

COPPER HEAT EXCHANGERS - 6000 SERIES

Seamless copper tubing expanded into copper cooling fins for efficient, reliable operation

All units supplied with built-in, fan-ready mounting hardware

Electro-static dip painted for hostile environments



Fluxless, silver brazed joints provide leak-free reliability, 100% leak-tested

Compatible with water, EGW and other common cooling fluids

Available in 3 fittings: straight end tube, beaded tube, or 37° AN flare

0.028" wall tubing ensures fluid circuit integrity

Lytron's 6000 Series heat exchangers deliver efficient heat transfer and maximum reliability in liquid-to-air cooling applications. These compact, copper tube-fin heat exchangers are compatible with ordinary water, EGW and other common cooling fluids.

For over 40 years, Lytron has been refining its heat exchanger manufacturing process to guarantee leak-free, high-performance products. To assemble our 6000 Series, we start by expanding heavy-walled seamless copper tubing into copper cooling fins for precise metal-to-metal contact, the key to good thermal performance. The liquid circuit is then silver brazed and pressure tested to 150 psi (10.3 bars). Next, we attach a fan plate that accommodates most fan sizes and contains mounting slots for easy installation. Finally, the entire unit is painted for protection against corrosive environments. The result is an ultra-reliable unit which provides maximum thermal performance.

These units are stocked in several sizes and can be ordered with fans and finger guards. For OEM quantities, Lytron will modify its copper heat exchangers with different fittings and inlet/outlet configurations.

Applications:

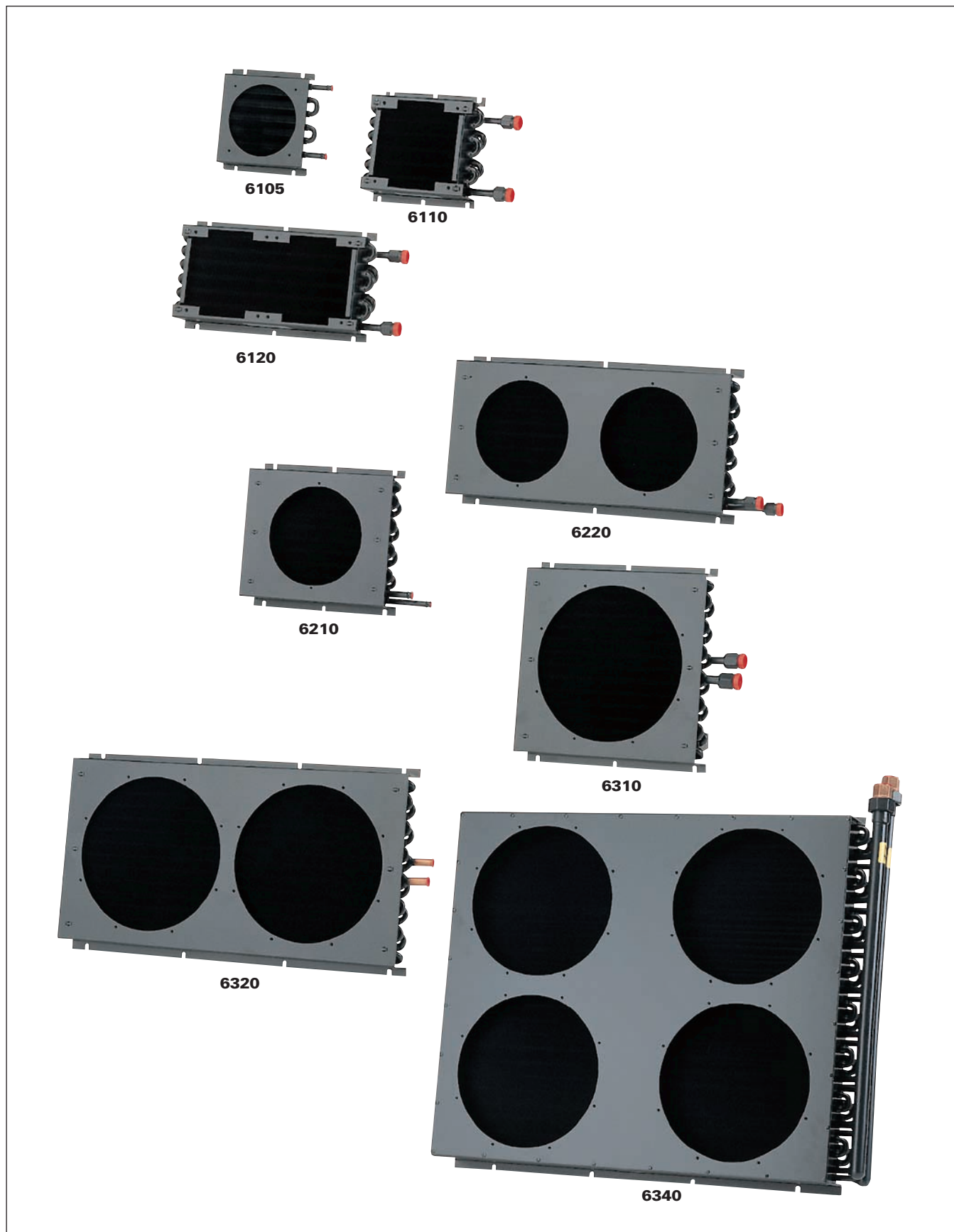
- Electronic Cooling
- Power Supply Cooling
- Compressor Cooling
- RF Generator Cooling
- High-Speed Spindle Cooling
- Cooling for Solder Reflow Ovens
- Analytical Sample Cooling



For ambient cooling systems using the 6000 Series copper heat exchangers, see page 29.

Lytron also offers economical OEM Coils which are described on page 40. For OEM quantities, an overview of our custom heat exchanger capabilities is presented on page 60.

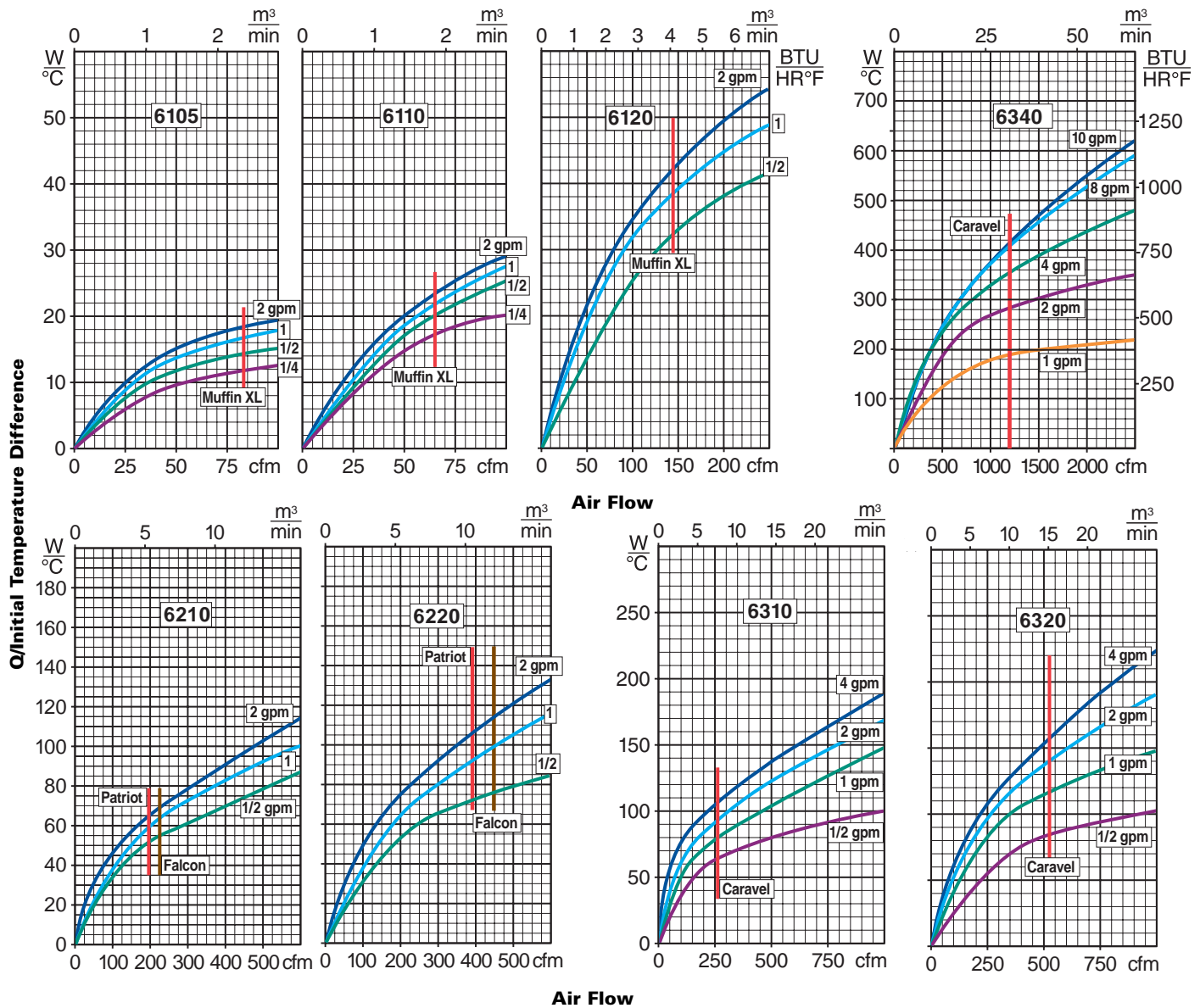
6000 SERIES STANDARD PRODUCTS



COPPER HEAT
EXCHANGERS
6000 SERIES

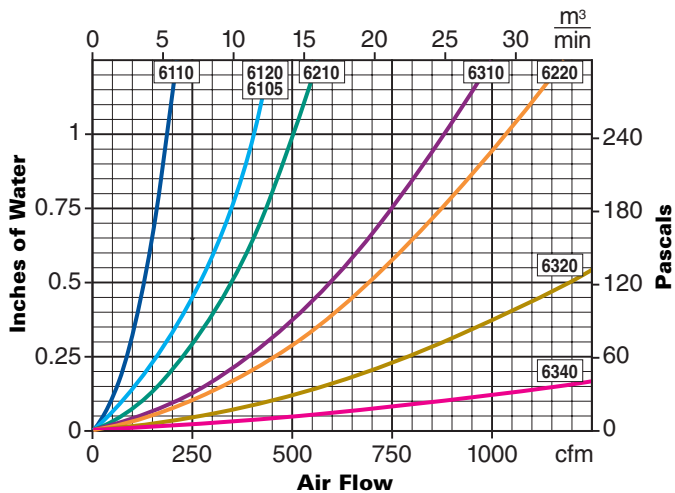
TECHNICAL INFORMATION

THERMAL PERFORMANCE FOR WATER

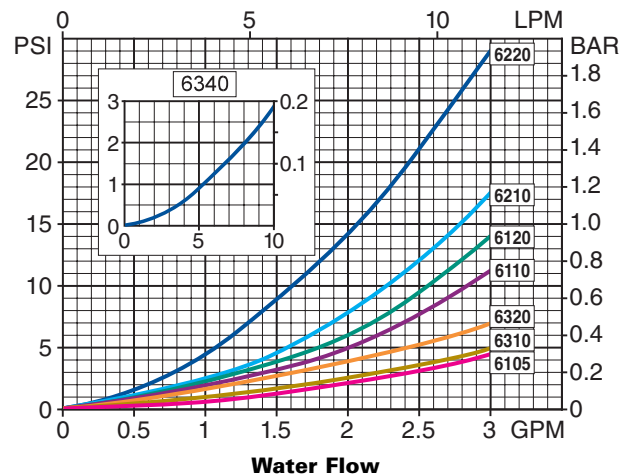


†6340 can handle up to 16 gpm coolant flow. The performance at 16 gpm is roughly equivalent to 10 gpm. Note: The vertical lines indicate the performance provided by our standard fans at 60Hz and 70°F. For 50 Hz fan performance, contact Lytron application engineering. For higher resolution performance charts, see www.Lytron.com. Maximum operating temperature 400°F (200°C). Refer to page 62 for thermal calculations for heat exchangers.

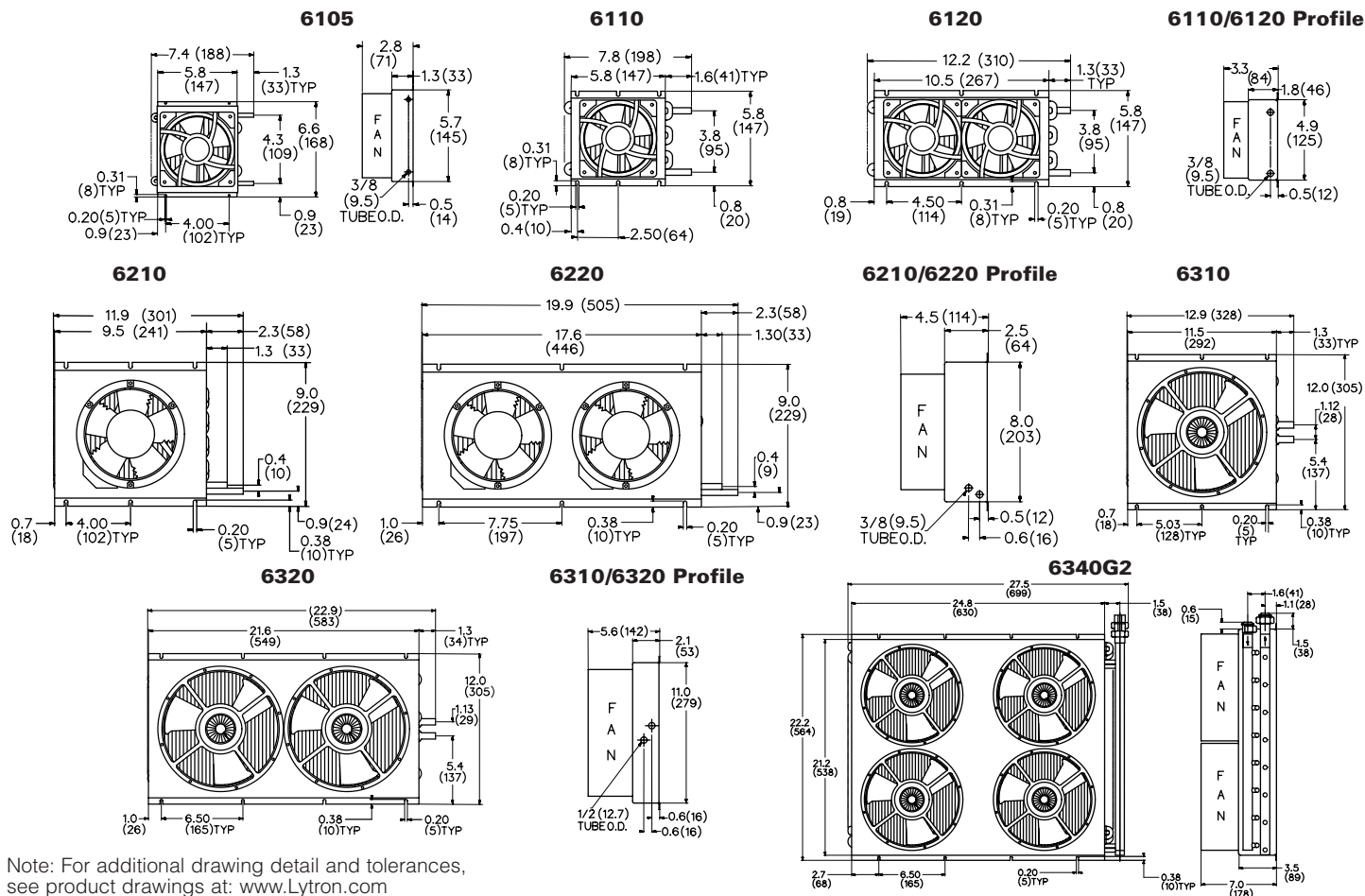
AIR SIDE PRESSURE DROP



LIQUID SIDE PRESSURE DROP



DIMENSIONS



Note: For additional drawing detail and tolerances, see product drawings at: www.Lytron.com

COPPER HEAT EXCHANGERS 6000 SERIES

ORDERING INFORMATION

To order a copper heat exchanger: Create a part number by selecting core code and fitting style. Technical information about fitting style, product weight, and fluid volume can be found on page 64.

6120G1SB

Single Fan

6105G1
6110G1
6210G1
6310G3

Core Number Double Fan

6120G1
6220G1
6320G3

Quadruple Fan

6340G1 without Fanplate
6340G2 with Fanplate

Inlet/Outlet Fitting †

SB: Straight Tube
BD: Beaded Tube
AN: 37° Flare Nut

†6340s are supplied with an 0.875 I.D. actual union and tail piece only. For the 6000 Series, fittings with 90° bends are available in OEM quantities. Contact applications engineering.

Accessories*

6105, 6110 & 6120

Muffin XL® Fan

Fan, 115 volt = P/N 102076
Fan, 230 volt = P/N 102076-01
Power Cord = P/N 101466
Finger Guard = P/N 101467

Push-to-Connect Adapters¹ for 6105, 6110, 6120, 6210, & 6220

Straight Union 3/8" O.D. 430-0448
Union Elbow 3/8" Tubing O.D. 102190-01
Transition Union 3/8"-1/2" Tubing O.D. 102189-01

Push-to-Connect Adapters¹ for 6310 & 6320

Transition Union 1/2"-3/8" O.D. 102189-01
Union Elbow 1/2" Tubing O.D. 102190-02

Tube-to-Hose Adapter²

3/8" Tubing O.D. to 3/8" Hose Barb 102191-01
1/2" Tubing O.D. to 3/8" Hose Barb 102191-02
1/2" Tubing O.D. to 1/2" Hose Barb 102191-03

6210 & 6220

Falcon® Fan

Fan, 115 volt = P/N 102070-01
Fan, 230 volt = P/N 102070-02

Patriot® Fan

Fan, 115 volt = P/N 101116-01
Fan, 230 volt = P/N 101116-02

For Falcon and Patriot Fan

Power Cord = P/N 101466
Finger Guard = P/N 101116-03

6310, 6320, 6340

Caravel® Fan

Fan, 115 volt = P/N 100236-01
Fan, 230 volt = P/N 100236-02
Power Cord = P/N 101466
Finger Guard = P/N 101434

*Heat exchangers and accessories are sold separately. All fans are 50/60Hz.

¹Acetal bodies, Temp range: 0 to 60°C for water. Max pressure: 150 psi for air; 250 psi for water.

10 fittings per package. Push-to-Connect adapters have Nitrile O-rings and Acetal/stainless steel collets.

²Requires a Push-to-Connect adapter of the same O.D. to mate with heat exchanger.