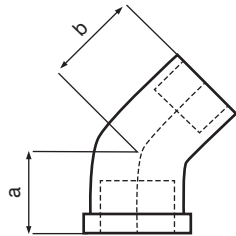


CLASS 150 • BLACK & GALVANIZED FITTINGS

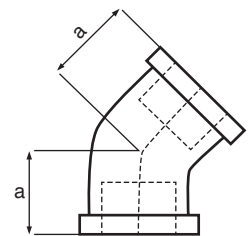
Specifications & Approvals

Class 150 PSI
 Material Conforms to ASTM A 197 (CUPOLA)
 Dimensions Conform to ANSI B 16.3, B 16.4, B 16.39
 & SI 225
 Union Dimensions Conform to ASME B16.39
 Threads Conform to ANSI / ASME B 1.20, BS 21
 Tensile Strength 28.4 kg/mm.
 Elongation 5% Minimum
 Galvanized Zinc Coating Conforms to SI 918, ASTM A153
 Conforms to NSF/ANSI Standard 61/372
 Working Pressure 10 kg/cm (150 P.S.I.) at 350°F



45 Street Elbow - Dimensions

Size	A	B
1/8"	17.0	21.0
1/4"	18.5	23.9
3/8"	20.3	26.2
1/2"	22.4	29.2
3/4"	24.9	32.8
1"	28.5	37.3
1-1/4"	32.8	43.4
1-1/2"	36.3	47.8
2"	42.7	56.4
2-1/2"	49.5	65.3
3"	55.1	76.2
4"	66.3	94.0



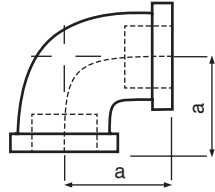
45 Elbow - Dimensions

Size	A
1/8"	17.0
1/4"	18.5
3/8"	20.3
1/2"	22.4
3/4"	24.9
1"	28.5
1-1/4"	32.8
1-1/2"	36.3
2"	42.7
2-1/2"	49.5
3"	55.1
4"	66.3
5"	77.5
6"	87.9



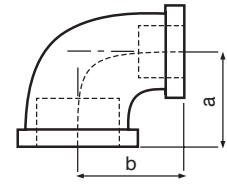
*Note: Information subject to change without notice.

CLASS 150 • THREADED FITTINGS



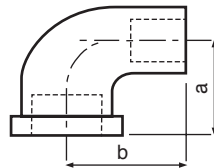
90 Elbow - Dimensions

Size	A
1/8"	17.5
1/4"	20.6
3/8"	24.1
1/2"	28.5
3/4"	33.3
1"	38.1
1-1/4"	44.5
1-1/2"	49.3
2"	57.2
2-1/2"	68.6
3"	78.2
4"	96.3
5"	114.3
6"	130.3



90 Red. Elbow - Dimensions

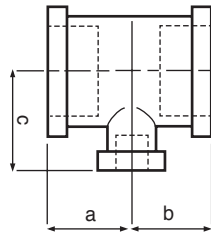
Size	A	B
1/4" x 1/8"	18.8	19.3
3/8" x 1/8"	20.5	21.6
3/8" x 1/4"	22.4	22.9
1/2" x 1/8"	22.0	23.4
1/2" x 1/4"	24.6	24.9
1/2" x 3/8"	26.4	26.2
3/4" x 1/8"	24.1	26.0
3/4" x 1/4"	26.7	27.4
3/4" x 3/8"	28.5	28.7
3/4" x 1/2"	30.5	31.0
1" x 1/4"	28.2	31.0
1" x 3/8"	30.0	32.3
1" x 1/2"	32.0	35.5
1" x 3/4"	34.8	36.8
1-1/4" x 1/2"	34.0	38.9
1-1/4" x 3/4"	36.8	41.2
1-1/4" x 1"	40.1	42.4
1-1/2" x 1/2"	35.8	42.2
1-1/2" x 3/4"	38.6	44.5
1-1/2" x 1"	41.9	45.7
1-1/2" x 1-1/4"	46.2	47.8
2" x 1/2"	37.3	43.4
2" x 3/4"	40.6	50.0
2" x 1"	43.5	50.5
2" x 1-1/4"	48.3	53.3
2" x 1-1/2"	51.3	54.9
2-1/2" x 1/2"	-	-
2-1/2" x 3/4"	43.8	59.4
2-1/2" x 1"	47.5	60.2
2-1/2" x 1-1/4"	51.8	62.2
2-1/2" x 1-1/2"	54.9	63.8
2-1/2" x 2"	60.7	66.0
3" x 1-1/2"	57.9	71.0
3" x 2"	64.0	73.4
3" x 2-1/2"	71.9	75.9
4" x 2"	69.0	88.5
4" x 2-1/2"	81.0	91.0
4" x 3"	83.8	91.4



90 Street Elbow - Dimensions

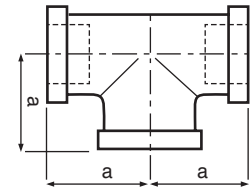
Size	A	B
1/8"	17.5	25.4
1/4"	20.6	30.2
3/8"	25.0	32.0
1/2"	28.0	37.0
3/4"	33.0	43.0
1"	38.0	52.0
1-1/4"	44.0	60.0
1-1/2"	50.0	65.0
2"	58.0	74.0
2-1/2"	69.0	88.0
3"	78.0	98.0
4"	96.0	118.0

CLASS 150 • THREADED FITTINGS



Red. Tees - Dimensions

Size	A	B	C
1/4" x 1/8"	18.8	18.8	19.3
1/2" x 1/8"	22.8	22.8	23.8
1/2" x 1/4"	24.6	24.6	24.9
1/2" x 3/8"	26.4	26.4	26.2
3/8" x 1/8"	20.6	20.6	21.6
3/8" x 1/4"	22.4	22.4	22.9
3/4" x 1/4"	26.7	26.7	27.4
3/4" x 3/8"	28.5	28.5	28.7
3/4" x 1/2"	30.5	30.5	31.0
1" x 1/4"	28.2	28.2	31.0
1" x 3/8"	30.0	30.0	32.3
1" x 1/2"	32.0	32.0	35.5
1" x 3/4"	34.8	34.8	36.8
1-1/4" x 3/8"	32.0	32.0	36.6
1-1/4" x 1/2"	34.0	34.0	38.9
1-1/4" x 3/4"	36.8	36.8	41.2
1-1/4" x 1"	40.1	40.1	42.4
1-1/2" x 3/8"	-	-	-
1-1/2" x 1/2"	35.8	35.8	42.2
1-1/2" x 3/4"	38.6	38.6	44.5
1-1/2" x 1"	41.9	41.9	45.7
1-1/2" x 1-1/4"	46.2	46.2	47.8
2" x 3/8"	-	-	-
2" x 1/2"	37.9	37.9	47.8
2" x 3/4"	40.6	40.6	50.0
2" x 1"	43.9	43.9	51.3
2" x 1-1/4"	48.3	48.3	53.3
2" x 1-1/2"	51.3	51.3	54.9
2-1/2" x 1/2"	41.0	41.0	57.0
2-1/2" x 3/4"	44.2	44.2	58.9
2-1/2" x 1"	47.5	47.5	60.2
2-1/2" x 1-1/4"	51.8	51.8	62.2
2-1/2" x 1-1/2"	54.9	54.9	63.8
2-1/2" x 2"	60.7	60.7	66.0
3" x 1/2"	43.0	43.0	65.7
3" x 3/4"	47.5	47.5	66.3
3" x 1"	50.8	50.8	67.6
3" x 1-1/4"	55.1	55.1	69.6
3" x 1-1/2"	58.2	58.2	71.1
3" x 2"	64.0	64.0	73.4
3" x 2-1/2"	71.9	71.9	76.0
4" x 1"	57.0	57.0	82.5
4" x 1-1/4"	60.5	60.5	86.5
4" x 1-1/2"	63.8	63.8	84.3
4" x 2"	69.6	69.6	86.6
4" x 2-1/2"	77.5	77.5	89.2
4" x 3"	83.8	83.8	91.4

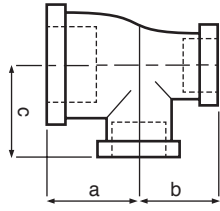


Tees - Dimensions

Size	A
1/8"	17.5
1/4"	20.6
3/8"	24.1
1/2"	28.5
3/4"	33.3
1"	38.1
1-1/4"	44.5
1-1/2"	49.3
2"	57.2
2-1/2"	68.6
3"	78.2
4"	96.3
5"	114.3
6"	130.3

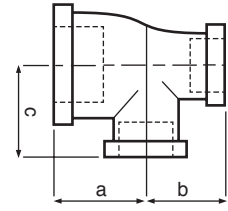


CLASS 150 • THREADED FITTINGS



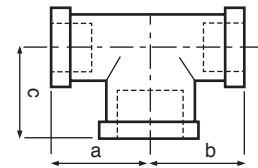
Red. Tees 3 Sizes - Dimensions

Size	A	B	C
1/2" x 1/4" x 1/2"	-	-	-
3/4" x 3/8" x 3/4"	33.3	28.7	33.3
3/4" x 1/2" x 1/2"	30.5	28.5	31.0
3/4" x 1/2" x 3/4"	33.3	31.0	33.3
3/4" x 1/2" x 1"	34.8	33.0	34.0
1" x 1/2" x 1/2"	32.0	28.5	35.5
1" x 1/2" x 3/4"	34.8	31.0	36.8
1" x 1/2" x 1"	38.1	35.5	38.1
1-1/4" x 1/2" x 1/2"	34.0	32.0	34.4
1-1/4" x 1/2" x 3/4"	48.0	42.5	53.8
1-1/4" x 1/2" x 1"	40.1	34.5	42.4
1-1/4" x 1/2" x 1-1/4"	44.5	38.9	44.5
1-1/4" x 3/4" x 1/2"	33.8	29.3	38.3
1-1/4" x 3/4" x 3/4"	36.8	33.3	41.2
1-1/4" x 3/4" x 1"	40.1	36.8	42.4
1-1/4" x 3/4" x 1-1/4"	44.5	41.2	44.5
1-1/4" x 1" x 1/2"	34.0	32.0	38.9
1-1/4" x 1" x 3/4"	36.8	34.8	41.2
1-1/4" x 1" x 1"	40.1	38.1	42.4
1-1/4" x 1" x 1-1/4"	44.5	42.4	44.5
1-1/4" x 1" x 1-1/2"	-	-	-
1" x 3/4" x 1/2"	32.0	30.5	35.3
1" x 3/4" x 3/4"	34.8	33.3	36.8
1" x 3/4" x 1"	38.1	36.8	38.1
1-1/2" x 1/2" x 3/4"	38.6	31.0	44.5
1-1/2" x 1/2" x 1"	41.0	32.8	45.5
1-1/2" x 1/2" x 1-1/4"	49.3	42.2	47.8
1-1/2" x 1/2" x 1-1/2"	49.3	42.2	49.3
1-1/2" x 3/4" x 1/2"	35.0	29.0	42.3
1-1/2" x 3/4" x 3/4"	37.9	31.9	43.3
1-1/2" x 3/4" x 1"	41.9	36.9	45.7
1-1/2" x 3/4" x 1-1/4"	46.0	41.0	48.0
1-1/2" x 3/4" x 1-1/2"	49.3	44.5	49.3
1-1/2" x 1" x 1/2"	35.0	32.3	42.3
1-1/2" x 1" x 3/4"	42.0	35.0	43.0
1-1/2" x 1" x 1"	41.9	38.1	45.7
1-1/2" x 1" x 1-1/4"	46.2	42.4	47.8
1-1/2" x 1" x 1-1/2"	49.3	45.7	49.3
1-1/2" x 1-1/4" x 1/2"	35.8	34.0	42.2
1-1/2" x 1-1/4" x 3/4"	38.6	36.3	44.5
1-1/2" x 1-1/4" x 1"	41.9	40.1	45.7
1-1/2" x 1-1/4" x 1-1/4"	46.2	44.5	47.8
1-1/2" x 1-1/4" x 1-1/2"	49.3	47.8	49.3
1-1/2" x 1-1/4" x 2"	55.0	54.0	52.5



Red. Tees 3 Sizes - Dimensions

Size	A	B	C
2" x 1/2" x 2"	57.2	47.8	57.2
2" x 3/4" x 3/4"	-	-	-
2" x 3/4" x 2"	57.2	50.0	57.2
2" x 1" x 1"	44.8	38.3	52.4
2" x 1" x 1-1/2"	51.3	45.7	54.9
2" x 1" x 2"	57.2	51.3	57.2
2" x 1-1/4" x 1"	45.0	40.6	52.0
2" x 1-1/4" x 1-1/4"	48.3	44.5	53.3
2" x 1-1/4" x 1-1/2"	51.3	47.8	54.9
2" x 1-1/4" x 2"	57.2	53.3	57.2
2" x 1-1/2" x 3/4"	-	-	-
2" x 1-1/2" x 1"	43.9	41.9	51.3
2" x 1-1/2" x 1-1/4"	48.3	46.2	53.3
2" x 1-1/2" x 1-1/2"	51.3	49.3	54.9
2" x 1-1/2" x 2"	57.2	54.8	57.2
2-1/2" x 1-1/2" x 2-1/2"	69.2	63.8	68.5
2-1/2" x 2" x 2"	-	-	-
2-1/2" x 2" x 2-1/2"	68.6	66.0	68.6



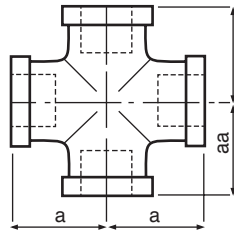
Bull Head Tees - Dimensions

Size	A	B	C
1/2" x 1/2" x 3/4"	31.0	31.0	30.5
1/2" x 1/2" x 1"	34.6	34.6	32.0
3/4" x 3/4" x 1"	36.8	36.8	34.8
3/4" x 3/4" x 1-1/4"	41.2	41.2	36.8
1" x 1" x 1-1/4"	42.4	42.4	40.1
1" x 1" x 1-1/2"	45.7	45.7	41.9
1" x 1" x 2"	51.3	51.3	48.9
1-1/4" x 1-1/4" x 1-1/2"	47.8	47.8	46.2
1-1/4" x 1-1/4" x 2"	53.3	53.3	48.3
1-1/2" x 1-1/2" x 2"	54.9	54.9	51.3
2" x 2" x 2-1/2"	66.0	66.0	60.7



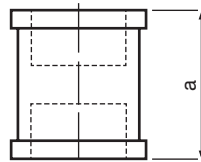
*Note: Information subject to change without notice.

CLASS 150 • THREADED FITTINGS



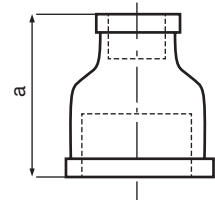
Crosses - Dimensions

Size	A
1/8"	17.5
1/4"	20.6
3/8"	24.1
1/2"	28.5
3/4"	33.3
1"	38.1
1-1/4"	44.5
1-1/2"	49.3
2"	57.2
2-1/2"	68.6
3"	78.2
4"	96.3



Couplings - Dimensions

Size	A
1/8"	24.4
1/4"	26.9
3/8"	29.5
1/2"	34.0
3/4"	39.0
1"	42.4
1-1/4"	49.0
1-1/2"	54.6
2"	64.3
2-1/2"	73.2
3"	80.8
4"	93.7
5"	-
6"	105.0



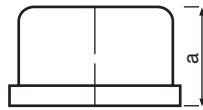
Red. Coupling - Dimensions

Size	A
1/4" x 1/8"	25.4
3/8" x 1/8"	28.7
3/8" x 1/4"	28.7
1/2" x 1/8"	31.8
1/2" x 1/4"	36.0
1/2" x 3/8"	31.8
3/4" x 1/8"	39.0
3/4" x 1/4"	36.6
3/4" x 3/8"	36.6
3/4" x 1/2"	39.0
1" x 1/4"	42.9
1" x 3/8"	42.9
1" x 1/2"	43.9
1" x 3/4"	45.0
1-1/4" x 3/8"	52.3
1-1/4" x 1/2"	52.3
1-1/4" x 3/4"	52.3
1-1/4" x 1"	52.3
1-1/2" x 3/8"	58.7
1-1/2" x 1/2"	58.7
1-1/2" x 3/4"	58.7
1-1/2" x 1"	55.0
1-1/2" x 1-1/4"	55.0
2" x 3/8"	61.0
2" x 1/2"	65.0
2" x 3/4"	65.0
2" x 1"	65.0
2" x 1-1/4"	65.0
2" x 1-1/2"	65.0
2-1/2" x 1/2"	74.0
2-1/2" x 3/4"	74.0
2-1/2" x 1"	74.0
2-1/2" x 1-1/4"	74.0
2-1/2" x 1-1/2"	74.0
2-1/2" x 2"	74.0
3" x 3/4"	72.0
3" x 1"	72.0
3" x 1-1/4"	80.0
3" x 1-1/2"	80.0
3" x 2"	80.0
3" x 2-1/2"	80.0
4" x 1"	94.0
4" x 1-1/4"	94.0
4" x 1-1/2"	94.0
4" x 2"	94.0
4" x 2-1/2"	94.0
4" x 3"	94.0
6" x 3"	120.0
6" x 4"	120.0



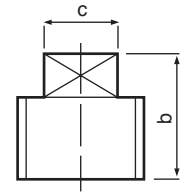
CLASS 150 • THREADED FITTINGS

Caps - Dimensions



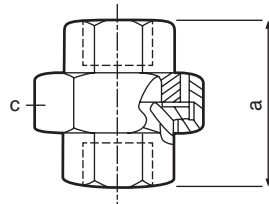
Size	A
1/8"	13.5
1/4"	16.0
3/8"	18.8
1/2"	22.1
3/4"	24.6
1"	29.5
1-1/4"	32.5
1-1/2"	33.8
2"	36.8
2-1/2"	43.2
3"	45.7
4"	52.8
5"	58.9
6"	64.8

Plugs - Dimensions



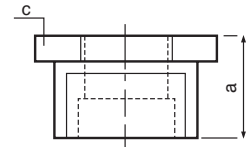
Size	B	C
1/8"	15.4	7.0
1/4"	18.2	9.5
3/8"	20.2	11.0
1/2"	24.1	14.2
3/4"	27.1	15.8
1"	31.8	20.6
1-1/4"	34.5	23.8
1-1/2"	36.0	28.6
2"	40.0	33.3
2-1/2"	49.0	33.5
3"	49.0	43.0
4"	54.0	49.0
5"	58.0	58.0
6"	70.0	68.5

Unions - Dimensions



Size	A	C
1/8"	32.5	26.0
1/4"	37.5	31.0
3/8"	42.0	37.0
1/2"	49.5	43.0
3/4"	51.5	49.0
3/4" x 1/2"	-	-
1"	59.0	59.0
1-1/4"	60.0	69.0
1-1/2"	67.0	78.0
2"	75.5	93.0
2-1/2"	84.0	114.0
3"	93.0	127.0
4"	114.0	160.0

Hex Bushings - Dimensions

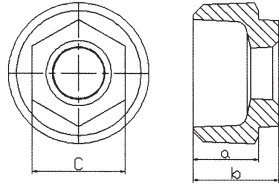


*Width of bushing spanner ASME B16.14 inside head bushings, the dimensions are separately shown in(---) with a,b,c

Size	A	B	C
1/4" x 1/8"	20.0	-	17.0
3/8" x 1/8"	20.0	-	19.0
3/8" x 1/4"	20.0	-	19.0
1/2" x 1/8"	24.0	-	22.1
1/2" x 1/4"	24.0	-	22.1
1/2" x 3/8"	24.0	-	22.1
3/4" x 1/8"	26.0	-	30.0
3/4" x 1/4"	26.0	-	30.0
3/4" x 3/8"	26.0	-	30.0
3/4" x 1/2"	26.0	-	30.0
1" x 1/8"	(19.2)	(31.0)	(28.5)
1" x 1/4"	(19.2)	(31.0)	(28.5)
1" x 3/8"	30.5 (19.2)	(31.0)	36.0 (28.5)
1" x 1/2"	29.0	-	36.1
1" x 3/4"	29.0	-	36.1
1-1/4" x 1/8"	(20.3)	(33.0)	(28.5)
1-1/4" x 1/4"	(20.3)	(33.0)	(28.5)
1-1/4" x 3/8"	33.0 (20.3)	(33.0)	45.0 (28.5)
1-1/4" x 1/2"	33.0 (20.3)	(32.9)	46.0 (34.0)
1-1/4" x 3/4"	33.0	-	45.0
1-1/4" x 1"	33.0	-	45.0
1-1/2" x 1/8"	-	-	-
1-1/2" x 1/4"	(22.0)	(35.0)	(28.5)
1-1/2" x 3/8"	(22.0)	(35.0)	(28.5)
1-1/2" x 1/2"	33.0 (21.0)	(34.0)	(34.1)
1-1/2" x 3/4"	33.0 (21.0)	(34.0)	50.0 (41.5)
1-1/2" x 1"	34.0	-	51.0
1-1/2" x 1-1/4"	34.0	-	51.0
2" x 1/4"	(22.5)	(35.0)	(28.5)



CLASS 150 • THREADED FITTINGS

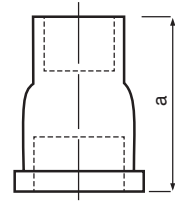


Hex Bushings - Dimensions

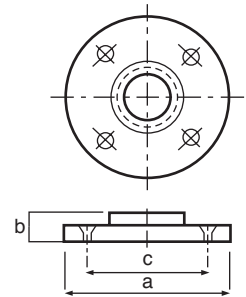
*Width of bushing spanner ASME B16.14 inside head bushings, the dimensions are separately shown in(---) with a,b,c

Size	A	B	C
2" x 3/8"	(22.5)	(38.0)	(28.5)
2" x 1/2"	35.0 (22.5)	48.0 (38.0)	65.0 (34.0)
2" x 3/4"	35.0 (22.5)	48.0 (38.0)	65.0 (41.5)
2" x 1"	35.0 (22.5)	(38.0)	65.0 (49.5)
2" x 1-1/4"	35.0	-	63.7
2" x 1-1/2"	35.0	-	63.7
2-1/2" x 1/2"	40.0 (28.0)	54.0 (44.5)	80.0 (34.0)
2-1/2" x 3/4"	42.0 (28.0)	56.0 (44.5)	80.0 (42.0)
2-1/2" x 1"	42.0 (30.0)	56.0 (46.0)	80.0 (50.0)
2-1/2" x 1-1/4"	(30.0)	56.0 (46.0)	80.0 (60.7)
2-1/2" x 1-1/2"	42.0 (41.5)	-	80.0 (75.7)
2"-1/2 x 2"	42.0 (37.0)	-	80.0 (75.7)
3" x 3/4"	46.0 (30.0)	61.0 (46.0)	95.0 (41.4)
3" x 1"	46.0 (30.0)	61.0 (46.0)	95.0 (41.4)
3" x 1-1/4"	46.0 (30.0)	61.0 (46.0)	95.0 (60.7)
3" x 1-1/2"	46.0 (30.0)	61.0 (46.0)	95.0 (68.1)
3" x 2"	48.0	-	95.0
3" x 2-1/2"	48.0	-	95.0
3-1/2" x 1-1/2"	(30.0)	(43.5)	(68.0)
3-1/2" x 3"	(41.0)	-	(117.3)
4" x 3/4"	53.0	71.0	120.0
4" x 1"	53.0 (32.0)	71.0 (51.0)	120.0 (49.5)
4" x 1-1/4"	53.0 (32.0)	71.0 (51.0)	120.0 (60.7)
4" x 1-1/2"	53.0 (32.0)	71.0 (51.0)	120.0 (68.1)
4" x 2"	51.0 (32.0)	49.0 (49.0)	83.0 (82.0)
4" x 2-1/2"	53.0 (29.4)	71.0 (46.0)	120.0 (98.3)
4" x 3"	51.0	-	120.0
4" x 3-1/2"	-	-	-
5" x 3"	(36.0)	(57.0)	(117.3)
5" x 4"	57.0	-	145.0
6" x 2"	64.0 (37.0)	(61.0)	170.0 (84.6)
6" x 3"	64.0 (37.0)	(61.0)	176.0 (117.3)
6" x 4"	64.0 (37.0)	(61.0)	176.0 (147.1)
6" x 5"	64.0	-	176.0

Extension Pieces - Dimensions



Size	A
1/2"	43.0
3/4"	48.0
1"	55.0
1-1/4"	60.0
1-1/2"	63.0
2"	70.0



Floor Flanges - Dimensions

Size	A	B	C
1/8"	-	-	-
1/4"	60.0	8.6	40.0
3/8"	68.0	12.0	46.0
1/2"	76.0	12.5	52.0
3/4"	82.5	14.0	58.0
1"	96.5	19.0	76.0
1-1/4"	101.4	19.0	76.7
1-1/2"	112.7	23.5	84.0
2"	129.3	25.3	100.0