

Rev.	Data/date	Descrizione/description	Issued	Checked	Approved
-	09/10/2021	Prima emissione /first emission	gg		SAG

## SERVICE UNIT

*Service unit connection to H 300 control valve.*

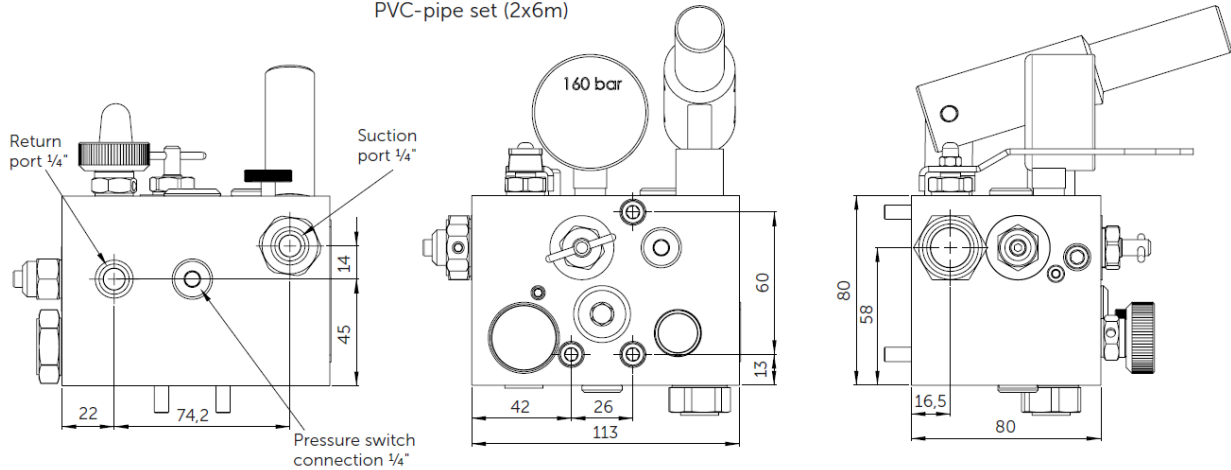
### 1. DESCRIPTION

The service unit has been designed for servicing and rescuing operations of machine roomless (MRL) hydraulic elevators remotely by having easy outside access, without needing to be in the pit. Many functional valves such as an adjustable self-closing manual lowering valve, hand pump, slack rope valve, pressure relief valve, ball valve as well as a manometer have been added to a compact body. The service unit can be located up to 6 metre away and 5 metre high from the main power unit to a convenient location for easy access.

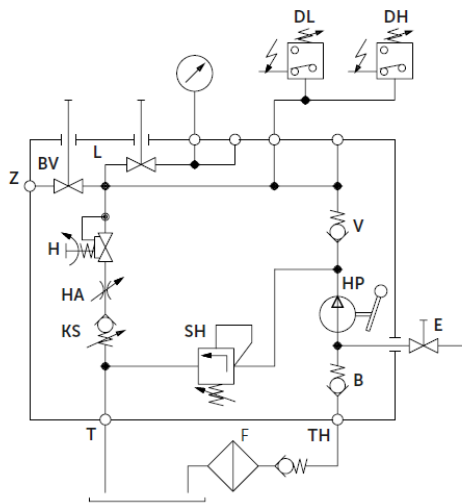


**Output port:** 1/2" BSP  
**Suction port:** 1/4" BSP  
**Return port:** 1/4" BSP  
**max. suction height:** 5 m (with PVC-pipe inside-Ø6 mm);  
 check valve recommended at suction point for pipe length longer than 1 m  
**Options:** check valve  
 PVC-pipe set (2x6m)

**Pressure switch port (2 times):** 1/4" BSP  
**Pressure range:** 0-100 bar (0-1450 psi)  
**Oil Viscosity:** (25-60) cSt. bei 40°C (15-35 cSt. at 120°F)



## 2. HYDRAULIC CIRCUIT



- Z Pressure port
- T Tank port
- TH Suction port
- F Filter
- B Check-Valve (suction)
- V Check-Valve (Pressure line)
- BV Main shut-off valve (built in)
- KS Slack rope valve
- H Manual lowering
- L Shut-off valve for pressure gauge and test port
- HA Manual down speed adjustment
- HP Hand pump
- E Air bleed
- SH Relief valve
- DL Pressure switch 1-10 bar
- DH Pressure switch 1-100 bar

### 3. CONNECTION OF THE SERVICE UNIT TO THE CONTROL VALVE

#### 3.1. Service unit suction and return connections

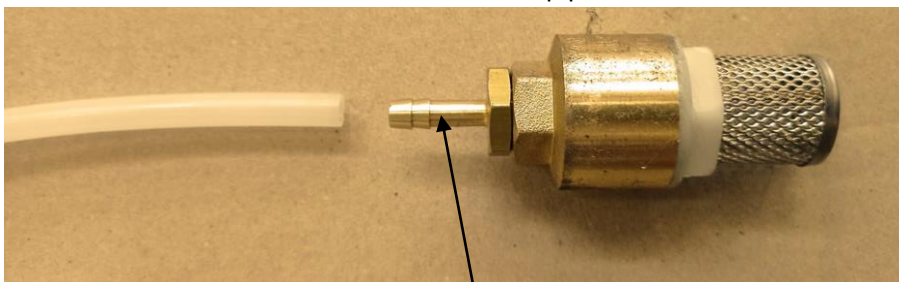
Connect the adapter for the suction line and the return line with the tank.



Return line to the tank  
Fitting ¼ Gas for plastic pipe  
Install with teflon tape

Suction line from the tank  
Fitting ¼" Gas for plastic pipe  
Install with Teflon tape

Connect the filter and check valve on suction pipe in the tank



Fitting 3/8" Gas for plastic pipe  
Install with Teflon tape

Use the precutted holes on the cover to insert the suction and return pipes into the tank.



Check that the suction pipe is positioned so that it is always below the minimum oil level (under the motor casing)

Check the suction pipe for no deformation or bending radius too tight.

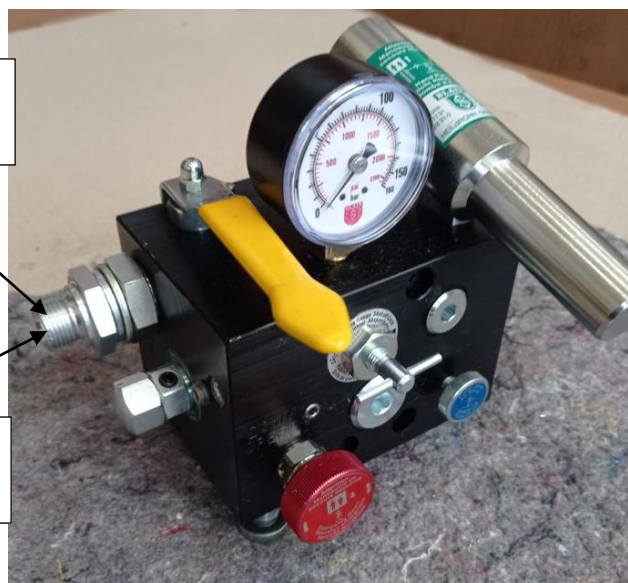
### 3.2. Pressure line connection

Use the flex. hose to connect the service unit to H 300 control valve.

Connect the flex hose to the service unit

Nipple 3/8" -1/2" Gas +  
bonded seals

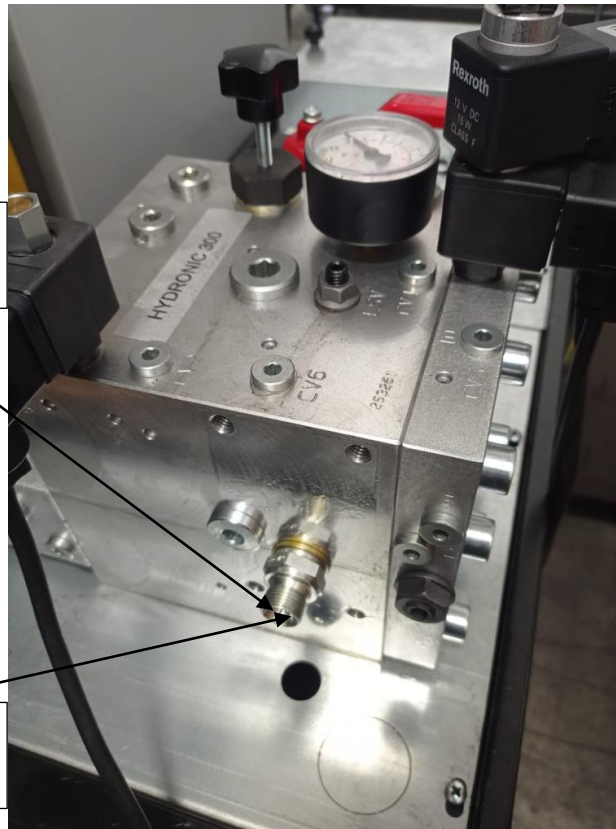
Connection for the flex.  
hose



Connect the flex. hose to the H 300 control valve

Nipple 3/8" Gas + bonded seals

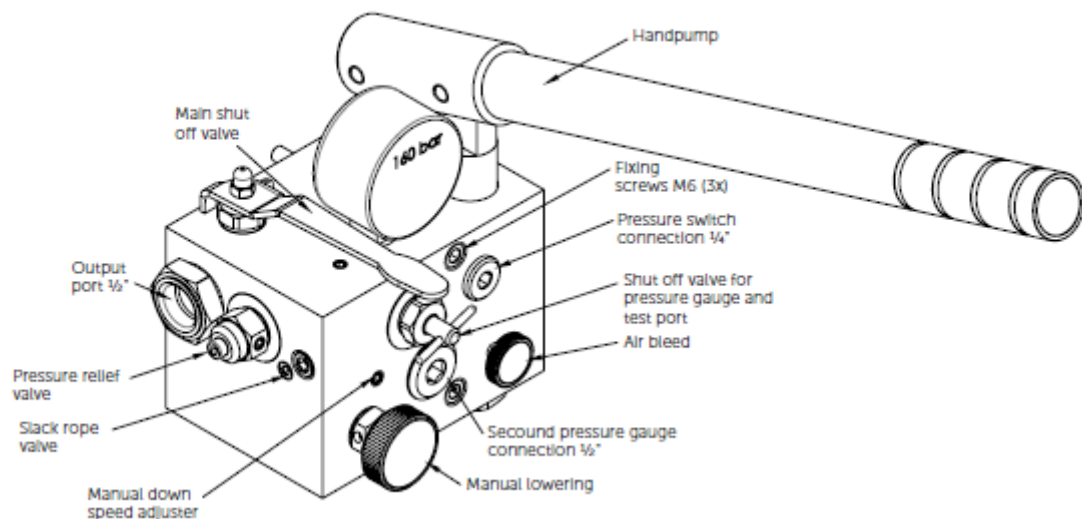
Connection for the flex. hose



#### 4. USE OF THE SERVICE UNIT

**To lower the lift:** open the main shut off valve. Turn the manual lowering anticlockwise. If the speed is too slow adjust the speed adjuster accordingly.

**To raise the lift:** open the main shut off valve on the MRL-H unit. To release the trapped air inside the unit, open the air-bleed 1/2 or 3/4 turn and pump oil until oil appears at the bleed screw. Tighten the bled screw and continue pumping to raise the lift.



**Main shut off valve:** Allows pressure line to be kept closed during non-service times.

**Slack rope valve:** avoids the ram from being lowered by opening the manual lowering valve below ram pressure/weight

**Manual lowering valve:** descends the car to lower position manually.

**Manual lowering speed adjustment:** it allows manual lowering speed adjustment away from the main power unit.

**Pressure relief valve:** by default it is adjusted to 100 bar (adjustable)

**Hand pump:** allows servicing people to raise the car to the upper floor.