

DESTRUCTIVE TESTING

POLYETHYLENE BUTT-FUSION & ELECTRO-FUSION WELDING



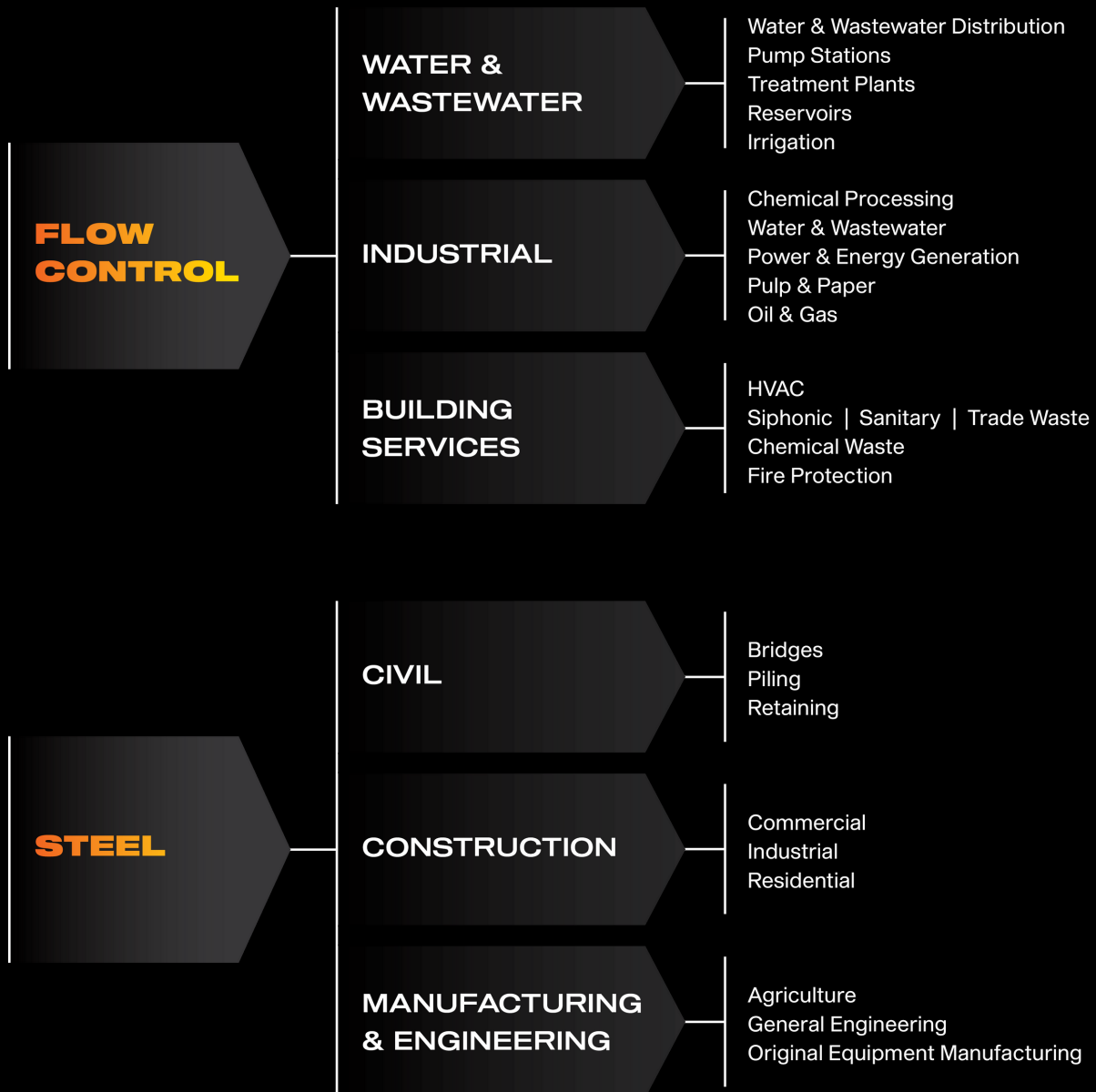
TENSILE STRENGTH | PEEL DECOHESION | CRUSH DECOHESION



Our Laboratory complies with the requirements of NZS ISO/IEC 17025:2005, and is Accredited in the field of Mechanical Testing.



ONE COMPANY, MANY SOLUTIONS.



**WE'RE HERE
TO CREATE
A STRONGER
NEW ZEALAND
BY HELPING
OUR CUSTOMERS,
COMMUNITIES
AND PEOPLE
SUCCEED.**



ACCREDITED DESTRUCTIVE TESTING

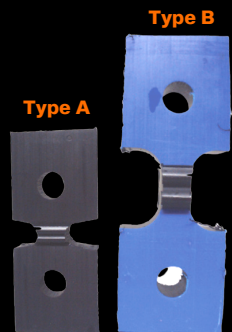
Testing the strength of welded polyethylene joints, the quality of the weld is characterised by the nature of the test failure.

Ductile Failure: desired result, weld yields slowly and is accompanied by material deformation.
Brittle Failure: undesired result, weld yields with little or no material elongation.

TENSILE STRENGTH TEST OF A POLYETHYLENE BUTT WELD

Type A: (black) Wall thickness <25mm

Type B: (blue) wall thickness > 25mm



Result samples

Left: Brittle failure

Right: ductile failure

- Determines the strength and failure mode of butt-fused pipe.
- Suitable for joints with an outside diameter > 90mm.
- Test pieces are cut from the pipe.
- Samples are subjected to a tensile strength at a constant speed.
- Force is applied to the elongation until complete failure.
- The surface of the failure is then analysed.

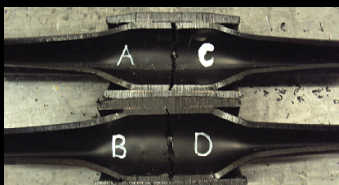


PEEL DECOHESION TEST OF ELECTROFUSION JOINTS > 90MM

- Determines the decohesive resistance of electro-fusion joints.
- Suitable for joints with a diameter > 90mm.
- The test piece is subjected to a tensile stress at a constant speed until there is a complete separation.
- Place of the failure is recorded and the type of the failure identified.



CRUSH DECOHESION TEST OF ELECTROFUSION JOINTS 16MM - 225MM



- Determines the decohesive resistance of electro-fusion joints.
- Test pieces are extracted from the joint and subjected to a compression at a constant speed.
- The point of failure is recorded and the type of failure identified.



ASMUSS

STEEL & FLOW CONTROL

AUCKLAND

Arrenway Drive
Albany
Auckland 0632
PH +64 9 477 2320

6 Gabador Place
Mount Wellington
Auckland 1060
P
H +64 9 573 0002

8 Clemow Drive
Mount Wellington
Auckland 1060
PH +64 9 573 0030

WAIKATO

40 Bryant Road
Te Rapa
Hamilton 3200
PH +64 7 849 2410

KAWERAU

KEA 2 Industrial Park
Manukorihi Drive
Kawerau 3127
PH +64 7 323 6198

WELLINGTON

11-13 Gough Street
Lower Hutt
Wellington 5010
PH +64 4 939 6699

TAURANGA

40 Portside Drive
Mt Maunganui
Tauranga 3116
PH +64 7 574 6774

TAUPO

464 Rakaunui Road
Rotokawa
Taupo 3378
PH +64 7 377 8416

NEW PLYMOUTH

82 De Havilland Drive
Bell Block
New Plymouth 4312
PH +64 6 755 2570

NELSON

8 Saxton Road West
Stoke
Nelson 7011
PH +64 3 538 0351

CHRISTCHURCH

60 - 70 Detroit Drive
Rolleston
Christchurch 7614
PH +64 3 347 1568

DUNEDIN

3 White Street
Dunedin Central
Dunedin 9016
PH +64 3 477 2323

albanysales@asmuss.co.nz

WWW.ASMUSS.CO.NZ