



PulsaPro Series Introduction

PulsaPro Models 680, 880, 7120

Welcome

PulsaPro Introduction

Presented by: Ant



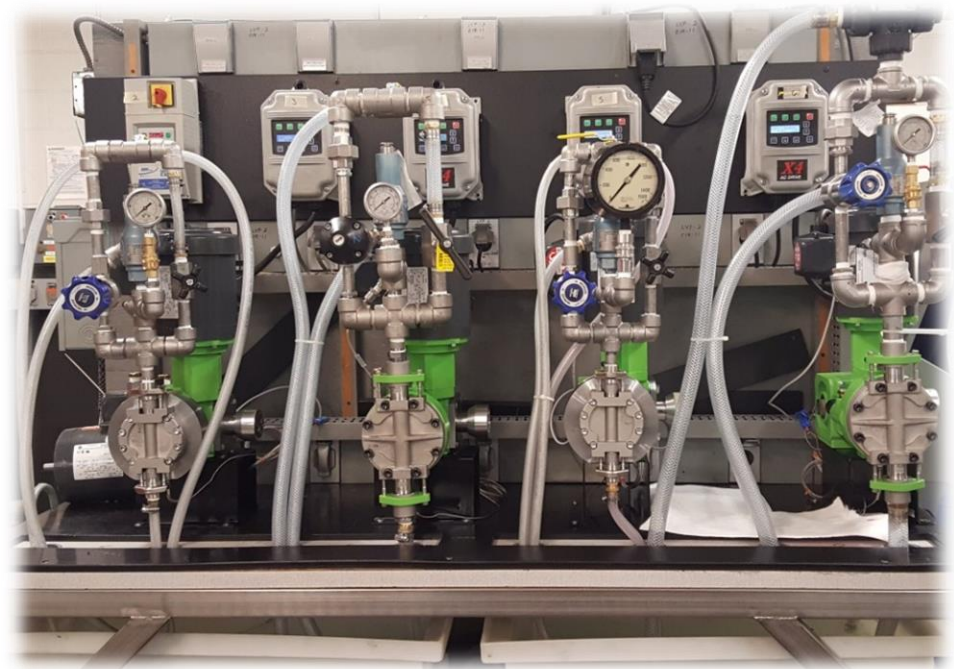
Pulsafeeder, Inc.

- **Pioneers of hydraulically actuated diaphragm metering pumps (液压计量泵的先驱)**
- **Diverse product portfolio (多样化的产品系列)**
- **Delivering quality products and service through our core values of team, trust, and excellence (坚持团队、信任、卓越之核心价值，为客户提供高质量的产品和服务)**



PulsaPro NPD

- **Voice of the customer(客户之声)**
 - Personal interviews with customers and channel partners
(倾听客户及分销渠道的心声，发掘用户需求)
- **Product specification defined based on critical to customer needs (以用户需求为导向定义产品规格)**
- **Product endurance & life testing (可靠性及寿命测试)**
- **Toll-gate process (阶段评审流程)**
- **Cross-function team Process (跨职能团队协作)**

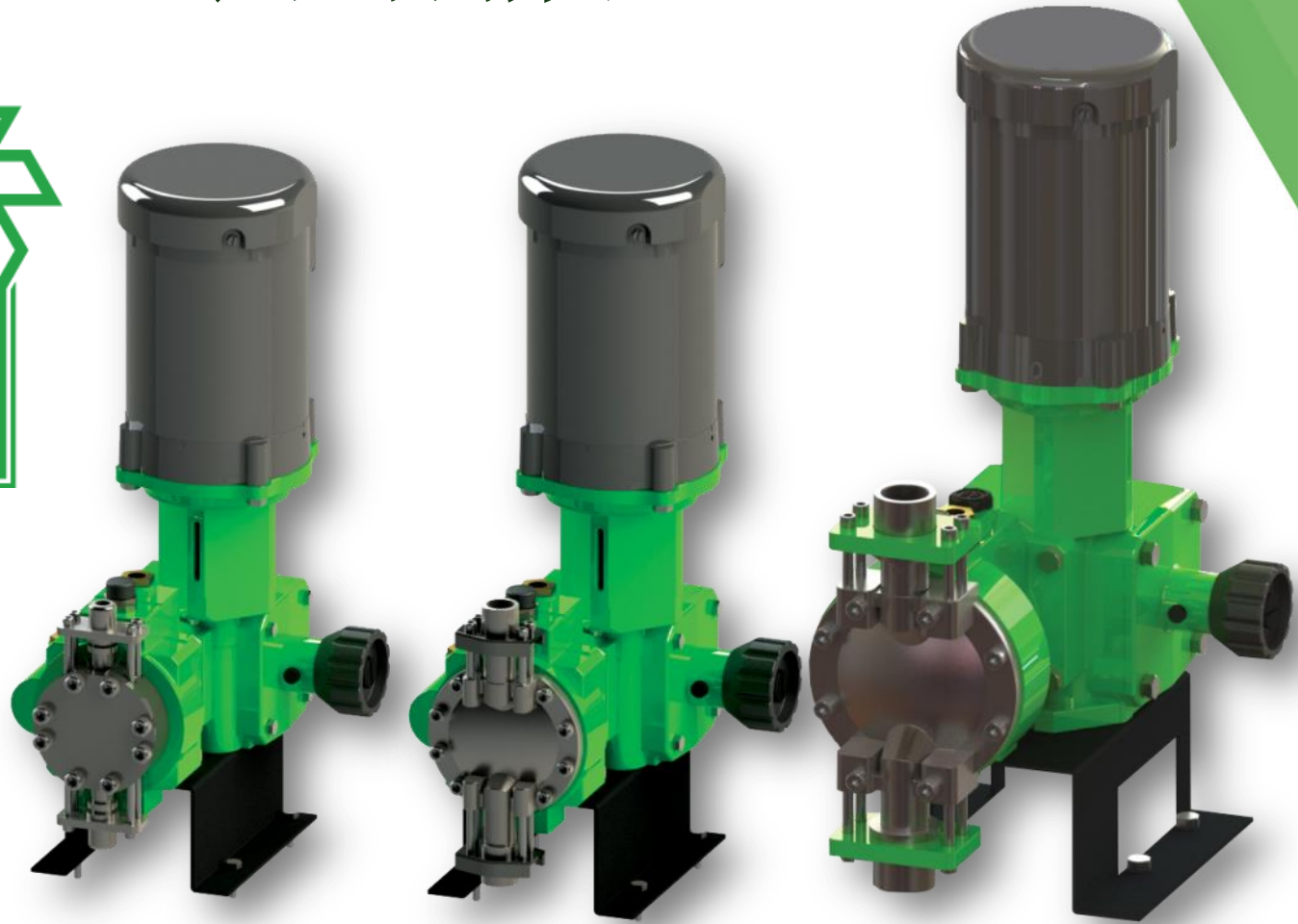


Voice of the Customer (客户之声)

- **Resilient to system upsets and environmental conditions (对系统及环境的适应性)**
 - Easy to commission (易于维护)
 - Robust (坚固耐用)
 - No ingress of water (无渗水点)
- **Economical (经济性)**
 - Easy to operate (易于操作)
 - Low power consumption (节能降耗)
 - Low maintenance costs (维护成本低)
- **Small footprint(较小占用空间)**

PulsaPro Product Line Introduction

(PulsaPro 产品系列介绍)



Introducing PulsaPro (产品介绍)

• PulsaPro 680

- 0.058 gph (0.22 lph) to 38.6 gph (146.12 lph)
- 5,100 psi (350 bar), 0.1667 hp (0.124KW)
- Flat plastic, HYDRAcone, HYDRAtube diaphragm types (板式隔膜、锥形隔膜、管式隔膜)
- 316LSS, GF-PTFE, PVC materials of construction (接液端泵头材料包括316L, 玻纤填充型特氟龙、聚氯乙烯)
 - Optional high alloys and plastics (其它复合金属及塑料材料请咨询销售)
- +/- 0.5% accuracy (from set point) (设置点 ±0.5%精度)
- NPIP 3.0 psi (0.2 bar) (必需汽蚀余量 3.0psi, 2米)



Introducing PulsaPro



- **PulsaPro 880**
 - 0.28 gph (.83 lph) to 115 gph (435.3lph)
 - 5,100 psi (350 bar)最大压力5100psi
 - +/- 0.5% accuracy (from set point) (设置点±0.5%精度)
 - Flat plastic and HYDRAtube diaphragm types (板式隔膜、锥形隔膜、管式隔膜)
 - 316LSS, GFPTFE, PVC (接液端泵头材料包括316L, 玻纤填充型特氟龙、聚氯乙烯)
 - 0.1667 hp to 0.5 hp(0.12KW~0.37KW)
 - NPIPr 3.0 psi (0.2 bar)(必需汽蚀余量 3psi, 2米)

Introducing PulsaPro

- **PulsaPro 7120**

- 1.41 gph (5.33 lph) to 257 gph (972.9 lph)
- 5,100 psi (350 bar)最大压力5100psi
- +/- 0.5% accuracy (from set point)(精度为设置点±0.5%)
- Flat plastic and metal, HYDRAtube diaphragm types (过液端泵头材料包括316L, 玻纤填充型特氟龙、聚氯乙烯)
- 316LSS, GFPTFE, PVC (过液端泵头材料包括316L, 玻纤填充型特氟龙、聚氯乙烯)
- 0.1667 hp to 1.0 hp (0.124kw~0.75kw)
- NPIPr 3.0 psi (0.2 bar)(必需汽蚀余量3psi, 2米)





benefits

PulsaPro

Resilient to System Upset

(对系统及环境的适应性)

PulsaPro Hydraulic Package

PulsaPro 液压系统

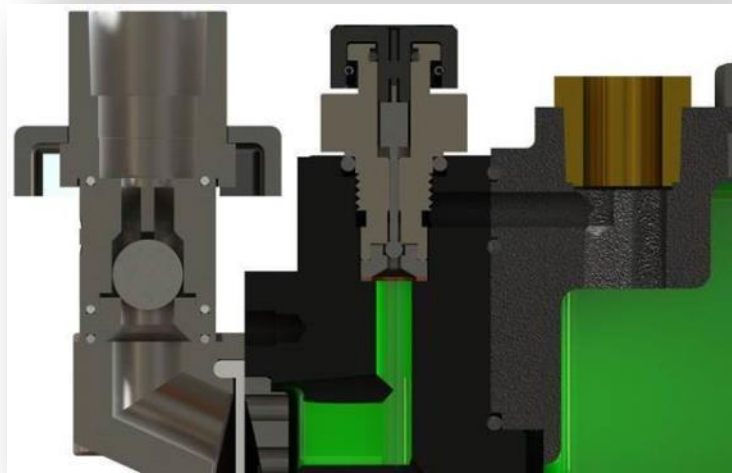
- **PTP – Push-to-Purge**（PTP按压排气阀）
- **HPV – High Performance Valve**(HPV高效补油阀)
- **HBV – Hydraulic Bypass Valve**(HBV液压旁通阀)



Push-to-Purge Valve (PTP 按压排气阀)



- **Ease of commissioning**(方便调试)
- **Auto/Manual air bleeder** (自动/手动排气)
 - Automatic removal of air entrained in the hydraulics (自动排出液压腔内滞留气体)
 - No need for an operator to be present to purge air from the system.(无需人工排气)
 - On demand purge system (即时响应的排气系统)
 - Manual purge of air when pressed to aid in start-up or visually see the state of the hydraulics (手动快速排气, 帮助液压系统快速响应, 可视化观察液压系统工作状态)
- **Maintains hydraulic balance**保持液压平衡
 - Purges excess oil (排出冗余液压油)
- **Precision machined** (精密加工的阀体)
 - Electroless Nickel plated for corrosion resistance (无电镀镍工艺, 增强防腐能力)



Hydraulic Performance Valve (HPV)

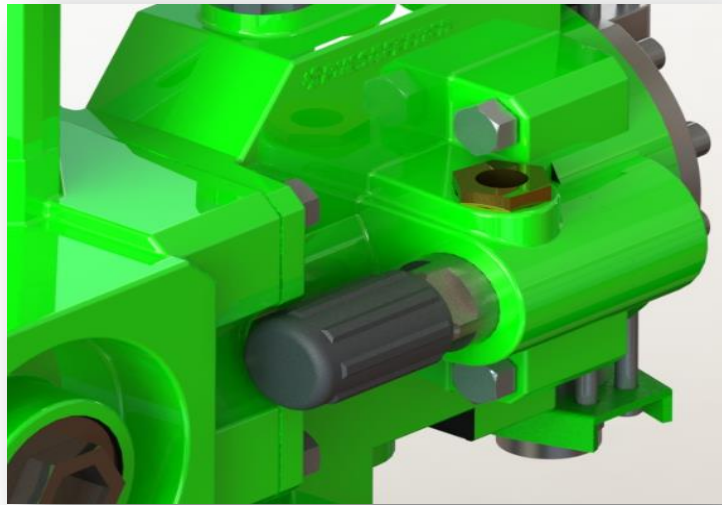
(液压高性能补油阀)

- **Mechanical Refill Hydraulic System** (机械复油液压系统)
- **Provides resiliency to system upsets**(适应系统变化)
 - i.e. blocked discharge, starved suction (如出入口堵塞)
 - Shortens down time (缩短停机时间)
 - Reduces maintenance cost (减少维护费用)
- **Replenishes hydraulic oil on suction stroke as required** (根据自吸行程补液复油)
 - Shortens recovery time by replenishing oil that is lost due to system upset. (快速响应因系统变化引起的液压变化)
- **Eliminates the need for process side dish plate** (去除系统中的蝶型板)
 - Lowers NPIP requirement (降低入口压力需求)
- **Eliminates the need for an adjustable oil make-up valve**(无需调节补油阀)



Hydraulic Bypass Valve (HBV)

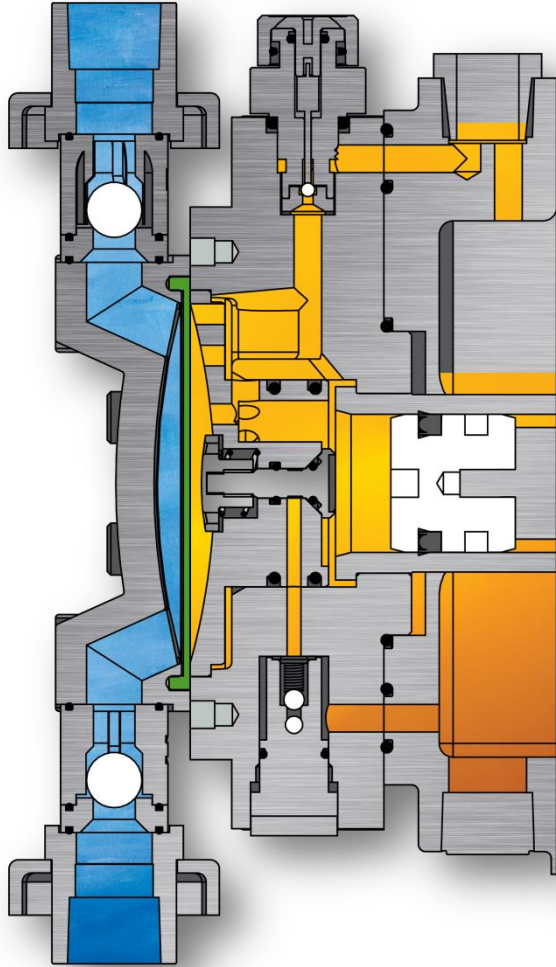
液压旁通阀 (HBV)



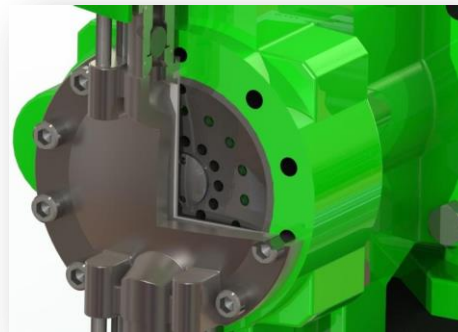
- **Provides protection of the pump from over-pressurization** (对泵过压保护)
- **Externally adjustable internal relief valve** (外部可调)
- **Designed with safety in mind** (安全设计理念)
- **Valve operation instantly verified through hydraulic diagnostics window** (即时响应且可视化观察)
- **Self-contained, single valve package** (独立的模块化阀组件)

How it Works

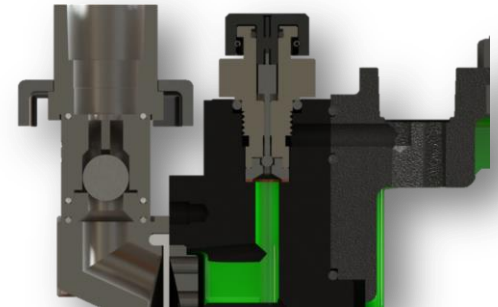
HYDRAULICS (液压工作原理)



Hydraulic Bypass Valve (液压旁通阀)



High Performance Valve & Refill Valve
(高效补油阀)



Push-to-Purge
(按压排气阀)

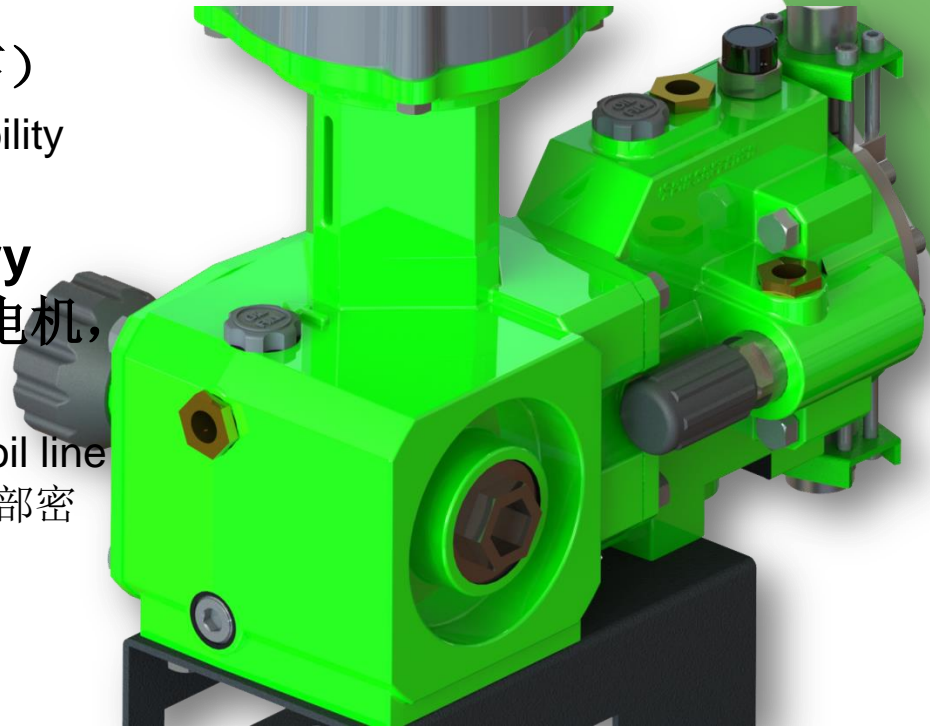
4-Bolt Tie Bar (4螺栓连杆)

- **Easy removal of check valves without breaking piping** (无需拆除管路即可移除并检修阀组件)
- **Provides rigidity to the check valves** (增强阀组件强度)
- **Helps promote leak free operation** (减少泄露可能)
- **Resists connection forces (pipe stress)** 平衡管路连接应力



PulsaPro Gearbox (齿轮箱)

- **Sealed gearbox (完全密封的齿轮箱)**
 - Prevents ingress of fluids (防止进液)
- **Hydraulic and gear oil are separate (液压腔与齿轮箱分离)**
 - Allows for a high temperature capability (允许高温运行)
- **Vertical motor mounting; rotary seals are above oil line (立式电机, 密封高于油位)**
 - Puts the input shaft seal above the oil line where no oil can escape (传动轴上部密封高于油位, 确保内部油无泄漏)





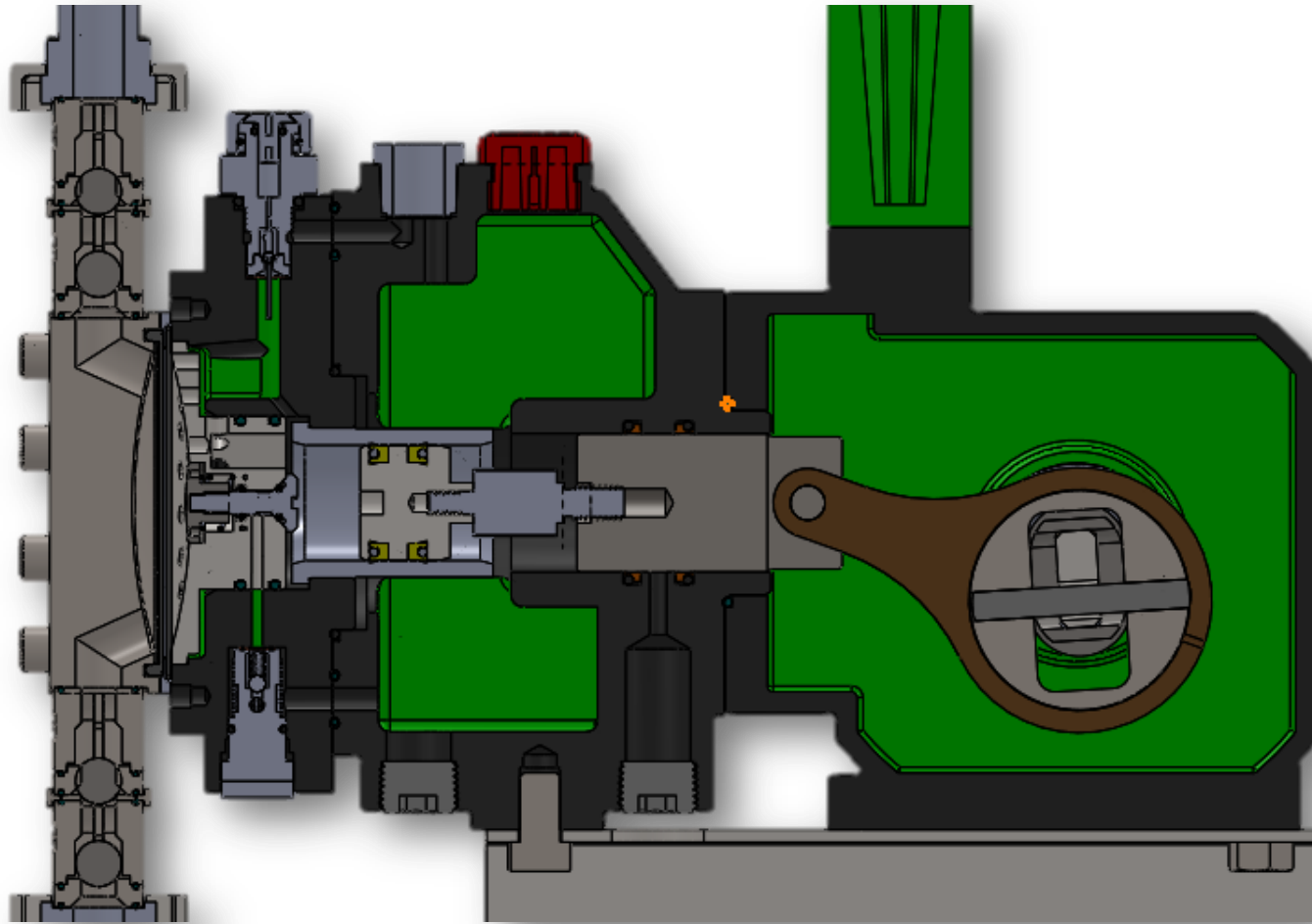
benefits

PulsaPro

Economical to Operate

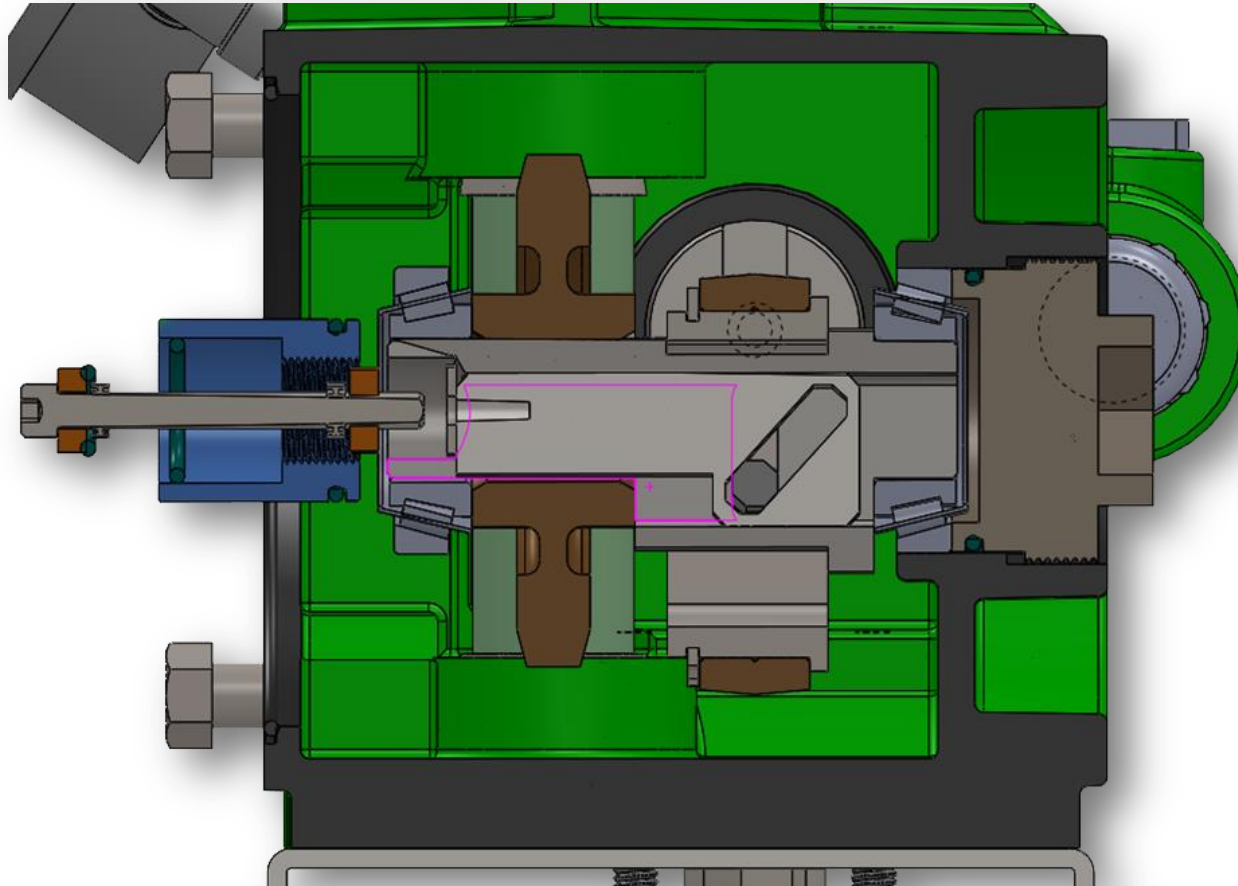
(经济性)

HOW IT WORKS(工作原理)



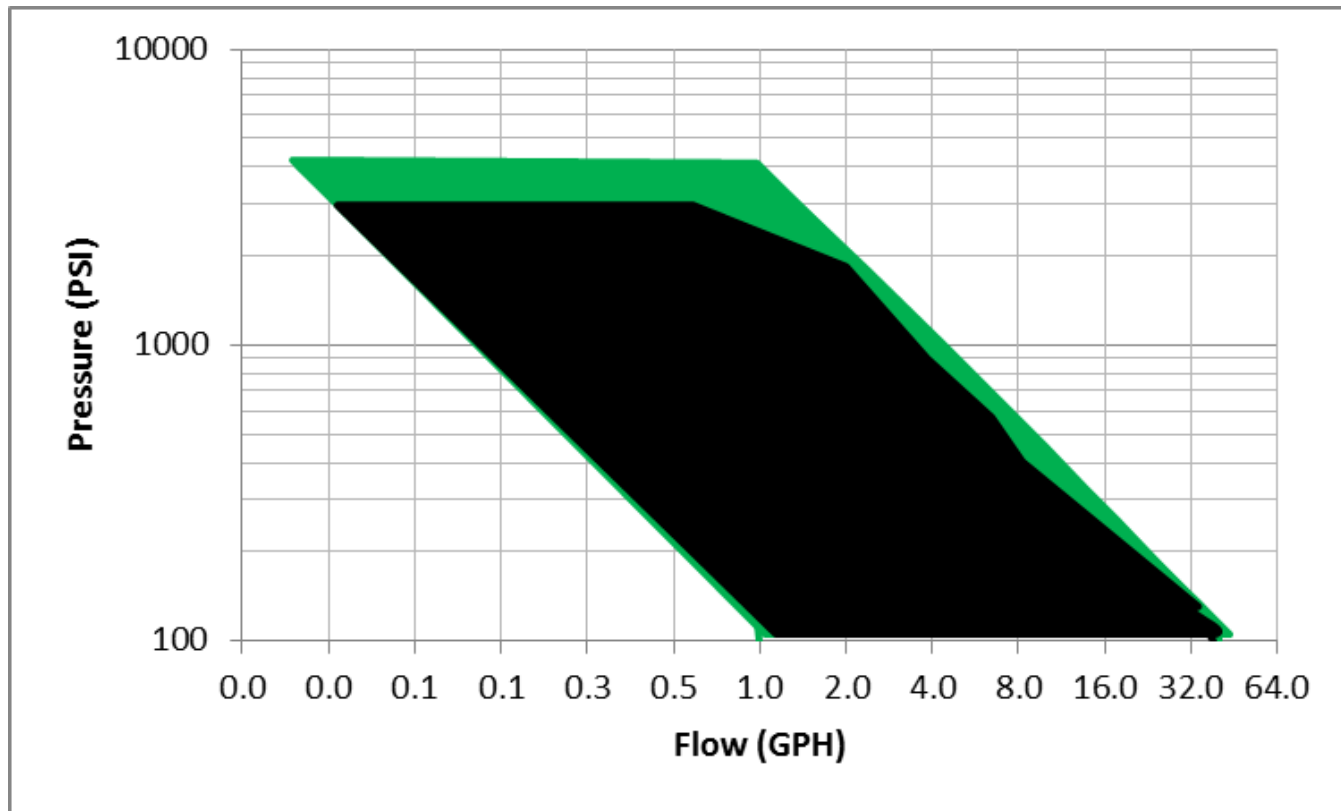
How it Works

STROKE ADJUSTMENT (行程调节)

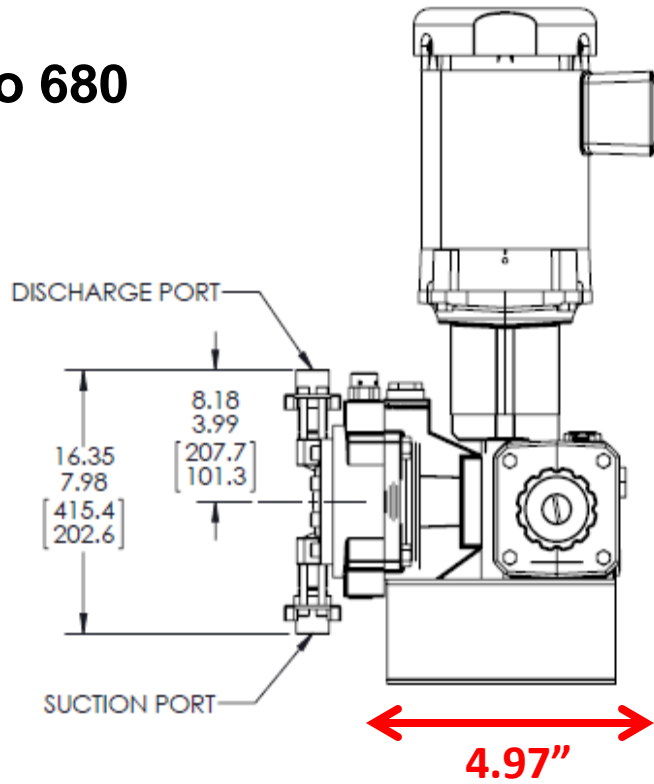


Greater Capability (更宽的流量压力范围)

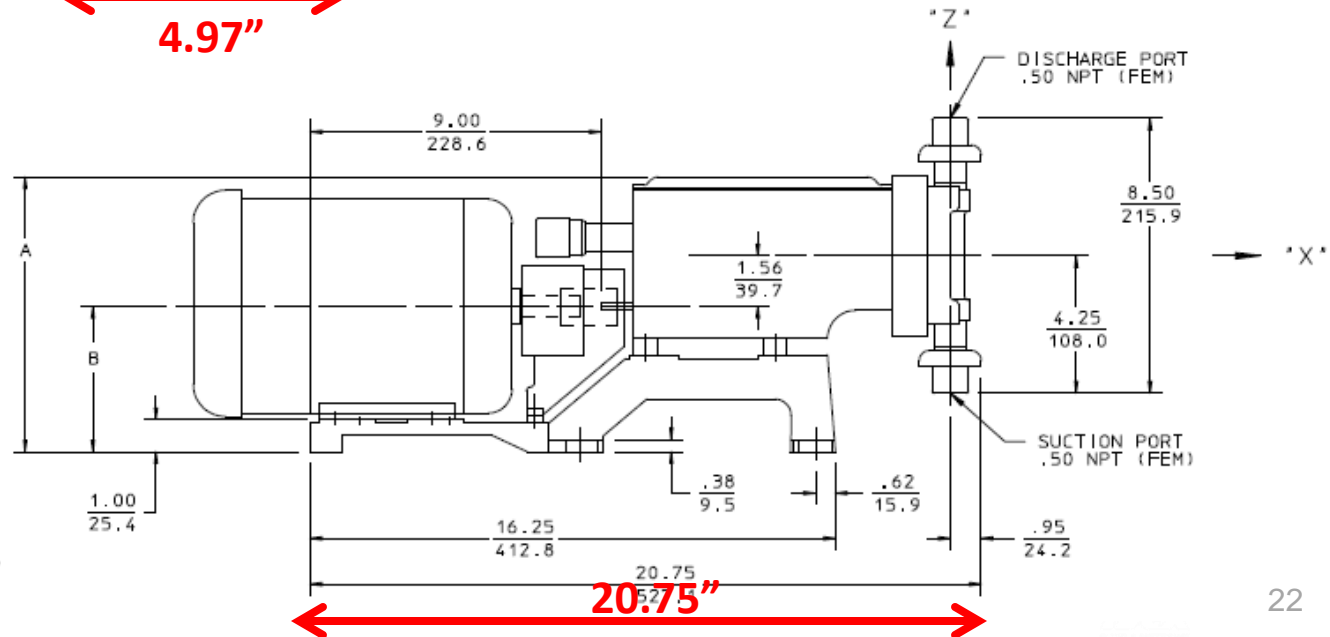
PulsaPro 680 vs. Pulsa Series 680



PulsaPro 680

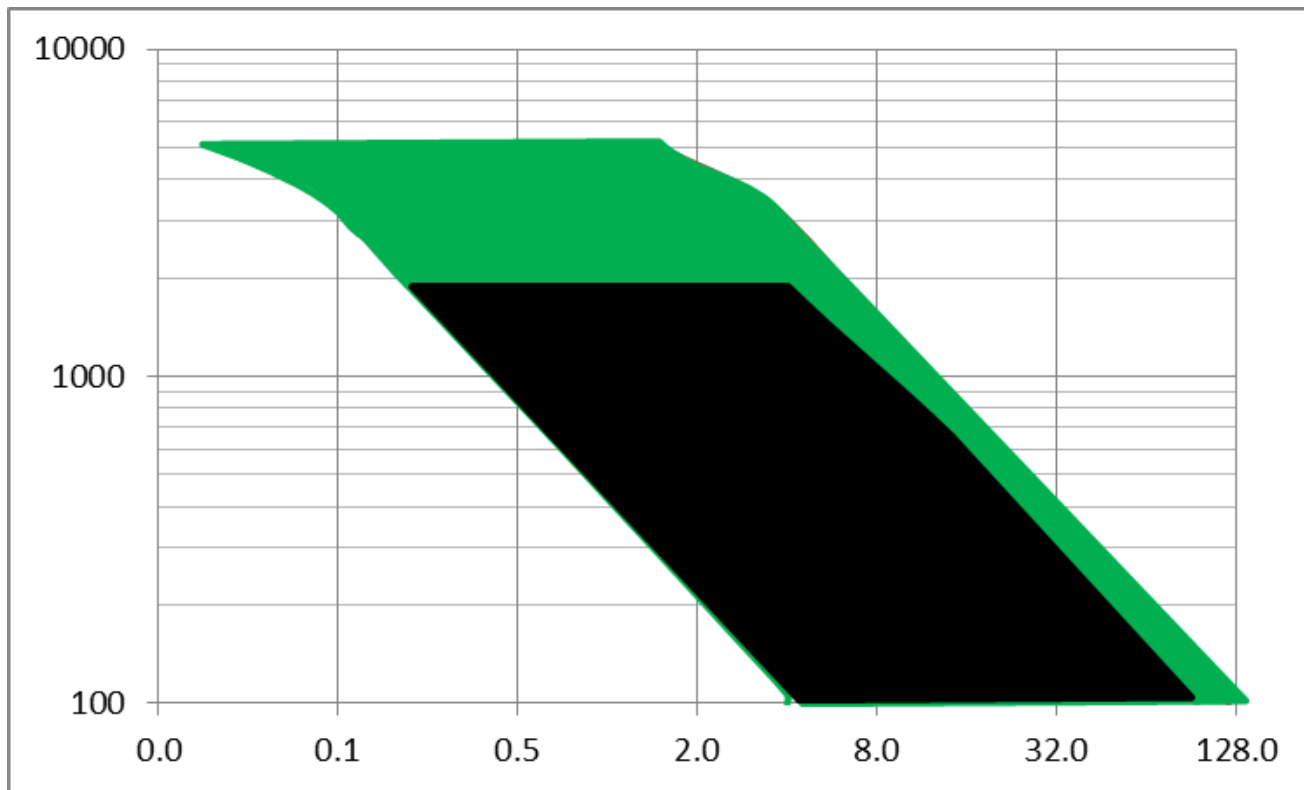


Pulsa Series 680

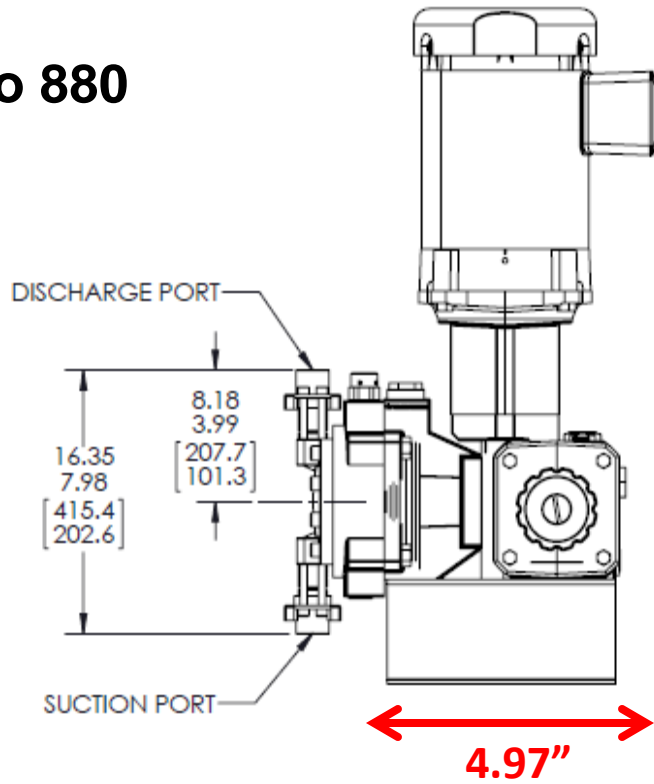


Greater Capability

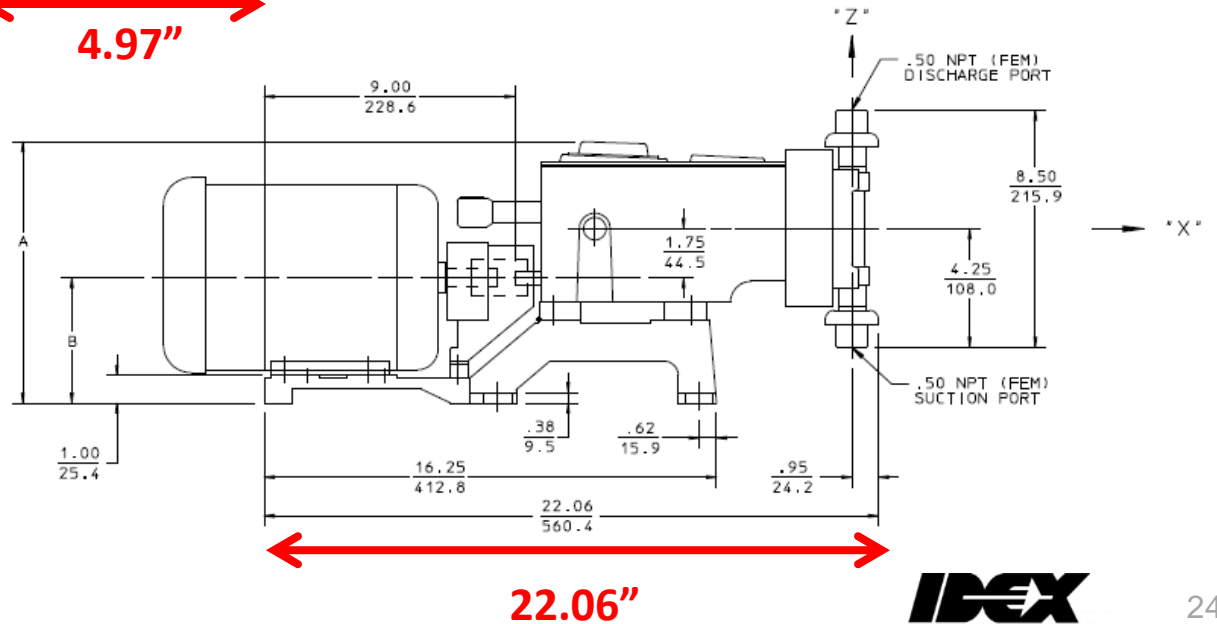
- **PulsaPro 880 vs. Pulsa Series 880 (压力流量对比)**



PulsaPro 880

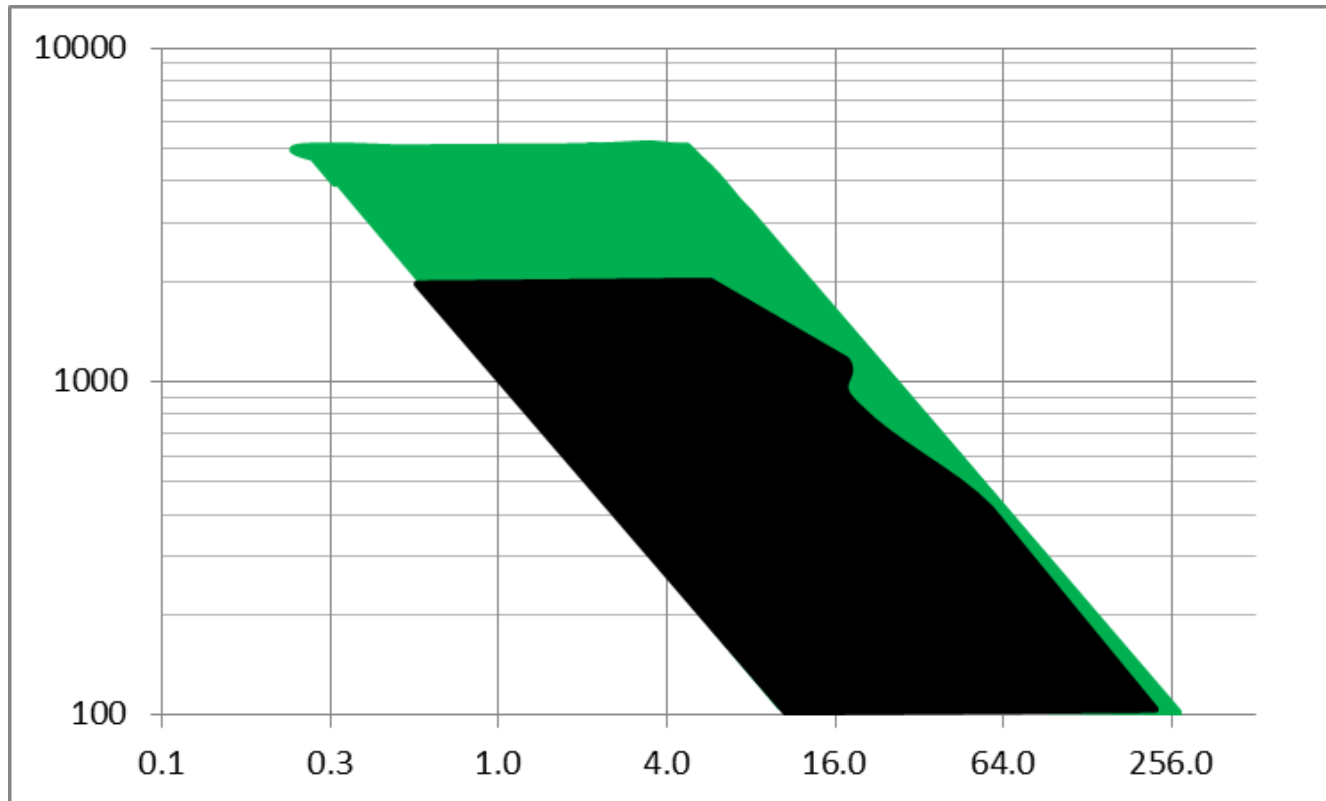


Pulsa Series 880

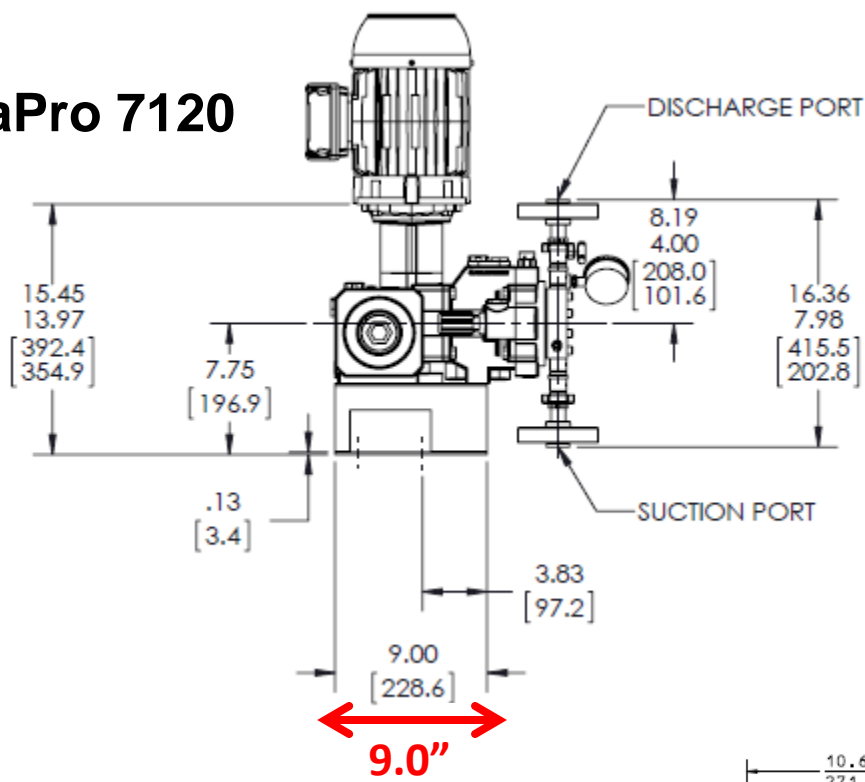


Greater Capability

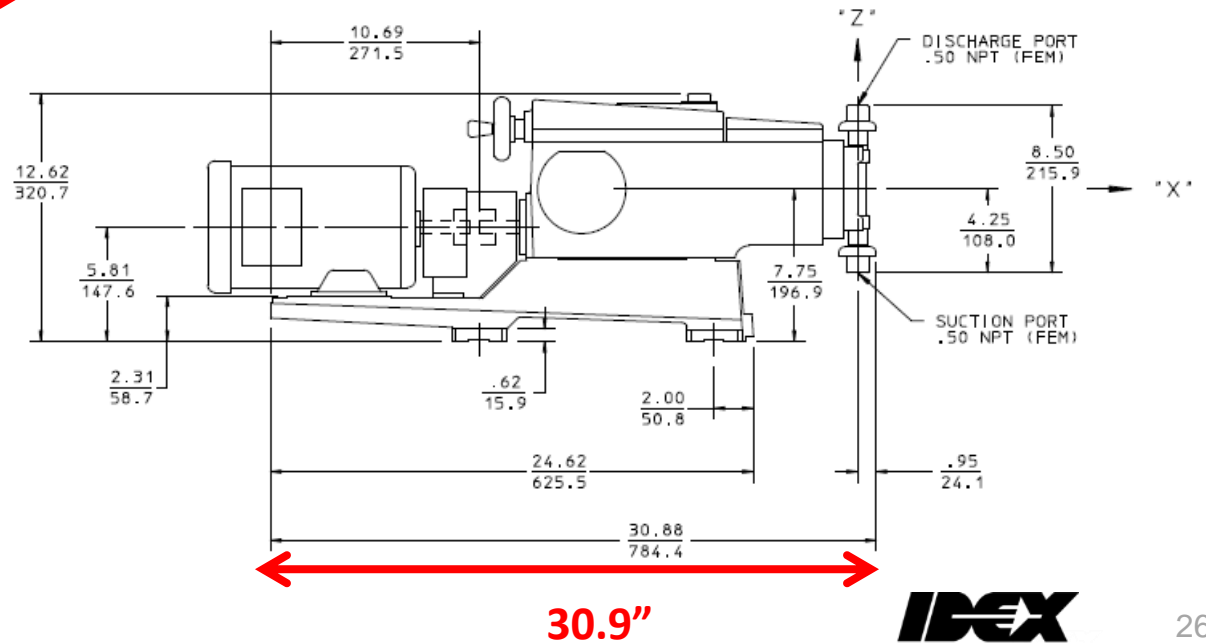
- **PulsaPro 7120 vs. Pulsa Series 7120**



PulsaPro 7120

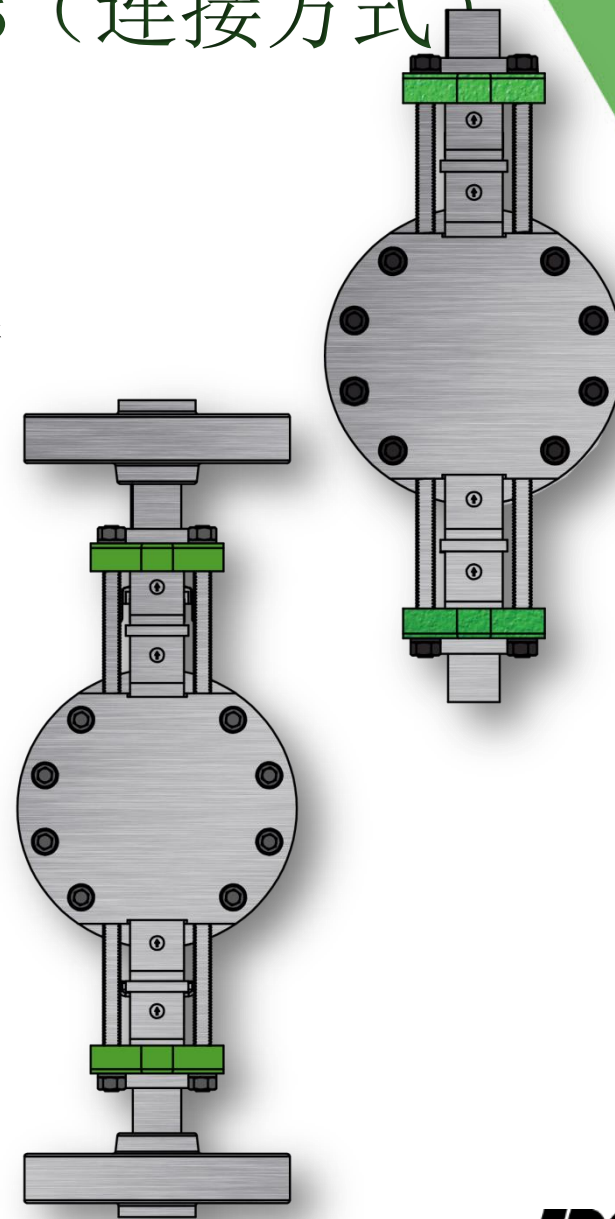


Pulsa Series 7120



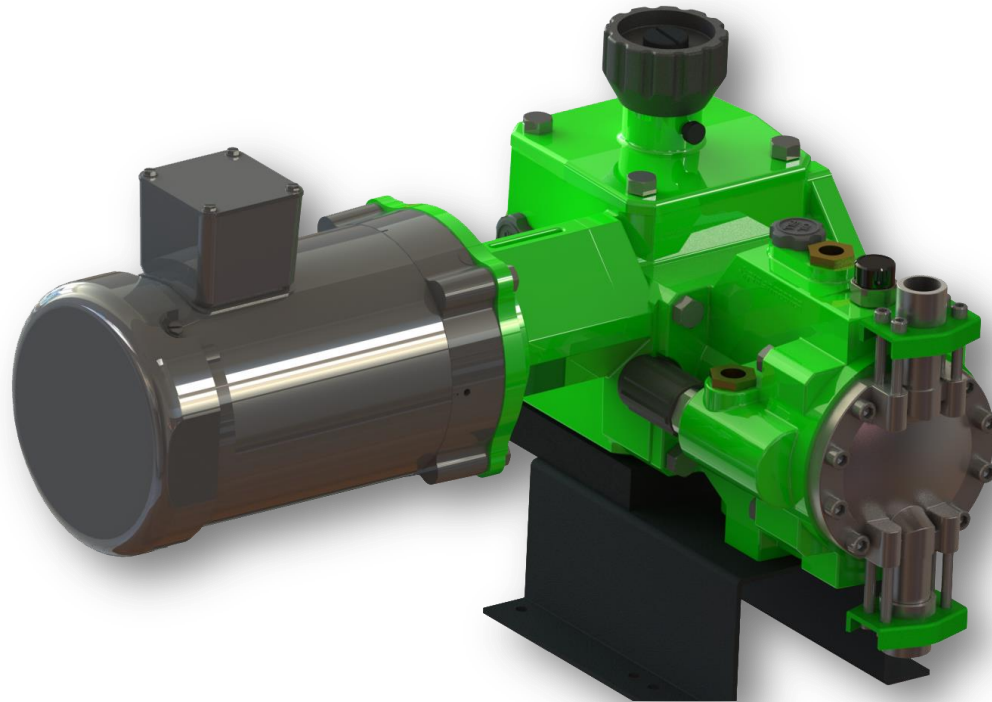
Connections (连接方式)

- **Connection types**
 - NPT (standard) 标准NPT接口
 - BSPT 标准BSPT接口
 - ANSI Raised-face Flanges
 - 150# to 1500# (法兰接口, 150#~1500#)



Power Requirements (电机)

- 0.1667 to 0.50 horsepower(0.124KW~0.37KW)
- Vertically mounted motors for reduced footprint (立式电机压缩泵安装所需空间)
 - Motor Frames will not interfere with controls (马达与控制机构无干涉)
 - Motors can be Vertical or Horizontal (马达立式、卧式可调)
- IEC and NEMA Frames (IEC/NEMA接口)



KOPkits (备件包)

- **Minimal amount of parts needed**

(最小化的备件包)

- Diaphragm (隔膜)
- Valve seats (阀座)
- Check valves (阀球)
- O-rings (密封圈)





benefits

PulsaPro

Value for Our Customers

Pulsapro （为客户提供的价值）



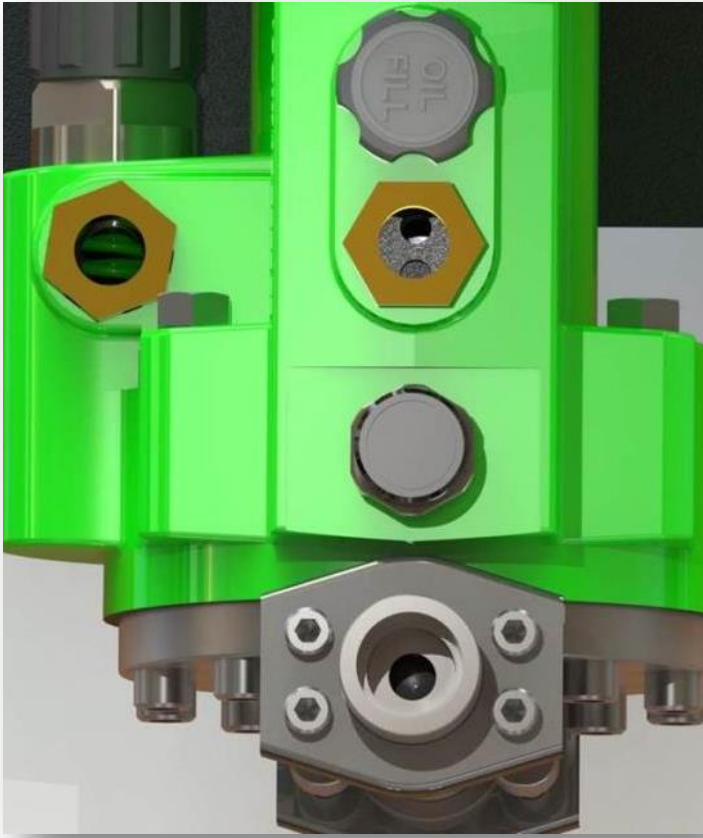
benefits

PulsaPro

**Safety is Everyone's
Responsibility** (安全是所有人的共同责任)

Hydraulic Diagnostic Package

(液压诊断包)

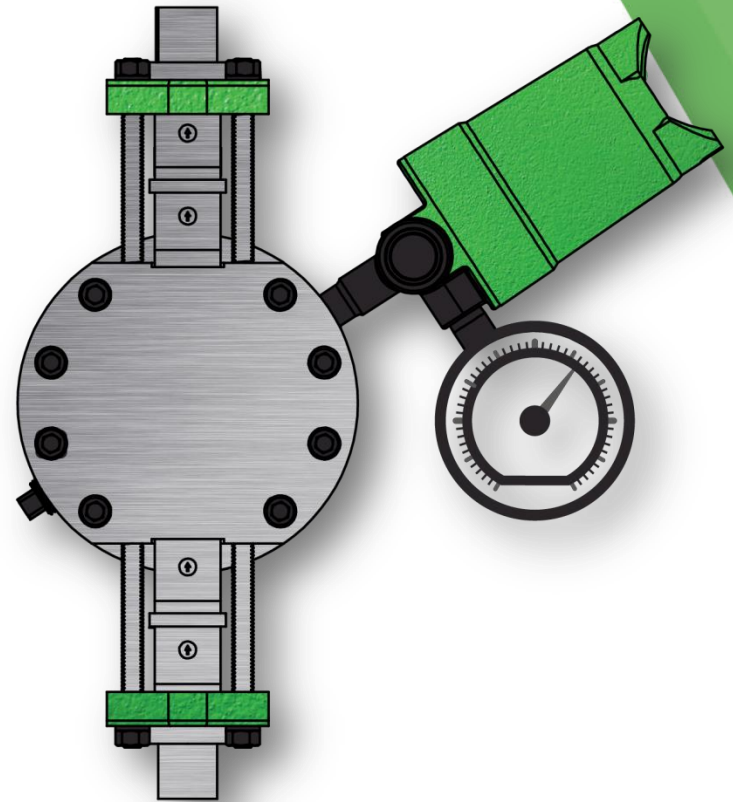


- **Provides a visual indication of pumps performance and operation** (可视化监测工况)
 - System over-pressurization (系统过压)
 - Entrained air in hydraulic oil (液压腔内油气滞留)
 - Diaphragm integrity (隔膜工况)
- **Oil Level Sight Glass (液位观察孔)**
 - Eliminates the need for removal of covers or dip sticks to verify oil levels (无需拆卸盖板或增加油位指示杆)
 - Important for explosive atmosphere environments where oil level should be checked frequently (方便防爆环境下的油位监测)

Leak Detection (泄漏监测)

PULSAlarm Leak Detection

- Double diaphragm (双隔膜)
- Gauge and switch (压力表及开关)
- Pressure based (基于压力响应)
- IP66, NEMA Type 4X and NEMA Type 7 (所符合的标准)
- Side entry, takes up less space & is easier to read (合理的侧位安装, 不占用空间, 容易观测)
- Optional connection for pressure detection devices (可选的压力感应装置)



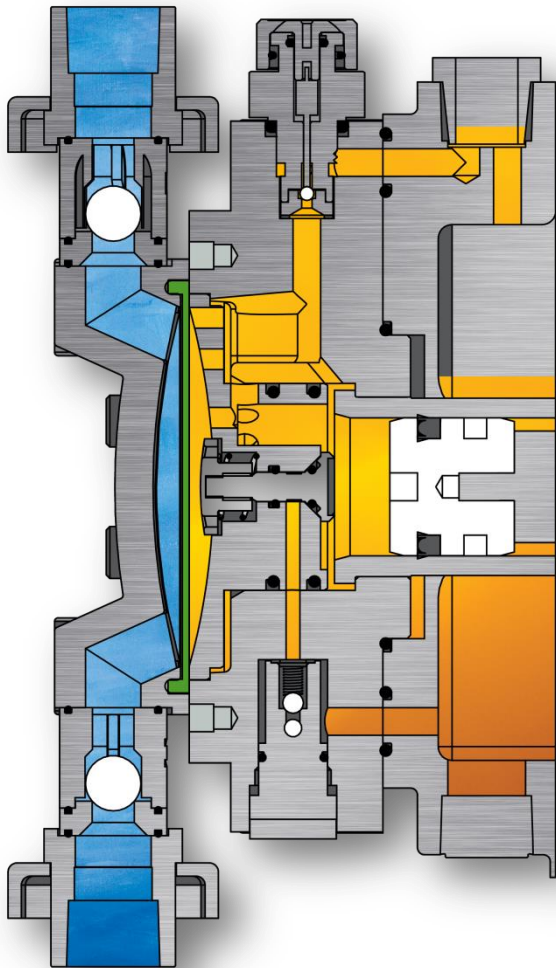


benefits

PulsaPro

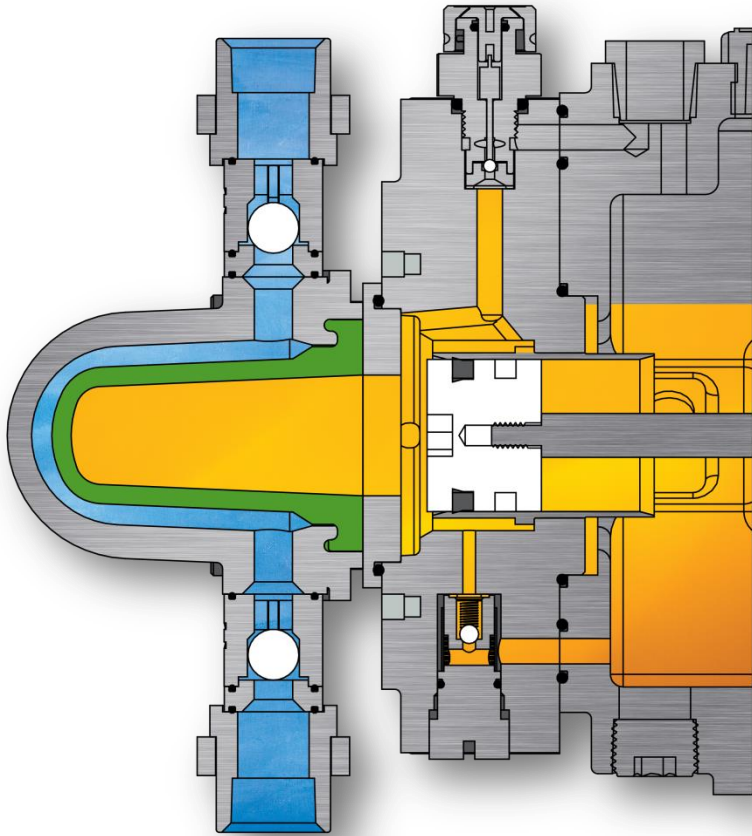
Meeting Customer's Specification (满足客户需求)

Flat Diaphragm (板式隔膜)



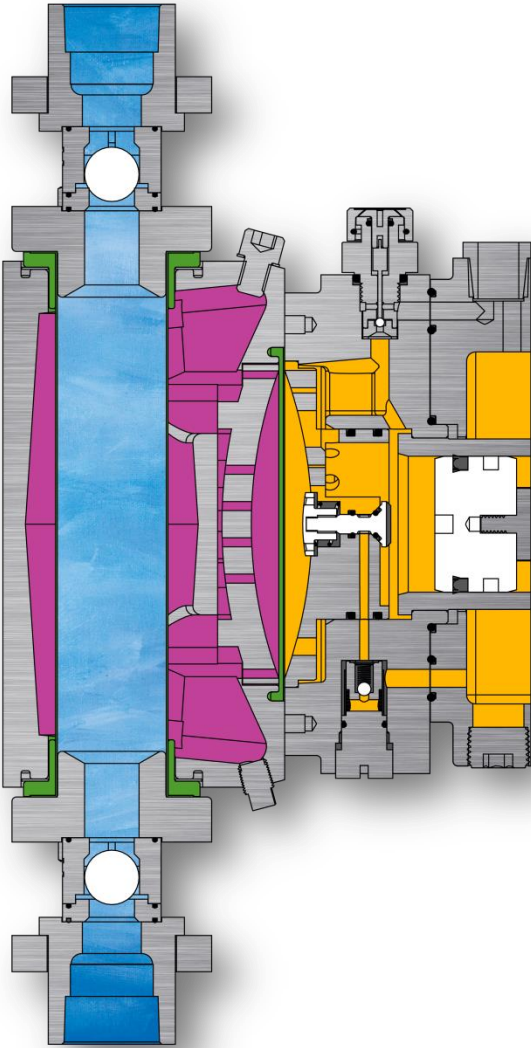
- **Single and double** (单隔膜或双隔膜)
- **PTFE and metallic** (特氟龙和金属材料)
- **Leak-detection adds double diaphragm protection**(泄漏报警适用于双隔膜保护选项)
- **Separates the process fluid from hydraulic fluid** (隔断过液端与液压系统)
- **Appropriate for most pumping applications** (适用于大部分应用环境)
- **Backwards compatible** (新老泵兼容性)

HYDRACone diaphragm (锥形隔膜)



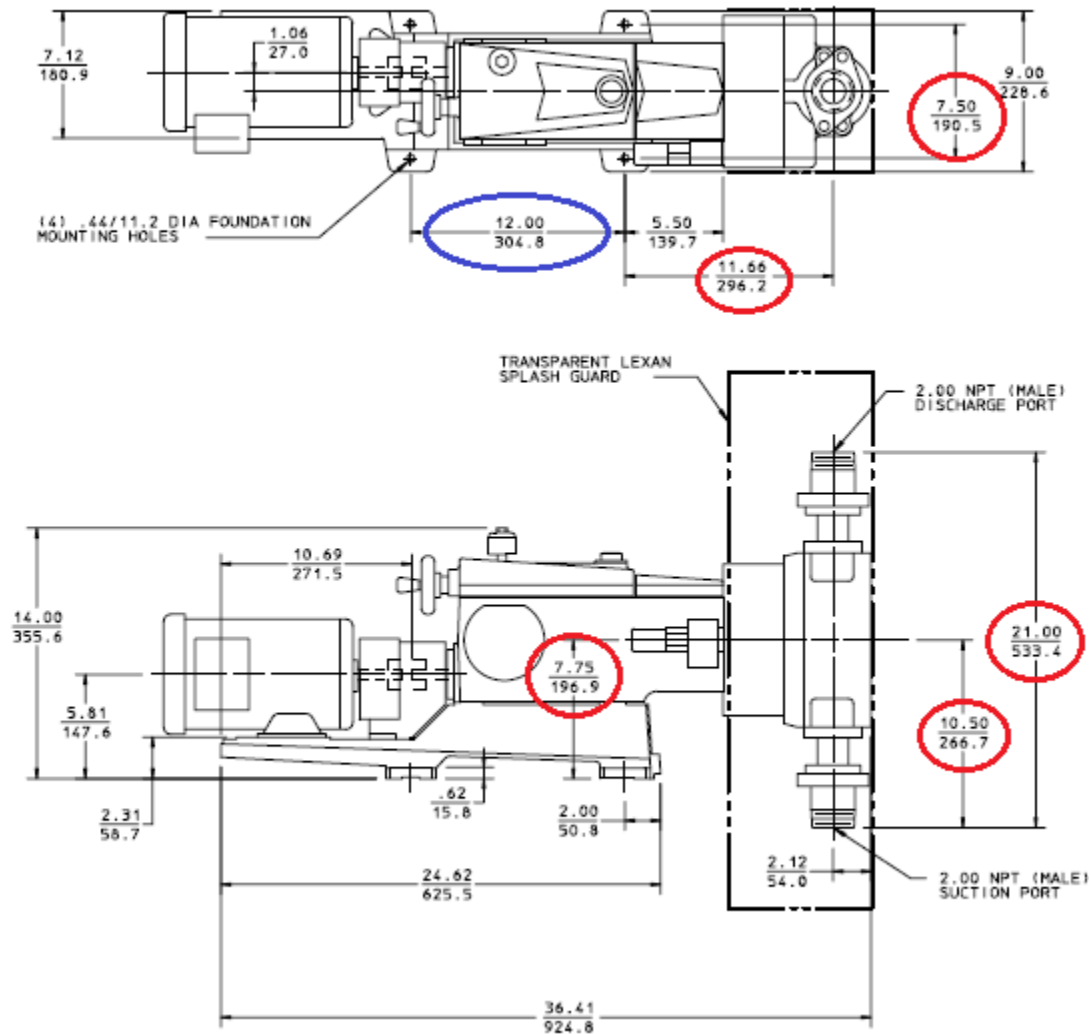
- **Cone enables high suction lifts (高吸程)**
- **Flow-through path - good for high viscosities and slurries (畅通的流道, 适用于高粘度的应用)**
- **Three valve hydraulic system(三阀液压系统)**
- **Elastomeric materials (弹性橡胶材质)**
- **Backwards Compatible (新老泵兼容性)**

HYDRAtube Diaphragm (管式隔膜)



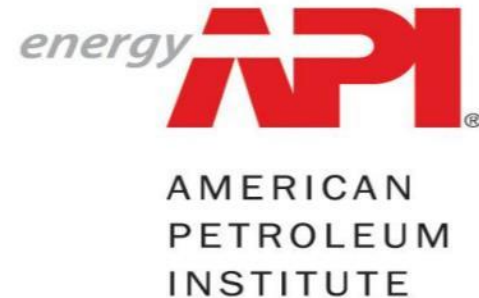
- **Good for high viscosities / slurries - straight flow-through path** (较好的通过性能, 适用于高粘度应用)
- **Inherent double diaphragm**(固有的双隔膜设计)
- **Leak detection adaptable** (可选防泄漏报警)
- **Three valve hydraulic system** (三阀液压系统)
- **Elastomeric & plastic tube diaphragms** (橡胶及弹性塑料材质)
- **Backwards compatible** (新老泵兼容性)

Backwards Compatibility (向上兼容)



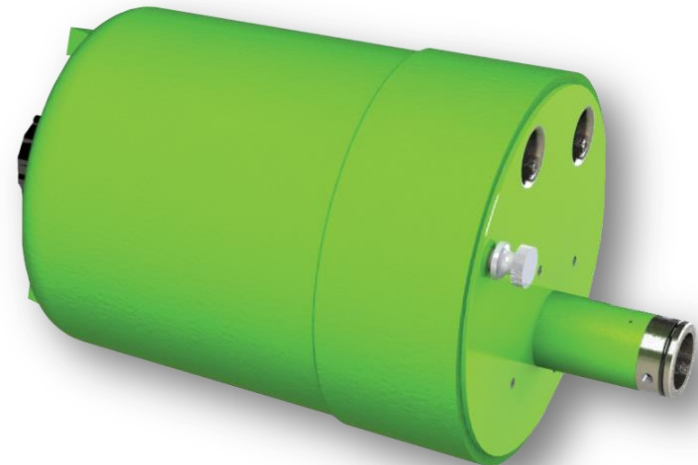
API-675 Compliant (符合API 675)

- **API-675 standard build with all optional testing available** (按照API制造, 可提供所有可选测试需求)
- **No external piping** (无外联管路)
- **Cast Iron housing** (铸铁壳体)
- **Fully compliant API standard 675, 3rd edition, November 2012** (完全适用最新的API 675第三版)
 - Cap screws on reagent head must be confirmed with the customer. (泵头螺栓组根据客户确定具体形式的有头螺栓)



PulsaPro XAE

- **1 ph, 90-260 V, 50/60 Hz** (单项, 90-260伏, 50/60赫兹)
- **4-20 mA input and output** (4~20毫安信号输入输出)
- **3 digital inputs: Run, Alarm, & Permissive Interlock**
(3种数字输入, 运行, 告警, 自定义锁止)
- **3 outputs, dry contacts** (3种输出, 无液接触)
- **50°C ambient temperature rating** (最高摄氏50° 外部环境)
- **NEMA Type 4X and NEMA Type 7**
(符合NEMA TYPE 4X)
- **Auto/Manual switch**
(自动/手动切换)
- **No suction pressure limitations**
(无入口压力限制)



PulsaPro XAE

Feature	XAE	DLC/M	ECA4/7	ELMA	P-Matic	Rotork	MPC	AC VFD
Isolated analog input/output	Yes	Yes	Yes	No	No	Yes	No	No
Digital Input #1	Run/Stop	Run/Stop	Run/Stop	Local/Remote	Local/Remote	Option	Run/Stop	Programmable
Digital Input #2	Local/Remote	Level	No	No	No	Option	Leak Detection	Programmable
Digital Input #3	Alarm	No	No	No	No	Option	No	Programmable
Digital Output #1	Relay(NO/NC)	SS (Prog)	No	No	No	Relay (NO/NC)	SS (Prog)	Relay(NO/NC)
Digital Output #2	Relay(NO/NC)	SS (Prog)	No	No	No	Relay (NO/NC)	SS (Prog)	SS (Prog)
Digital Output #3	Relay(NO/NC)	No	No	No	No	Relay (NO/NC)	SS (Prog)	SS (Prog)
NEMA 4X/IP 56	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Option
NEMA 7	NEMA 8	NA	Yes	Yes	Yes	Yes	No	No
Display	3 LED	2x16 LCD Alpha	2 LED	2 LED	4 LED	2x16 LCD Alpha	2x16 LCD Alpha	4 LED Alpha
Push Button Settings	3-Button (Int)	9-Button (Int)	2-Button (Int)	No	No	3-Button (Int)	4-Button (Ext)	4-Button (Ext)

PulsaPro Series

- **Pricing** (价格体系)

- Available in iPass₂ on December 5, 2016 (12/5已上线, 通过iPass2查询)
- Like for like is a price reduction (高性价比)
 - More value for the same price (价格不变, 性能增强)

- **Lead-Time** (交货期)

- Slightly extended lead-times at launch (初期适当延长交货期约8周)
- Standard lead times to be 3-4 weeks (标准交期为3~4周)



benefits

PulsaPro

**Exceeding Customer
Expectation** (超出客户期望)

PulsaPro Series

- **High pressure capability – 5,100psi (350bar)**
增大的压力可用范围-5100 psi(350bar)
- **Three diaphragm types (三种隔膜形式)**
- **All pumps are full motion (所有泵均为全冲程形式)**
- **Compact footprint (安装空间兼容之前旧泵)**
- **Integral mounted leak detection gage & switch (集成式防泄漏报警置)**
- **Low NPIPr – 3 psi (低入口压力需求, 3psi)**
- **API-675 compliant (符合最新API 675要求)**
- **100:1 turndown (100:1 调节比)**
- **Accuracy +/- 0.5%, based on set point (精度: 设置点 ±0.5%)**
- **Port-to-port backwards compatible (接口尺寸及管路与之前旧泵兼容)**

PulsaPro Series

- **Strong Competitive Position**

(增强的竞争力)

- Hydraulically more powerful

(增强的液压系统)

- Higher Pressures (更高的压力范围)

- Simplex vs. duplex to meet pressure

(单泵VS 双泵头实现压力)

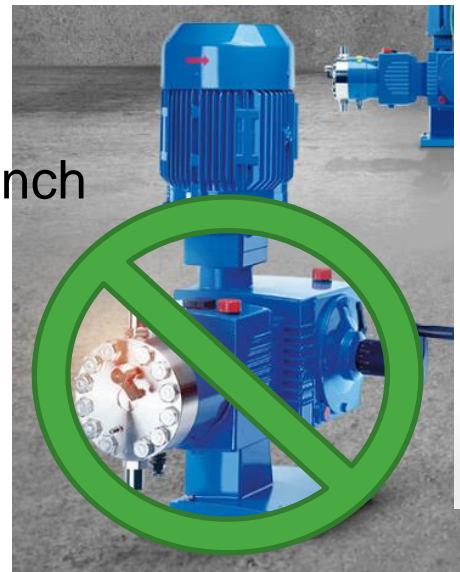
- Power dense (更高的效率)

- Increased power per square inch

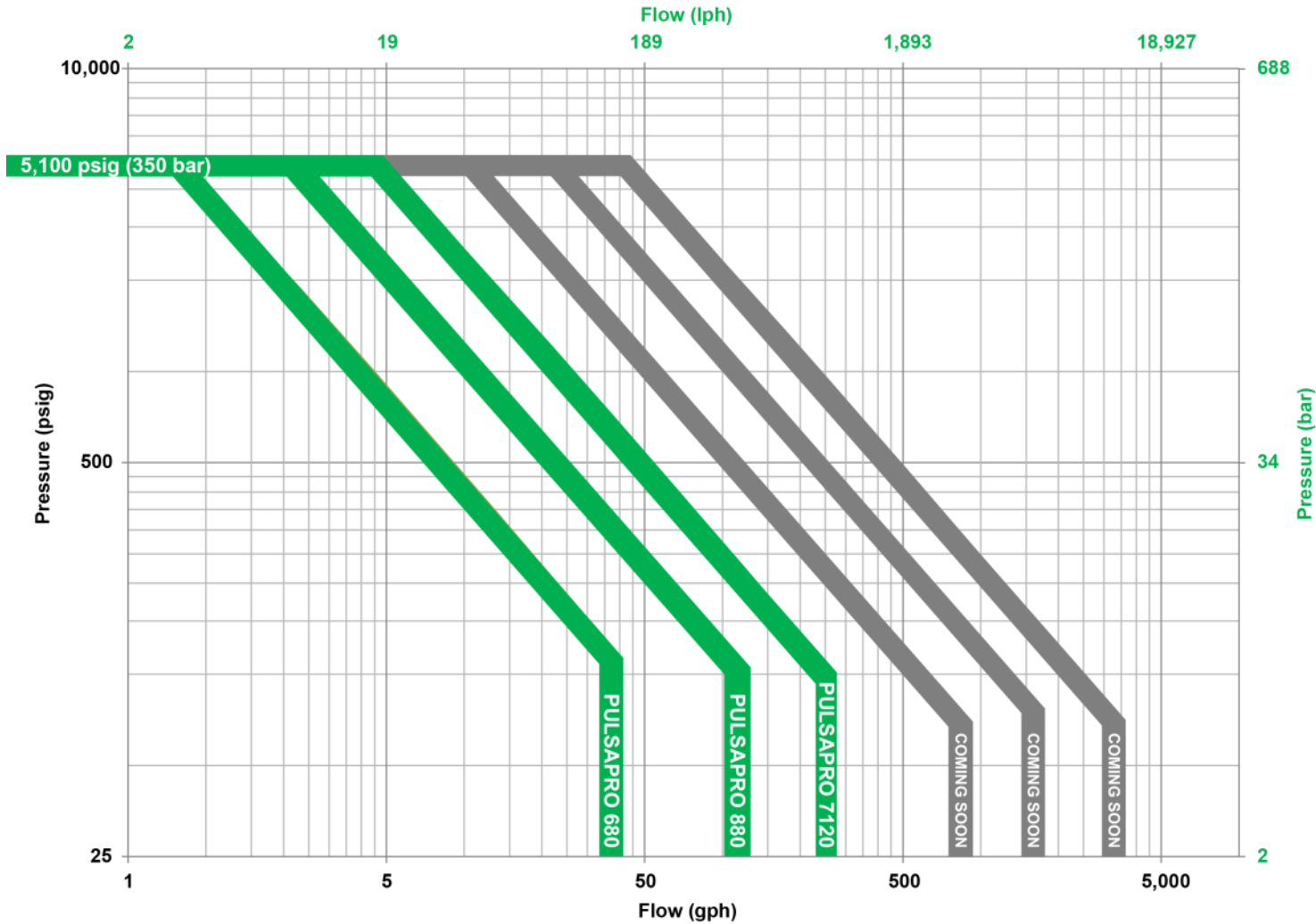
(压榨电机效率, 更节能)

- More value for the price

(更高性价比)



What's Next? 接下来...



Please email your questions to
propumps@idexcorp.com
Use PulsaPro Question in the subject line.

Thank you!