



CEM Fittings

COPPER, END-FEED
CAPILLARY FITTINGS



JOINING SYSTEMS → FITTINGS → COPPER → BSEN 1254

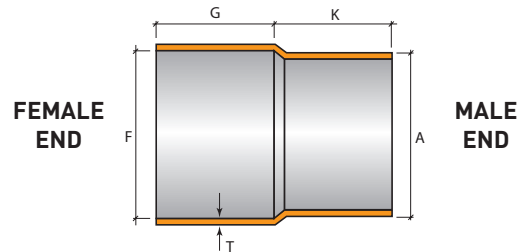
CEM Copper End-Feed Capillary Fittings

Manufactured to BSEN 1254-1 : 1998



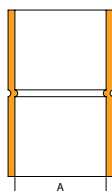
The CEM range of copper end-feed capillary fittings comply with the following standards:

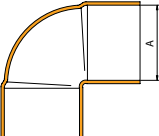
- 1 BRITISH STANDARD BSEN 1254 - PART 1
- Nominal sizes ranging up to and including 108mm.
- 2 159mm in accordance with manufacturer's specification and is suitable for BSEN 1057 copper tube.
- 3 CEM range of copper end-feed capillary fittings has received WRAS (Water Regulations Advisory Scheme) approval, Certificate No.0702120.

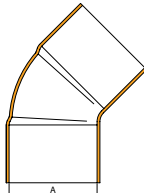


Dimensions of CEM Copper End-Feed Capillary Fittings (mm)							
Nominal Size of Fitting	Female End			Male End			Minimum Wall Thickness
	Inside Diameter		Length	Outside Diameter		Length	
	F	G	A	K	T		
mm	mm max.	mm min.	mm min.	mm max.	mm min.	mm min.	mm min.
15	15.15	15.06	10.6	15.04	14.95	12.6	0.70
22	22.18	22.07	15.4	22.05	21.94	17.4	0.90
28	28.18	28.07	18.4	28.05	27.94	20.4	0.90
35	35.23	35.09	23.0	35.06	34.93	25.0	1.00
42	42.23	42.09	27.0	42.06	41.93	29.0	1.10
54	54.23	54.09	32.0	54.06	53.93	34.0	1.20
67	67.03	66.80	33.5	66.77	66.62	36.5	1.40
76	76.43	76.20	33.5	76.17	76.02	36.5	1.60
108	108.33	108.10	47.5	108.07	107.92	51.5	2.10
159	Please contact your local CEM supplier for current details						



STRAIGHT COUPLING	NOMINAL SIZE A (mm)	DESCRIPTIVE CODE	PART NUMBER
	15	CE-SC-15	50131460
	22	CE-SC-22	50131461
	28	CE-SC-28	50131462
	35	CE-SC-35	50131463
	42	CE-SC-42	50131464
	54	CE-SC-54	50131465
	67	CE-SC-67	50131466
	76	CE-SC-76	50131467
	108	CE-SC-108	50131468
	159	CE-SC-159	50131469

90° ELBOW	NOMINAL SIZE A (mm)	DESCRIPTIVE CODE	PART NUMBER
	15	CE-9E-15	50131522
	22	CE-9E-22	50131523
	28	CE-9E-28	50131524
	35	CE-9E-35	50131525
	42	CE-9E-42	50131526
	54	CE-9E-54	50131527
	67	CE-9E-67	50131528
	76	CE-9E-76	50131529
	108	CE-9E-108	50131530
	159	CE-9E-159	50131531

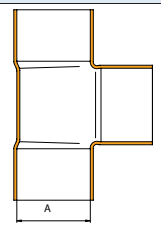
45° ELBOW	NOMINAL SIZE A (mm)	DESCRIPTIVE CODE	PART NUMBER
	15	CE-4E-15	50131532
	22	CE-4E-22	50131533
	28	CE-4E-28	50131534
	35	CE-4E-35	50131535
	42	CE-4E-42	50131536
	54	CE-4E-54	50131537
	67	CE-4E-67	50131538
	76	CE-4E-76	50131539
	108	CE-4E-108	50131540
	159	CE-4E-159	50131541

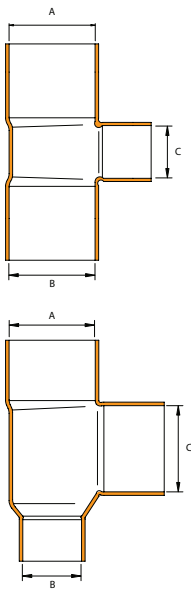
CEM Copper End-Feed Capillary Fittings

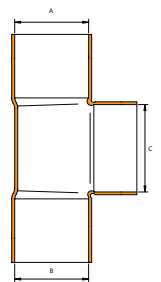
Manufactured to BSEN 1254-1 : 1998

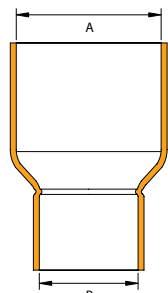


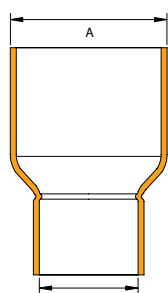
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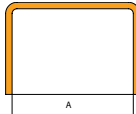
EQUAL TEE	NOMINAL SIZE A (mm)	DESCRIPTIVE CODE	PART NUMBER
	15	CE-ET-15	50131542
	22	CE-ET-22	50131543
	28	CE-ET-28	50131544
	35	CE-ET-35	50131545
	42	CE-ET-42	50131546
	54	CE-ET-54	50131547
	67	CE-ET-67	50131548
	76	CE-ET-76	50131549
	108	CE-ET-108	50131550
	159	CE-ET-159	50131551

REDUCING TEE	NOMINAL SIZE A x B x C (mm)	DESCRIPTIVE CODE	PART NUMBER
	22 x 15 x 15	CE-RT-221515	50131552
	22 x 15 x 22	CE-RT-221522	50131553
	22 x 22 x 15	CE-RT-222215	50131554
	28 x 22 x 15	CE-RT-282215	50131555
	28 x 22 x 22	CE-RT-282222	50131556
	28 x 15 x 28	CE-RT-281528	50131557
	28 x 22 x 28	CE-RT-282228	50131558
	28 x 28 x 15	CE-RT-282815	50131559
	28 x 28 x 22	CE-RT-282822	50131560
	35 x 22 x 22	CE-RT-352222	50131561
	35 x 28 x 28	CE-RT-352828	50131562
	35 x 35 x 15	CE-RT-353515	50131563
	35 x 35 x 22	CE-RT-353522	50131564
	35 x 35 x 28	CE-RT-353528	50131565
	42 x 28 x 28	CE-RT-422828	50131566
	42 x 35 x 35	CE-RT-423535	50131567
	42 x 42 x 15	CE-RT-424215	50131568
	42 x 42 x 22	CE-RT-424222	50131569
	42 x 42 x 28	CE-RT-424228	50131570
	42 x 42 x 35	CE-RT-424235	50131571
	54 x 54 x 15	CE-RT-545415	50131572
	54 x 54 x 22	CE-RT-545422	50131573
	54 x 54 x 28	CE-RT-545428	50131574
	54 x 54 x 35	CE-RT-545435	50131575
	54 x 54 x 42	CE-RT-545442	50131576
	67 x 67 x 22	CE-RT-676722	50131577
	67 x 67 x 28	CE-RT-676728	50131578
	67 x 67 x 35	CE-RT-676735	50131579
	67 x 67 x 42	CE-RT-676742	50131580
	67 x 67 x 54	CE-RT-676754	50131581
	76 x 76 x 28	CE-RT-767628	50131582
	76 x 76 x 35	CE-RT-767635	50131583
	76 x 76 x 42	CE-RT-767642	50131584
	76 x 76 x 54	CE-RT-767654	50131585
	76 x 76 x 67	CE-RT-767667	50131586
	108 x 108 x 35	CE-RT-10810835	50131587
	108 x 108 x 42	CE-RT-10810842	50131588
	108 x 108 x 54	CE-RT-10810854	50131589
	108 x 108 x 67	CE-RT-10810867	50131590
	108 x 108 x 76	CE-RT-10810876	50131591
159 x 159 x 54	CE-RT-15915954	50131592	
159 x 159 x 76	CE-RT-15915976	50131593	
159 x 159 x 108	CE-RT-159159108	50131594	

EXPANDING TEE	NOMINAL SIZE A x B x C (mm)	DESCRIPTIVE CODE	PART NUMBER
	15 x 15 x 22	CE-XT-151522	50131595
	22 x 22 x 28	CE-XT-222228	50131596
	28 x 28 x 35	CE-XT-282835	50131597
	35 x 35 x 42	CE-XT-353542	50131598

REDUCING COUPLING	NOMINAL SIZE A x B (mm)	DESCRIPTIVE CODE	PART NUMBER
	22 x 15	CE-RC-2215	50131470
	28 x 15	CE-RC-2815	50131471
	28 x 22	CE-RC-2822	50131472
	35 x 15	CE-RC-3515	50131473
	35 x 22	CE-RC-3522	50131474
	35 x 28	CE-RC-3528	50131475
	42 x 22	CE-RC-4222	50131476
	42 x 28	CE-RC-4228	50131477
	42 x 35	CE-RC-4235	50131478
	54 x 22	CE-RC-5422	50131479
	54 x 28	CE-RC-5428	50131480
	54 x 35	CE-RC-5435	50131481
	54 x 42	CE-RC-5442	50131482
	67 x 28	CE-RC-6728	50131483
	67 x 35	CE-RC-6735	50131484
	67 x 42	CE-RC-6742	50131485
	67 x 54	CE-RC-6754	50131486
	76 x 35	CE-RC-7635	50131487
	76 x 42	CE-RC-7642	50131488
	76 x 54	CE-RC-7654	50131489
	76 x 67	CE-RC-7667	50131490
	108 x 54	CE-RC-10854	50131491
	108 x 67	CE-RC-10867	50131492
	108 x 76	CE-RC-10876	50131493
159 x 108	CE-RC-159108	50131494	

FITTING REDUCER	NOMINAL SIZE A x B (mm)	DESCRIPTIVE CODE	PART NUMBER
	22 x 15	CE-FR-2215	50131495
	28 x 15	CE-FR-2815	50131496
	28 x 22	CE-FR-2822	50131497
	35 x 15	CE-FR-3515	50131498
	35 x 22	CE-FR-3522	50131499
	35 x 28	CE-FR-3528	50131500
	42 x 22	CE-FR-4222	50131501
	42 x 28	CE-FR-4228	50131502
	42 x 35	CE-FR-4235	50131503
	54 x 22	CE-FR-5422	50131504
	54 x 28	CE-FR-5428	50131505
	54 x 35	CE-FR-5435	50131506
	54 x 42	CE-FR-5442	50131507
	67 x 28	CE-FR-6728	50131508
	67 x 35	CE-FR-6735	50131509
	67 x 42	CE-FR-6742	50131510
	67 x 54	CE-FR-6754	50131511
	76 x 35	CE-FR-7635	50131512
	76 x 42	CE-FR-7642	50131513
	76 x 54	CE-FR-7654	50131514
	76 x 67	CE-FR-7667	50131515
	108 x 42	CE-FR-10842	50131516
	108 x 54	CE-FR-10854	50131517
	108 x 67	CE-FR-10867	50131518
	108 x 76	CE-FR-10876	50131519
	159 x 67	CE-FR-15967	50131520
	159 x 108	CE-FR-159108	50131521

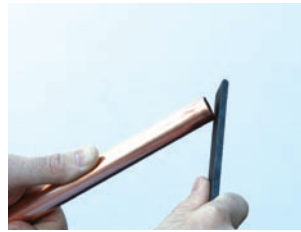
STOP END	NOMINAL SIZE A (mm)	DESCRIPTIVE CODE	PART NUMBER
	15	CE-SE-15	50131599
	22	CE-SE-22	50131600
	28	CE-SE-28	50131601
	35	CE-SE-35	50131602
	42	CE-SE-42	50131603
	54	CE-SE-54	50131604
	67	CE-SE-67	50131605
	76	CE-SE-76	50131606
	108	CE-SE-108	50131607
	159	CE-SE-159	50131608

CEM Copper End-Feed Capillary Fittings

Manufactured to BSEN 1254-1 : 1998

Installation Procedure for CEM Copper End-Feed Capillary Fittings

- 1 Select an appropriate fitting to match the tube size and check that they will fit neatly together.
- 2 Cut the copper tube to the required length by using the tube cutter or a fine tooth hacksaw. Ensure that the tube ends are cut square, and the tube remains round in section. Re-rounding may be required for Annealed Tube that complies with BSEN 1057 R220.
- 3 Remove all burrs from the inside and outside surface of the tube ends.
- 4 Use a brush to clean inside the socket of the fittings. Clean the outside surface of the tube using fine steel wool, fine sanding paper or a cleaning pad.
- 5 Apply a thin coating of flux to the area of the fitting and the tube that will form the joint.
- 6 Ensure that the tube end is pushed fully home within the fitting. Twist the assembly to spread the flux over the jointing area. Wipe off any excess flux.
- 7 Heat the jointing area evenly using a gas torch.
- 8 When the appropriate temperature is reached, remove the heat and add the solder at the edge of the joint. The solder should flow into the capillary gap of joint. When the joint is complete, a ring of solder should appear all around the mouth of the fitting.
- 9 Allow the joint to cool down. Do not move the joint assembly during cooling.
- 10 To prevent corrosion, wipe and wash all excess flux from the outside surfaces. Flush the system thoroughly to remove internal residues.



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