



# HDPE PIPING SYSTEMS

for Water Supply, Plumbing and Pressure Applications

## ELECTROFUSION JOINTS



## Contents

# 02

Contents

# 14

Electrofusion, Installation Procedures.

# 03-04

FENGYE HDPE Pipes

# 15

Product Warranty

# 05

FENGYE Electrofusion Fittings

# 16

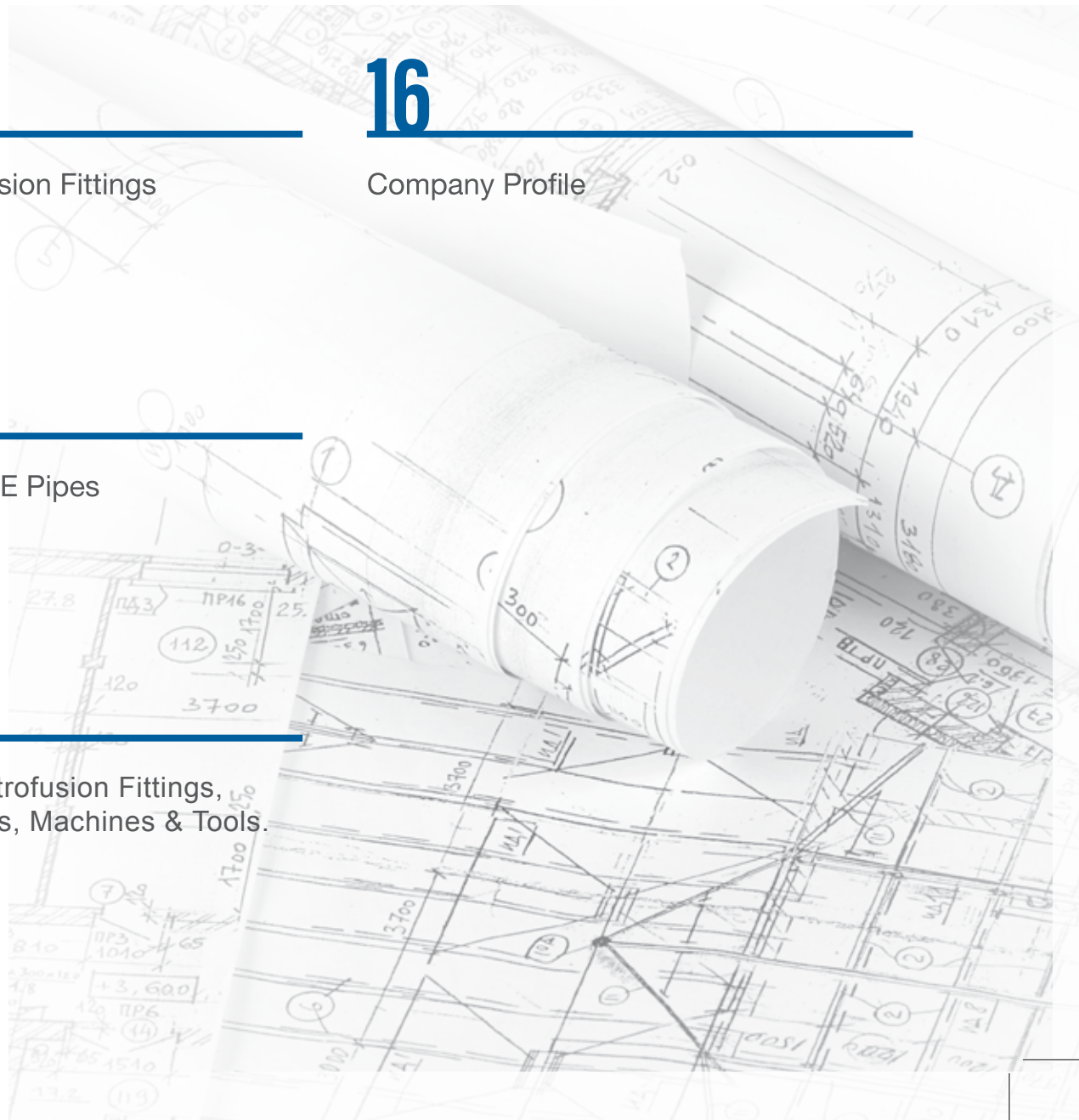
Company Profile

# 06

Product Lists HDPE Pipes

# 07-13

Product Lists Electrofusion Fittings,  
Butt Fusion Fittings, Machines & Tools.



# FENGYE HDPE Pipes

Product Standard : MS 1058-2 : 2005 & ISO 4427-2 : 2007+A1 : 2014

## GENERAL

Polyethylene (PE) has grown to be the world's most widely used and recognized thermoplastic materials. Today's modern PE resins are highly engineered for more rigorous applications such as pressure-rated water and gas pipes, landfill membranes, automotive fuel tanks and other demanding applications.

## TYPE OF PE MATERIALS

The physical properties of PE materials are specific to each grade or type, and can be modified by both variations in density, and molecular weight distribution. A large number of grades of PE materials are used in pipe and fitting systems and the specific properties are tailored for the particular application.

High Density PE (HDPE) types of PE material has been used in our applications. HDPE base resins are manufactured in a low-pressure process, resulting in a chain structure with small side branches and a material density range of 0.9300960 g/cm<sup>3</sup>. HDPE materials qualify as PE80 and PE100 in accordance to their relative product standard.

## COMPARISONS OF PE100 VS PE80

PE100 material can withstand a minimum circumferential stress (or hoop stress) of 10MPa compared to 8MPa of PE80 material for 50 years at 20°C. The higher long-term creep resistance of PE100 material translates to higher operating pressures at the same wall thickness, or alternatively, thinner walled pipes at the same operating pressure, offering greater hydraulic capacity than PE80 material.

PE100 material has improved notch resistance which means they are less sensitive to surface damage during laying compared to PE80 material. In addition, PE100 material exhibits improved resistance to rapid crack growth. If a fast crack begins to grow in a PE100 pipe, it will be arrested after propagating only a short distance.



## ONE SYSTEM, ONE BRAND

The HDPE Pipes we supplied are all packaged with the relevant fittings of both Socket Fusion Fittings (DN20 – DN110) and Electrofusion Fittings (DN63 – DN400). Both Pipes and Fittings are offered under One Brand, and functions under One System.

For mid to large pipe sizes (DN63 – DN400), Electrofusion joints are most ideal application to be used in this range of piping system. The matching or compatibility of both Pipes and Fittings has become very essential in terms of both ID of Fittings and OD of Pipes consistency and control.

Hence, the supplies, logistic, commission, performance and warranty aspects will become straight forward when they are packaged all together. And these are the new concepts and values that we are offering.

## UV & WEATHER RESISTANCE

HDPE has the BEST UV and weather resistance amongst other plastics. All plastic pipes are subjected to the process of surface degradation, or oxidation due to the combined effects of UV radiation, increased temperature, and moisture when pipes are stored in exposed locations.

Our Black PE pipes contain 22.5% finely divided carbon black and can be safely stored outside in most climates for many years without damage from UV exposure. Carbon black is the most effective single additive to enhance the weathering characteristics of plastic materials. Others types of pipes that do not utilize carbon black do not possess the same stability and thus develops a faster rate of oxidation.



### Performance Specifications

| Item                                            | Units   | Characteristic                    | Parameter   |        |
|-------------------------------------------------|---------|-----------------------------------|-------------|--------|
|                                                 |         |                                   | PE-80       | PE-100 |
| Hydrostatic Strength                            | MPa     | 20° (100h) : No break & leakage   | 9.0         | 12.4   |
|                                                 |         | 80° (165h) : No break & leakage   | 4.6         | 5.5    |
|                                                 |         | 80° (1,000h) : No break & leakage | 4.0         | 5.0    |
| Elongation at Break                             | %       | ≥ 350                             |             |        |
| Thermal Stability<br>(Oxidation Induction Time) | min     | > 20                              | 200°C       |        |
| Melt Flow Rate (MFR)                            | g/10min | Changes of MFR by processing <25% | 190°C, 5kgs |        |
| Longitudinal Reversion                          | %       | ≤ 3                               | 110°C       |        |

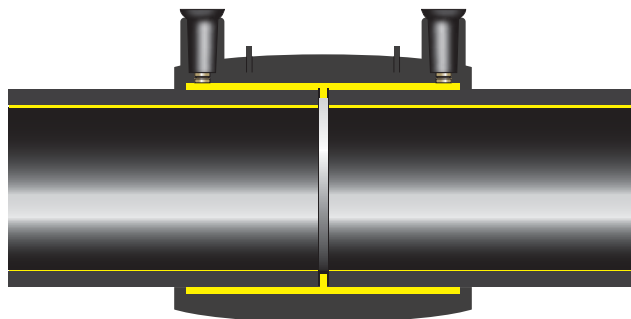
### PE100 Dimensions

| Nominal<br>(mm) | Outer Diameter<br>(mm) |       | Wall Thickness (mm)<br>PN 12.5 (SDR 13.6) |      | Wall Thickness (mm)<br>PN 16 (SDR 11) |      |
|-----------------|------------------------|-------|-------------------------------------------|------|---------------------------------------|------|
|                 | Min                    | Max   | Min                                       | Max  | Min                                   | Max  |
| 63              | 63.0                   | 63.4  | 4.7                                       | 5.3  | 5.8                                   | 6.5  |
| 75              | 75.0                   | 75.5  | 5.6                                       | 6.3  | 6.8                                   | 7.6  |
| 90              | 90.0                   | 90.6  | 6.7                                       | 7.5  | 8.2                                   | 9.2  |
| 110             | 110.0                  | 110.7 | 8.1                                       | 9.1  | 10.0                                  | 11.1 |
| 125             | 125.0                  | 125.8 | 9.2                                       | 10.3 | 11.4                                  | 12.7 |
| 160             | 160.0                  | 161.0 | 11.8                                      | 13.1 | 14.6                                  | 16.2 |
| 180             | 180.0                  | 181.0 | 13.3                                      | 14.8 | 16.4                                  | 18.2 |
| 200             | 200.0                  | 201.2 | 14.7                                      | 16.3 | 18.2                                  | 20.2 |
| 225             | 225.0                  | 226.4 | 16.6                                      | 18.4 | 20.5                                  | 22.7 |
| 250             | 250.0                  | 251.5 | 18.4                                      | 20.4 | 22.7                                  | 25.1 |
| 315             | 315.0                  | 316.9 | 23.2                                      | 25.7 | 28.6                                  | 31.6 |
| 355             | 355.0                  | 357.2 | 26.1                                      | 28.9 | 32.2                                  | 35.6 |
| 400             | 400.0                  | 402.4 | 29.4                                      | 32.5 | 36.3                                  | 40.1 |

# FENGYE PE Electrofusion Fittings

**Product Standard : MS 1058-3 : 2005 & BS EN 12201-3 : 2011+A1 : 2012**

PE Electrofusion is the most advanced and automated PE fusion joining method. It is proven to be the most reliable, efficient and error proof method especially for larger diameter pipes. It is chosen in view of its practicality aspect when installing larger pipes.



The embedded heating wires have been pre-insulated and they are spaced consistently during the molding process. Heat is produced when electrical current is applied to the heating wires and spread across a large area around the PE polymer of pipes and fittings. This produces a molten state around the heated area, allowing homogeneous joints to be formed.

Each Electrofusion Fitting comes with a barcode, that once scanned with the control box allows for automated settings based on computerized electrofusion parameters stored within. The jointing process is then executed and carefully monitored by the control box. Once jointing is completed, the joint data is saved and is retrievable for future jointing reference and analysis.

## PRE JOINTING PREPARATION

Electrofusion Jointing required comprehensive preparation steps and processes which start from ensuring the matching dimension of both pipes and fittings. We need to create the condition where insertion of pipe into fitting need to be fit or tight fit. Both pipe and fitting surfaces in contact need to be properly cleaned by removing any dirt, grease and oxidized layer. And lastly, the cleaned pipe & fitting in position need to be hold or secured firmly by an alignment jig or clamp before the Electrofusion welding process started.

## KEY CHALLENGES IN ELECTROFUSION

There are quite a number of situations which may cause the failure of Electrofusion jointing. We have analyzed and identified the major issues as follows :

- Insufficient Cleaning at the contact zone of pipe & fitting
- Insufficient Peeling or Scraping at the pipe contact zone with the fitting
- Insufficient Pipe Insertion into the Fitting
- Improper Pipe & Fitting alignment and fitness

In order to address and overcome those issue arise, we have developed the relevant and effective processing tools and machines. And we package them together with pipe & fitting to the users as the one-stop solution.

Product List

# FENGYE

## HDPE Pipes

### PE 100



| Size  | Straight (5.8M Length) |                             |                |                             | Coiled (100M Roll) |                             |                |                             |
|-------|------------------------|-----------------------------|----------------|-----------------------------|--------------------|-----------------------------|----------------|-----------------------------|
|       | PN 12.5 (SDR 13.6)     |                             | PN 16 (SDR 11) |                             | PN 12.5 (SDR 13.6) |                             | PN 16 (SDR 11) |                             |
|       | Code                   | Nominal Wall Thickness (MM) | Code           | Nominal Wall Thickness (MM) | Code               | Nominal Wall Thickness (MM) | Code           | Nominal Wall Thickness (MM) |
| DN63  | FP063                  | 4.7                         | FP16063        | 5.8                         | FP063C             | 4.7                         | FP16063C       | 5.8                         |
| DN75  | FP075                  | 5.6                         | FP16075        | 6.8                         | -                  | -                           | -              | -                           |
| DN90  | FP090                  | 6.7                         | FP16090        | 8.2                         | -                  | -                           | -              | -                           |
| DN110 | FP110                  | 8.1                         | FP16110        | 10.0                        | -                  | -                           | -              | -                           |
| DN125 | FP125                  | 9.2                         | FP16125        | 11.4                        | -                  | -                           | -              | -                           |
| DN160 | FP160                  | 11.8                        | FP16160        | 14.6                        | -                  | -                           | -              | -                           |
| DN180 | FP180                  | 13.3                        | FP16180        | 16.4                        | -                  | -                           | -              | -                           |
| DN200 | FP200                  | 14.7                        | FP16200        | 18.2                        | -                  | -                           | -              | -                           |
| DN225 | FP225                  | 16.6                        | FP16225        | 20.5                        | -                  | -                           | -              | -                           |
| DN250 | FP250                  | 18.4                        | FP16225        | 22.7                        | -                  | -                           | -              | -                           |
| DN315 | FP315                  | 23.2                        | FP16315        | 28.6                        | -                  | -                           | -              | -                           |
| DN355 | FP355                  | 26.1                        | FP16355        | 32.2                        | -                  | -                           | -              | -                           |
| DN400 | FP400                  | 29.4                        | FP16400        | 36.3                        | -                  | -                           | -              | -                           |

## Product List

# PE Electrofusion Fittings & Tools

### EQUAL SOCKET



| Code    | Size    |
|---------|---------|
| FYES063 | 63x63   |
| FYES075 | 75x75   |
| FYES090 | 90x90   |
| FYES110 | 110x110 |
| FYES125 | 125x125 |
| FYES160 | 160x160 |
| FYES180 | 180x180 |
| FYES200 | 200x200 |
| FYES225 | 225x225 |
| FYES250 | 250x250 |
| FYES280 | 280X280 |
| FYES315 | 315x315 |
| FYES355 | 355X355 |
| FYES400 | 400X400 |
| FYES450 | 450X450 |
| FYES500 | 500X500 |
| FYES630 | 630X630 |

### EQUAL TEE



| Code    | Size    |
|---------|---------|
| FYET063 | 63x63   |
| FYET075 | 75x75   |
| FYET090 | 90x90   |
| FYET110 | 110x110 |
| FYET125 | 125x125 |
| FYET160 | 160x160 |
| FYET180 | 180x180 |
| FYET200 | 200x200 |
| FYET225 | 225x225 |
| FYET250 | 250x250 |
| FYET280 | 280X280 |
| FYET315 | 315x315 |

### EQUAL ELBOW



| Code      | Size    |
|-----------|---------|
| FYE90L063 | 63x63   |
| FYE90L075 | 75x75   |
| FYE90L090 | 90x90   |
| FYE90L110 | 110x110 |
| FYE90L125 | 125x125 |
| FYE90L160 | 160x160 |
| FYE90L180 | 180x180 |
| FYE90L200 | 200x200 |
| FYE90L225 | 225x225 |
| FYE90L250 | 250x250 |
| FYE90L280 | 280x280 |
| FYE90L315 | 315x315 |

\*(KIT) Denotes Spigot fittings  
Add On EF Coupler

### ELBOW 45°



| Code      | Size    |
|-----------|---------|
| FYE45L063 | 63x63   |
| FYE45L075 | 75x75   |
| FYE45L090 | 90x90   |
| FYE45L110 | 110x110 |
| FYE45L125 | 125x125 |
| FYE45L160 | 160x160 |
| FYE45L180 | 180x180 |
| FYE45L200 | 200x200 |
| FYE45L225 | 225x225 |
| FYE45L250 | 250x250 |
| FYE45L280 | 280X280 |
| FYE45L315 | 315x315 |

### END CAP



| Code     | Size |
|----------|------|
| FYEEC063 | 63   |
| FYEEC075 | 75   |
| FYEEC090 | 90   |
| FYEEC110 | 110  |
| FYEEC125 | 125  |
| FYEEC160 | 160  |
| FYEEC180 | 180  |
| FYEEC200 | 200  |
| FYEEC225 | 225  |
| FYEEC250 | 250  |
| FYEEC280 | 280  |
| FYEEC315 | 315  |

### LONG SPIGOT FLANGE ADAPTOR (STUB END)



| Code      | Size (B-RID) |
|-----------|--------------|
| FYBFA063L | 63 (77)      |
| FYBFA075L | 75 (90)      |
| FYBFA090L | 90 (108)     |
| FYBFA110L | 110 (125)    |
| FYBFA125L | 125 (135)    |
| FYBFA160L | 160 (179)    |
| FYBFA180L | 180 (188)    |
| FYBFA200L | 200 (234)    |
| FYBFA225L | 225 (238)    |
| FYBFA250L | 250 (288)    |
| FYBFA280L | 280 (294)    |
| FYBFA315L | 315 (388)    |

**REDUCING SOCKET**

| Code              | Size    |
|-------------------|---------|
| FYERS075063       | 75x63   |
| FYERS090063       | 90x63   |
| FYERS090075       | 90x75   |
| FYERS110063       | 110x63  |
| FYERS110075       | 110x75  |
| FYERS110090       | 110x90  |
| FYERS125063       | 125x63  |
| FYERS125075       | 125x75  |
| FYERS125090       | 125x90  |
| FYERS125110       | 125x110 |
| FYERS160063       | 160x63  |
| FYERS160075       | 160x75  |
| FYERS160090       | 160x90  |
| FYERS160110       | 160x110 |
| FYERS160125       | 160x125 |
| FYERS180110 (KIT) | 180x110 |
| FYERS180125 (KIT) | 180x125 |
| FYERS180160 (KIT) | 180x160 |
| FYERS200090       | 200x090 |
| FYERS200110       | 200x110 |
| FYERS200125       | 200x125 |
| FYERS200160       | 200x160 |
| FYERS250110       | 250x110 |
| FYERS250160       | 250x160 |
| FYERS250180 (KIT) | 250x180 |
| FYERS250200       | 250x200 |
| FYERS280200       | 280X200 |
| FYERS315160       | 315x160 |
| FYERS315200       | 315x200 |
| FYERS315250       | 315x250 |

**REDUCING TEE**

| Code        | Size        |
|-------------|-------------|
| FYERT075063 | 75x63x75    |
| FYERT090063 | 90x63x90    |
| FYERT090075 | 90x75x90    |
| FYERT110063 | 110x63x110  |
| FYERT110075 | 110x75x110  |
| FYERT110090 | 110x90x110  |
| FYERT125063 | 125x63x125  |
| FYERT125075 | 125x75x125  |
| FYERT125090 | 125x90x125  |
| FYERT125110 | 125x110x125 |
| FYERT160063 | 160x63x160  |
| FYERT160075 | 160x75x160  |
| FYERT160090 | 160x90x160  |
| FYERT160110 | 160x110x160 |
| FYERT160125 | 160x125x160 |
| FYERT180063 | 180x63x180  |
| FYERT180075 | 180x75x180  |
| FYERT180090 | 180x90x180  |
| FYERT180110 | 180x110x180 |
| FYERT180125 | 180x125x180 |
| FYERT180160 | 180x160x180 |
| FYERT200063 | 200x63x200  |
| FYERT200075 | 200x75x200  |
| FYERT200090 | 200x90x200  |
| FYERT200110 | 200x110x200 |
| FYERT200125 | 200x125x200 |
| FYERT200160 | 200x160x200 |
| FYERT225075 | 225X75X225  |
| FYERT225090 | 225X90X225  |
| FYERT225110 | 225X110X225 |
| FYERT225160 | 225X160X225 |
| FYERT250090 | 250x90x250  |
| FYERT250110 | 250x110x250 |
| FYERT250160 | 250x160x250 |
| FYERT250200 | 250x200x250 |
| FYERT280110 | 280X110X280 |
| FYERT280200 | 280X200X280 |
| FYERT315110 | 315X110X315 |
| FYERT315160 | 315x160x315 |
| FYERT315200 | 315x200x315 |
| FYERT315250 | 315x250x315 |

**LONG SPIGOT  
FEMALE SOCKET**

\*Smaller sizes are available upon request

| Code         | Size  |
|--------------|-------|
| FYEFTS063050 | 63x2" |
|              |       |
|              |       |
|              |       |
|              |       |

**LONG SPIGOT  
MALE SOCKET**

\*Smaller sizes are available upon request

| Code         | Size    |
|--------------|---------|
| FYEMTS025020 | 25x3/4" |
| FYEMTS032023 | 32x1"   |
| FYEMTS063050 | 63x2"   |
| FYEMTS075065 | 75x2½"  |
| FYEMTS090080 | 90x3"   |
| FYEMTS110100 | 110x4"  |

## Product List

# HDPE PN16 BUTT FUSION Fittings

### 90° ELBOW



| Code      | Size (MM) |
|-----------|-----------|
| FYB90L063 | 63x63     |
| FYB90L075 | 75x75     |
| FYB90L090 | 90x90     |
| FYB90L110 | 110x110   |
| FYB90L125 | 125x125   |
| FYB90L160 | 160x160   |
| FYB90L180 | 180x180   |
| FYB90L200 | 200x200   |
| FYB90L225 | 225x225   |
| FYB90L250 | 250x250   |
| FYB90L315 | 315x315   |

### EQUAL TEE



| Code    | Size (MM) |
|---------|-----------|
| FYBT063 | 63x63     |
| FYBT075 | 75x75     |
| FYBT090 | 90x90     |
| FYBT110 | 110x110   |
| FYBT125 | 125x125   |
| FYBT160 | 160x160   |
| FYBT180 | 180x180   |
| FYBT200 | 200x200   |
| FYBT225 | 225x225   |
| FYBT250 | 250x250   |
| FYBT315 | 315x315   |

### REDUCING SOCKET



| Code        | Size (MM) |
|-------------|-----------|
| FYBRS075063 | 75x63     |
| FYBRS090063 | 90x63     |
| FYBRS090075 | 90x75     |
| FYBRS110063 | 110x63    |
| FYBRS110075 | 110x75    |
| FYBRS110090 | 110x90    |
| FYBRS125063 | 125x63    |
| FYBRS125075 | 125x75    |
| FYBRS125090 | 125x90    |
| FYBRS125110 | 125x110   |
| FYBRS160063 | 160x63    |
| FYBRS160075 | 160x75    |
| FYBRS160090 | 160x90    |
| FYBRS160110 | 160x110   |
| FYBRS160125 | 160x125   |
| FYBRS180110 | 180x110   |
| FYBRS180125 | 180x125   |
| FYBRS180160 | 180x160   |
| FYBRS200110 | 200x110   |
| FYBRS200125 | 200x125   |
| FYBRS200160 | 200x160   |
| FYBRS225110 | 225x110   |
| FYBRS225160 | 225x160   |
| FYBRS225180 | 225x180   |
| FYBRS225200 | 225x200   |
| FYBRS250110 | 250x110   |
| FYBRS250160 | 250x160   |
| FYBRS250180 | 250x180   |
| FYBRS250200 | 250x200   |
| FYBRS250225 | 250x225   |
| FYBRS315160 | 315x160   |
| FYBRS315200 | 315x200   |
| FYBRS315225 | 315x225   |
| FYBRS315250 | 315x250   |

### REDUCING TEE



| Code        | Size (MM)   |
|-------------|-------------|
| FYBRT075063 | 75x63x75    |
| FYBRT090063 | 90x63x90    |
| FYBRT090075 | 90x75x90    |
| FYBRT110063 | 110x63x110  |
| FYBRT110075 | 110x75x110  |
| FYBRT110090 | 110x90x110  |
| FYBRT125063 | 125x63x125  |
| FYBRT125075 | 125x75x125  |
| FYBRT125090 | 125x90x125  |
| FYBRT125110 | 125x110x125 |
| FYBRT160063 | 160x63x160  |
| FYBRT160075 | 160x75x160  |
| FYBRT160090 | 160x90x160  |
| FYBRT160110 | 160x110x160 |
| FYBRT160125 | 160x125x160 |
| FYBRT180110 | 180x110x180 |
| FYBRT180125 | 180x125x180 |
| FYBRT180160 | 180x160x180 |
| FYBRT200110 | 200x110x200 |
| FYBRT200125 | 200x125x200 |
| FYBRT200160 | 200x160x200 |
| FYBRT225110 | 225x110x225 |
| FYBRT225160 | 225x160x225 |
| FYBRT225180 | 225x180x225 |
| FYBRT225200 | 225x200x225 |
| FYBRT250110 | 250x110x250 |
| FYBRT250160 | 250x160x250 |
| FYBRT250180 | 250x180x250 |
| FYBRT250200 | 250x200x250 |
| FYBRT250225 | 250x225x250 |
| FYBRT315160 | 315x160x315 |
| FYBRT315200 | 315x200x315 |
| FYBRT315225 | 315x225x315 |
| FYBRT315250 | 315x250x315 |

**45° ELBOW**

| Code      | Size (MM) |
|-----------|-----------|
| FYB45L063 | 63x63     |
| FYB45L075 | 75x75     |
| FYB45L090 | 90x90     |
| FYB45L110 | 110x110   |
| FYB45L125 | 125x125   |
| FYB45L160 | 160x160   |
| FYB45L180 | 180x180   |
| FYB45L200 | 200x200   |
| FYB45L225 | 225x225   |
| FYB45L315 | 315x315   |
| FYB45L250 | 250x250   |

**END CAP**

| Code     | Size (MM) |
|----------|-----------|
| FYBEC063 | 63        |
| FYBEC075 | 75        |
| FYBEC090 | 90        |
| FYBEC110 | 110       |
| FYBEC125 | 125       |
| FYBEC160 | 160       |
| FYBEC180 | 180       |
| FYBEC200 | 200       |
| FYBEC225 | 225       |
| FYBEC250 | 250       |
| FYBEC280 | 280       |
| FYBEC315 | 315       |

**LONG SPIGOT FLANGE ADAPTOR (STUB END)**

| Code      | Size      |
|-----------|-----------|
| FYBFA063L | 63 (77)   |
| FYBFA075L | 75 (90)   |
| FYBFA090L | 90 (108)  |
| FYBFA110L | 110 (125) |
| FYBFA125L | 125 (135) |
| FYBFA160L | 160 (179) |
| FYBFA180L | 180 (188) |
| FYBFA200L | 200 (234) |
| FYBFA225L | 225 (238) |
| FYBFA250L | 250 (288) |
| FYBFA280L | 280 (294) |
| FYBFA315L | 315 (388) |

**BACKING RING FOR STUB END**

| RING ID | FOR STUB END SIZE (MM) |
|---------|------------------------|
| 77mm    | 63                     |
| 90mm    | 75                     |
| 108mm   | 90                     |
| 125mm   | 110                    |
| 135mm   | 125                    |
| 179mm   | 160                    |
| 188mm   | 180                    |
| 234mm   | 200                    |
| 238mm   | 225                    |
| 288mm   | 250                    |
| 294mm   | 280                    |
| 338mm   | 315                    |

## Electrofusion Welding Machines

### ATS-180



The ATS-180 is lightweight and capable of fusing all conventional brands of fittings up to 200mm. Using a high volume cooling fan, it provides reliability for welding in all conditons.

#### Features & Specifications

|                                     |                           |
|-------------------------------------|---------------------------|
| Fitting Size Range                  | <b>DN20 - DN200</b>       |
| Dimensions [HxWxL]                  | 30 x 21 x 26cm            |
| Time Entry                          | Barcode Scanning & Manual |
| Weight                              | <b>11kgs</b>              |
| Input Voltage                       | 230v                      |
| Input Frequency                     | 40-60Hz                   |
| Max. Input Current                  | 8A                        |
| Input Power                         | 3000W                     |
| Output Voltage [Vac RMS]            | 8-48v                     |
| Output Current [Continuous Aac RMS] | 50A                       |
| Data Recording Capacity             | 2,000 Records             |
| Brands                              | Universal                 |
| Terminals                           | Universal 4.0mm & 4.7mm   |

### ATS-250



The ATS-250 gives us functionality, reliability and affordability, capable of welding all conventional brands of fittings up to 630mm. With automatic fitting recognition, barcode scanning and manual data entry options, this welder is an industry standard.

#### Features & Specifications

|                                     |                           |
|-------------------------------------|---------------------------|
| Fitting Size Range                  | <b>DN20 - DN450</b>       |
| Dimensions [HxWxL]                  | 22 x 26 x 45cm            |
| Time Entry                          | Barcode Scanning & Manual |
| Weight                              | <b>20kgs</b>              |
| Input Voltage                       | 230v                      |
| Input Frequency                     | 40-60Hz                   |
| Max. Input Current                  | 14A                       |
| Input Power                         | 3500W                     |
| Output Voltage [Vac RMS]            | 8-48v                     |
| Output Current [Continuous Aac RMS] | 60A                       |
| Data Recording Capacity             | 2,000 Records             |
| Brands                              | Universal                 |
| Terminals                           | Universal 4.0mm & 4.7mm   |



## Rotary Peeler

### MULTI RANGE PEELER



#### Features

- Pipe range : DN63 – DN630
- One-Size-Fits-All
- Fastest and Cost Saving
- Easy, Even and Consistent  
(peeling thickness at 0.1mm – 0.2mm per round)
- Replaceable & Rotatable 4-sided Peeling Tip
- Small Working Space, Large Clearance

## Electrofusion Alignment Clamp

### STRAP CLAMP 200 / 500



#### Features

- Strap Clamp 200 Pipe Range DN40 – DN200
- Strap Clamp 500 Pipe Range DN160 – DN500
- Compact, Quick to Install and Easy to Use
- Available in Single or Double Clamp Format (2 Clamps on each side)
- Angle making bar for 45° and 90° elbows available
- Lightest weight with strap holder
- Avoid Misalignment & Slip-off
- Robust and Firm Clamping



Optional Angle Maker Knuckle

### TITAN 200 / 500 PULL TOGETHER CLAMP



#### Features

- Titan 200 Pipe Range DN40 – DN200
- Titan 500 Pipe Range DN160 – DN500
- Compact, Quick to Install and Easy to Use
- Available in Double Clamp Format (2 Clamps on each side)
- Capable of Pulling 12m length of Pipes using its rack and pinion system
- Includes Pull Together Ratchet
- Avoid Misalignment & Slip-off
- Robust and Firm Clamping

EF MACHINES

| Code    |  |
|---------|--|
| ATS-180 |  |
|         |  |
|         |  |
|         |  |
|         |  |



MULTI RANGE PEELER

| Code   |  |
|--------|--|
| MRP630 |  |
|        |  |
|        |  |
|        |  |
|        |  |



STRAP CLAMP

| Code                        |  |
|-----------------------------|--|
| SC040200<br>(DN40 - DN200)  |  |
|                             |  |
| SC160500<br>(DN160 - DN500) |  |
|                             |  |
|                             |  |



EF MACHINES

| Code    |  |
|---------|--|
| ATS-250 |  |
|         |  |
|         |  |
|         |  |
|         |  |



MANUAL SCRAPER

| Code  | Size     |
|-------|----------|
| FYEMS | 20 - 400 |
|       |          |
|       |          |
|       |          |



ACETONE

| Code     | Size    |
|----------|---------|
| ACT-500  | 500ml   |
| ACT-1000 | 1,000ml |
|          |         |
|          |         |
|          |         |



# Acetone



## Features

- Packed in 480ml and 1 litre bottles
- Quick drying after application
- 99% Acetone / 1% Water
- Effective dirt and grease removing agent

## Installation Procedures

|          |                                                                                                                                          |          |                                                                                                                                                                  |
|----------|------------------------------------------------------------------------------------------------------------------------------------------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1</b> | <b>CUT</b> the pipe squarely with proper pipe cutter or by using saw with proper side-guiding in order to achieve a perpendicular cut.   | <b>5</b> | <b>INSERT</b> the pipe into the fitting until it reaches the hard stop inside the fitting. Make sure that the pipe is not too loose or too tight in the fitting. |
| <b>2</b> | <b>MARK</b> the insertion depth by measuring the insertion depth from fitting and areas to be peeled on pipe.                            | <b>6</b> | <b>ALIGN</b> the pipe and fitting firmly using the Alignment Clamp that hold and clamp on the pipes on both sides of fitting.                                    |
| <b>3</b> | <b>PEEL</b> the pipe at insertion depth using Rotary Peeler. Repeat this using pipe insertion into fitting at fit or tight-fit condition | <b>7</b> | <b>PLUG</b> in the terminal cables into the terminals on fitting. Scan or key-in the joint parameters (wattage and time respectively).                           |
| <b>4</b> | <b>CLEAN</b> the peeled area on pipe and internal part of fitting that to be in contact with pipe using Welding Wipes.                   | <b>8</b> | <b>FUSE</b> the pipe & fitting joints with the electrofusion machine at the preset time. Pins will protrude out to indicate the fusion process is completed.     |

## Product Warranty

'FENGYE' provides warranty to its products that are free of defects in workmanship under normal use and service provided. Warranty only applies when products are used in the purpose or conditions for which they are intended.

This warranty shall not be applied to any of our products that have been altered, repaired and/or used in any way, stored in unprotected conditions, or have been subjected to misuse, negligence, accident and/or have not been installed in accordance to installation instructions.

Installation of Fengye HDPE Socket Fusion Fittings recommends the use of our tailor-made welding bushes (for sizes DN20 – DN110) together with Socket Fusion Welder with proper temperature setting and displacement; also recommended are three enhancement features incorporated which are the Cold-ring (for sizes DN20 – DN110), Orbit (sizes DN20 – DN63) and Pipe-stiffener for pipe wall thickness below 3mm.

For medium to larger size ranges, installation of Fengye HDPE Electrofusion Fittings requiring 39.5V power source to fuse, is to be carried out using our supplied or equivalent approved brand of Electrofusion Welding Machine. The Welding Machine is rated at 2.8kW - 3.5kW output power with temperature compensating feature, operating at 230/240 VAC requiring a fixed and constant power supply or through a portable power generator rated at 5kW (minimum). If pipe is found to be more than 1.5% out of roundness should be rejected. The use of Pipe Alignment Clamp is recommended to ensure proper installation. The fused area on pipe and fitting must be peeled and/or cleaned prior to insertion from each other.

Installation instructions must be adhered to, or our Product Warranty is null or void. Installation of Electrofusion Fittings must be carried out by properly trained and qualified operator(s) and/or by witness of the factory representative.

The obligation of 'FENGYE' under this warranty shall be limited to replacement of any parts that may prove defective under normal use.

'FENGYE' shall have the rights to inspect the said product(s) and purchaser shall, if requested, return defective product(s) prepaid to us. Purchaser shall assume all responsibility and expenses of removal, reinstallation and freight charges in conjunction with the foregoing remedy.

'FENGYE' shall not be liable for indirect, special, incidental or consequential damage or penalties and does not assume any liability of purchaser to others, or to anyone for injury to person and/or damage to property.

Any claim regarding shortages or damage from shipment of product(s) must be submitted in written to us within 10 days after receipts of shipment. Purchaser shall note loss or damage on delivery order and provide a delivery receipt stating such with transporter's signature.

Purchaser is responsible for passing on this Limited Warranty to all respective customers.

In addition, 'FENGYE' is in its best effort to offer the Product Liability Assurance (PLI) up to RM2,000,000.00 annually for 10 years at the time of purchase that covers the losses in any forms of injury and property damages caused by product defect, subjected to terms and conditions of PLI Policies. The number of insured sums and scopes of coverage is upon revision base on the on-going changes of market needs and situations without prior notice.

Fengye Piping (M) Sdn. Bhd. has been set-up in Malaysia to promote, manage and distribute 'FENGYE' brand of products in our region since August 2018. Backed by our world-class manufacturing facility in China, as well as cooperation with local and overseas OEM partners we continue to innovate and develop new products, techniques, solutions and to leverage well on the best value for money.

Fengye HDPE Piping Systems is our key product which covers the widest range in the piping industry, under one-system with FUSION Jointing Method and warranty under one brand. We are the first to offer such a product combination and concept in the market.

- HDPE Pipes (DN20 – DN400) rated PN12.5 and PN16
- HDPE Socket Fusion Fittings (DN20 – DN110) rated PN16
- HDPE Electrofusion Fittings (DN63 – DN400) rated PN16
- HDPE Stop Valves (DN20 – DN63) rated PN16, Chrome Accessories Option for sizes DN20 – DN32

In terms of product application, we have heavy emphasis on both 'EFFICIENCY' and 'SUSTAINABILITY' aspects. This is done in order to achieve our 'GREEN' policy terms, whereby our definition of 'GREEN' comes from highly efficient work that avoids mistakes and reduces wastage, with the right application at lower cost but maintain similar or better quality, thus ensuring long life-span performance that reduces replacement or maintenance costs.

For our pipe selection, they come in straight or coiled forms, along with different pressure ratings. For smaller and thinner pipe sizes, we offer essential features that strengthens the pipe structure in order to create a stable jointing process. As for the choice of socket fusion or electrofusion jointing within the overlapping ranges of DN63 – DN110, we recommend the fusion application method based on ease-of-installation and pre-jointing preparation against labor and product costing.

Fusion jointing method has proven to be the most reliable and robust systems, and able to achieve best long-term performance. Apart from our comprehensive and high-quality products we offer, we also provide the right processing tools and machines to produce quality joints by allowing more efficient work. Additional enhancements have been developed and implemented into the product line such as Handy Socket Fusion Welder, Orbit, Cold-ring, Light-weight EF Welder, Light-weight Chain Peeler, Light-weight Alignment Clamp, etc.

At 'FENGYE', we listen and provide our valued customers with quality and satisfactory products, services and solutions. We continue to strive for excellency by expanding on new products and solutions, enhanced features and techniques, streamlining efficiency and innovating new ideas based on valuable feedback and market trends.

"Mind Local, Set Global"



**FENGYE PIPING (M) SDN. BHD.** (1290947-T / 201801028921)

Lot 1294, Jalan KPAT 1, Kawasan Perindustrian Ampang Tambahan, 68000 Ampang, Selangor, Malaysia.

Tel: +603-4297 9000 Fax: +603-4297 9001 Email: [info@fengye.com.my](mailto:info@fengye.com.my)

[www.fengye.com.my](http://www.fengye.com.my)