

# HDPE SOCKET FUSION

Pipes & Fittings



We are the SOLUTIONS  
to your fusion joints.



**Polyware**<sup>®</sup>

PE PIPELINE SYSTEM SOLUTIONS PROVIDER

## HÜRNER Socket Welder HMS

Product Description	Size (mm)
HURNER Socket Welder HMS	20 - 63 20 - 125



   Made in Germany


## HÜRNER Spigot & Socket

Product Description	Size (mm)
HURNER Spigot & Socket	20, 25, 32, 40, 50, 63, 75, 90, 110




## Installation Method

### 1 Preparation




Choose the appropriate heating bushes and turn on the HURNER Socket Welder.

### 2 Cutting the pipe




Use a pipe cutter to cut at an angle of 90° to a given line.

### 3 Cleaning the pipe




Wipe the inside & outside of the fitting and pipe to make sure they are cleaned.  
  
Please don't touch the cleaned surface with your hand/s.

### 4 Fusion depth measuring




Mark the insertion depth with a marker. Kindly refer to the table (Socket Fusion Welding Parameters) below.

### 5 Heating Time



Place the pipe and fitting into the socket horizontally.

### 6 Fusing and cooling time



Push both the pipe ends to fit properly within the desired time frame, as per table (Socket Fusion Welding Parameters) below.

Please do not twist.  
**Do not re-use a melted fitting.** Please start over from Step 1 if the melted pipe is not complete.

## Socket Fusion Welding Parameters

OD (mm)	Insertion Depth (mm)	Heating Time (sec)	Fusion Time (sec)	Cooling Time (min)
20	14.0	5	4	2
25	15.0	7	4	2
32	16.5	8	6	4
40	18.0	12	6	4
50	20.0	18	6	4
63	23.0	24	8	6
75	27.5	30	8	8
90	32.0	40	8	8
110	38.0	50	10	8



Please scan QR code  
for our product installation.

01



## PE100 HDPE Pipe

Outside Diameter (OD) (mm)  
Size

Straight		
5.8m / length	PN16 (SDR 11)	*20, 25, 32, 40, 50, 63, 75, 90, 110
50m Coil	PN16 (SDR 11)	75, 90, 110
100m Coil	PN16 (SDR 11)	*20, 25, 32, 40, 50, 63

\*20 : PN20 / SDR9

## Reducer



Normal Diameter (mm)  
Size

25 x 20	40 x 20	50 x 20	63 x 20	75 x 50	90 x 50	110 x 50
32 x 20	40 x 25	50 x 25	63 x 25	75 x 63	90 x 63	110 x 63
32 x 25	40 x 32	50 x 32	63 x 32		90 x 75	110 x 75
		50 x 40	63 x 40			110 x 90
			63 x 50			

## Socket



Normal Diameter (mm)  
Size

20	40	75
25	50	90
32	63	110

## Equal Elbow 90°



Normal Diameter (mm)  
Size

20	40	75
25	50	90
32	63	110

## Elbow 45°



Normal Diameter (mm)  
Size

20	40	75
25	50	90
32	63	110

## Equal Tee



Normal Diameter (mm)  
Size

20 x 20 x 20	40 x 40 x 40	75 x 75 x 75
25 x 25 x 25	50 x 50 x 50	90 x 90 x 90
32 x 32 x 32	63 x 63 x 63	110 x 110 x 110

02



## Reducing Tee

Normal Diameter (mm)  
Size

25 x 20	50 x 20	63 x 20	75 x 50	110 x 50
32 x 20	50 x 25	63 x 25	75 x 63	110 x 63
32 x 25	50 x 32	63 x 32	90 x 50	110 x 75
40 x 20	50 x 40	63 x 40	90 x 63	110 x 90
40 x 25		63 x 50	90 x 75	
40 x 32				

## Female Threaded Adaptor

Normal Diameter (mm)  
Size

20 x 1/2"	32 x 1/2"	40 x 1 1/4"	50 x 1 1/4"	75 x 2"
20 x 3/4"	32 x 3/4"	40 x 1 1/2"	50 x 1 1/2"	75 x 2 1/2"
25 x 1/2"	32 x 1"	40 x 1"	50 x 2"	90 x 3"
25 x 3/4"			63 x 1 1/2"	110 x 3"
			63 x 2"	110 x 4"



## Male Threaded Adaptor

Normal Diameter (mm)  
Size

20 x 1/2"	32 x 1/2"	40 x 1 1/4"	50 x 1 1/4"	63 x 1 1/2"	90 x 3"
20 x 3/4"	32 x 3/4"	40 x 1 1/2"	50 x 1 1/2"	63 x 2"	110 x 3"
25 x 1/2"	32 x 1"	40 x 1"	50 x 2"	75 x 2"	110 x 4"
25 x 3/4"				75 x 2 1/2"	



## Female Elbow

Normal Diameter (mm)  
Size

20 x 1/2"	32 x 1/2"	40 x 1"	50 x 1 1/4"	63 x 1 1/2"	90 x 3"
20 x 3/4"	32 x 3/4"	40 x 1 1/4"	50 x 1 1/2"	63 x 2"	110 x 3"
25 x 1/2"	32 x 1"	40 x 1 1/2"	50 x 2"	75 x 2"	110 x 4"
25 x 3/4"				75 x 2 1/2"	



## Male Elbow

Normal Diameter (mm)  
Size

20 x 1/2"	32 x 3/4"	50 x 1 1/4"	75 x 2"
20 x 3/4"	32 x 1"	50 x 1 1/2"	75 x 2 1/2"
25 x 1/2"	40 x 1"	50 x 2"	90 x 3"
25 x 3/4"	40 x 1 1/4"	63 x 1 1/2"	110 x 3"
32 x 1/2"	40 x 1 1/2"	63 x 2"	110 x 4"



## Stiffener

Normal Diameter (mm)  
Size

20 PN16
25 PN16
32 PN16







03



## Reducing Elbow

Nominal Diameter (mm)  
Size

25 x 20
32 x 20
32 x 25
40 x 32
50 x 40
63 x 50



## Female Tee

Nominal Diameter (mm)  
Size

20 x 1/2"	32 x 1/2"	50 x 1 1/4"	75 x 2"
20 x 3/4"	32 x 3/4"	50 x 1 1/2"	75 x 2 1/2"
25 x 1/2"	32 x 1"	50 x 2"	90 x 3"
25 x 3/4"	40 x 1"	63 x 1 1/2"	110 x 3"
40 x 1 1/4"	63 x 2"	110 x 4"	
40 x 1 1/2"			



## Male Tee

Nominal Diameter (mm)  
Size

20 x 1/2"	32 x 1/2"	50 x 1 1/4"	75 x 2"
20 x 3/4"	32 x 3/4"	50 x 1 1/2"	75 x 2 1/2"
25 x 1/2"	32 x 1"	50 x 2"	90 x 3"
25 x 3/4"	40 x 1"	63 x 1 1/2"	110 x 3"
40 x 1 1/4"	63 x 2"	110 x 4"	
40 x 1 1/2"			



## End Cap

Nominal Diameter (mm)  
Size

20	40	75
25	50	90
32	63	110



## Flange Adapter

Nominal Diameter (mm)  
Size

20	40	75
25	50	90
32	63	110



## Stopcock

Nominal Diameter (mm)  
Size

20	32	50
25	40	63

Socket fusion welding is a commonly used method for assembling plastic pipeline systems using injection moulded fittings. It is mainly applied to pipe fitting diameters of ½" (20mm) up to 4" (110mm).

The operating concepts are simple, with the binding cycle primarily made up of a heating phase and a cooling or welding phase. It is socket fused by putting heat to pre-arranged pipe ends, then plunging the pipe ends together with a preset force to make a constant socket fusion joint.

## POLYFUSE PE SOCKET FUSION

POLYFUSE PE pipes strictly conform to MS1058: Part 2: 2005 standard specifications. Our products are licensed by SIRIM and approved by local water authorities to be used as the top mark for quality. The granting of the top mark confirms that our company's manufacturing, testing and quality control systems comply with the stringent licensing requirements and thus ensures that our products quality is consistently maintained.

### Advantages for using POLYFUSE HDPE Pipe

Our pipes are SIRIM approved and manufactured using approved raw materials, high density polyethylene and comply to MS 1058.

- Ease, reliability and cost efficiency of jointing and laying operations.
- Non toxic, low abrasion and flexibility.
- Excellent resistance to water hammer phenomena.
- Absence of scale on inside walls results in consistency of pipeline hydraulic performance.
- Immune to corrosion phenomena and have very good resistance to a wide range of chemicals.

**CERTIFICATE OF CONFORMITY**

WATERMARKS CERTIFICATION MALAYSIA

STANDARDS MALAYSIA

ACB PC 23

This certificate hereby certifies that the product as detailed in this certificate has satisfactorily complied with the requirements of the appropriate Standard(s) and the Certification Scheme Requirement of WATERMARKS CERTIFICATION (MALAYSIA) SDN. BHD.

**Name and Address of Certificate Holder**

POLYWARE SDN. BHD.  
7, JALAN ZARIB 1, ZARIB INDUSTRIAL PARK,  
31500, IPOH, PERAK, MALAYSIA

**Scope of Certification**

Name of Scheme	
PRODUCT CERTIFICATION SCHEME	

Product Name	Product Standard(s)
POLYETHYLENE (PE) FITTINGS FOR WATER SUPPLY AND FOR DRAINAGE AND SEWERAGE UNDER PRESSURE	BS EN 12201-3: 2011 + A1: 2012

**Product Descriptions**  
(refer to SCHEDULE)

**Brand Name**  
POLYFUSE

**Name and Address of Manufacturer**

POLYWARE SDN. BHD.  
7, JALAN ZARIB 1, ZARIB INDUSTRIAL PARK,  
31500, IPOH, PERAK, MALAYSIA

Certification Number	Initial Certification	Certificate Validity
WCM PC 000048	20 MARCH 2020	19 MARCH 2024

This certificate is awarded on the basis of an assessment against the standard(s) for conformity which includes the manufacturer's production control system, production facilities, product conformity to standard coupled with assessment of the supporting quality management system. This Certificate remains the property of WCM and shall be returned upon request. The use of this certificate is subjected to the terms and conditions of the Certification Agreement. This certificate is remains valid subject to satisfactory yearly surveillance assessment.

Certificate is issued by

Kamaruddin Bin Abu Samah  
Managing Director  
WATERMARKS CERTIFICATION (MALAYSIA) SDN. BHD.  
LOT NO. 1, TANGKAT 4, WISMA WAPPS  
PERUMAHAN PERMANGKAPAN,  
SEKSYEN 14, 40700 SHAH ALAM  
SELANGOR, MALAYSIA  
NO. TEL: 03-8524 1888  
www.watermarks.com.my

Product Standard(s) : BS EN 12201-3: 2011 + A1: 2012

**CERTIFICATE OF CONFORMITY**

WATERMARKS CERTIFICATION MALAYSIA

STANDARDS MALAYSIA

ACB PC 23

This certificate hereby certifies that the product as detailed in this certificate has satisfactorily complied with the requirements of the appropriate Standard(s) and the Certification Scheme Requirement of WATERMARKS CERTIFICATION (MALAYSIA) SDN. BHD.

**Name and Address of Certificate Holder**

POLYWARE SDN. BHD.  
7, JALAN ZARIB 1, ZARIB INDUSTRIAL PARK,  
31500, IPOH, PERAK, MALAYSIA

**Scope of Certification**

Name of Scheme	
PRODUCT CERTIFICATION SCHEME	

Product Name	Product Standard(s)
POLYETHYLENE (PE) FITTINGS FOR WATER SUPPLY AND FOR DRAINAGE AND SEWERAGE UNDER PRESSURE	MS 1058: PART 3: 2006

**Product Descriptions**  
(refer to SCHEDULE)

**Brand Name**  
POLYFUSE

**Name and Address of Manufacturer**

POLYWARE SDN. BHD.  
7, JALAN ZARIB 1, ZARIB INDUSTRIAL PARK, , 31500, IPOH, PERAK, MALAYSIA

Certification Number	Initial Certification	Certificate Validity
WCM PC 000049	20 MARCH 2020	19 MARCH 2024

This certificate is awarded on the basis of an assessment against the standard(s) for conformity which includes the manufacturer's production control system, production facilities, product conformity to standard coupled with assessment of the supporting quality management system. This Certificate remains the property of WCM and shall be returned upon request. The use of this certificate is subjected to the terms and conditions of the Certification Agreement. This certificate is remains valid subject to satisfactory yearly surveillance assessment.

Certificate is issued by

Kamaruddin Bin Abu Samah  
Managing Director  
WATERMARKS CERTIFICATION (MALAYSIA) SDN. BHD.  
LOT NO. 1, TANGKAT 4, WISMA WAPPS  
PERUMAHAN PERMANGKAPAN,  
SEKSYEN 14, 40700 SHAH ALAM  
SELANGOR, MALAYSIA  
NO. TEL: 03-8524 1888  
www.watermarks.com.my

Product Standard(s) : MS 1058: PART 3: 2006