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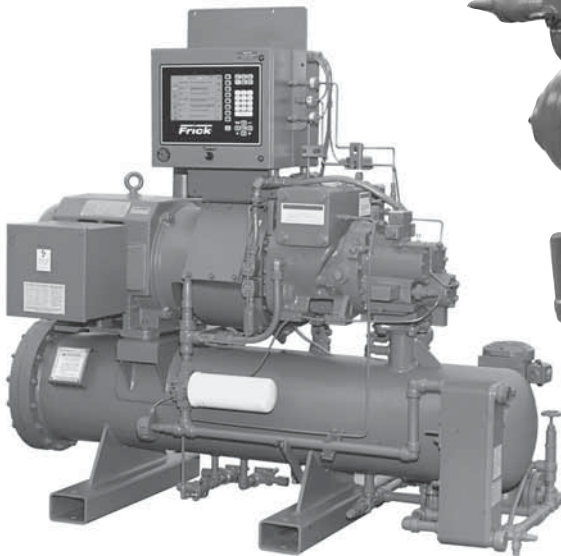
Form 070-400 SED (OCT 2008)

**SPECIFICATIONS - ENGINEERING DATA - DIMENSIONS**

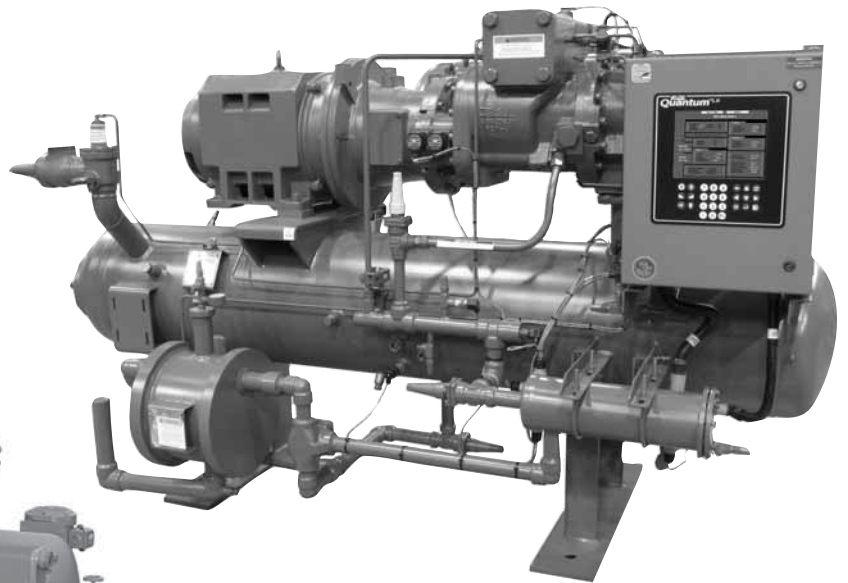
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# RXF

## ROTARY SCREW COMPRESSOR UNITS MODELS: RXF-12 through RXF-101



Models 12 – 50

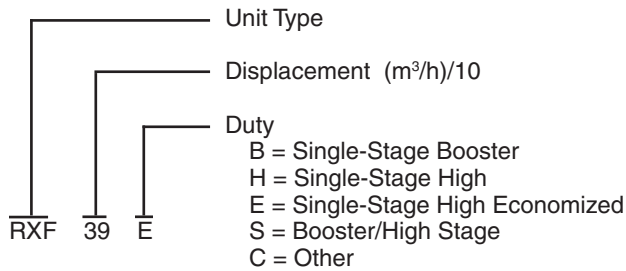


Models 58 – 101

## TABLE OF CONTENTS

MODEL NUMBER EXPLANATION .....	3
DESCRIPTION .....	3
MODEL XJF COMPRESSOR .....	3
LUBRICATION SYSTEM .....	3
OIL COOLING .....	4
QUANTUM™LX CONTROL PANEL .....	4
OPTIONAL ADDITIONS .....	4
STANDARD DESIGN DATA .....	5
EQUIPMENT SELECTION .....	6
SCREW COMPRESSOR UNIT .....	6
COMPRESSOR DRIVER .....	6
MOTOR STARTER PACKAGES .....	6
STARTING METHOD .....	6
STANDARD CONDITIONS - HIGH STAGE .....	7
SELECTION PROCEDURE - HIGH STAGE .....	7
LIQUID SUBCOOLING CORRECTION FACTORS .....	7
SUCTION SUPERHEAT CORRECTION FACTORS - HIGH STAGE .....	7
RATINGS, HIGH STAGE & w/ECOMOMIZER - R-717 .....	8
RATINGS, BOOSTER - R-717 .....	30
LIQUID INJECTION OIL COOLING .....	41
EXTERNAL OIL COOLER SELECTION .....	41
THERMOSYPHON OIL COOLING .....	42
OIL COOLER HEAT REJECTION (OCHR) .....	43
ECONOMIZER - HIGH STAGE (OPTIONAL) .....	49
ECONOMIZER RATINGS .....	50
TYPICAL PART LOAD POWER INPUT .....	51
STANDARD LUBRICATION SYSTEM LIMITS - HIGH STAGE .....	51
MOTOR SELECTION and STARTING TORQUE .....	52
STANDARD MOTORS .....	53
UNIT DIMENSIONS .....	54

**MODEL NUMBER EXPLANATION**



**DESCRIPTION**

The RXF Rotary Screw Compressor Unit line consists of eleven models ranging in capacity from 71.5 cfm (122 m³/h) through 596 cfm (1013 m³/h). Standard units are designed for use on ammonia, halocarbon and hydrocarbon refrigerants for high-stage and booster service.

Standard units consist of the following major components: Frick manufactured XJF Rotary Screw Compressor with "VOLUMIZER® II" variable volume ratio control and integral suction strainer; motor base; mounted "C" face or "D" flange motor and drive coupling; QUANTUM™LX control panel; suction seal cap or handwheel stop valve (separately shipped) and check valve; serviceable discharge seal cap stop and check valves; and a three-stage horizontal oil separator/reservoir. All components have been selected for maximum reliability and arranged to ensure accessibility for service. The units are factory packaged, complete with wiring and piping.

**MODEL XJF COMPRESSOR**

The XJF compressor incorporates the latest available technology to bring large screw compressor reliability and efficiency to small screw compressor sizes.

**HOUSING:** All screw compressor castings are designed and tested to meet the requirements of ASHRAE 15 safety code for 362 PSIA maximum working pressure. Castings are close-grain, ASTM-A 48 Class 40 cast iron to ensure structural integrity and mechanical and thermal stability under all operating conditions.

**ROTORS:** The rotors are machined from AISI-1141 low-carbon steel to the exacting tolerances of the latest SRM asymmetric profile. The five-lobed male rotor is directly connected to the gear drive. The seven-lobed female rotor is driven by the male rotor on a thin oil film.

**BEARINGS:** Antifriction bearings, with an L<sub>10</sub> rated bearing life in excess of 100,000 hours at design conditions, are used for reduced frictional horsepower and superior rotor positioning. This results in reduced power consumption, particularly at higher pressure ratios. Cylindrical roller bearings are provided to handle the radial loads and the thrust loads are absorbed by angular-contact ball bearings. In addition, thrust balance pistons are provided to reduce the thrust load and improve bearing life.

**SHAFT SEAL:** The compressor shaft seal is a single-face type with a spring-loaded, carbon stationary surface and a cast iron rotating seat. The seal is capable of sealing up to 362 PSIA, but is vented to low pressure to provide extended seal life.

**"VOLUMIZER® II" VARIABLE VOLUME RATIO CONTROL:**

The XJF compressor incorporates a simple automatic mechanism which adjusts the compressor volume ratio during operation to the most efficient of three possible volume ratios (2.2, 3.5 or 5.0), depending on system requirements. This minimizes the power penalty associated with over or undercompression and reduces excess bearing loading caused by running the machine at a less efficient V<sub>i</sub>. The volume ratio control is achieved by the use of a slide stop which is a movable portion of the rotor housing that moves axially with the rotors to control discharge port location. The slide stop is moved by hydraulic actuation of a control piston. Slide stop position is controlled by signals from the microprocessor or manually.

**CAPACITY CONTROL:**

Capacity control is achieved by use of a slide valve. The slide valve moves axially with the rotors to provide infinite capacity adjustment from 100% to 25% of full load. The slide valve is positioned automatically by hydraulic movement of its control piston which receives signals from the microprocessor. When in the unloaded position, gas is bypassed back to suction through a recirculation slot before compression begins and any work is expended, providing the most efficient unloading method available for part-load operation of a screw compressor.

**LUBRICATION SYSTEM**

**LUBRICATION SYSTEM:** The RXF compressor is designed specifically for operation without an oil pump for normal high-stage operation. All oil required for main oil injection and lubrication is provided by positive gas differential pressure.

**OIL SEPARATOR/RESERVOIR:** The oil separator is a horizontal, three-stage design with integral sump. Two sight glasses are located in the reservoir section and one in the coalescing section. The separator is designed and constructed in accordance with ASME Section VIII, Div. 1 for a maximum design working pressure of 300 PSIG and supplied with a relief valve. Heaters that are 500 watts maintain oil temperature during shutdown and are replaceable without pumping the compressor down.

A coalescent separator element is provided for final gas/oil separation of particles down to less than 1 micron. Oil is drained from the coalescer section and returned to the compressor suction during operation.

An electronic sensor is installed in the reservoir section of the oil separator to detect a low oil level. If a low level occurs, the sensor will signal the control panel to shut down the compressor.

**OIL FILTERS:** All oil passes through our new Frick SuperFilter™II. SuperFilter™II captures 99% of particles 5 microns and larger and has twice the dirt holding capacity of the original SuperFilter™. It is also designed for horizontal mounting and furnished with isolation stop valves and drain connections for ease of servicing. Efficient oil management leads to longer bearing life.

## OIL COOLING

**EZ-COOL™ LIQUID INJECTION OIL COOLING:** The compressor oil is cooled by direct contact with the refrigerant injected through one of two optimized port locations prior to the compressor discharge. Liquid feed arrangements include isolation valves, strainer, solenoid valve, sight glass, and a motorized thermal expansion temperature control valve. The temperature control valve will maintain the temperature of the oil returning to the compressor between 130° and 150°F.

**EXTERNAL OIL COOLING:** The oil cooler can be either a flat plate (12–50) or plate and shell (58–101) design, depending on the application. The oil cooler is mounted on the unit with the oil piping connected. Refrigerant connections, controls, and safety valve must be field installed and supplied by others.

## QUANTUM™LX CONTROL PANEL

**HARDWARE:** The Quantum™LX control panel is factory mounted, NEMA 4, UL® listed, and completely wired with all the required safety and operating devices. A 10.4" Active Color VGA Graphics Display offers a high contrast, crisp, clear display of compressor information and status. Additional I/O can be easily installed in the field. This feature provides flexibility for future engine room upgrades and changes. Three field-selectable serial communication ports allow you to choose from a combination of RS-422, RS-485, or RS-232 port configurations for both interpanel and external communications. Ethernet communications are also available for direct connection to the internet. Included in the microprocessor is timeproportioning capacity control, first-out annunciation, prealarms, volumizer control, access code protection, lead-lag sequencing, four user-defined capacity control modes, trending, maintenance schedule, and more. The operating conditions at the time of the compressor's last 50 alarms or shutdowns are stored in memory, providing the ultimate in service and troubleshooting convenience.

Additional features include: circuit breaker protection for main power; UL, cUL, CE, and ISO 9001 certifications; flexible analog inputs, making it easy to change setup in the field to accept 0-5 volt, 1-5 volt, 4-20 mA or ICTD sensors and transmitters; long life, easily replaceable, lithium coin cell battery for power backup to the time/date clock; communication activity and diagnostic lamps simplify troubleshooting and provide visual indication of proper component operation; Flash setpoint memory – all setpoints are stored on a Flash chip which requires no battery backup and can be downloaded to flash memory for storage. Setpoints can be field programmed within Frick defined limits (a notice is displayed if you attempt to program setpoints outside of the defined ranges); replaceable input and output modules; built-in fuse tester.

**SOFTWARE:** All of the *Quantum™LX* control panel screens are user friendly, menu driven and easy to use and understand. Help screens and prompts are available should you experience difficulties in setup or monitoring of system information. Operation instruction can be accessed on-screen via the Help menu.

Numerous diagnostic features have been incorporated to ease troubleshooting and identify component malfunctions. Diagnostic features include: sensor short/open, setpoint input out of sensing range, DC and AC power monitoring, and memory error sensing.

Multiple Capacity Controllers provide application flexibility for auto setback control and control reset for changes in modes of operation. Override Controls for all safety and controller functions can be programmed to unload the compressor within maximum safety and control parameters.

On-screen Calibrations for sensors, motor current, slide valve and slide stop have easy-to-understand graphics. Potentiometer tuning has been eliminated. Display backlight flashes on shutdown to attract attention in noisy engine rooms.

Selected data and selected time periods can be viewed in either an x-y trending chart or a tabular chart.

Add analog inputs with high and low alarm and shutdown setpoints. Any 0-5Vdc, 1-5Vdc, or 4-20mA sensor can be added. A name and unit description can be entered to identify the input.

Add digital inputs to monitor input continuously or only when the compressor is running. A name can be entered to identify the input. Either an alarm or shutdown can be selected to occur when the input is de-energized.

Other features include: Non-English Language Displays; Selectable Pressure and Temperature Units; Programmed Compressor Sequencing; Optional Condenser Control; and Industry Standard Communication Protocols.

\* UL® listing applies to standard panels. Panels with special components may also be certified. Contact Frick for confirmation.

## OPTIONAL ADDITIONS

**STARTERS:** Package-mounted solid-state starters are available for RXF 58 - 101 units with Quantum™LX control panel. The package includes all accessories needed to interface with the Quantum™LX panel and are prewired to numbered terminal strips.

**ECONOMIZER KITS:** Kits include compressor connection, check valve, and strainer. Separate vessel, solenoid valve, float valve or TXV, piping, and fittings are required but not included. The economizer vessel, available from Frick, cannot be mounted on the unit and would be shipped loose for field installation.



**POWER REGULATING CONTROL TRANSFORMER (SOLA):** Recommended if frequent power fluctuations or noisy power lines are anticipated. Shipped loose with Models 12–50, can be factory mounted on Models 58–101.

**OVERSIZED SUCTION VALVE:** Reduces pressure drop. Valve will be furnished one size larger than standard. Refer to dimension page (see index) for standard valve sizing.

**ADDITIONAL OIL CHARGE:** For first oil change (initial oil charge furnished as standard). Applies to LIOC (Liquid Injection Oil Cooling) WCOC (Water-Cooled Oil Cooling) or TSOC (Thermosyphon Oil Cooling).

**DEMAND PUMP:** Lubrication and oil injection may be achieved by using a positive-displacement, direct-driven gear-type oil pump capable of maintaining lube oil supply at low pressure differentials, operating independent of the compressor. The pump will operate only when required, due to low system differential pressure.

**QUANTUM™ CONTROL PANEL**

**HARDWARE:** The Quantum control panel is factory mounted, completely piped and wired with all the required safety and operating devices. The single box NEMA 4, UL® listed\* control panel houses both the Quantum control and the junction box. All transducers are wired and piped into a common manifold. A built-in telecommunications interface suitable for connection to a remote computer or control device is included. A 486 computer chip provides speed and processing capability and the 10.4" Active Color VGA Graphics Display offers a high contrast, crisp clear display of compressor information and status. Additional I/O can be easily installed in the field. This feature provides flexibility for future engine room upgrades and changes. Two field-selectable serial communication ports allow you to choose from a combination of RS-422, RS-485, or RS-232 port configurations for both interpanel and external communications.

Additional features include: circuit breaker protection for main power; UL, cUL, CE, and ISO 9001 certifications; flexible analog inputs, making it easy to change setup in the field to accept 0-5 volt, 1-5 volt, 4-20 mA or ICTD sensors and transmitters; long life, easily replaceable, lithium coin cell battery for power backup to the time/date clock; communication activity and diagnostic lamps simplify troubleshooting and provide visual indication of proper component operation; code readouts appear on the display if an internal component problem is detected; EEPROM setpoint memory – all setpoints are stored on an EEPROM chip which requires no battery backup and setpoints can be field programmed within Frick defined limits (a notice is displayed if you attempt to program setpoints outside of the defined ranges); replaceable input and output modules; built-in fuse tester.

**SOFTWARE:** Quantum control panel screens are user friendly, menu driven, and easy to use and understand. Help screens and prompts are available should you experience difficulties in setup or monitoring of system information. Operation instruction can be accessed on-screen via the Help key.

Numerous diagnostic features have been incorporated to ease troubleshooting and identify component malfunctions. They include: sensor short/open, setpoint input out of sensing range, DC and AC power monitoring, and memory error sensing.

Multiple capacity controllers provide application flexibility for auto setback control and control reset for changes in modes of operation. Override controls are provided to allow all safety and controller functions to be programmed to unload the compressor within maximum safety and control parameters.

On-screen calibrations for sensors, motor current, slide valve, and slide stop can be adjusted with easy to understand graphics. No potentiometer adjustment is required. Display backlight flashes on shutdown to attract attention in noisy engine rooms.

Other features include: selectable pressure and temperature units; industry standard communication protocols; real-time and historical X-Y trending - selected data and selected time periods can be viewed in either an X-Y trending chart or a tabular chart; ability to add analog and digital inputs.

\* UL® listing applies to standard panels. Microprocessor Control Panels with special components may also be certified. Contact Johnson Controls-Frick® for confirmation.

**STANDARD DESIGN DATA**  
( with metric equivalents)

RFX MODEL NO.	MOTOR SPEED RPM	COMPRESSOR DISPLACEMENT		Ratings 717 <sup>(1)</sup>				UNIT WEIGHT <sup>(2)</sup> WITH MOTOR	
				Capacity		Power			
				CFM	M <sup>3</sup> /HR	TR	kw	BHP	kw
12	1750	71.5	122	22.4	78.8	31.8	23.7	2038	924
15	3550	89.2	152	29.5	103.9	39.7	23.6	2188	992
19	3550	110.5	188	38.1	133.9	49.1	36.6	2203	999
24	1750	144.1	245	47.8	168.2	64.1	47.8	3145	1427
30	3550	179.8	306	62.2	218.7	79.9	59.6	3125	1418
39	3550	222.6	378	78.9	277.6	99.4	74.1	3182	1443
50	3550	292.3	497	105.7	371.6	132.7	99.0	3270	1483
58	3550	341	579	121.3	426.5	150.7	112.4	5795	2629
68	3550	403	685	145.8	512.6	178.8	133.4	5795	2629
85	3550	499	848	183.7	646.1	223.8	166.9	6160	2794
101	3550	596	1013	221.4	778.7	272.5	203.2	6160	2794

1. R-717: +20°F (-6.7°C) suction and 95°F (35°C) condensing with 10°F (5.5°C) liquid subcooling and 10°F (5.5°C) suction superheat.
2. Approximate unit weight for WCOC or TSOC (Thermosyphon Oil Cooling) with demand pump.

## EQUIPMENT SELECTION

### SCREW COMPRESSOR UNIT

The following information is required for final unit selection:

Refrigerant \_\_\_\_\_ R-717  
 Other - Consult Frick®

Oil Cooling \_\_\_\_\_  
 Liquid Injection  
 Water-Cooled (Inlet/Outlet Water Temp Req'd)  
 Thermosyphon

Saturated Suction Temperature \_\_\_\_\_ °F  
 Condensing Temperature \_\_\_\_\_ °F  
 Suction Superheat \_\_\_\_\_ °F  
 Liquid Subcooling \_\_\_\_\_ °F  
 Economizer - Kit Only \_\_\_\_\_  
 (Opt)

Rating \_\_\_\_\_ TR \_\_\_\_\_ BHP \_\_\_\_\_ (Including Liquid  
 Subcooling, Suction Superheat, Liquid Injection,  
 and 50 Hz corrections as applicable.)

Quantum™LX \_\_\_\_\_ Quantum™ \_\_\_\_\_

### COMPRESSOR DRIVER

The following information is required for proper coordination of the screw compressor unit and the compressor driver:

Motor Specifications \_\_\_\_\_ HP  
 Motor Power \_\_\_\_\_ Volts, 3 Phase \_\_\_\_\_ Hz (60 or 50 Hz)  
 Motor Starting Method \_\_\_\_\_ Across-the-line,  
 Wye-delta, Transformer, Other - Consult Frick®  
 \*Motor Rotation \_\_\_\_\_

**\* NOTE: Compressor rotation is clockwise when facing end of compressor shaft. MOTOR ROTATION MUST BE COUNTERCLOCKWISE WHEN FACING END OF MOTOR SHAFT.**

### MOTOR STARTER PACKAGES

Starter packages are available from Frick® with all necessary interlocks prewired to terminals numbered for direct connection to the RXF unit junction box.

The following information must be specified for each application:

#### STARTING METHOD

Choose Solid-State, Across-the-line, Wye-delta Open Transition, Wye-delta Closed Transition, or Autotransformer.

**SOLID-STATE STARTING:** Reduces power consumption during start-up. The in-line starter uses a traditional connection configuration that is easily understood by electricians. Our newest starter is positioned directly beneath the motor on the compressor package to reduce overall length and ensure a clean look for your engine room.

**ACROSS-THE-LINE STARTING:** Yields full motor starting torque. However, power companies and/or in-house power distribution systems often require other starting methods to achieve reduced starting inrush current.

**NOTE: Reducing the inrush current also reduces the starting torque. A careful analysis of compressor torque requirements versus the available motor starting torque must be made. This can be accomplished by plotting the motor speed/torque curve (obtained from motor vendor) against the compressor speed/torque curve. The available motor torque should exceed the compressor torque requirement by a minimum of 20% at the worst portion of the curve. This usually occurs at approximately half-speed in the region known as the motor pull-up torque (P.U.T.). When plotting these curves please remember that for starting methods other than across-the-line, the motor torque values are reduced as indicated.**

**WYE-DELTA (CLOSED TRANSITION):** Starting torque available is 33% of normal. While Wye-delta open transition starters exhibit the same torque characteristics as Wye-delta closed transition starters, closed transition is the more preferred method.

**AUTOTRANSFORMER:** The Autotransformer starter has three voltage taps: 50%, 65% and 80%. The starter, unless specified otherwise, is normally shipped connected to the 65% voltage tap. This can be changed in the field as required. The starting torque available is:

80% Tap - 64% of normal torque  
 65% Tap - 42% of normal torque  
 50% Tap - 25% of normal torque

**OVERCURRENT PROTECTION:** Choose either the Starter package or the Combination starter package with circuit breaker disconnect.

## STANDARD CONDITIONS - HIGH STAGE

The RXF high-stage ratings for R-717 are based on 10°F liquid subcooling (except no external liquid subcooling in economizer ratings), 10°F suction superheat (not contributing to the refrigeration effect), and thermosyphon or water-cooled oil cooling.

## SELECTION PROCEDURE - HIGH STAGE

The final rating for a RXF unit at any condition is determined from the standard rating and all of the applicable correction factors.

Capacity (TR) = standard rating (or economized rating) x subcooling correction factor x superheat correction factor x liquid injection correction factor if applicable (see Liquid Injection Oil Cooling) x 0.83 (50 Hz only).

Brake Horsepower (BHP) = standard rating (or economized rating) x 1.01 (liquid injection correction factor if applicable) x 0.83 (50 Hz only).

## LIQUID SUBCOOLING CORRECTION FACTORS

For liquid subcooling other than 10°F, determine the liquid subcooling capacity correction factor (S.C.C.F.) in the following manner using the actual number of degrees of liquid subcooling (S.C.):

$$\text{For R-717: S.C.C.F.} = 1 + (\text{S.C.} - 10^\circ\text{F}) (.0025)$$

No brake horsepower correction is required for liquid subcooling.

## SUCTION SUPERHEAT CORRECTION FACTORS HIGH STAGE

For suction superheat in excess of 10°F, determine the suction superheat capacity correction factor (S.H.C.F.) in the following manner using the actual number of degrees of suction superheat (S.H.):

$$\text{For R-717: S.H.C.F.} = \frac{1}{1 + (\text{S.H.} - 10^\circ\text{F}) (.0027)}$$

It is recommended that a minimum of 10°F of suction superheat be maintained to ensure that all refrigerant entering the compressor is in the vapor state.

No brake horsepower correction is required for suction superheat.

# RXF-12

## HIGH STAGE - CAPACITY and BRAKE HORSEPOWER RATING (1750 RPM MOTOR)

<b>R-717</b>		SATURATED CONDENSING TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG					
		75.0 25.8	85.0 151.7	95.0 181.1	105.0 214.2	115.0 251.5	
SATURATED SUCTION TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG (* in Hg)	-40. 8.7*	TR BHP	5.9 16.0	5.7 18.0	5.5 20.1	5.4 22.5	5.2 25.4
	-35. 5.4*	TR BHP	6.8 16.8	6.6 18.8	6.4 21.0	6.2 23.4	6.0 26.1
	-30. 1.6*	TR BHP	7.8 17.6	7.6 19.7	7.4 22.0	7.2 24.4	6.9 27.1
	-25. 1.3	TR BHP	9.0 18.4	8.7 20.6	8.5 23.0	8.3 25.5	8.0 28.2
	-20. 3.6	TR BHP	10.2 19.1	10.0 21.5	9.7 24.0	9.4 26.6	9.2 29.4
	-15. 6.2	TR BHP	11.7 19.9	11.4 22.4	11.0 25.0	10.7 27.8	10.4 30.7
	-10. 9.0	TR BHP	13.2 20.5	12.9 23.2	12.5 26.0	12.2 28.9	11.8 32.0
	-5. 12.2	TR BHP	15.0 21.1	14.6 24.0	14.2 27.0	13.8 30.1	13.4 33.3
	0. 15.7	TR BHP	16.9 21.6	16.5 24.7	16.0 27.9	15.6 31.2	15.1 34.6
	5. 19.6	TR BHP	19.1 21.8	18.5 25.3	18.0 28.8	17.5 32.3	17.0 35.9
	10. 23.8	TR BHP	21.5 22.0	20.8 25.7	20.2 29.5	19.6 33.3	19.1 37.1
	15. 28.4	TR BHP	24.1 22.2	23.4 25.9	22.7 30.0	22.0 34.2	21.4 38.3
	20. 33.5	TR BHP	26.9 22.4	26.1 26.1	25.3 30.3	24.6 34.8	23.9 39.3
	25. 39.0	TR BHP	30.0 22.7	29.2 26.3	28.3 30.6	27.4 35.3	26.6 40.2
	30. 45.0	TR BHP	33.4 22.9	32.5 26.6	31.5 30.8	30.5 35.6	29.6 40.8
	35. 51.6	TR BHP	37.0 22.9	36.0 27.0	35.0 31.1	33.9 35.8	32.8 41.2
40. 58.6	TR BHP	41.1 22.6	39.9 27.2	38.7 31.5	37.6 36.1	36.4 41.5	

NOTE: Capacities based on 10°F liquid subcooling, 10°F suction superheat, with superheat enthalpy not contributing to the refrigeration effect.

HIGH STAGE - CAPACITY and BRAKE HORSEPOWER RATING (1750 RPM MOTOR)  
WITH FLASH TYPE ECONOMIZER (SEE PAGE 88 FOR SELECTIONS  
BASED ON DIRECT EXPANSION OR SHELL AND COIL ECONOMIZERS).

# RXF-12E

<b>R-717</b>		SATURATED CONDENSING TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG					
		75.0 125.8	85.0 151.7	95.0 181.1	105.0 214.2	115.0 251.5	
SATURATED SUCTION TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG (* in Hg)	-40. 8.7*	TR BHP	6.9 16.9	6.8 19.0	6.8 21.3	6.7 24.1	6.7 27.3
	-35. 5.4*	TR BHP	7.9 17.7	7.9 19.9	7.8 22.3	7.7 25.0	7.7 28.1
	-30. 1.6*	TR BHP	9.0 18.5	8.9 20.8	8.9 23.4	8.8 26.1	8.8 29.1
	-25. 1.3	TR BHP	10.2 19.3	10.1 21.7	10.1 24.4	10.0 27.2	10.0 30.3
	-20. 3.6	TR BHP	11.5 20.0	11.5 22.7	11.4 25.4	11.4 28.4	11.3 31.6
	-15. 6.2	TR BHP	13.0 20.8	12.9 23.5	12.9 26.5	12.8 29.6	12.8 32.9
	-10. 9.0	TR BHP	14.6 21.4	14.5 24.4	14.5 27.5	14.4 30.8	14.3 34.3
	-5. 12.2	TR BHP	16.4 22.0	16.3 25.1	16.2 28.5	16.1 31.9	16.0 35.6
	0. 15.7	TR BHP	18.3 22.3	18.2 25.8	18.1 29.4	18.0 33.1	17.9 36.9
	5. 19.6	TR BHP	20.4 22.5	20.2 26.3	20.1 30.1	20.0 34.1	19.9 38.2
	10. 23.8	TR BHP	22.6 22.6	22.5 26.6	22.3 30.8	22.2 35.0	22.1 39.4
	15. 28.4	TR BHP	25.1 22.6	24.9 26.7	24.7 31.2	24.6 35.8	24.4 40.5
	20. 33.5	TR BHP	27.7 22.7	27.5 26.7	27.3 31.4	27.1 36.4	26.9 41.4
	25. 39.0	TR BHP	30.5 22.7	30.3 26.8	30.1 31.5	29.9 36.7	29.7 42.2
	30. 45.0	TR BHP	33.5 22.8	33.4 26.9	33.1 31.5	32.9 36.8	32.6 42.6
	35. 51.6	TR BHP	36.8 22.6	36.5 27.0	36.3 31.6	36.1 36.9	35.8 42.8
40. 58.6	TR BHP	40.2 22.0	40.0 27.0	39.8 31.8	39.5 37.0	39.2 42.9	

**NOTE:** Ratings based on liquid subcooling to saturation temperature at flash economizer pressure, 10°F suction superheat with the superheat enthalpy not contributing to the refrigeration effect, no liquid cooling from condenser or external source. No allowance for vapor line pressure drop or economizing vessel temperature split is included in the ratings above.

# RXF-15

## HIGH STAGE - CAPACITY and BRAKE HORSEPOWER RATING (3550 RPM MOTOR)

<b>R-717</b>		SATURATED CONDENSING TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG					
		75.0 125.8	85.0 151.7	95.0 181.1	105.0 214.2	115.0 251.5	
SATURATED SUCTION TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG (* in Hg)	-40. 8.7*	TR BHP	7.3 20.0	7.1 22.4	6.9 25.1	6.7 28.1	6.5 31.7
	-35. 5.4*	TR BHP	8.5 21.0	8.3 23.5	8.0 26.2	7.8 29.2	7.5 32.6
	-30. 1.6*	TR BHP	9.8 21.9	9.5 24.6	9.2 27.4	9.0 30.4	8.7 33.8
	-25. 1.3	TR BHP	11.2 22.9	10.9 25.7	10.6 28.7	10.3 31.8	10.0 35.2
	-20. 3.6	TR BHP	12.8 23.9	12.4 26.8	12.1 29.9	11.8 33.2	11.4 36.7
	-15. 6.2	TR BHP	14.5 24.8	14.2 27.9	13.8 31.2	13.4 34.7	13.0 38.3
	-10. 9.0	TR BHP	16.5 25.6	16.1 29.0	15.6 32.5	15.2 36.1	14.8 39.9
	-5. 12.2	TR BHP	18.7 26.4	18.2 30.0	17.7 33.7	17.2 37.5	16.7 41.6
	0. 15.7	TR BHP	21.1 26.9	20.5 30.9	20.0 34.8	19.4 38.9	18.9 43.2
	5. 19.6	TR BHP	23.8 27.2	23.1 31.6	22.5 35.9	21.8 40.3	21.2 44.8
	10. 23.8	TR BHP	26.8 27.5	26.0 32.0	25.2 36.8	24.5 41.5	23.8 46.3
	15. 28.4	TR BHP	30.0 27.7	29.1 32.4	28.3 37.4	27.4 42.6	26.6 47.7
	20. 33.5	TR BHP	33.6 28.0	32.6 32.6	31.6 37.9	30.7 43.5	29.8 49.0
	25. 39.0	TR BHP	37.5 28.3	36.4 32.9	35.3 38.2	34.2 44.0	33.2 50.2
	30. 45.0	TR BHP	41.6 28.6	40.5 33.2	39.3 38.4	38.1 44.4	36.9 50.9
	35. 51.6	TR BHP	46.2 28.6	44.9 33.6	43.6 38.8	42.3 44.7	41.0 51.4
40. 58.6	TR BHP	51.2 28.2	49.7 33.9	48.3 39.3	46.9 45.1	45.5 51.8	

NOTE: Capacities based on 10°F liquid subcooling, 10°F suction superheat, with superheat enthalpy not contributing to the refrigeration effect.

**HIGH STAGE - CAPACITY and BRAKE HORSEPOWER RATING (3550 RPM MOTOR)  
WITH FLASH TYPE ECONOMIZER (SEE PAGE 88 FOR SELECTIONS  
BASED ON DIRECT EXPANSION OR SHELL AND COIL ECONOMIZERS).**

# RXF-15E

<b>R-717</b>		SATURATED CONDENSING TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG					
		75.0 125.8	85.0 151.7	95.0 181.1	105.0 214.2	115.0 251.5	
SATURATED SUCTION TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG (* in Hg)	-40. 8.7*	TR BHP	8.6 21.2	8.5 23.9	8.5 26.8	8.4 30.3	8.3 34.4
	-35. 5.4*	TR BHP	9.8 22.2	9.8 25.0	9.7 28.1	9.6 31.4	9.6 35.3
	-30. 1.6*	TR BHP	11.2 23.2	11.2 26.2	11.1 29.4	11.0 32.8	10.9 36.6
	-25. 1.3	TR BHP	12.7 24.2	12.7 27.3	12.6 30.7	12.5 34.3	12.4 38.1
	-20. 3.6	TR BHP	14.4 25.2	14.3 28.5	14.3 32.0	14.2 35.7	14.1 39.7
	-15. 6.2	TR BHP	16.2 26.1	16.2 29.6	16.1 33.3	16.0 37.2	15.9 41.4
	-10. 9.0	TR BHP	18.2 26.9	18.1 30.7	18.1 34.6	18.0 38.7	17.9 43.1
	-5. 12.2	TR BHP	20.4 27.6	20.3 31.6	20.2 35.8	20.1 40.2	20.0 44.8
	0. 15.7	TR BHP	22.8 28.0	22.7 32.4	22.6 36.9	22.4 41.6	22.3 46.4
	5. 19.6	TR BHP	25.4 28.3	25.2 33.1	25.1 37.9	25.0 42.9	24.8 48.0
	10. 23.8	TR BHP	28.3 28.4	28.0 33.4	27.8 38.7	27.7 44.0	27.5 49.5
	15. 28.4	TR BHP	31.3 28.4	31.1 33.6	30.9 39.2	30.6 45.0	30.5 50.9
	20. 33.5	TR BHP	34.6 28.5	34.4 33.6	34.1 39.5	33.8 45.7	33.6 52.1
	25. 39.0	TR BHP	38.1 28.6	37.9 33.7	37.6 39.6	37.3 46.1	37.0 53.1
	30. 45.0	TR BHP	41.8 28.7	41.6 33.8	41.3 39.7	41.0 46.3	40.7 53.6
	35. 51.6	TR BHP	45.9 28.4	45.6 34.0	45.3 39.8	45.0 46.3	44.6 53.9
40. 58.6	TR BHP	50.2 27.7	49.8 33.9	49.6 40.0	49.2 46.5	48.9 54.0	

**NOTE: Ratings based on liquid subcooling to saturation temperature at flash economizer pressure, 10°F suction superheat with the superheat enthalpy not contributing to the refrigeration effect, no liquid cooling from condenser or external source. No allowance for vapor line pressure drop or economizing vessel temperature split is included in the ratings above.**

# RXF-19

## HIGH STAGE - CAPACITY and BRAKE HORSEPOWER RATING (3550 RPM MOTOR)

R-717		SATURATED CONDENSING TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG					
		75.0 125.8	85.0 151.7	95.0 181.1	105.0 214.2	115.0 251.5	
SATURATED SUCTION TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG (* in Hg)	-40. 8.7*	TR BHP	9.1 24.8	8.8 27.7	8.6 31.0	8.3 34.8	8.0 39.3
	-35. 5.4*	TR BHP	10.5 26.0	10.2 29.1	9.9 32.4	9.6 36.1	9.3 40.4
	-30. 1.6*	TR BHP	12.1 27.2	11.8 30.4	11.4 34.0	11.1 37.7	10.7 41.8
	-25. 1.3	TR BHP	13.9 28.4	13.5 31.8	13.1 35.5	12.7 39.4	12.3 43.6
	-20. 3.6	TR BHP	15.8 29.6	15.4 33.2	15.0 37.1	14.6 41.1	14.1 45.5
	-15. 6.2	TR BHP	18.0 30.7	17.5 34.6	17.1 38.6	16.6 42.9	16.1 47.5
	-10. 9.0	TR BHP	20.4 31.7	19.9 35.9	19.4 40.2	18.8 44.7	18.3 49.5
	-5. 12.2	TR BHP	23.2 32.7	22.5 37.1	21.9 41.7	21.3 46.5	20.7 51.5
	0. 15.7	TR BHP	26.2 33.3	25.4 38.2	24.7 43.2	24.0 48.2	23.4 53.5
	5. 19.6	TR BHP	29.5 33.7	28.6 39.1	27.8 44.5	27.0 49.9	26.3 55.5
	10. 23.8	TR BHP	33.2 34.0	32.2 39.7	31.2 45.6	30.3 51.4	29.5 57.3
	15. 28.4	TR BHP	37.2 34.3	36.1 40.1	35.0 46.4	34.0 52.8	33.0 59.1
	20. 33.5	TR BHP	41.6 34.6	40.4 40.3	39.1 46.9	38.0 53.8	36.9 60.7
	25. 39.0	TR BHP	46.4 35.0	45.0 40.7	43.7 47.3	42.4 54.5	41.1 62.1
	30. 45.0	TR BHP	51.6 35.4	50.1 41.2	48.7 47.6	47.2 55.0	45.7 63.0
	35. 51.6	TR BHP	57.2 35.5	55.6 41.7	54.0 48.0	52.4 55.3	50.8 63.6
40. 58.6	TR BHP	63.5 34.9	61.6 42.0	59.9 48.6	58.1 55.8	56.3 64.1	

NOTE: Capacities based on 10°F liquid subcooling, 10°F suction superheat, with superheat enthalpy not contributing to the refrigeration effect.

HIGH STAGE - CAPACITY and BRAKE HORSEPOWER RATING (3550 RPM MOTOR)  
WITH FLASH TYPE ECONOMIZER (SEE PAGE 89 FOR SELECTIONS  
BASED ON DIRECT EXPANSION OR SHELL AND COIL ECONOMIZERS).

# RXF-19E

<b>R-717</b>		SATURATED CONDENSING TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG					
		75.0 125.8	85.0 151.7	95.0 181.1	105.0 214.2	115.0 251.5	
SATURATED SUCTION TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG (* in Hg)	-40. 8.7*	TR BHP	10.7 26.3	10.6 29.6	10.5 33.2	10.4 37.5	10.3 42.6
	-35. 5.4*	TR BHP	12.2 27.5	12.1 31.0	12.0 34.7	11.9 38.9	11.8 43.7
	-30. 1.6*	TR BHP	13.9 28.8	13.8 32.4	13.8 36.4	13.6 40.6	13.5 45.3
	-25. 1.3	TR BHP	15.8 30.0	15.7 33.8	15.6 38.0	15.5 42.4	15.4 47.2
	-20. 3.6	TR BHP	17.8 31.2	17.7 35.3	17.7 39.6	17.6 44.2	17.5 49.2
	-15. 6.2	TR BHP	20.1 32.3	20.0 36.7	19.9 41.2	19.8 46.1	19.7 51.3
	-10. 9.0	TR BHP	22.6 33.3	22.5 38.0	22.4 42.8	22.2 47.9	22.1 53.4
	-5. 12.2	TR BHP	25.3 34.2	25.1 39.1	25.0 44.3	24.9 49.7	24.8 55.4
	0. 15.7	TR BHP	28.3 34.7	28.1 40.2	27.9 45.7	27.8 51.5	27.7 57.5
	5. 19.6	TR BHP	31.5 35.0	31.3 41.0	31.1 46.9	30.9 53.1	30.8 59.5
	10. 23.8	TR BHP	35.0 35.1	34.7 41.4	34.5 48.0	34.3 54.5	34.1 61.3
	15. 28.4	TR BHP	38.8 35.2	38.5 41.6	38.2 48.6	37.9 55.8	37.7 63.0
	20. 33.5	TR BHP	42.8 35.3	42.5 41.6	42.2 48.9	41.9 56.6	41.6 64.5
	25. 39.0	TR BHP	47.2 35.4	46.9 41.7	46.6 49.1	46.2 57.1	45.9 65.7
	30. 45.0	TR BHP	51.8 35.5	51.5 41.9	51.2 49.1	50.8 57.4	50.4 66.3
	35. 51.6	TR BHP	56.8 35.2	56.5 42.0	56.1 49.3	55.7 57.4	55.3 66.7
40. 58.6	TR BHP	62.2 34.3	61.7 42.0	61.4 49.6	61.0 57.6	60.5 66.9	

**NOTE:** Ratings based on liquid subcooling to saturation temperature at flash economizer pressure, 10°F suction superheat with the superheat enthalpy not contributing to the refrigeration effect, no liquid cooling from condenser or external source. No allowance for vapor line pressure drop or economizing vessel temperature split is included in the ratings above.

# RXF-24

## HIGH STAGE - CAPACITY and BRAKE HORSEPOWER RATING (1750 RPM MOTOR)

R-717		SATURATED CONDENSING TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG				
		75.0 125.8	85.0 151.7	95.0 181.1	105.0 214.2	115.0 251.5
SATURATED SUCTION TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG (* in Hg)	-40. 8.7* TR BHP	11.9 32.3	11.5 36.2	11.2 40.5	10.8 45.4	10.5 51.3
	-35. 5.4* TR BHP	13.7 33.8	13.3 37.9	12.9 42.3	12.5 47.1	12.1 52.7
	-30. 1.6* TR BHP	15.8 35.4	15.3 39.7	14.9 44.3	14.5 49.1	14.0 54.6
	-25. 1.3 TR BHP	18.1 37.0	17.6 41.5	17.1 46.3	16.6 51.4	16.1 56.8
	-20. 3.6 TR BHP	20.6 38.5	20.1 43.3	19.5 48.3	19.0 53.7	18.4 59.3
	-15. 6.2 TR BHP	23.5 40.0	22.9 45.1	22.2 50.4	21.6 56.0	21.0 61.9
	-10. 9.0 TR BHP	26.7 41.4	26.0 46.8	25.3 52.4	24.5 58.3	23.9 64.5
	-5. 12.2 TR BHP	30.2 42.6	29.4 48.4	28.6 54.4	27.8 60.6	27.0 67.1
	0. 15.7 TR BHP	34.1 43.4	33.2 49.9	32.2 56.3	31.4 62.9	30.5 69.8
	5. 19.6 TR BHP	38.4 44.0	37.3 51.0	36.3 58.0	35.3 65.0	34.3 72.3
	10. 23.8 TR BHP	43.3 44.4	42.0 51.8	40.7 59.5	39.6 67.0	38.5 74.8
	15. 28.4 TR BHP	48.5 44.7	47.1 52.3	45.7 60.5	44.3 68.8	43.0 77.1
	20. 33.5 TR BHP	54.2 45.1	52.7 52.6	51.0 61.1	49.5 70.2	48.1 79.2
	25. 39.0 TR BHP	60.5 45.7	58.7 53.1	57.0 61.7	55.3 71.1	53.6 81.0
	30. 45.0 TR BHP	67.2 46.2	65.4 53.7	63.5 62.1	61.5 71.8	59.6 82.1
	35. 51.6 TR BHP	74.6 46.2	72.5 54.3	70.5 62.6	68.4 72.2	66.2 83.0
40. 58.6 TR BHP	82.8 45.6	80.3 54.8	78.1 63.4	75.7 72.8	73.4 83.6	

NOTE: Capacities based on 10°F liquid subcooling, 10°F suction superheat, with superheat enthalpy not contributing to the refrigeration effect.

HIGH STAGE - CAPACITY and BRAKE HORSEPOWER RATING (1750 RPM MOTOR)  
WITH FLASH TYPE ECONOMIZER (SEE PAGE 88 FOR SELECTIONS  
BASED ON DIRECT EXPANSION OR SHELL AND COIL ECONOMIZERS).

# RXF-24E

<b>R-717</b>		SATURATED CONDENSING TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG					
		75.0 125.8	85.0 151.7	95.0 181.1	105.0 214.2	115.0 251.5	
SATURATED SUCTION TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG (* in Hg)	-40. 8.7*	TR BHP	13.9 34.2	13.8 38.6	13.7 43.3	13.6 48.9	13.5 55.5
	-35. 5.4*	TR BHP	15.9 35.9	15.8 40.4	15.7 45.3	15.6 50.7	15.4 57.0
	-30. 1.6*	TR BHP	18.1 37.5	18.0 42.3	17.9 47.4	17.8 52.9	17.6 59.1
	-25. 1.3	TR BHP	20.6 39.1	20.4 44.1	20.4 49.5	20.2 55.3	20.1 61.5
	-20. 3.6	TR BHP	23.3 40.7	23.1 46.0	23.0 51.7	22.9 57.7	22.8 64.2
	-15. 6.2	TR BHP	26.2 42.2	26.1 47.8	26.0 53.8	25.8 60.1	25.7 66.9
	-10. 9.0	TR BHP	29.4 43.5	29.3 49.5	29.2 55.8	29.0 62.5	28.9 69.6
	-5. 12.2	TR BHP	33.0 44.6	32.8 51.0	32.7 57.8	32.5 64.9	32.3 72.3
	0. 15.7	TR BHP	36.9 45.3	36.6 52.4	36.4 59.6	36.2 67.1	36.1 75.0
	5. 19.6	TR BHP	41.0 45.6	40.8 53.4	40.5 61.2	40.3 69.2	40.1 77.6
	10. 23.8	TR BHP	45.6 45.8	45.3 53.9	45.0 62.6	44.7 71.1	44.5 80.0
	15. 28.4	TR BHP	50.6 45.9	50.2 54.2	49.8 63.3	49.5 72.7	49.2 82.2
	20. 33.5	TR BHP	55.9 46.0	55.5 54.2	55.0 63.8	54.7 73.9	54.3 84.1
	25. 39.0	TR BHP	61.6 46.2	61.1 54.4	60.7 64.0	60.2 74.5	59.8 85.7
	30. 45.0	TR BHP	67.6 46.3	67.2 54.6	66.8 64.1	66.2 74.8	65.8 86.5
	35. 51.6	TR BHP	74.1 45.9	73.6 54.8	73.2 64.2	72.7 74.8	72.1 87.0
40. 58.6	TR BHP	81.1 44.7	80.5 54.8	80.1 64.6	79.5 75.1	78.9 87.2	

**NOTE:** Ratings based on liquid subcooling to saturation temperature at flash economizer pressure, 10°F suction superheat with the superheat enthalpy not contributing to the refrigeration effect, no liquid cooling from condenser or external source. No allowance for vapor line pressure drop or economizing vessel temperature split is included in the ratings above.

# RXF-30

## HIGH STAGE - CAPACITY and BRAKE HORSEPOWER RATING (3550 RPM MOTOR)

<b>R-717</b>		SATURATED CONDENSING TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG					
		75.0 125.8	85.0 151.7	95.0 181.1	105.0 214.2	115.0 251.5	
SATURATED SUCTION TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG (* in Hg)	-40. 8.7*	TR BHP	14.8 40.3	14.4 45.1	13.9 50.5	13.5 56.7	13.1 64.0
	-35. 5.4*	TR BHP	17.1 42.2	16.6 47.3	16.1 52.8	15.6 58.8	15.1 65.7
	-30. 1.6*	TR BHP	19.7 44.2	19.1 49.5	18.6 55.2	18.0 61.3	17.5 68.1
	-25. 1.3	TR BHP	22.5 46.2	21.9 51.8	21.3 57.7	20.7 64.1	20.1 70.9
	-20. 3.6	TR BHP	25.8 48.1	25.1 54.0	24.4 60.3	23.7 67.0	23.0 74.0
	-15. 6.2	TR BHP	29.3 49.9	28.5 56.3	27.8 62.9	27.0 69.8	26.2 77.2
	-10. 9.0	TR BHP	33.3 51.6	32.4 58.4	31.5 65.4	30.6 72.8	29.8 80.5
	-5. 12.2	TR BHP	37.7 53.1	36.6 60.4	35.7 67.9	34.7 75.7	33.7 83.8
	0. 15.7	TR BHP	42.6 54.2	41.4 62.2	40.2 70.2	39.1 78.5	38.0 87.1
	5. 19.6	TR BHP	48.0 54.9	46.6 63.7	45.3 72.4	44.0 81.2	42.8 90.3
	10. 23.8	TR BHP	54.0 55.4	52.4 64.6	50.8 74.2	49.4 83.7	48.0 93.3
	15. 28.4	TR BHP	60.5 55.8	58.7 65.2	57.0 75.5	55.3 85.9	53.7 96.2
	20. 33.5	TR BHP	67.7 56.3	65.7 65.6	63.7 76.3	61.8 87.6	60.0 98.8
	25. 39.0	TR BHP	75.5 57.0	73.3 66.2	71.1 76.9	68.9 88.7	66.9 101.1
	30. 45.0	TR BHP	83.9 57.6	81.6 67.0	79.2 77.5	76.7 89.5	74.4 102.5
	35. 51.6	TR BHP	93.1 57.7	90.5 67.8	87.9 78.1	85.3 90.0	82.6 103.5
40. 58.6	TR BHP	103.3 56.9	100.2 68.3	97.4 79.1	94.5 90.8	91.6 104.3	

NOTE: Capacities based on 10°F liquid subcooling, 10°F suction superheat, with superheat enthalpy not contributing to the refrigeration effect.

HIGH STAGE - CAPACITY and BRAKE HORSEPOWER RATING (3550 RPM MOTOR)  
WITH FLASH TYPE ECONOMIZER (SEE PAGE 88 FOR SELECTIONS  
BASED ON DIRECT EXPANSION OR SHELL AND COIL ECONOMIZERS).

# RXF-30E

<b>R-717</b>		SATURATED CONDENSING TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG					
		75.0 125.8	85.0 151.7	95.0 181.1	105.0 214.2	115.0 251.5	
SATURATED SUCTION TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG (* in Hg)	-40. TR 8.7* BHP	17.3 42.7	17.2 48.1	17.1 54.1	16.9 61.0	16.8 69.3	
	-35. TR 5.4* BHP	19.8 44.7	19.7 50.4	19.6 56.5	19.4 63.3	19.3 71.2	
	-30. TR 1.6* BHP	22.6 46.8	22.5 52.7	22.4 59.2	22.2 66.0	22.0 73.7	
	-25. TR 1.3 BHP	25.6 48.8	25.5 55.1	25.4 61.8	25.3 69.0	25.1 76.7	
	-20. TR 3.6 BHP	29.0 50.8	28.9 57.4	28.7 64.4	28.6 72.0	28.4 80.1	
	-15. TR 6.2 BHP	32.7 52.6	32.5 59.6	32.4 67.1	32.2 75.0	32.1 83.5	
	-10. TR 9.0 BHP	36.7 54.2	36.6 61.8	36.4 69.7	36.2 78.0	36.0 86.8	
	-5. TR 12.2 BHP	41.2 55.6	40.9 63.7	40.7 72.1	40.5 80.9	40.3 90.2	
	0. TR 15.7 BHP	46.0 56.5	45.7 65.4	45.4 74.4	45.2 83.7	45.0 93.6	
	5. TR 19.6 BHP	51.2 57.0	50.9 66.7	50.6 76.4	50.3 86.4	50.0 96.8	
	10. TR 23.8 BHP	56.9 57.2	56.5 67.3	56.1 78.1	55.7 88.7	55.5 99.8	
	15. TR 28.4 BHP	63.1 57.2	62.6 67.6	62.2 79.0	61.7 90.8	61.4 102.5	
	20. TR 33.5 BHP	69.7 57.4	69.2 67.7	68.7 79.6	68.2 92.2	67.8 105.0	
	25. TR 39.0 BHP	76.8 57.6	76.3 67.9	75.8 79.8	75.1 92.9	74.6 106.9	
	30. TR 45.0 BHP	84.3 57.8	83.9 68.1	83.3 79.9	82.6 93.4	82.0 108.0	
	35. TR 51.6 BHP	92.4 57.3	91.9 68.4	91.4 80.2	90.7 93.4	89.9 108.5	
40. TR 58.6 BHP	101.1 55.8	100.4 68.4	100.0 80.6	99.2 93.7	98.5 108.8		

**NOTE:** Ratings based on liquid subcooling to saturation temperature at flash economizer pressure, 10°F suction superheat with the superheat enthalpy not contributing to the refrigeration effect, no liquid cooling from condenser or external source. No allowance for vapor line pressure drop or economizing vessel temperature split is included in the ratings above.

# RXF-39

## HIGH STAGE - CAPACITY and BRAKE HORSEPOWER RATING (3550 RPM MOTOR)

R-717		SATURATED CONDENSING TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG				
		75.0 125.8	85.0 151.7	95.0 181.1	105.0 214.2	115.0 251.5
SATURATED SUCTION TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG (* in Hg)	-40. 8.7* TR BHP	18.3 49.9	17.8 55.9	17.2 62.5	16.7 70.2	16.2 79.2
	-35. 5.4* TR BHP	21.2 52.3	20.6 58.6	20.0 65.3	19.4 72.8	18.8 81.4
	-30. 1.6* TR BHP	24.3 54.7	23.7 61.3	23.1 68.4	22.3 75.9	21.6 84.3
	-25. 1.3 TR BHP	27.9 57.2	27.2 64.1	26.4 71.5	25.7 79.4	24.9 87.8
	-20. 3.6 TR BHP	31.9 59.6	31.0 66.9	30.2 74.7	29.4 82.9	28.5 91.7
	-15. 6.2 TR BHP	36.3 61.8	35.3 69.7	34.4 77.9	33.4 86.5	32.5 95.7
	-10. 9.0 TR BHP	41.2 63.9	40.1 72.3	39.0 81.0	37.9 90.1	36.9 99.7
	-5. 12.2 TR BHP	46.7 65.8	45.4 74.8	44.2 84.1	42.9 93.7	41.7 103.7
	0. 15.7 TR BHP	52.7 67.1	51.2 77.0	49.8 87.0	48.4 97.2	47.1 107.8
	5. 19.6 TR BHP	59.4 67.9	57.7 78.8	56.0 89.6	54.5 100.5	53.0 111.8
	10. 23.8 TR BHP	66.8 68.6	64.8 80.0	62.9 91.9	61.1 103.6	59.4 115.6
	15. 28.4 TR BHP	75.0 69.1	72.7 80.8	70.6 93.4	68.5 106.4	66.5 119.1
	20. 33.5 TR BHP	83.8 69.7	81.4 81.3	78.9 94.5	76.6 108.5	74.3 122.4
	25. 39.0 TR BHP	93.5 70.6	90.8 82.0	88.1 95.3	85.4 109.9	82.8 125.2
	30. 45.0 TR BHP	103.9 71.4	101.1 82.9	98.1 95.9	95.0 110.9	92.1 126.9
	35. 51.6 TR BHP	115.3 71.4	112.1 83.9	108.9 96.8	105.6 111.5	102.3 128.2
40. 58.6 TR BHP	127.9 70.4	124.1 84.6	120.6 97.9	117.0 112.5	113.4 129.2	

NOTE: Capacities based on 10°F liquid subcooling, 10°F suction superheat, with superheat enthalpy not contributing to the refrigeration effect.

HIGH STAGE - CAPACITY and BRAKE HORSEPOWER RATING (3550 RPM MOTOR)  
WITH FLASH TYPE ECONOMIZER (SEE PAGE 88 FOR SELECTIONS  
BASED ON DIRECT EXPANSION OR SHELL AND COIL ECONOMIZERS).

# RXF-39E

<b>R-717</b>		SATURATED CONDENSING TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG					
		75.0 125.8	85.0 151.7	95.0 181.1	105.0 214.2	115.0 251.5	
SATURATED SUCTION TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG (* in Hg)	-40. 8.7*	TR BHP	21.5 52.9	21.3 59.6	21.1 67.0	21.0 75.6	20.8 85.8
	-35. 5.4*	TR BHP	24.6 55.4	24.4 62.4	24.3 70.0	24.0 78.4	23.9 88.1
	-30. 1.6*	TR BHP	28.0 57.9	27.8 65.3	27.7 73.3	27.5 81.8	27.2 91.3
	-25. 1.3	TR BHP	31.8 60.5	31.6 68.2	31.5 76.5	31.3 85.5	31.0 95.0
	-20. 3.6	TR BHP	35.9 62.9	35.7 71.1	35.6 79.8	35.4 89.1	35.2 99.2
	-15. 6.2	TR BHP	40.5 65.1	40.3 73.9	40.1 83.1	39.9 92.9	39.7 103.3
	-10. 9.0	TR BHP	45.5 67.2	45.3 76.5	45.1 86.3	44.8 96.6	44.6 107.5
	-5. 12.2	TR BHP	51.0 68.9	50.7 78.9	50.5 89.3	50.2 100.2	49.9 111.7
	0. 15.7	TR BHP	57.0 70.0	56.6 81.0	56.3 92.1	56.0 103.7	55.7 115.9
	5. 19.6	TR BHP	63.4 70.5	63.0 82.5	62.6 94.6	62.3 106.9	62.0 119.8
	10. 23.8	TR BHP	70.5 70.8	69.9 83.3	69.5 96.7	69.0 109.9	68.7 123.6
	15. 28.4	TR BHP	78.2 70.9	77.5 83.8	77.0 97.9	76.5 112.4	76.0 127.0
	20. 33.5	TR BHP	86.3 71.1	85.7 83.8	85.0 98.5	84.5 114.2	83.9 130.0
	25. 39.0	TR BHP	95.1 71.4	94.5 84.0	93.8 98.9	93.1 115.1	92.4 132.4
	30. 45.0	TR BHP	104.4 71.6	103.9 84.3	103.2 99.0	102.3 115.6	101.6 133.7
	35. 51.6	TR BHP	114.4 70.9	113.8 84.7	113.1 99.3	112.3 115.6	111.4 134.4
40. 58.6	TR BHP	125.2 69.1	124.4 84.7	123.8 99.9	122.8 116.0	121.9 134.7	

**NOTE:** Ratings based on liquid subcooling to saturation temperature at flash economizer pressure, 10°F suction superheat with the superheat enthalpy not contributing to the refrigeration effect, no liquid cooling from condenser or external source. No allowance for vapor line pressure drop or economizing vessel temperature split is included in the ratings above.

# RXF-50

## HIGH STAGE - CAPACITY and BRAKE HORSEPOWER RATING (3550 RPM MOTOR)

R-717		SATURATED CONDENSING TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG				
		75.0 125.8	85.0 151.7	95.0 181.1	105.0 214.2	115.0 251.5
SATURATED SUCTION TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG (* in Hg)	-40. 8.7* TR BHP	24.1 65.5	23.4 73.4	22.6 82.1	22.0 92.1	21.2 104.0
	-35. 5.4* TR BHP	27.8 68.7	27.1 76.9	26.2 85.8	25.4 95.6	24.6 106.8
	-30. 1.6* TR BHP	32.0 71.9	31.1 80.5	30.3 89.8	29.3 99.7	28.4 110.7
	-25. 1.3 TR BHP	36.6 75.1	35.7 84.2	34.7 93.9	33.7 104.3	32.7 115.3
	-20. 3.6 TR BHP	41.9 78.2	40.7 87.8	39.6 98.0	38.5 108.9	37.4 120.4
	-15. 6.2 TR BHP	47.7 81.2	46.4 91.5	45.1 102.2	43.9 113.5	42.6 125.6
	-10. 9.0 TR BHP	54.1 83.9	52.7 94.9	51.2 106.4	49.8 118.3	48.4 130.9
	-5. 12.2 TR BHP	61.3 86.4	59.6 98.2	58.0 110.4	56.4 123.0	54.7 136.2
	0. 15.7 TR BHP	69.2 88.1	67.2 101.1	65.4 114.2	63.6 127.6	61.8 141.5
	5. 19.6 TR BHP	78.0 89.2	75.8 103.5	73.6 117.6	71.5 132.0	69.5 146.7
	10. 23.8 TR BHP	87.7 90.0	85.1 105.0	82.6 120.7	80.2 136.0	78.0 151.7
	15. 28.4 TR BHP	98.4 90.7	95.4 106.1	92.6 122.7	89.9 139.6	87.3 156.4
	20. 33.5 TR BHP	110.0 91.6	106.8 106.7	103.6 124.0	100.5 142.4	97.5 160.7
	25. 39.0 TR BHP	122.7 92.7	119.2 107.7	115.6 125.1	112.1 144.2	108.7 164.3
	30. 45.0 TR BHP	136.4 93.7	132.7 108.9	128.7 125.9	124.8 145.6	121.0 166.6
	35. 51.6 TR BHP	151.4 93.8	147.2 110.2	142.9 127.0	138.7 146.4	134.3 168.3
40. 58.6 TR BHP	167.9 92.4	163.0 111.1	158.4 128.6	153.6 147.7	148.9 169.6	

NOTE: Capacities based on 10°F liquid subcooling, 10°F suction superheat, with superheat enthalpy not contributing to the refrigeration effect.

HIGH STAGE - CAPACITY and BRAKE HORSEPOWER RATING (3550 RPM MOTOR)  
WITH FLASH TYPE ECONOMIZER (SEE PAGE 88 FOR SELECTIONS  
BASED ON DIRECT EXPANSION OR SHELL AND COIL ECONOMIZERS).

# RXF-50E

<b>R-717</b>		SATURATED CONDENSING TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG					
		75.0 125.8	85.0 151.7	95.0 181.1	105.0 214.2	115.0 251.5	
SATURATED SUCTION TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG (* in Hg)	-40. 8.7*	TR BHP	28.2 69.5	28.0 78.2	27.8 87.9	27.5 99.2	27.3 112.6
	-35. 5.4*	TR BHP	32.2 72.8	32.1 82.0	31.8 91.9	31.6 102.9	31.3 115.7
	-30. 1.6*	TR BHP	36.7 76.1	36.6 85.7	36.4 96.2	36.1 107.4	35.8 119.9
	-25. 1.3	TR BHP	41.7 79.4	41.5 89.5	41.3 100.5	41.1 112.2	40.7 124.8
	-20. 3.6	TR BHP	47.2 82.5	46.9 93.3	46.7 104.8	46.5 117.0	46.2 130.2
	-15. 6.2	TR BHP	53.2 85.5	52.9 97.0	52.6 109.1	52.4 121.9	52.1 135.7
	-10. 9.0	TR BHP	59.7 88.2	59.4 100.4	59.2 113.3	58.8 126.8	58.6 141.2
	-5. 12.2	TR BHP	66.9 90.4	66.5 103.6	66.2 117.3	65.9 131.6	65.5 146.7
	0. 15.7	TR BHP	74.8 91.9	74.3 106.3	73.9 120.9	73.5 136.1	73.2 152.1
	5. 19.6	TR BHP	83.3 92.6	82.7 108.4	82.2 124.2	81.8 140.4	81.4 157.3
	10. 23.8	TR BHP	92.6 92.9	91.8 109.4	91.2 126.9	90.6 144.2	90.2 162.2
	15. 28.4	TR BHP	102.6 93.1	101.8 110.0	101.1 128.5	100.4 147.6	99.8 166.7
	20. 33.5	TR BHP	113.4 93.3	112.6 110.0	111.7 129.3	110.9 149.9	110.2 170.7
	25. 39.0	TR BHP	124.9 93.7	124.0 110.3	123.2 129.8	122.2 151.1	121.3 173.9
	30. 45.0	TR BHP	137.1 93.9	136.4 110.7	135.5 130.0	134.3 151.8	133.4 175.5
	35. 51.6	TR BHP	150.2 93.1	149.4 111.2	148.5 130.3	147.5 151.8	146.2 176.4
40. 58.6	TR BHP	164.4 90.8	163.3 111.2	162.5 131.1	161.3 152.3	160.1 176.9	

**NOTE:** Ratings based on liquid subcooling to saturation temperature at flash economizer pressure, 10°F suction superheat with the superheat enthalpy not contributing to the refrigeration effect, no liquid cooling from condenser or external source. No allowance for vapor line pressure drop or economizing vessel temperature split is included in the ratings above.

# RXF-58

## HIGH STAGE - CAPACITY and BRAKE HORSEPOWER RATING (3550 RPM MOTOR)

R-717		SATURATED CONDENSING TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG					
		75.0 125.8	85.0 151.7	95.0 181.1	105.0 214.2	115.0 251.5	
SATURATED SUCTION TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG (* in Hg)	-40.0 8.7*	TR BHP	26.9 74.9	25.8 84.3	24.7 95.2	23.8 108.7	22.8 126.0
	-35.0 5.4*	TR BHP	31.4 78.3	30.2 87.9	29.0 98.6	27.8 110.9	26.6 126.1
	-30.0 1.6*	TR BHP	36.4 81.9	35.1 91.9	33.7 102.7	32.4 114.7	31.0 128.4
	-25.0 1.3	TR BHP	42.1 85.6	40.6 96.0	39.1 107.1	37.5 119.2	36.0 132.8
	-20.0 3.6	TR BHP	48.3 89.2	46.7 100.2	45.0 111.8	43.3 124.2	41.6 137.8
	-15.0 6.2	TR BHP	55.3 92.7	53.4 104.3	51.6 116.5	49.8 129.5	47.9 143.4
	-10.0 9.0	TR BHP	63.0 96.0	61.0 108.4	58.9 121.2	56.9 134.9	54.8 149.3
	-5.0 12.2	TR BHP	71.5 98.9	69.3 112.2	67.1 125.9	64.8 140.2	62.5 155.3
	0.0 15.7	TR BHP	80.8 101.3	78.5 115.7	76.0 130.4	73.5 145.5	70.9 161.3
	5.0 19.6	TR BHP	91.0 103.0	88.5 118.7	85.8 134.5	83.0 150.7	80.2 167.3
	10.0 23.8	TR BHP	102.3 104.0	99.4 121.0	96.5 138.2	93.5 155.5	90.4 173.2
	15.0 28.4	TR BHP	114.6 104.2	111.4 122.6	108.2 141.1	105.0 159.8	101.6 178.7
	20.0 33.5	TR BHP	128.3 104.0	124.5 123.3	120.9 143.3	117.4 163.5	113.7 183.8
	25.0 39.0	TR BHP	143.3 103.5	138.8 123.0	134.8 144.6	130.8 166.3	127.0 188.3
	30.0 45.0	TR BHP	159.6 102.5	154.8 122.8	150.0 144.8	145.6 168.3	141.2 191.8
	35.0 51.6	TR BHP	177.2 101.1	171.9 121.9	166.7 144.5	161.7 169.1	156.7 194.5
	40.0 58.6	TR BHP	197.0 101.7	190.7 120.7	184.8 143.9	178.9 168.8	173.7 196.0

**NOTE: Capacities based on 10°F liquid subcooling, 10°F suction superheat, with superheat enthalpy not contributing to the refrigeration effect.**

HIGH STAGE - CAPACITY and BRAKE HORSEPOWER RATING (3550 RPM MOTOR)  
WITH FLASH TYPE ECONOMIZER (SEE PAGE 88 FOR SELECTIONS  
BASED ON DIRECT EXPANSION OR SHELL AND COIL ECONOMIZERS).

# RXF-58E

<b>R-717</b>		SATURATED CONDENSING TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG				
		75.0 125.8	85.0 151.7	95.0 181.1	105.0 214.2	115.0 251.5
SATURATED SUCTION TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG (* in Hg)	-40.0 TR 8.7* BHP	31.6 80.5	31.0 91.1	30.4 103.3	29.9 118.6	29.4 138.2
	-35.0 TR 5.4* BHP	36.5 84.2	35.9 95.0	35.3 107.1	34.6 121.0	34.0 138.3
	-30.0 TR 1.6* BHP	41.9 87.9	41.3 99.1	40.6 111.4	39.9 125.2	39.1 140.9
	-25.0 TR 1.3 BHP	47.9 91.7	47.3 103.5	46.6 116.1	45.8 130.0	45.0 145.5
	-20.0 TR 3.6 BHP	54.4 95.4	53.8 107.8	53.1 121.0	52.3 135.3	51.4 150.9
	-15.0 TR 6.2 BHP	61.7 98.9	60.9 112.0	60.2 125.9	59.4 140.8	58.5 156.8
	-10.0 TR 9.0 BHP	69.5 102.1	68.8 116.1	68.0 130.7	67.2 146.3	66.3 162.9
	-5.0 TR 12.2 BHP	78.0 104.8	77.3 119.8	76.5 135.4	75.6 151.8	74.7 169.2
	0.0 TR 15.7 BHP	87.2 106.8	86.5 123.1	85.7 139.8	84.8 157.1	83.8 175.4
	5.0 TR 19.6 BHP	97.1 108.2	96.5 125.7	95.7 143.7	94.8 162.1	93.7 181.4
	10.0 TR 23.8 BHP	107.9 108.6	107.1 127.5	106.5 147.0	105.5 166.7	104.5 187.2
	15.0 TR 28.4 BHP	119.4 108.1	118.7 128.5	118.0 149.4	117.1 170.7	116.0 192.6
	20.0 TR 33.5 BHP	132.0 107.1	131.1 128.4	130.2 151.0	129.4 173.8	128.4 197.3
	25.0 TR 39.0 BHP	145.6 105.7	144.3 127.3	143.6 151.5	142.6 176.0	141.7 201.2
	30.0 TR 45.0 BHP	160.2 103.8	158.9 126.2	157.7 151.0	156.7 177.2	155.7 204.1
	35.0 TR 51.6 BHP	175.6 101.4	174.3 124.3	172.9 149.8	171.9 177.2	170.6 205.9
	40.0 TR 58.6 BHP	192.7 101.7	190.8 122.1	189.3 148.2	187.7 175.8	186.7 206.4

NOTE: Ratings based on liquid subcooling to saturation temperature at flash economizer pressure, 10°F suction superheat with the superheat enthalpy not contributing to the refrigeration effect, no liquid cooling from condenser or external source. No allowance for vapor line pressure drop or economizing vessel temperature split is included in the ratings above.

# RXF-68

## HIGH STAGE - CAPACITY and BRAKE HORSEPOWER RATING (3550 RPM MOTOR)

R-717		SATURATED CONDENSING TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG				
		75.0 125.8	85.0 151.7	95.0 181.1	105.0 214.2	115.0 251.5
SATURATED SUCTION TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG (* in Hg)	-40.0 TR 8.7* BHP	31.8 88.4	30.5 99.6	29.2 112.4	28.1 128.4	27.0 148.8
	-35.0 TR 5.4* BHP	37.1 92.5	35.7 103.8	34.2 116.5	32.8 130.9	31.5 148.9
	-30.0 TR 1.6* BHP	43.0 96.8	41.5 108.5	39.8 121.3	38.2 135.5	36.6 151.7
	-25.0 TR 1.3 BHP	49.7 101.1	47.9 113.4	46.2 126.5	44.3 140.8	42.5 156.8
	-20.0 TR 3.6 BHP	57.1 105.3	55.1 118.3	53.2 132.0	51.2 146.7	49.2 162.8
	-15.0 TR 6.2 BHP	65.3 109.5	63.1 123.2	61.0 137.6	58.8 153.0	56.6 169.3
	-10.0 TR 9.0 BHP	74.4 113.4	72.0 128.0	69.6 143.2	67.2 159.3	64.8 176.3
	-5.0 TR 12.2 BHP	84.5 116.8	81.9 132.6	79.2 148.7	76.5 165.6	73.8 183.4
	0.0 TR 15.7 BHP	95.5 119.6	92.7 136.7	89.8 154.0	86.8 171.9	83.8 190.5
	5.0 TR 19.6 BHP	107.5 121.7	104.5 140.2	101.3 158.9	98.1 178.0	94.7 197.6
	10.0 TR 23.8 BHP	120.9 122.9	117.4 142.9	114.0 163.2	110.5 183.7	106.8 204.6
	15.0 TR 28.4 BHP	135.4 123.1	131.5 144.8	127.8 166.7	124.0 188.8	120.0 211.1
	20.0 TR 33.5 BHP	151.6 122.8	147.1 145.6	142.7 169.3	138.6 193.1	134.4 217.1
	25.0 TR 39.0 BHP	169.2 122.2	163.9 145.3	159.3 170.8	154.5 196.4	150.0 222.4
	30.0 TR 45.0 BHP	188.5 121.1	182.8 145.1	177.2 171.0	171.9 198.7	166.8 226.5
	35.0 TR 51.6 BHP	209.3 119.4	203.1 144.0	196.8 170.7	190.9 199.7	185.1 229.7
	40.0 TR 58.6 BHP	232.7 120.1	225.2 142.6	218.3 170.0	211.3 199.4	205.1 231.5

**NOTE: Capacities based on 10°F liquid subcooling, 10°F suction superheat, with superheat enthalpy not contributing to the refrigeration effect.**

HIGH STAGE - CAPACITY and BRAKE HORSEPOWER RATING (3550 RPM MOTOR)  
WITH FLASH TYPE ECONOMIZER (SEE PAGE 88 FOR SELECTIONS  
BASED ON DIRECT EXPANSION OR SHELL AND COIL ECONOMIZERS).

# RXF-68E

<b>R-717</b>		SATURATED CONDENSING TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG				
		75.0 125.8	85.0 151.7	95.0 181.1	105.0 214.2	115.0 251.5
SATURATED SUCTION TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG (* in Hg)	-40.0 TR 8.7* BHP	37.3 95.0	36.7 107.6	35.9 122.0	35.3 140.1	34.8 163.3
	-35.0 TR 5.4* BHP	43.1 99.4	42.4 112.2	41.7 126.5	40.8 142.9	40.1 163.4
	-30.0 TR 1.6* BHP	49.5 103.9	48.8 117.1	48.0 131.6	47.1 147.9	46.2 166.4
	-25.0 TR 1.3 BHP	56.6 108.3	55.8 122.2	55.0 137.2	54.1 153.5	53.1 171.9
	-20.0 TR 3.6 BHP	64.3 112.7	63.5 127.3	62.7 143.0	61.8 159.8	60.7 178.2
	-15.0 TR 6.2 BHP	72.8 116.8	72.0 132.2	71.1 148.7	70.2 166.3	69.1 185.2
	-10.0 TR 9.0 BHP	82.1 120.6	81.2 137.1	80.3 154.4	79.3 172.8	78.3 192.5
	-5.0 TR 12.2 BHP	92.2 123.8	91.3 141.5	90.4 159.9	89.3 179.2	88.2 199.8
	0.0 TR 15.7 BHP	103.0 126.2	102.2 145.3	101.3 165.1	100.2 185.5	99.0 207.1
	5.0 TR 19.6 BHP	114.7 127.8	114.0 148.5	113.1 169.7	111.9 191.5	110.7 214.2
	10.0 TR 23.8 BHP	127.4 128.3	126.5 150.6	125.8 173.6	124.6 196.9	123.4 221.1
	15.0 TR 28.4 BHP	141.0 127.7	140.1 151.8	139.3 176.5	138.3 201.6	137.1 227.4
	20.0 TR 33.5 BHP	156.0 126.5	154.9 151.7	153.8 178.4	152.9 205.3	151.7 233.0
	25.0 TR 39.0 BHP	172.0 124.9	170.4 150.4	169.6 179.0	168.4 207.9	167.4 237.7
	30.0 TR 45.0 BHP	189.2 122.6	187.7 149.1	186.2 178.3	185.1 209.3	183.9 241.0
	35.0 TR 51.6 BHP	207.4 119.8	205.8 146.9	204.3 176.9	203.0 209.2	201.5 243.2
40.0 TR 58.6 BHP	227.6 120.1	225.3 144.2	223.6 175.1	221.7 207.6	220.5 243.8	

**NOTE:** Ratings based on liquid subcooling to saturation temperature at flash economizer pressure, 10°F suction superheat with the superheat enthalpy not contributing to the refrigeration effect, no liquid cooling from condenser or external source. No allowance for vapor line pressure drop or economizing vessel temperature split is included in the ratings above.

# RXF-85

## HIGH STAGE - CAPACITY and BRAKE HORSEPOWER RATING (3550 RPM MOTOR)

<b>R-717</b>		SATURATED CONDENSING TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG					
		75.0 125.8	85.0 151.7	95.0 181.1	105.0 214.2	115.0 251.5	
SATURATED SUCTION TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG (* in Hg)	-40.0 8.7*	TR BHP	39.4 109.5	37.8 123.4	36.2 139.2	34.8 159.0	33.4 184.3
	-35.0 5.4*	TR BHP	45.9 114.6	44.2 128.6	42.4 144.3	40.6 162.1	39.0 184.4
	-30.0 1.6*	TR BHP	53.3 119.9	51.3 134.4	49.3 150.2	47.4 167.8	45.3 187.9
	-25.0 1.3	TR BHP	61.5 125.2	59.4 140.4	57.2 156.7	54.9 174.4	52.7 194.2
	-20.0 3.6	TR BHP	70.7 130.4	68.3 146.5	65.9 163.5	63.4 181.7	60.9 201.5
	-15.0 6.2	TR BHP	80.9 135.6	78.2 152.5	75.5 170.4	72.8 189.4	70.0 209.7
	-10.0 9.0	TR BHP	92.2 140.4	89.2 158.5	86.2 177.3	83.2 197.2	80.2 218.3
	-5.0 12.2	TR BHP	104.6 144.6	101.4 164.1	98.1 184.2	94.7 205.1	91.4 227.1
	0.0 15.7	TR BHP	118.2 148.1	114.8 169.3	111.2 190.7	107.4 212.9	103.7 236.0
	5.0 19.6	TR BHP	133.1 150.7	129.4 173.6	125.5 196.8	121.4 220.4	117.3 244.7
	10.0 23.8	TR BHP	149.7 152.2	145.4 177.0	141.2 202.1	136.8 227.4	132.2 253.3
	15.0 28.4	TR BHP	167.7 152.4	162.9 179.3	158.2 206.4	153.5 233.8	148.6 261.4
	20.0 33.5	TR BHP	187.7 152.1	182.2 180.3	176.8 209.6	171.7 239.1	166.4 268.8
	25.0 39.0	TR BHP	209.5 151.3	203.0 179.9	197.2 211.5	191.4 243.3	185.7 275.4
	30.0 45.0	TR BHP	233.4 149.9	226.4 179.6	219.4 211.8	212.9 246.1	206.6 280.5
	35.0 51.6	TR BHP	259.2 147.9	251.5 178.3	243.7 211.4	236.5 247.4	229.2 284.5
40.0 58.6	TR BHP	288.2 148.8	278.9 176.6	270.4 210.5	261.7 246.9	254.0 286.7	

**NOTE: Capacities based on 10°F liquid subcooling, 10°F suction superheat, with superheat enthalpy not contributing to the refrigeration effect.**

HIGH STAGE - CAPACITY and BRAKE HORSEPOWER RATING (3550 RPM MOTOR)  
WITH FLASH TYPE ECONOMIZER (SEE PAGE 88 FOR SELECTIONS  
BASED ON DIRECT EXPANSION OR SHELL AND COIL ECONOMIZERS).

# RXF-85E

<b>R-717</b>		SATURATED CONDENSING TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG					
		75.0 125.8	85.0 151.7	95.0 181.1	105.0 214.2	115.0 251.5	
SATURATED SUCTION TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG (* in Hg)	-40.0 8.7*	TR BHP	46.2 117.7	45.4 133.3	44.5 151.1	43.7 173.5	43.0 202.2
	-35.0 5.4*	TR BHP	53.4 123.1	52.5 138.9	51.6 156.7	50.5 177.0	49.7 202.3
	-30.0 1.6*	TR BHP	61.4 128.6	60.4 145.0	59.4 163.0	58.4 183.1	57.2 206.0
	-25.0 1.3	TR BHP	70.1 134.1	69.1 151.3	68.1 169.9	66.9 190.1	65.8 212.8
	-20.0 3.6	TR BHP	79.6 139.5	78.7 157.6	77.7 177.0	76.5 197.8	75.2 220.7
	-15.0 6.2	TR BHP	90.2 144.7	89.1 163.8	88.1 184.2	86.9 205.9	85.6 229.3
	-10.0 9.0	TR BHP	101.7 149.3	100.6 169.7	99.5 191.2	98.3 214.0	96.9 238.3
	-5.0 12.2	TR BHP	114.1 153.3	113.1 175.2	111.9 198.0	110.6 222.0	109.3 247.5
	0.0 15.7	TR BHP	127.5 156.3	126.6 180.0	125.4 204.4	124.0 229.7	122.6 256.5
	5.0 19.6	TR BHP	142.0 158.2	141.1 183.8	140.0 210.1	138.6 237.1	137.1 265.3
	10.0 23.8	TR BHP	157.8 158.9	156.7 186.5	155.7 214.9	154.4 243.8	152.8 273.8
	15.0 28.4	TR BHP	174.7 158.1	173.5 187.9	172.5 218.5	171.3 249.7	169.7 281.6
	20.0 33.5	TR BHP	193.1 156.6	191.8 187.9	190.5 220.9	189.3 254.3	187.9 288.5
	25.0 39.0	TR BHP	213.0 154.6	211.0 186.2	210.0 221.7	208.5 257.5	207.2 294.3
	30.0 45.0	TR BHP	234.3 151.8	232.4 184.6	230.6 220.8	229.2 259.2	227.7 298.5
	35.0 51.6	TR BHP	256.8 148.3	254.9 181.9	252.9 219.1	251.4 259.1	249.6 301.2
	40.0 58.6	TR BHP	281.8 148.8	279.0 178.5	276.9 216.8	274.6 257.1	273.1 301.9

NOTE: Ratings based on liquid subcooling to saturation temperature at flash economizer pressure, 10°F suction superheat with the superheat enthalpy not contributing to the refrigeration effect, no liquid cooling from condenser or external source. No allowance for vapor line pressure drop or economizing vessel temperature split is included in the ratings above.

# RXF-101 HIGH STAGE - CAPACITY and BRAKE HORSEPOWER RATING (3550 RPM MOTOR)

<b>R-717</b>		SATURATED CONDENSING TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG					
		75.0 125.8	85.0 151.7	95.0 181.1	105.0 214.2	115.0 251.5	
SATURATED SUCTION TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG (* in Hg)	-40.0 8.7*	TR BHP	47.1 130.9	45.2 147.5	43.3 166.5	41.6 190.1	40.0 220.4
	-35.0 5.4*	TR BHP	54.9 137.0	52.8 153.8	50.7 172.6	48.5 193.9	46.6 220.6
	-30.0 1.6*	TR BHP	63.7 143.3	61.4 160.7	59.0 179.6	56.6 200.7	54.2 224.7
	-25.0 1.3	TR BHP	73.6 149.7	71.0 167.9	68.4 187.4	65.7 208.6	63.0 232.2
	-20.0 3.6	TR BHP	84.5 156.0	81.7 175.2	78.8 195.5	75.8 217.3	72.8 241.0
	-15.0 6.2	TR BHP	96.7 162.2	93.5 182.4	90.3 203.8	87.1 226.5	83.8 250.8
	-10.0 9.0	TR BHP	110.2 167.9	106.7 189.6	103.1 212.1	99.6 235.9	95.9 261.1
	-5.0 12.2	TR BHP	125.1 173.0	121.3 196.3	117.3 220.3	113.3 245.3	109.3 271.6
	0.0 15.7	TR BHP	141.4 177.1	137.3 202.4	132.9 228.1	128.5 254.6	124.1 282.2
	5.0 19.6	TR BHP	159.2 180.2	154.8 207.6	150.1 235.3	145.2 263.6	140.3 292.7
	10.0 23.8	TR BHP	179.0 182.0	173.9 211.7	168.9 241.7	163.6 272.0	158.2 303.0
	15.0 28.4	TR BHP	200.5 182.3	194.8 214.5	189.2 246.8	183.6 279.6	177.7 312.7
	20.0 33.5	TR BHP	224.5 181.9	217.9 215.7	211.4 250.7	205.3 285.9	199.0 321.5
	25.0 39.0	TR BHP	250.6 181.0	242.7 215.1	235.9 252.9	228.9 290.9	222.1 329.3
	30.0 45.0	TR BHP	279.2 179.3	270.7 214.8	262.4 253.3	254.6 294.3	247.0 335.5
	35.0 51.6	TR BHP	310.0 176.9	300.7 213.3	291.5 252.8	282.8 295.8	274.1 340.2
40.0 58.6	TR BHP	344.7 177.9	333.6 211.2	323.3 251.8	313.0 295.3	303.8 342.8	

**NOTE: Capacities based on 10°F liquid subcooling, 10°F suction superheat, with superheat enthalpy not contributing to the refrigeration effect.**

**HIGH STAGE - CAPACITY and BRAKE HORSEPOWER RATING (3550 RPM MOTOR)  
WITH FLASH TYPE ECONOMIZER (SEE PAGE 88 FOR SELECTIONS  
BASED ON DIRECT EXPANSION OR SHELL AND COIL ECONOMIZERS).**

# RXF-101E

<b>R-717</b>		SATURATED CONDENSING TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG				
		75.0 125.8	85.0 151.7	95.0 181.1	105.0 214.2	115.0 251.5
SATURATED SUCTION TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG (* in Hg)	-40.0 TR 8.7* BHP	55.3 140.8	54.3 159.4	53.2 180.7	52.3 207.5	51.5 241.8
	-35.0 TR 5.4* BHP	63.9 147.2	62.8 166.1	61.7 187.4	60.4 211.6	59.4 242.0
	-30.0 TR 1.6* BHP	73.4 153.8	72.3 173.4	71.1 194.9	69.8 219.0	68.4 246.4
	-25.0 TR 1.3 BHP	83.8 160.4	82.7 181.0	81.5 203.2	80.1 227.4	78.7 254.5
	-20.0 TR 3.6 BHP	95.2 166.8	94.1 188.5	92.9 211.7	91.5 236.6	89.9 263.9
	-15.0 TR 6.2 BHP	107.9 173.0	106.6 195.8	105.4 220.3	103.9 246.2	102.4 274.2
	-10.0 TR 9.0 BHP	121.6 178.6	120.3 203.0	118.9 228.6	117.5 255.9	115.9 285.0
	-5.0 TR 12.2 BHP	136.5 183.3	135.2 209.5	133.8 236.8	132.3 265.5	130.7 296.0
	0.0 TR 15.7 BHP	152.5 186.9	151.4 215.2	150.0 244.5	148.3 274.8	146.6 306.8
	5.0 TR 19.6 BHP	169.8 189.2	168.8 219.9	167.5 251.3	165.8 283.6	164.0 317.3
	10.0 TR 23.8 BHP	188.7 190.0	187.4 223.1	186.3 257.1	184.6 291.6	182.8 327.5
	15.0 TR 28.4 BHP	208.9 189.1	207.6 224.8	206.3 261.3	204.8 298.6	203.0 336.8
	20.0 TR 33.5 BHP	231.0 187.3	229.4 224.7	227.8 264.2	226.4 304.1	224.7 345.1
	25.0 TR 39.0 BHP	254.7 184.9	252.4 222.7	251.1 265.1	249.4 308.0	247.9 352.0
	30.0 TR 45.0 BHP	280.2 181.6	277.9 220.8	275.8 264.1	274.1 310.0	272.4 357.0
	35.0 TR 51.6 BHP	307.1 177.4	304.8 217.5	302.5 262.0	300.7 309.9	298.5 360.2
40.0 TR 58.6 BHP	337.1 177.9	333.7 213.5	331.2 259.3	328.4 307.5	326.6 361.1	

**NOTE: Ratings based on liquid subcooling to saturation temperature at flash economizer pressure, 10°F suction superheat with the superheat enthalpy not contributing to the refrigeration effect, no liquid cooling from condenser or external source. No allowance for vapor line pressure drop or economizing vessel temperature split is included in the ratings above.**

# RXF-12

## BOOSTER - CAPACITY and BRAKE HORSEPOWER RATING (1750 RPM MOTOR)

<b>R-717</b>		SATURATED INTERMEDIATE TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG						
		-20.0 3.6	-10.0 9.0	0.0 15.7	10.0 23.8	20.0 33.5	30.0 45.0	40.0 58.6
SATURATED SUCTION TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG (* in Hg)	-80. TR 24.3* BHP	1.9 4.3	1.9 4.9	1.9 5.5	1.8 6.1	1.8 7.1	1.7 8.2	1.7 9.7
	-75. TR 23.2* BHP	2.3 4.5	2.3 5.0	2.2 5.7	2.2 6.3	2.1 7.2	2.1 8.3	2.0 9.4
	-70. TR 21.9* BHP	2.8 4.6	2.7 5.2	2.7 5.9	2.6 6.5	2.6 7.4	2.5 8.5	2.4 9.5
	-65. TR 20.4* BHP	3.3 4.7	3.2 5.4	3.2 6.0	3.1 6.8	3.0 7.7	3.0 8.7	2.9 9.7
	-60. TR 18.6* BHP	3.9 4.8	3.8 5.5	3.7 6.2	3.7 7.0	3.6 8.0	3.5 9.1	3.4 10.0
	-55. TR 16.6* BHP	4.6 4.9	4.5 5.5	4.4 6.3	4.3 7.2	4.2 8.3	4.1 9.4	4.0 10.4
	-50. TR 14.3* BHP	5.4 5.4	5.3 5.6	5.2 6.4	5.0 7.3	4.9 8.5	4.8 9.7	4.7 10.8
	-45. TR 11.7* BHP	6.2 6.0	6.1 5.8	6.0 6.5	5.9 7.5	5.8 8.8	5.6 10.1	5.5 11.2
	-40. TR 8.7* BHP	7.2 6.4	7.1 6.4	7.0 6.6	6.8 7.6	6.7 9.0	6.5 10.4	6.4 11.6
	-35. TR 5.4* BHP	8.3 6.4	8.2 6.9	8.1 6.9	7.9 7.6	7.7 9.1	7.6 10.6	7.4 12.0
	-30. TR 1.6* BHP	9.6 5.6	9.4 7.2	9.3 7.5	9.1 7.7	8.9 9.1	8.7 10.8	8.5 12.4
	-25. TR 1.3 BHP	10.9 3.7	10.8 7.0	10.6 8.0	10.4 8.2	10.2 9.2	10.0 10.9	9.8 12.7
	-20. TR 3.6 BHP		12.3 5.9	12.1 8.1	11.9 8.8	11.7 9.4	11.5 11.0	11.2 12.9
	-15. TR 6.2 BHP		14.0 3.8	13.8 7.6	13.6 9.2	13.3 10.1	13.1 11.2	12.8 13.0
	-10. TR 9.0 BHP			15.7 6.3	15.4 9.1	15.2 10.7	14.9 11.5	14.5 13.1
	-5. TR 12.2 BHP			17.7 3.9	17.4 8.4	17.2 10.9	16.8 12.2	16.5 13.2
0. TR 15.7 BHP				19.7 6.8	19.4 10.6	19.0 12.7	18.6 13.7	

NOTE: Capacities based on liquid at intermediate saturation temperature, 0°F subcooling and 0°F superheat, with superheat enthalpy not contributing to refrigeration effect.

**BOOSTER - CAPACITY and BRAKE HORSEPOWER RATING (3550 RPM MOTOR)**

**RXF-15**

<b>R-717</b>		SATURATED INTERMEDIATE TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG						
		-20.0 3.6	-10.0 9.0	0.0 15.7	10.0 23.8	20.0 33.5	30.0 45.0	40.0 58.6
SATURATED SUCTION TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG (* in Hg)	-80. TR 24.3* BHP	2.4 5.4	2.4 6.1	2.3 6.9	2.3 7.6	2.2 8.8	2.2 10.3	2.1 12.1
	-75. TR 23.2* BHP	2.9 5.6	2.8 6.3	2.8 7.1	2.7 7.8	2.7 9.0	2.6 10.3	2.5 11.8
	-70. TR 21.9* BHP	3.5 5.7	3.4 6.5	3.3 7.3	3.3 8.1	3.2 9.3	3.1 10.6	3.1 11.8
	-65. TR 20.4* BHP	4.1 5.8	4.0 6.7	3.9 7.5	3.9 8.4	3.8 9.6	3.7 10.9	3.6 12.1
	-60. TR 18.6* BHP	4.9 5.9	4.8 6.8	4.7 7.7	4.6 8.7	4.5 10.0	4.4 11.3	4.3 12.5
	-55. TR 16.6* BHP	5.7 6.2	5.6 6.9	5.5 7.9	5.4 9.0	5.3 10.3	5.1 11.7	5.0 13.0
	-50. TR 14.3* BHP	6.7 6.7	6.6 7.0	6.4 8.0	6.3 9.2	6.2 10.7	6.0 12.2	5.9 13.5
	-45. TR 11.7* BHP	7.8 7.4	7.6 7.3	7.5 8.1	7.3 9.3	7.2 10.9	7.0 12.6	6.9 14.0
	-40. TR 8.7* BHP	9.0 8.0	8.9 7.9	8.7 8.3	8.5 9.4	8.3 11.2	8.2 12.9	8.0 14.5
	-35. TR 5.4* BHP	10.4 8.0	10.2 8.7	10.1 8.6	9.8 9.5	9.6 11.3	9.4 13.2	9.2 15.0
	-30. TR 1.6* BHP	11.9 7.0	11.8 9.0	11.6 9.4	11.4 9.6	11.1 11.4	10.9 13.5	10.6 15.5
	-25. TR 1.3 BHP	13.6 4.7	13.5 8.7	13.3 10.0	13.0 10.3	12.8 11.5	12.5 13.6	12.2 15.8
	-20. TR 3.6 BHP		15.4 7.4	15.1 10.1	14.9 11.0	14.6 11.8	14.3 13.7	14.0 16.1
	-15. TR 6.2 BHP		17.5 4.7	17.2 9.5	17.0 11.5	16.7 12.6	16.3 13.9	15.9 16.2
	-10. TR 9.0 BHP			19.5 7.9	19.2 11.3	18.9 13.3	18.5 14.4	18.1 16.3
	-5. TR 12.2 BHP			22.1 4.9	21.8 10.4	21.4 13.6	21.0 15.2	20.5 16.5
0. TR 15.7 BHP				24.5 8.5	24.2 13.2	23.8 15.9	23.2 17.1	

**NOTE: Capacities based on liquid at intermediate saturation temperature, 0°F subcooling and 0°F superheat, with superheat enthalpy not contributing to refrigeration effect.**

# RXF-19

## BOOSTER - CAPACITY and BRAKE HORSEPOWER RATING (3550 RPM MOTOR)

<b>R-717</b>		SATURATED INTERMEDIATE TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG						
		-20.0 3.6	-10.0 9.0	0.0 15.7	10.0 23.8	20.0 33.5	30.0 45.0	40.0 58.6
SATURATED SUCTION TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG (* in Hg)	-80. TR 24.3* BHP	3.0 6.7	2.9 7.6	2.9 8.5	2.8 9.4	2.8 10.9	2.7 12.7	2.6 15.0
	-75. TR 23.2* BHP	3.6 6.9	3.5 7.8	3.5 8.8	3.4 9.7	3.3 11.1	3.2 12.8	3.2 14.6
	-70. TR 21.9* BHP	4.3 7.1	4.2 8.0	4.1 9.1	4.0 10.1	3.9 11.5	3.9 13.1	3.8 14.7
	-65. TR 20.4* BHP	5.1 7.2	5.0 8.3	4.9 9.3	4.8 10.5	4.7 11.9	4.6 13.5	4.5 15.0
	-60. TR 18.6* BHP	6.0 7.4	5.9 8.4	5.8 9.6	5.7 10.8	5.5 12.4	5.4 14.0	5.3 15.5
	-55. TR 16.6* BHP	7.1 7.6	6.9 8.5	6.8 9.8	6.6 11.1	6.5 12.8	6.4 14.5	6.2 16.1
	-50. TR 14.3* BHP	8.3 8.3	8.1 8.7	8.0 10.0	7.8 11.4	7.6 13.2	7.5 15.1	7.3 16.7
	-45. TR 11.7* BHP	9.6 9.2	9.5 9.0	9.3 10.0	9.1 11.6	8.9 13.6	8.7 15.6	8.5 17.3
	-40. TR 8.7* BHP	11.1 9.9	11.0 9.8	10.8 10.2	10.5 11.7	10.3 13.8	10.1 16.0	9.9 18.0
	-35. TR 5.4* BHP	12.8 9.9	12.7 10.7	12.4 10.7	12.2 11.8	11.9 14.0	11.7 16.4	11.4 18.6
	-30. TR 1.6* BHP	14.8 8.7	14.6 11.1	14.3 11.6	14.1 11.9	13.8 14.1	13.5 16.7	13.2 19.1
	-25. TR 1.3 BHP	16.9 5.8	16.7 10.7	16.4 12.4	16.1 12.7	15.8 14.3	15.5 16.8	15.1 19.6
	-20. TR 3.6 BHP		19.0 9.2	18.7 12.5	18.4 13.7	18.1 14.6	17.7 17.0	17.3 19.9
	-15. TR 6.2 BHP		21.6 5.8	21.3 11.8	21.0 14.2	20.6 15.6	20.2 17.3	19.7 20.1
	-10. TR 9.0 BHP			24.2 9.8	23.8 14.1	23.4 16.5	23.0 17.8	22.4 20.2
	-5. TR 12.2 BHP			27.3 6.0	27.0 12.9	26.5 16.8	26.0 18.9	25.4 20.4
0. TR 15.7 BHP				30.4 10.5	29.9 16.4	29.4 19.7	28.7 21.1	

NOTE: Capacities based on liquid at intermediate saturation temperature, 0°F subcooling and 0°F superheat, with superheat enthalpy not contributing to refrigeration effect.

**BOOSTER - CAPACITY and BRAKE HORSEPOWER RATING (1750 RPM MOTOR)**

**RXF-24**

<b>R-717</b>		SATURATED INTERMEDIATE TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG						
		-20.0 3.6	-10.0 9.0	0.0 15.7	10.0 23.8	20.0 33.5	30.0 45.0	40.0 58.6
SATURATED SUCTION TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG (* in Hg)	-80. TR 24.3* BHP	3.9 8.7	3.8 9.9	3.7 11.1	3.7 12.3	3.6 14.2	3.5 16.6	3.4 19.5
	-75. TR 23.2* BHP	4.7 9.0	4.6 10.2	4.5 11.4	4.4 12.6	4.3 14.5	4.2 16.7	4.1 19.0
	-70. TR 21.9* BHP	5.6 9.3	5.5 10.5	5.4 11.8	5.3 13.1	5.2 15.0	5.0 17.0	4.9 19.1
	-65. TR 20.4* BHP	6.6 9.4	6.5 10.8	6.4 12.2	6.3 13.6	6.1 15.5	6.0 17.6	5.9 19.6
	-60. TR 18.6* BHP	7.9 9.6	7.7 11.0	7.5 12.5	7.4 14.1	7.2 16.1	7.1 18.2	6.9 20.2
	-55. TR 16.6* BHP	9.2 9.9	9.0 11.1	8.9 12.8	8.7 14.5	8.5 16.7	8.3 18.9	8.1 21.0
	-50. TR 14.3* BHP	10.8 10.8	10.6 11.3	10.4 13.0	10.2 14.8	9.9 17.2	9.7 19.6	9.5 21.8
	-45. TR 11.7* BHP	12.5 12.0	12.3 11.7	12.1 13.1	11.8 15.1	11.6 17.7	11.3 20.3	11.1 22.6
	-40. TR 8.7* BHP	14.5 12.9	14.3 12.8	14.0 13.3	13.8 15.2	13.5 18.0	13.2 20.9	12.9 23.4
	-35. TR 5.4* BHP	16.8 12.9	16.5 14.0	16.2 13.9	15.9 15.3	15.6 18.3	15.2 21.4	14.9 24.2
	-30. TR 1.6* BHP	19.2 11.4	19.0 14.5	18.7 15.2	18.3 15.6	17.9 18.4	17.6 21.7	17.2 25.0
	-25. TR 1.3 BHP	22.0 7.5	21.7 14.0	21.4 16.1	21.1 16.6	20.6 18.6	20.2 22.0	19.7 25.5
	-20. TR 3.6 BHP		24.8 12.0	24.5 16.3	24.1 17.8	23.6 19.0	23.1 22.2	22.6 26.0
	-15. TR 6.2 BHP		28.2 7.6	27.8 15.4	27.4 18.5	26.9 20.3	26.3 22.5	25.7 26.2
	-10. TR 9.0 BHP			31.5 12.8	31.1 18.3	30.6 21.5	29.9 23.2	29.3 26.3
	-5. TR 12.2 BHP			35.7 7.9	35.2 16.9	34.6 22.0	33.9 24.6	33.2 26.7
	0. TR 15.7 BHP				39.6 13.7	39.0 21.3	38.4 25.7	37.5 27.6

**NOTE: Capacities based on liquid at intermediate saturation temperature, 0°F subcooling and 0°F superheat, with superheat enthalpy not contributing to refrigeration effect.**

# RXF-30

## BOOSTER - CAPACITY and BRAKE HORSEPOWER RATING (3550 RPM MOTOR)

<b>R-717</b>		SATURATED INTERMEDIATE TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG						
		-20.0 3.6	-10.0 9.0	0.0 15.7	10.0 23.8	20.0 33.5	30.0 45.0	40.0 58.6
SATURATED SUCTION TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG (* in Hg)	-80. TR 24.3* BHP	4.9 10.9	4.8 12.3	4.7 13.8	4.6 15.3	4.5 17.8	4.4 20.7	4.3 24.4
	-75. TR 23.2* BHP	5.9 11.3	5.7 12.7	5.6 14.2	5.5 15.8	5.4 18.1	5.3 20.8	5.1 23.7
	-70. TR 21.9* BHP	7.0 11.6	6.8 13.1	6.7 14.7	6.6 16.4	6.4 18.7	6.3 21.3	6.1 23.9
	-65. TR 20.4* BHP	8.3 11.8	8.1 13.5	8.0 15.2	7.8 17.0	7.6 19.4	7.5 22.0	7.3 24.4
	-60. TR 18.6* BHP	9.8 12.0	9.6 13.7	9.4 15.6	9.2 17.6	9.0 20.1	8.8 22.8	8.6 25.2
	-55. TR 16.6* BHP	11.5 12.4	11.3 13.9	11.1 16.0	10.8 18.0	10.6 20.8	10.4 23.6	10.2 26.1
	-50. TR 14.3* BHP	13.5 13.5	13.2 14.2	13.0 16.2	12.7 18.5	12.4 21.5	12.1 24.5	11.9 27.2
	-45. TR 11.7* BHP	15.6 15.0	15.4 14.6	15.1 16.3	14.8 18.8	14.5 22.0	14.2 25.3	13.8 28.2
	-40. TR 8.7* BHP	18.1 16.1	17.9 16.0	17.5 16.6	17.2 19.0	16.8 22.5	16.4 26.1	16.1 29.2
	-35. TR 5.4* BHP	20.9 16.1	20.6 17.4	20.3 17.4	19.8 19.1	19.4 22.8	19.0 26.7	18.6 30.2
	-30. TR 1.6* BHP	24.0 14.2	23.7 18.1	23.3 19.0	22.9 19.4	22.4 23.0	21.9 27.1	21.4 31.1
	-25. TR 1.3 BHP	27.5 9.4	27.1 17.5	26.7 20.1	26.3 20.7	25.7 23.2	25.2 27.4	24.6 31.9
	-20. TR 3.6 BHP		30.9 14.9	30.5 20.4	30.0 22.2	29.4 23.8	28.8 27.6	28.2 32.4
	-15. TR 6.2 BHP		35.2 9.5	34.7 19.2	34.2 23.1	33.6 25.4	32.9 28.1	32.1 32.7
	-10. TR 9.0 BHP			39.4 15.9	38.8 22.9	38.1 26.9	37.4 29.0	36.5 32.9
	-5. TR 12.2 BHP			44.5 9.8	43.9 21.1	43.2 27.4	42.4 30.7	41.4 33.3
0. TR 15.7 BHP				49.5 17.1	48.7 26.6	47.9 32.1	46.8 34.4	

NOTE: Capacities based on liquid at intermediate saturation temperature, 0°F subcooling and 0°F superheat, with superheat enthalpy not contributing to refrigeration effect.

**BOOSTER - CAPACITY and BRAKE HORSEPOWER RATING (3550 RPM MOTOR)**

**RXF-39**

<b>R-717</b>		SATURATED INTERMEDIATE TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG						
		-20.0 3.6	-10.0 9.0	0.0 15.7	10.0 23.8	20.0 33.5	30.0 45.0	40.0 58.6
SATURATED SUCTION TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG (* in Hg)	-80. TR 24.3* BHP	6.0 13.5	5.9 15.2	5.8 17.1	5.7 19.0	5.5 22.0	5.4 25.7	5.3 30.2
	-75. TR 23.2* BHP	7.3 13.9	7.1 15.7	7.0 17.6	6.8 19.5	6.7 22.4	6.5 25.8	6.4 29.4
	-70. TR 21.9* BHP	8.6 14.3	8.5 16.2	8.3 18.2	8.1 20.3	8.0 23.1	7.8 26.3	7.6 29.5
	-65. TR 20.4* BHP	10.3 14.6	10.1 16.7	9.9 18.8	9.7 21.1	9.5 24.0	9.3 27.2	9.1 30.2
	-60. TR 18.6* BHP	12.1 14.8	11.9 17.0	11.6 19.3	11.4 21.7	11.2 24.9	10.9 28.2	10.7 31.2
	-55. TR 16.6* BHP	14.2 15.4	14.0 17.2	13.7 19.8	13.4 22.3	13.1 25.8	12.8 29.3	12.6 32.4
	-50. TR 14.3* BHP	16.7 16.7	16.4 17.5	16.0 20.1	15.7 22.9	15.4 26.6	15.0 30.3	14.7 33.6
	-45. TR 11.7* BHP	19.4 18.6	19.1 18.1	18.7 20.2	18.3 23.3	17.9 27.3	17.5 31.4	17.1 34.9
	-40. TR 8.7* BHP	22.4 19.9	22.1 19.8	21.7 20.6	21.3 23.5	20.8 27.9	20.3 32.3	19.9 36.2
	-35. TR 5.4* BHP	25.9 19.9	25.5 21.6	25.1 21.5	24.6 23.7	24.1 28.3	23.5 33.0	23.0 37.5
	-30. TR 1.6* BHP	29.7 17.6	29.3 22.4	28.9 23.5	28.3 24.1	27.7 28.5	27.1 33.6	26.5 38.6
	-25. TR 1.3 BHP	34.0 11.6	33.6 21.6	33.1 24.9	32.5 25.6	31.8 28.8	31.1 33.9	30.5 39.5
	-20. TR 3.6 BHP		38.3 18.5	37.8 25.2	37.2 27.5	36.5 29.4	35.7 34.2	34.9 40.1
	-15. TR 6.2 BHP		43.6 11.8	43.0 23.7	42.3 28.6	41.6 31.4	40.7 34.8	39.8 40.5
	-10. TR 9.0 BHP			48.7 19.7	48.0 28.3	47.2 33.3	46.3 35.9	45.2 40.7
	-5. TR 12.2 BHP			55.1 12.2	54.3 26.1	53.5 33.9	52.4 38.0	51.3 41.2
0. TR 15.7 BHP				61.2 21.2	60.3 33.0	59.3 39.7	57.9 42.6	

**NOTE: Capacities based on liquid at intermediate saturation temperature, 0°F subcooling and 0°F superheat, with superheat enthalpy not contributing to refrigeration effect.**

# RXF-50

## BOOSTER - CAPACITY and BRAKE HORSEPOWER RATING (3550 RPM MOTOR)

<b>R-717</b>		SATURATED INTERMEDIATE TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG						
		-20.0 3.6	-10.0 9.0	0.0 15.7	10.0 23.8	20.0 33.5	30.0 45.0	40.0 58.6
SATURATED SUCTION TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG (* in Hg)	-80. TR 24.3* BHP	7.9 17.7	7.8 20.0	7.6 22.5	7.4 24.9	7.3 28.9	7.1 33.7	6.9 39.6
	-75. TR 23.2* BHP	9.5 18.3	9.3 20.6	9.1 23.2	8.9 25.6	8.7 29.5	8.6 33.8	8.3 38.6
	-70. TR 21.9* BHP	11.4 18.8	11.1 21.3	10.9 23.9	10.7 26.6	10.4 30.4	10.2 34.6	10.0 38.8
	-65. TR 20.4* BHP	13.5 19.1	13.2 21.9	12.9 24.7	12.7 27.7	12.4 31.5	12.1 35.7	11.9 39.7
	-60. TR 18.6* BHP	15.9 19.5	15.6 22.3	15.3 25.4	15.0 28.5	14.7 32.7	14.3 37.0	14.1 41.0
	-55. TR 16.6* BHP	18.7 20.2	18.4 22.6	18.0 25.9	17.6 29.3	17.2 33.9	16.9 38.4	16.5 42.5
	-50. TR 14.3* BHP	21.9 21.9	21.5 23.0	21.1 26.3	20.6 30.0	20.2 34.9	19.7 39.8	19.3 44.2
	-45. TR 11.7* BHP	25.4 24.4	25.0 23.8	24.5 26.6	24.0 30.6	23.5 35.8	23.0 41.2	22.5 45.8
	-40. TR 8.7* BHP	29.5 26.1	29.0 26.0	28.5 27.0	27.9 30.9	27.3 36.6	26.7 42.4	26.1 47.5
	-35. TR 5.4* BHP	34.0 26.1	33.5 28.3	32.9 28.3	32.3 31.1	31.6 37.1	30.9 43.4	30.2 49.2
	-30. TR 1.6* BHP	39.0 23.1	38.5 29.4	37.9 30.8	37.2 31.6	36.4 37.4	35.6 44.1	34.8 50.6
	-25. TR 1.3 BHP	44.7 15.3	44.1 28.4	43.4 32.7	42.7 33.7	41.8 37.7	40.9 44.5	40.0 51.8
	-20. TR 3.6 BHP		50.3 24.2	49.6 33.1	48.8 36.1	47.9 38.6	46.8 44.9	45.8 52.6
	-15. TR 6.2 BHP		57.2 15.4	56.4 31.1	55.6 37.6	54.6 41.2	53.4 45.6	52.2 53.1
	-10. TR 9.0 BHP			64.0 25.9	63.1 37.2	62.0 43.7	60.7 47.1	59.3 53.4
	-5. TR 12.2 BHP			72.3 16.0	71.3 34.2	70.2 44.6	68.9 49.9	67.3 54.1
0. TR 15.7 BHP				80.4 27.8	79.2 43.3	77.8 52.1	76.0 55.9	

NOTE: Capacities based on liquid at intermediate saturation temperature, 0°F subcooling and 0°F superheat, with superheat enthalpy not contributing to refrigeration effect.

**BOOSTER - CAPACITY and BRAKE HORSEPOWER RATING (3550 RPM MOTOR)**

**RXF-58**

<b>R-717</b>		SATURATED INTERMEDIATE TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG						
		-20.0 3.6	-10.0 9.0	0.0 15.7	10.0 23.8	20.0 33.5	30.0 45.0	40.0 58.6
SATURATED SUCTION TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG (* in Hg)	-80.0 TR 24.3* BHP	7.8 13.5	9.0 24.0	8.6 26.8	8.2 29.3	7.8 34.9	7.3 43.9	6.8 62.8
	-75.0 TR 23.2* BHP	9.4 14.2	10.9 24.7	10.5 27.5	10.1 30.0	9.6 34.6	9.2 40.9	8.6 51.5
	-70.0 TR 21.9* BHP	11.3 14.5	13.1 25.5	12.7 28.4	12.3 30.9	11.8 35.1	11.3 40.2	10.7 47.7
	-65.0 TR 20.4* BHP	13.5 14.9	15.7 26.3	15.2 29.4	14.8 32.1	14.2 36.1	13.7 40.6	13.0 46.6
	-60.0 TR 18.6* BHP	15.9 15.1	18.7 26.4	18.1 30.4	17.6 33.2	17.0 37.3	16.4 41.5	15.8 46.9
	-55.0 TR 16.6* BHP	18.8 15.0	22.2 26.8	21.5 30.9	20.9 34.5	20.2 38.6	19.6 42.7	18.9 47.8
	-50.0 TR 14.3* BHP	21.9 15.0	26.0 26.8	25.3 31.4	24.5 35.6	23.8 39.8	23.1 44.1	22.4 49.1
	-45.0 TR 11.7* BHP	25.5 15.0	30.3 26.7	29.6 31.6	28.9 35.9	27.9 41.1	27.1 45.4	26.4 50.6
	-40.0 TR 8.7* BHP	29.6 14.3	35.1 27.1	34.4 31.5	33.7 36.5	32.6 41.8	31.6 46.7	30.8 51.9
	-35.0 TR 5.4* BHP	31.0 10.4	40.5 27.8	39.8 31.5	39.0 36.5	38.0 42.4	36.8 48.0	35.7 53.2
	-30.0 TR 1.6* BHP	31.7 6.5	46.6 27.1	45.8 32.3	44.9 36.5	43.9 42.9	42.7 48.4	41.3 54.8
	-25.0 TR 1.3 BHP	32.6 3.1	47.4 18.0	52.4 32.6	51.5 36.8	50.4 42.8	49.2 49.2	47.8 55.4
	-20.0 TR 3.6 BHP		48.0 10.8	58.7 29.6	58.9 37.5	57.6 42.7	56.3 49.4	54.9 56.4
	-15.0 TR 6.2 BHP		48.8 5.0	59.4 20.0	67.0 37.2	65.6 42.9	64.2 49.2	62.8 57.0
	-10.0 TR 9.0 BHP			60.2 12.3	72.9 31.8	74.5 43.7	72.9 48.9	71.3 56.9
	-5.0 TR 12.2 BHP			61.2 5.8	73.7 22.1	84.2 43.1	82.5 49.3	80.8 56.5
0.0 TR 15.7 BHP				74.7 13.8	89.2 35.4	93.0 49.8	91.2 56.1	

**NOTE: Capacities based on liquid at intermediate saturation temperature, 0°F subcooling and 0°F superheat, with superheat enthalpy not contributing to refrigeration effect.**

# RXF-68

## BOOSTER - CAPACITY and BRAKE HORSEPOWER RATING (3550 RPM MOTOR)

<b>R-717</b>		SATURATED INTERMEDIATE TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG						
		-20.0 3.6	-10.0 9.0	0.0 15.7	10.0 23.8	20.0 33.5	30.0 45.0	40.0 58.6
SATURATED SUCTION TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG (* in Hg)	-80.0 TR 24.3* BHP	9.2 16.0	10.6 28.3	10.2 31.7	9.7 34.6	9.2 41.2	8.7 51.9	8.0 74.2
	-75.0 TR 23.2* BHP	11.1 16.7	12.9 29.2	12.4 32.5	11.9 35.4	11.4 40.8	10.8 48.4	10.1 60.9
	-70.0 TR 21.9* BHP	13.3 17.2	15.5 30.1	15.0 33.6	14.5 36.6	13.9 41.5	13.3 47.5	12.6 56.4
	-65.0 TR 20.4* BHP	15.9 17.6	18.5 31.0	18.0 34.8	17.4 37.9	16.8 42.6	16.1 47.9	15.4 55.1
	-60.0 TR 18.6* BHP	18.8 17.8	22.1 31.1	21.4 35.9	20.8 39.3	20.1 44.1	19.4 49.0	18.6 55.4
	-55.0 TR 16.6* BHP	22.1 17.8	26.2 31.6	25.4 36.5	24.6 40.8	23.9 45.5	23.1 50.5	22.3 56.5
	-50.0 TR 14.3* BHP	25.9 17.7	30.7 31.6	29.9 37.0	29.0 42.0	28.1 47.1	27.3 52.1	26.4 58.0
	-45.0 TR 11.7* BHP	30.1 17.7	35.8 31.5	35.0 37.4	34.1 42.5	33.0 48.5	32.1 53.6	31.1 59.8
	-40.0 TR 8.7* BHP	34.9 16.9	41.5 32.0	40.7 37.2	39.8 43.1	38.6 49.3	37.4 55.2	36.4 61.3
	-35.0 TR 5.4* BHP	36.7 12.3	47.9 32.8	47.0 37.3	46.1 43.1	44.9 50.1	43.4 56.7	42.2 62.8
	-30.0 TR 1.6* BHP	37.5 7.7	55.1 32.0	54.1 38.1	53.1 43.1	51.9 50.6	50.4 57.2	48.8 64.7
	-25.0 TR 1.3 BHP	38.5 3.6	56.0 21.2	61.9 38.5	60.9 43.5	59.5 50.5	58.1 58.1	56.4 65.4
	-20.0 TR 3.6 BHP		56.8 12.8	69.4 35.0	69.5 44.3	68.0 50.4	66.6 58.4	64.8 66.6
	-15.0 TR 6.2 BHP		57.7 5.9	70.2 23.7	79.2 43.9	77.5 50.7	75.8 58.1	74.1 67.4
	-10.0 TR 9.0 BHP			71.1 14.5	86.1 37.5	87.9 51.6	86.2 57.8	84.2 67.2
	-5.0 TR 12.2 BHP			72.2 6.8	87.1 26.1	99.5 50.9	97.5 58.2	95.4 66.7
	0.0 TR 15.7 BHP				88.2 16.3	105.4 41.9	109.9 58.9	107.7 66.3

NOTE: Capacities based on liquid at intermediate saturation temperature, 0°F subcooling and 0°F superheat, with superheat enthalpy not contributing to refrigeration effect.

**BOOSTER - CAPACITY and BRAKE HORSEPOWER RATING (3550 RPM MOTOR)**

**RXF-85**

<b>R-717</b>		SATURATED INTERMEDIATE TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG						
		-20.0 3.6	-10.0 9.0	0.0 15.7	10.0 23.8	20.0 33.5	30.0 45.0	40.0 58.6
SATURATED SUCTION TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG (* in Hg)	-80.0 TR 24.3* BHP	11.4 19.8	13.2 35.1	12.6 39.2	12.0 42.9	11.4 51.0	10.7 64.2	9.9 91.9
	-75.0 TR 23.2* BHP	13.7 20.7	16.0 36.2	15.4 40.3	14.8 43.8	14.1 50.6	13.4 59.9	12.6 75.4
	-70.0 TR 21.9* BHP	16.5 21.3	19.2 37.2	18.6 41.6	17.9 45.3	17.2 51.4	16.5 58.8	15.6 69.8
	-65.0 TR 20.4* BHP	19.7 21.8	23.0 38.4	22.3 43.1	21.6 46.9	20.8 52.8	20.0 59.3	19.1 68.2
	-60.0 TR 18.6* BHP	23.3 22.1	27.4 38.5	26.5 44.5	25.8 48.6	24.9 54.6	24.0 60.7	23.1 68.6
	-55.0 TR 16.6* BHP	27.4 22.0	32.4 39.1	31.4 45.2	30.5 50.5	29.6 56.4	28.6 62.5	27.6 69.9
	-50.0 TR 14.3* BHP	32.1 21.9	38.0 39.1	37.1 45.9	35.9 52.0	34.8 58.3	33.8 64.5	32.8 71.8
	-45.0 TR 11.7* BHP	37.3 21.9	44.3 39.0	43.4 46.3	42.2 52.6	40.8 60.1	39.7 66.4	38.6 74.1
	-40.0 TR 8.7* BHP	43.2 21.0	51.4 39.6	50.3 46.1	49.3 53.3	47.7 61.1	46.3 68.3	45.0 75.9
	-35.0 TR 5.4* BHP	45.4 15.3	59.3 40.6	58.2 46.1	57.1 53.4	55.6 62.1	53.8 70.3	52.3 77.7
	-30.0 TR 1.6* BHP	46.4 9.5	68.2 39.6	66.9 47.2	65.7 53.4	64.2 62.7	62.4 70.8	60.5 80.1
	-25.0 TR 1.3 BHP	47.6 4.5	69.3 26.3	76.7 47.7	75.4 53.9	73.7 62.5	72.0 72.0	69.9 81.0
	-20.0 TR 3.6 BHP		70.3 15.8	85.9 43.3	86.1 54.9	84.3 62.4	82.4 72.3	80.3 82.4
	-15.0 TR 6.2 BHP		71.4 7.3	86.9 29.3	98.0 54.4	96.0 62.8	93.9 72.0	91.8 83.4
	-10.0 TR 9.0 BHP			88.1 18.0	106.6 46.5	108.9 63.8	106.7 71.6	104.3 83.2
	-5.0 TR 12.2 BHP			89.5 8.4	107.8 32.3	123.2 63.1	120.7 72.1	118.1 82.6
0.0 TR 15.7 BHP				109.3 20.2	130.5 51.8	136.1 72.9	133.4 82.1	

**NOTE: Capacities based on liquid at intermediate saturation temperature, 0°F subcooling and 0°F superheat, with superheat enthalpy not contributing to refrigeration effect.**

# RXF-101 BOOSTER - CAPACITY and BRAKE HORSEPOWER RATING (3550 RPM MOTOR)

<b>R-717</b>		SATURATED INTERMEDIATE TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG						
		-20.0 3.6	-10.0 9.0	0.0 15.7	10.0 23.8	20.0 33.5	30.0 45.0	40.0 58.6
SATURATED SUCTION TEMPERATURE, °F/CORRESPONDING PRESSURE, PSIG (* in Hg)	-80.0 TR 24.3* BHP	13.6 23.7	15.8 41.9	15.1 46.9	14.4 51.3	13.6 61.0	12.8 76.8	11.9 109.9
	-75.0 TR 23.2* BHP	16.4 24.8	19.1 43.3	18.4 48.2	17.7 52.4	16.8 60.5	16.0 71.6	15.0 90.2
	-70.0 TR 21.9* BHP	19.7 25.4	23.0 44.5	22.3 49.8	21.5 54.1	20.6 61.4	19.7 70.4	18.6 83.5
	-65.0 TR 20.4* BHP	23.5 26.1	27.5 46.0	26.7 51.5	25.8 56.1	24.9 63.1	23.9 71.0	22.8 81.6
	-60.0 TR 18.6* BHP	27.9 26.4	32.8 46.1	31.7 53.2	30.8 58.2	29.8 65.2	28.7 72.6	27.6 82.0
	-55.0 TR 16.6* BHP	32.8 26.3	38.8 46.8	37.6 54.0	36.5 60.4	35.4 67.4	34.2 74.8	33.0 83.6
	-50.0 TR 14.3* BHP	38.4 26.2	45.5 46.8	44.3 54.9	42.9 62.2	41.7 69.7	40.5 77.2	39.2 85.9
	-45.0 TR 11.7* BHP	44.6 26.2	53.0 46.6	51.9 55.3	50.5 62.9	48.8 71.9	47.5 79.4	46.1 88.6
	-40.0 TR 8.7* BHP	51.7 25.1	61.4 47.3	60.2 55.1	58.9 63.8	57.1 73.1	55.4 81.7	53.9 90.8
	-35.0 TR 5.4* BHP	54.3 18.3	70.9 48.5	69.6 55.2	68.2 63.8	66.4 74.2	64.3 84.0	62.5 93.0
	-30.0 TR 1.6* BHP	55.5 11.4	81.6 47.3	80.1 56.5	78.6 63.8	76.8 75.0	74.7 84.7	72.3 95.8
	-25.0 TR 1.3 BHP	57.0 5.4	82.9 31.4	91.7 57.0	90.2 64.4	88.1 74.8	86.1 86.1	83.6 96.9
	-20.0 TR 3.6 BHP		84.0 18.9	102.7 51.8	103.0 65.7	100.8 74.7	98.6 86.4	96.0 98.6
	-15.0 TR 6.2 BHP		85.4 8.7	103.9 35.0	117.2 65.1	114.8 75.1	112.3 86.1	109.8 99.8
	-10.0 TR 9.0 BHP			105.3 21.5	127.5 55.6	130.2 76.4	127.6 85.6	124.7 99.5
	-5.0 TR 12.2 BHP			107.0 10.1	129.0 38.6	147.4 75.4	144.4 86.2	141.3 98.8
	0.0 TR 15.7 BHP				130.7 24.2	156.1 62.0	162.8 87.2	159.5 98.2

NOTE: Capacities based on liquid at intermediate saturation temperature, 0°F subcooling and 0°F superheat, with superheat enthalpy not contributing to refrigeration effect.

### LIQUID INJECTION OIL COOLING

High-stage compressor units may be supplied with single-port (low Vi) or dual-port (low and high Vi) liquid injection oil cooling. Single port will be furnished for low-compression-ratio operation and dual-port for high-compression-ratio operation. Booster compressor units use single-port, liquid injection oil cooling due to the typically lower compression ratios.

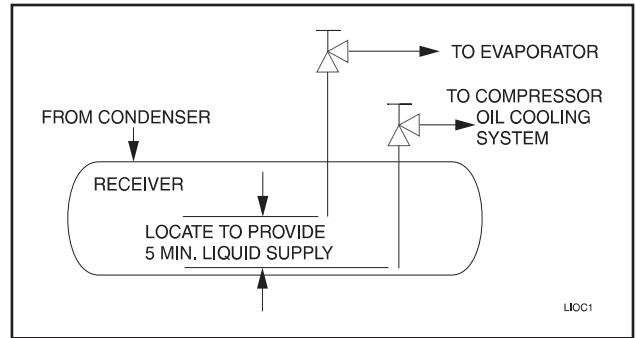
The control system with dual-port liquid injection oil cooling automatically switches the liquid refrigerant supply to the high port when the compressor is operating at high compression ratio (at 5.0 Vi) for best efficiency.

The following table gives the condensing temperature(s) with the corresponding maximum evaporator temperature for liquid injection use and the minimum evaporator temperature for single-port application. \*Dual Injection Kit will be shipped by Frick below these temperatures.

CONDENSING TEMPERATURE	MAX. EVAP TEMP LIQ. INJ. USE R-717	MIN. EVAP TEMP* SINGLE PORT (LOW Vi) R-717
75°F	+10°F	-23°F
85°F	+25°F	-17°F
95°F	+35°F	-11°F
105°F	+40°F	-4°F

It is **IMPERATIVE** that an uninterrupted supply of high pressure liquid refrigerant be provided to the injection system at all times. Two items are of extreme importance: the design of the receiver/liquid injection supply and the size of the liquid line.

It is recommended that the receiver be oversized sufficiently to retain a 5 minute supply of refrigerant for oil cooling. The evaporative supply must be secondary to this consideration. The dual dip tube method, which uses two dip tubes in the receiver, is the recommended method of accomplishing this. As shown in Figure 1, the liquid injection tube is below the evaporator tube to ensure continued oil cooling when the receiver level is low.



**Figure 1**

Liquid line sizes and the additional receiver volume (quantity of refrigerant required for 5 minutes of liquid injection oil cooling) are given in the following table:

REF	RXF MODEL	LIQ. LINE SIZE*		FLOW RATE (lb) 5 MIN	LIQUID VOLUME CU. FT.
		PIPE SCH 80	TUBING OD		
R-717 HIGH STAGE	12	1/2	—	10	.3
	15	1/2	—	12.5	.4
	19	1/2	—	15	.4
	24	1/2	—	20	.6
	30	1/2	—	25	.7
	39	1/2	—	30	.8
	50	3/4	—	40	1.1
	58	3/4	—	47	1.3
	68	3/4	—	55	1.6
	85	3/4	—	70	2.0
101	3/4	—	80	2.3	
R-717 BOOSTER	12	1/2	—	2.0	.1
	15	1/2	—	2.5	.1
	19	1/2	—	3.5	.1
	24	1/2	—	4.5	.1
	30	1/2	—	5.5	.2
	39	1/2	—	6.5	.2
	50	1/2	—	8.5	.3
	58	1/2	—	10	.3
	68	1/2	—	12	.3
	85	1/2	—	15	.4
101	1/2	—	18	.5	

\* 100 ft. liquid line. For longer runs, increase line size accordingly.

### EXTERNAL OIL COOLER SELECTION

RXF MODEL	TYPICAL COOLER	CONNECTION SIZE
12 – 50	5" W x 20" H Plate	1½"
58 – 101	14" Dia. Plate & Shell	2"

## THERMOSYPHON OIL COOLING

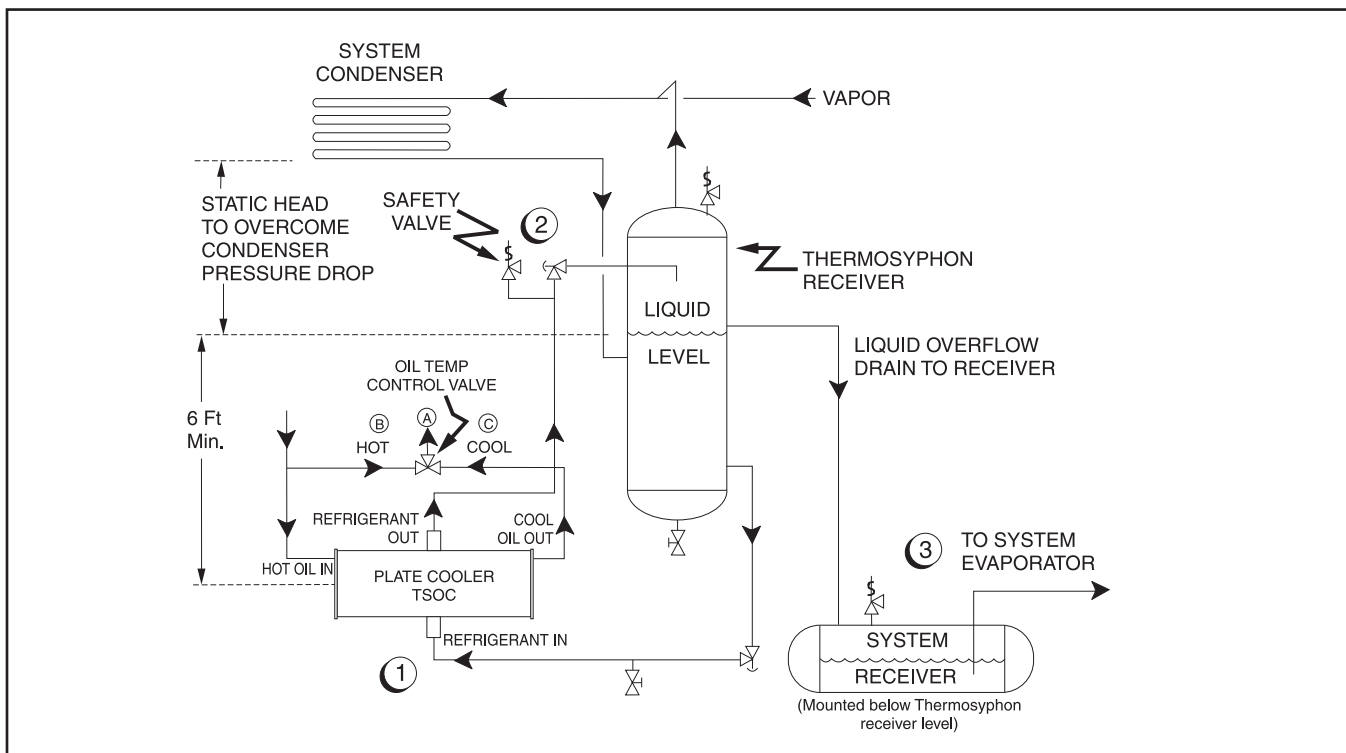
Thermosyphon oil coolers, like water-(or glycol-)cooled oil coolers, eliminate the capacity and power penalties associated with liquid injection oil cooling. Thermosyphon oil coolers have the further advantages of eliminating water (or glycol) pump power consumption and maintenance, tube fouling and potential system contamination.

The principle of operation is as follows (see Figure 2). A supply of high pressure liquid is maintained in a receiver at a predetermined minimum head above the oil cooler and below the condenser. Gravity causes the liquid refrigerant to flow to the oil cooler where a portion of the liquid is boiled off, thereby cooling the hot oil. New liquid from the receiver displaces the lighter refrigerant liquid/vapor mixture which rises to the receiver, dropping out the remaining liquid before allowing the vapor to return to the condenser, completing the cycle.

## PIPING ARRANGEMENT FOR THERMOSYPHON OIL COOLING SYSTEMS

The components and piping of a thermosyphon oil cooling system include a liquid source at condensing pressure, adequate static heads to provide fluid flow, appropriate control valves, safety relief valves, service valves, and pump out connections. The arrangement of component placement and fluid flow requirements must be designed to suit the individual refrigeration system layout with consideration given to piping safety practices.

The component and piping arrangement shown in Figure 2 is intended ONLY to illustrate the operating principles of thermosyphon oil cooling. Other component layouts may be better suited to a specific installation.



**Figure 2**

1. Thermosyphon oil cooler is supplied with the oil side piped to the compressor unit and stub ends supplied on the refrigerant side.
2. Three-way oil temperature control valve required where condensing temperature is expected to go below 65°F.
3. A refrigerant-side safety valve is required in this location only when refrigerant isolation valves are installed between the cooler and thermosyphon receiver. If no valves are used between the cooler and TSOC receiver, the safety valve on the TSOC receiver must be sized to handle the volume of both vessels. Then, the safety valve on the cooler vent (liquid refrigerant side) can be eliminated.
4. System receiver must be mounted below thermosyphon receiver level in this arrangement.

**OIL COOLER HEAT REJECTION (OCHR)**

Based on standard rating conditions, shaft power, and refrigeration capacity. Refer to ratings tables for specific values, for applications having more compressor suction superheat than standard rating conditions, consult Johnson Controls-Frick®.

**OIL COOLER HEAT REJECTION (OCHR) - 1,000 BTU/HR (Based on 10°F superheat, 120°F entering oil temperature)**

		<b>RXF SCREW COMPRESSOR MODELS - HIGH STAGE R-717</b>										
<b>EVAP TEMP. °F</b>	<b>COND TEMP. °F</b>	<b>12</b>	<b>15</b>	<b>19</b>	<b>24</b>	<b>30</b>	<b>39</b>	<b>50</b>	<b>58</b>	<b>68</b>	<b>85</b>	<b>101</b>
-40		30.5	37.6	45.8	60.7	74.6	90.7	115.4	135.0	160.0	198.0	236.0
-35		31.2	38.4	46.7	62.0	75.9	92.1	116.9	136.0	161.0	199.0	238.0
-30		31.9	39.1	47.4	63.1	77.4	93.2	117.9	137.0	162.0	200.0	239.0
-25		32.4	39.6	48.0	64.0	78.1	93.8	118.3	137.0	162.0	200.0	240.0
-20		32.8	40.0	48.3	64.6	78.6	94.3	118.1	137.0	161.0	199.0	239.0
-15		33.0	40.1	48.3	64.9	78.6	94.0	117.2	135.0	160.0	197.0	236.0
-10		32.9	40.1	48.0	64.6	78.0	93.0	115.1	133.0	157.0	193.0	231.0
-5		32.6	39.5	47.1	63.8	76.7	91.0	112.1	129.0	152.0	188.0	225.0
0	75	31.7	38.4	45.7	62.0	75.2	87.7	107.3	124.0	146.0	180.0	215.0
5		30.6	36.7	43.6	59.4	70.8	83.4	101.3	117.0	138.0	170.0	203.0
10		29.1	34.9	41.2	56.4	67.0	78.4	94.5	108.0	128.0	157.0	188.0
15		27.6	32.9	38.7	53.3	62.8	73.2	87.7	99.0	116.0	143.0	171.0
20		26.1	31.1	36.3	50.2	59.0	68.3	81.2	88.0	103.0	127.0	152.0
25		24.8	29.3	34.1	47.3	55.3	63.5	75.2	77.0	91.0	112.0	133.0
30		23.4	27.5	31.9	44.4	51.7	59.5	69.3	66.0	78.0	95.0	114.0
35		21.6	25.2	29.0	40.8	47.0	53.6	62.5	55.0	65.0	80.0	95.0
40		19.0	22.2	25.4	35.7	41.2	46.7	53.8	47.0	55.0	68.0	81.0
-40		35.8	44.2	53.8	71.3	87.5	106.5	135.7	162.0	191.0	236.0	283.0
-35		36.8	45.2	55.0	73.1	89.5	108.6	138.2	163.0	193.0	239.0	286.0
-30		37.7	46.2	56.1	74.7	91.3	110.4	139.6	165.0	195.0	241.0	289.0
-25		39.1	47.2	57.1	76.2	92.9	112.0	141.1	167.0	197.0	244.0	292.0
-20		39.3	47.9	58.0	77.5	94.2	113.2	141.8	168.0	198.0	245.0	293.0
-15		40.0	48.6	58.4	78.4	95.1	113.8	142.0	168.0	198.0	245.0	293.0
-10		40.4	48.9	58.6	79.0	95.4	113.7	141.2	167.0	197.0	244.0	292.0
-5		40.5	49.0	58.6	79.2	95.4	113.3	139.6	165.0	195.0	241.0	288.0
0	85	40.2	48.7	58.0	78.8	94.3	111.7	136.8	162.0	191.0	236.0	283.0
5		40.0	47.9	56.9	77.5	92.5	108.9	132.6	157.0	185.0	229.0	274.0
10		38.8	46.5	54.9	75.4	89.3	104.7	126.5	151.0	178.0	219.0	263.0
15		37.5	44.7	52.6	72.3	86.3	99.7	119.7	142.0	168.0	207.0	248.0
20		35.9	42.6	49.8	68.9	81.0	94.1	111.9	133.0	156.0	193.0	231.0
25		34.3	40.7	47.4	65.8	77.0	88.8	105.0	121.0	143.0	176.0	210.0
30		33.1	38.9	45.0	62.9	73.2	83.9	98.4	110.0	129.0	159.0	190.0
35		31.8	37.2	42.8	60.1	69.5	79.3	92.3	98.0	115.0	141.0	169.0
40		30.3	35.2	40.3	56.8	65.5	74.2	85.8	86.0	101.0	124.0	148.0

OIL COOLER HEAT REJECTION (OCHR) - 1,000 BTU/HR (Based on 10°F superheat, 120°F entering oil temperature.)

EVAP TEMP. °F	COND TEMP. °F	RXF SCREW COMPRESSOR MODELS - HIGH STAGE R-717											
		12	15	19	24	30	39	50	58	68	85	101	
-40	95	41.7	51.4	62.7	83.1	102.1	124.1	158.5	192.0	227.0	281.0	336.0	
-35		42.9	52.7	64.1	85.1	104.4	126.6	161.1	194.0	229.0	283.0	339.0	
-30		44.1	53.9	65.4	87.3	106.8	129.3	163.7	196.0	232.0	287.0	344.0	
-25		45.2	55.2	67.0	89.4	109.0	131.6	165.9	199.0	235.0	291.0	348.0	
-20		46.3	56.5	68.3	91.4	111.1	133.7	167.7	201.0	238.0	294.0	352.0	
-15		47.3	57.6	69.4	92.7	112.9	135.3	169.2	203.0	240.0	297.0	355.0	
-10		48.1	58.4	70.2	94.6	114.3	136.3	169.4	204.0	241.0	298.0	357.0	
-5		48.9	59.1	70.7	95.6	115.3	136.9	169.0	204.0	241.0	298.0	357.0	
0		49.2	59.5	70.8	96.1	115.7	136.6	168.0	203.0	240.0	297.0	355.0	
5		49.4	59.3	70.5	96.2	114.8	135.4	165.1	200.0	237.0	293.0	351.0	
10		49.2	58.9	69.7	95.4	113.6	134.3	161.3	196.0	232.0	287.0	344.0	
15		48.4	57.7	68.0	93.4	110.5	129.2	155.2	190.0	225.0	278.0	333.0	
20		47.2	56.0	65.7	90.6	106.4	124.1	148.0	183.0	216.0	267.0	320.0	
25		45.7	54.1	63.0	87.1	102.6	118.1	140.3	173.0	204.0	252.0	302.0	
30		44.2	52.0	60.3	84.2	98.0	112.6	132.3	161.0	190.0	235.0	282.0	
35		42.7	50.0	57.6	80.9	93.8	106.9	124.9	149.0	176.0	217.0	260.0	
40		41.4	48.3	55.3	78.0	90.0	102.1	118.2	136.0	160.0	198.0	237.0	
-40		105	48.5	59.8	71.9	96.7	118.9	144.7	184.9	229.0	271.0	335.0	401.0
-35			49.5	60.9	74.3	98.5	120.9	145.3	187.3	228.0	270.0	334.0	400.0
-30			50.9	62.6	75.9	101.0	123.7	149.8	190.1	231.0	273.0	338.0	405.0
-25	52.4		64.2	77.8	104.2	126.7	153.1	193.4	234.0	277.0	343.0	410.0	
-20	53.9		65.9	79.6	106.4	129.7	156.0	196.2	238.0	281.0	348.0	417.0	
-15	55.2		67.4	81.2	109.0	132.2	158.6	199.5	241.0	285.0	353.0	423.0	
-10	56.5		68.7	82.6	111.3	134.6	160.9	200.2	244.0	288.0	357.0	428.0	
-5	58.0		69.9	83.8	113.2	136.4	162.6	201.1	246.0	291.0	360.0	432.0	
0	58.7		70.9	84.6	114.7	137.7	163.5	201.1	247.0	292.0	362.0	434.0	
5	59.4		71.5	85.0	115.8	138.5	163.4	200.0	247.0	292.0	362.0	434.0	
10	59.9		71.8	85.9	116.3	138.5	162.8	197.1	246.0	290.0	360.0	431.0	
15	60.0		71.6	84.4	115.9	137.6	161.0	194.1	242.0	287.0	355.0	425.0	
20	59.5		70.8	83.1	114.6	135.3	157.4	188.5	237.0	280.0	347.0	416.0	
25	58.5		69.3	80.9	112.1	131.7	152.4	181.1	230.0	272.0	337.0	404.0	
30	57.2		67.3	78.2	109.3	127.4	146.7	172.9	221.0	261.0	323.0	387.0	
35	55.5		65.1	75.2	105.4	122.4	140.2	163.9	209.0	247.0	306.0	367.0	
40	54.1		63.1	72.5	102.2	117.8	134.6	155.8	196.0	232.0	286.0	343.0	
-40	115		56.6	69.8	85.4	112.9	138.8	169.1	216.6	276.0	326.0	404.0	483.0
-35			57.4	70.6	86.2	114.2	140.2	170.5	217.2	271.0	320.0	396.0	474.0
-30			58.7	71.9	87.7	116.6	142.8	173.2	220.1	270.0	319.0	396.0	474.0
-25		60.4	74.0	89.8	119.7	146.2	176.8	223.7	274.0	323.0	401.0	480.0	
-20		62.2	76.2	92.0	122.8	150.2	182.1	227.6	278.0	329.0	407.0	488.0	
-15		64.0	78.1	94.2	126.2	153.7	184.4	231.1	283.0	334.0	414.0	496.0	
-10		65.7	80.0	96.2	129.4	156.7	187.7	234.1	287.0	340.0	421.0	505.0	
-5		67.5	81.8	98.1	132.4	159.8	190.6	236.4	292.0	345.0	428.0	512.0	
0		68.9	83.3	99.8	134.9	162.4	193.1	237.9	295.0	349.0	433.0	519.0	
5		70.4	84.6	100.8	137.1	164.2	194.4	238.3	298.0	352.0	436.0	523.0	
10		71.3	85.7	101.6	138.6	165.6	195.1	237.7	299.0	353.0	438.0	525.0	
15		72.1	89.9	101.9	139.6	165.6	194.7	235.6	298.0	353.0	438.0	525.0	
20		72.5	86.4	101.6	140.3	165.5	193.2	232.0	296.0	350.0	434.0	521.0	
25		71.0	86.0	100.7	139.4	164.1	190.4	227.2	292.0	346.0	428.0	514.0	
30		71.7	84.7	98.5	137.1	160.6	185.4	219.4	286.0	338.0	419.0	503.0	
35		70.5	82.8	95.9	134.2	156.5	179.5	210.8	277.0	328.0	406.0	488.0	
40		69.0	80.7	92.9	130.7	151.5	172.8	201.5	266.0	315.0	390.0	468.0	

**OIL COOLER HEAT REJECTION (OCHR) - 1,000 BTU/HR (Based on 10°F superheat, 120°F entering oil temperature, no external subcooling)**

EVAP TEMP. °F	COND TEMP. °F	RXF SCREW COMPRESSOR MODELS - ECONOMIZED R-717										
		12	15	19	24	30	39	50	58	68	85	101
-40		31.4	38.2	46.5	61.7	75.5	91.4	116.0	139.0	164.0	203.0	242.0
-35		31.4	39.0	47.3	62.9	76.9	92.9	117.2	140.0	165.0	204.0	244.0
-30		32.0	39.6	48.0	64.0	78.0	93.9	118.0	140.0	165.0	204.0	245.0
-25		32.5	39.7	48.4	64.8	78.7	94.5	118.2	140.0	165.0	204.0	244.0
-20		32.7	40.4	48.6	65.1	79.0	94.6	117.7	139.0	164.0	203.0	243.0
-15		33.0	40.5	48.5	65.3	78.9	94.0	115.8	137.0	162.0	200.0	239.0
-10		32.8	40.2	48.0	64.9	78.1	92.7	114.2	134.0	158.0	196.0	234.0
-5		32.5	39.5	47.1	63.9	76.6	90.7	110.9	130.0	153.0	189.0	226.0
0	75	31.5	38.2	45.5	61.9	73.9	87.0	105.9	124.0	147.0	181.0	216.0
5		30.2	36.6	43.3	59.2	70.3	82.5	99.7	117.0	138.0	170.0	204.0
10		28.6	34.6	40.8	56.0	66.1	77.3	92.8	108.0	128.0	157.0	188.0
15		27.0	32.5	38.2	52.6	61.9	71.9	85.8	98.0	116.0	142.0	170.0
20		25.4	30.6	35.7	49.5	57.9	66.9	79.2	87.0	103.0	126.0	151.0
25		24.0	28.7	33.3	46.5	54.0	62.1	73.1	77.0	90.0	110.0	132.0
30		22.5	26.8	31.0	43.2	50.2	57.4	67.2	65.0	77.0	94.0	112.0
35		20.5	24.4	28.0	39.3	45.5	51.7	60.1	55.0	64.0	78.0	93.0
40		17.9	21.3	24.3	34.2	39.4	44.6	51.4	47.0	55.0	68.0	81.0
-40		36.4	45.1	54.9	73.0	89.4	108.2	137.2	167.0	197.0	244.0	292.0
-35		37.3	46.2	56.2	74.7	91.2	110.1	139.1	169.0	199.0	246.0	295.0
-30		38.2	47.1	56.9	76.2	92.9	111.7	140.5	170.0	201.0	248.0	297.0
-25		39.0	48.0	58.0	77.6	94.3	113.2	141.7	171.0	202.0	250.0	299.0
-20		39.6	48.7	58.6	78.8	95.4	114.1	142.1	172.0	203.0	251.0	300.0
-15		40.1	49.3	59.0	79.5	96.0	114.5	141.8	171.0	202.0	250.0	299.0
-10		40.5	49.5	59.1	79.9	96.2	114.2	140.6	170.0	201.0	248.0	297.0
-5		40.5	49.4	58.8	79.9	95.9	113.3	138.6	168.0	198.0	244.0	293.0
0	85	40.3	49.0	58.1	79.3	94.6	111.4	135.5	164.0	193.0	239.0	286.0
5		39.6	48.1	56.8	77.8	92.7	108.4	131.0	158.0	187.0	231.0	276.0
10		38.5	46.4	54.7	75.1	88.9	103.8	124.7	151.0	178.0	220.0	264.0
15		37.0	44.5	52.2	72.0	84.8	98.5	117.6	143.0	168.0	208.0	249.0
20		35.3	42.3	49.3	68.3	80.2	92.6	109.8	132.0	156.0	192.0	230.0
25		33.8	40.2	46.8	65.1	75.9	87.3	102.8	121.0	142.0	175.0	209.0
30		32.3	38.3	44.2	61.9	71.8	82.2	96.1	109.0	128.0	158.0	189.0
35		30.8	36.4	41.9	58.9	68.1	77.6	90.0	97.0	114.0	140.0	167.0
40		29.2	34.4	39.4	55.5	64.1	72.3	83.4	85.0	99.0	122.0	146.0

OIL COOLER HEAT REJECTION (OCHR) - 1,000 BTU/HR (Based on 10°F superheat, 120°F entering oil temperature, no external subcooling)

EVAP TEMP. °F	COND TEMP. °F	RXF SCREW COMPRESSOR MODELS - ECONOMIZED R-717										
		12	15	19	24	30	39	50	58	68	85	101
-40	95	42.8	53.0	64.4	85.6	105.1	127.0	161.1	200.0	236.0	293.0	350.0
-35		43.7	54.2	65.7	87.6	107.0	129.3	163.3	201.0	238.0	295.0	353.0
-30		45.0	55.5	67.2	89.8	109.3	131.7	165.6	203.0	240.0	298.0	356.0
-25		46.1	56.7	68.4	91.7	111.4	133.8	167.4	206.0	243.0	301.0	360.0
-20		47.1	57.9	69.6	93.5	113.3	135.5	168.8	207.0	245.0	303.0	363.0
-15		48.0	58.8	70.5	95.0	114.8	136.9	169.6	209.0	246.0	305.0	366.0
-10		48.7	59.5	71.1	96.1	115.5	137.4	169.5	209.0	247.0	306.0	366.0
-5		49.3	61.7	71.5	97.1	116.4	137.7	168.6	208.0	246.0	305.0	365.0
0		49.6	60.2	71.4	97.4	116.1	137.0	166.9	207.0	244.0	302.0	362.0
5		49.6	60.0	70.9	97.1	115.7	134.9	164.0	203.0	240.0	297.0	356.0
10		49.4	59.3	69.9	96.1	114.1	133.0	159.6	199.0	235.0	290.0	348.0
15		48.3	58.0	68.0	93.8	110.6	128.5	153.5	192.0	227.0	280.0	336.0
20		46.9	56.1	65.5	90.8	106.6	123.1	146.1	184.0	217.0	268.0	321.0
25		45.4	53.9	62.7	87.4	102.0	117.4	138.2	173.0	205.0	253.0	303.0
30		43.7	51.7	59.7	83.7	97.2	111.2	130.1	162.0	191.0	235.0	282.0
35		42.1	49.6	57.1	80.3	93.5	105.7	122.7	149.0	176.0	217.0	260.0
40		40.7	47.9	54.7	77.4	89.0	100.9	116.1	136.0	160.0	198.0	237.0
-40	105	50.1	61.9	75.6	100.4	123.1	149.2	189.5	241.0	285.0	352.0	422.0
-35		51.2	63.3	76.8	102.4	125.0	151.2	189.9	239.0	283.0	351.0	420.0
-30		52.5	64.9	78.4	105.0	127.6	153.8	193.7	241.0	285.0	353.0	423.0
-25		53.9	66.4	80.2	107.4	130.4	156.8	196.4	244.0	288.0	357.0	428.0
-20		55.3	67.9	81.8	109.8	133.0	159.3	198.7	247.0	292.0	362.0	433.0
-15		56.6	69.3	83.2	111.9	135.4	161.6	200.6	250.0	295.0	366.0	438.0
-10		57.8	70.5	84.4	114.6	137.4	163.3	201.5	252.0	298.0	369.0	442.0
-5		58.8	71.5	85.3	115.7	139.0	164.5	201.9	253.0	300.0	371.0	445.0
0		59.6	72.6	86.0	117.1	139.9	165.0	201.2	254.0	300.0	372.0	445.0
5		60.2	72.8	86.3	117.9	140.3	164.8	199.6	253.0	299.0	370.0	444.0
10		60.7	72.9	85.9	118.0	139.9	163.5	196.9	250.0	296.0	366.0	439.0
15		60.4	72.5	85.0	117.4	138.6	161.1	192.7	246.0	291.0	360.0	432.0
20		59.7	71.7	83.4	115.6	135.7	157.1	186.8	240.0	284.0	351.0	421.0
25		58.5	69.6	80.9	112.9	131.8	151.8	179.2	232.0	274.0	340.0	407.0
30		57.0	67.5	78.1	109.4	127.3	145.8	170.7	222.0	262.0	325.0	390.0
35		55.2	65.1	74.9	105.4	121.9	138.9	161.6	210.0	248.0	307.0	368.0
40		53.6	63.0	72.0	101.9	117.3	132.9	153.5	196.0	232.0	287.0	344.0
-40	115	59.1	73.2	89.3	118.3	144.9	175.7	223.4	292.0	346.0	428.0	513.0
-35		59.8	74.0	89.7	119.6	146.2	176.8	223.8	286.0	338.0	419.0	502.0
-30		61.1	75.4	91.3	121.9	148.6	179.2	226.1	285.0	337.0	417.0	500.0
-25		62.6	77.1	93.2	124.7	151.7	182.3	228.8	288.0	340.0	422.0	505.0
-20		65.1	78.7	95.2	128.1	155.1	185.8	232.2	291.0	345.0	427.0	512.0
-15		66.1	81.0	97.2	131.0	158.4	189.2	235.0	295.0	349.0	433.0	519.0
-10		67.8	82.8	99.0	133.9	161.3	192.0	237.2	299.0	354.0	439.0	526.0
-5		69.3	84.4	100.7	136.8	163.9	194.4	238.4	303.0	358.0	444.0	532.0
0		70.6	85.8	101.7	138.9	166.1	196.0	239.4	305.0	361.0	448.0	537.0
5		71.9	86.9	102.9	140.7	167.6	197.0	239.2	307.0	363.0	450.0	540.0
10		72.8	87.7	103.4	141.9	168.3	197.2	237.9	307.0	363.0	450.0	540.0
15		73.3	88.0	103.3	142.6	168.5	196.2	235.1	305.0	361.0	448.0	537.0
20		73.5	87.9	102.8	142.4	167.4	194.1	231.3	302.0	357.0	443.0	532.0
25		73.3	87.2	101.5	141.4	165.4	190.8	225.7	297.0	351.0	435.0	523.0
30		72.2	85.2	98.9	138.7	159.4	185.3	217.7	289.0	342.0	424.0	509.0
35		70.8	83.4	96.3	135.3	157.2	179.0	208.7	280.0	331.0	410.0	493.0
40		69.0	81.1	92.9	131.5	151.4	172.0	199.1	268.0	317.0	392.0	471.0

**OIL COOLER HEAT REJECTION (OCHR) - 1,000 BTH/HR (Based on 10°F superheat, 120°F entering oil temperature, and no external subcooling).**

EVAP TEMP. °F	COND TEMP. °F	RXF SCREW COMPRESSOR MODELS - BOOSTER R-717										
		12	15	19	24	30	39	50	58	68	85	101
-80		6.9	8.5	10.5	13.8	19.1	21.1	27.6	32.6	38.4	47.4	56.6
-75		6.5	8.1	10.0	13.3	16.2	19.9	25.8	30.8	36.2	44.7	53.3
-70		6.0	7.5	9.2	12.1	15.0	18.4	23.9	27.3	32.1	39.5	47.1
-65		5.4	6.8	8.2	10.8	13.3	16.4	21.2	23.8	28.0	34.4	41.0
-60	-20	4.7	5.7	7.0	9.2	11.4	14.3	18.0	19.8	23.3	28.6	34.1
-55		4.0	4.9	6.0	8.0	9.9	12.1	15.5	15.0	17.6	21.6	25.7
-50		3.9	4.8	5.9	7.7	9.5	11.6	14.9	10.6	12.4	15.2	18.0
-45		3.5	4.2	5.1	6.9	8.4	10.1	13.0	7.3	8.5	10.4	12.4
-40		3.0	3.7	4.4	6.0	7.3	8.7	11.3	2.2	2.6	3.2	3.8
-35		1.5	1.9	2.2	3.0	3.7	4.4	5.6	0.0	0.0	0.0	0.0
-80		8.3	10.3	12.7	16.5	20.7	25.4	33.2	55.1	65.0	80.3	96.0
-75		7.9	9.9	12.2	16.0	19.8	24.5	31.7	53.0	62.4	77.1	92.2
-70		7.6	9.5	12.1	15.2	18.9	23.4	30.1	51.2	60.4	74.6	89.1
-65		7.0	8.8	10.8	14.2	17.5	21.6	27.9	49.5	58.3	72.0	85.9
-60		6.4	7.9	9.7	12.8	15.9	19.4	25.1	47.4	55.8	68.8	82.2
-55	-10	5.5	6.8	8.4	11.0	13.9	16.7	21.4	45.1	53.1	65.5	78.1
-50		4.6	5.7	7.0	9.1	10.9	13.8	17.8	42.0	49.4	60.9	72.6
-45		3.8	4.7	5.8	7.6	9.4	11.9	14.7	36.8	43.2	53.1	63.3
-40		3.8	4.7	5.7	7.6	9.2	11.3	14.0	31.7	37.2	45.8	54.5
-35		3.7	4.6	5.6	7.4	9.1	10.2	14.0	25.6	30.0	36.9	43.9
-30		2.8	3.4	4.1	5.5	6.8	8.2	10.4	19.4	22.8	27.9	33.2
-25		0.6	0.7	0.9	1.2	0.8	1.6	2.2	13.9	16.2	19.8	23.6
-80		9.8	12.2	15.0	19.8	24.5	30.2	39.3	48.1	56.7	70.0	83.6
-75		9.5	11.9	14.6	19.2	23.7	29.4	38.1	46.2	54.4	67.2	80.2
-70		9.2	11.5	14.2	18.6	23.1	28.4	36.8	44.3	52.2	64.4	76.9
-65		8.9	11.0	13.6	18.2	22.0	27.1	34.9	42.3	49.8	61.4	73.3
-60		8.3	10.3	12.7	16.6	20.7	25.4	32.6	39.9	47.0	57.9	69.0
-55		7.6	9.5	11.6	15.3	19.4	23.1	29.6	35.8	42.1	51.8	61.8
-50	0	6.8	8.3	10.0	13.4	16.5	20.1	25.9	31.4	36.8	45.3	54.0
-45		5.6	6.9	8.6	11.2	13.6	16.7	21.4	26.3	30.9	37.9	45.1
-40		4.6	5.6	6.8	9.0	11.1	13.4	17.1	20.5	24.0	29.4	35.0
-35		3.9	4.7	5.7	7.4	9.3	11.2	14.2	14.8	17.3	21.2	25.2
-30		3.7	4.6	5.6	7.4	8.4	10.9	13.9	10.4	12.2	14.9	17.7
-25		3.2	4.0	4.7	6.3	7.7	9.4	11.7	5.3	6.1	7.5	8.9
-20		1.7	2.0	2.5	3.3	4.0	4.8	6.0	0.0	0.0	0.0	0.0
-80		11.4	12.2	17.4	22.9	28.4	34.9	45.5	55.1	65.0	80.3	96.0
-75		11.2	14.0	17.0	22.3	27.7	34.2	44.3	53.0	62.4	77.1	92.2
-70		11.0	13.6	16.8	22.0	27.4	33.5	44.0	51.2	60.4	74.6	89.1
-65		10.9	13.4	16.4	21.6	26.7	32.5	42.3	49.5	58.3	72.0	85.9
-60		10.4	12.8	15.7	20.7	25.6	31.4	40.5	47.4	55.8	68.8	82.2
-55		9.8	12.1	15.3	19.6	24.0	29.5	38.0	45.1	53.1	65.5	78.1
-50		9.1	11.2	13.7	18.1	22.4	27.2	34.6	42.0	49.4	60.9	72.6
-45	10	8.1	10.0	12.3	16.2	19.9	24.2	31.0	36.8	43.2	53.1	63.3
-40		7.0	8.6	10.4	13.8	17.0	20.6	26.3	31.7	37.2	45.8	54.5
-35		5.7	7.0	8.5	11.2	13.9	16.6	21.1	25.6	30.0	36.9	43.9
-30		4.4	5.4	6.5	8.7	10.6	12.9	16.3	19.4	22.8	27.9	33.2
-25		3.9	4.8	5.9	7.8	9.4	11.4	14.3	13.9	16.2	19.8	23.6
-20		3.5	4.5	5.3	7.1	8.6	10.4	13.0	9.0	10.5	12.8	15.2
-15		2.6	3.1	3.8	5.3	6.1	7.3	8.8	2.6	3.0	3.6	4.3
-10		0.4	0.5	0.6	0.8	1.0	1.2	1.5	0.0	0.0	0.0	0.0

OIL COOLER HEAT REJECTION (OCHR) - 1,000 BTH/HR (Based on 10°F superheat, 120°F entering oil temperature, and no external subcooling).

EVAP TEMP. °F	COND TEMP. °F	RXF SCREW COMPRESSOR MODELS - BOOSTER R-717										
		12	15	19	24	30	39	50	58	68	85	101
-80		13.9	17.3	21.3	27.9	34.7	42.7	55.5	69.7	82.2	101.7	121.5
-75		13.5	16.9	20.8	27.2	33.8	41.5	53.8	65.2	76.9	95.0	113.6
-70		13.3	16.6	20.4	27.0	33.2	40.8	52.9	62.3	73.5	90.8	108.5
-65		13.2	16.4	20.1	26.2	32.7	40.0	52.0	60.2	70.9	87.6	104.6
-60		13.0	16.1	19.7	25.9	32.5	39.3	50.5	58.1	68.5	84.5	100.9
-55		12.6	15.6	18.9	25.2	31.2	38.1	49.1	55.7	65.6	81.0	96.7
-50		12.1	15.0	18.4	24.1	29.9	36.4	46.8	53.1	62.4	77.0	91.9
-45		11.4	14.2	17.2	22.8	28.1	34.2	43.7	49.8	58.6	72.2	86.2
-40	20	10.5	13.0	15.9	21.0	25.8	31.0	39.8	44.8	52.7	64.8	77.3
-35		9.4	11.5	14.1	18.7	22.8	27.7	35.1	39.5	46.4	57.1	68.0
-30		8.0	9.8	11.9	15.9	19.4	23.4	29.6	33.6	39.4	48.4	57.6
-25		6.6	8.1	9.7	13.0	15.9	19.1	24.0	26.7	31.3	38.3	45.6
-20		5.3	6.5	7.9	10.5	12.8	15.4	19.1	19.9	23.3	28.5	33.9
-15		4.9	6.0	7.2	9.8	11.5	14.0	17.5	13.7	16.0	19.6	23.3
-10		4.4	5.3	6.3	8.6	10.1	12.4	15.3	8.6	10.1	12.3	14.6
-5		2.7	3.5	4.1	5.6	6.9	7.9	9.7	1.8	2.1	2.6	3.0
-0		0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-80		16.9	20.9	25.9	33.9	42.1	51.9	67.5	92.9	109.7	135.7	162.2
-75		16.3	20.2	24.9	32.7	40.5	49.9	64.7	81.8	96.6	119.4	142.7
-70		15.9	19.9	24.4	32.0	40.0	49.1	63.2	75.9	89.5	110.7	132.3
-65		15.8	19.5	24.1	31.7	39.2	48.1	62.2	72.2	85.2	105.3	125.8
-60		15.8	19.4	23.9	31.4	38.8	47.6	61.4	69.5	81.9	101.2	120.9
-55		15.5	19.2	23.5	31.0	38.2	46.8	60.3	67.0	79.0	97.5	116.5
-50		15.0	18.9	23.1	30.4	37.5	45.8	58.8	64.4	75.9	93.7	111.9
-45		14.8	18.3	22.4	29.5	36.3	44.2	56.6	61.2	72.1	88.9	106.2
-40	30	14.2	17.5	22.1	28.3	34.7	42.2	53.7	57.7	67.9	83.7	100.0
-35		13.3	16.4	20.0	26.5	32.5	39.4	49.9	53.7	63.2	77.9	92.9
-30		12.2	15.0	18.2	24.2	29.6	35.8	45.2	47.2	55.5	68.3	81.5
-25		11.0	13.3	16.1	21.4	26.1	31.4	39.5	41.5	48.8	59.9	71.5
-20		9.3	11.4	13.7	18.3	22.3	26.8	33.5	34.7	40.7	50.0	59.5
-15		7.9	9.6	11.5	15.4	18.8	22.4	27.5	27.2	31.8	39.1	46.5
-10		6.8	8.2	9.9	13.3	15.9	19.1	23.5	19.7	23.0	28.2	33.5
-5		6.3	7.5	9.0	12.2	14.7	17.4	21.4	13.5	15.8	19.3	23.0
-0		5.3	6.4	7.7	9.6	12.4	14.7	18.0	8.1	9.4	11.5	13.6
-80		20.6	25.6	31.6	41.1	51.5	63.3	82.4	140.9	166.3	205.8	246.1
-75		19.4	24.0	29.0	38.8	48.1	59.1	76.8	109.2	128.9	159.5	190.7
-70		18.7	22.9	28.5	37.3	46.3	56.9	73.8	95.7	112.9	139.6	166.9
-65		18.4	22.8	27.9	36.6	45.5	55.9	72.2	88.4	104.3	129.0	154.2
-60		18.2	22.5	27.6	36.4	45.0	55.1	71.4	83.9	99.0	122.4	146.3
-55		18.1	22.4	27.5	36.2	44.8	54.6	70.2	80.7	95.2	117.2	140.6
-50		18.0	22.3	27.2	35.9	44.1	54.0	69.2	77.9	91.9	113.5	135.7
-45		17.3	21.9	26.8	35.4	43.6	53.0	67.2	75.2	88.6	109.4	130.7
-40	40	17.5	21.5	26.2	34.8	42.7	51.8	66.0	71.5	84.2	104.0	124.2
-35		17.1	20.9	25.4	33.9	41.4	50.1	63.5	67.4	79.4	97.9	117.0
-30		16.3	20.0	24.3	32.3	39.5	47.7	60.2	63.6	74.9	92.3	110.3
-25		15.4	18.8	22.8	30.4	37.0	44.6	56.0	57.2	67.2	82.8	98.8
-20		14.1	17.2	20.8	27.8	33.6	40.5	50.6	51.3	60.3	74.2	88.5
-15		12.6	15.5	18.2	24.8	30.0	35.9	44.7	44.7	52.5	64.6	77.1
-10		10.9	13.2	15.8	21.3	25.7	30.7	37.9	36.9	43.3	53.1	63.3
-5		9.2	11.2	13.3	18.0	21.7	25.7	31.6	28.7	33.6	41.2	49.0
-0		8.1	9.8	11.7	15.9	19.0	22.4	27.4	20.9	24.4	29.9	35.6

**ECONOMIZER - HIGH STAGE (OPTIONAL)**

Compressor ratings with the economizer effect included are given in the ratings tables with the “E” suffix. No allowance for vapor line pressure drop has been included. Size the economizer vapor line (including valves, strainer, etc.) from the economizer vessel to the compressor for pressure drop from one to two PSI. The economizer rating tables are based on the application of a Flash Economizer System as shown in Figure 5 below. For capacity and brake HP with shell and coil or direct expansion (DX) type economizer (Figure 4), refer to page 89.

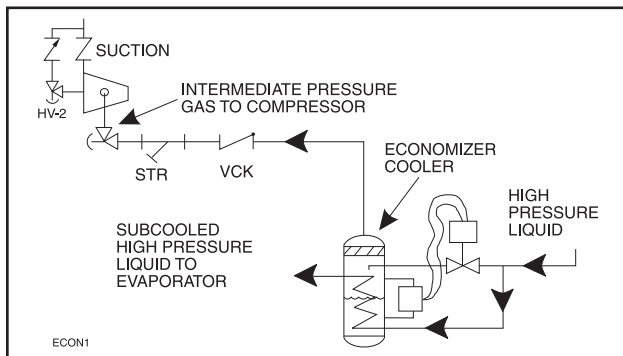
The economizer option provides an increase in system capacity and efficiency by subcooling liquid from the condenser through a heat exchanger or flash tank before it goes to the evaporator. The subcooling is provided by flashing liquid in the economizer cooler to an intermediate pressure level. The intermediate pressure is provided by a port located part way down the compression process on the screw compressor.

As the screw compressor unloads, the economizer port will drop in pressure level, eventually being fully open to suction. If this control is required, specify the optional RXF Plus microprocessor. It provides an additional output to turn off the supply of flashing liquid when the capacity falls below approximately 45%-60% (85%-90% slide valve position). This is done because the compressor will be more efficient operating at a higher slide valve position with the economizer turned off, than it will at a low slide valve position with the economizer turned on. Please note however that shell and coil and DX economizers can be used at low compressor capacities in cases where efficiency is not as important as ensuring that the liquid supply is subcooled. In such cases, the economizer liquid solenoid can be left open whenever the compressor is running.

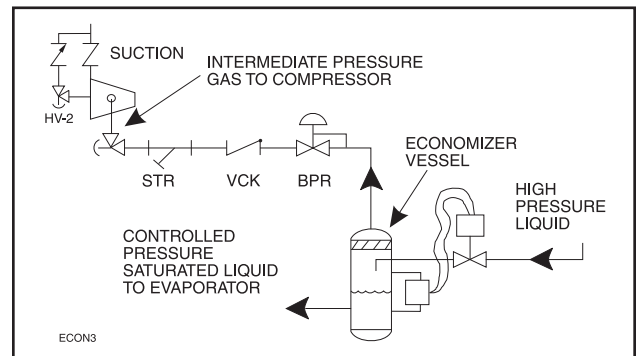
Due to the tendency of the port pressure to fall with decreasing compressor capacity, a back-pressure regulator valve (BPR) is generally required on a flash economizer system (Figure 5) in order to maintain some preset pressure difference between the subcooled liquid in the flash vessel and the evaporators. If the back-pressure regulator valve is not used on a flash economizer, it is possible that no pressure difference will exist to drive liquid from the flash vessel to the evaporators, since the flash vessel will be at suction pressure. In cases where wide swings in pressure are anticipated in the flash economizer vessel, it may be necessary to add an outlet pressure regulator to the flash vessel outlet to avoid overpressurizing the economizer port, which could result in motor overload. Example: A system feeding liquid to the flash vessel in batches.

The recommended economizer systems are shown below. Notice that in all systems there should be a strainer and a check valve between the economizer vessel and the economizer port on the compressor. The strainer prevents dirt from passing into the compressor and the check valve prevents oil from flowing from the compressor unit to the economizer vessel during shutdown.

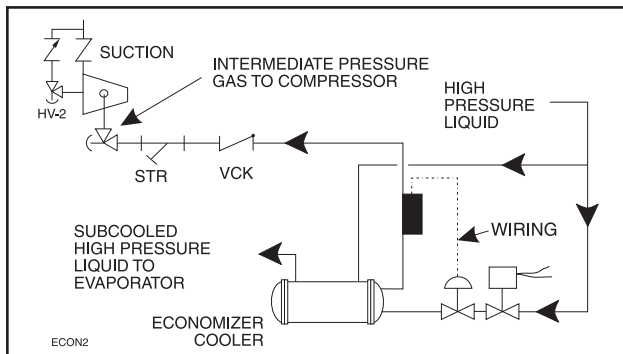
**CAUTION** Other than the isolation valve needed for strainer cleaning, it is essential that the strainer be the last device in the economizer line before the compressor. Also, piston-type check valves are recommended for installation in the economizer line, as opposed to disc-type check valves. The latter are more prone to gas-pulsation-induced failure. The isolation and check valves and strainer should be located as closely as possible to the compressor, preferably within three feet.



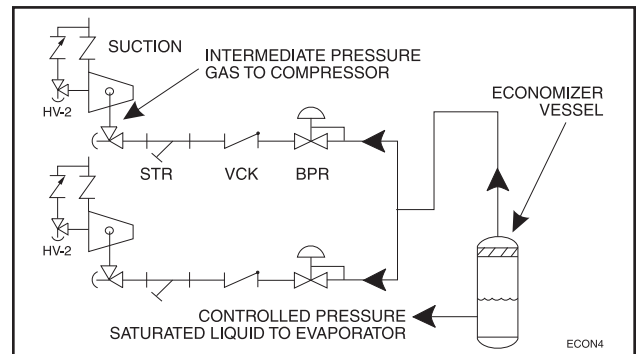
**Figure 3 - Shell and Coil Economizer System**



**Figure 5 - Flash Economizer System**



**Figure 4 - Direct Expansion Economizer System**



**Figure 6 - Multiple Compressor Economizer System**

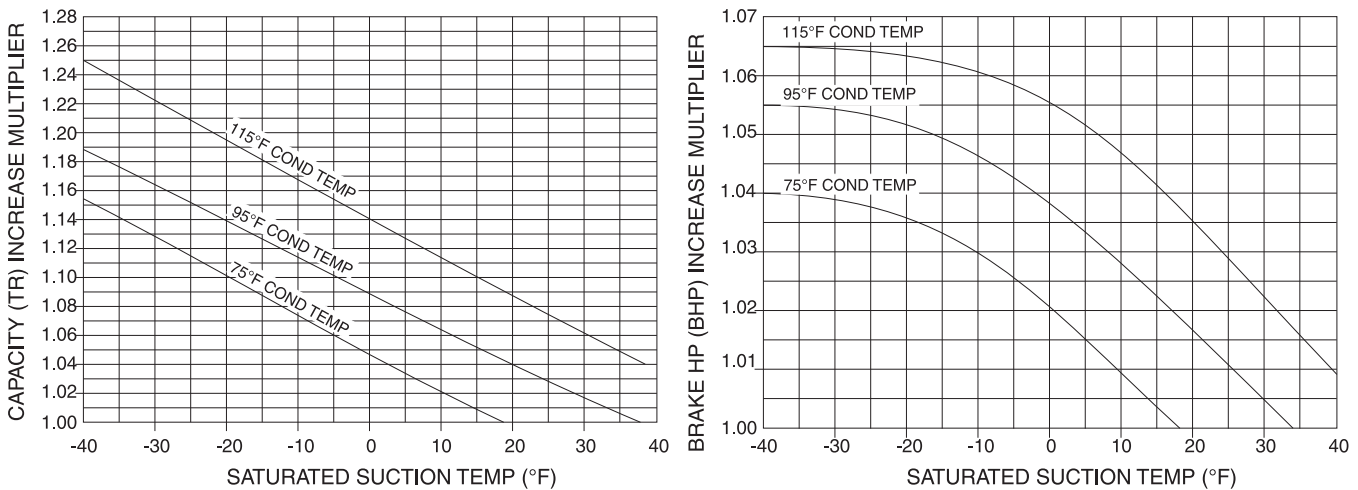
For refrigeration plants employing multiple compressors on a common economizing vessel, regardless of economizer type, each compressor must have a back-pressure regulating valve in order to balance the economizer load, or gas flow, between compressors. The problem of balancing load becomes most important when one or more compressors run at partial load, exposing the economizer port to suction pressure. In the case of a flash vessel, there is no need for the redundancy of a back-pressure regulating valve on the vessel and each of the multiple compressors. Omit the BPR valve on the flash economizer vessel and use one on each compressor, as shown in Figure 6.

### CAPACITY and BRAKE HORSEPOWER RATINGS WITH DIRECT EXPANSION OR SHELL and COIL ECONOMIZERS

**PROCEDURE** - Determine capacity (TR) and brake horsepower (BHP) from the non-economized, standard rating tables for the appropriate refrigerant (R717). Multiply these ratings by the capacity and shaft horsepower increase multipliers below for the appropriate refrigerant. Apply any other correction factors (subcooling, superheat or liquid injection) or 50 Hz) using instructions from Page 7.

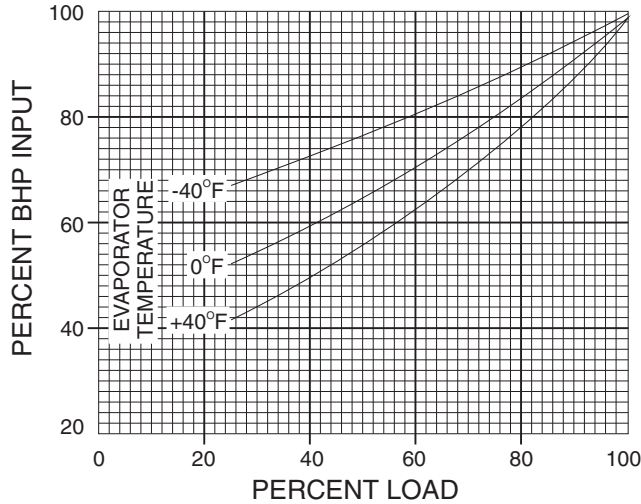
#### DIRECT EXPANSION OR SHELL and COIL ECONOMIZER RATING INCREASE MULTIPLIERS

##### R-717



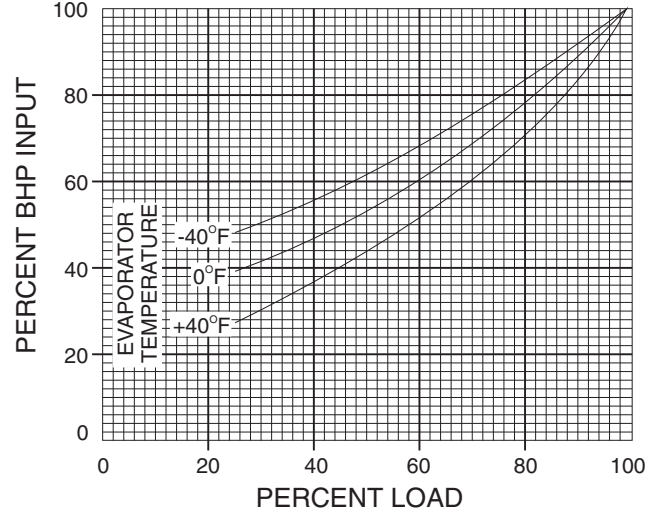
**NOTE:** Increase multipliers are based on liquid subcooling by either direct expansion or shell and coil economizer. Use of the increase multipliers results in ratings based on 10°F suction superheat with the superheat enthalpy not contributing to the refrigeration effect, no liquid subcooling from condenser or other external source, and 10°F small temperature difference in heat exchanger. No allowance for vapor line pressure drop is included in the resulting ratings.

**TYPICAL PART LOAD POWER INPUT WITH CONSTANT CONDENSING TEMPERATURE**



This curve is applicable for R-717 (85°F to 105°F full-load condensing temperature).

**TYPICAL PART LOAD POWER INPUT WITH FALLING CONDENSING TEMPERATURE**

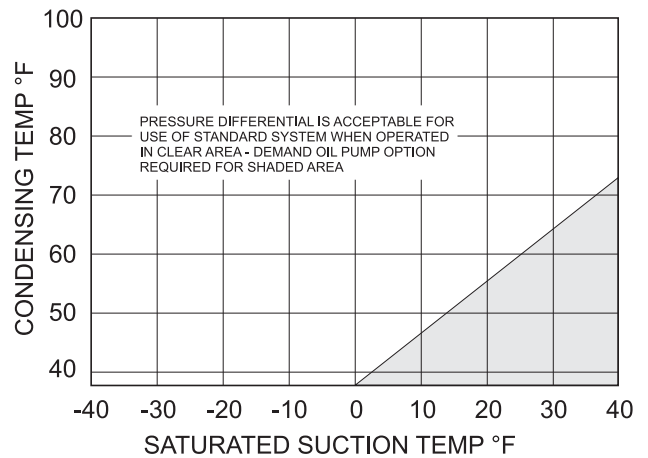


The curve, above, is based on a 20°F linear drop in condensing temperature from full load to 10% of full load. This curve is applicable for R-717 (85°F to 105°F full-load condensing temperature). It is not applicable if condensing temperature does not drop with compressor unloading as in the following examples:

1. Water-cooled condensing temperatures cannot fall below entering water temperature.
2. Single compressor unloading on a multiple compressor system will have a negligible effect on system condensing temperature.
3. No condensing temperature drop will occur if condenser fans are cycled off as the load decreases.

**STANDARD LUBRICATION SYSTEM LIMITS - HIGH STAGE**

The standard system for compressor operation without a lube oil pump may be used on high stage applications shown in the clear area of the graph. The optional **demand oil pump** is required only on low differential pressure applications shown in the shaded area of the graph. Where condensing temperatures fluctuate into the shaded area only on an occasional basis in the winter, the **demand pump** avoids unnecessary consumption of pump horsepower.



**MOTOR SELECTION and STARTING TORQUE**

Motors must be sized adequately for all expected operating conditions since start-up, pull-down, and load variations quite often require significantly more horsepower than nominal design.

Motor starting torque capacity must also be considered, especially when other than across-the-line start is employed. Motor starting and pull-up-torque must be at least 20% greater than compressor requirements at maximum expected start-up conditions. Refer to the torque data.

**NOTE: Motor starting torque varies considerably with various manufacturers - obtain specific torque data for the motor being used.**

**STARTING TORQUE FOR SPECIFIC COMPRESSOR**

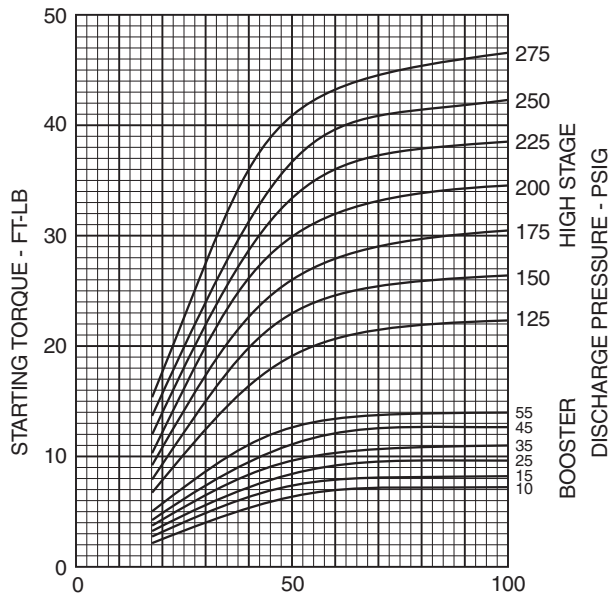
Multiply the starting torque value from high stage or booster curves at 100% of normal run speed by starting torque multiplier for appropriate compressor size.

**MOTOR/COMPRESSOR TORQUE**

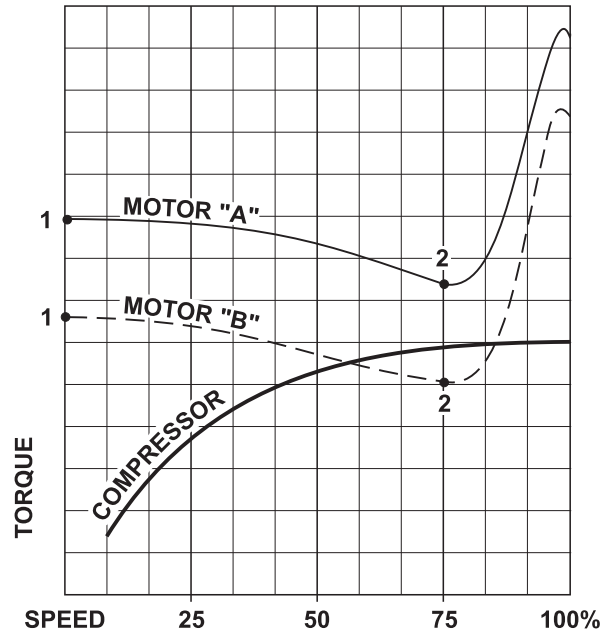
Assure that the motor **STARTING** and **MINIMUM PULL-UP TORQUE** capabilities will exceed the compressor requirements at the anticipated condition that will be experienced during normal starting.

**NOTE: Wye-delta and auto transformer (reduced voltage) motor starting methods drastically effect the starting torque available from motors as indicated:**

**RXF SCREW COMPRESSOR  
SPEED vs STARTING TORQUE CURVE  
- FULLY UNLOADED -  
HIGH STAGE and BOOSTER**



Across-the-Line	100% Torque
Auto Transformer	25 - 64% Torque
Wye-delta	33% Torque



Motor "A": Adequate to start the compressor.  
Motor "B": Will not start the compressor

**NOTE: Starting torque of both motors (1) is above compressor torque. However, the Pull-Up torque (2) of motor "B" is below the compressor torque curve and motor "B" will not accelerate the compressor to 100% speed.**

RXF MODEL	STARTING TORQUE (1) MULTIPLIER	BREAKAWAY TORQUE, FT-LB	(2) (3) INERTIA WR2, LB-FT2
12	1.31	3	0.90
15	0.81	3	0.38
19	1.00	3	0.55
24	2.65	4	2.20
30	1.63	4	0.88
39	2.02	4	1.30
50	2.65	4	2.20
58	3.05	5	2.70
68	3.58	5	3.64
85	4.47	5	5.42
101	5.32	5	7.56

- 1. High Stage or Booster Application.
- 2. Not including coupling.
- 3. Inertia resolved to drive shaft.

**STANDARD MOTORS**

The RXF Rotary Screw Compressor Unit is provided with Open Drip Proof, Low Noise, class B insulation, 1.15 service factor, continuous duty at 40°C ambient, NEMA B torque design. Solid-State, Across-the-Line, Wye-Delta, or Autotransformer start are available. Consult Frick® for Part Winding start applications.

**STANDARD MOTOR DATA CHART**

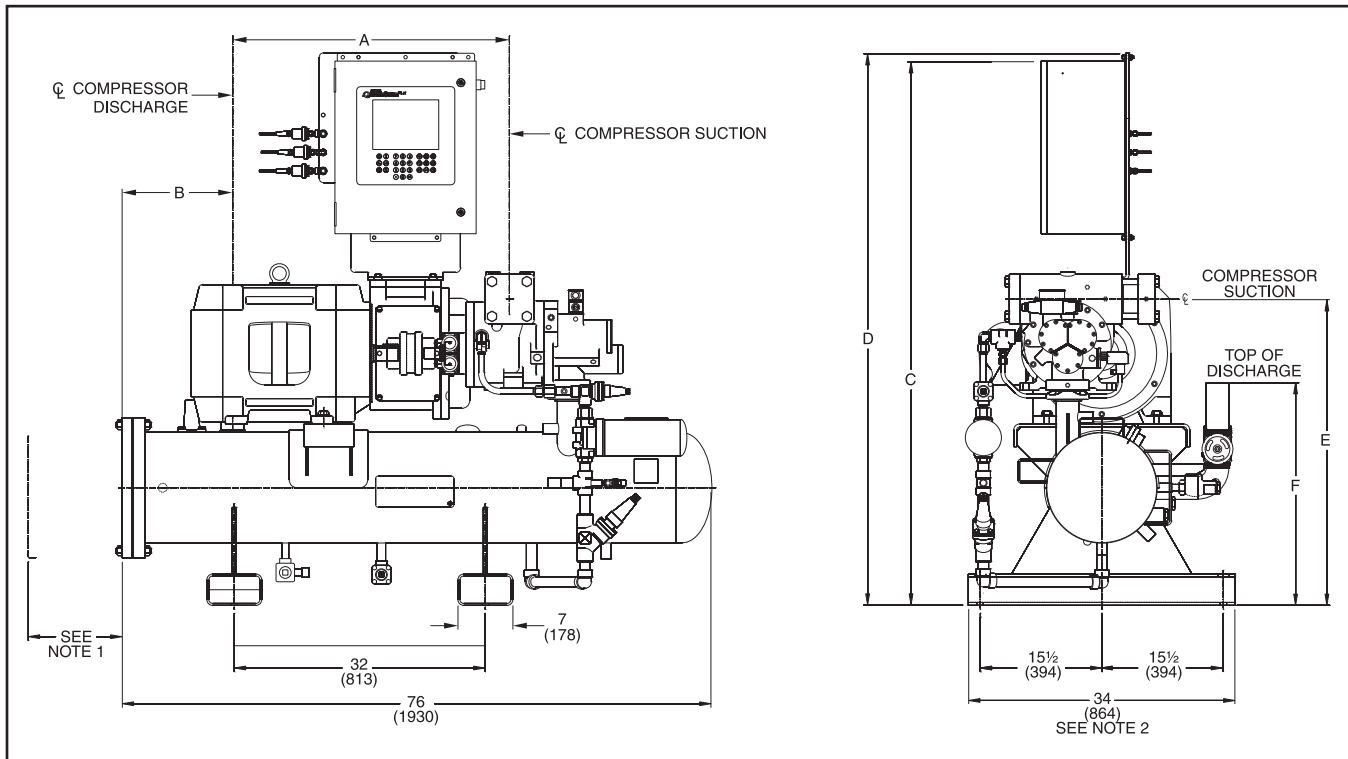
HORSEPOWER		KW	FRAME SIZE	APPROXIMATE WEIGHT (lb)	NOMINAL EFFICIENCY
60 Hz	50 Hz	50 Hz			
75	60	45	LN364TSC	700	93.6
100	75	56	LN365TSC	800	94.5
125	100	75	LN404TSC	1,000	94.1
134	112	84	LN405TSC	1,120	94.5
150	125	93	LN405TSC	1,120	94.5
125	100	75	LN405TDZ	1,000	94.1
134	112	84	LN405TDZ	1,000	94.1
150	125	93	LN405TDZ	1,070	94.5
154	129	96	LN405TDZ	1,070	94.5
175	146	109	LN405TDZ	1,080	95.0
200	150	112	LN405TDZ	1,080	95.0
206	172	128	LN405TDZ	1,080	95.0
235	196	146	LN445TDZ	1,440	95.0
250	200	149	LN445TDZ	1,540	95.0
263	220	164	LN445TDZ	1,540	95.0
284	237	177	LN447TDZ	1,630	95.4
300	250	187	LN447TDZ	1,730	95.4
305	255	190	LN447TDZ	1,730	95.4
335	280	209	LN447TDZ	1,730	95.4
350	300	224	LN447TDZ	1,880	95.4
368	307	229	LN447TDZ	1,880	95.4
400	333	249	LN449TDZ	2,180	95.8
407	340	254	LN449TDZ	2,180	95.8

1. **MOTOR KW =  $\frac{HP \times 0.746 \times 100}{MOTOR\ EFFICIENCY}$**

2. Ratings at 230/460 volts, 60 Hz.

3. Ratings at 460 volts, 60 Hz.

MODELS 12 – 50

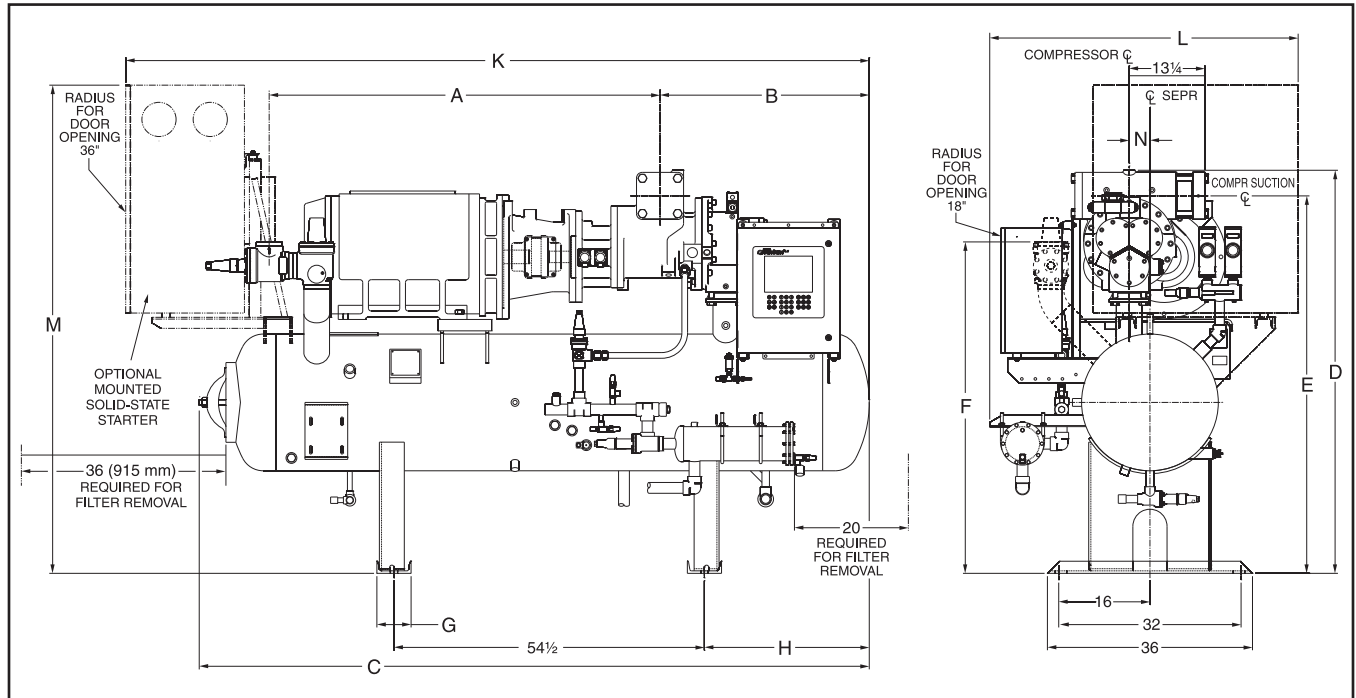


1. Allow for coalescer element accessibility; 12 inches for Models 12–15 and 22 inches for Models 24–50.
  2. 6 x 5 Oil Coolers, Flat Plate Oil Coolers and Liquid Injection Oil Cooling are within the RXF Screw Compressor unit envelope.
  3. Piping shown is for use with Liquid Injection Kits
  4. Dimensions shown are inches with millimeters in parentheses.
- NOTE: Drawing for reference only! Use certified drawings for erection.**

MODEL NO.	CONNECTION				DIMENSIONS											
	SUCTION		DISCHARGE		A		B		C		D		E		F	
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
RXF 12	2½	63.5	2½	63.5	35⅞	897	14⅛	357	69⅞	1762	70⅞	1,789	39⅞	992	28⅞	721
RXF 15	2½	63.5	2½	63.5	35⅞	897	14⅛	357	69⅞	1762	70⅞	1,789	39⅞	992	28⅞	1257
RXF 19	3	76.2	2½	63.5	35⅞	897	14⅛	357	69⅞	1762	70⅞	1,789	39⅞	992	28⅞	1257
RXF 24	3	76.2	3	76.2	28½	724	18⅞	472	76⅞	1935	77¼	1,962	46⅞	1,189	32⅞	833
RXF 30	4	101.6	3	76.2	28½	724	18⅞	473	76⅞	1935	77¼	1,962	46⅞	1,191	32⅞	833
RXF 39	4	101.6	3	76.2	28½	724	18⅞	473	76⅞	1935	77¼	1,962	46⅞	1,191	32⅞	833
RXF 50	4	101.6	3	76.2	28½	724	18⅞	472	76⅞	1935	77¼	1,962	46⅞	1,191	32⅞	833

**NOTE: The suction stop valve is shipped separately for field installation. Make allowances for piping.**

**MODELS 58 – 101**



**NOTE: Drawing for reference only! Use certified drawings for erection.**

MODEL NO.	CONNECTION				DIMENSIONS									
	SUCTION		DISCHARGE		A		B		C		D		E	
	In.	mm	In.	mm	In.	mm	In.	mm	In.	mm	In.	mm	In.	mm
RXF 58	5	127	3	76.2	67½	1,715	36½	933	114 <sup>7</sup> / <sub>16</sub>	2907	66¼	1683	61¾	1,568
RXF 68	5	127	3	76.2	67½	1,715	36½	933	114 <sup>7</sup> / <sub>16</sub>	2907	66¼	1683	61¾	1,568
RXF 85	5	127	4	101.6	68 <sup>5</sup> / <sub>8</sub>	1,743	36¾	933	117 <sup>5</sup> / <sub>8</sub>	2988	70¾	1797	66¼	1,683
RXF 101	5	127	4	101.6	68 <sup>5</sup> / <sub>8</sub>	1,743	36¾	933	117 <sup>5</sup> / <sub>8</sub>	2988	70¾	1797	66¼	1,683

MODEL NO.	DIMENSIONS													
	F		G		H		K		L		M		N	
	In.	mm	In.	mm	In.	mm	In.	mm	In.	mm	In.	mm	In.	mm
RXF 58	51 <sup>1</sup> / <sub>16</sub>	1,297	8	203	29 <sup>3</sup> / <sub>16</sub>	741	129½	3,289	53	1,346	81¼	2,064	2½	64
RXF 68	51 <sup>1</sup> / <sub>16</sub>	1,297	8	203	29 <sup>3</sup> / <sub>16</sub>	741	129½	3,289	53	1,346	81¼	2,064	2½	64
RXF 85	58 <sup>3</sup> / <sub>16</sub>	1,478	6	152	28 <sup>15</sup> / <sub>16</sub>	735	130½	3,315	54 <sup>7</sup> / <sub>8</sub>	1,394	85 <sup>11</sup> / <sub>16</sub>	2,176	3 <sup>5</sup> / <sub>8</sub>	92
RXF 101	58 <sup>3</sup> / <sub>16</sub>	1,478	6	152	28 <sup>15</sup> / <sub>16</sub>	735	130½	3,315	54 <sup>7</sup> / <sub>8</sub>	1,394	85 <sup>11</sup> / <sub>16</sub>	2,176	3 <sup>5</sup> / <sub>8</sub>	92

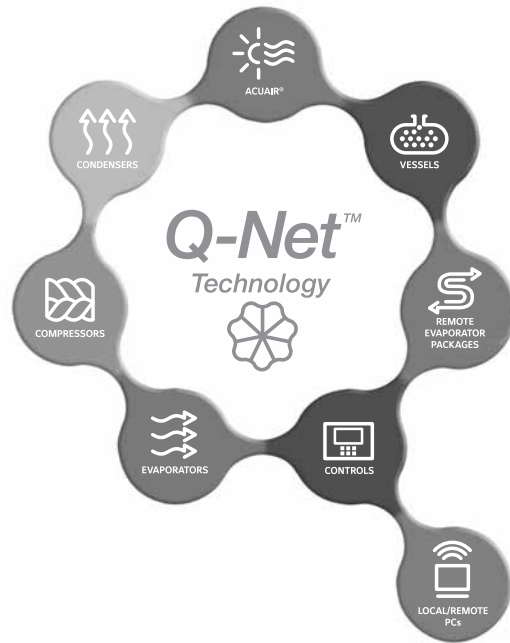
**NOTE: The suction stop valve is shipped separately for field installation. Make allowances for piping.**

1. Allow 36 in./915 mm for coalescer filter and 20 in./508 mm for oil filter accessibility.
2. Maximum width applies to WCOC or TSOC package with Oil Temperature Control Valve.

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