



FROM THE GROUND UP

WE'RE MANTL, AN INDEPENDENT CANADIAN COMPANY THAT BUILDS COMPLETE PROGRESSING CAVITY PUMP (PCP) SYSTEMS FOR OIL AND GAS WELLS.

Our management team has over 300 years of combined PCP experience in the oil and gas industry. We use our hard-earned expertise to explore new ways to expand the PCP market and get products to you that much faster.

Using a wellhead-back approach, we work with you to build the right tools for the job, whether it's above or below ground. And because we use standardized assembly right in your backyard, we can give you the quality products and site service you need.

OUR VALUES

MANTL.CA



TEAM MANTL

MATTHEW KENNA, CMA - PRESIDENT

An effective leader must possess an array of skills and attributes. Matt has excelled in a variety of executive level positions in operations, finance and sales. He is a Black Belt in LEAN Manufacturing having held the title of Vice President, Manufacturing for Alkhorayef Petroleum in Saudi Arabia for two years. Closer to home as the Vice President International Business Development and Operations, Matt was responsible for negotiating and managing the two largest contracts in Kudu Industries' history. An \$83 million sale in Venezuela as well as a \$97 million sale in Kuwait. A CMA by trade, Matt brings extensive financial experience to the group from his role as Chief Financial Officer at Kudu Industries and he understands how to generate tremendous value for both the company and its customers. Matt is a down to earth leader who gains respect through action. He is approachable and wouldn't ask anything from his team that he wouldn't be willing to do himself. His vision for MANTL is a company that allows everyone to use their own expertise to contribute to individual and team success.



TED TRYHUBA VP CANADIAN BUSINESS DEVELOPMENT

After completing his post-secondary education, Ted started with Kudu Industries Inc. in 1992 as a Field Technician in their Provost, AB location. Gaining technical experience throughout the years, Ted advanced from Store Manager to Area Manager and ultimately Business Development Manager, Canada. Over the course of 5 years (1999-2004), Ted was responsible for the installation of approximately 2500 complete PCP systems in Western Canada and helped grow Kudu from one field store to six in that time period.

Ted has sat on the Board of Directors for CIM/SPE (1998-2003) and is currently the president of the OTS 4th Meridian. If you know Ted, and a lot of people do, you know he's the perfect guy to be leading the charge for MANTL's Business Development team.



SHELDON JAHN, CET - VP ENGINEERING

Some people are fortunate and find their calling right out of the gate. Since graduating from SAIT, Sheldon has spent his entire 25 year career in the Progressing Cavity Pump industry. Having worked on projects in North and South America, Southeast Asia, the Middle East, Europe, and Australia he has become a recognized and respected name in the PCP community. He has authored, coauthored, and presented numerous papers, written 6 standards for PCP applications and co-wrote "PCP Failure Analysis Guidelines." Sheldon's vision for MANTL is solutions and service from the wellhead back. Too often manufacturers push products out to the field. Sheldon wants to reverse that and have feedback from the field drive engineered solutions. This unrelenting dedication to serving the customer means MANTL will design and supply only the best PCP systems.



JORDY GERLING - VP CANADIAN OPERATIONS

Jordy's unique mix of operational efficiency while also remaining extremely customer focused has allowed him to have success in the PCP world both in Canada and abroad. He has held general manager positions for both Kudu's Kindersley and Lloydminster locations as well as manager for all of their Canadian operations. For the last three years, Jordy was the head of Kudu's Australian division where he successfully built up a highly talented team and oversaw the construction of a single cell manufacturing facility to service the country.

Having Jordy on the team will allow MANTL to scale up quickly in Western Canada with the reassurance that our high standards will always be maintained and our attention to serving the customer will be unwavering.



JAIME HERNANDEZ, MBA, P.E. VP INTERNATIONAL BUSINESS DEVELOPMENT

Born and raised in Colombia, Jaime earned his Petroleum Engineering designation and gained experience in both Field Engineering and Operations at various companies. After four years as the Operations and Sales Manager for TDA Service & Supply in Columbia, he relocated to Houston to join Kudu Industries as their Regional Manager, South-Central America. During his ten years with Kudu, Jaime helped secure an \$80+ million dollar contract, the largest to date for the company. In 2009, Jaime earned his Master's in Business Administration from the University of Phoenix. Jaime's experience and connections will increase MANTL's exposure overseas. He will quarterback all of MANTL's international efforts and has big plans for his international team.



GLOBAL HEADQUARTERS

MANTL Canada Inc.
Sun Life Plaza West Tower
144-4 Avenue SW, Suite 1600
Calgary, AB T2P 3N4

TOLL FREE 1 844 746 8121



MANTL supplies everything you need for a complete Progressing Cavity Pump System

POWER UNITS

- HYDRAULIC
- GENSET

DRIVES

- BELT DRIVE
- GEAR DRIVE

AUTOMATION

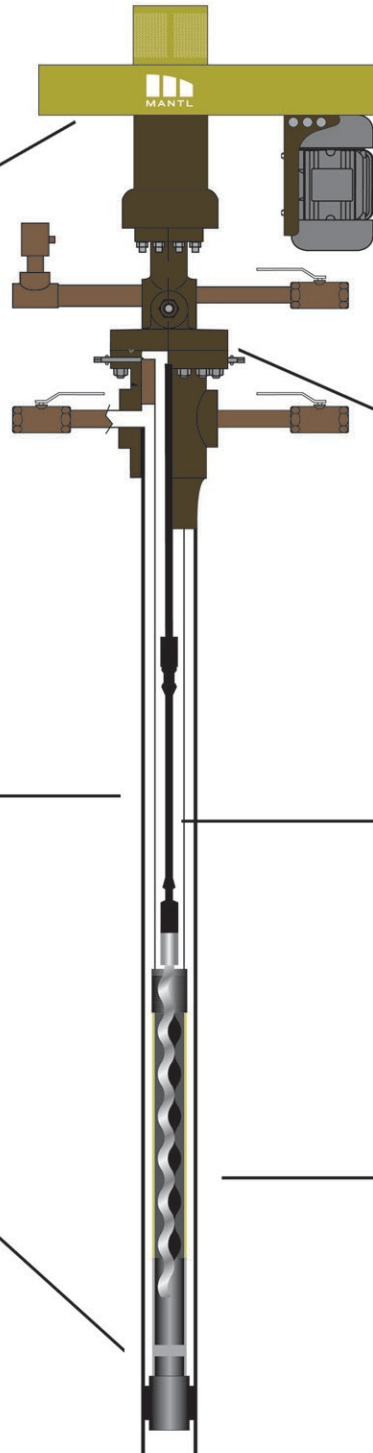
- VFD, HMI & PLC
- TRANSMITTERS, FLOW METERS, SWITCHES
- DOWNHOLE SENSOR

TUBING

- REGULAR
- LINED
- COATED

ACCESSORIES

- TUBING SWIVELS
- TORQUE ANCHORS
- GAS SEPARATORS
- DRAINS



MOTORS

- ELECTRIC
- HYDRAULIC

WELLHEAD

- BLOWOUT PREVENTER
- ROD-LOCK BOP
- TUBING ROTATORS

RODS

- DRIVE ROD
- CONTINUOUS ROD
- POLISHED ROD
- COUPLINGS
- CENTRALIZERS/GUIDES

PC PUMPS

- STANDARD
- INSERT
- FLUSHLINE
- SLIMHOLE
- EVEN WALL®

MORE EXPERIENCE = LESS DOWNTIME

SOLUTIONS & SERVICE FROM THE WELLHEAD BACK.

FROM THE GROUND UP



MANTL: 3.5 years in business

MANTL TEAM: 300 years PCP experience

● INSTALLATIONS
3000 worldwide

★ SALES OFFICES

MORE EXPERIENCE = LESS DOWNTIME

Lean Supply Chain Management: a solid international supply chain and partnering with manufacturers and suppliers that are strategically located allows our customers to realize improved working capital and reduced costs and lead times.

New Markets: the team at MANTL has introduced PCP technology in emerging markets and proven it as a viable form of artificial lift.

Manufacturing: MANTL adheres to the rigorous standards of ISO 15136 to ensure consistent, high quality systems.

New Product Development: we are continually developing and bringing to market new products that help our customers be more successful.

Technical Support: whether it's in-country or remotely, the MANTL team is dedicated to being there every step of the way.

Using a "wellhead back" approach, our team has designed and delivered tailored solutions to match local operating environments. Under the direction of Sheldon Jahn, former PCP Product Line Manager for Kudu Industries and current VP of Engineering for MANTL, we have created a product line using LEAN Manufacturing philosophies that draw on our decades of experience in the field.

MANTL is uniquely positioned to draw on the vast experiences of its team to respond to the unique challenges in many different markets.

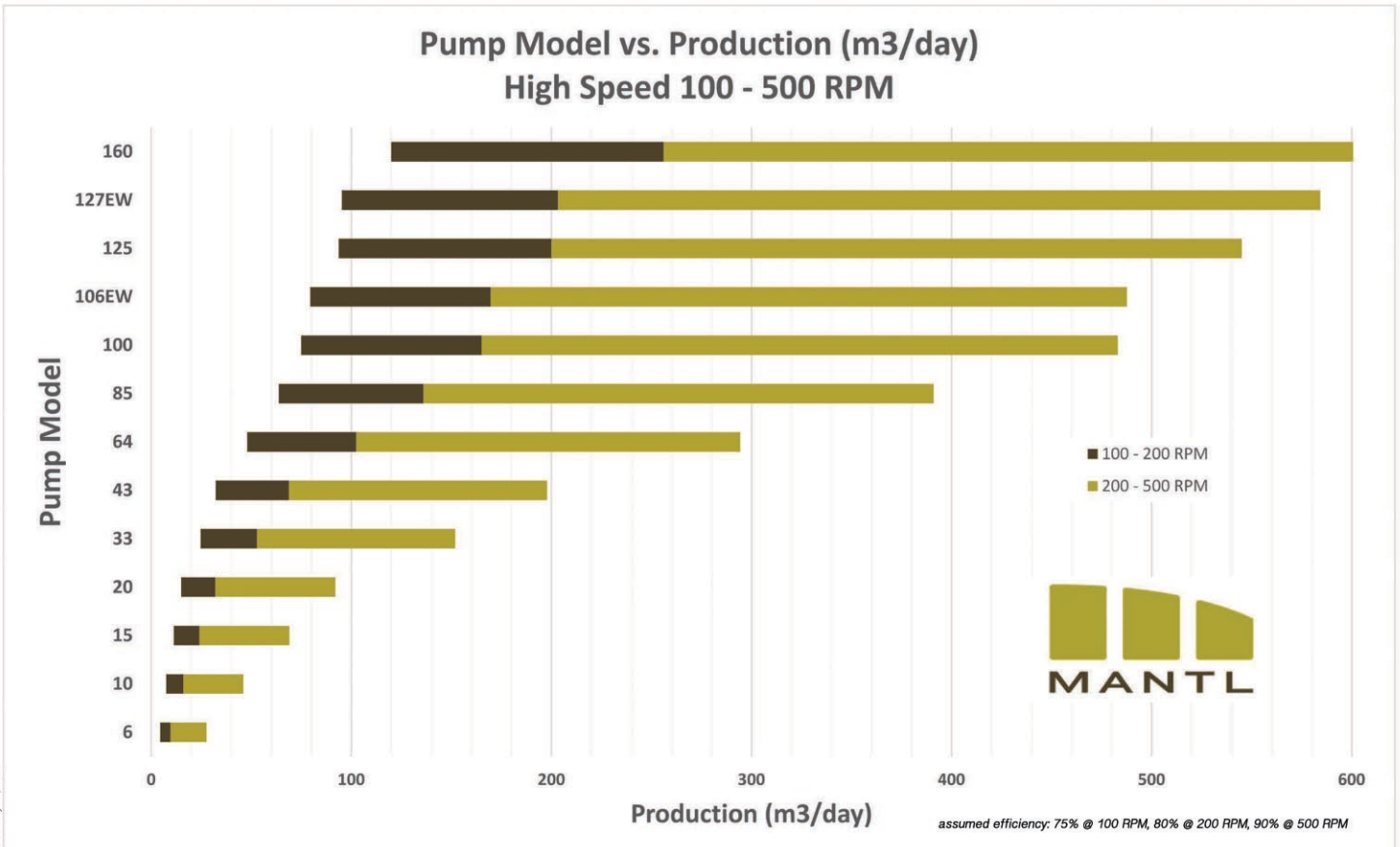
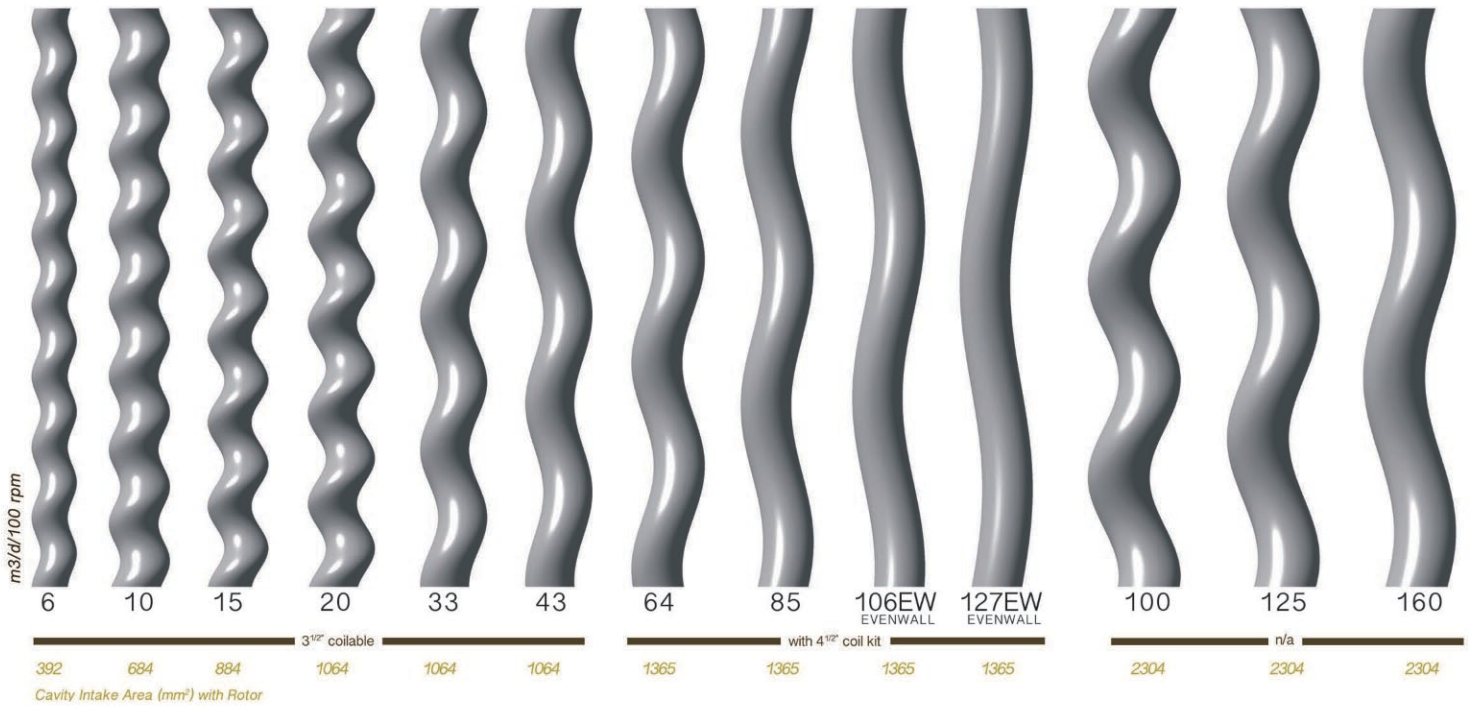


★ CANADIAN LOCATIONS

FROM THE GROUND UP



ROTOR SELECTION GUIDE



February 23, 2018

FROM THE GROUND UP

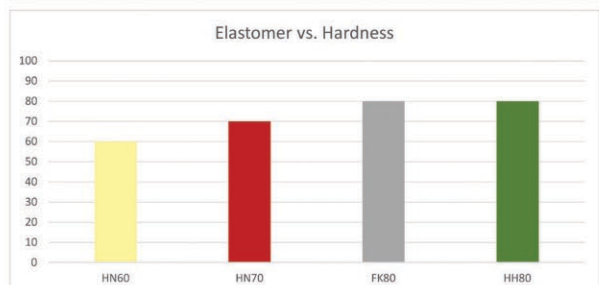
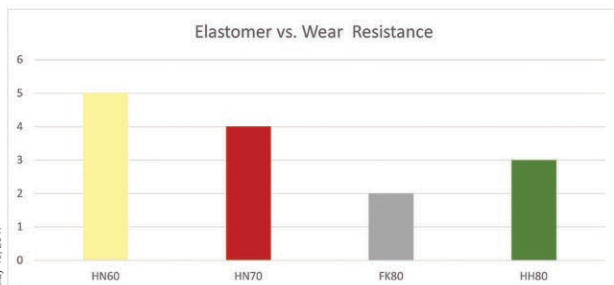
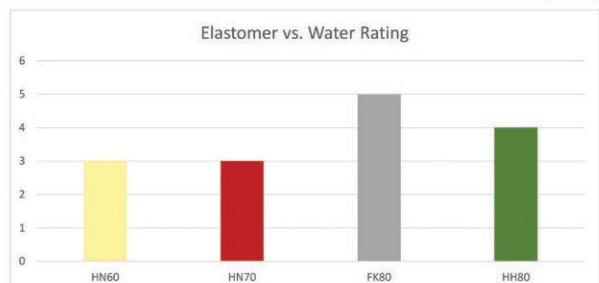
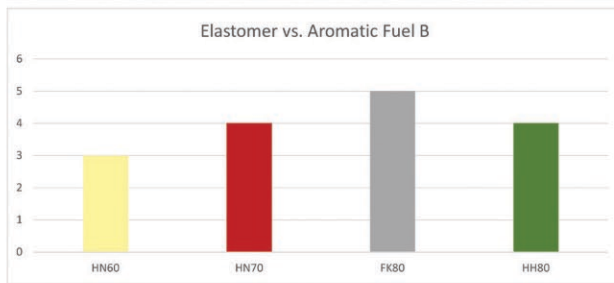
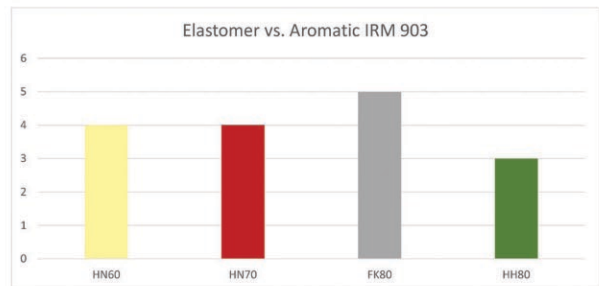
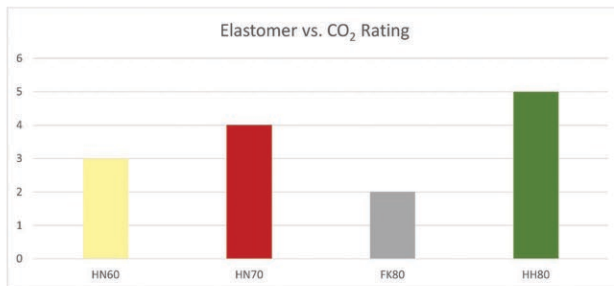
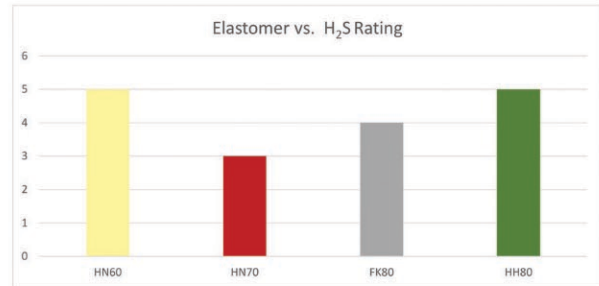
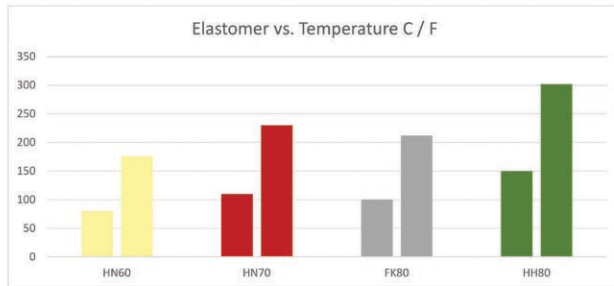


ELASTOMER SELECTION GUIDE

Elastomer Name	Elastomer Type (ISO)	Application	Temperature Limit		Chemical Resistance					Mechanical Properties	
			F	C	H ₂ S	CO ₂	IRM 903	Fuel B	Water	Wear Resistance	Hardness (shore A)
HN60	High Nitrile (NBR)	Very good oil resistance Excellent mechanical and dynamic properties Good in high aromatic's	176	80	5	3	4	3	3	5	60
HN70	High Nitrile (NBR)	Very good oil resistance Excellent mechanical and dynamic properties Very good in high aromatic's	230	110	3	4	4	4	3	4	70
FK80	Perfluorocarbon (FKM)	Excellent oil resistance Good mechanical and dynamic properties Excellent in high aromatic's	212	100	4	2	5	5	5	2	80
HH80	Hydrogenated Nitrile (HNBR)	Very good oil resistance Good mechanical and dynamic properties Very good in high aromatic's	302	150	5	5	3	4	4	3	80

Information subject to change. Please contact your MANTL representative for additional information.
Based on ISO15136 testing.

5 Excellent 4 Very good 3 Good 2 Fair 1 Poor



May 10, 2017



PROGRESSING CAVITY PUMP TECHNICAL SPECIFICATIONS

Metric	Imperial	Lift					Length*		Coilable 3 1/2" tubing 3/4" coil
		m3/d/ 100 rpm	BPD/ 100 rpm	m	ft	Rotor Connection Pin	Standard Stator Top Connection	Maximum Stator OD	
6	38	600	1968	3/4" SH modified	2 3/8" EUE Pin	2.833" (72 mm)	1.14	3.7	Yes
		1200	3936				2.28	7.5	
		1800	5904				3.41	11.2	
		2400	7872				4.55	14.9	
10	63	900	2952	7/8" SH modified	3 1/2" NU Pin or 2 7/8" EUE Box	3.500" (90 mm)	1.96	6.4	
		1200	3936				2.63	8.6	
		1800	5904				3.92	12.9	
		2400	7872				5.21	17.1	
		2700	8856				5.88	19.3	
15	94	900	2952	7/8" SH modified	3 1/2" NU Pin or 2 7/8" EUE Box	3.500" (90 mm)	2.12	6.9	
		1200	3936				2.83	9.3	
		1350	4428				3.17	10.4	
		1800	5904				4.23	13.9	
		2400	7872				5.63	18.5	
2700	8856	6.35	20.8						
20	126	900	2952	1" SH modified	3 1/2" EUE Pin	3.740" (95 mm)	2.25	7.4	
		1200	3936				3.02	9.9	
		1800	5904				4.50	14.8	
		2400	7872				5.99	19.6	
		2700	8856				6.75	22.1	
33	208	600	1968	1" SH modified	3 1/2" EUE Pin	3.740" (95 mm)	2.25	7.4	
		900	2952				3.38	11.1	
		1200	3936				4.50	14.8	
		1500	4920				5.63	18.5	
		1800	5904				6.75	22.1	
2400	7872	9.00	29.5						
43	270	600	1969	1" SH modified	3 1/2" EUE Pin	3.740" (95 mm)	3.00	9.8	
		900	2952				4.50	14.8	
		1200	3936				5.99	19.6	
		1500	4920				7.52	24.6	
		1800	5904				9.00	29.5	
2100	6888	10.49	34.4						
6 INSERT	38	600	1968	3/4" SH modified	2 3/8" NUE Box	2.677 or 2.833" (68 or 72 mm)	1.14	3.7	Minimum Tubing 3 1/2"
		1200	3936				2.28	7.5	
		1800	5904				3.41	11.2	
		2400	7872				4.55	14.9	
16 INSERT	101	1200	3936	3/4" SH modified	2 3/8" NUE Box	2.795" (71 mm)	5.13	16.8	
		1600	5248				6.82	22.4	
43 INSERT	270	350	1148	3/4" SH modified	2 3/8" NUE Box	2.677" (68 mm)	2.90	9.5	
		700	2296				5.80	19.0	
		1050	3444				8.70	28.5	
		1200	3936				10.15	33.3	
1400	4592	11.60	38.0						

*Orbit tube not included: when optional add 1219 mm (48")

Maximum pump assembly element body, collars and tag bar connections may be larger.

FROM THE GROUND UP



PROGRESSING CAVITY PUMP TECHNICAL SPECIFICATIONS

Metric	Imperial	Lift					Length*		Coilable 3 1/2" tubing 3/4" coil
		m	ft	Rotor Connection Pin	Standard Stator Top Connection	Maximum Stator OD	Meters	Feet	
64	402	600	1968	1" SH modified	3 1/2" EUE Box w/ 4' Orbit Tube or 4" NU Pin	4.252" (108 mm)	3.50	11.5	No
		900	2952				5.25	17.2	
		1200	3936				7.00	23.0	
		1500	4920				8.75	28.7	
		1800	5904				10.50	34.4	
		2100	6888				12.25	40.2	
85	535	700	2296	1" SH modified	3 1/2" EUE Box w/ 4' Orbit Tube or 4" NU Pin	4.252" (108 mm)	4.55	14.9	No
		1050	3444				6.83	22.4	
		1400	4592				9.10	29.8	
		1750	5740				11.38	37.3	
		2100	6888				13.65	44.8	
100	629	800	2624	1 1/8" SH	3 1/2" EUE Box w/ 4' Orbit Tube or 4 1/2" EUE Box	5.000" (127 mm)	4.50	14.8	No
		1200	3936				6.76	22.2	
		1600	5248				9.01	29.5	
		2000	6560				11.26	36.9	
106EW	667	400	1312	1" SH modified	3 1/2" EUE Box w/ 4' Orbit Tube or 4" NU Pin	4.252" (108 mm)	2.56	8.4	No
		800	2624				5.12	16.8	
		1200	3936				7.68	25.2	
		1600	5248				10.24	33.6	
125	786	800	2624	1 1/8" SH	3 1/2" EUE Box w/ 4' Orbit Tube or 4 1/2" EUE Box	5.000" (127 mm)	5.60	18.4	No
		1200	3936				8.35	27.4	
		1600	5248				11.10	36.4	
		2000	6560				13.85	45.4	
127EW	799	400	1312	1" SH modified	3 1/2" EUE Box w/ 4' Orbit Tube or 4" NU Pin	4.252" (108 mm)	3.02	9.9	No
		800	2624				6.04	19.8	
		1200	3936				9.06	29.7	
		1600	5248				12.08	39.6	
160	1006	650	2132	1 1/8" SH	3 1/2" EUE Box w/ 4' Orbit Tube or 4 1/2" EUE Box	5.000" (127 mm)	5.60	18.4	No
		810	2657				6.98	22.9	
		975	3198				8.35	27.4	
		1300	4264				11.10	36.4	
		1625	5330				13.85	45.4	

*Orbit tube not included: when optional add 1219 mm (48")

Maximum pump assembly element body, collars and tag bar connections may be larger.

SPECIALTY PUMPS

Models	Flushline	Slimhole
6	2.677" (68 mm)	-
10 / 15	3.500" (90 mm)	-
20 / 33 / 43	3.740" (95 mm)	-
64 / 85	4.252" (108 mm)	3.898" (99 mm)
106EW / 127EW	4.252" (108 mm)	-
100 / 125 / 160	5.000" (127 mm)	-

All models come with welded orbit tube (except 6/10/15)

FROM THE GROUND UP