



Niles Steel Tank Hot Water Generators

Niles Steel Tank Hot Water Generators are equipped with 2 or 4 pass, single or double wall construction, U-bend tube bundle heat exchangers. We supply both steam to water and water to water systems. The system is operated by passing steam or hot water through the coil to heat the tank contents. Large heating capacity in small spaces makes this heater particularly suitable for boiler rooms with low head room.

Proper sizing in tank and bundle is essential to achieve optimum performance. The first step in designing your system is to choose the tank. Niles Steel Tank offers many configurations of glass lined, epoxy lined and stainless steel constructed tanks.

Please refer to the list below to choose the tank that best fits your project. Please pay close attention to the overall dimensions of the tank to ensure it will fit within the confines of the room.

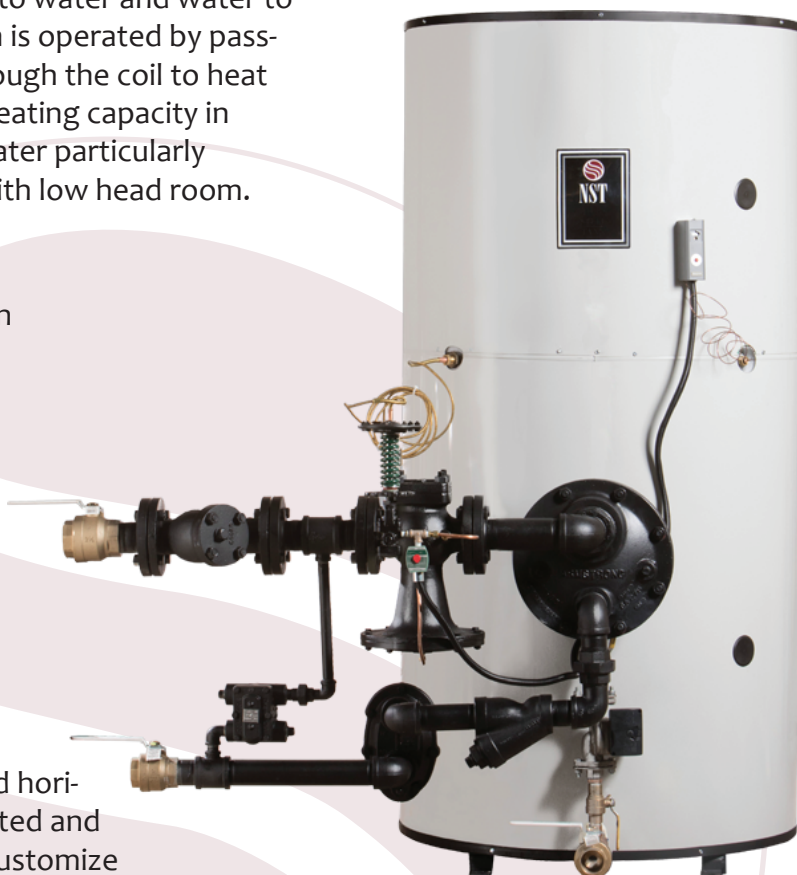
Our selection of tanks come in both vertical and horizontal configurations, bare, topcoated or jacketed and insulated. Select from our standard design or customize as needed. All tank fittings come standard as NPT but flanged or grooved ends are available. Ultonium Glass lining, Double Ultonium Glass Lining, Niles Defender Epoxy Lining, 316L, 317, 2205 & 2507 stainless steel are also available.

Prefix:

S = Vertical Bare Tank
JS = Vertical Jacketed and Insulated Tank
BH = Horizontal Bare Tank
JH = Horizontal Jacketed and Insulated Tank

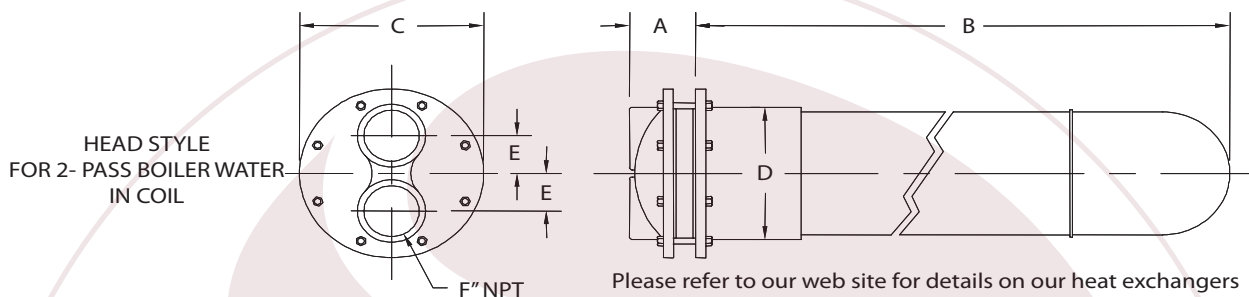
Suffix:

TC = Topcoated Insulation
E = Niles Defender Epoxy
5 = 150 PSI
SS = Stainless Steel 316L, 317, 2205, 2507
(grade must be selected)
P = Power Anodes
DG = Double Glass (10 Yr)



Niles Steel Tank Tube bundles are typically 2 or 4 pass U-bend heat exchangers. The NST tank and bundle offers many advantages, as it both heats and stores water in the same unit. It can be operated by passing either steam or hot water through the coil and is an excellent heater for hard water territories. Large capacity in small spaces makes this heater particularly suitable for boiler rooms with low head room.

Niles Steel Tank offers both water to water and steam to water "U" Tube Designs in copper, stainless steel and cupro-nickel. The tube bundle is of "U" bend construction with tube ends expanded into a stationary tube sheet. This construction permits ample expansion or contraction for wide temperature variations. A fluid in the tank is heated by a fluid or steam circulated through the tubes. This unit is designed primarily for natural convection in the tank.



1. Determine Capacity Required

Heat Load - _____ Btu (Boiler output)

Tube Side:

Fluid – water/ steam

Inlet temperature ____F

Outlet temperature ____F

Flow Rate _____ gpm

Tank Side:

Tank fluid – water/ steam

Inlet temperature ____F

Outlet temperature ____F

Recovery Rate _____ gph

Typical Boiler Water Flow Rating Uncirculated/ Circulated

Heat Exchanger	180 degree Pumped	Min Boiler Water Req'd	212 degrees Pumped	Min Boiler Water Req'd
8-24	121/ 274	11/ 29	249/ 460	22/ 40
10-30	325/ 635	28/ 57	628/ 1165	54/ 100
10-42	536/ 1020	46/ 87	981/ 1825	84/ 156
12-42	780/ 1484	67/ 126	1428/ 2650	122/ 227
14-42	1119/ 2131	95/ 181	2038/ 3790	175/ 324

For flow rates on other bundle sizes, please consult factory

For proper sizing, please provide the above information to our factory.

2. Select the proper unit

Please refer to the Niles Steel tank web site for unit model numbers and selection guide.

- First refer to proper temperature rise
- Next refer to proper steam or boiler water temperature.
- Select unit from appropriate table.
- Please consult factory for sizes and conditions not listed.

Vertical Jacketed and Insulated Tanks

Model Number	Actual Gallons	Nominal Gallons	Diameter	Overall Height	Weight	Power Anode	
JS-30-063-G	175	193	34"	71"	548 Lbs	1	
JS-30-075-G	210	229	34"	83"	613 Lbs	1	
JS-30-085-G	240	260	34"	93"	673 Lbs	1	
JS-30-099-G	280	303	34"	107"	700 Lbs	2	
JS-30-111-G	320	340	34"	119"	730 Lbs	2	
JS-36-072-G	285	318	40"	80"	714 Lbs	2	400mm
JS-36-078-G	310	344	40"	86"	782 Lbs	2	
JS-36-085-G	340	375	40"	93"	845 Lbs	2	
JS-36-090-G	360	397	40"	98"	894 Lbs	2	
JS-36-102-G	415	449	40"	110"	982 Lbs	2	
JS-36-114-G	465	502	40"	122"	1106 Lbs	2	
JS-36-126-G	515	555	40"	134"	1194 Lbs	2	
JS-42-081-G	435	486	46"	89"	1024 Lbs	2	
JS-42-084-G	453	504	46"	92"	1074 Lbs	2	
JS-42-093-G	505	558	46"	101"	1168 Lbs	2	
JS-42-105-G	575	630	46"	113"	1292 Lbs	2	
JS-42-117-G	645	702	46"	125"	1392 Lbs	2	
JS-42-129-G	720	774	46"	137"	1498 Lbs	2	
JS-42-139-G	790	846	46"	147"	1587 Lbs	2	
JS-48-073-G	500	572	52"	81"	1381 Lbs	2	800mm
JS-48-084-G	580	658	52"	92"	1539 Lbs	2	
JS-48-096-G	675	752	52"	104"	1653 Lbs	2	
JS-48-108-G	765	846	52"	116"	1803 Lbs	2	
JS-48-120-G	860	940	52"	128"	1947 Lbs	2	
JS-48-141-G	1040	1128	52"	149"	2216 Lbs		
JS-54-099-G	875	981	58"	109"	1776 Lbs	Consult Factory	
JS-54-113-G	1000	1119	58"	123"	2900 Lbs		
JS-60-096-G	1174	1000	64"	106"	3325 Lbs	Consult Factory	
JS-60-114-G	1245	1395	64"	124"	3326 Lbs		
JS-60-128-G	1430	1565	64"	138"	3501 Lbs		
JS-60-138-G	1530	1689	64"	148"	3541 Lbs		

Tank Construction - Niles Steel Tank provides our exclusive Ultonium glass lining or our Defender Epoxy lining. Also available in 316L, and 2205 stainless steel.

ASME Construction - All Niles Steel Tanks are construction in accordance with the ASME code and certified for 125 psi working pressure. Optional 150 psi is also available

Cathode Protection - All Ultonium lined tanks are equipped with standard magnesium anode rods to provide protection against corrosion. Optional non-consumable Power anodes are available.

Manway - Manways are only provided as standard on our Defender Epoxy lined tanks. They are ordered as optional equipment on glass lined tanks.

Tank Circulator Pump - Circulator packages are available as optional equipment.

Five Year Limited Warranty - All Ultonium lined tanks come with a standard 5 year warranty for tank protection. A 10 year limited warranty is available with our Double Glass Option. See full warranty for details.

One-Year Limited Warranty - Tube bundles and parts have a standard 1 year limited warranty. See warranty for details.

Vertical Bare Tanks

Model No.	Actual Gallons	Nominal Gallons	Dia.	Overall Height	Wt.	Power Anode		Model No.	Actual Gallons	Nominal Gallons	Dia.	Overall Height	Wt.	Power Anode
S-30-063-G	175	193	30"	67"	340 Lbs	1	400mm	S-72-100-G	1500	1763	72"	106"	2677 Lbs	Consult Factory
S-30-075-G	210	229	30"	79"	387 Lbs	1		S-72-117-G	1800	2062	72"	123"	3035 Lbs	
S-30-085-G	240	260	30"	89"	420 Lbs	1		S-72-120-G	1865	2115	72"	126"	3099 Lbs	
S-30-099-G	280	303	30"	103"	483 Lbs	2		S-72-128-G	2000	2256	72"	134"	3267 Lbs	
S-30-111-G	320	340	30"	115"	530 Lbs	2		S-72-144-G	2285	2538	72"	150"	3304 Lbs	
S-36-072-G	285	318	36"	76"	550 Lbs	2		S-72-157-G	2500	2767	72"	163"	3878 Lbs	
S-36-078-G	310	344	36"	82"	588 Lbs	2		S-72-168-G	2700	2961	72"	174"	4110 Lbs	
S-36-085-G	340	375	36"	89"	633 Lbs	2	S-72-192-G	3115	3384	72"	198"	4616 Lbs		
S-36-090-G	360	397	36"	94"	664 Lbs	2	S-72-216-G	3530	3807	72"	222"	5122 Lbs		
S-36-102-G	415	449	36"	106"	742 Lbs	2	S-72-250-G	4120	4406	72"	256"	5616 Lbs		
S-36-114-G	465	502	36"	118"	818 Lbs	2	S-84-121-G	2500	2901	84"	127"	4265 Lbs		
S-36-126-G	515	555	36"	130"	894 Lbs	2	S-84-138-G	2915	3310	84"	144"	4747 Lbs		
S-42-081-G	435	486	42"	85"	783 Lbs	2	S-84-162-G	3480	3886	84"	168"	5428 Lbs		
S-42-084-G	453	504	42"	88"	805 Lbs	2	S-84-186-G	4045	4462	84"	192"	6109 Lbs		
S-42-093-G	505	558	42"	97"	874 Lbs	2	S-84-210-G	4610	5038	84"	216"	6789 Lbs		
S-42-105-G	575	630	42"	109"	963 Lbs	2	S-84-256-G	5695	6141	84"	262"	8094 Lbs		
S-42-117-G	645	702	42"	121"	1052 Lbs	2	Please visit www.nilesst.com for full details and dimensions Optional Control Packages: Steam to Water Controls: High limit shut-off valve 2-way self operated temperature control valve 2 - Isolation valves Float and thermostatic steam trap 2 - Wye strainers Unions and connections All necessary piping Water to Water Controls High limit shut-off valve 2-way Self operated temperature control valve 3 - Isolation valves 1 - Wye strainers Unions, by-pass loop and connections All necessary piping							
S-42-129-G	720	774	42"	133"	1140 Lbs	2								
S-42-139-G	790	846	42"	143"	1217 Lbs	2								
S-48-073-G	500	572	48"	77"	1038 Lbs	2								
S-48-084-G	580	658	48"	88"	1161 Lbs	2								
S-48-096-G	675	752	48"	100"	1298 Lbs	2								
S-48-108-G	765	846	48"	112"	1433 Lbs	2								
S-48-116-G	836	909	48"	120"	1522 Lbs	2								
S-48-120-G	860	940	48"	124"	1577 Lbs									
S-48-141-G	1040	1128	48"	145"	1805 Lbs									
S-48-168-G	1225	1306	48"	172"	2186 Lbs									
S-54-099-G	875	981	54"	105"	1596 Lbs									
S-54-113-G	1000	1119	54"	119"	1827 Lbs									
S-54-123-G	1110	1219	54"	129"	1889 Lbs									
S-54-134-G	1200	1327	54"	140"	1969 Lbs									
S-54-147-G	1340	1457	54"	153"	2182 Lbs									
S-54-165-G	1500	1635	54"	171"	2484 Lbs									
S-54-183-G	1690	1814	54"	189"	2722 Lbs									
S-60-096-G	1000	1174	60"	96"	2007 Lbs									
S-60-114-G	1245	1395	60"	120"	2376 Lbs									
S-60-138-G	1530	1689	60"	144"	2797 Lbs									
S-60-168-G	1820	1983	60"	174"	3210 Lbs									
S-60-177-G	2000	2165	60"	183"	3481 Lbs									
S-60-186-G	2105	2276	60"	192"	3639 Lbs									
S-60-210-G	2395	2570	60"	216"	3922 Lbs									



Niles Steel Tank Hot Water Generators

Standard Features:

- ASME tank Construction
- Ultonium Glass Lined Tank
- 5 Year Limited Warranty
- One-Year Limited Warranty on Tube Bundle and Parts

Optional Features:

- Vacuum Breaker
- Manway
- 150 PSI
- High Limit Solenoid Valve
- Temperature and Pressure Gauge
- Air Vent
- Re-Circulation Pump Package
- Power Anodes
- Double Ultonium Glass Lining (10 Year Warranty)
- R-16 Topcoat Insulation
- Jacket & Insulated ASHRAE 901b
- Vertical or Horizontal configurations

Tank Linings Options:

- Niles Defender Epoxy

Tank Material Options:

- 316L, 317, 2205 & 2507 Stainless Steels

Controls:

Steam to Water Controls:

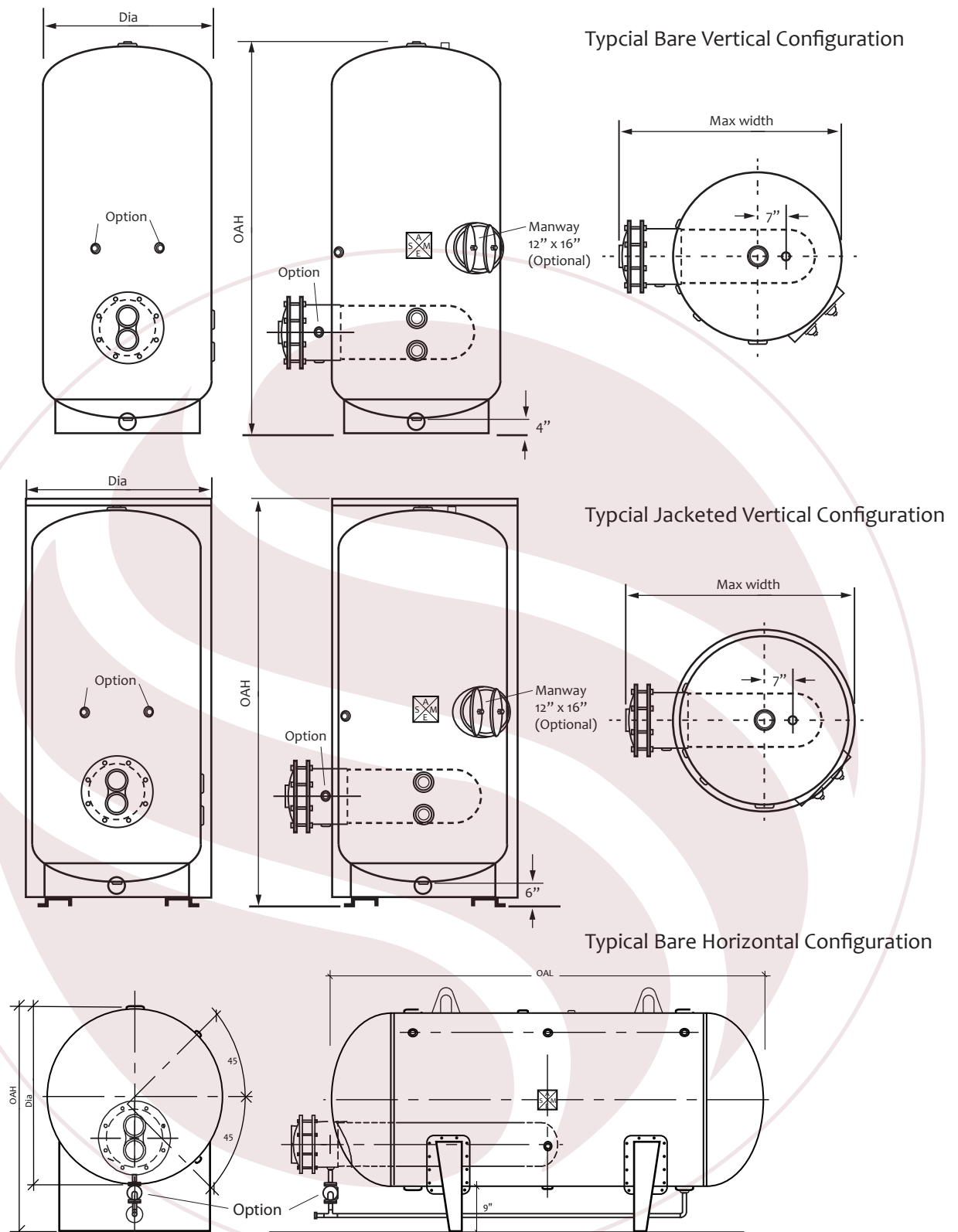
- High limit shut-off valve
- 2-way self operated temperature control valve
- 2 - Isolation valves
- Float and thermostatic steam trap
- 2 - Wye strainers
- Unions and connections
- All necessary piping

Water to Water Controls

- High limit shut-off valve
- 2-way Self operated temperature control valve
- 3 - Isolation valves
- 1 - Wye strainers
- Unions, by-pass loop and connections
- All necessary piping

High Limit Option:

This valve is located on the inlet side of the boiler water or steam and require a high limit thermostat mounted to the tank.



Horizontal tanks are also available with steel jacket and insulation
For actual tank dimensions, please visit www.nilesst.com



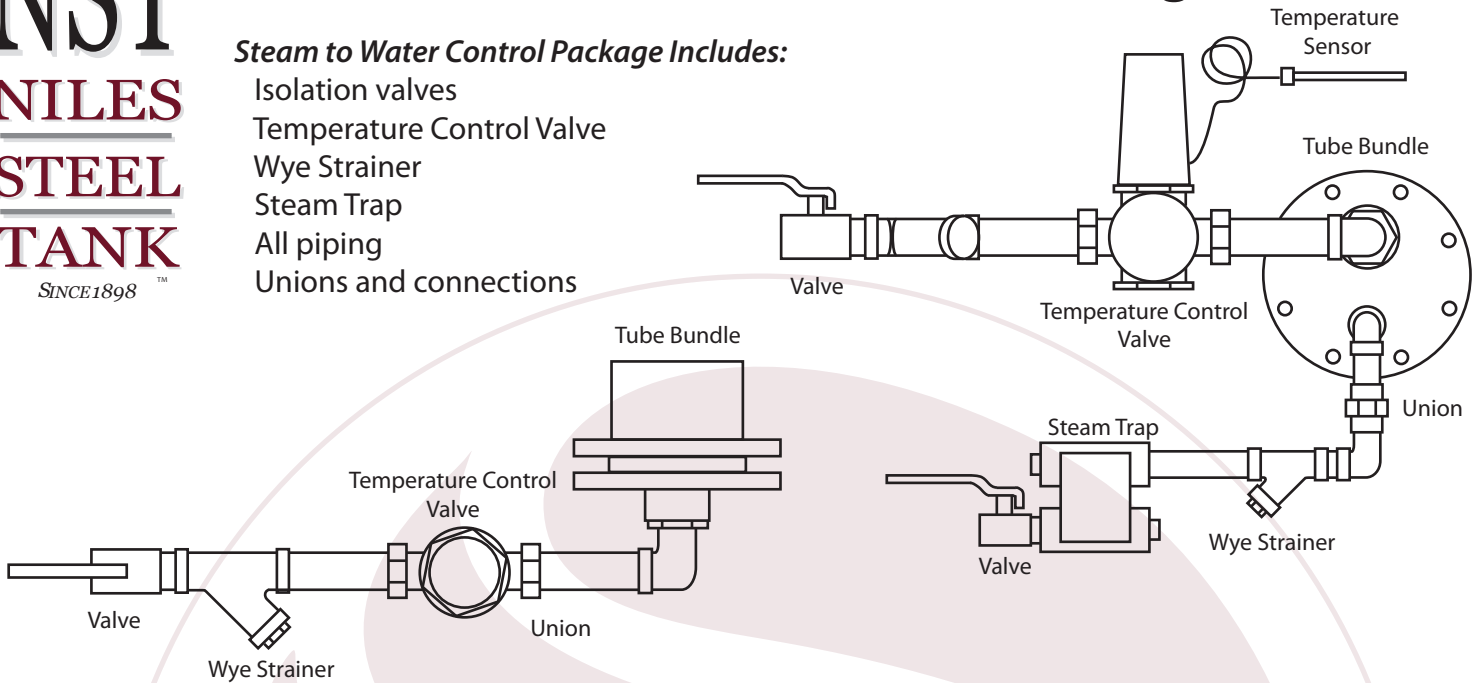
NST
NILES
STEEL
TANK
SINCE 1898™

Control Packages

Steam to Water Control Package

Steam to Water Control Package Includes:

- Isolation valves
- Temperature Control Valve
- Wye Strainer
- Steam Trap
- All piping
- Unions and connections



Water to Water Control Package

Water to water control package includes:

- Isolation valves
- Control valve (Self Operating or electric)
- Inlet wye strainer
- All piping
- Unions and connections

