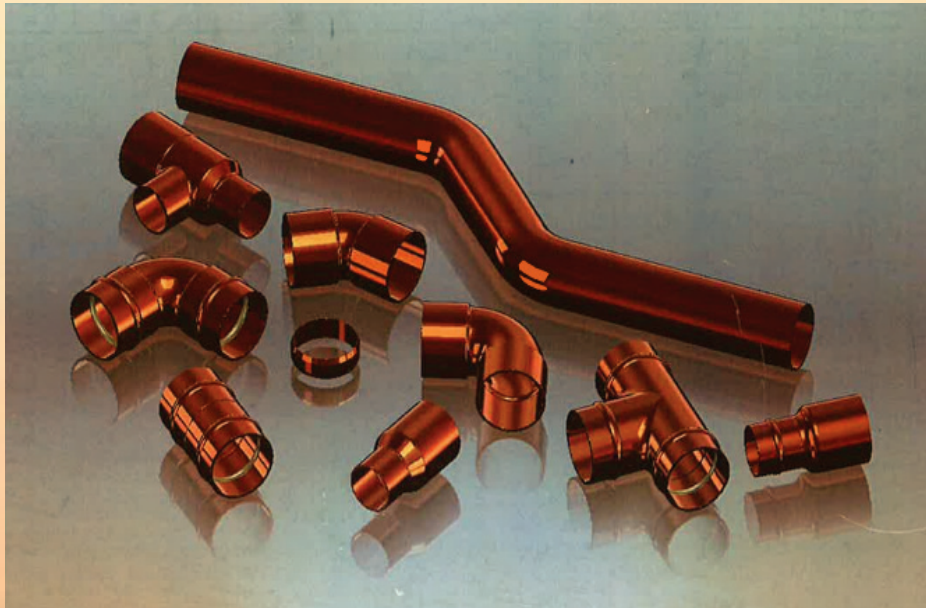




MetTube



beyond ∞ COPPER
Beyond Your Expectations

MANUFACTURES OF PLAN AND
PANCACK COPPER TUPES AND FITTINGS
MADE IN MALAYSIA

BEYOND COPPER

Beyond Your Expectations

OUR HERITAGE Beyond leadership

Established in 1991, MetTube is Malaysia's first integrated copper tube project; a joint venture between Metdist group of UK and Mitsubishi Materials Corporation of Japan with an investment of USD 170 million for state of the art plant and machinery.

Metdist is one of the 14 principal ring members at London metal exchange (LME). LME has an approximate trade of 14 trillion dollars annually.

With global footprints in 30 countries and partnering with over 250 OEMs (original equipment manufacturers), MetTube is a leading provider of high performance copper tubes to world markets. The plant based in Malaysia spans over 1.1 million sq. feet with its own heat transfer technology centre and is geared to deliver unmatched customer value.

MetTube has endeavoured to build a culture of continuous improvement to deliver unmatched quality, technology, services to customers and society at large, thus going beyond growing expectations.

The philosophy to reach beyond every aspect of value creation for customer, investor, employees and society we live in, has always been our underlying quest to continually learn and serve.



OUR PHILOSOPHY Beyond value

Copper was the first metal ever known to man as far back as 8700 BC. Known as "Chalkos" to Greeks, "aes Cyprum" to Romans, and identified with Ankh symbol by Egyptians to symbolise "eternal life".

OUR VISION Beyond cost

To deliver innovative products and services that consistently bring about highest value and performances at the lowest cost to customers. To go beyond customer expectations.

To embrace values that reflect an eternal quest for a global vision;

to create a future era of generations that are synonymous to modern, efficient, caring and humane world.

These eternal values of metal are the very values MetTube has embraced in serving customers, investors, employees and societies

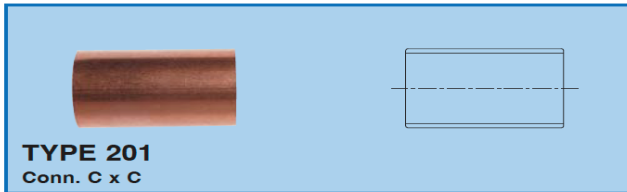
at large. These "values" go beyond innovation, quality, technologies and renewable energies to build a green organisation for a sustainable environment.

ACR SOLDER JOINT HIGH PRESSURE INCH FITTINGS

AS MANUFACTURE OF THE SOLDER-TYPE COPPER FITTINGS, OUR COMMITMENT TO PROVIDING THE HIGHEST QUALITY FITTINGS IN THE INDUSTRY HOLDS A SPECIAL PLACE. TODAY, FITTINGS ARE ONE OF THE INDUSTRY'S MOST COMPLETE OFFERINGS OF FITTINGS FOR COPPER PIPING SYSTEMS FROM ONE SOURCE. OUR MANY YEARS OF ENGINEERING KNOW-HOW AND EXPERIENCE ARE REFLECTED IN THE FINE QUALITY AND WORK MANSHIP OF EACH COPPER FITTING WE MANUFACTURE

- CONSTRUCTED TO HIGH-GRADE COPPER OR BRONZE MATERIALS
- WROT FITTINGS MEET NSF 61G
- MADE TO APPLICABLE ASTM STANDARDS B16.15, B16.18, B16.22, B16.24, B16.50, B1.20.1.
- JAPANESE STANDARD JISH3401.
- EUROPEAN STANDARDS: EUROPEAN COMMUNITY'S STANDARD EN1254-1.
- BRITISH STANDARD BS864-2 AND GERMAN STANDARD DIN2856.

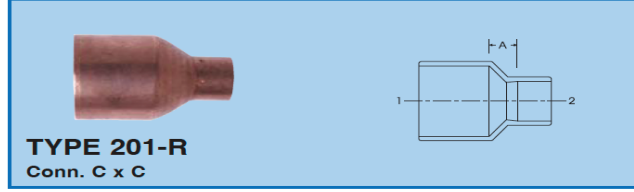
COUPLING - NO STOP



TYPE 201
Conn. C x C

Cat. No.	Connections
801900	1/4"
801901	3/8"
801902	1/2"
801903	5/8"
801904	3/4"
801905	7/8"
801906	1 1/8"
801907	1 3/8"
801908	1 5/8"
801909	2 1/8"
801910	2 5/8"
801911	3 1/8"
801913	4 1/8"

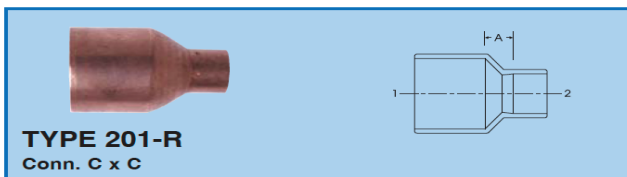
COUPLING - REDUCING (CONTINUED)



TYPE 201-R
Conn. C x C

Cat. No.	Connections		Dimension A (mm)
	1	2	
801064	1 5/8"	x 1 3/8"	7,93
801065		x 1 1/8"	11,91
801067		x 7/8"	15,08
801069		x 5/8"	19,84
801073	2 1/8"	x 1 5/8"	11,91
801074		x 1 3/8"	13,89
801075		x 1 1/8"	20,64
801077		x 7/8"	23,02
801079		x 5/8"	27,78
801083	2 5/8"	x 2 1/8"	15,08
801084		x 1 5/8"	22,23
801085		x 1 3/8"	25,40
801086		x 1 1/8"	20,64
801093	3 1/8"	x 2 5/8"	12,70
801094		x 2 1/8"	28,81
801095		x 1 5/8"	31,75
810101	3 5/8"	x 3 1/8"	11,51
810108	4 1/8"	x 3 5/8"	15,88
810109		x 3 1/8"	23,02
810110		x 2 5/8"	36,51
810111		x 2 1/8"	41,28

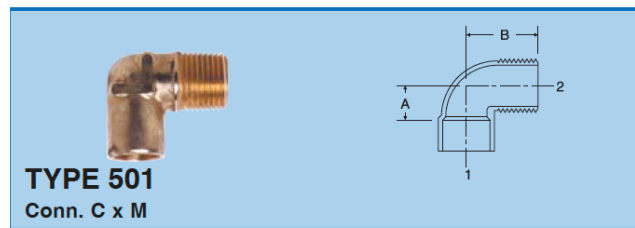
COUPLING - REDUCING



TYPE 201-R
Conn. C x C

Cat. No.	Connections		Dimension A (mm)
	1	2	
801004	1/4"	x 3/16"	3,97
801005		x 1/8"	4,76
801010	3/8"	x 5/16"	1,98
801011		x 1/4"	4,76
801019	1/2"	x 3/8"	5,56
801021		x 1/4"	9,53
801023	5/8"	x 1/2"	3,18
801025		x 3/8"	7,54
801027		x 1/4"	9,13
801029	3/4"	x 5/8"	6,35
801030		x 1/2"	4,76
801031		x 3/8"	7,94
801035	7/8"	x 3/4"	5,16
801036		x 5/8"	7,54
801037		x 1/2"	10,32
801038		x 3/8"	9,52
801049	1 1/8"	x 7/8"	8,73
801050		x 3/4"	9,13
801051		x 5/8"	10,32
801052		x 1/2"	11,90
801056	1 3/8"	x 1 1/8"	7,14
801058		x 7/8"	10,32
801060		x 5/8"	13,49

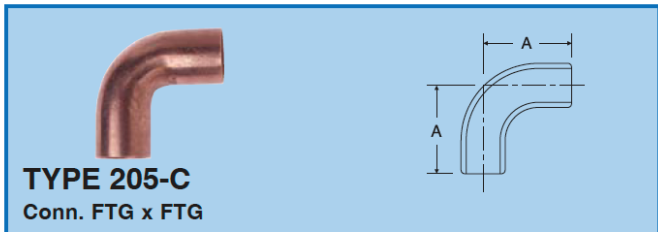
90° ELBOW - FORGED BRASS



TYPE 501
Conn. C x M

Cat. No.	Connections		Dimension	
	1	2	A (mm)	B (mm)
802105	1/4"	x 3/8"	25,40	11,51
802106		x 1/4"	22,23	9,53
802107		x 1/8"	19,05	3,18
802113	3/8"	x 1/2"	31,75	11,91
802114		x 3/8"	25,40	11,51
802115		x 1/4"	22,23	6,35
802116		x 1/8"	19,05	7,54
802123	1/2"	x 3/4"	38,10	14,29
802124		x 1/2"	31,75	7,94
802125		x 3/8"	25,40	7,94
802126		x 1/4"	25,40	6,35
802130	5/8"	x 3/4"	38,10	14,29
802131		x 1/2"	31,75	13,49
802132		x 3/8"	28,58	11,11
802137	3/4"	x 1"	42,86	11,91
802138		x 3/4"	38,10	11,91
802146	7/8"	x 3/4"	38,10	14,29
802147		x 1/2"	35,72	13,10
802148		x 3/8"	30,56	13,10
802163	1 1/8"	x 1"	43,66	18,26
802164		x 3/4"	38,89	18,26
802179	1 5/8"	x 1 1/2"	50,80	23,02

90° ELBOW



TYPE 205-C
Conn. FTG x FTG

Cat. No.	Connections	Dimension A (mm)
802612	3/8"	19,05
802621	1/2"	23,81
802626	5/8"	29,37
802634	7/8"	41,28
802644	1 1/8"	51,59
802684	1 3/8"	52,78
802685	1 5/8"	60,33
802686	2 1/8"	75,41
802687	2 5/8"	84,53
802688	3 1/8"	96,04
802689	3 5/8"	110,30
802690	4 1/8"	123,80

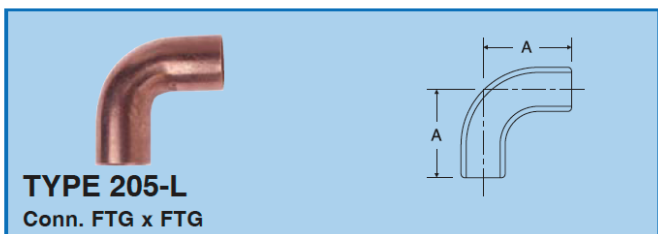
45° ELBOW



TYPE 206-2
Conn. FTG x C

Cat. No.	Connections	Dimension	
		A (mm)	B (mm)
803312	3/8"	14,29	4,76
803321	1/2"	16,67	5,16
803326	5/8"	20,64	6,75
803330	3/4"	25,40	7,94
803334	7/8"	29,77	9,13
803344	1 1/8"	36,51	11,91
803350	1 3/8"	37,08	18,26
803355	1 5/8"	52,78	23,82
803359	2 1/8"	67,07	31,75
803363	2 5/8"	78,58	39,69
803368	3 1/8"	85,73	42,07
803373	4 1/8"	105,57	49,21

90° ELBOW - LONG RADIUS



TYPE 205-L
Conn. FTG x FTG

Cat. No.	Connections	Dimension A (mm)
802650	1 3/8"	73,82
802655	1 5/8"	87,31
802659	2 1/8"	110,70

45° ELBOW



TYPE 206-2-2
Conn. FTG x FTG

Cat. No.	Connections	Dimension A (mm)
803621	1/2"	16,67
803626	5/8"	20,64
803634	7/8"	29,77
803644	1 1/8"	36,51

45° ELBOW



TYPE 206
Conn. C x C

Cat. No.	Connections	Dimension A (mm)
803005	1/4"	4,76
803012	3/8"	4,76
803021	1/2"	5,16
803026	5/8"	6,75
803030	3/4"	7,94
803034	7/8"	9,13
803044	1 1/8"	11,91
803050	1 3/8"	11,11
803055	1 5/8"	12,70
803059	2 1/8"	15,88
803063	2 5/8"	39,69
803067	3 1/8"	42,07
803070	3 5/8"	44,45
803073	4 1/8"	49,21

90° ELBOW



TYPE 207-C
Conn. C x C

Cat. No.	Connections	Dimension	
		A (mm)	B (mm)
802003	1/4"	9,53	9,53
802009	3/8"	9,53	9,53
802017	1/2"	12,70	12,70
801622	5/8"	15,08	15,08
802028	3/4"	22,23	22,23
801634	7/8"	21,03	21,03
802040	1"	28,58	28,58
801647	1 1/8"	27,38	27,38
802084	1 3/8"	27,78	27,78
802085	1 5/8"	30,96	30,96
802086	2 1/8"	39,69	39,69
802087	2 5/8"	46,04	46,04
802088	3 1/8"	40,39	40,39
802089	3 5/8"	61,12	61,12
802090	4 1/8"	69,06	69,06
802097	6 1/8"	105,50	105,50

90° ELBOW



TYPE 207-C2
Conn. FTG x C

Cat. No.	Connections	Dimension	
		A (mm)	B (mm)
802305	1/4"	19,05	9,53
802312	3/8"	19,05	9,53
802321	1/2"	28,81	12,70
802326	5/8"	29,37	15,08
801652	5/8"	29,37	15,08
802330	3/4"	36,51	22,23
802334	7/8"	41,28	20,64
801654	7/8"	41,28	20,64
802344	1 1/8"	51,60	26,99
802384	1 3/8"	52,78	26,99
802385	1 5/8"	60,33	30,96
802386	2 1/8"	77,39	40,48
802387	2 5/8"	84,93	46,04
802388	3 1/8"	96,04	52,39
802389	3 5/8"	111,10	59,93
802390	4 1/8"	130,40	59,93

90° ELBOW - LONG RADIUS (CONTINUED)



TYPE 207-L
Conn. C x C

Cat. No.	Connections	Dimension	
		A (mm)	B (mm)
802055	1 3/8"	47,63	47,63
802063	1 5/8"	57,15	57,15
802072	2 1/8"	73,03	73,03
802082	2 5/8"	92,87	92,87
802092	3 1/8"	117,50	117,50
802093	3 5/8"	124,60	124,60
802095	4 1/8"	149,20	149,20

90° ELBOW - LONG RADIUS



TYPE 207-L2
Conn. FTG x C

Cat. No.	Connections	Dimension	
		A (mm)	B (mm)
802809	3/8"	28,58	19,05
802817	1/2"	30,16	19,05
802822	5/8"	34,93	22,23
802828	3/4"	46,04	28,58
802834	7/8"	50,80	30,16
802847	1 1/8"	62,71	38,10
802350	1 3/8"	73,82	47,63
802355	1 5/8"	87,31	57,15
802359	2 1/8"	108,70	73,03
802363	2 5/8"	130,90	92,87
802368	3 1/8"	159,50	117,50
802393	3 5/8"	205,60	149,20
802395	4 1/8"	205,60	149,22

90° ELBOW REDUCING



TYPE 207-CR
Conn. C x C

Cat. No.	Connections		Dimension	
	1	2	A (mm)	B (mm)
802011	3/8"	1/4"	11,11	8,73
802019	1/2"	3/8"	14,29	11,11
802023	5/8"	1/2"	15,88	12,70
802025	x	3/8"	16,67	11,11
802029	3/4"	5/8"	17,46	15,08
802030	x	1/2"	20,64	12,70
802035	7/8"	3/4"	23,02	22,23
802036	x	5/8"	23,42	16,67
802037	x	1/2"	23,81	15,88
802049	1 1/8"	7/8"	25,40	22,23
802050	x	3/4"	25,40	22,23
802051	x	5/8"	30,16	19,05
802052	x	1/2"	34,13	16,67
802056	1 3/8"	1 1/8"	36,51	28,58
802077	1 5/8"	1 3/8"	28,97	21,83
802078	2 1/8"	1 5/8"	39,69	30,56

90° ELBOW - LONG RADIUS REDUCING



TYPE 207-LR
Conn. C x C

Cat. No.	Connections		Dimension	
	1	2	A (mm)	B (mm)
802711	3/8"	1/4"	15,08	11,91
802719	1/2"	3/8"	15,08	11,91
802723	5/8"	1/2"	19,05	17,46
802725	x	3/8"	17,46	15,88
802735	7/8"	3/4"	29,37	26,99
802736	x	5/8"	22,23	22,23
802737	x	1/2"	21,43	17,46
802749	1 1/8"	7/8"	31,75	28,97
802751	x	5/8"	28,58	22,23
802756	1 3/8"	1 1/8"	41,28	37,31
802058	x	7/8"	50,40	34,93
802060	x	5/8"	54,77	34,93
802064	1 5/8"	1 3/8"	48,82	47,63
802065	x	1 1/8"	53,98	41,28
802067	x	7/8"	51,99	34,93
802073	2 1/8"	1 5/8"	61,91	55,17
802074	x	1 3/8"	63,50	53,98
802075	x	1 1/8"	63,50	53,18
802083	2 5/8"	2 1/8"	75,40	75,40

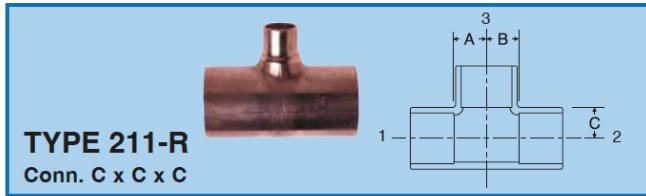
90° ELBOW - LONG RADIUS



TYPE 207-L
Conn. C x C

Cat. No.	Connections	Dimension	
		A (mm)	B (mm)
802701	3/16"	7,94	7,94
802715	1/4"	12,70	12,70
802710	5/16"	14,29	14,29
802716	3/8"	19,05	19,05
802717	1/2"	19,05	19,05
802722	5/8"	22,23	22,23
802728	3/4"	28,58	28,58
802734	7/8"	30,16	30,16
802747	1 1/8"	38,10	38,10

TEE

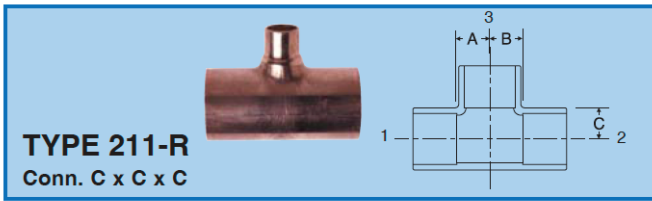


Cat. No.	Connections			Dimension			
	1	x	2	3	A (mm)	B (mm)	C (mm)
840368	1/4"	x	1/4"	3/8"	13,09	13,09	4,76
840308		x		3/16"	11,90	11,90	8,73
840334	5/16"	x	5/16"	3/8"	11,90	11,90	5,55
840416	3/8"	x	3/8"	5/8"	18,65	18,65	8,73
840405		x		1/2"	6,35	6,35	5,95
840324		x		1/4"	3,97	3,97	5,55
840325		x		3/16"	8,73	8,73	14,28
840330		x	1/4"	3/8"	5,16	13,09	4,76
840332		x		1/4"	3,97	9,53	5,55
840415	1/2"	x	1/2"	5/8"	16,67	16,67	8,33
840402		x		3/8"	5,55	5,55	7,14
840350		x		1/4"	5,56	5,56	15,08
840403		x	3/8"	1/2"	6,75	14,28	6,35
840404		x		3/8"	5,55	12,70	7,14
840358		x		1/4"	5,55	13,09	15,08
840363		x	1/4"	1/2"	6,75	15,48	6,35
840364		x		3/8"	5,55	16,67	7,54
840366		x		1/4"	5,55	16,67	18,26
840467	5/8"	x	5/8"	1 1/8"	30,95	30,95	14,28
840447		x		7/8"	11,90	11,90	8,33
840429		x		3/4"	11,51	11,51	10,32
840407		x		1/2"	6,75	6,75	9,92
840408		x		3/8"	6,75	6,75	17,46
840414		x		1/4"	6,75	6,75	17,46
840409		x	1/2"	5/8"	8,33	15,88	8,33
840410		x		1/2"	6,75	14,28	9,92
840411		x		3/8"	6,75	15,48	17,46
840412		x	3/8"	5/8"	8,33	17,46	8,33
840367		x		1/2"	6,75	15,48	9,92
840413		x		3/8"	6,75	15,48	17,46
840446	3/4"	x	3/4"	7/8"	13,09	13,09	12,30
840418		x		5/8"	8,33	8,33	11,11
840419		x		1/2"	8,33	8,33	21,03
840420		x		3/8"	8,33	8,33	20,64
840421		x	5/8"	3/4"	10,32	19,05	9,92
840422		x		5/8"	15,08	25,80	11,51
840423		x		1/2"	8,33	19,45	21,03
840425		x	1/2"	3/4"	10,32	23,81	9,92
840426		x		5/8"	8,33	22,62	11,11
840427		x		1/2"	8,33	22,62	21,03
840465	7/8"	x	7/8"	1 1/8"	14,68	14,68	13,89
840432		x		3/4"	11,90	11,90	21,43
840433		x		5/8"	8,33	8,33	13,89
840434		x		1/2"	8,33	8,33	21,83
840435		x		3/8"	8,33	8,33	23,81
840436		x	3/4"	7/8"	11,90	18,26	11,51
840437		x		3/4"	11,90	18,26	21,43

TEE (CONTINUED)

Cat. No.	Connections			Dimension			
	1	x	2	3	A (mm)	B (mm)	C (mm)
840441	7/8"	x	5/8"	7/8"	11,90	18,26	11,51
840442		x		3/4"	11,90	18,65	21,43
840443		x		5/8"	8,33	18,26	13,89
840444		x		1/2"	8,33	15,88	21,83
840445		x		3/8"	8,33	17,46	23,81
840230		x	1/2"	7/8"	11,90	24,61	11,51
840231		x		5/8"	8,33	23,81	13,49
840232		x		1/2"	8,33	20,24	20,24
840101	1 1/8"	x	1 1/8"	1 5/8"	42,07	42,07	21,03
840482		x		1 3/8"	17,46	17,46	14,68
840449		x		7/8"	11,90	11,90	19,45
840450		x		3/4"	11,90	11,90	25,80
840451		x		5/8"	9,13	9,13	51,59
840452		x		1/2"	9,13	9,13	27,78
840455		x	7/8"	1 1/8"	15,08	26,59	15,88
840456		x		7/8"	11,90	19,45	19,45
840457		x		3/4"	11,90	19,45	25,80
840458		x		5/8"	9,13	16,27	51,59
840459		x		1/2"	9,13	16,27	27,78
840233		x	3/4"	1 1/8"	14,68	30,95	14,28
840234		x		7/8"	11,90	26,19	19,45
840235		x		3/4"	11,90	26,19	26,99
840236		x		5/8"	9,13	24,61	16,67
840461		x	5/8"	1 1/8"	14,68	30,95	14,28
840462		x		7/8"	11,90	29,37	19,45
840463		x		5/8"	9,13	24,61	16,67
840122	1 3/8"	x	1 3/8"	2 1/8"	52,39	52,39	27,78
840100		x		1 5/8"	21,43	21,43	18,26
840469		x		1 1/8"	14,68	14,68	21,03
840470		x		7/8"	14,68	14,68	32,94
840471		x		5/8"	14,28	14,28	36,12
840472		x		1/2"	15,08	15,08	39,69
840473		x	1 1/8"	1 3/8"	18,26	30,95	19,45
840474		x		1 1/8"	15,08	28,58	21,03
840475		x		7/8"	15,08	28,58	33,34
840476		x		5/8"	15,08	28,58	37,70
840477		x		1/2"	13,49	15,88	10,32
840478		x	7/8"	1 3/8"	18,26	34,93	17,86
840479		x		1 1/8"	15,08	31,75	21,03
840480		x		7/8"	15,08	31,75	52,78
840481		x		5/8"	15,08	31,75	57,55
840483		x	5/8"	1 3/8"	18,26	41,28	17,46
840121	1 5/8"	x	1 5/8"	2 1/8"	26,99	26,99	22,62
840485		x		1 3/8"	17,86	17,86	23,81
840486		x		1 1/8"	17,86	17,86	40,48
840487		x		7/8"	17,86	17,86	46,43
840488		x		5/8"	17,86	17,86	48,02
840489		x		1/2"	17,86	17,86	50,80
840490		x	1 3/8"	1 5/8"	21,43	30,16	21,03
840491		x		1 3/8"	17,86	30,16	23,81
840492		x		1 1/8"	17,86	30,16	37,31
840493		x		7/8"	17,86	33,73	41,28
840494		x		5/8"	17,86	33,73	44,85
840495		x	1 1/8"	1 5/8"	21,03	43,66	21,03
840496		x		1 3/8"	18,26	36,91	23,81
840497		x		1 1/8"	18,26	36,91	40,48
840498		x		7/8"	18,26	36,91	46,43
840237		x		5/8"	18,26	42,86	49,61

TEE (CONTINUED)



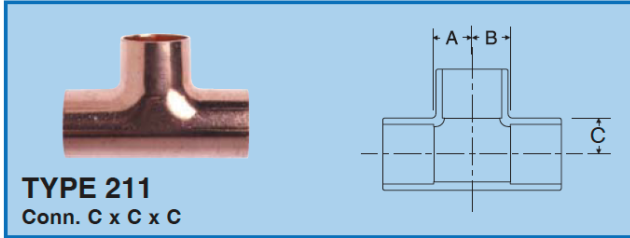
TYPE 211-R
Conn. C x C x C

Cat. No.	Connections			Dimension				
	1	x	2	x	3	A (mm)	B (mm)	C (mm)
8404099	1 5/8"	x	7/8"	x	1 5/8"	21,43	53,98	21,03
840239	x	x	x	x	1 3/8"	18,26	42,86	23,81
840240	x	x	x	x	1 1/8"	18,26	42,86	40,48
840238	x	x	x	x	7/8"	18,26	42,86	46,43
840243	x	x	x	x	5/8"	18,26	36,91	49,61
840244	x	x	5/8"	x	1 5/8"	21,43	57,15	21,03
840153	2 1/8"	x	2 1/8"	x	3 1/8"	46,04	46,04	27,78
840144	x	x	x	x	2 5/8"	34,13	34,13	27,78
840103	x	x	x	x	1 5/8"	21,43	21,43	30,56
840104	x	x	x	x	1 3/8"	21,43	21,43	46,83
840105	x	x	x	x	1 1/8"	14,68	14,68	32,54
840106	x	x	x	x	7/8"	14,68	14,68	42,86
840107	x	x	x	x	5/8"	14,68	14,68	49,21
840108	x	x	x	x	1/2"	14,68	14,68	51,20
840109	x	x	1 5/8"	x	2 1/8"	27,78	50,40	27,78
840110	x	x	x	x	1 5/8"	21,43	43,66	30,95
840111	x	x	x	x	1 3/8"	21,43	43,66	46,83
840112	x	x	x	x	1 1/8"	14,68	36,91	32,94
840113	x	x	x	x	7/8"	14,68	36,91	42,86
840114	x	x	x	x	5/8"	14,68	39,69	49,21
840115	x	x	1 3/8"	x	2 1/8"	28,18	51,99	28,18
840116	x	x	x	x	1 5/8"	21,43	46,83	30,95
840117	x	x	x	x	1 3/8"	21,43	46,83	46,83
840118	x	x	x	x	1 1/8"	15,08	40,08	33,34
840119	x	x	x	x	7/8"	14,68	40,48	42,86
840120	x	x	x	x	5/8"	14,68	40,48	49,21
840245	x	x	1 1/8"	x	2 1/8"	15,08	75,01	32,54
840247	x	x	x	x	1 1/8"	27,78	64,29	28,58
840248	x	x	7/8"	x	2 1/8"	27,78	68,26	28,58
840249	x	x	5/8"	x	2 1/8"	27,78	69,06	28,58
840124	2 5/8"	x	2 5/8"	x	2 1/8"	27,78	27,78	38,89
840125	x	x	x	x	1 5/8"	27,78	27,78	58,74
840126	x	x	x	x	1 3/8"	27,78	27,78	63,50
840127	x	x	x	x	1 1/8"	27,78	27,78	70,64
840128	x	x	x	x	7/8"	27,78	27,78	72,63
840129	x	x	x	x	5/8"	27,78	27,78	76,20
840130	x	x	2 1/8"	x	2 5/8"	33,34	61,91	34,93
840131	x	x	x	x	2 1/8"	27,38	55,16	38,10
840132	x	x	x	x	1 5/8"	27,38	55,16	61,91
840133	x	x	x	x	1 3/8"	27,38	55,16	66,68
840134	x	x	x	x	1 1/8"	27,38	55,16	71,04
840135	x	x	x	x	7/8"	27,38	55,16	76,99
840136	x	x	x	x	5/8"	27,38	55,16	80,96
840137	x	x	1 5/8"	x	2 5/8"	33,34	70,25	34,93
840138	x	x	x	x	2 1/8"	27,78	61,52	38,10
840139	x	x	x	x	1 5/8"	27,78	61,52	61,91
840140	x	x	x	x	1 3/8"	27,78	61,52	65,09
840141	x	x	x	x	1 1/8"	27,78	61,52	71,04
840142	x	x	x	x	7/8"	27,78	61,52	73,82
840143	x	x	x	x	5/8"	27,78	61,52	76,60
840220	x	x	1 3/8"	x	2 5/8"	33,34	73,03	34,93
840250	x	x	x	x	2 1/8"	27,78	64,69	38,10

TEE (CONTINUED)

Cat. No.	Connections			Dimension				
	1	x	2	x	3	A (mm)	B (mm)	C (mm)
840251	x	x	x	x	1 5/8"	27,78	64,69	61,91
840252	x	x	x	x	1 3/8"	27,78	64,69	66,68
840253	x	x	x	x	1 1/8"	27,78	64,69	69,85
840254	x	x	x	x	7/8"	27,78	64,69	72,23
840255	x	x	x	x	5/8"	27,78	64,69	75,41
840221	2 5/8"	x	1 1/8"	x	2 5/8"	33,34	76,20	36,91
840256	x	x	x	x	2 1/8"	27,38	69,06	38,10
840257	x	x	x	x	1 5/8"	27,78	69,06	61,91
840258	x	x	x	x	1 3/8"	27,78	68,26	63,50
840259	x	x	x	x	1 1/8"	27,38	69,06	69,85
840222	x	x	7/8"	x	2 5/8"	33,34	84,14	34,93
840151	3 1/8"	x	3 1/8"	x	2 5/8"	40,48	40,48	75,41
840150	x	x	x	x	2 1/8"	27,38	27,38	45,24
840149	x	x	x	x	1 5/8"	27,38	27,38	69,85
840148	x	x	x	x	1 3/8"	27,38	27,38	76,20
840147	x	x	x	x	1 1/8"	18,26	18,26	47,23
840146	x	x	x	x	7/8"	18,26	18,26	59,53
840145	x	x	x	x	5/8"	18,26	18,26	64,29
840159	x	x	2 5/8"	x	3 1/8"	40,48	69,85	41,28
840158	x	x	x	x	2 5/8"	40,48	71,43	72,23
840157	x	x	x	x	2 1/8"	27,38	54,77	45,24
840156	x	x	x	x	1 5/8"	27,38	54,77	68,26
840155	x	x	x	x	1 3/8"	27,38	54,77	71,04
840154	x	x	x	x	1 1/8"	18,26	42,86	50,80
840167	x	x	2 1/8"	x	3 1/8"	40,48	77,79	41,67
840165	x	x	x	x	2 5/8"	40,48	80,96	72,23
840164	x	x	x	x	2 1/8"	27,38	64,29	45,24
840163	x	x	x	x	1 5/8"	27,38	65,88	69,85
840162	x	x	x	x	1 3/8"	27,38	57,55	73,03
840161	x	x	x	x	1 1/8"	18,26	53,98	50,80
840174	x	x	1 5/8"	x	3 1/8"	42,07	87,31	41,28
840181	x	x	1 3/8"	x	3 1/8"	40,48	87,31	41,28
840178	x	x	1 1/8"	x	3 1/8"	40,48	88,90	41,67
840179	x	x	7/8"	x	3 1/8"	40,48	92,87	41,28
840198	4 1/8"	x	4 1/8"	x	3 1/8"	40,48	40,48	67,07
840197	x	x	x	x	2 5/8"	40,48	40,48	81,36
840196	x	x	x	x	2 1/8"	26,99	26,99	59,93
840195	x	x	x	x	1 5/8"	26,99	26,99	81,76
840194	x	x	x	x	1 3/8"	26,99	26,99	92,07
840193	x	x	x	x	1 1/8"	14,68	14,68	65,48
840192	x	x	x	x	7/8"	14,28	14,28	77,79
840191	x	x	x	x	5/8"	14,28	14,28	75,80
840208	x	x	3 1/8"	x	4 1/8"	53,98	95,25	55,96
840206	x	x	x	x	3 1/8"	40,48	79,38	67,07
840205	x	x	x	x	2 5/8"	40,48	79,38	81,36
840204	x	x	x	x	2 1/8"	26,99	66,68	62,71
840212	x	x	2 5/8"	x	4 1/8"	53,98	100,01	55,96
840216	x	x	2 1/8"	x	4 1/8"	53,98	55,16	55,96
840215	x	x	1 5/8"	x	4 1/8"	53,98	112,32	55,96
840214	x	x	1 3/8"	x	4 1/8"	53,98	115,49	55,56
840213	x	x	1 1/8"	x	4 1/8"	53,98	118,66	55,96
840503	6 1/8"	x	6 1/8"	x	3 1/8"	44,45	44,45	94,85
840504	x	x	x	x	2 5/8"	44,45	44,45	121,84
840505	x	x	x	x	2 1/8"	44,45	44,45	125,01

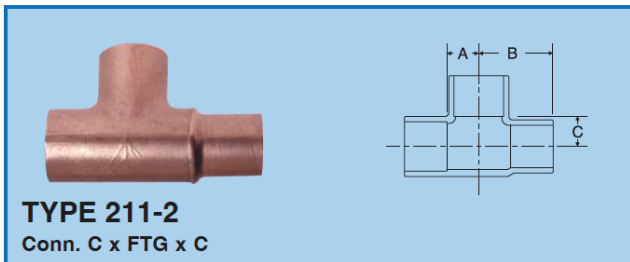
TEE



TYPE 211
Conn. C x C x C

Cat. No.	Connections	Dimension		
		A (mm)	B (mm)	C (mm)
840302	3/16"	2.78	2.78	19.80
840306	1/4"	3.97	3.97	3.97
840313	5/16"	5.16	5.16	4.76
840400	3/8"	5.16	5.16	4.76
840401	1/2"	6.75	6.75	6.35
840406	5/8"	8.33	8.33	8.33
840417	3/4"	10.32	10.32	9.92
840431	7/8"	11.91	11.91	11.51
840448	1 1/8"	14.68	14.68	14.29
840468	1 3/8"	18.26	18.26	17.86
840484	1 5/8"	21.03	21.03	21.03
840102	2 1/8"	27.78	27.78	27.78
840123	2 5/8"	33.34	33.34	34.93
840152	3 1/8"	40.48	40.48	41.28
840190	3 5/8"	49.21	49.21	43.26
840200	4 1/8"	80.77	80.77	80.77
840500	6 1/8"	77.79	77.79	82.55

TEE - FITTING

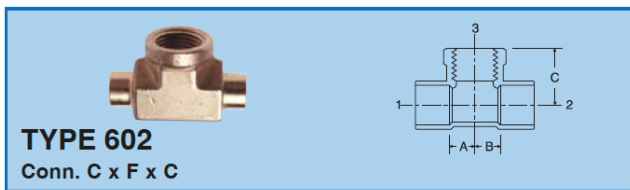


TYPE 211-2
Conn. C x FTG x C

Cat. No.	Connections	Dimension		
		A (mm)	B (mm)	C (mm)
804106	5/8"	8,33	32,94	8,33
804131	7/8"	11,91	45,24	11,50

PLUG

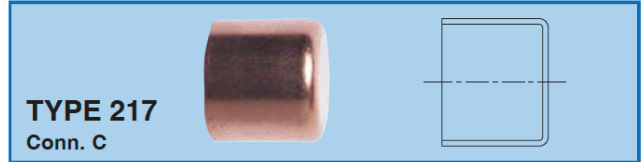
TEE - FORGED BRASS



TYPE 602
Conn. C x F x C

Cat. No.	Connections			Dimension			
	1	x	2	3	A (mm)	B (mm)	
804208	1/4"	x	1/4"	x	1/4"	11,11	14,29
804209					1/8"	6,35	10,72
804228	3/8"	x	3/8"	x	3/8"	14,29	16,67
804229					1/4"	11,11	15,88
804230					1/8"	11,11	14,29
804259	1/2"	x	1/2"	x	3/8"	12,70	18,26
804283	5/8"	x	5/8"	x	1/2"	18,65	10,32

CAP



TYPE 217
Conn. C

Cat. No.	Connections	Dimension
		A (mm)
807002	1/4"	0,80
807004	3/8"	0,80
807006	1/2"	0,80
807007	5/8"	0,80
807008	3/4"	1,20
807009	7/8"	1,20
807011	1 1/8"	1,20
807012	1 3/8"	1,20
807013	1 5/8"	1,59
807014	2 1/8"	1,59
807015	2 5/8"	1,99
807016	3 1/8"	1,99
807017	3 5/8"	2,39
807018	4 1/8"	2,78

BUSHING - EXTENDED



TYPE 218
Conn. FTG x C

Cat. No.	Connections			Dimension A (mm)
	1	x	2	
801302	1/4"	x	1/8"	13,49
801306	3/8"	x	1/4"	9,53
801312	1/2"	x	3/8"	15,86
801314		x	1/4"	15,08
801315	5/8"	x	1/2"	19,05
801317		x	3/8"	19,84
801320	3/4"	x	5/8"	22,23
801321		x	1/2"	23,02
801322		x	3/8"	22,23
801325	7/8"	x	3/4"	24,61
801326		x	5/8"	24,21
801327		x	1/2"	28,58
801337	1 1/8"	x	7/8"	28,18
801338		x	3/4"	31,75
801339		x	5/8"	34,13
801340		x	1/2"	34,93
801343	1 3/8"	x	1 1/8"	30,96
801345		x	7/8"	34,13
801347		x	5/8"	38,10
801350	1 5/8"	x	1 3/8"	35,72
801351		x	1 1/8"	38,89
801353		x	7/8"	42,86
801355		x	5/8"	44,45
801358	2 1/8"	x	1 5/8"	46,83
801359		x	1 3/8"	51,60
801360		x	1 1/8"	53,98
801362		x	7/8"	55,56
801364		x	5/8"	66,68
801367	2 5/8"	x	2 1/8"	51,59
801368		x	1 5/8"	56,36
801369		x	1 3/8"	62,71
801370		x	1 1/8"	73,03
801376	3 1/8"	x	2 5/8"	51,59
801377		x	2 1/8"	63,50
801378		x	1 5/8"	75,41
801379		x	1 3/8"	76,20
801381	3 5/8"	x	3 1/8"	59,53
801382		x	2 5/8"	66,28
801383		x	2 1/8"	78,58
801386	4 1/8"	x	3 5/8"	63,50
801387		x	3 1/8"	75,41
801388		x	2 5/8"	90,09
801389		x	2 1/8"	92,87

BUSHING - FLUSH



TYPE 219

Conn. FTG x C

Cat. No.	Connections			Dimension A (mm)
	1	x	2	
801706	3/8"	x	1/4"	9,53
801712	1/2"	x	3/8"	11,11
801714		x	1/4"	11,11
801715	5/8"	x	1/2"	14,29
801717		x	3/8"	14,29
801720	3/4"	x	5/8"	17,46
801721		x	1/2"	17,46
801722		x	3/8"	17,46
801725	7/8"	x	3/4"	20,64
801726		x	5/8"	20,64
801727		x	1/2"	20,64
801737	1 1/8"	x	7/8"	24,61
801738		x	3/4"	24,61
801739		x	5/8"	24,61
801743	1 3/8"	x	1 1/8"	26,20
801745		x	7/8"	26,20
801750	1 5/8"	x	1 3/8"	29,37
801751		x	1 1/8"	29,37
801758	2 1/8"	x	1 5/8"	35,72
801759		x	1 3/8"	35,72
801767	2 5/8"	x	2 1/8"	38,89

BUSHING - FLUSH

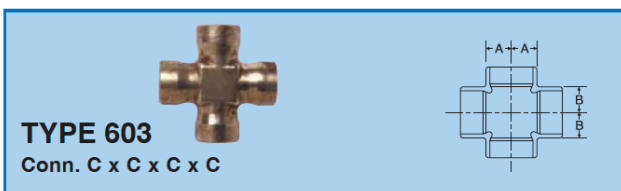


TYPE 219-3

Conn. FTG x F

Cat. No.	Connections			Dimension A (mm)
	1	x	2	
A07812	5/8"	x	1/8"	13,49
A07813		x	1/4"	14,29
A07814	7/8"	x	3/8"	20,64
A07815	1 1/8"	x	1/2"	24,61
A07816	1 3/8"	x	3/4"	30,56
A07817	1 5/8"	x	1"	27,38
A07819	2 1/8"	x	1 1/2"	35,72

CROSS - FORGED BRASS

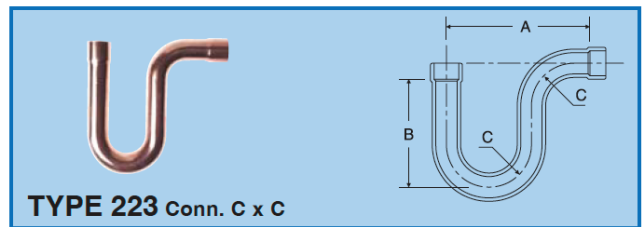


TYPE 603

Conn. C x C x C x C

Cat. No.	Connections	Dimension	
		A (mm)	B (mm)
A01409	1/4"	6,35	6,35
A01431	3/8"	10,32	10,32

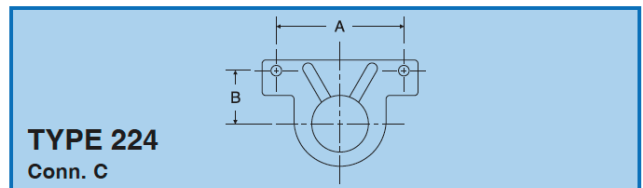
P-TRAP - SUCTION LINE



TYPE 223 Conn. C x C

Cat. No.	Connections	Dimension		
		A (mm)	B (mm)	C (mm)
860999	5/8"	152,4	139,7	38,1
861008	3/4"	149,2	136,5	38,1
861000	7/8"	146,1	133,4	38,1
861001	1 1/8"	127,8	129,4	38,1
861002	1 3/8"	166,7	129,4	47,6
861003	1 5/8"	219,9	184,9	63,5
861009	2 1/8"	235,7	219,9	76,2

HANGER - HI-EAR



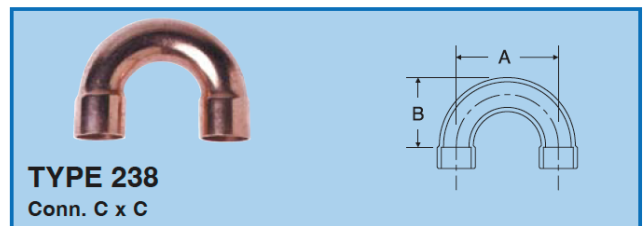
TYPE 224

Conn. C

Cat. No.	Connections	Dimension	
		A (mm)	B (mm)
A03167	5/8"	41,28	18,65
A03168	7/8"	41,28	22,23
A03171	1 1/8"	28,18	25,40

COPPER TUBE STRAP - PERFORATED

RETURN BEND



TYPE 238

Conn. C x C

Cat. No.	Connections	Dimension	
		A (mm)	B (mm)
806025	3/8"	114,3	61,9
806020	3/8"	38,1	23,8
806048	1/2"	152,4	82,6
806045	1/2"	101,6	58,7
806041	1/2"	76,2	44,5
806036	1/2"	50,8	31,8
806032	1/2"	38,1	25,4
806069	5/8"	152,4	84,1
806060	5/8"	76,2	46,1
806058	5/8"	63,5	39,7
806056	5/8"	57,2	38,1
806053	5/8"	47,6	31,8
806051	5/8"	39,7	27,8
806084	3/4"	101,6	47,6
806074	3/4"	54,0	36,5
806077	3/4"	63,5	41,3
806095	7/8"	85,7	54,0
806092	7/8"	63,5	42,9
860110	1 1/8"	76,2	52,4
860111	1 1/8"	82,6	55,6
860121	1 3/8"	95,3	65,1
860131	1 5/8"	114,3	80,4
860140	2 1/8"	139,7	96,8

LONG 90° RADIUS STREET ELBOW



TYPE 5001A

Connections: FTG x C

Cat. No.	Connections		Dimensions (mm)			
	d	a	b	r	Z	
5001A-06	06 mm	14	16	7	7	
5001A-08	08 mm	18	20	10	10	
5001A-10	10 mm	21	23	12	12	
5001A-12	12 mm	24	26	15	15	
5001A-14	14 mm	30	32	18	18	
5001A-15	15 mm	30	32	18	18	
5001A-16	16 mm	30	31	17	17	
5001A-18	18 mm	36	38	22	22	
5001A-22	22 mm	43	45	27	27	
5001A-28	28 mm	53	55	34	34	
5001A-35	35 mm	67	69	43	43	
5001A-42	42 mm	79	81	51	51	
5001A-54	54 mm	99	101	65	65	
5001A-64	64 mm	112	115	78	78	
5001A-67	67 mm	116	119	81	81	
5001A-70	70 mm	120	123	85	85	
5001A-76	76 mm	127	130	92	92	
5001A-80	80 mm	134	137	121	121	
5001A-89	89 mm	147	150	108	108	
5001A-108	108 mm	179	182	131	131	
5001A-133	133 mm	212	217	177	177	

45° STREET ELBOW



TYPE 5040

Connections: FTG x C

Cat. No.	Connections		Dimensions (mm)		
	d	a	b	Z	
5040-06	06 mm	9	11	3	
5040-08	08 mm	11	13	4	
5040-10	10 mm	12	14	4	
5040-12	12 mm	14	16	5	
5040-14	14 mm	16,5	16,5	5,5	
5040-15	15 mm	17	19	6	
5040-16	16 mm	18	20	7	
5040-18	18 mm	20	22	7	
5040-22	22 mm	25	27	9	
5040-28	28 mm	29	31	10	
5040-35	35 mm	37	39	14	
5040-42	42 mm	42	44	15	
5040-54	54 mm	52	54	20	
5040-64	64 mm	62	65	27	
5040-67	67 mm	65	68	28,5	
5040-76	76 mm	68	71	32	
5040-80	80 mm	83	85	48	
5040-89	89 mm	78	81	37,5	
5040-108	108 mm	110	113	60	
5040-133	133 mm	280	280	235	

LONG 90° RADIUS ELBOW



TYPE 5002A

Connections: C x C

Cat. No.	Connections		Dimensions (mm)		
	d	a	r	Z	
5002A-06	06 mm	13	7,2	7,2	
5002A-08	08 mm	16,5	9,6	9,6	
5002A-10	10 mm	20	12	12	
5002A-12	12 mm	23	14,4	14,4	
5002A-14	14 mm	29	18	18	
5002A-15	15 mm	29	18	18	
5002A-16	16 mm	29	18	18	
5002A-18	18 mm	34,5	21,6	21,6	
5002A-22	22 mm	42	26,4	26,4	
5002A-28	28 mm	52	33,6	33,6	
5002A-35	35 mm	65	42	42	
5002A-42	42 mm	77,5	50,4	50,4	
5002A-54	54 mm	97	64,8	64,8	
5002A-64	64 mm	109,5	76,8	76,8	
5002A-67	67 mm	117	84	84	
5002A-70	70 mm	138	105	105	
5002A-76	76 mm	125	91,3	91,3	
5002A-80	80 mm	153	120	120	
5002A-89	89 mm	144,5	106,7	106,7	
5002A-108	108 mm	177	129,6	129,6	
5002A-133	133 mm	212	177	177	
5002A-159	159 mm	262	227	227	

45° ELBOW

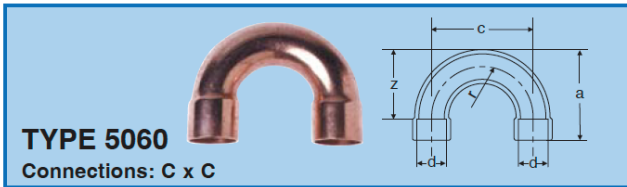


TYPE 5041

Connections: C x C

Cat. No.	Connections		Dimensions (mm)		
	d	d	a	Z	
5041-06	06 mm	6	9	3	
5041-08	08 mm	8	11	4	
5041-10	10 mm	10	12	4	
5041-12	12 mm	12	14	5	
5041-14	14 mm	14	16,5	5,5	
5041-15	15 mm	15	17	6	
5041-16	16 mm	16	18	7	
5041-18	18 mm	18	20	7	
5041-22	22 mm	22	25	9	
5041-28	28 mm	28	29	10	
5041-35	35 mm	35	37	14	
5041-42	42 mm	42	42	15	
5041-54	54 mm	54	52	20	
5041-64	64 mm	64	62	27	
5041-67	67 mm	67	65	28,5	
5041-76	76 mm	76	68	32	
5041-80	80 mm	80	83	48	
5041-89	89 mm	89	78	37,5	
5041-108	108 mm	108	110	60	
5041-133	133 mm	133	280	235	
5041-159	159 mm	159	335	290	

RETURN BEND

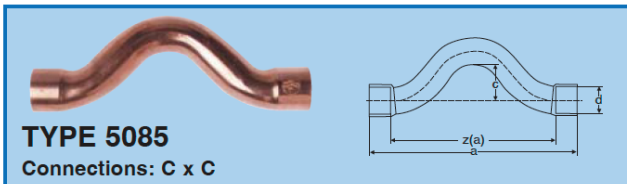


TYPE 5060

Connections: C x C

Cat. No.	Connections		Dimensions (mm)		
	d	a	c	r	z
5060-08	08 mm	20	24	12	12
5060-12	12 mm	28	36	18	17
5060-14	14 mm	33,5	45	22,5	22,5
5060-15	15 mm	34,5	45	22,5	22,5
5060-16	16 mm	37	48	24	24
5060-18	18 mm	41	54	27	27
5060-22	22 mm	48	66	33	31
5060-28	28 mm	60	84	42	40
5060-35	35 mm	95	140	70	70
5060-42	42 mm	112	168	84	83
5060-54	54 mm	140	216	108	106

CROSSOVER COUPLINGS

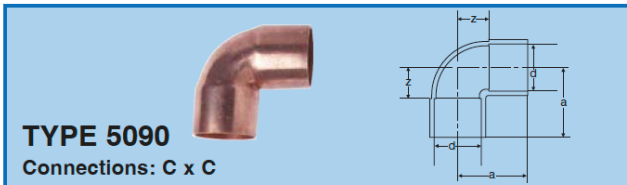


TYPE 5085

Connections: C x C

Cat. No.	Connections		Dimensions (mm)	
	d	a	c	z(a)
5085-12	12 mm	100	20	82
5085-14	14 mm	112	20	90
5085-15	15 mm	113	20	91
5085-16	16 mm	113	20	91
5085-18	18 mm	122	20	96
5085-22	22 mm	145	23	113

90° RADIUS ELBOW

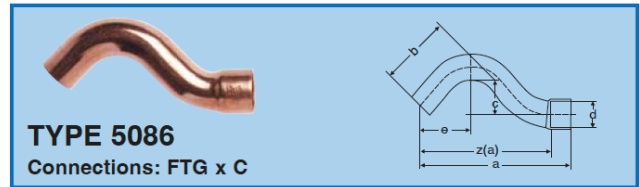


TYPE 5090

Connections: C x C

Cat. No.	Connections		Dimensions (mm)			
	d	a	z	b	z(a)	z(b)
5090-06	06 mm	13	7,2			
5090-08	08 mm	12,5	5,5			
5090-10	10 mm	15	7			
5090-12	12 mm	16,5	7,5			
5090-14	14 mm	19,5	8,5			
5090-15	15 mm	22	11			
5090-16	16 mm	24	13			
5090-18	18 mm	25,5	12,5			
5090-22	22 mm	30	14			
5090-28	28 mm	36,5	17,5			
5090-35	35 mm	46	23			
5090-42	42 mm	55	28			
5090-54	54 mm	70	38			
5090-64	64 mm	83,5	51			
5090-76	76 mm	91,5	58			
5090-89	89 mm	105	67,5			
5090-108	108 mm	127	79,5			
5090-15-12	15-12 mm	22		24,5	10	12,5
5090-18-15	18-15 mm	25		25	11	15
5090-22-15	22-15 mm	32		33	15	21
5090-22-18	22-18 mm	32		34	15	20

CROSSOVER STREET COUPLINGS

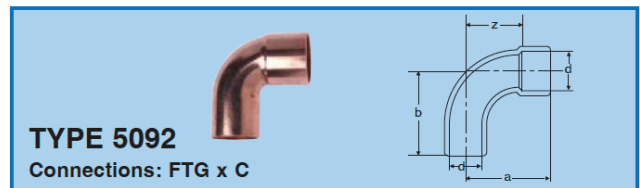


TYPE 5086

Connections: FTG x C

Cat. No.	Connections		Dimensions (mm)			
	d	a	b	c	e	z(a)
5086-12	12 mm	86	43	20	36	76
5086-14	14 mm	94	46	20	37	83
5086-15	15 mm	93	43	20	36	81
5086-16	16 mm	94	46	20	37	83
5086-18	18 mm	101	47	20	40	88
5086-22	22 mm	122	54	23	49	106

SHORT 90° RADIUS STREET ELBOW

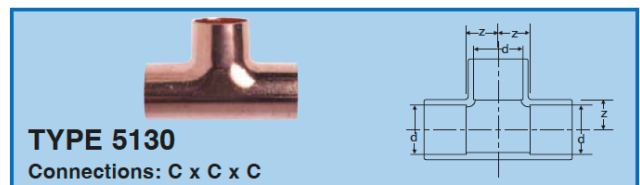


TYPE 5092

Connections: FTG x C

Cat. No.	Connections		Dimensions (mm)	
	d	d	a	Z
5092-06	06 mm	14	16	7,2
5092-08	08 mm	12,5	15,5	5,5
5092-10	10 mm	19	22	10
5092-12	12 mm	17	20	8
5092-14	14 mm	20,5	23	9,5
5092-15	15 mm	23	25	11
5092-16	16 mm	25	28,5	13
5092-18	18 mm	26,5	27	12,5
5092-22	22 mm	31	33	14
5092-28	28 mm	37,5	39,5	17,5
5092-35	35 mm	47	54	24
5092-42	42 mm	56	66	29
5092-54	54 mm	71	82	39

TEES

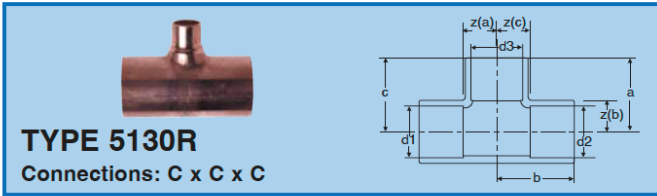


TYPE 5130

Connections: C x C x C

Cat. No.	Connections		Dimensions (mm)	
	d	d	a	z
5130-06	06 mm		10	4
5130-08	08 mm		12	5
5130-10	10 mm		14	6
5130-12	12 mm		16	7
5130-14	14 mm		19	8
5130-15	15 mm		19	8
5130-16	16 mm		20	9
5130-18	18 mm		23	10
5130-22	22 mm		28	12
5130-28	28 mm		34	15
5130-35	35 mm		42	19
5130-42	42 mm		50	23
5130-54	54 mm		61	29
5130-64	64 mm		73	40
5130-67	67 mm		72	38
5130-76	76 mm		80	46
5130-89	89 mm		92	54
5130-108	108 mm		112	64
5130-133	133 mm		135	85
5130-159	159 mm		160	100

REDUCING TEES



TYPE 5130R

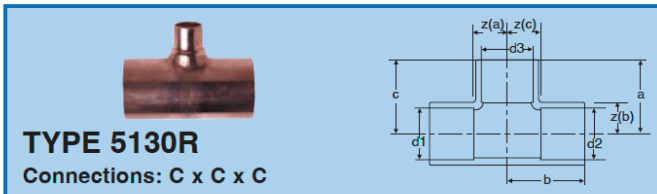
Connections: C x C x C

Cat. No.	Connections d1-d2-d3	Dimensions (mm)					
		a	b	c	z(a)	z(b)	z(c)
5130R-06-08B-06	06-08-06	13	12	13	7	5	7
5130R-06-10B-06	06-10-06	14	14	14	8	6	8
5130R-08-06B-06	08-06-06	12	11	12	5	5	6
5130R-08-06B-08	08-06-08	12	11	12	5	5	5
5130R-08-10B-08	08-10-08	15	14	15	8	6	8
5130R-10-06B-10	10-06-10	14	12	14	6	6	6
5130R-10-08B-08	10-08-08	14	13	14	6	6	7
5130R-10-08B-10	10-08-10	14	13	14	6	6	6
5130R-10-10B-08	10-10-08	14	14	15	6	6	8
5130R-10-12B-10	10-12-10	16,5	16	16,5	8,5	7	8,5
5130R-10-15B-10	10-15-10	19	18,5	19	11	7,5	11
5130R-12-06B-12	12-06-12	15	14,5	15	6	8,5	6
5130R-12-08B-12	12-08-12	15	14	15	6	7	6
5130R-12-10B-10	12-10-10	15	15	16,5	6	7	8,5
5130R-12-10B-12	12-10-12	15	15	15	6	7	6
5130R-12-12B-10	12-12-10	16	16	17,5	7	7	9
5130R-12-14B-12	12-14-12	19	19	19	10	8	10
5130R-12-15B-12	12-15-12	19,5	19	19,5	10,5	8	10,5
5130R-12-16B-12	12-16-12	20	19,5	20	11	8,5	11
5130R-12-18B-12	12-18-12	23	23	23	14	10	14
5130R-12-22B-12	12-22-12	27	28	27	18	12	18
5130R-14-10B-14	14-10-14	17	16	17	6	8	6
5130R-14-12B-12	14-12-12	18	17	18	7	8	9
5130R-14-12B-14	14-12-14	18	17	18	7	8	7
5130R-14-14B-12	14-14-12	19	19	20	8	8	10
5130R-14-16B-12	14-16-12	21	19,5	20	10	8,5	11
5130R-14-16B-14	14-16-14	21,5	19,5	21,5	10,5	8,5	10,5
5130R-14-18B-14	14-18-14	23,5	23	23,5	12,5	10	12,5
5130R-14-22B-14	14-22-14	27,5	27	27,5	16,5	11	16,5
5130R-15-06B-15	15-06-15	16	16,5	16	5	10,5	5
5130R-15-08B-15	15-08-15	16	16	16	5	9	5
5130R-15-10B-10	15-10-10	17	16,5	17	6	8,5	9
5130R-15-10B-12	15-10-12	17	16,5	18	6	8,5	9
5130R-15-10B-15	15-10-15	17	17	17	6	9	6
5130R-15-12B-10	15-12-10	18	18	19	7	9	11
5130R-15-12B-12	15-12-12	18	18	18	7	9	9
5130R-15-12B-15	15-12-15	18	18	18	7	9	7
5130R-15-15B-10	15-15-10	19	19	19	8	8	11
5130R-15-15B-12	15-15-12	19	19	19	8	8	10
5130R-15-18B-15	15-18-15	23	23	23	12	10	12
5130R-15-22B-15	15-22-15	27	28	27	16	12	16
5130R-15-28B-15	15-28-15	33	34	33	22	15	22
5130R-16-06B-16	16-06-16	16,5	15,5	16,5	5,5	9,5	5,5
5130R-16-10B-16	16-10-16	17	17	17	6	9	6
5130R-16-12B-12	16-12-12	18	18	18	7	9	9
5130R-16-12B-14	16-12-14	18	18	20,5	7	9	9,5
5130R-16-12B-16	16-12-16	18	18	18	7	9	7
5130R-16-14B-12	16-14-12	19	20	19	8	9	10
5130R-16-14B-14	16-14-14	19	20	20	8	9	9
5130R-16-14B-16	16-14-16	19	20	19	8	9	8
5130R-16-16B-12	16-16-12	20	20	20	9	9	11
5130R-16-16B-14	16-16-14	20	20	21	9	9	10
5130R-16-18B-14	16-18-14	22,5	23	23	11,5	10	12
5130R-16-18B-16	16-18-16	22,5	23	22,5	11,5	10	11,5
5130R-16-22B-16	16-22-16	26,5	28	26,5	15,5	12	15,5
5130R-18-06B-18	18-06-18	20	17	20	7	11	7
5130R-18-10B-18	18-10-18	20,5	18	20,5	7,5	10	7,5
5130R-18-12B-12	18-12-12	20	19	19,5	7	10	10,5
5130R-18-12B-14	18-12-14	20	19	20	7	10	9
5130R-18-12B-15	18-12-15	20	19	20	7	10	9
5130R-18-12B-16	18-12-16	20	19	19,5	7	10	8,5
5130R-18-12B-18	18-12-18	21	19	21	8	10	8
5130R-18-14B-12	18-14-12	21	21	20	8	10	11

REDUCING TEES (CONTINUED)

Cat. No.	Connections d1-d2-d3	Dimensions (mm)					
		a	b	c	z(a)	z(b)	z(c)
5130R-18-14B-14	18-14-14	21	21	21	8	10	10
5130R-18-14B-16	18-14-16	21	21	21	8	10	10
5130R-18-14B-18	18-14-18	21	21	21	8	10	8
5130R-18-15B-12	18-15-12	22	21	20	9	10	11
5130R-18-15B-15	18-15-15	22	21	22	9	10	11
5130R-18-15B-18	18-15-18	21	21	21	8	10	8
5130R-18-16B-14	18-16-14	22	21	22	9	10	11
5130R-18-16B-16	18-16-16	22	21	22	9	10	11
5130R-18-16B-18	18-16-18	22	21	22	9	10	9
5130R-18-18B-10	18-18-10	23	23	22	10	10	14
5130R-18-18B-12	18-18-12	23	23	21	10	10	13
5130R-18-18B-14	18-18-14	23	23	23	10	10	12
5130R-18-18B-15	18-18-15	23	23	23	10	10	12
5130R-18-18B-16	18-18-16	23	23	23	10	10	12
5130R-18-22B-15	18-22-15	27,5	28	27	14,5	12	16
5130R-18-22B-18	18-22-18	27,5	28	27,5	14,5	12	14,5
5130R-18-28B-18	18-28-18	33,5	34	33,5	20,5	15	20,5
5130R-22-06B-22	22-06-22	23	21	23	7	15	7
5130R-22-10B-22	22-10-22	23	21	23	7	13	7
5130R-22-12B-12	22-12-12	23	21	21	7	12	12
5130R-22-12B-14	22-12-14	23	21	22	7	12	11
5130R-22-12B-15	22-12-15	23	21	22	7	12	11
5130R-22-12B-18	22-12-18	23	21	23	7	12	10
5130R-22-12B-22	22-12-22	23	21	23	7	12	7
5130R-22-14B-14	22-14-14	24	23	23	8	12	12
5130R-22-14B-16	22-14-16	24	23	23	8	12	12
5130R-22-14B-18	22-14-18	24	23	24	8	12	11
5130R-22-14B-22	22-14-22	24	23	24	8	12	8
5130R-22-15B-12	22-15-12	25	23	22,5	9	12	13,5
5130R-22-15B-15	22-15-15	25	23	24	9	12	13
5130R-22-15B-18	22-15-18	25	24	25	9	12	12
5130R-22-15B-22	22-15-22	25	23	25	9	12	9
5130R-22-16B-16	22-16-16	25	23	23,5	9	12	12,5
5130R-22-16B-18	22-16-18	25	23	24	9	12	11
5130R-22-16B-22	22-16-22	25	23	25	9	12	9
5130R-22-18B-12	22-18-12	26	25	24	10	12	15
5130R-22-18B-14	22-18-14	26	25	25	10	12	14
5130R-22-18B-15	22-18-15	26	25	25	10	12	14
5130R-22-18B-16	22-18-16	26	25	25	10	12	14
5130R-22-18B-18	22-18-18	27	25	26	11	12	13
5130R-22-18B-22	22-18-22	27	25	27	11	12	11
5130R-22-22B-12	22-22-12	28	28	26	12	12	17
5130R-22-22B-14	22-22-14	28	28	27	12	12	16
5130R-22-22B-15	22-22-15	28	28	27	12	12	16
5130R-22-22B-16	22-22-16	28	28	26,5	12	12	15,5
5130R-22-22B-18	22-22-18	28	28	27	12	12	14
5130R-22-28B-15	22-28-15	35	34	33	19	15	22
5130R-22-28B-22	22-28-22	35	34	35	19	15	19
5130R-22-35B-22	22-35-22	43	42	43	27	19	27
5130R-28-10B-28	28-10-28	27	26	27	8	18	8
5130R-28-12B-28	28-12-28	26	24	26	7	15	7
5130R-28-14B-28	28-14-28	27	26	27	8	15	8
5130R-28-15B-15	28-15-15	28	26	26,5	9	15	15,5
5130R-28-15B-18	28-15-18	28	26	27	9	15	14
5130R-28-15B-22	28-15-22	28	26	28,5	9	15	12,5
5130R-28-15B-28	28-15-28	28	26	28	9	15	9
5130R-28-16B-16	28-16-16	28	26	32	9	15	21
5130R-28-16B-28	28-16-28	28	26	28	9	15	9
5130R-28-18B-15	28-18-15	29	28	28	10	15	17
5130R-28-18B-18	28-18-18	29	28	28,5	10	15	15,5
5130R-28-18B-22	28-18-22	29	28	30	10	15	14
5130R-28-18B-28	28-18-28	29	28	29	10	15	10
5130R-28-22B-15	28-22-15	31	31	30	12	15	19
5130R-28-22B-18	28-22-18	31	31	30,5	12	15	17,5
5130R-28-22B-22	28-22-22	31	31	32	12	15	16
5130R-28-22B-28	28-22-28	31	31	31	12	15	12
5130R-28-28B-12	28-28-12	34	34	33	15	15	24
5130R-28-28B-15	28-28-15	34	34	33	15	15	22
5130R-28-28B-16	28-28-16	34	34	34	15	15	23
5130R-28-28B-18	28-28-18	34	34	33,5	15	15	20,5
5130R-28-28B-22	28-28-22	34	34	35	15	15	19

REDUCING TEES (CONTINUED)

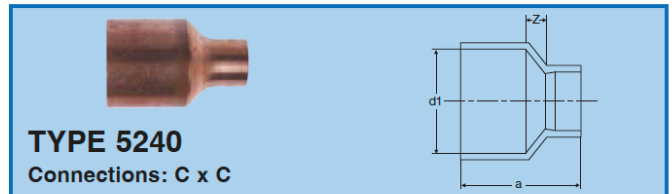


TYPE 5130R

Connections: C x C x C

Cat. No.	Connections d1-d2-d3	Dimensions (mm)						
		a	b	c	z(a)	z(b)	z(c)	
5130R-28-35B-28	28-35-28	43,5	42	43,5	24,5	19	24,5	
5130R-35-15B-28	35-15-28	32,5	30	34	9,5	19	15	
5130R-35-15B-35	35-15-35	32,5	30	32,5	9,5	19	9,5	
5130R-35-18B-28	35-18-28	34	32	35	11	19	16	
5130R-35-18B-35	35-18-35	34	32	34	11	19	11	
5130R-35-22B-22	35-22-22	36	35	37,5	13	19	21,5	
5130R-35-22B-28	35-22-28	36	35	37	13	19	18	
5130R-35-22B-35	35-22-35	36	35	36	13	19	13	
5130R-35-28B-22	35-28-22	38	38	40	15	19	24	
5130R-35-28B-28	35-28-28	38	38	40	15	19	21	
5130R-35-28B-35	35-28-35	38	38	38	15	19	15	
5130R-35-35B-15	35-35-15	42	41	42	19	18	31	
5130R-35-35B-18	35-35-18	42	41	42	19	18	29	
5130R-35-35B-22	35-35-22	42	42	42,5	19	19	26,5	
5130R-35-35B-28	35-35-28	42	42	42,5	19	19	23,5	
5130R-35-42B-35	35-42-35	49,5	50	49,5	26,5	23	26,5	
5130R-42-15B-42	42-15-42	36,5	34	36,5	9,5	23	9,5	
5130R-42-18B-42	42-18-42	38	36	38	11	23	11	
5130R-42-22B-35	42-22-35	40,5	39	40,5	13,5	23	17,5	
5130R-42-22B-42	42-22-42	40	39	40	13	23	13	
5130R-42-28B-28	42-28-28	42,5	42	43	15,5	23	24	
5130R-42-28B-35	42-28-35	42,5	42	44	15,5	23	19	
5130R-42-28B-42	42-28-42	43	42	43	16	23	16	
5130R-42-35B-28	42-35-28	46	46	46	19	23	27	
5130R-42-35B-35	42-35-35	46	46	46,5	19	23	23,5	
5130R-42-35B-42	42-35-42	46,5	46	46,5	19,5	23	19,5	
5130R-42-42B-22	42-42-22	50	50	49	23	23	33	
5130R-42-42B-28	42-42-28	50	50	50	23	23	31	
5130R-42-42B-35	42-42-35	50	50	50	23	23	27	
5130R-42-54B-42	42-54-42	62	61	62	35	29	35	
5130R-54-15B-54	54-15-54	41,5	40	41,5	9,5	29	9,5	
5130R-54-18B-54	54-18-54	43	42	43	11	29	11	
5130R-54-22B-42	54-22-42	46	45	47	14	29	20	
5130R-54-22B-54	54-22-54	45	45	45	13	29	13	
5130R-54-28B-42	54-28-42	49	48	49,5	17	29	22,5	
5130R-54-28B-54	54-28-54	48	48	48	16	29	16	
5130R-54-35B-35	54-35-35	52	52	51	20	29	28	
5130R-54-35B-42	54-35-42	51	52	53	19	29	26	
5130R-54-35B-54	54-35-54	51,5	52	51,5	19,5	29	19,5	
5130R-54-42B-42	54-42-42	55	56	56,5	23	29	29,5	
5130R-54-42B-54	54-42-54	55	56	55	23	29	23	
5130R-54-54B-42	54-54-42	61	61	62	29	29	35	
5130R-64-35B-64	64-35-64	58,5	64	58,5	25,5	40	25,5	
5130R-64-42B-64	64-42-64	62	68	62	29	40	29	
5130R-64-54B-64	64-54-64	67	70	67	34	37	34	
5130R-76-35B-76	76-35-76	59,5	70	59,5	25,5	46	25,5	
5130R-76-42B-76	76-42-76	63	74	63	29	46	29	
5130R-76-54B-76	76-54-76	69	79	69	35	46	35	
5130R-76-64B-76	76-64-76	74	79	74	40	46	40	
5130R-89-35B-89	89-35-89	61,5	74,5	61,5	23,5	50,5	23,5	
5130R-89-42B-89	89-42-89	68,5	82	68,5	30,5	54	30,5	
5130R-89-54B-89	89-54-89	74,5	87	74,5	36,5	54	36,5	
5130R-89-64B-89	89-64-89	79,5	87	79,5	41,5	54	41,5	
5130R-89-76B-89	89-76-89	85,5	88	85,5	47,5	54	47,5	
5130R-108-54B-108	108-54-108	85	97	85	37	64	37	
5130R-108-64B-108	108-64-108	90	97	90	42	64	42	
5130R-108-76B-108	108-76-108	96	98	96	48	64	48	
5130R-108-89B-108	108-89-108	102,5	102	102,5	54,5	64	54,5	
5130R-133-108B-133	133-108-133	139	142	139	89	94,5	89	

REDUCING COUPLING

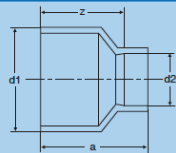
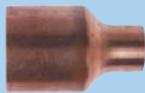


TYPE 5240

Connections: C x C

Cat. No.	Connections d1-d2	Dimensions (mm)	
		a	Z
5240-08-06	08-06 mm	15	2
5240-10-06	10-06 mm	17	3
5240-10-08	10-08 mm	17	2,5
5240-12-06	12-06 mm	19	4
5240-12-08	12-08 mm	19	3
5240-12-10	12-10 mm	20	3
5240-14-10	14-10 mm	23	4
5240-14-12	14-12 mm	22	2,5
5240-15-08	15-08 mm	23	5
5240-15-10	15-10 mm	23	4
5240-15-12	15-12 mm	23	3
5240-15-14	15-14 mm	24	2,5
5240-16-10	16-10 mm	24	5
5240-16-12	16-12 mm	25	4,5
5240-16-14	16-14 mm	25	3
5240-16-15	16-15 mm	23	1
5240-18-10	18-10 mm	26	5
5240-18-12	18-12 mm	27	5
5240-18-14	18-14 mm	27	3,5
5240-18-15	18-15 mm	27	3
5240-18-16	18-16 mm	27	3
5240-22-10	22-10 mm	32	8
5240-22-12	22-12 mm	32	7
5240-22-14	22-14 mm	33	6
5240-22-15	22-15 mm	32	5
5240-22-16	22-16 mm	32	5
5240-22-18	22-18 mm	31	3
5240-28-12	28-12 mm	39	11
5240-28-14	28-14 mm	39	9
5240-28-15	28-15 mm	39	9
5240-28-16	28-16 mm	38	8
5240-28-18	28-18 mm	38	7
5240-28-22	28-22 mm	39	5
5240-35-15	35-15 mm	46	12
5240-35-18	35-18 mm	46	10
5240-35-22	35-22 mm	47	8,5
5240-35-28	35-28 mm	47	5
5240-42-18	42-18 mm	54	14
5240-42-22	42-22 mm	56	13
5240-42-28	42-28 mm	56	10
5240-42-35	42-35 mm	56	6
5240-54-22	54-22 mm	69	21
5240-54-28	54-28 mm	69	18
5240-54-35	54-35 mm	68	13
5240-54-42	54-42 mm	70	11
5240-64-35	64-35 mm	75	15
5240-64-42	64-42 mm	77	13
5240-64-54	64-54 mm	75	10
5240-67-54	67-54 mm	85	16
5240-70-54	70-54 mm	81	11
5240-70-64	70-64 mm	82	11
5240-76-54	76-54 mm	81	11
5240-76-64	76-64 mm	77	11
5240-76-70	76-70 mm	83	11
5240-80-54	80-54 mm	81	11
5240-80-64	80-64 mm	82	11
5240-80-70	80-70 mm	83	11
5240-80-76	80-76 mm	83	11
5240-89-76	89-76 mm	83	12
5240-108-89	108-89 mm	100	15
5240-133-76	133-76 mm	110	41
5240-133-108	133-108 mm	106	23
5240-159-108	159-108 mm	130	47
5240-159-133	159-133 mm	119	49

FITTING REDUCER

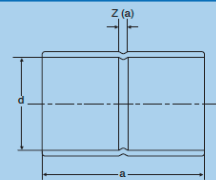


TYPE 5243

Connections: FTG x C

Cat. No.	Connections d1-d2	Dimensions (mm)	
		a	z
5243-08-06	08-06 mm	16	10
5243-10-06	10-06 mm	18	12
5243-10-08	10-08 mm	17,5	10
5243-12-06	12-06 mm	21	15
5243-12-08	12-08 mm	20	13
5243-12-10	12-10 mm	19,5	11,5
5243-14-10	14-10 mm	22	14
5243-14-12	14-12 mm	22	13
5243-15-08	15-08 mm	24	17
5243-15-10	15-10 mm	24	16
5243-15-12	15-12 mm	24	15
5243-15-14	15-14 mm	25	14
5243-16-10	16-10 mm	25	17
5243-16-12	16-12 mm	25	16
5243-16-14	16-14 mm	26	15
5243-16-15	16-15 mm	25	14
5243-18-10	18-10 mm	27	19
5243-18-12	18-12 mm	27	18
5243-18-14	18-14 mm	29	18
5243-18-15	18-15 mm	29	18
5243-18-16	18-16 mm	28	17
5243-22-10	22-10 mm	33	25
5243-22-12	22-12 mm	33	24
5243-22-14	22-14 mm	34	23
5243-22-15	22-15 mm	34	23
5243-22-16	22-16 mm	33,5	22,5
5243-22-18	22-18 mm	35	22
5243-28-12	28-12 mm	41	32
5243-28-14	28-14 mm	42	31
5243-28-15	28-15 mm	39	28
5243-28-16	28-16 mm	40	29
5243-28-18	28-18 mm	39	26
5243-28-22	28-22 mm	42	26
5243-35-15	35-15 mm	50	38
5243-35-18	35-18 mm	47	34
5243-35-22	35-22 mm	48	32
5243-35-28	35-28 mm	49	30
5243-42-15	42-15 mm	59,5	47,5
5243-42-18	42-18 mm	57	44
5243-42-22	42-22 mm	56	40
5243-42-28	42-28 mm	56	37
5243-42-35	42-35 mm	57	34
5243-54-22	54-22 mm	68	52
5243-54-28	54-28 mm	67	48
5243-54-35	54-35 mm	68	45
5243-54-42	54-42 mm	69	42
5243-64-35	64-35 mm	71	46
5243-64-42	64-42 mm	75	46
5243-64-54	64-54 mm	75	43
5243-67-35	67-35 mm	79	56
5243-67-42	67-42 mm	88	58
5243-67-54	67-54 mm	80	48
5243-70-54	70-54 mm	77	43
5243-70-64	70-64 mm	79	44
5243-76-35	76-35 mm	88	65
5243-76-42	76-42 mm	86	59
5243-76-54	76-54 mm	82	50
5243-76-64	76-64 mm	77	44
5243-76-70	76-70 mm	80	44
5243-80-54	80-54 mm	84	50
5243-80-64	80-64 mm	79	44
5243-80-67	80-67 mm	78,5	42,5
5243-89-76	89-76 mm	84	50
5243-108-54	108-54 mm	116	84
5243-108-64	108-64 mm	110	78
5243-108-76	108-76 mm	120	86
5243-108-89	108-89 mm	100	62
5243-133-76	133-76 mm	122	89
5243-133-89	133-89 mm	108	71
5243-133-108	133-108 mm	105	58
5243-159-108	159-108 mm	159	112
5243-159-133	159-133 mm	160	125

COUPLING - ROLLED STOP

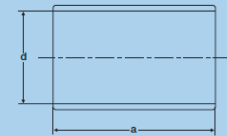


TYPE 5270

Connections: C x C

Cat. No.	Connections d	Dimensions (mm)	
		a	Z (a)
5270-06	06 mm	14	1
5270-08	08 mm	16	1
5270-10	10 mm	18	1
5270-12	12 mm	20	1,5
5270-14	14 mm	24	1,5
5270-15	15 mm	24	1,5
5270-16	16 mm	24	1,5
5270-18	18 mm	28	1,5
5270-22	22 mm	33	1,5
5270-28	28 mm	39	1,5
5270-35	35 mm	48	1,5
5270-42	42 mm	58	2
5270-54	54 mm	68	2
5270-64	64 mm	67	2
5270-67	67 mm	69	2
5270-70	70 mm	67	2
5270-76	76 mm	69	2
5270-80	80 mm	72	2
5270-89	89 mm	77	2
5270-108	108 mm	97	2
5270-133	133 mm	82	12
5270-159	159 mm	82	12

COUPLING - NO STOP

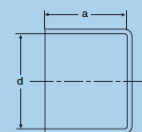


TYPE 5270S

Connections: C x C

Cat. No.	Connections d	Dimensions (mm)	
		a	
5270S-12	12 mm	20	
5270S-15	15 mm	24	
5270S-18	18 mm	28	
5270S-22	22 mm	33	
5270S-28	28 mm	38	
5270S-35	35 mm	48,5	
5270S-42	42 mm	58	
5270S-54	54 mm	68	

CAP



TYPE 5301

Connections: C

Cat. No.	Connections d	Dimensions (mm)	
		a	
5301-10	10 mm	9	
5301-12	12 mm	10	
5301-14	14 mm	11	
5301-15	15 mm	12	
5301-16	16 mm	13	
5301-18	18 mm	14	
5301-22	22 mm	17	
5301-28	28 mm	20	
5301-35	35 mm	25	
5301-42	42 mm	29	
5301-54	54 mm	34	
5301-64	64 mm	35	
5301-67	67 mm	35	
5301-76	76 mm	36	
5301-89	89 mm	40	
5301-108	108 mm	50	

COPPER FITTING • DATA

TEMPERATURE - PRESSURE RATINGS OF SOLDER JOINTS ¹					
ALLOYS USED FOR JOINTS	SERVICE TEMPERATURE °F	STANDARD TUBE SIZE, TYPES K, L, AND M			
		WATER AND NON-CORROSIVE LIQUIDS & GASES			
		1/4 to 1	1-1/4 to 2	2-1/2 to 4	5 to 8
50 / 50 Tin Lead Solder Not to be used in potable water systems	100	200	175	150	135
	150	150	125	100	90
	200	100	90	75	70
	250	85	75	50	45
95 / 5 Tin-Antimony Solder	100	1090	850	705	660
	150	625	485	405	375
	200	505	395	325	305
	250	270	210	175	165
Alloy E Solder	100	710	555	460	430
	150	475	370	305	285
	200	375	290	240	225
	250	320	250	205	195
Alloy HB Solder	100	1035	805	670	625
	150	710	555	460	430
	200	440	345	285	265
	250	430	335	275	260
Brazing Alloys (melting at or above 1000°F)	Pressure-temperature ratings is that of the tubing being used				

Note: Ratings are those given in ASME B 16.22 "Wrought Copper and Copper Alloy Solder Joint Pressure Fittings." (a) Solder alloys are covered by ASTM Standard Specification B32. The Safe Drinking Water Act Amendment of 1986 prohibits the use of any solder having a lead content in excess of 02% for potable water systems.

PRESSURE LOSS IN FITTINGS EXPRESSED AS EQUIVALENT LENGTH OF TUBE, FEET						
Normal or Standard in Inches	Wrot Copper Fittings					
	90 Degree El	45 Degree El	Tee Straight Run	Tee Side Branch	Coupling	180 Degree Bend
3/8	0.5	0.5	0.5	1	-	0.5
1/2	0.5	0.5	0.5	1	-	1
5/8	0.5	0.5	0.5	2	-	1
3/4	1	0.5	0.5	2	-	2
1	1	1	0.5	3	-	2
1-1/4	2	1	0.5	4	0.5	3
1-1/2	2	2	1	5	0.5	4
2	2	2	1	7	0.5	8
2-1/2	2	3	2	9	0.5	16
3	3	4	-	-	1	20

¹Temperature – Pressure Ratings above are according to industry-wide standards at ASTM and ASME.

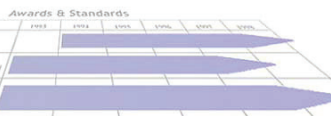
AWARDS



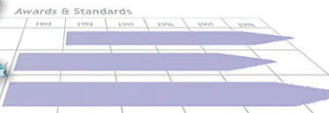
Supplier Outstanding Performance Award Excellent performance in supplying quality products & services



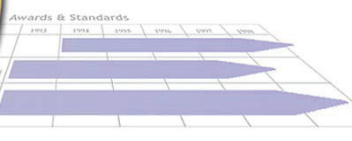
Supplier Recognition Awards 1999 Excellent performance in supplying quality products & services



LG Electronics Distinguished Supplier Award 2000 In recognition of outstanding performance and partnership



Friedrich Air Conditioning Co. 1994, 1995, 1996, 1998, 1999, 2000 Outstanding Supplier Award



Standards and Industrial Research Institute of Malaysia

MSISO 9002
Quality Systems - Model for Quality Assurance
in Production, Installation and Servicing

Scope of Registration
The manufacture of Plain and internally
Grooved Seamless Copper Tubes

