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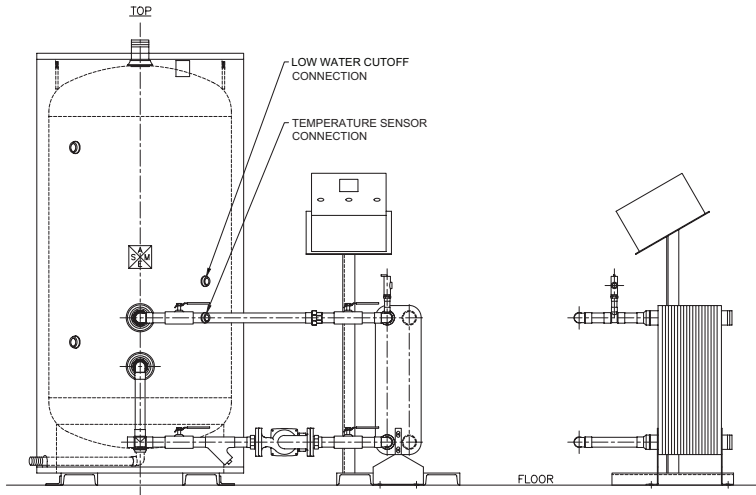
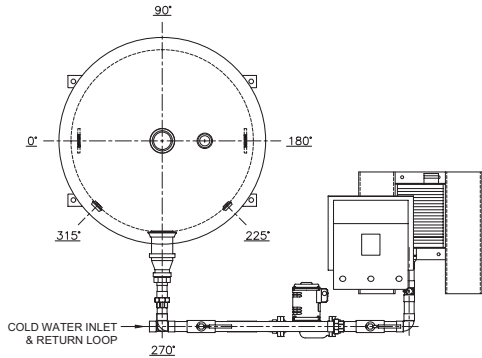
NILES STEEL TANK®

SINCE 1898

POWER PLATE WATER HEATING SYSTEM

PERFORMANCE:

The Niles Power Plates water heating system is a performance driven water heating package that comes with your choice of water storage tanks up to 2,500 gallons. The unique Power Plate heat exchanger design provides high rates of heat transfer requiring less surface area than conventional shell and tube heat exchangers. Couple that performance with our Ultonium® glass lining with Microban® or stainless steel alloy storage tanks for the ultimate heating domestic water delivery package.



FEATURES:

- New BACNET Communication for Building Automation.
- New Low Water Cutoff Standard Feature.

CAPACITY:

- Storage tanks up to 2,500 gallons **.
- Power Plate up to 300 GPM and 1,100 Sq. Ft. of heating surface.

CONNECTIONS:

- Grooved connections for easy boiler hook-up come standard.

CONSTRUCTION CODES

(HEAT EXCHANGER):

- UL, CRN, ASME Sec VIII Div 1 "U" Stamp.
- ASME Sec III "N" Stamp.
- Pressure Equipment Directive (97/23EC).
- China ML, Korean KGS, Brazilian NR-13.

CONFIGURATION:

Heat Exchanger:

- Single wall or double wall designs.

Storage Tanks Standard:

- ASME Sec IV part HLW (Standard).
- Jacketed and Insulated.
- 125 PSI (Standard).
- Vertical.

Tank Options:

- 150 psi system pressure.

All Tank Options:

- Customization of controls or features.

** Contact factory for larger tanks.

OPTIONAL DOUBLE WALL PROTECTION:

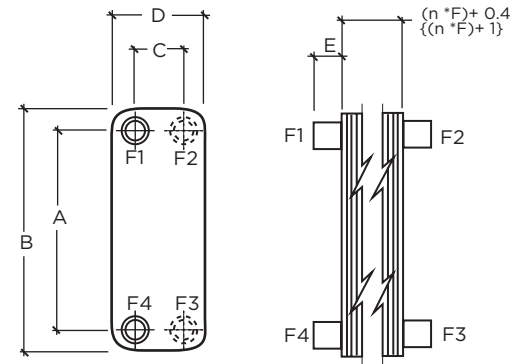
The Power Plate double wall heat exchanger offers the highest level of leak protection, safety, thermal efficiency and durability in a compact, low cost design.

- True double-wall construction, including port regions.
- Double-wall plate design with unique air vent leak paths.
- Complete peripheral braze for additional strength.
- Four dedicated leak ports for quick and easy leak detection.
- Excellent performance for domestic water applications.
- Dependable protection of fresh water streams from cross contamination.

POWER PLATE WATER HEATING SYSTEM

POWER PLATE PERFORMANCE DATA

SINGLE WALL							
Cold Water				Boiler Water 180°F			
Model	Flow (GPM)	Flow (GPH)	Temperature In/Out	Delta P (psi)	Flow (GPM)	Boiler Return Temperature	Delta P (psi)
PPS-300	5	300	40 -140°F	0.63	5	79	0.91
PPS-600	10	600	40 -140°F	0.9	10	79	1.12
PPS-900	15	900	40 -140°F	1.37	15	79	1.4
PPS-1200	20	1200	40 -140°F	1.38	20	79	1.59
PPS-1500	25	1500	40 -140°F	1.4	25	79	1.57
PPS-1800	30	1800	40 -140°F	1.53	30	79	1.7
PPS-2400	40	2400	40 -140°F	1.55	40	79	1.67
PPS-3000	50	3000	40 -140°F	1.66	50	79	1.77
PPS-3600	60	3600	40 -140°F	1.77	60	79	1.87
PPS-4200	70	4200	40 -140°F	1.88	70	79	1.97



DOUBLE WALL							
Cold Water				Boiler Water 180°F			
Model	Flow (GPM)	Flow (GPH)	Temperature In/Out	Delta P (psi)	Flow (GPM)	Boiler Return Temperature	Delta P (psi)
PPD-300	5	300	40 -140°F	0.3	5	79	0.35
PPD-600	10	600	40 -140°F	0.33	10	79	0.36
PPD-900	15	900	40 -140°F	0.38	15	79	0.39
PPD-1200	20	1200	40 -140°F	0.41	20	79	0.42
PPD-1500	25	1500	40 -140°F	0.44	25	79	0.44
PPD-1800	30	1800	40 -140°F	0.47	30	79	0.47
PPD-2400	40	2400	40 -140°F	0.51	40	79	0.51
PPD-3000	50	3000	40 -140°F	0.58	50	79	0.58
PPD-3600	60	3600	40 -140°F	1.04	65	87	1.19
PPD-4200	70	4200	40 -140°F	0.92	72	82	0.96

TYPICAL CONNECTION LOCATIONS:	
Boiler Supply	F2
Boiler Return	F3
Cold Inlet	F4
Cold Outlet	F1

HEAT EXCHANGER DATA (STANDARD DESIGN)	
Design Pressure (All Models)	Design Temperature (All Models)
435 PSIG	-310 °F min 450 °F max
Package Rated for 125 PSI	

STANDARD MATERIALS:

- Cover Plates - 316L Stainless Steel.
- Channel Plates - 316L Stainless Steel.
- Brazing Material - Copper.
- Connection - From 1/2" to 4" 316L Stainless Steel.
- Capacity - Up to 300 GPM.
- Construction Codes - UL, CRN, ASME.

Dimensions												
Model	Inches					Single Wall	Double Wall	MNPT Connection	Volume Gal/ Channel	Surface Area per plate sq. ft.	Shipping Weight Lbs	
	A	B	C	D	E						F	F
PPD-300	20.4	24.3	3.6	7.5	1.9	1.4	2.2	2" Grooved	0.07	1.06	25.4	33.2
PPD-600	20.4	24.3	3.6	7.5	1.9	2.4	3.8	2" Grooved	0.07	1.06	35.2	48.9
PPD-900	20.4	24.3	3.6	7.5	1.9	2.9	5.2	2" Grooved	0.07	1.06	40.0	62.5
PPD-1200	20.4	24.3	3.6	7.5	1.9	3.6	6.6	2" Grooved	0.07	1.06	47.0	76.3
PPD-1500	20.4	24.3	3.6	7.5	1.9	4.4	8.0	2" Grooved	0.07	1.06	54.8	90.0
PPD-1800	20.4	24.3	3.6	7.5	1.9	5.0	9.4	2" Grooved	0.07	1.06	60.7	103.8
PPD-2400	20.4	24.3	3.6	7.5	1.9	6.6	12.4	2" Grooved	0.07	1.06	76.3	133.2
PPD-3000	20.4	24.3	3.6	7.5	1.9	8.0	15.2	2" Grooved	0.07	1.06	90.0	160.5
PPD-3600	20.4	24.3	3.6	7.5	1.9	9.4	12.6	2" Grooved	0.07	1.06	103.8	135.1
PPD-4200	20.4	24.3	3.6	7.5	1.9	10.4	17.2	2" Grooved	0.07	1.06	117.5	180.2

Microban® antimicrobial product protection helps prevent the growth of bacteria, mold and mildew that may affect the product. The built-in antimicrobial properties do not protect users or others from disease-causing organisms. Microban® is a registered trademark of Microban Products Company.