

HEAT EXCHANGERS

Packaged Chilling Solutions with LaZerWeld Plate Heat Exchangers For Industrial Refrigeration



Frick[®]
BY JOHNSON CONTROLS

Frick LaZerWeld Packaged, Compact Chilling Solutions

- Semi-welded plate heat exchanger
- Optional mounted control panel
- Optional mounted proportional modulating liquid supply with manual bypass
- Refrigerant level column and probe for continuous monitoring
- Efficient dual-flow surge drum



Proven Technology

LaZerWeld Plate Heat Exchanger technology has been applied in a variety of industrial refrigeration applications including food, dairy, beverage, pharmaceutical, chemical, and industrial processes.

The Chilling Process Using Frick LaZerWeld

Compact package consisting of a LaZerWeld semi-welded plate heat exchanger, a dual-flow surge drum, refrigerant level control, and oil management factory mounted, piped and wired on a common structural steel base.

Maximum Performance, Minimal Space and Low Volume Holdup

The heat transfer plates are the heart of the LaZerWeld heat exchanger providing reliability, efficiency and economy of operation. These plates are stamped in a corrugated design pattern to induce turbulent flow, then laser welded together in pairs at the flow perimeter, minimizing liquid bypass at the edges via a patented plate design system. The refrigerant flows through this welded plate channel and the fluid to be cooled is in the gasketed channel. The only gasketing in contact with the refrigerant is the circular port ring at the plate entrance and exit. Every heat transfer plate size is pressed and laser welded. We stock 304 SS, 316 SS and titanium plate materials for faster delivery of new units and/or for spare parts.

Additional Features

High level shut down/float switch

ASME coded with a dual relief valve assembly

Single-point fluid, refrigerant, and electrical connections

Portability for ease of re-application at another location



Why LaZerWeld provides more for your investment

Flexibility

The LaZerWeld Plate Heat Exchanger allows for future expansion when your refrigeration requirements grow. Semi-welded plate pairs can easily be added to the existing heat exchanger frame.

Saves Energy

The LaZerWeld Plate Heat Exchanger provides approach temperatures as close as 2°F which allows for a higher suction temperature and higher coefficient of performance than a traditional shell and tube exchanger. This will help reduce compressor size and related components of a new refrigeration system.

Less Refrigerant Needed

The higher heat transfer coefficient significantly reduces the heat transfer area needed and the narrow plate passages have a low liquid holdup. The amount of refrigerant needed in a LaZerWeld Plate Heat Exchanger is only 20-30% of the capacity compared to a tubular unit. Less refrigerant means more savings on the system charge and is better for the environment.



Smaller Installed Space, Easy to Maintain

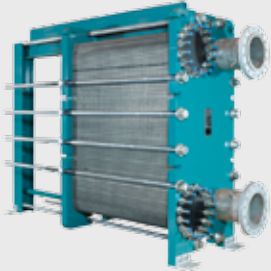
LaZerWeld Plate Heat Exchangers use one third less floor space and weigh 1/6 the weight of a tubular heat exchanger. The Plate Heat Exchanger can be maintained within the installed space and without the need to remove piping.

REMOTE EVAPORATOR MODEL	NOMINAL CAPACITY (TONS)*	NOMINAL LIQUID FLOW (GPM)*	CONN SIZE (IN.)	LENGTH (IN.)	WIDTH (IN.)	HEIGHT (IN.)	APPROX WEIGHT (LB)
PLW-115	115	250	2	136	60	102	5,321
PLW-400	400	800	4	136	60	119	6,160
PLW-650	650	1,500	6	136	66	131	7,988
PLW-900	900	3,000	8	136	72	157	13,350
PLW-1300	1,300	3,000	8	160	78	180	15,518
PLW-1800	1,800	3,000	8	160	178	197	16,318
PLW-1100	1,100	7,000	12	160	78	159	14,818
PLW-1900	1,900	7,000	12	184	84	177	23,797
PLW-2500	2,500	7,000	12	184	90	183	27,625
PLW-3100	3,100	7,000	12	184	96	215	31,750
PLW-4000	4,000	7,000	12	184	102	234	37,625

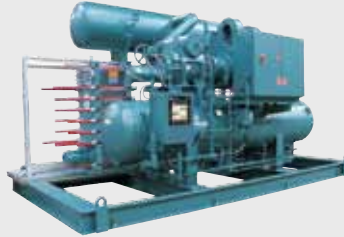
*Based on ammonia evaporating at 35°F cooling water down to 40°F

Single Source Industrial Refrigeration Solutions !

Heat Exchangers



Packaged Equipment



Hygienic Air Units



Vessels



Controls



Evaporators



Compressors



Condensers



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