

WATERJETTING UNIT

TF-450SB HORIZONTAL DIRECTIONAL DRILLING PUMP

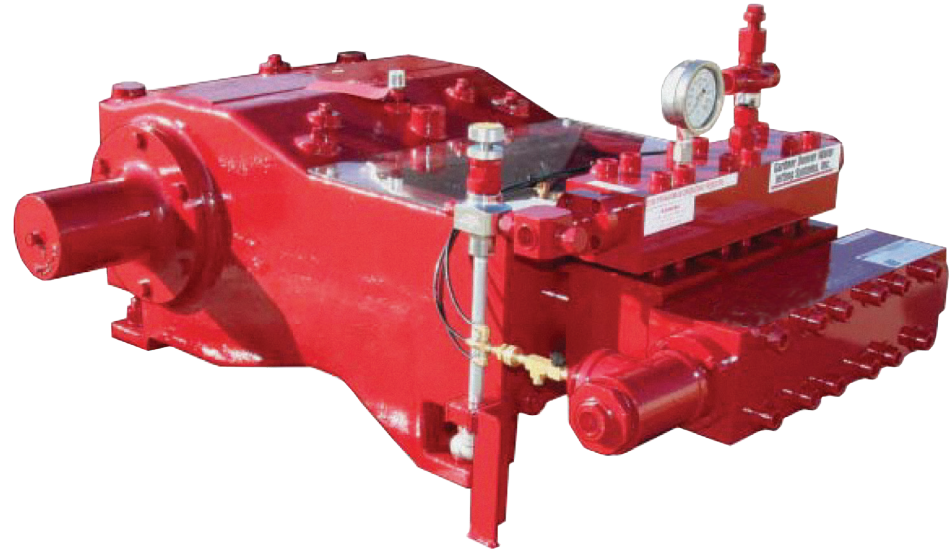


STANDARD FEATURES

- Pressure/flow convertibility from well of pump. Does not require unbolting and retorquing.
- No valve change required
- Sectionalized "L" fluid end design
- Maximum pressure of 10,000 PSI.
- Flow rates from 10 GPM to 119 GPM.
- Maximum frame load of 20,750 Lbs. / 9,420 Kg. for multi-speed, and 18,000 Lbs. / 8,165 Kg for single speed.
- Field proven design.
- Power to 330 HP
- Easy field maintenance.
- Stainless steel fluid end construction
- High volumetric efficiency for maximum horsepower utilization.
- Rigorously subjected to full load testing
- Manufactured on state-of-the-art machinery

SPECIFICATIONS

Weight	2,600 lbs / 1,179 Kg
Maximum RPM	515 RPM
Stroke Length	4.5 in / 114 mm



APPLICATIONS

- Water Blasting
- Concrete Demolition
- Hydrostatic Testing
- Water Disposal
- Industrial Process

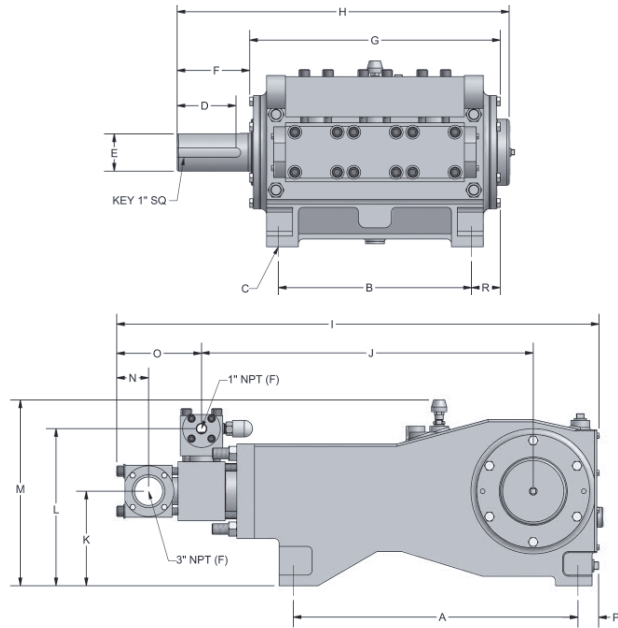
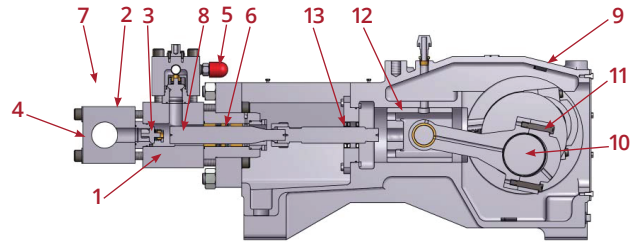
	PLUNGER DIAMETER		MAX PRESSURE		FLOW					
					200 RPM		400 RPM		500 RPM	
	in.	mm.	PSI	bar	GPM	LPM	GPM	LPM	GPM	LPM
TF-450SB Note: All flows are based on 100% volumetric efficiency.	1.4375"	33	10,000	690	19.0	19.0	38.0	143.8	47.4	177.9
	1.5"	38	10,000	690	20.6	20.6	41.2	155.9	51.6	195.3
	1.625"	41	8,500	586	24.2	24.2	48.4	183.2	60.6	229.4
	1.75"	44	7,500	517	28.1	28.1	56.2	212.7	70.3	266.1
	1.875"	48	6,500	448	32.3	32.3	64.6	244.5	80.7	305.4
	2"	51	5,700	393	36.7	36.7	73.4	277.8	91.8	347.5
	2.125"	54	5,000	350	41.6	41.6	83.2	314.9	104.0	393.6
	2.25"	57	4,500	310	46.4	46.4	92.8	351.2	116.0	439.0

Note: Optional pump attached reduction gear. Plunger selection and performance will vary with transmission applications.

TF-450SB

HORIZONTAL DIRECTIONAL DRILLING PUMP

SPECIFICATIONS



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
in.	36 $\frac{1}{4}$	24	1 $\frac{5}{16}$	1	4 $\frac{1}{4}$	7 $\frac{3}{4}$	40 $\frac{1}{8}$	47 $\frac{13}{16}$	59 $\frac{11}{16}$	40 $\frac{1}{16}$	1" NPT	3" NPT	12	19 $\frac{1}{2}$	23 $\frac{7}{16}$	11 $\frac{11}{16}$	3 $\frac{1}{2}$	2 $\frac{1}{4}$	3 $\frac{13}{16}$
mm.	921	610	33	25	108	197	197	1019	1516	1018	1" NPT	3" NPT	305	495	596	297	89	57	97

FLUID END

- 1. Stuffing Boxes:** Three boxes machined from hardened stainless steel for extended life.
- 2. Suction Manifold:** Hard, anodized aluminum. Also available in stainless for salt water applications.
- 3. Valve Assembly:** Hardened stainless steel, autofrettaged for extended life. Valves are spring-loaded for positive closing with a common seat used for both suction and discharge valves.
- 4. Discharge Manifold:** Manufactured from precipitation hardened stainless steel.
- 5. Plungers:** Made of stainless steel with colmony coating.
- 6. Plunger Packing:** Carbon filled Teflon™ and polyethylene base, spring-loaded, self-adjusting and easily replaceable from the rear of the stuffing box. Force-fed water provides lubrication and cooling.
- 7. Fluid Cylinder Body:** Three cylinders machined from hardened stainless steel for extended life.
- 8. Pressure Relief:** Pressure safety head assembly (two rupture discs), mounted to the discharge manifold.

POWER END

- 9. Power Frame:** Manufactured from a single piece casting of high strength gray cast iron.
- 10. Crankshaft:** Single extended steel with tapered roller bearings to minimize side thrust load.
- 11. Connecting Rods:** Ductile iron with automotive type split insert bearings.
- 12. Crossheads:** Large, piston type constructed of gray iron.
- 13. Diaphragm Seals:** Installed with o-rings or gaskets and neoprene oil seals.