

## CARTRIDGE PROGRAM



### Stainless Steel Cartridge valves according to DIN24342

The valves are designed for use with water, water and oil emulsions, oil and gases. Their robust construction and compact design provide long life, ease of maintenance, and high performance.

These slip in cartridge type valves can be combined in many different ways to satisfy the requirements of a wide variety of applications. The sealed poppet design provides drop tight, leak free shut off.

### Product range:

#### Cartridges for directional functions

Soft seated ND10 to 100 for compressed air and gases according to Group 2, 27/93/EG up to 350bar

### Functional description

These valves are designed for use with special fluids:

No metal to metal contact at the sliding surfaces.

- the use of non-lubricating mediums is possible.

All pressurized areas are separated by soft seals

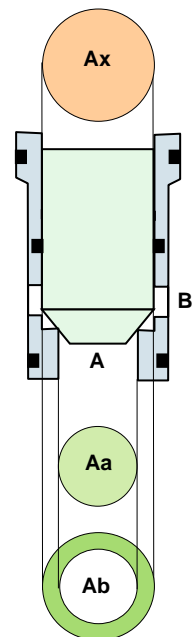
- for thin fluids and gases under high pressure.

Special geometry and non-corroding material

- for gases with an high humidity.

An important dimension for the function of cartridge valves is the surface ratio of the seat area  $A_a$  and the annulus area  $A_b$  to the pilot area  $P_x$ . Schrupp soft seated cartridge valves with metal support do have an ratio of 1:2 and can be used for flow in either direction.

Soft-seated valves are suitable for use in shut-off and directional functions. These valves are absolutely leak-free even for long-term operation in gas or high-pressure circuits.





## CARTRIDGE PROGRAM

### Cartridge valves Type 6

For directional and shut off applications

Dimensions according to DIN 24342

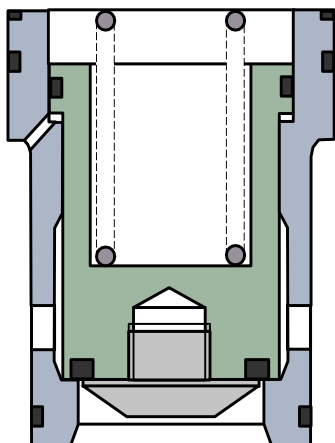
Material: stainless steel, soft seated, metal support  
area ratio 1:2

Example / Order code

**EO – 025 – 00 – 0.0 – 6D / S**

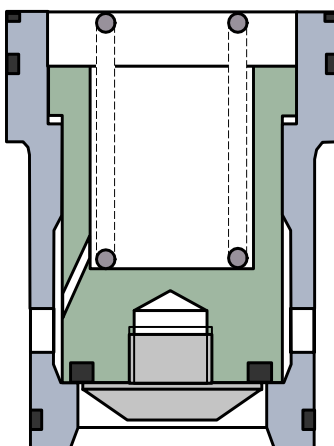
/ S = Standard design  
/ R = Non return valve  
/ A = Active valve

Size 010, 016, 025, 032, 040, 050, 063,  
080, 100mm



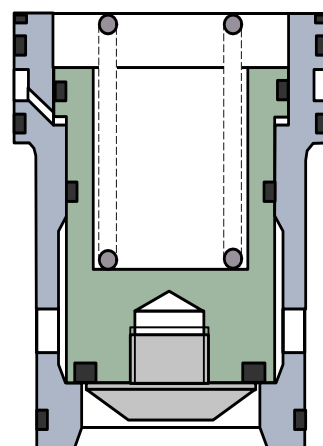
**Standard design  
Type 6D / S**

350bar - ND 010 to 100  
for water, oil and gas.



**Non return valve  
Type 6D / R**

Up to 350bar - ND 010, 016,  
025 for water, descaling water,  
oil and gas.



**Active valve  
Type 6D / A**

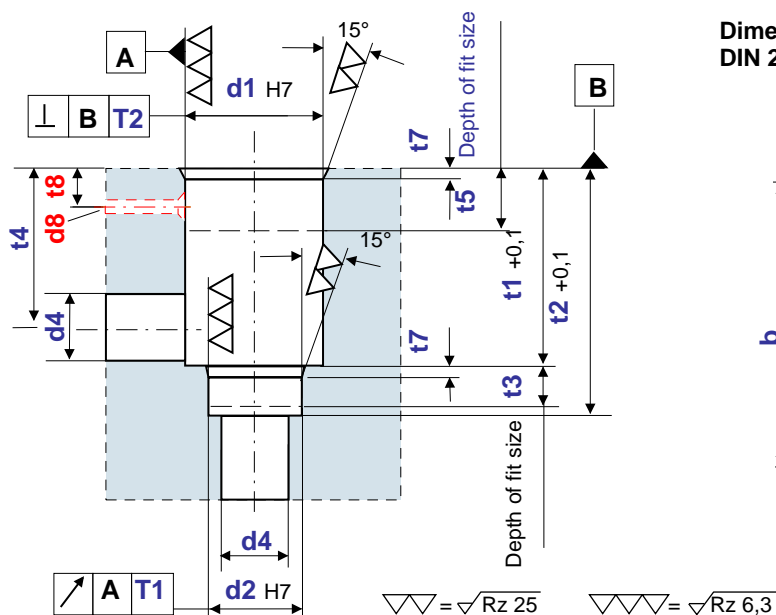
Up to 350 bar - ND 16 to 100  
for water, oil and gas

#### OPTIONS:

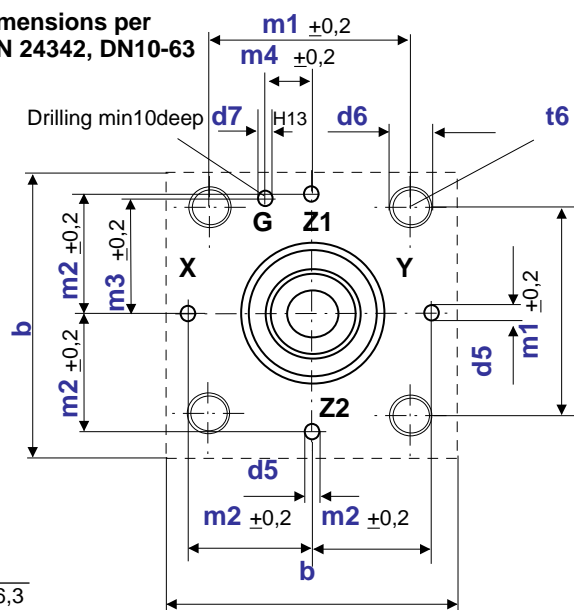
Seawater resistant versions, expanded temperature range (200°C),  
expanded pressure range to 420bar (10% reduced flow rate)



## CARTRIDGE PROGRAM



Dimensions per  
DIN 24342, DN10-63



## SLUICE OR DIRECTIONAL VALVES TYPE WEV

### 2/2, 3/2 Directional Valves

#### Type WEV 06

These robust and smooth operating valves can be used with compressed air, oil, water and emulsions. All ports can be pressurised. The valves type 500100, 500106 and 500008 are equipped with soft seats for a leak-free function. The piston is spring biased in the closed position and allows a fail safe operation so that the valve can be used for accumulator safety functions also.

Variations:

- solenoid operated
- manually operated
- hydraulically operated
- Limit switches

#### Type WEV 06 - 500100

NP 250bar ND6mm

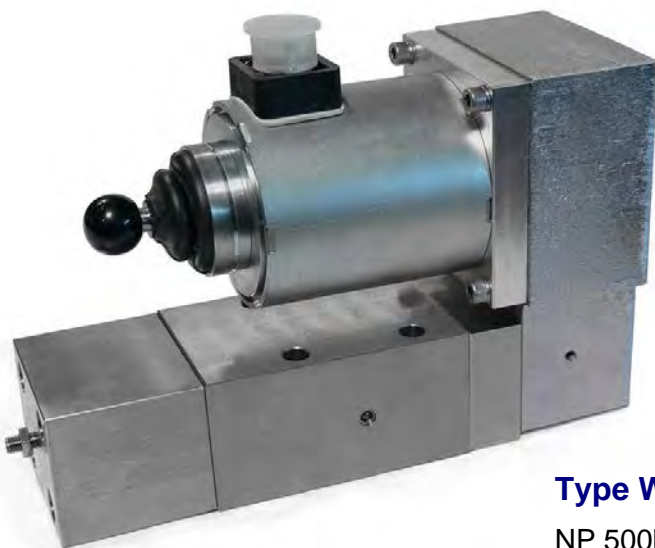
compressed air,  
gases Group 2 on request



#### Type WEV 06 - 500138

NP 250bar ND6mm

Water, oil and emulsions



#### Type WEV 06 - 500106

NP 350bar ND6mm

compressed air,  
gases Group 2 on request

#### Type WEV 06 - 500008

NP 500bar ND6mm

Water, oil and emulsions

## SLUICE OR DIRECTIONAL VALVES TYPE WEV

## 2/2, 3/2 Direction Valves Type 500106

These directional control valves are used to channel air from a high pressure reservoir to operating 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.

All ports can be pressurised with full operating pressure to allow flow in any direction. This valve can be operated as a three way or two way directional control valve.



## Technical Data

Pressure Range	0-350 bar
Design Pressure	500bar
Nominal Size	DN6
Operating Temperature	-20 bis+80 °C
Ambient Temperature	max 70 °C
Medium	Compressed air, Gas
Recommended Filtration .	25 micron
Max.Power Consumption	42 W
I.D.	100%
Electr. Protection Class	IP 65
Voltage Tolerance	+5 to -10% VDE580
Opening and closing Time	100 - 200 ms
Material	Stainless Steel, PTFE, POM, Viton

### Ordering Code

Valve: **WEV06P-250-500106-01-024G** 24V DC  
 120W 110V/50Hz (60Hz)  
 240W 220V/50Hz (60Hz)  
 — max. operating pressure in bar

\*Other voltages on request

Seal Kit: WEV06VTS-500006-01-92

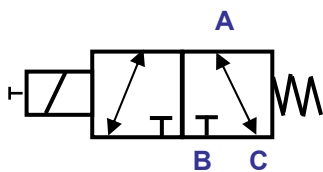


**HL Hydraulik GmbH**

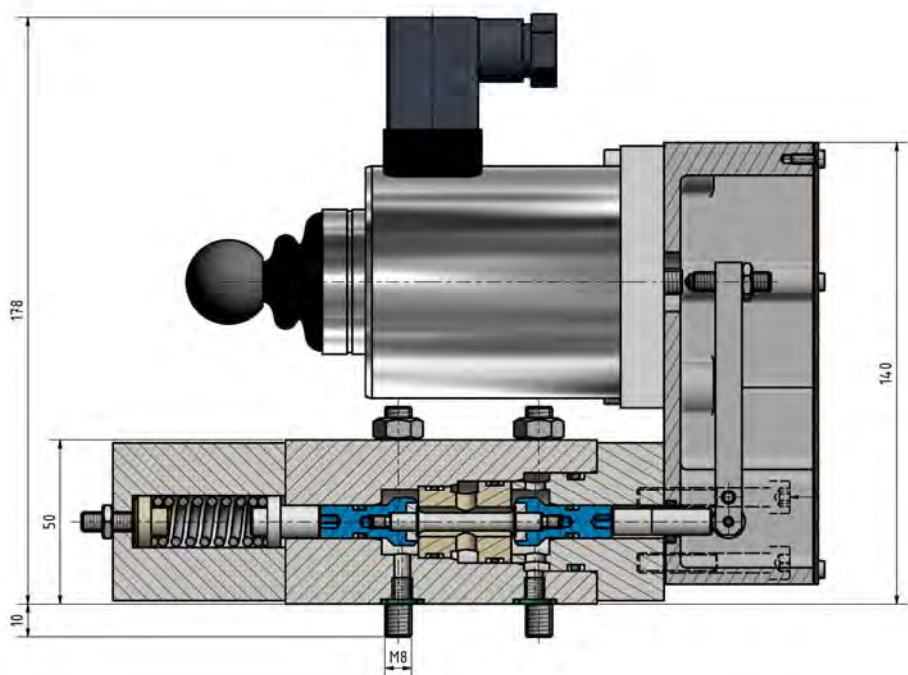
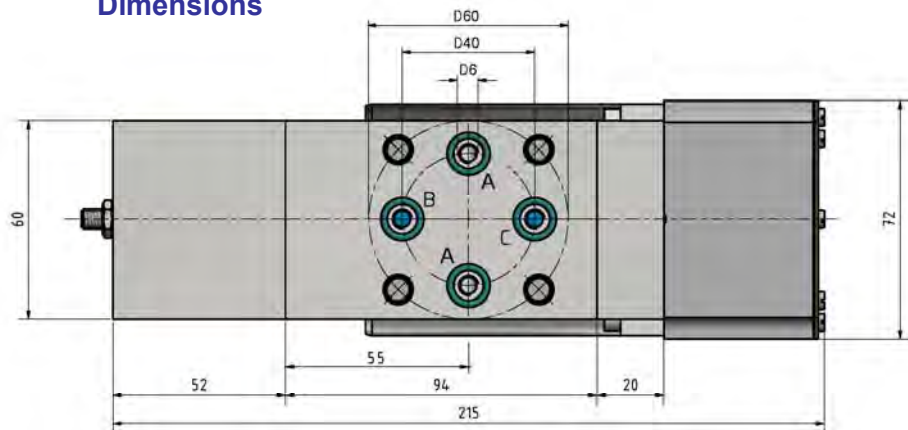
Kupferhütte 5C  
57562 Herdorf  
Tel +49 2744-9324-0  
info@hl-hydraulik.de  
www.hl-hydraulik.de

## SLUICE OR DIRECTIONAL VALVES TYPE WEV

### Symbol

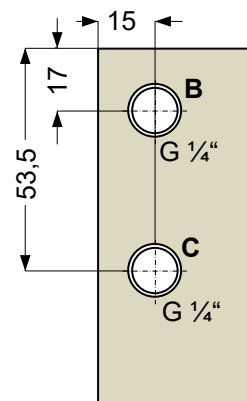
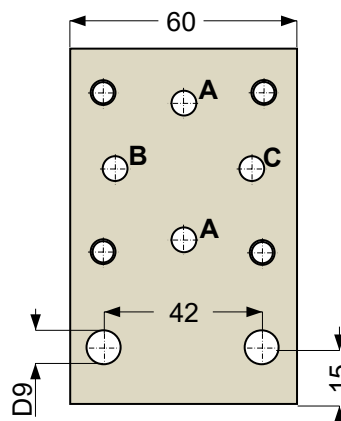
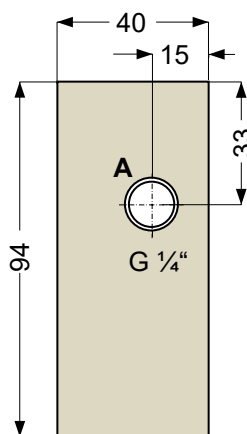


### Dimensions



### Subplate for WEV 500106-01

### Dimensions



### Ordering Code

Subplate: 850252





## SLUICE OR DIRECTIONAL VALVES TYPE WEV

These directional control valves are used to channel air from a high pressure reservoir to operating vessels with a lower pressure. The Schrupp sluice valves are direct solenoid operated 3/2 way valve size NG6 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.



Operating Pressure	0-250 bar
Nominal Size	DN6
Operating Temperature	-20 bto+80 °C
Ambient Temperature	max 70 °C
Medium	Compressed Air,,Gas
Recommended Filtration	25micron
Max.Power Consumption	42 W
I.D.	100%
Electr. Protection Class	IP 65
Voltage Tolerance	+5 to −10% VDE580
Opening and closing Time	100 - 200 ms
Material	Stainless Steel, Brass, Viton

**Valve:** WEV06P-250-500100-01-024G 24V DC  
 120W 110V/50Hz (60Hz)  
 240W 220V/50Hz (60Hz)  
 — max. operating pressure in bar

**Seal Kit: WEV06 VTS-500100-01-92**

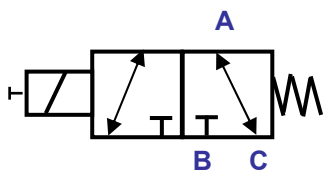


**HL Hydraulik GmbH**

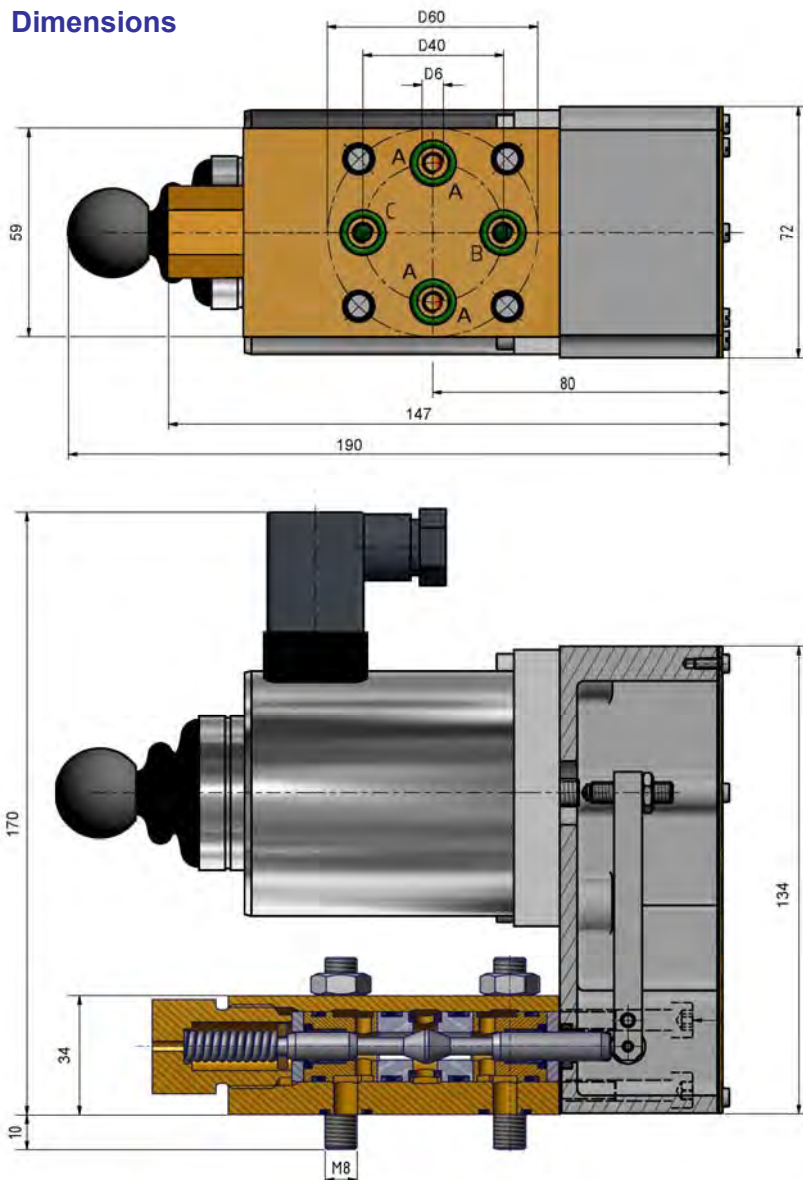
Kupferhütte 5C  
57562 Herdorf  
Tel +49 2744-9324-0  
info@hl-hydraulik.de  
www.hl-hydraulik.de

## SLUICE OR DIRECTIONAL VALVES TYPE WEV

### Symbol

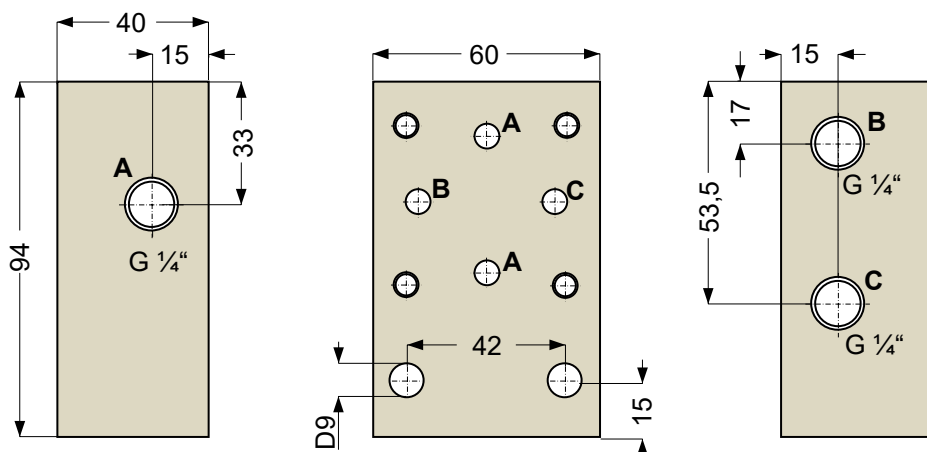


### Dimensions



### Subplate for WEV06P

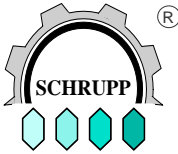
### Dimensions



### Ordering Code

Subplate: 850252

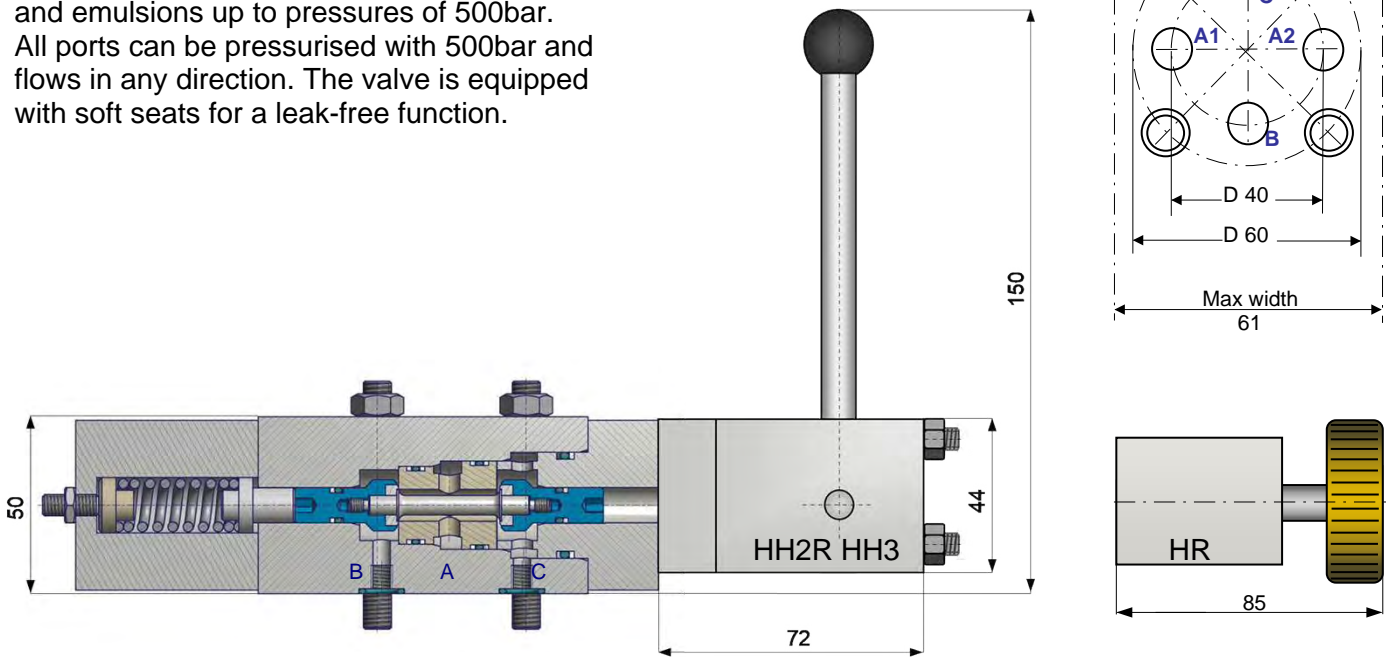




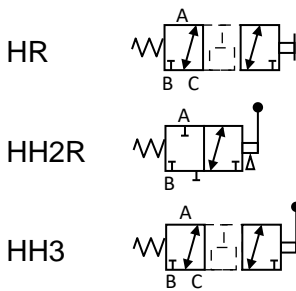
## SLUICE OR DIRECTIONAL VALVES TYPE WEV

### Manual Operated Valves Type 500008 / 500106

can be used with compressed air, oil, water and emulsions up to pressures of 500bar.  
All ports can be pressurised with 500bar and flows in any direction. The valve is equipped with soft seats for a leak-free function.



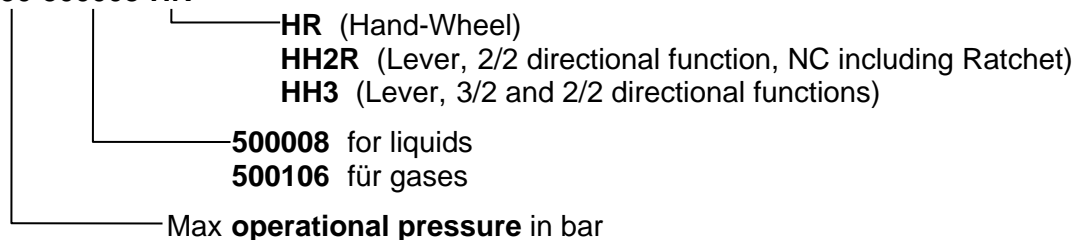
### Technical Data



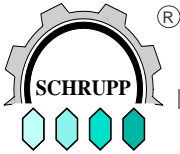
Operating Pressure	0-500 bar
Nominal Size	DN6
Operating Temperature	-20 bis +80 °C
Ambient Temperature	max 70 °C
Medium	Gases, Water, Oil
Recommended Filtration	
0 to 350bar	25 my
350bar to 500bar	10 my
Material	Stainless Steel, Brass, Delrin, Viton

### Ordering Code

Valve: **WEV06P-250-500008-HR**



Others on request



## SLUICE OR DIRECTIONAL VALVES TYPE WEV

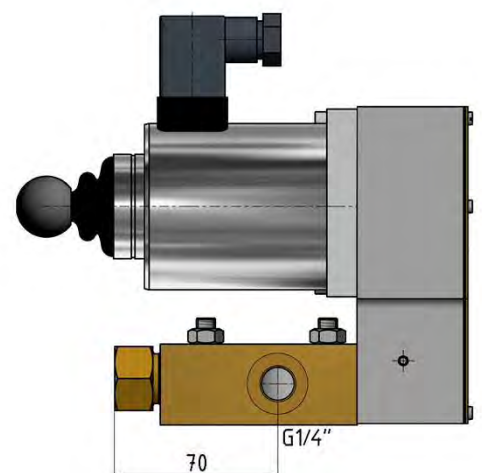
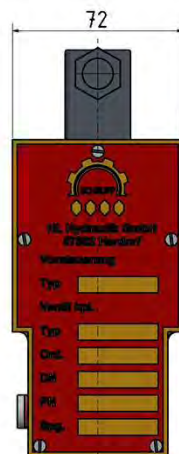
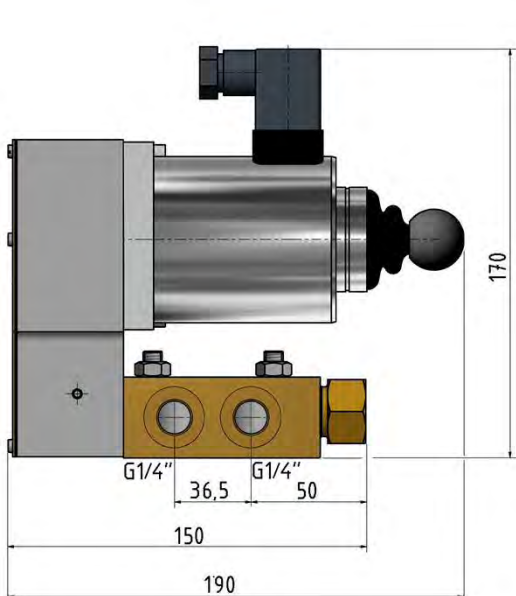
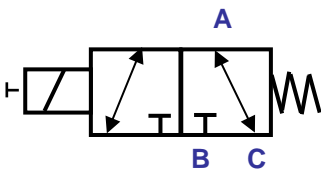
### 3/2, 2/2 Directional Valve DN6 PN250 with Thread Connections

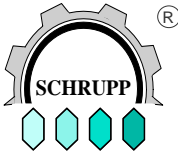
**TYPE: WEV06RL-250-500104-01-024G** 24V DC  
**110W** 110V/50Hz (60Hz)  
**220W** 220V/50Hz (60Hz)  
 max operation pressure [bar]

#### Partnumber: 500104

These directional control valves are identical to series 500100 but have a housing with threaded connections. The valve can be used compressed for air and gas media up 250bar operating pressure.

Please find technical data at catalogue E1.7.3.



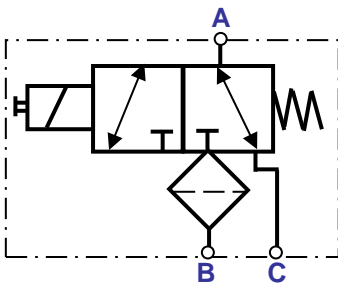


## SLUICE OR DIRECTIONAL VALVES TYPE WEV

### 3/2, 2/2 directional Control Valve DN6 PN250 with filter, for compressed air

**TYPE: WEV06FL- 250 - (Part no.) - 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 operating vessels with a lower pressure. An integrated 80 micron cleanable filter at port R protects the valve against dirt particles. The Schrupp sluice valves are direct solenoid operated 2/2 way valves size NG6 (3/8") or can be combined with our leak free cartridge assembly for larger sizes, or in combination with other devices including pressure reducing valves. Max operating pressure 250bar.



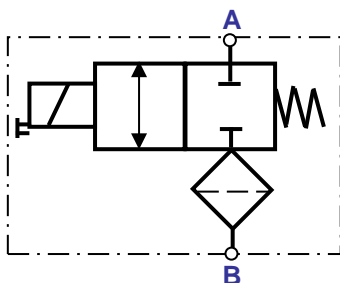
Ports A, B, C - G1/4"  
**Part no. 451443-01**

#### Spare parts for filter:

1Stk filter element Part no. 157346

1Stk O – Ring Part no. 080098

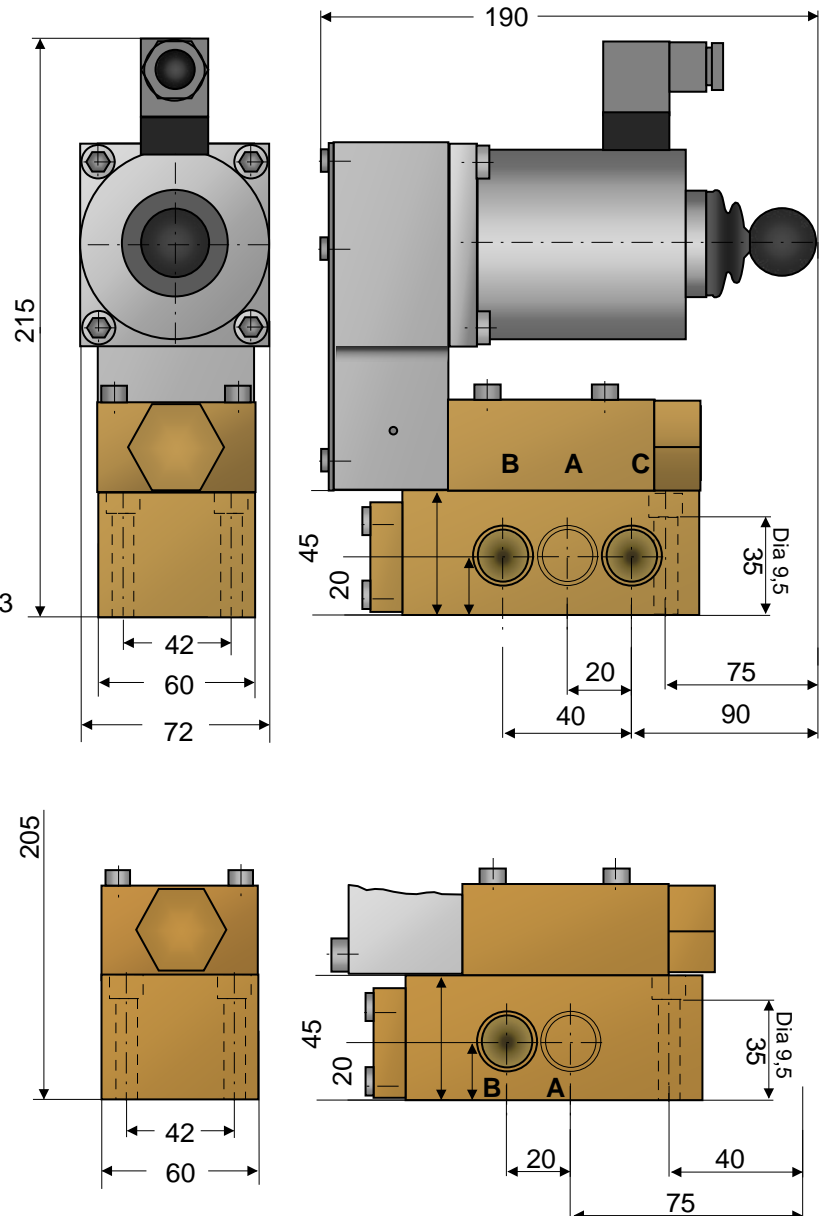
Spare parts for directional valve see page E1.7.3

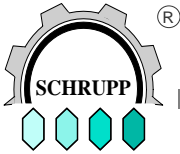


Ports A, B - G1/2"  
**Part no. 503690-01**

Ports A, B - M22x1,5  
**Part no. 503382-01**

Spare parts see above





## SLUICE OR DIRECTIONAL VALVES TYPE WEV

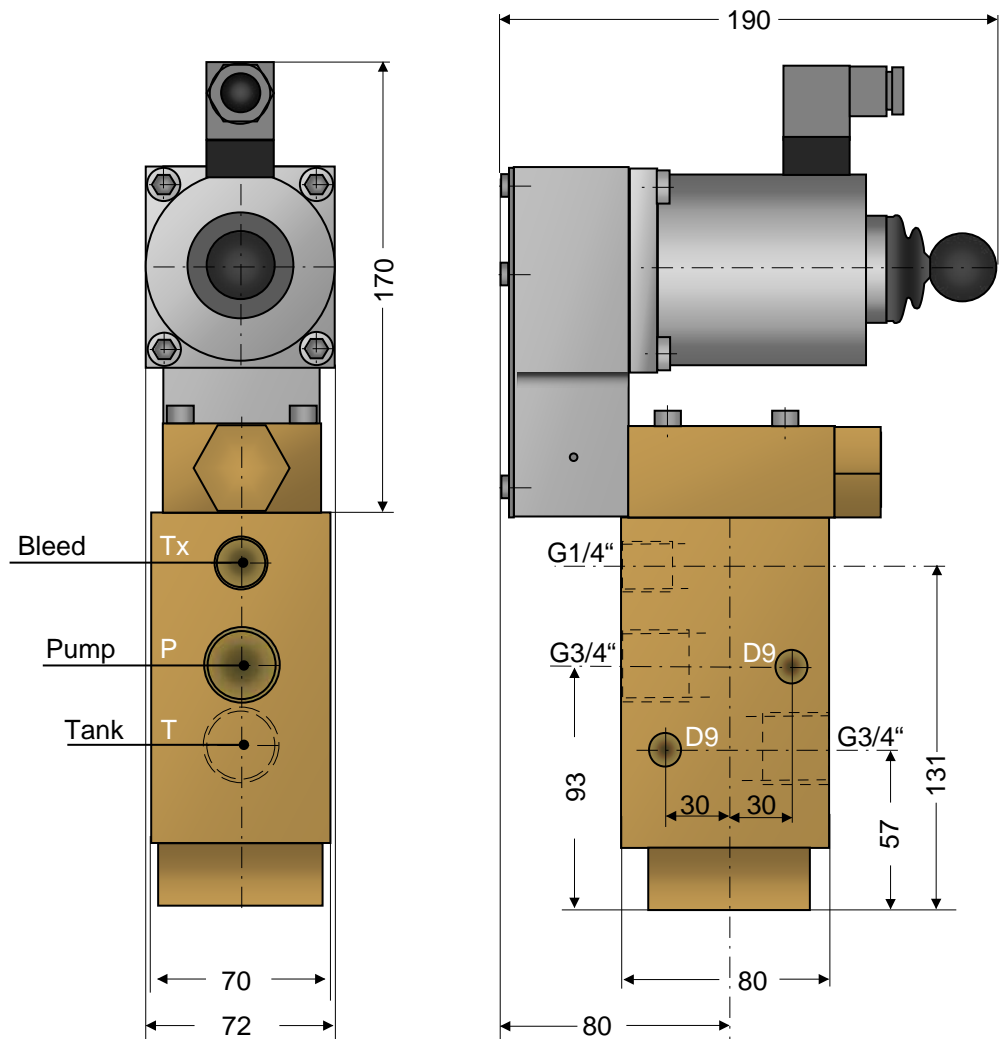
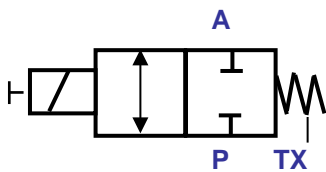
**2/2 Directional Control Valve DN16 PN250 with threaded ports  
for compressed air, water, oil**

**TYPE: WEV16RL-250- (Part no.) - 024G 24V DC**  
**110W 110V/50Hz (60Hz)**  
**220W 220V/50Hz (60Hz)**

**Max operating pressure [bar]**

### Part no. 450737-01

These leak free directional valves size 16mm with threaded connections can be used in compressed air systems up to 250bar. Special 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, that is piloted by a type 500100 pilot valve.

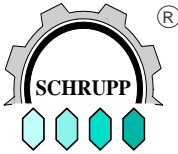


### Spare Parts

Pilot valve see page E1.7.3

Cartridge valve ND 16

Part no. 165991



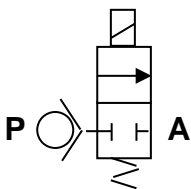
## SLUICE OR DIRECTIONAL VALVES TYPE WEV

### 2/2 Directional Valve DN16 PN250 with Check Valve

#### 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.

#### Technical Data



Housing – Brass  
Internal Parts – Stainless Steel  
Seals – Viton, Teflon, Delrin

Pressure Range  
Nominal Size  
Temperature Range  
Ambient Temperature  
Medium  
Voltages  
Max.Power Consumption  
I.D.  
Electrical Protection Class  
Voltage Tolerance

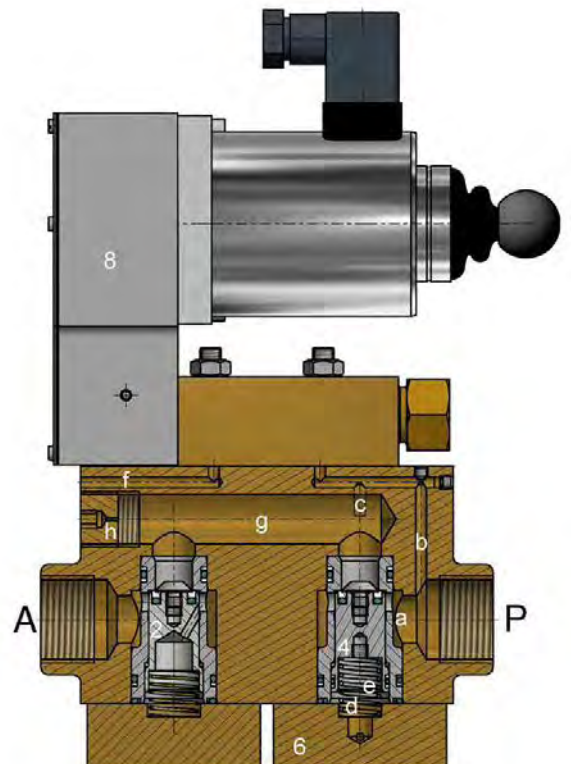
0-250bar  
DN 16  
-20 to+80°C  
max 70°C  
compressed air,Gases  
24-240V Gs/ Ws  
43W  
100%  
IP 65  
+5bis –10% VDE580

#### 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 a nozzle.

#### Spare Parts WEV 16 VTS

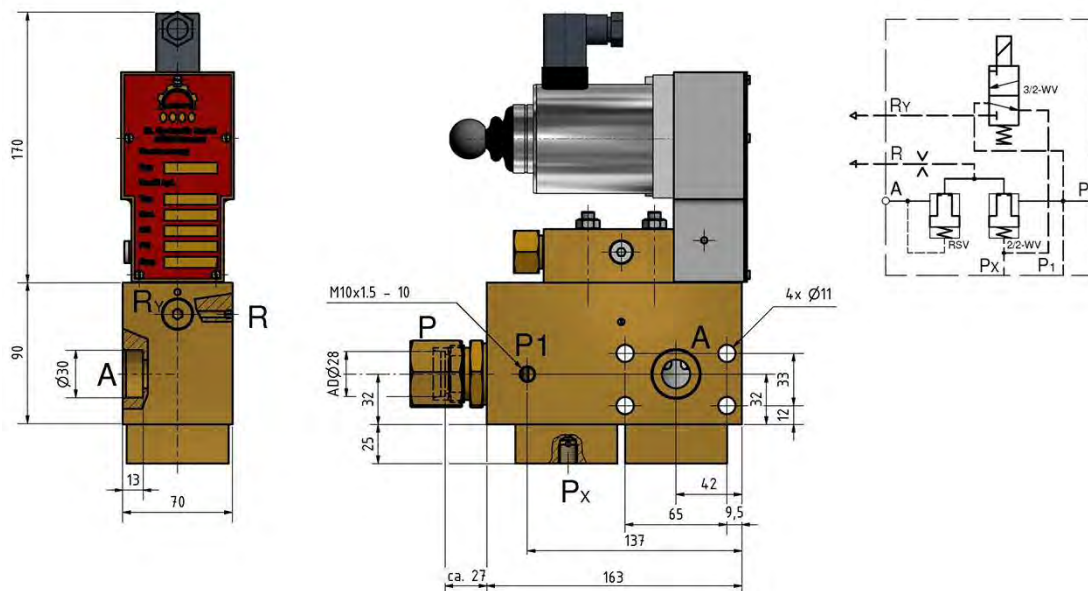
Item	Quantity	Description	Part no:
2	1	Check Valve DN16	165997
4	1	Cartridge Valve DN 16	166074
6	1	Rd-Ring	080050
8	1	Pilot Valve DN 6	500000



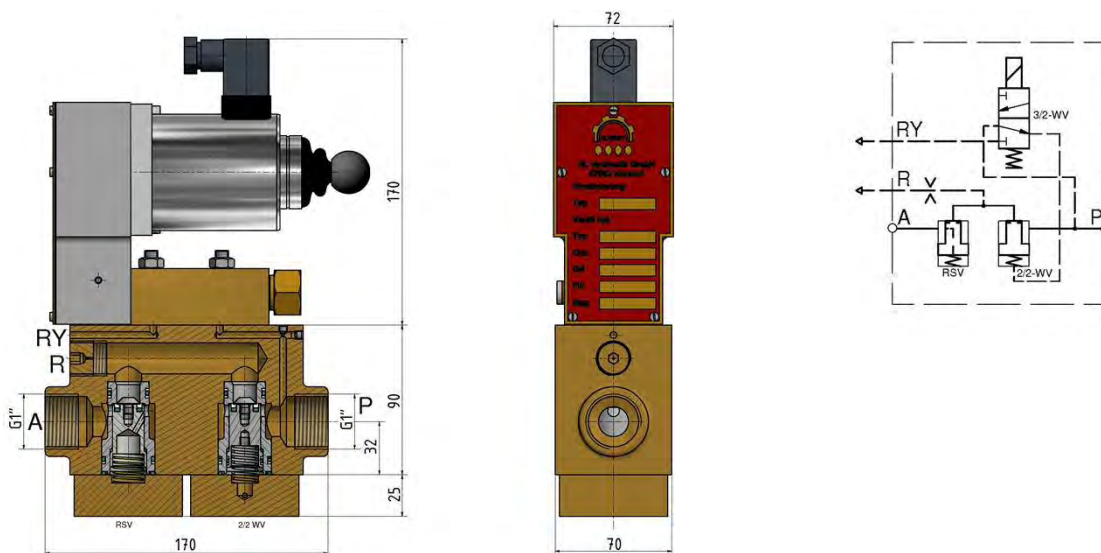


## SLUICE OR DIRECTIONAL VALVES TYPE WEV

**Part No.: 168870-01**



**Part No.: 452617-01**



### Ordering Code:

**WEV 16 R** **024V**

**Voltage**

024V, 110V/50-60Hz, 220-240V/50-60Hz  
others on request

Part No.





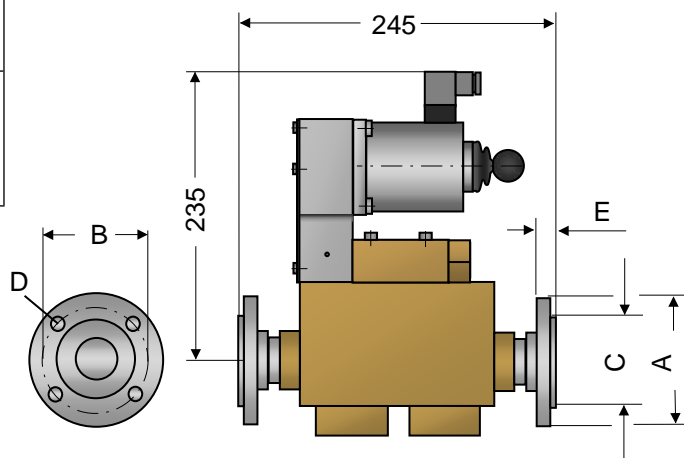
## SLUICE OR DIRECTIONAL VALVES TYPE WEV

### Modification Sets and Accessories (do not use for new applications)

#### Valve Type 168870 with Flange connections

Part No.	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
542633	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	

Part No for Valve type 168870 including flanges



#### Modification set

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

**Part no. modification set 502136**

