

INSTALLATION

MOUNTING

The drive coupling must allow the pump/motor to establish its own internal clearances and only connections which permit axial freedom should be used. See section 2 in commissioning.

Mating shafts concentricity must be within (0.05mm).

Recommended flexible couplings to have 0.5mm radial and 0.25 axial freedom minimum.

Drive coupling must be drawn onto the shafts, as hammering will cause internal damage.

SUCTION

Suction lines must be completely filled and contain no air.

Both ports on the ROTARY POWER unit are designed for high pressure connections. In the suction line the localised restriction of the port should not be taken as an indication of suction pipe diameter.

Table 1 indicates minimum inlet line bore sizes for mineral oils in the viscosity range 1cSt - 100 cSt.

Inlet line lengths and flow discontinuities should be minimised with the aim of creating minimum vacuum at the inlet port.

Water based fluids a minimum of atmospheric pressure must be present at the inlet port at all times. The suction line should be full of fluid at all times.

Maximum Flow Rate		Minimum inlet line bore (1cSt - 100 cSt Fluid)	
gals/min	litres/min	inch	mm
2	9	0.50	13
4	18	0.75	19
8	36	1.00	25
10	45	1.25	32
16	72	1.25	32
20	90	1.50	37
25	110	1.50	37
30	136	2.00	50
35	160	2.25	57
40	180	2.50	62
45	200	2.75	70
50	225	3.00	76
55	250	3.50	89

Note - Full installation and maintenance instructions are available on request.

FILTRATION

- FLUID VISCOSITY 5cSt - 2000 cSt;

Suction: 125 micron strainer sized in accordance with the suction pressure requirement.

Return lines: 10 micron absolute.

System contamination levels should be monitored periodically to ensure the solid particle contamination is within ISO/DIS standard 4406 code 18/13.

- FLUID VISCOSITY 1-5cSt:

appropriate filtration must achieve cleanliness code of ISO/DIS 13/10 or better.

TEMPERATURES

Maximum inlet temp. 100°C (with appropriate precautions). However, for optimum fluid life bulk fluid temperatures should not generally exceed 50°C:

Bulk temperatures should not exceed 40°C for water based fluids HFA,HFB and HFC.

Higher temperatures can be tolerated; however, due consideration must be given to the seal materials and inlet pressure. Consult ROTARY POWER for operation at elevated temperatures.

CASE DRAIN

The drain line should be connected to the highest point on the unit and should be piped separately to a point in the reservoir below the minimum fluid level.

The drain line should remain filled at all times.

Units fitted with the standard seal arrangement should be limited to a maximum case pressure of 0.7 bar. Optional seal support is offered allowing case pressures up to 4 bar.

In applications where discharge pressure (pump) or inlet pressure (motor) is less than 4 x case pressure, consult ROTARY POWER.

CONTROL SETTINGS

Factory pre-set controls should not be adjusted without consultation with ROTARY POWER.

VISCOSITY

The normal recommended operating viscosity range is 6-300 cSt but for special fluids, a viscosity down to 1 cSt and up to 2000 cSt can be accommodated with due consideration to temperature and suction details.

Consult ROTARY POWER for operation outside of 6-300 cSt.