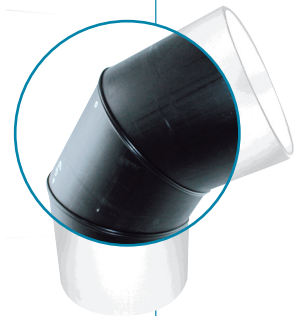


HDPE Drainage System



Advanced Pipe System Technology



Company Introduction

Acu-Tech Piping Systems is a privately owned and operated Western Australian company.

We are a member of a national group of companies, specialising in providing pipeline solutions through our Advanced Pipe System Technology for both fluid and gas transfer applications.

Our group combines many years of experience in the industry with unmatched buying power, enabling us to offer exceptional value to our customers.



Customer Focus

The key to Acu-Tech's success lies in our commitment to provide the highest quality service and support.

We place the utmost importance in providing solutions to engineers and contractors, from technical assistance during design stage, through to continually evolving our extensive product portfolio to meet the demands of the market.

Acu-Tech also place particular emphasis on comprehensive training in the use of our products, to ensure that every installation is trouble free.

Our Mission

- To provide the pipeline industry with systems of the highest quality, integrity and innovation, and in doing so, to ensure that Acu-Tech "adds value" to our customers' business.
- To provide outstanding service, training and technical support to our customers, and in that way be considered as an integral part of their enterprises.
- To encourage forward thinking and innovation.
- To continuously look for ways to improve our performance.
- To maintain a comprehensive stock inventory
- To ensure that every project runs smoothly. To put our values at the centre of everything we do, now and in the future.



Our Values

- We base the relationships we have on Trust & Integrity.
- We believe our people are our most Precious asset.
- We believe good Communication is essential to a successful business, with our team, our suppliers and most of all, with our customers.
- We focus on providing Quality in all aspects of our business.
- We believe in adopting a Caring approach to people and to our environment.
- We take Pride in everything we do, and the way we do it.
- We will always emphasise Safety.

Our Vision

To be recognised by engineers and contractors as the industry leader in **pipeline solutions**



Products

Acu-Tech offers a complete range of piping systems for pressure and drainage applications, manufactured primarily from polyethylene (PE). The advantages of PE piping systems have been appreciated in the gas and water industries and by general industrial users for over 30 years.

PE's toughness, immunity from corrosion, excellent resistance to chemicals and light weight has contributed to its continued appeal for use in situations where cost-effective and reliable systems are required.

PE systems from Acu-Tech offer the following advantages:

- High quality approved products, designed and manufactured to exacting International and Australian standards.
- Four jointing methods, offering flexibility of choice - Electrofusion, Butt-fusion, Socket-fusion and Mechanical Fittings.
- Fusion welded methods create a completely homogenous joint which is as strong as the pipe. This eliminates rubber seals which can fail over time, also solving root intrusion problems, and provides pipeline integrity where installed in unstable ground.
- No anchor or thrust blocks needed (systems are fully end load resistant)
- Systems available for every application, allowing common trenching.
- Based on minimum 50 year design life, Acu-Tech PE100 pressure systems incorporate a safety factor of 1:1.25 for water, and 1:2 for gas.
- Pressure rating of up to 1600kPa continuous at 20°C when carrying water and certain other liquids.
- Pressure rating of up to 1000kPa at 20°C when carrying compressed gases.
- Excellent resistance to chemicals
- Simple to install, maintain and repair.
- Immunity from corrosion.
- Tough, durable and lightweight.
- Low thermal conductivity.
- High flow capacity due to smooth bore and end-to-end jointing.
- Comprehensive product and installation training available.
- Sales, hire, repair and calibration of associated welding equipment.



Market Orientated

Acu-Tech's polyethylene products find a broad range of applications in the Industrial, Mining, Plumbing and Utilities markets. The utilities of water and gas distribution are important sectors for high integrity products where the maintenance of water quality and the safe transport of gaseous fuels are of paramount importance. Industrial and Mining applications include mineral slurries, alternative energy installations in landfill gas systems, to effluent transportation. Products are widely used in pipeline installation, repair and maintenance.



















Acu-Tech also supplies a number of other systems, including:

- HDPE Drainage Pipe System for greasy or chemical wastes and Siphonic roof drainage.
- Polypropylene (PPR) Pipe System for above ground hot & cold water systems.

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Notes on the use of this catalogue

Acu-Tech Piping Systems provides the technical information contained in this catalogue as a guide to plumbers. However it is not possible to include all the technical information that needs to be taken into account when designing a system. Plumbers and Engineers should refer to the applicable Australian Standards and also the requirements of the local authorities.

All dimensions shown in this catalogue are intended as a guide only, and may change without notice. eNominalBorei indicates the equivalent DWV size. If exact measurements are required, please contact our sales team.

Please contact our sales team if there is any items required which are not shown in this catalogue. We are also able to source and supply a wide range of associated products such as valves and non-standard flanges etc.

If you require further technical information or assistance please contact Caleb Morren, Technical Sales Manager (08) 9238 8000. Whilst every effort has been made to ensure the accuracy of the information provided, no responsibility is accepted for errors or omissions.



Drainage Pipe

Pipe Size mm	Nominal Bore	Code	Pack Qty
50	40	300005	10
56	50	300006	10
63	50	300007	10
75	65	300009	10
90	80	300011	10
110	100	300013	10
125	115	300015	5
160	150	300017	5
200	185	300019	4
250	225	300021	2
315	300	300023	1



Drain EF Coupling

Fitting Size mm	Nominal Bore	Code	Box Qty
50	40	350003	10
56	50	350004	10
63	50	350005	10
75	65	350007	10
90	80	350009	10
110	100	350011	10
125	115	350013	5
160	150	350015	5



88.5° Bend

Fitting Size mm	Nominal Bore	Code	Box Qty
50	40	304003	5
56	50	304004	15
63	50	304005	15
75	65	304007	15
90	80	304009	10
110	100	304011	15
125	115	304013	10
160	150	304015	1



Drain EF Coupling (Large ø)

Fitting Size mm	Nominal Bore	Code	Box Qty
200	185	20140200	4
250	225	20140250	2
315	300	20140315	1



90° Segmented Bend

Fitting Size mm	Nominal Bore	Code	Box Qty
200	185	304017	1
250	225	304021	1
315	300	304023	1



45° Bend

Fitting Size mm	Nominal Bore	Code	Box Qty
50	40	306005	15
56	50	306006	15
63	50	306007	15
75	65	306009	10
90	80	306011	15
110	100	306013	10
125	115	306015	10
160	150	306017	1



30° Bend

Fitting Size mm	Nominal Bore	Code	Box Qty
110	100	302013	1
160	150	302017	1



45° Segmented Bend

Fitting Size mm	Nominal Bore	Code	Box Qty
200	185	306019	1
250	225	306021	1
315	300	306023	1



15° Bend

Fitting Size mm	Nominal Bore	Code	Box Qty
110	100	301542	1
160	150	301550	1



60° Segmented Bend

Fitting Size mm	Nominal Bore	Code	Box Qty
110	100	303411	1
125	115	303413	1
160	150	303415	1
200	185	303417	1
250	225	303419	1
315	300	303421	1



15° Segmented Bend

Fitting Size mm	Nominal Bore	Code	Box Qty
110	100	303111	1
125	115	303113	1
160	150	303115	1
200	185	303117	1
250	225	303119	1
315	300	303121	1



30° Segmented Bend

Fitting Size mm	Nominal Bore	Code	Box Qty
110	100	303211	1
125	115	303213	1
160	150	303215	1
200	185	303217	1
250	225	303219	1
315	300	303221	1



5° Segmented Bend

Fitting Size mm	Nominal Bore	Code	Box Qty
110	100	303011	1
125	115	303013	1
160	150	303015	1
200	185	303017	1
250	225	303019	1
315	300	303021	1



45° Junction

Fitting Size mm	Nominal Bore	Code	Box Qty
50 x 50	40 x 40	309005	30
56 x 50	50 x 40	310006	30
56 x 56	50 x 50	309006	30
63 x 50	50 x 40	310007	30
63 x 56	50 x 50	310008	30
63 x 63	50 x 50	309007	30
75 x 50	65 x 40	310011	30
75 x 56	65 x 50	310012	30
75 x 63	65 x 50	310014	30
75 x 75	65 x 65	309009	20
90 x 50	80 x 40	310015	20
90 x 56	80 x 50	310006	20
90 x 63	80 x 50	310018	20
90 x 75	80 x 65	310010	20
90 x 90	80 x 80	309011	20
110 x 50	100 x 40	310019	20
110 x 56	100 x 50	310020	20
110 x 63	100 x 50	310021	20
110 x 75	100 x 65	310023	20
110 x 90	100 x 80	310025	20
110 x 110	100 x 100	309013	10
125 x 110	115 x 100	310037	10
125 x 125	115 x 115	309015	10
160 x 110	150 x 100	310039	5
160 x 125	150 x 115	310041	5
160 x 160	150 x 150	309017	5



45° Fabricated Junction

Fitting Size mm	Nominal Bore	Code	Box Qty
200 x 110	185 x 100	310043	1
200 x 125	185 x 115	310045	1
200 x 160	185 x 150	310047	1
200 x 200	185 x 185	309019	1
250 x 110	225 x 100	310049	1
250 x 125	225 x 115	310051	1
250 x 160	225 x 150	310053	1
250 x 200	225 x 185	310055	1
250 x 250	225 x 225	309021	1
315 x 110	300 x 100	310057	1
315 x 125	300 x 115	310059	1
315 x 160	300 x 150	310061	1
315 x 200	300 x 185	310063	1
315 x 250	300 x 225	310065	1
315 x 315	300 x 300	309023	1



45° Double Junction

Fitting Size mm	Nominal Bore	Code	Box Qty
110 x 110	100 x 100	314005	10



88.5° Junction

Fitting Size mm	Nominal Bore	Code	Box Qty
50 x 50	40 x 40	312005	30
56 x 50	50 x 40	313002	30
56 x 56	50 x 50	312006	30
63 x 50	50 x 40	313012	30
63 x 56	50 x 50	313032	30
63 x 63	50 x 50	312007	30
75 x 50	65 x 40	313005	30
75 x 56	65 x 50	313006	30
75 x 63	65 x 50	313010	30
75 x 75	65 x 65	312009	20
90 x 50	80 x 40	313009	20
90 x 56	80 x 50	310006	20
90 x 63	80 x 50	313028	20
90 x 75	80 x 65	313036	20
90 x 90	80 x 80	312011	20
110 x 50	100 x 40	313013	20
110 x 56	100 x 50	313014	20
110 x 63	100 x 50	313015	20
110 x 75	100 x 65	313017	20
110 x 90	100 x 80	313019	20
110 x 110	100 x 100	312013	10
160 x 110	150 x 100	313023	5
160 x 160	150 x 150	312017	5



88.5° Fabricated Junction

Fitting Size mm	Nominal Bore	Code	Box Qty
200 x 110	185 x 100	313027	1
200 x 125	185 x 115	313029	1
200 x 160	185 x 150	313031	1
200 x 200	185 x 185	312019	1
250 x 110	225 x 100	313033	1
250 x 125	225 x 115	313035	1
250 x 160	225 x 150	313037	1
250 x 200	225 x 185	313039	1
250 x 250	225 x 225	312021	1
315 x 110	300 x 100	313041	1
315 x 125	300 x 115	313043	1
315 x 160	300 x 150	313045	1
315 x 200	300 x 185	313047	1
315 x 250	300 x 225	313049	1
315 x 315	300 x 300	312023	1



88.5° Swept Junction

Fitting Size mm	Nominal Bore	Code	Box Qty
110 x 110	100 x 100	312025	10



88.5° Double Junction

Fitting Size mm	Nominal Bore	Code	Box Qty
110 x 110	100 x 100	318005	10

Note: Larger diameters fabricated to order.



Expansion Socket

Fitting Size mm	Nominal Bore	Code	Box Qty
50	40	328003	15
56	50	328004	15
63	50	328005	15
75	65	328007	10
90	80	328009	15
110	100	328012	10
160	150	328015	1
200	185	328017	1
250	225	328019	1
315	300	328021	1



Horizontal Inspection Access Pipe

Fitting Size mm	Nominal Bore	Code	Box Qty
50	40	348003	1
56	50	348004	1
63	50	348005	1
75	65	348007	1
90	80	348009	1
110 Hertz.	100	348011	1
110 Vert.	100	348011B	1
160 x 110	150 x 100	348014	1
160 x 160	150 x 150	348015	1



Ring Seal Socket

Fitting Size mm	Nominal Bore	Code	Box Qty
50	40	324003	30
56	50	324004	20
63	50	324005	20
75	65	324007	20
90	80	324009	15
110	100	324011	10
160	150	324015	10
200	185	324017	1
250	225	324019	1
315	300	324021	1

Note: Larger diameters fabricated to order.



Palazzi Trap

Fitting Size mm	Nominal Bore	Code	Box Qty
110 x 56	100 x 50	811056	1
110 x 63	100 x 50	811063	1
110 x 75	100 x 65	811075	1
110 x 110	100 x 100	811110	1
160 x 110	150 x 100	811161	1
160 x 160	150 x 150	811160	1



P Trap - Fixed Style

Fitting Size mm	Nominal Bore	Code	Box Qty
50	40	855258	10
56	50	856518	10
63	50	856519	10
75	65	857528	10
90	80	859538	10
110	100	860548	10
160	150	860550	5



P Trap - Adjustable Style

Fitting Size mm	Nominal Bore	Code	Box Qty
50	40	845258	10
56	50	846518	10
63	50	846519	10
75	65	847528	10
90	80	849538	10
90 x 75	80 x 65	849538P	10
110	100	850548	10
110 x 75	100 x 65	850548P	10
160	150	850550	5



S&P Combination Trap

Fitting Size mm	Nominal Bore	Code	Box Qty
56	50	320150B	20



Eccentric Reducer

Fitting Size mm	Nominal Bore	Code	Box Qty
56 x 50	50 x 40	358002	30
63 x 50	50 x 40	358005	30
63 x 56	50 x 50	358006	30
75 x 50	65 x 40	358009	30
75 x 56	65 x 40	358010	30
75 x 63	65 x 50	358011	30
90 x 50	65 x 50	358015	20
90 x 56	80 x 50	358016	20
90 x 63	80 x 50	358017	20
90 x 75	80 x 65	358019	20
110 x 50	100 x 40	358023	20
110 x 56	100 x 40	358024	20
110 x 63	100 x 50	358025	20
110 x 75	100 x 65	358027	20
110 x 90	100 x 80	358029	20
125 x 110	115 x 100	358031	10
160 x 110	150 x 100	358038	5
160 x 125	150 x 115	358039	5
200 x 110*	185 x 100	358045	1
200 x 160*	185 x 150	358049	1
250 x 160*	225 x 150	358050	1
250 x 200*	225 x 185	358055	1
315 x 200*	300 x 185	358061	1
315 x 250*	300 x 225	358063	1

Note: * Sizes 200, 250 & 315 are Fabricated.
110mm In-Pipe Reducers are also available.



Concentric Reducer

Fitting Size mm	Nominal Bore	Code	Box Qty
56 x 50	50 x 40	336002	30
63 x 50	50 x 40	336005	30
63 x 56	50 x 50	336006	30
75 x 50	65 x 40	336007	30
75 x 56	65 x 50	336010	30
75 x 63	65 x 50	336011	30
90 x 50	80 x 40	336015	20
90 x 56	80 x 50	336016	20
90 x 63	80 x 50	336017	20
90 x 75	80 x 65	336019	20
110 x 50	100 x 40	336023	20
110 x 56	100 x 50	336024	20
110 x 63	100 x 50	336025	20
110 x 75	100 x 65	336027	20
110 x 90	100 x 80	336029	20
160 x 110	150 x 100	336041	5



In-Pipe Adaptor

Fitting Size mm	Nominal Bore	Code	Box Qty
110	100	MP1100	1



Bucket Trap

Fitting Size mm	Nominal Bore	Code
250 x 110	225 x 100	BT25011
250 x 160	225 x 150	BT25016

- Note:**
- Inlets or adaptors to DWV welded into order.
 - Includes Standard 5mm Stainless Steel Grate.
 - Anti-skid coating available on request.



Type A



Type C

Stainless Steel Basket

Type	Description	Code
A - Fully Perforated	For Sand + Silt Etc	SSB25A
C - Solid Bottom	For Food Prep Areas Etc	SSB25C



WC Pan Collar

Fitting Size mm	Nominal Bore	Code	Box Qty
110	100	352003	1



Weld On End Cap

Fitting Size mm	Nominal Bore	Code	Box Qty
50	40	340625	10
56	50	340626	10
63	50	340627	10
75	65	340628	10
90	80	340629	10
110	100	340630	10
125	115	340631	1
160	150	340633	1
200	185	340634	1
250	225	340635	1
315	300	340636	1



Male Thread Adaptor

Fitting Size mm	Nominal Bore	Code	Box Qty
50	40mm (1½")	23545040	1
56	50mm (2")	23545650	1
63	50mm (2")	23546350	1
75	65mm (2½")	23547565	1
90	80mm (3")	23549080	1
110	100mm (4")	23541110	1



Stop End Complete

Fitting Size mm	Nominal Bore	Code	Box Qty
50	40	340003	15
56	50	340004	15
63	50	340005	15
75	65	340007	10
90	80	340009	15
110	100	340011	10
160	150	340016	1



Nut & Tail

Fitting Size mm	Thread Size	Code	Box Qty
50	1½"	924757	1
50	2"	924758	1
56	1½"	924759	1
56	2"	924760	1
63	2"	924761	1



4 Way Riser 88.5°

Fitting Size mm	Nominal Bore	Box Code	Qty
90 x 63 x 50	80 x 50 x 40	318710	10
110 x 56 x 50	100 x 50 x 40	318712	10
110 x 56	100 x 50	318715	10
110 x 63	100 x 50	318719	10
110 x 63 x 50	100 x 50 x 40	318720	10
110 x 75 (3-Way)	100 x 65	318721	10



DWV to HDPE Adaptor

DWV Size mm	HDPE Size	Code	Box Qty
40	*50	325040	1
50	50	325050	1
40	56	325640	1
50	*56	324004D	1
50	*63	326350	1
65	63	326365	1
65	*75	327565	1
80	75	327580	1
80	*90	329080	1
100	*110	324011D	1
150	*160	324015D	1
175	*200	324017D	1
225	*250	324019D	1
300	*315	324021D	1

Note: 1. Flow from DWV to HDPE
2. * HDPE Drain EF Coupling required



HDPE to DWV Adaptor

HDPE Size mm	DWV Size	Code	Box Qty
110	100	321011	1
160	150	321516	1

Note: Flow from HDPE to DWV



Copper to HDPE Rubber Grommit Adaptor

Copper Size mm	HDPE Size	Code	Box Qty
40	50	334005	1
50	63	334009	1

Note: Flow from Copper to HDPE



Copper to HDPE Adaptor

Copper Size mm	HDPE Size	Code	Box Qty
50	*50	324003C	1
50	*56	335650	1
65	*63	336365	1
65	*75	337565	1
80	*75	337580	1
80	*90	339080	1
100	*100	331110	1

Note: 1. Flow from Copper to HDPE
2. * HDPE Drain EF Coupling required



Nut Clip

Clip (OD)	Code	Box Qty
50	305004	15
56	305005	15
63	305006	15
75	305007	10
90	305008	15
110	305009	10
125	305010	10
160	305011	1
200	305012	1
250	305013	1
315	305014	1



Puddle Flange

Fitting Size mm	Nominal Bore	Code	Box Qty
50	40	344050	1
56	50	344056	1
63	50	344063	1
75	65	344075	1
90	80	344090	1
110	100	344110	1
160	150	344160	1
200	175	344200	1
250	225	344250	1
315	300	344315	1

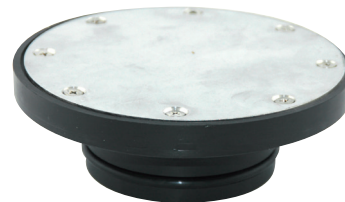
Note: Non-Standard Puddle Flanges made to order.



Floor Grate - Drop in Style

Fitting Size mm	Nominal Bore	Code	Box Qty
110	100	321103	1
160	150	321603	1

Note: Comes standard with 2mm plain finish stainless steel grate. Anti-slip coating available on request.



Bolted Tap Screw - Drop in Style

Fitting Size mm	Nominal Bore	Code	Box Qty
110	100	321105	1
160	150	321605	1

Note: Comes standard with 2mm plain finish stainless steel grate. Anti-slip coating available on request.



Stub Flange Adaptor

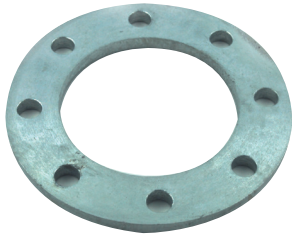
Fitting Size mm	Nominal Bore	Code	Box Qty
50	40	4416 0050	15
56	50	4416 0056	15
63	50	4416 0063	15
75	65	4416 0075	10
90	80	4416 0090	10
110	100	4416 0110	10
125	115	4416 0125	10
160	150	4416 0160	1
200	185	4416 0200	1
250	225	4416 0250	1
315	300	4416 0315	1



Bolt Sets - Table D Steel Flange Connection

HDPE Flange Size mm	Steel Flange Size Metric	Max. Flange Thickness*	Code Galvanised M/S
50	40	14	9661 0050
56	50	15	9661 0056
63	50	16	9661 0063
75	65	24	9661 0075
90	80	20	9661 0090
110	100	40	9662 0110
125	125	40	9662 0125
160	150	30	9662 0160
200	200	36	9662 0200
250	250	38	9662 0250
315	300	36	9662 0315

Note: Also available in stainless steel



GMS Table D Backing Flange

Fitting Size mm	Nominal Flange Size	Nominal Inch Size	Code
50	40	1½"	5441 0050
56	50	2"	5441 5663
63	50	2"	5441 0063
75	65	2½"	5441 0075
90	80	3"	5441 0090
110	100	4"	5441 0110
125	100	4"	5441 4125
125	125	5"	5441 5125
160	150	6"	5441 0160
200	200	8"	5441 0200
250	250	10"	5441 0250
315	300	12"	5441 0315



Gasket - Full Face 3mm Rubber Insertion

Fitting Size mm	Nominal Bore	Code	Box Qty
50	40	9685 0050	1
56	50	9685 0056	1
63	50	9685 0063	1
75	65	9685 0075	1
90	80	9685 0090	1
110	100	9685 0110	1
125	115	9685 0125	1
160	150	9685 0160	1
200	185	9685 0200	1
250	225	9685 0250	1
315	300	9685 0315	1



Electrofusion Welding Machine

Size Range mm	Code
50 - 160	700160



Acu-Tech Polyweld Wipes

Product	Qty	Code	Box Qty
Wipes	75 Wipes	946666	15



Electrofusion Welding Machine

Size Range mm	Code
200 - 400	700630



Pipe Scraper

Product	Size mm	Code	Box Qty
Scraper	50 x 315	947777	15

Clipping Methods · Installation Guide

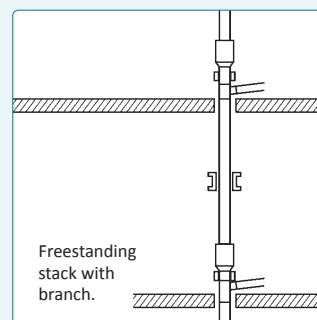
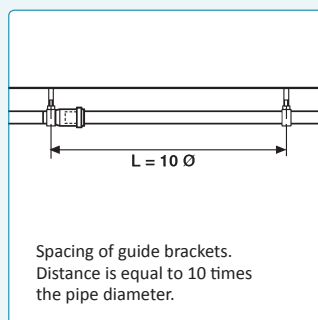
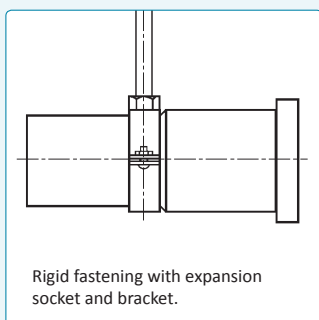
Like all materials HDPE expands and contracts with temperature changes. HDPE expands by 0.2mm per metre for every degree C increase in temperature. The installation of expansion sockets on each floor of a vertical stack, at no more than 5 metres apart on horizontal runs and upstream of each junction fitting or change of direction compensates for expansion and contraction.

Expansion sockets should be bracketed rigidly to prevent any movement of the expansion socket.

In addition, to allow axial movement caused by the effects of expansion and contraction, loose guide brackets are used at no more than 10 pipe diameters apart and from the expansion joint.

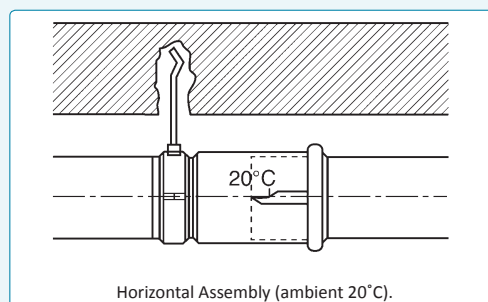
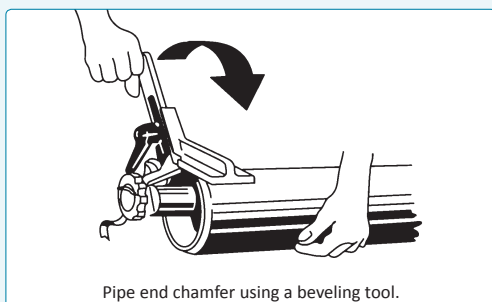
For a vertical stack one rigid bracket is located at the expansion joint and one guide bracket is located between the expansion joint and the branch.

Installers should also refer to the requirements of AS/NZS 3500.2:2003 "Sanitary Plumbing & Drainage."



Expansion Socket · Installation Guide

1. Chamfer the pipe end to be inserted to approximately 15 degrees.
2. Lubricate the pipe end with soft soap or other suitable lubricant. Do not use oil or grease.
3. Insert pipe to the depth indicated on the expansion socket which for an ambient temperature of 20 degrees C is a depth of 105mm or 2/3 of the depth of the socket approximately.



Buried HDPE Drainage · Installation Guide

Polyethylene pipes can also be used in several underground applications. Installation should follow the requirements of AS/NZS 2566.2:2002 "Buried Flexible Pipelines" and AS/NZS 3500.2:2003 "Sanitary Plumbing & Drainage," and the requirements of local authorities.

Particular attention must be paid to the trench which is to hold the pipes and it should be carried out with the recommended sizes as illustrated below.

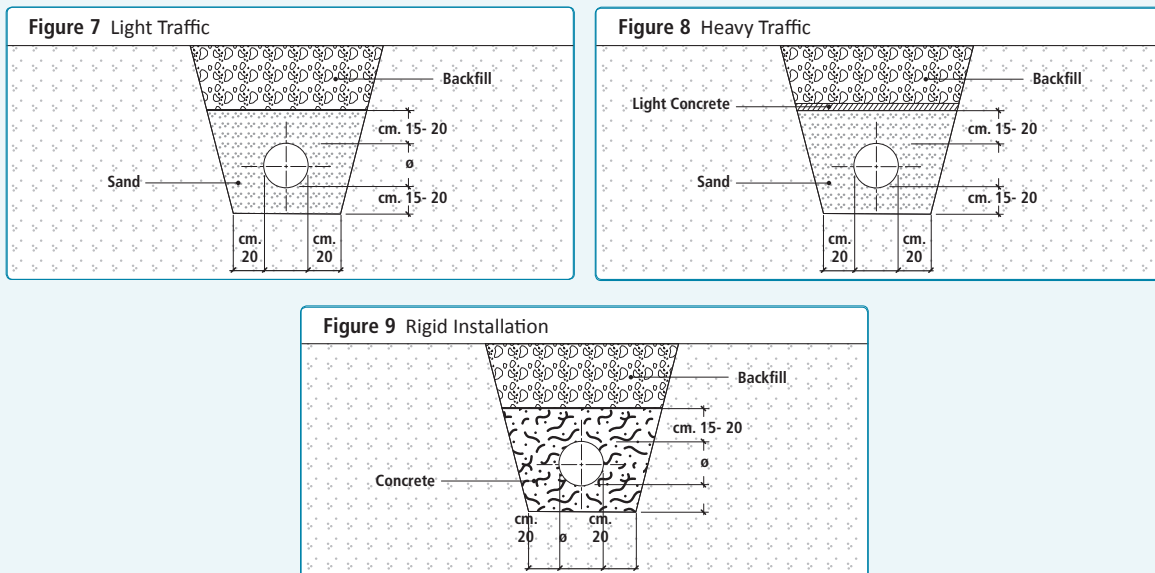
The bed of the trench where the pipe is to be laid must be completely flat and should be free from stones or sharp objects. The pipe bedding material needs to be a minimum of 10cm of sand to provide a continuous support along the whole length of the pipe. The first 15-20cm of cover over the pipe should be of the same material. The cover must be compressed to prevent pipe movement. Sand compacting should be carried out immediately after the pipe has been covered.

The depth of the trench will depend on the presence of heavy vehicles or also the possibility of freezing temperatures.

For calculation the following indications in Figures 7 to 10, the official guidelines, standards and regulations should be observed.

A minimum of 80cm must cover the top of the pipe (see Figure 7); if heavy vehicles are to pass over the top it is recommended to cover the layer of sand with light concrete casting in order to evenly distribute the ground pressure (see Figure 8). If two or more pipes are to be laid in the same trench, they should not come into contact. A distance of 10 to 15 cm should be left between the two pipes to allow for future maintenance work. This space should be filled with sand and compacted on both sides at the same time. The examples indicated represent normal laying conditions. Figure 9 shows a trench where the pipe is covered with concrete; here the behaviour of the pipeline will be rigid and will not undergo deformations; whereas Figures 7 and 8 represent flexible installations.

In underground installations, the ambient temperature is fairly stable and the fluid temperatures from many inlets have usually mixed and stabilised through the above ground pipe work. Expansion sockets therefore may not be required.



Fire Protection · Installation Guide

HDPE is not self-extinguishing and therefore fire stops must be installed in accordance with the relevant standard.

Electrofusion Welding · Installation Guide



1 Cut pipe square using a proper pipe cutter or a hand mitre saw.

2 Using a HDPE pipe scraper, scrape the pipe ends (or the fittings to be welded) in order to remove the oxide layer. It is critical to ensure that the scrapes overlap, and that all the oxide layer is completely removed. Scratching or abrading is not sufficient, and will affect joint integrity.

3 Remove burrs on the pipe end using the scraper. Clean the pipe ends and fittings using disposable Acu-Tech Welding Wipes and ensure that pipe and fittings are completely dry before assembly.

4 Insert pipe or fitting end in to the electrofusion coupling. Make sure that the pipes/ fittings are straight and there is no moisture present. Plug EF welding machine into mains power or start generator before switching the EF welder on. It is also important to ensure that the EF welder is protected from power surges.

5 Connect leads from EF welder to the EF coupling and start the welding process by pushing the button. Detailed instructions on the use of the EF welder can be found in the case.

6 When the EF welder stops, remove the leads. Visually check the EF coupling to ensure that the indicators have come out, or the white welding indicator has turned grey, depending on the brand. Also ensure that the pipe has not moved during the weld.

7 Allow 10-15 minutes cool time before putting any strain on the welded joint.



HDPE Fabrication > With a fully equipped plastic fabrication workshop and experienced and qualified operators, Acu-tech Piping Systems fabricates spools and components from pipe and sheet to client specifications. We also offer an on-site welding service for PE pipelines and tanks.



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