



125 Series

CODE 62 HIGH PERFORMANCE MOTOR

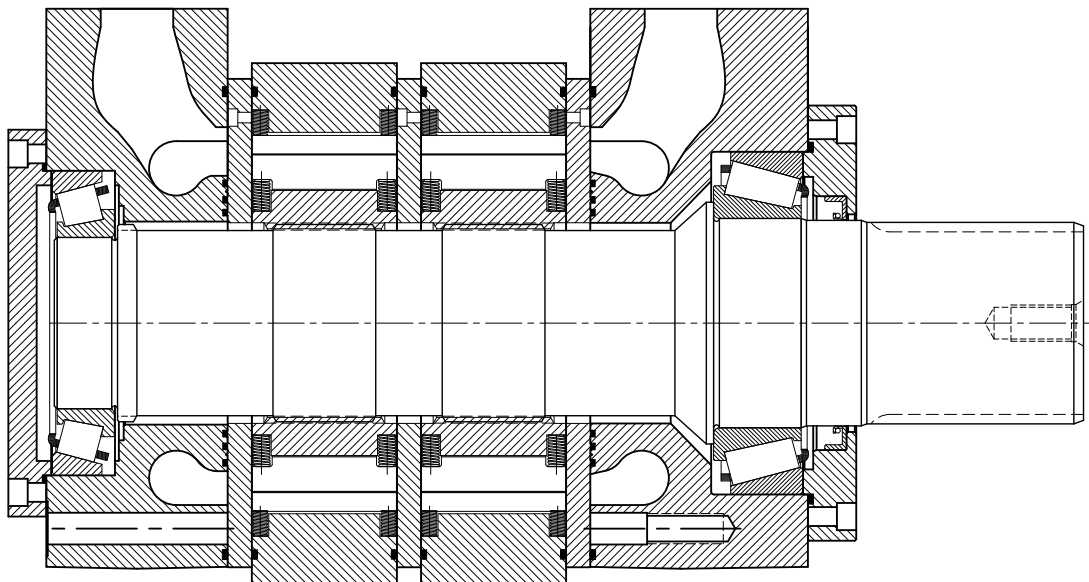
Features:

- 4500 PSI continuous
- Speed to 350 RPM continuous
- Up to 400 HP continuous

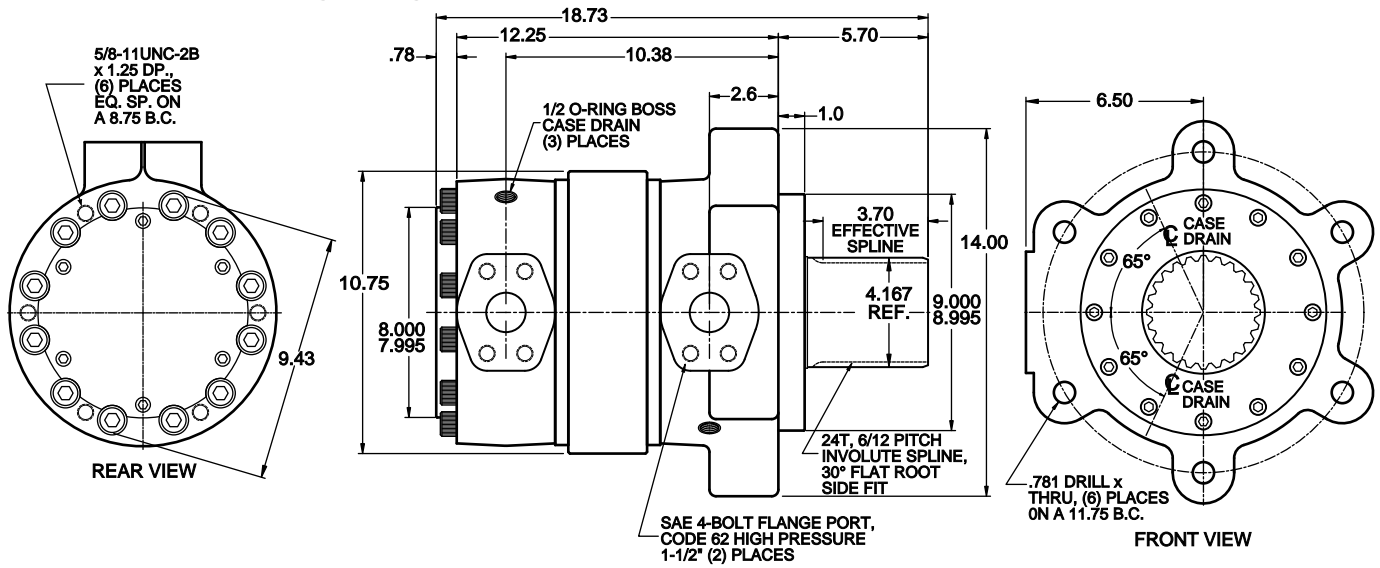


- 10" diameter x 19" long - single stack - 330 lbs.
- 10" diameter x 22" long - dbl. stack - 390 lbs.
- 10" diameter x 27" long - 4-port - 450 lbs.
- Same starting, stall, and low speed torque
- Two speed operation with some external valving

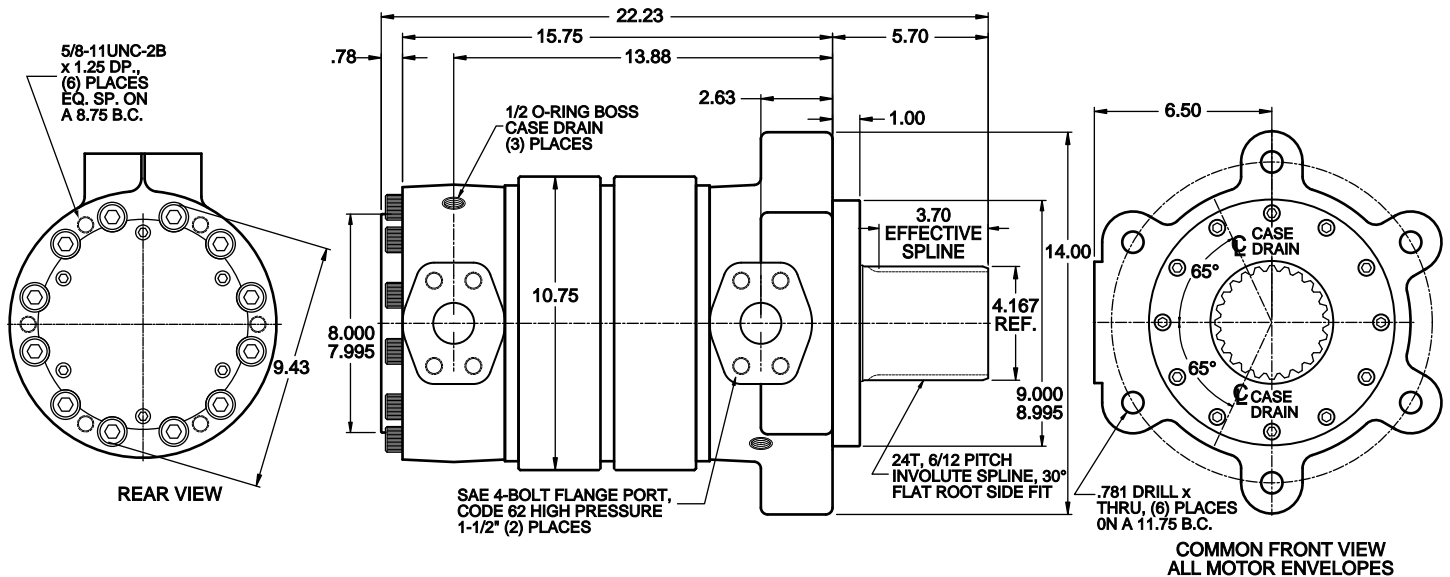
CROSS SECTION



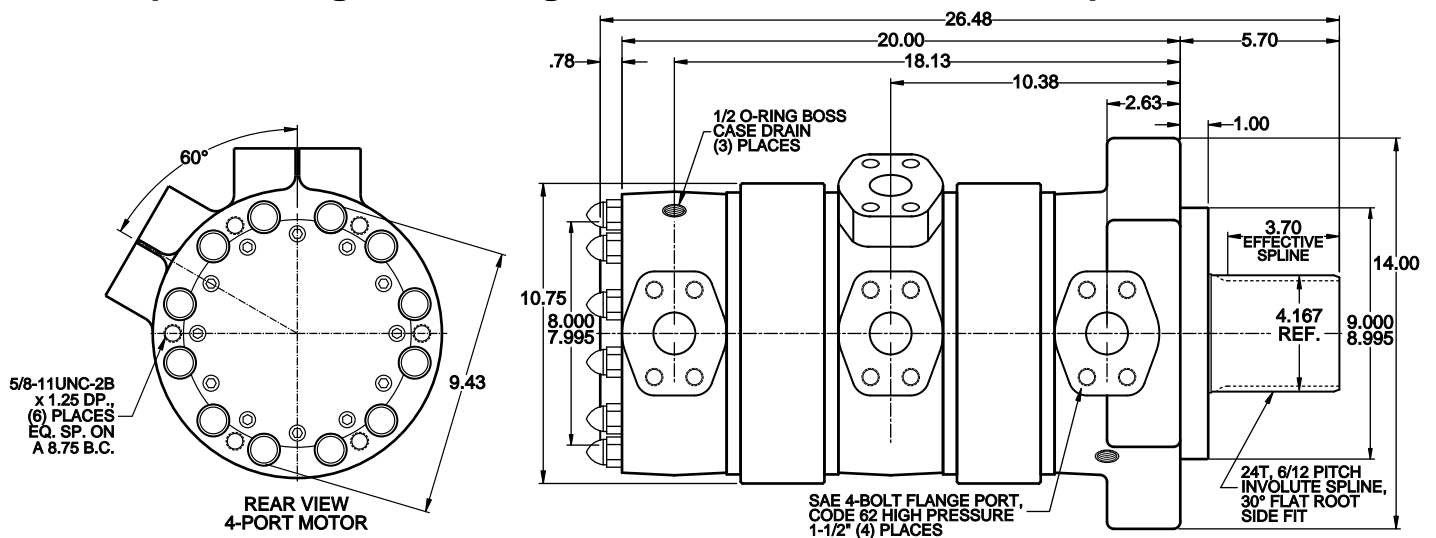
Envelope Drawing - High Performance Motor - All Displacements



Envelope Drawing - Double Stack High Performance Motor - All Displacements



Envelope Drawing - 4-Port High Performance Motor - All Displacements



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.

HIGH PERFORMANCE MOTOR, DOUBLE SPLINED

The 125 Series High Performance Motor is available with the standard splined shaft extending through both the front and rear housings.

BEARING LOADING

The Timken bearings in the 125 Series High Performance Motor can accept thrust load up to 13,900 lbs. dynamic or 147,000 lbs. static. Radial loading is also permissible up to 20,000 lbs. dynamic or 125,000 lbs. static. For details, request load vs. RPM & life data. Consult with a Rineer Application Engineer for optional bearing configurations to match your application.

SEALS

Buna N seals are supplied as standard on the Rineer HP series motors. Viton seals may be ordered as an option.

ROTATING GROUP - 2S or 2L

When rotating at speeds below 100 RPM, 2L (Low Clearance) design should be used. 2S design should be used when normal speeds are above 100 RPM.

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 High Performance Motor above 400 HP, consult a Rineer Application Engineer.**

FILTRATON

25 micron minimum.

WEIGHT

The weight of the 125 series High Performance Motor is as follows for all displacements:

125 single stack motor = 330 lbs.

125 double stack motor = 390 lbs.

125 4-port motor = 450 lbs.

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 High Performance 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 High Performance 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 Series Publication DS151005

37 Series Publication DS371003

57 Series Publication DS571003

125 Series Publication DS1251003

Model Code

125H2 / 125H4

125H2 = 125 C62
125H4 = 125 4-Port C62

2S = C62 Std.
2L = C62 Low Speed
2H = C62 High Speed

-2S

-125

-31

-T1

-DVD

Seal Package Selection

Bearing Package Selection

31 = Splined Shaft
40 = Double Splined

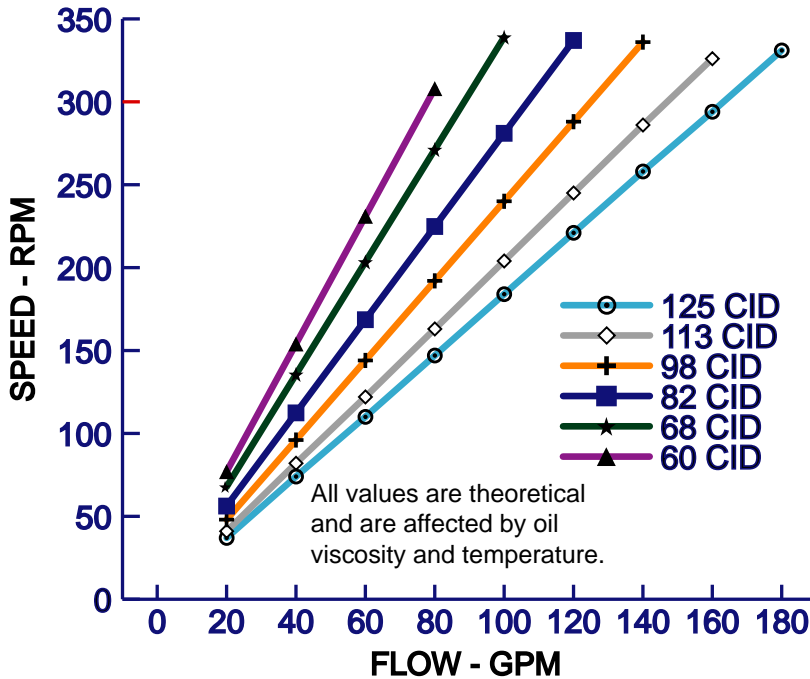
Single Stacked

060 = 60 cu. in./rev.
068 = 68 cu. in./rev.
082 = 82 cu. in./rev.
098 = 98 cu. in./rev.
113 = 113 cu. in./rev.
125 = 125 cu. in./rev.

Double Stacked or 4-port

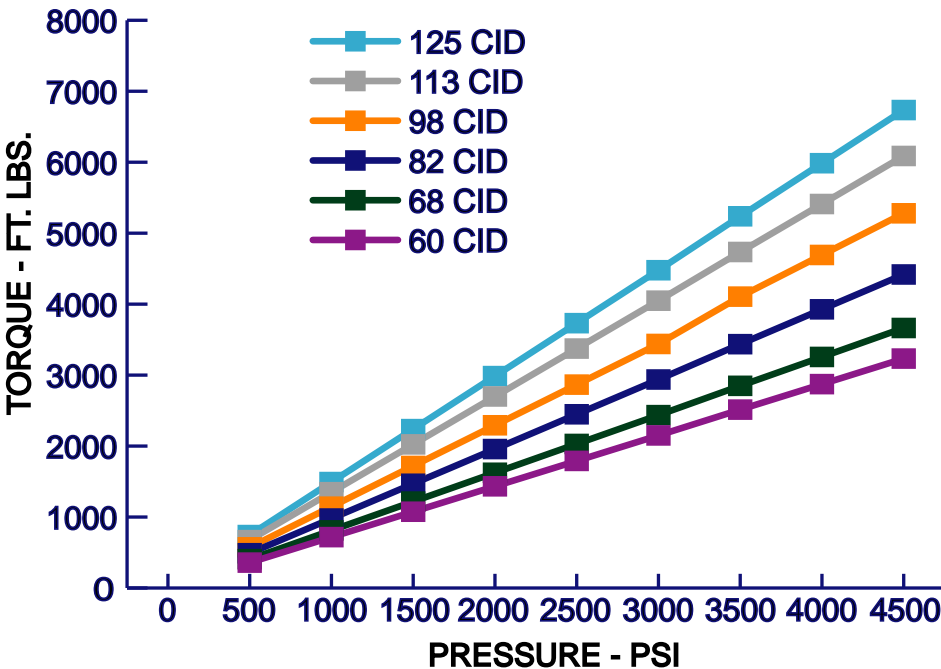
150 = 150 cu. in./rev.
164 = 164 cu. in./rev.
180 = 180 cu. in./rev.
196 = 196 cu. in./rev.
226 = 226 cu. in./rev.
250 = 250 cu. in./rev.

SPEED GRAPH



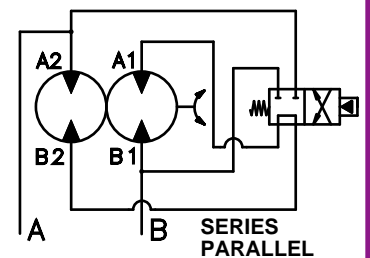
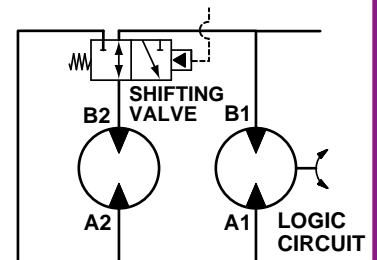
Axial loads are acceptable up to 13,900 lbs. at 100 RPM for 3,000 hrs. B-10. Radial loads are acceptable up to 20,000 lbs. Consult a Rineer Application Engineer for further details.

TORQUE GRAPH



TWO SPEED

TWO SPEED CIRCUIT DIAGRAMS FOR 4-PORT CONFIGURATION



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