

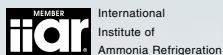
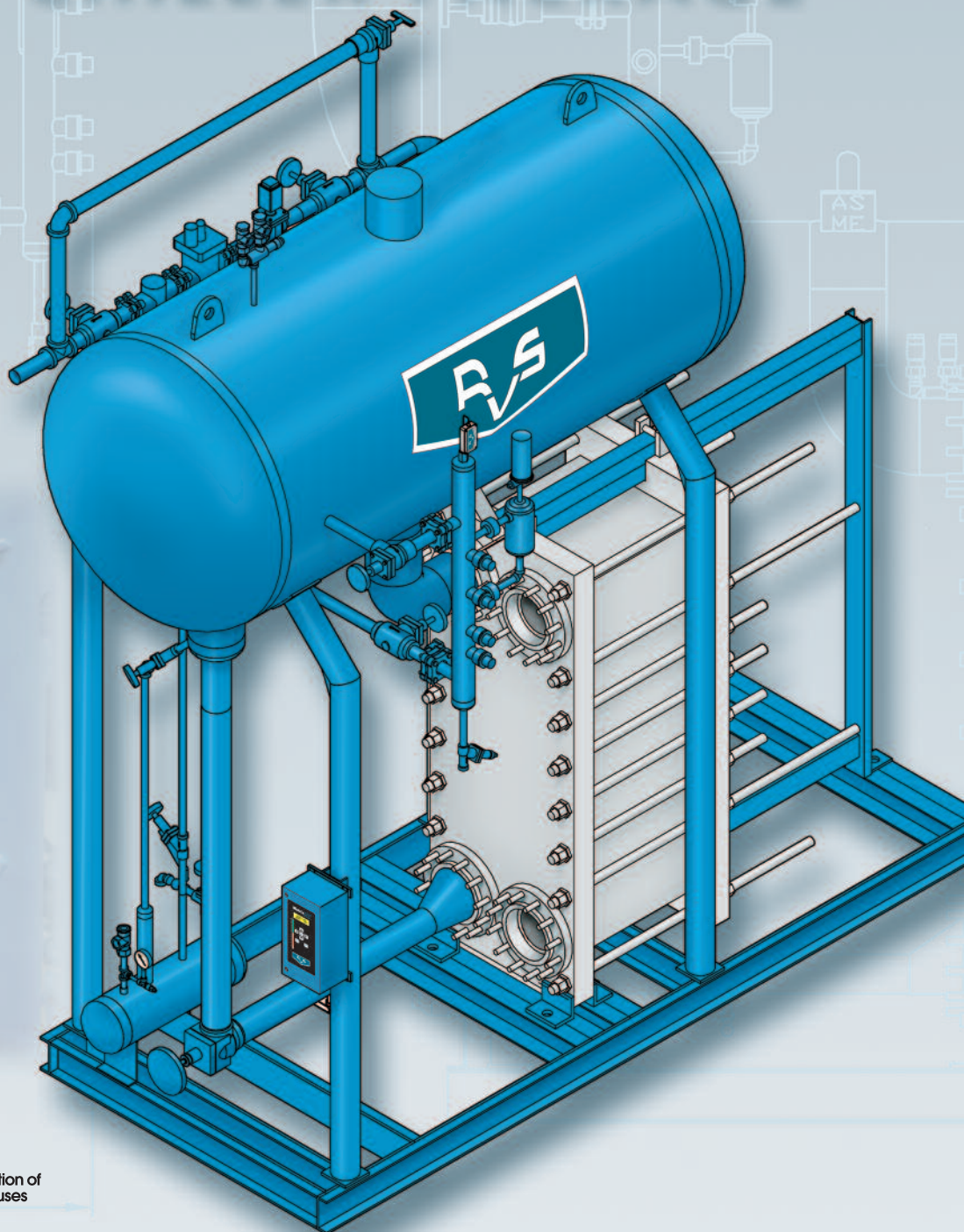


Bulletin 520A

MPC

PLATE CHILLER PACKAGE

Featuring:
New Matrix LLC
Level Control
and Level Probe



Technology for the Future, Available Today!



MPC Semi-Welded Plate Chiller Package

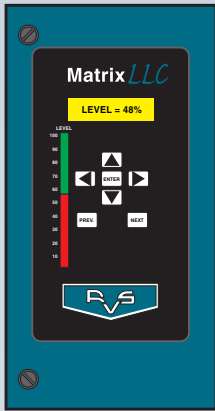
The MPC Semi-Welded Plate Chiller Package incorporates semi-welded plate heat exchanger technology with split-flow surge drum design and state of the art level controls into a complete package which reduces installation time and cost compared to field fabricated units. The unit comes complete with oil management system and proportional liquid feed assembly requiring only two refrigerant connections in the field.

Typical Applications

- Chilled water and glycol solutions for use in process cooling and air conditioning

Advantages

- High heat transfer rate for close approach temperatures and improved operating efficiency
- Low refrigerant charge



Matrix LLC Control

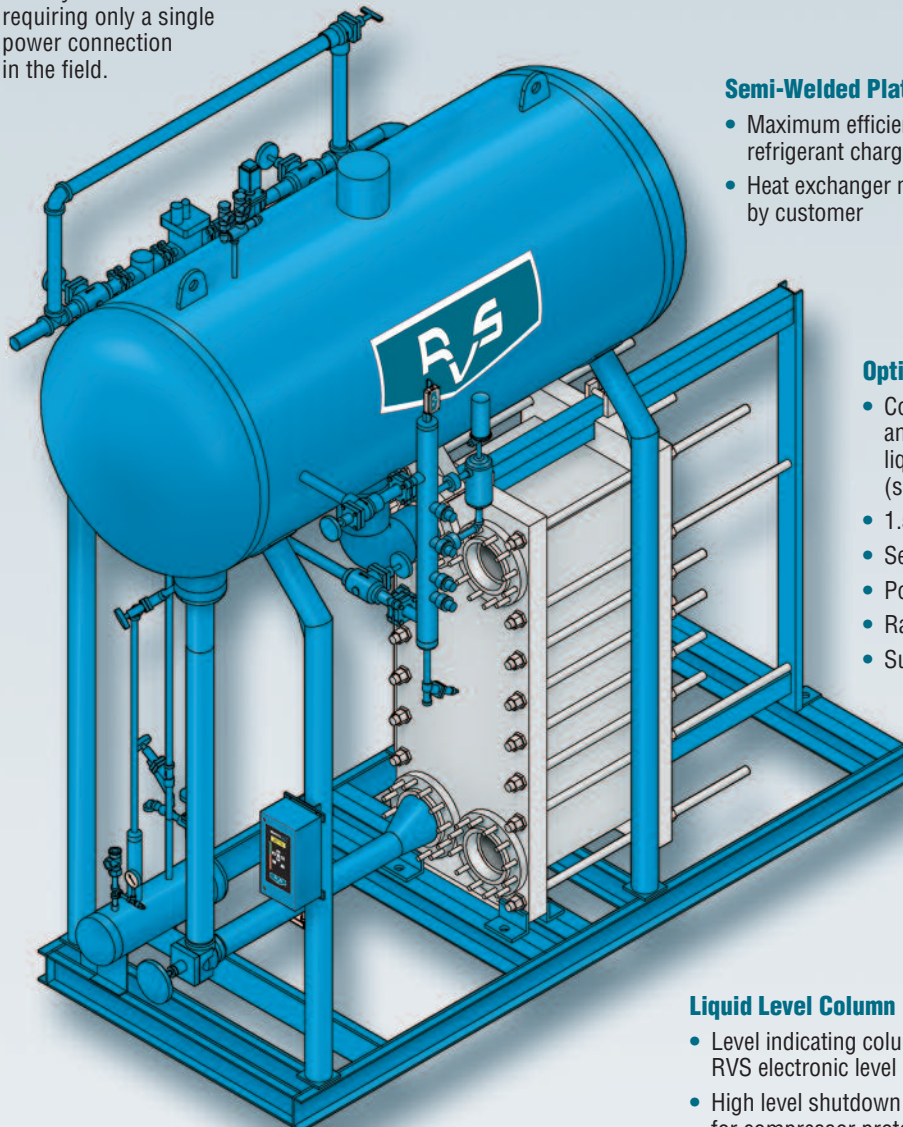
- Reads 4-20mA signal from level probe and provides visual readout in digital and color bar graph form on panel.
- Adjustable high and low level alarms and cut outs.
- Door-mounted (7) button keypad. No need to open enclosure to change settings.
- Communications via industry standard protocol MODBUS-RTU over RS-485.
- Factory mounted and wired requiring only a single power connection in the field.

ASME 250 psig Horizontal Surge Drum with Dual Relief Assembly

- Split-flow design to reduce overall size
- Stainless steel nameplate bracket and standoff to prevent corrosion

Proportional Liquid Feed Assembly

- Modulating valve minimizes vessel pressure surges and liquid line hammer
- Backup solenoid valve or UPS (uninterrupted power supply) provides positive shutoff in the event of a power failure



Semi-Welded Plate Heat Exchanger

- Maximum efficiency with low refrigerant charge
- Heat exchanger may be supplied by customer

Options

- Conventional on/off solenoid and hand expansion valve liquid feed assemblies (single or dual)
- 1.5kw oil pot heater
- Seismic design
- Post weld heat treatment
- Radiography of pipe welds
- Suction pressure regulator

Liquid Level Column

- Level indicating column with RVS electronic level probe
- High level shutdown float switch for compressor protection



SELECTION PROCEDURE

STEP 1: After determining plate heat exchanger selection please select PC package model from Table 1 with capacity equal to or greater than the required capacity at the given chiller suction temperature.

STEP 2: From Table 2 or 3, select the liquid feed assembly. (Proportional motorized valve or Solenoid/Hand expansion)

WHEN ORDERING PLEASE SPECIFY:

Capacity in TR and operating temperature.

Package Model Number.

Liquid Feed Control model number.

If Plate Heat Exchanger is customer supplied - please specify model number and provide specifications and dimensional drawings.

Table 1 MPC PLATE CHILLER PACKAGE CAPACITIES

| MODEL NO. | TONS OF REFRIGERATION R-717 | | | | | | |
|-----------|-------------------------------------|-------|-------|-------|-------|-----|-------|
| | HIGH STAGE SUCTION TEMPERATURE (°F) | | | | | | |
| | +40°F | +33°F | +30°F | +20°F | +10°F | 0°F | -10°F |
| MPC-20 | 132 | 120 | 122 | 111 | 101 | 91 | 70 |
| MPC-24 | 186 | 180 | 172 | 157 | 143 | 128 | 110 |
| MPC-30 | 307 | 290 | 284 | 260 | 235 | 211 | 180 |
| MPC-36 | 458 | 430 | 422 | 386 | 345 | 325 | 270 |
| MPC-42 | 630 | 600 | 580 | 530 | 475 | 420 | 370 |
| MPC-48 | 830 | 790 | 770 | 700 | 630 | 560 | 490 |
| MPC-54 | 1110 | 1050 | 1030 | 930 | 840 | 745 | 650 |
| MPC-60 | 1380 | 1300 | 1275 | 1160 | 1040 | 920 | 810 |

Ratings based on 96°F condensing temperature.

Table 2 SINGLE FEED ASSEMBLY - MOTORIZED VALVE

| MODEL NO. | VALVE SIZE | LINE SIZE | CAPACITY (TR) |
|-----------|------------|-----------|---------------|
| PLF075 | 3/4" | 1" | 165 |
| PLF100 | 1" | 1-1/4" | 290 |
| PLF125 | 1-1/4" | 1-1/2" | 415 |
| PLF150 | 1-1/2" | 2" | 910 |
| PLF200 | 2" | 2-1/2" | 1210 |
| PLF300 | 3" | 4" | 2640 |

Sealed motor Liquid Feed Assembly (assembled) including motorized proportional feed valve, solenoid valve (120 Volt) with strainer and flanges, two globe isolation valves, and one angle bypass valve.

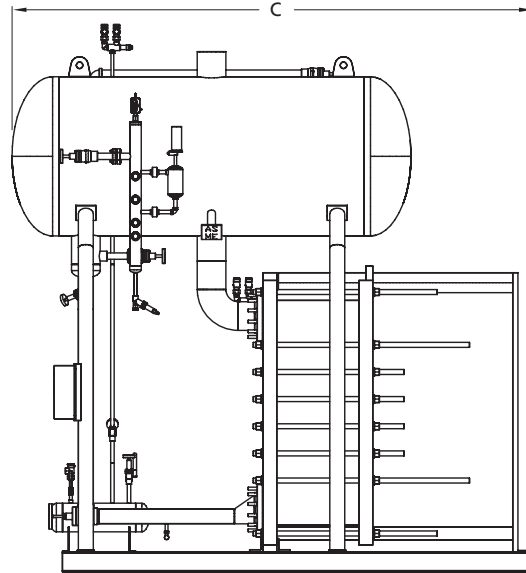
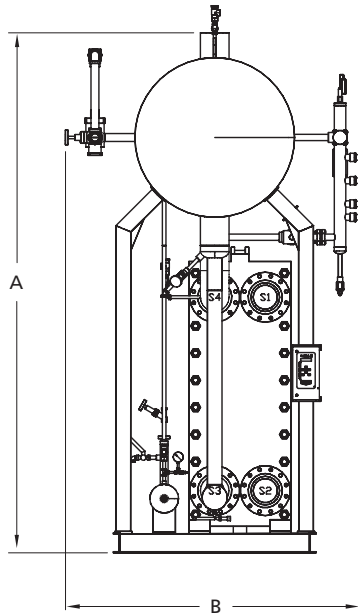
Table 3 SINGLE FEED ASSEMBLY - HAND EXPANSION

| MODEL NO. | SIZE | CAPACITY (TR) |
|-----------|--------|---------------|
| 6LF075 | 3/4" | 60 |
| 6LF100 | 1" | 105 |
| 6LF125 | 1-1/4" | 225 |
| 6LF150 | 1-1/2" | 350 |
| 6LF200 | 2" | 800 |
| 6LF250 | 2-1/2" | 1200 |
| 6LF300 | 3" | 1870 |

Liquid Feed Assembly (assembled) including solenoid valve, (120 Volt) with strainer and flanges, one globe hand expansion valve, two globe shut-off valves, and one angle bypass valve.



MPC PLATE CHILLER PACKAGE



| MODEL | VESSEL DIAMETER | VESSEL LENGTH | PACKAGE DIMENSIONS | | | SUCTION OUTLET | LIQUID INLET | PACKAGE WEIGHT* |
|--------|-----------------|---------------|--------------------|-----------|------------|----------------|--------------|-----------------|
| | | | HEIGHT (A) | WIDTH (B) | LENGTH (C) | | | |
| MPC-20 | 20" | 96" | 107" | 66" | 121" | 4" | 1-1/4" | 2000 |
| MPC-24 | 24" | 96" | 109" | 70" | 121" | 5" | 1-1/4" | 2100 |
| MPC-30 | 30" | 96" | 113" | 72" | 121" | 6" | 1-1/2" | 2300 |
| MPC-36 | 36" | 96" | 146" | 84" | 123" | 6" | 2" | 2800 |
| MPC-42 | 42" | 96" | 152" | 87" | 133" | 8" | 2" | 3300 |
| MPC-48 | 48" | 120" | 158" | 90" | 158" | 8" | 2" | 4000 |
| MPC-54 | 54" | 144" | 164" | 95" | 154" | 8" | 2-1/2" | 6000 |
| MPC-60 | 60" | 144" | 170" | 105" | 178" | 10" | 3" | 6500 |

* Package weight less plate heat exchanger.

Dimensions are approximate and will vary with heat exchanger selection.

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