

WROUGHT STEEL BUTT-WELDING FITTINGS

STANDARD SIZES OF BUTT-WELDING FITTINGS (Metric Unit: mm)

DIMENSIONS OF FITTING ENDS

Nominal Pipe Size	Outside Diameter OD	Inside Diameter ID				Wall Thickness T			
		STD	S-40	XS	S-80	STD	S-40	XS	S-80
½	21.3	15.7	15.7	13.9	13.9	2.8	2.8	3.7	3.7
¾	26.7	20.9	20.9	18.9	18.9	2.9	2.9	3.9	3.9
1	33.4	26.6	26.6	24.4	24.4	3.4	3.4	4.5	4.5
1 ¼	42.2	35.0	35.0	32.4	32.4	3.6	3.6	4.9	4.9
1 ½	48.3	40.9	40.9	38.1	38.1	3.7	3.7	5.1	5.1
2	60.3	52.5	52.5	49.3	49.3	3.9	3.9	5.5	5.5
2 ½	73.0	62.6	62.6	59.0	59.0	5.2	5.2	7.0	7.0
3	88.9	77.9	77.9	73.7	73.7	5.5	5.5	7.6	7.6
3 ½	101.6	90.2	90.2	85.4	85.4	5.7	5.7	8.1	8.1
4	114.3	102.3	102.3	97.1	97.1	6.0	6.0	8.6	8.6
5	141.3	128.1	128.1	122.3	122.3	6.6	6.6	9.5	9.5
6	168.3	154.1	154.1	146.3	146.3	7.1	7.1	11.0	11.0
8	219.1	202.7	202.7	193.7	193.7	8.2	8.2	12.7	12.7
10	273.1	254.5	254.5	247.7	242.9	9.3	9.3	12.7	15.1
12	323.9	304.9	303.3	298.5	289.1	9.5	10.3	12.7	17.4
14	355.6	336.6	333.4	330.2	317.6	9.5	11.1	12.7	19.0
16	406.4	387.4	381.0	381.0	363.6	9.5	12.7	12.7	21.4
18	457.2	438.2	428.6	431.8	409.6	9.5	14.3	12.7	23.8

Note: Dimensions of outside diameter and wall thickness conform to ANSI B 36.10

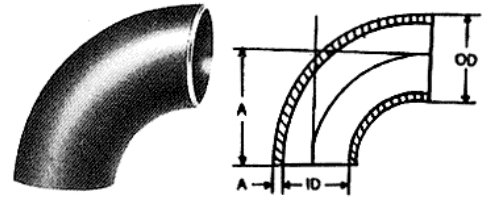


45° ELBOWS

ANSI B 16.9

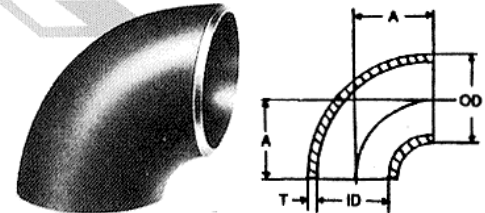
Nominal Pipe Size	Outside Diameter OD	STD		XS		Centre to Face B	Approx. Weight kg	
		ID	T	ID	T		STD	XS
½	21.3	15.7	2.8	13.9	3.7	15.9	0.0379	0.0485
¾	26.7	20.9	2.9	18.9	3.9	11.1	0.0378	0.0494
1	33.4	26.6	3.4	24.4	4.5	22.2	0.0748	0.0968
1 ¼	42.2	35.0	3.6	32.4	4.9	25.4	0.127	0.167
1 ½	48.3	40.9	3.7	38.1	5.1	28.6	0.182	0.243
2	60.3	52.5	3.9	49.3	5.5	34.9	0.326	0.448
2 ½	73.0	62.6	5.2	59.0	7.0	44.5	0.646	0.854
3	88.9	77.9	5.5	73.7	7.6	50.8	1.01	1.37
3 ½	101.6	90.2	5.7	85.4	8.1	57.2	1.42	1.95
4	114.3	102.3	6.0	97.1	8.6	63.5	1.92	2.67
5	141.3	128.1	6.6	122.3	9.5	79.4	3.26	4.63
6	168.3	154.1	7.1	146.3	11.0	95.3	5.08	7.64
8	219.1	202.7	8.2	193.7	12.7	127.0	10.2	15.5
10	273.1	254.5	9.3	247.7	12.7	158.8	18.1	24.4
12	323.9	304.9	9.5	298.5	12.7	190.5	26.5	35.0
14	355.6	336.6	9.5	330.2	12.7	222.3	34.1	45.0
16	406.4	387.4	9.5	381.0	12.7	254.0	44.6	59.0
18	457.2	438.2	9.5	431.8	12.7	285.8	56.6	74.9

STANDARD SIZES OF BUTT-WELDING FITTINGS (Metric Unit: mm)



90° ELBOWS Long Radius ANSI B 16.9

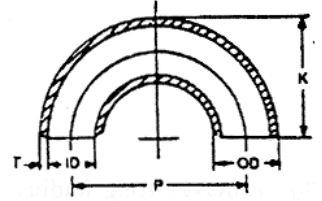
Nominal Pipe Size	Outside Diameter OD	STD		XS		Centre to Face A	Approx. Weight kg	
		ID	T	ID	T		STD	XS
1/2	21.3	15.7	2.8	13.9	3.7	38.1	0.0759	0.0971
3/4	26.7	20.9	2.9	18.9	3.9	28.6	0.0756	0.0987
1	33.4	26.6	3.4	24.4	4.5	38.1	0.15	0.194
1 1/4	42.2	35.0	3.6	32.4	4.9	47.6	0.253	0.334
1 1/2	48.3	40.9	3.7	38.1	5.1	57.2	0.364	0.486
2	60.3	52.5	3.9	49.3	5.5	76.2	0.652	0.895
2 1/2	73.0	62.6	5.2	59.0	7.0	95.3	1.29	1.71
3	88.9	77.9	5.5	73.7	7.6	114.3	2.03	2.74
3 1/2	101.6	90.2	5.7	85.4	8.1	133.4	2.84	3.90
4	114.3	102.3	6.0	97.1	8.6	152.4	3.85	5.34
5	141.3	128.1	6.6	122.3	9.5	190.5	6.52	9.26
6	168.3	154.1	7.1	146.3	11.0	228.6	10.2	15.3
8	219.1	202.7	8.2	193.7	12.7	304.8	20.4	30.9
10	273.1	254.5	9.3	247.7	12.7	381.0	36.1	48.8
12	323.9	304.9	9.5	298.5	12.7	457.2	53.0	69.9
14	355.6	336.6	9.5	330.2	12.7	533.4	68.1	89.9
16	406.4	387.4	9.5	381.0	12.7	609.6	89.3	118.0
18	457.2	438.2	9.5	431.8	12.7	685.8	113.0	150.0



90° ELBOWS Short Radius ANSI B 16.9

Nominal Pipe Size	Outside Diameter OD	STD		XS		Centre to Face A	Approx. Weight kg	
		ID	T	ID	T		STD	XS
1	33.4	26.6	3.4	24.4	4.5	25.4	0.0998	0.129
1 1/4	42.2	35.0	3.6	32.4	4.9	31.8	0.169	0.223
1 1/2	48.3	40.9	3.7	38.1	5.1	38.1	0.243	0.324
2	60.3	52.5	3.9	49.3	5.5	50.8	0.435	0.597
2 1/2	73.0	62.6	5.2	59.0	7.0	63.5	0.861	1.14
3	88.9	77.9	5.5	73.7	7.6	76.2	1.35	1.83
3 1/2	101.6	90.2	5.7	85.4	8.1	88.9	1.89	2.60
4	114.3	102.3	6.0	97.1	8.6	101.6	2.56	3.56
5	141.3	128.1	6.6	122.3	9.5	127.0	4.35	6.17
6	168.3	154.1	7.1	146.3	11.0	152.4	6.77	10.2
8	219.1	202.7	8.2	193.7	12.7	203.2	13.6	20.6
10	273.1	254.5	9.3	247.7	12.7	254.0	24.1	32.5
12	323.9	304.9	9.5	298.5	12.7	304.8	35.3	46.6
14	355.6	336.6	9.5	330.2	12.7	355.6	45.4	60.0
16	406.4	387.4	9.5	381.0	12.7	406.4	59.5	78.7
18	457.2	438.2	9.5	431.8	12.7	457.2	75.5	99.9

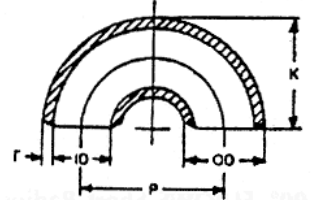
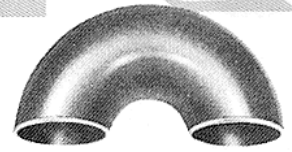
STANDARD SIZES OF BUTT-WELDING FITTINGS (Metric Unit: mm)



180° RETURNS Long Radius

ANSI B 16.9

Nominal Pipe Size	Outside Diameter OD	STD		XS		Centre to Centre P	Centre to Face K	Approx. Weight kg	
		ID	T	ID	T			STD	XS
1/2	21.3	15.7	2.8	--	--	76.2	47.6	0.152	--
3/4	26.7	20.9	2.9	18.9	3.9	57.2	42.9	0.151	0.197
1	33.4	26.6	3.4	24.4	4.5	76.2	55.6	0.299	0.387
1 1/4	42.2	35.0	3.6	32.4	4.9	95.3	69.9	0.506	0.668
1 1/2	48.3	40.9	3.7	38.1	5.1	114.3	82.6	0.728	0.972
2	60.3	52.5	3.9	49.3	5.5	152.4	106.4	1.30	1.79
2 1/2	73.0	62.6	5.2	59.0	7.0	190.5	131.8	2.58	3.42
3	88.9	77.9	5.5	73.7	7.6	228.6	158.8	4.05	5.48
3 1/2	101.6	90.2	5.7	85.4	8.1	266.7	184.2	5.68	7.81
4	114.3	102.3	6.0	97.1	8.6	304.8	209.6	7.69	10.7
5	141.3	128.1	6.6	122.3	9.5	381.0	261.9	13.0	18.5
6	168.3	154.1	7.1	146.3	11.0	457.2	312.7	20.3	30.6
8	219.1	202.7	8.2	193.7	12.7	609.6	414.3	40.7	61.9
10	273.1	254.5	9.3	247.7	12.7	762.0	517.5	72.2	97.5
12	323.9	304.9	9.5	298.5	12.7	914.4	619.1	106.0	140.0

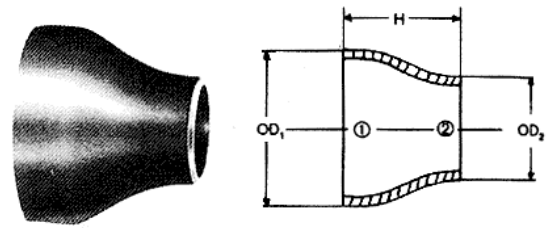


180° RETURNS Short Radius

ANSI B 16.9

Nominal Pipe Size	Outside Diameter OD	STD		XS		Centre to Centre P	Centre to Face K	Approx. Weight kg	
		ID	T	ID	T			STD	XS
1	33.4	26.6	3.4	24.4	4.5	50.8	41.3	0.200	0.258
1 1/4	42.2	35.0	3.6	32.4	4.9	63.5	52.4	0.338	0.446
1 1/2	48.3	40.9	3.7	38.1	5.1	76.2	61.9	0.485	0.647
2	60.3	52.5	3.9	49.3	5.5	101.6	81.0	0.87	1.19
2 1/2	73.0	62.6	5.2	59.0	7.0	127.0	100.0	1.72	2.28
3	88.9	77.9	5.5	73.7	7.6	152.4	120.7	2.70	3.65
3 1/2	101.6	90.2	5.7	85.4	8.1	177.8	139.7	3.79	5.20
4	114.3	102.3	6.0	97.1	8.6	203.2	158.8	5.13	7.12
5	141.3	128.1	6.6	122.3	9.5	254.0	196.9	8.69	12.3
6	168.3	154.1	7.1	146.3	11.0	304.8	236.5	13.5	20.4
8	219.1	202.7	8.2	193.7	12.7	406.4	312.7	27.1	41.2
10	273.1	254.5	9.3	247.7	12.7	508.0	390.5	48.1	65.0
12	323.9	304.9	9.5	298.5	12.7	609.6	466.7	70.7	93.3

STANDARD SIZES OF BUTT-WELDING FITTINGS (Metric Unit: mm)

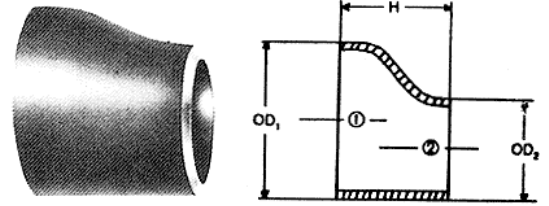


REDUCERS

ANSI B 16.9

Nominal Pipe Size ① x ②	Large End	Small End	Length	Approx. Weight kg	
	OD ₁	OD ₂	H	STD	XS
1/4 x 1/2	26.7	21.3	38.1	0.0571	0.0741
1 x 3/4	33.4	26.7	50.8	0.113	0.145
1 x 1/2		21.3		0.102	0.131
1 1/4 x 1	42.2	33.4	50.8	0.153	0.201
1 1/4 x 3/4		26.7		0.139	0.182
1 1/4 x 1/2		21.3		0.128	0.167
1 1/2 x 1 1/4	48.3	42.2	63.5	0.240	0.319
1 1/2 x 1		33.4		0.216	0.286
1 1/2 x 3/4		26.7		0.198	0.261
1 1/2 x 1/2		21.3		0.184	0.241
2 x 1 1/2	60.3	48.3	76.2	0.372	0.509
2 x 1 1/4		42.2		0.351	0.479
2 x 1		33.4		0.321	0.437
2 x 3/4		26.7		0.298	0.404
2 1/2 x 2	73.0	60.3	88.9	0.697	0.919
2 1/2 x 1 1/2		48.3		0.633	0.832
2 1/2 x 1 1/4		42.2		0.602	0.788
2 1/2 x 1		33.4		0.556	0.727
3 x 2 1/2	88.9	73.0	88.9	0.911	1.23
3 x 2		60.3		0.842	1.13
3 x 1 1/2		48.3		0.778	1.04
3 x 1 1/4		42.2		0.747	0.999
3 1/2 x 3	101.6	88.9	101.6	1.29	1.77
3 1/2 x 2 1/2		73.0		1.18	1.62
3 1/2 x 2		60.3		1.10	1.50
3 1/2 x 1 1/2		48.3		1.03	1.40
3 1/2 x 1 1/4		42.2		0.984	1.34
4 x 3 1/2	114.3	101.6	101.6	1.54	2.13
4 x 3		88.9		1.45	2.01
4 x 2 1/2		73.0		1.35	1.86
4 x 2		60.3		1.27	1.75
4 x 1 1/2		48.3		1.19	1.64

STANDARD SIZES OF BUTT-WELDING FITTINGS (Metric Unit: mm)



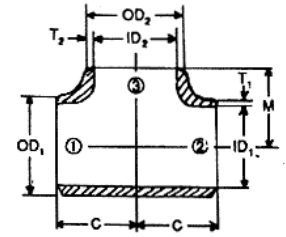
REDUCERS

ANSI B 16.9

Nominal Pipe Size ① x ②	Large End	Small End	Length	Approx. Weight kg			
	OD ₁	OD ₂	H	STD	XS		
5 x 4	141.3	114.3	127.0	2.50	3.55		
5 x 3½		101.6		2.39	3.38		
5 x 3		88.9		2.28	3.21		
5 x 2½		73.0		2.14	3.02		
5 x 2		60.3		2.03	2.86		
6 x 5	168.3	141.3	139.7	3.64	5.46		
6 x 4		114.3		3.35	5.02		
6 x 3½		101.6		3.22	4.82		
6 x 3		88.3		3.09	4.62		
6 x 2½		73.0		2.94	4.38		
8 x 6	219.1	168.3	152.4	5.78	8.75		
8 x 5		141.3		5.45	8.24		
8 x 4		114.3		5.15	7.77		
8 x 3½		101.6		5.01	7.55		
10 x 8		273.1		219.1	177.8	9.74	13.1
10 x 6	168.3		8.96	12.1			
10 x 5	141.3		8.58	11.3			
10 x 4	114.3		8.21	11.0			
12 x 10	323.9		273.1	203.2		13.9	18.3
12 x 8		219.1	12.9		17.0		
12 x 6		168.3	12.1		15.9		
12 x 5		141.3	11.6		15.3		
14 x 12		355.6	323.9		330.2	25.5	33.8
14 x 10	273.1		23.7	31.4			
14 x 8	219.1		21.9	27.7			
16 x 14	406.4		355.6	355.6		31.0	41.1
16 x 12			323.9			29.8	39.5
16 x 10		273.1	28.0		37.0		
18 x 16		457.2	406.4		381.0	37.7	50.1
18 x 14			355.6			35.7	47.4
18 x 12	323.9		34.5	45.7			

Note: (1) Wall thickness and inside diameter conform to ANSI B 36.10.
 (2) Shows available sizes of eccentric reducer.

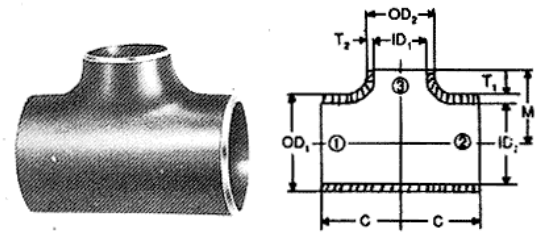
STANDARD SIZES OF BUTT-WELDING FITTINGS (Metric Unit: mm)



TEES ANSI B 16.9

Nominal Pipe Size ① x ② x ③	Outside Diameter		Center to End		STD				XS				Approx. Weight (kg)	
					Run		Branch		Run		Branch			
	OD ₁	OD ₂	C	M	ID ₁	T ₁	ID ₂	T ₂	ID ₁	T ₁	ID ₂	T ₂	STD	XS
½ x ½ x ½	21.3	21.3	25.4	25.4	15.7	2.8	15.7	2.8	13.9	3.7	13.9	3.7	0.11	0.16
¾ x ¾ x ¾ x ½	26.7	26.7	28.6	28.6	20.9	2.9	20.9	2.9	18.9	3.9	18.9	3.9	0.17	0.21
	26.7	21.3	28.6	28.6	20.9	2.9	15.7	2.8	18.9	3.9	13.9	3.7	0.15	0.19
1 x 1 x 1 x ¾ x ½	33.4	33.4	38.1	38.1	26.6	3.4	26.6	3.4	24.4	4.5	24.4	4.5	0.35	0.42
	33.4	26.7	38.1	38.1	26.6	3.4	20.9	2.9	24.4	4.5	18.9	3.9	0.30	0.36
	33.4	21.3	38.1	38.1	26.6	3.4	15.7	2.8	24.4	4.5	13.9	3.7	0.29	0.36
1¼ x 1¼ x 1¼ x 1 x ¾ x ½	42.2	42.2	47.6	47.6	35.0	3.6	35.0	3.6	32.4	4.9	32.4	4.9	0.61	0.75
	42.2	33.4	47.6	47.6	35.0	3.6	26.6	3.4	32.4	4.9	24.4	4.5	0.53	0.66
	42.2	26.7	47.6	47.6	35.0	3.6	20.9	2.9	32.4	4.9	18.9	3.9	0.50	0.63
	42.2	21.3	47.6	47.6	35.0	3.6	15.7	2.8	32.4	4.9	13.9	3.7	0.49	0.61
1½ x 1½ x 1½ x 1¼ x 1 x ¾ x ½	48.3	48.3	57.2	57.2	40.9	3.7	40.9	3.7	38.1	5.1	38.1	5.1	0.92	1.13
	48.3	42.2	57.2	57.2	40.9	3.7	35.0	3.6	38.1	5.1	32.4	4.9	0.80	1.00
	48.3	33.4	57.2	57.2	40.9	3.7	26.6	3.4	38.1	5.1	24.4	4.5	0.76	0.95
	48.3	26.7	57.2	57.2	40.9	3.7	20.9	2.9	38.1	5.1	18.9	3.9	0.73	0.93
	48.3	21.3	57.2	57.2	40.9	3.7	15.7	2.8	38.1	5.1	13.9	3.7	0.72	0.90
2 x 2 x 2 x 1½ x 1¼ x 1 x ¾	60.3	60.3	63.5	63.5	52.5	3.9	52.5	3.9	49.3	5.5	49.3	5.5	1.34	1.70
	60.3	48.3	63.5	60.3	52.5	3.9	40.9	3.7	49.3	5.5	38.1	5.1	1.21	1.54
	60.3	42.2	63.5	57.2	52.5	3.9	35.0	3.6	49.3	5.5	32.4	4.9	1.12	1.48
	60.3	33.4	63.5	50.8	52.5	3.9	26.6	3.4	49.3	5.5	24.4	4.5	1.11	1.44
	60.3	26.7	63.5	44.5	52.5	3.9	20.9	2.9	49.3	5.5	18.9	3.9	1.10	1.12
2½ x 2½ x 2½ x 2 x 1½ x 1¼	73.0	73.0	76.2	76.2	62.6	5.2	62.6	5.2	59.0	7.0	59.0	7.0	2.37	2.93
	73.0	60.3	76.2	69.9	62.6	5.2	52.5	3.9	59.0	7.0	49.3	5.5	2.08	2.62
	73.0	48.3	76.2	66.7	62.6	5.2	40.9	3.7	59.0	7.0	38.1	5.1	2.05	2.57
	73.0	42.2	76.2	63.5	62.6	5.2	35.0	3.6	59.0	7.0	32.4	4.9	2.00	2.52
3 x 3 x 3 x 2½ x 2 x 1½ x 1¼	88.9	88.9	85.7	85.7	77.9	5.5	77.9	5.5	73.7	7.6	73.7	7.6	3.38	4.29
	88.9	73.0	85.7	82.6	77.9	5.5	62.6	5.2	73.7	7.6	59.0	7.0	3.09	3.91
	88.9	60.3	85.7	76.2	77.9	5.5	52.5	3.9	73.7	7.6	49.3	5.5	2.96	3.79
	88.9	48.3	85.7	73.0	77.9	5.5	40.9	3.7	73.7	7.6	38.1	5.1	2.93	3.77
	88.9	42.2	85.7	69.9	77.9	5.5	35.0	3.6	73.7	7.6	32.4	4.9	2.88	3.71
3½ x 3½ x 3½ x 3 x 2½ x 2 x 1½	101.6	101.6	95.3	95.3	90.2	5.7	90.2	5.7	85.4	8.1	85.4	8.1	4.48	5.73
	101.6	88.9	95.3	92.1	90.2	5.7	77.9	5.5	85.4	8.1	73.7	7.6	4.10	5.32
	101.6	73.0	95.3	88.9	90.2	5.7	62.6	5.2	85.4	8.1	59.0	7.0	4.00	5.23
	101.6	60.3	95.3	82.6	90.2	5.7	52.5	3.9	85.4	8.1	49.3	5.5	3.86	5.10
	101.6	48.3	95.3	79.4	90.2	5.7	40.9	3.7	85.4	8.1	38.1	5.1	3.86	5.04

STANDARD SIZES OF BUTT-WELDING FITTINGS (Metric Unit: mm)



REDUCING

ANSI B 16.9

Nominal Pipe Size ① x ② x ③	Outside Diameter		Center to End		STD				XS				Approx. Weight (kg)	
					Run		Branch		Run		Branch		STD	XS
	OD ₁	OD ₂	C	M	ID ₁	T ₁	ID ₂	T ₂	ID ₁	T ₁	ID ₂	T ₂		
4 x 4 x 4	114.3	114.3	104.8	104.8	102.3	6.0	102.3	6.0	97.1	8.6	97.1	8.6	5.73	7.47
x 3½	114.3	101.6	104.8	101.6	102.3	6.0	90.2	5.7	97.1	8.6	85.4	8.1	5.28	6.96
x 3	114.3	88.9	104.8	98.4	102.3	6.0	77.9	5.5	97.1	8.6	73.7	7.6	5.18	6.82
x 2½	114.3	73.0	104.8	95.3	102.3	6.0	62.6	5.2	97.1	8.6	59.0	7.0	5.13	6.68
x 2	114.3	60.3	104.8	88.9	102.3	6.0	52.5	3.9	97.1	8.6	49.3	5.5	5.00	6.59
x 1½	114.3	48.3	104.8	85.7	102.3	6.0	40.9	3.7	97.1	8.6	38.1	5.1	4.96	6.54
5 x 5 x 5	141.3	141.3	123.8	123.8	128.1	6.6	128.1	6.6	122.3	9.5	122.3	9.5	9.00	12.0
x 4	141.3	114.3	123.8	117.5	128.1	6.6	102.3	6.0	122.3	9.5	97.1	8.6	8.23	11.0
x 3½	141.3	101.6	123.8	114.3	128.1	6.6	90.2	5.7	122.3	9.5	85.4	8.1	8.10	10.9
x 3	141.3	88.9	123.8	111.1	128.1	6.6	77.9	5.5	122.3	9.5	73.7	7.6	8.00	10.8
x 2½	141.3	73.0	123.8	108.0	128.1	6.6	62.6	5.2	122.3	9.5	59.0	7.0	7.90	10.7
x 2	141.3	60.3	123.8	104.8	128.1	6.6	52.5	3.9	122.3	9.5	49.3	5.5	7.80	10.6
6 x 6 x 6	168.3	168.3	142.9	142.9	154.1	7.1	154.1	7.1	146.3	11.0	146.3	11.0	13.3	19.1
x 5	168.3	141.3	142.9	136.5	154.1	7.1	128.1	6.6	146.3	11.0	122.3	9.5	12.1	17.2
x 4	168.3	114.3	142.9	130.2	154.1	7.1	102.3	6.0	146.3	11.0	97.1	8.6	11.9	16.9
x 3½	168.3	101.6	142.9	127.0	154.1	7.1	90.2	5.7	146.3	11.0	85.4	8.1	11.8	16.9
x 3	168.3	88.9	142.9	123.0	154.1	7.1	77.9	5.5	146.3	11.0	73.7	7.6	11.8	16.8
x 2½	168.3	73.0	142.9	120.7	154.1	7.1	62.6	5.2	146.3	11.0	59.0	7.0	11.7	16.8
8 x 8 x 8	219.1	219.1	177.8	177.8	202.7	8.2	202.7	8.2	193.7	12.7	193.7	12.7	24.4	34.8
x 6	219.1	168.3	177.8	168.3	202.7	8.2	154.1	7.1	193.7	12.7	122.3	9.5	22.1	32.1
x 5	219.1	141.3	177.8	161.9	202.7	8.2	128.1	6.6	193.7	12.7	97.1	8.6	21.8	31.6
x 4	219.1	114.3	177.8	155.6	202.7	8.2	102.3	6.0	193.7	12.7	85.4	8.1	21.8	31.5
x 3½	219.1	101.6	177.8	152.4	202.7	8.2	90.2	5.7	193.7	12.7	73.7	7.6	21.7	31.4
10 x 10 x 10	273.1	273.1	215.9	215.9	254.5	9.3	254.5	9.3	247.7	12.7	247.7	12.7	41.4	55.9
x 8	273.1	219.1	215.9	203.2	254.5	9.3	202.7	8.2	247.7	12.7	193.7	12.7	37.7	52.9
x 6	273.1	168.3	215.9	193.7	254.5	9.3	154.1	7.1	247.7	12.7	122.3	9.5	37.1	50.4
x 5	273.1	141.3	215.9	190.5	254.5	9.3	128.1	6.6	247.7	12.7	97.1	8.6	37.0	49.3
12 x 12 x 12	323.9	323.9	254.0	254.0	304.9	9.5	304.9	9.5	298.5	12.7	298.5	12.7	60.0	78.7
x 10	323.9	273.1	254.0	241.3	304.9	9.5	254.5	9.3	298.5	12.7	247.7	12.7	55.0	75.2