

Buffalopumps

Canned Motor Pumps

'C-O-M' Sealless Design



Ammonia

CO₂

R-22

R-123

R-134a

Transformer Oil

Lithium Bromide

Refrigerant Recirculator Packages

Transfer Pumps

Absorption Chillers- Solution & Refrigerant

Transformer Oil Cooling

Chemical Process

"LEADING MANUFACTURER OF CANNED MOTOR PUMPS FOR OVER 60 YEARS"

Refrigerant and other severe pumping applications demand pumps that provide reliability, performance and extended service life with a minimum of maintenance. Buffalo C-O-M pumps exhibit low NPSH characteristics and are able to withstand system upset conditions common in many applications. The C-O-M family of pumps is designed specifically with these requirements in mind.

The C-O-M is a hermetically sealed, zero leakage pump that eliminates the inherent maintenance and leakage problems associated with mechanically sealed pumps. It utilizes a wide selection of pump ends and a liquid cooled motor with unique, conical, self-lubricating, spring loaded bearings that are self-compensating for wear. During operation, axial and radial thrust loads are balanced by Buffalo's exclusive Thrust-O-Matic® device. Buffalo's patented conical bearing design compensates for wear in an axial direction. This prevents radial movement of the rotating assembly, keeping it centered and away from the stator can. This is a major advantage that the conical bearing design has over sleeve bearing designs. Sleeve bearings produce an elliptical wear pattern, allowing radial movement of the rotating assembly towards the stator can.

Buffalo Pumps is backed by over 60 years of field-proven experience in designing hermetically sealed pumps to handle most applications. This experience also provides flexibility in assisting OEMs, contractors and end-users in designing a sound installation that ensures maximum life.



R-123 refrigerant pump featuring UL Recognition

DESIGN FEATURES

Impellers for the C-O-M are designed specifically to provide low NPSH characteristics. An extremely wide range of performance requirements can be met within 3 feet or less of NPSH available.

The combination of specialized bearing designs with balanced axial and radial thrust loads results in bearing life of up to 50,000 hours.

C-O-M pumps utilize a back pull-out design allowing removal of the motor and impeller without affecting system piping.

C-O-M pumps have a vertical centerline discharge with self-venting characteristics.

C-O-M pumps are thoroughly tested before shipment. Each pump is given a hydrostatic test at 150% of the rated working pressure, a running test to ensure hydraulic balance over the complete performance range and a halogen or mass spectrometer test to ensure the complete unit is hermetically sealed.

ENGINEERING ASSISTANCE

Buffalo Pumps' Sales Engineers have the engineering training and practical field experience to make the correct selection and application of C-O-M pumps. In addition, they have the full support of Buffalo Pumps' home office research and engineering personnel. This in-depth engineering service is invaluable in ensuring proper pump application and installation.

AVAILABILITY

Buffalo Pumps maintains extensive stock for C-O-M pumps and is committed to servicing the market delivery demands. In addition, a complete repair parts department stands ready to service your ordinary maintenance and emergency breakdown needs.

GENERAL SPECIFICATIONS

Capacityto 1000 GPM. (227 m3/hr)

Headto 320 Feet (98 meters)

RPM1750 & 3500 (1450 & 2900)

- Working pressures as standard to 250 psi and up to 600 psi for higher pressure applications.
- Temperature range from -65°F to 100°F with standard product. Through the use of special materials of construction, the C-O-M can be applied down to -100°F.
Note: Buffalo Pumps has additional sealless pumps that are available for capacities up to 1000 GPM, head to 650 feet, temperatures ranging from -150°F to 400°F and working pressures up to 600 psi Contact the Buffalo Pumps factory for further information.
- Standard materials of construction include a low temperature ductile iron or cast steel casing, cast iron impeller, carbon graphite bearings and all wetted motor parts of 316 stainless steel.
- Wetted motor parts can also be made out of Hastelloy



Low NPSH ammonia recirculator pump

'C-O-M' Custom Design



COM pump used on re-chiller system in poultry industry



COM Pump designed for transformer oil cooling service



Oil filled stator design for high temperature service

Buffalo Pumps Exclusive Conical Bearing Design



Assures concentricity between rotor and stator at all times
Bearings are self lubricating
Both bearings wear evenly
Extended bearing life (up to 50,000 hours)



High pressure design (580 psi) for CO2 Cascade system



Unique absorption double-end pump for solution and solution spray service

CANNED MOTOR PUMP APPLICATION DATA WORKSHEET

Visit our website at www.buffalopumps.com
to submit this data for Buffalo Pumps selection and quotation

Project Reference: _____

Service: Recirculator _____
Transfer _____
Absorption _____
Cooling _____
Transformer cooling oil _____
Other _____

Flow Required: _____ US GPM
_____ cubic meters / hour

Liquid: Ammonia _____
CO2 _____
R-22 _____
R-123 _____
LiBr _____
Water _____
Superheated water _____
Other _____

or

Tons Refrigeration _____
Temp _____
Overfeed rate _____

normal operating temperature _____ F/C
minimum operating temperature _____ F/C
maximum operating temperature _____ F/C

Pressure Required: _____ feet
_____ meters
_____ psig
_____ bar

Pressure Rating: psi _____ bar _____

Additional Requirements:

Materials of Construction:

Buffalo Pumps Standard Cast Iron / Ductile Iron / Steel
or

Impeller _____
Casing _____
Motor wetted components _____

Motor Requirements: specification attached _____

_____ HP / KW _____ hazardous area
_____ rpm _____ other
_____ frequency

Buffalopumps

874 Oliver Street
North Tonawanda, New York 14120-3298
Phone: 716-693-1850
Fax: 716-693-6303
Website: www.buffalopumps.com
Made in USA 

