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ALUMINUM SPIR-I-OK JACKET

This economical, high-quality product incorporates the insulation of choice within a durable protective metal jacket. The inner carrier piping material may be as required for the service intended. Aluminum Spir-I-ok is constructed for applications with temperatures ranging from -200 degrees to +450 degrees Fahrenheit. Projects requiring pipe to carry Steam, Condensate, Hot Water, Hot Oil, Process Fluids, Cryogenic Gases, etc., are ideally suited for Aluminum Spir-I-ok.

Installation savings are important. Lighter weight means easier placement. Trench width (and depths) are reduced due to the thinner pipe walls. This results in time and cost savings in both excavation and backfill. Installation of bigger and longer sections is more practical, and the pipe can often be handled without special lifting equipment. Single lengths up to 40 feet ensure more accurate pipe alignment at time of placement and through the life of the system. Longer lengths save installation time with fewer joints

The Aluminum Spir-I-ok insulation system is ideally suited for above ground or below ground applications. The owner enjoys the benefits of thermal efficiency and a strong, corrosion resistant, outer jacket that can withstand man-made abuse along with unpredictable weather elements.

GENERAL

Preinsulated Steel Piping Systems suitable for Chilled Water, Heating Water, Domestic Hot & Cold Water, Process Fluids, Low Pressure Steam (15 PSIG Max.), Condensate Return and Cryogenic Services.

SERVICE PIPE

Carrier pipe shall be steel ASTM A-53, Grade B., ERW (Type E) or seamless (Type S), standard weight for sizes 2" and larger, and shall be ASTM A-120/A-53, Grade F (Type F), standard weight for sizes 1-1/2" and smaller. Seamless pipe smaller than 2" shall be ASTM A-106, or A53, Grade B. Condensate return piping shall be Schedule 80. When practical, piping shall be provided in 40-foot double-random lengths. All carbon steel pipe shall have ends cut square and beveled for butt-welding. Straight sections of factory insulated pipe shall have 6" of exposed pipe at each end for field joint fabrication.

INSULATION

Insulation shall be rigid, 90 to 95% closed cell polyurethane with 2 to 4 pounds per cubic foot density and a "K" factor of .15-.17 at 75°F per ASTM C 518. The polyurethane foam shall be CFC free and comply with HFC 245 fa. The polyurethane foam shall be injected into the annular space with high-pressure foam equipment. Centering spacers shall be factory-installed to insure uniform insulation around the pipe. Insulation thickness shall be as shown on the table in the contract drawings, but not less than 1.3". Maximum temperature rating is -60°F to 220°F.

JACKET

A special aluminum class 5052-H32 marine grade aluminum metal with 16-gauge wall thickness. Jacket shall be watertight and be able to withstand 5 foot water head tes

MOISTURE BARRIER

Mastic moisture barriers shall be factory-applied to each pipe end. End seals shall be mastic completely sealing the exposed end of the insulation.

Nominal Diameter	Pipe Diameter	Jacket Diameter	Insulation Thickness	Approx. Weight Per LF SCH 40
¾"	1.05"	6.25"	2.73"	6.85lb
¾"	1.05"	8.25"	3.73"	8.45lb
1"	1.32"	6.25"	2.60"	7.05lb
1"	1.32"	8.25"	3.60"	9.18lb
1 ½"	1.90"	6.25"	2.30"	8.06lb
1 ½"	1.90"	8.25"	3.30"	10.20lb
2"	2.38"	6.25"	2.07"	8.92lb
2"	2.38"	8.25"	3.07"	11.10lb
3"	3.50"	6.25"	2.50"	14.93lb
3"	3.50"	8.25"	3.50"	18.68lb
4"	4.50"	8.25"	2.00"	18.01lb
4"	4.50"	10.25"	3.00"	20.29lb
4"	4.50"	12.75"	4.25"	22.73lb
6"	6.63"	10.25"	1.94"	28.09lb
6"	6.63"	12.75"	3.19"	30.53lb
8"	8.63"	12.75"	2.19"	39.58lb
8"	8.63"	15.75"	3.69"	43.62lb
10"	10.75"	15.75"	2.62"	54.87lb
10"	10.75"	18.00"	4.13"	58.76lb
12"	12.75"	18.00"	3.13"	70.97lb

- Steel Pipe Sch 40 and Sch 80 pipe available.
- 20' or 40' lengths available.
- 6"x6" cutbacks for ¾"-12" core pipe.
- 2lb to 4 lb density rigid CFC free polyurethane foam.
- Insulated pipe with heat trace channel on request.
- Pipe ends are sealed with butyl mastic (lions oil).
- 16GA Aluminum Jacket is standard. Jacket ID used is + - ½" average.

FITTINGS

Carrier fittings shall be welded, except sizes smaller than 2" shall be socket-welded. If requires by project specifications, welds shall be radiographically inspected. Fittings include expansion loops, elbows, tees, reducers and anchors.

FIELD JOINT CLOSURES

All joints shall be field-insulated per the manufacturer's recommendation, using a two-part foam injection method or a pre-formed half shell with a full-length Aluminum Band.