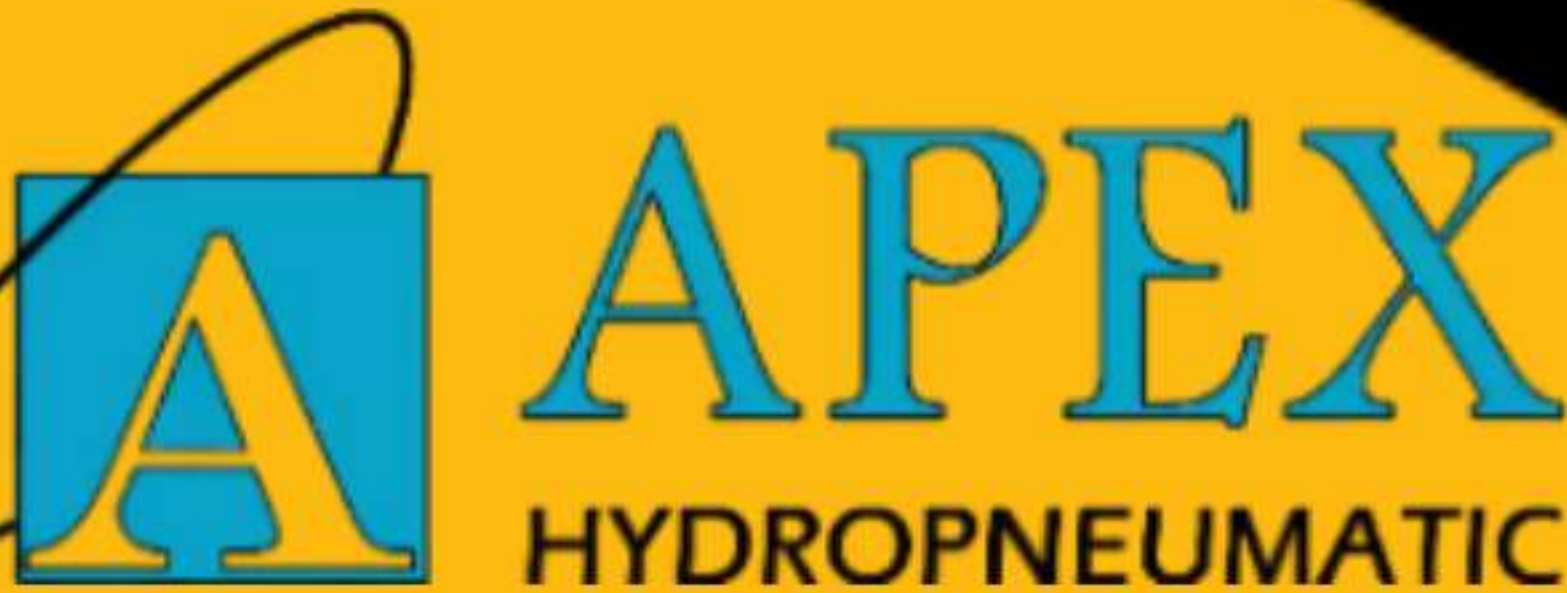


HYDRAULIC HAND PUMPS








Our Location

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Naroda, Ahmedabad - 382330,
Gujarat, India**

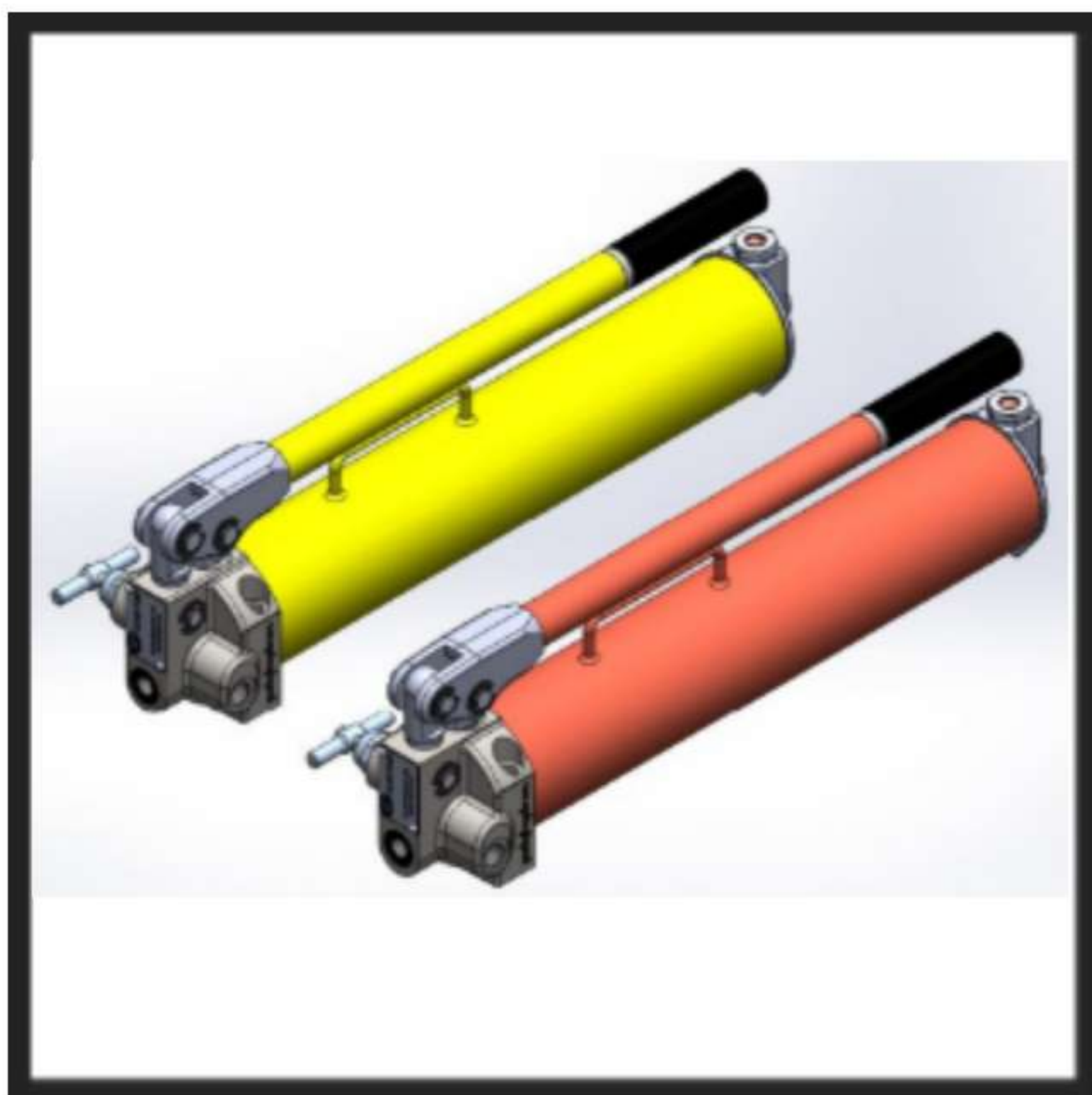
**Email : apex_dinesh@ymail.com
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Hydraulic Hand Pumps Section Overview

Pump Type	Hand Pump Model	Series		Page
Single Speed	Single Plunger Hand Pump	AHP - S		3
Single Speed	Single Plunger Hand Pump With Rotary Directional Control Valve	AHP - S * D		6
Two Speed	Double Plunger Hand Pump	AHP - D		9
Two Speed	Double Plunger Hand Pump With Rotary Directional Control Valve	AHP - D * D		12
Two Speed	Double Plunger Hand Pump With Small Tank	AHP - D * ST		15

AHP - S Series, Single Plunger Hand Pumps

AHP - S Series



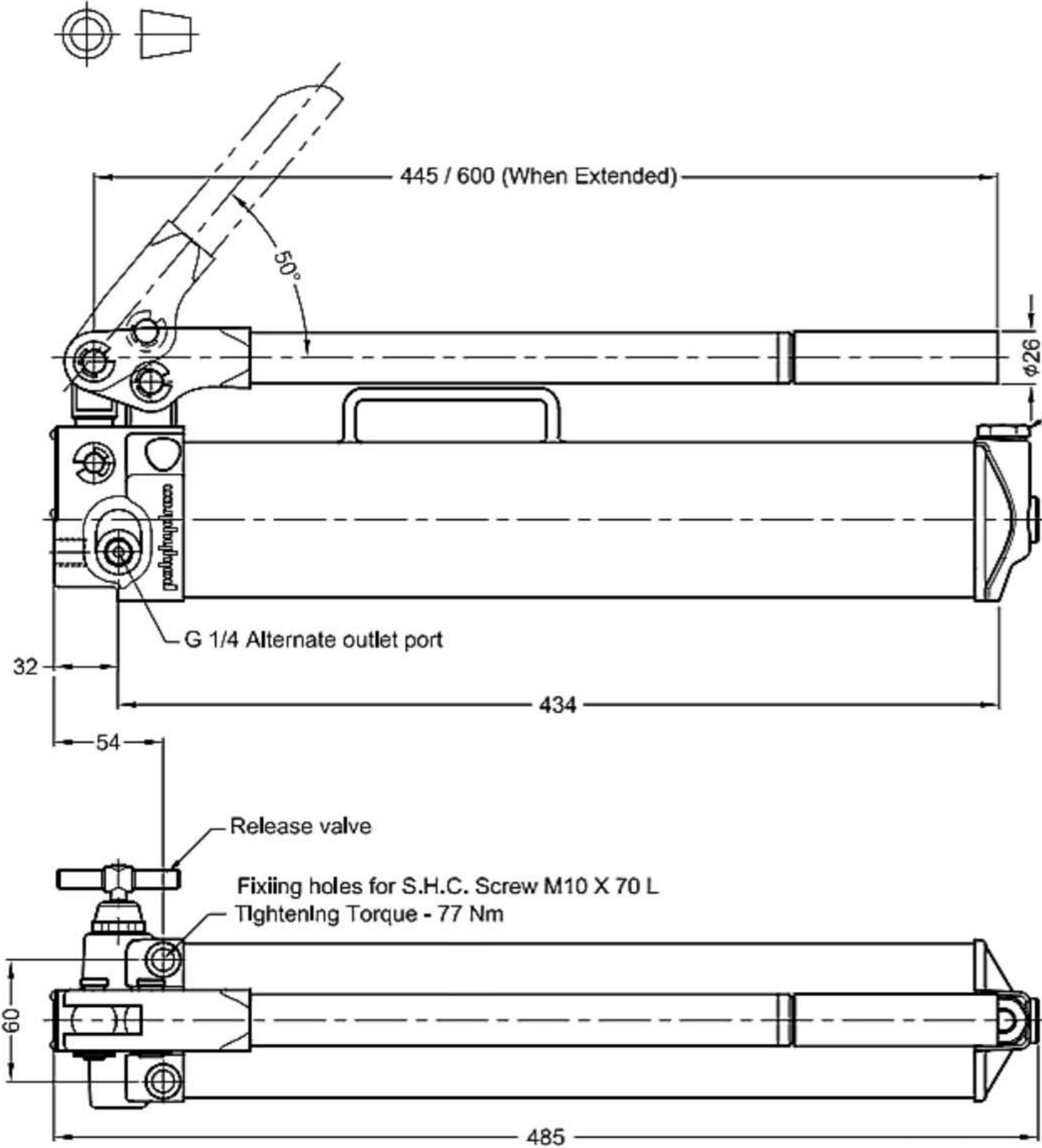
All metal construction won't burn through in welding environments.

Heavy - Duty, formed metal handle provides rigidity and reduces operator fatigue with grip

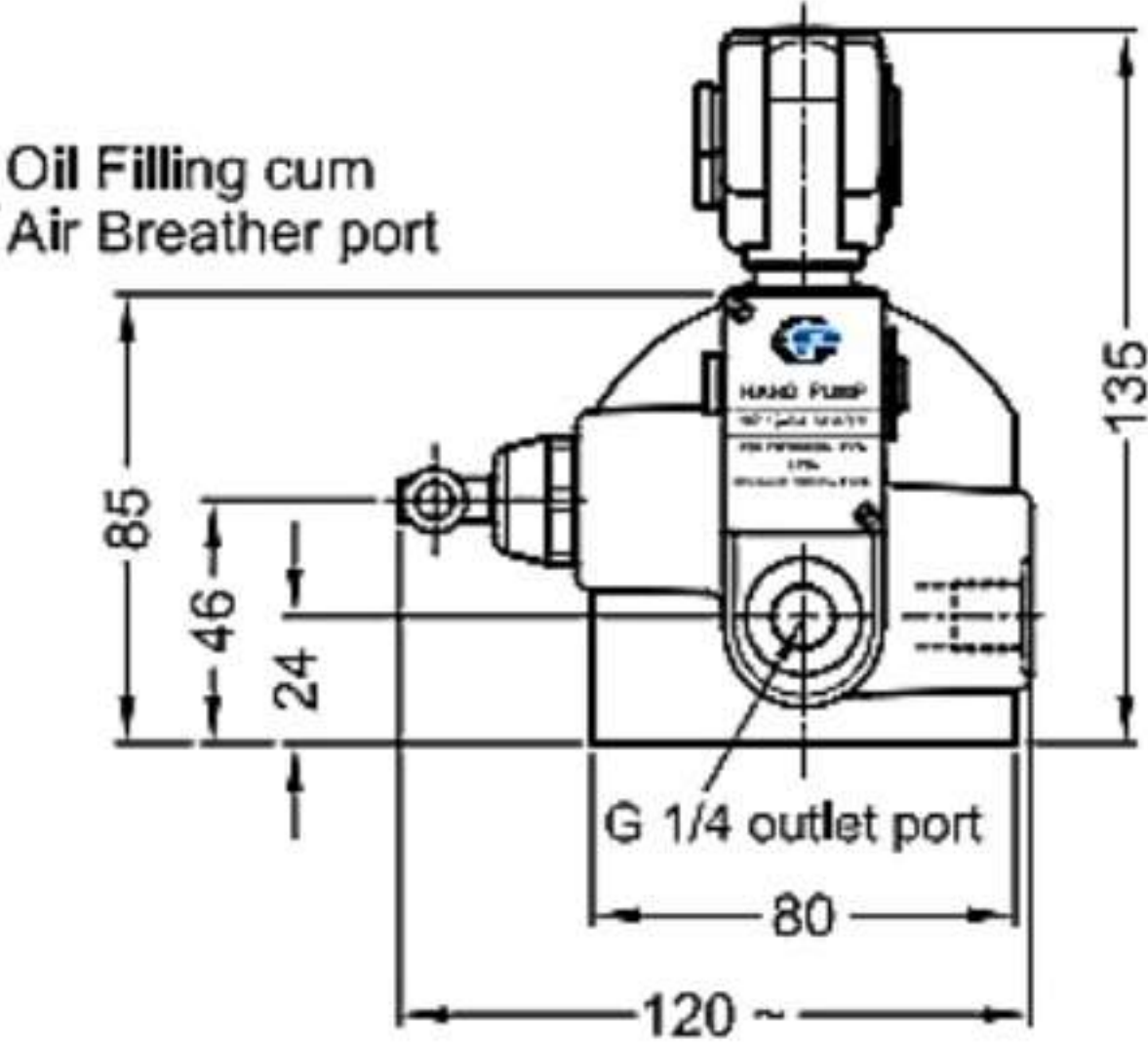
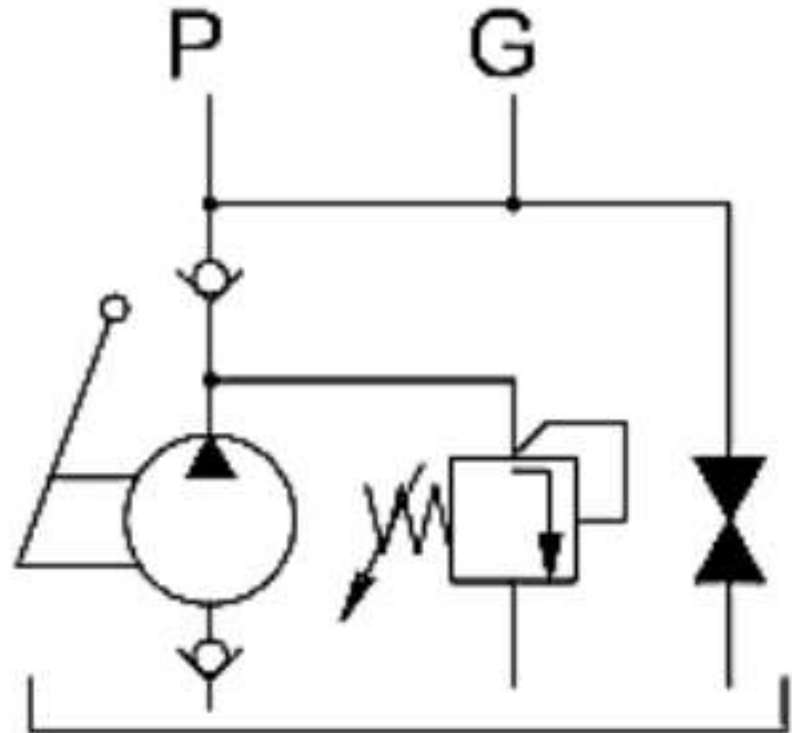
- **This hand pump models are compact heavy duty pumps designed for Industrial applications like operating small presses fixtures as well as providing source of oil for emergency applications.**
- **These pumps can also be used at construction sites for operating jacks for repair work.**
- **Hardened and ground piston and low friction high performance seal give the pump long service life.**
- **The collapsible handle makes the pump easy to transport and reduce operating force when the handle is extended.**
- **Special Air breather prevents airborne impurities from entering the tank, thereby enhancing the service life of the pump.**
- **The pump can be supplied with extra large tank if needed.**

Unit dimensions

Dimensions in mm.



Hydraulic symbol



Technical specifications

Construction	Sealed piston with ball type suction and delivery valve .
Hydraulic medium	Mineral oil.
Maximum working pressure.....	Refer table no.1
Displacement.....	Refer table no.1
Oil tank capacity.....	1.25 L
Oil tank displacement.....	0.8 L
Force required at the end of the hand lever at max. pressure (Approx).....	Refer table no.1
Vscosity range	10 cSt to 380 cSt
Fluid temperature range	-20°C to +70°C
Fluid cleanliness requirement	ISO 4406 20/18/15 or better.
Mass	With Oil 8.7 kg Without Oil 7.7 kg

Table No 1.

Specification	Unit	AHP-S1	AHP-S2	AHP-S3
Max. Working Pressure	Bar	700	350	1000
Displacement Capacity	cm^3 / stroke	2.8	5	2.8
Force Required At The End Of Extended Hand Lever At Max. Pressure (Approx)	N	385	340	550

AHP - S * D Series, Single Plunger Hand Pumps

With Rotary Directional Control Valve



AHP - S * D Series

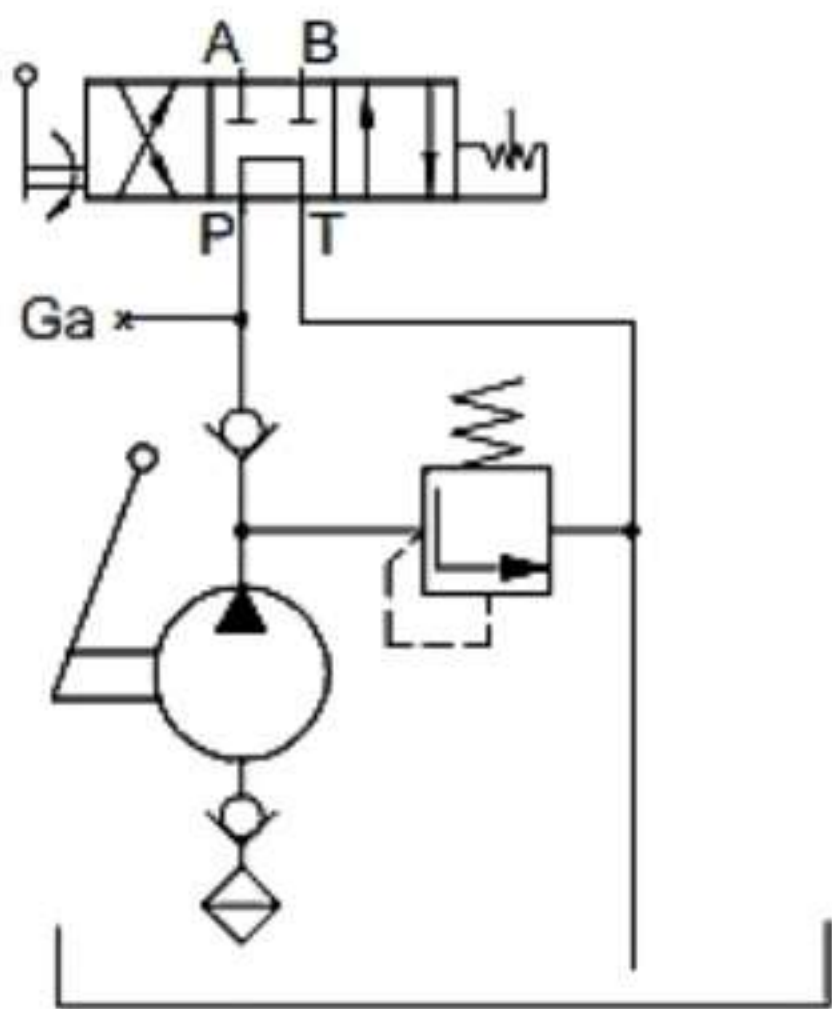
All metal construction won't burn through in welding environments.

Heavy - Duty, formed metal handle provides rigidity and reduces operator fatigue with grip

- **This hand pump models are compact heavy duty pumps designed for Industrial applications like operating small presses fixtures as well as providing source of oil for hydraulically operated emergency equipments.**
- **These hand pumps are equipped with integral Rotary Directional Control Valve with two outlet ports for switching of the flow between the two sides of a double acting cylinder.**
- **The Rotary Valve has pressure holding ability.**

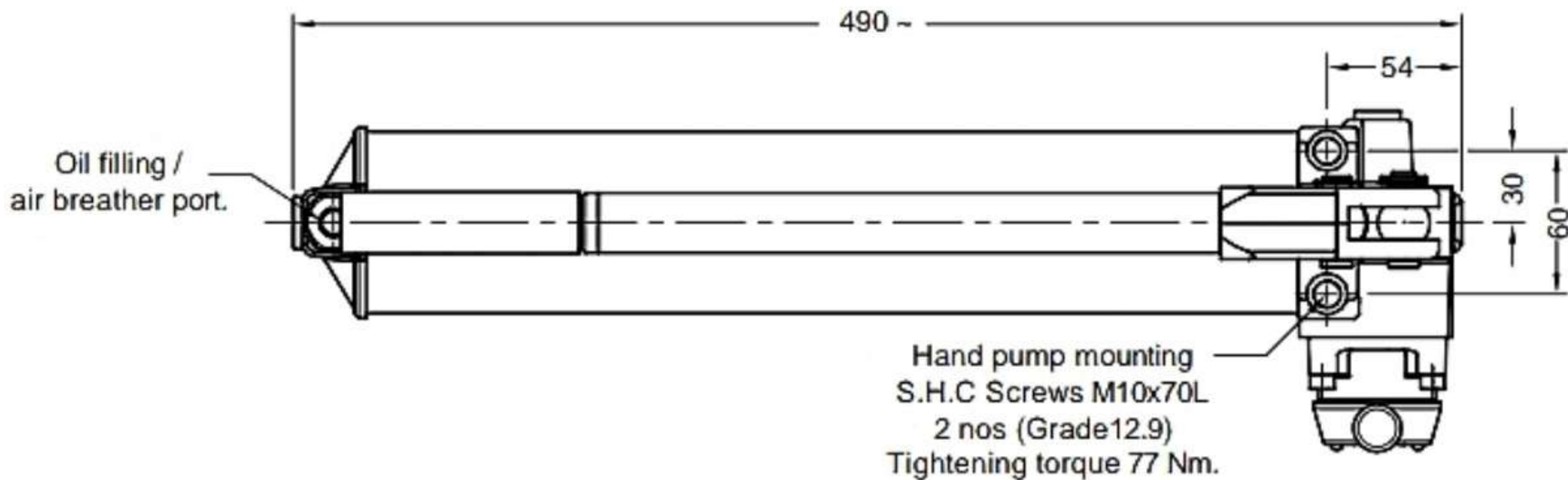
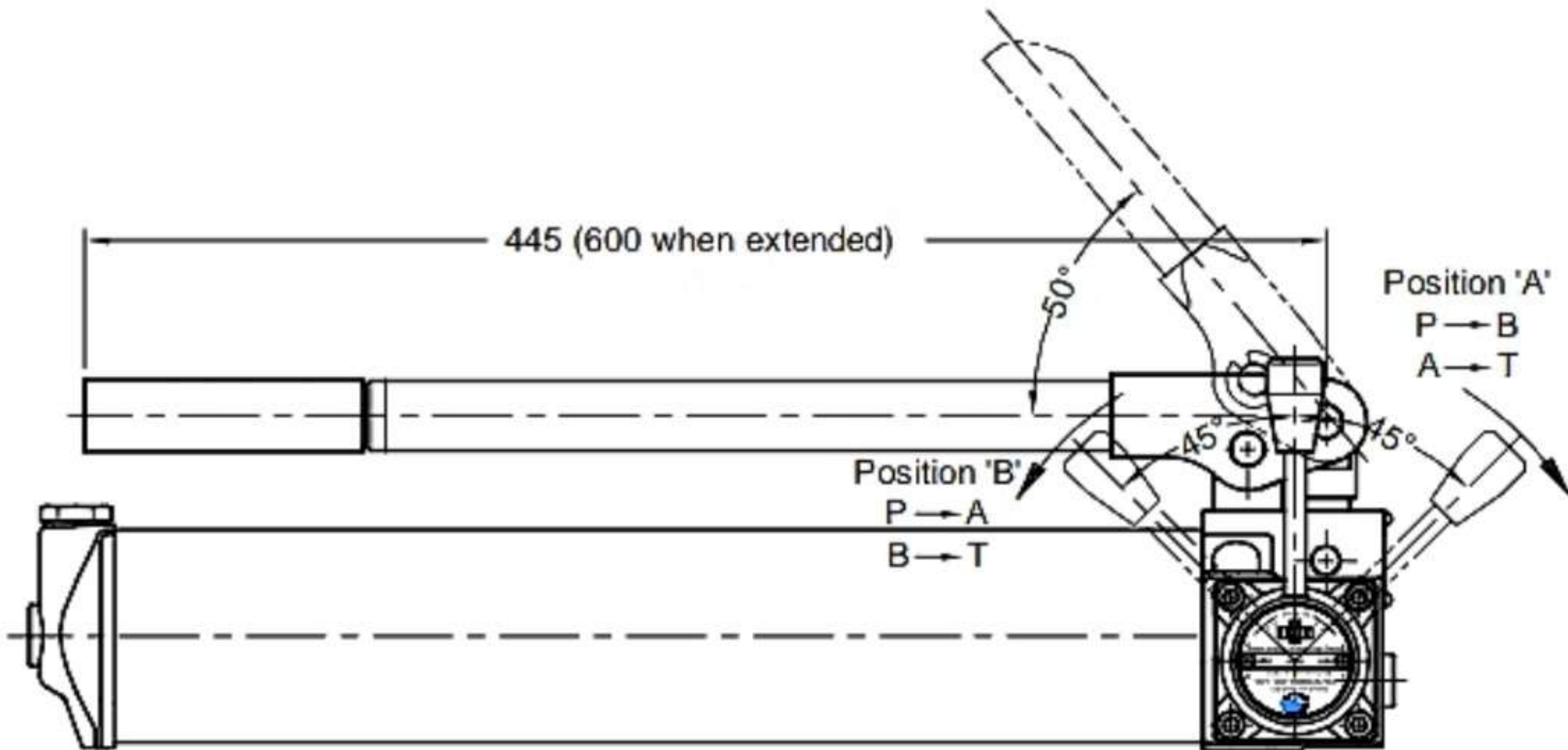
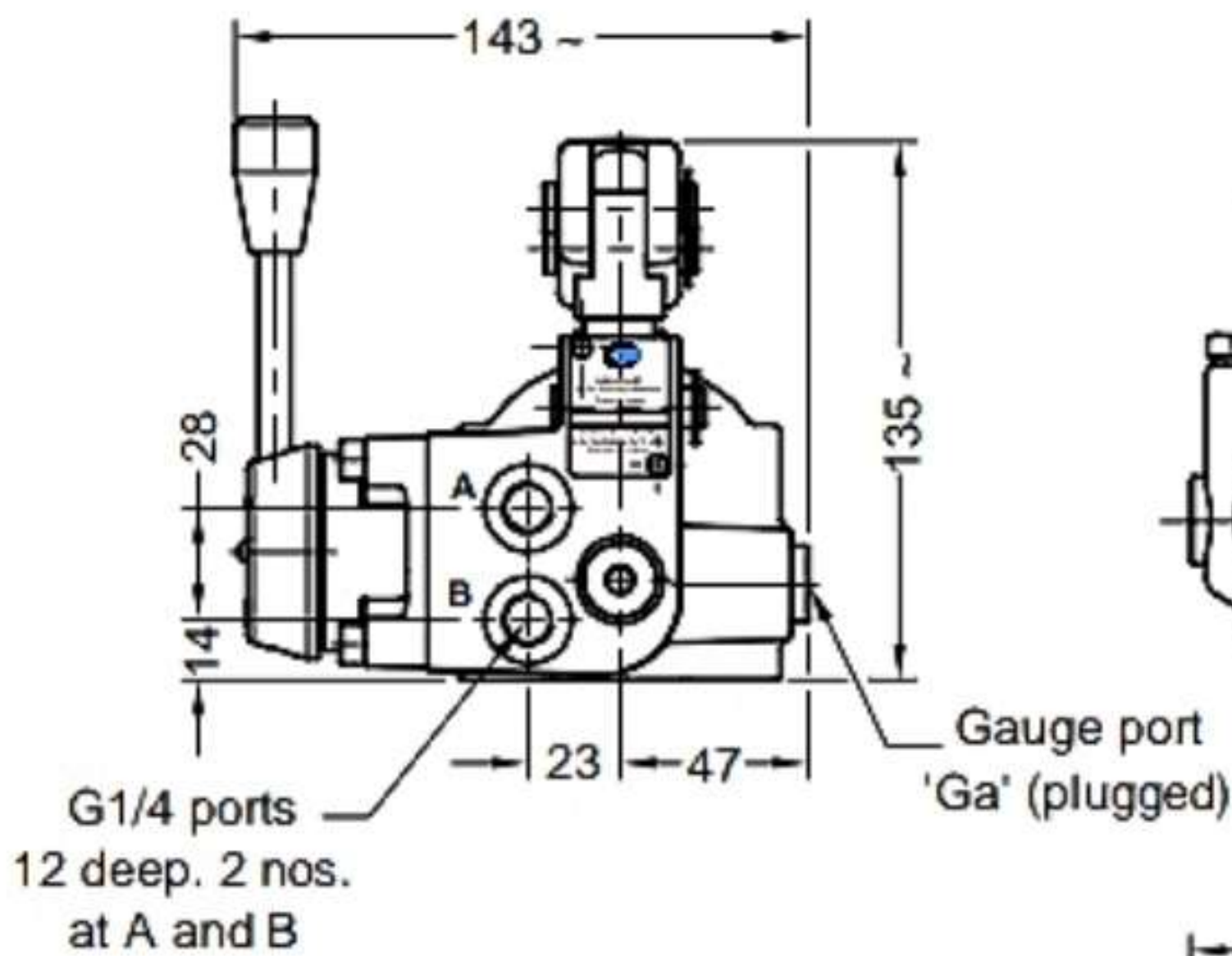
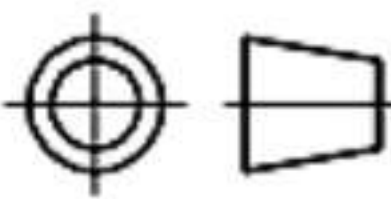
Single Plunger Hand Pump With Rotary Directional Control Valve

Hydraulic symbol



Unit dimensions

Dimensions in mm.



Single Plunger Hand Pump

With Rotary Directional Control Valve

Technical specifications

Construction	:	Sealed piston with ball type suction and delivery valve .
Hydraulic medium	:	Mineral oil.
Maximum working pressure	:	Refer table no.1
Displacement	:	Refer table no.1
Oil tank capacity	:	1.25 L
Oil tank displacement	:	0.8 L
Force required at the end of the pump hand lever at max. pressure (Approx)	:	Refer table no.1
Viscosity range	:	10 cSt to 380 cSt
Fluid temperature range	:	-20°C to +70°C
Fluid cleanliness requirement	:	ISO 4406 20/18/15 or better.
Mass (Approx)	:	Without Oil - 9 kg.

Specification	Unit	AHP-S * D1	AHP-S * D2	AHP-S * D3
Max. Working Pressure	Bar	700	350	500
Displacement Capacity	cm ³ / stroke	2.8	5	2.8
Force Required At The End Of Extended Hand Lever At Max. Pressure (Approx)	N	385	340	270

Note : Force required to operate the lever of Rotary DCV under pressure is approximately 150 N at 500 bar.

AHP - D Series, Double Plunger Hand Pumps

AHP - D Series

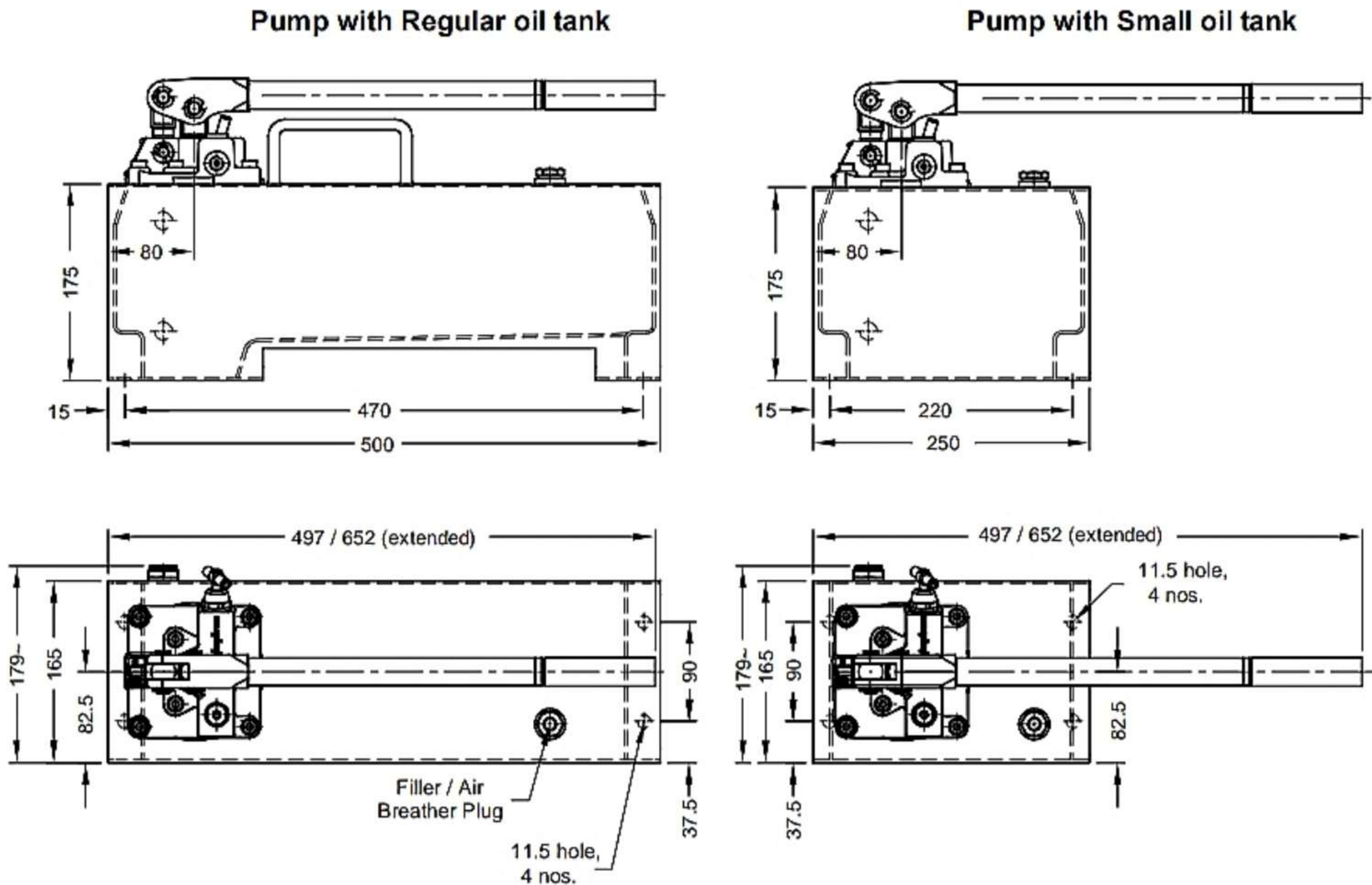
Heavy duty steel hand pumps hold upto the most demanding applications.

Heavy - Duty, formed metal handle provides rigidity and reduces operator fatigue with grip



- This hand pump is meant for applications where initial travel of the Cylinder/Jack, to which it is connected is under no load or very low load.
- The pump provides considerably high displacement under low pressure for rapid travel of the Cylinder / Jack and then automatically changes to low displacement when pressure starts rising (above 30 bar), thereby reducing the efforts required to operate the pump
- The pump also has a Release valve to retract the Cylinder / Jack under external force
- The telescopic collapsible handle of the pump is meant for shorter hand movement, when working at low pressure.
- The pump has built in Relief valve (factory set at maximum pressure) as a standard feature for safety of pump as well as the equipment connected to it
- It also makes the pump compact for transportation.
- To reduce the force applied by hand, the handle should be extended.
- The pump also has an additional port for connecting a pressure gauge, if required

Double Plunger Hand Pumps With Small Tank



Technical specifications

- Construction..... Differential Piston with Single hand lever
Hydraulic medium..... Mineral oil, (ISO VG 68 Grade recommended)
Max. working pressure..... Refer Table 1.
Displacement..... Refer Table 1.
Oil Tank Capacity and Displacement.....

Specification	Regular tank	Small tank
Oil tank Capacity	8.5 lts	5 lts
Oil tank Displacement	7.7 lts	3.7 lts

- Force required at the
end of hand lever at max. pressure..... Refer Table 1.
Viscosity range..... 10cst to 380 cst.
Fluid temperature range..... -20°C to +70°C.
Fluid Cleanliness requirement..... ISO 4406 20/18/15 or better.
Mass.....
Pump cartridge only..... 7.8 Kg
Pump with Regular oil tank (Without oil)..... 15.5 Kg
Pump with Small oil tank (without oil)..... 12.4 Kg

Double Plunger Hand Pump

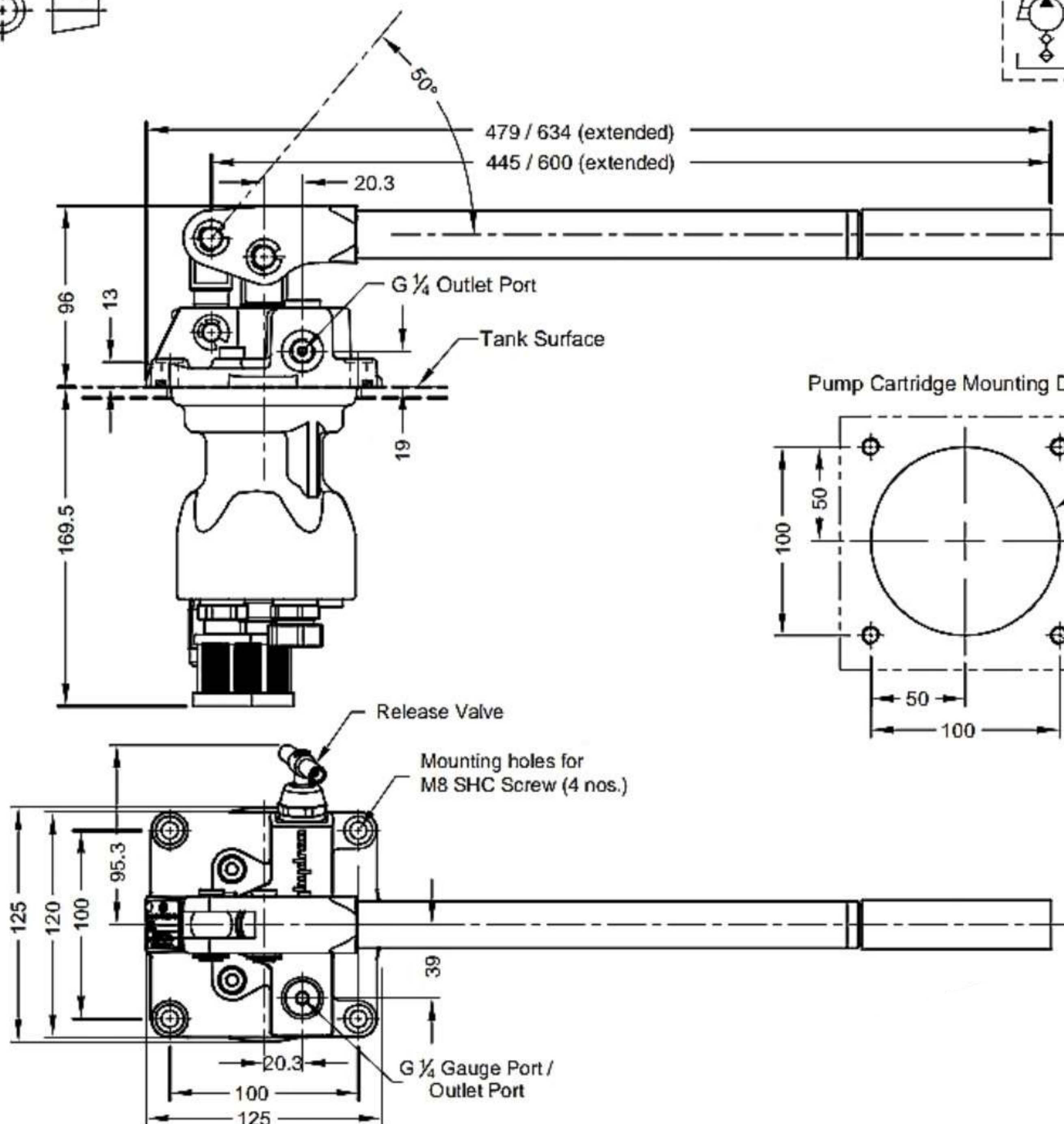
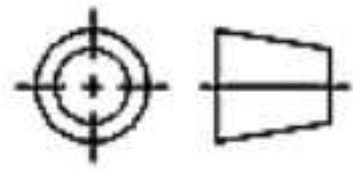


Table 1.

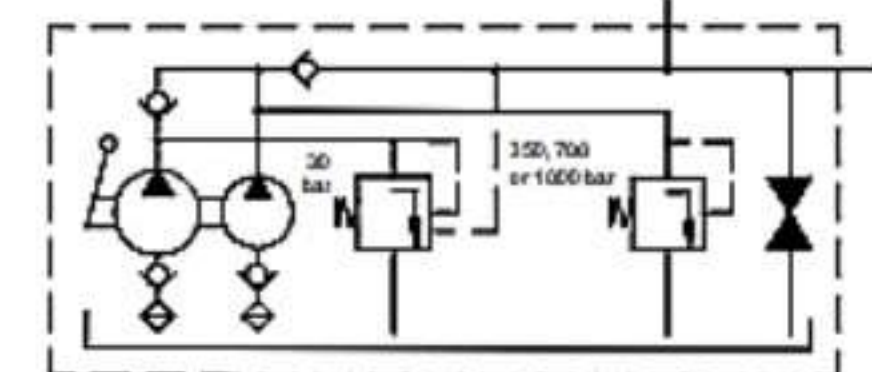
Specification	Unit	AHP-D1	AHP-D2
Max. Working Pressure	Bar	700	350
Displacement Capacity Upto 30 bar	cm ³ / stroke	49	49
Displacement Capacity Above 30 bar	cm ³ / stroke	2.8	5
Force Required At The End Of Extended Hand Lever	N	385	340

Unit dimensions

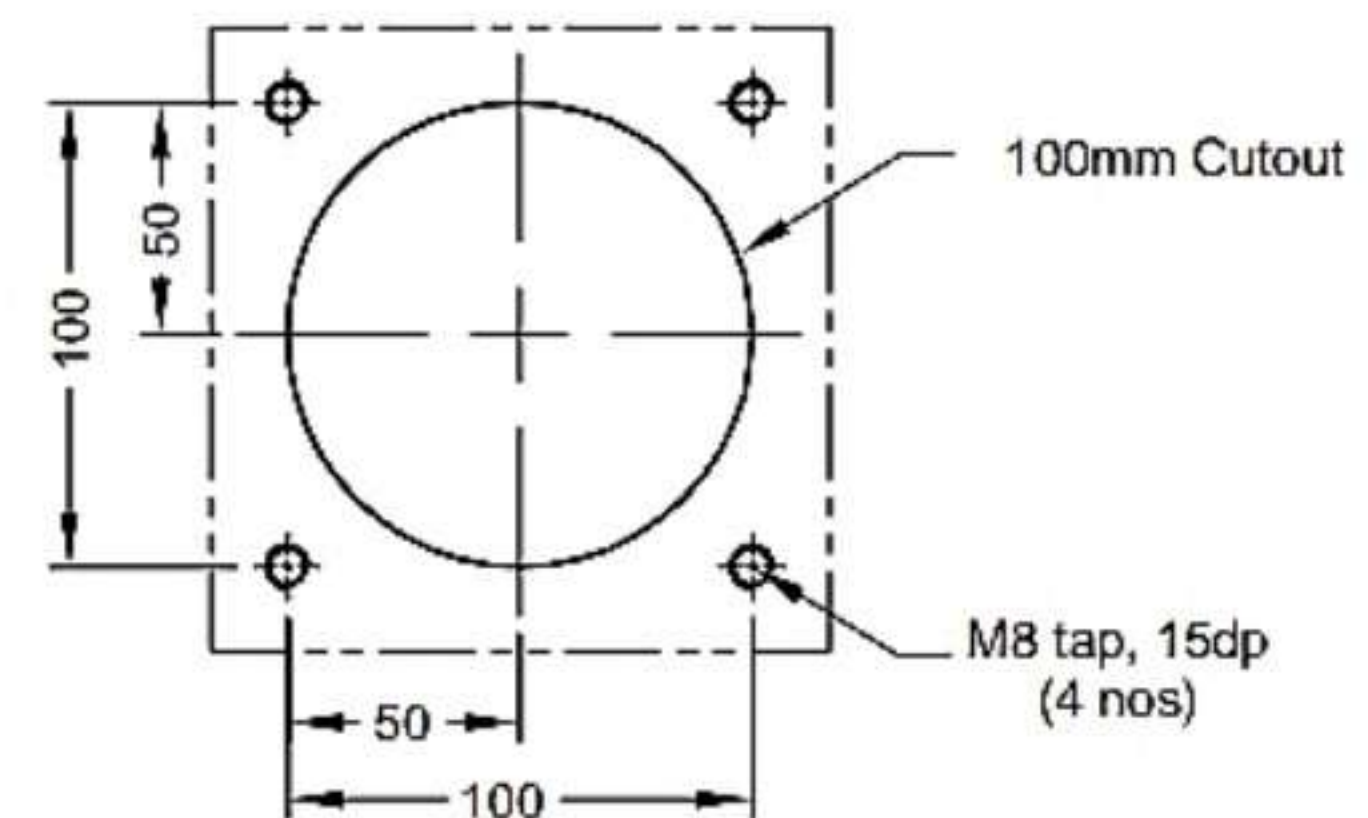
Dimensions in mm.



Hydraulic symbol



Pump Cartridge Mounting Details:



AHP - D * D Series, Double Plunger Hand Pumps

With Rotary Directional Control Valve

AHP - D * D Series



Heavy duty steel hand pumps hold upto the most demanding applications.

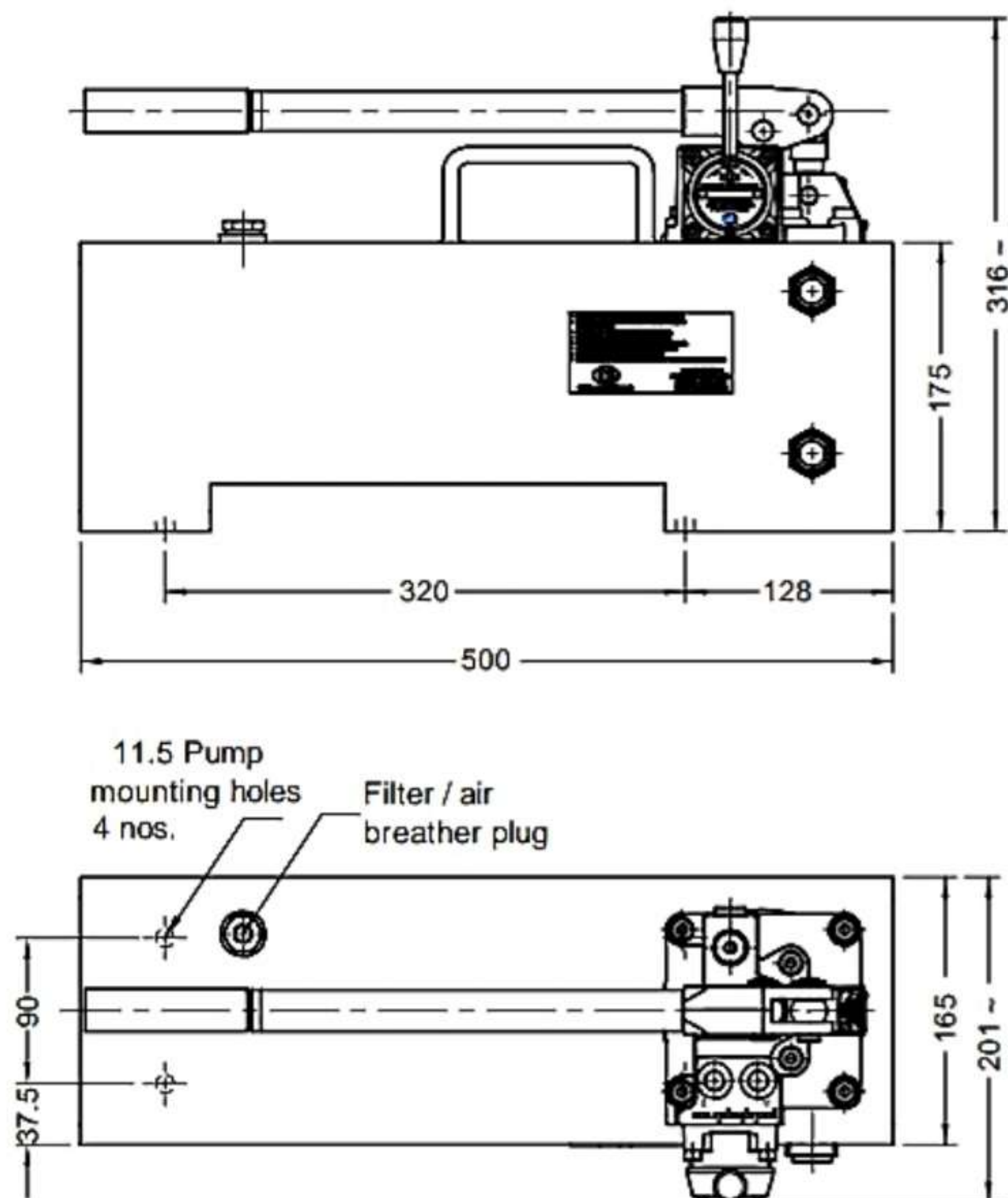
Heavy - Duty, formed metal handle provides rigidity and reduces operator fatigue with grip.

- **This hand pump is meant for applications where initial travel of the Cylinder/Jack, to which it is connected is under no load or very low load.**
- **The pump provides considerably high displacement under low pressure for rapid travel of the Cylinder / Jack and then automatically changes to low displacement when pressure starts rising (above 30 bar), thereby reducing the efforts required to operate the pump**
- **These hand pumps are equipped with integral Rotary Directional Control Valve with two outlet ports for switching of the flow between the two sides of a double acting cylinder.**

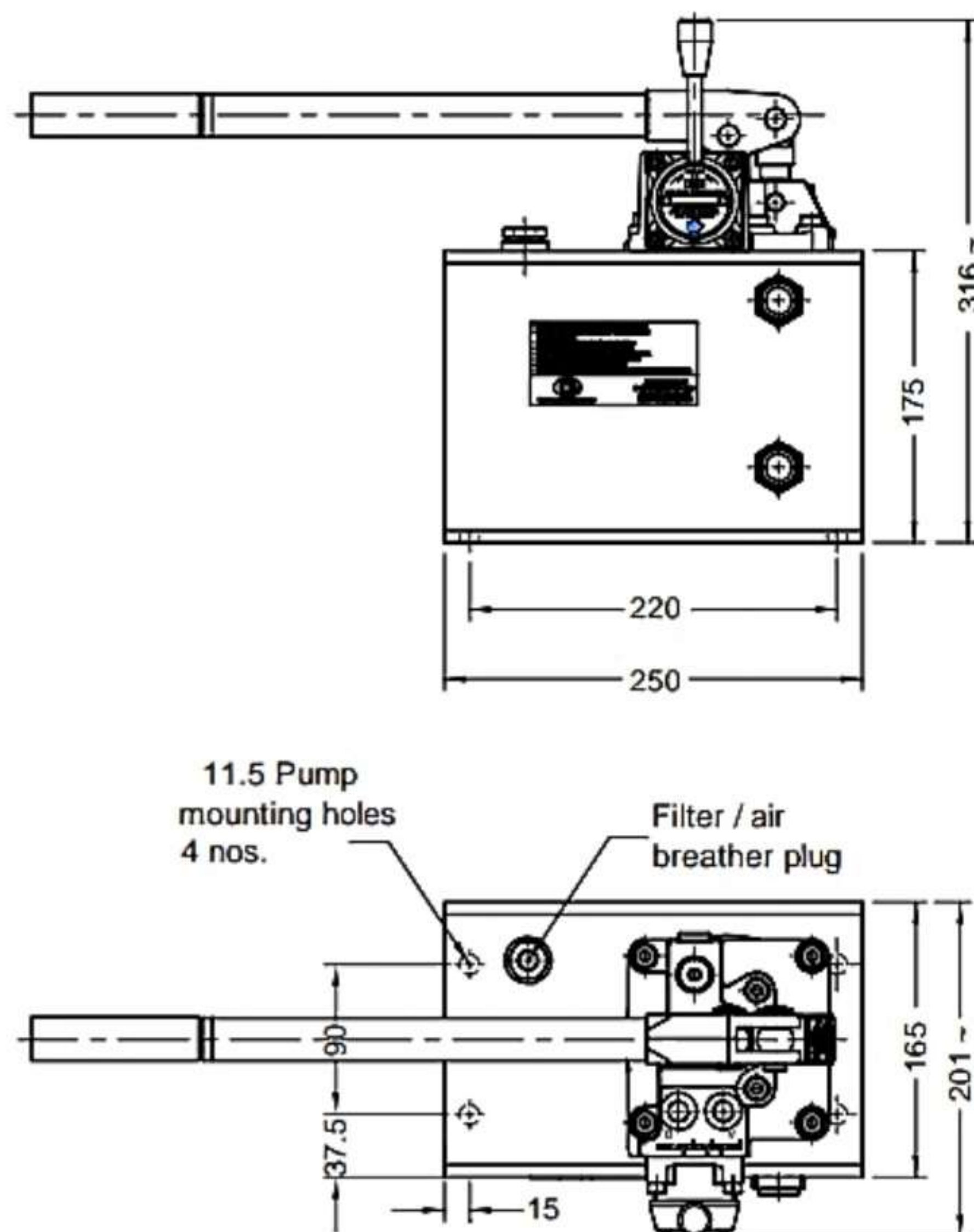
Double Plunger Hand Pump

With Rotary Directional Control Valve

Pump with regular oil tank



Pump with small oil tank



Technical specifications

Construction	:	Differential piston with single hand lever.	
Hydraulic medium	:	Mineral oil. (ISO VG68 grade recommended).	
Maximum working pressure	:	Refer table no.1	
Displacement	:	Refer table no.1	
Oil tank capacity and displacement	:	Specification	Regular tank Small tank
		Oil tank capacity	8.5 lts 5 lts
		Oil tank displacement	7.7 lts 3.7 lts
Force required at the end of the pump	:		
Hand lever at max. pressure (Approx)	:	Refer table no.1	
Viscosity range	:	10 cSt to 380 cSt	
Fluid temperature range	:	-20°C to +70°C	
Fluid cleanliness requirement	:	ISO 4406 20/18/15 or better.	
Mass (Approx)	:	Pump cartridge only	10 Kg.
		Pump with regular oil tank (without oil)	18 Kg.
		Pump with small oil tank (without oil)	16.5 Kg.

Double Plunger Hand Pump With Rotary Directional Control Valve

Table No. 1

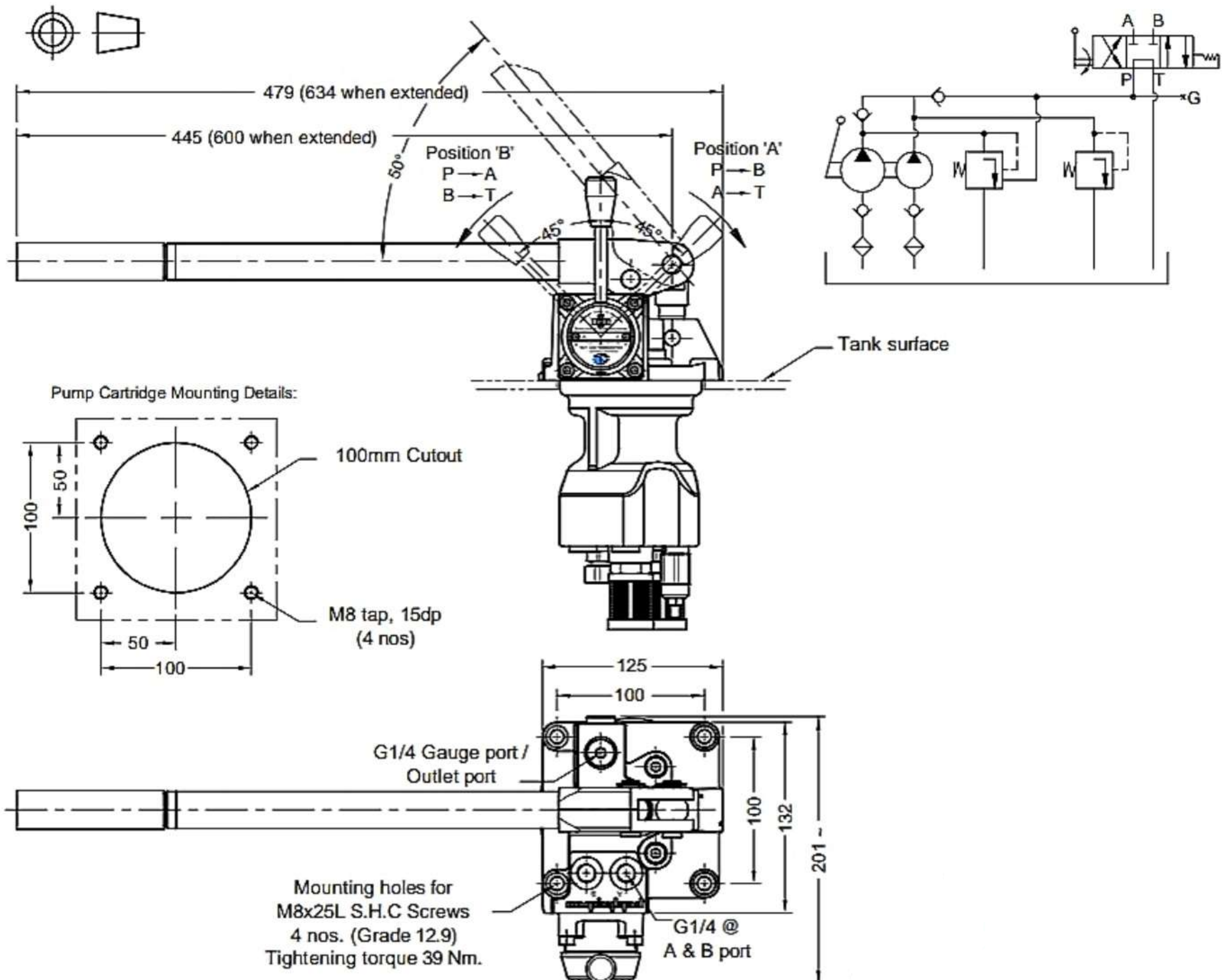
Specification	Unit	AHP-D * D1	AHP-D * D2	AHP-D * D3
Max. Working Pressure	Bar	700	350	500
Pump Discharge Upto 30 Bar	cm ³ / stroke	49	49	49
Pump Discharge Above 30 Bar	cm ³ / stroke	2.8	5.0	2.8
Force Required At The End Of Extended Hand Lever At Max. Pressure (Approx)	N	385	340	270

Note : Torque required to operate the lever of Rotary DCV under pressure is approximately 14 Nm at 500 bar.

Unit dimensions

Dimensions in mm.

Hydraulic symbol



AHP - D * ST Series, Double Plunger Hand Pumps

With Small Tanks

AHP - D * ST Series



Heavy duty steel hand pumps hold upto the most demanding applications.

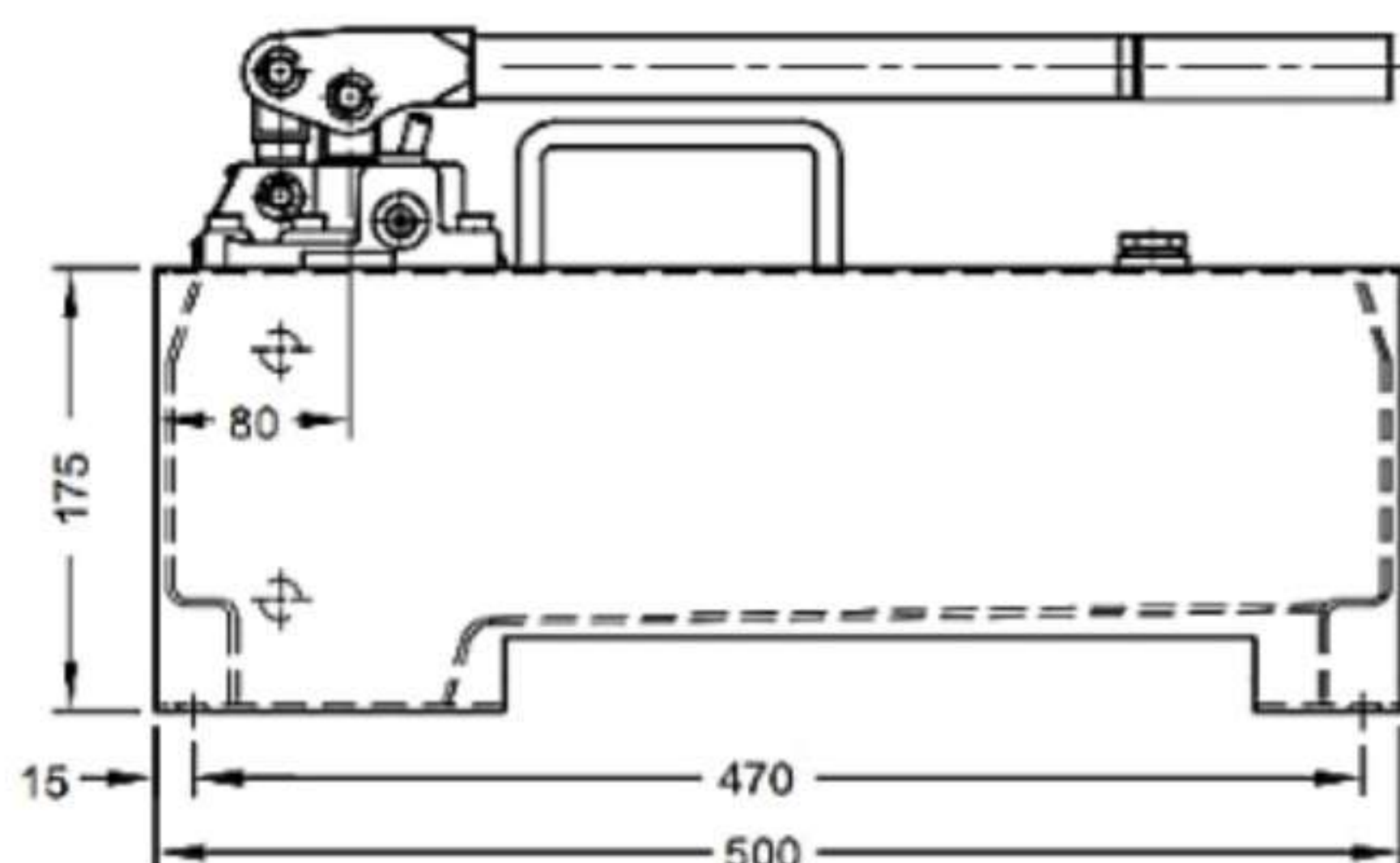
Heavy - Duty, formed metal handle provides rigidity and reduces operator fatigue with grip

- This hand pump is meant for applications where initial travel of the Cylinder/Jack, to which it is connected is under no load or very low load.**
- The pump provides considerably high displacement under low pressure for rapid travel of the Cylinder / Jack and then automatically changes to low displacement when pressure starts rising (above 30 bar), thereby reducing the efforts required to operate the pump**
- The pump also has a Release valve to retract the Cylinder / Jack under external force**
- The telescopic collapsible handle of the pump is meant for shorter hand movement, when working at low pressure.**
- The pump has built in Relief valve (factory set at maximum pressure) as a standard feature for safety of pump as well as the equipment connected to it**
- It also makes the pump compact for transportation.**
- To reduce the force applied by hand, the handle should be extended.**
- The pump also has an additional port for connecting a pressure gauge, if required**

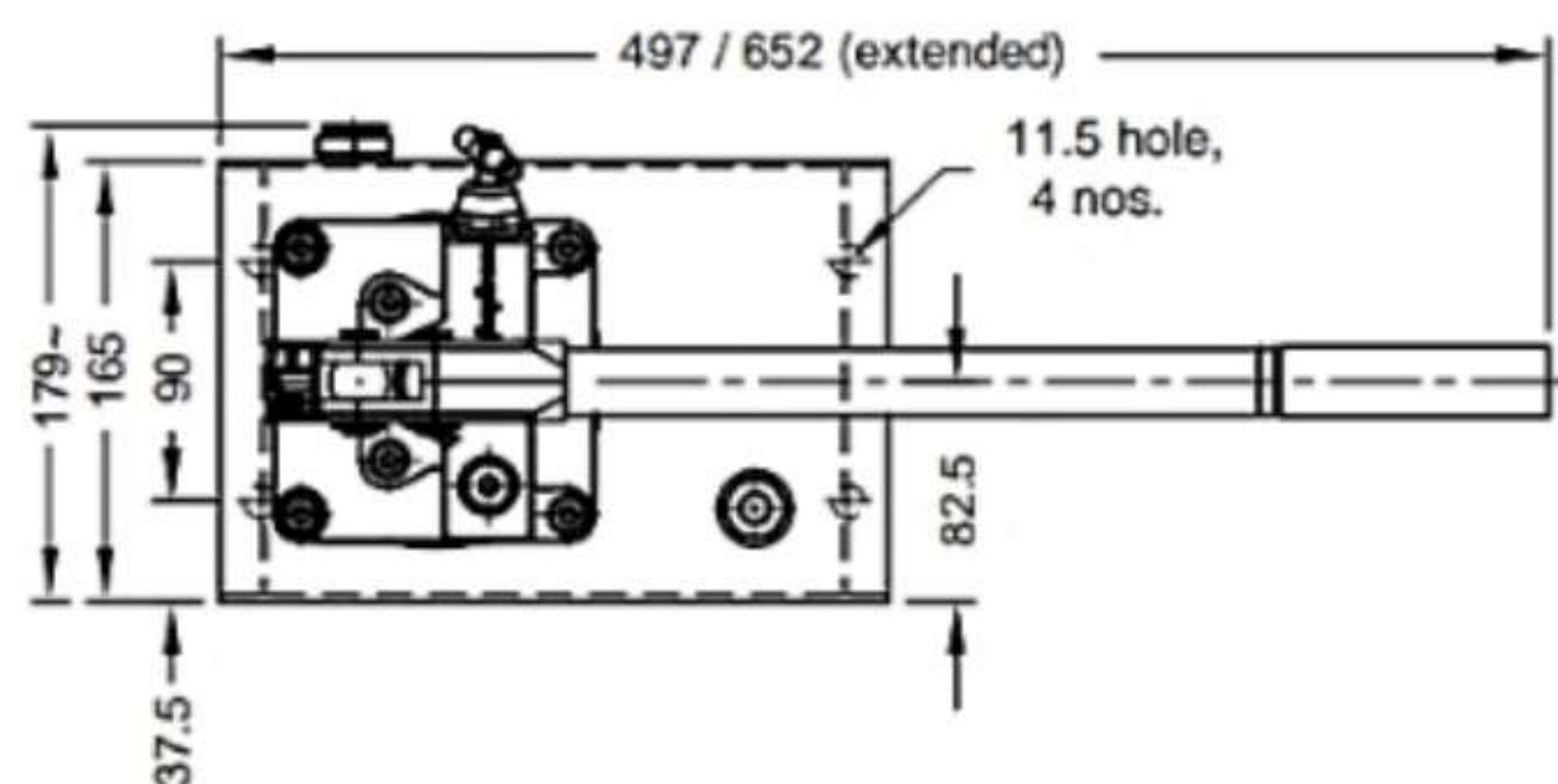
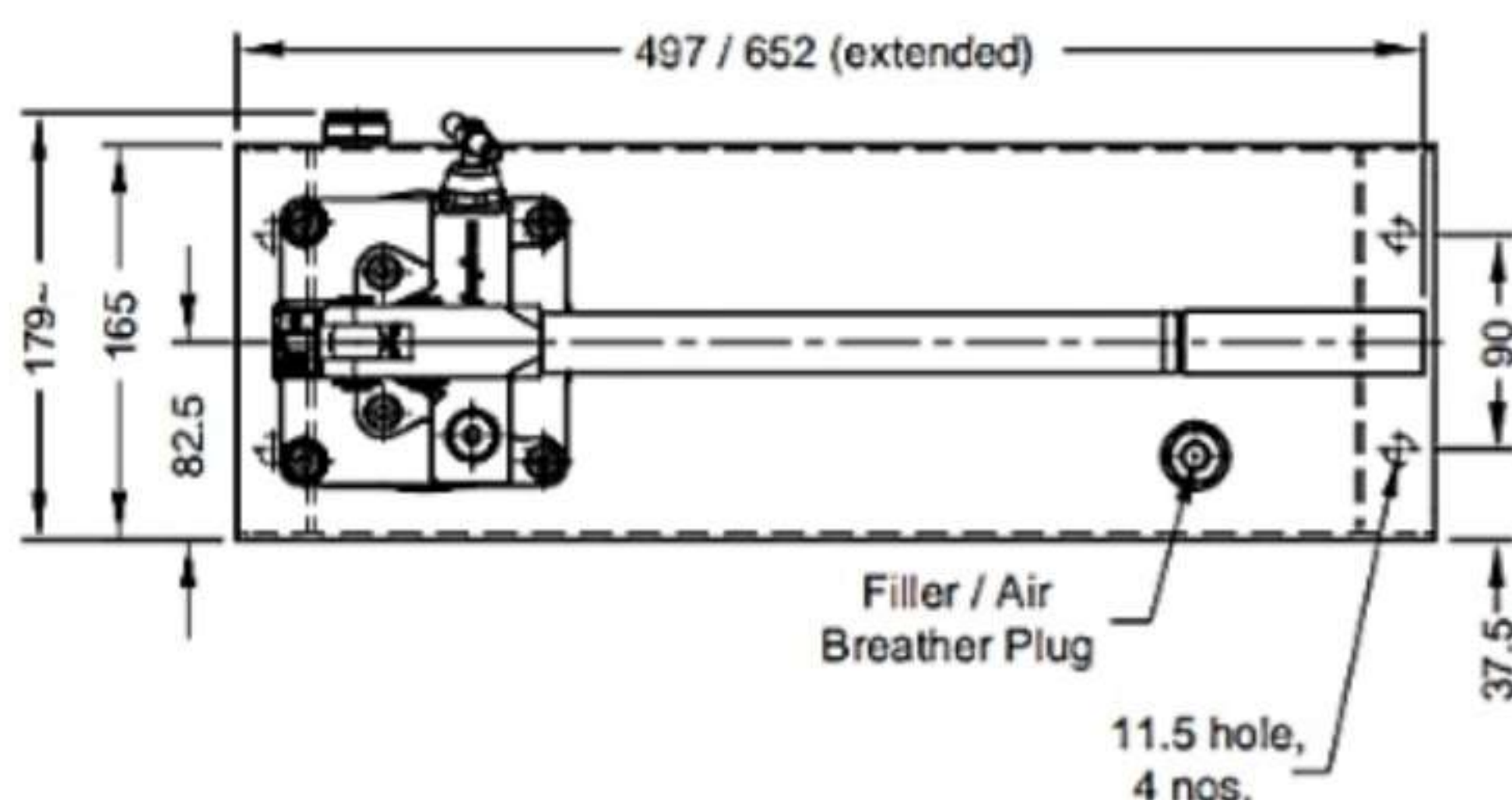
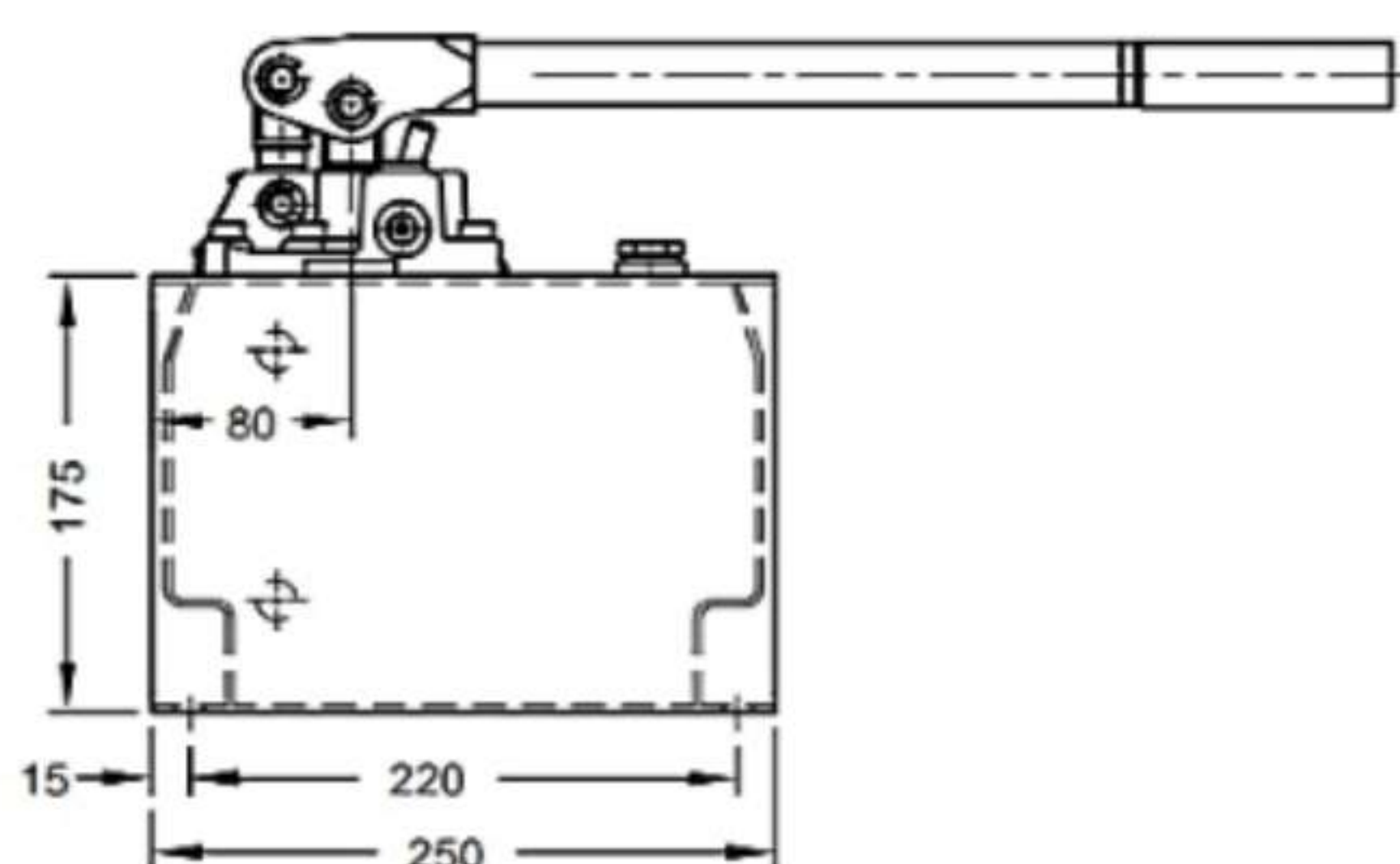
Double Plunger Hand Pump



Pump with Regular oil tank



Pump with Small oil tank



Technical specifications

Construction.....	Differential Piston with Single hand lever
Hydraulic medium.....	Mineral oil, (ISO VG 68 Grade recommended)
Max. working pressure.....	Refer Table 1.
Displacement.....	Refer Table 1.
Oil Tank Capacity and Displacement.....	

Specification	Regular tank	Small tank
Oil tank Capacity	8.5 lts	5 lts
Oil tank Displacement	7.7 lts	3.7 lts

Force required at the end of hand lever at max. pressure.....	Refer Table 1.
Viscosity range.....	10cst to 380 cst.
Fluid temperature range.....	-20°C to +70°C.
Fluid Cleanliness requirement.....	ISO 4406 20/18/15 or better.
Mass.....	Pump cartridge only..... 7.8 Kg
	Pump with Regular oil tank (Without oil)..... 15.5 Kg
	Pump with Small oil tank (without oil)..... 12.4 Kg

Double Plunger Hand Pumps With Small Tank

Table 1.

Specification	Unit	AHP-D * ST1	AHP-D * ST2
Max. Working Pressure	Bar	700	350
Displacement Capacity Upto 30 bar	cm ³ / stroke	49	49
Displacement Capacity Above 30 bar	cm ³ / stroke	2.8	5
Force Required At The End Of Extended Hand Lever	N	385	340

Unit dimensions

Dimensions in mm.



Hydraulic symbol

