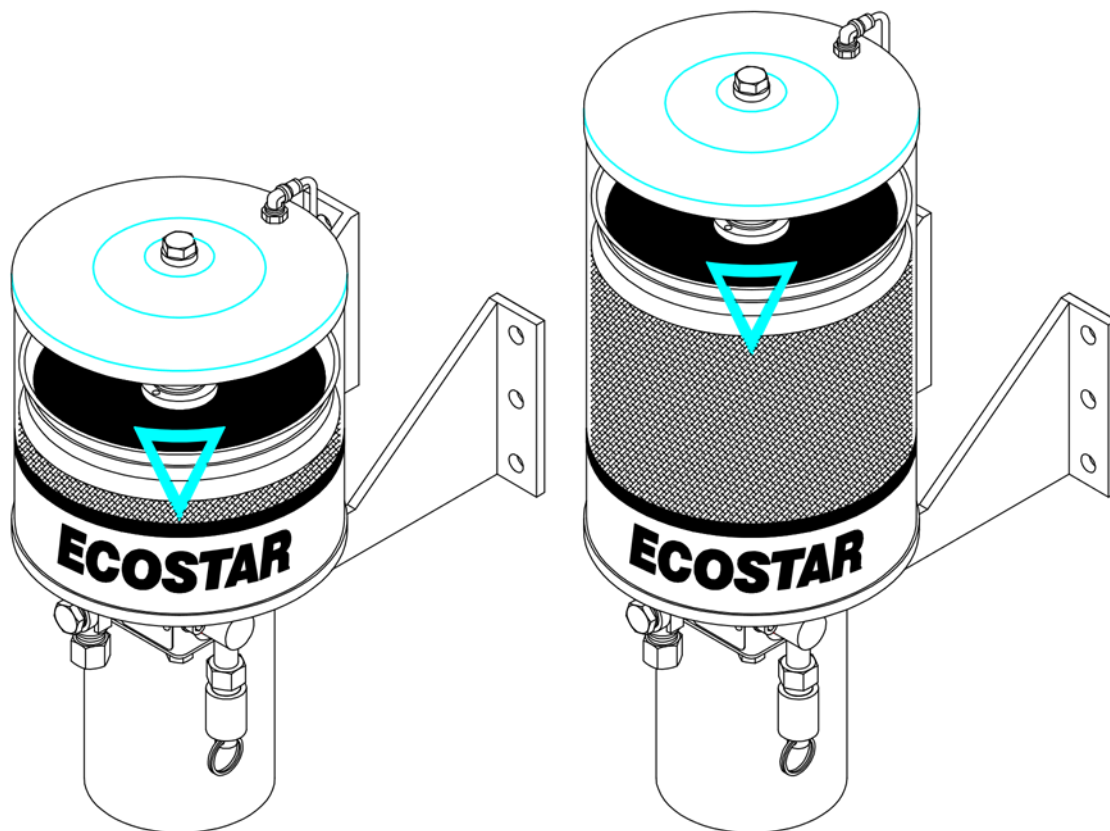


## System/ Components Page

### Grease pump

This grease pump is equipped with a support piston in the grease container. The support piston provides the following advantages:

- Self-cleaning of the inner surface of the grease container, which makes level checking easier.
- This eliminates the problem of dried grease remaining on the inner surface.
- Ensures optimum filling of the pump chamber, even at low temperatures when the grease would be viscous. Prevents coning in the grease container.
- Ageing of the grease is considerably reduced due to the separation of the grease from the atmosphere.
- The pump has an output capacity of 40 cm<sup>3</sup> at a pressure ratio of 1:9, making it suitable even for the lubrication of very large applications with more than 100 meters (dependent on output of meters used).
- Air pressure above the support piston ensures that the pump chamber is fully filled in the suction phase.
- All existing advantages of an entirely closed system are retained.

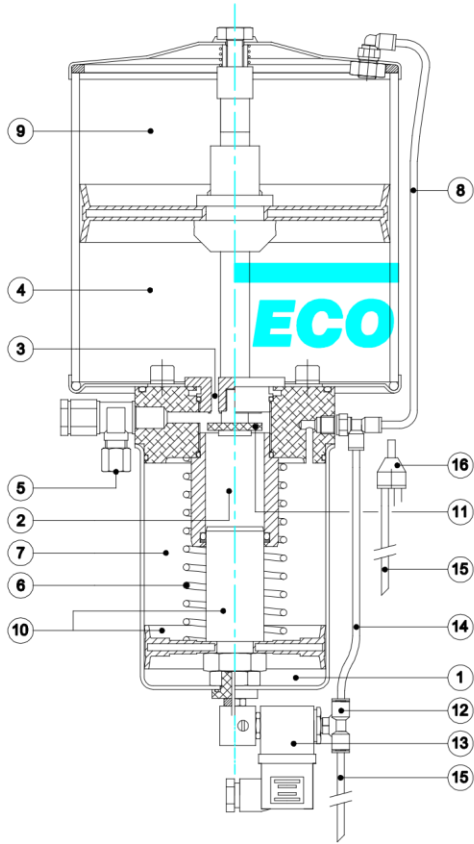


(from Ecostar Manual, Ed. 12/12)

PVP model with support piston at maximum level, 4L (7" tall reservoir) and 6.5L (11" tall reservoir)

Pump is filled to maximum when the top of the support piston is at the top of the triangle.  
Pump must be refilled when the top of the support piston is at the top of the Ecostar sticker.

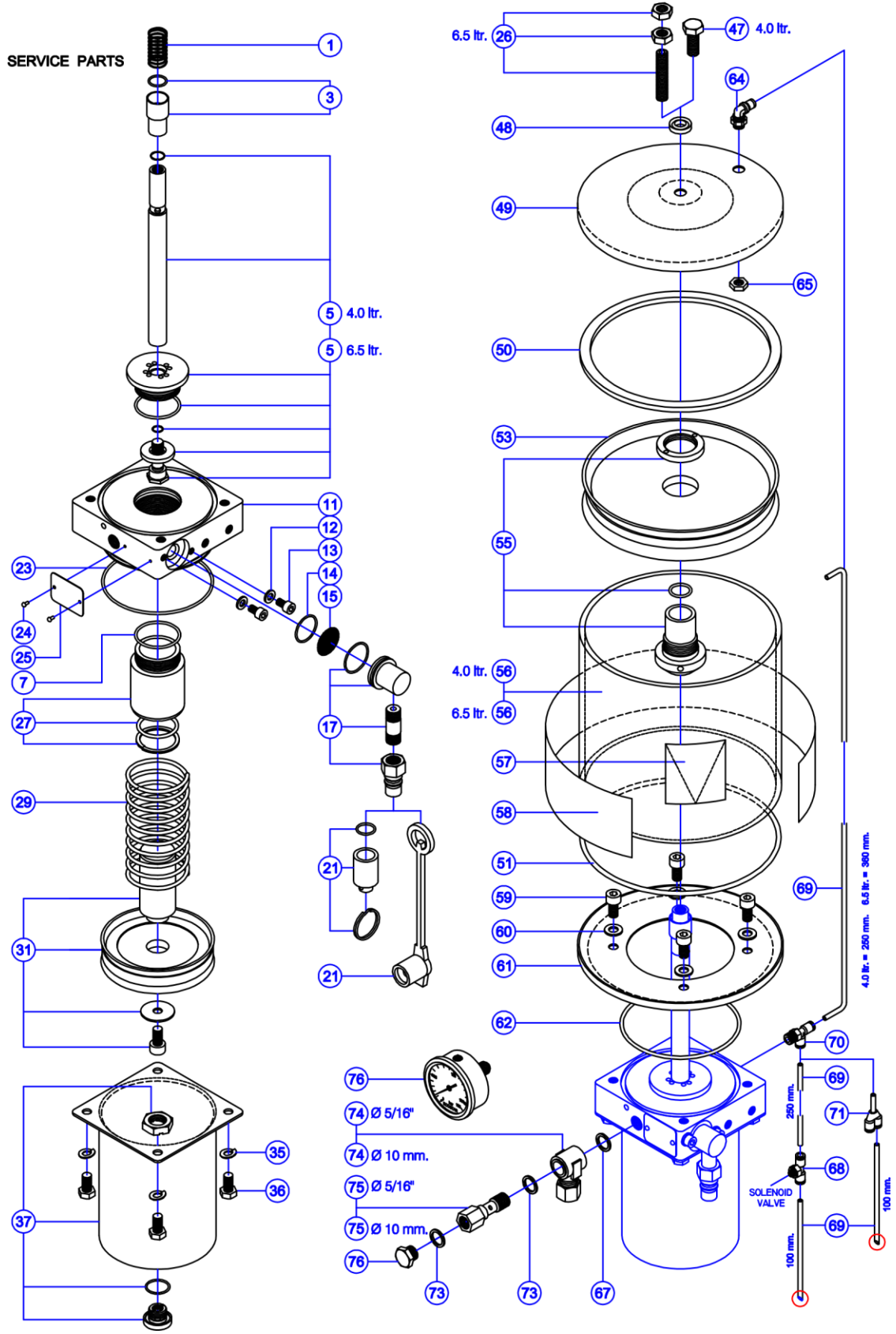
## 1. Grease pump with support piston (truck)



- The air pressure in cylinder area 1 forces piston 10 upwards. At the same time the lubricant in chamber 2 is compressed, valve 11 closes the passageway 3 to reservoir area 4 and pressure is built up.
- Simultaneously, this pressure is applied to press grease into the main tubing 5.
- After the lubrication cycle, the air pressure falls away in chamber 1 and piston 10 is forced downwards by the spring 6.
- The pressure also falls away in chamber 2 and main tubing 5. The resulting overpressure in the main tubing enables the excess grease to return to chamber 2 and reservoir 4.
- Valve 11 opens passageway 3 and the lubricant is sucked from the reservoir 4 into chamber 2. After this, the lubrication cycle can start again.
- While piston 10 is moving upwards, the air above the piston in chamber 7 is partially moved into area 9 (above the support piston) via de-aeration tubing 8; to avoid overpressure above the grease, the air can flow into the free space through insert T-coupling 12 (or insert Y-coupling 16) and de-aeration tubing 15.
- When piston 10 moves downwards, the compressed air in cylinder area 1 is partially moved into area 9 (above the support piston) via solenoid valve 13 and de-aeration tubing 14 as well as de-aeration tubing 8; to avoid overpressure above the grease, the air can flow into the free space through insert T-coupling 12 (or insert Y-coupling 16) and de-aeration tubing 15.

**This construction makes it impossible for dirty or moist air from outside to come into direct contact with the grease.**

SERVICE PARTS



(from Ecostar Manual, Ed. 12/12)

## Parts list for grease pump

Item no.	Code no.	Description
1	07-010-558	Spring overfill valve
3	07-010-561S	Overfill valve (kit)
5	07-010-5540	Column + foot valve holder 4 l
	07-010-5730	Column + foot valve holder 6.5 l
7	07-010-4660	O-ring
11	07-010-548	Pump house
12	16-041-6 A2	Ring (2x)
13	16-013-6 10 A2	Bolt (2x)
14	07-010-435	O-ring
15	07-010-417	Gauze filter
17	07-010-5560	Filling-filter locking ring (kit)
21	07-010-093/01	Dust hood aluminium (kit)
	07-010-0931	Dust hood rubber
23	07-010-543	O-ring
24	07-010-478	Pin (2x)
25	07-010-743	Type plate
26	07-010-576	Threated end 6,5 ltr.+
	16-021-10 A2	nut (2x)
27	07-010-5300	Piston tube (kit)
29	07-011-463	Plunger spring
31	07-011-4130	Piston (kit)
35	16-043-8 A2	Toothed washer (4x)
36	07-010-427	Bolt (4x)
37	07-549S	Cylinder tube (kit)
47	07-010-571	Bolt 4ltr.
48	07-010-434	Dubo ring
49	07-0120-555	Top cover
50	07-010-546	Cover ring
51	07-010-420	O-ring
53	07-010-457	Support piston
55	07-010-5570	Piston guide (kit)
56	07-010-401	Grease holder 4 l
	07-010-402	Grease holder 6,5 l
57	07-010-3400	Level sticker reservoir
58	07-010-340	Ecostar grease pump sticker
59	07-010-464	Recessed-head screw (4x)
60	07-010-572	Ring (4x)
61	07-010-552	Bottom cover
62	07-010-545	O-ring
64	07-010-5620	Overflow port
65	07-010-5630	Nut
67	07-010-159	Seal washer aluminium
68	07-060-9910	De-aeration coupling T
69	07-010-028	De-aeration tubing 25cm 4 l
		De-aeration tubing 36cm 6.5 l
		De-aeration tubing 10/15/25cm
70	07-011-566	De-aeration coupling T
71	07-010-664	Insert Y-coupling
73	07-010-1590	Seal washer copper (2x)
74	07-010-208	Banjo housing 5/16" / 8mm
	07-060-151	Banjo housing 10mm
75	07-010-207	Banjo nipple 5/16" / 8mm
	07-010-243	Banjo nipple 10mm
76	07-060-209	Collar plug
	07-010-107	Pressure gauge 0-160 bar

(from Ecostar Manual, Ed. 12/12)