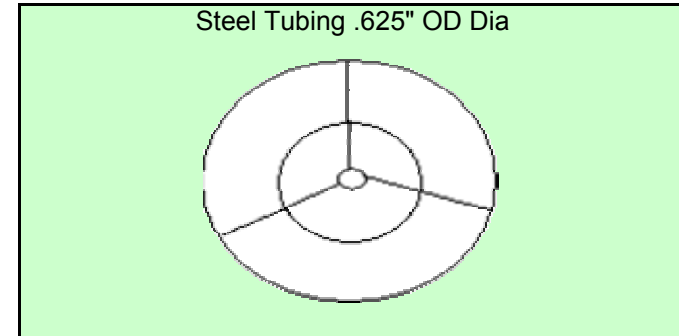


### 12" Diameter Fire Rings - Hole to Pipe Ratios & BTU Ratings

<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">Hole DIA</td> <td style="width: 10%;"></td> <td style="width: 15%; text-align: center;">0.073</td> </tr> <tr> <td>ID PIPE DIA</td> <td></td> <td style="text-align: center;">0.5</td> </tr> <tr> <td>No. Holes</td> <td></td> <td style="text-align: center;">12</td> </tr> </table>	Hole DIA		0.073	ID PIPE DIA		0.5	No. Holes		12	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Area of Hole</td> <td style="width: 10%;"></td> <td style="width: 60%; text-align: center;">0.004185387</td> </tr> <tr> <td>Total Area of Holes</td> <td></td> <td style="text-align: center;">0.050224642</td> </tr> <tr> <td>Pipe Section Area</td> <td></td> <td style="text-align: center;">0.196349541</td> </tr> <tr> <td>Ratio (? : 1)</td> <td></td> <td style="text-align: center;">3.909426409</td> </tr> </table>	Area of Hole		0.004185387	Total Area of Holes		0.050224642	Pipe Section Area		0.196349541	Ratio (? : 1)		3.909426409
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Gas	Gas Constant, #f Ft/(#m R)	STD density, #m/cu ft	Orifice constant, estimated	Inlet Pressure, inches of H2O	Temp, F	Mass flow, #m/sec	Estimated Heat Flux, BTU/sec	Estimated Heat Flux, BTU/min	Estimated Heat Flux, BTU/hr
Methane	96.21	0.0419	0.5	1.00	70	0.0006	14.23	854	51,213
			0.5	2.00	70	0.0008	20.12	1,207	72,426
			0.5	3.00	70	0.0010	24.64	1,478	88,703
			0.5	3.00	70	0.0010	24.64	1,478	88,703
Propane	35.04	0.1140	0.5	1.00	70	0.0009	8.66	520	31,190
			0.5	2.00	70	0.0013	12.25	735	44,109
			0.5	3.00	70	0.0016	15.01	900	54,022
			0.5	4.00	70	0.0019	17.33	1,040	62,380