

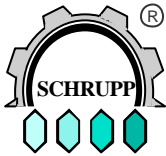
HL Hydraulik GmbH

www.hl-hydraulik.de

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schrupp@hl-hydraulik.de

HP – PNEUMATIC

System Solutions for Industry



**HAND OPERATED VALVES
TYPE HAV**

www.hl-hydraulik.de

Hand operated valves of the Series HAV provide leakfree operation for high pressure pneumatic or water service. Their robust construction and special adjustable spindle-sealing allow operation under extreme conditions with a very long lifespan. The valves can accept flow in both directions.

Product Range:

NG 8mm PN 200bar

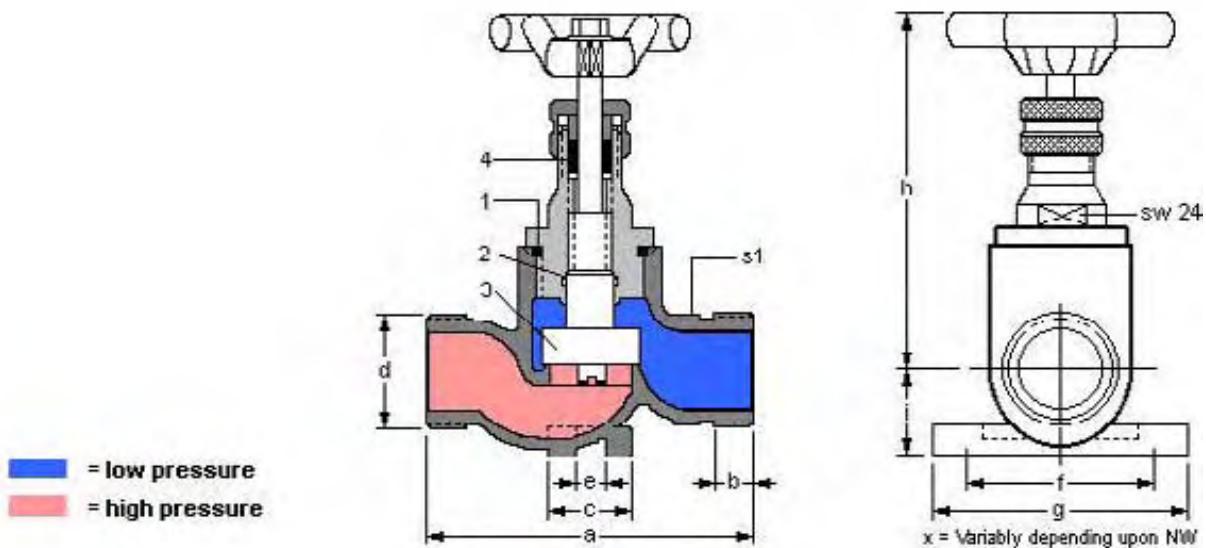
NG 15mm PN 64bar

NG 25mm PN 64bar

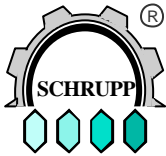
Accessories:

Reduction from NG 15 to NG 10 with outside-screw thread M18 x 1.5

Tube fitting connection to Gal. ZN 1201 DIN 50961



Type	ND	Prodnr Prodno	Fuß Socket	Entlastung Vent	a	b	c	d	e	f	g	h	i	S1	Rohr Pipe	Masse (Kg)
HAV	15	160523			80	9		M26x1,5				112	19	24	15/18	0,55
HAV	15	160525	x		80	9	17	M26x1,5	8	44	60	112	19	24	15/18	0,59
HAV	15	160524		x	80	9		M26x1,5				112	19	24	15/18	0,55
HAV	15	160526	x	x	80	9	17	M26x1,5	8	44	60	112	19	24	15/18	0,59
HAV	25	160527			105	12		M36x2				113	25	36	25/28	0,89
HAV	25	160528		x	105	12		M26x2				113	25	36	25/28	0,89



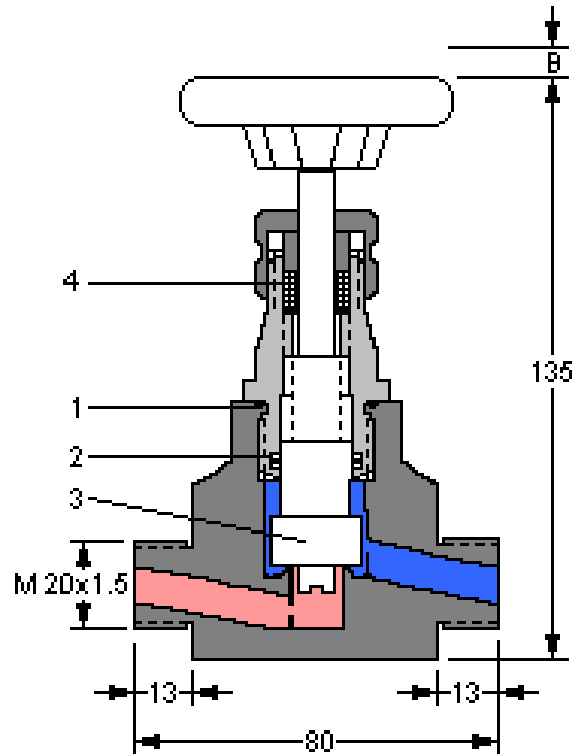
**HAND OPERATED VALVES
TYPE HAV**

www.hl-hydraulik.de

Order-Information HAV 08 Pno.: 504242

NG 8mm PN 350bar

Product Nr: 504242



■ = low pressure
■ = high pressure

Spare parts kit

Consisting of:

Pos	Name
1	O – Ring (u-ring)
3	Disk
4	Seal Kit

Accessories

HAV 08

Tube fitting Connection per: Gal. ZN 1201 DIN 50961 for tube D = 8/12mm

Order nr: **HAV 08 EO**

HAV Tube fitting Connection per: Gal. ZN 1201 DIN 50961 for tube D = 15/18mm

Order nr: **HAV 15 EO**

Reduction from M26x1.5 to M18x1.5 thread

Order nr.: **HAV 15 RED10**

HAV 25

Tube fitting Connection per: Gal. ZN 1201 DIN 50961 for tube D = 25/28mm

Order nr.: **HAV 25 EO**

Order Information

HAV 15 VTS

HAV 25 VTS



**NON RETURN VALVES
TYPE RSV**

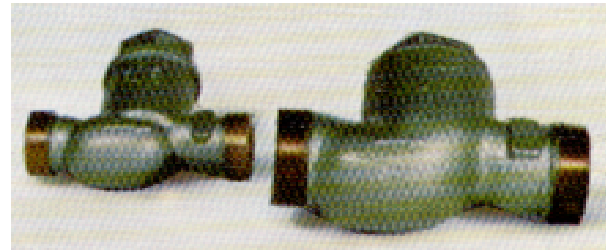
www.hl-hydraulik.de

NP 64bar

ND 15 and ND 25mm

Complete with EO fittings

Gal. ZN 1201 DIN 50961

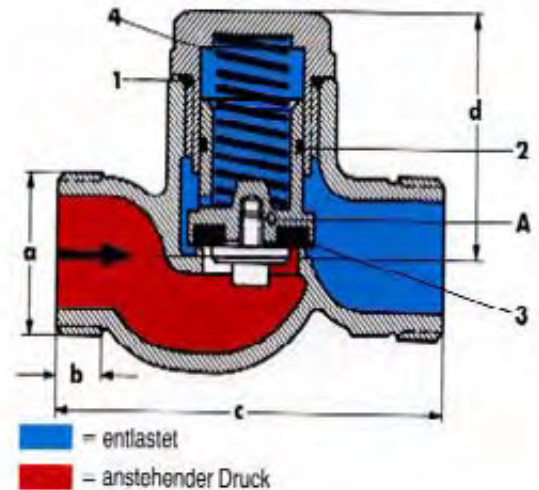


ND	Seat	a	b	c	d	Mass	Partno.
15	soft	M26 x 1,5	9	80	60	0,4 Kg	160535
25	soft	M36 x 2	12	105	58	0,5 Kg	160537

Ordering code and example:
Type, Size, Pressure

RSV 15 – 64

Pressure difference for opening 2bar



ND10 NP200 and ND25 NP100

Complete with EO fittings

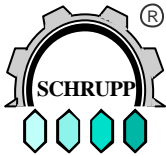
Gal. ZN 1201 DIN 50961

ND	Connection	length
10	M 20 x 1,5	80
25	M 36 x 2	85

Ordering code and example:
Type, Size, Pressure

RSV 10 – 200





**PRESSURE MAINTAINING
VALVES TYPE HAV**

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Pressure Maintaining and Pressure Maintaining Check Valves series DHV and DRV are mounted between the condenser and the compressed air vessel. These valves maintain a constant pressure at the condenser and help to facilitate water separation from the air.

The higher the pressure at the valve, the better the water-separation.

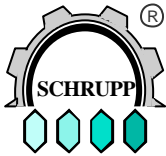
Their robust construction allows their use under extreme conditions with a very long lifespan.



Ordering Information

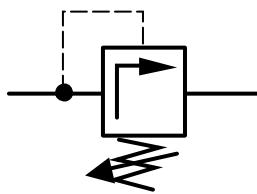
- DHV 16 - 451263 Pressure Maintaining Valve NG16mm PN15-60bar**
- DHV 12 - 451262 Pressure Maintaining Valve NG12mm PN60-350bar**
- DHV 05 - 504270 Pressure Maintaining Valve NG 5mm PN60-350bar**
- DRV 05 - 450050 Pressure Maintaining Check Valve NG 5mm PN60-350bar**

Technical Data	DHV 05	DRV 05	DHV 12	DHV 16	
Flow rate with 5bar dp	-	-	750	1500	l/min
with 10bar dp	160	160	2500	5000	l/min
with 15bar dp			4600	9200	l/min
with 220 bar dp	3500	3500			l/min
Minimum pressure difference	10	10	5	5	bar
Max. Working pressure	350	350	350	60	bar
Pressure range	60-350	60-350	30-350	15-60	bar
Mass	10	18	120	120	N
Housing material	MS	MS	MS	MS	
Seals	Buna-N	Buna-N	Buna-N	Buna-N	
Tube-connection size	12	12	20	28	mm

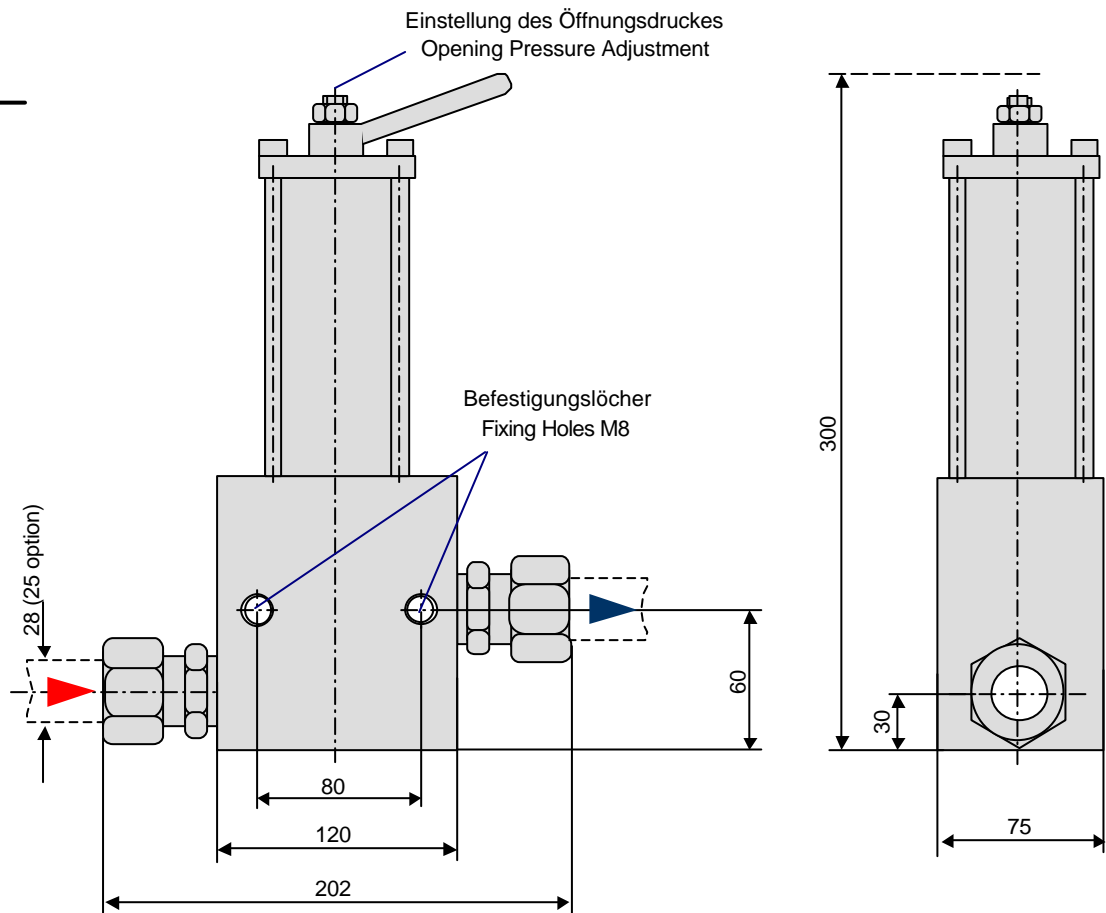


**PRESSURE MAINTAINING
VALVES TYPE HAV**

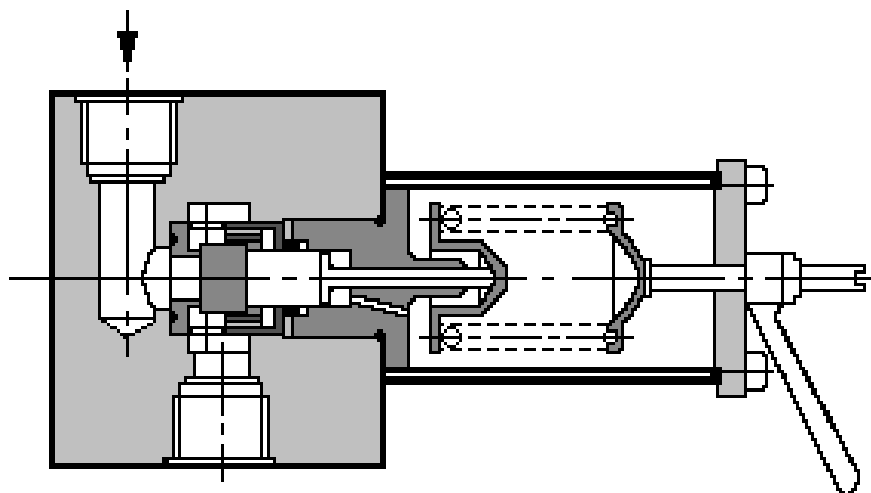
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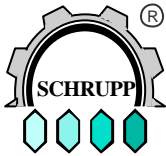


DHV 16



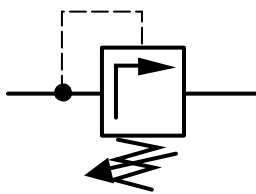
Bestellnr. Dichtsatz / Orderno. seal kit: DHV 16 - VTS - 451263 - 92



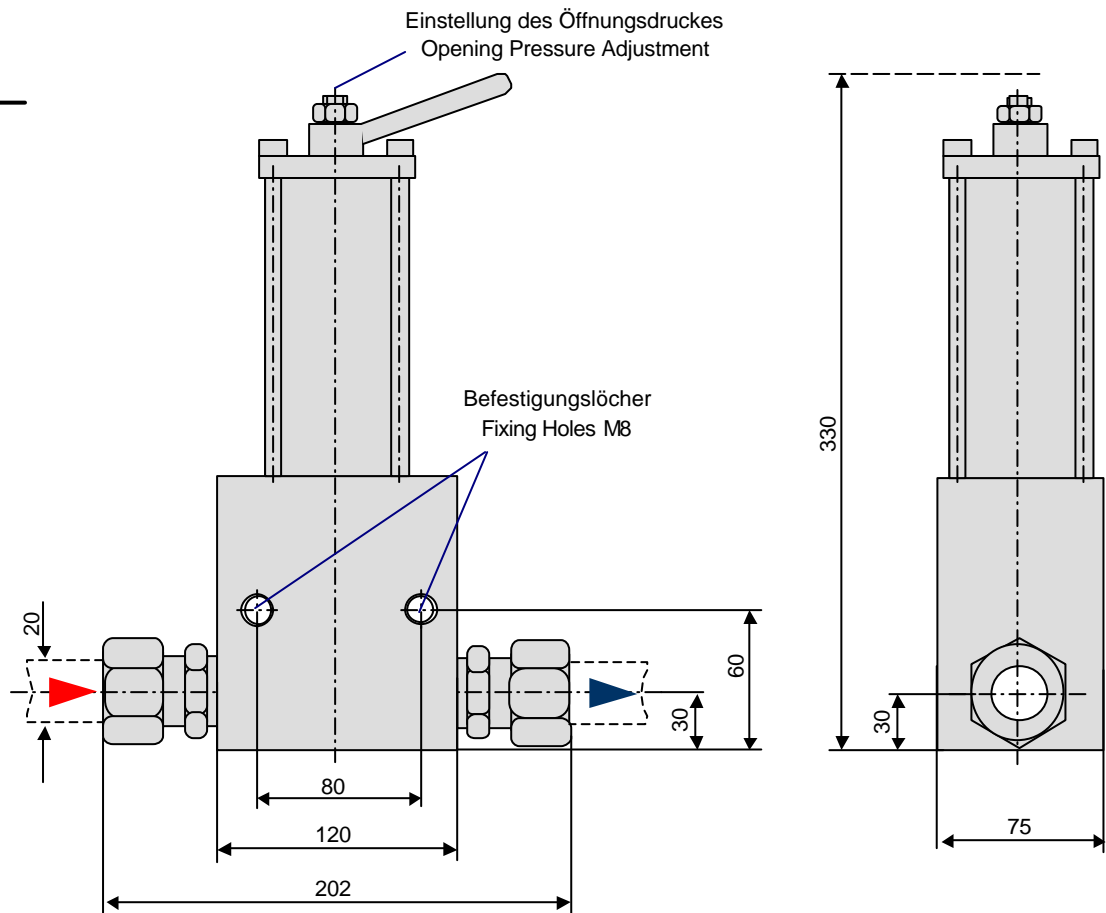


**PRESSURE MAINTAINING
VALVES TYPE HAV**

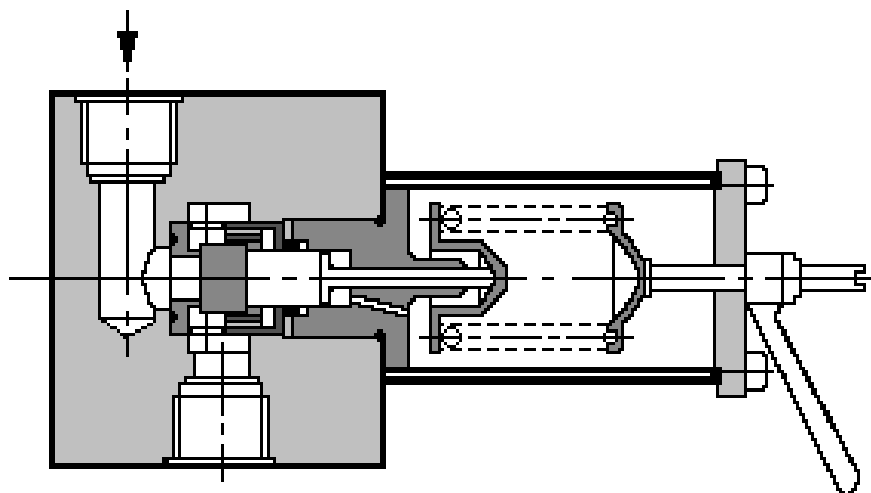
www.hl-hydraulik.de

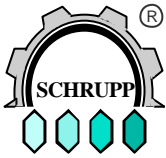


DHV 12



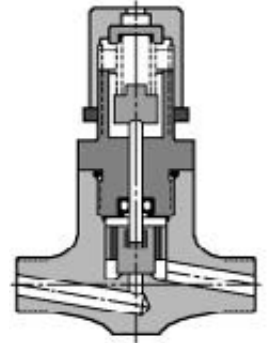
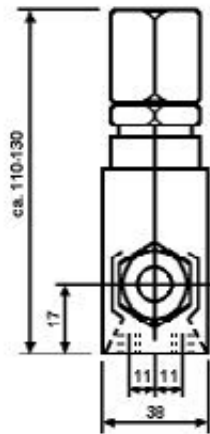
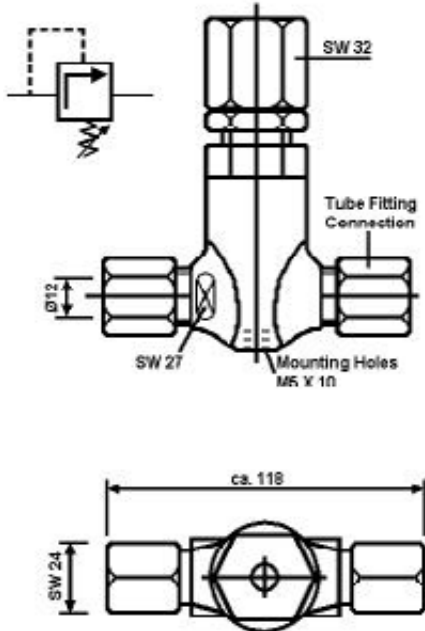
Bestellnr. Dichtsatz / Orderno. seal kit: DHV 12 - VTS - 451262 - 92





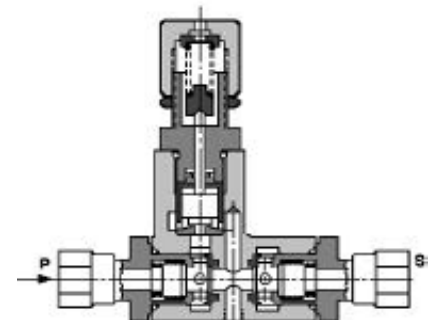
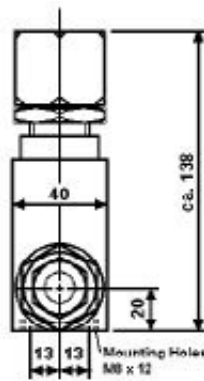
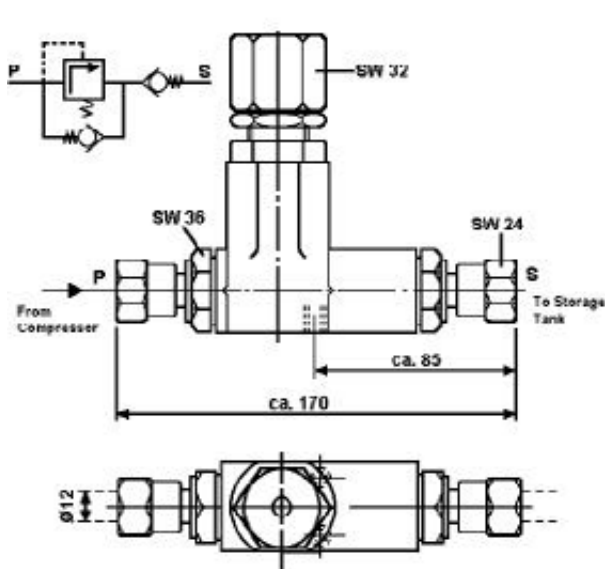
**PRESSURE MAINTAINING
VALVES TYPE HAV**

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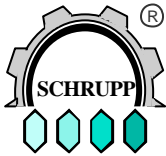
Ordering Information
Spare parts kit
DHV 05 VTS

DHV 05



Ordering Information
Spare parts kit
DRV 05 VTS

DRV 05



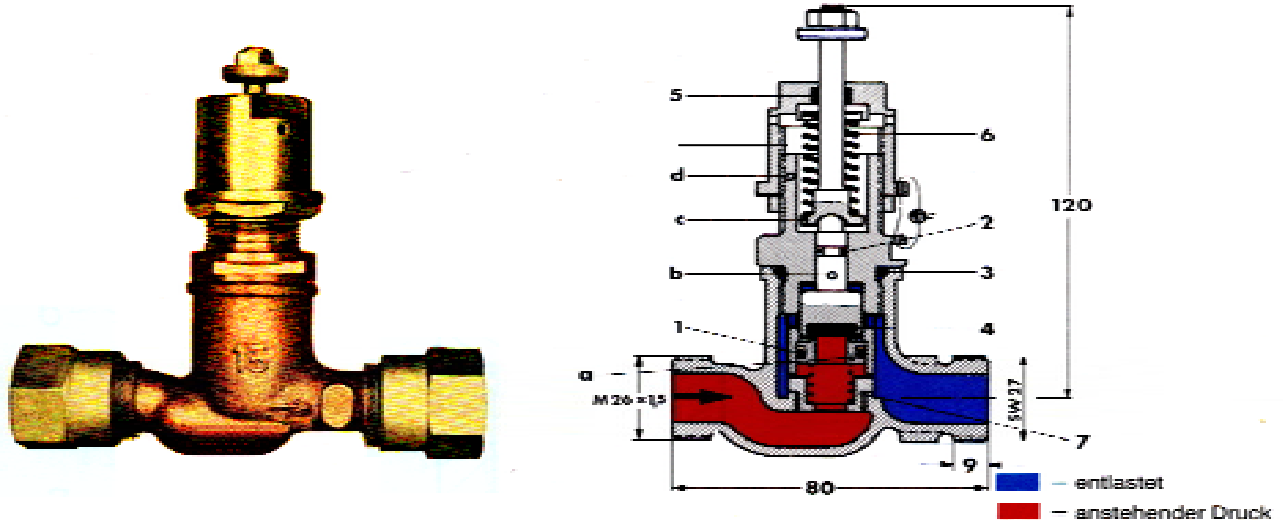
**PRESSURE MAINTAINING
 VALVES TYPE HAV**

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Pressure Maintaining Valves are mounted between the condenser and the compressed air vessel. These valves maintain a constant pressure at the condenser and help to facilitate water separation from the air.

The higher the pressure at the valve, the better the water-separation.

Pressure Maintaining Valve complete with EO fittings GAL. ZN 1201 DIN 50961

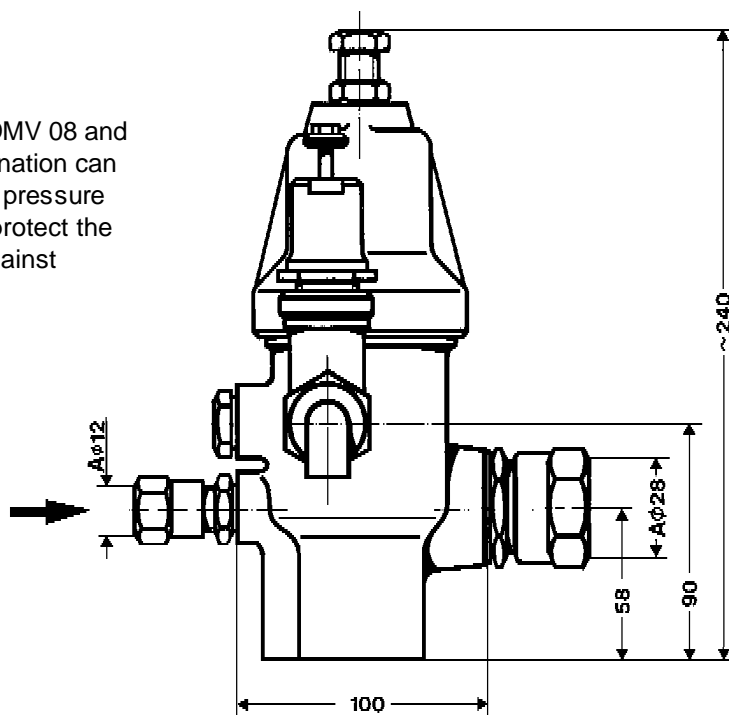


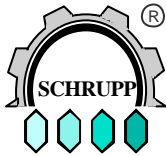
Size: 8mm
 Seat: soft
 Mass: 0,5Kg
 Max Pressure: 45bar

Ordering Code and Example
 Type, Size, Pressure, Pnr.
DHV 08 - 45 - 160540

Example:

Valve combination DMV 08 and DHV 08. This combination can be used to reduce a pressure in a system and to protect the secondary circuit against overpressure.





**SAFETY VALVES
TYPE SVE06**

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**SAFETY VALVE TYPE V600
ORDERINGNO SVE06 - 87202**

Application: Schrupp safety valves type SV06-1 and SV06-2 are spring loaded valves designed to protect compressors from over-pressurization.

The Schrupp safety valves can also be used to protect pressure vessels containing non-poisonous gases.

Special characteristics:

TUV approval up to 350 bar
Acc. To 97/23/EC, Group 2, Div IV
Low hysteresis and good operational control even under adverse conditions.

Compact design
Robust design
Easy to maintain

Technical Data:

DN6 Opening Pressure: Type SV06-1 Pressure range 150 -350bar

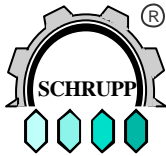
Type SV06-2 Pressure range 55 - 150bar

Flow rate(liters/min) = 32.2 x pressure(bar)
Ambient Temperature: 0-70 degrees C.

proportional safety valve, mass 1,3kg.

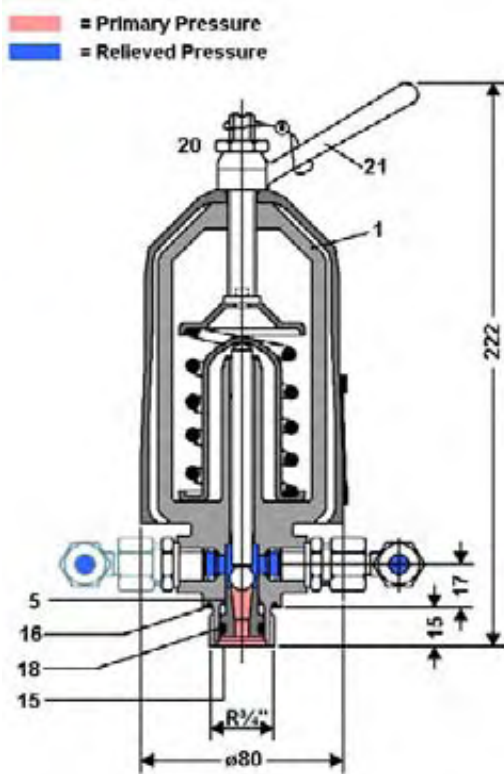
Notice:

Valves are shipped with plugged ports. Please remove before installation



**SAFETY VALVES
TYPE SVE06**

www.hl-hydraulik.de



Functional Description: Port R is connected to the compressor or high pressure vessel. In the event of over-pressure, the ball lifts from the seat and bleeds pressure through the side outlet port. The elbow fittings can be arranged to send the air in any direction. To check valve function, turn lever #21 counter-clockwise to valve housing, #1. This test will not affect the pressure set point.

The set pressure can be adjusted by turning lever #21 after loosening locking nut #20. (Turn clockwise to increase pressure set point.) After adjustment, re-tighten locking nut #20. The valves do not require regular servicing. Periodically, tests are required, according to 97/23EC.

Spare parts kit numbe: SVE 06 VTS 87202-92

Mark Number	Description
5	Seat
15	O-ring
16	O-ring
18	Back up ring

Note: The set pressure for type SV06 can be adjusted in the range as shown below:
On request, the adjustment can be made by TUV or on the Schrupp test stand.

Set Pressure

SV06

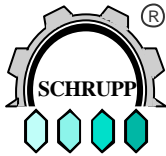
Set pressure in bar	Set pressure in bar
150 - 175	55 - 66
175.1 - 220	66.1 - 85
220.1 - 350	85.1 - 110
	110.1 - 135
	135.1 - 150

Ordering example

SVE 06 - 55-66 - 87202

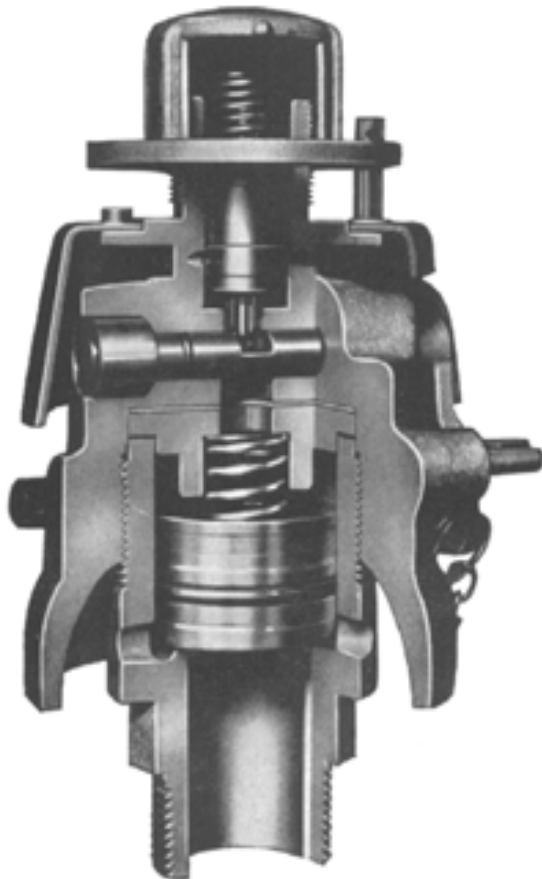
Type

Pressure set point



**SAFETY VALVES (POP OFF)
TYPE SVE30**

www.hl-hydraulik.de



Safety Valves Type S650:

Orderingno. SVE 30

Application: The Schrupp SV30 safety valve is a spring loaded valve used to protect vessels containing non-toxic gases from over-pressurization. Upon reaching the set pressure, the valve opens fully and immediately.

Special Features: Pilot operation
According to 97/23/EC
Robust design
Low hysteresis
Excellent control even under adverse conditions
Easy to maintain and install

Technical Data: Nominal Size: Dn 30
Set pressure from 4.5 to 44 bar
Flow rate: 4750 – p in liter/min
Weight: approximately 3.2 kg

SVE30 - 41.1-44 - 89062

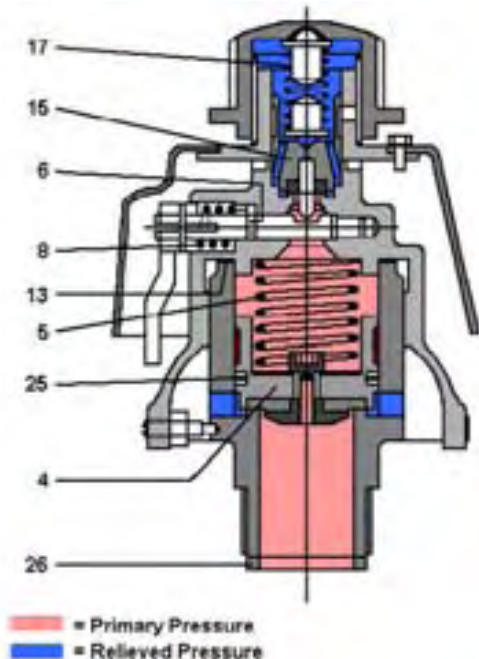
Pressure [bar]

4.5	-	6
6.1	-	8
8.1	-	13
13.1	-	18
18.1	-	21
21.1	-	25
25.1	-	30
30.1	-	35
35.1	-	41
41.1	-	44

Accessory: reducer to NG 15
Model number: **SVE30 RED 15 - 89062-92**

**SAFETY VALVES (POP OFF)
TYPE SVE30**

www.hl-hydraulik.de



Maintenance and Operation:

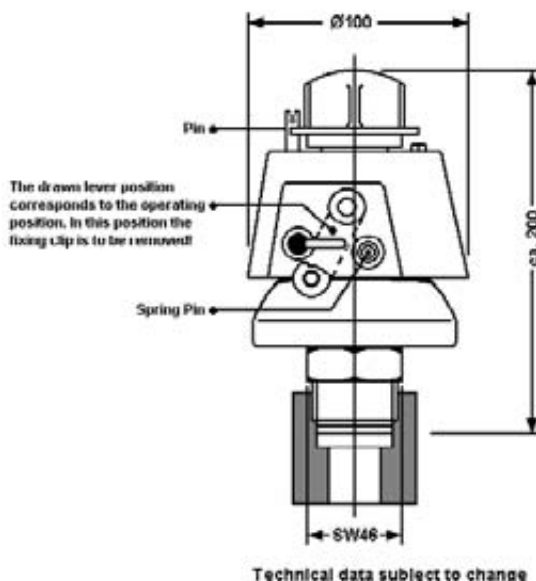
1. **Shipping and Storage** During transportation or storage, the valve should be locked in the open position by use of the manual handle. All ports must be plugged. To open the valve, the lever should be moved against the spring force to the end position and fixed by the holding clamp.
2. **Installation** On pressure vessels or pipes with minimum inside diameter of 1 inch. For installation, use only original seals; never use glue or other additional seal materials.

3. **Adjustment of Set Pressure** After removing the pin the set pressure can be changed, by turning the thread cap clockwise (increases set pressure) or counter-clockwise (reduces set pressure).
4. **Noise protection** Because of the possible production of high noise levels, we recommend the use of an ear protection.

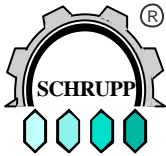
Spare parts kit	Part	Qty	Designation
	4	1	Piston
	5	1	Compression spring
	6	1	O-Ring
	8	1	Torsion spring
Order No.	13	1	Seal 45/58 x1
SVE 30 VTS	15	1	Valve insert
	25	1	O-Ring
	26	1	Seal 30/39 X 5

Mode of operation:

- Open:** With increasing pressure the valve insert (15) rises out of its seat and vents air to atmosphere. Then the piston (4) rises out of its seat and the valve opens.
- Closing:** After blowing the pressure off over the piston (4) the valve insert (15) closes fast; the closing process of the piston (4) is delayed until the pressure build-up over the piston (4) escapes through the drilling in the piston. Thus, closing of the piston (4) takes place not via the strength of the spring (5), but with the pressure on the differential area of the piston (4) opposite the valve seat.



Technical data subject to change



**SAFETY VALVES
TYPE SVE 10**

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Sicherheitsventil für Druckluft mit Baumusterprüfung.
TÜV approved Safety Valve for compressed air.

97/23/EC, Gruppe2, KategorieIV

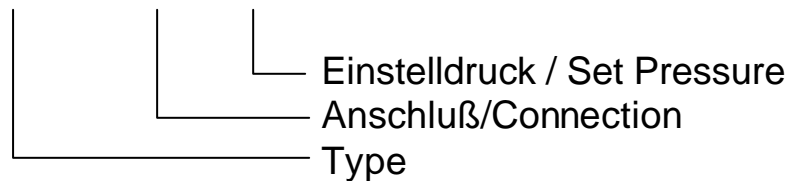
Einstelldruck / Set Pressure: 0,3 – 50 bar

Betriebstemperatur / Operating Temperature: max 180°C

DN: 10mm

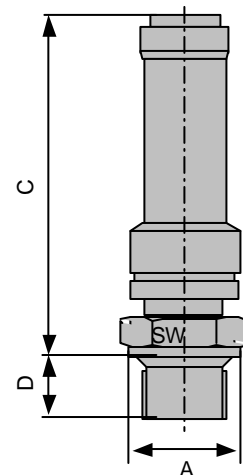
Bestellbeispiel / Ordering Example

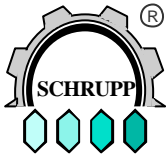
SVE10 - G1/2 - 45 - Teilnr



Teilnr. Partno.	Anschluß Connection	Druckbereich Pressure	SW	A	C	D
850803	G3/8"	0,3 – 8,5 bar	27	22	75	12
850803		8,6 – 40 bar	27	22	95	12
850803		40,1– 50 bar	27	22	120	12
850804	G1/2"	0,3 – 8,5 bar	27	26	75	14
850804		8,6 – 40 bar	27	26	95	14
850804		40,1– 50 bar	27	26	120	14
850805	G3/4"	0,3 – 8,5 bar	32	32	75	16
850805		8,6 – 40 bar	32	32	95	16
850805		40,1– 50 bar	32	32	120	16

Dimensions in mm





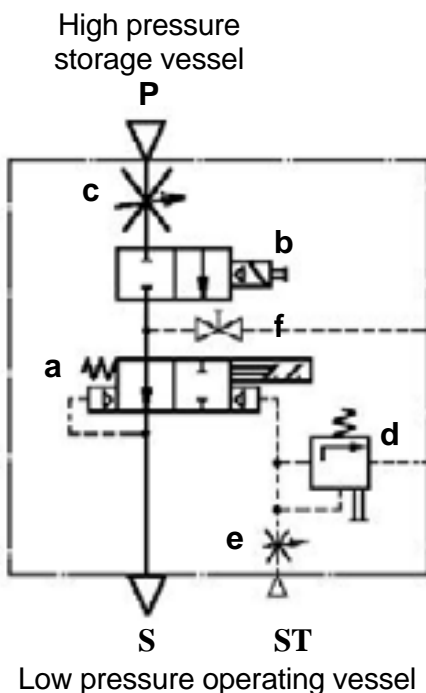
SAFETY DEVICES
TYPE SHE

www.hl-hydraulik.de

Safety devices of the type SHE are used to protect downstream storage vessels which are being fed by a higher operating pressure, against over pressurization. As opposed to the function of a typical safety valve, the Schrupp SHE valve protects the lower rated pressure vessel by closing the interconnection between the two vessels once the set pressure has been reached. In this way, the operational (low pressure) vessel is protected, while at the same time, maintaining the stored pressurized air necessary to ensure operation of the selected component, such as electrical switch gear.

The Schrupp SHE safety device includes the following elements:

- a. Locking valve with electrical position indication switch.
- b. Solenoid actuated, pilot operated, 2/2 way sluice valve.
- c. Throttling Device.
- d. Pressure Relief Valve
- e. Pilot Throttle.
- f. Bleed Valve.



Technical Data

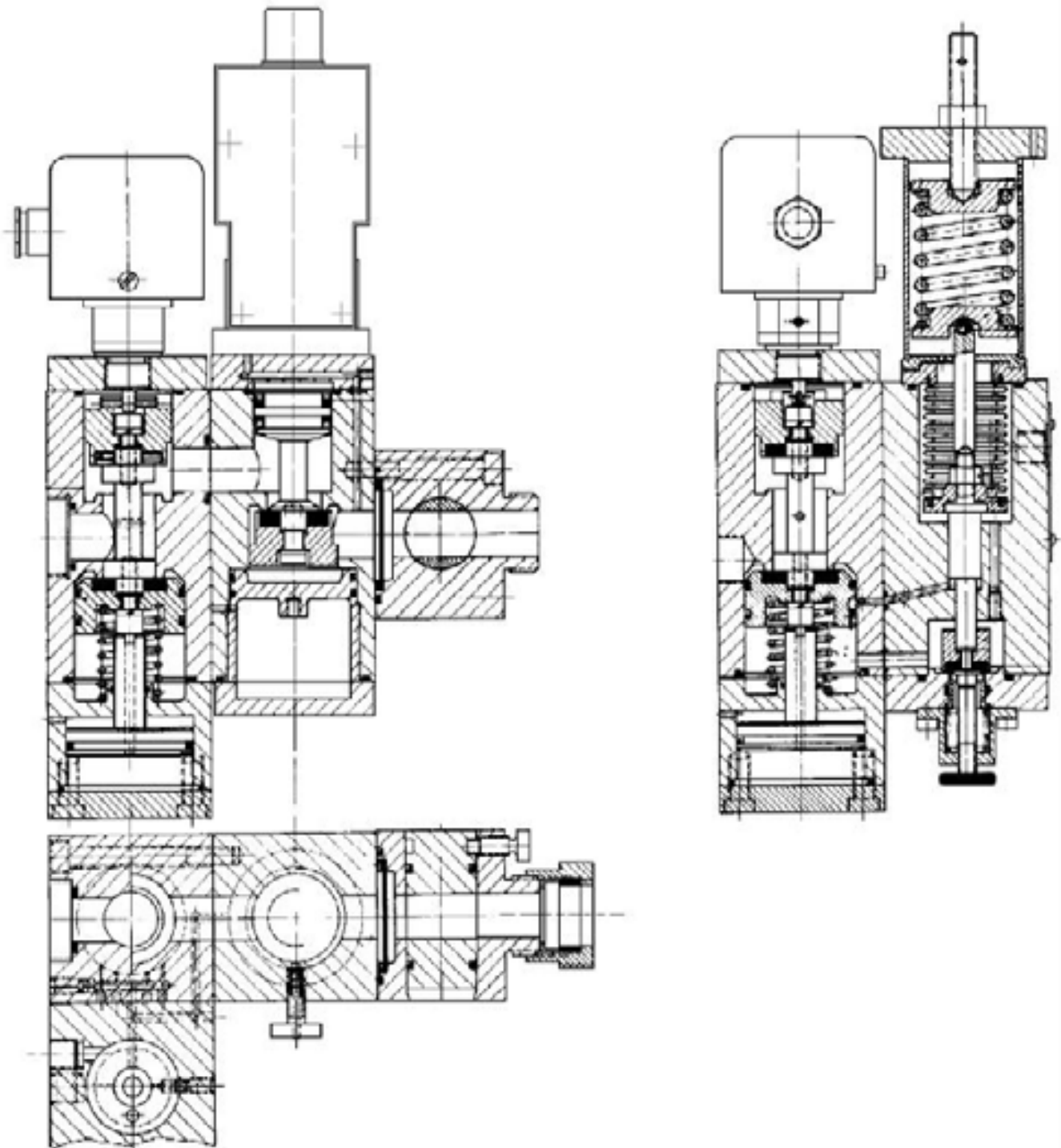
TYPE	SHE 06	SHE 20	
Nominal size	20	10	mm
Primary pressure	64	64 - 200	bar
Secondary pressure	5 - 40	15 - 40	bar
Max flow rate	56,000	56,000	l/min
Mass	ca. 320	ca. 320	N
Nominal size of pressure relief valve	6	6	mm
Port P	M36 x 2	G 3/8"	
Port T	M36 x 2	M36 x 2	
Port ST connection for pipes with outside dimension:	10	10	mm

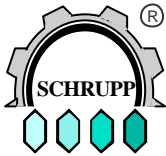
According to 97/23/EC



SAFETY DEVICES
TYPE SHE

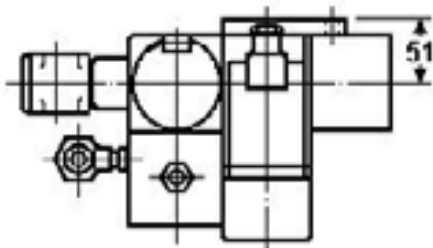
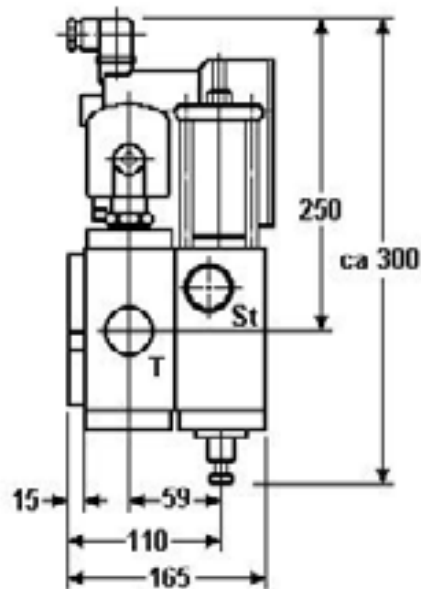
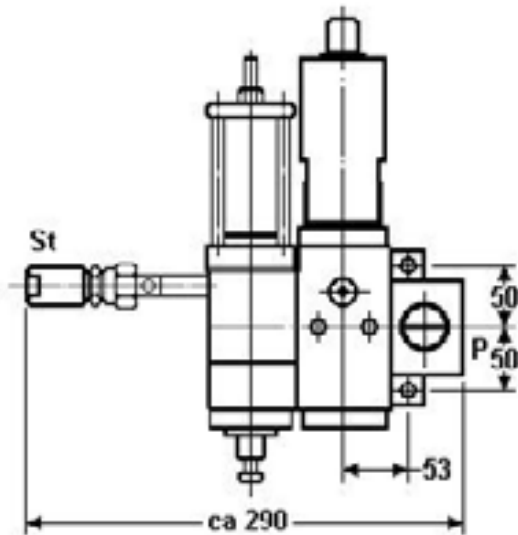
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**SAFETY DEVICES
TYPE SHE**

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Port Connections

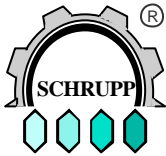
SHE 06	P,T	-	M36 x 2
	St	-	10 mm
SHE 20	P	-	G 3/8"
	T	-	M36 x 2
	St	-	10 mm

Ordering code

SHE 06 24GL

Voltage	24v DC = 24GL	=24GL
	240v/60Hz	= 240W
Inlet pressure up to 64 bar		= 064
Inlet pressure up to 200 bar		= 200

Spare parts kit: SHE 06 24GL VTS



PRESSURE REDUCING VALVE www.hl-hydraulik.de

TYPE DMV 08

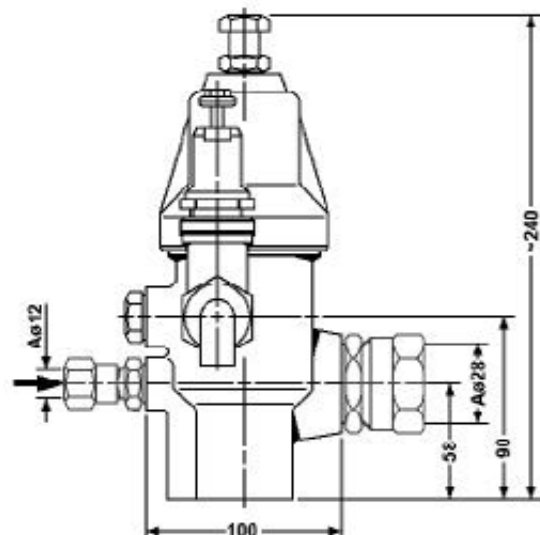
AP20380
Pno.155308

Schrupp pressure reducing valves, type DMV08 are used to reduce pneumatic system pressure from a maximum primary pressure of 200 bar to a maximum secondary pressure of 60 bar. Upon reaching the adjusted outlet pressure, the leakfree Schrupp DMV08 closes. The robust design of the Schrupp pressure reducing valve is very compact and provides exact pressure control.



Technical Data

Nominal Size: 8mm
Inlet port: G 3/8"
Outlet port: G 1"
Max Primary pressure: 200bar
Max Secondary pressure: 60bar
Min Secondary pressure: 5bar
Flow rate 33,000L/min at 180bar dp
Mass: ca. 45N
Ambient Temperature 0-70°C



Ordering Code

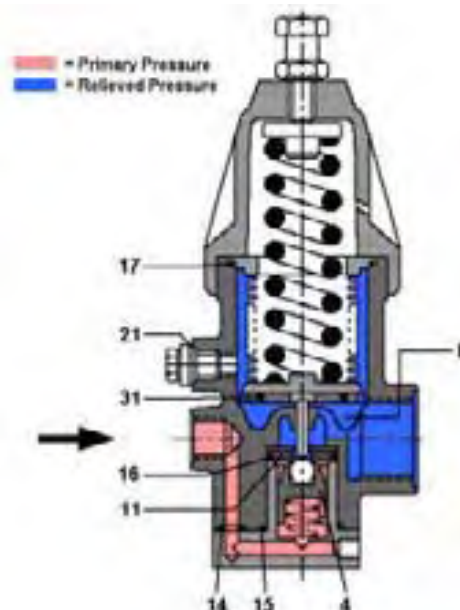
DMV 08 45 (5-45bar Primary press.)
DMV 08 60 (45-60bar Primary press.)

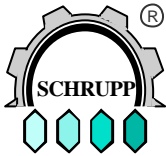
Spare Parts Kit

DMV 08 VTS

includes:

Pos	Stk	Description
4	1	Piston
11	1	Seat Ring
14	1	O-Ring
15	1	O-Ring
16	1	O-Ring
17	1	O-Ring
21	1	Seal
31	1	O-Ring





PRESSURE REDUCING VALVE www.hl-hydraulik.de
TYPE DMV 20

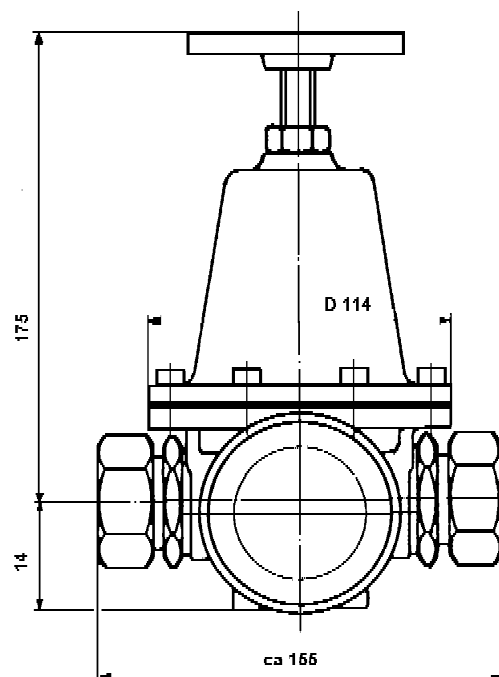
Schrupp pressure reducing valves, type DMV20 are used to reduce pneumatic system pressure from a maximum primary pressure of 40 bar to a maximum secondary pressure of 25 bar. Upon reaching the adjusted outlet pressure, the leakfree Schrupp DMV20 closes. The robust design of the Schrupp pressure reducing valve is very compact and provides exact pressure control.

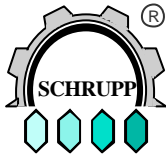
Technical Data

Size: 20mm
Inlet port: G 1"
Outlet port: G 1"
Max inlet-pressure: 40bar
Max outlet-pressure: 25bar
Min outlet pressure: 0,5bar
Flowrate 7.800L/min max
Mass: apr. 4Kg
Temperature 0-60°C

Ordering code

DMV 20 - 453419

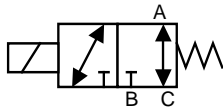




SLUICE OR DIRECTIONAL VALVES TYPE WEV

www.hl-hydraulik.de

These directional control valves are used to channel air from a high pressure reservoir to operationsl vessels with a lower pressure. The Schrupp sluice valves are direct solenoid operated 2/2 way valve size NG6 (3/8") or can be combined with our leak free cartridge assembly for larger sizes. In combination with other devices including pressure reducing valves, relief or safety valves, filters, throttles, etc., the Schrupp WEV series valves can be used for multiple applications in a high pressure pneumatic system.



Type WEV 06 - 500002

Materials Stainless Steel, Brass

Technical Data	Pressure Range	0-400bar
	Nominal Size	DN6
	Surface temperature	-20 to +80°C
	Ambient temperature	max 45°C
	Medium	Gas
	Flow range	see diagram
	Voltage	12 - 240v ac/dc
	Max power consumption	42 W
	I.D.	100%
	Protection class	IP65, Nema 4

opening and closing time (water)

Q = 25 l/min 1sec

Q = 42 l/min 3sec



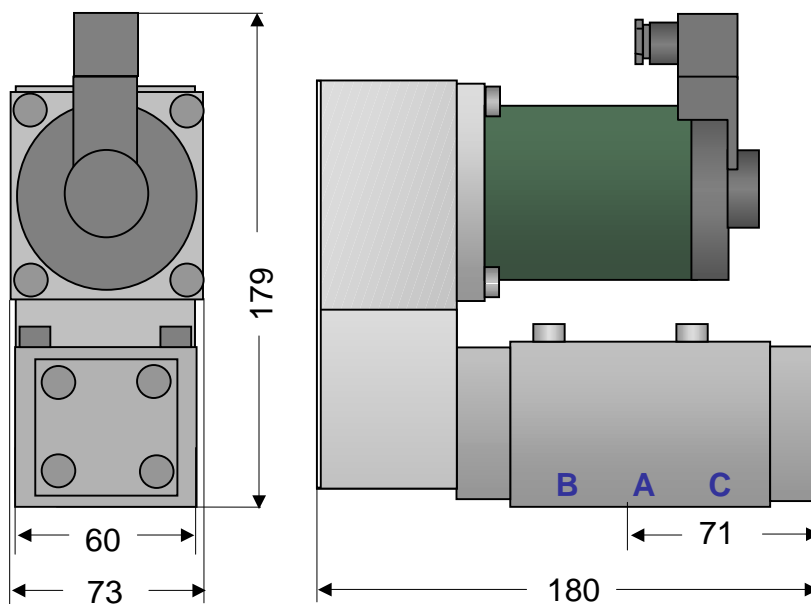
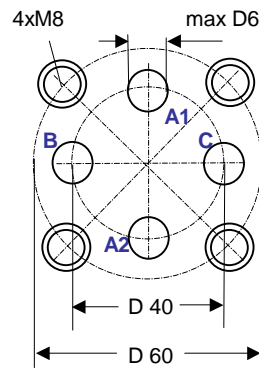
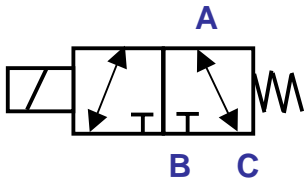
**SLUICE OR DIRECTIONAL
VALVES TYPE WEV**

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ORDERCODE

TYPE: WEV 06 P250 50002 024G 24V DC
110W 110V/50Hz (60Hz)
220W 220V/50Hz (60Hz)
Pressure-range up to 50, 250, 400bar

Dimensions





SLUICE OR DIRECTIONAL VALVES TYPE WEV

www.hl-hydraulik.de

These directional control valves are used to channel air from a high pressure reservoir to operationsl vessels with a lower pressure. The Schrupp sluice valves are direct solenoid operated 2/2 way valve size NG6 (3/8") or can be combined with our leak free cartridge assembly for larger sizes. In combination with other devices including pressure reducing valves, relief or safety valves, filters, throttles, etc., the Schrupp WEV series valves can be used for multiple applications in a high pressure pneumatic system.



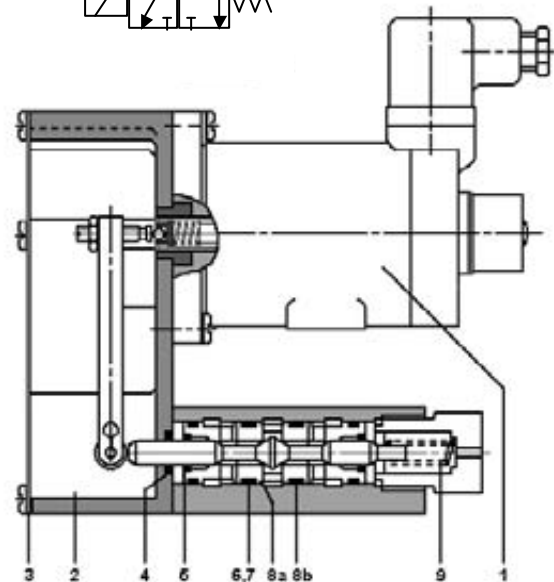
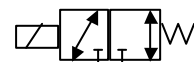
Type WEV 06 R

Materials Stainless Steel, Brass

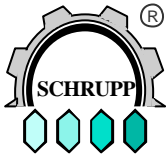
Technical Data Pressure Range 0-250bar
 Nominal Size DN6
 Surface Temperature -20 to+80°C
 Ambient Temperature max 45°C
 Medium Gas
 Flow Renge see Diagram
 Voltages 12-240V ac/dc
 Max. Power 43W
 Consumption I.D. 100%
 Electrical Protection IP 65, Nema 4
 Class +5 to -10%
 Voltage Tolerance

Functional Description When solenoid 1 is de-energized, spring 9 pushes the piston against seat 8a. Port 1 is blocked, port 2 is connected to port 3. When solenoid 1 is energized, the piston will be shifted against seat 8b. Port 2 is blocked and port 1 is connected to port 3.

Spare Parts		WEV 06 R
Item	Quantity	Description
3	1	Seal
4	1	Rd-Ring
5	2	Turcon Step seal
6	4	Rd-Ring
7	6	Back up ring
8	2	Valve Seat



Schrupp directional valves can be used as 2/2 way or 3/2 way valves with flow in either direction.



SLUICE OR DIRECTIONAL VALVES TYPE WEV

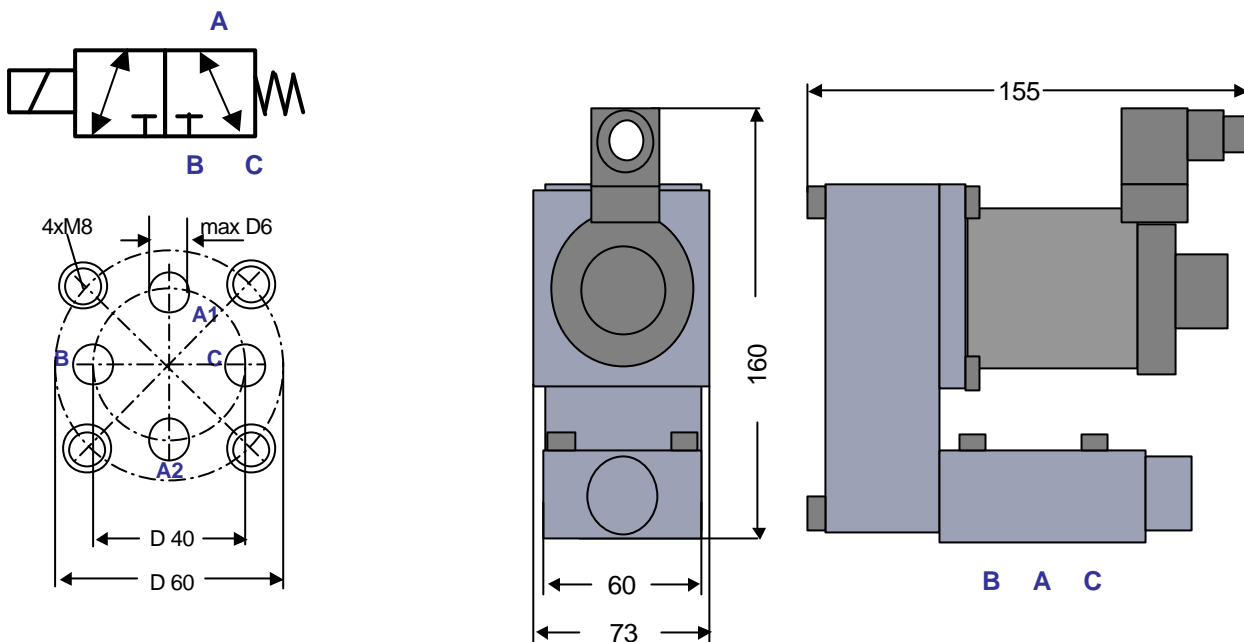
www.hl-hydraulik.de

3/2, 2/2 Directional Valves DN6 PN250 for sub plates for compr. air, water, oil

TYPE: WEV 06 PL (Partno) 024G 24V DC
110W 110V/50Hz (60Hz)
220W 220V/50Hz (60Hz)

Partno 500000

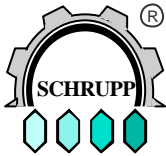
These directional control valves are used to channel air from a high pressure reservoir to operation vessels with a lower pressure. The Schrupp sluice valves are direct solenoid operated 2/2 way valve size NG6 (3/8") or can be combined with our leak free cartridge assembly for larger sizes. In combination with other devices including pressure reducing valves, relief or safety valves, filters, throttles, etc., the Schrupp WEV series valves can be used for multiple applications in a high pressure pneumatic system.



TYPE: WEV 06 PW (Partno) 024G 24V Gleichstrom
110W 110V/50Hz (60Hz)
220W 220V/50Hz (60Hz)

Partno 500038

These directional control valves are similar to type WEV06PL. The use of soft seats allows a operation in water or oil systems with pressures up to 64 bar.



**SLUICE OR DIRECTIONAL
VALVES TYPE WEV**

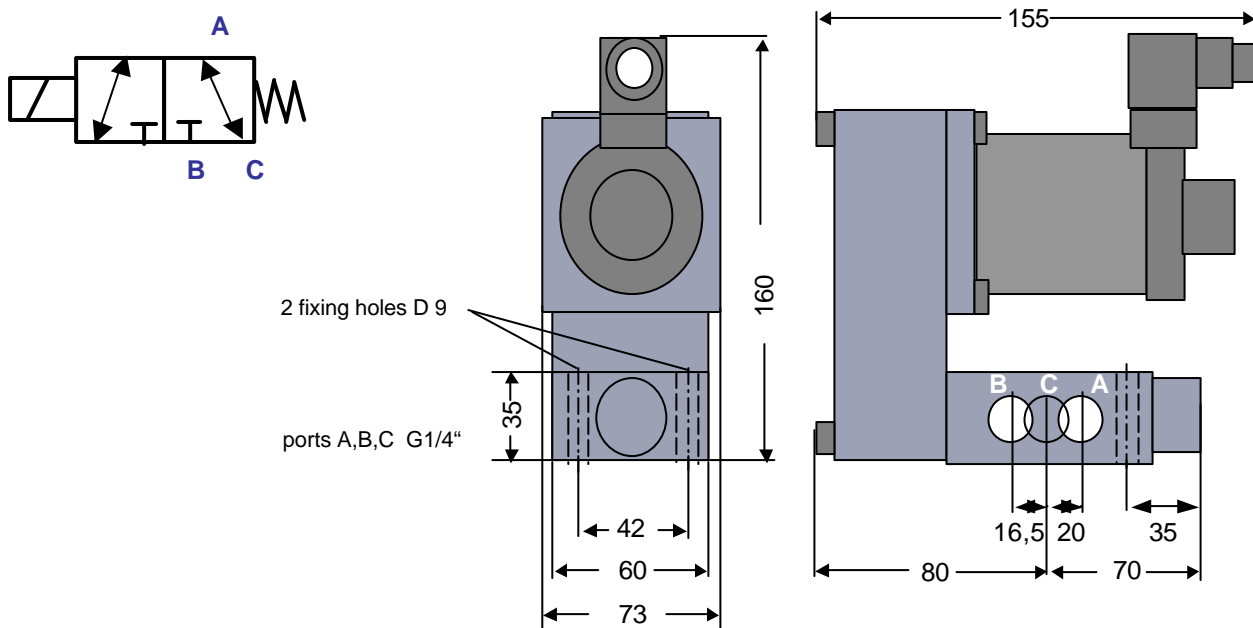
www.hl-hydraulik.de

**3/2, 2/2 Directional control Valves DN6 PN250 with threat ports
for compr. air, water and oil**

TYPE: WEV 06 RL (Partno) 024G 24V DC
110W 110V/50Hz (60Hz)
220W 220V/50Hz (60Hz)

Partno 500004

These directional control valves are used to channel air from a high pressure reservoir to operation vessels with a lower pressure. The Schrupp sluice valves are direct solenoid operated 2/2 way valve size NG6 (3/8") or can be combined with our leak free cartridge assembly for larger sizes.



TYPE: WEV 06 RW (Partno) 024G 24V DC
110W 110V/50Hz (60Hz)
220W 220V/50Hz (60Hz)

Partno 500004-38

These directional control valves are similar to type WEV06PL. The use of soft seats allows a operation in water or oil systems with pressures up to 64 bar.



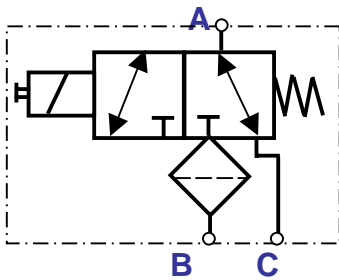
SLUICE OR DIRECTIONAL VALVES TYPE WEV

www.hl-hydraulik.de

3/2, 2/2 directional Control Valve DN6 PN250 with filter, for compr. air

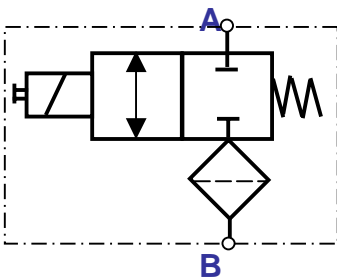
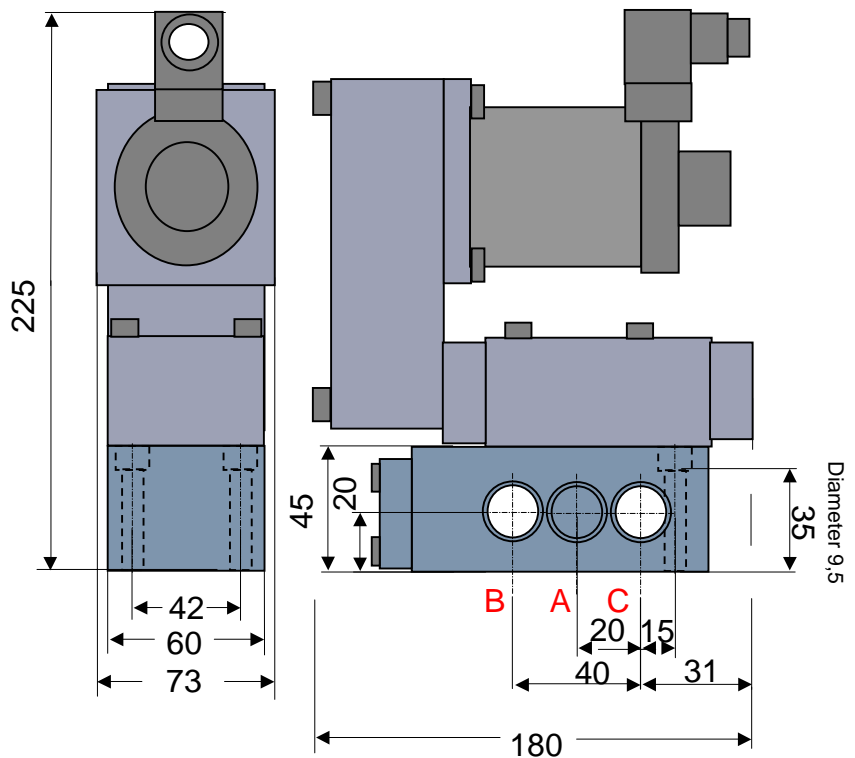
TYPE: WEV 06 FL (Partno) 024G 24V DC
110W 110V/50Hz (60Hz)
220W 220V/50Hz (60Hz)

These directional control valves are used to channel air from a high pressure reservoir to operation vessels with a lower pressure. An integrated 80mic cleanable filter at port R protects the valve against dirt particles. The Schrupp sluice valves are direct solenoid operated 2/2 way valve size NG6 (3/8") or can be combined with our leak free cartridge assembly for larger sizes.



Ports A, B, C - G1/4"
Partno 451443

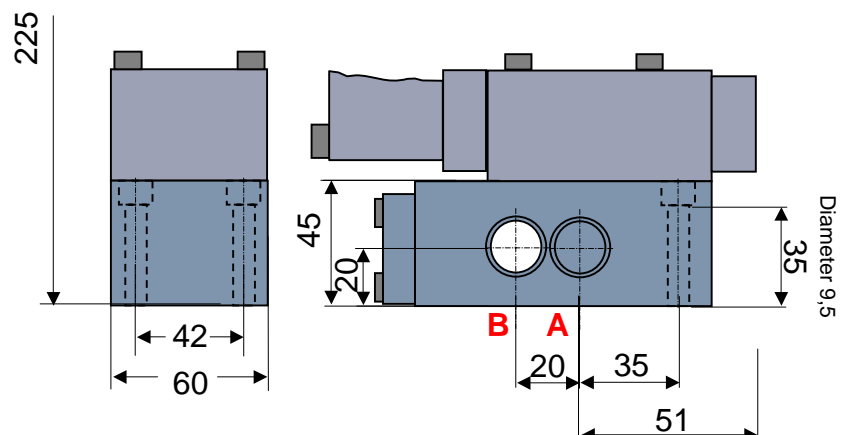
Spare parts for filter:
 1Pce filter element Partno. 157346
 1Pce O - Ring Partno. 080098
 Spare parts for directional valve
 see page 1



Ports A, B - G1/2"
Partno 503690

Ports A, B - M22x1,5
Partno 503382

Spare parts see above





**SLUICE OR DIRECTIONAL
VALVES TYPE WEV**

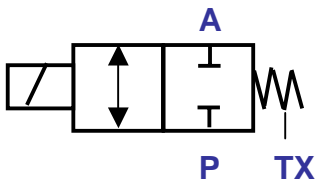
www.hl-hydraulik.de

**2/2 Directional Control Valve DN16 PN250 with thread port
for compr. air, water, oil**

TYPE: WEV 16 RL (Partno) 024G 24V DC
110W 110V/50Hz (60Hz)
220W 220V/50Hz (60Hz)

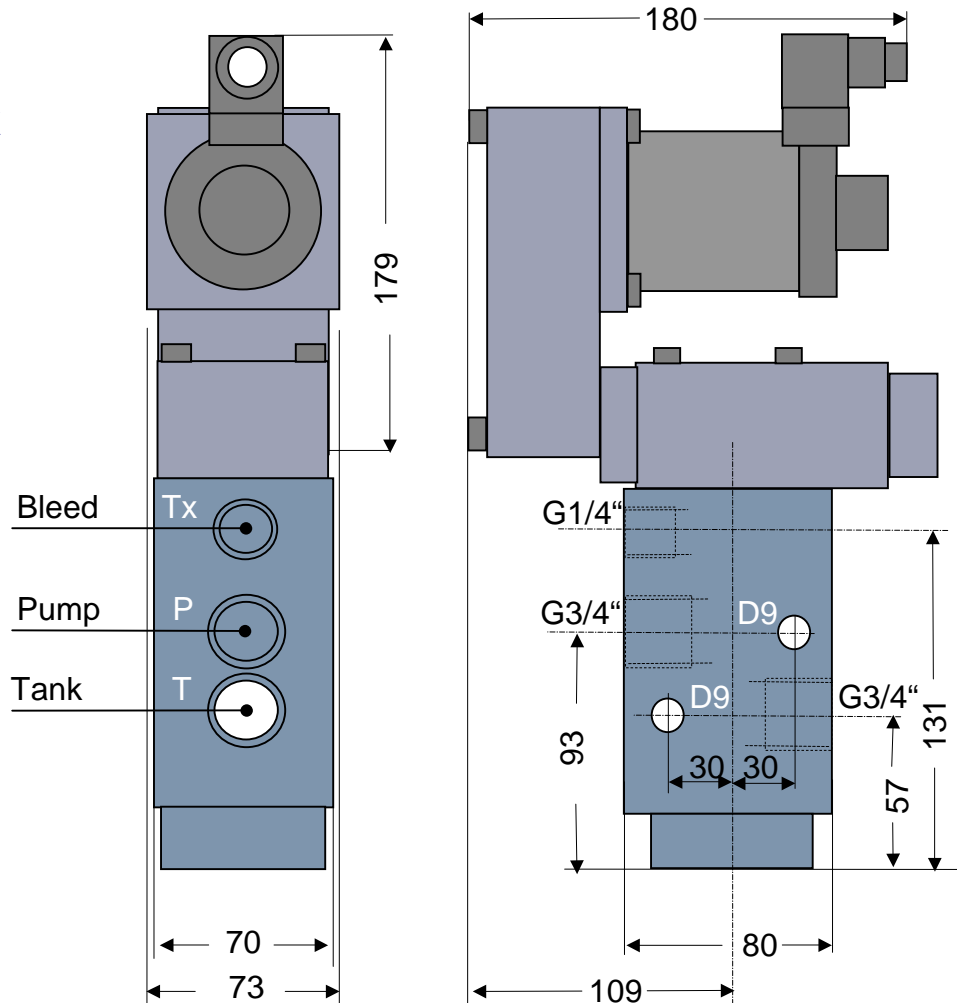
Partno 450737

These leakfree directional valves size 16mm with thread connections can be used in compressed air systems up to 250bar. Spezial designs for water or oil applications on request. All ports can be operated with the maximum pressure. The valve includes a soft seated DIN cartridge size 16 type EO-16-00-6D/S, what is piloted by an type 500000 pilot valve.



Spare Parts

Pilot valve see page 1
Cartridgevalve ND 16
Partno 165991





SLUICE OR DIRECTIONAL VALVES TYPE WEV

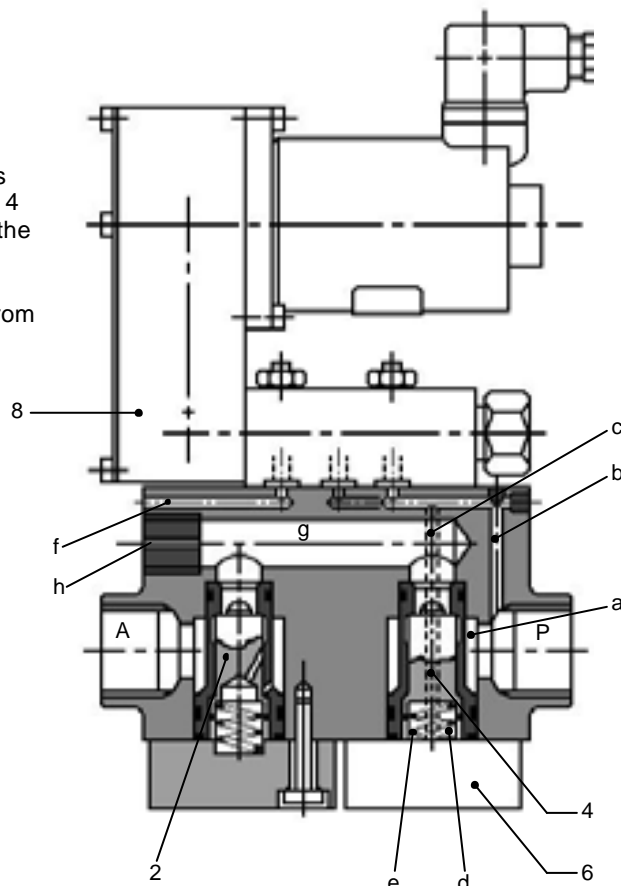
www.hl-hydraulik.de

Typ WEV 16 R

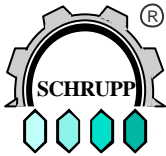
APPLICATION	These valves are used as sluice valves between high and low pressure reservoirs. They combine a 2/2 way pilot operated directional control valve and a check valve. The Schrupp WEV 16 R directional valves can also be used for diesel engine start up.	
Materials of Construction	Housing – Brass Internal Parts – Stainless Steel Seals – Viton, Teflon, Delrin	
Technical Data	Pressure Range	0-250bar
	Nominal size	DN6
	Temperature Range	20 to+80°C
	Ambient Temperature	max 45°C
	Medium	Gas
	Flow Range	see Diagram
	Voltages	12-240V DC/ AC
	Max.Power Consumption	43W
	I.D.	100%
	Electrical Protection Class	IP 65, NEMA 4
	Voltage Tolerance	+5to -10%

Functional Description

When the solenoid of the 3/2 way pilot valve is de-energized, piston area d is connected through drillings band c to port P. The piston of cartridge valve position 4 is closed by the spring. By energizing the solenoid of the pilot valve, drilling b will be blocked and c and f are connected. The cartridge valve will be opened by the pressure in Port P. The check valve allows flow only from P to A. During this operation a small volume of air will pass through nozzle n.



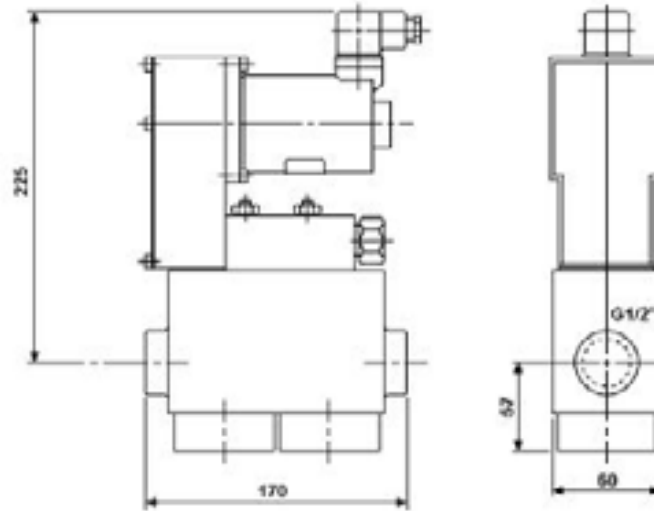
Spare Parts		WEV 16 R
Item	Quantity	Description
2	1	Check Valve DN16
4	1	Cartridge Valve DN 16
6	1	Rd-Ring
8	1	3/2 Way Valve DN 6



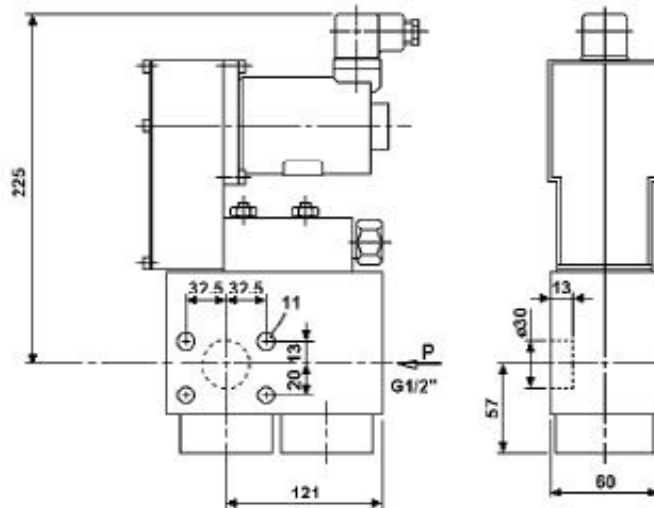
SLUICE OR DIRECTIONAL
VALVES TYPE WEV

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Partno 452617



Partno 168870



ORDER CODE

WEV 16 R | **024vGL**

Voltages

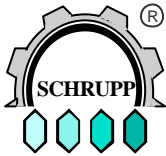
012vDC, 024vDC, 110vDC, 220vDCL

110vAC, 220vAC /50-60Hz

Other Voltages on request

Partno

Directional Valve DN6 for pipeline installation



**SLUICE OR DIRECTIONAL
VALVES TYPE WEV**

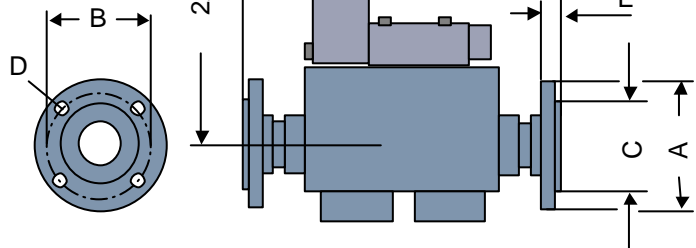
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Modification Sets and Accessoires (do not use for new applications)

Valve Type 168870 with Flange connections

Partno	Flange	A	B	C	D	E	Flange per
452631	DN 20	105	75	58	14	18	DIN 2567
452632	DN 25	115	85	68	14	18	PN 40
452633	DN 40	150	110	88	18	18	
452634	DN 20	130	90	68	18	22	DIN 2569
452635	DN 25	140	100	78	18	24	PN 100
452636	DN 40	170	125	98	23	26	

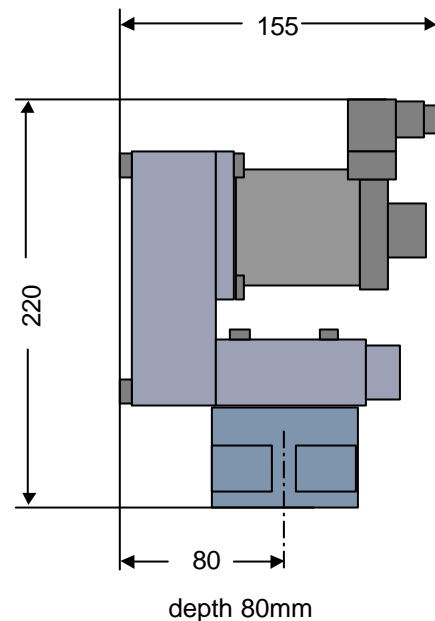
Partno for Valve with flanges



Modification set

In a lot of systems there are still type AP 1820, AP 6225 or AP 6733 valves in operation. For technical reasons it is not possible anymore to produce the original pilot valves. To upgrade this valves with new pilot valves Type 500000 it is necessary to assemble a modification set. Specially when the main stage of the valve is in good condition it is more economical to replace only the pilot than to invest into a new valve.

Partno. modification set 502136





**GAS DRYER
TYPE GTR**

www.hl-hydraulik.de

**For high pressure air and
non aggressive Medium for:**

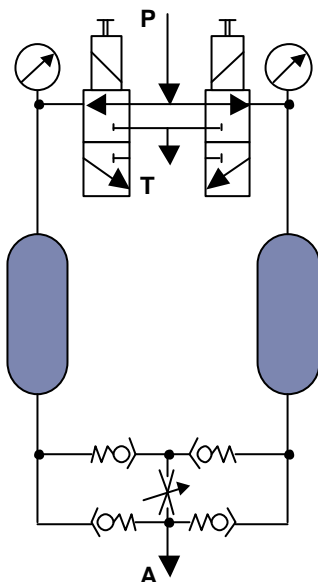
- drying
- de-oiling
- filtering

- Benefits

- less corrosion
- less wear
- no icing

and consequently

- longer service life
- lower maintenance costs
- fail-safe operation



Ordering example: **GTR 10 24GL 250**

Operating pressure 30-250 bar Type 250
251-350 bar Type 350

Voltage: 24GL = 24VGL
220W = 220V50Hz

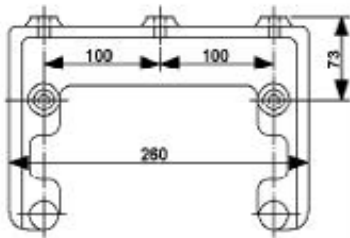
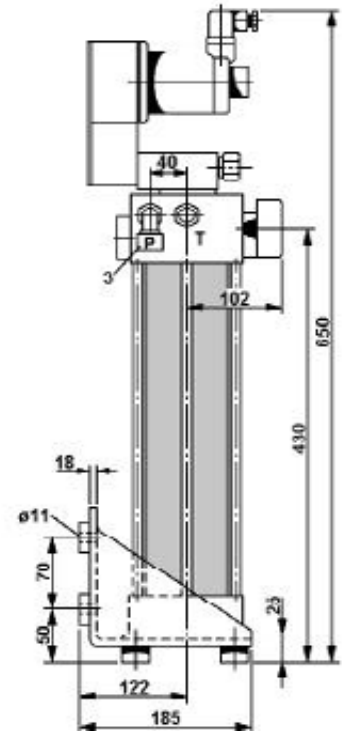
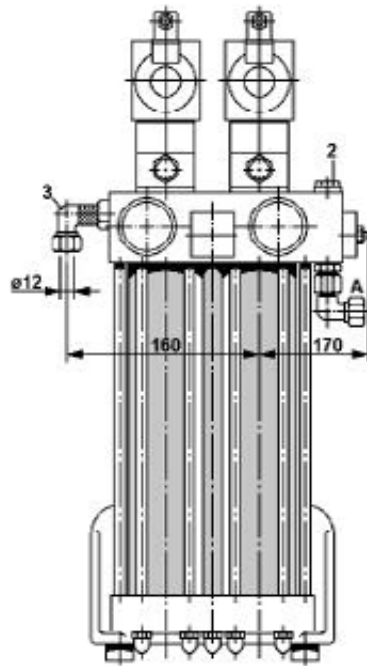


GAS DRYER TYPE GTR

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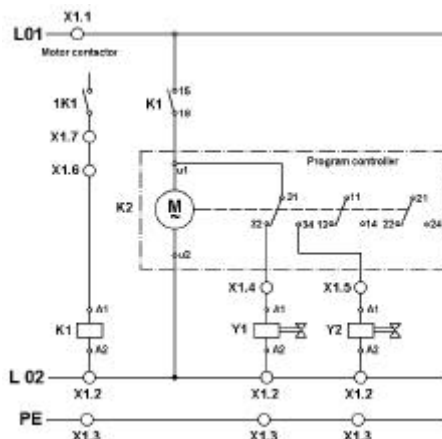
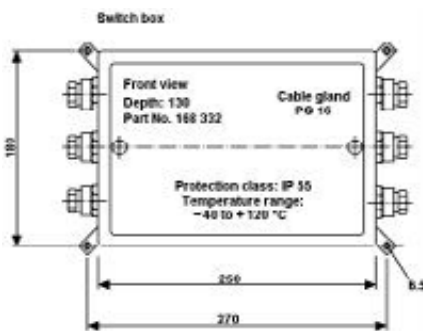
Technical Data

Operating Pressure	30 - 350 bar
Flow Rate	1000 L/min
Regeneration Air	5-10% of Compressor
Volume of Reservoir	0,7 cdm
Max. Temperature	40°C
Relative Humidity	100%
Voltage	24GL, 220W
Power Consumption	35W
Baseplate Material	Brass / stainless steel
Mounting Plate Material	Brass / stainless steel
Reservoirs Material	Steel Chem. Nickel Plates
A and P Ports	G 3/8"
Weight	44 Kg

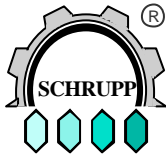


Part code Bracket
GTR K 507335

Part code program control unit
GTR PS 24GL (or 220W)



Destination Symbol	Terminal Strip	Destination symbol
Designation	Conn. No.	Designation
1K1	7	.
Y3	A1	K1
Y2	A1	34
Y1	A1	32
PE	3	.
Y2	PE	Y3
Y1	PE	.
Y2	A2	.
Y1	A2	Y3
L02	2	K1
L01	1	15



**GAS DRYER
 TYPE GTF**

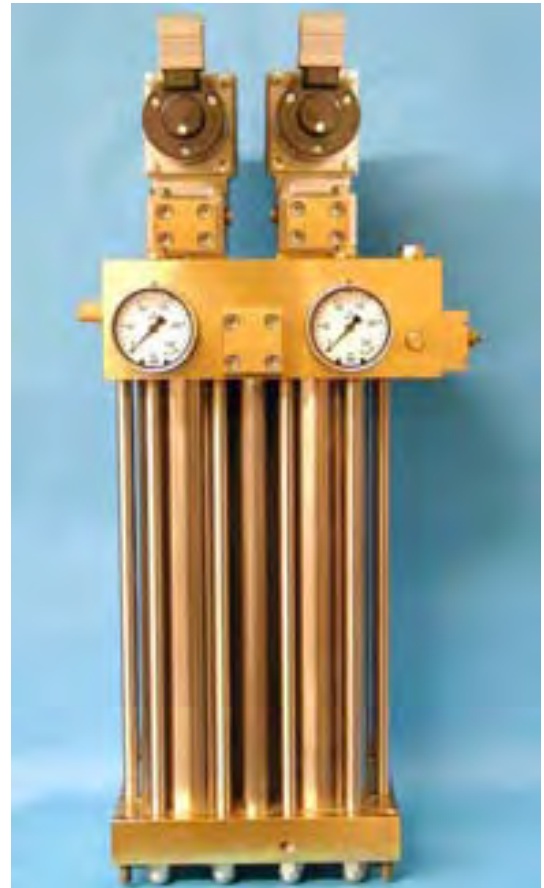
www.hl-hydraulik.de

**For compressed air and non aggressive gaseous media
 drying de-oiling filtering**

this means
less corrosion less wear and no icing during operation
and therefore
greater service life lower maintenance costs

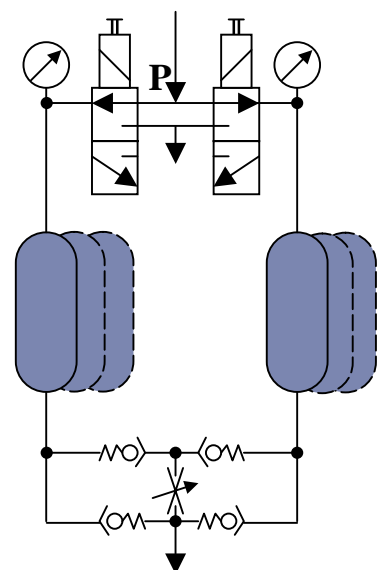
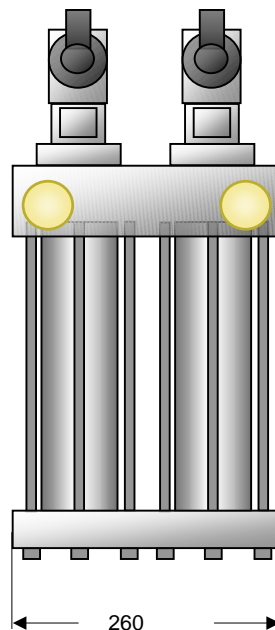
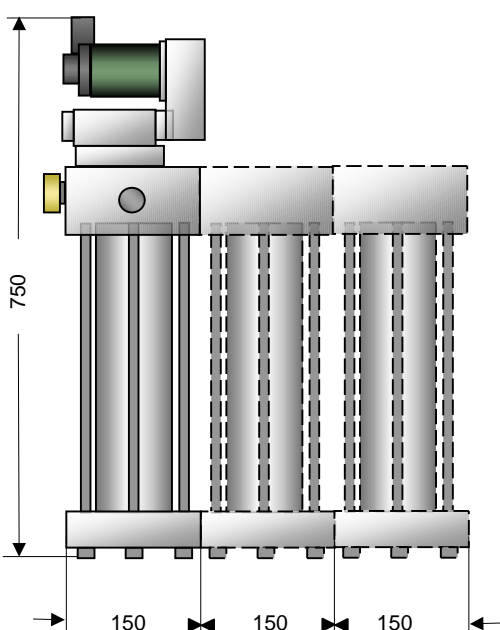
The gasdrier consists of two reservoirs filled with highly porous hydrostatic materials (adsorbents), into which damp compressed air and dried depressurized air are alternately admitted for the regeneration phase. The inlet and outlet of the adsorbent reservoirs are each fitted with a sintered metal disk to filter the water and oil particles out and also any particles from the adsorbate material.

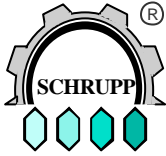
Because of the modular design it is possible to flange up to three units together. The Basic unit includes all necessary directional, throttle and check valve functions. The second and third units include the additional adsorbent reservoirs to increase the capacity of the system.



Technical Data:

Operating pressure	40 – 350bar
Regeneration air consumption appr.	5%
Flow rate per unit	1300 l/min





**GAS DRYER
TYPE GTR**

www.hl-hydraulik.de

SCHRUPP DRIER STATIONS

For

- drying
 - de-oiling
 - filtering
- compressed air and non-aggressive gaseous media**

This means

- less corrosion
 - less wear and
 - no icing
- during operation**

and therefore

- greater service life
- lower maintenance costs and
- fail safe operation





**GAS DRYER
TYPE GTR**

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SCHRUPP GAS DRYER STATIONS

Optional with Bypass

**For compressed Air and other
non aggressive gaseous media:**

- drying
- de-oiling
- filtering

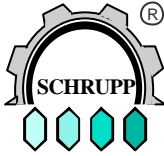
this means

- less corrosion
- less wear and
- no icing
- depressurised standby function

and therefore

- greater service life
- lower maintenance costs and
- fail save operation





GAS DRYER TYPE GTR

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Functional Description

The drier station consists of the gas drier, fine filter, pressure relief valve, pressure holding and check valves and the electrical control unit.

These components are mounted on a frame, pipe connected and wired ready for operation. The gas drier consists of two reservoirs filled with highly porous hydrostatic materials (adsorbents), into which damp compressed air and dried depressurized air are alternately admitted for the regeneration phase.

The damp air coming from the compressor passes through the fine filter (6) and the energized open 3/2-way valve DN 6 (1.1), which voltage is being passed, and reaches the reservoir (1.5).

The adsorbent in reservoir (1.5) removes the moisture from the damp compressed air as it passes through this reservoir. The now dry air passes via the check valve (1.9), pressure holding valve (4) and check valve (5.1) to the storage vessel or to the consumer. A small portion of this dried compressed air is depressurized in the throttle valve (1.11) and flows through the check valve (1.8) to the reservoir (1.6). This dried air absorbs the water from the damp adsorbents and passes via the 3/2-way valve (1.2) into the atmosphere, thus regenerating the adsorbents.

The inlet and outlet of the adsorbent reservoirs are each fitted with a sintered metal disk. These disks filter the water and oil particles out of the incoming damp air and any particles of adsorbate material from the outgoing air.

Since drying and regeneration are performed in a counter-flow procedure, any residues are removed from the sintered metal disks at each reversal of the direction of flow.

After the preset time interval (e.g. 10 minutes), the two 3/2-way valves (1.1 and 1.2) are automatically reversed via a timer switch.

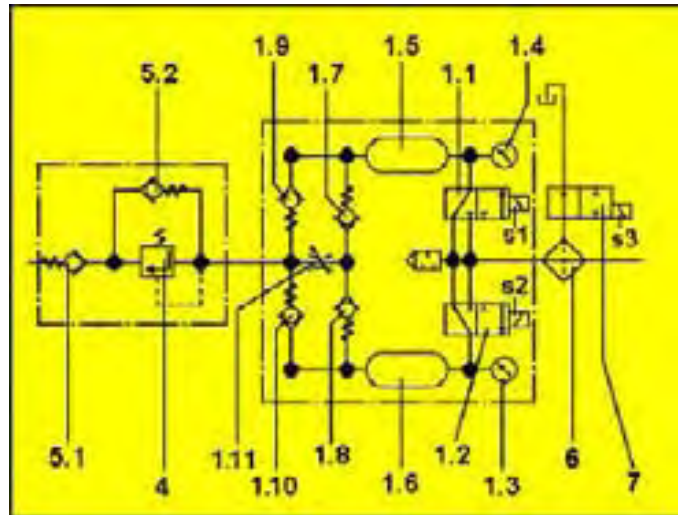
The procedure described above is now repeated but with the reservoirs "reversed".

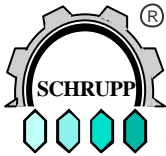
The drying procedure is connected to the operation of the compressor. When the compressor is switched off, both 3/2-way valves (1.1 and 1.2) are closed (off position).

The pressure relief valve (7) opens and the condensate in the fine filter (6) is discharged.

When the compressor is restarted, the drying procedure is continued where it was interrupted.

Using this method, extremely low pressure dew points can be achieved (depending on the operating pressure, down to -50°C and lower measured at the drier outlet).





**GAS DRYER
TYPE GTR**

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The drier station consists of:

- | | | |
|---|---|----------------------------|
| 1 | 1 Gas drier | Type GT 1000/250 |
| | Max. operating pressure | 45 bar |
| | Flow rate | 1000 l/min |
| | Regeneration air | 5-10% of compressor rating |
| | Control voltage | AC or DC |
| 2 | 1 Electrical control unit with time lag switching-off | Type 168 332 |
| 3 | 1 Silencer | Type 162 987 |
| 4 | 1 Pressure holding valve Set to | Type V 501 b (max. 45 bar) |
| 5 | 2 Check valves DN 15, PN 45 | Type Ap 9308 |
| 6 | 1 Fine filter Capacity | Type 450 688 0.65 liter |
| 7 | 1 2/2-way valve DN 6, PN 250 Voltage 220 V, 50 Hz | Type 500 004 |
| 8 | 1 Mounting frame | Type 169 286 |

Installation, connection, bolts, cables, etc.

All above components assembled, piped connected, wired and tested

Product No. 169 300

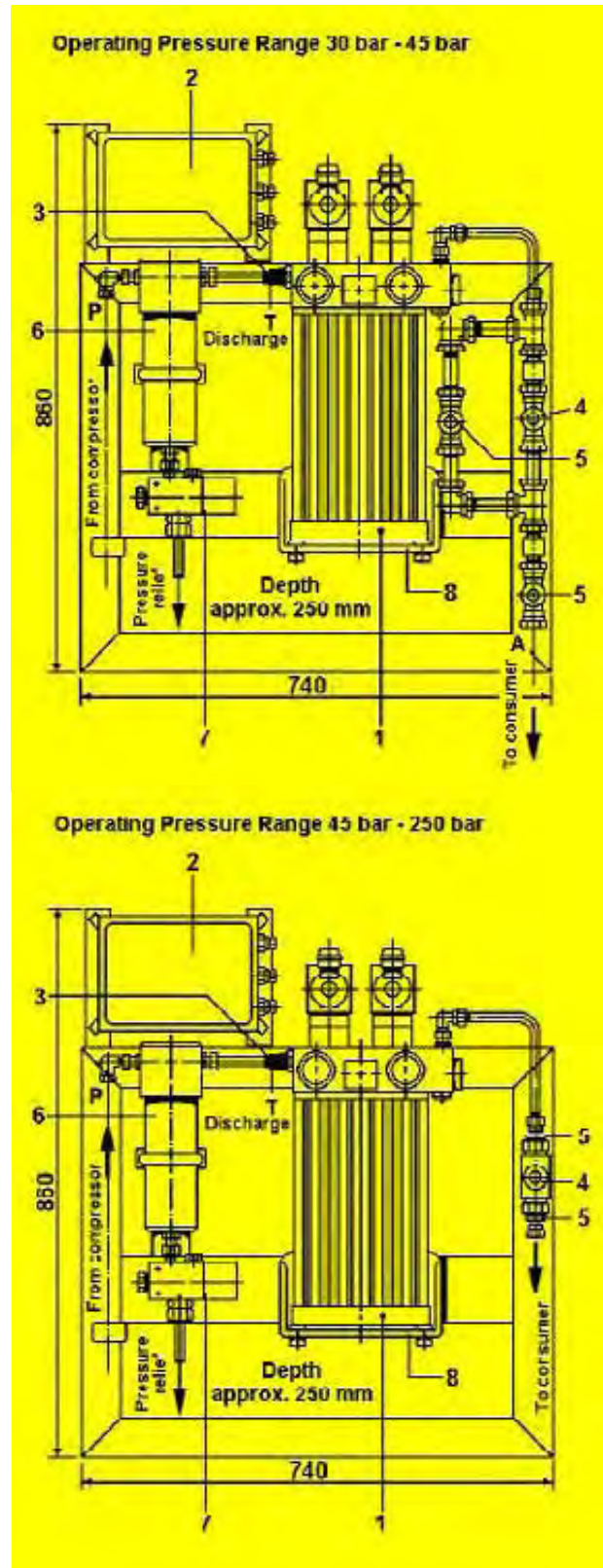
The drier station consists of:

- | | | |
|---|---|----------------------------|
| 1 | 1 Gas drier | Type GT 1000/250 |
| | Max. operating pressure | 250 bar |
| | Flow rate | 1000 l/min |
| | Regeneration air | 5-10% of compressor rating |
| | Control voltage | AC or DC |
| 2 | 1 Electrical control unit with time lag switching-off | Type 168 332 |
| 3 | 1 Silencer | Type 162 987 |
| 4 | 1 Pressure holding valve Set to | (max. 250 bar) |
| 5 | 2 Check valves DN 8, PN 250 | Type 450 050 |
| 6 | 1 Fine filter Capacity | Type 450 688 0.65 liter |
| 7 | 1 2/2-way valve DN 6, PN 250 Voltage 220 V, 50 Hz | Type 500 004 |
| 8 | 1 Mounting frame | Type 450 738 |

Installation, connection, bolts, cables, etc.

All above components assembled, piped connected, wired and tested

Product No. 169 460





**GAS DRYER
TYPE GTR**

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