

ROTATING RIGHT

MODEL 133T-4 SINGLE ACTING TRIPLEX PUMP



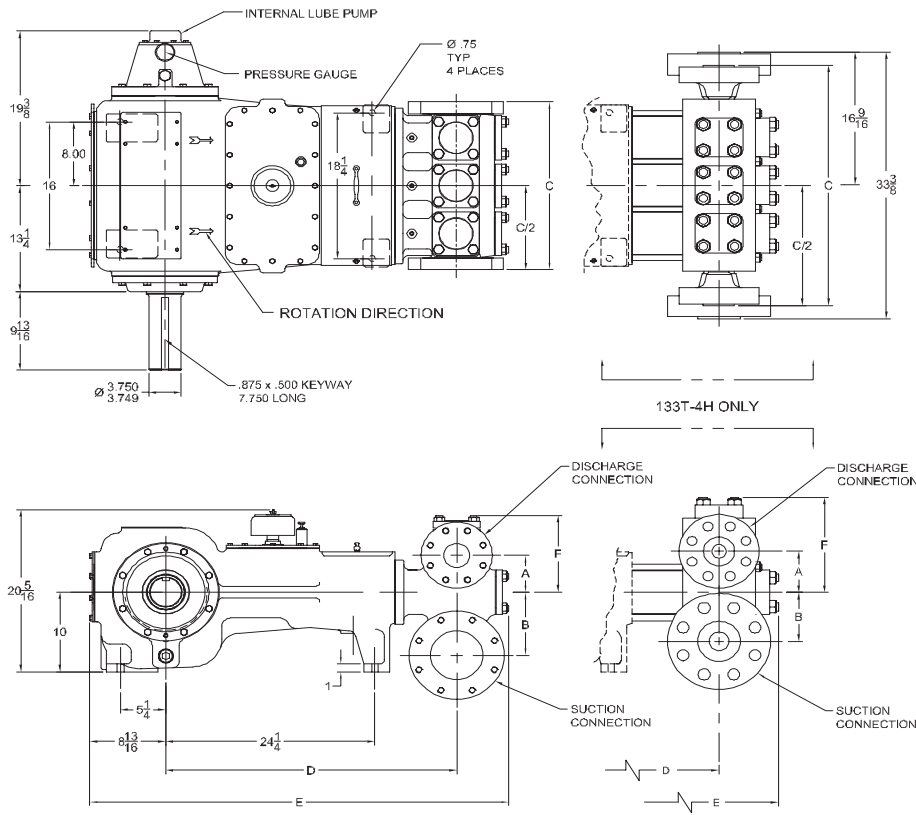
133T-4

A 133 horsepower 4 1/2" stroke horizontal triplex single acting plunger pump. Available in three fluid end materials at pump speeds up to 400 RPM and multiple gear reduction unit ratios.

Features:

- Cast iron power frame
- Forged Steel Crankshaft
- Heavy-duty, tapered roller crankshaft bearings
- Precision type, aluminum alloy crankpin bearings
- Ductile iron connecting rods
- Minimum pump speed is 150 with standard power end construction
- Bronze bearing crosshead pin bushings
- Cast iron crossheads with upper/lower oil grooves
- Stainless steel extension rods
- Internal pressure lubrication
- Alloy steel crosshead pins
- Rated rod load is 8800 lbs.
- Plungers - Solid Ceramic, or Tungsten coated
- Spherical suction and discharge valves
- Valve Seat & Valve Body: Nitronic 50
- Spring: Inconel
- Cage: 316L Stainless Steel
- Severe duty valves with inserts available

133T-4 Triplex Plunger Pump



Specifications

Pump Size:

maximum plunger size x stroke length, in.(mm):
3.375 x 4.500 (85.7 x 114.3)

Rated BHP (kW) at 400 RPM: 133 (99)

Rated plunger load, pounds (kg): 8800 (3992)

Maximum discharge pressure: psi (kPa)

"L" model: 1440 (9929)

"M" model: 3600 (24821)

"H" model: 6000 (41369)

Crankshaft extension:

Diameter, in.(mm): 3.750 (95.25)

Length, in.(mm): 9.84 (249.9)

Keyway width x depth, in.(mm):

7/8 x 1/2 (22.225 x 12.7)

Maximum recommended sheave diameter,
in. (mm): 53 (1346.2)

For larger sizes: **Contact Factory**

Pinion shaft extension,

if gear reducer is supplied, in. (mm)

For belt or chain drive: **Contact Factory**

For direct drive: Diameter: 2.000 (50.8)

Length: 4.25 (108.0)

Keyway width x depth:

1/2 x 1/4 (12.70 x 6.35)

Accessory gear reduction unit:

3.00:1, 3.12:1, 3.23:1, 3.36:1, 3.49:1,

3.62:1, 3.78:1, 3.94:1, 4.11:1, 4.29:1,

4.48:1, 4.69:1, 4.93:1, 5.17:1

Oil Capacity, gallons (L)

Crankcase: 6 (22.71)

Gear Reducer - varies with ratio:

1.25 to 1.50 (4.73 to 5.68)

Weight, pump only on

wood shipping skids, pounds (kg)

"L" model: 1650 (748)

"M" model: 1650 (748)

"H" model: 1650 (748)

Standard Materials For Fluid End Bodies

"L" model

Cast Nickel-Aluminum-Bronze

Cast Duplex Stainless Steel

Forged/Plate Carbon Steel

"M" model

Cast Nickel-Aluminum-Bronze

Cast Duplex Stainless Steel

Forged/Plate Carbon Steel

"H" model

Forged Carbon Steel

Duplex Stainless Steel

Pump Model	Flange Connections		Dimensions (Inches)					
	Discharge Connection Sizes	Suction Connection Sizes	A	B	C	D	E	F
133T-4L	3 (76.2)-ANSI 600 FF	6 (152.4)-ANSI 150 FF	4 5/8	7 7/8	21	33 3/4	48 5/8	9 5/8
133T-4M	2 (50.8)-ANSI 1500 FF	4 (101.6)-ANSI 300 FF	5 1/16	6 3/16	21	33 3/8	47 3/4	9
133T-4H	2 (50.8)-ANSI 2500 RJ	3 (76.2)-ANSI 2500 RJ	5 1/8	6 1/8	30 1/8	36 3/4	52 1/2	12 1/8

133T-4 Triplex Plunger Pump

Performance Data

PUMP	English Units					100 RPM		150 RPM		250 RPM		300 RPM		350 RPM		400 RPM	
	Plunger Dia. In.	Plunger Area Sq. In.	BPD per RPM	GPM per RPM	Max. Press. PSI	BPD	GPM	BPD	GPM	BPD	GPM	BPD	GPM	BPD	GPM	BPD	GPM
133T-4L (T140-4)	3.375	8.9462	17.9255	0.5228	984	1793	52.3	2689	78.4	4482	130.7	5378	156.8	6274	183.0	7171	209.1
	3.250	8.2958	16.6223	0.4848	1061	1663	48.5	2494	72.7	4156	121.2	4987	145.4	5818	169.7	6649	193.9
	3.125	7.6699	15.3682	0.4482	1147	1537	44.8	2306	67.2	3843	112.1	4611	134.5	5379	156.9	6148	179.3
	3.000	7.0686	14.1634	0.4131	1245	1417	41.3	2125	62.0	3541	103.3	4250	123.9	4958	144.6	5666	165.2
	2.875	6.4918	13.0077	0.3794	1356	1301	37.9	1952	56.9	3252	94.8	3903	113.8	4553	132.8	5204	151.8
	2.750	5.9396	11.9012	0.3471	1440	1191	34.7	1786	52.1	2976	86.8	3571	104.1	4166	121.5	4761	138.8
	2.625	5.4119	10.8438	0.3163	1440	1085	31.6	1627	47.4	2711	79.1	3254	94.9	3796	110.7	4338	126.5
133T-4M (T140-3)	2.500	4.9087	9.8357	0.2869	1793	984	28.7	1476	43.0	2459	71.7	2951	86.1	3443	100.4	3935	114.7
	2.375	4.4301	8.8767	0.2589	1986	888	25.9	1332	38.8	2220	64.7	2664	77.7	3107	90.6	3551	103.6
	2.250	3.9761	7.9669	0.2324	2213	797	23.2	1196	34.9	1992	58.1	2391	69.7	2789	81.3	3187	92.9
	2.125	3.5466	7.1063	0.2073	2481	711	20.7	1066	31.1	1777	51.8	2132	62.2	2488	72.5	2843	82.9
	2.000	3.1416	6.2948	0.1836	2801	630	18.4	945	27.5	1574	45.9	1889	55.1	2204	64.3	2518	73.4
	1.875	2.7612	5.5326	0.1614	3187	554	16.1	830	24.2	1384	40.3	1660	48.4	1937	56.5	2214	64.5
	1.750	2.4053	4.8195	0.1406	3600	482	14.1	723	21.1	1205	35.1	1446	42.2	1687	49.2	1928	56.2
133T-4H (T140-2)	1.625	2.0739	4.1556	0.1212	4243	416	12.1	624	18.2	1039	30.3	1247	36.4	1455	42.4	1663	48.5
	1.500	1.7671	3.5408	0.1033	4980	355	10.3	532	15.5	886	25.8	1063	31.0	1240	36.1	1417	41.3
	1.375	1.4849	2.9753	0.0868	5926	298	8.7	447	13.0	744	21.7	893	26.0	1042	30.4	1191	34.7
	1.250	1.2272	2.4589	0.0717	6000	246	7.2	369	10.8	615	17.9	738	21.5	861	25.1	984	28.7
	Brake Horsepower Required						34	51	84	100	117	133					

PUMP	Metric Units					100 RPM		150 RPM		250 RPM		300 RPM		350 RPM		400 RPM	
	Plunger Dia. mm	Plunger Area cm ²	M ³ /Hr per RPM	L/Sec. per RPM	Max. Press. kPa	M ³ /Hr	L/Sec.	M ³ /Hr	L/Sec.	M ³ /Hr	L/Sec.	M ³ /Hr	L/Sec.	M ³ /Hr	L/Sec.	M ³ /Hr	L/Sec.
133T-4L (T140-4)	86	57.717	0.1187	0.0330	6782	11.9	3.3	17.8	4.9	29.7	8.2	35.6	9.9	41.6	11.5	47.5	13.2
	83	53.521	0.1101	0.0306	7314	11.0	3.1	16.5	4.6	27.5	7.6	33.0	9.2	38.5	10.7	44.0	12.2
	79	49.483	0.1018	0.0283	7911	10.2	2.8	15.3	4.2	25.4	7.1	30.5	8.5	35.6	9.9	40.7	11.3
	76	45.604	0.0938	0.0261	8584	9.4	2.6	14.1	3.9	23.5	6.5	28.1	7.8	32.8	9.1	37.5	10.4
	73	41.883	0.0862	0.0239	9346	8.6	2.4	12.9	3.6	21.5	6.0	25.8	7.2	30.2	8.4	34.5	9.6
	70	38.320	0.0788	0.0219	9929	7.9	2.2	11.8	3.3	19.7	5.5	23.6	6.6	27.6	7.7	31.5	8.8
	67	34.915	0.0718	0.0200	9929	7.2	2.0	10.8	3.0	18.0	5.0	21.5	6.0	25.1	7.0	28.7	8.0
133T-4M (T140-3)	64	31.669	0.0651	0.0181	12360	6.5	1.8	9.8	2.7	16.3	4.5	19.5	5.4	22.8	6.3	26.1	7.2
	60	28.581	0.0588	0.0163	13696	5.9	1.6	8.8	2.5	14.7	4.1	17.6	4.9	20.6	5.7	23.5	6.5
	57	25.652	0.0528	0.0147	15260	5.3	1.5	7.9	2.2	13.2	3.7	15.8	4.4	18.5	5.1	21.1	5.9
	54	22.881	0.0471	0.0131	17108	4.7	1.3	7.1	2.0	11.8	3.3	14.1	3.9	16.5	4.6	18.8	5.2
	51	20.268	0.0417	0.0116	19313	4.2	1.2	6.3	1.7	10.4	2.9	12.5	3.5	14.6	4.1	16.7	4.6
	48	17.814	0.0366	0.0102	21974	3.7	1.0	5.5	1.5	9.2	2.5	11.0	3.1	12.8	3.6	14.7	4.1
	44	15.518	0.0319	0.0089	24821	3.2	0.9	4.8	1.3	8.0	2.2	9.6	2.7	11.2	3.1	12.8	3.5
133T-4H (T140-2)	41	13.380	0.0275	0.0076	29256	2.8	0.8	4.1	1.1	6.9	1.9	8.3	2.3	9.6	2.7	11.0	3.1
	38	11.401	0.0235	0.0065	34335	2.3	0.7	3.5	1.0	5.9	1.6	7.0	2.0	8.2	2.3	9.4	2.6
	35	9.580	0.0197	0.0055	40861	2.0	0.5	3.0	0.8	4.9	1.4	5.9	1.6	6.9	1.9	7.9	2.2
	32	7.917	0.0163	0.0045	41369	1.6	0.5	2.4	0.7	4.1	1.1	4.9	1.4	5.7	1.6	6.5	1.8
Kilowatts Required						25	38	63	75	87	99						

For operation below 150 RPM, an auxiliary lubrication system is required.

Volumetric Rate is based on 100% Volumetric Efficiency. Brake Horsepower/Kilowatts Required is based on 90% Mechanical Efficiency.

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Accessories

Rotating Right offers a full line of accessories to ensure long trouble free and safe operation of your multiplex pumps.

Accessories Include:

- Pulsation Dampeners - Suction & Discharge
- Vibration Shock Switches
- Liquid Level Gauges & Switches
- Pressure Safety Valves
- Plunger Lubricators
- Fire Safety Valves
- High Discharge Pressure Switch
- Condensate Drain
- N.A.C.E. Valving
- Lubricator Level Controller
- API Valves
- Drive Options



Expendables



With our worldwide buying power Rotating Right is well equipped to provide a wide range of replacement parts & expendables for virtually all multiplex plunger pumps regardless of make or model.

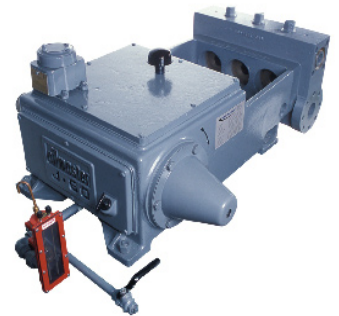


Our expendables inventory includes plungers, packing, brass, valves, bearings, crankshafts, connecting rods and seals.



Repair & Overhauls

Rotating Right service technicians follow strict quality control procedures for every pump repair and overhaul. The use of consistent and reliable re-manufacturing techniques ensure your equipment is returned to you in "Like New" condition.



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