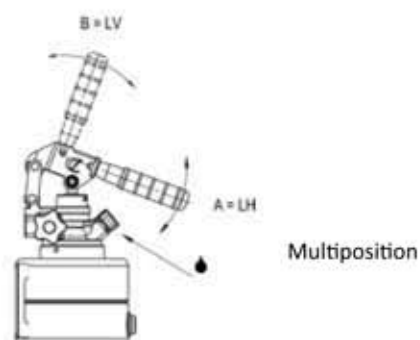
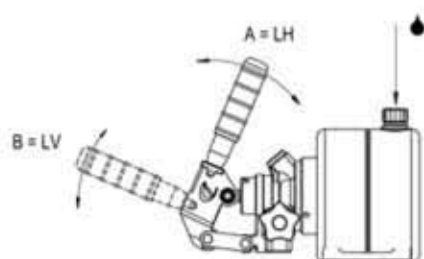
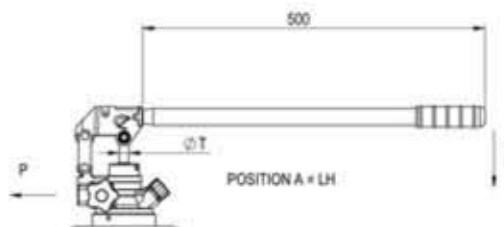


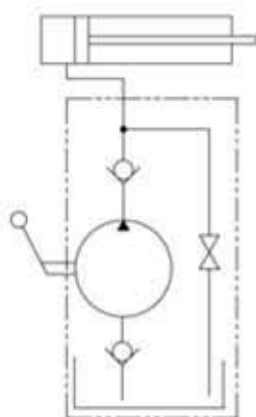
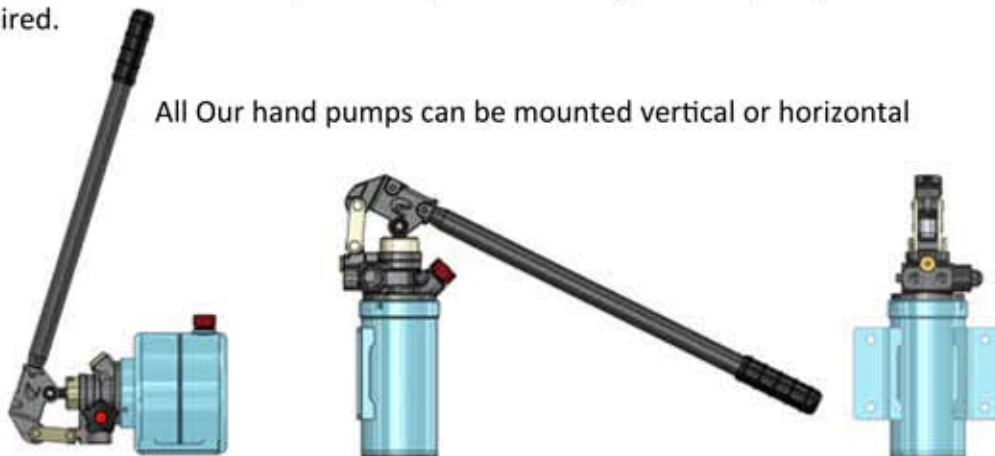
HAND PUMPS

Effort F (N)	Rod Ø T					
	Ø12	Ø14	Ø16	Ø20	Ø25	Ø30
100	70 b	50 b	40 b	25 b	17 b	12 b
200	140 b	100 b	80 b	50 b	35 b	25 b
300	210 b	155 b	120 b	75 b	50 b	35 b
400	280 b	205 b	160 b	100 b	70 b	45 b
500	350 b	260 b	200 b	125 b	85 b	60 b
600		310 b	240 b	150 b	100 b	70 b
700			280 b	175 b	120 b	85 b
800			320 b	200 b	135 b	100 b

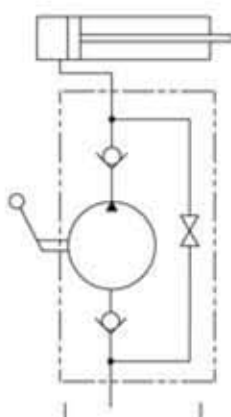


The above chart shows the effort required to operate the range of hand pumps we offer based upon the pressure required.

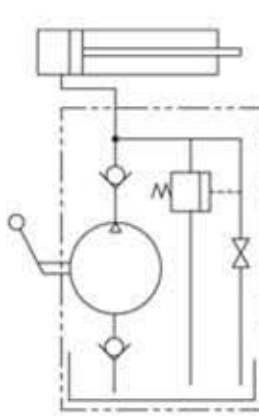
All Our hand pumps can be mounted vertical or horizontal



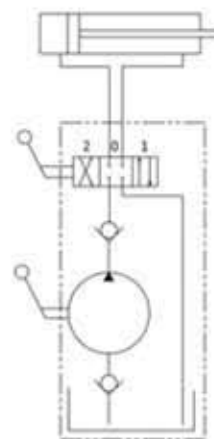
S/A schematic



Inline schematic



S/A with relief schematic



D/A schematic