PUMP APPLICATION & INSTALLATION

PIPEWORK SIZING

Pipework sizing should be calculated taking into consideration whether it is for pump inlet or delivery, and pressure drop through the line.

The values shown in the following table should be considered the minimum sizes for a fluid viscosity range from 1 cSt to 100 cSt.

Maximum Flow Rate L/Min	Min Suction Line Bore mm.	Min Delivery Line Bore mm.
9	13	6
18	19	8
36	25	13
45	32	13

Pipe sizes should be increased from those shown for the following conditions.

1, Higher viscosity fluids
2, Long inlet lines

FILTRATION AND CLEANLINESS

Fluids should be monitored to ensure cleanliness meets specifications given in the technical data section.
Inlet flow should be filtered through a non bypass filter, which has a minimum rating of 125 micron absolute.
A pressure differential switch across the filter is recommended, to sound an audible warning device or preferably to stop the pump drive, when the filter needs replacement, therefore protecting the pump from damage.
The fluid reservoir or storage vessel outlet pipe, should be designed to eliminate intake of sedimentary deposits.
Fluids must not contain undissolved gases, i.e. entrained air, or evaporated volatile components. Where sparged resins are to be pumped, ROTARY POWER must be consulted.
Fluids containing volatile components must conform to the manufacturers recommendations for pressure and temperature.

OPERATING SPEED

The normal operating range for C range pumps is:
maximum 1800 rev/min
minimum 200 rev/min.
Higher speed ranges may be possible. Contact ROTARY POWER for further advice.

FLUID TEMPERATURE

For applications using fluid temperatures outside the range given in the technical data section consult ROTARY POWER.

OUTPUT FLOW

Pumps fitted with variable displacement control should not be operated at less than 15% of full displacement. For further advice consult ROTARY POWER.

PUMP MATERIALS

C range pumps are built using a combination of high grade steels and S.G. Iron. All major components are treated for internal corrosion resistance by various heat treatment processes. Seals are a combination of viton and PTFE.

C RANGE PUMP - INSTALLATION

GENERAL

Do not remove protective plugs from main ports and lubrication connections until immediate connection into the system is to be made. Always examine the pump externally to check that damage has not been caused in transit.

SYSTEM CLEANLINESS

Thoroughly descale, clean and flush the system before installing the pump.

DRIVE SHAFT COUPLING

The flexible drive coupling must allow axial freedom of the pump shaft to establish the correct internal clearances.
The flexible drive coupling must allow 0.5mm radial and 0.25mm axial freedom minimum. Also 3 degrees of freedom, radial, angular and axial. Mating shaft concentricity must be within ± 0.05mm.
The drive coupling should be drawn onto the pump shaft using the tapped thread provided in the shaft end. Hammering or pressing on the drive coupling may cause internal damage.

Coupling bore size:
C07 17.473 - 17.455 mm
C20 25.013 - 25.000 mm

WARNING

Failure to comply with this instruction can lead to erratic performance and possible failure of the pump.

MOUNTING

A location spigot and slotted four bolt flange are provided for mounting. To ensure the unit fits correctly, the bore of recipient housing should have a 1mm lead in chamfer and have flat machined face.

Mating spigot bore size:
C07 80.046 - 80.000 mm
C20 100.054 - 100.000 mm