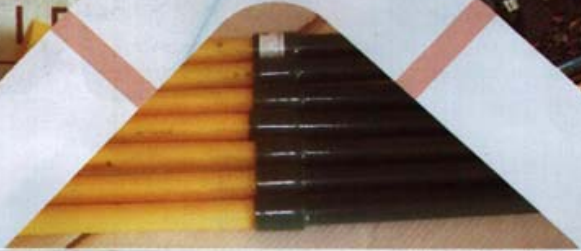
Mechfit

INDUSTRIES

ISO Certified Manufacturer of Polyethylene (PE-80/PE-100)Natural Gas Pipeline Fittings



QUALITY POLICY

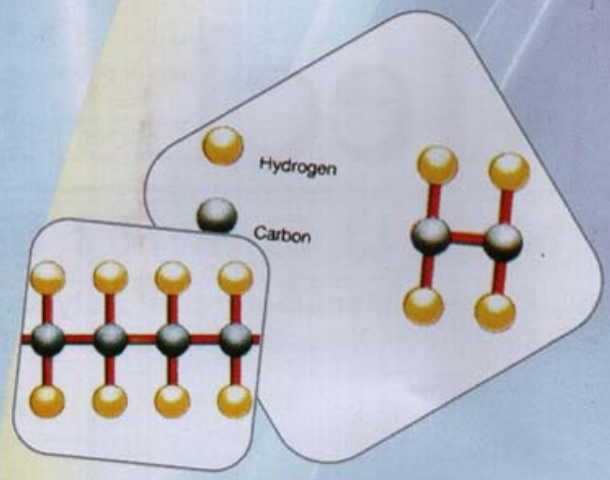
ISO 9001:2008

"AT PAR WITH EXCELLENCE"

"We stand committed to maintain long term relations with our customers through progressive measures, reasonably priced products, in-time delivery and maintaining international standards in our Plastic related Engineered products. We are also committed to comply with the requirements of ISO 9001: 2008 standard and intend to improve upon the quality management system Continually.

RAW MATERIAL

P.E. Gas fitting are manufactured from high or medium density polyethylene, which is a synthetic polymer normally produced from the distillation and cracking of crude oil. It is a thermoplastic material which can be post formed and fusion jointed under the application of heat/electricity and pressure.



MANUFACTURE

Melt processing is used almost exclusively with polyethylene. In principle, this involves applying heat to the material, forcing it through an orifice or into a mould and stabilizing the dimensions of the component by controlled cooling. Throughout this process, great care is taken to ensure that the material is mixed to create homogeneous melt properties and additive dispersion. Final cooling must maintain this uniformity of properties to prevent localized shrinkage and distortion of the product.

JOINTING SYSTEM

The four most commonly used methods for fusion jointing

Are: (1) socket fusion (2) butt fusion (3) saddle fusion (4) electro-fusion.

In the case of socket fusion and saddle fusion the surfaces of the pipe and fittings to be jointed are raised to a pre-set temperature for a specific time by a heating tool. When the joint surfaces are molten they are brought together with a firm constant pressure which is maintained for a short time while they cool. The molten material fuses together to form a joint.

All these joints are homogenous and eliminate completely the risk of leakages.

QUALITY CHECKS

Dimensional

Checks

Pipes - Wall thickness
Outside diameter
Out of roundness/ovality
Overall length

Fittings - internal diameter at fitting's mouth
Internal diameter at fitting's root

During production, the dimensional checks for fittings are to be taken at 2 hours and 48 hours after injection moulding to allow for normalization.

Visual

Checks

Pipes and
Fittings - pigment dispersion
Marking
Surface finish
Contamination

Individual fitting (on manufacture) are identified with a marking system related to the Production and Quality Control procedures.

Fusion Conditions for Socket Fusion Jointing

Temperature:	275 ±15°C	
Size (inch)	Heating Time (Seconds)	Remarks
3/4"	5 - 8	Joint to be manually implemented
1-1/4"	8 - 10	
2"	25 - 30	
4"	30 - 35	

Fusion Conditions for Butt Fusion Jointing

Temperature:	205± 8°C	
Heating and Fusion Force	0.147	N/mm2
Heating Time (pressure vented)	90 secs	(2")
	120 secs	(4")
	140 secs	(6")
Cooling Time (under pressure)	5 mins	(2" - 4")
	10 mins	(6")
Bead Width	7-11 mm	(2" - 4")

Fusion Conditions for Saddle Fusion Jointing

Temperature:	275±15°C
Size and Description (inch)	Heating Time (Seconds)
3/4" , 1-1/4" Tapping and Multisaddle	25 maximum pipe heating 25-35 pipe and fitting heating.