BRONZE FITTINGS

UL842, UL258, UL125,FM

Class 125 (150) For steam, water, gas, oil and air service

Standard specifications

- UL/ FM Approved
- 1S0 9001:2000
- Not Lead Free
- RoHS Compliant

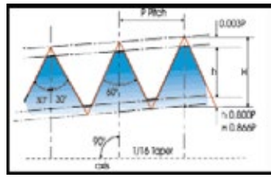
Materials - ASTM B62-93 (85,5,5,5) C83600
Dimensions - ANSI B 16.15
Threads - ANSI B2.1 or BA 21 and Fed. WW-P-460C, MSS-SP-106, ANSI/ASME B1.20.1

Bronze threaded fittings are manufactured from smooth-cored castings, designed to provide full flow with minimum restriction. All threads are accurately machined and gauged to ensure a perfect fit with the pipe. All fittings are individually tested under water to ensure quality. Bronze provides a tighter seal and is easier to install then other metals. Can be used for water, plumbing, heating, pneumatic and marine applications, able to resist the harmful effects of corrosion when coming into contact with salt water or fresh water polluted with mineral acids or peaty soils.

LEAD FREE BRASS FITTINGS

- Approved to ANSI/NSF 61-4 California AB 1953
- Meets Federal State Drinking Water Act, Lead Free Requirement
- Brass fittings conform to AWWA C800
- Brass castings conform to ASTM B584, UNS Alloy C8933
- Brass fittings dimensions conform to ASME B16.15
- NPT threads on all fittings conform to ASME B1.20.1
- Brass unions conform to specification A-A-59617
- Manufacturing facilities are ISO 9001:2008

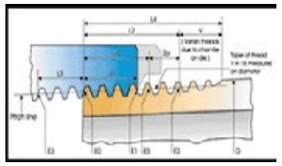
Basic Dimension for American Standard Pipe Threads



Taper thread

H= 0.866025 p=0.866025/n

h= 0.800 p=0.800/n



Taper thread

L2=(0.8D+6.8) 1/n=(0.80D+6.8)p

Nominal Pipe Size(inchs)	O.D.of Pipe (D)	Threads /in (N)	Pitch of Thread (P)	Pitch Dia. at Beginning of External Thread(E0)	Handtight Engagement			Effective Thread.Extenal			Depth of Thread h
					Length[2] (L1)		Diam[3]. (E1)	Length[4] (L2)		Diam. (E2)	
					Inch	Thread		Inch	Thread		
1/8	0.405	27.0	0.03704	0.36351	0.1615	4.36	0.37360	0.2639	7.12	0.38000	0.029
1/4	0.540	18.0	0.05556	0.47739	0.2278	4.10	0.49163	0.4018	7.23	0.50250	0.044
3/8	0.675	18.0	0.05556	0.61201	0.2400	4.32	0.62701	0.4078	7.34	0.63750	0.044
1/2	0.840	14.0	0.07143	0.75843	0.3200	4.48	0.77843	0.5337	7.47	0.79179	0.057
3/4	1.050	14.0	0.07143	0.96768	0.3390	4.75	0.98887	0.5457	7.64	1.00179	0.057
1	1.315	11.5	0.08696	1.21363	0.4000	4.60	1.23863	0.6826	7.85	1.25630	0.069
11/4	1.660	11.5	0.08696	1.55713	0.4200	4.83	1.58338	0.7068	8.13	1.60130	0.069
11/2	1.900	11.5	0.08696	1.79609	0.4200	4.83	1.82234	0.7235	8.32	1.84130	0.069
2	2.375	11.5	0.08696	2.26902	0.4360	5.01	2.29627	0.7565	8.70	2.31630	0.069
21/2	2.875	8.0	0.12500	2.71953	0.6820	5.46	2.76216	131375	9.10	2.79062	0.100
3	3.500	8.0	0.12500	3.34062	0.7660	6.13	3.38850	1.2000	9.60	3.41562	0.100
31/2	4.000	8.0	0.12500	3.83750	0.8210	6.57	3.88881	1.2500	10.00	3.91562	0.100
4	4.500	8.0	0.12500	4.33438	0.8440	6.75	4.38712	1.3000	10.40	4.41562	0.100
5	5.563	8.0	0.12500	5.39073	0.9370	7.50	5.44929	1.4063	11.25	5.47862	0.100
6	6.625	8.0	0.12500	6.44609	0.9580	7.66	6.50597	1.5125	12.10	6.54062	0.100

Nominal Pipe Size (inchs)	Length,L1 Plane to L2 Plane External Thread (L2-L1)		Wrench Makeup Length for Internal Thread[7]			Vanish Thread (V)		Overall8 Length External Thread (L4)	Nominal Complete External Thread5		Height of Thread(h)	Increase in Diam./ Thread (0.0625/n)	Basic[6] Minor Diam.At Small End of Pipe(K0)
			Length(L3)		Diam. (E3)				Length. (L5)	Diam. (E5)			
	Inch	Thread	Inch	Thread		Inch	Thread						
1/8	0.1024	2.76	0.1111	3	0.35656	0.1285	3.47	0.3924	0.1898	0.37537	0.02963	0.00231	0.3339
1/4	0.1740	3.13	0.1667	3	0.46697	0.1928	3.47	0.5946	0.2907	0.49556	0.04444	0.00347	0.4329
3/8	0.1678	3.02	0.1667	3	0.60160	0.1928	3.47	0.6006	0.2967	0.63056	0.04444	0.00347	0.5676
1/2	0.2137	2.99	0.2143	3	0.74504	0.2478	3.47	0.7815	0.3909	0.78286	0.05714	0.00446	0.7013
3/4	0.2067	2.89	0.2143	3	0.95429	0.2478	3.47	0.7935	0.4029	0.99286	0.05714	0.00446	0.9105
1	0.2828	3.25	0.2609	3	1.19733	0.3017	3.47	0.9845	0.5089	1.24543	0.06957	0.00543	1.1441
11/4	0.2868	3.30	0.2609	3	1.54083	0.3017	3.47	1.0085	0.5329	1.59043	0.06957	0.00543	1.4876
11/2	0.3035	3.49	0.2609	3	1.77978	0.3017	3.47	1.0252	0.5496	1.83043	0.06957	0.00543	1.7265
2	0.3205	3.69	0.2609	3	2.25272	0.3017	3.47	1.0582	0.5826	2.30543	0.06957	0.00543	2.1995
21/2	0.4555	3.64	0.2500	2	2.70391	0.4337	3.47	1.5712	0.8875	2.77500	0.10000	0.00781	2.6195
3	0.4340	3.47	0.2500	2	3.32500	0.4337	3.47	1.6337	0.9500	3.40000	0.10000	0.00781	3.2406
31/2	0.4290	3.43	0.2500	2	3.82188	0.4337	3.47	1.6837	1.0000	3.90000	0.10000	0.00781	3.7375
4	0.4560	3.65	0.2500	2	4.31875	0.4337	3.47	1.7337	1.0500	4.40000	0.10000	0.00781	4.2344
5	0.4693	3.75	0.2500	2	5.37511	0.4337	3.47	1.8400	1.1563	5.46300	0.10000	0.00781	5.2907
6	0.5545	4.44	0.2500	2	6.43047	0.4337	3.47	1.9462	1.2625	6.52500	0.10000	0.00781	6.3461

Note:This information is selected from the International Standard for Pipe Threads, ASME B1.20.1.

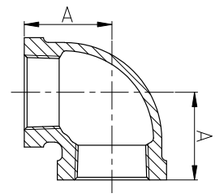
Cast Bronze Fittings

Class 125 Leaded and Lead Free

Material: ASTM B584
Dimensions: ASME B16.15
Flange Dimensions: ASME16.24, MSS SP-106
Union Dimensions: A-A-59617
Threads: ASME B1.20.1, ISO 7-1
Size Available: 1/8" - 6"

90

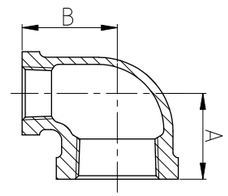
Elbow, 90°



Size	Inch	1/8	1/4	3/8	1/2	3/4	1
	mm	6	8	10	15	20	25
Dim. (mm)	A	14	18	21	26	30	36
Size	Inch	11/4	11/2	2	21/2	3	4
	mm	32	40	50	65	80	100
Dim. (mm)	A	43	47	54	69	78	96

90R

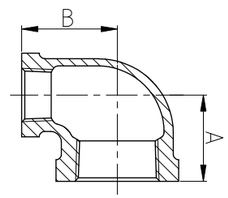
Reducing Elbow, 90°



Size	Inch	1/4X1/8	3/8X1/8	3/8X1/4	1/2X1/4	1/2X3/8
	mm	8X6	10X6	10X8	15X8	15X10
Dim. (mm)	A	17	20.5	19	24.6	24
	B	15	21.6	20	24.9	23
Size	Inch	3/4X1/8	3/4X1/4	3/4X3/8	3/4X1/2	1X1/4
	mm	20X6	20X8	20X10	20X15	25X8
Dim. (mm)	A	26	26.7	28.5	27	25.5
	B	27	27.4	28.7	28	29.5

90R

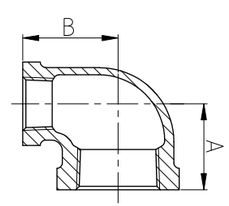
Reducing Elbow, 90°



Size	Inch	1X3/8	1X1/2	1X3/4	11/4X1/2	11/4X3/4
	mm	25X10	25X15	25X20	32X15	32X20
Dim. (mm)	A	30	30	33	34	35
	B	32.3	31	33	38.9	38
Size	Inch	11/4X1	11/2X1/2	11/2X3/4	11/2X1	11/2X11/4
	mm	32X25	40X15	40X20	40X25	40X32
Dim. (mm)	A	39	32	38.6	39	44
	B	41	38	44.5	44	46

90R

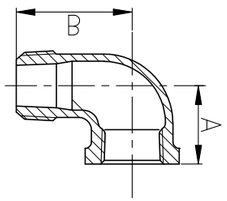
Reducing Elbow, 90°



Size	Inch	2X1/2	2X3/4	2X1	2X11/4	2X11/2	21/2X11/2
	mm	50X15	50X20	50X25	50X32	50X40	65X40
Dim. (mm)	A	37.5	40.5	43.9	48.3	48	54.9
	B	47.5	50	51.3	53.3	53	63.8
Size	Inch	21/2X2	3X2	3X21/2	4X2	4X21/2	4X3
	mm	65X50	80X50	80X65	100X50	100X65	100X80
Dim. (mm)	A	61	64	72	66.5	75.5	84
	B	66	73.4	76	84.5	87.5	91

92

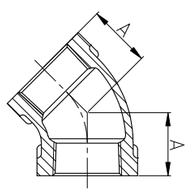
Street Elbow, 90°



Size	Inch	1/8	1/4	3/8	1/2	3/4	1
	mm	6	8	10	15	20	25
Dim. (mm)	A	14	18	21	26	30	36
	B	23	28	31	38	42	50
Size	Inch	11/4	11/2	2	21/2	3	4
	mm	32	40	50	65	80	100
Dim. (mm)	A	43	47	54	68.6	78.2	96.3
	B	57	62	73	98	113	144.5

120

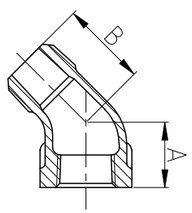
Elbow, 45°



Size	Inch	1/8	1/4	3/8	1/2	3/4	1
	mm	6	8	10	15	20	25
Dim. (mm)	A	11	14	16	20	23	27
Size	Inch	11/4	11/2	2	21/2	3	4
	mm	32	40	50	65	80	100
Dim. (mm)	A	31	33	37	50	55	66

121

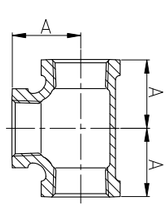
Street Elbow, 45°



Size	Inch	1/8	1/4	3/8	1/2	3/4	1
	mm	6	8	10	15	20	25
Dim. (mm)	A	11	14	16	20	23	27
	B	20	22	23	27	31	36
Size	Inch	11/4	11/2	2			
	mm	32	40	50			
Dim. (mm)	A	31	33	37			
	B	42	46	54			

130

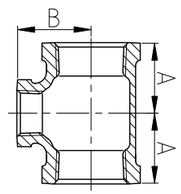
Tee



Size	Inch	1/8	1/4	3/8	1/2	3/4	1
	mm	6	8	10	15	20	25
Dim. (mm)	A	14	18	21	26	30	36
Size	Inch	11/4	11/2	2	21/2	3	4
	mm	32	40	50	65	80	100
Dim. (mm)	A	43	47	54	69	78	96

130R

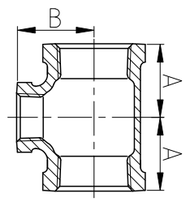
Reducing Tee



Size	Inch	1/4X1/8	3/8X1/8	3/8X1/4	1/2X1/4	1/2X3/8	3/4X1/4
	mm	8X6	10X6	10X8	15X8	15X10	20X8
Dim. (mm)	A	17	20.6	19	22	24	26.7
	B	15	21.6	20	22	23	27.4
Size	Inch	3/4X3/8	3/4X1/2	1X1/4	1X3/8	1X1/2	1X3/4
	mm	20X10	20X15	25X8	25X10	25X15	25X20
Dim. (mm)	A	25	27	28.2	28	30	33
	B	25	28	31.0	29	31	33

130R

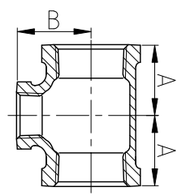
Reducing Tee



Size	Inch	11/4X1/2	11/4X3/4	11/4X1	11/2X1/2	11/2X3/4	11/2X1
	mm	32X15	32X20	32X25	40X15	40X20	40X25
Dim. (mm)	A	33	35	39	34	36	39
	B	36	38	41	39	41	44
Size	Inch	11/2X11/4	2X1/2	2X3/4	2X1	2X11/4	2X11/2
	mm	40X32	50X15	50X20	50X25	50X32	50X40
Dim. (mm)	A	44	37.9	37	40	45	48
	B	46	47.8	47	50	52	53

130R

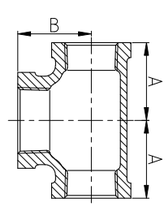
Reducing Tee



Size	Inch	21/2X1	21/2X11/4	21/2X11/2	21/2X2	3X3/4	3X1
	mm	65X25	65X32	65X40	65X50	80X20	80X25
Dim. (mm)	A	47.5	51.8	54.9	61	47.5	50.8
	B	60.2	62.2	63.8	66	66.3	67.6
Size	Inch	3X11/4	3X11/2	3X2	3X21/2	4X2	4X3
	mm	80X32	80X40	80X50	80X65	100X50	100X80
Dim. (mm)	A	55.1	58.2	64	72	70	84
	B	69.6	71.1	73	76	87	91

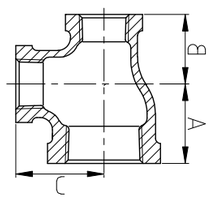
130R

Reducing Tee



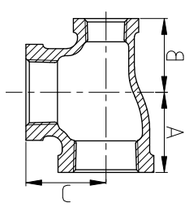
Size	Inch	3/8X3/8X1/2	1/2X1/2X3/4	3/4X3/4X1	1X1X11/4
	mm	10X10X15	15X15X20	20X20X25	25X25X32
Dim. (mm)	A	23	28	33	41
	B	24	27	33	39
Size	Inch	1X1X11/2	11/4X11/4X11/2	11/2X11/2X2	2X2X21/2
	mm	25X25X40	32X32X40	40X40X50	50X50X65
Dim. (mm)	A	44	46	53	66
	B	39	44	48	61

130R Reducing Tee



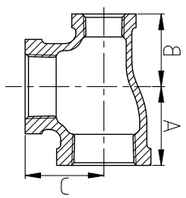
Size	Inch	3/8X1/4X1/4	1/2X3/8X3/8	3/4X1/2X1/2	1X3/4X3/4
	mm	10X8X8	15X10X10	20X15X15	25X20X20
Dim. (mm)	A	19	24	27	33
	B	18	21	26	30
	C	20	23	28	33
Size	Inch	11/4X1X1	11/2X11/4X11/4	2X11/2X11/2	21/2X2X2
	mm	32X25X25	40X32X32	50X40X40	65X50X50
Dim. (mm)	A	39	44	48	61
	B	36	43	47	57
	C	41	46	53	66

130R Reducing Tee



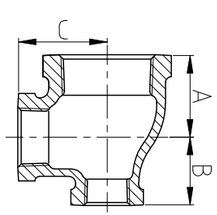
Size	Inch	3/8X1/4X3/8	1/2X3/8X1/2	3/4X1/2X3/4	1X1/2X1
	mm	10X8X10	15X10X15	20X15X20	25X15X25
Dim. (mm)	A	21	26	30	36
	B	20	23	28	31
	C	21	26	30	36
Size	Inch	1X3/4X1	11/4X1/2X11/4	11/4X3/4X11/4	11/4X1X11/4
	mm	25X20X25	32X15X32	32X20X32	32X25X32
Dim. (mm)	A	36	43	43	43
	B	33	36	38	41
	C	36	43	43	43

130R Reducing Tee



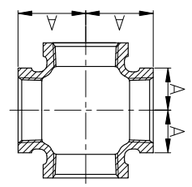
Size	Inch	11/2X3/4X11/2	11/2X11/4X11/2	2X11/2X2	
	mm	40X20X40	40X32X40	50X40X50	
Dim. (mm)	A	47	47	54	
	B	41	46	53	
	C	47	47	54	
Size	Inch				
	mm				
Dim. (mm)	A				
	B				
	C				

130R Reducing Tee



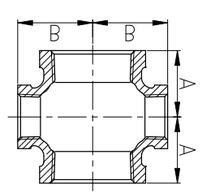
Size	Inch	1X3/4X1/2	1X1/2X3/4	11/4X1X3/4	11/4X3/4X1
	mm	25X20X15	25X15X20	32X25X20	32X20X25
Dim. (mm)	A	30	33	35	38.5
	B	27	28	33	35
	C	31	33	38	40
Size	Inch	11/2X11/4X1			
	mm	40X32X25			
Dim. (mm)	A	39			
	B	39			
	C	44			

180 Cross



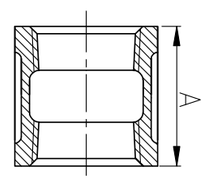
Size	Inch	1/8	1/4	3/8	1/2	3/4	1
	mm	6	8	10	15	20	25
Dim. (mm)	A	14	18	21	26	30	36
Size	Inch	11/4	11/2	2	21/2		
	mm	32	40	50	65		
Dim. (mm)	A	43	47	54	69		

180R Reducing Cross



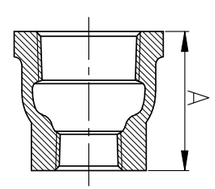
Size	Inch	3/4X1/2				
	mm	20X15				
Dim. (mm)	A	30.5				
	B	31				
Size	Inch					
	mm					
Dim. (mm)	A					
	B					

220 Coupling



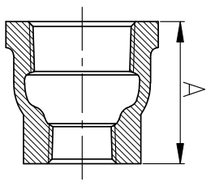
Size	Inch	1/8	1/4	3/8	1/2	3/4	1
	mm	6	8	10	15	20	25
Dim. (mm)	A	20	25	27	33	36	43
Size	Inch	11/4	11/2	2	21/2	3	4
	mm	32	40	50	65	80	100
Dim. (mm)	A	47	49	56	73	81	94

240 Reducing Coupling



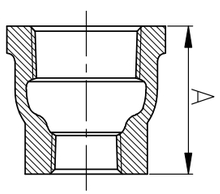
Size	Inch	1/4X1/8	3/8X1/8	3/8X1/4	1/2X1/8	1/2X1/4
	mm	8X6	10X6	10X8	15X6	15X8
Dim. (mm)	A	22	23	26	29	29
Size	Inch	1/2X3/8	3/4X1/4	3/4X3/8	3/4X1/2	1X1/4
	mm	15X10	20X8	20X10	20X15	25X8
Dim. (mm)	A	30	31	31	35	38

240 Reducing Coupling



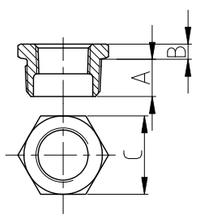
Size	Inch	1X3/8	1X1/2	1X3/4	11/4X1/2	11/4X3/4	11/4X1
	mm	25X10	25X15	25X20	32X15	32X20	32X25
Dim. (mm)	A	38	38	40	42	42	45
Size	Inch	11/2X1/2	11/2X3/4	11/2X1	11/2X11/4	2X1/2	2X3/4
	mm	40X15	40X20	40X25	40X32	50X15	50X20
Dim. (mm)	A	45	45	45	48	52	52

240 Reducing Coupling



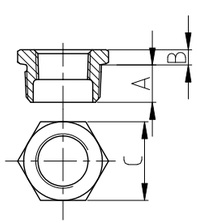
Size	Inch	2X1	2X11/4	2X11/2	21/2X11/4	21/2X11/2	21/2X2
	mm	50X25	50X32	50X40	65X32	65X40	65X50
Dim. (mm)	A	52	52	52	83	83	83
Size	Inch	3X11/2	3X2	3X21/2	4X2	4X21/2	4X3
	mm	80X40	80X50	80X65	100X50	100X65	100X80
Dim. (mm)	A	94	94	94	111	111	111

241 Outside Hex Bushing



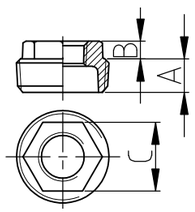
Size	Inch	1/4X1/8	3/8X1/8	3/8X1/4	1/2X1/8	1/2X1/4	1/2X3/8
	mm	8X6	10X6	10X8	15X6	15X8	15X10
Dim. (mm)	A	11	12	12	14	14	14
	B	4	4	4	5	5	5
	C	16	17	17	22	22	22
Size	Inch	3/4X1/8	3/4X1/4	3/4X3/8	3/4X1/2	1X1/2	1X3/4
	mm	20X6	20X8	20X10	20X15	25X15	25X20
Dim. (mm)	A	16	16	16	16	19	19
	B	6	6	6	6	6	6
	C	29	29	29	29	36	36

241 Outside Hex Bushing



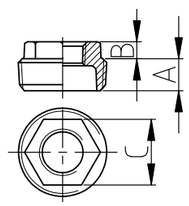
Size	Inch	11/4X3/4	11/4X1	11/2X1	11/2X11/4	2X11/4
	mm	32X20	32X25	40X25	40X32	50X32
Dim. (mm)	A	20	20	21	21	22
	B	7	7	8	8	9
	C	45	45	51	51	63
Size	Inch	2X11/2	21/2X11/2	21/2X2	3X2	3X21/2
	mm	50X40	65X40	65X50	80X50	80X65
Dim. (mm)	A	22	27	27	29	29
	B	9	11	9	12	10
	C	63	68	76	83	98

241N Inside Hex Bushing



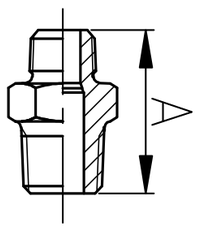
Size	Inch	1X1/4	1X3/8	11/4X1/4	11/4X3/8	11/4X1/2	11/2X1/4
	mm	25X8	25X10	32X8	32X10	32X15	40X8
Dim. (mm)	A	19	19	20	20	20	21
	B	8	8	9	9	9	9
	C	28	28	28	28	34	28
Size	Inch	11/2X3/8	11/2X1/2	11/2X3/4	2X1/2	2X3/4	2X1
	mm	40X10	40X15	40X20	50X15	50X20	50X25
Dim. (mm)	A	21	21	21	22	22	22
	B	9	9	9	10	10	10
	C	28	34	41	34	41	50

241N Inside Hex Bushing



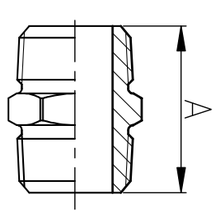
Size	Inch	21/2X1	21/2X11/4	3X1/2	3X3/4	3X1
	mm	65X25	65X32	80X15	80X20	80X25
Dim. (mm)	A	27	27	29	29	29
	B	11	11	12	12	12
	C	50	61	34	41	50
Size	Inch	3X11/4	3X11/2	4X11/2	4X2	4X21/2
	mm	80X32	80X40	100X40	100X50	100X65
Dim. (mm)	A	29	29	31	31	31
	B	12	12	15	15	15
	C	61	68	68	83	98

245 Reducing Hexagon Nipple



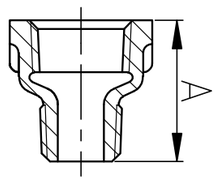
Size	Inch	1/4X1/8	3/8X1/4	1/2X3/8		
	mm	8X6	10X8	15X10		
Dim. (mm)	A	26	31	39		
Size	Inch					
	mm					
Dim. (mm)	A					

280 Hexagon Nipple



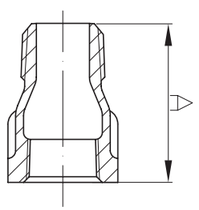
Size	Inch	1/8	1/4	3/8	1/2	3/4	1
	mm	6	8	10	15	20	25
Dim. (mm)	A	25	30	31.5	39	41	50
Size	Inch	11/4	11/2	2	21/2	3	
	mm	32	40	50	65	80	
Dim. (mm)	A	55	57	66	73	81	

246 Reducing Extension Piece



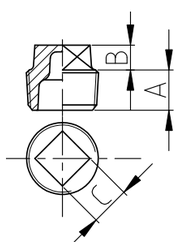
Size	Inch	1/4X1/8	3/8X1/4	1/2X3/8	1/2X1/2	3/4X1/2
	mm	8X6	10X8	15X10	15X15	20X15
Dim. (mm)	A	22.5	27.5	30	33	35
Size	Inch					
	mm					
Dim. (mm)	A					

529A Extension Piece



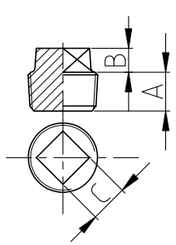
Size	Inch	1/2	3/4				
	mm	15	20				
Dim. (mm)	A	42	47				
Size	Inch						
	mm						
Dim. (mm)	A						

291 Cored Plug



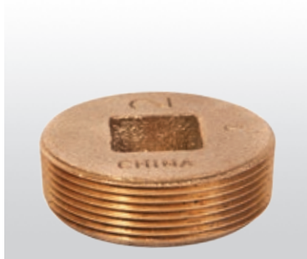
Size	Inch	1/2	3/4	1	11/4	11/2
	mm	15	20	25	32	40
Dim. (mm)	A	14	14	18	18	19
	B	10	11	13	14	16
	C	14.3	15.8	20.6	23.8	28.5
Size	Inch	2	21/2	3	4	
	mm	50	65	80	100	
Dim. (mm)	A	19	27	29	31	
	B	17	19	20	23	
	C	33.3	38.1	42.8	57.1	

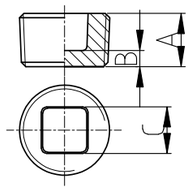
291S Solid Plug



Size	Inch	1/8	1/4	3/8	1/2	3/4	1
	mm	6	8	10	15	20	25
Dim. (mm)	A	7	10	10	14	14	18
	B	6	7	8	10	11	13
	C	7.1	9.5	11.1	14.3	15.8	20.6
Size	Inch	11/4	11/2	2	21/2	3	4
	mm	32	40	50	65	80	100
Dim. (mm)	A	18	19	19	27	29	31
	B	14	16	17	19	20	23
	C	23.8	28.5	33.3	38.1	42.8	57.1

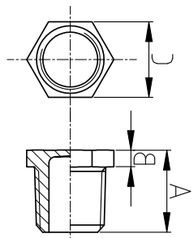
291N Countersunk Plug





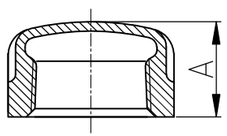
Size	Inch	1/2	3/4	1	11/4	11/2
	mm	15	20	25	32	40
Dim. (mm)	A	14	14	18	18	19
	B	2.3	2.5	2.8	3.0	3.3
	C	9.5	12.7	12.7	19.1	19.1
Size	Inch	2	21/2	3	4	
	mm	50	65	80	100	
Dim. (mm)	A	19	27	29	31	
	B	3.8	4.3	4.8	5.6	
	C	22.2	28.6	34.9	50.8	

292 Hex Head Plug



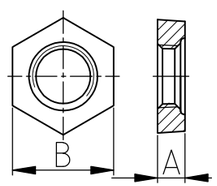
Size	Inch	1/8	1/4	3/8	1/2	3/4
	mm	6	8	10	15	20
Dim. (mm)	A	14	18	19	25	26
	B	4.3	4.3	4.3	5	6
	C	12	15	18	23	28
Size	Inch					
	mm					
Dim. (mm)	A					
	B					
	C					

300 Cap



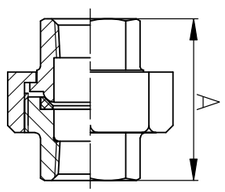
Size	Inch	1/8	1/4	3/8	1/2	3/4	1
	mm	6	8	10	15	20	25
Dim. (mm)	A	12	15	16	19	21	25
Size	Inch	11/4	11/2	2	21/2	3	4
	mm	32	40	50	65	80	100
Dim. (mm)	A	28	29	34	43	46	53

310 Locknut



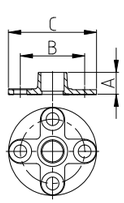
Size	Inch	1/8	1/4	3/8	1/2	3/4	1
	mm	6	8	10	15	20	25
Dim. (mm)	A	4.8	6.4	7.1	7.9	8.6	9.7
	B	17.5	21.3	25.4	30	36.3	44.5
Size	Inch	11/4	11/2	2			
	mm	32	40	50			
Dim. (mm)	A	10.7	11.9	13.5			
	B	53.3	59.7	73.2			

342 Union



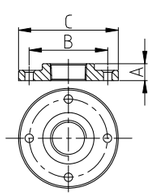
Size	Inch	1/8	1/4	3/8	1/2	3/4	1
	mm	6	8	10	15	20	25
Dim. (mm)	A	32	37	41	44	49.5	52.5
Size	Inch	11/4	11/2	2	21/2	3	4
	mm	32	40	50	65	80	100
Dim. (mm)	A	57.5	61.5	70	82	89	98

321H Companion Solder Flange



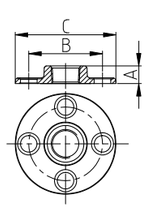
Size	Inch	1	11/4	11/2	2	21/2
	mm	25	32	40	50	65
Dim. (mm)	A	25	27.4	30.4	36.7	40.8
	B	79.5	90	98.5	120.5	140
	C	108	117.5	127	152.4	177.8
Size	Inch	3	4			
	mm	80	100			
Dim. (mm)	A	45.5	58			
	B	152.5	190.5			
	C	190.5	228.6			

321J Floor Flange



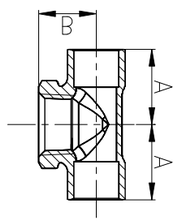
Size	Inch	1/2	3/4	1	11/4	11/2
	mm	15	20	25	32	40
Dim. (mm)	A	13.5	15.3	18	19	22
	B	62	62	75	75	86.5
	C	88	88	102	102	114
Size	Inch	2				
	mm	50				
Dim. (mm)	A	25				
	B	120.7				
	C	150				

321L Companion Threaded Flange



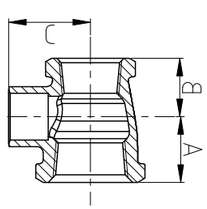
Size	Inch	1/2	3/4	1	11/4	11/2
	mm	15	20	25	32	40
Dim. (mm)	A	15	15.8	17.6	20.6	22.4
	B	60.5	70	79.5	90	98.5
	C	89	98.5	108	117.5	128
Size	Inch	2	21/2	3	4	6
	mm	50	65	80	100	150
Dim. (mm)	A	25.4	28.5	30.3	33.3	40
	B	120.5	140	152.5	190.5	241.3
	C	151	179.5	192	231	280

F130 Adapter Tee



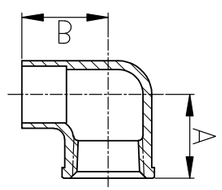
Size	Inch	1/2					
	mm	15					
Dim. (mm)	A	27					
	B	21.5					
Size	Inch						
	mm						
Dim. (mm)	A						
	B						

F130R Reducing Adapter Tee



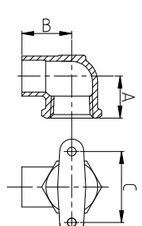
Size	Inch	3/4X1/2					
	mm	20X15					
Dim. (mm)	A	22					
	B	20					
	C	27.5					
Size	Inch						
	mm						
Dim. (mm)	A						
	B						
	C						

91 Adapter 90° Elbow



Size	Inch	1/2	3/4				
	mm	15	20				
Dim. (mm)	A	23.5	29				
	B	24.5	32.5				
Size	Inch						
	mm						
Dim. (mm)	A						
	B						

91C Drop Ear 90° Elbow



Size	Inch	1/2					
	mm	15					
Dim. (mm)	A	21					
	B	25					
	C	35.5					
Size	Inch						
	mm						
Dim. (mm)	A						
	B						
	C						