

Braco Ring Terminals are designed to offer maximum efficiency under heavy-duty applications. Therefore these terminals are ideal for use in applications which are subject to continuous mechanical vibrations viz. engines, railways, moving components etc. The terminal barrel is brazed and soft annealed, which means that the terminal can be crimped in either direction.

All the terminals are tin plated to avoid oxidization and to achieve maximum corrosion protection. These terminals can be provided with PVC sleeves for protection against electrical shocks and can also be provided with metal reinforced sleeves to maintain a proper grip on conductor insulation.



Colour Coding Insulated Terminals:

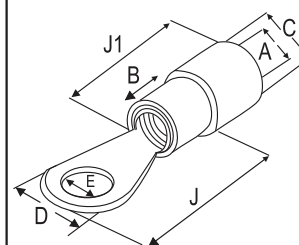
|     |     |     |
|-----|-----|-----|
| 1.5 | 2.5 | 4.6 |
|-----|-----|-----|

## COPPER CRIMPING RING TERMINALS (NON-INSULATED AND INSULATED)

**Material Copper BS: 1977**

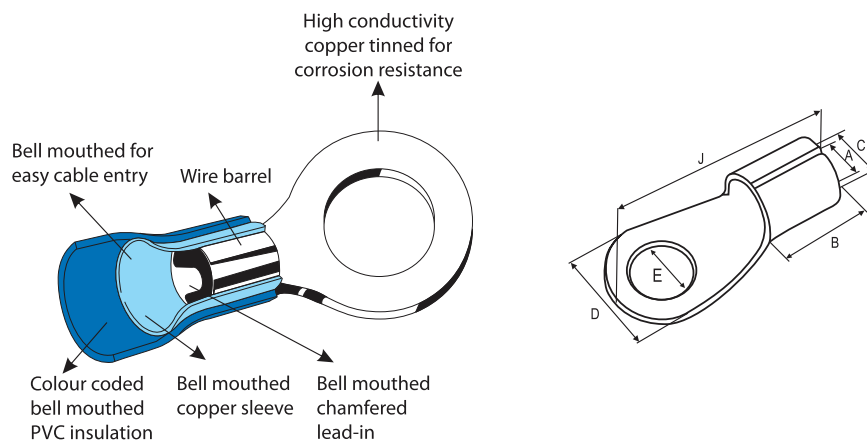
**Finish: Electro Tinned**

| Size<br>Sq. mm | Dimensions |     |     |      |   |      | Code No. | J-1 | Code No. | A-1 | J-1 | Code No. |
|----------------|------------|-----|-----|------|---|------|----------|-----|----------|-----|-----|----------|
|                | E          | A   | C   | D    | B | J    |          |     |          |     |     |          |
| 0.5-1          | 4.2        | 1.4 | 2.6 | 8.0  | 5 | 16.0 | R - 0    | 8   | RI - 0   |     |     |          |
| 1.5            | 2.2        | 1.6 | 3.2 | 6.0  | 5 | 14.0 | R - 103  | 10  | RI - 052 | 3.6 | 10  | RD - 435 |
|                | 2.6        | 1.6 | 3.2 | 6.0  | 5 | 14.0 | R - 000  | 10  | RI - 053 | 3.6 | 10  | RD - 436 |
|                | 3.2        | 1.6 | 3.2 | 6.0  | 5 | 14.0 | R - 001  | 10  | RI - 054 | 3.6 | 10  | RD - 437 |
|                | 3.7        | 1.6 | 3.2 | 6.0  | 5 | 14.0 | R - 002  | 10  | RI - 055 | 3.6 | 10  | RD - 438 |
|                | 4.2        | 1.6 | 3.2 | 6.0  | 5 | 14.0 | R - 003  | 10  | RI - 056 | 3.6 | 10  | RD - 439 |
|                | 3.2        | 1.6 | 3.2 | 6.8  | 5 | 13.0 | R - 153  | 10  | RI - 057 | 3.6 | 10  | RD - 440 |
|                | 3.7        | 1.6 | 3.2 | 6.8  | 5 | 13.0 | R - 048  | 10  | RI - 058 | 3.6 | 10  | RD - 441 |
|                | 4.2        | 1.6 | 3.2 | 6.8  | 5 | 13.0 | R - 049  | 10  | RI - 059 | 3.6 | 10  | RD - 442 |
|                | 3.2        | 1.6 | 3.2 | 8.0  | 5 | 16.0 | R - 104  | 10  | RI - 060 | 3.6 | 10  | RD - 443 |
|                | 4.2        | 1.6 | 3.2 | 8.0  | 5 | 16.0 | R - 004  | 10  | RI - 061 | 3.6 | 10  | RD - 444 |
|                | 5.2        | 1.6 | 3.2 | 8.0  | 5 | 16.0 | R - 005  | 10  | RI - 062 | 3.6 | 10  | RD - 445 |
|                | 4.2        | 1.6 | 3.2 | 7.0  | 5 | 14.5 | R - 154  | 10  | RI - 063 | 3.6 | 10  | RD - 446 |
|                | 4.2        | 1.6 | 3.2 | 10.0 | 5 | 18.0 | R - 105  | 10  | RI - 064 | 3.6 | 10  | RD - 447 |
|                | 5.2        | 1.6 | 3.2 | 10.0 | 5 | 18.0 | R - 006  | 10  | RI - 065 | 3.6 | 10  | RD - 448 |
|                | 6.4        | 1.6 | 3.2 | 10.0 | 5 | 18.0 | R - 007  | 10  | RI - 066 | 3.6 | 10  | RD - 449 |
|                | 6.4        | 1.6 | 3.2 | 12.0 | 5 | 18.0 | R - 106  | 10  | RI - 067 | 3.6 | 10  | RD - 450 |



## COPPER CRIMPING RING TERMINALS (NON-INSULATED AND INSULATED)

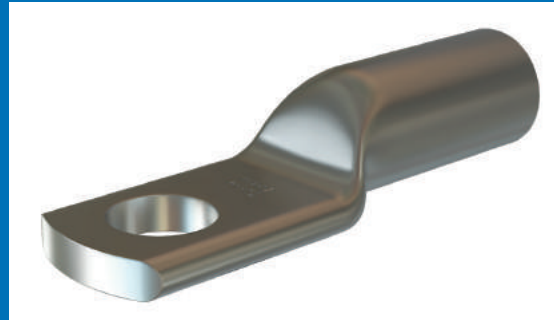
| Size<br>Sq. mm | Dimensions |     |     |      |   |      | Code No. | J-1 | Code No. | A-1 | J-1 | Code No. |
|----------------|------------|-----|-----|------|---|------|----------|-----|----------|-----|-----|----------|
|                | E          | A   | C   | D    | B | J    |          |     |          |     |     |          |
| 2.5            | 3.2        | 2.3 | 3.9 | 6.5  | 5 | 12.7 | R - 107  | 10  | RI - 068 | 4.4 | 10  | RD - 451 |
|                | 3.7        | 2.3 | 3.9 | 6.5  | 5 | 12.7 | R - 008  | 10  | RI - 069 | 4.4 | 10  | RD - 452 |
|                | 3.7        | 2.3 | 3.9 | 8.0  | 5 | 16.0 | R - 108  | 10  | RI - 070 | 4.4 | 10  | RD - 453 |
|                | 4.2        | 2.3 | 3.9 | 8.0  | 5 | 16.0 | R - 009  | 10  | RI - 071 | 4.4 | 10  | RD - 454 |
|                | 5.2        | 2.3 | 3.9 | 8.0  | 5 | 16.0 | R - 010  | 10  | RI - 072 | 4.4 | 10  | RD - 455 |
|                | 5.2        | 2.3 | 3.9 | 10.0 | 5 | 18.0 | R - 109  | 10  | RI - 073 | 4.4 | 10  | RD - 456 |
|                | 6.4        | 2.3 | 3.9 | 10.0 | 5 | 18.0 | R - 011  | 10  | RI - 074 | 4.4 | 10  | RD - 457 |
|                | 5.2        | 2.3 | 3.9 | 12.0 | 5 | 22.0 | R - 110  | 10  | RI - 075 | 4.4 | 10  | RD - 458 |
|                | 6.4        | 2.3 | 3.9 | 12.0 | 5 | 22.0 | R - 012  | 10  | RI - 076 | 4.4 | 10  | RD - 459 |
|                | 8.2        | 2.3 | 3.9 | 12.0 | 5 | 22.0 | R - 013  | 10  | RI - 077 | 4.4 | 10  | RD - 460 |
|                | 6.4        | 2.3 | 3.9 | 16.0 | 5 | 25.0 | R - 111  | 10  | RI - 078 | 4.4 | 10  | RD - 461 |
|                | 8.2        | 2.3 | 3.9 | 16.0 | 5 | 25.0 | R - 014  | 10  | RI - 079 | 4.4 | 10  | RD - 462 |
|                | 10.2       | 2.3 | 3.9 | 16.0 | 5 | 25.0 | R - 015  | 10  | RI - 080 | 4.4 | 10  | RD - 463 |
|                | 10.2       | 2.3 | 3.9 | 18.0 | 5 | 29.0 | R - 151  | 10  | RI - 081 | 4.4 | 10  | RD - 464 |
|                | 12.7       | 2.3 | 3.9 | 18.0 | 5 | 29.0 | R - 047  | 10  | RI - 082 | 4.4 | 10  | RD - 465 |
| 4-6            | 4.2        | 3.5 | 5.5 | 8.0  | 6 | 17.0 | R - 155  | 14  | RI - 083 | 6.4 | 15  | RD - 466 |
|                | 5.2        | 3.5 | 5.5 | 8.0  | 6 | 17.0 | R - 050  | 14  | RI - 084 | 6.4 | 15  | RD - 467 |
|                | 4.2        | 3.5 | 5.5 | 10.0 | 6 | 19.0 | R - 112  | 14  | RI - 085 | 6.4 | 15  | RD - 468 |
|                | 5.2        | 3.5 | 5.5 | 10.0 | 6 | 19.0 | R - 016  | 14  | RI - 086 | 6.4 | 15  | RD - 469 |
|                | 5.2        | 3.5 | 5.5 | 8.0  | 6 | 22.0 | R - 157  | 14  | RI - 087 | 6.4 | 15  | RD - 470 |
|                | 5.2        | 3.5 | 5.5 | 12.0 | 6 | 20.0 | R - 113  | 14  | RI - 088 | 6.4 | 15  | RD - 471 |
|                | 6.4        | 3.5 | 5.5 | 12.0 | 6 | 20.0 | R - 017  | 14  | RI - 089 | 6.4 | 15  | RD - 472 |
|                | 8.2        | 3.5 | 5.5 | 12.0 | 6 | 20.0 | R - 018  | 14  | RI - 090 | 6.4 | 15  | RD - 473 |
|                | 5.2        | 3.5 | 5.5 | 12.0 | 6 | 22.0 | R - 114  | 14  | RI - 091 | 6.4 | 15  | RD - 474 |
|                | 6.4        | 3.5 | 5.5 | 12.0 | 6 | 22.0 | R - 019  | 14  | RI - 092 | 6.4 | 15  | RD - 475 |
|                | 6.4        | 3.5 | 5.5 | 14.0 | 6 | 25.5 | R - 115  | 14  | RI - 093 | 6.4 | 15  | RD - 476 |
|                | 8.2        | 3.5 | 5.5 | 14.0 | 6 | 25.5 | R - 020  | 14  | RI - 094 | 6.4 | 15  | RD - 477 |
|                | 9.7        | 3.5 | 5.5 | 14.0 | 6 | 25.5 | R - 021  | 14  | RI - 095 | 6.4 | 15  | RD - 478 |
|                | 8.2        | 3.5 | 5.5 | 16.0 | 6 | 30.0 | R - 116  | 14  | RI - 096 | 6.4 | 15  | RD - 479 |
|                | 10.2       | 3.5 | 5.5 | 16.0 | 6 | 30.0 | R - 022  | 14  | RI - 097 | 6.4 | 15  | RD - 480 |
|                | 8.2        | 3.5 | 5.5 | 18.0 | 6 | 30.0 | R - 117  | 14  | RI - 098 | 6.4 | 15  | RD - 481 |
|                | 10.2       | 3.5 | 5.5 | 18.0 | 6 | 30.0 | R - 023  | 14  | RI - 099 | 6.4 | 15  | RD - 482 |
|                | 12.7       | 3.5 | 5.5 | 18.0 | 6 | 30.0 | R - 024  | 14  | RI - 100 | 6.4 | 15  | RD - 483 |
| 10             | 4.2        | 4.3 | 6.3 | 10.0 | 8 | 22.0 | R - 118  | 16  | RI - 389 | 6.8 | 17  | RD - 484 |
|                | 8.2        | 4.3 | 6.3 | 18.0 | 8 | 22.0 | R - 025  | 16  | RI - 395 | 6.8 | 17  | RD - 485 |



Braco Aluminium alloy tubular bi-metallic terminals are manufactured out of aluminium of purity equal to or greater than 99.5 % having maximum conductivity not less than 60% IACS. These are anti-corrosive and used for highly corrosive environment. The barrels are kept filled with grease so as to avoid oxidization of the Aluminium. These are designed to accept a variety of conductor forms especially low stranded compacted conductors.

These terminals are mainly used to terminate on copper bus bars. Whenever aluminium links terminated on to copper or copper based alloy terminals without suitable plating, results in the corrosion of the joint over a period leading to higher joint resistance.

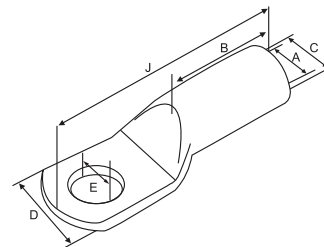
Bi-metallic terminals are found most reliable and suitable for such connections.



## ALUMINIUM ALLOY TUBULAR BIMETALLIC TERMINALS

Material : Aluminium IS :5082 :1981

| Size<br>Sq. mm | Dimensions |      |      |      |     |     | Code No. |
|----------------|------------|------|------|------|-----|-----|----------|
|                | E          | A    | C    | D    | B   | J   |          |
| 10             | 6.4        | 4.4  | 7.4  | 11   | 9   | 30  | ATB-1    |
|                | 8.2        | 4.4  | 7.4  | 13   | 9   | 30  | ATB-2    |
| 16             | 6.4        | 5.4  | 8.3  | 11   | 13  | 37  | ATB-3    |
|                | 8.2        | 5.4  | 8.3  | 12   | 13  | 37  | ATB-4    |
| 25             | 8.2        | 7    | 9.7  | 14   | 16  | 44  | ATB-5    |
|                | 10.2       | 7    | 9.7  | 17   | 16  | 44  | ATB-6    |
| 35             | 8.2        | 8    | 10.8 | 15   | 18  | 47  | ATB-7    |
|                | 10.2       | 8    | 10.8 | 17   | 18  | 47  | ATB-8    |
| 50             | 8.2        | 9.3  | 13   | 18   | 22  | 54  | ATB-9    |
|                | 10.2       | 9.3  | 13   | 18   | 22  | 54  | ATB-10   |
| 70             | 10.2       | 11.1 | 15.4 | 22   | 26  | 60  | ATB-11   |
|                | 12.7       | 11.1 | 15.4 | 22   | 26  | 60  | ATB-12   |
| 95             | 10.2       | 13.5 | 17.3 | 25   | 28  | 64  | ATB-13   |
|                | 12.7       | 13.5 | 17.3 | 25   | 28  | 64  | ATB-14   |
| 120            | 10.2       | 14.8 | 19.6 | 28   | 32  | 73  | ATB-15   |
|                | 12.7       | 14.8 | 19.6 | 28   | 32  | 73  | ATB-16   |
| 150            | 12.7       | 16.6 | 21.4 | 31   | 34  | 79  | ATB-17   |
|                | 16.2       | 16.6 | 21.4 | 31   | 34  | 79  | ATB-18   |
| 185            | 12.7       | 18.5 | 24   | 34   | 36  | 84  | ATB-19   |
|                | 16.2       | 18.5 | 24   | 34   | 36  | 84  | ATB-20   |
| 225            | 12.7       | 20.6 | 27   | 39   | 40  | 94  | ATB-21   |
| 240            | 12.7       | 22   | 28   | 40   | 44  | 102 | ATB-22   |
|                | 16.2       | 22   | 28   | 40   | 44  | 102 | ATB-23   |
| 300            | 16.2       | 24   | 31   | 45.7 | 47  | 115 | ATB-24   |
|                | 20.3       | 24   | 31   | 45.7 | 47  | 115 | ATB-25   |
| 400            | 20.3       | 26.8 | 35.5 | 51   | 56  | 130 | ATB-26   |
| 500            | 20.3       | 30.2 | 41   | 58   | 60  | 140 | ATB-27   |
| 630            | 20.3       | 35   | 46   | 66   | 69  | 154 | ATB-28   |
| 800            | -          | 39   | 51   | 73   | 77  | 180 | ATB-29   |
| 1000           | -          | 43.5 | 57   | 81   | 100 | 220 | ATB-30   |



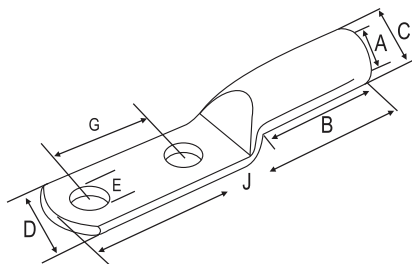
Braco double hole Aluminium crimping terminals which are also known as “Non Rotating Terminals” are manufactured out of the tubes drawn to the required sizes having minimum conductivity not less than 60% IACS. The increased barrel length ensures enhanced electrical and mechanical performance due to more number of crimps. Two holes ensures non rotation in the equipments such as transformers, moving equipments where vibration is critical. The holes can be punched as per requirement.



## DOUBLE HOLE ALUMINIUM CRIMPING TERMINALS FOR ALUMINIUM CONDUCTORS

**Material : Aluminium IS :5082 :1981**

| CABLE SIZE<br>MM2 | Dimensions |      |      |    |    |    |     | CAT NO  |
|-------------------|------------|------|------|----|----|----|-----|---------|
|                   | E          | A    | C    | D  | G  | B  | J   |         |
| 25                | 8.2        | 7.0  | 9.7  | 14 | 45 | 16 | 88  | ATT-25  |
| 35                | 8.2        | 8.0  | 10.8 | 15 | 45 | 18 | 90  | ATT-35  |
| 50                | 10.2       | 9.3  | 13   | 18 | 45 | 22 | 100 | ATT-50  |
| 70                | 10.2       | 11.1 | 15.4 | 22 | 45 | 26 | 103 | ATT-70  |
| 95                | 12.7       | 13.5 | 17.3 | 25 | 45 | 28 | 111 | ATT-95  |
| 120               | 12.7       | 14.8 | 19.6 | 28 | 45 | 32 | 118 | ATT-120 |
| 150               | 12.7       | 16.6 | 21.4 | 31 | 45 | 34 | 120 | ATT-150 |
| 185               | 12.7       | 18.5 | 24   | 34 | 45 | 36 | 123 | ATT-185 |
| 240               | 12.7       | 22   | 28   | 40 | 45 | 44 | 137 | ATT-240 |
| 300               | 16.2       | 24   | 31   | 45 | 45 | 47 | 147 | ATT-300 |
| 400               | 20.3       | 26.8 | 35.5 | 51 | 45 | 56 | 157 | ATT-400 |
| 500               | 20.3       | 30.2 | 41   | 58 | 45 | 60 | 167 | ATT-500 |
| 630               | 20.3       | 35   | 46   | 66 | 45 | 69 | 178 | ATT-630 |





Braco long barrel aluminium crimping terminals are manufactured out tubes drawn to the required sizes having minimum conductivity not less than 60% IACS and as per IS 158309 1993

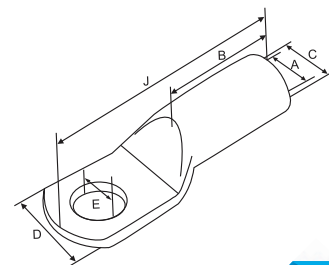
These are used for terminating all sizes of cables to terminate electrical switching equipments. The increased barrel length ensures enhanced electrical and mechanical performance due to more number of crimps. The absence of inspection hole prevents the entry of water or moisture into crimped joints making them suitable for outdoor applications.



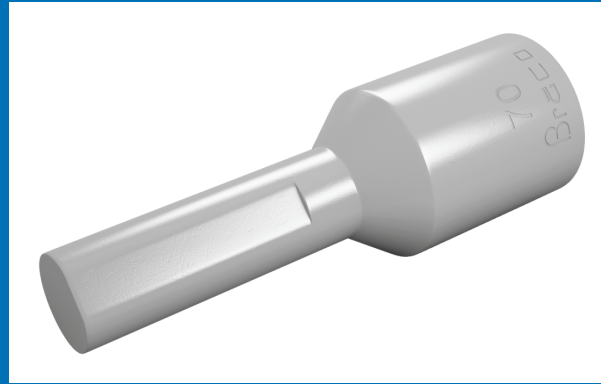
## LONG BARREL ALUMINIUM CRIMPING TERMINALS FOR ALUMINIUM CONDUCTOR

Material : Aluminium IS :5082 :1981

| CABLE SIZE<br>MM2 | Dimensions |      |      |      |     |     | CAT NO |
|-------------------|------------|------|------|------|-----|-----|--------|
|                   | E          | A    | C    | D    | B   | J   |        |
| 2.5               | 3.2        | 2.0  | 5.5  | 7    | 10  | 21  | AT-551 |
|                   | 3.7        | 2.6  | 5.5  | 7    | 10  | 21  | AT-509 |
| 4                 | 4.2        | 2.9  | 5.5  | 7    | 10  | 21  | AT-555 |
|                   | 5.2        | 2.9  | 5.5  | 9    | 10  | 27  | AT-617 |
| 6                 | 5.2        | 3.5  | 5.5  | 8    | 10  | 27  | AT-558 |
|                   | 6.4        | 3.5  | 5.5  | 11   | 10  | 27  | AT-513 |
| 10                | 6.4        | 4.4  | 7.4  | 11   | 13  | 34  | AT-514 |
|                   | 8.2        | 4.4  | 7.4  | 13   | 13  | 34  | AT-515 |
| 16                | 6.4        | 5.4  | 8.3  | 11   | 20  | 44  | AT-552 |
|                   | 8.2        | 5.4  | 8.3  | 12   | 20  | 44  | AT-516 |
|                   | 10.2       | 5.4  | 8.3  | 15   | 20  | 44  | AT-517 |
| 25                | 8.2        | 7.0  | 9.7  | 14   | 24  | 52  | AT-518 |
|                   | 10.2       | 7.0  | 9.7  | 17   | 24  | 52  | AT-519 |
|                   | 12.7       | 7.0  | 9.7  | 18   | 24  | 52  | AT-520 |
| 35                | 8.2        | 8.0  | 10.8 | 15   | 27  | 56  | AT-521 |
|                   | 10.2       | 8.0  | 10.8 | 17   | 27  | 56  | AT-522 |
| 50                | 8.2        | 9.3  | 13   | 18   | 33  | 65  | AT-655 |
|                   | 10.2       | 9.3  | 13   | 18   | 33  | 65  | AT-512 |
|                   | 12.7       | 9.3  | 13   | 18   | 33  | 65  | AT-524 |
| 70                | 8.2        | 11.1 | 15.4 | 22   | 39  | 73  | AT-556 |
|                   | 10.2       | 11.1 | 15.4 | 22   | 39  | 73  | AT-525 |
|                   | 12.7       | 11.1 | 15.4 | 22   | 39  | 73  | AT-526 |
| 95                | 10.2       | 13.5 | 17.3 | 25   | 42  | 78  | AT-527 |
|                   | 12.7       | 13.5 | 17.3 | 25   | 42  | 78  | AT-528 |
|                   | 16.2       | 13.5 | 17.3 | 25   | 42  | 78  | AT-529 |
| 120               | 10.2       | 14.8 | 19.6 | 28   | 48  | 89  | AT-557 |
|                   | 12.7       | 14.8 | 19.6 | 28   | 48  | 89  | AT-530 |
|                   | 16.2       | 14.8 | 19.6 | 28   | 48  | 89  | AT-531 |
| 150               | 10.2       | 16.6 | 21.4 | 31   | 51  | 96  | AT-658 |
|                   | 12.7       | 16.6 | 21.4 | 31   | 51  | 96  | AT-532 |
|                   | 16.2       | 16.6 | 21.4 | 31   | 51  | 96  | AT-533 |
| 185               | 10.2       | 18.5 | 24   | 34   | 54  | 102 | AT-511 |
|                   | 12.7       | 18.5 | 24   | 34   | 54  | 102 | AT-534 |
|                   | 16.2       | 18.5 | 24   | 34   | 54  | 102 | AT-535 |
| 225               | 12.7       | 20.6 | 27   | 39   | 60  | 114 | AT-620 |
| 240               | 12.7       | 22   | 28   | 40   | 66  | 124 | AT-536 |
|                   | 16.2       | 22   | 28   | 40   | 66  | 124 | AT-537 |
| 300               | 16.2       | 24   | 31   | 44.7 | 70  | 138 | AT-500 |
|                   | 20.3       | 24   | 31   | 44.7 | 70  | 138 | AT-559 |
| 400               | 20.3       | 26.8 | 35.5 | 51   | 84  | 158 | AT-560 |
| 500               | 20.3       | 30.2 | 41   | 58   | 90  | 170 | AT-596 |
| 630               | 20.3       | 35   | 46   | 66   | 104 | 188 | AT-561 |
| 800               | -          | 39   | 51   | 73   | 115 | 218 | AT-618 |
| 1000              | -          | 43.5 | 57   | 81   | 150 | 270 | AT-619 |



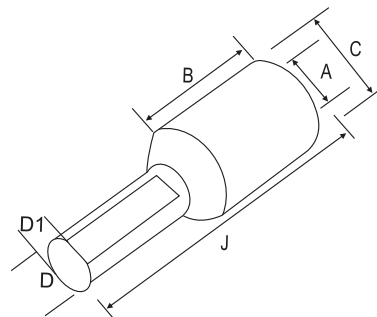
Braco Aluminium Reducer Terminals are manufactured out of aluminium of purity equal to or greater than 99.5 % having maximum conductivity not less than 60% IACS. These are used to terminate one or more Aluminium conductors to a smaller termination area. Braco is able to produce any Aluminium Reducing Link that you may require.



## ALUMINIUM CRIMPING REDUCER TERMINALS FOR ALUMINIUM CONDUCTOR

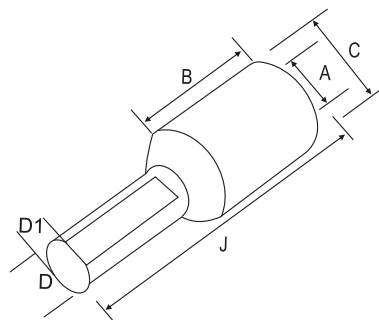
**Material : Aluminium IS :5082 :1981**

| Size<br>Sq. mm | Dimensions |      |      |      |    |    | Code No. |
|----------------|------------|------|------|------|----|----|----------|
|                | A          | C    | D    | D-1  | B  | J  |          |
| 2.5            | 2.6        | 5.5  | 4.5  | 4.0  | 7  | 21 | WPA - 1  |
|                | 2.6        | 5.5  | 3.5  | 3.3  | 7  | 21 | WPA - 7  |
| 4              | 2.9        | 5.5  | 4.5  | 4.0  | 7  | 21 | WPA - 15 |
|                | 2.9        | 5.5  | 3.8  | 3.3  | 7  | 21 | WPA - 16 |
| 6              | 3.5        | 5.5  | 4.5  | 4.0  | 7  | 21 | WPA - 17 |
|                | 3.5        | 5.5  | 3.8  | 3.3  | 7  | 21 | WPA - 18 |
| 10             | 3.8        | 7.4  | 4.5  | 4.0  | 9  | 23 | WPA - 19 |
|                | 3.8        | 7.4  | 3.8  | 3.3  | 9  | 23 | WPA - 20 |
|                | 4.4        | 7.4  | 4.5  | 4.0  | 9  | 23 | WPA - 21 |
|                | 4.4        | 7.4  | 3.8  | 3.3  | 9  | 23 | WPA - 22 |
| 16             | 5.4        | 8.3  | 6.0  | 5.5  | 13 | 33 | WPA - 23 |
|                | 5.4        | 8.3  | 6.0  | 5.5  | 13 | 38 | WPA - 24 |
|                | 5.4        | 8.3  | 3.8  | 3.3  | 13 | 31 | WPA - 2  |
| 25             | 7.0        | 10.0 | 6.0  | 5.5  | 16 | 36 | WPA - 25 |
|                | 7.0        | 10.0 | 7.5  | 6.5  | 16 | 41 | WPA - 3  |
| 35             | 8.0        | 10.8 | 7.5  | 6.5  | 18 | 43 | WPA - 4  |
| 50             | 9.3        | 13.0 | 7.5  | 6.5  | 22 | 47 | WPA - 26 |
|                | 10.4       | 14.0 | 14.0 | 13.0 | 22 | 53 | WPA - 5  |
| 70             | 11.6       | 16.0 | 7.5  | 6.5  | 26 | 51 | WPA - 27 |
|                | 11.6       | 16.0 | 11.5 | 10.5 | 26 | 56 | WPA - 6  |
|                | 11.6       | 16.0 | 11.5 | 10.5 | 26 | 63 | WPA - 28 |



## ALUMINIUM CRIMPING REDUCER TERMINALS FOR ALUMINIUM CONDUCTOR

| Size<br>Sq. mm | Dimensions |      |      |      |    |    | Code No. |
|----------------|------------|------|------|------|----|----|----------|
|                | A          | C    | D    | D-1  | B  | J  |          |
| 95             | 12.9       | 17.1 | 11.5 | 10.5 | 28 | 59 | WPA - 29 |
|                | 12.9       | 17.1 | 15.6 | 14.0 | 28 | 61 | WPA - 8  |
|                | 12.9       | 17.1 | 7.5  | 6.5  | 28 | 56 | WPA - 31 |
|                | 12.9       | 17.1 | 12.8 | 11.8 | 28 | 66 | WPA - 32 |
| 120            | 14.8       | 19.6 | 11.5 | 10.5 | 32 | 63 | WPA - 33 |
|                | 14.8       | 19.6 | 7.5  | 6.5  | 32 | 60 | WPA - 34 |
|                | 14.8       | 19.6 | 11.5 | 10.5 | 32 | 70 | WPA - 35 |
|                | 14.8       | 19.6 | 15.6 | 14.0 | 32 | 70 | WPA - 36 |
| 150            | 16.1       | 21.2 | 15.6 | 14.0 | 34 | 72 | WPA - 10 |
|                | 16.1       | 21.2 | 11.5 | 10.5 | 34 | 72 | WPA - 37 |
| 185            | 18.0       | 23.7 | 15.6 | 14.0 | 36 | 74 | WPA - 30 |
|                | 18.0       | 23.7 | 11.5 | 10.5 | 36 | 74 | WPA - 38 |
|                | 20.6       | 27.0 | 15.6 | 14.0 | 40 | 80 | WPA - 39 |
|                | 20.6       | 27.0 | 21.0 | 18.0 | 40 | 90 | WPA - 46 |
|                | 20.6       | 27.0 | 16.0 | 15.0 | 40 | 90 | WPA - 42 |
| 240            | 22.0       | 28.0 | 16.0 | 15.0 | 44 | 94 | WPA - 44 |
|                | 22.0       | 28.0 | 15.6 | 14.0 | 44 | 84 | WPA - 43 |
| 300            | 24.0       | 31.0 | 16.0 | 15.0 | 47 | 94 | WPA - 45 |
|                | 24.0       | 31.0 | 15.6 | 14.0 | 47 | 84 | WPA - 47 |



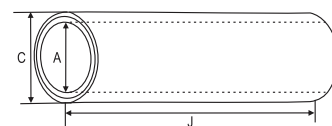
Braco Aluminium Crimping In-Line Connectors are made out of tubes of purity equal to or greater than 99.5% having maximum conductivity not less than 60% IACS and the designed as per IS 8309 1993. These connectors facilitate joining two identical size Aluminium conductors.



## ALUMINIUM CRIMPING CONNECTOR

**Material : Aluminium IS :5082 :1981**

| Size<br>Sq. mm | Dimensions |      |     | Code No. |
|----------------|------------|------|-----|----------|
|                | A          | C    | J   |          |
| 2.5            | 2.0        | 5.5  | 16  | ILA-145  |
|                | 2.6        | 5.5  | 16  | ILA-6    |
| 4              | 2.9        | 5.5  | 16  | ILA-5    |
| 6              | 3.5        | 5.5  | 16  | ILA-13   |
| 10             | 4.4        | 7.4  | 20  | ILA-14   |
|                | 3.8        | 6.2  | 20  | ILA-146  |
| 16             | 5.4        | 8.3  | 26  | ILA-4    |
| 25             | 7.0        | 9.7  | 35  | ILA-3    |
| 35             | 8.0        | 10.8 | 40  | ILA-2    |
| 50             | 9.3        | 13   | 45  | ILA-12   |
| 70             | 11.1       | 15.4 | 55  | ILA-1    |
| 95             | 13.5       | 17.3 | 60  | ILA-15   |
| 120            | 14.8       | 19.6 | 65  | ILA-9    |
| 150            | 16.6       | 21.4 | 70  | ILA-10   |
| 185            | 18.5       | 24   | 75  | ILA-11   |
| 225            | 20.6       | 27   | 85  | ILA-147  |
| 240            | 22.0       | 28   | 90  | ILA-16   |
| 300            | 24.0       | 31   | 100 | ILA-17   |
| 400            | 26.8       | 35.5 | 115 | ILA-18   |
| 500            | 30.2       | 41   | 125 | ILA-19   |
| 630            | 35.0       | 46   | 140 | ILA-20   |
| 800            | 39.0       | 51   | 160 | ILA-148  |
| 1000           | 43.5       | 57   | 210 | ILA-149  |



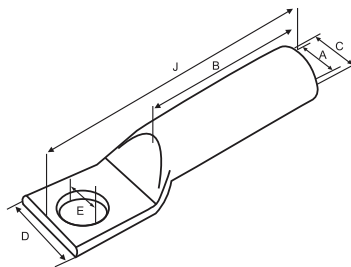
Braco AT - XL type of terminals are manufactured out of tubes of purity equal to or greater than 99.5% having maximum conductivity not less than 60% IACS and are suitable for high voltage application where termination of XLPE cable is required.



## ALUMINIUM TUBE TERMINALS FOR AL-XLPE CONDUCTORS

**Material : Aluminium IS :5082 :1981**

| Size<br>Sq. mm | Dimensions |      |      |      |     |     |     | Code No.   |
|----------------|------------|------|------|------|-----|-----|-----|------------|
|                | E          | A    | C    | D    | B   | G+H | J   |            |
| 25             | 8.2        | 7.2  | 9.6  | 14   | 41  | 21  | 69  | AT - XL 17 |
| 35             | 8.2        | 8.3  | 11.1 | 16   | 50  | 22  | 79  | AT - XL 18 |
| 50             | 10.2       | 9.3  | 13.5 | 19.5 | 49  | 24  | 81  | AT - XL 19 |
| 70             | 10.2       | 10.2 | 14.5 | 20.5 | 62  | 26  | 96  | AT - XL 20 |
| 95             | 12.7       | 12.0 | 16.6 | 23.5 | 73  | 28  | 109 | AT - XL 21 |
| 120            | 12.7       | 13.7 | 19.0 | 26.5 | 73  | 30  | 114 | AT - XL 22 |
| 150            | 12.7       | 15.1 | 21.1 | 29.5 | 83  | 34  | 128 | AT - XL 23 |
| 185            | 12.7       | 16.6 | 23.9 | 33.0 | 83  | 36  | 131 | AT - XL 24 |
| 225            | 12.7       | 18.6 | 26.1 | 36.0 | 86  | 40  | 140 | AT - XL 25 |
| 240            | 12.7       | 19.3 | 27.2 | 37.5 | 86  | 44  | 144 | AT - XL 26 |
| 300            | 20.3       | 21.8 | 30.2 | 42.0 | 89  | 54  | 157 | AT - XL 27 |
| 400            | 20.3       | 25.0 | 34.8 | 48.0 | 113 | 60  | 187 | AT - XL 28 |
| 500            | 20.3       | 28.2 | 39.1 | 54.0 | 125 | 64  | 205 | AT - XL 29 |
| 630            | 20.3       | 31.7 | 44.4 | 61.0 | 140 | 68  | 225 | AT - XL 30 |
| 800            | 20.3       | 35.7 | 49.5 | 68.0 | 147 | 78  | 250 | AT - XL 31 |
| 1000           | 20.3       | 41.0 | 56.0 | 77.5 | 160 | 90  | 280 | AT - XL 32 |



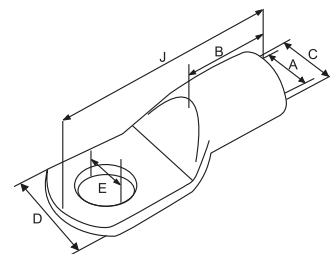
Braco Aluminium Crimping Terminals are manufactured out of tubes of purity equal to or greater than 99.5%, having maximum conductivity not less than 60% IACS and are designed as per IS 8309 1993. These are used for terminating all sizes of cables to terminate electrical switching equipments. The absence of an inspection hole prevents the entry of water or moisture into crimped joints making them suitable for outdoor applications.



## ALUMINIUM CRIMPING TERMINALS

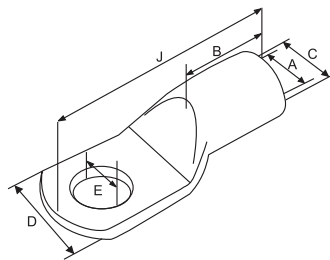
**Material : Aluminium IS: 5082 :1981**

| Size<br>Sq. mm | Dimensions |      |      |    |    |    | Code No. |
|----------------|------------|------|------|----|----|----|----------|
|                | E          | A    | C    | D  | B  | J  |          |
| 2.5            | 3.2        | 2.0  | 5.5  | 7  | 7  | 18 | AT-151   |
|                | 3.7        | 2.6  | 5.5  | 7  | 7  | 18 | AT-309   |
| 4              | 4.2        | 2.9  | 5.5  | 7  | 7  | 18 | AT-155   |
|                | 5.2        | 2.9  | 5.5  | 9  | 7  | 24 | AT-317   |
| 6              | 5.2        | 3.5  | 5.5  | 8  | 7  | 24 | AT-158   |
|                | 6.4        | 3.5  | 5.5  | 11 | 7  | 24 | AT-313   |
| 10             | 6.4        | 4.4  | 7.4  | 11 | 9  | 30 | AT-214   |
|                | 8.2        | 4.4  | 7.4  | 13 | 9  | 30 | AT-215   |
| 16             | 6.4        | 5.4  | 8.3  | 11 | 13 | 37 | AT-252   |
|                | 8.2        | 5.4  | 8.3  | 12 | 13 | 37 | AT-216   |
|                | 10.2       | 5.4  | 8.3  | 15 | 13 | 37 | AT-217   |
| 25             | 6.4        | 7.0  | 9.7  | 14 | 16 | 44 | AT-253   |
|                | 8.2        | 7.0  | 9.7  | 14 | 16 | 44 | AT-218   |
|                | 10.2       | 7.0  | 9.7  | 17 | 16 | 44 | AT-219   |
|                | 12.7       | 7.0  | 9.7  | 18 | 16 | 44 | AT-220   |
| 35             | 6.4        | 8.0  | 10.8 | 15 | 18 | 47 | AT-254   |
|                | 8.2        | 8.0  | 10.8 | 15 | 18 | 47 | AT-221   |
|                | 10.2       | 8.0  | 10.8 | 17 | 18 | 47 | AT-222   |
| 50             | 8.2        | 9.3  | 13   | 18 | 22 | 54 | AT-255   |
|                | 10.2       | 9.3  | 13   | 18 | 22 | 54 | AT-312   |
|                | 12.7       | 9.3  | 13   | 18 | 22 | 54 | AT-224   |
| 70             | 8.2        | 11.1 | 15.4 | 22 | 26 | 60 | AT-256   |
|                | 10.2       | 11.1 | 15.4 | 22 | 26 | 60 | AT-225   |
|                | 12.7       | 11.1 | 15.4 | 22 | 26 | 60 | AT-226   |

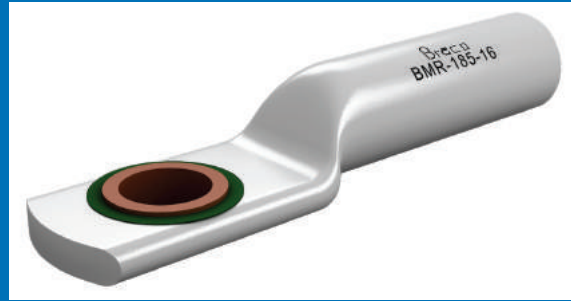


## ALUMINIUM CRIMPING TERMINALS

| Size<br>Sq. mm | Dimensions |      |      |      |     |     | Code No. |
|----------------|------------|------|------|------|-----|-----|----------|
|                | E          | A    | C    | D    | B   | J   |          |
| 95             | 10.2       | 13.5 | 17.3 | 25   | 28  | 64  | AT-227   |
|                | 12.7       | 13.5 | 17.3 | 25   | 28  | 64  | AT-228   |
|                | 16.2       | 13.5 | 17.3 | 25   | 28  | 64  | AT-229   |
| 120            | 10.2       | 14.8 | 19.6 | 28   | 32  | 73  | AT-257   |
|                | 12.7       | 14.8 | 19.6 | 28   | 32  | 73  | AT-230   |
|                | 16.2       | 14.8 | 19.6 | 28   | 32  | 73  | AT-231   |
| 150            | 10.2       | 16.6 | 21.4 | 31   | 34  | 79  | AT-258   |
|                | 12.7       | 16.6 | 21.4 | 31   | 34  | 79  | AT-232   |
|                | 16.2       | 16.6 | 21.4 | 31   | 34  | 79  | AT-233   |
| 185            | 10.2       | 18.5 | 24   | 34   | 36  | 84  | AT-311   |
|                | 12.7       | 18.5 | 24   | 34   | 36  | 84  | AT-234   |
|                | 16.2       | 18.5 | 24   | 34   | 36  | 84  | AT-235   |
| 225            | 12.7       | 20.6 | 27   | 39   | 40  | 94  | AT-320   |
| 240            | 12.7       | 22   | 28   | 40   | 44  | 102 | AT-236   |
|                | 16.2       | 22   | 28   | 40   | 44  | 102 | AT-237   |
|                | 20.3       | 22   | 28   | 40   | 44  | 102 | AT-238   |
| 300            | 16.2       | 24   | 31   | 44.7 | 47  | 115 | AT-300   |
|                | 20.3       | 24   | 31   | 44.7 | 47  | 115 | AT-259   |
| 400            | 20.3       | 26.8 | 35.5 | 51   | 56  | 130 | AT-260   |
| 500            | 20.3       | 30.2 | 41   | 58   | 60  | 140 | AT-296   |
| 630            | 20.3       | 35   | 46   | 66   | 69  | 154 | AT-261   |
| 800            | -          | 39   | 51   | 73   | 77  | 180 | AT-318   |
| 1000           | -          | 43.5 | 57   | 81   | 100 | 220 | AT-319   |



These Bimetallic cable Lugs are manufactured out of Aluminium Tubes of E.C . Grade having conductivity of 60% I.A.C.S. as per IS 5082. These Aluminum Lugs are Fused with E.C. Grade Copper Bushes by fusion process. The bimetallic Surface is sealed with special Green colour anti-galvanic compound for preventing bimetallic galvanic electro corrosion. The barrel of the lug is filled with corrosion inhibiting compound and are supplied with PVC cap.

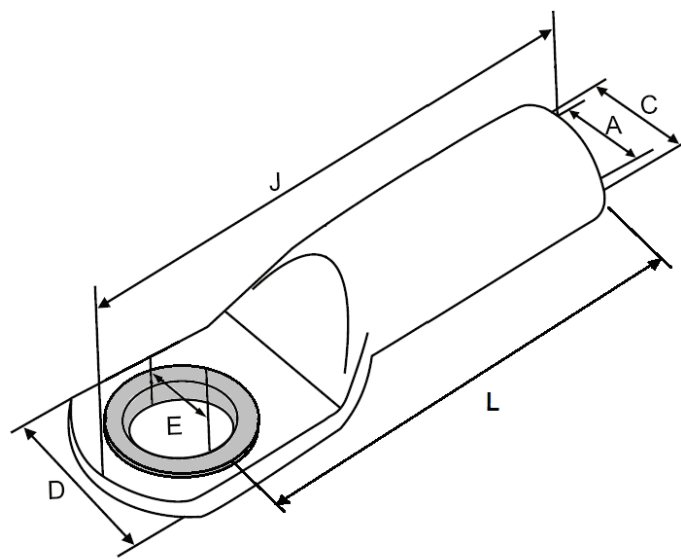


## Bimetallic Terminals - Copper Ring Type

**Material : Aluminium 99.5, E Copper**

**Surface : Bright**

| "Size Sq.mm." | E  | A    | C  | D  | G    | H    | L   | J   | Cat No.    |
|---------------|----|------|----|----|------|------|-----|-----|------------|
| 150           | 13 | 16.5 | 26 | 35 | 18.5 | 21.5 | 103 | 121 | BMR-150-12 |
| 185           | 13 | 18.5 | 28 | 40 | 22   | 22.5 | 106 | 128 | BMR-185-12 |
|               | 17 | 18.5 | 28 | 40 | 22   | 22.5 | 106 | 128 | BMR-185-16 |
| 300           | 13 | 23.5 | 33 | 51 | 24.5 | 24.5 | 124 | 148 | BMR-300-12 |
|               | 17 | 23.5 | 33 | 51 | 24.5 | 24.5 | 124 | 148 | BMR-300-16 |
|               | 21 | 23.5 | 33 | 51 | 24.5 | 24.5 | 124 | 148 | BMR-300-20 |





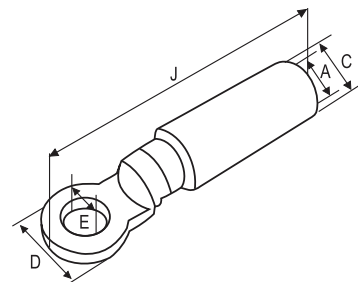
Braco Bi-metallic terminals for aluminium conductor are manufactured from solid materials by friction welding. This method means that aluminium and Copper join through the heat, which develops when aluminium rotates against copper under pressure. This is a superior method to give a complete connection between Aluminium and Copper. Barrels are capped and filled with grease so as to avoid oxidation of the aluminium.



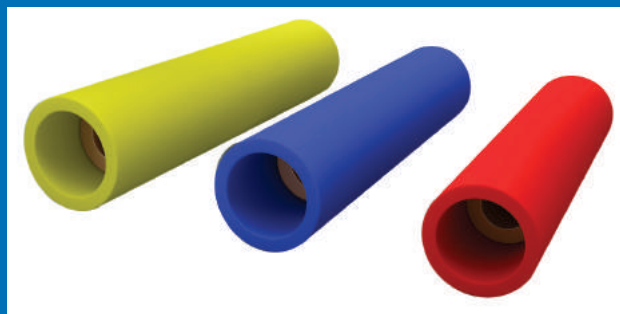
## BI-METALLIC TERMINALS

**Material : Aluminium 99.5, E Copper**  
**Surface : Bright**

| SIZE<br>Sq.mm. | Dimension |      |    |    |     |     | CAT NO.     |
|----------------|-----------|------|----|----|-----|-----|-------------|
|                | E         | A    | C  | D  | B   | J   |             |
| 16             | 10.5      | 5.5  | 16 | 24 | 42  | 90  | BMT-16-10   |
|                | 13        | 5.5  | 16 | 24 | 42  | 90  | BMT-16-12   |
| 25             | 10.5      | 6.5  | 16 | 24 | 42  | 90  | BMT-25-10   |
|                | 13        | 6.5  | 16 | 24 | 42  | 90  | BMT-25-12   |
| 35             | 10.5      | 8    | 16 | 24 | 42  | 90  | BMT-35-10   |
|                | 13        | 8    | 16 | 24 | 42  | 90  | BMT-35-12   |
| 50             | 10.5      | 9.5  | 20 | 24 | 43  | 92  | BMT-50-10   |
|                | 13        | 9.5  | 20 | 24 | 43  | 92  | BMT-50-12   |
| 70             | 10.5      | 11.5 | 20 | 24 | 43  | 92  | BMT-70-10   |
|                | 13        | 11.5 | 20 | 24 | 43  | 92  | BMT-70-12   |
| 95             | 13        | 13.5 | 20 | 24 | 43  | 92  | BMT-95-12   |
| 120            | 13        | 15   | 25 | 30 | 60  | 117 | BMT-120-12  |
| 150            | 13        | 16.5 | 25 | 30 | 60  | 117 | BMT-150-12  |
|                | 17        | 16.5 | 25 | 30 | 60  | 117 | BMT-150-16  |
| 185            | 13        | 18.5 | 32 | 35 | 60  | 124 | BMT-185-12  |
|                | 17        | 18.5 | 32 | 35 | 60  | 124 | BMT-185-16  |
| 240            | 13        | 21   | 32 | 35 | 60  | 124 | BMT-240-12  |
|                | 17        | 21   | 32 | 35 | 60  | 124 | BMT-240-16  |
| 300            | 13        | 22.5 | 34 | 36 | 62  | 130 | BMT-300-12  |
|                | 17        | 22.5 | 34 | 36 | 62  | 130 | BMT-300-16  |
| 400            | 13        | 27   | 40 | 36 | 80  | 152 | BMT-400-12  |
|                | 17        | 27   | 40 | 36 | 80  | 152 | BMT-400-16  |
| 500            | 13        | 30   | 40 | 36 | 80  | 152 | BMT-500-12  |
| 630            | 13        | 34   | 46 | 36 | 70  | 146 | BMT-630-12  |
|                | 21        | 34   | 46 | 36 | 70  | 146 | BMT-630-20  |
| 800            | 13        | 39   | 54 | 50 | 115 | 230 | BMT-800-12  |
| 1000           | 13        | 43   | 58 | 50 | 115 | 230 | BMT-1000-12 |



Braco connectors are designed for joining low voltage conductors. Made of electrolytic copper tube having the same dimension as CT series lugs, Braco connectors are annealed and electrolytic ally tin plated. They feature an internal taper at both ends to ease the introduction of conductor and a dimple (if required) to ensure correct positioning. These connectors can also be provided with insulation. Tinning on connectors provides better finish, avoids oxidation and achieves maximum corrosion protection

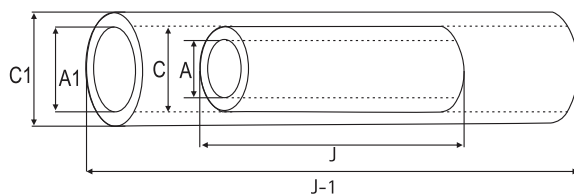


Colour Coding Insulated Terminals:



### COPPER TUBE IN-LINE CONNECTORS (INSULATED)

| Size<br>Sq. mm | Dimensions |     |    |     |     |    | Code No.  |
|----------------|------------|-----|----|-----|-----|----|-----------|
|                | A          | C   | J  | A1  | C1  | J1 |           |
| 1.5            | 1.6        | 3.2 | 15 | 3.3 | 4.9 | 25 | ILCI - 63 |
| 2.5            | 2.4        | 4.0 | 15 | 4.1 | 5.5 | 25 | ILCI - 64 |
| 4.5            | 3.5        | 5.5 | 15 | 5.6 | 7.2 | 27 | ILCI - 65 |



Braco connectors are designed for jointing low voltage conductors. Made of electrolytic copper tube having the same dimension as CT series lugs, Braco connectors are annealed and Electro tin plated. They feature an internal taper at both ends to ease the introduction of conductor and a dimple (if required) to ensure correct positioning. These connectors can also be provided with insulation. Tinning on connectors provides better finish, avoids oxidation and achieves maximum corrosion protection



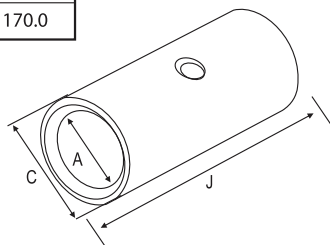
## COPPER TUBE IN-LINE CONNECTORS

### (Short Barrel)

| Braco<br>Cat. No. | Size<br>Sq. mm. | Dimensions |      |       |
|-------------------|-----------------|------------|------|-------|
|                   |                 | d1         | d3   | J     |
| ILC-453           | 1.5             | 1.6        | 3.2  | 15.0  |
| ILC-454           | 2.5             | 2.4        | 4.0  | 15.0  |
| ILC-3             | 4               | 3.1        | 4.8  | 15.0  |
| ILC-4             | 6               | 3.8        | 5.5  | 15.0  |
| ILC-460           | 10              | 4.5        | 6.2  | 20.0  |
| ILC-6             | 16              | 5.4        | 7.1  | 20.0  |
| ILC-24            | 25              | 6.8        | 8.8  | 32.0  |
| ILC-25            | 35              | 8.2        | 10.6 | 36.0  |
| ILC-26            | 50              | 9.5        | 12.4 | 40.0  |
| ILC-51            | 70              | 11.2       | 14.7 | 40.0  |
| ILC-52            | 95              | 13.5       | 17.4 | 45.0  |
| ILC-53            | 120             | 15.0       | 19.4 | 45.0  |
| ILC-54            | 150             | 16.5       | 21.2 | 55.0  |
| ILC-55            | 185             | 18.5       | 23.5 | 65.0  |
| ILC-56            | 240             | 21.0       | 26.8 | 80.0  |
| ILC-57            | 300             | 23.5       | 30.0 | 85.0  |
| ILC-58            | 400             | 26.8       | 34.8 | 90.0  |
| ILC-59            | 500             | 30.0       | 39.0 | 100.0 |
| ILC-61            | 630             | 35.0       | 45.0 | 110.0 |
| ILC-62            | 800             | 39.0       | 50.6 | 150.0 |
| ILC-63            | 1000            | 43.0       | 56.2 | 170.0 |

### (Long Barrel)

| Braco<br>Cat. No. | Size<br>Sq. mm. | Dimensions |      |       |
|-------------------|-----------------|------------|------|-------|
|                   |                 | d1         | d3   | J     |
| ILC-41            | 1.5             | 1.6        | 3.2  | 22.0  |
| ILC-42            | 2.5             | 2.4        | 4.0  | 22.0  |
| ILC-43            | 4               | 3.1        | 4.8  | 22.0  |
| ILC-44            | 6               | 3.8        | 5.5  | 22.0  |
| ILC-45            | 10              | 4.5        | 6.2  | 22.0  |
| ILC-46            | 16              | 5.4        | 7.1  | 35.0  |
| ILC-47            | 25              | 6.8        | 8.8  | 47.0  |
| ILC-48            | 35              | 8.2        | 10.6 | 45.0  |
| ILC-49            | 50              | 9.5        | 12.4 | 50.0  |
| ILC-27            | 70              | 11.2       | 14.7 | 50.0  |
| ILC-28            | 95              | 13.5       | 17.4 | 60.0  |
| ILC-29            | 120             | 15.0       | 19.4 | 65.0  |
| ILC-30            | 150             | 16.5       | 21.2 | 70.0  |
| ILC-31            | 185             | 18.5       | 23.5 | 75.0  |
| ILC-32            | 240             | 21.0       | 26.8 | 89.0  |
| ILC-33            | 300             | 23.5       | 30.0 | 95.0  |
| ILC-34            | 400             | 26.8       | 34.8 | 110.0 |
| ILC-35            | 500             | 30.0       | 39.0 | 117.0 |
| ILC-36            | 630             | 35.0       | 45.0 | 120.0 |



Braco copper tube terminals are manufactured from Electrolytic Copper Tube. The dimensions of the tube are designed to obtain the most efficient electrical conductivity and mechanical strength to resist vibration and pull out. These are used for terminating any size of cable, electrical switching equipments, where vibration is critical.

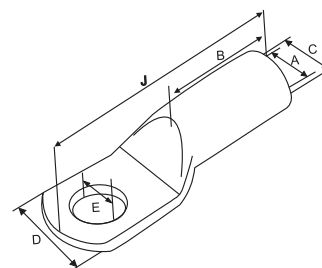
Terminals are annealed to guarantee optimum ductility which is an absolute necessity for connectors which will have to withstand the severe deformation arising when compressed and any bending of the palm during installation. In application subject to vibration terminals still have to perform a reliable connection, annealing plays a vital role in avoiding crackings or breaks between the barrel and palm.

The terminals are designed as per DIN standard 46235. The plating on the terminals avoids oxidization and achieves maximum corrosion protection.



## COPPER CRIMPING TERMINALS AS PER DIN STANDARDS

| Cable<br>mm <sup>2</sup> | Stud Hole<br>E | Dimensions (mm) |      |    |     |      |      |     | Cat No.    |
|--------------------------|----------------|-----------------|------|----|-----|------|------|-----|------------|
|                          |                | A               | C    | B  | D   | G    | H    | J   |            |
| 6                        | 5.3            | 3.8             | 5.5  | 10 | 8.5 | 6.5  | 7.5  | 31  | 6-5 DIN    |
|                          | 6.5            | 3.8             | 5.5  | 10 | 8.5 | 7.5  | 8.0  | 32  | 6-6 DIN    |
| 10                       | 6.5            | 4.5             | 6.0  | 10 | 8.5 | 7.5  | 8.0  | 35  | 10-6 DIN   |
|                          | 8.5            | 4.5             | 6.0  | 10 | 8.5 | 10.0 | 10.0 | 37  | 10-8 DIN   |
| 16                       | 6.5            | 5.5             | 8.5  | 20 | 12  | 7.5  | 8.0  | 43  | 16-6 DIN   |
|                          | 8.4            | 5.5             | 8.5  | 20 | 12  | 10.0 | 10.0 | 45  | 16-8 DIN   |
|                          | 10.5           | 5.5             | 8.5  | 20 | 17  | 12.0 | 12.0 | 49  | 16-10 DIN  |
|                          | 13.0           | 5.5             | 8.5  | 20 | 19  | 13.0 | 13.0 | 50  | 16-12 DIN  |
| 25                       | 6.5            | 7.0             | 10.0 | 20 | 15  | 7.5  | 8.0  | 47  | 25-6 DIN   |
|                          | 8.4            | 7.0             | 10.0 | 20 | 15  | 10.0 | 10.0 | 49  | 25-8 DIN   |
|                          | 10.5           | 7.0             | 10.0 | 20 | 17  | 12.0 | 12.0 | 51  | 25-10 DIN  |
|                          | 13.0           | 7.0             | 10.0 | 20 | 19  | 13.0 | 13.0 | 52  | 25-13 DIN  |
| 35                       | 8.4            | 8.2             | 12.5 | 20 | 17  | 7.5  | 8.0  | 50  | 35-8 DIN   |
|                          | 10.5           | 8.2             | 12.5 | 20 | 19  | 10.0 | 10.0 | 52  | 35-10 DIN  |
|                          | 13.0           | 8.2             | 12.5 | 20 | 21  | 12.0 | 12.0 | 54  | 35-12 DIN  |
| 50                       | 8.4            | 10.0            | 14.5 | 28 | 22  | 10.0 | 10.0 | 61  | 50-8 DIN   |
|                          | 10.5           | 10.0            | 14.5 | 28 | 22  | 12.0 | 12.0 | 63  | 50-10 DIN  |
|                          | 13.0           | 10.0            | 14.5 | 28 | 23  | 13.0 | 13.0 | 64  | 50-12 DIN  |
|                          | 17.0           | 10.0            | 14.5 | 28 | 28  | 14.5 | 14.5 | 66  | 50-16 DIN  |
| 70                       | 10.5           | 11.5            | 16.5 | 28 | 24  | 10.0 | 10.0 | 64  | 70-10 DIN  |
|                          | 13.0           | 11.5            | 16.5 | 28 | 24  | 12.0 | 12.0 | 66  | 70-12 DIN  |
|                          | 17.0           | 11.5            | 16.5 | 28 | 32  | 13.0 | 13.0 | 67  | 70-16 DIN  |
|                          | 21.0           | 11.5            | 16.5 | 28 | 32  | 14.5 | 14.5 | 69  | 70-20 DIN  |
| 95                       | 10.5           | 13.5            | 19.0 | 35 | 28  | 12.0 | 12.0 | 76  | 95-10 DIN  |
|                          | 13.0           | 13.5            | 19.0 | 35 | 28  | 12.0 | 12.0 | 76  | 95-12 DIN  |
|                          | 17.0           | 13.5            | 19.0 | 35 | 32  | 13.0 | 13.0 | 80  | 95-16 DIN  |
|                          | 21.0           | 13.5            | 19.0 | 35 | 34  | 14.5 | 14.5 | 82  | 95-20 DIN  |
| 120                      | 10.5           | 15.5            | 21.0 | 35 | 32  | 18.0 | 16.0 | 83  | 120-10 DIN |
|                          | 13.0           | 15.5            | 21.0 | 35 | 32  | 19.0 | 17.0 | 84  | 120-12 DIN |
|                          | 17.0           | 15.5            | 21.0 | 35 | 32  | 15.0 | 19.0 | 87  | 120-16 DIN |
|                          | 21.0           | 15.5            | 21.0 | 35 | 32  | 16.0 | 20.0 | 88  | 120-20 DIN |
| 150                      | 10.5           | 17.0            | 23.5 | 35 | 34  | 15.0 | 16.0 | 92  | 150-10 DIN |
|                          | 13.0           | 17.0            | 23.5 | 35 | 34  | 16.0 | 17.0 | 93  | 150-12 DIN |
|                          | 17.0           | 17.0            | 23.5 | 35 | 34  | 19.0 | 20.0 | 96  | 150-16 DIN |
|                          | 21.0           | 17.0            | 23.5 | 35 | 40  | 16.0 | 20.0 | 96  | 150-20 DIN |
| 185                      | 10.5           | 19.0            | 25.5 | 40 | 37  | 15.0 | 16.0 | 96  | 185-10 DIN |
|                          | 13.0           | 19.0            | 25.5 | 40 | 37  | 16.0 | 17.0 | 97  | 185-12 DIN |
|                          | 17.0           | 19.0            | 25.5 | 40 | 37  | 19.0 | 20.0 | 100 | 185-16 DIN |
|                          | 21.0           | 19.0            | 25.5 | 40 | 40  | 19.0 | 20.0 | 100 | 185-20 DIN |
| 240                      | 10.5           | 21.5            | 29.0 | 40 | 42  | 15.0 | 16.0 | 106 | 240-10 DIN |
|                          | 13.0           | 21.5            | 29.0 | 40 | 42  | 16.0 | 17.0 | 107 | 240-12 DIN |
|                          | 17.0           | 21.5            | 29.0 | 40 | 42  | 19.0 | 20.0 | 110 | 240-16 DIN |
|                          | 21.0           | 21.5            | 29.0 | 40 | 46  | 21.0 | 20.0 | 112 | 240-20 DIN |
| 300                      | 13.0           | 24.0            | 32.0 | 50 | 48  | 19.0 | 22.0 | 119 | 300-12 DIN |
|                          | 17.0           | 24.0            | 32.0 | 50 | 48  | 19.0 | 22.0 | 119 | 300-16 DIN |
|                          | 21.0           | 24.0            | 32.0 | 50 | 48  | 21.0 | 22.0 | 121 | 300-20 DIN |
| 400                      | 17.0           | 27.5            | 38.5 | 70 | 55  | 25.0 | 25.0 | 140 | 400-16 DIN |
|                          | 21.0           | 27.5            | 38.5 | 70 | 55  | 25.0 | 25.0 | 140 | 400-20 DIN |
| 500                      | 21.0           | 31.0            | 42.0 | 70 | 60  | 25.0 | 25.0 | 152 | 500-20 DIN |
| 625                      | 21.0           | 34.5            | 44.0 | 80 | 60  | 25.0 | 25.0 | 160 | 652-20 DIN |



Braco Copper Long Barrel Tube Terminals are made from high purity copper tube and are annealed to avoid cracking or breaks. The increased barrel length ensures enhanced electrical and mechanical performance in heavy duty application. The absence of an inspection hole prevents the entry of water or moisture into crimped joints making them suitable for outdoor applications. The terminals are tin plated to avoid oxidation and to achieve maximum corrosion protection.



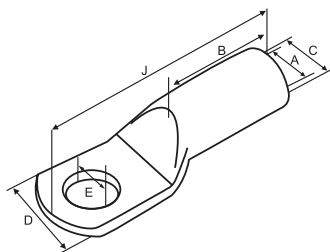
The increased barrel length ensures enhanced electrical and mechanical performance in heavy duty application. The absence of an inspection hole prevents the entry of water or moisture into crimped joints making them suitable for outdoor applications. The terminals are tin plated to avoid oxidation and to achieve maximum corrosion protection.

## COPPER CRIMPING TERMINALS FOR COPPER CONDUCTORS (LONG BARREL)

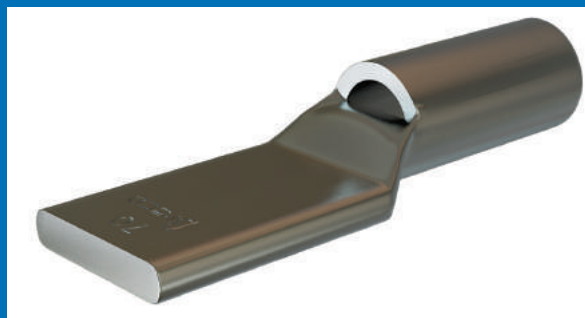
**Material Copper BS :1977**

**Finish : Electro Tinned**

| Size<br>Sq. mm | Dimensions |      |      |    |     |     | Code No. |
|----------------|------------|------|------|----|-----|-----|----------|
|                | E          | A    | C    | D  | B   | J   |          |
| 25             | 8.2        | 6.8  | 8.8  | 13 | 16  | 41  | CT-82    |
| 35             | 8.2        | 8.2  | 10.6 | 15 | 20  | 48  | CT-83    |
| 50             | 8.2        | 9.5  | 12.4 | 17 | 26  | 59  | CT-84    |
| 70             | 10.5       | 11.2 | 14.7 | 20 | 28  | 66  | CT-85    |
| 95             | 12.7       | 13.5 | 17.4 | 24 | 32  | 74  | CT-86    |
| 120            | 12.7       | 15   | 19.4 | 28 | 35  | 82  | CT-87    |
| 150            | 12.7       | 16.5 | 21.2 | 30 | 38  | 86  | CT-88    |
| 185            | 12.7       | 18.5 | 23.5 | 34 | 43  | 95  | CT-89    |
| 240            | 16.2       | 21   | 26.5 | 38 | 50  | 112 | CT-90    |
| 300            | 16.2       | 23.5 | 30   | 43 | 55  | 120 | CT-91    |
| 400            | 20.3       | 26.8 | 34.8 | 50 | 58  | 135 | CT-92    |
| 500            | 21         | 30   | 39   | 56 | 70  | 150 | CT-93    |
| 630            | 21         | 35   | 45   | 65 | 76  | 165 | CT-94    |
| 800            |            | 39   | 50.5 | 73 | 105 | 200 | CT-95    |
| 1000           |            | 43   | 53.7 | 81 | 130 | 240 | CT-96    |



Braco copper long palm terminals are manufactured from electrolytic copper tube. These are used where more secured termination is required as it can easily accommodate two bolts to reduce drift. All terminals are standard with blank palm and stud holes can be punched to order. These terminals are normally used in vibrating applications. The presence of inspection hole facilitates full insertion of conductor. The terminals are tin plated to avoid oxidation and to achieve maximum corrosion protection.

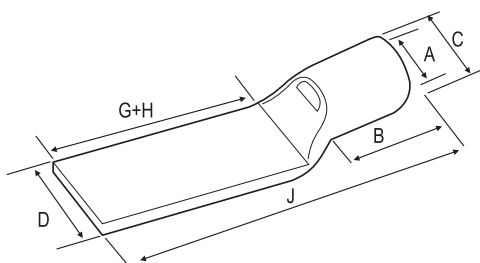


## EXTENDED PALM BLANKS COPPER CRIMPING TERMINAL ENDS FOR COPPER CONDUCTORS

**Material Copper BS :1977**

**Finish : Electro Tinned**

| Size<br>Sq. mm | Dimensions |      |    |    |     |     | Code No. |
|----------------|------------|------|----|----|-----|-----|----------|
|                | A          | C    | D  | B  | G+H | J   |          |
| 50             | 9.5        | 12.4 | 18 | 16 | 42  | 64  | CT - 466 |
| 70             | 11.2       | 14.7 | 21 | 18 | 50  | 75  | CT - 467 |
| 95             | 13.5       | 17.4 | 25 | 20 | 52  | 81  | CT - 468 |
| 120            | 15.0       | 19.4 | 28 | 22 | 56  | 88  | CT - 469 |
| 150            | 16.5       | 21.2 | 30 | 26 | 64  | 101 | CT - 470 |
| 185            | 18.5       | 23.5 | 34 | 32 | 68  | 112 | CT - 471 |
| 240            | 21.0       | 26.5 | 38 | 38 | 80  | 132 | CT - 472 |
| 300            | 23.5       | 30.0 | 43 | 42 | 88  | 145 | CT - 473 |
| 400            | 28.5       | 36.5 | 53 | 44 | 104 | 166 | CT - 474 |
| 500            | 30.0       | 39.0 | 56 | 48 | 112 | 180 | CT - 475 |
| 625            | 35.0       | 45.0 | 65 | 56 | 132 | 210 | CT - 476 |



Braco Copper tube crimping terminals are manufactured from electrolytic copper tube. The dimensions of the tube are designed to obtain the most efficient electrical conductivity and mechanical strength to resist vibration and pull out. These are used for terminating any size of cables to terminating electrical switching equipments, where vibration is critical.

Terminals are annealed to guarantee optimum ductility which is an absolute necessity for connectors which will have to withstand the severe deformation arising when compressed and any bending of the palm during installation. In application subject to vibration, terminals still have to perform a reliable connection, annealing plays a vital role in avoiding cracking or breaks between the barrel and the palm.

The presence of inspection hole facilitates full insertion of conductor while the barrel length has been designed to allow easy and accurate position dies during the crimping operation.

Tin plating on the terminals avoids oxidation and achieves maximum corrosion protection.

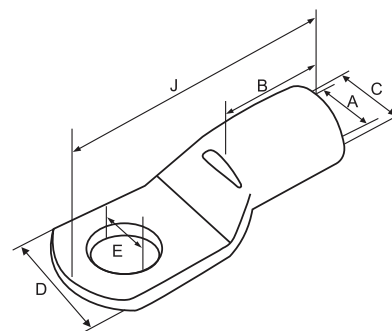


## COPPER CRIMPING TERMINALS WITH INSPECTION HOLE FOR COPPER CONDUCTOR (HEAVY DUTY)

**Material Copper BS :1977**

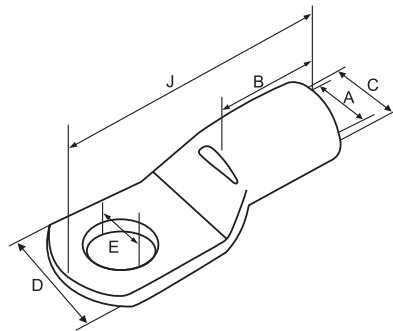
**Finish : Electro Tinned**

| Size<br>Sq. mm | Dimensions |     |     |      |    |    | Code No.     |
|----------------|------------|-----|-----|------|----|----|--------------|
|                | E          | A   | C   | D    | B  | J  |              |
| 1.5            | 4.2        | 1.8 | 3.7 | 8    | 5  | 16 | 1.5-4 CT-711 |
|                | 5.2        | 1.8 | 3.7 | 8    | 5  | 16 | 1.5-5 CT-538 |
|                | 6.4        | 1.8 | 3.7 | 9    | 5  | 18 | 1.5-6 CT-539 |
|                | 8.4        | 1.8 | 3.7 | 12   | 5  | 22 | 1.5-8        |
| 2.5            | 4.2        | 2.4 | 4   | 8    | 7  | 18 | 2.5-4 CT-388 |
|                | 5.2        | 2.4 | 4   | 9    | 7  | 20 | 2.5-5 CT-540 |
|                | 6.5        | 2.4 | 4   | 10   | 7  | 20 | 2.5-6 CT-541 |
|                | 8.4        | 2.4 | 4   | 11.5 | 7  | 26 | 2.5-8 CT-762 |
| 4              | 4.2        | 3.1 | 4.8 | 8    | 7  | 20 | 4-4 CT-764   |
|                | 5.2        | 3.1 | 4.8 | 9    | 7  | 20 | 4-5 CT-389   |
|                | 6.5        | 3.1 | 4.8 | 10   | 7  | 20 | 4-6 CT-543   |
|                | 8.4        | 3.1 | 4.8 | 11.5 | 7  | 25 | 4-8 CT-763   |
| 6              | 4.2        | 3.8 | 5.5 | 9    | 9  | 23 | 6-4          |
|                | 5.2        | 3.8 | 5.5 | 10   | 9  | 23 | 6-5 CT-390   |
|                | 6.5        | 3.8 | 5.5 | 12   | 9  | 26 | 6-6 CT-544   |
|                | 8.4        | 3.8 | 5.5 | 12   | 9  | 26 | 6-8 CT-545   |
|                | 10.5       | 3.8 | 5.5 | 15   | 9  | 32 | 6-10 CT-854  |
| 10             | 5.2        | 4.5 | 6.2 | 10   | 9  | 26 | 10-5 CT-822  |
|                | 6.5        | 4.5 | 6.2 | 11   | 9  | 26 | 10-6 CT-353  |
|                | 8.4        | 4.5 | 6.2 | 12   | 9  | 26 | 10-8 CT-547  |
|                | 10.5       | 4.7 | 7.1 | 14   | 10 | 32 | 10-10 CT-855 |
|                | 12.7       | 4.7 | 7.1 | 17   | 10 | 33 | 10-12 CT-856 |



## COPPER CRIMPING TERMINALS WITH INSPECTION HOLE FOR COPPER CONDUCTOR (HEAVY DUTY)

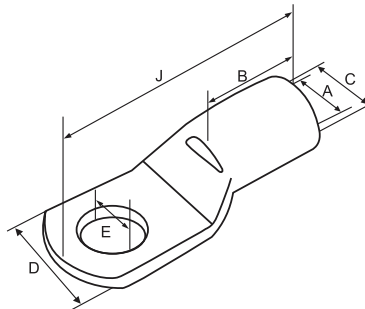
| Size<br>Sq. mm | Dimensions |      |      |      |    |    | Code No.     |
|----------------|------------|------|------|------|----|----|--------------|
|                | E          | A    | C    | D    | B  | J  |              |
| 16             | 5.2        | 5.4  | 7.1  | 10   | 12 | 30 | 16-5 CT-696  |
|                | 6.4        | 5.4  | 7.1  | 11   | 12 | 30 | 16-6 CT-354  |
|                | 8.4        | 5.4  | 7.1  | 12   | 12 | 31 | 16-8 CT-549  |
|                | 10.5       | 5.5  | 7.9  | 14.5 | 13 | 35 | 16-10 CT-657 |
|                | 12.7       | 5.5  | 7.9  | 17   | 13 | 40 | 16-12 CT-858 |
|                | 16.5       | 5.5  | 7.9  | 22   | 13 | 40 | 16-16        |
| 25             | 6.4        | 6.8  | 8.8  | 13   | 12 | 32 | 25-6 CT-355  |
|                | 8.4        | 6.8  | 8.8  | 13   | 12 | 32 | 25-8 CT-551  |
|                | 10.5       | 6.8  | 8.8  | 16   | 12 | 38 | 25-10 CT-552 |
|                | 12.7       | 6.8  | 8.8  | 16.5 | 12 | 40 | 25-12 CT-765 |
|                | 16.5       | 6.8  | 8.8  | 24   | 13 | 45 | 25-16        |
| 35             | 6.5        | 8.2  | 10.6 | 15.3 | 12 | 35 | 35-6 CT-542  |
|                | 8.4        | 8.2  | 10.6 | 15.3 | 12 | 35 | 35-8 CT-356  |
|                | 10.5       | 8.2  | 10.6 | 16   | 12 | 38 | 35-10 CT-554 |
|                | 12.7       | 8.2  | 10.6 | 17   | 15 | 42 | 35-12 CT-853 |
|                | 16.5       | 8.2  | 10.6 | 24   | 14 | 50 | 35-16        |
| 50             | 6.5        | 9.5  | 12.4 | 18   | 16 | 43 | 50-6 CT-746  |
|                | 8.4        | 9.5  | 12.4 | 18   | 16 | 43 | 50-8 CT-357  |
|                | 10.5       | 9.5  | 12.4 | 18   | 16 | 43 | 50-10 CT-556 |
|                | 12.7       | 9.5  | 12.4 | 18   | 16 | 43 | 50-12 CT-698 |
|                | 15         | 9.5  | 12.4 | 20   | 17 | 49 | 50-14        |
|                | 17         | 9.5  | 12.4 | 24   | 18 | 54 | 50-16 CT-699 |
|                | 21         | 9.5  | 12.4 | 30   | 18 | 54 | 50-20        |
| 70             | 6.4        | 11.2 | 14.7 | 21   | 18 | 50 | 70-6 CT-748  |
|                | 8.4        | 11.2 | 14.7 | 21   | 18 | 50 | 70-8 CT-557  |
|                | 10.5       | 11.2 | 14.7 | 21   | 18 | 50 | 70-10 CT-358 |
|                | 13         | 11.2 | 14.7 | 21   | 18 | 50 | 70-12 CT-559 |
|                | 15         | 11.2 | 14.7 | 25   | 20 | 55 | 70-14 CT-795 |
|                | 17         | 11.2 | 14.7 | 25   | 20 | 55 | 70-16 CT-780 |
|                | 21         | 11.2 | 14.7 | 26   | 20 | 55 | 70-20 CT-781 |





## COPPER CRIMPING TERMINALS WITH INSPECTION HOLE FOR COPPER CONDUCTOR (HEAVY DUTY)

| Size<br>Sq. mm | Dimensions |      |      |    |    |     | Code No.       |
|----------------|------------|------|------|----|----|-----|----------------|
|                | E          | A    | C    | D  | B  | J   |                |
| 95             | 6.4        | 13.5 | 17.4 | 25 | 20 | 55  | 95-6           |
|                | 8.4        | 13.5 | 17.4 | 25 | 20 | 55  | 95-8 CT-752    |
|                | 10.5       | 13.5 | 17.4 | 25 | 20 | 55  | 95-10 CT-359   |
|                | 13         | 13.5 | 17.4 | 25 | 20 | 55  | 95-12 CT-561   |
|                | 15         | 13.5 | 17.4 | 26 | 20 | 55  | 95-14 CT-796   |
|                | 17         | 13.5 | 17.4 | 26 | 22 | 60  | 95-16 CT-672   |
|                | 21         | 13.5 | 17.4 | 28 | 22 | 64  | 95-20 CT-673   |
| 120            | 6.4        | 15   | 19.4 | 28 | 22 | 64  | 120-6          |
|                | 8.5        | 15   | 19.4 | 28 | 22 | 64  | 120-8 CT-782   |
|                | 10.5       | 15   | 19.4 | 28 | 22 | 64  | 120-10 CT-700  |
|                | 12.7       | 15   | 19.4 | 28 | 22 | 64  | 120-12 CT-241  |
|                | 15         | 15   | 19.4 | 28 | 22 | 64  | 120-14 CT-797  |
|                | 17         | 15   | 19.4 | 28 | 22 | 64  | 120-16 CT-546  |
|                | 21         | 15   | 19.4 | 28 | 22 | 64  | 120-20 CT-798  |
| 150            | 8.4        | 16.5 | 21.2 | 30 | 26 | 69  | 150-8 CT-783   |
|                | 10.5       | 16.5 | 21.2 | 30 | 26 | 69  | 150-10 CT-676  |
|                | 12.7       | 16.5 | 21.2 | 30 | 26 | 69  | 150-12 CT-242  |
|                | 15         | 16.5 | 21.2 | 30 | 26 | 69  | 150-14 CT-799  |
|                | 17         | 16.5 | 21.2 | 30 | 26 | 69  | 150-16 CT-564  |
|                | 21         | 16.5 | 21.2 | 30 | 26 | 69  | 150-20 CT-565  |
| 185            | 8.5        | 18.5 | 23.5 | 34 | 32 | 78  | 185-8          |
|                | 10.5       | 18.5 | 23.5 | 34 | 32 | 78  | 185-10 CT-652  |
|                | 12.7       | 18.5 | 23.5 | 34 | 32 | 78  | 185-12 CT-639  |
|                | 15         | 18.5 | 23.5 | 34 | 32 | 78  | 185-14 CT-800  |
|                | 17         | 18.5 | 23.5 | 34 | 32 | 78  | 185-16 CT-243  |
|                | 21         | 18.5 | 23.5 | 34 | 32 | 78  | 185-20 CT-704  |
| 240            | 8.5        | 21   | 26.5 | 38 | 38 | 92  | 240-8          |
|                | 10.5       | 21   | 26.5 | 38 | 38 | 92  | 240-10 CT-787  |
|                | 12.7       | 21   | 26.5 | 38 | 38 | 92  | 240-12 CT-705  |
|                | 15         | 21   | 26.5 | 38 | 38 | 92  | 240-14 CT-801  |
|                | 17         | 21   | 26.5 | 38 | 38 | 92  | 240-16 CT-244  |
|                | 21         | 21   | 26.5 | 38 | 38 | 92  | 240-20 CT-567  |
| 300            | 10.5       | 23.5 | 30   | 43 | 42 | 101 | 300-10 CT-568  |
|                | 12.7       | 23.5 | 30   | 43 | 42 | 101 | 300-12 CT-597  |
|                | 15         | 23.5 | 30   | 43 | 42 | 101 | 300-14 CT-802  |
|                | 17         | 23.5 | 30   | 43 | 42 | 101 | 300-16 CT-245  |
|                | 21         | 23.5 | 30   | 43 | 42 | 101 | 300-20 CT-569  |
| 400            | 10.5       | 26.8 | 34.8 | 50 | 44 | 114 | 400-10         |
|                | 13         | 26.8 | 34.8 | 50 | 44 | 114 | 400-12         |
|                | 15         | 26.8 | 34.8 | 50 | 44 | 114 | 400-14         |
|                | 17         | 26.8 | 34.8 | 50 | 44 | 114 | 400-16 CT-246  |
|                | 21         | 26.8 | 34.8 | 50 | 44 | 114 | 400-20 CT-571  |
| 500            | 13         | 30   | 39   | 56 | 48 | 124 | 500-12         |
|                | 17         | 30   | 39   | 56 | 48 | 124 | 500-16 CT-596  |
|                | 21         | 30   | 39   | 56 | 48 | 124 | 500-20 CT-247  |
| 630            | -          | 35   | 45   | 65 | 56 | 144 | 630BL CT-761   |
|                | 17         | 35   | 45   | 65 | 56 | 144 | 630-16 CT-807  |
|                | 21         | 35   | 45   | 65 | 56 | 144 | 630-20 CT-248  |
| 800            | -          | 39   | 50.6 | 73 | 78 | 170 | 800BL CT-599   |
|                | 21         | 39   | 50.6 | 73 | 78 | 170 | 800-20 CT-808  |
| 1000           | -          | 43   | 53.7 | 81 | 90 | 200 | 1000BL CT-590  |
|                | 21         | 43   | 53.7 | 81 | 90 | 200 | 1000-20 CT-809 |



Braco Copper tube crimping terminals are manufactured from electrolytic copper tube. The dimensions of the tube are designed to obtain the most efficient electrical conductivity and mechanical strength to resist vibration and pull out. These are used for terminating any size of cables to terminating electrical switching equipments, where vibration is critical.

Terminals are annealed to guarantee optimum ductility which is an absolute necessity for connectors which will have to withstand the severe deformation arising when compressed and any bending of the palm during installation. In application subject to vibration, terminals still have to perform a reliable connection, annealing plays a vital role in avoiding cracking or breaks between the barrel and the palm.

The presence of inspection hole facilitates full insertion of conductor while the barrel length has been designed to allow easy and accurate position dies during the crimping operation.

Tin plating on the terminals avoids oxidation and achieves maximum corrosion protection.

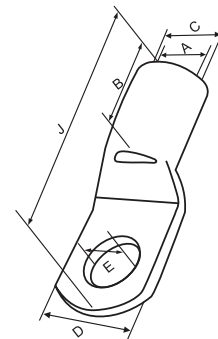


## COPPER CRIMPING TERMINALS WITH INSPECTION HOLE (LIGHT DUTY)

**Material Copper BS :1977**

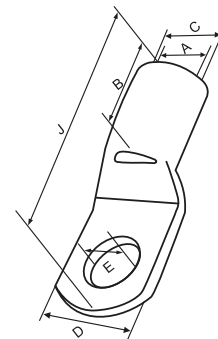
**Finish : Electro Tinned**

| Size<br>Sq. mm | Dimensions |      |      |      |    |    | Code No.  |
|----------------|------------|------|------|------|----|----|-----------|
|                | E          | A    | C    | D    | B  | J  |           |
| 35             | 6.5        | 8.0  | 10.0 | 15.3 | 12 | 35 | CA 35-6   |
|                | 8.4        | 8.0  | 10.0 | 15.3 | 12 | 35 | CA 35-8   |
|                | 10.5       | 8.0  | 10.0 | 18   | 12 | 38 | CA 35-10  |
|                | 12.7       | 8.0  | 10.0 | 20   | 15 | 42 | CA 35-12  |
| 50             | 6.5        | 9.2  | 11.2 | 16   | 16 | 43 | CA 50-6   |
|                | 8.4        | 9.2  | 11.2 | 16   | 16 | 43 | CA 50-8   |
|                | 10.5       | 9.2  | 11.2 | 16   | 16 | 43 | CA 50-10  |
|                | 12.7       | 9.2  | 11.2 | 17   | 16 | 43 | CA 50-12  |
| 70             | 6.4        | 11.6 | 13.8 | 20   | 18 | 50 | CA 70-6   |
|                | 8.4        | 11.6 | 13.8 | 20   | 18 | 50 | CA 70-8   |
|                | 10.5       | 11.6 | 13.8 | 20   | 18 | 50 | CA 70-10  |
|                | 13         | 11.6 | 13.8 | 20   | 18 | 50 | CA 70-12  |
| 95             | 8.4        | 12.8 | 15.6 | 23   | 20 | 55 | CA 95-8   |
|                | 10.5       | 12.8 | 15.6 | 23   | 20 | 55 | CA 95-10  |
|                | 13         | 12.8 | 15.6 | 23   | 20 | 55 | CA 95-12  |
| 120            | 8.5        | 14.8 | 17.8 | 26   | 22 | 60 | CA 120-8  |
|                | 10.5       | 14.8 | 17.8 | 26   | 22 | 60 | CA 120-10 |
|                | 12.7       | 14.8 | 17.8 | 26   | 22 | 60 | CA 120-12 |



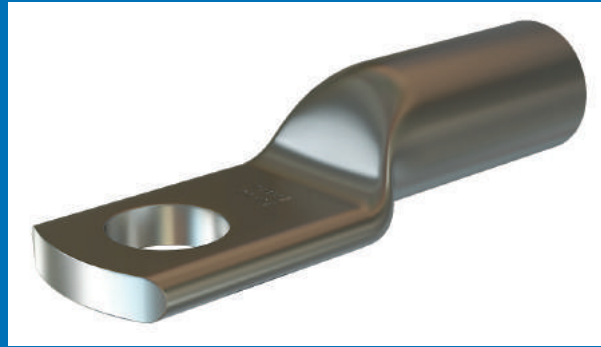
## COPPER CRIMPING TERMINALS WITH INSPECTION HOLE (LIGHT DUTY)

| Size<br>Sq. mm | Dimensions |      |      |    |    |     | Code No.    |
|----------------|------------|------|------|----|----|-----|-------------|
|                | E          | A    | C    | D  | B  | J   |             |
| 120            | 15         | 14.8 | 17.8 | 26 | 22 | 64  | CA 120-14   |
|                | 17         | 14.8 | 17.8 | 28 | 22 | 64  | CA 120-16   |
|                | 21         | 14.8 | 17.8 | 28 | 22 | 64  | CA 120-20   |
| 150            | 8.4        | 16   | 19.6 | 28 | 26 | 69  | CA 150-8    |
|                | 10.5       | 16   | 19.6 | 28 | 26 | 69  | CA 150-10   |
|                | 12.7       | 16   | 19.6 | 28 | 26 | 69  | CA 150-12   |
|                | 17         | 16   | 19.6 | 28 | 26 | 69  | CA 150-16   |
| 185            | 10.5       | 18   | 22   | 32 | 32 | 78  | CA 185-10   |
|                | 12.7       | 18   | 22   | 32 | 32 | 78  | CA 185-12   |
|                | 15         | 18   | 22   | 32 | 32 | 78  | CA 185-14   |
|                | 17         | 18   | 22   | 32 | 32 | 78  | CA 185-16   |
|                | 21         | 18   | 22   | 32 | 32 | 78  | CA 185-20   |
| 240            | 10.5       | 22   | 26   | 38 | 38 | 92  | CA 240-10   |
|                | 12.7       | 22   | 26   | 38 | 38 | 92  | CA 240-12   |
|                | 17         | 22   | 26   | 38 | 38 | 92  | CA 240-16   |
|                | 21         | 22   | 26   | 38 | 38 | 92  | CA 240-20   |
| 300            | 12.7       | 24   | 28.7 | 42 | 42 | 101 | CA 300-12   |
|                | 17         | 24   | 28.7 | 42 | 42 | 101 | CA 300-16   |
|                | 21         | 24   | 28.7 | 42 | 42 | 101 | CA 300-20   |
| 400            | 17         | 28   | 33.2 | 49 | 44 | 114 | CA 400-16   |
|                | 21         | 28   | 33.2 | 49 | 44 | 114 | CA 400-20   |
| 500            | 17         | 30   | 36   | 53 | 48 | 117 | CA 500-16   |
|                | 21         | 30   | 36   | 53 | 48 | 117 | CA 500-20   |
|                | -          | 30   | 36   | 53 | 48 | 117 | CA 500BL    |
| 630            | 13         | 35   | 41.5 | 61 | 69 | 145 | CA 630-12   |
|                | 17         | 35   | 41.5 | 61 | 69 | 145 | CA 630-16   |
|                | 21         | 35   | 41.5 | 61 | 69 | 145 | CA 630-20   |
|                | -          | 35   | 41.5 | 61 | 69 | 145 | CA 630BL    |
|                | 8.5        | 35   | 41.5 | 61 | 69 | 145 | CA 630-4X8  |
|                | 10.5       | 35   | 41.5 | 61 | 69 | 145 | CA 630-4X10 |
|                | 13         | 35   | 41.5 | 61 | 69 | 145 | CA 630-4X12 |
| 800            | 21         | 39   | 46.3 | 67 | 78 | 170 | CA 800-20   |
|                | -          | 39   | 46.3 | 67 | 78 | 170 | CA 800-BL   |
| 1000           | -          | 43   | 53.8 | 76 | 90 | 200 | CA-1000BL   |



Braco Copper Tube Crimping Terminals are manufactured from electrolytic copper tube. The dimensions of the tube are designed to obtain the most efficient electrical conductivity and mechanical strength to resist vibration and pull out. These are used for terminating any size of cables to terminating electrical switching equipments, where vibration is critical.

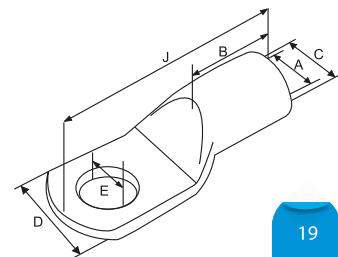
Terminals are annealed to guarantee optimum ductility which is an absolute necessity for connectors which will have to withstand the severe deformation arising when compressed and any bending of the palm during installation. In application subject to vibration, terminals still have to perform a reliable connection. Annealing plays a vital role in avoiding cracking or breaks between the barrel and palm. Tin plating on the terminals avoids oxidization and achieves maximum corrosion protection



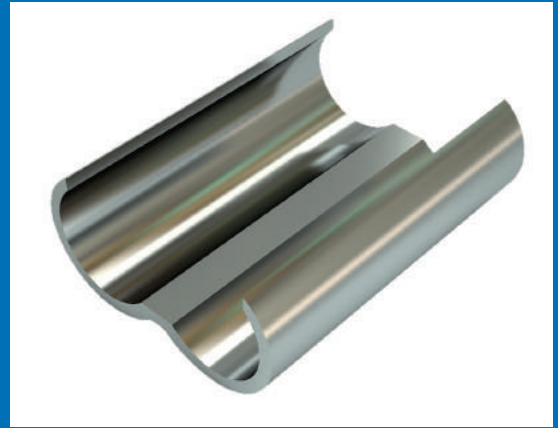
## COPPER CRIMPING TERMINALS FOR ALUMINIUM CONDUCTOR (LIGHT DUTY)

**Material : Copper BS :1977 Finish : Electro Tinned**

| Size<br>Sq. mm | Dimensions |      |      |    |    |     | Code No. |
|----------------|------------|------|------|----|----|-----|----------|
|                | E          | A    | C    | D  | B  | J   |          |
| 2.5            | 5.2        | 2.4  | 4.0  | 9  | 7  | 20  | CT - 05  |
| 4              | 6.2        | 3.1  | 4.8  | 11 | 7  | 22  | CT - 06  |
| 6              | 6.2        | 3.8  | 5.5  | 11 | 9  | 24  | CT - 07  |
| 10             | 6.2        | 4.4  | 6.2  | 11 | 9  | 24  | CT - 08  |
| 16             | 6.2        | 5.3  | 7.1  | 11 | 12 | 30  | CT - 09  |
| 25             | 6.2        | 7.0  | 9.0  | 13 | 12 | 37  | CT - 10  |
| 35             | 6.2        | 8.0  | 10.0 | 15 | 12 | 37  | CT - 11  |
|                | 8.2        | 8.0  | 10.0 | 15 | 12 | 37  | CT - 12  |
| 50             | 6.2        | 9.2  | 11.2 | 16 | 16 | 45  | CT - 13  |
|                | 8.2        | 9.2  | 11.2 | 16 | 16 | 45  | CT - 14  |
|                | 10.2       | 9.2  | 11.2 | 16 | 16 | 45  | CT - 15  |
| 70             | 8.2        | 11.5 | 13.8 | 20 | 18 | 56  | CT - 16  |
|                | 10.2       | 11.5 | 13.8 | 20 | 18 | 56  | CT - 17  |
|                | 12.7       | 11.5 | 13.8 | 20 | 18 | 56  | CT - 18  |
| 95             | 10.2       | 12.8 | 15.6 | 23 | 20 | 58  | CT - 19  |
|                | 12.7       | 12.8 | 15.6 | 23 | 20 | 58  | CT - 20  |
| 120            | 10.2       | 14.8 | 17.8 | 26 | 22 | 62  | CT - 21  |
|                | 12.7       | 14.8 | 17.8 | 26 | 22 | 62  | CT - 22  |
|                | 16.2       | 14.8 | 17.8 | 26 | 22 | 62  | CT - 23  |
| 150            | 10.2       | 16.0 | 19.6 | 28 | 26 | 70  | CT - 24  |
|                | 12.7       | 16.0 | 19.6 | 28 | 26 | 70  | CT - 25  |
|                | 16.2       | 16.0 | 19.6 | 28 | 26 | 70  | CT - 26  |
| 185            | 12.7       | 18.0 | 22.0 | 32 | 30 | 83  | CT - 27  |
|                | 16.2       | 18.0 | 22.0 | 32 | 30 | 83  | CT - 28  |
| 225            | 16.2       | 20.0 | 24.0 | 35 | 34 | 95  | CT - 231 |
| 240            | 16.2       | 22.0 | 26.0 | 38 | 36 | 97  | CT - 29  |
|                | 20.3       | 22.0 | 26.0 | 38 | 36 | 97  | CT - 30  |
| 300            | 16.2       | 24.0 | 28.7 | 42 | 39 | 103 | CT - 31  |
|                | 20.3       | 24.0 | 28.7 | 42 | 39 | 103 | CT - 32  |
| 400            | 20.3       | 28.0 | 33.2 | 49 | 44 | 116 | CT - 33  |
| 500            | 20.3       | 30.0 | 36.0 | 53 | 48 | 120 | CT - 34  |
| 630            | 20.3       | 35.0 | 41.5 | 61 | 55 | 137 | CT - 35  |
| 800            | -          | 39.0 | 46.3 | 67 | 65 | 165 | CT - 62  |
| 1000           | -          | 43.0 | 53.8 | 76 | 90 | 210 | CT - 76  |



Braco Soldering Type Weak Back Ferrules are manufactured out of copper and are used to solder straight through joints. Tinning is provided to give better finish, to avoid oxidation and to achieve maximum corrosion protection.

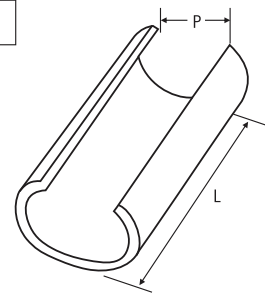
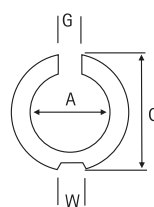
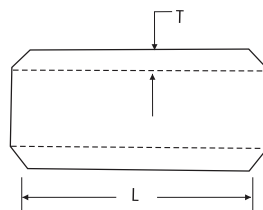
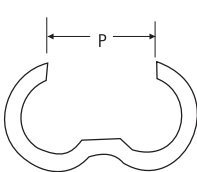


## SOLDERING TYPE COPPER WEAK BACK FERRULES

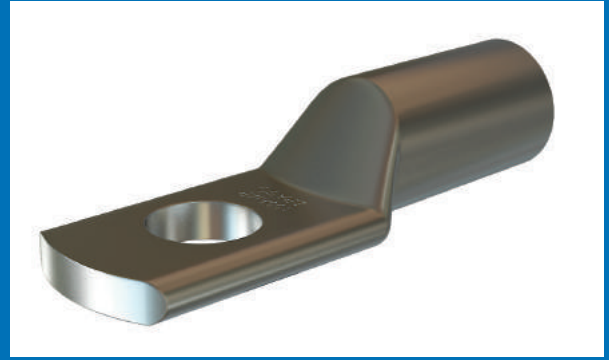
**Material Copper BS :1997**

**Finish : Electro Tinned**

| Size<br>Sq. mm | Dimensions |      |   |     |     |    | Code No. |
|----------------|------------|------|---|-----|-----|----|----------|
|                | A          | C    | G | B   | T   | P  |          |
| 6              | 3.9        | 5.5  | 2 | 20  | 0.8 | 3  | WB-79    |
| 10             | 4.5        | 6.2  | 2 | 25  | 0.8 | 4  | WB-80    |
| 16             | 5.5        | 7.1  | 2 | 25  | 1.0 | 5  | WB-81    |
| 25             | 6.9        | 8.8  | 2 | 30  | 1   | 7  | WB-82    |
| 35             | 8.3        | 10.6 | 2 | 35  | 1.2 | 8  | WB-83    |
| 50             | 9.6        | 12.4 | 2 | 40  | 1.2 | 9  | WB-84    |
| 70             | 11.3       | 14.7 | 3 | 45  | 1.4 | 12 | WB-85    |
| 95             | 13.5       | 17.4 | 3 | 50  | 1.4 | 13 | WB-86    |
| 120            | 15.1       | 19.4 | 4 | 55  | 1.6 | 15 | WB-87    |
| 150            | 16.6       | 21.2 | 4 | 60  | 1.8 | 16 | WB-88    |
| 185            | 18.5       | 23.5 | 4 | 65  | 2.2 | 18 | WB-89    |
| 225            | 20.5       | 24.9 | 5 | 75  | 2.2 | 20 | WB-90    |
| 240            | 21.1       | 26.5 | 5 | 80  | 2.2 | 21 | WB-91    |
| 300            | 23.6       | 30   | 5 | 85  | 2.8 | 23 | WB-92    |
| 400            | 26.8       | 34.8 | 7 | 95  | 3.1 | 27 | WB-93    |
| 500            | 30.1       | 39   | 7 | 105 | 3.5 | 30 | WB-94    |
| 625            | 35         | 45   | 8 | 115 | 4   | 33 | WB-95    |



Braco soldering type copper terminals are made out of EC grade copper and used where high value of current flow is desired and due to soldering loose terminations are avoided, thereby preventing heating at termination ends. Terminals are tin plated to avoid oxidization and to achieve maximum corrosion protection.

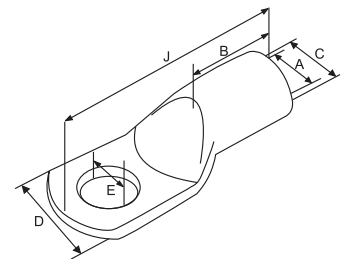


## SOLDERING TYPE COPPER TERMINALS (HEAVY DUTY)

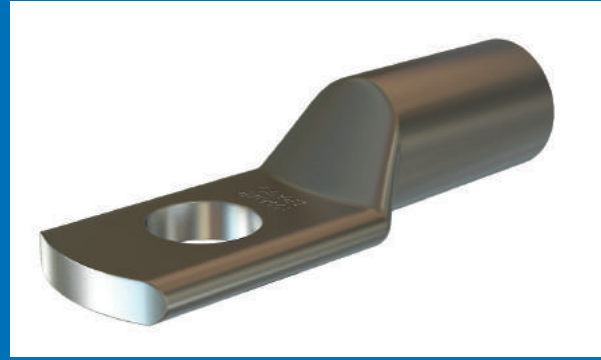
**Material Copper BS :1977**

**Finish : Electro Tinned**

| AMPS | Dimensions |      |      |    |    |     | Code No. |
|------|------------|------|------|----|----|-----|----------|
|      | E          | A    | C    | D  | B  | J   |          |
| 15   | 5.1        | 4.8  | 6.2  | 9  | 10 | 24  | BSS - 6  |
| 30   | 7.1        | 6.4  | 8.0  | 12 | 13 | 33  | BSS - 7  |
| 60   | 10.3       | 9.5  | 11.3 | 17 | 14 | 44  | BSS - 8  |
| 100  | 11.9       | 11.9 | 13.9 | 21 | 19 | 55  | BSS - 9  |
| 150  | 13.5       | 14.3 | 17.1 | 25 | 22 | 62  | BSS - 10 |
| 200  | 13.5       | 16.7 | 19.9 | 29 | 29 | 78  | BSS - 11 |
| 300  | 16.7       | 20.6 | 24.2 | 36 | 32 | 86  | BSS - 12 |
| 400  | 16.7       | 23.8 | 27.8 | 41 | 38 | 100 | BSS - 13 |
| 500  | 19.8       | 26.2 | 31.4 | 46 | 44 | 111 | BSS - 14 |
| 300  | 18.0       | 26.2 | 34.2 | 49 | 44 | 111 | BSS - 28 |
| 500  | 22.0       | 31.7 | 40.9 | 59 | 48 | 121 | BSS - 29 |
| 630  | 26.0       | 36.5 | 46.1 | 67 | 56 | 139 | BSS - 30 |



Braco soldering type copper terminals are made out of EC grade copper and used where high value of current flow is desired and due to soldering loose terminations are avoided, thereby preventing heating at termination ends. Terminals are tin plated to avoid oxidization and to achieve maximum corrosion protection.

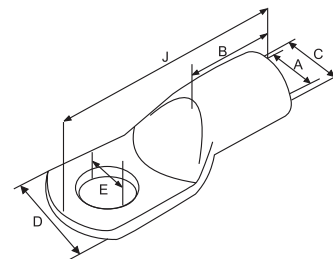


## SOLDERING TYPE COPPER TERMINALS (LIGHT DUTY)

**Material Copper BS :1977**

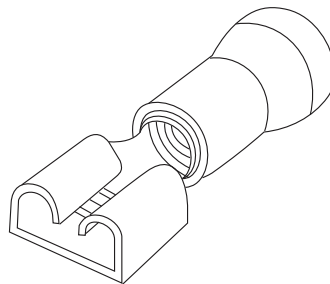
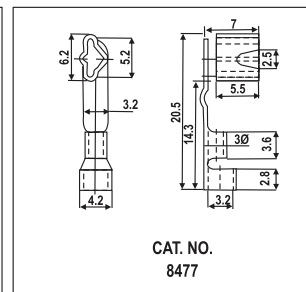
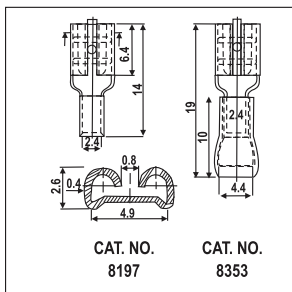
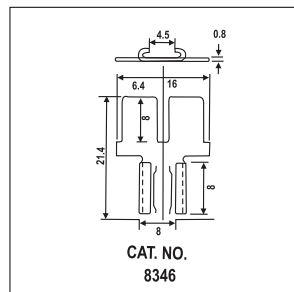
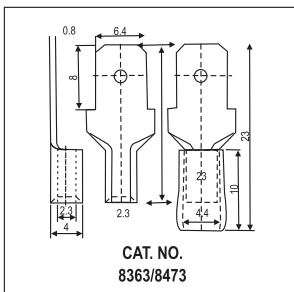
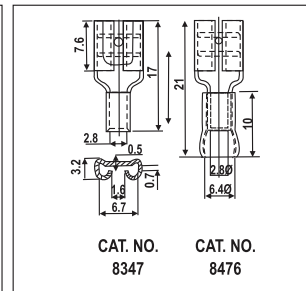
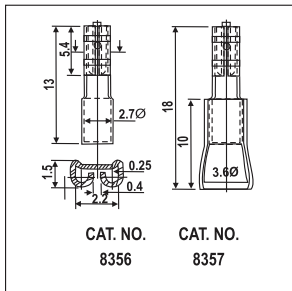
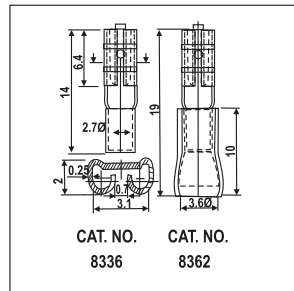
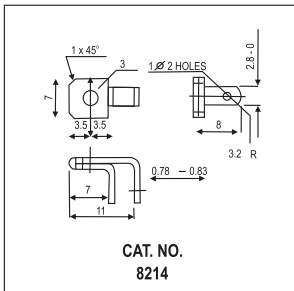
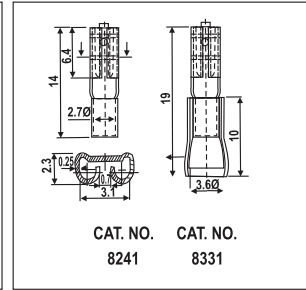
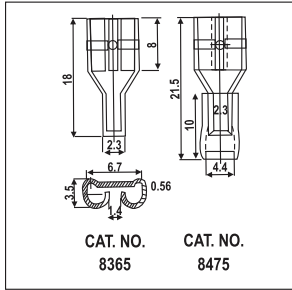
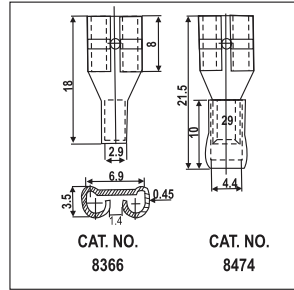
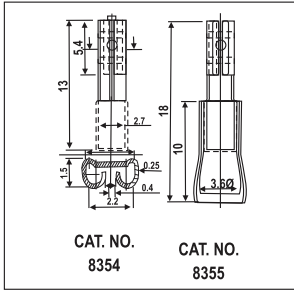
**Finish : Electro Tinned**

| AMPS | Dimensions |      |      |    |    |     | Code No. |
|------|------------|------|------|----|----|-----|----------|
|      | E          | A    | C    | D  | B  | J   |          |
| 15   | 3.2        | 3.9  | 4.8  | 7  | 7  | 19  | CTS - 01 |
| 30   | 5.1        | 5.2  | 6.3  | 9  | 9  | 23  | CTS - 02 |
| 60   | 6.4        | 8.1  | 9.5  | 14 | 14 | 36  | CTS - 03 |
| 100  | 9.5        | 10.9 | 12.7 | 19 | 19 | 49  | CTS - 04 |
| 150  | 9.5        | 13.9 | 15.9 | 24 | 23 | 57  | CTS - 05 |
| 200  | 12.7       | 16.6 | 19.0 | 28 | 27 | 66  | CTS - 06 |
| 300  | 12.7       | 19.0 | 22.2 | 33 | 28 | 80  | CTS - 07 |
| 400  | 15.9       | 22.2 | 25.4 | 38 | 32 | 89  | CTS - 08 |
| 500  | 19.0       | 25.4 | 28.6 | 43 | 38 | 105 | CTS - 09 |
| 600  | 19.0       | 27.8 | 31.8 | 47 | 44 | 115 | CTS - 10 |
| 800  | 23.8       | 31.7 | 38.1 | 56 | 47 | 121 | CTS - 11 |
| 1000 | 23.8       | 38.1 | 44.5 | 66 | 56 | 152 | CTS - 12 |
| 1000 | -          | 50.0 | 57.3 | 85 | 62 | 164 | CTS - 95 |

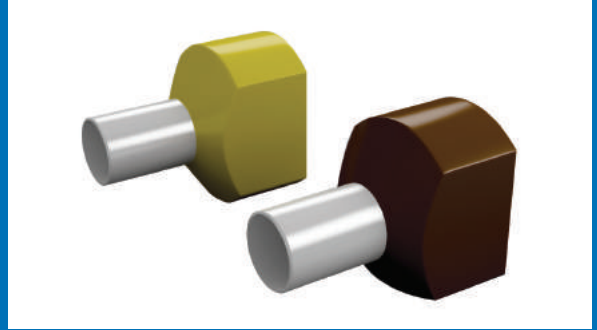








Braco End Sealing Insulated Ferrules are manufactured from electrolytic copper. These ferrules have dimensions according to DIN 46228 and are used when a perfect connection is needed at the end of a cable. Some cables, especially those with small diameters, may conduct badly in electrical connections without an End Sealing Ferrule. By using these ferrules strands deviation can be avoided and the risk of cable breakage can be reduced. Also these ferrules create a long lasting contact pressure and a large contact surface. Tinning is provided to give better finish, to avoid oxidation and to achieve maximum corrosion protection.



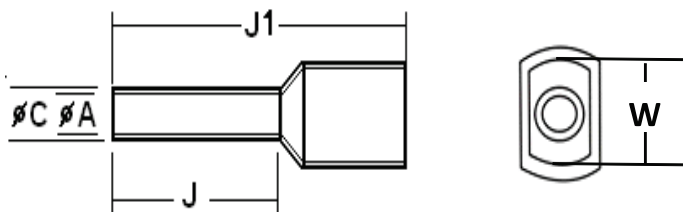
The Insulation Sleeve is manufactured from PP (Polypropylene). We also offer end terminals with insulation colours according to the most common colour system in the market. The colour of the insulation sleeves characterises the Cross section area of the conductor

## COPPER CRIMPING END SEALING INSULATED FERRULES - FOR TWIN CABLE (Bootlace Ferrules-Twin Cable)

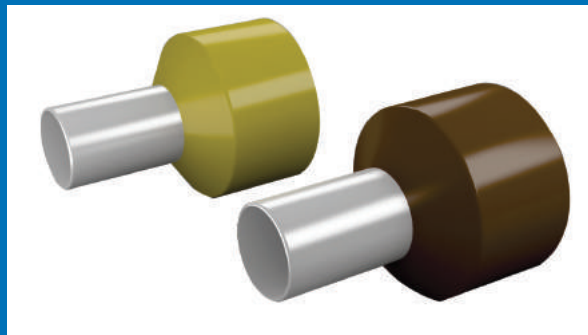
**Material: Copper BS-1977**

**Finish : Electro Tinned**

| Size<br>Sq. mm | Dimensions |     |    | J-1  | W    | Braco<br>Cat. No. |
|----------------|------------|-----|----|------|------|-------------------|
|                | A          | C   | J  |      |      |                   |
| 0.5            | 1.5        | 1.8 | 8  | 15   | 4.7  | ESIT-0.5-8        |
| 0.75           | 1.8        | 2.1 | 8  | 15   | 5    | ESIT-0.75-8       |
| 1              | 2          | 2.3 | 8  | 15   | 5.4  | ESIT-1-8          |
|                | 2          | 2.3 | 10 | 17   | 5.4  | ESIT-1-10         |
| 1.5            | 2.2        | 2.5 | 8  | 16   | 6.6  | ESIT-1.5-8        |
|                | 2.2        | 2.5 | 10 | 16   | 6.6  | ESIT-1.5-10       |
|                | 2.2        | 2.5 | 12 | 20   | 6.6  | ESIT-1.5-12       |
| 2.5            | 2.8        | 3.2 | 10 | 18.5 | 7.8  | ESIT-2.5-10       |
|                | 2.8        | 3.2 | 12 | 21.5 | 7.8  | ESIT-2.5-12       |
| 4              | 3.7        | 4.1 | 12 | 23   | 8.8  | ESIT-4-12         |
| 6              | 4.8        | 5.2 | 12 | 26   | 10   | ESIT-6-12         |
| 10             | 6.4        | 6.8 | 12 | 26   | 13   | ESIT-10-12        |
| 16             | 8.3        | 8.9 | 12 | 30   | 18.4 | ESIT-16-12        |



Braco End Sealing Insulated Ferrules are manufactured from electrolytic copper. These ferrules have dimensions according to DIN 46228 and are used when a perfect connection is needed at the end of a cable. Some cables, especially those with small diameters, may conduct badly in electrical connections without an End Sealing Ferrule. By using these ferrules strands deviation can be avoided and the risk of cable breakage can be reduced. Also these ferrules create a long lasting contact pressure and a large contact surface. Tinning is provided to give better finish, to avoid oxidation and to achieve maximum corrosion protection.



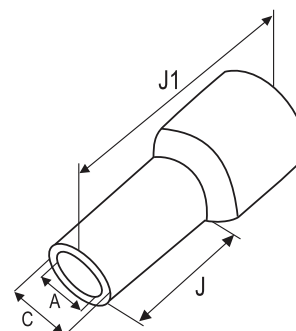
The Insulation Sleeve is manufactured from PP (Polypropylene). We also offer end terminals with insulation colours according to the most common colour system in the market. The colour of the insulation sleeves characterises the Cross section area of the conductor

## COPPER CRIMPING END SEALING INSULATED FERRULES

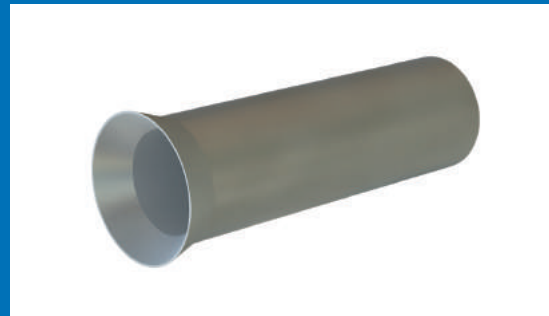
**Material Copper BS: 1977**

**Finish: Electro Tinned**

| Size<br>Sq. mm | Dimensions |      |    | J-1 | Code No.   |
|----------------|------------|------|----|-----|------------|
|                | A          | C    | J  |     |            |
| 0.5            | 1          | 1.4  | 8  | 12  | ESI-0.5-8  |
| 0.75           | 1.4        | 1.8  | 8  | 12  | ESI-0.75-8 |
| 1              | 1.6        | 2    | 8  | 12  | ESI-1-8    |
|                | 1.6        | 2    | 10 | 16  | ESI-1-10   |
| 1.5            | 1.8        | 2.2  | 8  | 14  | ESI-1.5-8  |
|                | 1.8        | 2.2  | 10 | 16  | ESI-1.5-10 |
|                | 1.8        | 2.2  | 12 | 18  | ESI-1.5-12 |
| 2.5            | 2.3        | 2.7  | 8  | 14  | ESI-2.5-8  |
|                | 2.3        | 2.7  | 10 | 16  | ESI-2.5-10 |
|                | 2.3        | 2.7  | 12 | 18  | ESI-2.5-12 |
| 4              | 2.8        | 3.2  | 8  | 16  | ESI-4-8    |
|                | 2.8        | 3.2  | 10 | 18  | ESI-4-10   |
|                | 2.8        | 3.2  | 12 | 20  | ESI-4-12   |
| 6              | 3.7        | 4.1  | 10 | 18  | ESI-6-10   |
|                | 3.7        | 4.1  | 12 | 20  | ESI-6-12   |
|                | 3.7        | 4.1  | 16 | 24  | ESI-6-16   |
| 10             | 4.6        | 5    | 12 | 22  | ESI-10-12  |
|                | 4.6        | 5    | 16 | 26  | ESI-10-16  |
| 16             | 5.9        | 6.3  | 12 | 22  | ESI-16-12  |
|                | 5.9        | 6.3  | 16 | 26  | ESI-16-16  |
| 25             | 7.5        | 7.9  | 16 | 29  | ESI-25-16  |
| 35             | 8          | 8.7  | 16 | 29  | ESI-35-16  |
| 50             | 9.7        | 10.3 | 20 | 36  | ESI-50-20  |



Braco End Sealing Ferrules are manufactured from electrolytic copper. These ferrules are used when a perfect connection is needed at the end of a cable. Some cables, especially those with small diameters, may conduct badly in electrical connections without an End Sealing Ferrule. By using these ferrules strands deviation can be avoided and the risk of cable breakage can be reduced. Also these ferrules create a long lasting contact pressure and a large contact surface. Tinning is provided to give better finish, to avoid oxidation and to achieve maximum corrosion protection.

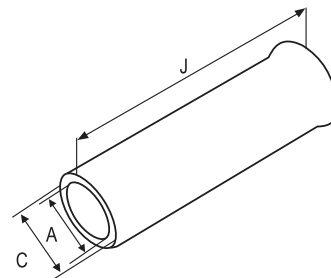


## COPPER CRIMPING END SEALING FERRULES

**Material Copper BS: 1977**

**Finish: Electro Tinned**

| Size<br>Sq. mm | Dimensions |         |    | Code No. |
|----------------|------------|---------|----|----------|
|                | A          | C       | J  |          |
| 0.5            | 1.0-1.1    | 1.4-1.5 | 6  | ES - 08  |
| 0.75           | 1.4-1.5    | 1.8-1.9 | 6  | ES - 09  |
| 1.0            | 1.6-1.7    | 2.0-2.1 | 6  | ES - 10  |
|                | 1.6-1.7    | 2.0-2.1 | 10 | ES - 11  |
| 1.5            | 1.8-1.9    | 2.2-2.3 | 7  | ES - 12  |
|                | 1.8-1.9    | 2.2-2.3 | 10 | ES - 13  |
| 2.5            | 2.3-2.4    | 2.7-2.8 | 7  | ES - 14  |
|                | 2.3-2.4    | 2.7-2.8 | 12 | ES - 15  |
| 4.0            | 2.8-2.9    | 3.2-3.3 | 9  | ES - 16  |
|                | 2.8-2.9    | 3.2-3.3 | 12 | ES - 17  |
| 6.0            | 3.7-3.8    | 4.1-4.2 | 10 | ES - 18  |
|                | 3.7-3.8    | 4.1-4.2 | 12 | ES - 19  |
|                | 3.7-3.8    | 4.1-4.2 | 15 | ES - 20  |
| 10             | 4.6-4.7    | 5.0-5.1 | 12 | ES - 21  |
|                | 4.6-4.7    | 5.0-5.1 | 15 | ES - 22  |
|                | 4.6-4.7    | 5.0-5.1 | 18 | ES - 23  |
| 16             | 5.9-6.0    | 6.3-6.4 | 12 | ES - 24  |
|                | 5.9-6.0    | 6.3-6.4 | 15 | ES - 25  |
|                | 5.9-6.0    | 6.3-6.4 | 18 | ES - 26  |



Braco open close terminals are made out of EC grade copper. These terminals ensure completeness and ease of conductor entry so that contact is reliable and have more tensile strength. The terminals are annealed to avoid cracking or breaks and are tin plated to avoid oxidization and to achieve maximum corrosion protection.

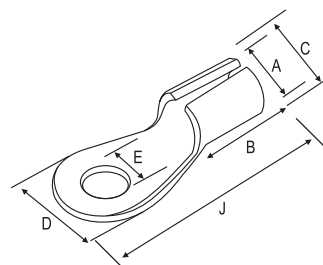


## OPEN CLOSE SOLDERING TYPE COPPER RING TERMINALS

**Material Copper BS: 1977**

**Finish: Electro Tinned**

| Size<br>Sq. mm | Dimensions |      |      |    |    |     | Code No. |
|----------------|------------|------|------|----|----|-----|----------|
|                | E          | A    | C    | D  | B  | J   |          |
| 1.5            | 4.2        | 1.6  | 3.2  | 7  | 5  | 15  | OC - 71  |
| 2.5            | 5.2        | 2.3  | 3.9  | 9  | 6  | 18  | OC - 72  |
| 4              | 5.2        | 2.8  | 4.8  | 9  | 6  | 20  | OC - 73  |
| 6              | 6.5        | 3.6  | 5.6  | 12 | 7  | 24  | OC - 74  |
| 10             | 6.5        | 4.4  | 6.4  | 12 | 9  | 27  | OC - 75  |
| 16             | 8.2        | 5.4  | 7.8  | 15 | 11 | 32  | OC - 76  |
| 25             | 8.2        | 7.0  | 10.2 | 15 | 14 | 36  | OC - 77  |
| 35             | 8.2        | 8.0  | 11.2 | 18 | 15 | 41  | OC - 78  |
| 50             | 10.2       | 9.5  | 13.1 | 24 | 18 | 50  | OC - 79  |
| 70             | 10.2       | 11.8 | 15.8 | 28 | 23 | 58  | OC - 80  |
| 95             | 12.7       | 13.5 | 18.7 | 32 | 25 | 66  | OC - 81  |
| 120            | 12.7       | 15.5 | 21.1 | 34 | 29 | 73  | OC - 82  |
| 150            | 12.7       | 16.5 | 22.9 | 38 | 30 | 79  | OC - 83  |
| 185            | 16.2       | 18.5 | 25.7 | 42 | 35 | 87  | OC - 84  |
| 225            | 16.2       | 21.0 | 28.2 | 44 | 40 | 92  | OC - 85  |
| 240            | 16.2       | 22.5 | 30.5 | 48 | 42 | 100 | OC - 86  |
| 300            | 20.3       | 25.0 | 34.0 | 54 | 45 | 110 | OC - 87  |
| 400            | 20.3       | 29.5 | 39.5 | 62 | 54 | 125 | OC - 88  |
| 500            | 20.3       | 32.0 | 42.8 | 62 | 58 | 137 | OC - 89  |
| 625            | 20.3       | 36.0 | 46.8 | 70 | 65 | 148 | OC - 90  |



Braco Fork Terminals are designed to offer maximum efficiency under heavy-duty applications. Therefore these terminals are ideal for use in applications which are subject to continuous mechanical vibrations viz. engines, railways, moving components etc. The terminal barrel is brazed and soft annealed which means that the terminal can be crimped in either direction.

All the terminals are tin plated to avoid oxidation and to achieve maximum corrosion protection. These terminals can be provided with PVC sleeves for protection against electrical shocks and can also be provided with metal reinforced sleeves to maintain a proper grip on conductor insulation.



Colour Coding Insulated Terminals:

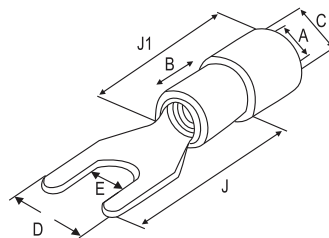


## COPPER CRIMPING FORK TERMINALS (NON-INSULATED AND INSULATED)

**Material Copper BS: 1977**

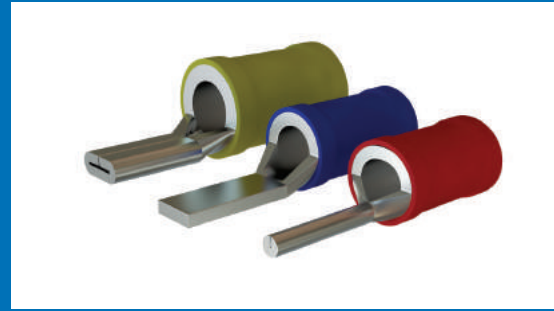
**Finish: Electro Tinned**

| Size<br>Sq. mm | Dimensions |     |     |      |     |    | Code No. | J-1 | Code No. | A-1 | J-1 | Code No. |
|----------------|------------|-----|-----|------|-----|----|----------|-----|----------|-----|-----|----------|
|                | E          | A   | C   | D    | B   | J  |          |     |          |     |     |          |
| 0.5-1          | 3.5        | 1.4 | 2.6 | 6.6  | 5   | 14 | F - 0    | 10  | FI - 0   |     |     |          |
| 1.5            | 5.1        | 1.6 | 3.2 | 8.0  | 5   | 21 | F - 214  | 10  | FI - 925 | 3.6 | 10  | FD - 934 |
|                | 3.5        | 1.6 | 3.2 | 6.8  | 4   | 13 | F - 249  | 10  | FI - 926 | 3.6 | 10  | FD - 935 |
|                | 3.0        | 2.0 | 2.8 | 6.2  | 5   | 13 | F - 250  | 10  | FI - 927 | 3.6 | 10  | FD - 936 |
| 2.5            | 3.5        | 2.3 | 3.9 | 6.5  | 5   | 15 | F - 251  | 10  | FI - 928 | 4.4 | 10  | FD - 937 |
|                | 5.0        | 2.6 | 4.6 | 10.6 | 6.2 | 21 | F - 280  | 10  | FI - 929 | 5.1 | 10  | FD - 938 |
| 4-6            | 3.1        | 3.5 | 5.5 | 6.0  | 6   | 15 | F - 252  | 14  | FI - 930 | 6.4 | 15  | FD - 939 |
|                | 3.5        | 3.5 | 5.5 | 6.0  | 6   | 15 | F - 253  | 14  | FI - 931 | 6.4 | 15  | FD - 940 |
| 10             | 6.5        | 4.5 | 6.9 | 16.0 | 8   | 27 | F - 254  | 16  | FI - 932 | 7.4 | 17  | FD - 941 |
|                | 8.2        | 4.5 | 6.9 | 16.0 | 8   | 27 | F - 255  | 16  | FI - 933 | 7.4 | 17  | FD - 942 |



Braco Pin Terminals are designed to offer maximum efficiency under heavy-duty applications. Therefore these terminals are ideal for use in applications which are subject to continuous mechanical vibrations viz. engines, railways, moving components etc. The terminal barrel is brazed and soft annealed, which means that the terminal can be crimped in either direction.

All the terminals are tin plated to avoid oxidation and to achieve maximum corrosion protection. These terminals can be provided with PVC sleeves for protection against electrical shocks and can also be provided with metal reinforced sleeves to maintain a proper grip on conductor insulation.



Colour Coding Insulated Terminals:

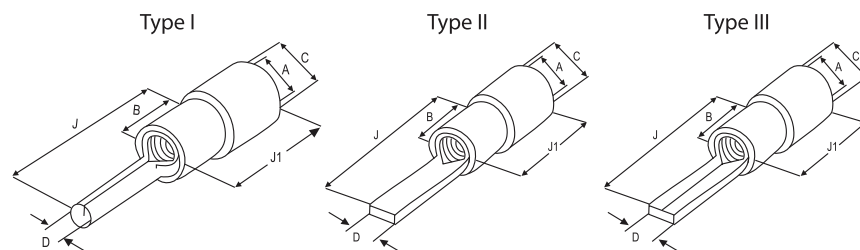


## COPPER CRIMPING PIN TERMINALS (NON-INSULATED AND INSULATED)

**Material Copper BS: 1977**

**Finish: Electro Tinned**

| Size<br>Sq. mm | Dimensions |      |      |    |    | TYPE | Code No. | J-1 | Code No. | A-1 | J-1 | Code No. |
|----------------|------------|------|------|----|----|------|----------|-----|----------|-----|-----|----------|
|                | A          | C    | D    | B  | J  |      |          |     |          |     |     |          |
| 0.5-1          | 1.4        | 2.6  | 1.6  | 5  | 17 | I    | P - 0    | 10  | PI - 0   | -   | -   | -        |
| 1.5            | 1.6        | 3.2  | 1.9  | 5  | 17 | I    | P - 9    | 10  | PI - 17  | 3.6 | 10  | PD - 26  |
|                | 1.6        | 3.2  | 3.1  | 5  | 17 | II   | P - 35   | 10  | PI - 40  | 3.6 | 10  | PD - 42  |
| 2.5            | 2.3        | 3.9  | 1.9  | 5  | 17 | I    | P - 1    | 10  | PI - 18  | 4.4 | 10  | PD - 27  |
|                | 2.3        | 3.9  | 3.1  | 5  | 17 | II   | P - 2    | 10  | PI - 19  | 4.4 | 10  | PD - 28  |
| 4              | 2.9        | 4.9  | 2.7  | 6  | 20 | I    | P - 3    | 14  | PI - 20  | 6.4 | 15  | PD - 29  |
|                | 3.6        | 5.6  | 5.1  | 6  | 20 | II   | P - 4    | 14  | PI - 21  | 6.4 | 15  | PD - 30  |
| 6              | 3.6        | 5.6  | 2.7  | 6  | 20 | I    | P - 5    | 14  | PI - 22  | 6.4 | 15  | PD - 31  |
|                | 4.0        | 6.0  | 2.7  | 6  | 20 | II   | P - 6    | 14  | PI - 23  | 6.4 | 15  | PD - 32  |
| 10             | 4.5        | 6.7  | 4.3  | 8  | 22 | III  | P - 7    | 16  | PI - 24  | -   | -   | -        |
| 16             | 5.8        | 8.2  | 5.5  | 10 | 26 | III  | P - 8    | 20  | PI - 25  | -   | -   | -        |
| 25             | 7.5        | 11.1 | 7.0  | 11 | 31 | III  | P - 86   | -   | -        | -   | -   | -        |
| 35             | 9.0        | 12.6 | 8.0  | 12 | 37 | III  | P - 87   | -   | -        | -   | -   | -        |
| 50             | 10.5       | 14.1 | 9.0  | 16 | 42 | III  | P - 88   | -   | -        | -   | -   | -        |
| 70             | 12.0       | 16.0 | 10.0 | 18 | 45 | III  | P - 94   | -   | -        | -   | -   | -        |
| 95             | 13.8       | 18.7 | 11.0 | 21 | 52 | III  | P - 95   | -   | -        | -   | -   | -        |



Braco Ring Tongue Fork Terminals are designed to offer maximum efficiency under heavy-duty applications. Therefore these terminals are ideal for use in applications which are subject to continuous mechanical vibrations viz. engines, railways, moving components etc. The terminal barrel is brazed and soft annealed, which means that the terminal can be crimped in either direction.

All the terminals are tin plated to avoid oxidation and to achieve maximum corrosion protection. These terminals can be provided with PVC sleeves for protection against electrical shocks and can also be provided with metal reinforced sleeves to maintain a proper grip on conductor insulation.



Colour Coding Insulated Terminals:

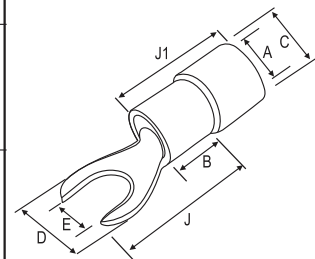


## COPPER RING TONGUE FORK TERMINALS

**Material Copper BS: 1977**

**Finish: Electro Tinned**

| Size<br>Sq. mm | Dimensions |     |     |      |    |      | Code No. | Dim.<br>J-1 | Code No.  | Dimensions |     | Code No.  |
|----------------|------------|-----|-----|------|----|------|----------|-------------|-----------|------------|-----|-----------|
|                | E          | A   | C   | D    | B  | J    |          |             |           | A-1        | J-1 |           |
| 1.5            | 3.1        | 1.6 | 3.2 | 6.0  | 5  | 14   | RF - 235 | 10          | RFI - 873 | 3.6        | 10  | RFD - 899 |
|                | 3.6        | 1.6 | 3.2 | 6.0  | 5  | 14   | RF - 240 | 10          | RFI - 874 | 3.6        | 10  | RFD - 900 |
|                | 3.1        | 1.6 | 3.2 | 6.8  | 5  | 13   | RF - 241 | 10          | RFI - 875 | 3.6        | 10  | RFD - 901 |
|                | 3.6        | 1.6 | 3.2 | 6.8  | 5  | 13   | RF - 244 | 10          | RFI - 876 | 3.6        | 10  | RFD - 902 |
|                | 4.1        | 1.6 | 3.2 | 7.0  | 5  | 14   | RF - 237 | 10          | RFI - 877 | 3.6        | 10  | RFD - 903 |
|                | 4.1        | 1.6 | 3.2 | 8.0  | 5  | 16   | RF - 236 | 10          | RFI - 878 | 3.6        | 10  | RFD - 904 |
|                | 5.1        | 1.6 | 3.2 | 10.0 | 5  | 18   | RF - 238 | 10          | RFI - 879 | 3.6        | 10  | RFD - 905 |
|                | 6.1        | 1.6 | 3.2 | 10.0 | 5  | 18   | RF - 861 | 10          | RFI - 880 | 3.6        | 10  | RFD - 906 |
| 2.5            | 3.1        | 2.3 | 3.9 | 6.5  | 5  | 12.7 | RF - 862 | 10          | RFI - 881 | 4.4        | 10  | RFD - 907 |
|                | 3.6        | 2.3 | 3.9 | 6.5  | 5  | 12.7 | RF - 863 | 10          | RFI - 882 | 4.4        | 10  | RFD - 908 |
|                | 4.1        | 2.3 | 3.9 | 8.0  | 5  | 16   | RF - 239 | 10          | RFI - 883 | 4.4        | 10  | RFD - 909 |
|                | 5.1        | 2.3 | 3.9 | 10.0 | 5  | 18   | RF - 242 | 10          | RFI - 884 | 4.4        | 10  | RFD - 910 |
|                | 6.1        | 2.3 | 3.9 | 10.0 | 5  | 18   | RF - 864 | 10          | RFI - 885 | 4.4        | 10  | RFD - 911 |
| 4-6            | 4.1        | 3.5 | 5.5 | 8.0  | 6  | 17   | RF - 243 | 14          | RFI - 886 | 6.4        | 15  | RFD - 912 |
|                | 4.1        | 3.5 | 5.5 | 10.0 | 6  | 19   | RF - 245 | 14          | RFI - 887 | 6.4        | 15  | RFD - 913 |
|                | 5.1        | 3.5 | 5.5 | 10.0 | 6  | 19   | RF - 246 | 14          | RFI - 888 | 6.4        | 15  | RFD - 914 |
|                | 5.1        | 3.5 | 5.5 | 12.0 | 6  | 22   | RF - 247 | 14          | RFI - 889 | 6.4        | 15  | RFD - 915 |
|                | 6.1        | 3.5 | 5.5 | 12.0 | 6  | 22   | RF - 248 | 14          | RFI - 890 | 6.4        | 15  | RFD - 916 |
| 10             | 4.1        | 4.3 | 6.3 | 10.0 | 8  | 22   | RF - 865 | 16          | RFI - 891 | 6.8        | 17  | RFD - 917 |
|                | 5.1        | 4.3 | 6.3 | 10.0 | 8  | 22   | RF - 866 | 16          | RFI - 892 | 6.8        | 17  | RFD - 918 |
|                | 6.1        | 4.3 | 6.3 | 12.0 | 8  | 23   | RF - 867 | 16          | RFI - 893 | 6.8        | 17  | RFD - 919 |
|                | 8.1        | 4.3 | 6.3 | 16.0 | 8  | 27   | RF - 868 | 16          | RFI - 894 | 6.8        | 17  | RFD - 920 |
| 16             | 5.1        | 5.6 | 8.0 | 10.0 | 10 | 24   | RF - 869 | --          | ----      | --         | --  | ----      |
|                | 6.1        | 5.6 | 8.0 | 12.0 | 10 | 26   | RF - 870 | --          | ----      | --         | --  | ----      |
|                | 8.1        | 5.6 | 8.0 | 16.0 | 10 | 30   | RF - 871 | --          | ----      | --         | --  | ----      |
|                | 8.1        | 5.6 | 8.0 | 18.0 | 10 | 33   | RF - 872 | --          | ----      | --         | --  | ----      |





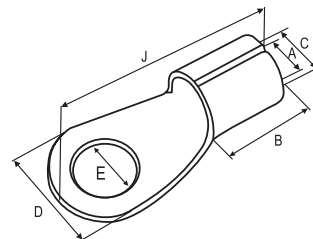
Braco Ring Terminals are designed to offer maximum efficiency under heavy-duty applications. Therefore these terminals are ideal for use in applications which are subject to continuous mechanical vibrations viz. engines, railways, moving components etc. The terminal barrel is brazed and soft annealed, which means that the terminal can be crimped in either direction.

All the terminals are tin plated to avoid oxidization and to achieve maximum corrosion protection.



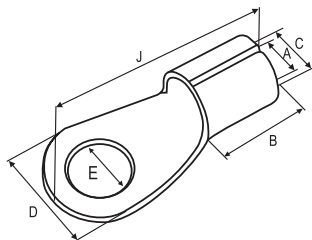
### COPPER CRIMPING RING TERMINALS (NON-INSULATED)

| Size<br>Sq. mm | Dimensions |     |      |    |    |    | Code No. |
|----------------|------------|-----|------|----|----|----|----------|
|                | E          | A   | C    | D  | B  | J  |          |
| 10             | 5.2        | 4.3 | 6.3  | 10 | 8  | 20 | R - 026  |
|                | 6.4        | 4.3 | 6.3  | 12 | 8  | 23 | R - 120  |
|                | 8.2        | 4.3 | 6.3  | 16 | 8  | 27 | R - 121  |
|                | 8.2        | 4.3 | 6.3  | 18 | 8  | 30 | R - 122  |
|                | 10.2       | 4.3 | 6.3  | 18 | 8  | 30 | R - 027  |
|                | 10.2       | 4.3 | 6.3  | 22 | 8  | 34 | R - 123  |
|                | 12.7       | 4.3 | 6.3  | 22 | 8  | 34 | R - 028  |
| 16             | 5.2        | 5.6 | 8.0  | 10 | 10 | 24 | R - 124  |
|                | 5.2        | 5.6 | 8.0  | 12 | 10 | 26 | R - 125  |
|                | 6.4        | 5.6 | 8.0  | 12 | 10 | 26 | R - 029  |
|                | 6.4        | 5.6 | 8.0  | 16 | 10 | 30 | R - 126  |
|                | 8.2        | 5.6 | 8.0  | 16 | 10 | 30 | R - 030  |
|                | 9.7        | 5.6 | 8.0  | 16 | 10 | 30 | R - 031  |
|                | 8.2        | 5.6 | 8.0  | 18 | 10 | 33 | R - 127  |
|                | 10.2       | 5.6 | 8.0  | 18 | 10 | 33 | R - 032  |
|                | 10.2       | 5.6 | 8.0  | 22 | 10 | 35 | R - 128  |
|                | 12.7       | 5.6 | 8.0  | 22 | 10 | 35 | R - 033  |
| 25             | 6.4        | 7.5 | 11.1 | 12 | 11 | 31 | R - 156  |
|                | 8.2        | 7.5 | 11.1 | 12 | 11 | 31 | R - 051  |
|                | 6.4        | 7.5 | 11.1 | 16 | 11 | 30 | R - 129  |
|                | 8.2        | 7.5 | 11.1 | 16 | 11 | 30 | R - 034  |
|                | 10.2       | 7.5 | 11.1 | 16 | 11 | 30 | R - 035  |
|                | 6.4        | 7.5 | 11.1 | 16 | 11 | 33 | R - 130  |
|                | 8.2        | 7.5 | 11.1 | 16 | 11 | 33 | R - 036  |
|                | 10.2       | 7.5 | 11.1 | 18 | 11 | 34 | R - 131  |
|                | 10.2       | 7.5 | 11.1 | 22 | 11 | 42 | R - 132  |
|                | 12.7       | 7.5 | 11.1 | 22 | 11 | 42 | R - 037  |



## COPPER CRIMPING RING TERMINALS (NON-INSULATED)

| Size<br>Sq. mm | Dimensions |      |      |    |    |    | Code No. |
|----------------|------------|------|------|----|----|----|----------|
|                | E          | A    | C    | D  | B  | J  |          |
| 35             | 6.4        | 9.0  | 12.6 | 16 | 12 | 31 | R - 133  |
|                | 8.2        | 9.0  | 12.6 | 16 | 12 | 31 | R - 038  |
|                | 8.2        | 9.0  | 12.6 | 18 | 12 | 36 | R - 134  |
|                | 10.2       | 9.0  | 12.6 | 18 | 12 | 36 | R - 039  |
|                | 10.2       | 9.0  | 12.6 | 22 | 12 | 42 | R - 135  |
|                | 12.7       | 9.0  | 12.6 | 22 | 12 | 42 | R - 040  |
| 50             | 8.2        | 10.5 | 14.1 | 18 | 16 | 43 | R - 136  |
|                | 10.2       | 10.5 | 14.1 | 18 | 16 | 43 | R - 041  |
|                | 10.2       | 10.5 | 14.1 | 22 | 16 | 43 | R - 137  |
|                | 10.2       | 10.5 | 14.1 | 24 | 16 | 48 | R - 138  |
|                | 12.7       | 10.5 | 14.1 | 24 | 16 | 48 | R - 042  |
|                | 16.2       | 10.5 | 14.1 | 32 | 16 | 54 | R - 139  |
| 70             | 10.2       | 12.0 | 16.0 | 22 | 18 | 47 | R - 140  |
|                | 12.7       | 12.0 | 16.0 | 22 | 18 | 47 | R - 043  |
|                | 12.7       | 12.0 | 16.0 | 24 | 18 | 48 | R - 141  |
|                | 16.2       | 12.0 | 16.0 | 24 | 20 | 54 | R - 142  |
| 95             | 10.2       | 13.5 | 18.1 | 22 | 20 | 46 | R - 143  |
|                | 10.2       | 13.5 | 18.1 | 24 | 20 | 50 | R - 144  |
|                | 12.7       | 13.5 | 18.1 | 24 | 20 | 50 | R - 044  |
|                | 16.2       | 13.5 | 18.1 | 28 | 20 | 58 | R - 145  |
| 120            | 12.7       | 15.0 | 20.2 | 26 | 22 | 52 | R - 146  |
|                | 16.2       | 15.0 | 20.2 | 32 | 22 | 64 | R - 147  |
|                | 20.3       | 15.0 | 20.2 | 40 | 22 | 72 | R - 148  |
| 150            | 12.7       | 16.5 | 23.7 | 34 | 24 | 66 | R - 149  |
|                | 16.2       | 16.5 | 23.7 | 34 | 24 | 66 | R - 045  |
|                | 20.3       | 16.5 | 23.7 | 40 | 24 | 74 | R - 046  |



## INTRODUCTION OF BRACO CABLE GLANDS

Braco Cable Glands are mechanical cable entry devices, which are constructed from metallic materials and are used throughout all industries in conjunction with cable and wiring used in the electrical control panels, instrumentation and automation systems.

Cable Glands may be used on all types of electrical power, control, instrumentation, data and telecommunications cables. They are used as a sealing and terminating device to ensure that the characteristics of the enclosure which the cable enters can be maintained adequately.

### FUNCTIONS OF CABLE GLANDS

- Cable Glands may provide environmental protection by sealing on the outer cable sheath, excluding dust and moisture from the electrical or instrument enclosure.
- Cable Glands may facilitate earth continuity in the case of armoured cable when the cable gland has a metallic construction.
- Cable Glands may provide a holding force on the cable to ensure adequate levels of cable pull out resistance.
- Cable Glands may provide additional sealing on the part of the cable entering the enclosure, when a high degree of ingress protection is required.
- Cable Glands may provide additional environmental sealing at the cable entry point, maintaining the ingress protection rating of the enclosure with the selection of applicable accessories dedicated to performing this function.
- When used in hazardous areas they are required to maintain the level of protection of the equipment to which they are attached.

### SELECTION GUIDELINES

There are many factors to consider when selecting cable glands for industrial installations. Neglecting to pay due attention to some of these factors may cause unnecessary anxiety at a future point in time when the equipment and cables have been delivered on site, but for example the cable glands have either been forgotten to be ordered or it is discovered that they are the incorrect type or size at the very point when they are needed the most. Good advice would be to allocated some value added planning and preparation time to the subject of cable gland selection so as to avoid the great inconvenience which is likely to occur at a critical point in time. In the event that a user or contractor is in possession of a cable schedule that requires a cable gland selection and sizing process to be carried out Braco products would be blissful to assist in carrying out this process.

While selecting cable glands the following aspects shall be carefully considered:

- Identify the type of cable to be used.
- Check the construction, size and material properties of the cable.

**If the cable is armoured, verify the following:**

- Check the type and material of the cable armour.
- Check the short circuit fault current rating of the cable armour.
- Check the actual diameter of the inner bedding.
- Check the actual diameter of the lead covering.
- Check the actual size of the overall cable diameter.
- Check the size and type of armour or braid.
- Check any special environmental requirements in relation to corrosion protection.
- Check whether any protective plating is required to be applied on the cable gland.
- Check the type and size of the cable entry hole in the matching electrical equipment.
- Check whether an entry thread seal is required.
- Check whether fixing accessories such as locknuts and serrated washers are required.
- Check whether earth tags are required.
- Check whether shrouds tags are required.

Though the information presented in Gland Selection Chart is intended to assist users to ensure that the correct cable gland is selected. It is the responsibility of the user to ensure that the cable gland selected is of the correct size and type to suit the type of cable being terminated.

While terminating cables and wires during the process of installation of electrical equipment this should be done by qualified and competent personnel in line with good engineering practice, observing safe electrical practices. It is also important that the correct cable entry device or cable gland is also important that the correct cable entry device or cable glands is selected to suit the cable being used. For instances using normal unarmoured cables, the cable would usually be fed through a cable entry device that has a sealing ring activated onto the cable outer sheath. The choice of cable glands to suit this unarmoured cable may need to take into account any vulnerability of the cable, may need to take into account any vulnerability of the cable, which may be especially critical if the cable is an instrument cable. Two factors which could affect the long term cable performance are the type and design of the cable gland sealing function, and the possibility of this being inadvertently or otherwise over tightened onto the cable sheath.

## SELECTION OF BRACO GLANDS BASED ON POLYCAB CABLES 1100 VOLTS L.T.

| Cable Construction Details |                     |                    | Single Comp. | Flange Type | Double Comp.<br>/ Flameproof | Single Comp.<br>SIBG |             |
|----------------------------|---------------------|--------------------|--------------|-------------|------------------------------|----------------------|-------------|
| Size<br>Sq.mm              | Overall<br>Dia / mm | U/Armour<br>Dia/mm | Braco Ref.   | Braco Ref.  | Braco Ref.                   | SIBG Ref.            | Rubber Ref. |
| 1 CORE POWER CABLES        |                     |                    |              |             |                              |                      |             |
| 4.0                        | 11.0                | 6                  | 3/8"         | 5           | 001S                         | 1216                 | R1210       |
| 6.0                        | 12.0                | 7                  | 3/8"         | 5           | 001S                         | 1216                 | R1211       |
| 10                         | 13.0                | 8                  | 1/2"         | 5           | 01S                          | 1616                 | R1611       |
| 16                         | 14.0                | 9                  | 1/2"         | 5           | 01S                          | 1616                 | R1613       |
| 25                         | 15.0                | 10                 | 1/2"         | 5           | 01S                          | 1616                 | R1613       |
| 35                         | 16.0                | 11                 | 5/8"         | 5           | 01S                          | 1616, 1619           | R1615       |
| 50                         | 18.0                | 13                 | 3/4"         | 4           | 01                           | 2119, 2125           | R2116       |
| 70                         | 20.0                | 14.5               | 1"           | 3           | 02                           | 2125                 | R2120       |
| 95                         | 21.0                | 16                 | 1"           | 2           | 03                           | 2125                 | R2120       |
| 120                        | 22.0                | 17                 | 1"           | 2           | 03                           | 2125                 | R2120       |
| 150                        | 24.0                | 19                 | 1-1/8"       | 2           | 04                           | 2925, 2932           | R2925       |
| 185                        | 26.0                | 21                 | 1-1/4"       | 1           | 04                           | 2932                 | R2925       |
| 240                        | 29.0                | 24                 | 1-1/4"       | 1           | 05                           | 2932, 2938           | R2927       |
| 300                        | 32.0                | 27                 | 1-3/8"       | 11          | 06                           | 3638                 | R3631       |
| 400                        | 36.0                | 31                 | 1-1/2"       | 00          | 07                           | 3638                 | R3635       |
| 500                        | 40.0                | 34                 | 1-3/4"       | 38          | 08                           | 4251                 | R4238       |
| 630                        | 44.0                | 28.5               | 1-3/4"       | 001         | 09                           | 4251                 | R4242       |
| 800                        | 48.0                | 42                 | 2"           | 002         | 010                          | 5451                 | R5446       |
| 1000                       | 53.0                | 46                 | 2-1/4"       | 003         | 011                          | 5463                 | R5450       |
| 2 CORE POWER CABLES        |                     |                    |              |             |                              |                      |             |
| 1.5                        | 12.5                | 7.5                | 3/8"         | 5           | 001S                         | 1216                 | R1211       |
| 2.5                        | 13.5                | 8.5                | 1/2"         | 5           | 01S                          | 1616                 | R1613       |
| 4.0                        | 15.0                | 9.5                | 1/2"         | 5           | 01S                          | 1616                 | R1613       |
| 6.0                        | 16.0                | 10.5               | 5/8"         | 5           | 01S                          | 1616, 1619           | R1615       |
| 10                         | 18.0                | 12.5               | 3/4"         | 4           | 01                           | 2119, 2125           | R2116       |
| 16                         | 18.0                | 13                 | 3/4"         | 4           | 01                           | 2119, 2125           | R2116       |
| 25                         | 20.0                | 15                 | 1"           | 3           | 02                           | 2125                 | R2120       |
| 35                         | 21.5                | 16.5               | 1"           | 2           | 03                           | 2125                 | R2120       |
| 2 CORE POWER CABLES        |                     |                    |              |             |                              |                      |             |
| 50                         | 24.5                | 19.5               | 1-1/8"       | 2           | 04                           | 2925, 2932           | R2925       |
| 70                         | 28.0                | 23                 | 1-1/4"       | 1           | 05                           | 2932, 2938           | R2927       |
| 95                         | 31.0                | 24                 | 1-3/8"       | 11          | 06                           | 2932                 | R2929       |
| 120                        | 33.0                | 28                 | 1-3/8"       | 0           | 06                           | 3638                 | R3633       |
| 150                        | 37.0                | 31                 | 1-1/2"       | 00          | 07                           | 3638                 | R3637       |
| 185                        | 40.5                | 34.5               | 1-3/4"       | 38          | 08                           | 4251                 | R4238       |
| 240                        | 45.0                | 38                 | 2"           | 002         | 09                           | 4251                 | R4242       |
| 300                        | 50.0                | 43                 | 2-1/4"       | 002         | 010                          | 5451                 | R5448       |
| 400                        | 56.0                | 49                 | 2-1/2"       | 003         | 011                          | 6063                 | R6055       |
| 500                        | 62.5                | 55                 | 2-3/4"       | 0033        | 012                          | 6063                 | R6060       |
| 3 CORE POWER CABLES        |                     |                    |              |             |                              |                      |             |
| 1.5                        | 12.5                | 7.5                | 3/8"         | 5           | 001S                         | 1216                 | R1211       |
| 2.5                        | 14.0                | 9                  | 1/2"         | 5           | 01S                          | 1616                 | R1613       |
| 4.0                        | 15.5                | 10.5               | 5/8"         | 5           | 01S                          | 1616, 1619           | R1615       |
| 6.0                        | 17.0                | 12                 | 3/4"         | 4           | 01                           | 1616, 1619           | R1615       |
| 10                         | 19.0                | 14                 | 7/8"         | 4           | 02                           | 2119, 2125           | R2118       |
| 16                         | 20.0                | 15                 | 1"           | 3           | 02                           | 2125                 | R2120       |
| 25                         | 22.0                | 17                 | 1"           | 2           | 03                           | 2125                 | R2120       |
| 35                         | 25.0                | 20                 | 1-1/4"       | 1           | 04                           | 2932, 2938           | R2925       |
| 50                         | 27.0                | 22                 | 1-1/4"       | 1           | 05                           | 2932, 2938           | R2925       |
| 70                         | 31.0                | 26                 | 1-3/8"       | 11          | 06                           | 2932                 | R2929       |
| 95                         | 34.0                | 29                 | 1-1/2"       | 0           | 07                           | 3638                 | R3633       |
| 120                        | 38.0                | 32.5               | 1-1/2"       | 00          | 08                           | 3638                 | R3637       |
| 150                        | 42.0                | 36                 | 1-3/4"       | 38          | 09                           | 4251                 | R4240       |
| 185                        | 46.0                | 40                 | 2"           | 002         | 09                           | 4251                 | R4244       |
| 240                        | 52.0                | 45.5               | 2-1/4"       | 003         | 010                          | 5463                 | R5450       |
| 300                        | 56.5                | 50                 | 2-1/2"       | 003         | 011                          | 6063                 | R6055       |
| 400                        | 64.0                | 57                 | 2-3/4"       | 0033        | 012                          | 6675                 | R6662       |
| 500                        | 72.0                | 64                 | 3"           | 004         | 013                          | 7882                 | R7870       |

## SELECTION OF BRACO GLANDS BASED ON POLYCAB CABLES 1100 VOLTS L.T.

| Cable Construction Details         |                     |                    | Single Comp. | Flange Type | Double Comp.<br>/ Flameproof | Single Comp.<br>SIBG |             |
|------------------------------------|---------------------|--------------------|--------------|-------------|------------------------------|----------------------|-------------|
| Size<br>Sq.mm                      | Overall<br>Dia / mm | U/Armour<br>Dia/mm | Braco Ref.   | Braco Ref.  | Braco Ref.                   | SIBG Ref.            | Rubber Ref. |
| 3.5 CORE POWER CABLES              |                     |                    |              |             |                              |                      |             |
| 25                                 | 23.5                | 18.5               | 1-1/8"       | 2           | 04                           | 2925, 2932           | R2923       |
| 35                                 | 26.0                | 21                 | 1-1/4"       | 1           | 04                           | 2932                 | R2925       |
| 50                                 | 30.0                | 25                 | 1-1/4"       | 1           | 05                           | 2932, 2938           | R2929       |
| 70                                 | 32.5                | 27.5               | 1-3/8"       | 11          | 06                           | 3638                 | R3631       |
| 95                                 | 36.5                | 31                 | 1-1/2"       | 00          | 07                           | 3638                 | R3635       |
| 120                                | 40.5                | 35                 | 1-3/4"       | 38          | 08                           | 4251                 | R4238       |
| 150                                | 44.0                | 38                 | 1-3/4"       | 001         | 09                           | 4251                 | R4242       |
| 185                                | 50.0                | 43                 | 2-1/4"       | 002         | 010                          | 5451                 | R5448       |
| 240                                | 55.0                | 48                 | 2-1/4"       | 003         | 011                          | 6063                 | R6053       |
| 300                                | 61.0                | 54                 | 2-3/4"       | 0033        | 012                          | 6063                 | R6060       |
| 400                                | 68.0                | 60                 | 3"           | 004         | 013S                         | 7882                 | R7868       |
| 500                                | 75.0                | 67                 | 3-1/4"       | 004         | 013                          | 7882                 | R7870       |
| 4 CORE POWER CABLES                |                     |                    |              |             |                              |                      |             |
| 1.5                                | 15.0                | 10                 | 1/2"         | 5           | 01S                          | 1616                 | R1613       |
| 2.5                                | 16.5                | 11.5               | 3/4"         | 5           | 01                           | 1616, 1619           | R1615       |
| 4.0                                | 18.0                | 13                 | 3/4"         | 4           | 01                           | 2119, 2125           | R2116       |
| 6.0                                | 19.5                | 14.5               | 7/8"         | 3           | 02                           | 2119, 2125           | R2118       |
| 10                                 | 20.0                | 15                 | 1"           | 3           | 02                           | 2125                 | R2120       |
| 16                                 | 23.0                | 18                 | 1-1/8"       | 2           | 04                           | 2925, 2932           | R2923       |
| 25                                 | 24.0                | 19                 | 1-1/8"       | 2           | 04                           | 2925, 2932           | R2925       |
| 35                                 | 27.0                | 22                 | 1-1/4"       | 1           | 05                           | 2932, 2938           | R2925       |
| 50                                 | 31.0                | 25                 | 1-3/8"       | 11          | 06                           | 2932                 | R2929       |
| 70                                 | 35.0                | 29                 | 1-1/2"       | 0           | 07                           | 3638                 | R3635       |
| 95                                 | 38.0                | 32                 | 1-1/2"       | 00          | 08                           | 3638                 | R3637       |
| 120                                | 42.0                | 36                 | 1-3/4"       | 38          | 09                           | 4251                 | R4240       |
| 150                                | 46.0                | 40                 | 2"           | 002         | 09                           | 4251                 | R4244       |
| 185                                | 51.0                | 44                 | 2-1/4"       | 002         | 010                          | 5451                 | R5448       |
| 240                                | 58.0                | 51                 | 2-1/2"       | 003         | 011                          | 6063                 | R6058       |
| 300                                | 66.0                | 59                 | 2-3/4"       | 0033        | 012                          | 6675                 | R6664       |
| 400                                | 72.0                | 64                 | 3"           | 004         | 013                          | 7882                 | R7870       |
| 500                                | 80.0                | 72                 | 3-1/2"       | 005         | 014                          | 8490                 | R8480       |
| 1.1 KV 1.5 SQ. MM (CONTROL CABLES) |                     |                    |              |             |                              |                      |             |
| 2                                  | 13.50               | 8.00               | 1/2"         | 5           | 01S                          | 1616                 | R1613       |
| 3                                  | 14.00               | 8.50               | 1/2"         | 5           | 01S                          | 1616                 | R1613       |
| 4                                  | 15.00               | 9.50               | 1/2"         | 5           | 01S                          | 1616                 | R1613       |
| 5                                  | 15.50               | 10.00              | 5/8"         | 5           | 01S                          | 1616, 1619           | R1615       |
| 6                                  | 16.00               | 10.50              | 5/8"         | 5           | 01S                          | 1616, 1619           | R1615       |
| 7                                  | 16.50               | 11.00              | 3/4"         | 5           | 01                           | 1616, 1619           | R1615       |
| 10                                 | 19.00               | 13.00              | 7/8"         | 4           | 02                           | 2119, 2125           | R2118       |
| 12                                 | 19.50               | 15.00              | 7/8"         | 3           | 02                           | 2119, 2125           | R2118       |
| 14                                 | 20.00               | 15.00              | 1"           | 3           | 02                           | 2125                 | R2120       |
| 16                                 | 21.00               | 16.00              | 1"           | 2           | 03                           | 2125                 | R2120       |
| 19                                 | 22.00               | 17.00              | 1"           | 2           | 03                           | 2125                 | R2120       |
| 24                                 | 25.00               | 20.00              | 1-1/4"       | 1           | 04                           | 2932, 2938           | R2925       |
| 30                                 | 26.50               | 21.50              | 1-1/4"       | 1           | 05                           | 2932, 2938           | R2925       |
| 37                                 | 28.00               | 23.00              | 1-1/4"       | 1           | 05                           | 2932, 2938           | R2927       |
| 61                                 | 35.00               | 29.50              | 1-1/2"       | 0           | 07                           | 3638                 | R3635       |
| 1.1 KV 2.5 SQ. MM (CONTROL CABLES) |                     |                    |              |             |                              |                      |             |
| 2                                  | 14.50               | 9.00               | 1/2"         | 5           | 01S                          | 1616                 | R1613       |
| 3                                  | 15.50               | 10.00              | 5/8"         | 5           | 01S                          | 1616, 1619           | R1615       |
| 4                                  | 16.50               | 11.00              | 3/4"         | 5           | 01                           | 1616, 1619           | R1615       |
| 5                                  | 17.50               | 12.00              | 3/4"         | 4           | 01                           | 1616, 1619           | R1615       |
| 6                                  | 18.50               | 13.00              | 7/8"         | 4           | 01                           | 2119, 2125           | R2118       |
| 7                                  | 18.50               | 13.00              | 7/8"         | 4           | 01                           | 2119, 2125           | R2118       |
| 10                                 | 21.00               | 16.00              | 1"           | 2           | 03                           | 2125                 | R2120       |
| 12                                 | 22.00               | 17.00              | 1"           | 2           | 03                           | 2125                 | R2120       |
| 14                                 | 23.00               | 18.00              | 1-1/8"       | 2           | 04                           | 2925, 2932           | R2923       |
| 16                                 | 24.00               | 19.00              | 1-1/8"       | 2           | 04                           | 2925, 2932           | R2925       |
| 19                                 | 25.00               | 20.00              | 1-1/4"       | 1           | 04                           | 2932, 2938           | R2925       |
| 24                                 | 29.00               | 24.00              | 1-1/4"       | 1           | 05                           | 2932, 2938           | R2927       |
| 30                                 | 30.50               | 25.00              | 1-3/8"       | 11          | 06                           | 2932                 | R2929       |
| 37                                 | 33.00               | 27.50              | 1-3/8"       | 0           | 06                           | 3638                 | R3633       |
| 61                                 | 41.00               | 35.50              | 1-3/4"       | 38          | 08                           | 4251                 | R4238       |



## SELECTION OF BRACO GLANDS BASED ON POLYCAB CABLES XLPE H.T.

| Nominal Size Of Conductor                               | O.D. Flat / Round Armour | U/Armoured | Single Comp. H.D. | Flange Type | Double Comp. / Flameproof | Single Comp. SIBG Type |             |
|---|--------------------------|------------|-------------------|-------------|---------------------------|------------------------|-------------|
|   |                          |            | Braco Ref.        | Braco Ref.  | Braco Ref.                | SIBG Ref.              | Rubber Ref. |
| 1.9 / 3.3 KV (E) & 3.3 / 3.3 KV (UE) HT XLPE THREE CORE |                          |            |                   |             |                           |                        |             |
| 35  | F 37.0                   | 32         | 1-1/2"            | 00          | 07                        | 3638                   | R3637       |
|   | R 40.5                   | 32.5       | 1-3/4"            | 38          | 08 R2                     | 4251                   | R4238       |
| 50  | F 39.5                   | 34         | 1-3/4"            | 38          | 08                        | 4251                   | R4238       |
|   | R 42.5                   | 34.5       | 1-3/4"            | 38          | 09 R2                     | 4251                   | R4240       |
| 70  | F 44.0                   | 38.5       | 1-3/4"            | 001         | 09                        | 4251                   | R4242       |
|   | R 47.0                   | 38.5       | 2"                | 002         | 010 R2                    | 5451                   | R5444       |
| 95  | F 47.5                   | 42         | 2"                | 002         | 010                       | 5451                   | R5446       |
|   | R 51.5                   | 42         | 2-1/4"            | 002         | 010 R2.5                  | 5451                   | R5448       |
| 120   | F 51.5                   | 45.5       | 2-1/4"            | 002         | 010                       | 5451                   | R5448       |
|   | R 55.5                   | 46         | 2-1/2"            | 003         | 011 R2.5                  | 6063                   | R6055       |
| 150   | F 54.5                   | 48.5       | 2-1/4"            | 003         | 011                       | 6063                   | R6053       |
|   | R 58.5                   | 48.5       | 2-1/2"            | 003         | 012 R2.5                  | 6063                   | R6055       |
| 185   | F 59.0                   | 52.5       | 2-1/2"            | 003         | 012                       | 6063                   | R6055       |
|   | R 63.0                   | 52         | 2-3/4"            | 0033        | 012 R2.5                  | 6675                   | R6662       |
| 240   | F 64.5                   | 58.5       | 2-3/4"            | 0033        | 012                       | 6675                   | R6662       |
|   | R 68.0                   | 57         | 3"                | 004         | 013S R2.5                 | 7882                   | R7868       |
| 300   | F 70.0                   | 63         | 3"                | 004         | 013S                      | 7882                   | R7868       |
|   | R 75.0                   | 63         | 3-1/4"            | 004         | 013 R3.2                  | 7882                   | R7870       |
| 400   | F 76.5                   | 69         | 3-1/4"            | 005         | 014                       | 7882                   | R7874       |
|   | R 82.0                   | 69         | 3-1/2"            | 005         | 014 R3.2                  | 8940                   | R8480       |
| 3.8 / 6.6 KV (E) HT XLPE SINGLE CORE                    |                          |            |                   |             |                           |                        |             |
| 35  | F 21.0                   | 16         | 1"                | 2           | 03                        | 2125                   | R2120       |
|   | R 22.5                   | 16.5       | 1"                | 2           | 03                        | 2125                   | R2120       |
| 50  | F 22.0                   | 17         | 1"                | 2           | 03                        | 2125                   | R2120       |
|   | R 23.5                   | 17.5       | 1-1/8"            | 2           | 04                        | 2925, 2932             | R2923       |
| 70  | F 24.0                   | 19         | 1-1/8"            | 2           | 04                        | 2925, 2932             | R2925       |
|   | R 25.5                   | 19.5       | 1-1/4"            | 1           | 04                        | 2932, 2938             | R2925       |
| 95  | F 25.5                   | 20.5       | 1-1/4"            | 1           | 04                        | 2932, 2938             | R2925       |
|   | R 27.0                   | 21         | 1-1/4"            | 1           | 05                        | 2932, 2938             | R2925       |
| 120   | F 27.0                   | 22         | 1-1/4"            | 1           | 05                        | 2932, 2938             | R2925       |
|   | R 29.0                   | 23         | 1-1/4"            | 1           | 05                        | 2932, 2938             | R2927       |
| 150   | F 28.5                   | 23.5       | 1-1/4"            | 1           | 05                        | 2932, 2938             | R2927       |
|   | R 30.5                   | 24         | 1-3/8"            | 11          | 06                        | 2932                   | R2929       |
| 185   | F 31.0                   | 25.5       | 1-3/8"            | 11          | 06                        | 2932                   | R2929       |
|   | R 32.5                   | 26         | 1-3/8"            | 11          | 06                        | 3638                   | R3631       |
| 240   | F 33.0                   | 27.5       | 1-3/8"            | 0           | 06                        | 3638                   | R3633       |
|   | R 35.5                   | 28         | s                 | 0           | 07 R2                     | 3638                   | R3635       |
| 300   | F 36.0                   | 30.5       | 1-1/2"            | 00          | 07                        | 3638                   | R3635       |
|   | R 38.0                   | 30.5       | 1-1/2"            | 00          | 08 R2                     | 3638                   | R3637       |
| 400   | F 40.0                   | 34.5       | 1-3/4"            | 38          | 08                        | 4251                   | R4238       |
|   | R 42.5                   | 36.5       | 1-3/4"            | 38          | 09 R2                     | 4251                   | R4240       |

| Nominal Size Of Conductor             | O.D. Flat / Round Armour | U/Armoured | Single Comp. H.D. | Flange Type | Double Comp. / Flameproof | Single Comp. SIBG Type |             |
|---------------------------------------|--------------------------|------------|-------------------|-------------|---------------------------|------------------------|-------------|
|                                       |                          |            | Braco Ref.        | Braco Ref.  | Braco Ref.                | SIBG Ref.              | Rubber Ref. |
| 6.35 / 11 KV (UE) HT XLPE SINGLE CORE |                          |            |                   |             |                           |                        |             |
| 150                                   | F 30.5                   | 25         | 1-3/8"            | 11          | 06                        | 2932                   | R2929       |
|                                       | R 32.5                   | 26         | 1-3/8"            | 11          | 06                        | 3638                   | R3631       |
| 185                                   | F 33.0                   | 27.5       | 1-3/8"            | 0           | 06                        | 3638                   | R3633       |
|                                       | R 35.5                   | 28         | 1-1/2"            | 0           | 07 R2                     | 3638                   | R3635       |
| 240                                   | F 35.0                   | 29.5       | 1-1/2"            | 0           | 07                        | 3638                   | R3635       |
|                                       | R 38.0                   | 30.5       | 1-1/2"            | 00          | 08 R2                     | 3638                   | R3637       |
| 300                                   | F 37.0                   | 31.5       | 1-1/2"            | 00          | 07                        | 3638                   | R3637       |
|                                       | R 40.0                   | 32.5       | 1-3/4"            | 38          | 08 R2                     | 4251                   | R4238       |
| 400                                   | F 40.5                   | 34.5       | 1-3/4"            | 38          | 08                        | 4251                   | R4238       |
|                                       | R 43.5                   | 35.5       | 1-3/4"            | 38          | 09 R2                     | 4251                   | R4242       |
| 500                                   | F 44.0                   | 38         | 1-3/4"            | 001         | 09                        | 4251                   | R4242       |
|                                       | R 46.5                   | 38.5       | 2"                | 002         | 010 R2                    | 5451                   | R5444       |
| 630                                   | F 47.5                   | 41.5       | 2"                | 002         | 010                       | 5451                   | R5446       |
|                                       | R 50.0                   | 42         | 2-1/4"            | 002         | 010 R2                    | 5451                   | R5448       |
| 800                                   | F 51.5                   | 45.5       | 2-1/4"            | 002         | 010                       | 5451                   | R5448       |
|                                       | R 55.0                   | 45.5       | 2-1/4"            | 003         | 011 R2.5                  | 6063                   | R6053       |
| 1000                                  | F 56.5                   | 50         | 2-1/2"            | 003         | 011                       | 6063                   | R6055       |
|                                       | R 60.5                   | 50.5       | 2-3/4"            | 0033        | 012 R2.5                  | 6063                   | R6058       |
| 3.8 / 6.6 KV (E) HT XLPE SINGLE CORE  |                          |            |                   |             |                           |                        |             |
| 35                                    | F 21.0                   | 16         | 1"                | 2           | 03                        | 2125                   | R2120       |
|                                       | R 22.5                   | 16.5       | 1"                | 2           | 03                        | 2125                   | R2120       |
| 50                                    | F 22.0                   | 17         | 1"                | 2           | 03                        | 2125                   | R2120       |
|                                       | R 23.5                   | 17.5       | 1-1/8"            | 2           | 04                        | 2925, 2932             | R2923       |
| 70                                    | F 24.0                   | 19         | 1-1/8"            | 2           | 04                        | 2925, 2932             | R2925       |
|                                       | R 25.5                   | 19.5       | 1-1/4"            | 1           | 04                        | 2932, 2938             | R2925       |
| 95                                    | F 25.5                   | 20.5       | 1-1/4"            | 1           | 04                        | 2932, 2938             | R2925       |
|                                       | R 27.0                   | 21         | 1-1/4"            | 1           | 05                        | 2932, 2938             | R2925       |
| 120                                   | F 27.0                   | 22         | 1-1/4"            | 1           | 05                        | 2932, 2938             | R2925       |
|                                       | R 29.0                   | 23         | 1-1/4"            | 1           | 05                        | 2932, 2938             | R2927       |
| 150                                   | F 28.5                   | 23.5       | 1-1/4"            | 1           | 05                        | 2932, 2938             | R2927       |
|                                       | R 30.5                   | 24         | 1-3/8"            | 11          | 06                        | 2932                   | R2929       |
| 185                                   | F 31.0                   | 25.5       | 1-3/8"            | 11          | 06                        | 2932                   | R2929       |
|                                       | R 32.5                   | 26         | 1-3/8"            | 11          | 06                        | 3638                   | R3631       |
| 240                                   | F 33.0                   | 27.5       | 1-3/8"            | 0           | 06                        | 3638                   | R3633       |
|                                       | R 35.5                   | 28         | s                 | 0           | 07 R2                     | 3638                   | R3635       |
| 300                                   | F 36.0                   | 30.5       | 1-1/2"            | 00          | 07                        | 3638                   | R3635       |
|                                       | R 38.0                   | 30.5       | 1-1/2"            | 00          | 08 R2                     | 3638                   | R3637       |
| 400                                   | F 40.0                   | 34.5       | 1-3/4"            | 38          | 08                        | 4251                   | R4238       |
|                                       | R 42.5                   | 36.5       | 1-3/4"            | 38          | 09 R2                     | 4251                   | R4240       |
| 6.35 / 11 KV (E) HT XLPE THREE CORE   |                          |            |                   |             |                           |                        |             |
| 35                                    | F 42.5                   | 37         | 1-3/4"            | 38          | 09                        | 4251                   | R4240       |
|                                       | R 45.5                   | 37         | 2"                | 002         | 09 R2                     | 4251                   | R4242       |

| Nominal<br>Size Of<br>Conductor       | O.D.<br>Flat / Round<br>Armour | U/Armoured | Single Comp.<br>H.D. | Flange Type | Double Comp.<br>/ Flameproof | Single Comp.<br>SIBG Type |             |
|---------------------------------------|--------------------------------|------------|----------------------|-------------|------------------------------|---------------------------|-------------|
|                                       |                                |            | Braco Ref.           | Braco Ref.  | Braco Ref.                   | SIBG Ref.                 | Rubber Ref. |
| 3.8 / 6.6 KV (E) HT XLPE SINGLE CORE  |                                |            |                      |             |                              |                           |             |
| 500                                   | F 43.5                         | 37.5       | 1-3/4"               | 38          | 09                           | 4251                      | R4242       |
|                                       | R 46.5                         | 38.5       | 2"                   | 002         | 010 R2                       | 5451                      | R5444       |
| 630                                   | F 47.5                         | 41.5       | 2"                   | 002         | 010                          | 5451                      | R5446       |
|                                       | R 50.0                         | 42         | 2-1/4"               | 002         | 010 R2                       | 5451                      | R5448       |
| 800                                   | F 51.0                         | 45         | 2-1/4"               | 002         | 010                          | 5451                      | R5448       |
|                                       | R 55.0                         | 45.5       | 2-1/4"               | 003         | 011 R2.5                     | 6063                      | R6053       |
| 1000                                  | F 56.5                         | 50         | 2-1/2"               | 003         | 011                          | 6063                      | R6055       |
|                                       | R 60.5                         | 50.5       | 2-3/4"               | 0033        | 012 R2.5                     | 6063                      | R6058       |
| 3.8 / 6.6 KV (E) HT XLPE THREE CORE   |                                |            |                      |             |                              |                           |             |
| 35                                    | F 40.0                         | 34.5       | 1-3/4"               | 38          | 08                           | 4251                      | R4238       |
|                                       | R 43.0                         | 35         | 1-3/4"               | 38          | 09 R2                        | 4251                      | R4240       |
| 50                                    | F 42.5                         | 37         | 1-3/4"               | 38          | 09                           | 4251                      | R4240       |
|                                       | R 45.5                         | 37         | 2"                   | 002         | 09 R2                        | 4251                      | R4242       |
| 70                                    | F 47.0                         | 41.5       | 2"                   | 002         | 010                          | 5451                      | R5444       |
|                                       | R 49.5                         | 41         | 2-1/4"               | 002         | 010 R2                       | 5451                      | R5446       |
| 95                                    | F 50.5                         | 45         | 2-1/4"               | 002         | 010                          | 5451                      | R5448       |
|                                       | R 54.0                         | 44.5       | 2-1/4"               | 003         | 011 R2.5                     | 6063                      | R6053       |
| 120                                   | F 55.0                         | 49         | 2-1/4"               | 003         | 011                          | 6063                      | R6053       |
|                                       | R 58.5                         | 48.5       | 2-1/2"               | 003         | 012 R2.5                     | 6063                      | R6055       |
| 150                                   | F 58.0                         | 51.5       | 2-1/2"               | 003         | 011                          | 6063                      | R6055       |
|                                       | R 61.0                         | 51         | 2-3/4"               | 0033        | 012 R2.5                     | 6063                      | R6060       |
| 185                                   | F 62.0                         | 55.5       | 2-3/4"               | 0033        | 012                          | 6063                      | R6060       |
|                                       | R 66.0                         | 55         | 2-3/4"               | 0033        | 012 R2.5                     | 6675                      | R6664       |
| 240                                   | F 67.5                         | 61         | 2-3/4"               | 004         | 013S                         | 7882                      | R7866       |
|                                       | R 73.0                         | 61         | 3"                   | 004         | 013 R3.2                     | 7882                      | R7870       |
| 300                                   | F 73.5                         | 66.5       | 3"                   | 004         | 013                          | 7882                      | R7870       |
|                                       | R 78.5                         | 66.5       | 3-1/4"               | 005         | 014 R3.2                     | 7882                      | R7874       |
| 400                                   | F 82.0                         | 74         | 3-1/2"               | 005         | 014                          | 8940                      | R8480       |
|                                       | R 89.0                         | 74         | 4"                   | 006         | 015 R4                       | 8940                      | R8484       |
| 6.35 / 11 KV (UE) HT XLPE SINGLE CORE |                                |            |                      |             |                              |                           |             |
| 35                                    | F 23.0                         | 18         | 1-1/8"               | 2           | 04                           | 2925, 2932                | R2923       |
|                                       | R 24.5                         | 18.5       | 1-1/8"               | 2           | 04                           | 2925, 2932                | R2925       |
| 50                                    | F 24.0                         | 19         | 1-1/8"               | 2           | 04                           | 2925, 2932                | R2925       |
|                                       | R 25.5                         | 19.5       | 1-1/4"               | 1           | 04                           | 2932, 2938                | R2925       |
| 70                                    | F 25.5                         | 20.5       | 1-1/4"               | 1           | 04                           | 2932, 2938                | R2925       |
|                                       | R 27.5                         | 21.5       | 1-1/4"               | 1           | 05                           | 2932, 2938                | R2925       |
| 95                                    | F 27.5                         | 22.5       | 1-1/4"               | 1           | 05                           | 2932, 2938                | R2925       |
|                                       | R 29.0                         | 23         | 1-1/4"               | 1           | 05                           | 2932, 2938                | R2927       |
| 120                                   | F 29.0                         | 24         | 1-1/4"               | 1           | 05                           | 2932, 2938                | R2927       |
|                                       | R 31.0                         | 24.5       | 1-3/8"               | 11          | 06                           | 2932                      | R2929       |

| Nominal<br>Size Of<br>Conductor          | O.D.<br>Flat / Round<br>Armour | U/Armoured | Single Comp.<br>H.D. | Flange Type | Double Comp.<br>/ Flameproof | Single Comp.<br>SIBG Type |             |
|--|--------------------------------|------------|----------------------|-------------|------------------------------|---------------------------|-------------|
|  |                                |            | Braco Ref.           | Braco Ref.  | Braco Ref.                   | SIBG Ref.                 | Rubber Ref. |
| 6.35 / 11 KV (E) HT XLPE THREE CORE      |                                |            |                      |             |                              |                           |             |
| 50                                       | F 46.0                         | 40.5       | 2"                   | 002         | 09                           | 4251                      | R4244       |
|  | R 49.5                         | 40         | 2-1/4"               | 002         | 010 R2.5                     | 5451                      | R5446       |
| 70                                       | F 49.0                         | 43.5       | 2-1/4"               | 002         | 010                          | 5451                      | R5446       |
|  | R 52.5                         | 43         | 2-1/4"               | 003         | 010 R2.5                     | 5463                      | R5450       |
| 95                                       | F 53.0                         | 47         | 2-1/4"               | 003         | 011                          | 5463                      | R5450       |
|  | R 56.5                         | 46.5       | 2-1/2"               | 003         | 011 R2.5                     | 6063                      | R6055       |
| 120                                      | F 56.0                         | 49.5       | 2-1/2"               | 003         | 011                          | 6063                      | R6055       |
|  | R 59.5                         | 49.5       | 2-1/2"               | 003         | 012 R2.5                     | 6063                      | R6055       |
| 150                                      | F 59.0                         | 52.5       | 2-1/2"               | 003         | 012                          | 6063                      | R6055       |
|  | R 63.0                         | 52         | 2-3/4"               | 0033        | 012 R2.5                     | 6675                      | R6662       |
| 185                                      | F 63.0                         | 56.5       | 2-3/4"               | 0033        | 012                          | 6675                      | R6662       |
|  | R 68.0                         | 56         | 3"                   | 004         | 013S R3.2                    | 7882                      | R7868       |
| 240                                      | F 68.0                         | 61         | 3"                   | 004         | 013S                         | 7882                      | R7868       |
|  | R 73.0                         | 61         | 3"                   | 004         | 013 R3.2                     | 7882                      | R7870       |
| 300                                      | F 73.0                         | 65.5       | 3"                   | 004         | 013                          | 7882                      | R7870       |
|  | R 78.0                         | 65         | 3-1/4"               | 005         | 014 R3.2                     | 7882                      | R7874       |
| 400                                      | F 80.0                         | 72         | 3-1/2"               | 005         | 014                          | 8490                      | R8476       |
|  | R 86.5                         | 71.5       | 4"                   | 006         | 015 R4                       | 8940                      | R8480       |
| 11 - 11 / 11 KV (UE) HT XLPE SINGLE CORE |                                |            |                      |             |                              |                           |             |
| 70                                       | F 30.0                         | 24.5       | 1-1/4"               | 1           | 05                           | 2932, 2938                | R2929       |
|  | R 31.5                         | 25         | 1-3/8"               | 11          | 06                           | 2932                      | R2929       |
| 95                                       | F 32.0                         | 26.5       | 1-3/8"               | 11          | 06                           | 3638                      | R3631       |
|  | R 34.0                         | 26.5       | 1-1/2"               | 0           | 07 R2                        | 3638                      | R3633       |
| 120                                      | F 33.5                         | 28         | 1-3/8"               | 0           | 06                           | 3638                      | R3633       |
|  | R 36.0                         | 28.5       | 1-1/2"               | 00          | 07 R2                        | 3638                      | R3635       |
| 150                                      | F 35.0                         | 29.5       | 1-1/2"               | 0           | 07                           | 3638                      | R3635       |
|  | R 37.0                         | 29.5       | 1-1/2"               | 00          | 07 R2                        | 3638                      | R3637       |
| 185                                      | F 37.0                         | 31.5       | 1-1/2"               | 00          | 07                           | 3638                      | R3637       |
|  | R 39.0                         | 31.5       | 1-3/4"               | 38          | 08 R2                        | 4251                      | R4238       |
| 240                                      | F 39.0                         | 33.5       | 1-3/4"               | 38          | 08                           | 4251                      | R4238       |
|  | R 42.0                         | 34         | 1-3/4"               | 38          | 09 R2                        | 4251                      | R4240       |
| 300                                      | F 41.5                         | 35.5       | 1-3/4"               | 38          | 09                           | 4251                      | R4238       |
|  | R 44.0                         | 36         | 1-3/4"               | 001         | 09 R2                        | 4251                      | R4242       |
| 400                                      | F 45.0                         | 39         | 2"                   | 002         | 09                           | 4251                      | R4242       |
|  | R 47.5                         | 39         | 2"                   | 002         | 010 R2                       | 5451                      | R5446       |
| 500                                      | F 48.0                         | 42         | 2"                   | 002         | 010                          | 5451                      | R5446       |
|  | R 52.0                         | 42.5       | 2-1/4"               | 003         | 010 R2.5                     | 5463                      | R5450       |
| 630                                      | F 51.5                         | 44.5       | 2-1/4"               | 002         | 010                          | 5451                      | R5448       |
|  | R 55.0                         | 45.5       | 2-1/4"               | 003         | 011 R2.5                     | 6063                      | R6053       |
| 800                                      | F 56.0                         | 49.5       | 2-1/2"               | 003         | 011                          | 6063                      | R6055       |
|  | R 60.0                         | 50         | 2-3/4"               | 0033        | 012 R2.5                     | 6063                      | R6058       |
| 1000                                     | F 61.0                         | 54.5       | 2-3/4"               | 0033        | 012                          | 6063                      | R6060       |
|  | R 65.0                         | 54         | 2-3/4"               | 0033        | 012 R2.5                     | 6675                      | R6662       |

## SELECTION OF BRACO GLANDS BASED ON POLYCAB CABLES XLPE H.T.

| Nominal Size Of Conductor               | O.D. Flat / Round Armour | U/Armoured | Single Comp. H.D. | Flange Type | Double Comp. / Flameproof | Single Comp. SIBG Type |             |
|---|--------------------------|------------|-------------------|-------------|---------------------------|------------------------|-------------|
|   |                          |            | Braco Ref.        | Braco Ref.  | Braco Ref.                | SIBG Ref.              | Rubber Ref. |
| 11 - 11 / 11 KV (UE) HT XLPE THREE CORE |                          |            |                   |             |                           |                        |             |
| 70                                      | F 58.0                   | 51.5       | 2-1/2"            | 003         | 011                       | 6063                   | R6055       |
|   | R 61.5                   | 50.5       | 2-3/4"            | 0033        | 012 R2.5                  | 6063                   | R6060       |
| 95                                      | F 62.0                   | 55.5       | 2-3/4"            | 0033        | 012                       | 6063                   | R6060       |
|   | R 66.5                   | 54.5       | 2-3/4"            | 0033        | 013S R3.2                 | 7882                   | R7866       |
| 120                                     | F 65.0                   | 58.5       | 2-3/4"            | 0033        | 012                       | 6675                   | R6662       |
|   | R 70.0                   | 58         | 3"                | 004         | 013S R3.2                 | 7882                   | R7868       |
| 150                                     | F 68.5                   | 61.5       | 3"                | 004         | 013S                      | 7882                   | R7868       |
|   | R 73.0                   | 61         | 3"                | 004         | 013 R3.2                  | 7882                   | R7870       |
| 185                                     | F 71.5                   | 64         | 3"                | 004         | 013                       | 7882                   | R7870       |
|   | R 77.0                   | 64         | 3-1/4"            | 005         | 014 R3.2                  | 7882                   | R7874       |
| 240                                     | F 77.0                   | 69         | 3-1/4"            | 005         | 014                       | 7882                   | R7874       |
|   | R 82.0                   | 67         | 3-1/2"            | 005         | 014 R3.2                  | 8940                   | R8480       |
| 300                                     | F 81.5                   | 73         | 3-1/2"            | 005         | 014                       | 8940                   | R8480       |
|   | R 88.0                   | 73         | 4"                | 006         | 015 R4                    | 8940                   | R8484       |
| 400                                     | F 88.0                   | 79         | 4"                | 006         | 015                       | 8940                   | R8484       |
|   | R 94.5                   | 79         | 4"                | 006         | 016 R4                    | 9210                   | R9292       |
| 12.7 / 22 KV (E) HT XLPE SINGLE CORE    |                          |            |                   |             |                           |                        |             |
| 95                                      | F 33.0                   | 28         | 1-3/8"            | 0           | 06                        | 3638                   | R3633       |
|   | R 36.0                   | 28.5       | 1-1/2"            | 00          | 07 R2                     | 3638                   | R3635       |
| 120                                     | F 35.0                   | 30         | 1-1/2"            | 0           | 07                        | 3638                   | R3635       |
|   | R 37.5                   | 30         | 1-1/2"            | 00          | 08 R2                     | 3638                   | R3637       |
| 150                                     | F 36.0                   | 31         | 1-1/2"            | 00          | 07                        | 3638                   | R3635       |
|   | R 39.0                   | 31.5       | 1-3/4"            | 38          | 08 R2                     | 4251                   | R4238       |
| 185                                     | F 38.0                   | 33         | 1-1/2"            | 00          | 08                        | 3638                   | R3637       |
|   | R 41.0                   | 33         | 1-3/4"            | 38          | 08 R2                     | 4251                   | R4238       |
| 240                                     | F 40.5                   | 35.5       | 1-3/4"            | 38          | 08                        | 4251                   | R4238       |
|   | R 43.0                   | 35         | 1-3/4"            | 38          | 09 R2                     | 4251                   | R4240       |
| 300                                     | F 43.0                   | 37.5       | 1-3/4"            | 38          | 09                        | 4251                   | R4240       |
|   | R 45.0                   | 37         | 2"                | 002         | 09 R2                     | 4251                   | R4242       |
| 400                                     | F 47.0                   | 41.5       | 2"                | 002         | 010                       | 5451                   | R5444       |
|   | R 49.0                   | 40.5       | 2-1/4"            | 002         | 010 R2                    | 5451                   | R5446       |
| 500                                     | F 50.0                   | 44.5       | 2-1/4"            | 002         | 010                       | 5451                   | R5448       |
|   | R 53.5                   | 44         | 2-1/4"            | 003         | 011 R2.5                  | 5463                   | R5450       |
| 630                                     | F 54.0                   | 48         | 2-1/4"            | 003         | 011                       | 6063                   | R6053       |
|   | R 57.0                   | 47.5       | 2-1/2"            | 003         | 011 R2.5                  | 6063                   | R6055       |
| 800                                     | F 58.0                   | 52         | 2-1/2"            | 003         | 011                       | 6063                   | R6055       |
|   | R 61.0                   | 51         | 2-3/4"            | 0033        | 012 R2.5                  | 6063                   | R6060       |
| 1000                                    | F 62.5                   | 56         | 2-3/4"            | 0033        | 012                       | 6063                   | R6060       |
|   | R 66.0                   | 55         | 2-3/4"            | 0033        | 012 R2.5                  | 6675                   | R6664       |

| Nominal<br>Size Of<br>Conductor     | O.D.<br>Flat / Round<br>Armour | U/Armoured | Single Comp.<br>H.D. | Flange Type | Double Comp.<br>/ Flameproof | Single Comp.<br>SIBG Type |             |
|-------------------------------------|--------------------------------|------------|----------------------|-------------|------------------------------|---------------------------|-------------|
|                                     |                                |            | Braco Ref.           | Braco Ref.  | Braco Ref.                   | SIBG Ref.                 | Rubber Ref. |
| 12.7 / 22 KV (E) HT XLPE THREE CORE |                                |            |                      |             |                              |                           |             |
| 95                                  | F 64.0                         | 57.5       | 2-3/4"               | 0033        | 012                          | 6675                      | R6662       |
|                                     | R 69.0                         | 57         | 3"                   | 004         | 013S R3.2                    | 7882                      | R7868       |
| 120                                 | F 67.5                         | 60.5       | 2-3/4"               | 004         | 013S                         | 7882                      | R7866       |
|                                     | R 72.0                         | 60         | 3"                   | 004         | 013 R3.2                     | 7882                      | R7870       |
| 150                                 | F 70.5                         | 63         | 3"                   | 004         | 013S                         | 7882                      | R7868       |
|                                     | R 75.5                         | 63.5       | 3-1/4"               | 005         | 013 R3.2                     | 7882                      | R7874       |
| 185                                 | F 74.0                         | 66.5       | 3"                   | 004         | 013                          | 7882                      | R7870       |
|                                     | R 79.0                         | 66         | 3-1/4"               | 005         | 014 R3.2                     | 7882                      | R7874       |
| 240                                 | F 79.0                         | 71         | 3-1/4"               | 005         | 014                          | 7882                      | R7874       |
|                                     | R 85.5                         | 70.5       | 3-1/2"               | 006         | 015 R4                       | 8940                      | R8480       |
| 300                                 | F 83.5                         | 75         | 3-1/2"               | 006         | 015                          | 8940                      | R8480       |
|                                     | R 90.0                         | 75         | 4"                   | 006         | 015 R4                       | 9210                      | R9288       |
| 400                                 | F 90.5                         | 82         | 4"                   | 006         | 015                          | 9210                      | R9288       |
|                                     | R 96.5                         | 81.5       | 4"                   | 006         | 016 R4                       | 9210                      | R9292       |
| 19 / 33 KV (E) HT XLPE SINGLE CORE  |                                |            |                      |             |                              |                           |             |
| 95                                  | F 39.0                         | 34         | 1-3/4"               | 38          | 08                           | 4251                      | R4238       |
|                                     | R 41.5                         | 33.5       | 1-3/4"               | 38          | 09 R2                        | 4251                      | R4238       |
| 120                                 | F 41.0                         | 35.5       | 1-3/4"               | 38          | 08                           | 4251                      | R4238       |
|                                     | R 43.0                         | 35         | 1-3/4"               | 38          | 09 R2                        | 4251                      | R4240       |
| 150                                 | F 42.0                         | 36.5       | 1-3/4"               | 38          | 09                           | 4251                      | R4240       |
|                                     | R 44.5                         | 36.5       | 2"                   | 002         | 09 R2                        | 4251                      | R4242       |
| 185                                 | F 44.5                         | 39         | 2"                   | 002         | 09                           | 4251                      | R4242       |
|                                     | R 47.0                         | 38.5       | 2"                   | 002         | 010 R2                       | 5451                      | R5444       |
| 240                                 | F 47.0                         | 41.5       | 2"                   | 002         | 010                          | 5451                      | R5444       |
|                                     | R 49.5                         | 41         | 2-1/4"               | 002         | 010 R2                       | 5451                      | R5446       |
| 300                                 | F 49.0                         | 43.5       | 2-1/4"               | 002         | 010                          | 5451                      | R5446       |
|                                     | R 52.0                         | 42.5       | 2-1/4"               | 003         | 010 R2                       | 5463                      | R5450       |
| 400                                 | F 52.5                         | 46         | 2-1/4"               | 003         | 010                          | 5463                      | R5450       |
|                                     | R 55.0                         | 45.5       | 2-1/4"               | 003         | 011 R2                       | 6063                      | R6053       |
| 500                                 | F 56.0                         | 49.5       | 2-1/2"               | 003         | 011                          | 6063                      | R6055       |
|                                     | R 60.0                         | 50         | 2-3/4"               | 0033        | 012 R2.5                     | 6063                      | R6058       |
| 630                                 | F 60.0                         | 53.5       | 2-3/4"               | 0033        | 012                          | 6063                      | R6058       |
|                                     | R 63.0                         | 52         | 2-3/4"               | 0033        | 012 R2.5                     | 6675                      | R6662       |
| 800                                 | F 64.0                         | 57.5       | 2-3/4"               | 0033        | 012                          | 6675                      | R6662       |
|                                     | R 67.0                         | 56         | 2-3/4"               | 0033        | 013S R2.5                    | 7882                      | R7866       |
| 1000                                | F 69.0                         | 62.5       | 3"                   | 004         | 013S                         | 7882                      | R7868       |
|                                     | R 72.5                         | 60.5       | 3"                   | 004         | 013 R2.5                     | 7882                      | R7870       |

| Nominal<br>Size Of<br>Conductor    | O.D.<br>Flat / Round<br>Armour | U/Armoured | Single Comp.<br>H.D. | Flange Type | Double Comp.<br>/ Flameproof | Single Comp.<br>SIBG Type |             |
|------------------------------------|--------------------------------|------------|----------------------|-------------|------------------------------|---------------------------|-------------|
|                                    |                                |            | Braco Ref.           | Braco Ref.  | Braco Ref.                   | SIBG Ref.                 | Rubber Ref. |
| 19 / 33 KV (E) HT XLPE THREE CORE  |                                |            |                      |             |                              |                           |             |
| 95                                 | F 77.0                         | 69         | 3-1/4"               | 005         | 014                          | 7882                      | R7874       |
|                                    | R 82.0                         | 69         | 3-1/2"               | 005         | 014 R3.2                     | 8940                      | R8480       |
| 120                                | F 80.5                         | 72.5       | 3-1/2"               | 005         | 014                          | 8940                      | R8480       |
|                                    | R 86.5                         | 71.5       | 4"                   | 006         | 015 R4                       | 8940                      | R8480       |
| 150                                | F 83.5                         | 75         | 3-1/2"               | 006         | 015                          | 8940                      | R8480       |
|                                    | R 90.0                         | 75         | 4"                   | 006         | 015 R4                       | 9210                      | R9288       |
| 185                                | F 87.0                         | 78.5       | 4"                   | 006         | 015                          | 8940                      | R8480       |
|                                    | R 93.0                         | 78         | 4"                   | 006         | 016 R4                       | 9210                      | R9288       |
| 240                                | F 91.5                         | 83         | 4"                   | 006         | 015                          | 9210                      | R9288       |
|                                    | R 98.0                         | 83         | 4"                   | 006         | 016 R4                       | 1011                      | R1094       |
| 300                                | F 96.0                         | 87.5       | 4"                   | 006         | 016                          | 9210                      | R9292       |
|                                    | R 102.0                        | 87         | 4-1/2"               | 007         | 017 R4                       | 1011                      | R1094       |
| 400                                | F 102.5                        | 94         | 4-1/2"               | 007         | 017                          | 1011                      | R1094       |
|                                    | R 109.0                        | 94         | 5"                   | 008         | 017 R4                       | 1525                      | R1502       |
| 33 / 33 KV (E) HT XLPE SINGLE CORE |                                |            |                      |             |                              |                           |             |
| 120                                | F 43.0                         | 37.5       | 1-3/4"               | 38          | 09                           | 4251                      | R4240       |
|                                    | R 45.5                         | 37.5       | 2"                   | 002         | 09 R2                        | 4251                      | R4242       |
| 150                                | F 44.5                         | 39         | 2"                   | 002         | 09                           | 4251                      | R4242       |
|                                    | R 47.5                         | 39         | 2"                   | 002         | 010 R2                       | 5451                      | R5446       |
| 185                                | F 46.5                         | 41         | 2"                   | 002         | 010                          | 5451                      | R5444       |
|                                    | R 49.5                         | 41         | 2-1/4"               | 002         | 010 R2                       | 5451                      | R5446       |
| 240                                | F 49.5                         | 44         | 2-1/4"               | 002         | 010                          | 5451                      | R5446       |
|                                    | R 53.0                         | 43.5       | 2-1/4"               | 003         | 011 R2.5                     | 5463                      | R5450       |
| 300                                | F 51.5                         | 46         | 2-1/4"               | 002         | 010                          | 5451                      | R5448       |
|                                    | R 55.0                         | 45.5       | 2-1/4"               | 003         | 011 R2.5                     | 6063                      | R6053       |
| 400                                | F 55.0                         | 49         | 2-1/4"               | 003         | 011                          | 6063                      | R6053       |
|                                    | R 58.5                         | 48.5       | 2-1/2"               | 003         | 012 R2.5                     | 6063                      | R6055       |
| 500                                | F 58.0                         | 52         | 2-1/2"               | 003         | 011                          | 6063                      | R6055       |
|                                    | R 62.0                         | 52         | 2-3/4"               | 0033        | 012 R2.5                     | 6063                      | R6060       |
| 630                                | F 61.5                         | 55         | 2-3/4"               | 0033        | 012                          | 6063                      | R6060       |
|                                    | R 65.5                         | 54.5       | 2-3/4"               | 0033        | 012 R2.5                     | 6675                      | R6662       |
| 800                                | F 66.0                         | 59.5       | 2-3/4"               | 0033        | 012                          | 6675                      | R6664       |
|                                    | R 71.0                         | 59         | 3"                   | 004         | 013S R3.2                    | 7882                      | R7868       |
| 1000                               | F 71.0                         | 64         | 3"                   | 004         | 013S                         | 7882                      | R7868       |
|                                    | R 76.0                         | 64         | 3-1/4"               | 005         | 013 R3.2                     | 7882                      | R7874       |

| Nominal<br>Size Of<br>Conductor   | O.D.<br>Flat / Round<br>Armour | U/Armoured | Single Comp.<br>H.D. | Flange Type | Double Comp.<br>/ Flameproof | Single Comp.<br>SIBG Type |             |
|-----------------------------------|--------------------------------|------------|----------------------|-------------|------------------------------|---------------------------|-------------|
|                                   |                                |            | Braco Ref.           | Braco Ref.  | Braco Ref.                   | SIBG Ref.                 | Rubber Ref. |
| 33 / 33 KV (E) HT XLPE THREE CORE |                                |            |                      |             |                              |                           |             |
| 120                               | F 83.5                         | 75         | 3-1/2"               | 006         | 015                          | 8940                      | R8480       |
|                                   | R 90.0                         | 75         | 4"                   | 006         | 015 R4                       | 9210                      | R9288       |
| 150                               | F 86.5                         | 78         | 4"                   | 006         | 015                          | 8940                      | R8480       |
|                                   | R 93.0                         | 78         | 4"                   | 006         | 016 R4                       | 9210                      | R9288       |
| 185                               | F 89.5                         | 81         | 4"                   | 006         | 015                          | 8940                      | R8484       |
|                                   | R 96.0                         | 81         | 4"                   | 006         | 016 R4                       | 9210                      | R9292       |
| 240                               | F 94.5                         | 86         | 4"                   | 006         | 016                          | 9210                      | R9292       |
|                                   | R 101.0                        | 86         | 4-1/2"               | 007         | 016 R4                       | 1011                      | R1094       |
| 300                               | F 98.5                         | 90         | 4-1/2"               | 007         | 016                          | 1011                      | R1094       |
|                                   | R 105.0                        | 90         | 4-1/2"               | 007         | 017 R4                       | 1525                      | R1500       |
| 400                               | F 105.0                        | 96         | 4-1/2"               | 007         | 017                          | 1525                      | R1500       |
|                                   | R 112.0                        | 97         | 5"                   | 008         | 017 R4                       | 1525                      | R1506       |

### NOTE

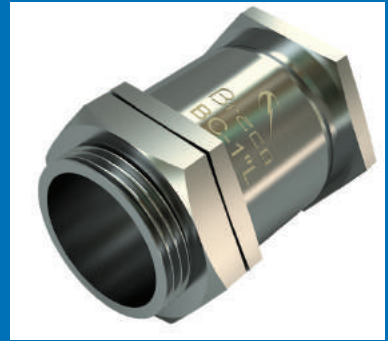
- The Selection above is for reference purpose only, the same is based on Polycab make latest ISI Cables.
- For the perfect size selection please check the actual construction details of Cable i.e. Overall Diameter, Under Armour Diameter & Type of Armour Flat or Round & Its dimension.
- Select the material of glands other then brass for Atmosphere Protection & Type ingress protection required.



Braco single compression Brass Cable Glands are suitable for armoured /unarmoured cables. These are manufactured out of brass castings and are machined accurately to the required sizes. These glands are nickel plated to avoid corrosion while storage and use.

Each gland comprises of Brass Body with nipple thread as per I.S. 12943:1990 Compression nut, Check nut, Rubber Ring and three metal washers. The detail parts are shown in the functional drawing.

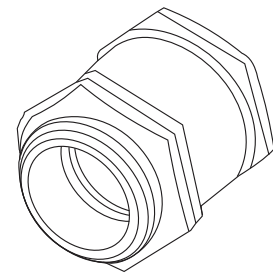
These glands are weather proof and water tight and have provision for earthing the armoured cables. These glands are available in various different sizes and are suitable for all cables upto 1000 sq. mm. and control cables upto 61 cores. The entry thread on gland body is normally threaded according to IS 1653(Steel conduits for electric wiring). However if any special kind of thread required, the same can be supplied. The glands can be supplied with special plating such as cadmium, tin or passivated.



## SINGLE COMPRESSION GLANDS

### Characteristics

- Washers of soft metal will be provided for firm gripping of armour
- Earth tag will be provided if required at extra cost
- PVC protective shrouds can be supplied at extra cost.
- Washers between rubber ring are supplied for uniform radial gripping.



### Selection

- O. D of cable should be less than D-3
- Diameter of cable underneath the overall sheathing for unarmoured cable and underneath the armouring for armoured cables is not more than D-34.
- Selection of rubber ring is made such that the dia over armouring for armoured cables and dia underneath the overall sheathing for unarmoured cable is less than rubber I.D. A-1.

### Parts

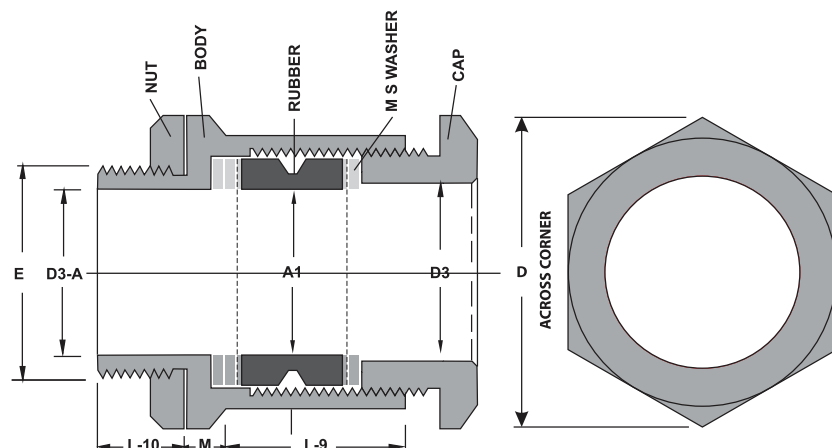
1. Compression Nut
2. Gland Body
3. Three Metal Washers
4. Rubber Ring
5. Check Nut

### Material

Brass / SS-304/316

### Finish

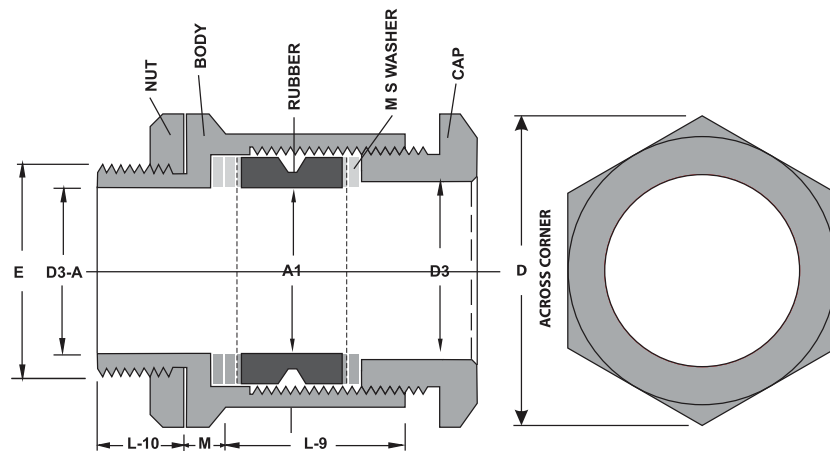
Nickle Plated



## SINGLE COMPRESSION GLANDS

| Glands Ref. | NIP. OD | CAP. BORING | NIP. ID | A.CROSS. | BODY HIGHT | NIP. HIGHT | B. NUT | RUB. ID | Cable diameter (mm) |      |
|-------------|---------|-------------|---------|----------|------------|------------|--------|---------|---------------------|------|
|             | E       | D-3         | D-3 A   | D        | L-9        | L-10       | M      | A-1     | above               | upto |
| BC-3/8"     | 1/2"    | 14.00       | 12.00   | 20.00    | 10.50      | 6.00       | 2.00   | 8.00    | 9                   | 13.5 |
| BC-1/2"L    | 5/8"    | 15.00       | 13.00   | 23.00    | 12.50      | 6.50       | 2.00   | 12.00   | 10                  | 14.5 |
| BC-1/2"H    | 5/8"    | 15.00       | 13.00   | 23.50    | 14.00      | 7.50       | 3.00   | 12.00   | 10                  | 14.5 |
| BC-5/8"L    | 3/4"    | 15.00       | 15.00   | 23.00    | 14.00      | 7.00       | 2.00   | 12.00   | 10                  | 14.5 |
| BC-5/8"H    | 3/4"    | 15.00       | 15.00   | 23.50    | 15.00      | 8.00       | 3.00   | 12.00   | 10                  | 14.5 |
| BC-3/4"L    | 3/4"    | 17.50       | 15.00   | 26.00    | 15.50      | 8.00       | 2.50   | 14.00   | 14                  | 17   |
| BC-3/4"H    | 3/4"    | 17.50       | 15.00   | 27.50    | 16.50      | 9.00       | 3.00   | 14.00   | 14                  | 17   |
| BC-7/8"L    | 3/4"    | 20.00       | 15.00   | 29.00    | 16.00      | 8.00       | 2.50   | 16.00   | 17                  | 19.5 |
| BC-7/8"H    | 3/4"    | 20.00       | 15.00   | 29.50    | 17.00      | 9.00       | 3.00   | 16.00   | 17                  | 19.5 |
| BC-1"L      | 1"      | 23.50       | 21.50   | 32.50    | 17.50      | 8.00       | 3.00   | 20.00   | 19.5                | 23   |
| BC-1"H      | 1"      | 23.50       | 21.00   | 34.50    | 19.00      | 10.00      | 3.50   | 20.00   | 19.5                | 23   |
| BC-1"S      | 3/4"    | 23.50       | 15.00   | 32.50    | 17.50      | 8.00       | 3.00   | 18.00   | 19.5                | 23   |
| BC-1-1/8"   | 1-1/8"  | 28.00       | 25.00   | 39.00    | 21.00      | 10.50      | 4.00   | 25.00   | 23                  | 27   |
| BC-1-1/4"   | 1-1/4"  | 31.50       | 27.00   | 42.50    | 21.00      | 10.50      | 4.00   | 27.00   | 27                  | 30   |
| BC-1-3/8"   | 1-3/8"  | 35.50       | 31.00   | 47.50    | 22.00      | 10.50      | 4.50   | 31.00   | 30                  | 34   |
| BC-1-1/2"   | 1-1/2"  | 39.00       | 34.00   | 52.00    | 22.00      | 10.50      | 4.50   | 33.00   | 34                  | 38   |
| BC-1-3/4"   | 1-3/4"  | 45.00       | 40.00   | 59.00    | 23.00      | 11.50      | 4.50   | 39.00   | 38                  | 44   |
| BC-2"       | 2"      | 51.50       | 45.00   | 68.00    | 23.00      | 11.50      | 4.50   | 44.00   | 44                  | 50   |
| BC-2-1/4"   | 2-1/4"  | 58.00       | 52.00   | 75.00    | 23.50      | 11.50      | 5.00   | 52.00   | 50                  | 56.5 |
| BC-2-1/2"   | 2-1/2"  | 62.50       | 58.00   | 80.00    | 25.00      | 13.00      | 5.50   | 58.00   | 56.5                | 61   |
| BC-2-3/4"   | 2-3/4"  | 70.00       | 65.50   | 90.00    | 28.00      | 13.50      | 5.50   | 65.00   | 61                  | 68   |
| BC-3"       | 3"      | 76.00       | 69.50   | 100.00   | 28.00      | 13.50      | 5.50   | 70.00   | 68                  | 74   |
| BC-3-1/4"   | 3-1/4"  | 82.00       | 75.00   | 115.00   | 29.00      | 15.00      | 5.50   | 75.00   | 74                  | 80   |
| BC-3-1/2"   | 3-1/2"  | 88.00       | 82.00   | 117.00   | 29.00      | 15.00      | 6.00   | 80.00   | 80                  | 86   |
| BC-4"       | 4"      | 100.00      | 92.50   | 127.00   | 36.00      | 20.00      | 6.00   | 86.00   | 86                  | 98   |
| BC-4-1/2"   | 4-1/2"  | 108.00      | 102.00  | 145.00   | 38.00      | 23.00      | 7.00   | 90.00   | 98                  | 105  |

**Note :** These Glands can also be supplied in SS-304/316 if required. Cat no will be SSBC for SS Glands.



Pass the compression nut (Pt.1), Washer No.1 (Pt.3) in succession order over the cable before commencing to strip the cable.

Remove the outer sheath to the desired length depending on the length of leads required .Pass the rubber ring(Pt.4) over the armouring upto the outer sheath .

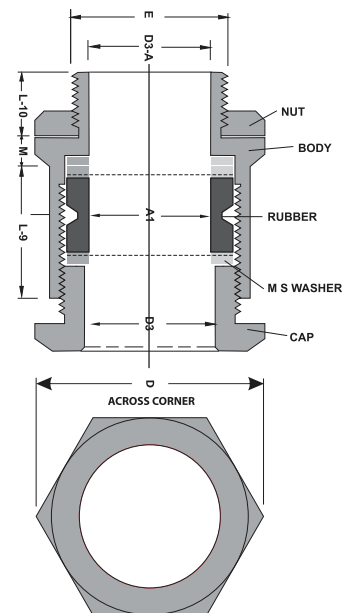
Pass the 2nd washer (Pt. 5) over the armouring and splay out the armour wire one by one and then cut the armour wires according to the sizes of washer Pass the third washer (Pt .6). File the sharp edges of armour wires and bend them so that the armour wires are now secure between the two washers.

Push the assembly through gland body (Pt.2) and tighten the compression nut. While doing so the rubber ring will expand in radial direction and will grip the cable. This will also ensure dust proof entry of the cable



## INSTALLATION INSTRUCTIONS:

| GLAND REF. | E    | D-3 | D-3A | D    | L-9  | L-10 | M   | RUBBER REF.                      | A-1                  | B-1  | C-1 |
|------------|------|-----|------|------|------|------|-----|----------------------------------|----------------------|------|-----|
| SIBG-1216  | 12   | 16  | 12   | 25.5 | 15   | 9    | 3   | R1212                            | 12                   | 18   | 8   |
| SIBG-1616  | 16   | 19  | 12   | 29.5 | 15   | 9.5  | 3.5 | R1611                            | 11                   | 20.5 | 9   |
| SIBG-1619  | 19   | 19  | 15   | 29.5 | 15   | 9.5  | 3.5 | R1613<br>R1615                   | 13<br>15             | 20.5 | 9   |
| SIBG-2119  | 19   | 24  | 15   | 36.5 | 18   | 9.5  | 3.5 | R2116                            | 16                   | 26   | 11  |
| SIBG-2125  | 25.4 | 24  | 21   | 36.5 | 18   | 9.5  | 3.5 | R2118<br>R2120                   | 18<br>20             | 26   | 11  |
| SIBG-2925  | 25.4 | 33  | 21   | 47   | 21   | 10   | 4   | R2921                            | 21                   | 35   | 12  |
| SIBG-2932  | 32   | 33  | 27   | 47   | 21   | 10   | 4   | R2923                            | 23                   | 35   | 12  |
| SIBG-2938  | 38   | 33  | 32   | 47   | 21   | 10   | 4   | R2925<br>R2927<br>R2929          | 25<br>27<br>29       | 35   | 12  |
| SIBG-3632  | 32   | 41  | 26   | 59   | 22.5 | 11   | 4.5 | R3631                            | 31                   | 45   | 14  |
| SIBG-3638  | 38   | 41  | 32   | 59   | 22.5 | 11   | 4.5 | R3633<br>R3635<br>R3637          | 33<br>35<br>37       | 45   | 14  |
| SIBG-4238  | 38   | 47  | 32   | 71   | 26   | 12   | 5.5 | R4236                            | 36                   | 52   | 17  |
| SIBG-4251  | 51   | 47  | 44.5 | 71   | 26   | 12   | 5.5 | R4238<br>R4240<br>R4242          | 38<br>40<br>42       | 52   | 17  |
| SIBG-5451  | 51   | 56  | 44.5 | 80   | 27   | 12   | 6   | R5444                            | 44                   | 59   | 18  |
| SIBG-5463  | 63.5 | 56  | 55   | 80   | 27   | 12   | 6   | R5446<br>R5448<br>R5450          | 46<br>48<br>50       | 59   | 18  |
| SIBG-6063  | 63.5 | 64  | 55   | 92   | 31   | 12   | 6.5 | R6053<br>R6055<br>R6058<br>R6060 | 53<br>55<br>58<br>60 | 68   | 18  |
| SIBG-6675  | 76   | 68  | 66   | 100  | 33   | 13   | 7   | R6662<br>R6664<br>R6668          | 62<br>64<br>68       | 72   | 18  |
| SIBG-7882  | 83   | 82  | 72   | 116  | 33   | 14   | 8   | R7870<br>R7874<br>R7877          | 70<br>74<br>77       | 88   | 20  |
| SIBG-8490  | 90   | 91  | 81   | 124  | 30   | 19   | 8   | R8484                            | 84                   | 97   | 20  |
| SIBG-9210  | 100  | 98  | 91   | 135  | 32   | 20   | 8   | R9292                            | 92                   | 105  | 20  |
| SIBG-1011  | 110  | 107 | 100  | 146  | 32   | 25   | 9   | R1100                            | 100                  | 114  | 20  |
| SIBG-1525  | 125  | 118 | 113  | 164  | 32   | 25   | 10  | R1115                            | 115                  | 127  | 20  |



Braco Double Compression Glands are manufactured out of brass rods/castings and are machined accurately to the required sizes. These are nickel plated to avoid corrosion whilst storage and use.

These glands have two moisture proof seals and may be used under most climatic conditions. These are weather proof and water proof and when protected by a PVC shroud, these can be used under most corrosive conditions. The armour cone and ring gives excellent mechanical and electrical connections.

These Glands are certified by Central Institute of Mining and Fuel Research, Dhanbad for use in Weather proof conditions. These Glands are rated with IP protection upto IP-65 Levels.

These glands are as per BS 6121:Part 1:2005 and have parts: Brass body, Armour clamp and Ring, Gland Barrel sealing nut, two seals, , check nut and flat washer between the gland barrel and check nut is provided to prevent the drag on outer seal.

These glands are available in various different sizes and are suitable for all cables up to 1000sq. mm and control cables up to 61 cores. Threads can be ET / mm /NPT as per requirement. However if any special kind of gland or thread is required, the same can be supplied on request.

The gland can also be supplied with any other special plating such as cadmium, tin or pasivated. Also the glands can be supplied made out of aluminum, mild steel or stainless steel



## DOUBLE COMPRESSION BRASS GLANDS (Weather proof)

| BRACO CAT. No. | B    | A   | A/F E | A/C E1 | Nipple thread Inch |      |            | D  | Acceptable cable OD (mm) |      |
|----------------|------|-----|-------|--------|--------------------|------|------------|----|--------------------------|------|
|                |      |     |       |        | ET                 | MM   | NPT        |    | Above                    | Upto |
| BPW-3/8'       | 13   | 11  | 21    | 24     | 5/8"               | M16  | 1/2" NPT   | 12 | 8                        | 12   |
| BPW-1/2"       | 15   | 11  | 21    | 24     | 5/8"               | M16  | 1/2" NPT   | 12 | 8                        | 13   |
| BPW-001S       | 14   | 13  | 21    | 24     | 3/4"               | M20  | 1/2" NPT   | 12 | 8                        | 13   |
| BPW-5/8"       | 17   | 14  | 23    | 26     | 3/4"               | M20  | 1/2" NPT   | 15 | 11                       | 15   |
| BPW-001        | 17   | 14  | 24    | 27.5   | 3/4"               | M20  | 1/2" NPT   | 15 | 12.5                     | 16.5 |
| BPW-01S        | 17.5 | 15  | 25    | 29     | 3/4"               | M20  | 1/2" NPT   | 15 | 12.5                     | 16.5 |
| BPW-01         | 20   | 14  | 27    | 31     | 3/4"               | M20  | 1/2" NPT   | 15 | 15                       | 18   |
| BPW-01L        | 20   | 15  | 27    | 31     | 1"                 | M25  | 3/4" NPT   | 15 | 15                       | 18   |
| BPW-02         | 20.5 | 18  | 30.5  | 35.5   | 1"                 | M25  | 3/4" NPT   | 15 | 18                       | 20   |
| BPW-02S        | 20.5 | 14  | 30.5  | 35.5   | 3/4"               | M20  | 1/2" NPT   | 15 | 18                       | 20   |
| BPW-03         | 23   | 18  | 30.5  | 35.5   | 1"                 | M25  | 3/4" NPT   | 15 | 20                       | 23   |
| BPW-1"         | 23   | 20  | 30.5  | 35.5   | 1"                 | M25  | 3/4" NPT   | 15 | 20                       | 23   |
| BPW-04         | 28   | 20  | 37    | 43     | 1"                 | M25  | 3/4" NPT   | 15 | 23                       | 26   |
| BPW-04L        | 28   | 24  | 37    | 43     | 1-1/4"             | M32  | 1" NPT     | 15 | 23                       | 26   |
| BPW-05         | 31   | 25  | 41    | 47     | 1-1/4"             | M32  | 1" NPT     | 15 | 26                       | 30   |
| BPW-05L        | 31   | 26  | 41    | 47     | 1-1/2"             | M40  | 1-1/4" NPT | 15 | 26                       | 30   |
| BPW-06         | 34   | 31  | 47    | 54.5   | 1-1/2"             | M40  | 1-1/4" NPT | 15 | 30                       | 33   |
| BPW-06S        | 34   | 24  | 47    | 54.5   | 1-1/4"             | M32  | 1" NPT     | 15 | 30                       | 33   |
| BPW-07         | 39   | 33  | 51    | 59     | 1-1/2"             | M40  | 1-1/4" NPT | 15 | 33                       | 37   |
| BPW-08         | 43   | 38  | 54    | 62     | 2"                 | M50  | 1-1/2" NPT | 15 | 37                       | 41   |
| BPW-09         | 47   | 40  | 56    | 65     | 2"                 | M50  | 1-1/2" NPT | 15 | 41                       | 46   |
| BPW-010        | 53   | 44  | 66    | 76.5   | 2"                 | M50  | 1-1/2" NPT | 20 | 46                       | 52   |
| BPW-010L       | 53   | 50  | 66    | 76.5   | 2-1/2"             | M63  | 2" NPT     | 20 | 46                       | 52   |
| BPW-011        | 61   | 56  | 80    | 92     | 2-1/2"             | M63  | 2" NPT     | 20 | 52                       | 60   |
| BPW-012        | 68   | 64  | 84    | 97     | 3"                 | M75  | 2-1/2" NPT | 20 | 60                       | 66   |
| BPW-013S       | 73   | 67  | 90    | 104    | 3"                 | M75  | 2-1/2" NPT | 20 | 66                       | 72   |
| BPW-013        | 79   | 75  | 98    | 113    | 3-1/4"             | M82  | 3" NPT     | 20 | 72                       | 78   |
| BPW-014        | 85   | 78  | 103   | 119    | 3-1/2"             | M90  | 3" NPT     | 20 | 78                       | 83   |
| BPW-015        | 98   | 91  | 112   | 129    | 4"                 | M100 | 3-1/2" NPT | 24 | 83                       | 93   |
| BPW-016        | 106  | 104 | 125   | 144    | 4-1/2"             | M115 | 4" NPT     | 25 | 93                       | 104  |

### Characteristics:

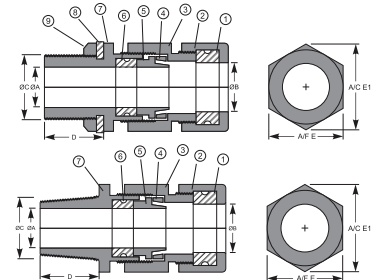
- Clamping cone will be provided with knurling for firm gripping of the armour.
- Earthing tag will be provided if required at extra cost.
- PVC protective shroud can be supplied at extra cost.
- Washers between seals are supplied for uniform radial gripping of PCP seals.

### Installation Instructions:

Remove the outer sheath to the desired length depending on the length of the leads required, and splay out the armour wire one by one and then cut the same according to the size of armour clamping cone. File the sharp edges of the armour wire and fit the gland as per assembly shown sectionally.

### Parts

- Outer Seal
- Sealing Nut
- Gland Body
- Clamping Ring
- Armour Clamp
- Inner Seal
- Gland Nipple
- Flat Washer
- Check Nut



Braco Double Compression Glands are manufactured out of brass rods/castings and are machined accurately to the required sizes. These are nickel plated to avoid corrosion whilst storage and use.

These glands have two moisture proof seals and may be used under most climatic conditions. These are weather proof and water proof and when protected by a PVC shroud, these can be used under most corrosive conditions. The armour cone and ring gives excellent mechanical and electrical connections.

These Glands are certified by Central Institute of Mining and Fuel Research, Dhanbad for use in Flame proof and weather proof conditions. These Glands are rated with IP protection upto IP-68 Levels.

These glands are as per BS 6121:Part 1:2005 and have parts: Brass body, Armour clamp and Ring, Gland Barrel sealing nut, two seals, check nut, check nut and flat washer between the gland barrel and check nut is provided to prevent the drag on outer seal.

These glands are available in various different sizes and are suitable for all cables up to 1000sq. mm and control cables up to 61 cores. Threads can be ET / mm /NPT as per requirement. However if any special kind of gland or thread is required, the same can be supplied on request.

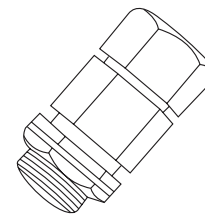
The gland can also be supplied with any other special plating such as cadmium, tin or pasivated. Also the glands can be supplied made out of aluminum, mild steel or stainless steel. Can be supplied in IIA/ IIB/ IIC



## DOUBLE COMPRESSION BRASS GLANDS (Flame Proof)

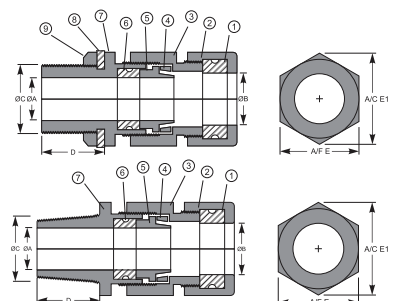
Certified by : Central Institute of Mining & Fuel Research

| BRACO CAT. No. | B    | A   | A/F E | A/C E1 | Nipple thread Inch C |      |            | D  | Acceptable cable OD (mm) |      |
|----------------|------|-----|-------|--------|----------------------|------|------------|----|--------------------------|------|
|                |      |     |       |        | ET                   | MM   | NPT        |    | Above                    | Upto |
| BPF-3/8'       | 13   | 11  | 21    | 24     | 5/8"                 | M16  | 1/2" NPT   | 25 | 8                        | 12   |
| BPF-1/2"       | 15   | 11  | 21    | 24     | 5/8"                 | M16  | 1/2" NPT   | 25 | 8                        | 13   |
| BPF-001S       | 14   | 13  | 21    | 24     | 3/4"                 | M20  | 1/2" NPT   | 25 | 8                        | 13   |
| BPF-5/8"       | 17   | 14  | 23    | 26     | 3/4"                 | M20  | 1/2" NPT   | 25 | 11                       | 15   |
| BPF-001        | 17   | 14  | 24    | 27.5   | 3/4"                 | M20  | 1/2" NPT   | 25 | 12.5                     | 16.5 |
| BPF-01S        | 17.5 | 15  | 25    | 29     | 3/4"                 | M20  | 1/2" NPT   | 25 | 12.5                     | 16.5 |
| BPF-01         | 20   | 14  | 27    | 31     | 3/4"                 | M20  | 1/2" NPT   | 25 | 15                       | 18   |
| BPF-01L        | 20   | 15  | 27    | 31     | 1"                   | M25  | 3/4" NPT   | 25 | 15                       | 18   |
| BPF-02         | 20.5 | 18  | 30.5  | 35.5   | 1"                   | M25  | 3/4" NPT   | 25 | 18                       | 20   |
| BPF-02S        | 20.5 | 14  | 30.5  | 35.5   | 3/4"                 | M20  | 1/2" NPT   | 25 | 18                       | 20   |
| BPF-03         | 23   | 18  | 30.5  | 35.5   | 1"                   | M25  | 3/4" NPT   | 25 | 20                       | 23   |
| BPF-1"         | 23   | 20  | 30.5  | 35.5   | 1"                   | M25  | 3/4" NPT   | 25 | 20                       | 23   |
| BPF-04         | 28   | 20  | 37    | 43     | 1"                   | M25  | 3/4" NPT   | 25 | 23                       | 26   |
| BPF-04L        | 28   | 24  | 37    | 43     | 1-1/4"               | M32  | 1" NPT     | 25 | 23                       | 26   |
| BPF-05         | 31   | 25  | 41    | 47     | 1-1/4"               | M32  | 1" NPT     | 25 | 26                       | 30   |
| BPF-05L        | 31   | 26  | 41    | 47     | 1-1/2"               | M40  | 1-1/4" NPT | 25 | 26                       | 30   |
| BPF-06         | 34   | 31  | 47    | 54.5   | 1-1/2"               | M40  | 1-1/4" NPT | 25 | 30                       | 33   |
| BPF-06S        | 34   | 24  | 47    | 54.5   | 1-1/4"               | M32  | 1" NPT     | 25 | 30                       | 33   |
| BPF-07         | 39   | 33  | 51    | 59     | 1-1/2"               | M40  | 1-1/4" NPT | 25 | 33                       | 37   |
| BPF-08         | 43   | 38  | 54    | 62     | 2"                   | M50  | 1-1/2" NPT | 25 | 37                       | 41   |
| BPF-09         | 47   | 40  | 56    | 65     | 2"                   | M50  | 1-1/2" NPT | 25 | 41                       | 46   |
| BPF-010        | 53   | 44  | 66    | 76.5   | 2"                   | M50  | 1-1/2" NPT | 25 | 46                       | 52   |
| BPF-010L       | 53   | 50  | 66    | 76.5   | 2-1/2"               | M63  | 2" NPT     | 25 | 46                       | 52   |
| BPF-011        | 61   | 56  | 80    | 92     | 2-1/2"               | M63  | 2" NPT     | 25 | 52                       | 60   |
| BPF-012        | 68   | 64  | 84    | 97     | 3"                   | M75  | 2-1/2" NPT | 25 | 60                       | 66   |
| BPF-013S       | 73   | 67  | 90    | 104    | 3"                   | M75  | 2-1/2" NPT | 25 | 66                       | 72   |
| BPF-013        | 79   | 75  | 98    | 113    | 3-1/4"               | M82  | 3" NPT     | 25 | 72                       | 78   |
| BPF-014        | 85   | 78  | 103   | 119    | 3-1/2"               | M90  | 3" NPT     | 25 | 78                       | 83   |
| BPF-015        | 98   | 91  | 112   | 129    | 4"                   | M100 | 3-1/2" NPT | 25 | 83                       | 93   |
| BPF-016        | 106  | 104 | 125   | 144    | 4-1/2"               | M115 | 4" NPT     | 25 | 93                       | 104  |



### Parts

1. Outer Seal
2. Sealing Nut
3. Gland Body
4. Clamping Ring
5. Armour Clamp
6. Inner Seal
7. Gland Nipple
8. Flat Washer
9. Check Nut



Braco Double Compression Glands are manufactured out of Stainless Steel of Grade SS 304 / 316 and are machined accurately to the required sizes.

These glands have two moisture proof seals and may be used under most climatic conditions. These are weather proof and water proof and when protected by a PVC shroud, these can be used under most corrosive conditions. The armour cone and ring gives excellent mechanical and electrical connections.

These Glands are certified by Central Institute of Mining and Fuel Research, Dhanbad for use in weather proof conditions. These Glands are rated with IP protection upto IP-65 Levels.

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These glands are available in various different sizes and are suitable for all cables up to 1000sq. mm and control cables up to 61 cores. Threads can be ET / mm /NPT as per requirement. However if any special kind of gland or thread is required, the same can be supplied on request.



## DOUBLE COMPRESSION STAINLESS STEEL GLANDS

### Weather proof

Material :SS-304 / SS-316

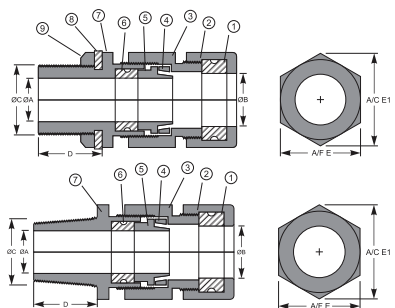
| BRACO CAT. No. | B    | A   | A/F E | A/C E1 | Nipple thread Inch |      |            | D  | Acceptable cable OD (mm) |      |
|----------------|------|-----|-------|--------|--------------------|------|------------|----|--------------------------|------|
|                |      |     |       |        | ET                 | MM   | NPT        |    | Above                    | Upto |
| SSW 3/8'       | 13   | 11  | 22    | 25     | 5/8"               | M16  | 1/2" NPT   | 12 | 8                        | 12   |
| SSW 1/2"       | 14   | 11  | 22    | 25     | 5/8"               | M16  | 1/2" NPT   | 12 | 8                        | 13   |
| SSW-001S       | 14   | 13  | 22    | 25     | 3/4"               | M20  | 1/2" NPT   | 15 | 8                        | 14   |
| SSW-5/8"       | 17   | 14  | 23    | 26     | 3/4"               | M20  | 1/2" NPT   | 15 | 11                       | 15   |
| SSW-001        | 17   | 14  | 24    | 27.5   | 3/4"               | M20  | 1/2" NPT   | 15 | 12.5                     | 16.5 |
| SSW-01S        | 17.5 | 15  | 24    | 27.5   | 3/4"               | M20  | 1/2" NPT   | 15 | 12.5                     | 16.5 |
| SSW 01         | 18.5 | 15  | 27    | 30     | 3/4"               | M20  | 1/2" NPT   | 15 | 15                       | 18   |
| SSW 01L        | 18.5 | 15  | 27    | 30     | 1"                 | M25  | 3/4" NPT   | 15 | 15                       | 18   |
| SSW 02         | 20.5 | 16  | 30    | 35     | 1"                 | M25  | 3/4" NPT   | 15 | 18                       | 20   |
| SSW 02S        | 20.5 | 14  | 30    | 35     | 3/4"               | M20  | 1/2" NPT   | 15 | 18                       | 20   |
| SSW 03         | 23   | 18  | 30    | 35     | 1"                 | M25  | 3/4" NPT   | 15 | 20                       | 23   |
| SSW 04         | 27   | 20  | 35    | 41     | 1"                 | M25  | 3/4" NPT   | 15 | 23                       | 26   |
| SSW 04L        | 27   | 24  | 35    | 41     | 1-1/4"             | M32  | 1" NPT     | 15 | 23                       | 26   |
| SSW 05         | 31   | 24  | 40    | 46     | 1-1/4"             | M32  | 1" NPT     | 15 | 26                       | 30   |
| SSW 05L        | 31   | 26  | 40    | 46     | 1-1/2"             | M40  | 1-1/4" NPT | 15 | 26                       | 30   |
| SSW 06         | 34   | 31  | 47    | 53     | 1-1/2"             | M40  | 1-1/4" NPT | 15 | 30                       | 33   |
| SSW 06S        | 34   | 24  | 47    | 53     | 1-1/4"             | M32  | 1" NPT     | 15 | 30                       | 33   |
| SSW 07         | 38   | 32  | 52    | 58     | 1-1/2"             | M40  | 1-1/4" NPT | 15 | 33                       | 37   |
| SSW 08         | 42   | 38  | 56    | 64     | 2"                 | M50  | 1-1/2" NPT | 15 | 37                       | 41   |
| SSW 09         | 47   | 39  | 59    | 67     | 2"                 | M50  | 1-1/2" NPT | 15 | 41                       | 46   |
| SSW 010        | 53   | 44  | 67.5  | 77     | 2"                 | M50  | 1-1/2" NPT | 20 | 46                       | 52   |
| SSW-010L       | 53   | 50  | 67.5  | 77     | 2-1/2"             | M63  | 2" NPT     | 20 | 46                       | 52   |
| SSW 011        | 61   | 56  | 80    | 92     | 2-1/2"             | M63  | 2" NPT     | 20 | 52                       | 60   |
| SSW 012        | 68   | 64  | 85    | 98     | 3"                 | M75  | 2-1/2" NPT | 20 | 60                       | 66   |
| SSW 013S       | 73   | 64  | 99    | 113    | 3"                 | M75  | 2-1/2" NPT | 20 | 66                       | 72   |
| SSW 013        | 79   | 74  | 99    | 113    | 3-1/4"             | M82  | 3" NPT     | 20 | 72                       | 78   |
| SSW 014        | 84   | 78  | 105   | 118    | 3-1/2"             | M90  | 3" NPT     | 20 | 78                       | 83   |
| SSW 015        | 95   | 88  | 115   | 129    | 4"                 | M100 | 3-1/2" NPT | 20 | 83                       | 93   |
| SSW 016        | 106  | 100 | 125   | 140    | 4-1/2"             | M115 | 4" NPT     | 20 | 93                       | 104  |

#### Description

1. Outer Seal
2. Sealing Nut
3. Gland Body
4. Clamping Ring
5. Armour Clamp
6. Inner Seal
7. Gland Nipple
8. Flat Washer
9. Check Nut

#### Material

- Nitrile Rubber
- SS-304/316
- SS-304/316
- SS-304/316
- SS-304/316
- Nitrile Rubber
- SS-304/316
- Nitrile Rubber
- SS-304/316





Braco Double Compression Glands are manufactured out of Stainless Steel of Grade SS304/316 and are machined accurately to the required sizes.

These glands have two moisture proof seals and may be used under most climatic conditions. These are weather proof and water proof and when protected by a PVC shroud, these can be used under most corrosive conditions. The armour cone and ring gives excellent mechanical and electrical connections.

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These glands are available in various different sizes and are suitable for all cables up to 1000sq. mm and control cables up to 61 cores. Threads can be ET / mm /NPT as per requirement. However if any special kind of gland or thread is required, the same can be supplied on request. Can be supplied in IIA/IIB/IIC



## DOUBLE COMPRESSION STAINLESS STEEL GLANDS

### Flame proof

Material :SS-304 / SS-316

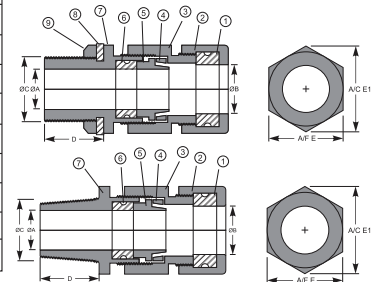
| BRACO CAT. No. | B    | A   | A/F E | A/C E1 | Nipple thread Inch |      |            | D  | Cable OD (mm) |      |
|----------------|------|-----|-------|--------|--------------------|------|------------|----|---------------|------|
|                |      |     |       |        | ET                 | MM   | NPT        |    | Above         | Upto |
| SSF 3/8'       | 13   | 11  | 22    | 25     | 5/8"               | M16  | 1/2" NPT   | 25 | 8             | 12   |
| SSF 1/2"       | 14   | 11  | 22    | 25     | 5/8"               | M16  | 1/2" NPT   | 25 | 8             | 13   |
| SSF-001S       | 14   | 13  | 22    | 25     | 3/4"               | M20  | 1/2" NPT   | 25 | 8             | 14   |
| SSF-5/8"       | 17   | 14  | 23    | 26     | 3/4"               | M20  | 1/2" NPT   | 25 | 11            | 15   |
| SSF-001        | 17   | 14  | 24    | 27.5   | 3/4"               | M20  | 1/2" NPT   | 25 | 12.5          | 16.5 |
| SSF-01S        | 17.5 | 15  | 24    | 27.5   | 3/4"               | M20  | 1/2" NPT   | 25 | 12.5          | 16.5 |
| SSF 01         | 18.5 | 15  | 27    | 30     | 3/4"               | M20  | 1/2" NPT   | 25 | 15            | 18   |
| SSF 01L        | 18.5 | 15  | 27    | 30     | 1"                 | M25  | 3/4" NPT   | 25 | 15            | 18   |
| SSF 02         | 20.5 | 16  | 30    | 35     | 1"                 | M25  | 3/4" NPT   | 25 | 18            | 20   |
| SSF 02S        | 20.5 | 14  | 30    | 35     | 3/4"               | M20  | 1/2" NPT   | 25 | 18            | 20   |
| SSF 03         | 23   | 18  | 30    | 35     | 1"                 | M25  | 3/4" NPT   | 25 | 20            | 23   |
| SSF 04         | 27   | 20  | 35    | 41     | 1"                 | M25  | 3/4" NPT   | 25 | 23            | 26   |
| SSF 04L        | 27   | 24  | 35    | 41     | 1-1/4"             | M32  | 1" NPT     | 25 | 23            | 26   |
| SSF 05         | 31   | 24  | 40    | 46     | 1-1/4"             | M32  | 1" NPT     | 25 | 26            | 30   |
| SSF 05L        | 31   | 26  | 40    | 46     | 1-1/2"             | M40  | 1-1/4" NPT | 25 | 26            | 30   |
| SSF 06         | 34   | 31  | 47    | 53     | 1-1/2"             | M40  | 1-1/4" NPT | 25 | 30            | 33   |
| SSF 06S        | 34   | 24  | 47    | 53     | 1-1/4"             | M32  | 1" NPT     | 25 | 30            | 33   |
| SSF 07         | 38   | 32  | 52    | 58     | 1-1/2"             | M40  | 1-1/4" NPT | 25 | 33            | 37   |
| SSF 08         | 42   | 38  | 56    | 64     | 2"                 | M50  | 1-1/2" NPT | 25 | 37            | 41   |
| SSF 09         | 47   | 39  | 59    | 67     | 2"                 | M50  | 1-1/2" NPT | 25 | 41            | 46   |
| SSF 010        | 53   | 44  | 67.5  | 77     | 2"                 | M50  | 1-1/2" NPT | 25 | 46            | 52   |
| SSF-010L       | 53   | 50  | 67.5  | 77     | 2-1/2"             | M63  | 2" NPT     | 25 | 46            | 52   |
| SSF 011        | 61   | 56  | 80    | 92     | 2-1/2"             | M63  | 2" NPT     | 25 | 52            | 60   |
| SSF 012        | 68   | 64  | 85    | 98     | 3"                 | M75  | 2-1/2" NPT | 25 | 60            | 66   |
| SSF 013S       | 73   | 64  | 99    | 113    | 3"                 | M75  | 2-1/2" NPT | 25 | 66            | 72   |
| SSF 013        | 79   | 74  | 99    | 113    | 3-1/4"             | M82  | 3" NPT     | 25 | 72            | 78   |
| SSF 014        | 84   | 78  | 105   | 118    | 3-1/2"             | M90  | 3" NPT     | 25 | 78            | 83   |
| SSF 015        | 95   | 88  | 115   | 129    | 4"                 | M100 | 3-1/2" NPT | 25 | 83            | 93   |
| SSF 016        | 106  | 100 | 125   | 140    | 4-1/2"             | M115 | 4" NPT     | 25 | 93            | 104  |

#### Description

1. Outer Seal
2. Sealing Nut
3. Gland Body
4. Clamping Ring
5. Armour Clamp
6. Inner Seal
7. Gland Nipple
8. Flat Washer
9. Check Nut

#### Material

Nitrile Rubber  
SS-304/316  
SS-304/316  
SS-304/316  
SS-304/316  
Nitrile Rubber  
SS-304/316  
Nitrile Rubber  
SS-304/316



Braco Double compression Through Glands are specially designed for unarmored/Flexible cables as per BS 6121 Part 1: 2005. These Glands are mainly manufactured out of brass but can be supplied in SS-304/316 and Aluminium also.

These Glands have two Rubber seals to ensure proper grip on Cable Outer Sheath. Brass Glands are nickel plated to avoid corrosion whilst storage and use. SS and Aluminium Glands are treated with ultrasonic bath.

These Glands are suitable for use under most climatic conditions and are certified by Central Institute of Mining and Fuel Research, Dhanbad for use in weather proof conditions. These Glands are rated with IP protection upto IP-65 Levels.

These glands are available in different sizes, suitable for all types of unarmored/ flexible cables upto 1000 sq.mm

Suffix – BPT= for Brass Glands, SSWT= for SS Glands and ALT= for Aluminium Glands

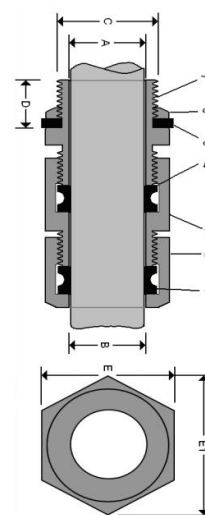
Threads can be ET/ mm/NPT as per requirement



## Braco Make Double Compression Glands (Weather proof)

Through Type for Unarmoured Cables.

| Sr. No. | Braco Cat. No. | B    | A    | A/F<br>E | A/C<br>E1 | Nipple<br>thread C | D  | Above | Upto |
|---------|----------------|------|------|----------|-----------|--------------------|----|-------|------|
| 1       | BPT-001SS      | 11   | 11   | 22       | 25        | 3/4"               | 12 | 5     | 10   |
| 2       | BPT-001S       | 14   | 14   | 22       | 25        | 3/4"               | 12 | 10    | 13.5 |
| 3       | BPT-001        | 15   | 15   | 24       | 27.5      | 3/4"               | 12 | 11    | 14.5 |
| 4       | BPT-01 L       | 20   | 19   | 28       | 31        | 1"                 | 15 | 14    | 18   |
| 5       | BPT-02         | 20.5 | 20.5 | 30       | 35        | 1"                 | 15 | 18    | 20   |
| 6       | BPT-03 SP      | 23   | 23   | 32       | 36.5      | 28mm               | 15 | 20    | 23   |
| 7       | BPT-04L        | 28   | 27   | 37       | 43        | 1-1/4"             | 15 | 23    | 26   |
| 8       | BPT-05 L       | 31   | 31   | 41       | 47        | 1-1/2"             | 20 | 26    | 30   |
| 9       | BPT-06 SP      | 35   | 34   | 47       | 54        | 40mm               | 20 | 30    | 33   |
| 10      | BPT-07 SP      | 39   | 37   | 52       | 59        | 42mm               | 20 | 33    | 36   |
| 11      | BPT-08         | 43   | 43   | 55       | 63        | 2"                 | 20 | 36    | 41   |
| 12      | BPT-09         | 47   | 45   | 57       | 66        | 2"                 | 20 | 41    | 44   |
| 13      | BPT-010L       | 54   | 54   | 67       | 77        | 2-1/2"             | 20 | 44    | 52   |
| 14      | BPT-011S       | 56   | 56   | 70       | 81        | 2-1/2"             | 20 | 52    | 55   |
| 15      | BPT-011L       | 61   | 60   | 80       | 92        | 70mm               | 20 | 55    | 60   |
| 16      | BPT-012        | 68   | 67   | 84       | 97        | 3"                 | 20 | 60    | 66   |
| 17      | BPT-013SL      | 73   | 72   | 90       | 103       | 3-1/4"             | 20 | 66    | 72   |
| 18      | BPT-013        | 79   | 78   | 99       | 113       | 3-1/2"             | 20 | 72    | 78   |
| 19      | BPT-014        | 85   | 84   | 105      | 118       | 3-3/4"             | 20 | 78    | 83   |
| 20      | BPT-015        | 95   | 94   | 113      | 128       | 4"                 | 20 | 83    | 93   |
| 21      | BPT-016        | 106  | 105  | 125      | 140       | 4-1/2"             | 20 | 93    | 104  |



### Description

1. outer seal
2. Sealing Nut
3. Gland Body
4. Inner Seal
5. Flat washer
6. Check Nut
7. Gland barrel

### Material

- Nitrile Rubber (R1)  
Brass  
Brass  
Nitrile Rubber (R2)  
Nitrile Rubber  
Brass  
Brass

### Note:

1. Material : Brass as per IS-12943:1990 OR Aluminium HE-30 Grade OR SS-304/316
2. Gland Entry Thread : BSC & MM as specified (BSP or Npt also in special case)
3. Nickel plated with plating thickness min 10 microns as per IS 12943:1990 (only in case of Brass)
4. IP protection - IP-65



Braco Single compression Through Glands are specially designed for unarmored/Flexible cables as per BS 6121 Part 1: 2005. These Glands are mainly manufactured out of brass but can be supplied in SS-304/316 and Aluminium also.

These Glands have One Rubber seal to ensure proper grip on Cable Outer Sheath. Brass Glands are nickel plated to avoid corrosion whilst storage and use. SS and Aluminium Glands are treated with ultrasonic bath.

These Glands are suitable for use under most climatic conditions and are certified by Central Institute of Mining and Fuel Research, Dhanbad for use in weather proof conditions. These Glands are rated with IP protection upto IP-65 Levels.

These glands are available in different sizes, suitable for all types of unarmored/ flexible cables upto 1000 sq.mm

Suffix – BCT= for Brass Glands, SCT= for SS Glands and ALCT= for Aluminium Glands

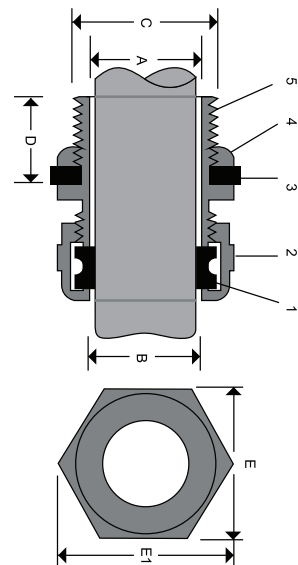
Threads can be ET/ mm/NPT as per requirement



## Braco Make Single Compression Glands (Weather proof)

Through Type for Unarmoured Cables.

| Sr. No. | Braco Cat. No. | B    | A    | A/F<br>E | A/C<br>E1 | Nipple thread<br>C | D  | Above | Upto |
|---------|----------------|------|------|----------|-----------|--------------------|----|-------|------|
| 1       | BCT-001SS      | 11   | 14   | 22       | 25        | 3/4"               | 12 | 5     | 10   |
| 2       | BCT-001S       | 14   | 14   | 22       | 25        | 3/4"               | 12 | 10    | 13.5 |
| 3       | BCT-001        | 15   | 15   | 24       | 27.5      | 3/4"               | 12 | 11    | 14.5 |
| 4       | BCT-01 L       | 20   | 19   | 28       | 31        | 1"                 | 15 | 14    | 18   |
| 5       | BCT-02         | 20.5 | 20.5 | 30       | 35        | 1"                 | 15 | 18    | 20   |
| 6       | BCT-03 SP      | 23   | 23   | 32       | 36.5      | 28mm               | 15 | 20    | 23   |
| 7       | BCT-04L        | 28   | 27   | 37       | 43        | 1-1/4"             | 15 | 23    | 26   |
| 8       | BCT-05 L       | 31   | 31   | 41       | 47        | 1-1/2"             | 20 | 26    | 30   |
| 9       | BCT-06 SP      | 35   | 34   | 47       | 54        | 40mm               | 20 | 30    | 33   |
| 10      | BCT-07 SP      | 39   | 37   | 52       | 59        | 42mm               | 20 | 33    | 36   |
| 11      | BCT-08         | 43   | 43   | 55       | 63        | 2"                 | 20 | 36    | 41   |
| 12      | BCT-09         | 47   | 45   | 57       | 66        | 2"                 | 20 | 41    | 44   |
| 13      | BCT-010L       | 54   | 54   | 67       | 77        | 2-1/2"             | 20 | 44    | 52   |
| 14      | BCT-011S       | 56   | 56   | 70       | 81        | 2-1/2"             | 20 | 52    | 55   |
| 15      | BCT-011L       | 61   | 60   | 80       | 92        | 70mm               | 20 | 55    | 60   |
| 16      | BCT-012        | 68   | 67   | 84       | 97        | 3"                 | 20 | 60    | 66   |
| 17      | BCT-013SL      | 73   | 72   | 90       | 103       | 3-1/4"             | 20 | 66    | 72   |
| 18      | BCT-013        | 79   | 78   | 99       | 113       | 3-1/2"             | 20 | 72    | 78   |
| 19      | BCT-014        | 85   | 84   | 105      | 118       | 3-3/4"             | 20 | 78    | 83   |
| 20      | BCT-015        | 95   | 94   | 113      | 128       | 4"                 | 20 | 83    | 93   |
| 21      | BCT-016        | 106  | 105  | 125      | 140       | 4-1/2"             | 20 | 93    | 104  |



### Description Material

- |                 |                     |
|-----------------|---------------------|
| 1. outer seal   | Nitrile Rubber (R1) |
| 2. Sealing Nut  | Brass               |
| 3. Flat washer  | Nitrile Rubber      |
| 4. Check Nut    | Brass               |
| 5. Gland barrel | Brass               |

### Note:

1. Material : Brass as per IS-12943:1990 OR Aluminium HE-30 Grade OR SS-304/316
2. Gland Entry Thread : BSC & MM as specified (BSP or Npt also in special case)
3. Nickel plated with plating thickness min 10 microns as per IS 12943:1990 (only in case of Brass)
4. IP protection - IP-65

Braco Nylon PG type Glands are suitable for unarmoured, plastic or rubber sheathed cables. These glands are made from UL approved Nylon PA-66 grade.

These Glands provide IP protection upto IP-68 levels. The Claws and seals of excellent design, sealing nut have a click sound and reopen can hold cable firmly and have a wider cable Range. Resistant to salt water, Weak acid, Alcohol, Oil, Grease and Common Solvency.

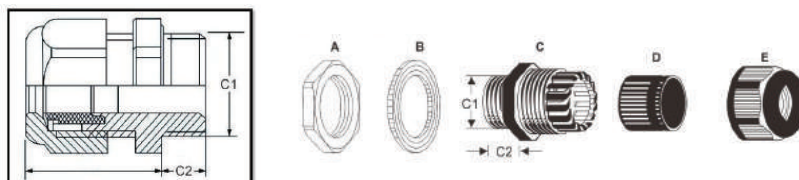


### Nylon Cable Glands PG Type (PG & Metric Threads)

| Gland Size | Cable OD Range | Thread OD C 1 | Thread Length C 2 | Hex Dimension | Gland Size      | Cable OD Range | Thread OD C 1 | Thread Length C 2 | Hex Dimension |
|------------|----------------|---------------|-------------------|---------------|-----------------|----------------|---------------|-------------------|---------------|
| PPG-7      | 3-6.5          | 12.5          | 8                 | 16            | PPGM-12 x 1.5   | 3-6.5          | M12           | 8                 | 16            |
| PPG-7 S    | 2-5            | 12.5          | 8                 | 16            | PPGM-12 x 1.5 S | 2-5            | M12           | 8                 | 16            |
| PPG-9      | 4-8            | 15.2          | 8                 | 19            | PPGM-16 x 1.5   | 4-8            | M16           | 8                 | 19            |
| PPG-9 S    | 2-6            | 15.2          | 8                 | 19            | PPGM-16 x 1.5 S | 2-6            | M16           | 8                 | 19            |
| PPG-11     | 5-10           | 18.6          | 8                 | 22            | PPGM-18 x 1.5   | 5-10           | M18           | 8                 | 22            |
| PPG-11 S   | 3-7            | 18.6          | 8                 | 22            | PPGM-18 x 1.5 S | 3-7            | M18           | 8                 | 22            |
| PPG-13.5   | 6-12           | 20.4          | 10                | 24            | PPGM-20 x 1.5   | 6-12           | M20           | 10                | 24            |
| PPG-13.5 S | 5-9            | 20.4          | 10                | 24            | PPGM-20 x 1.5 S | 5-9            | M20           | 10                | 24            |
| PPG-16     | 10-14          | 22.5          | 10                | 27            | PPGM-22 x 1.5   | 10-14          | M22           | 10                | 27            |
| PPG-16 S   | 7-12           | 22.5          | 10                | 27            | PPGM-22 x 1.5 S | 7-12           | M22           | 10                | 27            |
| PPG-19     | 12-16          | 24            | 10                | 27            | PPGM-24 x 1.5   | 12-16          | M24           | 10                | 27            |
| PPG-19 S   | 10-13          | 24            | 10                | 27            | PPGM-24 x 1.5 S | 10-13          | M24           | 10                | 27            |
| PPG-21     | 13-18          | 28.3          | 10                | 33            | PPGM-25 x 1.5   | 13-18          | M25           | 10                | 33            |
| PPG-21 S   | 9-16           | 28.3          | 10                | 33            | PPGM-25 x 1.5 S | 9-16           | M25           | 10                | 33            |
| PPG-25     | 16-21          | 30            | 11                | 35            | PPGM-27 x 1.5   | 13-18          | M27           | 10                | 33            |
| PPG-25 S   | 13-18          | 30            | 11                | 35            | PPGM-27 x 1.5 S | 9-16           | M27           | 10                | 33            |
| PPG-29     | 18-25          | 37            | 12                | 42            | PPGM-30 x 1.5   | 16-21          | M30           | 11                | 35            |
| PPG-29 S   | 13-20          | 37            | 12                | 42            | PPGM-30 x 1.5 S | 13-18          | M30           | 11                | 35            |
| PPG-36     | 22-32          | 47            | 14                | 52            | PPGM-32 x 1.5   | 16-21          | M32           | 11                | 35            |
| PPG-36 S   | 20-26          | 47            | 14                | 52            | PPGM-32 x 1.5 S | 13-18          | M32           | 11                | 35            |
| PPG-42     | 32-38          | 54            | 14                | 60            | PPGM-36 x 1.5   | 18-25          | M36           | 12                | 42            |
| PPG-42 S   | 25-31          | 54            | 14                | 60            | PPGM-36 x 1.5 S | 13-20          | M36           | 12                | 42            |
| PPG-48     | 37-44          | 59.3          | 15                | 64            | PPGM-40 x 1.5   | 22-32          | M40           | 14                | 52            |
| PPG-48 S   | 29-35          | 59.3          | 15                | 64            | PPGM-40 x 1.5 S | 20-26          | M40           | 14                | 52            |
| PPG-63     | 42-50          | 71            | 28                | 77            | PPGM-50 x 1.5   | 32-38          | M50           | 14                | 60            |
| PPG-63 S   | 32-40          | 71            | 28                | 77            | PPGM-50 x 1.5 S | 25-31          | M50           | 14                | 60            |
|            |                |               |                   |               | PPGM-63 x 1.5   | 37-44          | M63           | 15                | 64            |
|            |                |               |                   |               | PPGM-63 x 1.5 S | 29-35          | M63           | 15                | 64            |

PPG : PG Thread Glands. Suffix 'S' is for smaller dia Rubber.

PPGM : Metric Thread Glands. Suffix 'S' is for smaller dia Rubber.



Braco Brass PG type Glands are suitable for unarmoured, plastic or rubber sheathed cables. These glands are made from Brass with Nickel Plated.

These Glands provide IP protection upto IP-68 levels. Polyamide Claws with EPDM Rubber can hold cable firmly and have a wider cable Range. Resistant to salt water, Weak acid, Alcohol, Oil, Grease and Common Solvency.



### Brass Cable Glands PG Type - (PG & Metric Thread)

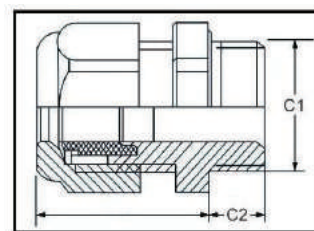
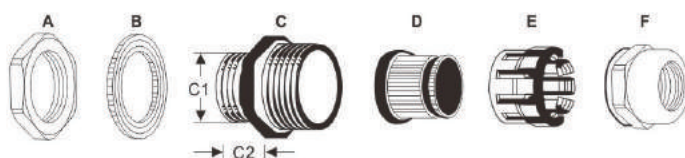
| Gland Size | Cable OD Range | Thread OD C1 | Thread Length C2 |      | Hex Dimension |
|------------|----------------|--------------|------------------|------|---------------|
|            |                |              | Short            | Long |               |
| BPG- 7     | 3-6.5          | 12.5         | 6                | 10   | 14            |
| BPG- 7 S   | 2-5            | 12.5         | 6                | 10   | 14            |
| BPG-9      | 4-8            | 15.2         | 7                | 10   | 17            |
| BPG-9 S    | 2-6            | 15.2         | 7                | 10   | 17            |
| BPG-11     | 5-10           | 18.6         | 7                | 10   | 20            |
| BPG-11 S   | 3-7            | 18.6         | 7                | 10   | 20            |
| BPG-13.5   | 6-12           | 20.4         | 7.5              | 10   | 22            |
| BPG-13.5 S | 5-9            | 20.4         | 7.5              | 10   | 22            |
| BPG-16     | 10-14          | 22.5         | 7.5              | 10   | 24            |
| BPG-16 S   | 7-12           | 22.5         | 7.5              | 10   | 24            |
| BPG-19     | 11-15          | 24           | 8                | 12   | 26            |
| BPG-19 S   | 10-13          | 24           | 8                | 12   | 26            |
| BPG- 21    | 13-18          | 28.3         | 8                | 12   | 30            |
| BPG- 21 S  | 9-16           | 28.3         | 8                | 12   | 30            |
| BPG-25     | 16-20          | 30           | 9                | 12   | 33            |
| BPG-25 S   | 13-18          | 30           | 9                | 12   | 33            |
| BPG-29     | 18-25          | 37           | 9                | 12   | 40            |
| BPG-29 S   | 13-20          | 37           | 9                | 12   | 40            |
| BPG-36     | 22-32          | 47           | 9                | 15   | 50            |
| BPG-36 S   | 20-26          | 47           | 9                | 15   | 50            |
| BPG-42     | 32-38          | 54           | 10               | 15   | 57            |
| BPG-42 S   | 25-31          | 54           | 10               | 15   | 57            |
| BPG-48     | 37-44          | 59.3         | 11               | 15   | 64            |
| BPG-48 S   | 29-35          | 59.3         | 11               | 15   | 64            |
| BPG-63     | 42-52          | 72           | 15               | 20   | 80            |
| BPG-63 S   | 32-40          | 72           | 15               | 20   | 80            |

| Gland Size        | Cable OD Range | Thread OD C1 | Thread Length C2 |      | Hex Dimension |
|-------------------|----------------|--------------|------------------|------|---------------|
|                   |                |              | Short            | Long |               |
| BPGM-12 x 1.5     | 3-6.5          | M-12         | 6                | 10   | 14            |
| BPGM-16 x 1.5     | 4-8            | M-16         | 7                | 10   | 17            |
| BPGM-18 x 1.5     | 5-10           | M-18         | 7                | 10   | 20            |
| BPGM-20 x 1.5     | 6-12           | M-20         | 7.5              | 10   | 22            |
| BPGM-22 x 1.5     | 10-14          | M-22         | 7.5              | 10   | 24            |
| BPGM-24 x 1.5     | 11-15          | M-24         | 8                | 12   | 26            |
| BPGM-25 x 1.5     | 12-16          | M-25         | 8                | 12   | 27            |
| BPGM-25 x 1.5     | 13-18          | M-25         | 8                | 12   | 30            |
| BPGM-27 x 1.5(2)  | 13-18          | M-27         | 8                | 12   | 30            |
| BPGM-30 x 1.5(2)  | 15-20          | M-30         | 9                | 12   | 33            |
| BPGM-32 x 1.5(2)  | 16-21          | M-32         | 9                | 12   | 35            |
| BPGM-40 x 1.5(2)  | 22-32          | M-40         | 9                | 15   | 45            |
| BPGM-50 x 1.5(2)  | 32-38          | M-50         | 10               | 15   | 57            |
| BPGM-63 x 1.5(2)  | 37-44          | M-63         | 11               | 15   | 68            |
| BPGM-70 x 1.5(2)  | 42-52          | M-70         | 15               | 20   | 80            |
| BPGM-72 x 1.5(2)  | 42-52          | M-70         | 15               | 20   | 80            |
| BPGM-75 x 1.5(2)  | 42-52          | M-75         | 15               | 20   | 80            |
| BPGM-80 x 1.5(2)  | 55-62          | M-80         | 15               | 20   | 87            |
| BPGM-88 x 1.5(2)  | 65-70          | M-88         | 15               | 20   | 95            |
| BPGM-100 x 1.5(2) | 78-84          | M-100        | 15               | 20   | 110           |

BPGM: Metric Thread PG Glands. Suffix 'L' is for Long Nipple

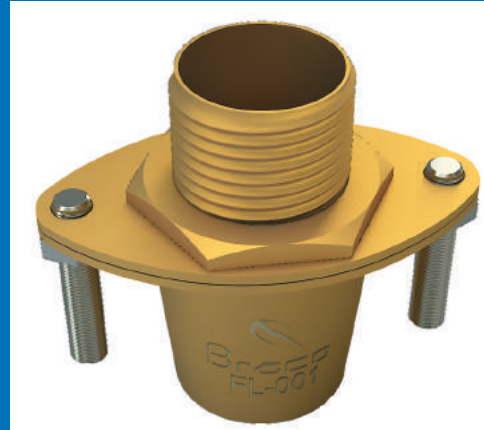
BPG : PG Thread Glands. Suffix 'S' is for smaller dia Rubber, Suffix 'L' is for Long Nipple, Suffix 'SL' is for small rubber is for long Nipple.



Braco Flange Type Cable Glands are made out of brass castings and are machined accurately to the required sizes. These glands are suitable for armoured cables and are called mechanical glands hence suitable for outdoor application.

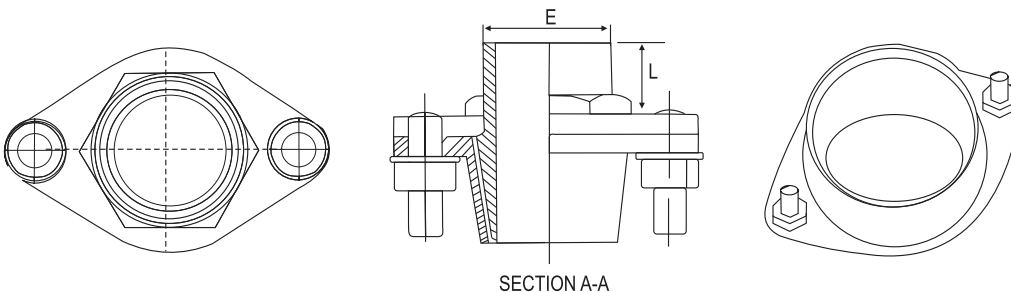
The gland comprises of brass body (flange type oval shape) and plate clamped with galvanized mild steel studs and nuts for clamping the armour. Tapered cone and nut are provided for termination of cable.

The cone and body taper is designed for giving a firm grip to the armour of the cable.

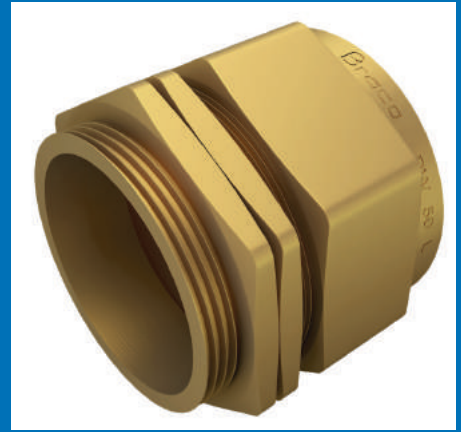


## FLANGE TYPE CABLE GLANDS

| Code No | E(mm) | Max Dia Of Cable | Under Armour Dia | L    | Acceptance Dia |      |
|---------|-------|------------------|------------------|------|----------------|------|
|         |       |                  |                  |      | Min            | Max  |
| FL 5    | 15.0  | 16.5             | 10.0             | 13.0 | 12.0           | 16.5 |
| FL 4    | 19.0  | 19.0             | 13.5             | 13.0 | 15.0           | 19.0 |
| FL 3    | 19.5  | 20.5             | 13.0             | 13.0 | 18.5           | 20.5 |
| FL 2    | 25.0  | 24.5             | 19.0             | 16.5 | 20.5           | 24.5 |
| FL 1    | 31.0  | 30.0             | 25.5             | 15.5 | 24.0           | 30.0 |
| FL 11   | 31.0  | 34.0             | 28.0             | 15.0 | 29.5           | 34.0 |
| FL 0    | 37.5  | 35.0             | 29.5             | 21.0 | 32.5           | 35.0 |
| FL 00   | 37.5  | 38.0             | 29.5             | 20.0 | 34.5           | 38.0 |
| FL 38   | 42.0  | 42.0             | 34.5             | 21.5 | 37.0           | 42.0 |
| FL 001  | 49.0  | 44.0             | 41.0             | 20.5 | 40.5           | 44.0 |
| FL 002  | 53.5  | 52.0             | 46.0             | 21.5 | 43.5           | 52.0 |
| FL 003  | 60.0  | 58.0             | 52.0             | 23.0 | 51.0           | 58.0 |
| FL 0033 | 65.0  | 67.0             | 56.0             | 25.5 | 56.5           | 67.0 |
| FL 004  | 75.0  | 76.0             | 65.2             | 22.5 | 66.0           | 76.0 |
| FL 005  | 99.0  | 83.0             | 88.0             | 22.5 | 75.0           | 83.0 |

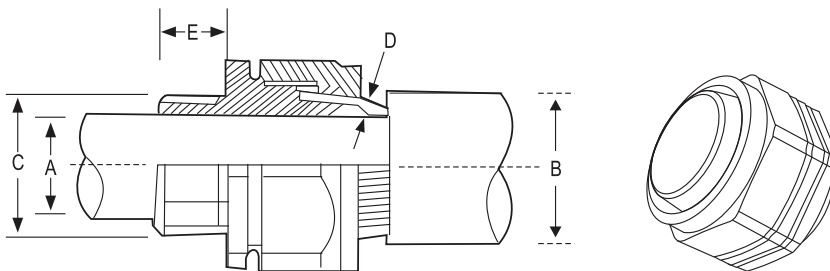


Braco BW Brass cable glands are as per BS 6121 Part 1:1989 and suitable for single wire armoured plastic or rubber sheathed cables. These glands provide mechanical cable retention, and electrical continuity via armour wire termination. The use of these glands is recommended in dry, indoor situations. Shrouds may be used for ingress protection.

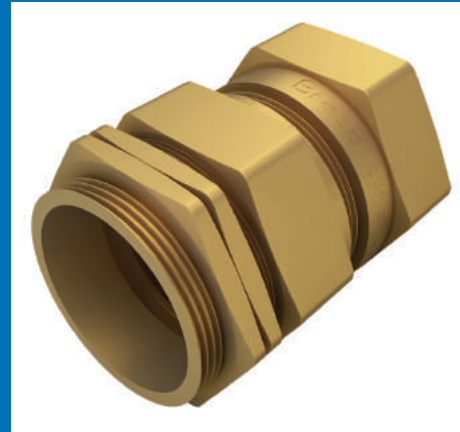


### BW Type Cable Glands

| GLAND SIZE | ENTRY THREAD |                  | CABLE ACCEPTANCE DETAIL |            |                   | ACROSS FLAT | ACROSS CORNER |
|------------|--------------|------------------|-------------------------|------------|-------------------|-------------|---------------|
|            | DIA. C       | LENGTH MINIMUM E | DIA MAX. A              | DIA MAX. B | ARMOUR DIAMETER D |             |               |
| 20 S       | 20           | 9                | 11.60                   | 16.00      | 0.9/1.25          | 21.50       | 24.50         |
| 20 L       | 20           | 9                | 14.00                   | 20.00      | 0.9/1.25          | 24.20       | 27.30         |
| 25 S       | 25           | 9                | 19.00                   | 24.00      | 1.25/1.60         | 30.00       | 33.60         |
| 25 L       | 25           | 10               | 20.00                   | 27.00      | 1.25/1.60         | 30.00       | 34.40         |
| 32 S       | 32           | 10               | 24.00                   | 30.50      | 1.60/2.00         | 36.50       | 40.00         |
| 32 L       | 32           | 10               | 26.20                   | 33.00      | 1.60/2.00         | 36.50       | 42.30         |
| 40 S       | 40           | 11               | 30.00                   | 37.00      | 1.60/2.00         | 44.50       | 50.00         |
| 40 L       | 40           | 11               | 32.50                   | 41.00      | 1.60/2.00         | 46.50       | 52.00         |
| 50 S       | 50           | 13               | 40.00                   | 47.50      | 2.00/2.50         | 55.00       | 62.00         |
| 50 L       | 50           | 13               | 44.00                   | 52.60      | 2.00/2.50         | 59.00       | 66.00         |
| 63 S       | 63           | 14               | 51.00                   | 60.00      | 2.50              | 69.00       | 76.00         |
| 63 L       | 63           | 14               | 55.00                   | 66.00      | 2.50              | 73.00       | 82.00         |
| 75 S       | 75           | 15               | 62.00                   | 72.00      | 2.50              | 83.00       | 94.00         |
| 75 L       | 75           | 15               | 67.00                   | 78.00      | 2.50              | 86.30       | 98.00         |
| 90 S       | 90           | 20               | 74.00                   | 84.00      | 2.50/3.15         | 94.00       | 104.00        |
| 90 L       | 90           | 20               | 79.00                   | 90.00      | 2.50/3.15         | 105.00      | 118.00        |

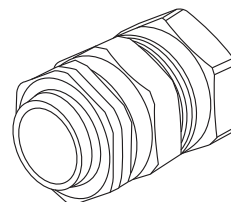
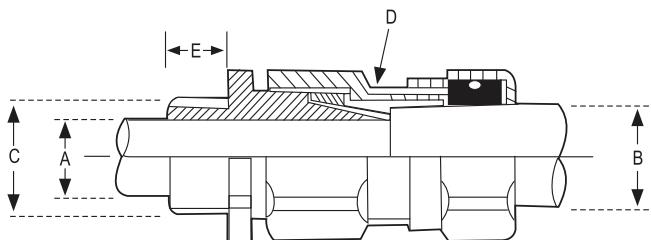


Braco CW Brass cable glands are as per BS 6121 Part 1 :1989 and suitable for single wire armoured plastic or rubber sheathed cables. The outer seal grips sheath. These glands provide mechanical cable retention, and electrical continuity via armour wire termination. The use of these glands is recommended in indoor as well as outdoor application because of suitability in most climatic conditions weather proof and water proof.



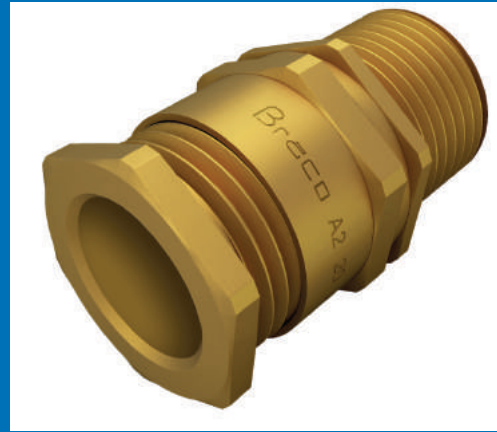
### CW Type Cable Glands

| GLAND SIZE | ENTRY THREAD |                  | CABLE ACCEPTANCE DETAIL |            |                   | ACROSS FLAT | ACROSS CORNER |
|------------|--------------|------------------|-------------------------|------------|-------------------|-------------|---------------|
|            | DIA. C       | LENGTH MINIMUM E | DIA MAX. A              | DIA MAX. B | ARMOUR DIAMETER D |             |               |
| 20 S       | 20           | 10               | 11.60                   | 16.00      | 0.9/1.25          | 22.00       | 25.00         |
| 20 L       | 20           | 10               | 14.00                   | 20.00      | 0.9/1.25          | 25.40       | 28.50         |
| 25 S       | 25           | 10               | 19.00                   | 24.00      | 1.25/1.60         | 30.00       | 33.60         |
| 25 L       | 25           | 10               | 20.00                   | 27.00      | 1.25/1.60         | 33.00       | 37.00         |
| 32 S       | 32           | 10               | 24.00                   | 30.50      | 1.60/2.00         | 38.00       | 43.00         |
| 32 L       | 32           | 10               | 26.20                   | 33.00      | 1.60/2.00         | 40.00       | 45.00         |
| 40 S       | 40           | 11               | 30.00                   | 37.00      | 1.60/2.00         | 44.50       | 50.00         |
| 40 L       | 40           | 11               | 32.50                   | 41.00      | 1.60/2.00         | 46.50       | 52.00         |
| 50 S       | 50           | 13               | 40.00                   | 47.50      | 2.00/2.50         | 55.00       | 62.00         |
| 50 L       | 50           | 13               | 44.00                   | 52.60      | 2.00/2.50         | 59.00       | 66.00         |
| 63 S       | 63           | 14               | 51.00                   | 60.00      | 2.50              | 69.00       | 76.00         |
| 63 L       | 63           | 14               | 55.00                   | 66.00      | 2.50              | 73.00       | 82.00         |
| 75 S       | 75           | 15               | 62.00                   | 72.00      | 2.50              | 83.00       | 94.00         |
| 75 L       | 75           | 15               | 67.00                   | 78.00      | 2.50              | 87.60       | 99.00         |
| 90 S       | 90           | 20               | 74.00                   | 84.00      | 2.50/3.15         | 94.00       | 104.00        |
| 90 L       | 90           | 20               | 79.00                   | 90.00      | 2.50/3.15         | 105.00      | 118.00        |



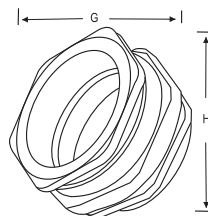
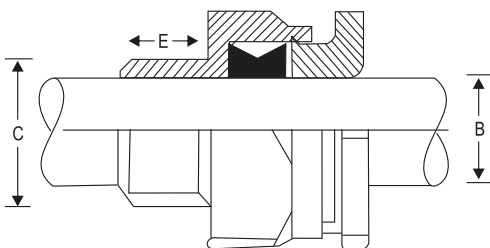


Braco A2 type brass cable glands are as per BS 6121 Part 1:1989 and suitable for unarmoured, plastic or rubber sheathed cables. These glands provide outer seal joint and are suitable for indoor as well as outdoor applications.

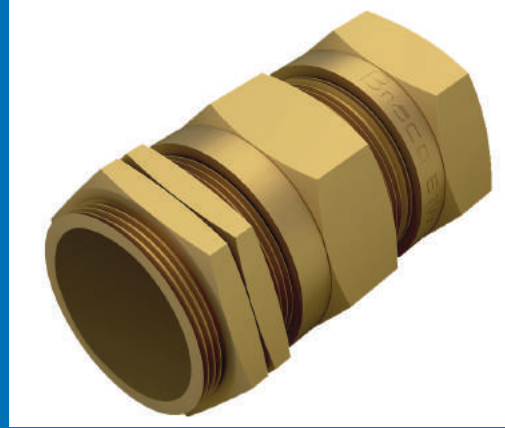


## A2 Type Glands

| GLAND SIZE | ENTRY THREAD |                  |               |             |               |
|------------|--------------|------------------|---------------|-------------|---------------|
|            | DIA. C       | LENGTH MINIMUM E | DIA MAX. B    | ACROSS FLAT | ACROSS CORNER |
| 16L        | 16           | 12               | 3.50 - 9.00   | 21.00       | 24.00         |
| 20S        | 20           | 12               | 8.00 - 11.70  | 22.00       | 25.00         |
| 20L        | 20           | 12               | 11.00 - 14.00 | 24.00       | 26.60         |
| 25S        | 25           | 15               | 12.00 - 17.00 | 27.00       | 30.50         |
| 25L        | 25           | 15               | 13.00 - 20.70 | 30.00       | 33.30         |
| 32S        | 32           | 15               | 16.50 - 23.00 | 37.00       | 41.00         |
| 32L        | 32           | 15               | 19.00 - 26.30 | 41.00       | 45.50         |
| 40S        | 40           | 20               | 23.00 - 29.00 | 45.00       | 50.00         |
| 40L        | 40           | 20               | 25.00 - 33.00 | 46.00       | 51.00         |
| 50S        | 50           | 20               | 31.50 - 38.20 | 58.00       | 64.00         |
| 50L        | 50           | 20               | 36.50 - 44.00 | 62.00       | 69.00         |
| 63S        | 63           | 20               | 42.50 - 50.00 | 69.00       | 76.00         |
| 63L        | 63           | 20               | 48.00 - 56.00 | 73.00       | 81.00         |
| 75S        | 75           | 20               | 54.50 - 62.00 | 82.00       | 91.00         |
| 75L        | 75           | 20               | 60.50 - 68.00 | 88.00       | 97.00         |
| 90L        | 90           | 20               | 66.00 - 77.00 | 103.00      | 114.00        |

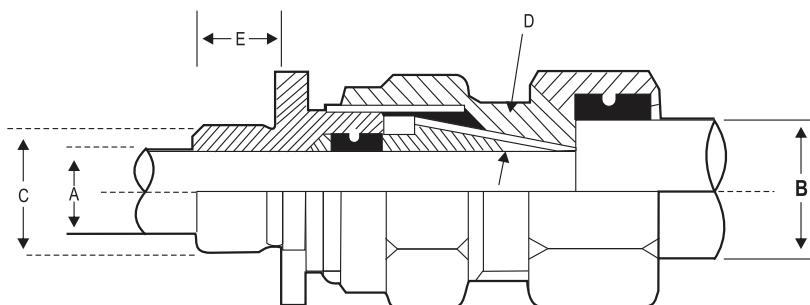


Braco E1W type brass glands are as per BS 612 part I:1989 suitable for indoor as well as outdoor applications. These glands are suitable for all types of SWA cable, providing environmental seal on both the cable inner and electrical continuity via armour wire termination.



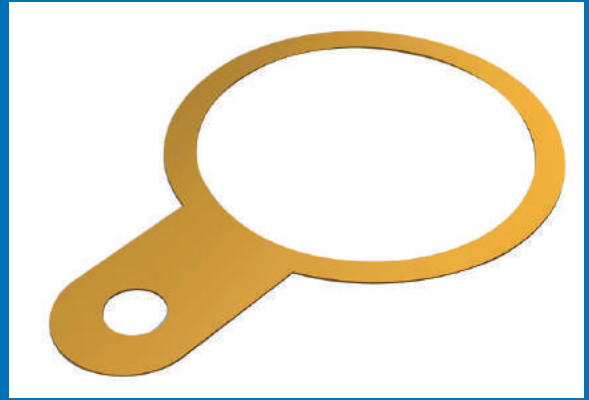
## BRACO E1W TYPE GLANDS

| GLAND SIZE | ENTRY THREAD |                  | CABLE ACCEPTANCE DETAIL |               |                   | ACROSS FLAT | ACROSS CORNER |
|------------|--------------|------------------|-------------------------|---------------|-------------------|-------------|---------------|
|            | DIA. C       | LENGTH MINIMUM E | DIA MAX. A              | DIA MAX. B    | ARMOUR DIAMETER D |             |               |
| 20 S       | 20           | 10               | 8.00 - 11.80            | 12.90 - 17.20 | 0.90/1.25         | 24.00       | 27.00         |
| 20 L       | 20           | 10               | 11.00 - 14.00           | 15.50 - 20.80 | 0.90/1.25         | 27.70       | 31.00         |
| 25 S       | 25           | 10               | 12.00 - 17.00           | 17.50 - 24.00 | 1.25/1.60         | 31.50       | 35.00         |
| 25 L       | 25           | 10               | 13.00 - 20.30           | 24.00 - 27.20 | 1.25/1.60         | 35.00       | 39.00         |
| 32 S       | 32           | 10               | 17.00 - 24.00           | 25.00 - 31.00 | 1.60/2.00         | 43.00       | 47.50         |
| 32 L       | 32           | 10               | 19.00 - 26.20           | 26.70 - 34.00 | 1.60/2.00         | 43.00       | 47.50         |
| 40 S       | 40           | 15               | 23.00 - 30.00           | 31.00 - 38.50 | 1.60/2.00         | 51.50       | 57.00         |
| 40 L       | 40           | 15               | 25.00 - 32.20           | 33.00 - 40.50 | 1.60/2.00         | 51.50       | 57.00         |
| 50 S       | 50           | 15               | 31.50 - 38.20           | 39.40 - 46.80 | 2.00/2.50         | 58.50       | 65.00         |
| 50 L       | 50           | 15               | 36.50 - 44.00           | 45.70 - 53.20 | 2.00/2.50         | 66.00       | 73.00         |
| 63 S       | 63           | 15               | 42.50 - 50.00           | 52.10 - 59.00 | 2.50              | 72.00       | 80.00         |
| 63 L       | 63           | 15               | 49.10 - 56.00           | 58.40 - 66.00 | 2.50              | 80.00       | 89.00         |
| 75 S       | 75           | 17               | 54.50 - 62.00           | 64.80 - 72.00 | 2.50              | 86.50       | 97.00         |
| 75 L       | 75           | 17               | 60.50 - 68.00           | 71.10 - 78.00 | 2.50              | 94.00       | 105.00        |
| 90 L       | 90           | 20               | 66.00 - 79.00           | 77.00 - 90.00 | 2.50/3.15         | 106.00      | 118.00        |



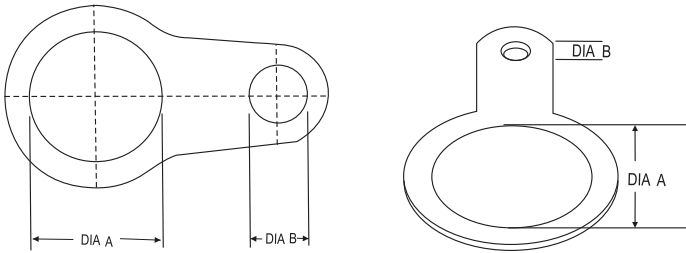


Braco earth tags are made out of brass sheets and punched to the required sizes and are suitable for all sizes of cable glands. Electrical continuity is normally achieved via the screwed entry into metal boxes. For clearance Hole entry situations it is essential to obtain direct metal-to-metal contact between the gland, earth tag and the enclosure. These are used to ensure earth continuity between the gland and the equipment.



## Earth Tags

| Cat No. | Dia A (mm) | Dia B (bolt Hole) | Thickness (mm) | Short Circuit Rating KA |
|---------|------------|-------------------|----------------|-------------------------|
| ET -20  | 20.3       | 6.7               | 1.5            | 4.4                     |
| ET -25  | 25.8       | 6.7               | 1.5            | 4.0                     |
| ET -32  | 32.4       | 12.4              | 1.5            | 6.2                     |
| ET -40  | 40.4       | 13.2              | 1.5            | 9.8                     |
| ET -50  | 51.2       | 13.2              | 1.5            | 11.4                    |
| ET -63  | 63.9       | 13.2              | 1.5            | 12.0                    |
| ET -75  | 76.6       | 13.2              | 1.5            | 14.3                    |



Braco Adaptors are used along with Glands for Extended or reduced entry holes in an apparatus. These are mainly manufactured out of brass but can be supplied in SS-304/316 and Aluminium also.

Brass Adaptors are nickel plated to avoid corrosion whilst storage and use. These are supplied with "O" Rings for IP protection. These Adaptors are Certified by Central Institute of Mining and Fuel Research, Dhanbad for use in Weather proof as well as Flame proof conditions

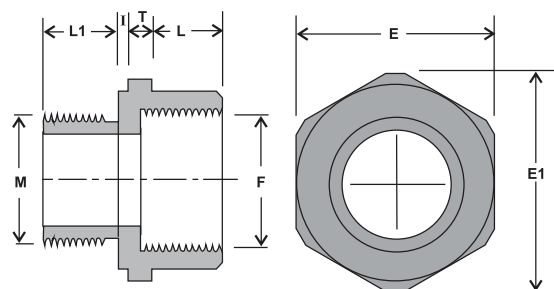
Adaptors are available with Different thread combination such as ET to ET, ET to MM, ET to NPT, MM to ET, MM to MM, MM to NPT, NPT to ET, NPT to MM and NPT to NPT

Suffix – BAD = for Brass Adaptors, SAD = for SS Adaptors and ALAD = for Aluminium Adaptors



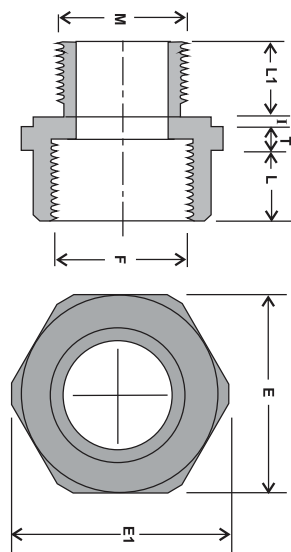
## ADAPTOR

| SIZE (M X F)              | M        | F        | L1 | T | L  | E    | E1   |
|---------------------------|----------|----------|----|---|----|------|------|
| BAD 5/8" ET X 3/4" ET     | 5/8"ET   | 3/4"ET   | 12 | 3 | 12 | 22   | 25.5 |
| BAD 5/8" ET X 1" ET       | 5/8"ET   | 1"ET     | 12 | 3 | 12 | 28   | 32.5 |
| BAD 5/8" ET X 1-1/4" ET   | 5/8"ET   | 1-1/4"ET | 12 | 4 | 12 | 35   | 40.5 |
| BAD 3/4" ET X 1" ET       | 3/4"ET   | 1"ET     | 12 | 3 | 12 | 28   | 32.5 |
| BAD 3/4" ET X 1-1/4" ET   | 3/4"ET   | 1-1/4"ET | 12 | 4 | 12 | 35   | 40.5 |
| BAD 3/4" ET X 1-1/2" ET   | 3/4"ET   | 1-1/2"ET | 12 | 4 | 12 | 42   | 48   |
| BAD 1" ET X 1-1/2" ET     | 1"ET     | 1-1/2"ET | 12 | 4 | 12 | 42   | 48   |
| BAD 1" ET X 1-1/4" ET     | 1"ET     | 1-1/4"ET | 12 | 4 | 12 | 35   | 40.5 |
| BAD 1" ET X 2" ET         | 1"ET     | 2"ET     | 12 | 4 | 15 | 55   | 64   |
| BAD 1-1/4" ET X 1-1/2" ET | 1-1/4"ET | 1-1/2"ET | 12 | 4 | 12 | 42   | 48   |
| BAD 1-1/4" ET X 2" ET     | 1-1/4"ET | 2"ET     | 12 | 4 | 15 | 55   | 64   |
| BAD 1-1/4" ET X 2-1/2" ET | 1-1/4"ET | 2-1/2"ET | 12 | 5 | 15 | 68   | 79   |
| BAD 1-1/2" ET X 2" ET     | 1-1/2"ET | 2"ET     | 12 | 4 | 15 | 55   | 64   |
| BAD 1-1/2" ET X 2-1/2" ET | 1-1/2"ET | 2-1/2"ET | 12 | 5 | 15 | 68   | 79   |
| BAD 1-1/2" ET X 3" ET     | 1-1/2"ET | 3"ET     | 12 | 5 | 15 | 81   | 94   |
| BAD 2" ET X 2-1/2" ET     | 2"ET     | 2-1/2"ET | 15 | 5 | 15 | 68   | 79   |
| BAD 2" ET X 3" ET         | 2"ET     | 3"ET     | 15 | 5 | 15 | 81   | 94   |
| BAD 2" ET X 3-1/2" ET     | 2"ET     | 3-1/2"ET | 15 | 6 | 15 | 95   | 110  |
| BAD 2-1/2" ET X 3" ET     | 2-1/2"ET | 3"ET     | 15 | 5 | 15 | 81   | 94   |
| BAD 2-1/2" ET X 3-1/2" ET | 2-1/2"ET | 3-1/2"ET | 15 | 6 | 15 | 95   | 110  |
| BAD 3" ET X 3-1/2" ET     | 3"ET     | 3-1/2"ET | 15 | 6 | 15 | 95   | 110  |
| BAD 5/8" ET X M20         | 5/8"ET   | M20      | 12 | 3 | 12 | 23.5 | 27.5 |



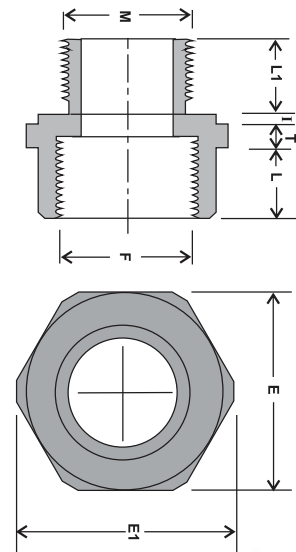
## ADAPTOR

| SIZE (M X F)        | M        | F        | L1 | T | L  | E    | E1   |
|---------------------|----------|----------|----|---|----|------|------|
| BAD 5/8" ET X M25   | 5/8"ET   | M25      | 12 | 3 | 12 | 28.5 | 33   |
| BAD 5/8" ET X M32   | 5/8"ET   | M32      | 12 | 4 | 12 | 35.5 | 41   |
| BAD 3/4" ET X M25   | 3/4"ET   | M25      | 12 | 3 | 12 | 28.5 | 33   |
| BAD 3/4" ET X M32   | 3/4"ET   | M32      | 12 | 4 | 12 | 35.5 | 41   |
| BAD 3/4" ET X M40   | 3/4"ET   | M40      | 12 | 4 | 12 | 43.5 | 50.5 |
| BAD 1" ET X M32     | 1"ET     | M32      | 12 | 4 | 12 | 35.5 | 41   |
| BAD 1" ET X M40     | 1"ET     | M40      | 12 | 4 | 12 | 43.5 | 50.5 |
| BAD 1" ET X M50     | 1"ET     | M50      | 12 | 4 | 15 | 54.5 | 63   |
| BAD 1-1/4" ET X M40 | 1-1/4"ET | M40      | 12 | 4 | 12 | 43.5 | 50.5 |
| BAD 1-1/4" ET X M50 | 1-1/4"ET | M50      | 12 | 4 | 15 | 54.5 | 63   |
| BAD 1-1/4" ET X M63 | 1-1/4"ET | M63      | 12 | 5 | 15 | 67.5 | 78.5 |
| BAD 1-1/2" ET X M50 | 1-1/2"ET | M50      | 12 | 4 | 15 | 54.5 | 63   |
| BAD 1-1/2" ET X M63 | 1-1/2"ET | M63      | 12 | 5 | 15 | 67.5 | 78.5 |
| BAD 1-1/2" ET X M75 | 1-1/2"ET | M75      | 12 | 5 | 15 | 79.5 | 92   |
| BAD 2" ET X M63     | 2"ET     | M63      | 15 | 5 | 15 | 67.5 | 78.5 |
| BAD 2" ET X M75     | 2"ET     | M75      | 15 | 5 | 15 | 79.5 | 92   |
| BAD 2" ET X M90     | 2"ET     | M90      | 15 | 6 | 15 | 94.5 | 110  |
| BAD 2-1/2" ET X M75 | 2-1/2"ET | M75      | 15 | 5 | 15 | 79.5 | 92   |
| BAD 2-1/2" ET X M90 | 2-1/2"ET | M90      | 15 | 6 | 15 | 94.5 | 110  |
| BAD 3" ET X M90     | 3"ET     | M90      | 15 | 6 | 15 | 94.5 | 110  |
| BAD M16 X 3/4" ET   | M16      | 3/4"ET   | 12 | 3 | 12 | 22   | 25.5 |
| BAD M16 X 1" ET     | M16      | 1"ET     | 12 | 3 | 12 | 28   | 32.5 |
| BAD M16 X 1-1/4" ET | M16      | 1-1/4"ET | 12 | 4 | 12 | 35   | 40.5 |
| BAD M20 X 1" ET     | M20      | 1"ET     | 12 | 3 | 12 | 28   | 32.5 |
| BAD M20 X 1-1/4" ET | M20      | 1-1/4"ET | 12 | 4 | 12 | 35   | 40.5 |
| BAD M20 X 1-1/2" ET | M20      | 1-1/2"ET | 12 | 4 | 12 | 42   | 48   |
| BAD M25 X 1-1/2" ET | M25      | 1-1/2"ET | 12 | 4 | 12 | 42   | 48   |
| BAD M25 X 1-1/4" ET | M25      | 1-1/4"ET | 12 | 4 | 12 | 35   | 40.5 |
| BAD M25 X 2" ET     | M25      | 2"ET     | 12 | 4 | 15 | 55   | 64   |
| BAD M32 X 1-1/2" ET | M32      | 1-1/2"ET | 12 | 4 | 12 | 42   | 48   |
| BAD M32 X 2" ET     | M32      | 2"ET     | 12 | 4 | 15 | 55   | 64   |
| BAD M32 X 2-1/2" ET | M32      | 2-1/2"ET | 12 | 4 | 15 | 68   | 79   |
| BAD M40 X 2" ET     | M40      | 2"ET     | 12 | 4 | 15 | 55   | 64   |
| BAD M40 X 2-1/2" ET | M40      | 2-1/2"ET | 12 | 4 | 15 | 68   | 79   |
| BAD M40 X 3" ET     | M40      | 3"ET     | 12 | 5 | 15 | 81   | 94   |
| BAD M50 X 2-1/2" ET | M50      | 2-1/2"ET | 15 | 4 | 15 | 68   | 79   |
| BAD M50 X 3" ET     | M50      | 3"ET     | 15 | 5 | 15 | 81   | 94   |
| BAD M50 X 3-1/2" ET | M50      | 3-1/2"ET | 15 | 6 | 15 | 95   | 110  |
| BAD M63 X 3" ET     | M63      | 3"ET     | 15 | 5 | 15 | 81   | 94   |
| BAD M63 X 3-1/2" ET | M63      | 3-1/2"ET | 15 | 6 | 15 | 95   | 110  |
| BAD M75 X 3-1/2" ET | M75      | 3-1/2"ET | 15 | 6 | 15 | 95   | 110  |
| BAD M16 X M20       | M16      | M20      | 12 | 3 | 12 | 23.5 | 27.5 |
| BAD M16 X M25       | M16      | M25      | 12 | 3 | 12 | 28.5 | 33   |
| BAD M16 X M32       | M16      | M32      | 12 | 4 | 12 | 35.5 | 41   |
| BAD M20 X M25       | M20      | M25      | 12 | 3 | 12 | 28.5 | 33   |
| BAD M20 X M32       | M20      | M32      | 12 | 4 | 12 | 35.5 | 41   |
| BAD M20 X M40       | M20      | M40      | 12 | 4 | 12 | 43.5 | 50.5 |
| BAD M25 X M32       | M25      | M32      | 12 | 4 | 12 | 35.5 | 41   |
| BAD M25 X M40       | M25      | M40      | 12 | 4 | 12 | 43.5 | 50.5 |
| BAD M25 X M50       | M25      | M50      | 12 | 4 | 15 | 54.5 | 63   |
| BAD M32 X M40       | M32      | M40      | 12 | 4 | 12 | 43.5 | 50.5 |
| BAD M32 X M50       | M32      | M50      | 12 | 4 | 15 | 54.5 | 63   |
| BAD M32 X M63       | M32      | M63      | 12 | 4 | 15 | 67.5 | 78.5 |
| BAD M40 X M50       | M40      | M50      | 12 | 4 | 15 | 54.5 | 63   |
| BAD M40 X M63       | M40      | M63      | 12 | 4 | 15 | 67.5 | 78.5 |



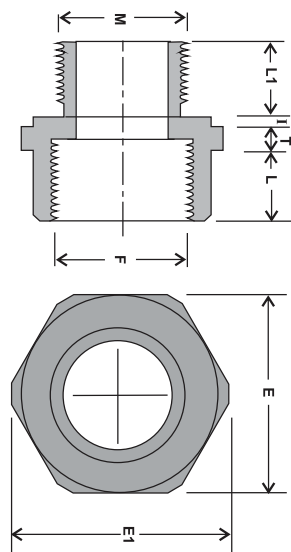
## ADAPTOR

| SIZE (M X F)              | M        | F         | L1 | T | L  | E    | E1   |
|---------------------------|----------|-----------|----|---|----|------|------|
| BAD M40 X M75             | M40      | M75       | 12 | 5 | 15 | 79.5 | 92   |
| BAD M50 X M63             | M50      | M63       | 15 | 4 | 15 | 67.5 | 78.5 |
| BAD M50 X M75             | M50      | M75       | 15 | 5 | 15 | 79.5 | 92   |
| BAD M50 X M90             | M50      | M90       | 15 | 6 | 15 | 94.5 | 110  |
| BAD M63 X M75             | M63      | M75       | 15 | 5 | 15 | 79.5 | 92   |
| BAD M63 X M90             | M63      | M90       | 15 | 6 | 15 | 94.5 | 110  |
| BAD M75 X M90             | M75      | M90       | 15 | 6 | 15 | 94.5 | 110  |
| BAD 5/8" ET X 1/2" NPT    | 5/8"ET   | 1/2"NPT   | 12 | 3 | 12 | 22   | 25.5 |
| BAD 5/8" ET X 3/4" NPT    | 5/8"ET   | 3/4"NPT   | 12 | 3 | 12 | 28   | 32.5 |
| BAD 5/8" ET X 1" NPT      | 5/8"ET   | 1"NPT     | 12 | 4 | 14 | 35   | 40.5 |
| BAD 3/4"ET X 1/2" NPT     | 3/4"ET   | 1/2"NPT   | 12 | 3 | 12 | 22   | 25.5 |
| BAD 3/4" ET X 3/4" NPT    | 3/4"ET   | 3/4"NPT   | 12 | 3 | 12 | 28   | 32.5 |
| BAD 3/4" ET X 1" NPT      | 3/4"ET   | 1"NPT     | 12 | 4 | 14 | 35   | 40.5 |
| BAD 3/4" ET X 1-1/4" NPT  | 3/4"ET   | 1-1/4"NPT | 12 | 4 | 15 | 42   | 48   |
| BAD 1" ET X 3/4" NPT      | 1"ET     | 3/4"NPT   | 12 | 3 | 12 | 28   | 32.5 |
| BAD 1" ET X 1" NPT        | 1"ET     | 1"NPT     | 12 | 4 | 14 | 35   | 40.5 |
| BAD 1"ET X 1-1/4" NPT     | 1"ET     | 1-1/4"NPT | 12 | 4 | 15 | 42   | 48   |
| BAD 1"ET X 1-1/2" ET      | 1"ET     | 1-1/2"ET  | 12 | 4 | 12 | 42   | 48   |
| BAD 1-1/4" ET X 1" NPT    | 1-1/4"ET | 1"NPT     | 12 | 4 | 14 | 35   | 40.5 |
| BAD 1-1/4"ET X 1-1/4" NPT | 1-1/4"ET | 1-1/4"NPT | 12 | 4 | 15 | 42   | 48   |
| BAD 1-1/4"ET X 1-1/2"NPT  | 1-1/4"ET | 1-1/2"NPT | 12 | 4 | 15 | 55   | 64   |
| BAD 1-1/4"ET X 2" NPT     | 1-1/4"ET | 2"NPT     | 12 | 5 | 16 | 68   | 79   |
| BAD 1-1/2"ET X 1-1/4"NPT  | 1-1/2"ET | 1-1/4"NPT | 12 | 4 | 15 | 42   | 48   |
| BAD 1-1/2"ET X 1-1/2"NPT  | 1-1/2"ET | 1-1/2"NPT | 12 | 4 | 15 | 55   | 64   |
| BAD 1-1/2"ET X 2" NPT     | 1-1/2"ET | 2"NPT     | 12 | 5 | 16 | 68   | 79   |
| BAD 1-1/2"ET X 2-1/2" NPT | 1-1/2"ET | 2-1/2"NPT | 12 | 5 | 22 | 81   | 94   |
| BAD 2" ET X 1-1/2" NPT    | 2"ET     | 1-1/2"NPT | 15 | 4 | 15 | 55   | 64   |
| BAD 2" ET X 2" NPT        | 2"ET     | 2"NPT     | 15 | 5 | 16 | 68   | 79   |
| BAD 2"ET X 2-1/2" NPT     | 2"ET     | 2-1/2"NPT | 15 | 5 | 22 | 81   | 94   |
| BAD 2"ET X 3" NPT         | 2"ET     | 3"NPT     | 15 | 6 | 22 | 95   | 110  |
| BAD 2-1/2"ET X 2" NPT     | 2-1/2"ET | 2"NPT     | 15 | 5 | 16 | 68   | 79   |
| BAD 2-1/2"ET X 2-1/2" NPT | 2-1/2"ET | 2-1/2"NPT | 15 | 5 | 22 | 81   | 94   |
| BAD 2-1/2"ET X 3" NPT     | 2-1/2"ET | 3"NPT     | 15 | 6 | 22 | 95   | 110  |
| BAD 3" ET X 2-1/2"NPT     | 3"ET     | 2-1/2"NPT | 15 | 5 | 22 | 81   | 94   |
| BAD 3" ET X 3" NPT        | 3"ET     | 3"NPT     | 15 | 6 | 22 | 95   | 110  |
| BAD M16 X 1/2" NPT        | M16      | 1/2"NPT   | 12 | 3 | 12 | 22   | 25.5 |
| BAD M16 X 3/4" NPT        | M16      | 3/4"NPT   | 12 | 3 | 12 | 28   | 32.5 |
| BAD M16 X 1" NPT          | M16      | 1"NPT     | 12 | 4 | 14 | 35   | 40.5 |
| BAD M20 X 1/2" NPT        | M20      | 1/2"NPT   | 12 | 3 | 12 | 22   | 25.5 |
| BAD M20 X 3/4" NPT        | M20      | 3/4"NPT   | 12 | 3 | 12 | 28   | 32.5 |
| BAD M20 X 1" NPT          | M20      | 1"NPT     | 12 | 4 | 14 | 35   | 40.5 |
| BAD M20 X 1-1/4" NPT      | M20      | 1-1/4"NPT | 12 | 4 | 15 | 42   | 48   |
| BAD M25 X 3/4" NPT        | M25      | 3/4"NPT   | 12 | 3 | 12 | 28   | 32.5 |
| BAD M25 X 1" NPT          | M25      | 1"NPT     | 12 | 4 | 14 | 35   | 40.5 |
| BAD M25 X 1-1/4" NPT      | M25      | 1-1/4"NPT | 12 | 4 | 15 | 42   | 48   |
| BAD M25 X 1-1/2" ET       | M25      | 1-1/2"ET  | 12 | 4 | 12 | 42   | 48   |
| BAD M32 X 1" NPT          | M32      | 1"NPT     | 12 | 4 | 14 | 35   | 40.5 |
| BAD M32 X 1-1/4" NPT      | M32      | 1-1/4"NPT | 12 | 4 | 15 | 42   | 48   |
| BAD M32 X 1-1/2"NPT       | M32      | 1-1/2"NPT | 12 | 4 | 15 | 55   | 64   |
| BAD M32 X 2" NPT          | M32      | 2"NPT     | 12 | 5 | 16 | 68   | 79   |
| BAD M40 X 1-1/4"NPT       | M40      | 1-1/4"NPT | 12 | 4 | 15 | 42   | 48   |
| BAD M40 X 1-1/2"NPT       | M40      | 1-1/2"NPT | 12 | 4 | 15 | 55   | 64   |
| BAD M40 X 2" NPT          | M40      | 2"NPT     | 12 | 5 | 16 | 68   | 79   |



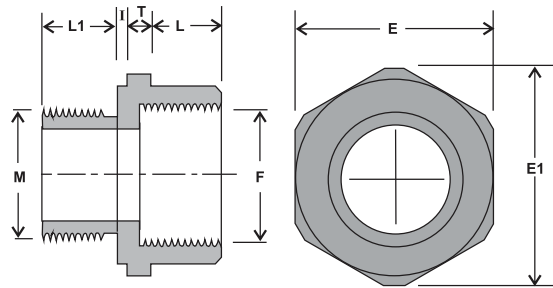
## ADAPTOR

| SIZE ( M X F )             | M         | F         | L1 | T | L  | E    | E1   |
|----------------------------|-----------|-----------|----|---|----|------|------|
| BAD M40 X 2" NPT           | M40       | 2"NPT     | 12 | 5 | 16 | 68   | 79   |
| BAD M40 X 2-1/2" NPT       | M40       | 2-1/2"NPT | 12 | 5 | 22 | 81   | 94   |
| BAD M50 X 1-1/2" NPT       | M50       | 1-1/2"NPT | 15 | 4 | 15 | 55   | 64   |
| BAD M50 X 2" NPT           | M50       | 2"NPT     | 15 | 5 | 16 | 68   | 79   |
| BAD M50 X 2-1/2" NPT       | M50       | 2-1/2"NPT | 15 | 5 | 22 | 81   | 94   |
| BAD M50 X 3" NPT           | M50       | 3"NPT     | 15 | 6 | 22 | 95   | 110  |
| BAD M63 X 2" NPT           | M63       | 2"NPT     | 15 | 5 | 16 | 68   | 79   |
| BAD M63 X 2-1/2" NPT       | M63       | 2-1/2"NPT | 15 | 5 | 22 | 81   | 94   |
| BAD M63 X 3" NPT           | M63       | 3"NPT     | 15 | 6 | 22 | 95   | 110  |
| BAD M75 X 2-1/2" NPT       | M75       | 2-1/2"NPT | 15 | 5 | 22 | 81   | 94   |
| BAD M75 X 3" NPT           | M75       | 3"NPT     | 15 | 6 | 22 | 95   | 110  |
| BAD 1/2" NPT X 3/4" ET     | 1/2"NPT   | 3/4"ET    | 12 | 3 | 12 | 22   | 25.5 |
| BAD 1/2" NPT X 1" ET       | 1/2"NPT   | 1"ET      | 12 | 4 | 12 | 28   | 32.5 |
| BAD 1/2" NPT X 1-1/4" ET   | 1/2"NPT   | 1-1/4"ET  | 12 | 4 | 12 | 35   | 40.5 |
| BAD 1/2" NPT X 1-1/2" ET   | 1/2"NPT   | 1-1/2"ET  | 12 | 4 | 12 | 42   | 48   |
| BAD 3/4" NPT X 1" ET       | 3/4"NPT   | 1"ET      | 12 | 4 | 12 | 28   | 32.5 |
| BAD 3/4" NPT X 1-1/4" ET   | 3/4"NPT   | 1-1/4"ET  | 12 | 4 | 12 | 35   | 40.5 |
| BAD 3/4" NPT X 1-1/2" ET   | 3/4"NPT   | 1-1/2"ET  | 12 | 4 | 12 | 42   | 48   |
| BAD 3/4" NPT X 2" ET       | 3/4"NPT   | 2"ET      | 12 | 5 | 15 | 55   | 64   |
| BAD 1" NPT X 1-1/2" ET     | 1"NPT     | 1-1/2"ET  | 14 | 4 | 12 | 42   | 48   |
| BAD 1" NPT X 2" ET         | 1"NPT     | 2"ET      | 14 | 5 | 15 | 55   | 64   |
| BAD 1" NPT X 2-1/2" ET     | 1"NPT     | 2-1/2"ET  | 14 | 5 | 15 | 68   | 79   |
| BAD 1-1/4" NPT X 2" ET     | 1-1/4"NPT | 2"ET      | 15 | 5 | 15 | 55   | 64   |
| BAD 1-1/4" NPT X 2-1/2" ET | 1-1/4"NPT | 2-1/2"ET  | 15 | 5 | 15 | 68   | 79   |
| BAD 1-1/4" NPT X 3" ET     | 1-1/4"NPT | 3"ET      | 15 | 6 | 15 | 81   | 94   |
| BAD 1-1/2" NPT X 2" ET     | 1-1/2"NPT | 2"ET      | 15 | 6 | 15 | 55   | 64   |
| BAD 1-1/2" NPT X 2-1/2" ET | 1-1/2"NPT | 2-1/2"ET  | 15 | 5 | 15 | 68   | 79   |
| BAD 1-1/2" NPT X 3" ET     | 1-1/2"NPT | 3"ET      | 15 | 6 | 15 | 81   | 94   |
| BAD 1-1/2" NPT X 3-1/2" ET | 1-1/2"NPT | 3-1/2"ET  | 15 | 6 | 15 | 95   | 110  |
| BAD 2" NPT X 2-1/2" ET     | 2"NPT     | 2-1/2"ET  | 16 | 6 | 15 | 68   | 79   |
| BAD 2" NPT X 3" ET         | 2"NPT     | 3"ET      | 16 | 6 | 15 | 81   | 94   |
| BAD 2" NPT X 3-1/2" ET     | 2"NPT     | 3-1/2"ET  | 16 | 6 | 15 | 95   | 110  |
| BAD 2-1/2" NPT X 3" ET     | 2-1/2"NPT | 3"ET      | 22 | 6 | 15 | 81   | 94   |
| BAD 2-1/2" NPT X 3-1/2" ET | 2-1/2"NPT | 3-1/2"ET  | 22 | 6 | 15 | 95   | 110  |
| BAD 1/2" NPT X M20         | 1/2"NPT   | M20       | 12 | 3 | 12 | 23.5 | 27.5 |
| BAD 1/2" NPT X M25         | 1/2"NPT   | M25       | 12 | 3 | 12 | 28.5 | 33   |
| BAD 1/2" NPT X M32         | 1/2"NPT   | M32       | 12 | 4 | 12 | 35.5 | 41   |
| BAD 1/2" NPT X M40         | 1/2"NPT   | M40       | 12 | 4 | 12 | 43.5 | 50.5 |
| BAD 3/4" NPT X M25         | 3/4"NPT   | M25       | 12 | 3 | 12 | 28.5 | 33   |
| BAD 3/4" NPT X M32         | 3/4"NPT   | M32       | 12 | 4 | 12 | 35.5 | 41   |
| BAD 3/4" NPT X M40         | 3/4"NPT   | M40       | 12 | 4 | 12 | 43.5 | 50.5 |
| BAD 3/4" NPT X M50         | 3/4"NPT   | M50       | 12 | 4 | 15 | 54.5 | 63   |
| BAD 1" NPT X M40           | 1"NPT     | M40       | 14 | 4 | 12 | 43.5 | 50.5 |
| BAD 1" NPT X M50           | 1"NPT     | M50       | 14 | 4 | 15 | 54.5 | 63   |
| BAD 1" NPT X M63           | 1"NPT     | M63       | 14 | 5 | 15 | 67.5 | 78.5 |
| BAD 1-1/4" NPT X M50       | 1-1/4"NPT | M50       | 15 | 4 | 15 | 54.5 | 63   |
| BAD 1-1/4" NPT X M63       | 1-1/4"NPT | M63       | 15 | 5 | 15 | 67.5 | 78.5 |
| BAD 1-1/4" NPT X M75       | 1-1/4"NPT | M75       | 15 | 5 | 15 | 79.5 | 92   |
| BAD 1-1/2" NPT X M50       | 1-1/2"NPT | M50       | 15 | 5 | 15 | 54.5 | 63   |
| BAD 1-1/2" NPT X M63       | 1-1/2"NPT | M63       | 15 | 5 | 15 | 67.5 | 78.5 |
| BAD 1-1/2" NPT X M75       | 1-1/2"NPT | M75       | 15 | 5 | 15 | 79.5 | 92   |
| BAD 1-1/2" NPT X M90       | 1-1/2"NPT | M90       | 15 | 6 | 15 | 94.5 | 110  |
| BAD 2" NPT X M63           | 2"NPT     | M63       | 16 | 5 | 15 | 67.5 | 78.5 |
| BAD 2" NPT X M75           | 2"NPT     | M75       | 16 | 5 | 15 | 79.5 | 92   |
| BAD 2" NPT X M90           | 2"NPT     | M90       | 16 | 6 | 15 | 94.5 | 110  |



## ADAPTOR

| SIZE (M X F)                | M         | F         | L1 | T | L  | E    | E1   |
|-----------------------------|-----------|-----------|----|---|----|------|------|
| BAD 2-1/2" NPT X M75        | 2-1/2"NPT | M75       | 22 | 6 | 15 | 79.5 | 92   |
| BAD 2-1/2" NPT X M90        | 2-1/2"NPT | M90       | 22 | 6 | 15 | 94.5 | 110  |
| BAD 1/2" NPT X 3/4" NPT     | 1/2"NPT   | 3/4"NPT   | 12 | 3 | 12 | 28   | 32.5 |
| BAD 1/2" NPT X 1" NPT       | 1/2"NPT   | 1"NPT     | 12 | 4 | 14 | 35   | 40.5 |
| BAD 1/2" NPT X 1-1/4" NPT   | 1/2"NPT   | 1-1/4"NPT | 12 | 4 | 15 | 42   | 48   |
| BAD 3/4" NPT X 1" NPT       | 3/4"NPT   | 1"NPT     | 12 | 4 | 14 | 35   | 40.5 |
| BAD 3/4" NPT X 1-1/4" NPT   | 3/4"NPT   | 1-1/4"NPT | 12 | 4 | 15 | 42   | 48   |
| BAD 3/4" NPT X 1-1/2" NPT   | 3/4"NPT   | 1-1/2"NPT | 12 | 4 | 15 | 55   | 64   |
| BAD 1" NPT X 1-1/4" NPT     | 1"NPT     | 1-1/4"NPT | 14 | 4 | 15 | 42   | 48   |
| BAD 1" NPT X 1-1/2" NPT     | 1"NPT     | 1-1/2"NPT | 14 | 4 | 15 | 55   | 64   |
| BAD 1" NPT X 2" NPT         | 1"NPT     | 2"NPT     | 14 | 5 | 16 | 68   | 79   |
| BAD 1-1/4" NPT X 1-1/2" NPT | 1-1/4"NPT | 1-1/2"NPT | 15 | 4 | 15 | 55   | 64   |
| BAD 1-1/4" NPT X 2" NPT     | 1-1/4"NPT | 2"NPT     | 15 | 5 | 16 | 68   | 79   |
| BAD 1-1/4" NPT X 2-1/2" NPT | 1-1/4"NPT | 2-1/2"NPT | 15 | 5 | 22 | 81   | 94   |
| BAD 1-1/2" NPT X 2" NPT     | 1-1/2"NPT | 2"NPT     | 15 | 5 | 16 | 68   | 79   |
| BAD 1-1/2" NPT X 2-1/2" NPT | 1-1/2"NPT | 2-1/2"NPT | 15 | 5 | 22 | 81   | 94   |
| BAD 1-1/2" NPT X 3" NPT     | 1-1/2"NPT | 3"NPT     | 15 | 6 | 22 | 95   | 110  |
| BAD 2" NPT X 2-1/2" NPT     | 2"NPT     | 2-1/2"NPT | 16 | 5 | 22 | 81   | 94   |
| BAD 2" NPT X 3" NPT         | 2"NPT     | 3"NPT     | 16 | 6 | 22 | 95   | 110  |

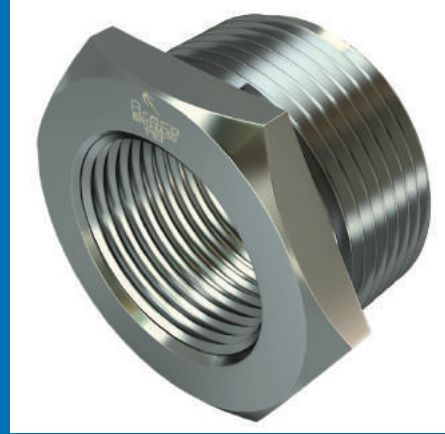


Braco Reducers are used along with Glands for Extended or reduced entry holes in an apparatus. These are mainly manufactured out of brass but can be supplied in SS-304/316 and Aluminium also.

Brass Reducers are nickel plated to avoid corrosion whilst storage and use. These are supplied with "O" Rings for IP protection. These Reducers are Certified by Central Institute of Mining and Fuel Research, Dhanbad for use in Weather proof as well as Flame proof conditions

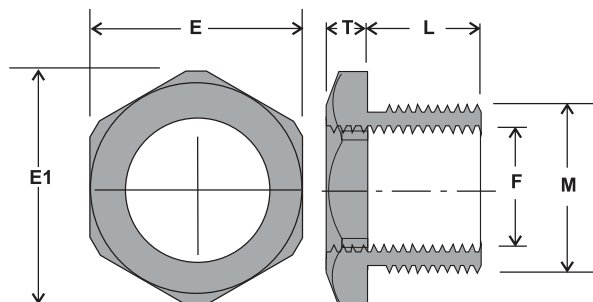
Reducers are available with Different thread combination such as ET to ET, ET to MM, ET to NPT, MM to ET, MM to MM, MM to NPT, NPT to ET, NPT to MM and NPT to NPT

Suffix – BRD = for Brass Reducers, SRD = for SS Reducers and ALRD = for Aluminium Reducers



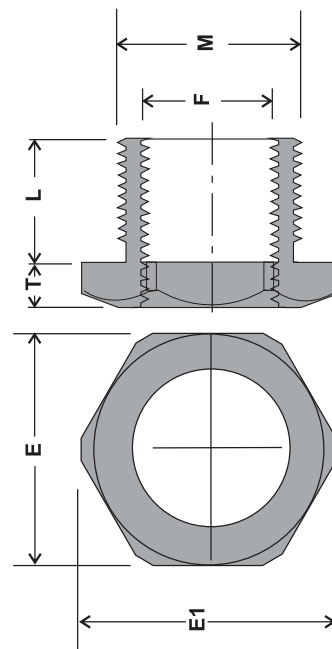
## REDUCER

| SIZE (M X F)              | M        | F        | E1   | E  | T | L  |
|---------------------------|----------|----------|------|----|---|----|
| BRD 3/4"ET X 5/8"ET       | 3/4"ET   | 5/8"ET   | 25.5 | 22 | 3 | 12 |
| BRD 1" ET X 5/8" ET       | 1"ET     | 5/8"ET   | 32.5 | 28 | 3 | 12 |
| BRD 1" ET X 3/4" ET       | 1"ET     | 3/4"ET   | 32.5 | 28 | 3 | 12 |
| BRD 1-1/4" ET X 5/8" ET   | 1-1/4"ET | 5/8"ET   | 40.5 | 35 | 4 | 12 |
| BRD 1-1/4" ET X 3/4" ET   | 1-1/4"ET | 3/4"ET   | 40.5 | 35 | 4 | 12 |
| BRD 1-1/4" ET X 1" ET     | 1-1/4"ET | 1"ET     | 40.5 | 35 | 4 | 12 |
| BRD 1-1/2" ET X 3/4" ET   | 1-1/2"ET | 3/4"ET   | 48   | 42 | 4 | 12 |
| BRD 1-1/2" ET X 1" ET     | 1-1/2"ET | 1"ET     | 48   | 42 | 4 | 12 |
| BRD 1-1/2" ET X 1-1/4" ET | 1-1/2"ET | 1-1/4"ET | 48   | 42 | 4 | 12 |
| BRD 2" ET X 1" ET         | 2"ET     | 1"ET     | 64   | 55 | 4 | 15 |
| BRD 2" ET X 1-1/4" ET     | 2"ET     | 1-1/4"ET | 64   | 55 | 4 | 15 |
| BRD 2" ET X 1-1/2" ET     | 2"ET     | 1-1/2"ET | 64   | 55 | 4 | 15 |
| BRD 2-1/2" ET X 1-1/4" ET | 2-1/2"ET | 1-1/4"ET | 79   | 68 | 5 | 15 |
| BRD 2-1/2" ET X 1-1/2" ET | 2-1/2"ET | 1-1/2"ET | 79   | 68 | 5 | 15 |
| BRD 2-1/2" ET X 2" ET     | 2-1/2"ET | 2"ET     | 79   | 68 | 5 | 15 |
| BRD 3" ET X 1-1/2" ET     | 3"ET     | 1-1/2"ET | 94   | 81 | 5 | 15 |
| BRD 3" ET X 2" ET         | 3"ET     | 2"ET     | 94   | 81 | 5 | 15 |
| BRD 3" ET X 2-1/2" ET     | 3"ET     | 2-1/2"ET | 94   | 81 | 5 | 15 |
| BRD 3-1/2" ET X 2" ET     | 3-1/2"ET | 2"ET     | 110  | 95 | 6 | 15 |
| BRD 3-1/2" ET X 2-1/2" ET | 3-1/2"ET | 2-1/2"ET | 110  | 95 | 6 | 15 |
| BRD 3-1/2" ET X 3" ET     | 3-1/2"ET | 3"ET     | 110  | 95 | 6 | 15 |
| BRD 3/4"ET X M16          | 3/4"ET   | M16      | 25.5 | 22 | 3 | 12 |
| BRD 1" ET X M16           | 1"ET     | M16      | 32.5 | 28 | 3 | 12 |



## REDUCER

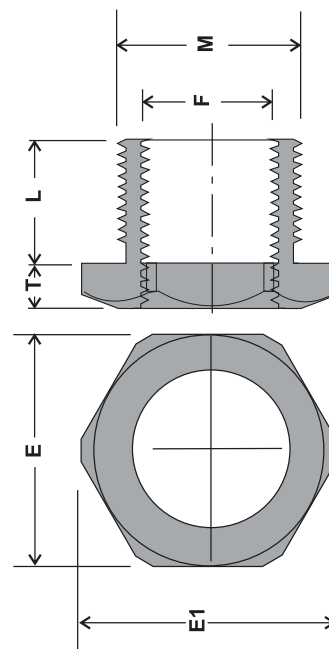
| SIZE (M X F)        | M        | F        | E1   | E    | T | L  |
|---------------------|----------|----------|------|------|---|----|
| BRD 1" ET X M20     | 1"ET     | M20      | 32.5 | 28   | 3 | 12 |
| BRD 1-1/4" ET X M16 | 1-1/4"ET | M16      | 40.5 | 35   | 4 | 12 |
| BRD 1-1/4" ET X M20 | 1-1/4"ET | M20      | 40.5 | 35   | 4 | 12 |
| BRD 1-1/4" ET X M25 | 1-1/4"ET | M25      | 40.5 | 35   | 4 | 12 |
| BRD 1-1/2" ET X M20 | 1-1/2"ET | M20      | 48   | 42   | 4 | 12 |
| BRD 1-1/2" ET X M25 | 1-1/2"ET | M25      | 48   | 42   | 4 | 12 |
| BRD 1-1/2" ET X M32 | 1-1/2"ET | M32      | 48   | 42   | 4 | 12 |
| BRD 2" ET X M25     | 2"ET     | M25      | 64   | 55   | 4 | 15 |
| BRD 2" ET X M32     | 2"ET     | M32      | 64   | 55   | 4 | 15 |
| BRD 2" ET X M40     | 2"ET     | M40      | 64   | 55   | 4 | 15 |
| BRD 2-1/2" ET X M32 | 2-1/2"ET | M32      | 79   | 68   | 5 | 15 |
| BRD 2-1/2" ET X M40 | 2-1/2"ET | M40      | 79   | 68   | 5 | 15 |
| BRD 2-1/2" ET X M50 | 2-1/2"ET | M50      | 79   | 68   | 5 | 15 |
| BRD 3" ET X M40     | 3"ET     | M40      | 94   | 81   | 5 | 15 |
| BRD 3" ET X M50     | 3"ET     | M50      | 94   | 81   | 5 | 15 |
| BRD 3" ET X M63     | 3"ET     | M63      | 94   | 81   | 5 | 15 |
| BRD 3-1/2" ET X M50 | 3-1/2"ET | M50      | 110  | 95   | 6 | 15 |
| BRD 3-1/2" ET X M63 | 3-1/2"ET | M63      | 110  | 95   | 6 | 15 |
| BRD 3-1/2" ET X M75 | 3-1/2"ET | M75      | 110  | 95   | 6 | 15 |
| BRD M20 X 5/8" ET   | M20      | 5/8"ET   | 27.5 | 23.5 | 3 | 12 |
| BRD M25 X 5/8" ET   | M25      | 5/8"ET   | 33   | 28.5 | 3 | 12 |
| BRD M25 X 3/4" ET   | M25      | 3/4"ET   | 33   | 28.5 | 3 | 12 |
| BRD M32 X 5/8" ET   | M32      | 5/8"ET   | 41   | 35.5 | 4 | 12 |
| BRD M32 X 3/4" ET   | M32      | 3/4"ET   | 41   | 35.5 | 4 | 12 |
| BRD M32 X 1" ET     | M32      | 1"ET     | 41   | 35.5 | 4 | 12 |
| BRD M40 X 3/4" ET   | M40      | 3/4"ET   | 50.5 | 43.5 | 4 | 12 |
| BRD M40 X 1" ET     | M40      | 1"ET     | 50.5 | 43.5 | 4 | 12 |
| BRD M40 X 1-1/4" ET | M40      | 1-1/4"ET | 50.5 | 43.5 | 4 | 12 |
| BRD M50 X 1" ET     | M50      | 1"ET     | 63   | 54.5 | 4 | 15 |
| BRD M50 X 1-1/4" ET | M50      | 1-1/4"ET | 63   | 54.5 | 4 | 15 |
| BRD M50 X 1-1/2" ET | M50      | 1-1/2"ET | 63   | 54.5 | 4 | 15 |
| BRD M63 X 1-1/4" ET | M63      | 1-1/4"ET | 78.5 | 67.5 | 5 | 15 |
| BRD M63 X 1-1/2" ET | M63      | 1-1/2"ET | 78.5 | 67.5 | 5 | 15 |
| BRD M63 X 2" ET     | M63      | 2"ET     | 78.5 | 67.5 | 5 | 15 |
| BRD M75 X 1-1/2" ET | M75      | 1-1/2"ET | 92   | 79.5 | 5 | 15 |
| BRD M75 X 2" ET     | M75      | 2"ET     | 92   | 79.5 | 5 | 15 |
| BRD M75 X 2-1/2" ET | M75      | 2-1/2"ET | 92   | 79.5 | 5 | 15 |
| BRD M90 X 2" ET     | M90      | 2"ET     | 110  | 94.5 | 6 | 15 |
| BRD M90 X 2-1/2" ET | M90      | 2-1/2"ET | 110  | 94.5 | 6 | 15 |
| BRD M90 X 3" ET     | M90      | 3"ET     | 110  | 94.5 | 6 | 15 |
| BRD M20 X M16       | M20      | M16      | 27.5 | 23.5 | 3 | 12 |
| BRD M25 X M16       | M25      | M16      | 33   | 28.5 | 3 | 12 |
| BRD M25 X M20       | M25      | M20      | 33   | 28.5 | 3 | 12 |
| BRD M32 X M16       | M32      | M16      | 41   | 35.5 | 4 | 12 |
| BRD M32 X M20       | M32      | M20      | 41   | 35.5 | 4 | 12 |
| BRD M32 X M25       | M32      | M25      | 41   | 35.5 | 4 | 12 |
| BRD M40 X M20       | M40      | M20      | 50.5 | 43.5 | 4 | 12 |
| BRD M40 X M25       | M40      | M25      | 50.5 | 43.5 | 4 | 12 |
| BRD M40 X M32       | M40      | M32      | 50.5 | 43.5 | 4 | 12 |
| BRD M50 X M25       | M50      | M25      | 63   | 54.5 | 4 | 15 |
| BRD M50 X M32       | M50      | M32      | 63   | 54.5 | 4 | 15 |
| BRD M50 X M40       | M50      | M40      | 63   | 54.5 | 4 | 15 |
| BRD M63 X M32       | M63      | M32      | 78.5 | 67.5 | 5 | 15 |





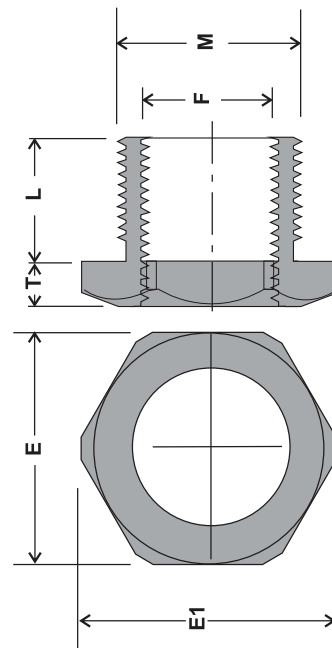
## REDUCER

| SIZE (M X F)               | M        | F         | E1   | E    | T | L  |
|----------------------------|----------|-----------|------|------|---|----|
| BRD M63 X M40              | M63      | M40       | 78.5 | 67.5 | 5 | 15 |
| BRD M63 X M50              | M63      | M50       | 78.5 | 67.5 | 5 | 15 |
| BRD M75 X M40              | M75      | M40       | 92   | 79.5 | 5 | 15 |
| BRD M75 X M50              | M75      | M50       | 92   | 79.5 | 5 | 15 |
| BRD M75 X M63              | M75      | M63       | 92   | 79.5 | 5 | 15 |
| BRD M90 X M50              | M90      | M50       | 110  | 94.5 | 6 | 15 |
| BRD M90 X M63              | M90      | M63       | 110  | 94.5 | 6 | 15 |
| BRD M90 X M75              | M90      | M75       | 110  | 94.5 | 6 | 15 |
| BRD 1" ET X 1/2" NPT       | 1"ET     | 1/2"NPT   | 32.5 | 28   | 3 | 12 |
| BRD 1-1/4" ET X 1/2" NPT   | 1-1/4"ET | 1/2"NPT   | 40.5 | 35   | 4 | 12 |
| BRD 1-1/4" ET X 3/4" NPT   | 1-1/4"ET | 3/4"NPT   | 40.5 | 35   | 4 | 12 |
| BRD 1-1/2"ET X 1/2" NPT    | 1-1/2"ET | 1/2"NPT   | 48   | 42   | 4 | 12 |
| BRD 1-1/2"ET X 3/4" NPT    | 1-1/2"ET | 3/4"NPT   | 48   | 42   | 4 | 12 |
| BRD 1-1/2" ET X 1" NPT     | 1-1/2"ET | 1"NPT     | 48   | 42   | 4 | 12 |
| BRD 2" ET X 1/2" NPT       | 2"ET     | 1/2"NPT   | 64   | 55   | 4 | 15 |
| BRD 2" ET X 3/4" NPT       | 2"ET     | 3/4"NPT   | 64   | 55   | 4 | 15 |
| BRD 2"ET X 1" NPT          | 2"ET     | 1"NPT     | 64   | 55   | 4 | 15 |
| BRD 2" ET X 1-1/4" NPT     | 2"ET     | 1-1/4"NPT | 64   | 55   | 4 | 15 |
| BRD 2-1/2" ET X 3/4" NPT   | 2-1/2"ET | 3/4"NPT   | 79   | 68   | 5 | 15 |
| BRD 2-1/2" ET X 1" NPT     | 2-1/2"ET | 1"NPT     | 79   | 68   | 5 | 15 |
| BRD 2-1/2" ET X 1-1/4" NPT | 2-1/2"ET | 1-1/4"NPT | 79   | 68   | 5 | 15 |
| BRD 2-1/2"ET X 1-1/2" NPT  | 2-1/2"ET | 1-1/2"NPT | 79   | 68   | 5 | 15 |
| BRD 3" ET X 1" NPT         | 3"ET     | 1"NPT     | 94   | 81   | 5 | 15 |
| BRD 3" ET X 1-1/4" NPT     | 3"ET     | 1-1/4"NPT | 94   | 81   | 5 | 15 |
| BRD 3" ET X 1-1/2" NPT     | 3"ET     | 1-1/2"NPT | 94   | 81   | 5 | 15 |
| BRD 3" ET X 2"NPT          | 3"ET     | 2"NPT     | 94   | 81   | 5 | 15 |
| BRD 3-1/2"ET X 1-1/4" NPT  | 3-1/2"ET | 1-1/4"NPT | 110  | 95   | 6 | 15 |
| BRD 3-1/2"ET X 1-1/2" NPT  | 3-1/2"ET | 1-1/2"NPT | 110  | 95   | 6 | 15 |
| BRD 3-1/2"ET X 2" NPT      | 3-1/2"ET | 2"NPT     | 110  | 95   | 6 | 15 |
| BRD 3-1/2"ET X 2-1/2" NPT  | 3-1/2"ET | 2-1/2"NPT | 110  | 95   | 6 | 15 |
| BRD M25 X 1/2" NPT         | M25      | 1/2"NPT   | 33   | 28.5 | 3 | 12 |
| BRD M32 X 1/2" NPT         | M32      | 1/2"NPT   | 41   | 35.5 | 4 | 12 |
| BRD M32 X 3/4" NPT         | M32      | 3/4"NPT   | 41   | 35.5 | 4 | 12 |
| BRD M40 X 1/2" NPT         | M40      | 1/2"NPT   | 50.5 | 43.5 | 4 | 12 |
| BRD M40 X 3/4" NPT         | M40      | 3/4"NPT   | 50.5 | 43.5 | 4 | 12 |
| BRD M40 X 1" NPT           | M40      | 1"NPT     | 50.5 | 43.5 | 4 | 12 |
| BRD M50 X 1/2" NPT         | M50      | 1/2"NPT   | 63   | 54.5 | 4 | 15 |
| BRD M50 X 3/4" NPT         | M50      | 3/4"NPT   | 63   | 54.5 | 4 | 15 |
| BRD M50 X 1" NPT           | M50      | 1"NPT     | 63   | 54.5 | 4 | 15 |
| BRD M50 X 1-1/4" NPT       | M50      | 1-1/4"NPT | 63   | 54.5 | 4 | 15 |
| BRD M63 X 3/4" NPT         | M63      | 3/4"NPT   | 78.5 | 67.5 | 5 | 15 |
| BRD M63 X 1" NPT           | M63      | 1"NPT     | 78.5 | 67.5 | 5 | 15 |
| BRD M63 X 1-1/4" NPT       | M63      | 1-1/4"NPT | 78.5 | 67.5 | 5 | 15 |
| BRD M63 X 1-1/2" NPT       | M63      | 1-1/2"NPT | 78.5 | 67.5 | 5 | 15 |
| BRD M75 X 1" NPT           | M75      | 1"NPT     | 92   | 79.5 | 5 | 15 |
| BRD M75 X 1-1/4" NPT       | M75      | 1-1/4"NPT | 92   | 79.5 | 5 | 15 |
| BRD M75 X 1-1/2" NPT       | M75      | 1-1/2"NPT | 92   | 79.5 | 5 | 15 |
| BRD M75 X 2"NPT            | M75      | 2"NPT     | 92   | 79.5 | 5 | 15 |
| BRD M90 X 1-1/4" NPT       | M90      | 1-1/4"NPT | 110  | 94.5 | 6 | 15 |
| BRD M90 X 1-1/2" NPT       | M90      | 1-1/2"NPT | 110  | 94.5 | 6 | 15 |
| BRD M90 X 2" NPT           | M90      | 2"NPT     | 110  | 94.5 | 6 | 15 |
| BRD M90 X 2-1/2" NPT       | M90      | 2-1/2"NPT | 110  | 94.5 | 6 | 15 |
| BRD 1/2" NPT X 5/8" ET     | 1/2"NPT  | 5/8"ET    | 25.5 | 22   | 3 | 12 |
| BRD 3/4" NPT X 5/8" ET     | 3/4"NPT  | 5/8"ET    | 32.5 | 28   | 3 | 12 |
| BRD 3/4" NPT X 3/4" ET     | 3/4"NPT  | 3/4"ET    | 32.5 | 28   | 3 | 12 |



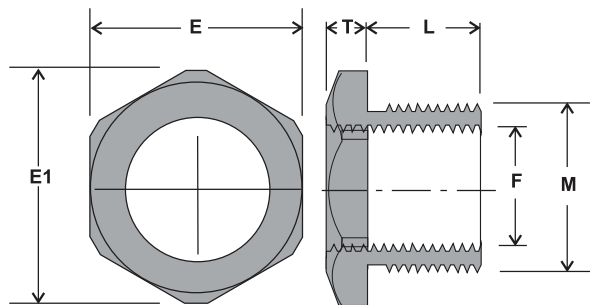
## REDUCER

| SIZE (M X F)               | M         | F        | E1   | E  | T | L  |
|----------------------------|-----------|----------|------|----|---|----|
| BRD 1" NPT X 5/8" ET       | 1"NPT     | 5/8"ET   | 40.5 | 35 | 4 | 14 |
| BRD 1" NPT X 3/4" ET       | 1"NPT     | 3/4"ET   | 40.5 | 35 | 4 | 14 |
| BRD 1" NPT X 1" ET         | 1"NPT     | 1"ET     | 40.5 | 35 | 4 | 14 |
| BRD 1" NPT X 1-1/4" ET     | 1"NPT     | 1-1/4"ET | 40.5 | 35 | 4 | 14 |
| BRD 1-1/4" NPT X 5/8" ET   | 1-1/4"NPT | 5/8"ET   | 48   | 42 | 4 | 15 |
| BRD 1-1/4" NPT X 3/4" ET   | 1-1/4"NPT | 3/4"ET   | 48   | 42 | 4 | 15 |
| BRD 1-1/4" NPT X 1" ET     | 1-1/4"NPT | 1"ET     | 48   | 42 | 4 | 15 |
| BRD 1-1/4" NPT X 1-1/4" ET | 1-1/4"NPT | 1-1/4"ET | 48   | 42 | 4 | 15 |
| BRD 1-1/4" NPT X 1-1/2" ET | 1-1/4"NPT | 1-1/2"ET | 48   | 42 | 4 | 15 |
| BRD 1-1/2" NPT X 5/8" ET   | 1-1/2"NPT | 5/8"ET   | 64   | 55 | 4 | 15 |
| BRD 1-1/2" NPT X 3/4" ET   | 1-1/2"NPT | 3/4"ET   | 64   | 55 | 4 | 15 |
| BRD 1-1/2" NPT X 1" ET     | 1-1/2"NPT | 1"ET     | 64   | 55 | 4 | 15 |
| BRD 1-1/2" NPT X 1-1/4" ET | 1-1/2"NPT | 1-1/4"ET | 64   | 55 | 4 | 15 |
| BRD 1-1/2" NPT X 1-1/2" ET | 1-1/2"NPT | 1-1/2"ET | 64   | 55 | 4 | 15 |
| BRD 2" NPT X 1" ET         | 2"NPT     | 1"ET     | 79   | 68 | 5 | 16 |
| BRD 2" NPT X 1-1/4" ET     | 2"NPT     | 1-1/4"ET | 79   | 68 | 5 | 16 |
| BRD 2" NPT X 1-1/2" ET     | 2"NPT     | 1-1/2"ET | 79   | 68 | 5 | 16 |
| BRD 2" NPT X 2" ET         | 2"NPT     | 2"ET     | 79   | 68 | 5 | 16 |
| BRD 2-1/2" NPT X 1-1/2" ET | 2-1/2"NPT | 1-1/2"ET | 94   | 81 | 5 | 22 |
| BRD 2-1/2" NPT X 2" ET     | 2-1/2"NPT | 2"ET     | 94   | 81 | 5 | 22 |
| BRD 2-1/2" NPT X 2-1/2" ET | 2-1/2"NPT | 2-1/2"ET | 94   | 81 | 5 | 22 |
| BRD 3" NPT X 2" ET         | 3"NPT     | 2"ET     | 110  | 95 | 6 | 22 |
| BRD 3" NPT X 2-1/2" ET     | 3"NPT     | 2-1/2"ET | 110  | 95 | 6 | 22 |
| BRD 3" NPT X 3" ET         | 3"NPT     | 3"ET     | 110  | 95 | 6 | 22 |
| BRD 3" NPT X 3-1/2" ET     | 3"NPT     | 3-1/2"ET | 110  | 95 | 6 | 22 |
| BRD 1/2" NPT X M16         | 1/2"NPT   | M16      | 25.5 | 22 | 3 | 12 |
| BRD 3/4" NPT X M16         | 3/4"NPT   | M16      | 32.5 | 28 | 3 | 12 |
| BRD 3/4" NPT X M20         | 3/4"NPT   | M20      | 32.5 | 28 | 3 | 12 |
| BRD 1" NPT X M16           | 1"NPT     | M16      | 40.5 | 35 | 4 | 14 |
| BRD 1" NPT X M20           | 1"NPT     | M20      | 40.5 | 35 | 4 | 14 |
| BRD 1" NPT X M25           | 1"NPT     | M25      | 40.5 | 35 | 4 | 14 |
| BRD 1" NPT X M32           | 1"NPT     | M32      | 40.5 | 35 | 4 | 14 |
| BRD 1-1/4" NPT X M16       | 1-1/4"NPT | M16      | 48   | 42 | 4 | 15 |
| BRD 1-1/4" NPT X M20       | 1-1/4"NPT | M20      | 48   | 42 | 4 | 15 |
| BRD 1-1/4" NPT X M25       | 1-1/4"NPT | M25      | 48   | 42 | 4 | 15 |
| BRD 1-1/4" NPT X M32       | 1-1/4"NPT | M32      | 48   | 42 | 4 | 15 |
| BRD 1-1/4" NPT X M40       | 1-1/4"NPT | M40      | 48   | 42 | 4 | 15 |
| BRD 1-1/2" NPT X M16       | 1-1/2"NPT | M16      | 64   | 55 | 4 | 15 |
| BRD 1-1/2" NPT X M20       | 1-1/2"NPT | M20      | 64   | 55 | 4 | 15 |
| BRD 1-1/2" NPT X M25       | 1-1/2"NPT | M25      | 64   | 55 | 4 | 15 |
| BRD 1-1/2" NPT X M32       | 1-1/2"NPT | M32      | 64   | 55 | 4 | 15 |
| BRD 1-1/2" NPT X M40       | 1-1/2"NPT | M40      | 64   | 55 | 4 | 15 |
| BRD 2" NPT X M25           | 2"NPT     | M25      | 79   | 68 | 5 | 16 |
| BRD 2" NPT X M32           | 2"NPT     | M32      | 79   | 68 | 5 | 16 |
| BRD 2" NPT X M40           | 2"NPT     | M40      | 79   | 68 | 5 | 16 |
| BRD 2" NPT X M50           | 2"NPT     | M50      | 79   | 68 | 5 | 16 |
| BRD 2-1/2" NPT X M40       | 2-1/2"NPT | M40      | 94   | 81 | 5 | 22 |
| BRD 2-1/2" NPT X M50       | 2-1/2"NPT | M50      | 94   | 81 | 5 | 22 |
| BRD 2-1/2" NPT X M63       | 2-1/2"NPT | M63      | 94   | 81 | 5 | 22 |
| BRD 3" NPT X M50           | 3"NPT     | M50      | 110  | 95 | 6 | 22 |
| BRD 3" NPT X M63           | 3"NPT     | M63      | 110  | 95 | 6 | 22 |
| BRD 3" NPT X M75           | 3"NPT     | M75      | 110  | 95 | 6 | 22 |
| BRD 3/4" NPT X 1/2" NPT    | 3/4"NPT   | 1/2"NPT  | 32.5 | 28 | 3 | 12 |



## REDUCER

| SIZE (M X F)                | M         | F         | E1   | E  | T | L  |
|-----------------------------|-----------|-----------|------|----|---|----|
| BRD 1" NPT X 1/2" NPT       | 1"NPT     | 1/2"NPT   | 40.5 | 35 | 4 | 14 |
| BRD 1" NPT X 3/4" NPT       | 1"NPT     | 3/4"NPT   | 40.5 | 35 | 4 | 14 |
| BRD 1-1/4" NPT X 1/2" NPT   | 1-1/4"NPT | 1/2"NPT   | 48   | 42 | 4 | 15 |
| BRD 1-1/4" NPT X 3/4" NPT   | 1-1/4"NPT | 3/4"NPT   | 48   | 42 | 4 | 15 |
| BRD 1-1/4" NPT X 1" NPT     | 1-1/4"NPT | 1"NPT     | 48   | 42 | 4 | 15 |
| BRD 1-1/2" NPT X 1/2" NPT   | 1-1/2"NPT | 1/2"NPT   | 64   | 55 | 4 | 15 |
| BRD 1-1/2" NPT X 3/4" NPT   | 1-1/2"NPT | 3/4"NPT   | 64   | 55 | 4 | 15 |
| BRD 1-1/2" NPT X 1" NPT     | 1-1/2"NPT | 1"NPT     | 64   | 55 | 4 | 15 |
| BRD 1-1/2" NPT X 1-1/4" NPT | 1-1/2"NPT | 1-1/4"NPT | 64   | 55 | 4 | 15 |
| BRD 2" NPT X 3/4" NPT       | 2"NPT     | 3/4"NPT   | 79   | 68 | 5 | 16 |
| BRD 2" NPT X 1" NPT         | 2"NPT     | 1"NPT     | 79   | 68 | 5 | 16 |
| BRD 2" NPT X 1-1/4" NPT     | 2"NPT     | 1-1/4"NPT | 79   | 68 | 5 | 16 |
| BRD 2" NPT X 1-1/2" NPT     | 2"NPT     | 1-1/2"NPT | 79   | 68 | 5 | 16 |
| BRD 2-1/2" NPT X 1" NPT     | 2-1/2"NPT | 1"NPT     | 94   | 81 | 5 | 22 |
| BRD 2-1/2" NPT X 1-1/4" NPT | 2-1/2"NPT | 1-1/4"NPT | 94   | 81 | 5 | 22 |
| BRD 2-1/2" NPT X 1-1/2" NPT | 2-1/2"NPT | 1-1/2"NPT | 94   | 81 | 5 | 22 |
| BRD 2-1/2" NPT X 2" NPT     | 2-1/2"NPT | 2"NPT     | 94   | 81 | 5 | 22 |
| BRD 3" NPT X 1-1/4" NPT     | 3"NPT     | 1-1/4"NPT | 110  | 95 | 6 | 22 |
| BRD 3" NPT X 1-1/2" NPT     | 3"NPT     | 1-1/2"NPT | 110  | 95 | 6 | 22 |
| BRD 3" NPT X 2" NPT         | 3"NPT     | 2"NPT     | 110  | 95 | 6 | 22 |
| BRD 3" NPT X 2-1/2" NPT     | 3"NPT     | 2-1/2"NPT | 110  | 95 | 6 | 22 |

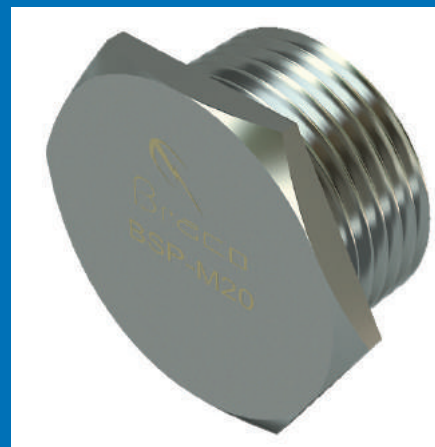


Braco Stopping Plugs are used to close unused entry holes in an apparatus. These Plugs are mainly manufactured out of brass but can be supplied in SS-304/316 and Aluminium also.

Brass Plugs are nickel plated to avoid corrosion whilst storage and use. These are supplied with "O" Rings for IP protection. These Plugs are Certified by Central Institute of Mining and Fuel Research, Dhanbad for use in Weather proof as well as Flame proof conditions

Suffix – BSP = for Brass Plugs, SSP = for SS Plugs and ALSP = for Aluminium Plugs

Threads can be ET / mm / NPT as per requirement



## STOPPER PLUG

| SIZE              | A/C | A/F | T | L  | C         | A    |
|-------------------|-----|-----|---|----|-----------|------|
| <b>ET THREAD</b>  |     |     |   |    |           |      |
| BSP 3/4"ET        | 26  | 22  | 3 | 10 | 3/4"ET    | 15.5 |
| BSP 1" ET         | 32  | 28  | 3 | 10 | 1"ET      | 21   |
| BSP 1-1/4" ET     | 42  | 36  | 4 | 10 | 1-1/4"ET  | 27.8 |
| BSP 1-1/2"ET      | 49  | 42  | 4 | 10 | 1-1/2"ET  | 33.5 |
| BSP 2" ET         | 63  | 54  | 4 | 12 | 2"ET      | 45   |
| BSP 2-1/4" ET     | 71  | 61  | 4 | 12 | 2-1/4"ET  | 52   |
| BSP 2-1/2" ET     | 79  | 68  | 5 | 12 | 2-1/2"ET  | 57.5 |
| BSP 2-3/4" ET     | 87  | 75  | 5 | 12 | 2-3/4"ET  | 64   |
| BSP 3" ET         | 93  | 80  | 5 | 12 | 3"ET      | 69   |
| BSP 3-1/4" ET     | 101 | 87  | 6 | 12 | 3-1/4"ET  | 76   |
| BSP 3-1/2"ET      | 109 | 94  | 6 | 12 | 3-1/2"ET  | 82   |
| <b>M THREAD</b>   |     |     |   |    |           |      |
| BSP M20           | 28  | 24  | 3 | 10 | M20       | 16.5 |
| BSP M25           | 34  | 29  | 3 | 10 | M25       | 21   |
| BSP M32           | 42  | 36  | 4 | 10 | M32       | 28   |
| BSP M40           | 51  | 44  | 4 | 10 | M40       | 35.5 |
| BSP M50           | 63  | 54  | 4 | 12 | M50       | 45   |
| BSP M63           | 79  | 68  | 5 | 12 | M63       | 57.5 |
| BSP M75           | 93  | 80  | 5 | 12 | M75       | 69   |
| BSP M90           | 110 | 95  | 6 | 12 | M90       | 83   |
| <b>NPT THREAD</b> |     |     |   |    |           |      |
| BSP 1/2" NPT      | 28  | 24  | 3 | 12 | 1/2"NPT   | 16.3 |
| BSP 3/4" NPT      | 34  | 30  | 3 | 12 | 3/4"NPT   | 21.6 |
| BSP 1" NPT        | 42  | 36  | 4 | 14 | 1"NPT     | 28.1 |
| BSP 1-1/4" NPT    | 52  | 45  | 4 | 15 | 1-1/4"NPT | 35.9 |
| BSP 1-1/2" NPT    | 59  | 51  | 4 | 15 | 1-1/2"NPT | 41.9 |
| BSP 2" NPT        | 73  | 63  | 5 | 16 | 2"NPT     | 53   |
| BSP 2-1/2" NPT    | 87  | 75  | 5 | 22 | 2-1/2"NPT | 65   |
| BSP 3" NPT        | 105 | 91  | 6 | 22 | 3"NPT     | 80.9 |

