ESCOPIPE®

RIGID PU.FOAM PRE-INSULATED PIPE

ESCO Pre-Insulated pipe

- Stable thermal Conductivity
- Flexiblility which makes install work and neat
- Excellent UV and Ozone resistance
- Fire resistance ability 2 hrs. after that it can pass the Hose Stream Test

www.aeroflex.co.th

ESCOPIPE®

RIGID PU.FOAM PRE-INSULATED PIPE

ESCOPIPE® is a ready-to-install rigid PU Foam pre-insulated pipe, which comprises of outer casing, rigid PU foam and service pipe. Outer casing is made of galvanized steel sheet with spiral locked seam or HDPE pipe or other materials specified by the designers. The inner pipe (service pipe) can be metal or plastic pipe according to the design. The middleportion is rigid polyurethane foam made of polyol mixed with methylene di-isocyanate (MDI) and HFC as blowing agent which already premixed in polyols. HFC in rigid PU foam makes ESCOPIPE® having very low K. value of less than 0.022 W/mK at average temperature of 30°C. Because of very low K. value compared to other types of insulation, ESCOPIPE® can save more energy and prevent condensation in cooling and heating pipeline system with service temperature from -50°C up to +140°C.

ESCOPIPE® is a pre-insulated pipe ready-made by the manufacturer, so there is no air gap inside because the insulation is firmly attached to outer casing and service pipe. Moreover, the outer casing, specified by the designer, is strong and durable to external force and severe weather, which makes it suitable for outdoor and underground applications, including chemical pipelines in petroleum industry, heating and cooling pipelines connecting between the buildings, where pipelines are laid underground or in the trench.

Specification :

Description	Properties	Test Method
Outer casing *	Galvanized steel sheet with minimum thickness of 0.45mm	-
Surface coating	Galvanize coating	-
Rigid insulation	Rigid polyurethane foam	-
Density of PU foam	≥ 45 kg/m^3	ASTM D 1622
Thermal conductivity of PU foam (K. Value)	≤ 0.022 W/mK	ASTM C 518
Compressive strength	≥ 285 KPa	ASTM D 1621
Closed cell content	≥ 90 %	ASTM D 6226
Water vapor permeability (complete system)	2.4 x 10^{-3} perm-inch	ASTM E 96
Flammability (complete system)	Class 0	BS476 part 6 & 7
Fire resistance	Fire resistance ability 2 hrs. after that it can pass the Hose Stream Test	ASTM E 119
Service temperature	-50°C to 140°C	-

* Structure of ESCOPIPE®

1. Various types of outer casing:
   - Galvanized steel casing (ESCOPIPE®-GSC)
     Outer casing made from galvanized steel sheet with minimum thickness of 0.45mm fabricated into outer round casing with spiral locked seams.
   - HDPE pipe casing (ESCOPIPE®-HDPE)
     Outer casing made from high density polyethylene pipe for underground pipelines.
   - Other materials specified by designers are also available.

2. Rigid PU Foam Thermal Insulation:
PU Foam is injected by special equipment into the space between outer casing and service pipe. PU Foam with density of more than 45kg/m³ then expands to fulfill the space between outer casing and service pipe. Different outer casing materials are available to suit individual applications.

Standard Size :

ESCOPIPE® rigid PU Foam pre-insulated pipe has standard thickness of 32, 39 and 50mm depending on the sizes of service pipe, which can prevent condensation under following conditions: Operating temperature in service pipe at 6°C (43°F), Ambient temperature at 35°C (95°F), Relative humidity at 80%RH.

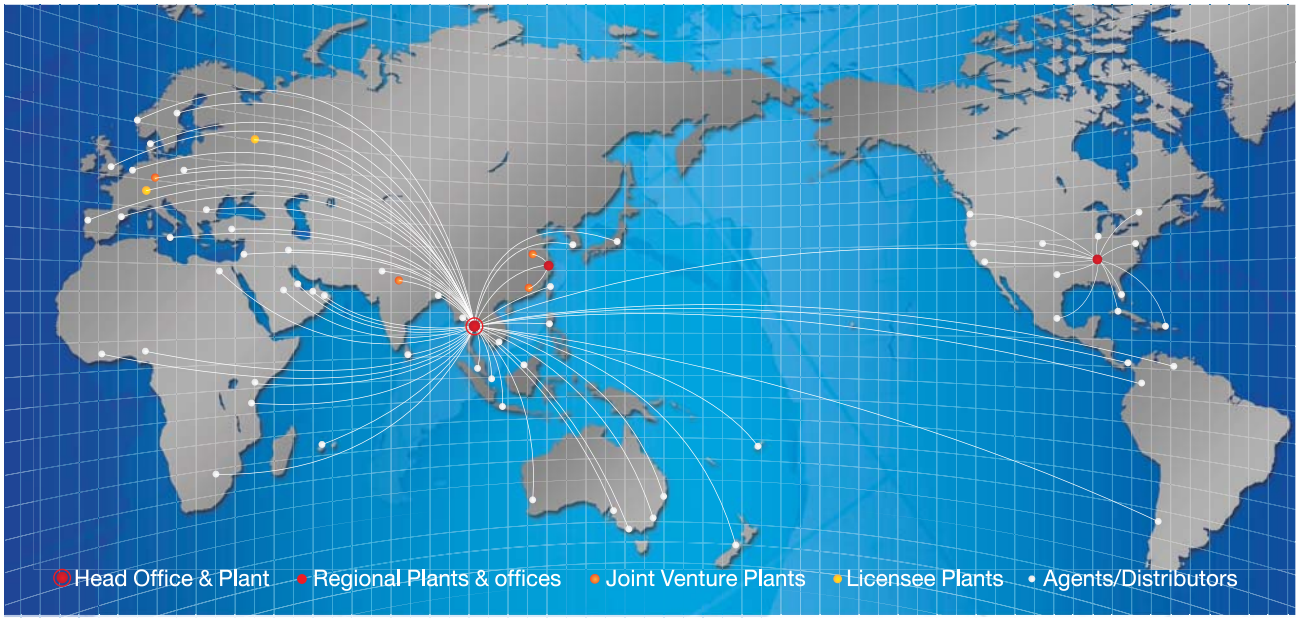
Pipe Size (IPS)		Insulation Thickness	
mm	inch	mm	inch
15	½	32	1 ¼
20	¾	32	1 ¼
25	1	32	1 ¼
32	1 ¼	32	1 ¼
40	1½	32	1 ¼
50	2	32	1 ¼
65	2 ½	32	1¼
80	3	39	1 ½
100	4	39	1 ½
125	5	39	1 ½

Pipe Size (IPS)		Insulation Thickness	
mm	inch	mm	inch
150	6	39	1 ½
200	8	50	2
250	10	50	2
300	12	50	2
350	14	50	2
400	16	50	2
450	18	50	2
500	20	50	2
600	24	50	2

Installation :

Installation of ESCOPIPE® rigid PU Foam pre-insulated pipe must be done according to manufacturer's instructions. For joints, valves, elbows and other parts, installation work is done at site, which requires mixture of chemical part A and B for forming thermal insulation, these two chemical part A and B must be from the same original manufacturer in order to have the best result.

AEROFLEX INTERNATIONAL DISTRIBUTION



ASIA:
China, Japan, South Korea, Taiwan, Hong Kong, Philippines, Thailand, Malaysia, Indonesia, Brunei, Singapore, Vietnam, Laos, Myanmar, India, Pakistan, Srilanka, Bangladesh, Maldives, Nepal

MIDDLE EAST:
Saudi Arabia, Egypt, Kuwait, U.A.E., Qatar, Oman, Bahrain, Jordan, Iran, Syria, Lebanon, Israel.

AUSTRALIA & OCEANIA:
Australia, New Zealand, Fiji, Papua New Guinea, Nouméa.

AFRICA:
South Africa, Ghana, Mauritius, Tanzania, Kenya, Nigeria.

EUROPE:
Germany, Sweden, Norway Denmark, Benelux, Poland , Switzerland, Bulgaria, Portugal, Hungary, Turkey, Cyprus, Slovakia, Croatia, Slovenia, Romania, Estonia, Lituania, Latvia, Russia, Spain, Czech Republic, U.K. , Malta, Austria, Ireland.

NORTH AMERICA:
U.S.A., Canada, Mexico

CENTRAL AND SOUTH AMERICA:
Chile, Cuba, Dominican Republic, Panama, Venezuela, Colombia.

QMS 005/EMS 004

0038

AEROFLEX CO.,LTD (Total area 100,000 m²)

AEROFLEX CO., LTD.

HEAD OFFICE:
770 MU 6, TEPARAK RD., TEPARAK, SAMUTPRAKARN 10270, THAILAND
TEL: +(66) 0 2383 6599 FAX: +(66) 0 2383 6531, 0 2759 5550
EMAIL: marketing@aeroflex.co.th WEBSITE: www.aeroflex.co.th

BANGKOK OFFICE:
1179/21-25 RAMA 4 RD., KLONGTOEY, BANGKOK 10110, THAILAND
TEL: (66) 0 2249 3976 FAX: (66) 0 2249 4098
EMAIL: sales_eie@aeroflex.co.th WEBSITE: www.aeroflex.co.th

For more information, please contact your local distributor.

Distributor :