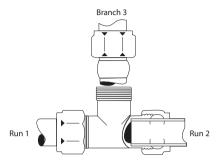
Compression Fittings & MLP





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Special Note

Throughout this booklet sizes for unequal ends of tees have been given in numerical order as indicated above.

When ordering, use the same system, the branch size is always stated last.

All imperial sizes quoted refer to ends for BSP thread connections. All metric sizes quoted refer to nominal sizes for copper tubes to SABS.

In the compression range, both male and female connecting threads are BSP parallel.

Compression Fittings

The compression ring type copper tube joining system was designed and introduced in the United Kingdom in 1933. Cobra introduced it to the South African market in the early 1950's, under the "Conex" brand at the time and in recent years under the Cobra brand.

The versatility, efficiency and joining speed, led to its rapid adoption by plumbers. The introduction of hard drawn copper tube has led to the wider use of copper tube systems in inland areas. Cobra compression fittings are suitable for use with hard drawn (SANS 460 all classes 0, 1, 2, 3) tubing as well. Inland contractors have discovered that with Cobra compression fittings they can use cheaper, less skilled labour. It is a much faster system to install than systems used traditionally, is comprehensive in range and manufactured in accordance with SABS requirements (SANS-1067-1 2005). It has the added advantage that the pipe work can be dismantled and re-assembled, should the need arise. Cobra compression fittings are ideally suited for use in emergency repairs as well, for instance with the slip couplings D-1XL-15 S/C and D-1XL-22 S/C which can be used to make a repair connection to rigid pipe work mounted close to a wall.

The fact that the complete connection is a metal to metal mechanical coupling, makes it both permanent (no organic sealing material that can deteriorate) as well as being suitable for applications where the heat and open flames, while soldering connections, can pose a hazard.

Cobra compression fittings can be used in conjunction with polyethylene pipe system, which is made up of Cobra-Safe® MLP Pipe, Cobra MLP Inserts, and Cobra Compression Fittings. The components used exclusively together, meet compliance, SANS 21003 Part 1, for multi-layer PEX pipe system.

DZR Brass: All Cobra compression fittings are manufactured from Dezincification Resistant Brass as required by SANS 1067 Part 1

Advantages of Copper Tubing Systems:

- Excellent corrosion resistance, both internal and external
- Low in service maintenance
- Superior flow characteristics even after many years
- Space saving
- Neat appearance when exposed
- · Cost effective in terms of overall installation cost
- Light weight facilitating ease of transport, fabrication and installation

MAKING A COMPRESSION JOINT



 Copper tube can be cut with a hacksaw; a fine tooth blade is best or use a roller tube cutter. Do not put too much pressure on the cutting disk.



Clean the ends of the tube with a file or de-burring tool, inside and outside.



3. The parts of the joint can be laid out as per picture before assembly.



4. Slide the copper tube into the Cobra compression fitting, ensuring that the tube stays firmly against the shoulder of the fitting. Tighten the cap nut by hand, ensuring the tube stays firmly against the shoulder of the fitting.



 Following hand tightening of the cap nut, tighten with a spanner until the copper tube is hard to rotate in the compression fitting, thereafter tighten the cap nut half a turn. Inspect and pressure test the joint.

This compression joint is designed to be a metal to metal coupling, where hard drawn copper tube is used. Using Cobra Safe MLP systems, you will need the Cobra Safe inserts in order to complete the coupling.

D-1XS

Straight Coupler. Copper to Copper connections.



Product Code:	SAP Code:	Barcode:
D-1XS-15	FC0MPC15-7FT0155	6002194037132
D-1XS-22	FC0MPC22-7FT0155	6002194004202
D-1XS-28	FC0MPC28-7FT0155	6002194020431
D-1XS-35	FC0MPC35-7FT0155	6002194020448
D-1XS-42	FCOMPC42-7FT0155	6002194020455
D-1XS-54	FCOMPC54-7FT0155	6002194020462

* Also available D-1XL-15S/C FCOMPL15-7FT0155 6002194020417 D-1XL-22S/C FC0MPL22-7FT0155 6002194020424

Slip Couplings (without internal pipe stops) for repairs or alterations to rigid pipework.

D-2XS-54

D-2XS

6002194020592

Barcode:

Straight Male Coupler. Copper to Male Iron connections.



D-2XS-15	FC0M2C15-7FT0155	6002194037194
D-2XS-22	FC0M2C22-7FT0155	6002194037200
D-2XS-28	FC0M1C28-7FT0155	6002194020561
D-2XS-35	FC0M1C35-7FT0155	6002194020578
D-2XS-42	FC0M1C42-7FT0155	6002194020585

FC0M1C54-7FT0155

15mm x 1/2"; 22mm x 3/4"; 28mm x 1"; 35mm x 11/4"; 42mm x 11/2"; 54mm x 2".

Product Code: SAP Code:

D-3XS

Barcode:

Straight Female Coupler.

Copper to Female Iron connections.



D-3XS-15	FC0M3C15-7FT0155	6002194037316
D-3XS-22	FC0M3C22-7FT0155	6002194037323
D-3XS-28	FC0M2C28-7FT0155	6002194020752
D-3XS-35	FC0M2C35-7FT0155	6002194020769
D-3XS-42	FC0M2C42-7FT0155	6002194020776
D-3XS-54	FC0M2C54-7FT0155	6002194020783

15mm x ½"; 22mm x ¾"; 28mm x 1"; 35mm x 1¼"; 42mm x 1½"; 54mm x 2".

Product Code: SAP Code:

D-1RXS

Reducing Straight Coupler. Copper to Copper connections.



Product Code:	SAP Code:	Barcode:

D-1RXS-22X15 FC0MPC03-7FT0155 6002194037118 D-1RXS-28X22 FC0MPC04-7FT0155 6002194037125

D-4XS

Elbow 90°.

Copper to Copper connections.



Product Code:	SAP Code:	Barcode:
D-4XS-15	FC0M3E15-7FT0155	6002194037385
D-4XS-22	FC0M2E22-7FT0155	6002194037392
D-4XS-28	FC0M1E28-7FT0155	6002194020790
D-4XS-35	FC0M1E35-7FT0155	6002194020806
D-4XS-42	FC0M1E42-7FT0155	6002194020813
D_4YS_54	FC0M1F54-7FT0155	6002196020820

D-4RXS

Reducing Elbow 90°.

Copper to Copper connections.



Product Code: SAP Code: Barcode:

D-4RXS-22X15 FC0MPE19-7FT0155 6002194037378

D-2RXS

Reducing Male Straight Coupler. Copper to Male Iron connections.



Product Code: SAP Code: Barcode:

D-2RXS-1X22 FCOMPC16-7FT0155 6002194020554 D-2RXS-3/4X15 FCOMPC17-7FT0155 6002194037187

D-3RXS

Reducing Straight Coupler.
Copper to Female Iron connections.



Product Code: SAP Code: Barcode:

D-3RXS-3/4X15 FCOMPC18-7FT0155 6002194037309

D-8XS

Male Elbow 90°. Copper to Male Iron connections.



Product Code:	SAP Code:	Barcode:
D-8XS-15	FC0M4E15-7FT0155	6002194037453
D-8XS-22	FC0M3E22-7FT0155	6002194037460
D-8XS-28	FC0M2F28-7FT0155	6002194020929

D-8XS-22	FCUM3E22-7F10155	6002194037460
D-8XS-28	FC0M2E28-7FT0155	6002194020929
D-8XS-35	FC0M2E35-7FT0155	6002194020936
D-8XS-42	FC0M2E42-7FT0155	6002194020943
D-8XS-54	FC0M2E54-7FT0155	6002194020950

15mm x ½"; 22mm x ¾"; 28mm x 1"; 35mm x 1¼"; 42mm x 1½"; 54mm x 2".

D-10XS

Barcode:

6002194020509

Female Elbow 90°. Copper to Female Iron connections.



D-10XS-15	FCOMPE15-7FT0155	6002194037453
D-10XS-22	FC0MPE22-7FT0155	6002194004325
D-10XS-28	FCOMPE28-7FT0155	6002194020479
D-10XS-35	FC0MPE35-7FT0155	6002194020486
D_10YS_//2	ECOMPE/2-7FT0155	4002194020493

FCOMPES4-7FT0155

15mm x ½"; 22mm x ¾"; 28mm x 1"; 35mm x 1¼"; 42mm x 1½"; 54mm x 2".

D-10XS-54

Product Code: SAP Code:

D-33XS

Wallplate Elbow 90°.

Copper to Female Iron connections.



Product Code: SAP Code: Barcode:

D-33XS-15 FC0M1E15-7FT0155 6002194037330 D-33XS-22 FC0M1E22-7FT0155 6002194037347

15mm x 1/2"; 22mm x 3/4".

D-37XS

Swivel Female Elbow 90°.

Copper to Female Iron connections.



Product Code: SAP Code: Barcode:

D-37XS-15 FC0M2E15-7FT0155 6002194037354

15mm x 1/2".

D-10RXS

Reducing Female Elbow 90°. Copper to Female Iron connections.



Product Code: SAP Code: Barcode:

D-10RXS3/4X15 FC0MPE01-7FT0155 6002194008415

D-12XS

Rarcode:

Equal Tee. Copper to Copper connections.



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D-12XS-15	FC0MPT15-7FT0155	6002194037149	
D-12XS-22	FC0MPE22-7FT0155	6002194037156	
D-12XS-28	FC0MPT28-7FT0155	6002194020516	
D-12XS-35	FC0MPT35-7FT0155	6002194020523	
D-12XS-42	FC0MPT42-7FT0155	6002194020530	
D-12XS-54	FC0MPT54-7FT0155	6002194020547	

Product Code: SAP Code:

D-15XS

Male Tee.

Copper to Copper to Male Iron connections.

Product Code: SAP Code: Barcode:

D-15XS-15 FC0M2T15-7FT0155 6002194037163 D-15XS-22 FC0M1T22-7FT0155 6002194037170

15mm x 15mm x ½"; 22mm x 22mm x ¾"

D-17XS

Female Tee.

Copper to Copper to Female Iron connections.

Product Code: SAP Code: Barcode:

D-17XS-15 FC0M3T15-7FT0155 6002194004110 D-17XS-15 FC0M2T22-7FT0155 6002194004127

15mm x 15mm x ½"; 22mm x 22mm x ¾".

D-29XS

Wallplate Tee.

Copper to Copper to Female Iron connections.

Product Code: SAP Code: Barcode:

D-29XS-15 FC0M4T15-7FT0155 6002194037279

15mm x 15mm x 1/2".

D-17RXS

Reducing Female Tee.

Copper to Copper to Female Iron connections.

Product Code: SAP Code: Barcode:

D-17RXS22X1/2 FC0MPT02-7FT0155 6002194004134

22mm x 22mm x ½".

D-279XS

Reducing Tee.

All ends Copper. Run equally reduced.



Product Code: SAP Code: Barcode:

D-279XS-15X22 FC0MPT12-7FT0155 6002194037255 D-279XS-22X28 FC0MPT13-7FT0155 6002194020714

D-280XS

Reducing Tee.

All ends Copper. Run and Branch equally reduced.



Barcode:

D-280XS-22X15 FC0MPT14-7FT0155 6002194037262



D-79XS

Reducing Tee.

All ends Copper. One end on Run reduced.



Product Code: SAP Code: Barcode:

D-79XS-22X15 FCOMPT27-7FT0155 6002194037446

D-80XS

Reducing Tee.

All ends Copper. Branch reduced.



Product Code: SAP Code: Barcode:

D-80XS-22X15 FCOMPT29-7FT0155 6002194037477 D-80XS-22X22 FCOMPT30-7FT0155 6002194020974

D-68XS

Single Step Reducer (for adapting a fitting).



Product Code:	SAP Code:	Barcode:

D-68XS-22X15	FC0MPR21-7FT0155	6002194037422
D-68XS-28X22	FCOMPR23-7FT0155	6002194037439
D-68XS-35X28	FCOMPR24-7FT0155	6002194020875
D-68XS-42X35	FCOMPR25-7FT0155	6002194020882
D-68XS-54X42	FC0MPR26-7FT0155	6002194020899

D-268XS

Multi-Step Reducer.



Product Code: SAP Code: Barcode:

D-268XS-28X15	FCOMPR05-7FT0155	6002194020615
D-268XS-35X22	FCOMPR06-7FT0155	6002194020639
D-268XS-42X22	FCOMPR07-7FT0155	6002194020653
D-268XS-42X28	FCOMPR08-7FT0155	6002194020660
D-268XS-54X22	FCOMPR09-7FT0155	6002194020684
D-268XS-54X28	FCOMPR10-7FT0155	6002194020691
D-268XS-54X35	FC0MPR11-7FT0155	6002194020707

64XS

Cap Nut.



Product Code:	SAP Code:	Barcode

64XS-15/25	FC0M1P15-7FT0155	6002194146414
64XS-15/500	FC0M2P15-7FT0155	6002194146803
64XS-15L	FC0M3P15-7FT0155	6002194127901
64XS-22/25	FC0M1P22-7FT0155	6002194146407
64XS-22/250	FC0M2P22-7FT0155	6002194146797
64XS-22L	FC0M3P22-7FT0155	6002194127918
64XS-28	FC0MPP28-7FT0155	6002194030799
64XS-35	FC0MPP35-7FT0155	6002194030805
64XS-42	FCOMPP42-7FT0155	6002194030812
64XS-54	FC0MPP54-7FT0155	6002194030829

^{*}Quantity after the "/" denotes the quantity per pack

D-65XS

Brass Compression Ring.



Product Code: SAP Code: Barcode:

D-65XS-15/10	FC0M5G15-7FT0155	6002194146391
D-65XS-15/1000	FC0M1G15-7FT0155	6002194147060
D-65XS-15/3000	FC0M6G15-7FT0155	6002194146780
D-65XS-15L	FC0M3G15-7FT0155	6002194122265
D-65XS-22/10	FC0M5G22-7FT0155	6002194146384
D-65XS-22/1500	FC0M6G22-7FT0155	6002194146773
D-65XS-22L	FC0M2G22-7FT0155	6002194122272
D-65XS-28	FCOMPG28-7FT0155	6002194020837
D-65XS-35	FCOMPG35-7FT0155	6002194020844
D-65XS-42	FCOMPG42-7FT0155	6002194020851
D-65XS-54	FCOMPG54-7FT0155	6002194020868

^{*}Quantity after the "/" denotes the quantity per pack

^{*}L denotes a single piece with a bar-code label

^{*}L denotes a single piece with a bar-code label

Stop End.

D-23XS

Barcode:



D-23XS-15 FC0MPS15-7FT0155 6002194037231 D-23XS-22 FC0MPS22-7FT0155 6002194037248 D-23XS-28 FC0MPS28-7FT0155 60021940220608

62XS

Brass Holderbat for Copper Tube.



Product Code:	SAP Code:	Barcode
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62XS-15 FC0MPB15-7FT0155 6002194038924 62XS-22 FC0MPB22-7FT0155 6002194038931

1003/125

Fullway Gate Valve. Copper to Copper with non-rising spindle and guided wedge.



Product Code:	SAP Code:	Barcode:
1003/125-15	FGV10315-7FT0140	6002194027454
1003/125-22	FGV10322-7FT0140	6002194027461
1003/125-28	FGV10328-7FT0140	6002194027478
1003/125-35	FGV10335-7FT0140	6002194027485
1003/125-42	FGV10342-7FT0140	6002194027492
1003/125-54	FGV10354-7FT0140	6002194027508



Use as an isolating valve ONLY SANS776, Class20.

GATE VALVES

131

Stop Tap.

Rough Brass. Copper to Copper.

SANS226, Type 1 (Heavy duty).

Product Code:	SAP Code:	Barcode:
131-15	FSTAC1CR-7FT0048	6002194001867
131-22	FSTAC2CR-7FT0048	6002194001874
131-28	FSTACXCR-7FT0048	6002194038085

* Also available: 231-15 FSTAC1C1-7FT0048 6002194016625

Rough Brass, Copper to Copper; SANS226, Type 1.



Tubes for Domestic Plumbing Services as per SABS 460

Class 2 (Medium)

Nominal Size of Tube (mm)	Outside [Max (mm)	Min (mm)	Wall Thickness Class 2 Med. (mm)	Theoretical Mass kg/m Class 2	Maximum Working Pressure Mpa Class 2 Half Hard
15	15.045	14.955	1,0	0.392	7.54
22	22,055	21,945	1,0	0,588	5,00
28	28,055	27,945	1,2	0,900	4,72
35	35,070	34,930	1,5	1,407	4,72
42	42,070	41,930	1,5	1,701	3,81
54	54,070	53,930	2,0	2,912	4,06
76	76,170	76,030	2,0	4,150	2,85
108	108,070	107,930	2,5	7,385	2,50

Class 1 (Light)

Nominal	Outside E	Diameter	Wall	Theoretical	Maximum Working
Size of Tube (mm)	Max (mm)	Min (mm)	Thickness Class 1 Med. (mm)	Mass kg/m Class 1	Pressure Mpa Class 1 Half Hard
15	15,045	14,955	0,70	0,280	5,16
22	22,055	21,945	0,90	0,532	4,50
28	28,055	27,945	0,90	0,683	3,50
35	35,070	34,930	1,20	1,136	3,74
42	42,070	41,930	1,20	1,371	3,03
54	54,070	53,930	1,20	1,774	2,40
76	76,170	76,030	1,50	3,133	2,12
108	108,070	107,930	1,50	4,473	1,49

COPPER TUBING FOR DOMESTIC PLUMBING

Class 0 (Light)

Nominal Size of Tube (mm)	Outside E Max (mm)	Min (mm)	Wall Thickness Class 0 Med. (mm)	Theoretical Mass kg/m Class 0	Maximum Working Pressure Mpa Class 0 Half Hard
15	15,045	14,955	0,60	0,242	4,93
22	22,055	21,945	0,75	0,447	4,18
28	28,055	27,945	0,80	0,610	3,59
35	35,070	34,930	1,20	1,137	4,20
42	42,070	41,930	1,20	1,372	3,48
54	54,070	53,930	1,20	1,775	2,69
76	76,170	76,030	1,50	3,133	2,38
108	108,070	107,930	1,50	4,473	1,67

Exceeds SANS 1067 part 1 spec.

Heavy DZR Brass forging.

Superior thread engagement and number of turns.

No Squeak - torque up with confidence.

Supported by award winning **Cobra Assist** nationwide service team.

4 decades of proven track-record.

Generic Features and Benefits for Compression Pipe Fittings

- * Cobra compression pipe fittings are also a component of Cobra Safe MLP system (multi-layer pipe system). This system comprises of Cobra Safe PE-Xb Al PE-Xb multi-layer pipe, Cobra Safe pipe inserts and Cobra compression pipe fittings.
- * Suitable for use with Class "0" hard drawn copper tube
- * Unique bevel angle to ensure greatest ring compression
- * Carefully controlled compression ring shore hardness for best sealing action.
- * Extensive range of configurations.
- * Metal to metal mechanical coupling makes the joint both permanent and suitable for applications where the heat and open flames of soldered connections can pose a hazard.
- * Cobra compression fittings provide versatility, efficiency and jointing speed.
- * Pipe work can be dismantled and re-assembled.
- * Should you require replacement components, even after many years, you are assured of availability of components or sub-assemblies to ensure the continued operation of your Cobra fittings.
- * Manufactured from corrosion resistant DZR brass.



GENERIC FEATURES AND BENEFITS OF MLP SYSTEM

- Cost efficient and competitive when compared with traditional plumbing methods.
- Less susceptible to theft, no scrap metal value.
- No special crimping tools required, therefore no issues with incorrectly used tools.
- Used with standard, readily available Cobra compression fittings.
- Fits securely into standard sized holder bats.
- Available in 15mm, 22mm and 28mm pipe size (copper pipe 0D) in 50 or 100mtr lengths for ease of transportation (28mm only in 50mtrs)
- Insulation properties reduce heat loss.
- Has the strength of copper tube with the corrosion resistance of polymer pipe.
- Chlorine and scale resistant.
- Savings generated as the system requires fewer fittings due to longer continuous pipe length and ability of MLP to hold tight bends.
- Flexible and lightweight, therefore facilitating ease of installation.
- Butt welded aluminium layer in pipe for strength and smooth joint line.
- The pipe aluminium layer retains rigidity at high temperatures thus maintaining the integrity of the system.
- The pipe aluminium layer is protected from corrosion by unique '0' ring seal inserts.
- Test temperature 93°C.
- The maximum temperature rating for MLP Pipe system is 70°C.
- The maximum rated pressure for the MLP Pipe system is 10bar.

MULTI LAYER PIPES

	MLP-15X50	MLP-15X100
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Product Description: 15mm PE-Xb Al PE-Xb multi-layer pipe x 50mtr roll, SANS 21003 Product Description: 15mm PE-Xb Al PE-X multi-layer pipe x 100mtr roll. SANS 21003

SAP Code: FML1PP15-6DT0155 SAP Code: FMLPPP15-6DT0155

Barcode:

Barcode: 6002194079484

MLP-22X50

MLP-22X100

Product Description: 22mm PE-Xb Al PE-Xb multi-layer pipe x 50mtr roll. SANS 21003

Product Description: 22mm PE-Xb Al PE-Xb multi-layer pipe x 100mtr roll. SANS 21003

SAP Code: FML1PP22-6DT0155 SAP Code: FMLPPP22-6DT0155

Barcode: 6002194126959

Barcode: 6002194079507

MLP-28X50

MI P-28X100

Product Description: 28mm PE-Xb Al PE-Xb multi-layer pipe x 50mtr roll. SANS 21003 Product Description: 28mm PE-Xb Al PE-Xb multi-layer pipe x 100mtr roll. SANS 21003

SAP Code: FML2PP28-6DT0155

SAP Code: FMLPPP28-6DT0134

Barcode: 6002194079521

Barcode: 6002194079552





MLP-INS-15/200

MLP-INS-15/25 Product Description:

Product Description: Insert 15mm PFX Bulk Pack SAP Code:

Insert for 15mm PEX Pipe. SAP Code: FMI 1IN15-5FT0134

FMI PIN15-5FT0134 Barcode: 6002194146810

Barcode: 6002194146827



MI P-INS-22/200

MI P-INS-22/25

Product Description: Insert 22mm PEX Bulk Pack. **Product Description:** Insert for 22mm PEX Pipe. SAP Code:

SAP Code: FMI PIN22-5FT0134

FMI 1IN22-5FT0134 Barcode:



6002194146841



MI P-INS-28/200

MI P-INS-28/25

Product Description: Insert 28mm PEX Bulk Pack

Product Description: Insert for 28mm PEX Pipe.

SAP Code: FMI PIN28-5FT0134

SAP Code: FMI 1IN28-5FT0134



Barcode: 6002194146858

Barcode: 6002194146865 The COBRA-SAFE® MLP System includes, pipe fitting and insert. All three must be used together in order to carry the Cobra warranty



NOTES

20 Wright Street, Factoria, Krugersdorp, 1739 South Africa

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ONLINE PLATFORMS

Visit our websites and find an office/ dealer/distributor closest to you.

Websites:

https://cobra.lixil.co.za/ http://www.lixil.co.za/

Social Media:



- @Cobrataps



- @CobraWatertechSA

