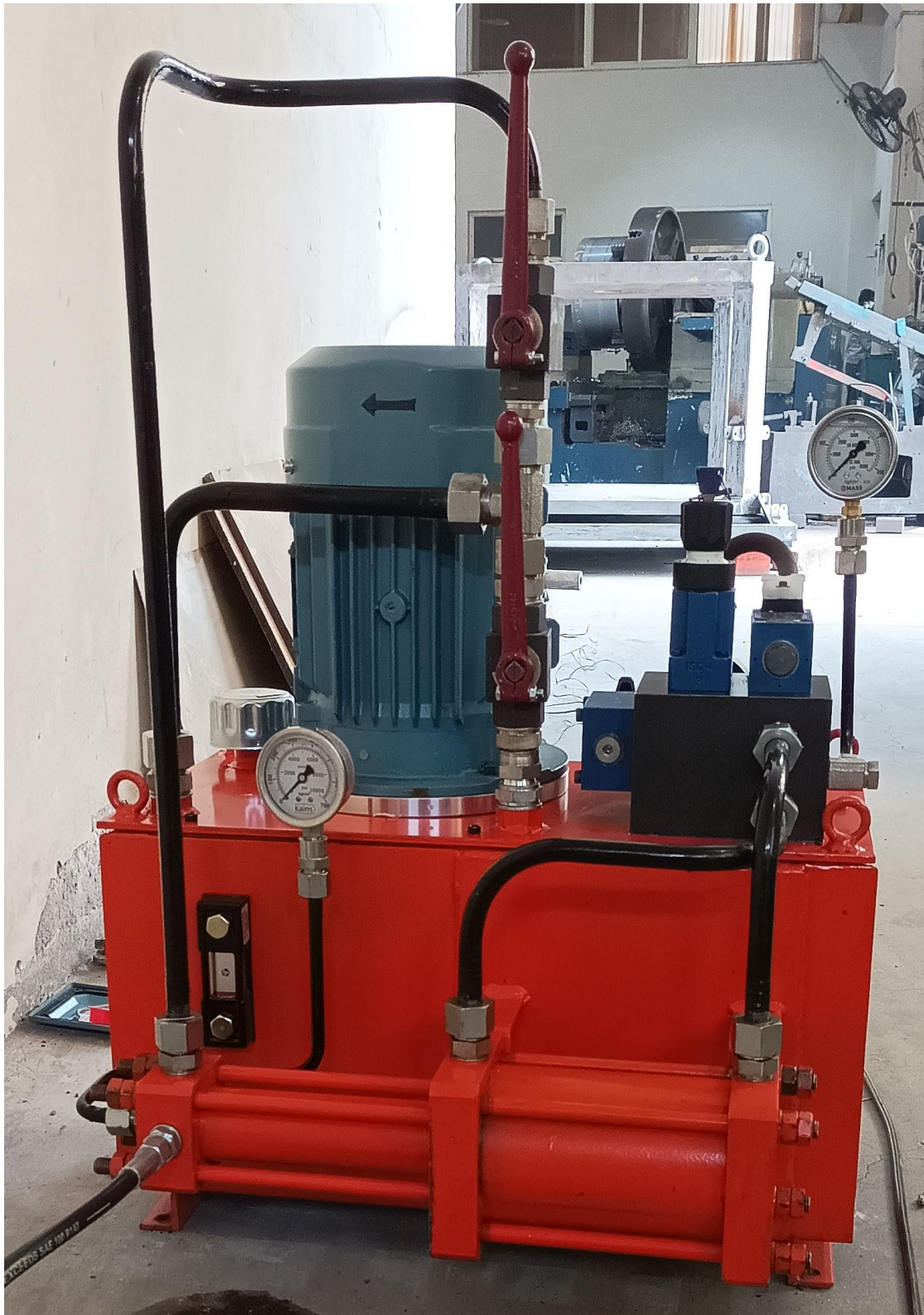


Hydraulic Pressure Intensifier



Description of the system:

This system can be broadly divided in two major sub-assemblies as followings:

Hydraulic power pack: The major function of the power pack is to provide pressurized hydraulic oil at the rate of 12 lpm to the hydraulic cylinder section of the intensifier assembly. This pressure can be varied from zero to the 75 bar with the help of the relief valve but needs to be set at 40 bar to 50 bar to get the 5 times intensified pressure as 200-250 bar range.

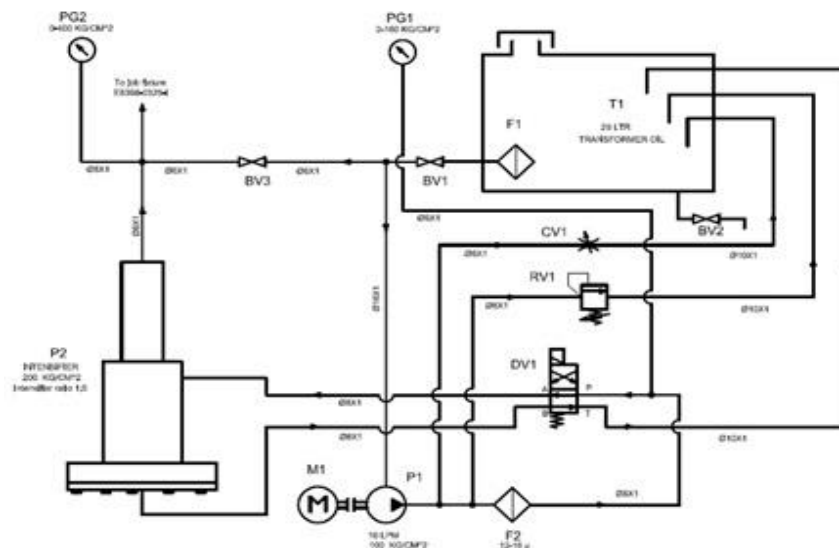
The intensifier unit: It is mounted on one of the side walls of the power pack. This unit has two sections one is the double acting hydraulic cylinder and the another is the intensifier section. The intensifier output is 5 times the hydraulic oil pressure coming to the piston side of the hydraulic cylinder. The dosing capacity of the intensifier is 100 ml.

Recommended services schedule:

- i. Change hydraulic oil at around 1500 hrs. of working
- ii. Clean pump strainer at every 1000 hrs. of working
- iii. Change pump strainer at 3000 hrs. of working
- iv. Clean pressure line filter cartridge at 1000 hrs. of working
- v. Change pressure line filter cartridge at 2000 hrs. of working
- vi. Seal Kit of the Cylinder & intensifier to replace after 2000 hrs. working

Safety precautions:

- i. Motor should run in the direction as marked on the cover
- ii. DOL starter of proper rating should be used for the motor
- iii. Power pack pressure should be gradually set and must not exceed 60 bar
- iv. Maximum intensifier pressure must not be above 300 bar
- v. Flow control valve's key to be removed after locking and to be stored safely
- vi. If there is any pressure building issue, then bleed the intensifier side air as explained
- vii. The oil temperature should be maintained preferably below 50°C.



Hydraulic Circuit Diagram



Top view of the Hydraulic Blade Holding System



Pick of the Blade Holding Hydraulic System connected to the fixture