

# Electrofusion System





# CERTIFICATE OF CONFORMITY

*ApprovalMark International* hereby grants:

**FUSION GROUP LIMITED**

Smeckley Wood Close, Chesterfield, Derbyshire  
United Kingdom

**WaterMark Certificate of Conformity – Level 1**

Evaluated to:

**AS/NZS 4129: 2008 Fittings for polyethylene (PE) pipes for pressure applications**

The WaterMark licensee shall comply with all the terms and conditions as stipulated by the governance of the operating rules of WaterMark, and shall comply with standard requirement at all times including when standard is amended. The WaterMark license only covers the product which is identified in the product schedule.

**Certificate No. WM 20303**

**Issued:** 10th January 2013

**Expires:** 10th January 2018

**Originally Certified:** 10th January 2013

**Current Certification:** 10th January 2013

**John PRASAD**

Certification Manager



ApprovalMark Certification



WaterMark

ApprovalMark



ApprovalMark  
International

# CERTIFICATE OF CONFORMITY

*ApprovalMark International* hereby grants:

**DYNA PIPE SYSTEMS**

## **WaterMark Certificate of Conformity - Level 1**

Evaluated to :

**AS/NZS 4129: 2008 Fittings for polyethylene (PE) pipes for pressure applications**

The WaterMark licensee shall comply with all the terms and conditions as stipulated by the governance of the operating rules of WaterMark, and shall comply with standard requirement at all times including when standard is amended. The WaterMark license only covers the product which is identified in the product schedule.

**Certificate No. WM 74527**

**Issued:** 10th May 2013

**Expires:** 10th May 2018

**Originally Certified:** 10th May 2013

**Currently Certification:** 10th May 2013

**John PRASAD**  
Certification Manager



ApprovalMark Certification



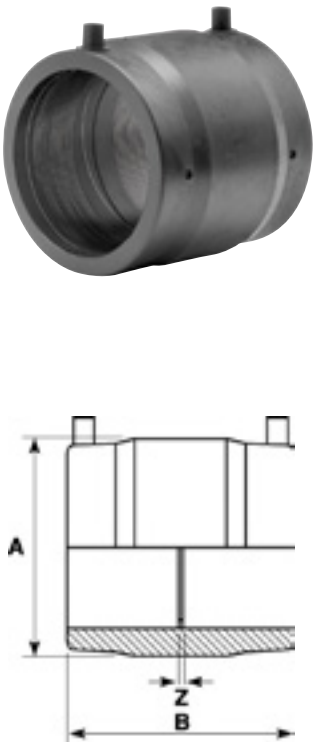
**WaterMark**

ApprovalMark



# Electrofusion System

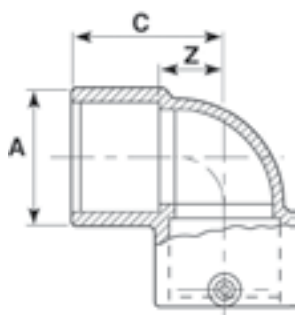
## ELECTROFUSION SOCKETS

|  |         |         | PE100  | SDR11  | PN16   |                  |             |
|--|---------|---------|--------|--------|--------|------------------|-------------|
|  | d (mm)  | Code    | A (mm) | B (mm) | z (mm) | GAS Rating (bar) | Weight (kg) |
|  | 20      | 1003020 | 30.0   | 61     | 3      | 10               | 0.04        |
|  | 25      | 1003025 | 37.0   | 76     | 2      | 10               | 0.05        |
|  | 32      | 1003032 | 44.0   | 81     | 2      | 10               | 0.07        |
|  | 40      | 1003040 | 55.5   | 90     | 2      | 10               | 0.09        |
|  | 50      | 1003050 | 65.5   | 98     | 0      | 10               | 0.14        |
|  | 63      | 1003063 | 81.0   | 111    | 0      | 10               | 0.21        |
|  | 75      | 1003075 | 95.5   | 118    | 0      | 10               | 0.34        |
|  | 90      | 1004090 | 119.0  | 127    | 3      | 10               | 0.60        |
|  | 110     | 1004110 | 141.5  | 135    | 3      | 10               | 0.80        |
|  | 125     | 1004125 | 158.5  | 147    | 3      | 10               | 1.10        |
|  | 140     | 1004140 | 175.0  | 154    | 3      | 10               | 1.30        |
|  | 160     | 1004160 | 198.0  | 164    | 3      | 10               | 1.60        |
|  | 180     | 1004180 | 221.0  | 167    | 3      | 10               | 2.10        |
|  | 200     | 1004200 | 246.0  | 175    | 3      | 10               | 2.70        |
|  | 225     | 1003225 | 278.0  | 220    | 8      | 10               | 3.90        |
|  | 250     | 1003250 | 310.0  | 224    | 8      | 10               | 5.10        |
|  | 280     | 1003280 | 341.0  | 256    | 8      | 10               | 7.10        |
| 315  | 1003315 | 389.0   | 291    | 8      | 10     | 9.50             |             |

|        |         | PE100  | SDR17  | PN10   |                  |             |
|--------|---------|--------|--------|--------|------------------|-------------|
| d (mm) | Code    | A (mm) | B (mm) | Z (mm) | GAS Rating (bar) | Weight (kg) |
| 355    | 1003355 | 405.0  | 295    | 4      | 6                | 9.00        |
| 400    | 1003400 | 458.0  | 335    | 4      | 6                | 12.08       |

# Electrofusion System

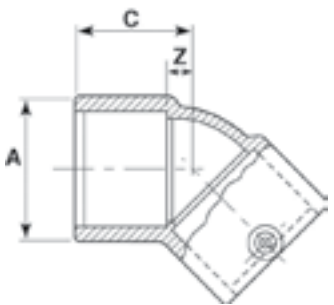
## ELECTROFUSION ELBOWS 90°

| d<br>(mm) | Code    | PE100     | SDR11     | PN16      | GAS Rating<br>(bar) | Weight<br>(kg) |   |
|-----------|---------|-----------|-----------|-----------|---------------------|----------------|---|
|           |         | A<br>(mm) | C<br>(mm) | Z<br>(mm) |                     |                |   |
| 25        | 3701025 | 35.0      | 53.5      | 15.5      | 10                  | 0.06           |  |
| 32        | 3701032 | 42.0      | 58.0      | 18.5      | 10                  | 0.07           |   |
| 40        | 3701040 | 52.5      | 69.0      | 22.5      | 10                  | 0.15           |   |
| 50        | 3701050 | 65.0      | 74.5      | 27.0      | 10                  | 0.21           |   |
| 63        | 3701063 | 81.5      | 88.0      | 35.0      | 10                  | 0.37           |   |
| 75        | 3701075 | 96.0      | 95.0      | 40.0      | 10                  | 0.50           |   |
| 90        | 3701090 | 114.5     | 118.0     | 49.0      | 10                  | 0.90           |   |
| 110       | 3701110 | 137.0     | 130.0     | 60.0      | 10                  | 1.30           |   |
| 125       | 3701125 | 155.5     | 143.0     | 67.0      | 10                  | 1.80           |   |
| 160       | 3701160 | 199.0     | 171.0     | 87.0      | 10                  | 2.60           |   |
| 180       | 3701180 | 222.0     | 185.0     | 98.0      | 10                  | 4.40           |   |



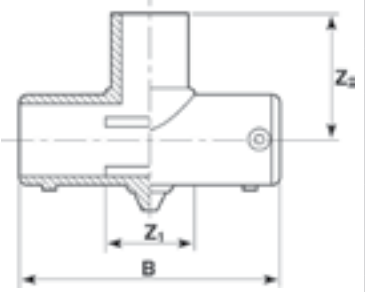
# Electrofusion System

## ELECTROFUSION ELBOWS 45°

|   | d<br>(mm) | Code    | PE100     | SDR11     | PN16      | GAS Rating<br>(bar) | Weight<br>(kg) |
|---|-----------|---------|-----------|-----------|-----------|---------------------|----------------|
|   |           |         | A<br>(mm) | C<br>(mm) | Z<br>(mm) |                     |                |
|  | 25        | 3501025 | 35.0      | 45.0      | 7.0       | 10                  | 0.05           |
|   | 32        | 3501032 | 42.0      | 48.0      | 8.0       | 10                  | 0.06           |
|   | 40        | 3501040 | 52.5      | 54.5      | 9.5       | 10                  | 0.11           |
|   | 50        | 3501050 | 65.5      | 56.5      | 11.5      | 10                  | 0.17           |
|   | 63        | 3501063 | 81.0      | 65.0      | 15.0      | 10                  | 0.24           |
|   | 75        | 3501075 | 96.0      | 72.5      | 17.5      | 10                  | 0.50           |
|   | 90        | 3501090 | 114.5     | 89.0      | 20.0      | 10                  | 0.80           |
|   | 110       | 3501110 | 136.0     | 97.0      | 27.0      | 10                  | 1.00           |
|   | 125       | 3501125 | 155.5     | 105.0     | 30.0      | 10                  | 1.40           |
|   | 160       | 3501160 | 198.0     | 120.0     | 36.0      | 10                  | 2.60           |
|   | 180       | 3501180 | 223.0     | 128.0     | 40.0      | 10                  | 3.40           |




## ELECTROFUSION EQUAL TEES

| d<br>(mm) | Code    | PE100     | SDR11                  | PN16                   | GAS Rating<br>(bar) | Weight<br>(kg) |   |
|-----------|---------|-----------|------------------------|------------------------|---------------------|----------------|---|
|           |         | B<br>(mm) | Z <sub>1</sub><br>(mm) | Z <sub>2</sub><br>(mm) |                     |                |   |
| 25        | 3011025 | 99.0      | 22.0                   | 68.0                   | 10                  | 0.07           |  |
| 32        | 3011032 | 110.0     | 30.0                   | 76.5                   | 10                  | 0.09           |   |
| 40        | 3011040 | 117.5     | 31.5                   | 89.0                   | 10                  | 0.16           |   |
| 50        | 3011050 | 136.5     | 43.0                   | 102.0                  | 10                  | 0.22           |   |
| 63        | 3011063 | 169.0     | 58.0                   | 118.0                  | 10                  | 0.39           |   |
| 75        | 3011075 | 171.0     | 61.0                   | 124.0                  | 10                  | 1.00           |   |
| 90        | 3011090 | 211.0     | 83.5                   | 150.0                  | 10                  | 1.10           |   |
| 110       | 3011110 | 240.0     | 107.5                  | 171.0                  | 10                  | 1.70           |   |
| 125       | 3011125 | 280.0     | 118.5                  | 177.0                  | 10                  | 2.30           |   |
| 160       | 3011160 | 314.0     | 150.0                  | 227.0                  | 10                  | 4.40           |   |
| 180       | 3011180 | 365.0     | 161.0                  | 225.0                  | 10                  | 5.80           |   |



# Electrofusion System

## ELECTROFUSION REDUCERS

|  |     |                        |                        | PE100    | SDR11     | PN16      |                        |                        |                     |                |
|--|-----|------------------------|------------------------|----------|-----------|-----------|------------------------|------------------------|---------------------|----------------|
|  |     | d <sub>1</sub><br>(mm) | d <sub>2</sub><br>(mm) | Code     | A<br>(mm) | B<br>(mm) | L <sub>1</sub><br>(mm) | L <sub>2</sub><br>(mm) | GAS Rating<br>(bar) | Weight<br>(kg) |
|  |     | 25                     | 20                     | 1101410  | 37.0      | 80.0      | 35.5                   | 37.0                   | 10                  | 0.05           |
|  |     | 32                     | 20                     | 1101412  | 44.5      | 82.5      | 36.5                   | 40.5                   | 10                  | 0.05           |
|  |     | 32                     | 25                     | 1101413  | 44.5      | 83.5      | 38.0                   | 41.0                   | 10                  | 0.07           |
|  |     | 40                     | 32                     | 1101417  | 56.0      | 111.5     | 47.0                   | 53.0                   | 10                  | 0.12           |
|  |     | 50                     | 40                     | 1101422  | 65.0      | 103.5     | 43.5                   | 47.0                   | 10                  | 0.12           |
|  |     | 63                     | 32                     | 1101426  | 81.0      | 121.0     | 41.0                   | 59.0                   | 10                  | 0.18           |
|  |     | 63                     | 40                     | 1101427  | 81.0      | 128.5     | 48.0                   | 59.0                   | 10                  | 0.21           |
|  |     | 63                     | 50                     | 1101428  | 79.0      | 131.0     | 52.0                   | 61.0                   | 10                  | 0.22           |
|  |     | 90                     | 63                     | 1101442  | 113.0     | 175.0     | 54.5                   | 80.0                   | 10                  | 0.60           |
|  |     | *110                   | 63                     | 20341163 | 141.5     | 330.0     | 120.0                  | 155.0                  | 10                  | 1.48           |
|  |     | 110                    | 90                     | 1101452  | 136.0     | 189.0     | 72.0                   | 85.0                   | 10                  | 0.90           |
|  |     | *125                   | 63                     | 20341263 | 158.5     | 330.0     | 121.0                  | 165.0                  | 10                  | 1.89           |
|  |     | 125                    | 90                     | 1101461  | 155.0     | 210.0     | 67.0                   | 90.0                   | 10                  | 1.20           |
|  |     | 125                    | 110                    | 1101462  | 156.0     | 201.0     | 73.5                   | 95.0                   | 10                  | 1.30           |
|  |     | *160                   | 90                     | 20341690 | 198.0     | 365.0     | 139.0                  | 185.0                  | 10                  | 3.26           |
|  |     | 160                    | 110                    | 1101483  | 195.0     | 254.0     | 72.0                   | 101.0                  | 10                  | 2.20           |
|  | 180 | 125                    | 1101496                | 214.0    | 276.0     | 83.0      | 110.0                  | 10                     | 2.60                |                |

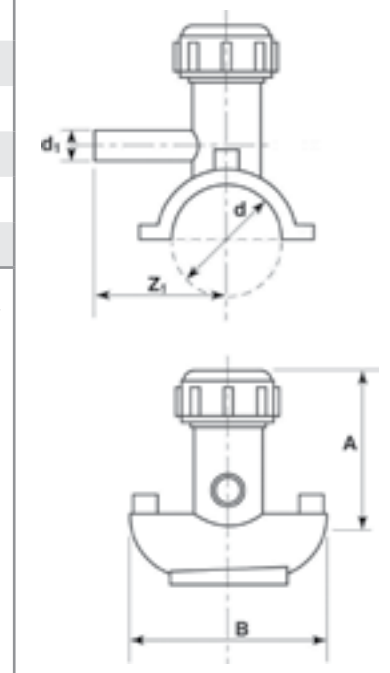
\*Supplied as a kit.



## ELECTROFUSION TAPPING SADDLES

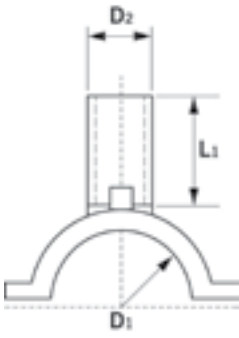
| d<br>(mm) | d <sub>1</sub><br>(mm) | Code    | PE100                  | SDR11     | PN16      | GAS Rating<br>(bar) | Weight<br>(kg) |
|-----------|------------------------|---------|------------------------|-----------|-----------|---------------------|----------------|
|           |                        |         | Z <sub>1</sub><br>(mm) | A<br>(mm) | B<br>(mm) |                     |                |
| 63        | 40                     | 2111427 | 110                    | 138       | 109       | 10                  | 0.76           |
| 90        | 40                     | 2111440 | 110                    | 138       | 109       | 10                  | 0.79           |
| 110       | 40                     | 2111449 | 110                    | 138       | 109       | 10                  | 0.80           |
| 125       | 40                     | 2111457 | 110                    | 138       | 109       | 10                  | 0.80           |
| 160       | 40                     | 2111478 | 110                    | 138       | 109       | 10                  | 0.81           |
| 180       | 40                     | 2111490 | 110                    | 138       | 109       | 10                  | 0.82           |

\*Suitable for live tapping after fusion.





# Electrofusion System

## ELECTROFUSION BRANCH SADDLES


|   | PE100  |                        | SDR11     |                        | PN16          |               |                     |                |
|---|--|------------------------|-----------|------------------------|---------------|---------------|---------------------|----------------|
|   | D <sub>1</sub><br>(mm)   | D <sub>2</sub><br>(mm) | Code      | L <sub>1</sub><br>(mm) | Punch<br>(mm) | Clamp<br>Type | GAS Rating<br>(bar) | Weight<br>(kg) |
|  | 63   | 63                     | 2311429   | 50                     | 13            | 1             | 10                  | 0.36           |
|   | 90   | 63                     | 2311442   | 85                     | 46            | 3             | 10                  | 0.37           |
|   | 110  | 63                     | 2311450   | 85                     | 46            | 3             | 10                  | 0.40           |
|   | 125  | 63                     | 2311459   | 80                     | 46            | 3             | 10                  | 0.41           |
|   | 160  | 63                     | 2311480   | 85                     | 46            | 3             | 10                  | 0.42           |
|   | 180  | 63                     | EFBS18063 | 75                     | 46            | 1             | 10                  | 0.67           |
|   | <p>1 - Permanent Clamp.    3 - Permanent Strapclamp.<br/>*Drill out with holesaw after fusion.</p> |                        |           |                        |               |               |                     |                |



## CONNEXION ELECTROFUSION WELDING MACHINES

| Description                     | Connexion Red          | Connexion Blue         |  |
|---------------------------------|------------------------|------------------------|--|
| Welding Mode                    | Barcode and Manual     | Manual                 |   |
| Input Voltage Range             | AC180/270V             | AC180/270V             |  |
| Frequency Range                 | 45-66 Hz               | 45-66 Hz               |  |
| Amps                            | AC 20A maximum         | AC 20A maximum         |  |
| Power                           | AC 3.5KVA              | AC 2.5KVA              |  |
| Circuit Breaker                 | 20A slow               | 20A slow               |  |
| Housing                         | Protection IP65        | Protection IP65        |  |
| Electrical Safety               | Class 1                | Class 1                |  |
| Connection Cable                | 4m                     | 4m                     |  |
| Fusion Cable                    | 4m                     | 4m                     |  |
| Weight                          | 22kg                   | 22kg                   |  |
| Barcode Type                    | 2/5 interleaved code   | n/a                    |  |
| Working Temperature Range       | -20°C - +45°C          | -20° -+45°C            |  |
| Fusion Current Monitor          | Short and open circuit | Short and open circuit |  |
| Printer Interface               | USB                    | n/a                    |  |
| Quality                         | CE and GS              | CE and GS              |  |
| Carrying Case                   | Yes                    | Yes                    |  |
| 4.0mm Connector Plugs           | Yes                    | Optional               |  |
| Hand Scraper                    | Yes                    | Optional               |  |
| Emergency Stop                  | Yes                    | Yes                    |  |
| Number of Fusions Recordable    | 1,000                  | n/a                    |  |
| Language Variants               | Yes                    | n/a                    |  |
| Memory Stick with Software Incl | Yes                    | No                     |  |
| Product Code for 230V           | 7903001                | 7903003                |  |
| Welding Range                   | 39.5 - 48V             | 39.5V                  |  |

\*Available for hire or purchase.

| Code    | Description                                  |   |
|---------|--|---|
| 7900850 | Steel case for Connexion EF Control Machines |  |