

WHAT ARE YOUR STEAM LEAKS COSTING YOU?

Just for the sake of discussion...let's say you have ONE little steam leak about the size of this dot, ●, somewhere in your system. We'll assume that you have 150-psig steam and that your cost to produce that steam is \$9 per every 1000 pounds. According to Napier's formula, your steam loss is about 103 pounds per hour. Looking at this over a year's time, (103 x 24 x 365/1000)(\$9), that one little leak is costing you about **\$8,120** each year. If this leak happened to be this big, ●, **your yearly loss from that one leak is OVER \$32,500.**

How many leaking steam traps, bypass valves, unions, etc., do you have???

"Steam Loss Through an Orifice, lbm/hr"									
STEAM PRESSURE-PSIG									
Size	*	15	30	60	100	150	250	400	600
3/64"	0.0469	2	3	6	10	14	23	36	54
1/16"	0.0625	4	7	11	18	25	41	65	96
5/64"	0.0781	7	11	18	28	40	65	102	151
3/32"	0.0938	10	15	26	40	58	94	147	218
7/64"	0.1094	14	21	36	55	79	127	200	297
1/8"	0.0125	18	28	47	72	103	167	261	387
9/64"	0.1406	23	35	59	91	131	211	331	490
5/32"	0.1562	29	44	73	113	162	260	408	605
3/16"	0.1875	42	63	106	162	233	375	588	872
7/32"	0.2188	57	86	144	221	318	511	801	1188
1/4"	0.25	74	112	188	289	415	668	1046	1551
9/32"	0.2812	94	142	238	366	526	845	1324	1963
5/16"	0.3125	117	176	294	452	649	1044	1635	2424
11/32"	0.3438	141	213	356	547	786	1263	1979	2934
3/8"	0.375	168	253	424	651	935	1503	2355	3491
7/16"	0.4375	229	345	577	886	1273	2046	3206	4752
1/2"	0.5	299	451	754	1158	1663	2672	4187	6207
9/16"	0.5625	379	571	954	1465	2104	3382	5299	7856
5/8"	0.625	468	705	1178	1809	2598	4176	6543	9698
11/16"	0.6875	567	853	1426	2189	3144	5053	7917	11735
3/4"	0.75	674	1015	1697	2606	3742	6014	9422	13966
7/8"	0.875	918	1382	2310	3547	5093	8185	12824	19009
1-1/16"	1.0625	1354	2038	3406	5230	7510	12069	18909	28029
1-1/8"	1.25	1874	2821	4714	7238	10934	16705	26172	38795
1-5/8"	1.625	3167	4767	7967	12233	17566	28232	44231	65563

Chart is based on pounds per hour, rounded down to the nearest whole number.

Napier's Formula - (area of well-rounded, converging orifice)(pressure-PSIA)/70*3600 Sec/Hour



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