

23 21 Hydronic Piping and Pumps

23 21 20 – Hydronic HVAC Piping Specialties

23 21 20.70 Steam Traps

		Crew	Daily Output	Labor-Hours	Unit	Material	2022 Bare Costs Labor	Equipment	Total	Total Incl O&P
1040	1-1/2" pipe size	1 Stpi	9	.889	Ea.	340	62.50		402.50	470
1060	2" pipe size		6	1.333		975	94		1,069	1,225

23 21 20.76 Strainers, Y Type, Bronze Body

0010	STRAINERS, Y TYPE, BRONZE BODY									
0050	Screwed, 125 lb., 1/4" pipe size	1 Stpi	24	.333	Ea.	48	23.50		71.50	87.50
0070	3/8" pipe size		24	.333		48	23.50		71.50	87.50
0100	1/2" pipe size		20	.400		46.50	28		74.50	93
0140	1" pipe size		17	.471		87.50	33		120.50	146
0160	1-1/2" pipe size		14	.571		187	40		227	266
0180	2" pipe size		13	.615		246	43.50		289.50	335
0182	3" pipe size		12	.667		1,650	47		1,697	1,875
0200	300 lb., 2-1/2" pipe size	Q-5	17	.941	Ea.	930	59.50		989.50	1,125
0220	3" pipe size		16	1		1,350	63.50		1,413.50	1,575
0240	4" pipe size		15	1.067		2,475	67.50		2,542.50	2,825
0500	For 300 lb. rating 1/4" thru 2", add					15%				
1000	Flanged, 150 lb., 1-1/2" pipe size	1 Stpi	11	.727	Ea.	575	51		626	710
1020	2" pipe size	"	8	1		705	70.50		775.50	880
1030	2-1/2" pipe size	Q-5	5	3.200		1,175	203		1,378	1,600
1040	3" pipe size		4.50	3.556		1,450	225		1,675	1,925
1060	4" pipe size		3	5.333		2,250	340		2,590	2,950
1100	6" pipe size	Q-6	3	8		4,325	525		4,850	5,525
1106	8" pipe size	"	2.60	9.231		4,700	605		5,305	6,050
1500	For 300 lb. rating, add					40%				

23 21 20.78 Strainers, Y Type, Iron Body

0010	STRAINERS, Y TYPE, IRON BODY									
0050	Screwed, 250 lb., 1/4" pipe size	1 Stpi	20	.400	Ea.	19.90	28		47.90	64
0070	3/8" pipe size		20	.400		19.90	28		47.90	64
0100	1/2" pipe size		20	.400		19.90	28		47.90	64
0140	1" pipe size		16	.500		30.50	35		65.50	86
0160	1-1/2" pipe size		12	.667		58.50	47		105.50	135
0180	2" pipe size		8	1		87.50	70.50		158	201
0220	3" pipe size	Q-5	11	1.455		390	92		482	565
0240	4" pipe size	"	5	3.200		660	203		863	1,025
0500	For galvanized body, add					50%				
1000	Flanged, 125 lb., 1-1/2" pipe size	1 Stpi	11	.727	Ea.	273	51		324	375
1020	2" pipe size	"	8	1		194	70.50		264.50	320
1040	3" pipe size	Q-5	4.50	3.556		255	225		480	615
1060	4" pipe size	"	3	5.333		420	340		760	970
1080	5" pipe size	Q-6	3.40	7.059		500	465		965	1,250
1100	6" pipe size	"	3	8		845	525		1,370	1,725
1500	For 250 lb. rating, add					20%				
2000	For galvanized body, add					50%				
2500	For steel body, add					40%				

23 21 20.88 Venturi Flow

0010	VENTURI FLOW, Measuring device									
0050	1/2" diameter	1 Stpi	24	.333	Ea.	298	23.50		321.50	365
0120	1" diameter		19	.421		292	29.50		321.50	365
0140	1-1/4" diameter		15	.533		365	37.50		402.50	455
0160	1-1/2" diameter		13	.615		365	43.50		408.50	465
0180	2" diameter		11	.727		390	51		441	505
0220	3" diameter	Q-5	14	1.143		550	72.50		622.50	715
0240	4" diameter	Q-5	11	1.455	Ea.	820	92		912	1,025