

US GLOBAL RESOURCES



High-Output Finned Pipe

SF aluminum finned pipe heating system relies on natural convection to heat the greenhouse.

This heating system uses water temperatures up to 230° F to heat the air around the fin tube and distribute it to plants. The high output finned pipe is made of schedule 40 aluminum pipe and fins that are twice as thick as standard base board radiators. This heavy-duty construction guarantees long life in a harsh environment and allows the material to be hung from greenhouse columns spaced as far as 12 feet apart without additional center support. However, we recommend a minimum of 6 feet apart.

Placed around the perimeter or under the gutter, this material emits enough energy to heat a greenhouse range, melt snow from the gutters or supplement under bench heating systems.

Two sizes (1.25" and 2.0") allow for various design considerations that may include long runs or small temperature differentials requiring high flow rates.

Grooved coupling technology absorbs enough expansion from heated aluminum pipe to eliminate special expansion joints in most installations. Special fin configurations can be provided for under gutter snow melt or corridor heating.

Typical fin spacing: 1.25" 24 fins/ft
 1.25" 48 fins/ft
 2.0" 24 fins/ft

Specifications:

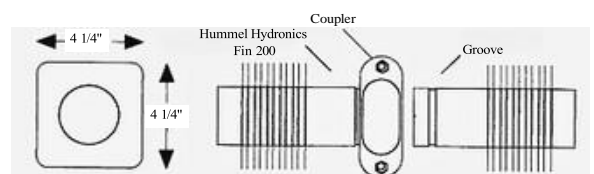
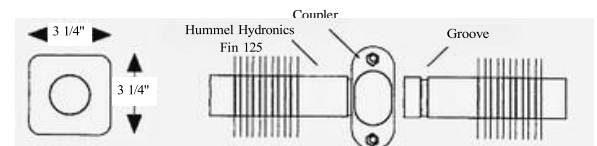
The radiating material is the Hummel Hydronics SF125 or SF200 aluminum finned pipe and consists of the following:

- 1.25" sch 40 aluminum pipe with 3.25" by 3.25" by 0.025" aluminum fins at 24 or 48 fins/ft. Pipe shall have each end grooved to accept the cast-aluminum grooved coupling provided.
- 2.0" sch 40 aluminum pipe with 4.25" by 4.25" by 0.025" aluminum fins at 24 fins/ft. Pipe shall have each end grooved to accept the cast-aluminum grooved coupling provided.
- Cast-aluminum coupling shall be grooved style with high temperature gasket rated for -60°F to 230°F.
- Cast-aluminum coupling and external grooved fin system absorbs expansion from heated aluminum.
- All-aluminum hanger brackets.
- Pressure ratings of 125 PSI at 230°F
- Heavy-duty cover system including necessary assemblies.



SF Aluminum Finned Pipe Advantages:

- Lightweight aluminum construction allows for hanging material from columns or truss without special supports.
- Heavy-duty fins able to withstand high traffic areas.
- Grooved coupling technology for easy installation. Requires NO threading or welding.
- Grooved coupling eliminates expansion joints.
- High output per foot reduces need for multiple tiers.
- Special fin spacing is available for optimum heat output.
- USGR can provide a performance engineered heating system that can meet the needs of any grower. Performance packages include: Heating system components (heat source, controls, radiation), performance engineered drawings (pipe layouts and electrical diagrams), installation supervision and installation (as required).



Contact Us

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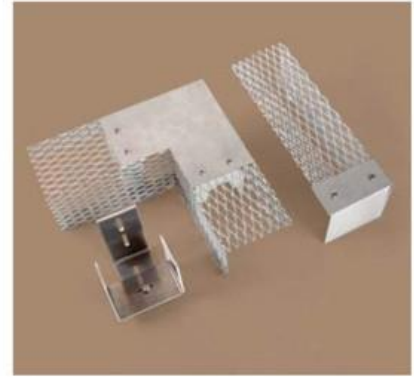
High-Output Finned Pipe



SF-125



Aluminum Elbow and Couplers



SF Cover System

				BTU/Hr/Ft Output														
				Average Water Temperature														
				Steam Rating	100°F	110°F	120°F	130°F	140°F	150°F	160°F	170°F	180°F	190°F	200°F	210°F	220°F	230°F
Tube Size and Material	Fin Size and Material	Fins per Ft	No. of Tiers 5½" c/c	Factor	0.15	0.20	0.26	0.33	0.40	0.45	0.53	0.61	0.69	0.78	0.86	0.95	1.05	1.14
1½" Sch 40 Aluminum	¾"x¾" 0.025 Aluminum	48	1	973	146	195	253	321	389	438	516	594	671	759	837	924	1,022	1,109
			2	1,557	234	311	405	514	623	701	825	950	1,074	1,214	1,339	1,479	1,635	1,775
			3	2,141	321	428	557	707	856	963	1,135	1,306	1,477	1,670	1,841	2,034	2,248	2,441
1½" Sch 40 Aluminum	¾"x¾" 0.025 Aluminum	24	1	697	105	139	181	230	279	314	369	425	481	544	599	662	732	795
			2	1,115	167	223	290	368	446	502	591	680	769	870	959	1,059	1,171	1,283
			3	1,533	230	307	399	506	613	690	812	935	1,058	1,196	1,318	1,456	1,610	1,748
2" Sch 40 Aluminum	1"x1" 0.025 Aluminum	24	1	996	149	199	259	329	398	448	528	608	687	777	857	946	1,046	1,135
			2	1,594	239	319	414	526	638	717	845	972	1,100	1,243	1,371	1,514	1,674	1,817
			3	2,191	329	438	570	723	876	986	1,161	1,337	1,512	1,709	1,884	2,081	2,301	2,498

Rated outputs at 65°F interior air temperature. Decrease output by 3% when installed in expanded metal enclosure.

Maximum water velocity - 4.0 ft/sec. Minimum water flow for rated outputs - 4 gpm.

System water shall be maintained between pH 7.0 and pH 9.0.



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