



TECHNICAL APPLICATION GUIDE

REQUIREMENTS FOR ALUMINUM HEAT EXCHANGERS

Modulex EXT Anti-Freeze Protection

Modulating and Condensing Boilers

APPLIES TO MODELS:

- MLX EXT 321
- MLX EXT 481 / MLX EXT 450
- MLX EXT 641 / MLX EXT 600
- MLX EXT 802 / MLX EXT 800
- MLX EXT 962
- MLX EXT 1123 / MLX EXT 1100
- MLX EXT 1530 / MLX EXT 1500
- MLX EXT 1912
- MLX EXT 2295 / MLX EXT 2300
- MLX EXT 2677 / MLX EXT 2600
- MLX EXT 3060 / MLX EXT 3000



Modulex EXT

Latest Update: 03/03/2017

Technical Support

1-800-526-0288

(Mon-Fri, 8am-5pm EST)

www.aerco.com



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ANTI-FREZE REQUIREMENTS FOR ALUMINUM HEAT EXCHANGERS

Antifreeze HVAC glycol, where required, must be suitable for aluminum heat exchangers when used with the high efficiency AERCO Modulex boiler. This is a common requirement for all aluminum boilers and is practiced in North America and Europe. Traditional propylene glycol is not suitable for aluminum heat exchangers: the pH of the glycol at various dilutions is in excess of 9.5, whereas the pH must be lower than 8.0 (tap water is 6.5-8.0 pH) for use with aluminum.

There are several suitable aluminum safe propylene glycols available that can provide the same levels of burst, freeze and corrosion inhibiting protection as traditional propylene glycols. Listed on the next page are some options for the aluminum safe glycol:

ALUMINUM SAFE GLYCOL SUPPLIERS AND PRODUCTS:

AERCO, International
 Blauvelt, NY10913
 Phone: (800) 526-0288
<http://www.aerco.com/Products/Accessories/Sentinal-Products/X500-Inhibited-Antifreeze>
 Glycol: **X500 – Inhibited Antifreeze**

Interstate Chemical Co.
 Hermitage, PA
 Phone: 724-981-3771; 724 981-8383 (Customer Service)
www.interstatechemical.com
 Glycol: **Intercool NFP-AA**

Hercules Chemical Co.
 Passaic, NJ 07055-9100
 Phone: 800-221-9330; Fax: 800-333-3456
www.herchem.com
 Glycol: **'cryo-tek – 100/Al'**

The Noble Company
 Grand Haven, MI 49417-0350
 Phone: 800-878-5788; Fax: 800-272-1519
www.noblecompany.com
 Glycol: **NOBURST AL**

Rhomar Water Management, Inc.
 Springfield, MO
 Phone: 1-800-543-5975, Fax: 417-862-6410
<http://www.rhomarwater.com>
 Glycol: **RhoGard Ultra**

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CHANGE LOG:		
DATE	DESCRIPTION	CHANGED BY
06/11/2013	Rev A: Initial release.	Curtis Harvey
11/14/2015	Rev-B: Changed “Glycol: Intercool NFP ” to “Glycol: Intercool NFP-AA ” for Interstate Chemical reference.	Curtis Harvey
03/03/2017	Rev-C: Added new models and reformatted to new design standard.	Curtis Harvey



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