

SINGLE-STAGE WASTE OIL UNITS

INSTALLATION INFORMATION Form 2104 pt 12-03-2009

IMPORTANT INFORMATION:

INSTALLATION: This product must be installed, adjusted and started only by a qualified and licensed technician and done so in accordance with all appropriate local and national codes and ordinances, such as National Fire Protection Standard for Liquid Fuel Equipment, NFPA 31, CSA B139-M91, etc.

<u>AWARNING</u>: Inlet Line Pressure (NOTE: no Return Port!)

INLET PRESSURES MUST NOT EXCEED 10 PSI, or seal damage can result! NFPA 31 further limits inlet pressure to 3 PSI MAX.

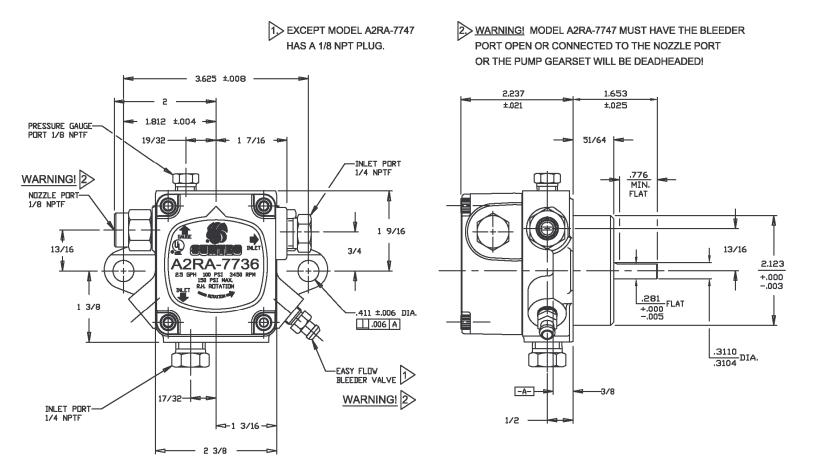
AWARNING: Check Valves with Fuel Oil Heating Equipment
Do not use a check valve in the inlet line (with or w/o a boost
pump). Dangerous thermal expansion of oil trapped by an inlet
line check valve can create extreme pressures that damage fuel
unit seals, fittings, filters, gages and other components. A
properly installed vacuum safety valve, such as Suntec PRV-38,
having accumulator effect and pressure relief to tank is
acceptable in the inlet line.

ONE-PIPE SYSTEM - INLET LINE ONLY (NO RETURN LINE):

Because these models are made for heavy waste oils, they are designed only for the lower inlet line flow rate of a one-pipe system. Hence, they do not have a two-pipe return port. See SPECIFICATIONS chart for recommended fuels, line sizes, line lengths, lift from tank bottom to pump, etc. It is recommended to use at least ½" inlet and discharge lines. Prime by opening the easy flow bleed valve one turn CCW. Bleed the unit thoroughly until all air bubbles disappear (hurried bleeding may impair operation), then securely retighten the bleed valve.

GENERAL INFORMATION:

- 1. Most of these models have a pressure regulating valve with cutoff function and may be mounted in any position. Models without cutoff require an external shutoff valve (noted on decal).
- 2. Lines must be airtight to operate properly and maintain prime. Pipe sealant may be used, but DO NOT USE TEFLON TAPE OR COMPRESSION FITTINGS.
- 3. The unit may be primed with lube oil during start-up.



SPECIFICATIONS

	A2RA-7736*	A2RA-7737	A1RA-7738	A2RA-7739	A2RA-7740	A2RA-7747	
PORT SIZES:	<	Inlet: 1/4 - 18 NPTF				>	
	<	Nozzle: 1/8 - 27 NPT	F			>	
FUELS:	<	Waste Oil, No. 4 & Lighter Fuel Oil to 1500 Centistokes Max>					
RECOMMENDED FUEL	<	Multi-Weight Oils (10W-30W, etc.): 32 DegF Min>					
TEMPERATURE (DegF):	<	Straight-Weight Oil (40W, 50W, 90W, etc.): 50 DegF Min					
FILTRATION: PRIMARY:	<> 100 x 100 Mesh Inlet Line Strainer Min.; 10 Micron Highly Recommended! Provided by Installer>						
SECONDARY:	<	<> 30 x 30 Mesh Strainer Internal to Pump, Provided by Suntec					
LIFT (FT.):	<	> Waste Oil & Fuel Equivalent to No. 4: 14' Max.					
	<> No. 2 & Lighter Fuel Oil: 8' Max>						
RECOMMENDED INLET LINE LENGTH (FT.):	<	1/2" Line: 20' Max.;	3/4" Line: 90' Max.;	Elbows, Valves & Filters	Reduce Lengths!	>	
OPERATING VACUUM (IN. HG.):	<> Waste Oil & Fuel Equivalent to No. 4: 20" Hg Max.						
	<> No. 2 & Lighter Fuel Oil: 10" Hg Max>						
SPEED (RPM):	3450 / 1725*	3450 / 1725	1725	3450 / 1725	3450 / 1725	3450	
REQUIRED 3450/1725 MOTOR (HP):	1/7 HP / 1/8 HP	1/7 HP / 1/8 HP	- / 1/8 HP	1/7 HP / 1/8 HP	1/7 HP / 1/8 HP	1/7 HP / -	
TRANSFER RATING, 3450/1725 (GPH @ PSI):	2.5 @ 150 / 2.5 @ 30*	2.5 @ 20 / 2.5 @ 20	- / 2.5 @ 150	2.5 @ 50 / 2.5 @ 50	2.5 @ 65 / 2.0 @ 65	2.5 @ 15 / -	
NOZZLE PORT PRES. RANGE (PSI):	100-150	10-20	100 - 150	30-50	50-65	5-15***	
FACTORY PRES. SETTING (PSI):	100	10	100	40	60	5	
ALT. NOZ. PORT PRES. RANGE (PSI)**:	0-150**	0-20**	0-150**	0-50**	0-65**	NA***	
CUT OFF @: NOZZLE PORT:	Yes	No	Yes	No	No	No***	
ALT. NOZZLE PORT:	No**	No**	No**	No**	No**	No***	

^{*} Use Alternate Nozzle Port for 1725 rpm on this model.

PUMP ID SYSTEM:

Example: A 2 R A - 7736

A - pump type (1-stage or 2-stage)

A - single stage

B - two-stage

2 - shaft speed

1 - 1725 rpm

2 - 3450 rpm

 ${\bf R}$ - UL strainer flow rating, #2 fuel

V - 3 gph

Y - 7 gph

T - 23 gph

G - 34 gph

R - 30x30 mesh waste oil

A - rotation/nozzle location ****

A - RH/RH

B - RH/LH

C - LH/LH

D - LH/RH

7736 - series number

** <u>NOTE:</u> rotation (RH = CW) & nozzle location are determined by looking at the shaft when unit is oriented with shaft horizontal and decal readable (regulator valve on top).

OPERATING INFORMATION:

Max. Firing Rate: Use the decal nozzle rating, which may be less than the UL

strainer rating!

Vacuum Check: A vacuum gage may be installed in either 1/4" NPT INLET PORT.

Pressure Check: Use the 1/8" NPT GAGE PORT, 1/8" NPT NOZZLE PORT or the EASY FLOW BLEEDER VALVE PORT.

Cutoff Pressure: Units having cutoff can be checked by installing a pressure gage directly into the NOZZLE PORT. Run the unit briefly, shut it off and watch for the pressure to drop and then hold above zero.

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^{**} Alternate nozzle ports do not have cutoff; alt. port line pres. depends on line restrictions, but will not exceed the primary nozzle port pres. setting.

^{***} NOTE: for model A2RA-7747, the bleeder port must always be open or connected to the nozzle port or the gearset will be deadheaded!!