

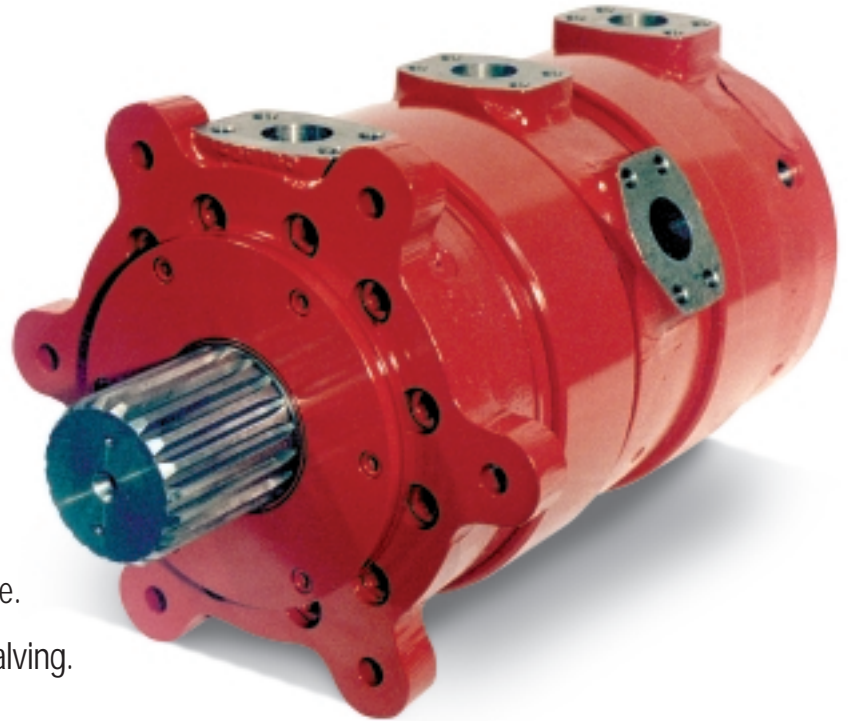


125 Series

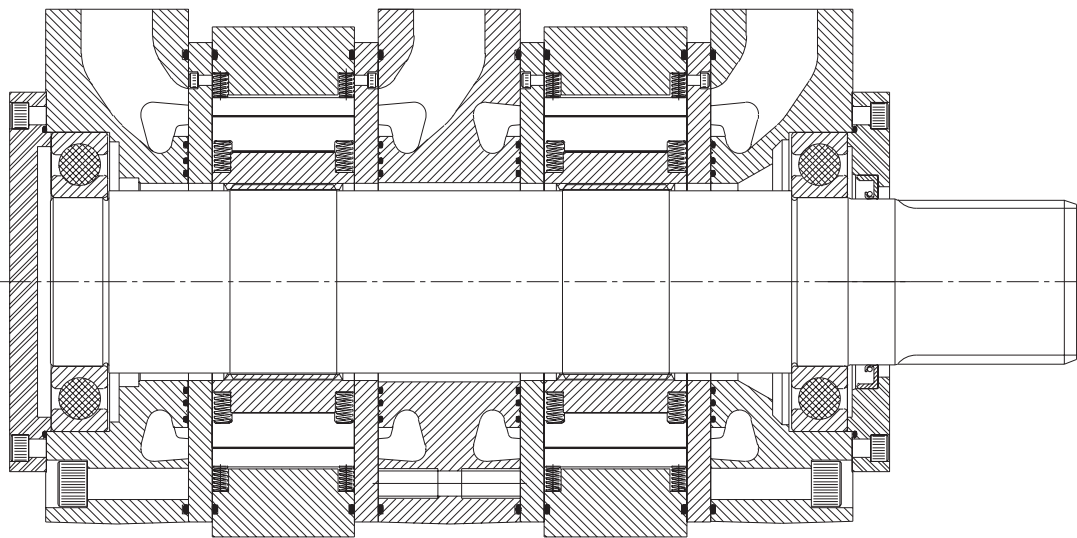
4 - PORTED MOTOR

Features of the Rineer 125 Series 4-Ported Motor:

- 3000 PSI continuous.
- Speed to 350 RPM continuous.
- Up to 375 HP continuous.
- 10" diameter x 23" long package.
- Weighs 380 lbs.
- Same starting, stall and low speed torque.
- Two-speed operation with some external valving.



CROSS SECTION



VANE CROSSING VANE

The Rineer patented vane crossing vane design produces much higher volumetric and mechanical efficiencies than is possible with a standard vane type design. This design provides a sealing vane between cavities to improve mechanical and volumetric efficiencies.

STARTING AND STALL TORQUE

The Rineer motor produces torque curves which are virtually flat, with starting and stall torque equal to approximately 90-94% of theoretical torque.

MORE POWER STROKES PER REVOLUTION

The 125 Series has six stator cavities and 16 rotor vanes. Each rotor vane works in each stator cavity once per revolution, which results in 96 power strokes per revolution. This helps produce higher mechanical efficiency and flatter torque curves.

4-PORTED MOTOR CONFIGURATION

4-Ported motors have displacements normally ranging from 120 in³ to 250 in³ and are comprised of two rotor stator packages separated by a mid-inlet housing. This allows the packages to function individually or in parallel. Any of the standard displacement packages may be combined to satisfy total displacement requirements.

4-PORTED MOTOR, DOUBLE SPLINED

The 125 Series 4-Ported Motor is available with the standard splined shaft extending through both the front and rear housings.

BEARING LOADING

The bearings in the 125 Series can accept radial load per the radial capacity chart. **Thrust loading is not recommended.** For thrust-type applications, contact Rineer for optional bearing configurations.

SEALS

Buna N Seals are supplied standard. Viton Seals may be ordered as an option.

CASE DRAIN AND CROSS PORT LEAKAGE

The combined case drain and cross port leakage of a 4-Ported Motor is approximately 1 to 1½ GPM per 1,000 PSI. This will vary with the oil viscosity and internal clearance selection.

ROTATION

The 125 Series Motor rotates equally well in either direction and smoothly throughout its entire pressure and speed range. Looking into the end of the shaft, rotation is clockwise when oil is supplied to the ports nearest the shaft output end (A1 and A2).

HORSEPOWER LIMITATION

Maximum horsepower limitation may vary with different applications. **When using the 125 Series 4-Ported Motor above 375HP, consult a Rineer Application Engineer.**

FILTRATION

25 micron minimum.

WEIGHT

A 125 Series 4-Ported Motor weighs 380 lbs. in all displacements.

FLUID

We suggest premium grade fluids containing high quality rust, oxidation and foam inhibitors, along with anti-wear additives. For best performance, minimum viscosity should be maintained at 100 SSU or higher. Fluid temperature should not exceed 180° F. Elevated fluid temperature will adversely affect seal life while accelerating oxidation and fluid breakdown. Fire resistant fluids may be used with certain limitations. Contact Rineer for additional information.

CASE DRAIN

The 125 Series 4-Ported Motor is designed for external case drain. Three case drain ports are supplied; use the port at the highest elevation. We recommend case drain pressure of 35 PSI or less when using the standard seals.

CASE DRAIN CIRCULATION

Fluid should be circulated through the case when a temperature differential exists between the motor and the system in excess of 50°F. **Should this occur, contact a Rineer Application Engineer.**

MOUNTING

The mounting position is unrestricted. The shafts, pilots and mounting faces should be within .002 TIR.

INTERMITTENT CONDITIONS

Intermittent conditions are to be less than 10% of every minute.

TWO-SPEED OPERATION

The 4-Ported Motor can be used as a two-speed when combined with external valving as illustrated. The series parallel circuit can only be used when both cartridges are of equal displacement. The circuit using two-way or logic valves can be used with equal or unequal displacement cartridges. When using the logic circuit, it should be connected as illustrated to insure proper mixing of oil in the circulating cartridge. Particular attention should be given to the size and flow capacity of V2, as this valve must handle the displacement of the circulating cartridge when in the high speed mode. For example: a 125 C.I.D. + 60 C.I.D. = 185 C.I.D. with speed ratios of 3.08:1 or 1.48:1.

OTHER AVAILABLE MOTORS

For information on additional Rineer Motors, request one of the following publications:

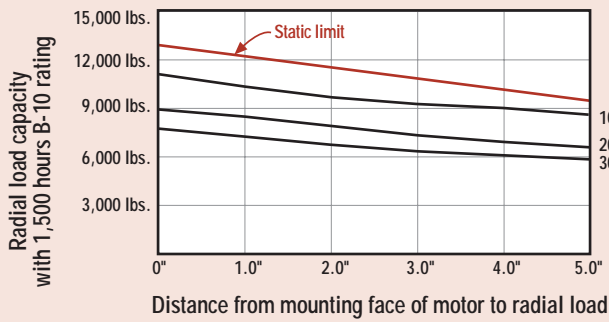
15 SeriesPublication DS151005

37 SeriesPublication DS371003

57 SeriesPublication DS571003

125 SeriesPublication DS1251003

Radial Load Capacities



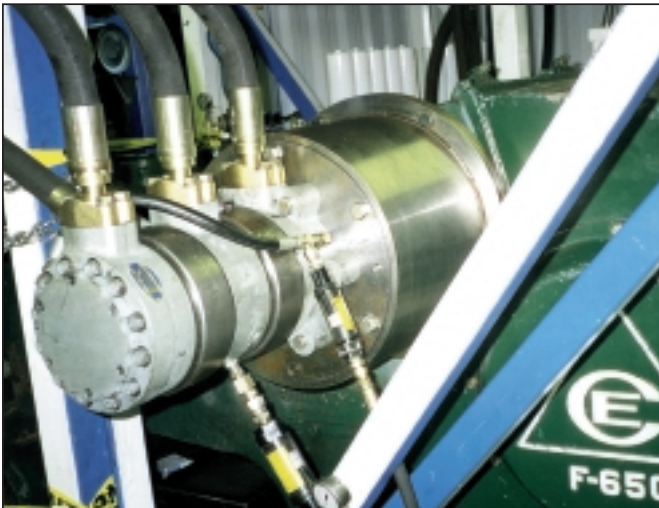
Speed (RPM)

If a B-10 rating is desired at other than 1,500 hours, multiply the radial load capacity obtained at your parameters from the adjacent chart by the appropriate factor below.

Desired	
500	1.43
1000	1.14
3000	.80
5000	.67
7000	.60
9000	.55

Model Code - See Last Page

Applications



Limited Warranty Policy

Rineer Hydraulics warrants that, at the time of shipment to Purchaser, our product will be free of defects in the material and workmanship. The above warranty is LIMITED to defective products returned by Purchaser to Rineer Hydraulics, freight prepaid within four hundred and fifty-five (455) days from date of shipment, or one (1) year from date of first use, whichever expires first. We will repair or replace any product or part thereof which is proved to be defective in workmanship or material. There is no other warranty, expressed or implied, and in no event shall Rineer Hydraulics be liable for consequential or special damages. Dismantling the product, operation of the product beyond the published capabilities or for purposes other than that for which the product was designed, shall void this warranty.

Distributor



125 SERIES MODEL CODE KEY

NOTE: Not all possible combinations of housings, shaft, bearings, and seals exist. Please consult factory for your specific requirements.

PORT SELECTION
 A2 = STD. 4-BOLT FLANGE 2 PORT
 A4 = STD. 4-BOLT FLANGE 4 PORT
 C2 = STD. O-RING BOSS 2 PORT
 C4 = STD. O-RING BOSS 4 PORT
 H2 = CODE 62 4-BOLT FLANGE 2 PORT
 H4 = CODE 62 4-BOLT FLANGE 4 PORT

ROTATING GROUP
 CONTENTS TO BE DETERMINED BY APPLICATION PARAMETERS.

BEARING SELECTION
 B = BALL BEARING PACKAGE
 T = TAPERED THRUST BEARING
 ACTUAL BEARING PACKAGE TO BE DETERMINED BY APPLICATION PARAMETERS.

1ST POSITION = SHAFT SEAL
 T = TCN
 Q = QUAD RING
 P = POLYPACK
 D = DISOGRIN
 E = EGC
2ND POSITION = MAIN BODY O-RINGS
 B = BUNA
 V = VITON
3RD POSITION = THERMAL O-RINGS
 B = BUNA
 V = VITON
 D = DISOGRIN*
 *REQUIRES VITON MAIN BODY

M125 - A2 - 1S - 113 - 31 - T1 - T B B - XXX

BASIC MOTOR SERIES

SPECIAL NUMBER, IF REQUIRED, IS ASSIGNED UPON RECEIPT OF P.O. AND APPROVAL DRAWINGS

DISPLACEMENT SELECTION

SINGLE	DOUBLE/4PORT
125 c.i.d.	250 c.i.d.
113 c.i.d.	238 c.i.d.
098 c.i.d.	226 c.i.d.
082 c.i.d.	211 c.i.d.
068 c.i.d.	196 c.i.d.
060 c.i.d.	180 c.i.d.
	164 c.i.d.
	150 c.i.d.
	136 c.i.d.
	120 c.i.d.

DISPLACEMENT SELECTIONS IN BOLD WILL WORK IN SERIES / PARALLEL

SHAFT SELECTION

30 = KEYED	44 = TAPERED W/OPT.
31 = SPLINED	45 = KEYED THRUST
32 = WHEEL MTR.	46 = SPLINED THRUST
33 = DIRECT MOUNT	47 = THRUST PACKAGE
34 = DOUBLE KEY	48 = TAPERED SHAFT
35 = FEMALE KEY	49 = SPLINE TACH DRIVE
36 = FEMALE SPLINE	50 = RETRACTABLE
37 = SHAFTLESS	52 = SMOOTH SHAFT
38 = RINGFEDER	53 = API THREAD
40 = DOUBLE SPLINE	55 = CUSTOMER
42 = KEYED W/OPTION	
43 = SPLINED W/OPTION	