

3000

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Cancels: All Previous

Engineering Data

Bore	5.5" & 5.5" & 4"	Min RPM	750	Air-cooled After cooler CTD	25° F
Stroke	4"	Max RPM	1100	(Package performance)	
Inlet Size	2-1.5" NPT	Sheave OD	21.25"	Number of Belts	2
Discharge Size	1" NPT	Sheave PD	20.5"	Belt Section	C

Performance						Nameplate Amp Ratings			
Bare	Motor HP	PSI	RPM	ACFM	BHP		380-3-50	415-3-50	440-3-60
3000	20	75	780	70.9	19.2	20HP	34.1	31.1	28.8
3000	20	125	780	70.7	20.2	25HP	39.3	36.8	33.4
3000	20	175	740	66.7	21.0	30HP	49.6	45.4	42.8
3000	25	75	930	85.1	22.7				
3000	25	125	930	84.8	23.8				
3000	25	175	930	84.5	26.0				
3000	30	75	1045	96.0	25.7				
3000	30	125	1045	95.6	27.0				
3000	30	175	1045	94.9	30.0				

Duplex units multiply capacity by two.

AIR FLOW REQUIRED FOR COOLING— As a rule of thumb, we require 1000 cfm of cooling air for every 5hp of compressor size. For example a 10hp compressor would require 2000 cfm of cooling air and a 15hp compressor would require 3000 cfm of cooling air. This airflow will limit cooling air temperature rise to about 3°C-5°C.

MIN & MAX OPERATING TEMP—The compressor should be sited in an ambient between 0°C to 40°C. For high temperature operation (40°C - 46°C) we insist on use of I-R synthetic lubricant and motors rated for 46°C operation. For low temperatures (0°C to -26°C), we insist on: crankcase heaters, freeze protection on safety valves and anywhere condensate can collect especially controls, lubricant viscosity adjusted for low temperature operation.

TOTAL HEAT REMOVAL— This is a simple calculation; take input power (KW-Hours), multiply by 3415 to convert to BTU's/hour, multiply by 70% (units without after coolers) or 85% (units with after coolers). This will give you total heat rejection in BTU's per hour.

Bare Pump Detailed Specifications

FRAME—The 100% cast iron frame is designed to support the overhung crankshaft. Cylinders bolt directly to the cast iron frame. Frame is completely sealed yet allows for maximum accessibility.

CRANKSHAFT—A unique overhung design supported by two heavy-duty ball bearings with replaceable crankpin bushing. Entire shaft is balanced with an integral counterweight to insure smooth operation.

CONNECTING RODS—Solid one-piece design. These simple, easy to maintain rods can be used only with an overhung crankshaft. Crankpin bushing inside the rod is precision ground requiring no alignment.

CYLINDERS—Model 3000 has two low-pressure cylinders and one high-pressure cylinder. These are 100% cast iron, separately cast and individually bolted to the frame. The cylinders are precision honed for low oil carryover. Radial fins on the cylinders help remove heat and ensure 360 degree cooling of the cylinders.

PISTONS—Precision balanced low-pressure aluminium and high-pressure cast iron pistons provide smooth operation.

RINGS—There are four piston rings for sealing compression and oil control. The taper-faced compression ring and bevelled oil scraper ring provide quick seating. Two, three-piece oil control rings maintain proper lubrication on cylinder wall. Precision honing used in conjunction with the ring stack up means low oil carryover.

FLYWHEEL—The cast iron fan type flywheel forces a “cyclone” air blast to provide cooling for the deep finned cylinders and multi-finned tube intercooler. The flywheel is balanced to keep vibration to a minimum.

INTERCOOLER—Two stage compressors use an intercooler. The intercooler between stages is of finned copper tube construction to provide maximum cooling area. It is located directly in the flywheel air blast to remove the heat of compression between stages keeping running temperatures and power needs to a minimum, ensuring high air delivery for horsepower expended. The intercooler is provided with a relief valve to prevent over-pressurization.

LUBRICATION—Splash lubrication of running parts is simple and reliable. Lubrication dippers are integral with connecting rods and cannot come loose. Oil sight glass is installed on the crankcase frame as standard. A low oil level switch is optional equipment and protects the unit from operating when oil level is low.

INLET FILTER—The filter has two durable canisters with a dry type 10-micron inlet filter/silencer as standard.

VALVES—Efficient combination valve design is utilized. Inlet valve consist of finger valves, which allows max flows. Discharge valve are large bore ring valves, which provide maximum efficiency. Valve plate is easily removed for maintenance.

CENTRIFUGAL UNLOADER—The centrifugal unloader automatically bleeds the air from intercooler and cylinders, preventing the compressor from starting against full load. This protects the motor from premature wear.

Standard Packaged Detailed Specifications

BARE – As per bare pump detailed specifications.

BASE—The compressor and motor are aligned on a heavy steel base.

RECEIVER—Receiver mounted units are with a 120-gallon ASME, AS or GB PV code and include discharge mounted check valve, pressure gauge, drain valve, service valve, and relief valve.

DRIVE—The drive is V-belt type with provision for easy belt tensioning. An easily removed, totally enclosed wire belt guard is standard equipment.

MOTOR—Standard AC motors are 1,500 rpm IEC frame with totally fan cooled enclosure, Class F insulation, 1.15 Service Factor, and grease lubricated ball bearings. Standard three phase motor voltages are 380v-415v/50hz.

CONTROLS—Units are equipped for Constant Speed Control with suction unloading on compressor inlet & auxiliary valve.

STARTER—Star-Delta starters provide reduce voltage control starting of electric motors. They include thermal relays, which protect the motor windings from harmful currents, and resultant temperature rise caused by overloaded motor, low line voltage or stalled rotor.

PIPING SIZE— The discharge tubing is 1”

DIMENSIONS & WEIGHT— The dimension: 1950X780X1540

Weight: 770kg

Full Feature Packaged Detailed Specifications

TOTALLY PACKAGED RECEIVER MOUNTED MODELS (5.5HP AND 7.5HP)—The totally packaged model is a simplex compressor configuration, which comes standard with a 120-gallon, ASME coded horizontal tank (includes pressure gauge, service valve, and relief valve), a starter (mounted and wired). LOLS/SDS Starter/ACAC is options are available with this package. Rewired electrics will be for 380-415/3/50 voltages; the totally packaged are also available in 440/3/60 electrics.

Specifications – Options

AIRCOOLED AFTERCOOLER – An optional air-cooled after cooler lowers package discharge air to within 25°F of ambient temperature.

AUTOMATIC DRAIN VALVE- As air cools in the receiver, moisture drops out and accumulates in the tank. An automatic drain valve provides unattended, automatic draining if the moisture from the receiver tank. Either electric or pneumatic drain valves are available.