

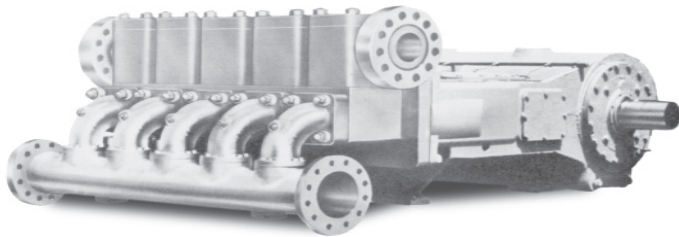
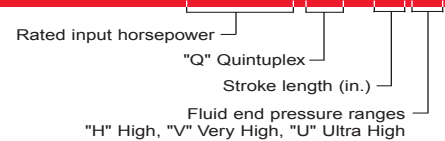
ROTATING RIGHT

# NATIONAL OILWELL 630Q-8HVU TECHNICAL DATA SHEET

Formerly C-528, C-538, D-548



## Quintuplex Plunger Pump 630Q-8



This 8" stroke pump is designed for a variety of fluid transfer applications operating at high, very high or ultra high pressures.

### Field Connections in. (mm)

Pump Model	Discharge Connection Size	Suction Connection Size
630Q-8H	6 (152.4) ANSI-1500 RTJ	8 (203.2) ANSI-300 F.F.
630Q-8V	4 (101.6) ANSI-2500 RTJ	6 (152.4) ANSI-300 F.F.
630Q-8U	3 (76.2) ANSI-2500 RTJ	6 (152.4) ANSI-300 F.F.

### Dimensions

Pump Type	Length	Width	Height
630Q-8H	102-1/4"	86"	39-1/2"
630Q-8V	109-13/16"	86"	47-15/16"
630Q-8U	109"	86"	47-1/8"

## Pump Specifications

### 630Q-8H

Pump Size (Max. Plunger Diameter x Stroke) in. (mm) .....5 x 8 (127 x 203)  
 Rated BHP At 225 RPM (Kw) .....630 (471)  
 Rated Plunger Load (Kg) .....25,000 (11,340)

### 630Q-8V

Pump Size (Max. Plunger Diameter x Stroke) in. (mm) .....3-1/2 x 8 (89 x 203)  
 Rated BHP At 225 RPM (Kw) .....630 (471)  
 Rated Plunger Load (Kg) .....25,000 (11,340)

### 630Q-8U

Pump Size (Max. Plunger Diameter x Stroke) in. (mm) .....2-5/8 x 8 (67 x 203)  
 Rated BHP At 225 RPM (Kw) .....630 (471)  
 Rated Plunger Load (Kg) .....25,000 (11,340)

### Maximum Working Pressure: PSI (kPa)

"H" Model Discharge Pressure .....3,500 (24,161)  
 "V" Model Discharge Pressure .....4,000 (27,579)  
 "U" Model Discharge Pressure .....6,000 (41,369)

### Crankshaft Extension, (mm)

Diameter .....6-1/2 (165.1)  
 Length .....9-1/2 (241.3)  
 Keyway (Width x Depth) .....1-1/2 x 1/2 (38.1 x 12.7)

### Oil Capacity: Gallons (L)

Crankcase .....32 (121)

### Weight: Pump Only On Wood Shipping Skids - Lbs. (Kg)

630Q-8H .....15,361 (6,968)  
 630Q-8V .....13,262 (6,016)  
 630Q-8U .....14,200 (6,441)

## Standard Equipment

- Aluminum Bronze Fluid End
- Aluminum Bronze Valve Covers
- Aluminum Bronze or Stainless Steel Stuffing Boxes
- Bronze Stuffing Box Internals
- Ceramic or Tungsten Carbide Plungers
- General Service Plunger Packing
- Stainless Steel Intermediate Rods
- Fluid King Spherical Valves (Some models)
- Double Extended Crankshaft (Some models)
- Oil Level Dipstick
- Crankcase Breather

## Optional Equipment

- Alternate Fluid End Materials
- Alternate Fluid End Valve Styles
- External Heat Exchanger
- Custom Designs For Specialized Applications

## Accessories

- Packing Lubricator
- Pulsation Dampeners
- Relief Valves
- Valve Service Kit
- Complete Unitization Services

## Quick Maintenance Features

- Horizontal Design
- Large Power End Access Covers And Doors
- Outside Access For Bearing Adjustment
- Separate Crosshead/Plunger Construction
- Open Cradle Frame
- Removable Stuffing Boxes
- Interchangeable Valves

**Continuous Duty Performance Data** (Volumes Indicated Are Displacement of Incompressible Fluid)

**English Units**

Plunger Dia. In.	Plunger Area Sq. In.	BPD Per RPM	GPM Per RPM	Max. Press. PSI	100 RPM		125 RPM		150 RPM		175 RPM		200 RPM		225 RPM	
					BPD	GPM	BPD	GPM	BPD	GPM	BPD	GPM	BPD	GPM	BPD	GPM
<b>630Q-8H</b>																
3	7.0686	41.9832	1.2240	3,500	4198	122.40	5248	153.00	6297	183.60	7347	214.20	8397	244.80	9446	275.40
3 1/4	8.2958	49.2720	1.4365	3,000	4927	143.65	6159	179.56	7391	215.48	8623	251.39	9854	287.30	11086	323.2
3 1/2	9.6212	57.1438	1.6660	2,600	5714	166.60	7143	208.25	8572	249.90	10000	291.55	11429	333.20	12857	374.85
3 3/4	11.0447	65.5988	1.9125	2,260	6560	191.25	8200	239.06	9840	286.88	11480	334.69	13120	382.50	14760	430.31
4	12.5664	74.6368	2.1760	2,000	7464	217.60	9330	272.00	11196	326.40	13061	380.80	14927	435.20	16793	489.60
4 1/4	14.1863	84.2580	2.4565	1,765	8426	245.65	10532	307.06	12639	368.48	14745	429.89	16852	491.30	18958	552.71
4 1/2	15.9044	94.4622	2.7540	1,575	9446	275.40	11808	344.25	14169	413.10	16531	481.95	18892	550.80	21254	619.65
4 3/4	17.7206	105.2496	3.0685	1,415	10525	306.85	13156	383.56	15787	460.28	18419	536.99	21050	613.70	23681	690.41
5	19.6350	116.6200	3.4000	1,270	11662	340.00	14578	425.00	17493	510.00	20409	595.00	23324	680.00	26240	765.00
<b>630Q-8V</b>																
2 1/2	4.9088	29.1550	0.8500	4,000	2916	85.00	3644	106.25	4373	127.50	5102	148.75	5831	170.00	6560	191.25
2 3/4	5.9396	35.2776	1.0285	4,000	3528	102.85	4410	128.56	5292	154.28	6174	179.99	7056	205.70	7937	231.41
3	7.0686	41.9832	1.2240	3,540	4198	122.40	5248	153.00	6297	183.60	7347	214.20	8397	244.80	9446	275.40
3 1/4	8.2958	49.2720	1.4365	3,000	4927	143.65	6159	179.56	7391	215.48	8623	251.39	9854	287.30	11086	323.21
3 1/2	9.6212	57.1438	1.6660	2,570	5714	166.60	7143	208.25	8572	249.90	10000	291.55	11429	333.20	12857	374.85
<b>630Q-8U</b>																
2 1/4	3.9761	23.6156	0.6885	6,000	2362	68.85	2952	86.06	3542	103.28	4133	120.49	4723	137.70	5313	154.91
2 1/2	4.9088	29.1550	0.8500	5,090	2916	85.00	3644	106.25	4373	127.50	5102	148.75	5831	170.00	6560	191.25
Brake Horsepower Required:					280		350		420		490		560		630	

**Metric Units**

Plunger Dia. mm	Plunger Area Sq. cm.	M <sup>3</sup> /D Per RPM	L/Min Per RPM	Max. Press. kPa	100 RPM		125 RPM		150 RPM		175 RPM		200 RPM		225 RPM	
					M <sup>3</sup> /D	L/Min.	M <sup>3</sup> /D	L/Min.	M <sup>3</sup> /D	L/Min.	M <sup>3</sup> /D	L/Min.	M <sup>3</sup> /D	L/Min.	M <sup>3</sup> /D	L/Min.
<b>630Q-8H</b>																
76	45.6040	6.6749	4.6328	24,131	667	463.28	834	579.11	1001	694.93	1168	810.75	1335	926.57	1502	1042.39
83	53.5213	7.8337	5.4372	20,778	783	543.72	979	679.64	1175	815.57	1371	951.50	1567	1087.43	1763	1223.36
89	62.0721	9.0853	6.3058	17,916	909	630.58	1136	788.23	1363	945.87	1590	1103.52	1817	1261.16	2044	1418.81
95	71.2562	10.4295	7.2388	15,607	1043	723.88	1304	904.85	1564	1085.82	1825	1266.79	2086	1447.76	2347	1628.73
102	81.0737	11.8665	8.2362	13,717	1187	823.62	1483	1029.52	1780	1235.42	2077	1441.33	2373	1647.23	2670	1853.14
108	91.5246	13.3962	9.2979	12,150	1340	929.79	1675	1162.23	2009	1394.68	2344	1627.12	2679	1859.57	3014	2092.02
114	102.6089	15.0185	10.4239	10,838	1502	1042.39	1877	1302.99	2253	1563.58	2628	1824.18	3004	2084.78	3379	2345.38
121	114.3266	16.7336	11.6143	9,727	1673	1161.43	2092	1451.78	2510	1742.14	2928	2032.50	3347	2322.85	3765	2613.21
127	126.6777	18.5414	12.8690	8,779	1854	1286.90	2318	1608.63	2781	1930.35	3245	2252.08	3708	2573.80	4172	2895.53
<b>630Q-8V</b>																
64	31.6694	4.6354	3.2173	27,579	464	321.73	579	402.16	695	482.59	811	563.02	927	643.45	1043	723.88
70	38.3200	5.6088	3.8929	27,579	561	389.29	701	486.61	841	583.93	982	681.25	1122	778.57	1262	875.90
76	45.6040	6.6749	4.6328	24,407	667	463.28	834	579.11	1001	694.93	1168	810.75	1335	926.57	1502	1042.39
83	53.5213	7.8337	5.4372	20,684	783	543.72	979	679.64	1175	815.57	1371	951.50	1567	1087.43	1763	1223.36
89	62.0721	9.0853	6.3058	17,720	909	630.58	1136	788.23	1363	945.87	1590	1103.52	1817	1261.16	2044	1418.81
<b>630Q-8U</b>																
57	25.6522	3.7546	2.6060	41,369	375	260.60	469	325.75	563	390.90	657	456.05	751	521.19	845	586.34
64	31.6694	4.6354	3.2173	35,094	464	321.73	579	402.16	695	482.59	811	563.02	927	643.45	1043	723.88
Kilowatts Required:					209		262		314		366		418		471	

\* Pumps applied above 400 HP and above 298 Kw. Require a lube oil heat exchanger. Volume is based on 100% volumetric efficiency. Brake horsepower is based on 90% mechanical efficiency. For operations below 75 RPM an auxiliary lubrication system is required.



**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 • Lethbridge  
www.rotatingright.com