

Heating Surface



Lyon Products Company, Inc.

EXECUTIVE AND SALES OFFICES
708 Union Trust Building
CHICAGO, ILL.

Factory
312 Union Park Court



Lyon Interlocking Heaters are built in sections and should have a decided appeal to engineers, architects and contractors because of their high efficiency, durability and space and labor saving fixtures. They consist of a Header and Base of Semi-Steel into which eight one-inch pipes of a given length are forced, the pipe ends being first coated with an expanding flux and then pressed home by Hydraulic Pressure.

No threads are used, thus avoiding any possibility of leaks or the weakening of the ends of the pipes, where they enter the Headers and Bases. The Headers and Bases are made interlocking, which allows for close assembling and the staggering of all pipes in the completed Heater.

The sections are put together with extra heavy right and left Cast Iron Nipples threaded to make up the full number of threads. All of the sections are tested to 125 lbs. Hydraulic Pressure before shipping, and are guaranteed for 100 lbs. working pressure.

We have had several thousand square feet of these Heaters installed for over five years, some on low pressure and others on pressures up to 100 lbs. per square inch, all of which have proven the correctness of their design and construction.

All of these Heaters can be furnished with four different lengths of Nipples to make up on either 4 1/4 in., 4 3/8 in., 5 in. or 5 3/8 in. centers, therefore it is only necessary to select the proper length of sections to get the amount of heating surface required without decking or piling the sections on top of each other. (See Typical Table.)

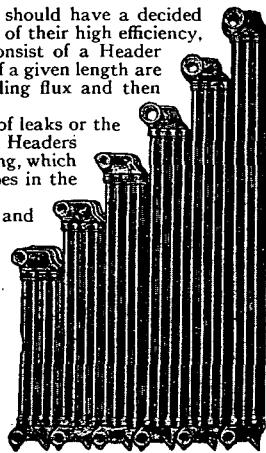
With the use of our Special Center Feed Section we are able to furnish Heaters of any size, presenting an unbroken front from end to end. This is an exclusive feature of the Lyon's Interlocking Heater.

It will be found that there are a great many advantages in using these Heaters, among which are the great saving in freight, cartage and handling, owing to their light weight and ease of assembling. The saving in the cost of Steam-fitting where the decking of the Heaters is avoided is a very large and important item.

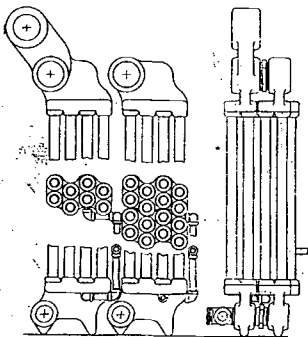
- Where Heaters are used in upper stories of buildings or where special supports have to be provided, there would be a material saving on account of their lightness.
- Where Heaters can be used for high pressures there would be a great saving in the size of the Heaters, depending upon the pressure available.
- The pipes in each section are spaced on 2 1/2 in. centers, giving a maximum heating surface in a minimum space.
- Being made in small units they are easily handled and can be taken through a very small opening.
- They remove all danger of cracked or broken sections.
- The heating surface is all prime surface, giving a greater thermal efficiency.
- Special full weight and strength Spellerized pipe, virtually rust and corrosion proof, is used in these Heaters.

RATING OF LYON INTERLOCKING HEATERS AND WEIGHTS

Trade No. of Section	40"	50"	60"	70"	80"	90"	100"	110"	120"	130"	140"
Heating Surface, Sq. Ft.	10.6	12.9	15.2	17.5	19.8	22.1	24.4	25.7	29.0	31.3	33.6
Free Area, Sq. Ft., 4 1/4 in. Center	0.45	0.58	0.69	0.80	0.91	1.03	1.14	1.25	1.38	1.49	1.60
4 3/8 in. Center	0.53	0.67	0.81	0.95	1.09	1.24	1.38	1.52	1.66	1.80	1.94
5 in. Center	0.60	0.77	0.93	1.10	1.27	1.44	1.61	1.77	1.94	2.11	2.28
5 3/8 in. Center	0.67	0.86	1.06	1.25	1.45	1.65	1.84	2.04	2.23	2.43	2.62
Weight per Section, Pounds	64	75	86	97	108	119	130	141	152	163	174



Lyon Interlocking Heaters Made In
11 Sizes, 40 to 140 in. in Height



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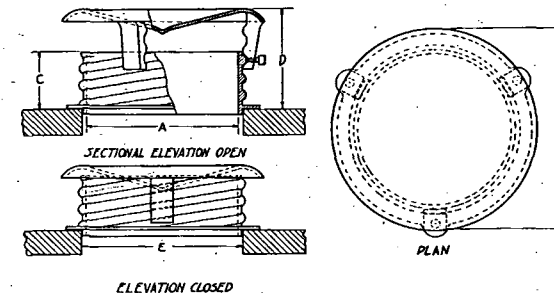
TYPICAL ENGINEERING DATA FOR LYON INTERLOCKING HEATERS

FINAL TEMPERATURES IN DEG. FAHR. = F. T.

CONDENSATION IN LBS. PER SQ. FT. OF H. S. = C.

Rows of Sections Deep	Velocity of Air in Ft. per Min.	GAGE PRESSURE															
		0		5		10		15		20		30		40		50	
		F.T.	C.	F.T.	C.	F.T.	C.	F.T.	C.	F.T.	C.	F.T.	C.	F.T.	C.	F.T.	C.
2	600	651.55	731.72	801.88	862.02	902.14	982.37	1042.56	1102.72	1162.84	1243.05	1313.14	1343.12				
	800	611.82	692.06	752.24	812.39	852.53	922.78	992.99	1043.18	1093.34	1173.59	1233.73	1273.77				
	1000		652.37	712.59	762.76	802.92	873.20	933.44	983.65	1033.84	1114.14	1164.23	1204.44				
	1200		612.70	672.94	723.13	753.30	823.60	883.86	924.10	974.32	1034.68	1094.94	1125.11				
4	1400			623.29	663.50	703.68	764.01	824.30	874.57	914.81	975.22	1025.54	1045.79				
	1600				623.82	654.07	714.43	764.74	815.03	855.30	905.77	956.13	976.46				
	1800						664.83	715.17	755.49	785.79	846.32	876.76	897.11				
	2000							655.62	695.96	736.30	776.87	807.36	827.78				
6	600	1051.19	1171.32	1251.42	1321.51	1381.59	1481.72	1581.85	1661.95	1732.05	1852.19	1942.25	2022.27				
	800	1011.44	1121.61	1201.73	1271.84	1321.93	1422.09	1512.22	1592.37	1662.48	1782.66	1872.77	1942.82				
	1000		1071.90	1152.05	1222.16	1272.27	1362.46	1452.63	1522.78	1592.92	1703.14	1783.29	1863.38				
	1200		1032.19	1102.37	1162.50	1212.62	1302.84	1383.04	1453.20	1523.36	1633.63	1713.82	1783.95				
8	1400				1052.68	1112.84	1162.97	1243.20	1323.42	1383.61	1453.80	1554.10	1634.23	1694.52			
	1600					1053.16	1103.31	1173.56	1253.82	1314.03	1374.23	1474.58	1554.88	1615.09			
	1800							1184.21	1244.45	1304.68	1395.07	1475.39	1535.64				
	2000							1064.60	1174.88	1235.11	1315.54	1395.91	1456.21				
10	600	1300.96	1431.06	1521.14	1601.20	1671.25	1791.36	1891.46	1981.55	2071.61	2201.72	2311.78	2401.80				
	800	1261.19	1381.32	1471.41	1551.51	1611.57	1731.70	1831.81	1911.91	2002.00	2132.13	2232.23	2322.27				
	1000		1331.57	1431.70	1501.80	1571.89	1682.04	1772.16	1862.29	1942.39	2072.57	2162.68	2242.74				
	1200		1301.84	1381.98	1452.10	1512.21	1622.37	1722.53	1802.65	1872.78	1992.99	2093.12	2163.22				
12	1400				1332.26	1402.40	1472.52	1572.70	1662.88	1743.04	1803.16	1923.40	2023.57	2083.68			
	1600					1352.70	1412.82	1513.04	1603.22	1683.40	1753.56	1863.82	1944.16	2014.16			
	1800							1543.58	1613.78	1683.94	1794.24	1874.46	1934.62				
	2000							1483.93	1564.14	1624.33	1734.67	1804.91	1855.09				

NOTE—For complete engineering information on the entire range of Intake Temperatures, Steam Pressures, Condensation, Velocities, engineers, architects and contractors should request the Lyon Heater Data Book.



LYON TOADSTOOL VENT CAPS—Capacities and Velocities

Size	Area Sq. In.	Area Sq. Ft.	Diameter Floor Opening	Capacity Cubic Feet Air per Minute at Different Velocities							
				100 ft.	150 ft.	200 ft.	250 ft.	300 ft.	350 ft.	400 ft.	500 ft.
4"	12.57	.0873	4 1/4"	8.73	13.1	17.5	21.8	26.2	30.6	35.0	43.6
5"	19.63	.1364	5 1/4"	13.64	20.5	27.3	34.2	41.0	47.7	54.6	68.4
6"	28.27	.1964	6 1/4"	19.64	29.5	39.3	49.1	59.0	68.7	78.6	98.2
7"	38.48	.2673	7 1/4"	26.73	40.0	53.5	66.8	80.0	93.5	107.0	133.6
8"	50.27	.3491	8 1/4"	34.91	52.4	69.8	87.3	104.8	122.2	139.6	174.6
9"	63.62	.4418	9 1/4"	44.18	66.3	88.4	110.4	132.6	154.6	176.8	220.8
10"	78.54	.5454	10 1/2"	54.54	81.8	109.0	136.3	163.6	190.8	218.0	272.6