h1	h2	bar
40	65	48.3	2.6	76.1	2.9	48.3	3.7	73	5.2	105	105	295	100	1-6
50	65	60.3	2.9	76.1	2.9	60.3	3.9	73	5.2	115	115	295	100	1-6

Table 24: Dimensions
h2 = dismantling dimension

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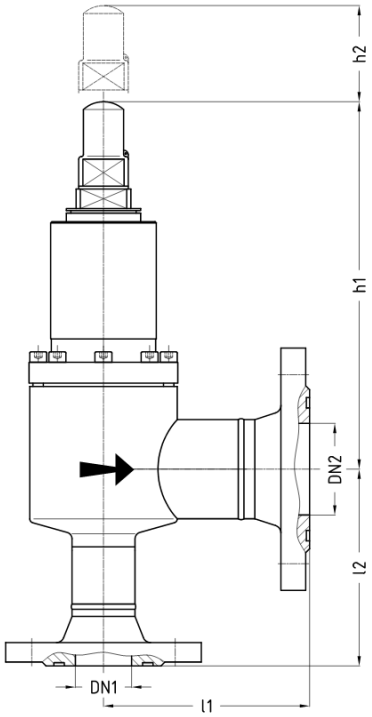
23 ORVA FL HT

O: PTFE seat seal, **FL:** Flanged ends, **HT:**Temperature up to +200°C
ORV steel oil pressure-regulating valve for natural gases and liquids (e.g. NH3, CO2) and non-corrosive media according to EN 378-1



Note: The ORV is a back-pressure dependent overflow valve. For DN15 – 32 select UVAB.
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...50 1 1/2"...2"	PN25	25	25	25	PS [bar]
	PN40	40	40	40	PS [bar]

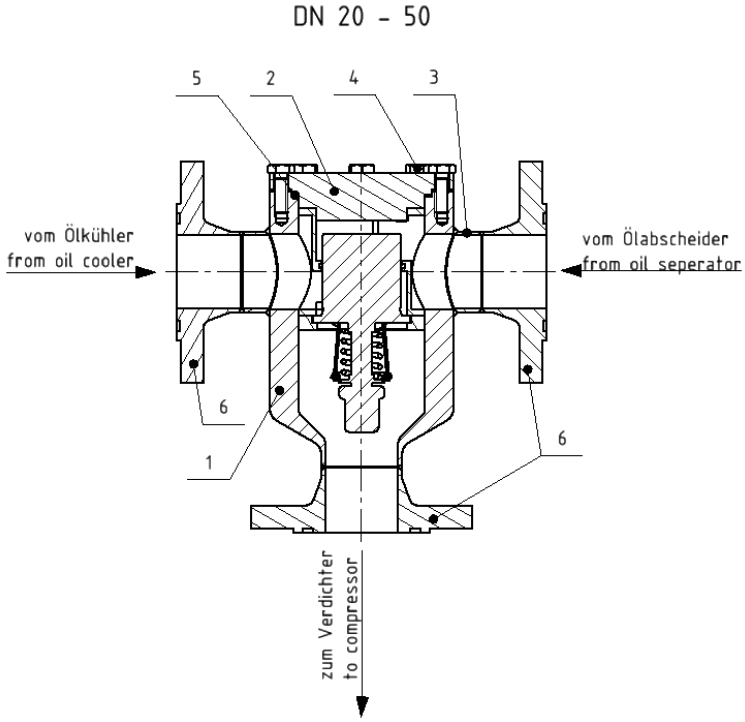
Nominal size:		Flanged ends acc. to:										
		AWP DN40-50 PN40		PN25 DIN 2634 EN1092-1		PN40 DIN 2635 EN1092-1		ANSI 300 RF				Setting range
DN1	DN2	l1	l2	l1	l2	l1	l2	l1	l2	h1	h2	bar
40	65	160	145	158	151	158	151	183	175	295	100	1-6
50	65	170	159	168	164	168	164	193	186	295	100	1-6

Table 25: Dimensions
h2 = dismantling dimension, DIN/EN flange facings as standard: groove DIN 2512

24 TRplus materials

Designation and materials

TRplus HT - temperature regulator

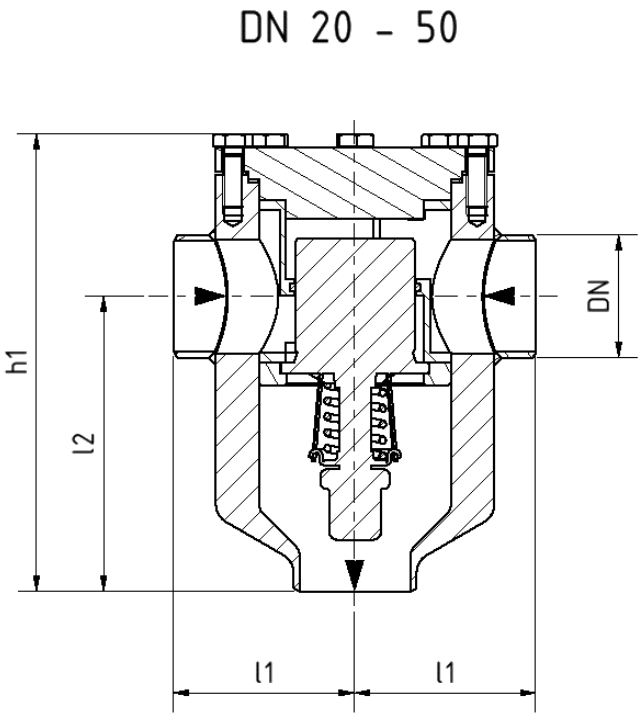


	Part	Material for steel valves	Material for stainless steel valves
1	Body	S355J2 1.0577 P235GH 1.0345	X5CrNi18-10 1.4301
2	Bonnet	S355J2 1.0577 P265GH 1.0425	X5CrNi18-10 1.4301
3	Pipe port	P235GH 1.0345	X5CrNi18-10 1.4301
4	Bonnet screw	8.8	A2-70
5	Seal	AFM	AFM
6	Flange	P250GH 1.0460 P355NL1 1.0566	X6CrNiTi18-10 1.4541

* depending on the refrigerant used

25 TRplus AE HT / TRplus AE NH3 HT

AE: Welding ends, **NH3:** control elements, **HT:**Temperature up to +200°C
TRplus steel temperature regulator for refrigeration machine oils containing proportions of natural refrigerants according to EN 378-1



Note: State the nominal temperature when ordering!
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...50 3/4"...2"	PN25	25	25	25	PS [bar]
	PN40	40	40	40	PS [bar]
	PN63	63	63	63	PS [bar]

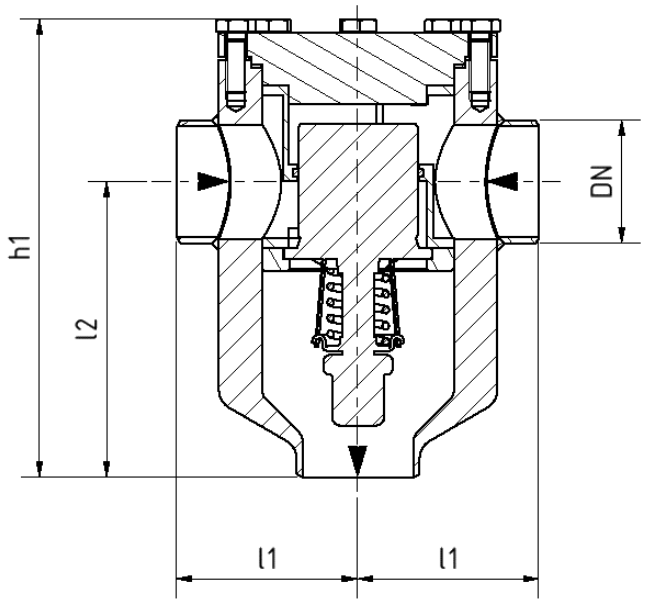
Nominal size:		Welding ends acc. to:									
		ISO Series 1			ANSI Sched 40					Number of control elements	
DN	INCH	d1	s1)	s2)	d1	s	l1	l2	h1	pcs	
20	3/4"	26.9	2.3	2.6	26.7	2.9	85	105	174	1	
25	1"	33.7	2.6	2.6	33.4	3.4	85	105	174	1	
32	1 1/4"	42.4	2.6	2.9	42.2	3.6	85	105	174	1	
40	1 1/2"	48.3	2.6	2.9	48.3	3.7	85	105	174	1	
50	2"	60.3	2.9	2.9	60.3	3.9	89	145	225	1	

Table 26: Dimensions
1) PN25 / PN40, 2) PN63

26 TRplus AE NIRO HT / TRplus AE NH3 NIRO HT

AE: Welding ends, **NH3:** control elements, **HT:**Temperature up to +200°C
TRplus stainless steel temperature regulator for refrigeration machine oils containing proportions of natural refrigerants according to EN 378-1
Note: State the nominal temperature when ordering!

DN 20 – 50



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

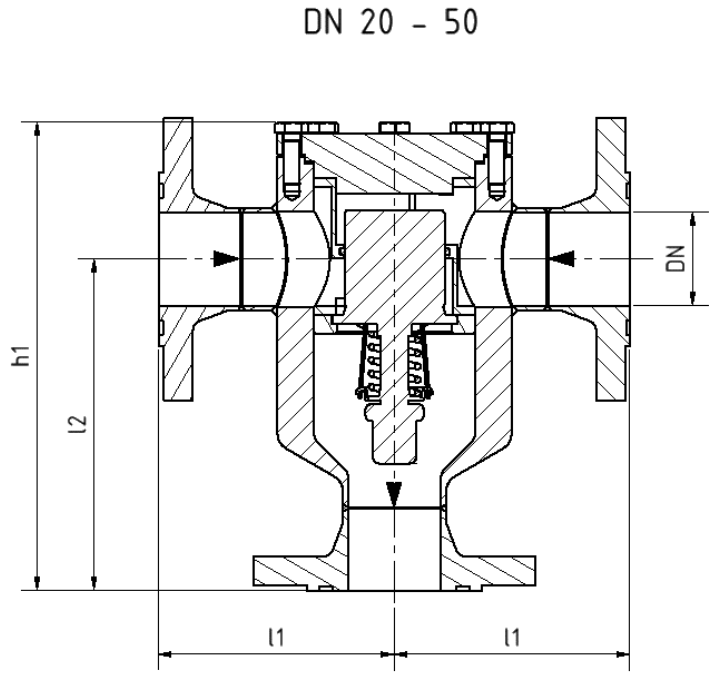
DN / INCH	PN	-10	+50	+200	TS [°C]
DN 20...50 3/4"...2"	PN25	25	25	25	PS [bar]
	PN40	40	40	40	PS [bar]
	PN63	63	63	63	PS [bar]

Nominal size:		Welding ends acc. to:									
		ISO Series 1			ANSI Sched 40					Number of control elements	
DN	INCH	d1	s1)	s2)	d1	s	l1	l2	h1	pcs	
20	3/4"	26.9	2.3	2.6	26.7	2.9	85	105	174	1	
25	1"	33.7	2.6	2.6	33.4	3.4	85	105	174	1	
32	1 1/4"	42.4	2.6	2.9	42.2	3.6	85	105	174	1	
40	1 1/2"	48.3	2.6	2.9	48.3	3.7	85	105	174	1	
50	2"	60.3	2.9	2.9	60.3	3.9	89	145	225	1	

Table 27: Dimensions
1) PN25 / PN40, 2) PN63

27 TRplus FL HT / TRplus FL NH3 HT

FL: Flanged ends, **NH3:** control elements, **HT:**Temperature up to +200°C
TRplus steel temperature regulator for refrigeration machine oils containing proportions of natural refrigerants according to EN 378-1



Note: State the nominal temperature when ordering!
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...50 3/4"...2"	PN25	25	25	25	PS [bar]
	PN40	40	40	40	PS [bar]
	PN63	63	63	63	PS [bar]

Nominal size:		Flanged ends acc. to:														
		AWP DN15-20 PN25 DN25-80 PN40		PN25 DIN 2634 EN1092-1		PN40 DIN 2635 EN1092-1		PN63 DIN 2636 EN1092-1		ANSI 300 RF		AWP	DIN PN25 PN40	DIN PN63	ANSI 300	Number of con-trol elements
DN	INCH	l1	l2	l1	l2	l1	l2	l1	l2	l1	l2	h1	h1	h1	h1	pcs
20	3/4"	118	138	126	146	126	146	134	154	144	164	207	215	223	233	1
25	1"	130	150	126	146	126	146	144	164	148	168	219	215	233	237	1
32	1 1/4"	130	150	128	148	128	148	146	166	152	170	219	217	235	239	1
40	1 1/2"	124.5	144.5	131	151	131	151	148	168	155	175	213.5	220	237	244	1

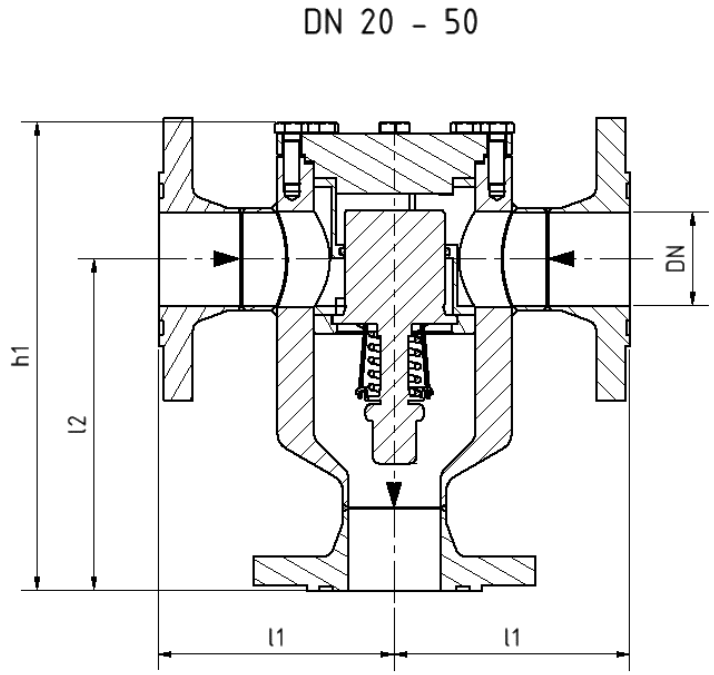
Nominal size:		Flanged ends acc. to:														
50	2″	133	189	138	194	138	194	152	208	160	216	269	274	288	296	1

Table 28: Dimensions

DIN/EN flange facings as standard: tongue/groove DIN 2512

28 TRplus FL NIRO HT / TRplus FL NH3 NIRO HT

FL: Flanged ends, **NH3:** control elements, **HT:**Temperature up to +200°C
TRplus stainless steel temperature regulator for refrigeration machine oils containing proportions of natural refrigerants according to EN 378-1



Note: State the nominal temperature when ordering!
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...50 3/4"...2"	PN25	25	25	25	PS [bar]
	PN40	40	40	40	PS [bar]
	PN63	63	63	63	PS [bar]

Nominal size:		Flanged ends acc. to:														
		AWP DN15-20 PN25 DN25-80 PN40		PN25 DIN 2634 EN1092-1		PN40 DIN 2635 EN1092-1		PN63 DIN 2636 EN1092-1		ANSI 300 RF		AWP	DIN PN25 / PN40	DIN PN63	ANSI 300	Number of control elements
DN	INCH	l1	l2	l1	l2	l1	l2	l1	l2	l1	l2	h1	h1	h1	h1	pcs
20	3/4"	118	138	126	146	126	146	134	154	144	164	207	215	223	233	1
25	1"	130	150	126	146	126	146	144	164	148	168	219	215	233	237	1
32	1 1/4"	130	150	128	148	128	148	146	166	152	170	219	217	235	239	1
40	1 1/2"	124.5	144.5	131	151	131	151	148	168	155	175	213.5	220	237	244	1
50	2"	133	189	138	194	138	194	152	208	160	216	269	274	288	296	1

Table 29: Dimensions

DIN/EN flange facings as standard: tongue/groove DIN 2512

29 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 fittings / valve combinations that are currently manufactured.

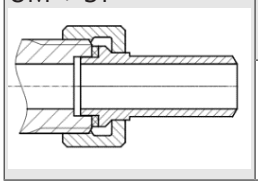
Fitting group	Valve designation	Code fittings	Connections	
UM + ST Union nut with welding nipple				
UM + ST 	UVUA SE G1/2" / G1/2" UVUB SE G1/2" / G1/2"	00060F07A5A0A101	I: O:	G1/2" with UM + ST 13.5 x 1.8 mm
	UVUA SE G1/2" / G1" UVUB SE G1/2" / G1"	00060F07A5A0A101 00060F07A5A0B601	I: O:	G1/2" with UM + ST 13.5 x 1.8 mm G1" with UM + ST 21.3 x 2.0 mm

Table 30: Fittings overflow valves

I: = inlet/ O: = outlet

30 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 31: Response pressure range in bar

31 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.

32 Coding of connections for small and service valves

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

DN	Thread	Code	Welding ends		Dimensions	Code
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

DN	Thread	Code	Welding ends		Dimensions	Code
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
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				
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

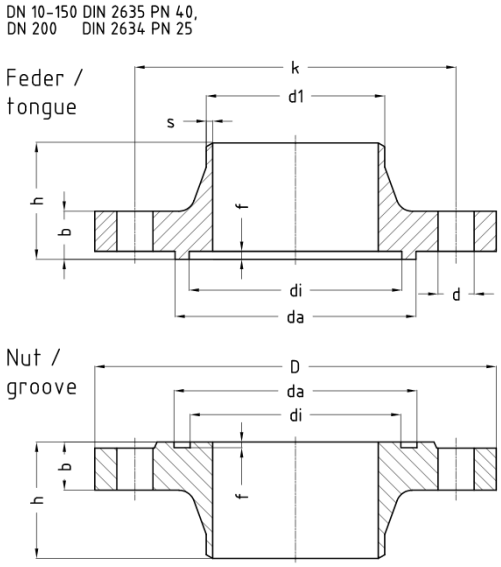
These connections can be equipped with accessories.

	Accessories	Short designation	Code
UM+ST	Union nut with welding nipple	UM+ST	1
BM	Blind nut	BM	2

	Accessories	Short designation	Code
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+adapter	Double nut with adapter G1/2"-a/ G1/4"-i	DM+adapter	7
UM+KKR	Union nut with clamping ring	UM+KKR	9

33 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



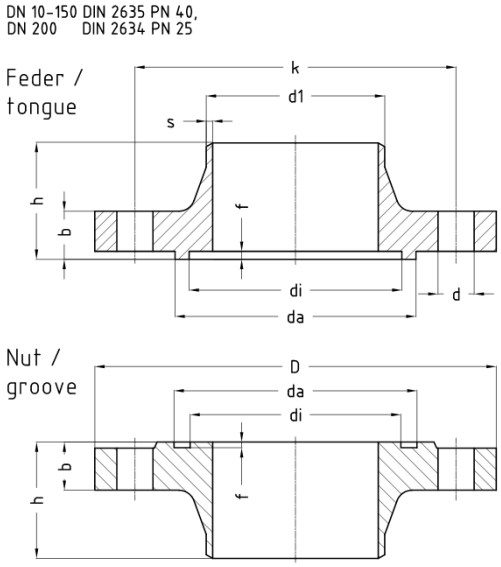
DIN2634 PN25 DN10-150 / DIN 2635 PN40 DN10-400																				
	Welding ends									Flange facing design						Screws DIN 931			Sealing ring DIN 2691	
	Series 1		Series 2							Groove			Tongue							
DN	d1	s	d1	s	b	k	h	d	D	di	da	f	di	da	f	Quant-ity	Thread	Lengt h	di	da
10	17.2	1.8	15.0	2.5	16	60	35	14	90	23	35	2.5	24	34	4.0	4	M 12	45	24	34
15	21.3	2.0	20.0	2.5	16	65	38	14	95	28	40	2.5	29	39	4.0	4	M 12	45	29	39
20	26.9	2.3	25.0	2.5	18	75	40	14	105	35	51	2.5	36	50	4.0	4	M 12	50	36	50
25	33.7	2.6	32.0	3.0	18	85	40	14	115	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	18	100	42	18	140	50	66	2.5	51	65	4.0	4	M 16	55	51	65
40	48.3	2.6	45.0	3.0	18	110	45	18	150	60	76	2.5	61	75	4.0	4	M 16	55	61	75
50	60.3	2.9	57.0	3.2	20	125	48	18	165	72	88	2.5	73	87	4.0	4	M 16	60	73	87
65	76.1	2.9	76.1	3.6	22	145	52	18	185	94	110	2.5	95	109	4.0	8	M 16	60	95	109
80	88.9	3.2	88.9	4.0	24	160	58	18	200	105	121	2.5	106	120	4.0	8	M 16	65	106	120
100	114.3	3.6	108.0	4.0	24	190	65	22	235	128	150	3.0	129	149	4.5	8	M 20	70	129	149
125	139.7	4.0	133.0	4.0	26	220	68	26	270	154	176	3.0	155	175	4.5	8	M 24	80	155	175
150	168.3	4.5	159.0	4.5	28	250	75	26	300	182	204	3.0	183	203	4.5	8	M 24	80	183	203
200	219.1	6.3			34	320	88	30	375	238	260	3.0	239	259	4.5	12	M 27	100	239	259
250	273.0	7.1			38	385	105	33	450	291	313	3.0	292	312	4.5	12	M 30	110	292	312
300	323.9	8.0			42	450	115	33	515	342	364	3.0	343	363	4.5	16	M 30	120	343	363
350	355.6	8.8			46	510	125	36	580	394	422	3.5	395	421	5.0	16	M 33	130	395	421
400	406.4	11.0			50	585	135	39	660	446	474	3.5	447	473	5.0	16	M 36	140	447	473

Table 32: Installation lengths

34 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



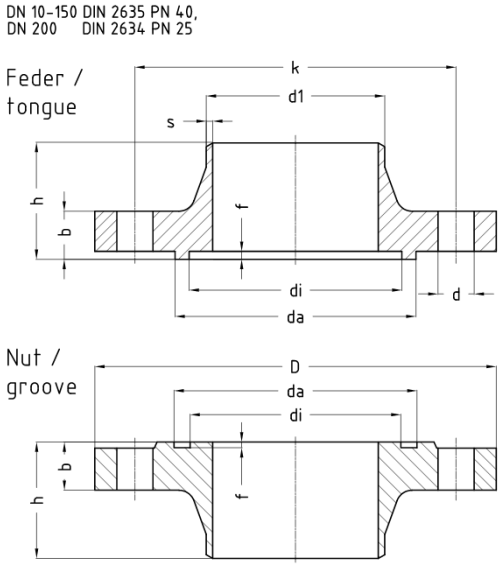
DIN 2634 PN25 DN200-500																		
	Welding ends							Flange facing design						Screws DIN 931			Sealing ring DIN 2691	
	Series 1							Groove			Tongue							
DN	d1	s	b	k	h	d	D	di	da	f	di	da	f	Quant-ity	Thread	Length	di	da
200	219.1	6.3	30	310	80	26	360	238	260	3.0	239	259	4.5	12	M 24	90	239	259
250	273.0	7.1	32	370	88	30	425	291	313	3.0	292	312	4.5	12	M 27	90	292	312
300	323.9	8.0	34	430	92	30	485	342	364	3.0	343	363	4.5	16	M 27	100	343	363
350	355.6	8.0	38	490	100	33	555	394	422	3.5	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	3.5	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	Quant-ity	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	155	50	66	2.5	51	65	4.0	4	M 20	70	51	65
40	48.3	2.9	26	125	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	Quant-ity	Thread	Length	di	da
50	60.3	2.9	26	135	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	128	150	3.0	129	149	4.5	8	M 24	90	129	149
125	139.7	4.5	34	240	88	30	295	154	176	3.0	155	175	4.5	8	M 27	100	155	175

Table 33: Installation lengths

35 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



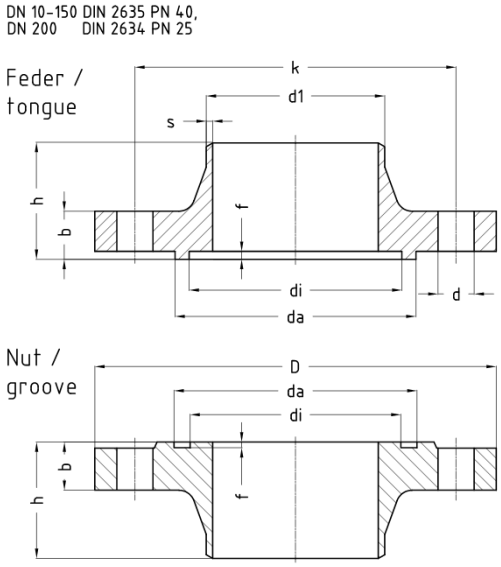
DIN EN 1092-1 PN25 DN10-150 / PN40 DN10-400																				
	Welding ends									Flange facing design						Screws DIN 931			Sealing ring DIN 2691	
	Series 1		Series 2							Groove			Tongue							
DN	d1	s	d1	s	b	k	h	d	D	di	da	f	di	da	f	Quant-ity	Thread	Lengt h	di	da
10	17.2	1.8	15.0	2.5	16	60	35	14	90	23	35	4.0	24	34	4.5	4	M 12	45	24	34
15	21.3	2.0	20.0	2.5	16	65	38	14	95	28	40	4.0	29	39	4.5	4	M 12	45	29	39
20	26.9	2.3	25.0	2.5	18	75	40	14	105	35	51	4.0	36	50	4.5	4	M 12	50	36	50
25	33.7	2.6	32.0	3.0	18	85	40	14	115	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	18	100	42	18	140	50	66	4.0	51	65	4.5	4	M 16	55	51	65
40	48.3	2.6	45.0	3.0	18	110	45	18	150	60	76	4.0	61	75	4.5	4	M 16	55	61	75
50	60.3	2.9	57.0	3.2	20	125	48	18	165	72	88	4.0	73	87	4.5	4	M 16	60	73	87
65	76.1	2.9	76.1	3.6	22	145	52	18	185	94	110	4.0	95	109	4.5	8	M 16	60	95	109
80	88.9	3.2	88.9	4.0	24	160	58	18	200	105	121	4.0	106	120	4.5	8	M 16	65	106	120
100	114.3	3.6	108.0	4.0	24	190	65	22	235	128	150	4.5	129	149	5.0	8	M 20	70	129	149
125	139.7	4.0	133.0	4.0	26	220	68	26	270	154	176	4.5	155	175	5.0	8	M 24	80	155	175
150	168.3	4.5	159.0	4.5	28	250	75	26	300	182	204	4.5	183	203	5.0	8	M 24	80	183	203
200	219.1	6.3			34	320	88	30	375	238	260	4.5	239	259	5.0	12	M 27	100	239	259
250	273.0	7.1			38	385	105	33	450	291	313	4.5	292	312	5.0	12	M 30	110	292	312
300	323.9	8.0			42	450	115	33	515	342	364	4.5	343	363	5.0	16	M 30	120	343	363
350	355.6	8.8			46	510	125	36	580	394	422	5.0	395	421	5.5	16	M 33	130	395	421
400	406.4	11.0			50	585	135	39	660	446	474	5.0	447	473	5.5	16	M 36	140	447	473

Table 34: Installation lengths

36 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



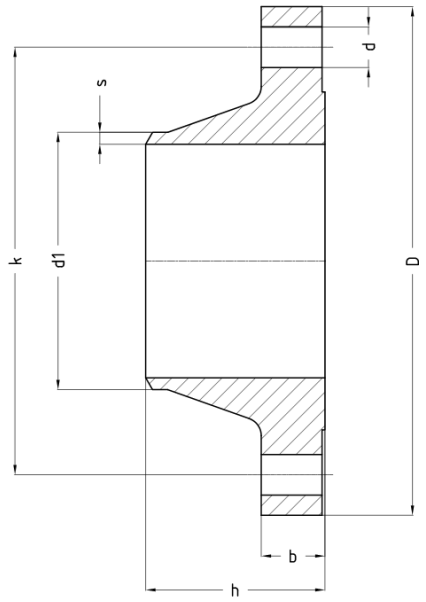
DIN EN 1092-1 PN25 DN200-500																		
	Welding ends							Flange facing design						Screws DIN 931			Sealing ring DIN 2691	
	Series 1							Groove			Tongue							
DN	d1	s	b	k	h	d	D	di	da	f	di	da	f	Quantity	Thread	Length	di	da
200	219.1	6.3	30	310	80	26	360	238	260	4.5	239	259	5.0	12	M 24	90	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 35: Installation lengths

37 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



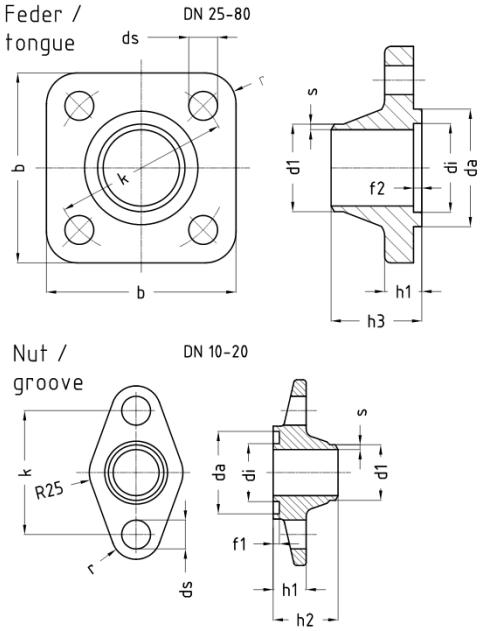
Nominal size		Welding ends acc. to:													
		ANSI		ANSI-FL 150lbs RF / sq. in					Screws DIN 931	ANSI-FL 300lbs RF / sq. in					Screws DIN 931
DN	INCH	d1	s	b	k	h	d	D	Quantity	b	k	h	d	D	Quantity
15	1/2"	21.3	2.8	11.2	60.5	47.8	15.7	88.9	4	14.2	66.5	52.3	15.7	95.2	4
20	3/4"	26.7	2.9	12.7	69.9	52.3	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 36: Installation lengths

38 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								Bolts / screws DIN 931			Sealing ring DIN 2691	
	Series 1		Series 2		ANSI							Groove				Tongue				Quant-ity/ Quant-ity	Thread/ Thread	Lengt h/ Lengt h		
DN	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

AWP-FL PN25 DN10-20 / PN40 DN25-80																							
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
50	60.3	2.9	57.0	3.2	60.3	3.9	132	135	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	132	135	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	132	135	20	28	18	84	96	3	53.5	85	95	4	53.5	4	M 16	75	A85x95*	

Table 37: Installation lengths

* = acc. to DIN 7603

39 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** under the Tools/Downloads tab.
- Our general terms and conditions apply.

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