

Polytec Butt welding Training Agenda

PE Pipe Materials

- Introduction to PE compound types
- Physical properties of PE compounds
- Material compatibility

PE Pipe and Material Standards

- Introduction to Standards AS/NZS 4130 and AS/NZS 4131
- Explanation of PE80 and PE100 ratings
- Test methods and requirements
- Pressure classifications and design factors

Welding Processes

- Melt behaviour of PE materials
- Welding cycle of PE
- Heat affected zones
- Relationship of pressure/heating/cooling on weld structures
- Environmental controls

Welding Machines

- Principles of operation
- Pressure/temperature/time controls
- Trimmer controls
- Alignment controls
- Heating mirror controls
- Data capture

Welding Parameters

- Calculation of welding conditions
- Role of time/pressure/temperature
- Single stage conditions
- Identification of critical elements

Quality Elements

- Cleanliness
- Alignment
- Bead size/shape/appearance
- Condition monitoring/recording

Practical Welding

- Machine preparation
- Pipe preparation
- Environment control
- Welding procedure

Quality Assurance

- Pilot welding prequalification
- Visual evaluation
- Discussion of physical tests
- Tensile fracture testing
- Flexural testing
- Ductile/brittle behaviour
- Strength factors
- Long term testing
- Pressure testing
- Role of QA throughout the process

Evaluation

- Theory questionnaire
- Oral discussions
- Practical welding
- Testing of samples

Polytec Butt welding

- Combines theory with practical welding procedures
- Provides the latest international information
- Hard copy reference manual supplied
- Course contact duration 8 hours
- Fully accredited program
- Applicants who successfully complete all competency evaluation requirements will be issued with security coded accreditation cards.

Course contact time 8 hours

- The POLYTEC® BUTTWELDING Program is Nationally available, and is delivered by LeHunt and Associates in partnership with licensed TAFE Colleges, and Skills Centres.
- This provides an internationally expert system together with localised support facilities.
- The POLYTEC® BUTTWELDING Program can also be provided in house with specific clients to meet individual organisation requirements.
- Participants who successfully complete all the theoretical and practical evaluation requirements are issued with security coded accreditation documents.

POLYTEC® BUTTWELDING
is available from

The POLYTEC® BUTTWELDING program is an engineering based, expert system for butt welding PE pipes.

This covers the latest developments in polymer improvements Internationally, and in Australia and New Zealand, and includes the more stringent requirements in the PE Compound and Pipe Standards AS/SNZ 4130 and AS/SNZ 4131.

As PE pipe systems are used in larger diameters, higher pressure classes, and thicker wall sections, the requirements for high quality joints becomes more important in practical applications.

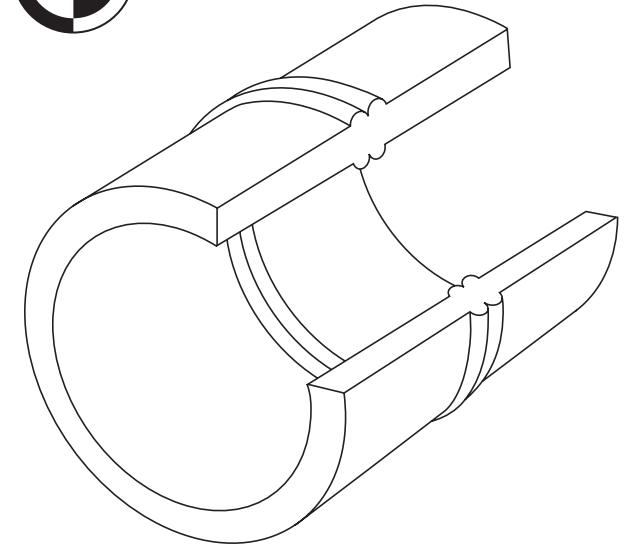
LEHUNT AND ASSOCIATES have developed the POLYTEC® system of pipeline training and accreditation programs drawing on some 25 years of experience in pipeline technology, including design, manufacturing, product development, research and development in materials, field technical services, and specification development.

We have drawn on our local research programs, together with our UK, European co-operative research programs, and technical liaison to develop world's best practice systems to meet industry needs in PE pipe BUTTWELDING.

LEHUNT
Consulting Engineers

Technology Transfer – Project Management

8 Hamilton Court, Pearcedale,
Victoria 3912, Australia
Telephone (03) 59 787 121
www.lehunt.com.au



Polytec Buttwelding Training Program