BOSCH

SPECIFICATIONS

PRESSURE RATING — AT 1800 RPM

Model 20L: 3000 psi (206.9 bar) maximum continuous pressure.
5000 psi (344.8 bar) maximum intermittent pressure.*
Model 20H: 6000 psi (413.8 bar) maximum continuous pressure.
10000 psi (689.7 bar) maximum intermittent pressure.*

*The pump should not be subjected to the maximum intermittent pressure more than 25% of the duty cycle and not more than 10 minutes per hour. If either the pressure or time exceed the recommended maximum, consult the factory.

FLOW RATE

Model 20L: 1.25 gpm (4.71/min.) at 1800 rpm and 3000 psi (206.9 bar)
Model 20H: .79 gpm (3.0 l/min.) at 1800 rpm and 6000 psi (413.8 bar)

MAXIMUM DRIVE SPEED — 1800 rpm maximum drive speed.

MINIMUM DRIVE SPEED — 100 rpm minimum recommended speed.

OVERHUNG LOADS — Not recommended except under certain conditions. Consult the factory.

ROTATION — Standard piston pumps will operate in either direction of rotation with outlet flow remaining in the same direction.

PUMP SHAFT DESIGN — Use inline prime movers with flexible coupling alignment within 0.002" (0.05 mm) total indicator reading. The driving end of the pump shaft is splined to receive a special coupling which is furnished with each pump. It is necessary to ream a suitable hole in the drive accessory and press in the splined coupling.

PRIMING — Pump must have a positive head in the suction line and is accomplished by mounting it at least 3 feet (0.9 meters) below the oil level of the reservoir. Maximum inlet pressure for the standard pump is 10 psi (0.7 bar) which is equivalent to a head of 23 feet.

PERFORMANCE CHARACTERISTICS — 1800 RPM

Dotted line indicates intermittent duty.

SUPERCHARGING — If the pump is supercharged from an external source, a high pressure shaft seal is required and the drain port must be vented to tank. Maximum supercharge pressure is 250 psi (17.2 bar). The supercharge flow rate should be greater than the normal delivery of the pump to assure a positive head but not greater than 5 gpm (18.9 l/min) or the pistons will lift off the cam. To order the high pressure shaft seal, specify the letter "H" before the model number. Example: Model H20L.

FLUID RECOMMENDATIONS — Premium grade hydraulic fluid with 100 to 250 SUS (21 to 54 cSt) viscosity at operating temperature. Maximum allowable viscosity for cold start-up is 750 SUS (162 cSt). Minimum allowable viscosity is 60 SUS (10 cSt). For detailed fluid information refer to Racine publication S-106, "Petroleum Hydraulic Fluids".

SEALS — This pump may be used with phosphate ester fluids when equipped with proper seals. Water base fluids are not recommended. When ordering for use with phosphate ester fluids, specify "F2" after the model number. Example: Model 20L-F2. For additional information refer to Racine publication S-107, "Fire Resistant Fluids".

ISO-FLO — Available as standard:

Consult the factory for ISO-FLO combinations not shown.

TEMPERATURE — Under normal conditions of continuous operation, fluid temperature should not exceed 130°F (54°C). In no instance should the temperature exceed 160°F (71°C).

FILTRATION — 140 micrometre inlet filtration is recommended. Consult the factory for suggested types of both inlet and return the filtration for increased component life.

MOUNTING POSITION — Not restricted.

WEIGHT (Approx.) — Standard pump — 14.5 lbs. (6.6 kg)
Add for foot-mounting bracket — 4.7 lbs. (2.1 kg)

PERFORMANCE CHARACTERISTICS

AT 1800 RPM

Delivery — GPM

For repair parts see Bulletin 16.20.

PRODUCT LITERATURE DISCLAIMER

SPECIFICATIONS AND/OR DIMENSIONS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE. PLEASE CONSULT FACTORY.
HIGH PRESSURE SEAL
DRAIN 1/8 NPTF MUST BE VENTED TO TANK BELOW FLUID LEVEL

FOOT MOUNTING BRACKET

ISO-FLO

Model 20 pump with a high pressure shaft seal for pressure priming. Specify "H" before model number when ordering. See the "How to Order" section.

To obtain ISO-FLO single piston delivery in a model 20 pump, divide the total delivery at desired pressure by the total number of pistons (seven).

Example: Single piston flow output in gpm at 4000 psi (275.9 bar; 27,590 kPa) delivered by a 20H pump.

HOW TO ORDER

Foot mounting brackets are furnished by Racine but must be specified in addition to the model number of the unit selected. Example: (1) H20L Pump
(2) PF2-10S Foot mounting bracket

When foot mounting bracket is not used, any other style of bracket that will clamp around the cylindrical projection of the shaft end cover plate may be substituted.

*These items are optional extras and should be specified by code only when desired. Consult factory for assistance when ordering ISO-FLO modifications.