

	ROCKWOOL® COMMUNIQUE	No. 511
	PREFABRICATION BENDS AND ELBOWS	September 2006

The plight of the insulation contractor has not got any easier. A booming construction and minerals processing sector has absorbed most of the available skilled labour and should you be fortunate enough to win a major insulation project the path to completion has become considerably more difficult.

Prefabrication in the industrial insulation sector is certainly not new but it does provide some answers to the growing current problems on projects; spiraling labour and site costs and declining insulation trade skills.

Additionally, intensive and restrictive safety programs and procedures at the site all combined with the usual level of construction union militancy make the time spent at site something to be minimized as far as possible.

Time

The ratio of fittings and bends to straight pipe has increased over the years with process plants being designed with a smaller footprint in the environment in mind. Elbows are historically the slowest part of the insulation process and it can take up to 2 man hours to complete a bend mitering and cladding on site.

AIS prefabricated elbows can reduce the completion time for bends by up to 75%.



Quality

The quality and integrity of insulation joints is critical. While secure joints in straight pipe are easy to install, bends done traditionally with mitering at the site will only be as effective as the skill and experience level of the installers. Most plant owners demand that elbows are done with the same materials that are used for straight pipe and insist on high levels of compression resistance, so resorting to wrapping the bend with blankets is not usually an option where sectional pipe insulation is in use. AIS prefabricated elbows are mitered by a computer controlled fast-wire profile cutter which results in joints that are as tight and effective as they can possibly be. They can be made from any rigid insulation block material such as rockwool, polyurethane, polyisocyanurate or polystyrene. Elbows are supplied as bonded halves in most cases but can be supplied as packaged segments for very large bends if required.

Project Risk

The more man hours that are expended at the site the greater the level of project risk is borne by the insulation contractor. This risk is in a number of areas.

- Safety – construction sites are hazardous environments and being on site any longer than is necessary raises the risk profile of the project.
- Industrial relations – similarly insulation work is a historical target of militant unions. While world health authorities have effectively given the green light for the safe use of insulation wools, the position of many union officials has not changed.
- Liquidated damages – all insulation work is usually on the critical path to completion. Any delays in the schedule are usually expected to be recovered by the insulation contractor who has the option of recruiting more people with limited skills or to do things a better a quicker way.

AIS prefabricated components help to mitigate all of these areas of risk.

Other Prefabricated Components

In addition to elbows, AIS can produce almost any insulation component that can be pre-fabricated.

Extensive converting and prefabrication experience gained on North West Shelf LNG contracts has given AIS a capability for designing, converting and packing insulation components for any major project.

Our capabilities include :-

- segments for domed tank tops
- large curved lags for tanks and vessel walls
- pipe support segments for cryogenic pipe insulation,
- moulds for refractory installation
- multiple-layer pipe insulation systems



For further information and technical advice on insulation contact:

AIS

56 CUTLER ROAD, JANDAKOT, WA 6164

TELEPHONE: (08) 9417 9494
Email: sales@ais-group.com.au

AUSTRALASIAN INSULATION SUPPLIES PTY LTD

A.B.N. 25 612 643 993 A.C.N: 0006 912 885

FACSIMILE: (08) 9417 9595
website: www.ais-group.com.au