

ROTATING RIGHT

## MODEL 110Q-3 SINGLE ACTING QUINTUPLEX PUMP



### 110Q-3

A 110 horsepower 3 1/2" stroke horizontal quintuplex single acting plunger pump. Available in four fluid end materials at pump speeds up to 540RPM and multiple accessory gear reduction unit ratios.

#### Features:

- Cast iron power frame
- Ductile Iron Crankshaft
- Heavy-duty, tapered roller crankshaft bearings
- Precision type, aluminum alloy crankpin bearings
- Cast iron crossheads with upper/lower oil grooves
- Internal pressure lubrication
- Ductile iron connecting rods
- Alloy steel crosshead pins
- Bronze bearing crosshead pin bushings
- Rated rod load is 5090 lbs.
- Plungers - Solid Ceramic, or Tungsten coated



# 110Q-3 Quintuplex Plunger Pump

## Performance Data

PUMP	English Units					100 * RPM		200 RPM		250 RPM		300 RPM		350 RPM		440 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
110Q-3L (HP125AL)	3.000	7.0686	18.3599	0.5355	720	1836	53.5	3672	107.1	4590	133.9	5508	160.6	6426	187.4	8079	235.6
	2.875	6.4918	16.8618	0.4918	784	1687	49.2	3373	98.4	4216	123.0	5059	147.5	5902	172.1	7420	216.4
	2.750	5.9396	15.4274	0.4500	857	1543	45.0	3086	90.0	3857	112.5	4629	135.0	5400	157.5	6789	198.0
	2.625	5.4119	14.0568	0.4100	941	1406	41.0	2812	82.0	3515	102.5	4218	123.0	4920	143.5	6186	180.4
110Q-3M (HP125AM)	2.500	4.9087	12.7500	0.3719	1037	1275	37.2	2550	74.4	3188	93.0	3825	111.6	4463	130.2	5610	163.6
	2.375	4.4301	11.5068	0.3356	1149	1151	33.6	2302	67.1	2877	83.9	3453	100.7	4028	117.5	5064	147.7
	2.250	3.9761	10.3275	0.3012	1280	1033	30.1	2066	60.2	2582	75.3	3099	90.4	3615	105.4	4545	132.5
	2.125	3.5466	9.2118	0.2687	1435	922	26.9	1843	53.7	2303	67.2	2764	80.6	3225	94.0	4054	118.2
	2.000	3.1416	8.1600	0.2380	1620	816	23.8	1632	47.6	2040	59.5	2448	71.4	2856	83.3	3591	104.7
	1.875	2.7612	7.1718	0.2092	1843	718	20.9	1435	41.8	1793	52.3	2152	62.8	2511	73.2	3156	92.0
	1.750	2.4053	6.2475	0.1822	2116	625	18.2	1250	36.4	1562	45.6	1875	54.7	2187	63.8	2749	80.2
	1.625	2.0739	5.3869	0.1571	2454	539	15.7	1078	31.4	1347	39.3	1617	47.1	1886	55.0	2371	69.1
110Q-3MS (HP125MS)	1.500	1.7671	4.5900	0.1339	2880	459	13.4	918	26.8	1148	33.5	1377	40.2	1607	46.9	2020	58.9
	1.375	1.4849	3.8569	0.1125	3428	386	11.2	772	22.5	965	28.1	1158	33.7	1350	39.4	1698	49.5
	1.250	1.2272	3.1875	0.0930	4148	319	9.3	638	18.6	797	23.2	957	27.9	1116	32.5	1403	40.9
	1.125	0.9940	2.5819	0.0753	5121	259	7.5	517	15.1	646	18.8	775	22.6	904	26.4	1137	33.1
110Q-H (HP125H)	1.000	0.7854	2.0400	0.0595	6481	204	5.9	408	11.9	510	14.9	612	17.8	714	20.8	898	26.2
	0.875	0.6013	1.5619	0.0456	8465	157	4.6	313	9.1	391	11.4	469	13.7	547	15.9	688	20.0
	0.750	0.4418	1.1475	0.0335	10000	115	3.3	230	6.7	287	8.4	345	10.0	402	11.7	505	14.7
Brake Horsepower Required						25		50		63		75		87		110	

PUMP	Metric Units					100 * RPM		200 RPM		250 RPM		300 RPM		350 RPM		440 RPM	
	Plunger Dia. mm	Plunger Area cm <sup>2</sup>	M <sup>3</sup> /Hr per RPM	L/Sec. per RPM	Max. Press. kPa	M <sup>3</sup> /Hr	L/Sec.	M <sup>3</sup> /Hr	L/Sec.	M <sup>3</sup> /Hr	L/Sec.	M <sup>3</sup> /Hr	L/Sec.	M <sup>3</sup> /Hr	L/Sec.	M <sup>3</sup> /Hr	L/Sec.
110Q-3L (HP125AL)	76	45.604	0.1216	0.0338	4965	12.2	3.4	24.3	6.8	30.4	8.4	36.5	10.1	42.6	11.8	53.5	14.9
	73	41.883	0.1117	0.0310	5406	11.2	3.1	22.3	6.2	27.9	7.8	33.5	9.3	39.1	10.9	49.1	13.7
	70	38.320	0.1022	0.0284	5909	10.2	2.8	20.4	5.7	25.5	7.1	30.7	8.5	35.8	9.9	45.0	12.5
	67	34.915	0.0931	0.0259	6485	9.3	2.6	18.6	5.2	23.3	6.5	27.9	7.8	32.6	9.1	41.0	11.4
110Q-3M (HP125AM)	64	31.669	0.0845	0.0235	7149	8.4	2.3	16.9	4.7	21.1	5.9	25.3	7.0	29.6	8.2	37.2	10.3
	64	31.669	0.0845	0.0235	7149	8.4	2.3	16.9	4.7	21.1	5.9	25.3	7.0	29.6	8.2	37.2	10.3
	60	28.581	0.0762	0.0212	7922	7.6	2.1	15.2	4.2	19.1	5.3	22.9	6.4	26.7	7.4	33.5	9.3
	57	25.652	0.0684	0.0190	8826	6.8	1.9	13.7	3.8	17.1	4.8	20.5	5.7	23.9	6.7	30.1	8.4
	54	22.881	0.0610	0.0170	9895	6.1	1.7	12.2	3.4	15.3	4.2	18.3	5.1	21.4	5.9	26.8	7.5
	51	20.268	0.0540	0.0150	11171	5.4	1.5	10.8	3.0	13.5	3.8	16.2	4.5	18.9	5.3	23.8	6.6
	48	17.814	0.0475	0.0132	12710	4.8	1.3	9.5	2.6	11.9	3.3	14.3	4.0	16.6	4.6	20.9	5.8
	44	15.518	0.0414	0.0115	14591	4.1	1.1	8.3	2.3	10.3	2.9	12.4	3.4	14.5	4.0	18.2	5.1
110Q-3MS (HP125MS)	41	13.380	0.0357	0.0099	16922	3.6	1.0	7.1	2.0	8.9	2.5	10.7	3.0	12.5	3.5	15.7	4.4
	38	11.401	0.0304	0.0084	19859	3.0	0.8	6.1	1.7	7.6	2.1	9.1	2.5	10.6	3.0	13.4	3.7
	35	9.580	0.0255	0.0071	23634	2.6	0.7	5.1	1.4	6.4	1.8	7.7	2.1	8.9	2.5	11.2	3.1
	32	7.917	0.0211	0.0059	28598	2.1	0.6	4.2	1.2	5.3	1.5	6.3	1.8	7.4	2.1	9.3	2.6
110Q-H (HP125H)	29	6.413	0.0171	0.0048	35306	1.7	0.5	3.4	1.0	4.3	1.2	5.1	1.4	6.0	1.7	7.5	2.1
	25	5.067	0.0135	0.0038	44684	1.4	0.4	2.7	0.8	3.4	0.9	4.1	1.1	4.7	1.3	5.9	1.7
	22	3.879	0.0103	0.0029	58362	1.0	0.3	2.1	0.6	2.6	0.7	3.1	0.9	3.6	1.0	4.6	1.3
19	2.850	0.0076	0.0021	68948	0.8	0.2	1.5	0.4	1.9	0.5	2.3	0.6	2.7	0.7	3.3	0.9	
Kilowatts Required						19		37		47		56		65		82	

Volumetric Rate is based on 100% Volumetric Efficiency. Brake Horsepower/Kilowatts Required is based on 90% Mechanical Efficiency. \*Operation below 150 RPM requires an "optional" externally-mounted auxiliary lubrication system.

The information and data on this sheet is accurate to the best of our knowledge and belief, but are intended for general information only. Applications suggested for the materials are described only to help readers make their own evaluations and decisions, and are neither guarantees nor to be construed as express or implied warranties of suitability for these or other applications. National Oilwell makes no warranty either express or implied beyond that stipulated in National Oilwell Standard Terms and Conditions of Sale.

## 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.

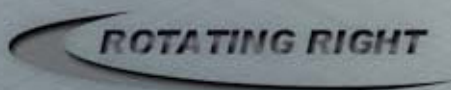
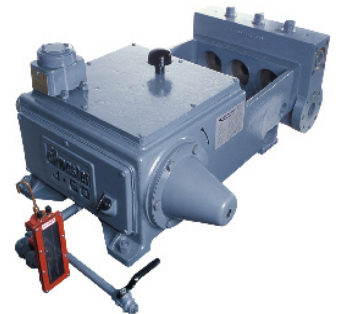


Our expendables inventory includes plungers, packing, brass, valves, bearings, crankshafts, connecting rods and seals.



## 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.



**Head Office:**  
6120 Davies Road  
Edmonton, AB  
T6E 4M9

Phone: (780) 485-2010 • Toll Free: (866) 707-7867  
Fax: (780) 485-1938  
• Calgary • Drayton Valley • Lloydminster  
[www.rotatingright.com](http://www.rotatingright.com)