

Pipe Thickness Requirements for Direct Taps

Pipe Wall Thickness Requirements for Cast Iron and Ductile Iron Pipe for Different Size Taps

Pipe thickness in inches required for different tap sizes with 2, 3, or 4 full threads (ANSI A212.51 Appendix).

NOMINAL PIPE SIZE (INCHES)	NUMBER OF FULL THREADS	TAP SIZE WITH ANSI B2.1 STANDARD TAPER PIPE THREADS										TAP SIZE WITH AWWA C800 STANDARD CORPORATION STOP THREADS							
		½	¾	1	1¼	1½	2	2½	3	3½	4	½	⅝	¾	1	1¼	1½	2	
3"	2	.18	.21	.28								.21	.24	.25	.33				
3"	3	.26	.29	.37								.29	.32	.33	.41				
3"	4	.33	.36	.46								.36	.39	.40	.49				
4"	2	.17	.19	.26	.31							.19	.22	.23	.30	.36			
4"	3	.25	.27	.35	.40							.27	.30	.31	.38	.45			
4"	4	.32	.34	.44	.49							.34	.37	.38	.46	.54			
6"	2	.17	.18	.23	.27	.30						.18	.20	.20	.26	.30	.35		
6"	3	.25	.26	.32	.36	.39						.26	.28	.28	.34	.39	.44		
6"	4	.32	.33	.41	.45	.48						.33	.35	.35	.42	.48	.53		
8"	2	.16	.17	.22	.24	.27	.33					.17	.18	.19	.24	.27	.31	.39	
8"	3	.24	.25	.31	.33	.36	.42					.25	.26	.27	.32	.36	.40	.48	
8"	4	.31	.32	.40	.42	.45	.51					.32	.33	.34	.40	.45	.49	.57	
10"	2	.15	.17	.21	.23	.25	.30	.44				.17	.17	.18	.23	.25	.28	.35	
10"	3	.23	.25	.30	.32	.34	.39	.56				.25	.25	.26	.31	.34	.37	.44	
10"	4	.30	.32	.39	.41	.43	.48	.69				.32	.32	.33	.39	.43	.46	.53	
12"	2	.15	.16	.20	.22	.24	.28	.40	.48			.16	.17	.17	.22	.24	.26	.32	
12"	3	.23	.24	.29	.31	.33	.37	.52	.60			.24	.25	.25	.30	.33	.35	.41	
12"	4	.30	.31	.38	.40	.42	.46	.65	.73			.31	.32	.32	.38	.42	.44	.50	
14"	2	.15	.16	.20	.22	.23	.26	.38	.45	.51	.58	.16	.17	.17	.21	.23	.25	.30	
14"	3	.23	.24	.29	.31	.32	.35	.50	.58	.64	.70	.24	.25	.25	.29	.32	.34	.39	
14"	4	.30	.31	.38	.40	.41	.44	.63	.70	.76	.83	.31	.32	.32	.37	.41	.43	.48	
16"	2	.15	.16	.20	.21	.22	.25	.37	.43	.48	.54	.16	.16	.17	.21	.22	.24	.28	
16"	3	.23	.24	.29	.30	.31	.34	.50	.56	.60	.66	.24	.24	.25	.29	.31	.33	.37	
16"	4	.30	.31	.38	.39	.40	.43	.62	.68	.73	.79	.31	.31	.32	.37	.40	.42	.46	
18"	2	.15	.15	.19	.21	.22	.24	.35	.41	.46	.51	.15	.16	.16	.20	.21	.23	.27	
18"	3	.23	.23	.28	.30	.31	.33	.48	.54	.58	.64	.23	.24	.24	.28	.30	.32	.36	
18"	4	.30	.30	.37	.39	.40	.42	.60	.66	.71	.76	.30	.31	.31	.36	.39	.41	.45	
20"	2	.15	.15	.19	.20	.21	.23	.34	.39	.44	.49	.15	.16	.16	.20	.21	.23	.26	
20"	3	.23	.23	.28	.29	.30	.32	.46	.52	.56	.62	.23	.24	.24	.28	.30	.32	.36	
20"	4	.30	.30	.37	.38	.39	.41	.59	.64	.69	.74	.30	.31	.31	.36	.39	.41	.44	
24"	2	.14	.15	.19	.20	.21	.22	.32	.37	.40	.45	.15	.15	.16	.19	.21	.22	.24	
24"	3	.22	.23	.28	.29	.30	.31	.44	.50	.52	.58	.23	.23	.24	.27	.30	.31	.33	
24"	4	.29	.30	.37	.38	.39	.40	.57	.62	.65	.70	.30	.30	.31	.35	.39	.40	.42	