Pressure converter | pneumatic-hydraulic | single acting

Operating pressure max. 225 bar, 230 bar Ratio 1:32, 1:33

Compressed air from the mains is converted into hydraulic high pressure by these pressure converters. Without this converting facilities, many clamping problems cannot be solved at all or only at high costs.

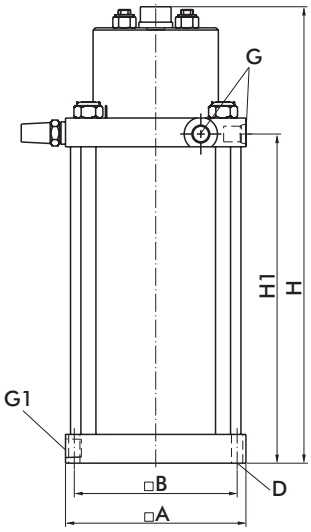
Technical characteristics

- The large oil tank automatically supplies the system with fresh oil according to the needs.
- Hydraulic piston with guide rings.
- The backstroke is produced by spring retraction. This offers the advantage of low air consumption and a single valve system.
- The moving parts are made of corrosion protected materials.

Contrary to hydraulic pumps, the maximum output of the pressure converter is restricted to one stroke. The amount of oil required per stroke is calculated as follows:

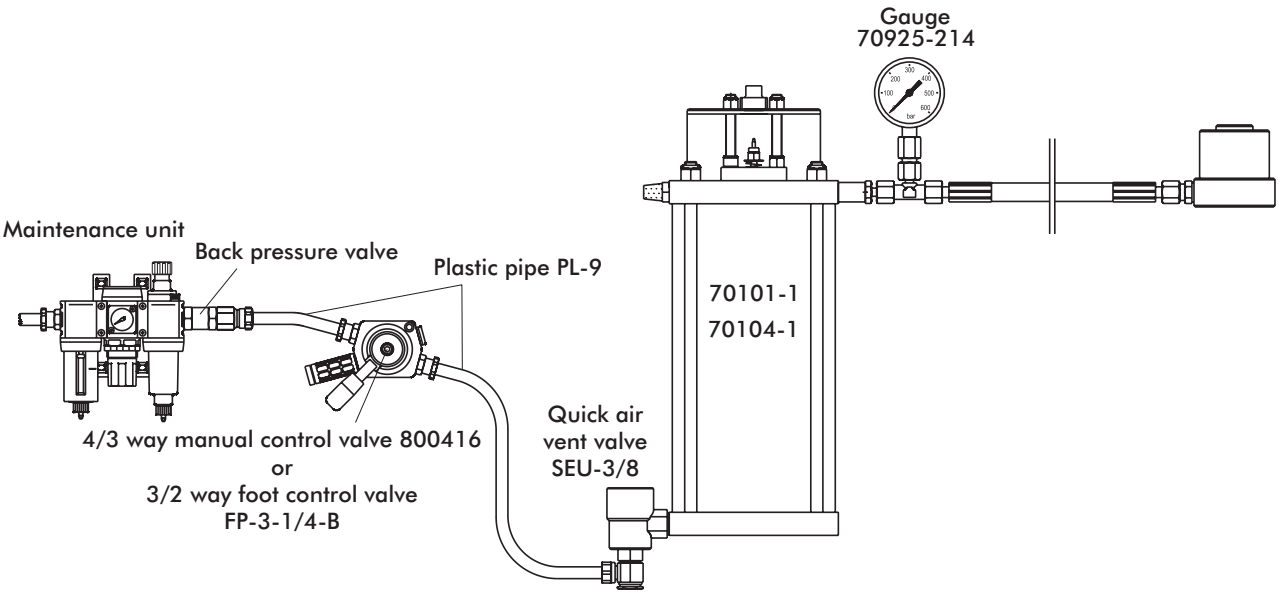
Cylinder number x piston surface x stroke

ATTENTION: A reserve of 20% should be taken into account!



Included accessories

- Connecting nipple R-1/4-1/4NPT (Air side)
- Adapter SAE4-1/4NPT (Oil side)
- Straight screw connection D8L-1/4NPT (Oil side)



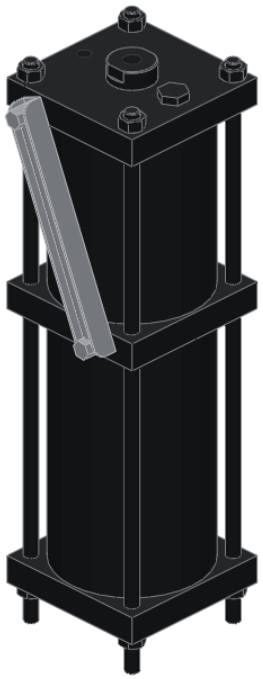
Model no.	Ratio	Air pressure min [bar]	Air pressure max. [bar]	Air consumption at 6 bar [l/hub]	max. operating max. [bar]	Oil quantity/ stroke [cm³]	oil volume (Reservoir) [cm³]	A [mm]	B [mm]	D [mm]	H [mm]	H1 [mm]	Connection Oil side G	Connection Air side G1	Weight [kg]
70101-1	1:33	3	7	5	230	16	170	115	103,2	7,2	295	210	SAE 4	1/4NPT	4.5
70104-1	1:32	3	7	16	225	64	690	165	146	8,6	435	335	SAE 4	1/4NPT	11

HYDRAULIC CLAMPING TECHNOLOGY

Pressure converter | pneumatic-hydraulic | single acting

Operating pressure max. 210 bar
Ratio 1:32

Compressed air from the mains is converted into hydraulic high pressure by these pressure converters. Without this converting facilities, many clamping problems cannot be solved at all or only at high costs.



Technical characteristics

- Metal oil tank with oil level indicator
- Fast backstroke by the 2.air line
- Works in vertical and horizontal position

CUSTOMER BUILD VERSIONS (E. G. HIGHER PRESSURE, HIGHER OIL QUANTITY/STROKE) POSSIBLE.

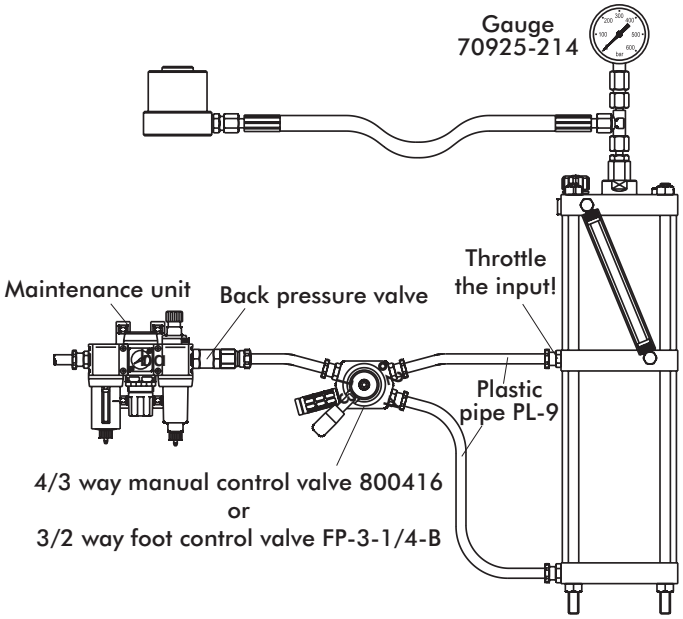
Contrary to hydraulic pumps, the maximum output of the pressure converter is restricted to one stroke. The amount of oil required per stroke is calculated as follows:

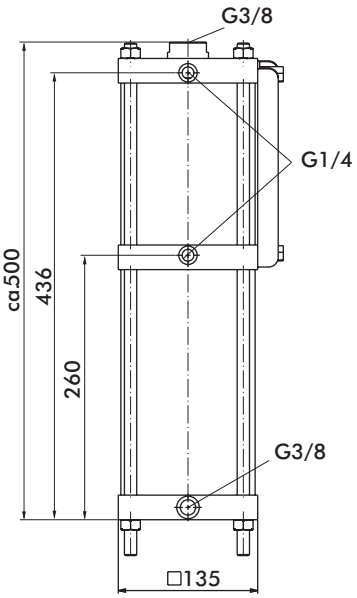
Cylinders number x piston surface x stroke

ATTENTION: A reserve of 20% should be taken into account!

Included accessories

- Screw connection CK-1/4-PK9 (Air side)
- Screw connection CK-3/8-PK9 (Air side)
- Adapter GWR-3/8-1/4 (Oil side)
- Screw connection D8L-1/4 (Oil side)





Model no.	Ratio	Air pressure min [bar]	Air pressure max. [bar]	Air consumption at 6 bar [l/stroke]	Operating pressure max. [bar]	Oil quantity/ stroke [cm³]	Oil volume (reservoir) [cm³]	A [mm]	H [mm]	H1 [mm]	H2 [mm]	Connection Oil side G	Connection Oil side G1	Connection Air side G2	Connection Air side G3	Weight [kg]
70104-2	1:30	3	7	16	210	64	690	135	ca. 500	260	436	G3/8	G1/4	G1/4	G3/8	11

Air hydraulic pump

Operating pressure max. 210 bar/700 bar Conversion ratio 1:30, 1:100

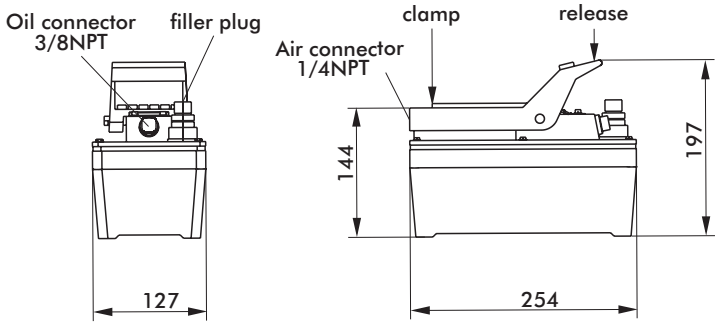
Compact Air-hydraulic-pump for single acting hydraulic tools. This air hydraulic pump can activate a higher number of clamping cylinders simultaneously due to the tank volume of 1600 cm3. The compact lightweight design allows to set up the pumps wherever required. Actuating by foot control valve.

Technical features

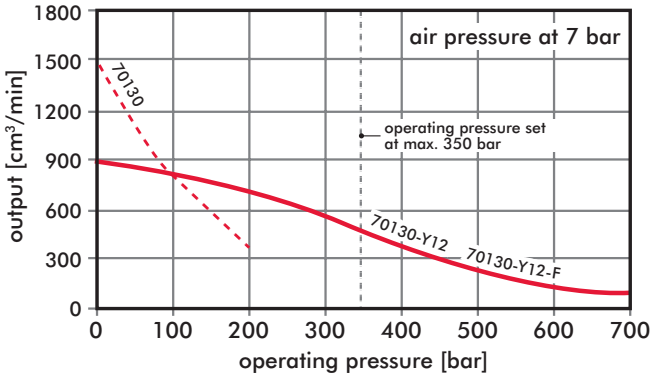
- Switching on the pump and releasing the hydraulic systems pressure is carried out by foot valve activation
- integrated back pressure valve prevents pressure loss in the clamping circuit
- In case of a pressure drop > 10 bar within the pressure circuit, the pump automatically restarts to pump oil in Order to restore the set pressure
- Reservoir made of aluminium

Included accessories

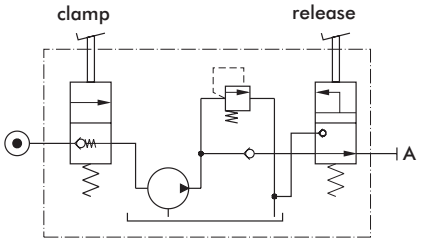
1 Transition nipple **R1/4-1/4 NPT**
1 Reducing nipple **PTRS-1/4 NPT**
1 Straight screw connector
D8S-1/4 NPT



Output characteristics



Schematic diagram



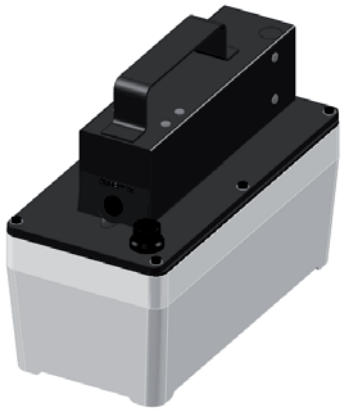
Model no.	actuating by	Ratio	oil capacity [cm³]	usable oil capacity [cm³]	Air inlet pressure min. [bar]	Air inlet pressure max. [bar]	max. operating pressure [bar]	Air consumtion at 6 bar [m³/min]	Sound level [dB(A)]	Weight [kg]
70130	foot control	1:30	1720	1600	3	7	210	0,5	72	6,5
70130-Y12	foot control	1:100	1720	1600	3	7	700	0,5	72	6,5

HYDRAULIC CLAMPING TECHNOLOGY

Air hydraulic pump

Operating pressure max. 700 bar
Conversion ratio 1:100

Compact Air-hydraulic-pump for single acting hydraulic tools. This air hydraulic pump can activate a higher number of clamping cylinders simultaneously due to the tank volume of 1600 cm³. The compact lightweight design allows to set up the pumps wherever required. Actuating by remote control valve.

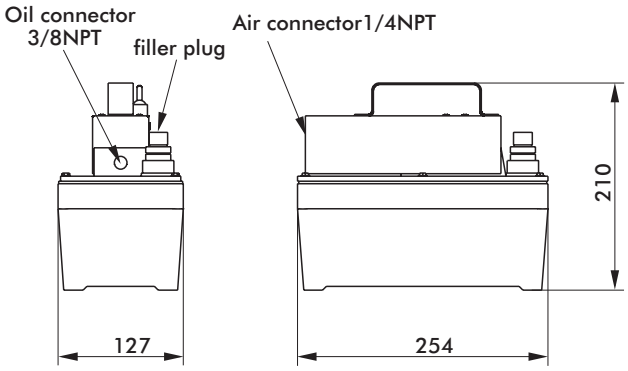


Technical features

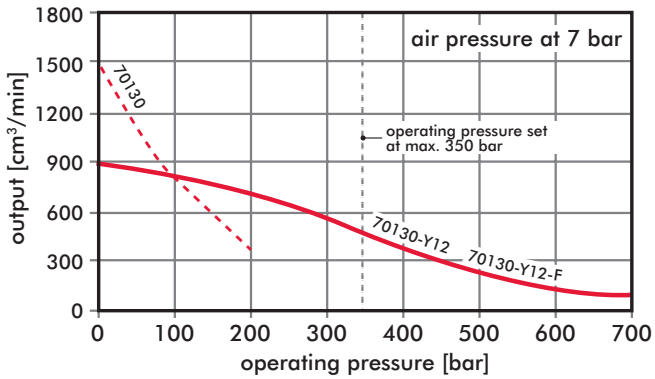
- Switching on the pump and releasing the hydraulic systems pressure is carried out by remote control activation
- integrated back pressure valve prevents pressure loss in the clamping circuit
- In case of a pressure drop > 10 bar within the pressure circuit, the pump automatically restarts to pump oil in Order to restore the set pressure
- Reservoir made of aluminium

Included accessories

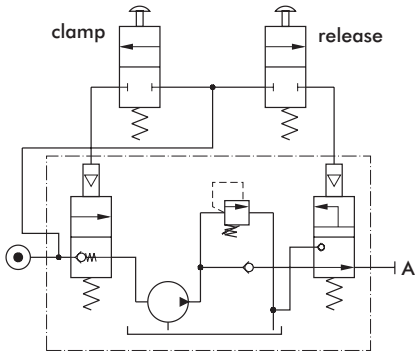
- Transition nipple **R 1/4-1/4 NPT**
- Reducing nipple **PTRS-1/4 NPT**
- Straight screw connector **D8S-1/4 NPT.**



Output characteristics



Schematic diagram

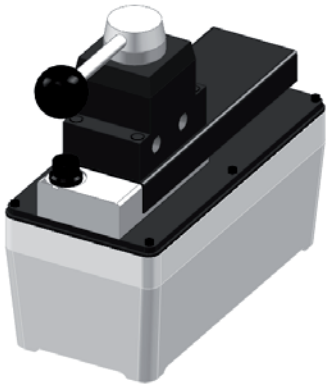


Model no	actuating by	Ratio	Reservoir oil capacity [cm³]	usable oil capacity [cm³]	Air inlet pressure min. [bar]	Air inlet pressure max. [bar]	max. operating max. [bar]	Air consumption bei 6 bar [m³/min]	Sound level [dB(A)]	Weight [kg]
70130-Y12-F	remote control	1:100	1720	1600	3	7	210	0.5	72	8,3

Air hydraulic pump

Operating pressure max. 700 bar
Conversion ratio 1:100

Compact Air-hydraulic-pump for single- and double acting hydraulic tools. This air hydraulic pump can activate a higher number of clamping cylinders simultaneously due to the tank volume of 1600 cm³. The compact lightweight design allows to set up the pumps wherever required. Actuating by manual control valve.

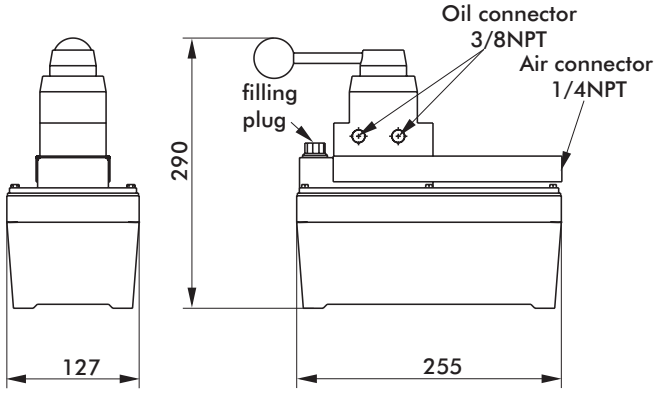


Technical features

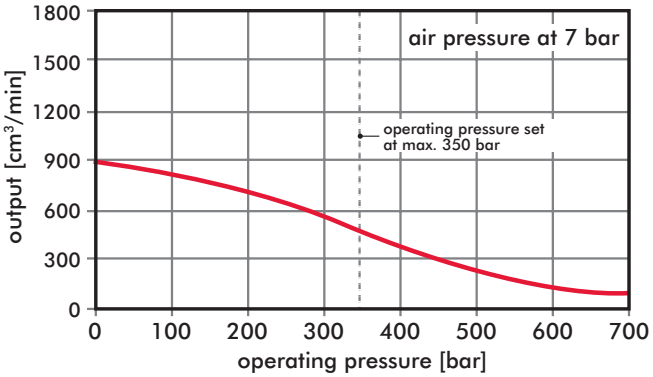
- Switching on the pump and releasing the hydraulic systems pressure is carried out by manual control valve activation
- integrated back pressure valve prevents pressure loss in the clamping circuit
- In case of a pressure drop > 10 bar within the pressure circuit, the pump automatically restarts to pump oil in Order to restore the set pressure
- Reservoir made of aluminium

Included accessories

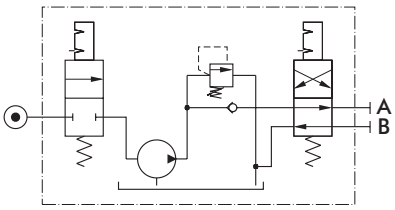
1 transition nipple **R 1/4-1/4 NPT**
2 reducing nipple **PTRS-1/4 NPT**
2 straight screw connector **D8S-1/4 NPT.**



Output characteristics



Schematic diagram



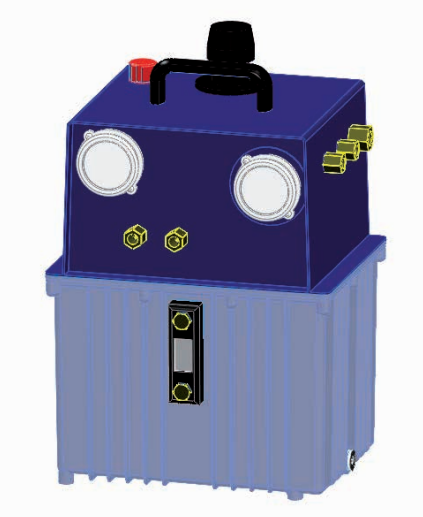
Model no.	actuating by	Ratio	oil capacity	usable oil capacity	Air inlet pressure min.	Air inlet pressure max.	max. operating pressure.	Air consumption at 6 bar	Sound level	Weight
			[cm³]	[cm³]	[bar]	[bar]	[bar]	[m³/min]	[dB(A)]	[kg]
70130-Y12-H	manual valve	1:100	1720	1600	3	7	700	0,5	72	8,4

HYDRAULIC CLAMPING TECHNOLOGY

Air hydraulic pump

Operating pressure max. 150 bar/360 bar/600 bar Conversion ratio 1:25/1:60/1:1000

These air hydraulic pumps are designed for various hydraulic applications, especially for intermittent operation. By connecting a 3/2- way or 4/2-way pneumatic valve, the built-in hydraulic valves for stroke and backstroke can be actuated. The pumps are complete, and only have to be connected to the existing compressed air supply.



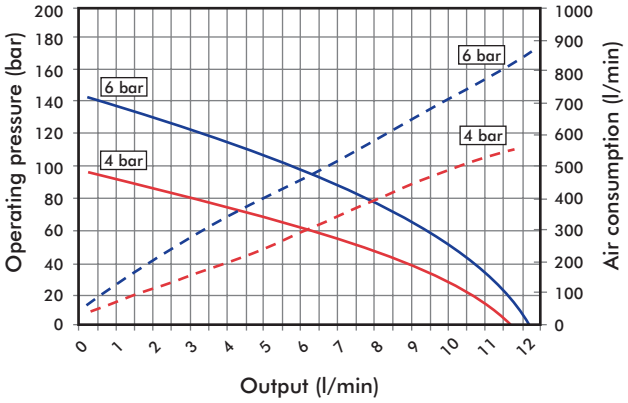
Technical characteristics

- Double piston pump-therefore pressure build-up almost pulsation free
- Compact pump - low required space
- 3 different conversion ratios available
- integrated back pressure valve prevents pressure loss in the clamping circuit
- In case of a pressure drop > 10 bar within the pressure circuit, the pump automatically restarts to pump oil in Order to restore the set pressureh

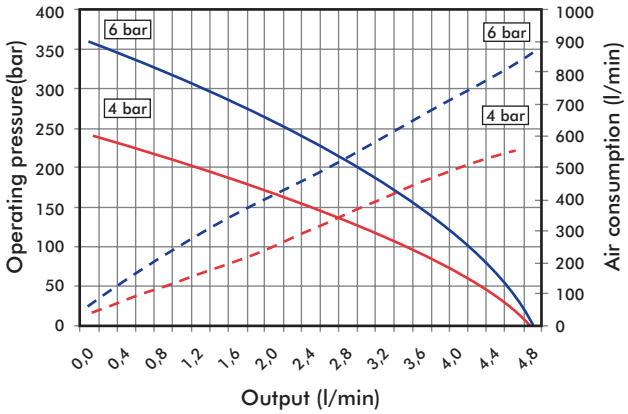
Recommended accessories (separate Order)

1 4/2-ways manual-control-valve **800416**
1 3/2-way-foot-control-valve **FP-3-1/4-H**
2 screw-in connections **CK-1/4-PK6**
1 screw-in connections **CK-3/8-PK9**

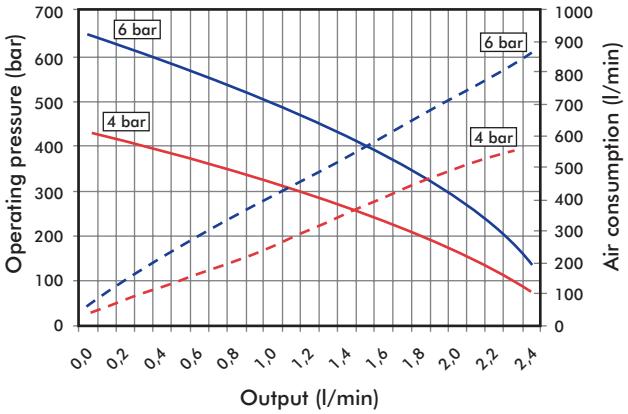
713D1505.-1



713D3605.-1



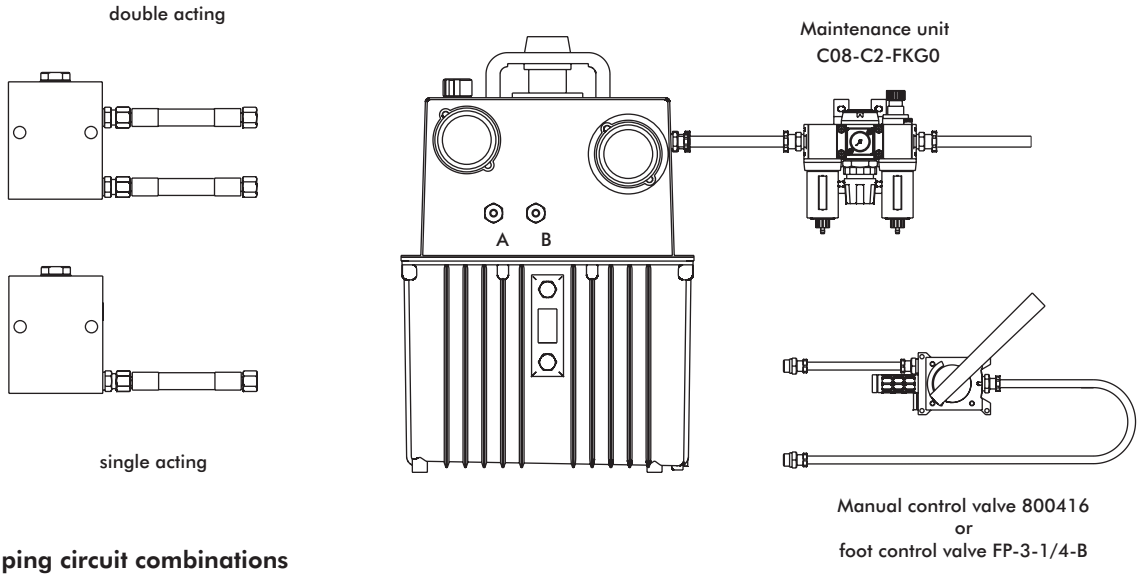
713D6005.-1



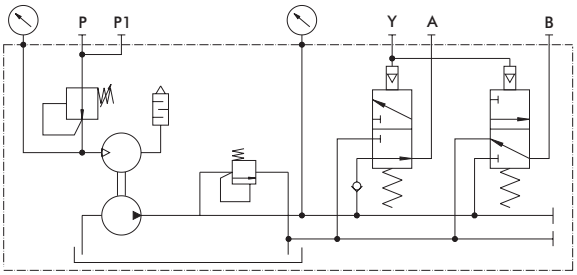
Model no. double acting	Ratio	max. operating pressure [bar]	Reservoir oil quantity [l]	usable oil quantity [l]	Air inlet pressure min. [bar]	Air inlet pressure max [bar]	Connection oil side	Sound level [dB(A)]	Weight [kg)]
713D15051-1	1:25	150	8	5,5	1,5	6	2xG1/4	65	31
713D36051-1	1:60	360	8	5,5	1,5	6	2xG1/4	65	31
713D60051-1	1:100	600	8	5,5	1,5	6	2xG1/4	65	31

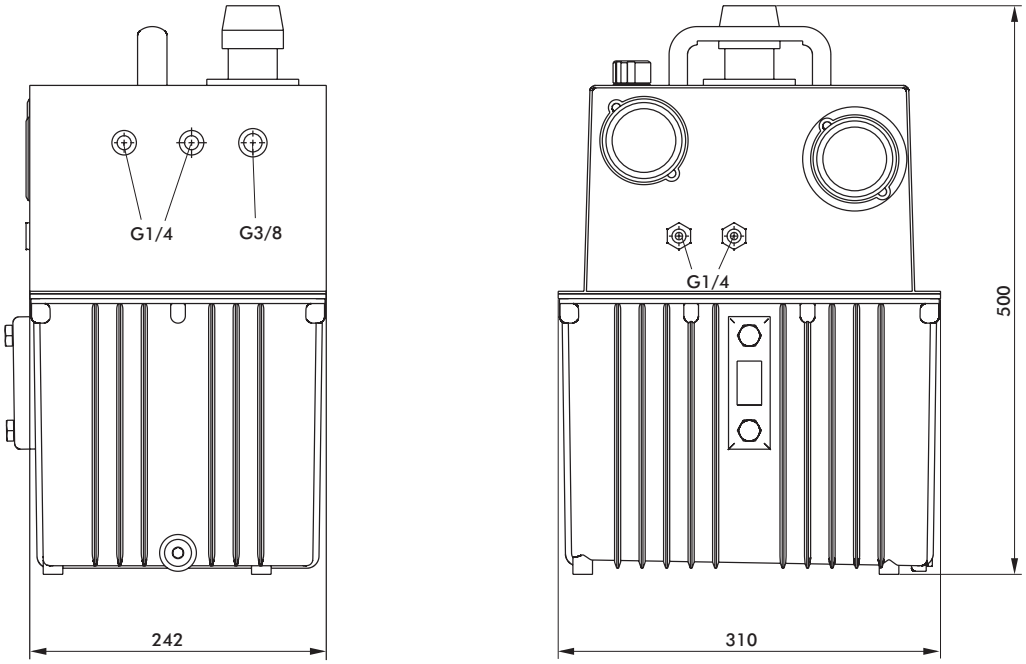
Connection diagram:

in this connection diagram you can see an air hydraulic pump, double action, with pneumatic control. On a single action design, the connection B does not apply.



Clamping circuit combinations



1 clamping circuit*, double action*
713D15051-1, 713D36051-1, 713D60051-1

* Pumps with more circuits, with electrically controlled valves, positioning circuit or accumulator control unit circuit are also available.