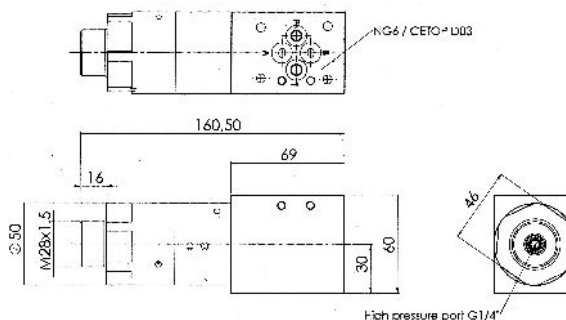




# Operation Instructions for the MP-CT Pressure Intensifier



### Before installing the intensifier

Ensure the surroundings and the connecting parts are clean and free from burrs.

### Connecting the intensifier

Connecting the MP-CT pressure intensifier to a system is only to be done by trained personnel.

The MP-CT is designed for the cetop D03 (NG6) stacking system. To make the MP-T increase a supplied pressure, the A-port must be connected to the supply pressure and the B-port connected to tank. The HP - port is to be connected to the cylinder/part requiring higher pressure.

### Fluids

For use with standard hydraulic oils and water glycol (min. 5% glycol). Preferred viscosity range 20 - 46 cSt

### Filtration requirements

10 µm nominal or better, maximum 19/16 according to ISO 4406

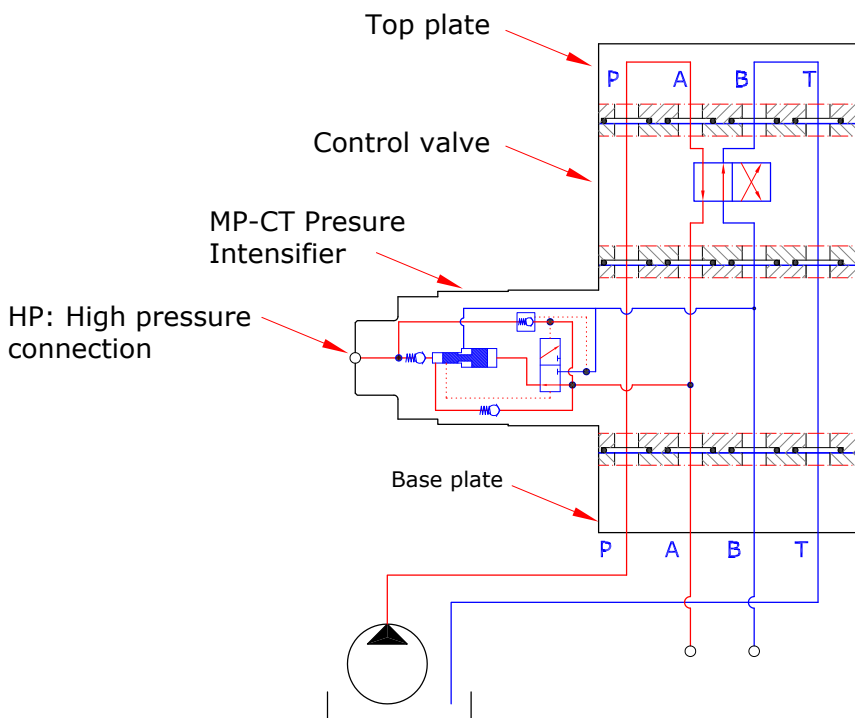
### Hydraulic bleeding

During start-up of the system, it is recommended to ensure no air is trapped in the system, as this may cause function problems.

### CAUTION:

Ensure the fittings and components on the output side are rated for the end pressure delivered by the Scanwill intensifier.

### The MP-CT in a system:



## Function

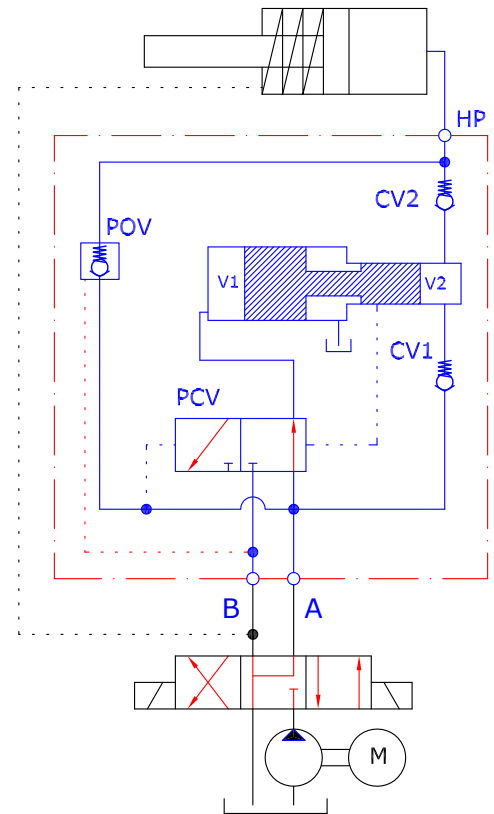
The MP-CT is a hydraulic pressure intensifier designed to be inserted in a CETP 3 /NG6 system, where it will provide a higher output pressure in the HP-port only, the pressure in the CETOP 3 /NG6 system will not be increased. The pressure in port HP will be increased proportionally with the supplied pressure by a fixed factor, the intensification ratio of the specific MP-CT pressure intensifier. The higher pressure can be used to operate a cylinder or tool requiring more pressure than the present system pressure. The evacuation of the higher pressure can be achieved through a pilot operated checkvalve within the MP-CT. This is opened by switching the pump pressure from port A to port B, thus opening a passage from the high pressure side through the MP-CT pressure intensifier back to tank.

**Fig. 1** shows the intensifier circuit of the MP-CT intensifier increasing the pressure in a single or double acting cylinder.

When applying flow to the A-port and connecting the B-port to tank, the full pump flow will go straight through the intensifier check valves CV1, CV2 and POV (optional) to the cylinder, allowing the rod to move out at pump speed. When the cylinder is filled up and the pressure has risen to pump pressure, the intensifier pistons automatically increase the pressure to the set end pressure. Keeping the pump connected ensures the intensifier will automatically work to maintain the end pressure in the cylinder, in case the pressure drops.

If the POV is integrated in the MP-CT pressure intensifier in use, the cylinder can be retracted by connecting the A-port to tank and the B-port to pump. This will open the POV creating a free passage from the HP-side back to tank.

**Fig.1**



## Intensification ratios, flow and pressure settings

Product number*	Intensification ratio	Max. supply Flow** (LPM)	Outlet supply pressure*** (bar)	Average outlet Flow**** (LPM)	Outlet pressure range***** (bar)
MP-CT-P/S-1.5-G/U	1.5	15.0	200	0.3	30 - 300
MP-CT-P/S-2.0-G/U	2.0	15.0	200	0.5	40 - 400
MP-CT-P/S-2.8-G/U	2.8	8.0	200	0.3	56 - 560
MP-CT-P/S-3.4-G/U	3.4	15.0	200	0.5	68 - 680
MP-CT-P/S-4.0-G/U	4.0	14.0	200	0.4	80 - 800
MP-CT-P/S-5.0-G/U	5.0	14.0	160	0.3	100 - 800
MP-CT-P/S-7.0-G/U	7.0	13.0	114	0.2	140 - 800
MP-CT-P/S-9.0-G/U	9.0	13.0	89	0.1	180 - 800
MP-CT-P/S-13.0-G/U	13.0	10.0	61	0.1	260 - 800

- \* P means p.o. check valve POV is integrated  
 S means intensification only, (no p.o. check valve POV is integrated)  
 G: The HP connection is G1/4" ,  
 U: The HP connection is 9/16"-18 UNF

\*\*\* Max. supply flow limits not to be exceeded, as this will damage the internal check valves and over speed the intensifier pistons.  
 Min. supply flow is 2 LPM

\*\*\*\* Max. supply pressure limits not to be exceeded, as this will cause damage to the intensifier parts, and will cause to high outlet pressure.  
 Pressure spikes must be avoided.

The Average flow is the flow generated by the intensifier pistons when increasing the pressure from pump pressure to end pressure. Initially the flow is high, and as the pressure increases the flow decreases and will eventually stop when the end pressure has been reached.

\*\*\*\*\* The outlet pressure is proportional with the supplied pressure, and can be set at any value within the range.  
 The max. pressure within the range for each intensification ratio must not be exceeded