



# HYDRONIC PRODUCT LINE CARD

## NEENAH DISTRIBUTION

785 CTY Road CB, Suite 200  
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## HYDRONICS DEPARTMENT DIRECTORY 920 AREA CODE + PHONE NUMBER

Joel Gressler, CAD Operator 886.3914  
Tom Harper, Engineering Supervisor 886.3912  
William Hagerty, Design Engineer 886.3913

Richard Manteufel, Hydronics/Comm. Inside Sales 886.3216  
Tim Stingle, Hydronics/Geothermal Field Specialist 886.3907

### EXPANSION TANK SIZING - SIZING BASED ON BTU'S

Boiler Net Output in 1000's of BTU/Hr.	TYPE OF RADIATION			
	Finned Tube Baseboard or Radiant Panel	Convectors or Unit Heaters	Radiators Cast Iron	Baseboard Cast Iron
25	15	15	15	15
50	15	15	30	30
75	30	30	30	60
100	30	30	60	60
125	30	60	60	90
150	30	60	90	90
175	60	60	SX-30V	SX-30V
200	60	60	SX-30V	SX-30V
250	60	90	SX-30V	SX-40V
300	90	SX-30V	SX-30V	SX-40V
350	SX-30V	SX-30V	SX-40V	SX-60V
400	SX-30V	SX-40V	SX-40V	SX-60V

- Sizing based on:
- Fill Pressure 1/2 psig
  - Relief Pressure 30 psig
  - Average System Temperature 200°F

### SIZING BASED ON MAXIMUM SYSTEM TEMP

Maximum System Temp. °F	SYSTEM WATER CONTENT IN GALLONS			
	Model 15	Model 30	Model 60	Model 90
100	125	275	417	876
110	93	205	311	653
120	72	158	239	502
130	58	128	194	407
140	48	105	160	336
150	40	89	134	282
160	34	76	115	241
170	30	65	99	208
180	26	57	87	182
190	23	51	77	161
200	20	45	68	143
210	18	40	61	129
220	17	37	55	116
230	15	33	50	106
240	14	30	46	96

- Sizing by system temperature based on:
- Operating temp 40° - 240°F
  - Relief Pressure 30 psig
  - Fill Pressure 1/2 psig
  - Fill temp 40° - 70°F

### WATER CONTENT: EXISTING RADIATION/PIPING

Nominal Size Inches	Gallons per Linear Foot		
	ID Inside Diameter Iron Pipe	OD Outside Diameter Type L Copper	Pex Tubing
3/8"	-	.007	.0058
1/2"	.016	.012	.0093
5/8"	-	.018	.01369
3/4"	.028	.025	.0256
1"	.045	.043	.042
1 - 1/4"	.078	.065	.067
1 - 1/2"	.106	.092	.105
2"	.174	.161	n/a

### QUICK FUEL COMPARISONS BASED ON 1,000,000 BTU'S

Natural Gas = 10.00 Therms #1 Oil = 7.46 GAL  
Propane Gas = 10.89 GAL #2 Oil = 7.19 GAL  
Butane Gas = 9.77 GAL

### ENERGY MEASUREMENTS OF OTHER FUELS IN BTU

Propane 2,550 BTU = 1 CF  
21,650 BTU = 1 LB  
91,800 BTU = 1 GAL  
Butane 3,200 BTU = 1 CF  
21,500 NTU = 1 LB  
102,400 BTU = 1 GAL

**BASEBOARD (COPPER FIN TUBE)**

- SLANT/FIN

**BOILER CHEMICALS**

- DIVERSITECH Boiler Chemicals/Antifreeze
- RECTORSEAL Liquid Cleanout and Boiler Cleaner
- SURGEX Boiler Treatment
- 8 WAY Boiler Water Treatment

**BOILERS (COMMERCIAL)**

- A.O. SMITH
- BURNHAM  
Cast Iron Water/Steam Boilers 264MBH – 5773 MBH
- LOCHINVAR  
Copper-Fin II 399 MBH – 2070 MBH 85% EFF  
Power-Fin 500 MBH – 2.00 MBH 87% EFF

**BOILERS (RESIDENTIAL)**

- BURNHAM 37.5 MBH – 385 MBH  
Gas Fired Water, Gas Fired Steam  
Oil Fired Water and Steam Boilers
- MUNCHKIN  
50 MBH – 399 MBH Sealed Combustion 95.1% EFF
- NY THERMAL INC. (NTI)  
Gas Fired Boilers - 95+% EFF  
80 MBH – 399 MBH Sealed Combustion (Modulating)  
Oil Fired & Steam Boilers up to 1,000 MBH

**BOILER RESET CONTROLS**

- HBX
- TEKMAR
- TACO

**BOILER FEED UNITS/BLOWDOWN SEPARATORS/CONDENSATE PUMPS**

- HOFFMAN
- STERLING

**CAST IRON BASEBOARD AND RADIATORS**

- BURNHAM

**CIRCULATORS AND PUMPS**

- BELL & GOSSETT
- GRUNDFOS
- TACO
- WILO

**CONTROLS**

- CALEFFI
- HBX
- HONEYWELL
- McDONNELL MILLER
- TACO

**CONVECTORS CAB UNIT HEATERS**

- BURNHAM
- MYSON

**EXPANSION TANKS**

- AMTROL
- BELL & GOSSETT

**GEOHERMAL**

- BRYANT Geothermal Systems
- B&D MFG, INC. Geothermal Parts
- CENTENNIAL PLASTICS, INC. HDPE Pipe
- HYDRO-TEMP Geothermal Heat Pumps

**HOT WATER AND STEAM UNIT HEATERS**

- REZNOR

**HOT WATER AND STEAM COILS**

- BELL & GOSSETT
- REZNOR
- SFI

**HYDRONIC SPECIALTIES**

- AMTROL
- SPIROVENT
- TACO
- WATTS

**INDIRECT HOT WATER HEATERS (20GAL - 119GAL)**

- AMTROL
- BURNHAM
- SUPERSTORE

**KICKSPACE HEATERS**

- SMITH ENVIRONMENTAL PRODUCTS

**PANEL BASEBOARD AND RADIATORS**

- MYSON

**RADIANT HEAT**

- BELL & GOSSETT
- HONEYWELL
- LEXIN Far Infrared Heat Panels
- REHAU Radiant & Pex Tubing

**STEAM SPECIALTIES**

- HOFFMANN
- McDONNELL MILLER
- MUELLER
- STERLING

**STEAM TRAPS AND VENTS**

- DOLE
- GORTON
- HOFFMAN
- STERLING

**WATER HEATERS**

- A.O. SMITH
- TAKAGI Tankless Water Heaters

**ZONING CONTROLS**

- CALEFFI
- DANFOSS
- HONEYWELL
- TACO
- TEKMAR

**AUER STEEL SUPPORTS THESE FEATURED HYDRONICS MANUFACTURERS**

