



BS EN 12201-3:2003

# ELECTROFUSION JOINTS

FOR HDPE PIPES



Print Edition for August 2019

## THE INTELLIGENT SYSTEM SOLUTION

# Introduction

## Sansico Industries Sdn Bhd

In the past decade, Sansico Industries Sdn Bhd, has progressed to be a market leader in the manufacture of fittings for internal plumbing systems.

## The Intelligent System Solution

The Sansico Electrofusion fittings system is specifically designed for reliable, high performance jointing and long service life for polyethylene piping systems. Our automated jointing system has been proven to be the most economical as it eliminates the potential for operator error.

We offer quality tools and micro processor electrofusion machines, which when combined with our fittings offer state-of-the-art high performance pipe jointing solutions. Our intelligent electrofusion machine is able to ensure quality control by data retrieval of measurements and records. This together with our SIRIM certified and SPAN approved BS EN 12201-3 electrofusion HDPE fittings assure you of a minimum 50 years life span for your potable water needs.

## Fittings

Our fittings comply to BS EN 12201-3 and are PN16 rated. The Sansico Electrofusion Fittings system comes in sizes from 20mm to 315mm and is manufactured using PE100 materials.

The benefits of the Sansico HDPE potable water system over other systems are low installation cost, non toxicity, corrosion resistance, high flow capacity and long life span. Material wise, HDPE has superior properties compared to other plastic material in relation to water hammer problems.



# INTRODUCTION

# Advantages

SANSICO HANSEN HDPE pipes strictly conform to MS1058: Part 2: 2002 standard specifications. Our products are licensed by SIRIM and approved by the local water authorities to be the used as the top mark for quality. The granting of the top make confirms that the company's manufacturing, testing and quality control systems comply with the stringent licensing requirements and thus ensures that the products quality is consistently maintained.

## Advantages for using SANSICO HANSEN HDPE Pipe

### SANSICO HANSEN HIGH DENSITY POLYETHYLENE PIPES FOR COLD WATER SYSTEM

Our pipes are SIRIM approved and manufactured using approved raw materials, high density polyethylene and comply to MS 1058. The main advantages of polyethylene pipes for the transport of pressure fluids can be summarised as follow:

- 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 has very good resistance to a wide range of chemicals.

The products are examined and tested to ensure the compliance with all the relevant standard specification. The specified tests carried out are:-

- Appearance, dimensions and ovality
- Hydrostatic strength at 80° C for 165 hours
- Hydrostatic strength for 80°C for 1000 hours
- Oxidation Induction Time (OIT)
- Melt Flow Rate (MFR)

Pipe OD mm	OD Size		Pipe Series	PE 80				PE 100			
	Min mm	Max mm		PN	e min mm	e max mm	Weight kg/m	PN	e min mm	e max mm	Weight kg/m
	SDR										
20	20.0	20.3	9	16	2.3	2.7	0.131	-	-	-	-
25	25.0	25.3	11	12.5	2.3	2.7	0.169	16	2.3	2.7	0.171
32	32.0	32.3	11	12.5	3.0	3.4	0.280	16	3.0	3.4	0.279
40	40.0	40.4	11	12.5	3.7	4.2	0.427	16	3.7	4.2	0.431
50	50.0	50.4	11	12.5	4.6	5.2	0.663	16	4.6	5.2	0.669
63	63.0	63.4	11	12.5	5.8	6.5	1.05	16	5.8	6.5	1.057
75	75.0	75.5	11	12.5	6.8	7.6	1.47	16	6.8	7.6	1.48
90	90.0	90.6	11	12.5	8.2	9.2	2.12	16	8.2	9.2	2.14
110	110.0	110.7	11	12.5	10.0	11.1	3.16	16	10.0	11.1	3.17
125	125.0	125.8	11	12.5	11.4	12.7	4.08	16	11.4	12.7	4.12
160	160.0	161.0	11	12.5	14.6	16.2	6.68	16	14.6	16.2	6.73
180	180.0	181.0	11	12.5	16.4	18.2	8.62	16	16.4	18.2	8.51
200	200.0	201.2	11	12.5	18.2	20.2	10.6	16	18.2	20.2	10.50
225	225.0	226.4	11	12.5	20.5	22.7	13.5	16	20.5	22.7	13.28
250	250.0	251.5	11	12.5	22.7	25.1	16.6	16	22.7	25.1	16.33
280	280.0	281.7	11	12.5	25.4	28.1	20.8	16	25.4	28.1	20.48
315	315.0	316.9	11	12.5	28.6	31.6	25.7	16	28.6	31.6	25.92

# Electrofusion Fittings Specifications

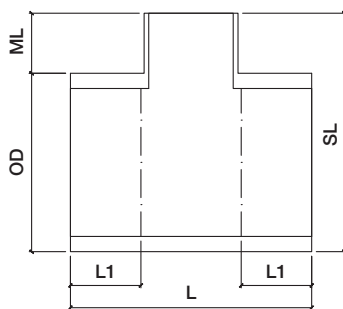
## Features

- **Material:** PE 100
- **Size:** 20mm to 315mm
- **Pressure Rating:** PN 16 bar / SDR11
- **Standard:** BS EN 12201-3:2003
- **Color:** Black
- **Joint:** electrofusion joint

## Advantages

- **Non-toxic:** no heavy metal additives, would not to be covered with dirt or contaminated by bacterium.
- **Corrosion Resistance:** resist chemical matters and electron chemical corrosion
- **Low Installation Costs:** light weight and ease of installation can reduce installation costs
- **High Flow Capacity:** smooth interior walls result in low pressure loss and high volume
- **Longevity:** more than 50 years under proper use

### Reducing Tee

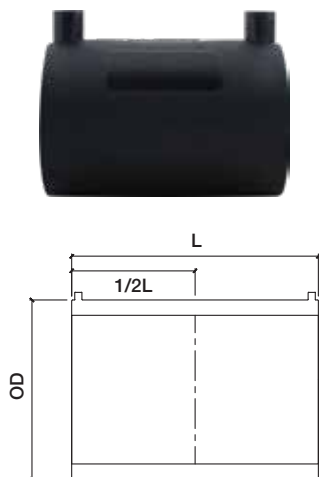


Code	Size (mm)	OD	L1	L	ML	SL
SRT 32.20	32 x 20	44.0	47.6	116.0	58.0	102.0
SRT 32.25	32 x 25	44.0	48.2	122.0	59.0	103.0
SRT 40.20	40 x 20	57.0	50.0	120.0	58.0	115.0
SRT 40.25	40 x 25	57.0	50.0	125.0	59.0	175.0
SRT 40.32	40 x 32	57.0	49.0	129.0	77.0	134.0
SRT 50.20	50 x 20	67.0	55.0	135.0	58.0	125.0
SRT 50.25	50 x 25	67.0	55.0	135.0	59.0	126.0
SRT 50.32	50 x 32	67.0	55.0	142.2	77.0	144.0
SRT 50.40	50 x 40	67.0	55.0	149.0	73.0	140.0
SRT 63.20	63 x 20	82.0	63.0	154.0	58.0	140.0
SRT 63.25	63 x 25	82.0	63.0	159.8	59.0	141.0
SRT 63.32	63 x 32	82.0	63.0	165.5	77.0	159.0
SRT 63.40	63 x 40	82.0	63.0	172.5	73.0	155.0
SRT 63.50	63 x 50	82.0	87.5	175.0	55.0	137.0
SRT 75.40	75 x 40	98.0	70.0	186.3	73.0	171.0
SRT 75.50	75 x 50	98.0	79.0	209.5	69.0	167.0
SRT 75.63	75 x 63	98.0	100.0	200.0	63.0	161.0
SRT 90.40	90 x 40	117.0	79.0	230.0	73.0	190.0
SRT 90.50	90 x 50	117.0	82.0	218.0	69.0	186.0
SRT 90.63	90 x 63	117.0	112.5	225.0	63.0	180.0
SRT 90.75	90 x 75	117.0	112.5	225.0	70.0	187.0
SRT 110.50	110 x 50	142.0	82.0	250.0	69.0	211.0
SRT 110.63	110 x 63	142.0	124.0	248.0	63.0	205.0
SRT 110.75	110 x 75	142.0	124.0	248.0	70.0	212.0
SRT 110.90	110 x 90	142.0	124.0	248.0	79.0	221.0
SRT 125.63	125 x 63	160.0	135.0	270.0	63.0	223.0
SRT 125.75	125 x 75	160.0	135.0	270.0	70.0	230.0



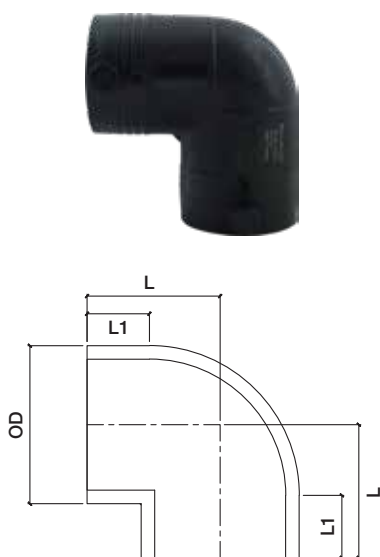
# Electrofusion Fittings Specifications

## Equal Coupler



Code	Size (mm)	OD	L	1/2L
SEC 20	20	36.0	85.0	42.5
SEC 25	25	36.0	85.0	42.5
SEC 32	32	44.0	86.0	43.0
SEC 40	40	57.0	87.0	43.5
SEC 50	50	67.0	86.7	43.35
SEC 63	63	82.0	115.0	57.5
SEC 75	75	98.0	125.0	62.5
SEC 90	90	117.0	135.0	67.5
SEC 110	110	142.0	145.0	72.5
SEC 125	125	160.0	155.0	77.5
SEC160	160	195.0	165.0	82.5
SEC 180	180	220.0	180.0	90.0
SEC 200	200	245.0	200.0	100.0
SEC 225	225	266.0	217.0	108.5
SEC 250	250	296.0	218.0	109.0
SEC 280	280	355.0	220.0	110.0
SEC 315	315	380.0	265.0	132.5

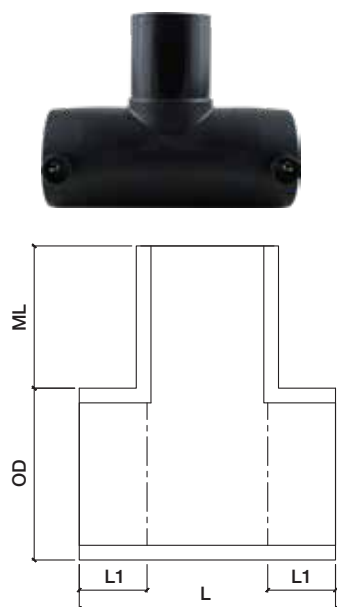
## Equal 90 elbow



Code	Size (mm)	OD	L	L1
SEE 20	20	36.0	53.5	42.0
SEE 25	25	36.0	56.0	42.0
SEE 32	32	44.0	65.0	44.0
SEE 40	40	57.0	74.0	49.0
SEE 50	50	67.0	86.0	55.0
SEE 63	63	82.0	96.5	58.0
SEE 75	75	98.0	107.5	63.0
SEE 90	90	117.0	120.0	120.0
SEE 110	110	142.0	137.5	137.5
SEE 125	125	160.0	149.5	149.5
SEE 160	160	179.0	190.0	90.0
SEE 180	180	220.0	206.0	105.0
SEE 200	200	245.0	225.0	112.0
SEE 250	250	296.0	265.0	129.0
SEE 315	315	380.0	320.0	15.0

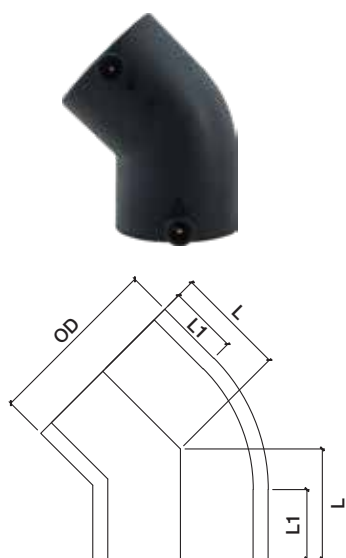
# Electrofusion Fittings Specifications

## Equal Tee



Code	Size (mm)	OD	L1	L	ML
SET 20	20	36.0	41.0	99.0	58.0
SET 25	25	36.0	43.5	103.0	59.0
SET 32	32	44.0	44.0	118.0	77.0
SET 40	40	57.0	49.0	136.0	73.0
SET 50	50	67.0	55.0	157.0	69.0
SET 63	63	82.0	87.5	175.0	63.0
SET 75	75	98.0	100.0	200.0	70.0
SET 90	90	117.0	112.5	225.0	79.0
SET 110	110	142.0	124.0	248.0	82.0
SET 125	125	160.0	135.0	270.0	87.0
SET 160	160	195.0	155.0	310.0	98.0
SET 180	180	220.0	105.0	368.0	126.0
SET 200	200	245.0	112.0	398.0	128.0
SET 250	250	296.0	129.0	472.0	154.0
SET 315	315	380.0	150.0	567.0	315.0

## Equal 45 elbow



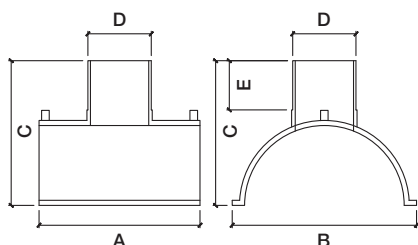
Code	Size (mm)	OD	L	L1
S45 EE 20	20	36.0	54.0	42.0
S45 EE 25	25	36.0	54.0	43.0
S45 EE 32	32	44.0	56.0	44.0
S45 EE 40	40	57.0	64.0	49.0
S45 EE 50	50	67.0	83.0	62.0
S45 EE 63	63	82.0	75.0	58.0
S45 EE 75	75	98.0	82.0	63.0
S45 EE 90	90	117.0	91.0	68.0
S45 EE 110	110	142.0	98.0	72.0
S45 EE 125	125	160.0	118.0	83.0
S45 EE 160	160	195.0	128.0	90.0
S45 EE 180	180	220.0	157.0	105.0
S45 EE 200	200	245.0	170.0	112.0
S45 EE 250	250	296.0	202.0	129.0
S45 EE 315	315	380.0	238.0	150.0





# Electrofusion Fittings Specifications

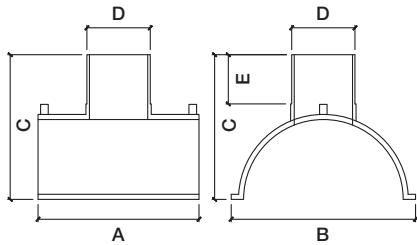
## Branch Saddle



Code	Size (mm)	A	B	C	D	E
<b>SDR 11</b>						
SSS 40.32	40 x 32	107.0	95.0	103.0	32	65.0
SSS 50.32	50 x 32	107.0	95.0	108.0	32	65.0
SSS 63.32	63 x 32	114.0	107.4	100.0	32	42.7
SSS 75.32	75 x 32	116.0	121.3	108.0	32	42.3
SSS 75.63	75 x 63	116.0	121.3	145.0	63	90.0
SSS 90.32	90 x 32	117.6	136.8	125.0	32	42.3
SSS 90.63	90 x 63	117.6	136.8	143.0	63	64.0
SSS 110.32	110 x 32	127.0	156.8	140.0	32	43.0
SSS 110.63	110 x 63	127.0	156.8	156.0	63	143.0
SSS 110.90	110 x 90	127.0	156.8	173.0	90	173.0
SSS 125.32	125 x 32	126.0	157.8	140.0	32	132.0
SSS 125.63	125 x 63	126.0	157.8	154.0	63	165.0
SSS 125.90	125 x 90	126.0	157.8	162.0	90	180.0
SSS 160.32	160 x 32	129.0	226.0	165.0	32	165.0
SSS 160.63	160 x 63	129.0	217.0	182.5	63	182.5
SSS 160.90	160 x 90	129.0	217.5	198.0	90	198.0
SSS 160.110	160 x 110	129.0	217.5	210.0	110	210.0
SSS 160.125	160 x 125	129.0	217.5	210.0	125	210.0
SSS 180.32	180 x 32	129.0	213.5	182.5	32	182.5
SSS 180.63	180 x 63	129.0	213.5	192.5	63	192.5
SSS 180.90	180 x 90	129.0	213.5	208.0	90	208.0
SSS 180.110	180 x 110	129.0	213.5	220.0	110	220.0
SSS 180.125	180 x 125	129.0	213.5	220.0	125	220.0
SSS 200.32	200 x 32	165.0	250.0	192.5	32	192.5
SSS 200.63	200 x 63	165.0	250.0	202.5	63	202.5
SSS 200.90	200 x 90	165.0	250.0	218.0	90	218.0
SSS 200.110	200 x 110	165.0	250.0	228.0	110	228.0
SSS 200.125	200 x 125	165.0	250.0	228.0	125	228.0
SSS 225.32	225 x 32	165.0	255.0	205.0	32	205.0
SSS 225.63	225 x 63	165.0	255.0	215.0	63	215.0
SSS 225.90	225 x 90	165.0	255.0	240.5	90	240.5
SSS 225.110	225 x 110	165.0	255.0	240.5	110	240.5
SSS 225.125	225 x 125	165.0	255.0	240.5	125	240.5
SSS 250.32	250 x 32	210.5	295.0	217.5	32	217.5
SSS 250.63	250 x 63	210.5	295.0	227.5	63	227.5
SSS 250.90	250 x 90	210.5	295.0	253.0	90	253.0
SSS 250.110	250 x 110	210.5	295.0	253.0	110	253.0
SSS 250.125	250 x 125	210.5	295.0	253.0	125	250.0
SSS 280.32	280 x 32	278.0	310.0	232.5	32	232.5
SSS 280.63	280 x 63	278.0	310.0	242.5	63	242.5
SSS 280.90	280 x 90	278.0	310.0	268.0	90	268.0
SSS 280.110	280 x 110	278.0	310.0	268.0	110	268.0

# Electrofusion Fittings Specifications

## Branch Saddle



Code	Size (mm)	A	B	C	D	E
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**SDR 11**

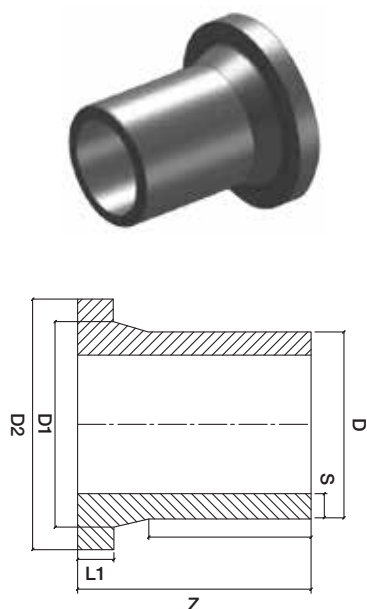
SSS 280.125	280 x 125	278.0	310.0	268.0	125	268.0
SSS 315.32	315 x 32	317.6	367.0	250.0	32	250.0
SSS 315.63	315 x 63	317.6	367.0	260.0	63	260.0
SSS 315.90	315 x 90	317.6	367.0	285.5	90	285.5
SSS 315.110	315 x 110	317.6	367.0	285.5	110	285.5
SSS 315.125	315 x 125	317.6	367.0	285.5	125	285.5
SSS 315.160	315 x 160	317.6	367.0	285.5	160	285.5





# Electrofusion Fittings Specifications

## Spigot Flange Adaptor



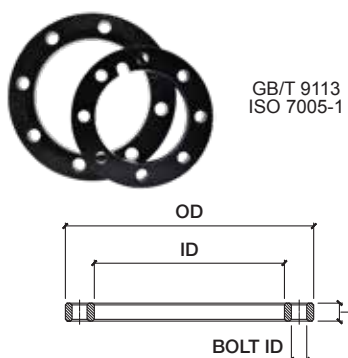
Code	D (mm)	D1	D2	L	L1	Z
<b>SDR 11</b>						
SPFA 20	20	28	45	41	7	76
SPFA 25	25	34	58	41	9	81
SPFA 32	32	42	68	44	10	85
SPFA 40	40	48	78	49	11	88
SPFA 50	50	58	88	55	12	92
SPFA 63	63	78	102	63	14	100
SPFA 75	75	92	122	70	16	120
SPFA 90	90	108	138	79	17	132
SPFA 110	110	128	158	82	18	157
SPFA 125	125	135	158	87	25	170
SPFA 140	140	158	188	92	25	175
SPFA 160	160	178	212	98	25	180
SPFA 180	180	188	212	105	30	190
SPFA 200	200	235	268	112	32	200
SPFA 225	225	238	268	120	32	200
SPFA 250	250	288	320	129	35	205
SPFA 280	280	294	320	139	35	215
SPFA 315	315	338	370	150	35	220

## Stub Flange



Code	Size (mm)	A	B	C
SSF 110	110	158.0	142.0	104.5
SSF 160	160	212.0	195.0	117.5
SSF 200	200	280.0	240.0	278.0
SSF 250	250	340.0	295.0	361.0
SSF 315	315	400.0	350.0	398.0

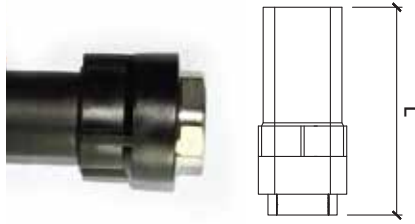
## Flange (Steel Tray for Stub Flange)



Code	ID	OD	T	BOLT ID
SF 110	145.00	223.00	22.4	18
SF 160	201.00	289.00	24.2	22.4
SF 200	247.00	339.00	26	22.4
SF 250	303.10	396.00	29	24.4
SF 315	-	-	32	-

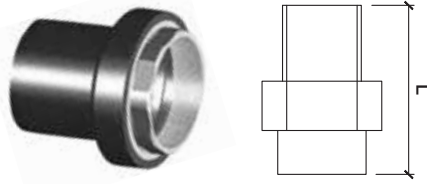
# Electrofusion Fittings Specifications

## Transition Female Brass Thread Adaptor (Fabricated Items)



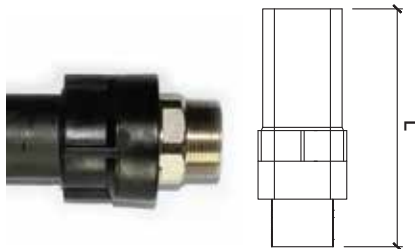
Code	Size	L
STFTA 50.1½	50 x 1½"	220.0
STFTA 63.2	63 x 2"	220.0
STFTA 75.2	75 x 2"	220.0

## Transition Brass Female Thread Adaptor



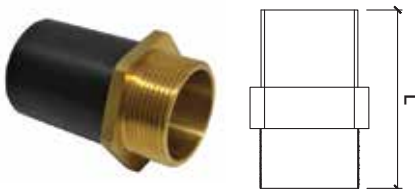
Code	Size	L
STFTA-F 20.½	20 x ½"	80.5
STFTA-F 25.¾	25 x ¾"	80.5
STFTA-F 32.1	32 x 1"	67.0
STFTA-F 40.1¼	40 x 1¼"	80.0
STFTA-F 50.1½	50 x 1½"	124.2
STFTA-F 63.2	63 x 2"	89.2
STFTA-F 75.2½	75 x 2½"	160.5
STFTA-F 90.3	90 x 3"	149.0
STFTA-F 110.4	110 x 4"	162.0

## Transition Male Brass Thread Adaptor (Fabricated Items)



Code	Size	L
STMTA 32.1	32 x 1"	220.0
STMTA 40.1¼	40 x 1¼"	220.0
STMTA 50.1½	50 x 1½"	220.0
STMTA 63.2	63 x 2"	220.0
STMTA 75.2	75 x 2"	220.0

## Transition Brass Male Thread Adaptor



Code	Size	L
STMTA-F 20.½	20 x ½"	94.8
STMTA-F 25.¾	25 x ¾"	75.5
STMTA-F 32.1	32 x 1"	102.0
STMTA-F 40.1¼	40 x 1¼"	80.0
STMTA-F 50.1½	50 x 1½"	88.6
STMTA-F 63.2	63 x 2"	88.7
STMTA-F 75.2½	75 x 2½"	-
STMTA-F 90.3	90 x 3"	-
STMTA-F 110.4	110 x 4"	200.0

# Electrofusion Fittings Specifications

## Female Thread Tee



Code	Size	OD	ML
SFTT 50.1½	50 x 1½"	66.0	100.8
SFTT 63.2	63 x 2"	82.0	124.5
SFTT 75.2	75 x 2"	96.0	133.5

## Male Thread Tee



Code	Size	OD	ML
SMTT 50.1½	50 x 1½"	66.0	127.0
SMTT 63.2	63 x 2"	82.0	150.0
SMTT 75.2	75 x 2"	96.0	160.0

## Female Thread Reducing Tee



Code	Size	OD	ML
SFTRT 63.50.1½	63 x 50 x 1½"	66.0	108.5
SFTRT 75.63.2	75 x 63 x 2"	82.0	115.3
SFTRT 90.63.2	90 x 63 x 2"	96.0	115.3
SFTRT 110.63.2	110 x 63 x 2"	125.0	115.3

## Male Thread Reducing Tee



Code	Size	OD	ML
SMTRT 63.50.1½	63 x 50 x 1½"	66.0	153.5
SMTRT 75.63.2	75 x 63 x 2"	82.0	153.5
SMTRT 90.63.2	90 x 63 x 2"	96.0	153.5
SMTRT 110.63.2	110 x 63 x 2"	125.0	153.5
SMTRT 125.63.2	125 x 63 x 2"	151.0	153.5

# Accessories

## 1. Pipe Cutter



Code	Application Range (mm)
SPC140	50 - 140
SPC160	100 - 160
SPC315	180 - 315

## 2. Blade Scraper



Code	Application Range (mm)
SBSS	1.5"
SBSB	2.0"

## 3. Rotation Scraper



Code	Application Range (mm)
SRS160	50 - 160
SRS315	75 - 315



# Electrofusion Welding Machine

## Elektra Light



Code	Application Range (mm)
SEL125	20 - 125 mm

\*with data logger

## Technical Features

	230V
Max welding diameter:	Ø 20 - Ø 125 (*)
Welding materials:	PE, PP, PP-R
Dimensions (DxWxH):	200x250x210 mm
Weight (with the bag):	7.6 Kg
Power Supply:	230 VAC 50-60 HZ
Max total power absorbed:	2700W
Nominal absorbed current:	8A
Welding nominal current Duty Cycle 60% (ISO 12176-2):	23A
Working temperature:	-10°C / +40°C
Welding voltage:	8 / 48 V
Peak electric power:	60A
Protection degree:	IP54
Connectors diameter:	F - 4 mm
Adapters diameter:	F - 4,7 mm
Memory capacity:	350 reports

(\*) OD 160mm couplers can also be welded but with precaution; wait for the machine to cool off completely after each welding cycle.

## Standard Equipment

- Connector adapters F 4mm / 4,7mm
- Transport case
- Manual scraper
- Scanner for barcode reading
- Data transfer software

## On Request

- Serial portable printer + connection cable

# Electrofusion Welding Machine

## Elektra 315



Code	Application Range (mm)
SEM315	20 - 315 mm

\*with data logger

## Technical Features

Max welding diameter:	Ø 20 - Ø 315
Welding materials:	PE, PP, PP-R
Dimensions (DxWxH):	358x285x302 mm
Weight (with the box):	19 Kg
Power Supply:	230 VAC 50-60 Hz
Max total power absorbed:	2700W
Working temperature:	-10°C / +40°C
Welding voltage:	8 / 48 V
Peak electric power:	80A
Protection degree:	IP54
Connectors diameter:	F - 4 mm
Adapters diameter:	F - 4,7 mm
Memory capacity:	4000 reports

## Standard Equipment

- Connector adapters F 4mm / 4,7mm
- Transport case
- Manual scraper
- Scanner for barcode reading
- Data transfer software

## On Request

- Serial portable printer + connection cable

# Electrofusion Welding Machine

## Elektra 500



Code	Application Range (mm)
SEM500	20 - 500 mm

\*with data logger

## Technical Features

Materials:	HDPE/PP/PP-R
Working range:	Ø 20 ÷ 500 mm
Power supply:	110 V single phase 50/60 Hz 230 V single phase 50/60 Hz
Total absorbed power:	5500 W (110 V) - 6400 W (230 V)
Max output current:	100 A (110 V) - 120 A (230 V)
60% Duty Cycle output:	70 A
Memory capacity:	4000 reports
Protection degree:	IP 54
Dimensions:	255x270x385 mm
Dimensions carrying case:	410x290x485 mm
Weight:	24 Kg

## Standard Equipment

- Universal adapter Ø 4,0 - 4,7mm
- Laser scanner
- Manual scraper
- Transport case

## On Request

- GPS
- Printer ESC-POS

# Electrofusion Welding Machine

## Elektra 1000



Code	Application Range (mm)
SEM1000	20 - 1000* mm

\* Contact manufacturer for further information on electrofusion fittings above Ø 1200 mm

## Technical Features

Materials:	HDPE/PP/PP-R
Working range:	Ø 20 ÷ > 1000* mm
Power supply:	230 V single phase 50/60 Hz
Total absorbed power:	6400 W
Max output current:	120 A
60% Duty Cycle output:	90 A
Memory capacity:	4000 reports
Protection degree:	IP 54
Dimensions:	255x270x385 mm
Dimensions carrying case:	410x290x485 mm
Weight:	26 Kg

## Standard Equipment

- Universal adapter Ø 4,0 - 4,7mm
- Laser scanner
- Manual scraper
- Transport case

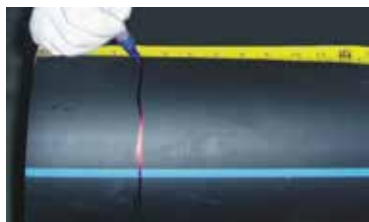
## On Request

- GPS
- Printer ESC-POS

# Installations

## Electrofusion Joint

Step: (Use Electrofusion Welding Machine)



- 1 **Clean and mark**  
Clean up the connection part, mark the inserting depth.



- 2 **Scrape**  
Scrape and polish the joint surface.



- 3 **Align and restrain the fittings to the pipes**



- 4 **Apply electric current**  
Apply the electric current to the the fittings; the joining parts will be heated and melted, turn off the current when there is melt flowing in the observation hole.



- 5 **Cool**  
Cool without movement or pressure

**Note:** While connecting, the heating voltage and time should comply with manufacture's technical stipulations of Electrofusion Welding Machine.

# Product Warranty

Sansico Industries Sdn Bhd warrants its materials to be free of defects in workmanship and under normal use, service and when used for the purposes under the conditions for which they are intended.

This warranty shall not apply to any Sansico Industries Sdn Bhd material that has been altered, repaired and/or used in any way, stored outside, or has been subject to misuse, negligence, accident and/or has not been installed in accordance with installation instructions.

Installation of Sansico Electrofusion fittings requiring 40V to fuse must be carried out using a Sansico Electrofusion processor. The Sansico processor is a 8-48 volt output multi-voltage fusion processor with temperature compensating feature operating at 230/240 VAC requiring power supplied through portable power generator rated at 3000 watts (minimum) - 6500 watts (maximum). If pipe is more than 1.5% out of round the use of a ReRound Clamp is recommended to ensure proper installation.

Installation instruction must be adhered to, or our Product Warranty is null and 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 Sansico Industries Sdn Bhd under this warranty shall be limited to replacement of any part that may prove defective under normal use.

Sansico Industries Sdn Bhd shall have the right to inspect the said material and purchaser shall, if requested, return defective product prepaid to the Sansico Industries Sdn Bhd. Purchaser shall assume all responsibility and expenses for removal, reinstallation and freight charges in connection with the foregoing remedy.

Sansico Industries Sdn Bhd shall not be liable for indirect, special, incidental or consequential damage or penalties and does not assume any liability of purchaser to other, or to anyone for injury to persons and/or property.

Any claim regarding shortage or damages from shipment of material must be submitted in writing to Sansico Industries Sdn Bhd within 10 days after receipts of shipment. Buyer shall note loss or damage on delivery order and provide a delivery receipt stating such with driver's signature.

Purchaser is responsible for passing on this Limited Warranty to their customer.



