



ISO 22391-2, ISO 22391-3, MS 1058-2 & MS 1058-3

PERT

Pipes & Fittings

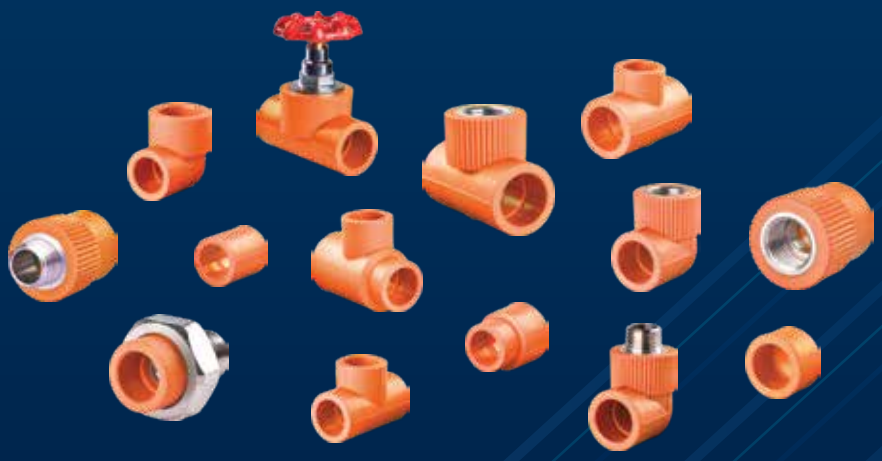


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THE EXPERT IN FUSION JOINTS



PERT Fittings



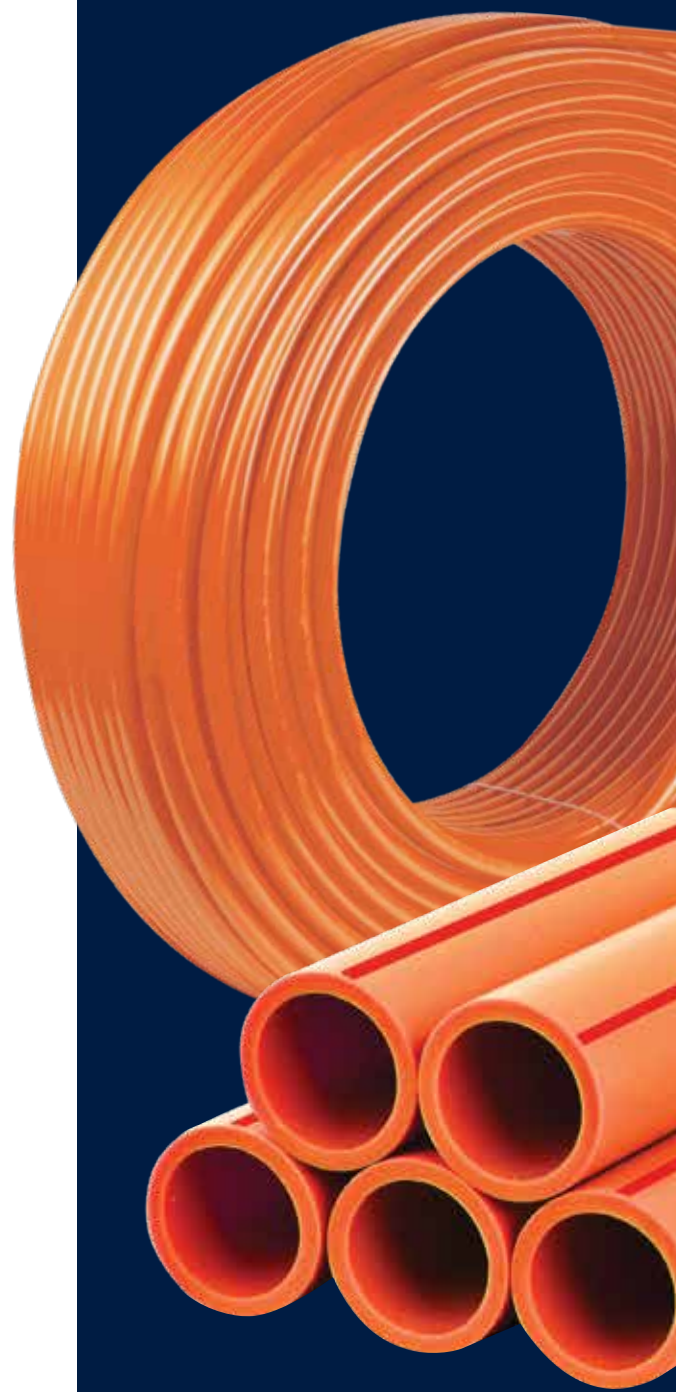
THE EXPERT IN FUSION JOINTS

The Sansico PE-RT Socket Fusion fittings system specifically designed for reliable, high performance jointing and long service life for hot water piping system. The benefits of the PE-RT system over other systems are non-toxicity, corrosion resistance, high flow capacity and long-life span. PE-RT, besides HDPE, has superior properties as compared to other plastic materials in relation to water hammer problems.

We have a comprehensive range of fittings that come in sizes from 20mm to 32mm and are PN20 rated. Our jointing system has been proven to be the most efficient and reliable socket fusion system as it eliminates the potential operator error. Our PE-RT pipes & fittings comply to SIRIM ISO 22391-2, ISO 22391-3, MS 1058-2 & MS 1058-3; and are SPAN certified. Thus, we assure you of more than 20 years life span for your potable water needs.

Characteristics of PERT

- 1. Maximum temperature tested (PERT Pipe):**
95°C for 1000 hours at 10.8 bar
Maximum temperature tested (PERT Fitting):
95°C for 1000 hours at 12.8 bar
- 2. Maximum pressure tested (PERT Pipe):**
31.6 bar for 1 hour at 20°C
Maximum pressure tested (PERT Fitting):
36.8 bar for 1 hour at 20°C
- 3. Thermal cycling tested (PERT Pipe):**
90°C and 20°C for 5000 cycles at 8 bar
Thermal cycling tested (PERT Fitting):
90°C and 20°C for 5000 cycles at 10 bar
- 4. Pressure cycling tested (PERT Pipe):**
12 bar and 0.5 bar for 10000 cycles at 23°C
Pressure cycling tested (PERT Fitting):
15 bar and 0.5 bar for 10000 cycles at 23°C
- 5. Working pressure for 50 years at 20°C:**
26 bar (Calculated based on Figure 1 of Page 3, ISO 22391-2:2009(E))
- 6. Coefficient of thermal expansion:**
 $1.9 \times 10^{-4} \text{ K}^{-1}$
- 7. Modulus of elasticity:**
580 MPa
- 8. Tensile stress:**
2.2 MPa



Installation Method



1 Select the right heating bushes and set the temperature to 260°C.



2 Cut the pipe perpendicularly using a suitable pipe cutter. Clean the inside & outside of the fitting & pipe respectively with a clean or lint-free cloth. Do not touch cleaned surface with your hands.



3 Heat the fitting & pipe simultaneously by pushing the fitting onto the male face & the pipe into the female face of the heating bushes respectively. DO NOT TWIST (Refer to table 1)



4 Remove pipe & fitting simultaneously from the heating bushes using snap action. Then firmly slide the melted fitting squarely onto the pipe until it reaches the marked depth. DO NOT TWIST.

Table 1:

Pipe Diameter (mm)	Heating Depth (mm)	Heating Time (sec)	Fusion Time (sec)	Cooling Time (sec)
20	15.5	5	4	4
25	16.5	7	4	4
32	17.5	8	6	6

Sansico Socket Fusion Welder

SSW 32 (20mm-32mm)

SSW 63 (20mm-63mm)

SANSICO socket fusion welder is suitable for joining a variety of plastic pipes and fittings for different applications in the industry. This machine can weld PE (Polyethylene), PE-RT (PE Raised Temperature), PP-R (Polypropylene Random), PB (Polybutene).



Manual Equipment

Manual socket welders for joining pipes and fittings, in compliance with the standards in force. They feature an aluminum heating plate and a practical, heat-insulated plastic handle. They can weld PE, PE-RT, HDPE, PP, PP-R, PVDF pipes and fittings and they're characterized by different shapes and working ranges, suitable for different applications. They're available with an adjustable electronic thermoregulator. This new TFE control system features a new self-diagnostic device, provided with an alarm, which would alert the operator in case of abnormally; at the same time, the heating element would switch off automatically. Thanks to an algorithm PID microcontroller, combined with a platinum sensor, the temperature control system can react faster to the external temperature fluctuations, and guarantee higher reliability and longer durability.

Technical Features

TYPE: TE, TFE	SSW 32	SSW 63
Working range	up to Ø 32 mm	up to Ø 63 mm
Materials	PE, PE-RT, HDPE, PP, PP-R PB, PVDF	
Power supply	230 V S. Ph. 50/60 Hz, 110 V S. Ph. 50/60 Hz	
Max, absorbed power	800 W	
Working temperature	180° to 290°C	
Ambient temperature	5° to 40°C	
Weight	1,82 Kg	
Dimensions	175 x 50 x 360 mm	

PERT Fittings List



PERT Pipe

Code	Nominal Size DN/OD	Nominal Outside Diameter d_n	Mean Outside Diameter		Pipe Series S 3,2 Wall Thickness e_{min}
			$d_{em. min}$	$d_{em. max}$	
PERT 20mm Length 5.8m	20	20	20.0	20.3	2.8
PERT 25mm Length 5.8m	25	25	25.0	25.3	3.5
PERT 32mm Length 5.8m	32	32	32.0	32.3	4.4

also available in roll form (100m)

Equal Coupling



Code	Size	Heating Time (Sec)	Fusion Time (Sec)	Cooling Time (Min)
PEC 20	20	5	4	2
PEC 25	25	7	4	2
PEC 32	32	8	6	4

Reducing Coupling



Code	Size	Heating Time (Sec)	Fusion Time (Sec)	Cooling Time (Min)
PRC 25.20	25 x 20	5	4	2
PRC 32.20	32 x 20	7	4	2
PRC 32.25	32 x 25	8	6	4

Equal 90 Elbow



Code	Size	Heating Time (Sec)	Fusion Time (Sec)	Cooling Time (Min)
P90 EE 20	20	5	4	2
P90 EE 25	25	7	4	2
P90 EE 32	32	8	6	4

Reducing 90 Elbow



Code	Size	Heating Time (Sec)	Fusion Time (Sec)	Cooling Time (Min)
P90 RE 25.20	25 x 20	5	4	2
P90 RE 32.20	32 x 20	7	4	2
P90 RE 32.25	32 x 25	8	6	4

Equal 45 Elbow



Code	Size	Heating Time (Sec)	Fusion Time (Sec)	Cooling Time (Min)
P45 EE 20	20	5	4	2
P45 EE 25	25	7	4	2
P45 EE 32	32	8	6	4

Equal Tee



Code	Size	Heating Time (Sec)	Fusion Time (Sec)	Cooling Time (Min)
PET 20	20	5	4	2
PET 25	25	7	4	2
PET 32	32	8	6	4

Reducing Tee



Code	Size	Heating Time (Sec)	Fusion Time (Sec)	Cooling Time (Min)
PRT 25.25.20	25 x 25 x 20	5	4	2
PRT 32.32.20	32 x 32 x 20	5	4	2
PRT 32.32.25	32 x 32 x 25	7	4	2
PRT 20.20.25	20 x 20 x 25	8	6	4
PRT 25.25.32	25 x 25 x 32	8	6	4

End Cap



Code	Size	Heating Time (Sec)	Fusion Time (Sec)	Cooling Time (Min)
PECP 20	20	5	4	2
PECP 25	25	7	4	2
PECP 32	32	8	6	4

PERT Fittings List



Over Bend

Code	Size	Heating Time (Sec)	Fusion Time (Sec)	Cooling Time (Min)
POB 20	20	5	4	2
POB 25	25	7	4	2
POB 32	32	8	6	4



Male Threaded Coupling

Code	Size	Heating Time (Sec)	Fusion Time (Sec)	Cooling Time (Min)
PMTC 20.1/2	20 x 1/2"	5	4	2
PMTC 20.3/4	20 x 3/4"	7	4	2
PMTC 25.1/2	25 x 1/2"	5	4	4
PMTC 25.3/4	25 x 3/4"	7	4	2
PMTC 32.3/4	32 x 3/4"	8	6	4
PMTC 32.1	32 x 1"	8	6	4



Female Threaded Coupling

Code	Size	Heating Time (Sec)	Fusion Time (Sec)	Cooling Time (Min)
PFTC 20.1/2	20 x 1/2"	5	4	2
PFTC 20.3/4	20 x 3/4"	7	4	2
PFTC 25.1/2	25 x 1/2"	5	4	2
PFTC 25.3/4	25 x 3/4"	7	4	2
PFTC 32.3/4	32 x 3/4"	8	6	4
PFTC 32.1	32 x 1"	8	6	4



Male Threaded Elbow

Code	Size	Heating Time (Sec)	Fusion Time (Sec)	Cooling Time (Min)
PMTE 20.1/2	20 x 1/2"	5	4	2
PMTE 25.1/2	25 x 1/2"	7	4	2
PMTE 25.3/4	25 x 3/4"	7	4	2
PMTE 32.3/4	32 x 3/4"	8	6	4
PMTE 32.1	32 x 1"	8	6	4



Female Threaded Elbow

Code	Size	Heating Time (Sec)	Fusion Time (Sec)	Cooling Time (Min)
PFTE 20.1/2	20 x 1/2"	5	4	2
PFTE 25.1/2	25 x 1/2"	7	4	2
PFTE 25.3/4	25 x 3/4"	7	4	2
PFTE 32.3/4	32 x 3/4"	8	6	4
PFTE 32.1	32 x 1"	8	6	4



Double Plastic End Union

Code	Size	Heating Time (Sec)	Fusion Time (Sec)	Cooling Time (Min)
PDPEU 20	20	5	4	2
PDPEU 25	25	7	4	2
PDPEU 32	32	8	6	4



Female Threaded Tee

Code	Size	Heating Time (Sec)	Fusion Time (Sec)	Cooling Time (Min)
PFTT 20.1/2	20 x 1/2"	5	4	2
PFTT 25.1/2	25 x 1/2"	7	4	2
PFTT 25.3/4	25 x 3/4"	7	4	2
PFTT 32.3/4	32 x 3/4"	8	6	4
PFTT 32.1	32 x 1"	8	6	4



Brass Stop Valve

Code	Size	Heating Time (Sec)	Fusion Time (Sec)	Cooling Time (Min)
PBSV 20	20	5	4	2
PBSV 25	25	7	4	2
PBSV 32	32	8	6	4

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.

The obligation of Sansico Industries Sdn Bhd under this warranty shall be limited to the replacement of any part that may prove defective under normal use.

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 others, 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 receipt 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.

Installation

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

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.

About Us

SANSICO Industries Sdn Bhd have grown rapidly to become a leader in the supply of HDPE (High Density Polyethylene) pipes and fittings in Malaysia and have over 15 years of experience in the thermoplastic pipe and fitting industry. Sansico are committed to providing innovative, quality products and services throughout all of our product offerings. Our dedication drives the values that we strive to live up to daily at Sansico. We hold teamwork, innovation, accountability, integrity, mutual trust and respect, and a desire to continuously improve our quality above all else. We are also very customer-centric, aspiring to make the Sansico experience the best it can be for all of our customers.

We provide durable and yet affordable polyethylene HDPE pipes and fittings. All Sansico products are made to meet and exceed stringent certification standards and, above all, the needs and demands of professional installers. Our goal is to offer our customers outstanding guaranteed fittings and pipes for a very competitive price.

We take great pride in the people we hire, train, and promote. We have a specialized team with knowledge in fusion procedures and maintenance experience. We offer technical site support and we stand by our product. At SANSICO Industries Sdn Bhd customer satisfaction is our #1 priority.



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