**DynaSeal™ Benefits**

**DynaSeal™ Standard Specifications:**
- ≥ 15" Hg Vacuum
- 60-120˚ F Ambient Temperatures
- 180˚ F Inlet Gas Temperature Max
- 180˚ F Discharge Gas/Oil Temperature
- If conditions differ, consult factory for recommended design modifications.

**200˚ F Inlet Gas** – Consult factory.

**Capacity Range Standards**
- 15-1000 ACFM. Larger systems available upon request.

**Low Noise Level.**
Unlike rotary screw vacuum pumps, which run at rotor speeds as high as 9000-rpm, DynaSeal™ systems operate at conservative speeds (1750-rpm) resulting in low noise levels (75-80 dBA at 3-ft) acceptable to the environment without the need for sound enclosures.

**Minimal Maintenance.**
DynaSeal™ systems typically only require an oil change and replacement of discharge filter every 10,000 hours under normal operating conditions. No other maintenance is required except for periodic greasing of bearings.

**Not affected by carry-over of soft solids or liquids.**
DynaSeal™ systems can handle carry-over of soft solids and liquids without damage to the system components. We do however recommend to install an inlet filter/strainer or knock-out pot in those applications where a high carry-over of either solids or liquids is expected.

**Designed for continuous operation.**
DynaSeal™ systems are designed for continuous operation over the full vacuum range without overheating.

**Automatic Temperature Control.**
Prevents low temperature operation, reduces accumulation of water and other liquids in the reservoir and decreases the risk of bacteria growth. This optional feature is very important in hospital and other intermittent duty applications.

**Low Vibration.**
DynaSeal™ systems require no special foundations or anti-vibration mountings as a standard.

**High-Quality Manufacturing Standards.**
Travaini pumps are manufactured under ISO 9001 quality control standards.

**Quality Control**
DynaSeal™ systems are a “proven design”. Combine this with our inline quality procedures and outgoing inspection, this provides you with the leading quality in the industry.

**Custom Solutions**
DynaSeal™ systems can be provided in single or multiple system configurations with programmable controllers to meet your specific requirements. Explosion proof designs for those stringent environments. Wide range of materials including stainless steel, copper, etc.

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**Principle of Operation**
A multi-bladed impeller mounted on a shaft is positioned eccentrically in a cylindrical housing, partially filled with liquid. Portplates with inlet and discharge openings are positioned on each side of the impeller (Figure 1). As the impeller rotates, centrifugal force pushes the liquid outward, forming a liquid ring (Figure 2). Looking at the YELLOW area of the impeller chambers (Figure 3), we see that on the right hand side, from the top down, the chamber volume increases as the liquid ring moves outward, creating a vacuum in the impeller chamber. On the left hand side, the volume decreases as the liquid moves inward, increasing the pressure in the chambers until the discharge takes place through the discharge opening. A continuous flow of fresh sealing liquid is supplied to the pump.

**Seal Fluid Technology**
In our ongoing search for better solutions, we can offer alternative sealing fluids that are environmentally friendly. Unlike other types of vacuum pumps, our liquid ring design requires no internal lubrication because there is no metal-to-metal contact between rotating and stationary parts and the bearings are located external to the pumping chamber. This allows for more diversity when choosing the sealing fluid because the lubricating properties of the fluid are not critical.

The Travaini DynaSeal™ system offers a simple, low maintenance design with low noise and vibration levels, as well as reduced operating costs.

Count on Travaini for in-depth experience, technology and innovation. Our extensive inventory of pumps and replacement parts can, in most instances, be shipped the same day. Superior service is our #1 goal.

DynaSeal™, you can’t beat the system.
DynaSeal™ Systems are used extensively in industries such as:

- Hospitals, healthcare and pharmaceutical
- Soil remediation
- Wood working and wood impregnation
- Electronics and semi-conductors
- Printing and paper converting
- Food and meat processing
- Plastics, automotive and aircraft
- Sterilization and impregnation
- Plus numerous others

Made in the USA, DynaSeal™ systems are designed, built, and tested at our facility in Yorktown, Virginia.
Latest concept of our patented DynaSeal™ System

Features:
• Space Saving
• Vastly Improved Mist Elimination
• Cost Savings
• 3 Models Available

The “Mini” Series
Models – TRO-075VM, TRO-110VM AND TRO-160VM

Using our 3 monoblock vari-ported pump designs, models TRM 40-110, 40-150, and 40-200, we offer these three systems, 5, 7.5, and 10 hp, configured to incorporate the above features.

The traditional oil sealed systems has a footprint almost twice the length and 50% wider than the “MINI” Series. By incorporating the monoblock pump design, we have developed the “MINI” package to fit within equipment or locations that require economies of space.

Traditional oil-sealed packages have been designed to handle vacuums beyond 15” HgV, as the majority of applications require. Below 15” HgV, the coalescing filters are not designed to fully handle the oil mist. The new “MINI” Series was designed to coalesce from 0-30” HgV vacuum through our unique filter element and specially formulated synthetic oil.

The simplicity of the “MINI” design has resulted in reduced costs which allow us to pass the savings on to you, our customers. Cost is always a priority without sacrificing the quality you’ve come to expect from Travaini products.

DynaSeal™ Standard Specifications:
≥ 15” Hg Vacuum; 60-120° F Ambient Temperatures; 180° F Inlet Gas Temperature Max; 180° F Discharge Gas/Oil Temperature; If conditions differ, consult factory for recommended design modifications.

Explosion proof designs are available upon request.
Larger capacity systems are available upon request.
DynaSeal™ systems are available in multiple pump configurations with a wide range of optional accessories.
DynaSeal™ systems can be customized per O.E.M. specification and for special applications.
DynaSeal™ systems are sold and serviced through a nation-wide distributor network.

System Model | Nominal Capacity ACFM | Motor HP | Maximum End Vacuum in. Hg | Approximate Dimensions (in) L x W x H | Approximate Weight (Lbs)
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TRO05S | 15 | 2 | 29 | 38 x 17 x 40 | 340
TRO05S | 15 | 2 | 29 | 38 x 17 x 40 | 340
TRO07S | 35 | 3 | 29 | 38 x 17 x 40 | 340
TRO07H | 35 | 3 | 29 | 38 x 17 x 40 | 340
TRO07VM | 50 | 5 | 29.5 | 38 x 17 x 40 | 475
TRO07S | 75 | 5 | 27 | 43 x 17 x 40 | 530
TRO12VM | 75 | 5 | 27 | 43 x 25 x 43 | 500
TRO110 | 110 | 7.5 | 29.5 | 55 x 25 x 51 | 920
TRO110VM | 110 | 7.5 | 29 | 55 x 25 x 51 | 920
TRO14VM | 140 | 10 | 29.5 | 55 x 25 x 51 | 1005
TRO160 | 160 | 10 | 29.5 | 65 x 26 x 51 | 1070
TRO160VM | 160 | 10 | 29.5 | 65 x 26 x 51 | 1070
TRO200 | 200 | 15 | 29.5 | 65 x 26 x 56 | 1300
TRO200H | 200 | 15 | 29.5 | 65 x 26 x 56 | 1325
TRO250H | 250 | 20 | 29.5 | 65 x 26 x 56 | 1350
TRO300 | 300 | 20 | 29.5 | 65 x 26 x 56 | 1350
TRO300H | 300 | 25 | 29.5 | 65 x 26 x 56 | 1355
TRO400S | 380 | 25 | 28 | 83 x 35 x 64 | 1900
TRO425H | 425 | 40 | 29.5 | 83 x 35 x 64 | 2250
TRO500S | 500 | 40 | 28 | 83 x 35 x 64 | 2150
TRO500H | 500 | 40 | 28 | 83 x 35 x 64 | 2100
TRO500H* | 700 | 50 | 26 | 80 x 63 x 58 | 3350
TRO750H* | 750 | 50 | 26 | 80 x 63 x 58 | 3750
TRO900H* | 900 | 60 | 26 | 80 x 63 x 58 | 3600
TRO900S* | 950 | 60 | 26 | 80 x 63 x 58 | 4016
TRO1000H* | 1000 | 75 | 26 | 80 x 63 x 58 | 3750
TRO1000H* | 1050 | 100 | 29.5 | 80 x 63 x 58 | 4202

**VM = Mini Series
*PUMPS ARE V-belt driven.