



**CONNECTION, STARTUP
and MAINTENANCE
of
HYDRAULIC PUMPS
ref : RGRPH (30 bars)
ref : RGRPHD (50 bars)**

**The hydraulic pumps mentioned in this document
are labelled CE.**

They comply, as well as their components, with following
Specifications and standards:

- EN 60034-1
- VDE 0530
- DIN 3852

SUMMARY

I.	PRESENTATION.....	3
	1.1 Generalities.....	3
	1.2 Equipements.....	3
II.	CHARACTERISTICS.....	4
	2.1 Generalities.....	4
	2.1.1 Symbols.....	4
	2.1.2 Hydraulic specifications.....	4
	2.1.3 Electric specifications.....	5
III.	FUNCTIONNING.....	6
	3.1 Caution.....	6
	3.1.1 Protections.....	6
	3.1.2 Terms of use.....	6
	3.2 Coming into service.....	6
	3.2.1 Filling with hydraulic oi.....	6
	3.2.2 Hydraulic circuit connexio.....	7
	3.2.3 Electric connexion.....	7
IV.	MAINTENANCE.....	8
	4.1 Inspection	8
	4.2 Maintenance.....	8
V.	DIMENSION	9
	5.1 30 bars pump.....	9
	5.2 50 bars pump.....	10

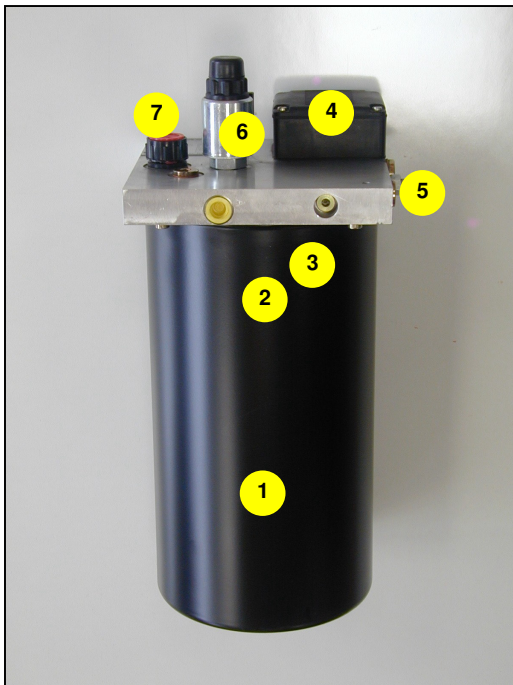
1 PRESENTATION

1.1 Generalities

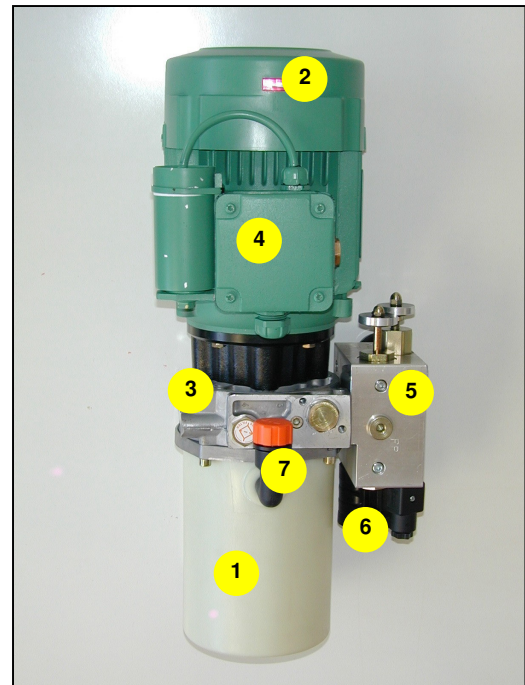
URBACO hydraulic pumps are compact equipments of relatively low dimension, but with high specific power. Their function is to provide oil under pressure for the motivity of URBACO bollards equipped with an hydraulic jack (Hydraulic BEA).

1.2 Equipments

Two different hydraulic pumps can be used with any kind of retractable bollard equipped with URBACO hydraulic jack connected to the system. The difference between both items is just their maximum service pressure 30 or 50 bars. Their different constituent parts are :



30 bars hydraulic pump



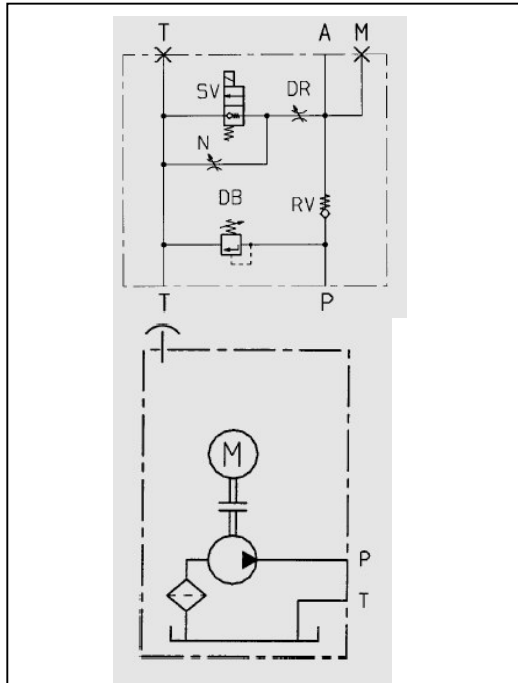
50 bars hydraulic pump

- (1) Tank containing circuit hydraulic oil.
- (2) The engine (immerse in 30 bars model) that provides pressure for the circuit.
- (3) The pump (immerse in 30 bars model).
- (4) Electric connection rack.
- (5) Hydraulic connection.
- (6) Command selenoid valve.
- (7) Filling cap and oil gauge.

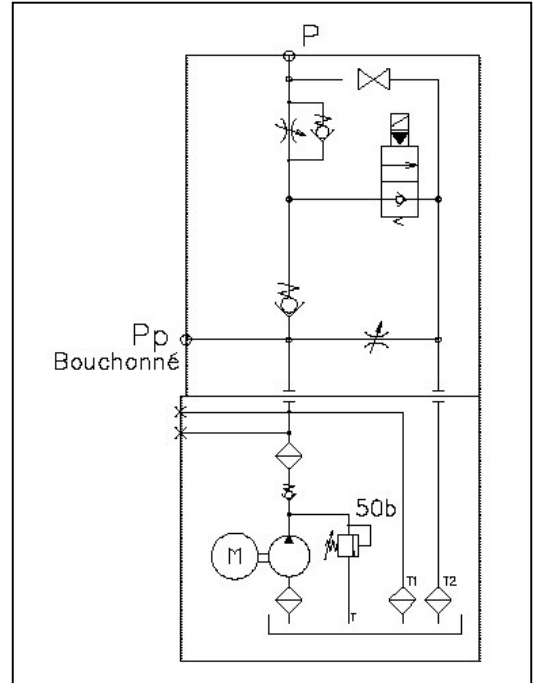
2 CHARASTERISTICS

2.1 Generalities

2.1.1 Symbols



30 Bars hydraulic pump



50 Bars hydraulic pump

2.1.2 Hydraulic specifications

30 bars pump :
 Output : Q = 10 l/min
 Pressure : 30 bars

50 bars pump :
 Output : Q = 12.6 l/min
 Pressure : 50 bars

Exact specifications as well as the ratio: maximum allowed pressure (P max) / Output (Q) are specified on the manufacturer tag.

Always use a mineral oil chosen among ISO-VG hydraulic oils. Viscosity at 40°C and viscosity index must be selected in way to obtain a viscosity at stabilised working temperature located between 30 and 15 cSt (centiStoke)* and never outpass 800 cSt (centiStoke)* at starting at low temperature.

URBACO uses and advises to use a biodegradable low usure oil intended for hydraulic systems.

* $1\text{m}^2/\text{s} = 10^6 \text{ cSt}$

2.1.3 Electric specifications

Engine	Tension	Power	Intensity	N⁻¹
30 bars	230V / 50Hz (+- 5%)	0,55 W	4,3 A	1350 t/min
50 bars	230V / 50Hz* (+- 5%)	1,1 W	6,5 A	2760 t/min

*** !** 50 bars pump does not work under 230V / 60Hz tension except specific models specially ordered.

Connection: rack waterproof cable glands M20x1,5.

Command selenoid valve work under 24Vac tension.

3 OPERATION

3.1 Cautions

3.1.1 Protections

Hydraulic pumps are intended for short operating periods or in an intermittent steady; continuous operation can cause over-heating and some problems can occur :

- Damages to the engine
- Hydraulic oil evaporation with possible dangerous gas emanation.
- Synthetic material distortion or thawing
- Personal or physical injury (burn)

URBACO technical centres, are provided with a safety fuse and a temporized outage managed by the PLC piloting the system.

3.1.2 Conditions of use

The range of ambient temperature of use to be respected is from **-20°C** up to **+40°C** (**4°F à 104°F**)

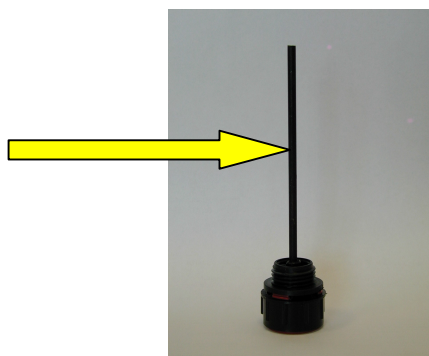
In order to ensure a good lifespan to the hydraulic pumps, it is necessary to protect them from dust, moisture, splashes of water and hydraulic fluid.

Installation in URBACO armoured cabinet fitted with a forced ventilation system is sufficient for thermal dissipation.

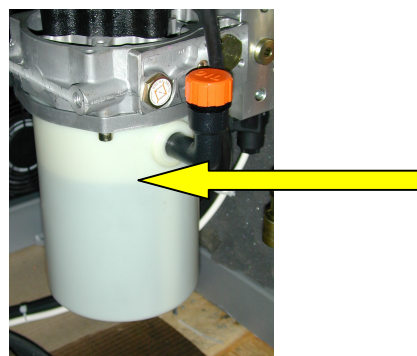
3.2 Startup

3.2.1 Filling with hydraulic fluid

Fill the tank (N°7 on photograph) with hydraulic fluid through very fine filter (10µm absolute) until the reference mark level (see photo below).



Jauge groupe 30 bars



Jauge groupe 50 bars

URBACO systems are delivered with filled tank
Control oil level using the gauge of ventilation filter.

CAUTION : Never make test with empty system.

3.2.2 Hydraulic system connection

Connection of the hydraulic pump on the bollard is done using a flexible pipe equipped with quick action couplings. This flexible device is delivered filled of oil.

3.2.3 Electric connection

All interventions on the pump electric wiring must be carried out tension off. Connections are carried out in the case envisaged for this purpose. The hydraulic pumps installed in URBACO armoured cabinets are already cabled in order to respect the correct rotation direction of the engine, and no modification must be made. The command solenoid valve must be supplied with 24Vac

4 MAINTENANCE

4.1 Inspection

At startup, and regularly, we advise to look for possible external oil leaks and to check all connections. If necessary, tighten the elements.

Hydraulic oil level must be regularly controlled and, if need be, filled in by taking care to use the same mark, as well as same viscosity.

Check the state of oil by taking a sample and in case of premature deterioration (sunk colouring, odor, milky aspect), carry out the complete replacement of oil.

4.2 Maintenance

Any intervention on the pump must be carried out equipment with pressure and tension off.

If the pump has to be shut down for a long duration, it is advised to leave the hydraulic oil in the circuit, but it is significant to put pressure off.

Greatest cleanliness is required during maintenance work.

Hydraulic oil must be replaced at the latest after 24 months of use.

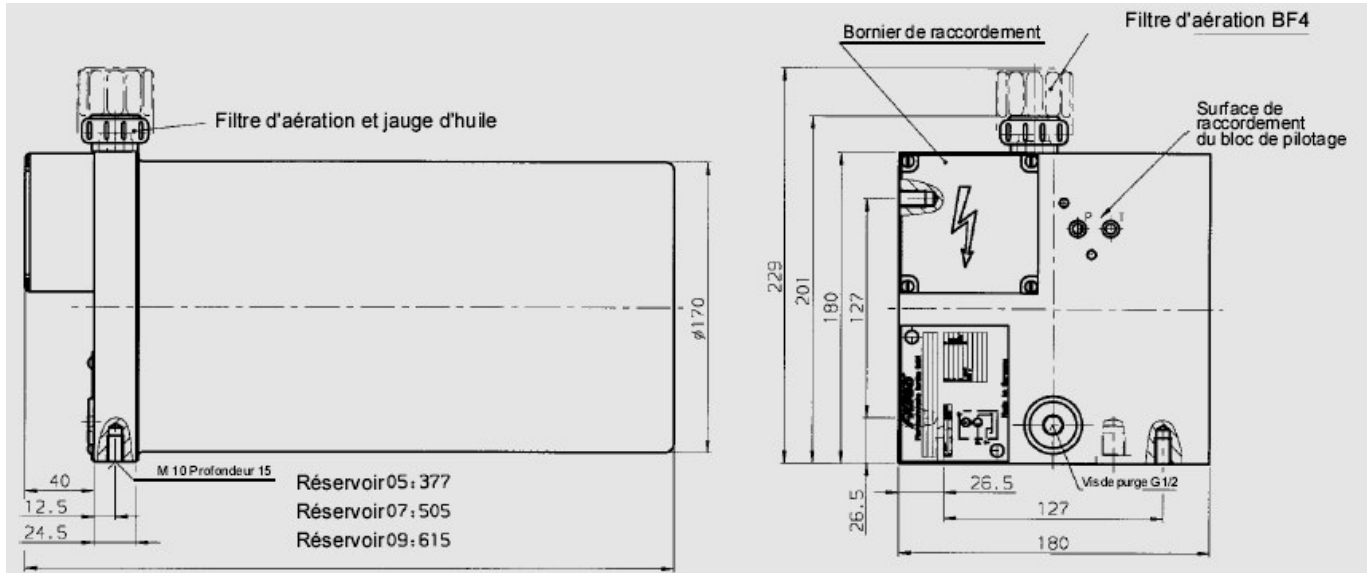
Be sure to comply with the regulation as well as the legislation relative to polluted fluids.

- All the bollards must be in low position.
- Completely purge the hydraulic system.
- Rinse the tank in order to eliminate all deposits.
- Add the new hydraulic oil as indicated in § 3.2.1

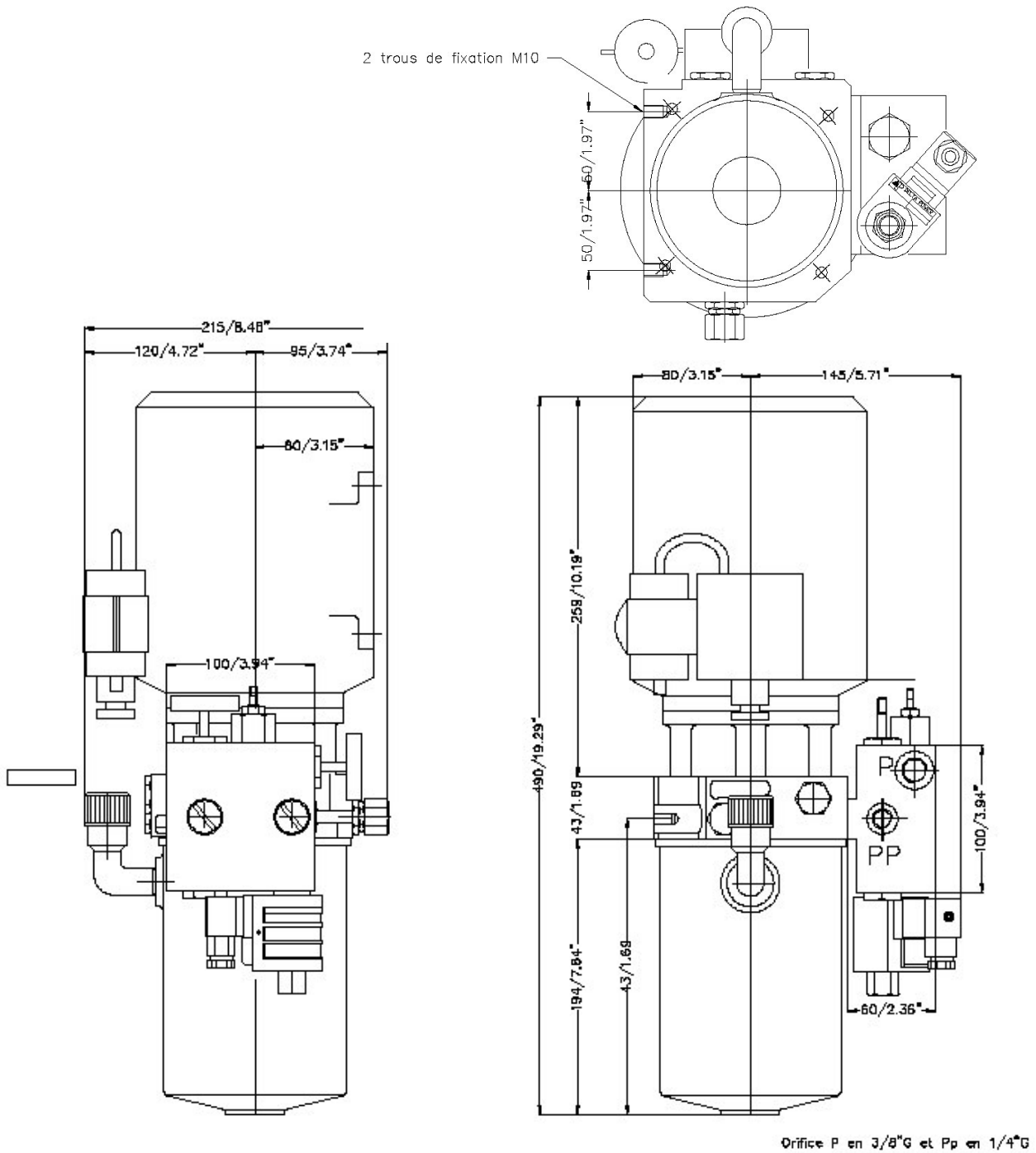
Only add new hydraulic oil, depolluted, same brand and of the same type (consult our sales department).

5 OVERALL DIMENSION

5.1 30 bars Pump



5.2 50 bars Pump





TRAINING SESSIONS

URBACO is pleased to offer technical training sessions. These first training sessions last two days and the second training sessions last three days. These sessions can be conducted in French English and Spanish.

MAINTENANCE CONTRACT

URBACO offers a maintenance contract that will meet your needs.

Maintenance contract : Preventive maintenance

Preferred Care Contract : Worldwide maintenance : includes travel expenses, labor, simplified maintenance budget and urgent intervention plan.

AFTERSALES SERVICE



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