

Section 3

3.0	"DYNASEAL" VACUUM SYSTEMS (OIL SEALED)	Page within section
	Specification For Standard Dynaseal Systems	3.1
	Engineered Standard Systems - Dynaseal	3.2
	Typical Flow Schematic For Oil Sealed Vacuum System	3.3
	Minidynaseal Vacuum Pump System Data Sheet	3.4
	Minidynaseal Vacuum System - Dimensional Drawing	3.5
	Dynaseal Vacuum Pump System Data Sheet	3.6
	Dynaseal Vacuum System - Dimensional Drawing	3.7



Premier Fluid Systems
Canadian Home Of Travaini Pumps

4460 Harvester Rd. Burlington , Ont. Canada, L7L 4X2
Tel: 1-800-461-2611 or (905) 637-2611 Fax: (905) 333-4722
Email: info@pfspumps.com Website: www.pfspumps.com

DATE : MARCH 2002

N°.: INDEX 3.0

DYNASEAL SYSTEMS

SINGLE STAGE AND TWO STAGE VACUUM PUMPS

TRS-TRM-TRV-TRH

SPECIFICATION SHEET

The DYNASEAL pump is a vacuum system engineered and built for heavy duty and continuous service. It does not require any water for sealing or cooling and consists of:

- Travaini Liquid Ring Vacuum pump model with cast iron casing, bronze or iron impeller, stainless steel shaft and fitted with two mechanical seals.
- Coupling, guard and motor adapter flange for close coupled mounting (where possible) or regular alignment through the heavy duty flexible coupling
- Motor, 3 phase, 60 cycle or 50 cycle, TEFC with standard voltage
- Common baseplate and frame in carbon steel
- High efficiency two-stage separator/silencer with removable lid. Fitted with oil demister, oil scavenger line, oil level gauge, pressure gauge and high temperature switch.
- Radiator type heat exchanger with temperature controlled by-pass valve.
- Cooling fan with shroud driven by pump shaft.
- Set of manual valves and y-strainer
- Solenoid valve 1/60 or 1/50 120 volt.
- Temperature gauge.
- Pump inlet check valve and isolating valve.
- Adjustable vacuum relief valve.
- Initial vacuum oil charge.
- Set of sch. 40 carbon steel piping and 150 lb. malleable iron fittings.
- Electric control panel in NEMA 12 with motor starter, 110 Volt transformer, start/stop push button, hour meter, high temperature cut-out.
- Complete wiring of motor, solenoid valve and temperature switch.

NOTE: Main disconnect is not included.



Premier Fluid Systems
Canadian Home Of Travaini Pumps

4460 Harvester Rd. Burlington , Ont. Canada, L7L 4X2
Tel: 1-800-461-2611 or (905) 637-2611 Fax: (905) 333-4722
Email: info@pfspumps.com Website: www.pfspumps.com

DATE : MARCH 2002

N°.: 3.1

ENGINEERED STANDARD SYSTEMS

DYNASEAL

System Model	Nominal Data 50 Hertz		Nominal Data 60 Hertz		Maximum Vacuum mmHg A	Pump Model	Weight Approx. Kg.
	ACFM	Motor HP	ACFM	Motor HP			
TRD 70M-SAC	60	5	70	5	25	TRMB 40-110/GH	218
TRD 70S-SAC	58	5	75	5	100	TRSE 40-100/C/GH	230
TRD 70H-SAC	62	5	75	5	15	TRHE 40-110/C/GH	240
TRD 100M-SAC	88	5	105	7½	25	TRMB 40-150/GH	250
TRD 100S-SAC	88	5	108	7½	100	TRSE 40-150/C/GH	265
TRD 100H-SAC	85	5	100	7½	15	TRHE 40-140/C/GH	395
TRD 150M-SAC	125	7½	148	10	25	TRMB 40-200/GH	275
TRD 150V-SAC	120	7½	150	10	15	TRVA 50-220/C/GH	385
TRD 200V-SAC	185	10	205	15	15	TRVA 65-300/C/GH	625
TRD 250H-SAC	205	15	250	20	15	TRHB 50-340/C/GH	680
TRD 300V-SAC	250	15	300	20	15	TRVA 65-450/1C/GH	650
TRD 400S-SAC	325	20	385	25	75	TRSC 100-550/C/F	790
TRD 400H-SAC	350	25	410	40	15	TRHC 80-600/C/GH	1000
TRD 500S-SAC	450	25	500	40	75	TRSC 100-700/C/F	980
TRD 500H-SAC	450	40	530	50	15	TRHC 80-750/C/GH	1150
TRD 650S-SAC	570	40	650	50	100	TRSB 100-980/C/F	1250
TRD 700S-SAC	600	50	750	50	100	TRSE 125-1250/C/F	1650
TRD 700H-SAC	700	50	700	50	15	TRHE 100-1260/C/F	1600
TRD 1000S-SAC	910	60	910	60	100	TRSE 125-1550/C/F	1600
TRD 1000H-SAC	950	60	950	60	15	TRHE 100-1600/C/F	1850
TRD 1100S-SAC	1050	75	1050	75	100	TRSE 125-1550/C/F	1800

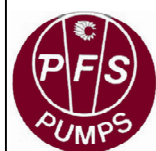
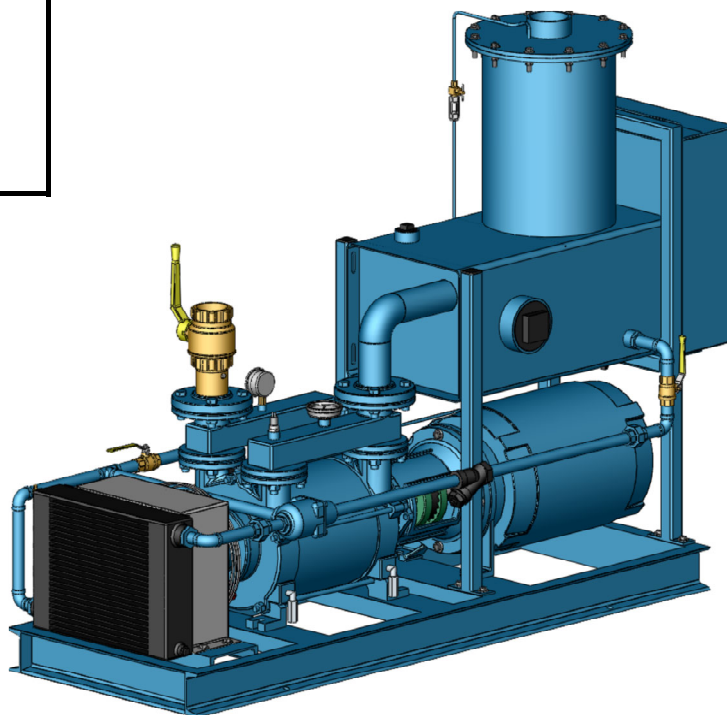
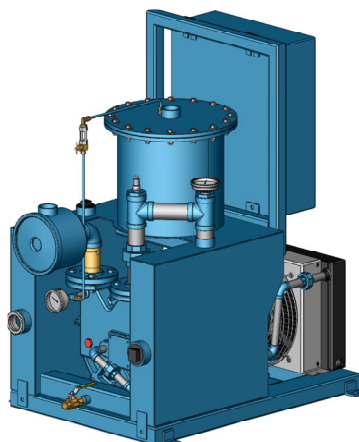
LARGER MODELS ARE AVAILABLE UPON REQUEST

Optional Accessories

Low Liquid Level - Mounted
 High Liquid Level - Mounted
 High Back Pressure Switch - Mounted
 HOA with Vacuum Switch Control
 Vibration Mount, Set of 4 - Supplied

SAC = SIMPLEX AIR COOLED

SWC = SIMPLEX WATER COOLED



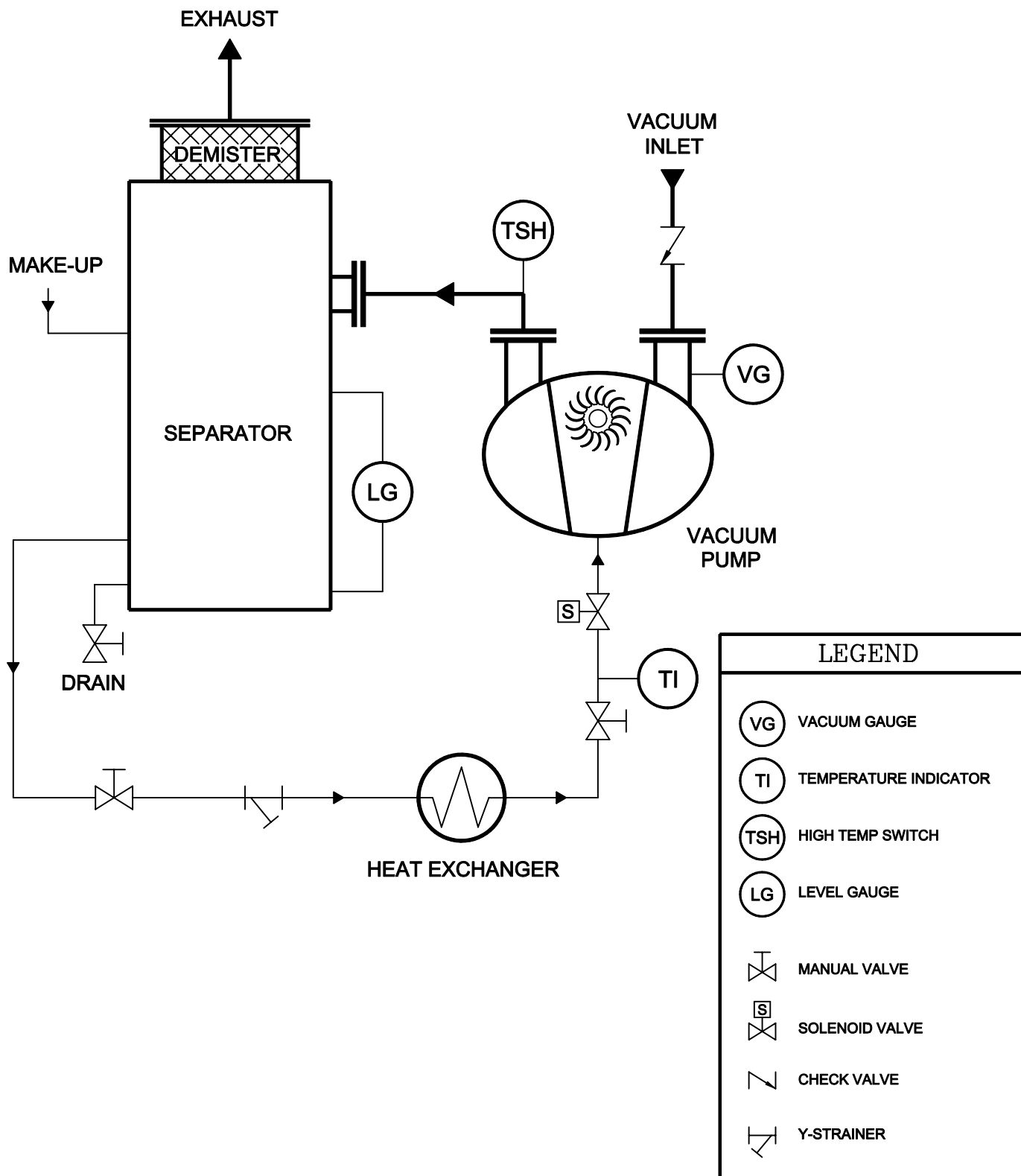
Premier Fluid Systems
 Canadian Home Of Travaini Pumps

4460 Harvester Rd. Burlington, Ont. Canada, L7L 4X2
 Tel: 1-800-461-2611 or (905) 637-2611 Fax: (905) 333-4722
 Email: info@pfspumps.com Website: www.pfspumps.com

DATE : MARCH 2002

Nº.: 3.2

FLOW DIAGRAM FOR (OIL SEALED) DYNASEAL CLOSED-LOOP VACUUM SYSTEMS



Premier Fluid Systems
Canadian Home Of Travaini Pumps

4460 Harvester Rd. Burlington, Ont. Canada, L7L 4X2
Tel: 1-800-461-2611 or (905) 637-2611 Fax: (905) 333-4722
Email: info@pfspumps.com Website: www.pfspumps.com

DATE : MARCH 2002

N°.: 3.3

MINI-DYNASEAL - 5, 7½ & 10 HP Sizes

The Economical Solution for a Complete Vacuum System

The Dynaseal system is factory assembled, tested and includes all components required for safe operation. The system is engineered to use a vacuum oil for sealing fluid. The oil is fully recovered and cooled with atmospheric air through a radiator (water cooled heat exchangers are optional). The Dynaseal system offers a simple, low maintenance design with low noise and vibration levels, as well as reduced operating costs.

Features and Benefits:

LOW NOISE LEVEL: The Mini-Dynaseal system is extremely quiet and acceptable to the environment. It operates at conservative speeds (1750 RPM) and requires no sound enclosures.

MINIMAL MAINTENANCE: Only requires an oil change and replacement of discharge filter every 6000 hours of operation under normal operating conditions. No other maintenance required except for periodic greasing of bearings.

DESIGNED FOR CONTINUOUS OPERATION: Consistent and high performance over the full vacuum range.

NOT AFFECTED BY CARRY-OVER OF SOFT SOLIDS OR LIQUIDS: Can handle carry-over without damage to the system components. In applications where a high carry-over of either solids or liquids is expected, we do recommend the installation of an inlet filter/strainer or knock-out pot.

LOW VIBRATION: Dynaseal systems require no special foundations or anti-vibration mountings.

COMPACT AND EFFICIENT: Dimensions of 33" x 24" x 36"H.

HIGH QUALITY MANUFACTURING STANDARDS:
Travaini pumps are manufactured under ISO 9001 quality standards.

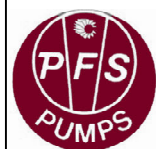
MADE IN CANADA:

The Mini-Dynaseal and all other systems are designed, built, and tested in our fully equipped facility in Burlington, Ontario.



→ Vacuum up to 29.5" Hg (15m bar)

Model		TRD70M-SAC	TRD100M-SAC	TRD150M-SAC
Motor	HP	5	7.5	10
Speed	RPM	1750	1750	1750
Maximum Capacity	CMH (m ³ /h)	121	178	252
Maximum Capacity	CFM	75	105	148
Noise Level at 60 TORR	dB(A)	68	69	72
Minimum Suction Pressure	TORR	25	25	25
Weight	Lbs	480	550	600



Premier Fluid Systems
Canadian Home Of Travaini Pumps

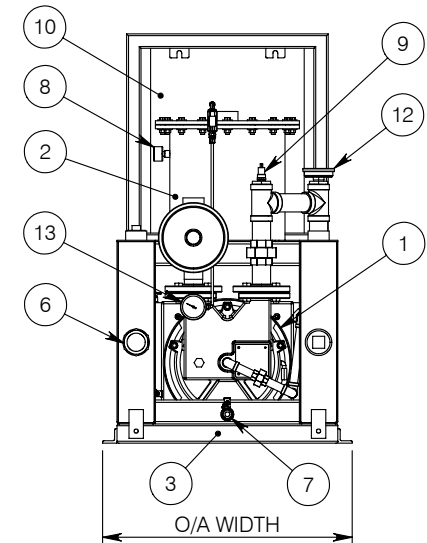
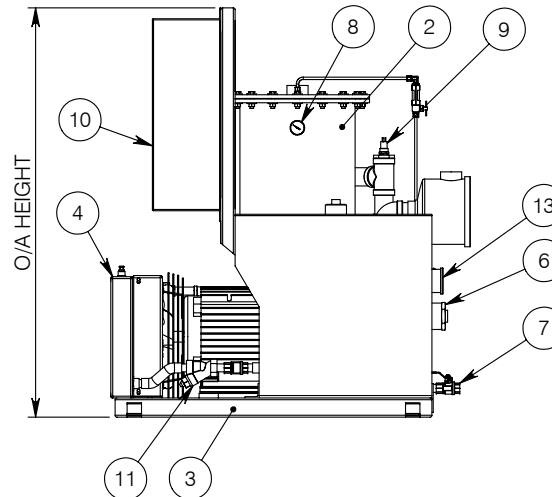
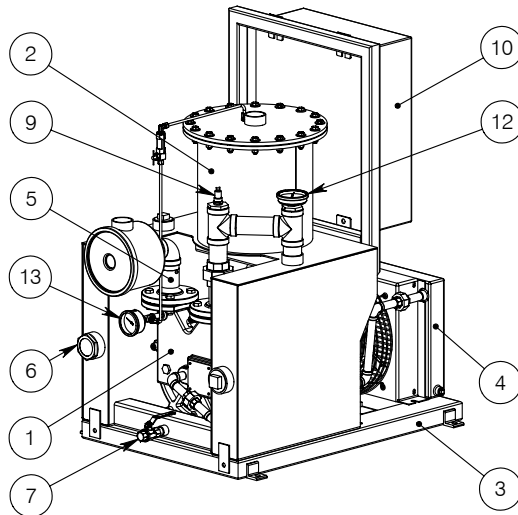
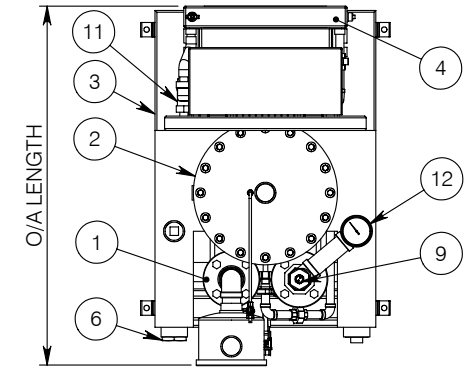
4460 Harvester Rd. Burlington, Ont. Canada, L7L 4X2
Tel: 1-800-461-2611 or (905) 637-2611 Fax: (905) 333-4722
Email: info@pfspumps.com Website: www.pfspumps.com

DATE : MARCH 2002

N°.: 3.4

ITEM NO.	QTY.	DESCRIPTION
1	1	Travaini Vacuum Pump/Motor Assembly
2	1	Separator
3	1	Baseplate
4	1	Oil Cooler
5	1	Inlet Check Valve
6	1	Level Gauge (Oil)
7	2	Isolation Valve
8	1	Pressure Gauge (0-30 PSI)
9	1	High Temperature Switch
10	1	Electrical Control Panel - 208 Volt
11	1	Y-Strainer
12	1	Temperature Gauge (0-250 F)
13	1	Vacuum Gauge (0-30" Hg)

MINIDYNASEAL VACUUM SYSTEM



Premier Fluid Systems
Canadian Home Of Travaini Pumps

4460 Harvester Rd. Burlington, Ont. Canada, L7L 4X2
Tel: 1-800-461-2611 or (905) 637-2611 Fax: (905) 333-4722
Email: info@pfspumps.com Website: www.pfspumps.com

DATE : MARCH 2002

Nº.: 3.5

DYNASEAL Vacuum Pump System

THE VERSATILE, RELIABLE SYSTEM
DESIGNED WITH THE CUSTOMER IN MIND

At the heart of the Dynaseal system is the reliable Travaini liquid ring vacuum pump. Travaini has been a world leader in the field of vacuum technology for over 70 years. Many years ago, our engineers realized the need for environmentally friendly, waterless systems when they developed the first closed loop, liquid ring vacuum pump system using oil as the sealing liquid. The oil is fully recovered and cooled with atmospheric air through a radiator.

Today, many of our vacuum pumps installed in those first systems are still operating after thousands of hours of trouble-free operation. The emphasis on the Dynaseal system has always been reliability, low maintenance and customization. Premier Fluid Systems has taken great care to use high quality components for long and trouble-free operation.

The Dynaseal has been used in numerous industries not only because of the many ranges of horsepower sizes available, but also because of our engineers ability to adapt to specific customer requirements. Dynaseal systems can be provided in single or multiple unit configurations with programmable controllers.



Features and Benefits:

LOW NOISE LEVEL: operates at conservative speeds resulting in low noise levels acceptable to the environment

MINIMAL MAINTENANCE: Only requires an oil change and replacement of discharge filter every 6,000 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:
Can handle carry-over without damage the system components.

DESIGNED FOR CONTINUOUS OPERATION: over the full vacuum range without heating.

AUTOMATIC TEMPERATURE CONTROL (is optional): Prevents low temperature, reduces accumulation of water in the reservoir and decreases risk of bacteria growth. Feature is vital in hospital and other intermittent duties.

LOW VIBRATION: Dynaseal systems require no special foundations or anti-vibration mountings.

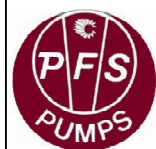
HIGH-QUALITY MANUFACTURING STANDARDS: Travaini pumps are manufactured under ISO 9001 quality control standards.

MADE IN CANADA: Dynaseal systems are designed, built and tested in our modern facility in Burlington, Ontario

****For HP sizes of 5, 7 ½ and 10, see literature on our Mini-Dynaseal vacuum system.**

¹Measured at 60 TORR for V/H models and 250 TORR for S models

Model	Motor HP	Maximum End Vacuum Inches Hg.	Nominal Capacity ACFM / m ³ /h	¹ Noise Level dB(A)
TRD-200V	15	29.5	200 / 340	78
TRD-250H	20	29.5	250 / 425	78
TRD-300V	20	29.5	300 / 510	78
TRD-400S	25	27	380 / 646	79
TRD-400H	40	29.5	400 / 680	78
TRD-500S	40	27	500 / 850	79
TRD-500H	50	29.5	500 / 850	78
TRD-700S	50	26	700 / 1190	79
TRD-700H	50	29.5	700 / 1190	78
TRD-1000S	60	26	950 / 1615	80
TRD-1000H	60	29.5	950 / 1615	79
TRD-1100S	75	26	1100 / 1870	80



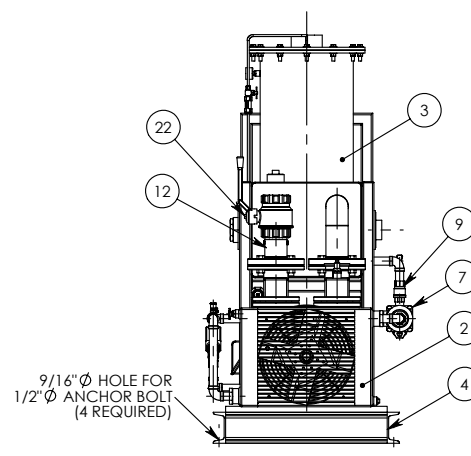
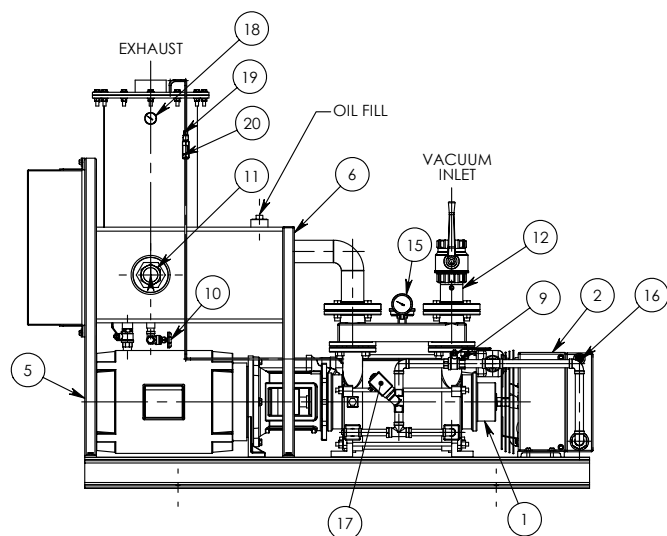
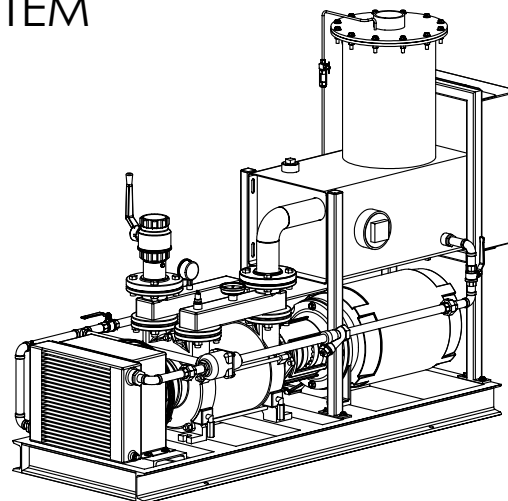
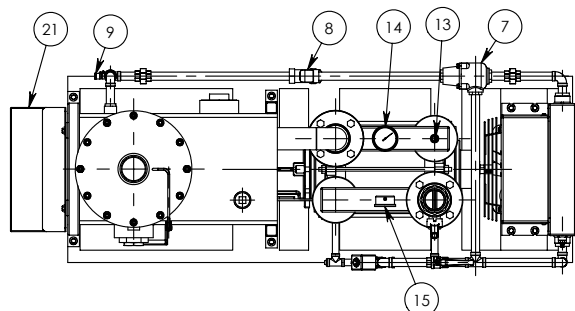
Premier Fluid Systems
Canadian Home Of Travaini Pumps

4460 Harvester Rd. Burlington, Ont. Canada, L7L 4X2
Tel: 1-800-461-2611 or (905) 637-2611 Fax: (905) 333-4722
Email: info@pfspumps.com Website: www.pfspumps.com

DATE : MARCH 2002

N°.: 3.6

DYNASEAL VACUUM SYSTEM



ITEM NO.	QTY.	DESCRIPTION
1	1	Travaini Liquid Ring Vacuum Pump Assembly
	1	Travaini Liquid Ring Vacuum Pump
	1	TEFC C-Flange Motor 3/60
2	1	Oil Cooler
	1	Stub Shaft
	1	Fan
	1	Fan Guard
	1	Shroud
3	1	Separator/Demister
4	1	Baseplate
5	1	Separator/Control Panel Support
6	2	Separator Support
7	1	Three-Way Thermostatic Valve
8	1	Y-Strainer
9	2	Isolating Ball Valve
10	1	Separator Oil Drain Valve
11	1	Level Gauge (Oil)
12	1	Inlet Check Valve
13	1	High Temperature Switch
14	1	Temperature Gauge (0-250 F)
15	1	Vacuum Gauge (0-30" Hg)
16	1	Oil Cooler Vent
17	1	Service Liquid Solenoid
18	1	Pressure Gauge (0-30 PSI)
19	1	Needle Valve
20	1	In-Line Sight Glass
21	1	Electrical Control Panel
22	1	Vacuum Inlet Isolator (Optional)



Premier Fluid Systems
Canadian Home Of Travaini Pumps

4460 Harvester Rd. Burlington, Ont. Canada, L7L 4X2
Tel: 1-800-461-2611 or (905) 637-2611 Fax: (905) 333-4722
Email: info@pfspumps.com Website: www.pfspumps.com

DATE : MARCH 2002

Nº.: 3.7