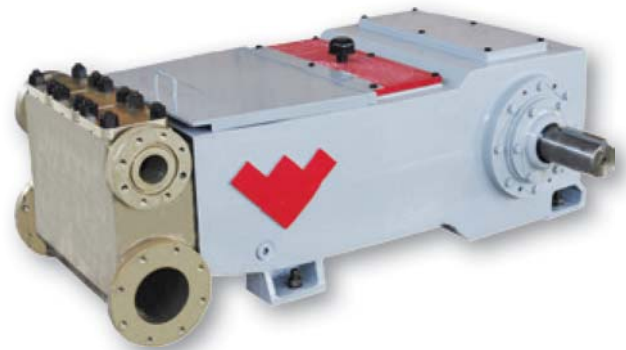


## W165 Triplex Pump

### Pump Specifications

Rated (HP, kW)	165	123
Stroke length (in., mm)	5	127
Maximum discharge pressure (PSI, Bar)		
W165H	5,000	345
W165M	3,120	215
W165L	1,650	114
Rated rod load (lb, kg)	9,800	4,445
API-674 speed, RPM	310	
Maximum speed, RPM	400	
Minimum speed, RPM	200*	
Crankshaft dimensions (in., mm)		
Diameter	4.125	105
Length (long)	7.92	201
Length (short)	5.62	149
Keyway, width × depth (in., mm)	1.00 × .50	25 × 13
Oil capacity (gal, l)		
Pump	8.0	30.3
Reducer (varies with ratio)	2.25 to 3.5	8.52 to 13.25
Weight (lb, kg); estimates only		
Pump		
W165H	4,213	1,911
W165M	4,132	1,874
W165L	4,037	1,831
Reducer	800	363
Mechanical efficiency	90%	

\* can be reduced to 50 rpm with the addition of an auxiliary lube (slow speed) kit



### Standard Equipment

- Cast aluminum-bronze, forged duplex stainless steel, or forged carbon steel fluid ends
- Aluminum-bronze or duplex stainless steel stuffing boxes
- Various valve designs offered per fluid end style
- Tungsten carbide coated plungers over stainless steel base or solid ceramic plungers
- Double extended crankshaft
- Multiple plunger packing arrangements offered

### Optional Accessories

- Weatherford bolt on gear reducers
- Packing lubricators
- Customized plunger packing arrangements
- Complete pump packages
- Ported stuffing boxes and leak detection systems offered for H<sub>2</sub>S or light fluids
- An internal or external auxiliary lube kit (slow speed kit) allows pump to be turned down to 50 rpm and is required for speeds below 200 rpm

### Flange Connections

Pump Model	Discharge Connection Sizes (in., mm)	Suction Connection Sizes (in., mm)
W165H	2 (50.8) ANSI 2500 RJ	3 (76.2) API 2000 RJ
W165M	2 (50.8) API 5000 RJ	4 (101.6) ANSI 150 FF
W165L	3 (76.2) API 2000 RJ	6 (152.4) ANSI 150 FF

### Applications

- Amine gas sweetening
- Methanol injection
- Water injection
- Chemical injection
- Glycol gas dehydration
- Light hydrocarbon transportation
- Crude transfer
- Polymer flood
- Produced water disposal
- Steam boiler feed
- Hydrostatic testing
- Ammonia
- Horizontal directional drilling
- Hot-oil truck injection

## W165 Triplex Pump

### Performance Ratings

Model (standard)	Plunger Diameter (in.)	Gallons Per Revolution	Maximum Pressure PSI	200 RPM		310 RPM* API 674		350 RPM		400 RPM	
				GPM	BPD	GPM	BPD	GPM	BPD	GPM	BPD
W165H	1.500	0.1147	5,000	22.9	787	35.6	1,220	40.2	1,377	45.9	1,574
	1.625	0.1347	4,730	26.9	923	41.7	1,431	47.1	1,616	53.9	1,847
	1.750	0.1562	4,070	31.2	1,071	48.4	1,660	54.7	1,674	62.5	2,142
	1.875	0.1793	3,550	35.9	1,229	55.6	1,906	62.8	2,152	71.7	2,459
	2.000	0.2040	3,120	40.8	1,399	63.2	2,168	71.4	2,448	81.6	2,798
W165M	2.000	0.2040	3,120	40.8	1,399	63.2	2,168	71.4	2,448	81.6	2,798
	2.125	0.2303	2,760	46.1	1,579	71.4	2,448	80.6	2,764	92.1	3,158
	2.250	0.2582	2,460	51.6	1,770	80.0	2,744	90.4	3,098	103.3	3,541
	2.375	0.2877	2,210	57.5	1,973	89.2	3,058	100.7	3,452	115.1	3,945
	2.500	0.3187	2,000	63.7	2,186	98.8	3,388	111.6	3,825	127.5	4,371
	2.625	0.3514	1,810	70.3	2,410	108.9	3,735	123.0	4,217	140.6	4,819
W165L	2.750	0.3857	1,650	77.1	2,645	119.6	4,099	135.0	4,628	154.3	5,289
	3.000	0.4590	1,390	91.8	3,147	142.3	4,879	160.6	5,508	183.6	6,295
	3.250	0.5387	1,180	107.7	3,694	167.0	5,725	188.5	6,464	215.5	7,388
	3.500	0.6247	1,020	124.9	4,284	193.7	6,640	218.7	7,497	249.9	8,568
	3.750	0.7172	890	143.4	4,918	222.3	7,623	251.0	8,606	286.9	9,836
	4.000	0.8160	780	163.2	5,595	253.0	8,673	285.6	9,792	326.4	11,191

Model (metric)	Plunger Diameter (in.)	Litres Per Revolution	Maximum Pressure BAR	200 RPM		310 RPM* API 674		350 RPM		400 RPM	
				LPM	M <sup>3</sup> /hr	LPM	M <sup>3</sup> /hr	LPM	M <sup>3</sup> /hr	LPM	M <sup>3</sup> /hr
W165H	1.500	0.4343	345	86.9	5.2	134.6	8.1	152.0	9.1	173.7	10.4
	1.625	0.5097	326	101.9	6.1	158.0	9.5	178.4	10.7	203.9	12.2
	1.750	0.5912	281	118.2	7.1	183.3	11.0	206.9	12.4	236.5	14.2
	1.875	0.6786	245	135.7	8.1	210.4	12.6	237.5	14.3	271.5	16.3
	2.000	0.7721	215	154.4	9.3	239.4	14.4	270.2	16.2	308.9	18.5
W165M	2.000	0.7721	215	154.4	9.3	239.4	14.4	270.2	16.2	308.9	18.5
	2.125	0.8717	190	174.3	10.5	270.2	16.2	305.1	18.3	348.7	20.9
	2.250	0.9772	170	195.4	11.7	302.9	18.2	342.0	20.5	390.9	23.5
	2.375	1.0888	152	217.8	13.1	337.5	20.3	381.1	22.9	435.5	26.1
	2.500	1.2065	138	241.3	14.5	374.0	22.4	422.3	25.3	482.6	29.0
	2.625	1.3301	125	266.0	16.0	412.3	24.7	465.5	27.9	532.1	31.9
W165L	2.750	1.4598	114	292.0	17.5	452.5	27.2	510.9	30.7	583.9	35.0
	3.000	1.7373	96	347.5	20.8	538.6	32.3	608.1	36.5	694.9	41.7
	3.250	2.0389	81	407.8	24.5	632.1	37.9	713.6	42.8	815.6	48.9
	3.500	2.3647	70	472.9	28.4	733.0	44.0	827.6	49.7	945.9	56.8
	3.750	2.7145	61	542.9	32.6	841.5	50.5	950.1	57.0	1,085.8	65.1
	4.000	3.0886	54	617.7	37.1	957.5	57.4	1,081.0	64.9	1,235.4	74.1

\*API Speed

#### General Notes

- Capacities shown are based on 100 percent volumetric efficiency. Actual capacities are lower, based on discharge pressure and fluid compressibility.
- API-674 and NACE-compliant designs are available; consult Weatherford for details and exceptions to these standards.
- For operation below 200 RPM, an internal or external auxiliary lubrication system is required.
- Standard plunger sizes are shown, however other sizes are available upon request.
- Spherical valves must be installed when using 4.00 in. plungers.