

PE PRESSURE SYSTEMS

SPECIFICATION AND INSTALLATION GUIDE





The Iplex® vision is to be the leading manufacturer and supplier of plastic building materials in New Zealand.

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Iplex Blueline®

- Manufactured in accordance with AS/NZS 4130
- PN12.5 pressure rating
- Available in coils of 25m, 50m and 100m lengths
- Compatible with Plasson Line 7 or Plasson Series One mechanical fittings

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Iplex Blackline™

- Manufactured in accordance with AS/NZS 4130
- PN16 pressure rating
- Available in coils of 25m, 50, and 100m lengths
- Compatible with Plasson Line 7 or Plasson Series One mechanical fittings



Iplex Blackline™ HP

- Manufactured in accordance with AS/NZS 4130
- Available in a PN20 or PN25 pressure rating
- Available in coils of 50m or 100m lengths
- Compatible with Blackline™ HP ductile iron mechanical fittings



Iplex Poliplex®

- Manufactured in accordance with AS/NZS 4130
- Available in various pressure ratings, subject to pipe diameter
- Available in various pipe lengths, subject to pipe diameter and pipe PN class
- Ability to offer PE 100 high stress crack resistant (HSCR) resin

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Iplex Plasson Line 7 Fittings

- Compatible with Iplex BlueLine®, Iplex Blackline™, Iplex Greenline™, Iplex Redline® and Iplex PE Effluent



Iplex Plasson Series 1 Fittings

- Push-fit joint style
- Compatible with Iplex BlueLine®, Iplex Blackline™, Iplex Greenline™, Iplex Redline® and Iplex PE Effluent



Iplex Blackline™ HP Ductile Iron Fittings

- Compatible with Iplex Blackline™ HP PN20 and PN25
- Adaptable by either flange or threaded joints to other types of pipes, pumps and valves

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Iplex Mobile Extrusion

- Manufactured in accordance with AS/NZS 4130
- Available in various pressure ratings, subject to pipe diameter
- Available in various pipe lengths, subject to pipe diameter and pipe PN class
- The Iplex Mobile Extrusion plant has the ability to be moved on site

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Trenchless or Trench Installation

Summary of best practice trenchless and open-cut trench installation

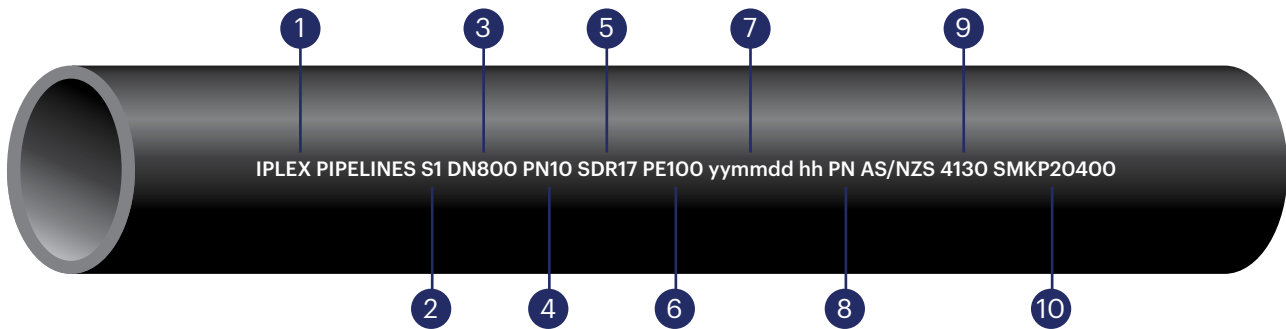
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Trenchless or Trench Installation

- Consult the 'PolyPete - How I Install PE Pipes' and 'PolyPete - How I Field Test PE Pipes' for more information on best practice trench installation (found in the resources section of the Iplex website)
- Consult Australasian Society for Trenchless Technology (ASTT) website for information on best practice trenchless installation

UNDERSTANDING PIPE CODES - EXAMPLE



- | | |
|------------------------------|---|
| 1 Company name | 6 Material Type |
| 2 Pipe Series Number | 7 Date and Hour of Manufacture |
| 3 Nominal Outside Diameter | 8 Location of Manufacture (PN = Palmerston North) |
| 4 Pressure/PN Rating | 9 Manufacturing Standard |
| 5 Standard Dimensional Ratio | 10 3rd Party Certification Licence Number |

PN TO PSI CONVERSION

Iplex typically measure the pressure ratings of pipelines in Pressure Nominal (PN) or Bar. The table below shows the PN pressure ratings of the Iplex PE pipes identified in this guide and their corresponding Pounds per Square Inch (PSI) rating.

PN/Bar Pressure Rating	PSI Pressure Rating
PN 6	87.0
PN 6.3	91.4
PN 9	130.5
PN 10	145.0
PN 12	174.0
PN 12.5	181.3
PN 15	217.6
PN 16	232.1
PN 18	261.1
PN 20	290.1

NOTES



IPLX PE 80

SECTION 1

IPLEX PE 80

IPLEX BLUELINE® PE 80 PRESSURE PIPE

Iplex BlueLine® is metric series PN12.5 polyethylene pressure pipe in the size range 20mm – 63mm OD, manufactured from PE80 material. Iplex BlueLine® is coloured black with co-extruded light blue jacket and is available in coils of 25, 50 and 100 metre lengths.

Product Code:

- 2500 Series
-

Specification

Iplex BlueLine® is manufactured in accordance with AS/NZS 4130 “PE Pipes for Pressure Applications” using precompounded materials conforming to AS/NZS 4131 “PE Compounds for Pressure Pipes and Fittings”.

Listed in PIPA Technical Guideline POP004 - Polyethylene Pipe and Fittings compounds. (Refer to pipa.com.au)

(StandardsMark Licence number SMKP20400)

Applications

Iplex BlueLine® pressure pipes are suitable for the following applications:

- Water distribution for town, rural and irrigation projects
- Rider mains & for urban water supply
- Cold water plumbing reticulation
- Household service lateral water connections from the main supply

Installation

Jointing:

Iplex BlueLine® can be joined using mechanical compression fittings complying with AS/NZS 4129 such as the Plasson Line 7 and Plasson Series 1 ranges.

Plasson Mechanical Compression Fittings:

For ‘Plasson Compression Fitting Assembly Instructions and ‘Plasson Series 1 Compression Fittings— Product and Technical Catalogue’ refer to section 3 of this guide.

Electrofusion Jointing:

Iplex BlueLine® can also be joined with compatible electrofusion fittings. Refer to the PIPA Guidelines for electrofusion procedures www.pipa.com.au.

Design & Installation Standards:

Iplex BlueLine® pipe should be installed in accordance with the following Standards:

- AS/NZS 2566 Part 1 and Supplement “Buried Flexible Pipelines - Structural Design” Detailed Installation and Site Pressure Testing.
- AS/NZS 2566 Part 2 “Installation.
- AS/NZS 2033 Installation of Polyethylene Pipe Systems.

For more information on best practice installation and field testing procedures please consult the ‘PolyPete - How I install PE pipes’ and ‘PolyPete - How I Pressure test PE pipes’ guide (refer to www.iplex.co.nz/iplex-resources/).

SECTION 1

IPLEX PE 80

IPLEX BLUELINE® PRODUCT RANGE

Pressure Class			PN12.5 SDR11	
Nominal Size DN	Min O.D. (mm)	Max O.D. (mm)	Mean Wall (mm)	Mean ID (mm)
20	20.0	20.3	2.0	16.1
25	25.0	25.3	2.5	20.1
32	32.0	32.3	3.1	25.9
40	40.0	40.4	3.9	32.4
50	50.0	50.5	4.9	40.4
63	63.0	63.6	6.1	51.1



Iplex BlueLine® PE80 pressure pipe.

NOTES



IPLX PE100

IPLEX BLACKLINE™ PE 100 PRESSURE PIPE

Iplex Blackline™ is metric series PE 100 PN16 polyethylene pressure pipe, including metric OD sizes from 25mm to 110mm for pressure water applications. Iplex Blackline™ pipe is coloured black with blue multistripe and is available in coil sizes 25, 50 and 100 metre lengths.

Product Code:

- 3500 BMS
-

Specification

Iplex Blackline™ is manufactured in accordance with AS/NZS 4130 "PE Pipes for Pressure Applications" using precompounded PE 100 materials conforming to AS/NZS 4131 "PE Compounds for Pressure Pipes and Fittings".

Listed in PIPA Technical Guideline POP004 - Polyethylene Pipe and Fittings compounds. (Refer to pipa.com.au)

(StandardsMark Licence number SMK20400)

Applications

Iplex Blackline™ may be used for:

- Pressure water applications including;
- Water distribution for town, rural stock water supply and irrigation projects
- Rider mains for urban water supply
- Household water connections from the main supply
- Compressed air lines Subject to special design and pipe pressure class rating - contact Iplex Pipelines for assistance, and refer to PIPA Technical Guideline POP002 - Polyethylene (PE) Pipes and Fittings for Compressed Air. (Refer to pipa.com.au)

Installation

Design & Installation Standards:

Iplex Blackline™ pipes should be designed and installed in accordance with the following Standards:

- AS/NZS 2566 Part 1 and Supplement "Buried Flexible Pipelines – Structural Design" Detailed Installation and Site Pressure Testing;
- AS/NZS 2566 Part 2 "Installation"
- AS/NZS 2033 Installation of polyethylene pipe systems

Plasson Mechanical Compression Fittings:

For 'Plasson Compression Fitting Assembly Instructions and 'Plasson Series 1 Compression Fittings—Product and Technical Catalogue' refer to section 3 of this guide.

Electrofusion Jointing:

Iplex Blackline™ can also be joined with compatible electrofusion fittings. Refer to the PIPA Guidelines for electrofusion procedures pipa.com.au.

For more information on best practice installation and field testing procedures please consult the 'PolyPete - How I install PE pipes' and 'PolyPete - How I Pressure test PE pipes' guide (refer to www.iplex.co.nz/iplex-resources/).

SECTION 2

IPLEX PE 100

IPLEX BLACKLINE™ PRODUCT RANGE

Pressure Class			PN16	
			SDR11	
Nominal Size DN	Min O.D. (mm)	Max O.D. (mm)	Mean Wall (mm)	Mean ID (mm)
25	25.0	25.3	2.5	20.1
32	32.0	32.3	3.1	25.9
40	40.0	40.4	3.9	32.4
50	50.0	50.5	4.9	40.4
63	63.0	63.3	6.1	51.1
75	75.0	75.7	7.2	60.9
90	90.0	90.9	8.7	73.5
110	110.0	111.0	10.5	89.5



Iplex Blackline™ PE 100 pressure pipe.

IPLEX BLACKLINE™ HP PE 100 PRESSURE PIPE

The Iplex Blackline™ HP system is a range of PE 100 polyethylene pipe and associated ductile iron mechanical fittings, designed to operate up to 20 bar or 25 bar. (PN20 or PN25). Iplex Blackline™ HP is manufactured in metric OD sizes 63mm, 90mm and 110mm and coil lengths of 50-metre or 100-metre.

Product Code:

- 3500 B

Specification

Iplex Blackline™ HP is manufactured in accordance with AS/NZS 4130 "PE Pipes for Pressure Applications" using pre-compounded PE 100 materials conforming to AS/NZS 4131 "PE Compounds for Pressure Pipes and Fittings".

Listed in PIPA Technical Guideline POP004 - Polyethylene Pipe and Fittings compounds. Refer to pipa.com.au.

(StandardsMark Licence number SMK20400)

Iplex Blackline™ HP ductile iron fittings are manufactured using a Quality Management System accredited to AS/NZS ISO9001

Applications

Iplex Blackline™ HP may be used for:

- Pressure water applications
- Hill country rural stock water applications

Installation

Design & Installation Standards:

Iplex Blackline™ HP pipes should be designed and installed in accordance with the following Standards:

- AS/NZS 2566 Part 1 and Supplement "Buried Flexible Pipelines – Structural Design" Detailed Installation and Site Pressure Testing;
- AS/NZS 2566 Part 2 "Installation"
- AS/NZS 2033 Installation of polyethylene pipe systems

Joining:

Iplex Blackline™ HP PN20 and PN25 can be joined using Iplex Blackline™ HP Ductile Iron mechanical fittings. Combining Iplex Blackline™ HP pipe and Iplex Blackline™ HP fittings provides farmers with an alternative to equivalent size threaded joint metal pipes for up to 25 bar applications.

Coil lengths:

Iplex Blackline™ HP pipe is supplied in 50-metre and 100-metre coils.

Bloat Treatments:

Iplex Blackline™ HP is suitable for use with in-line, anti-bloat agents used with in-line dispensing systems.

Fittings Adaptability:

Iplex Blackline™ HP mechanical fittings adaptable to either flanged or threaded joints, for coupling to other types of pipes, pumps and valves.

For more information on best practice installation and field testing procedures please consult the 'PolyPete - How I install PE pipes' and 'PolyPete - How I Pressure test PE pipes' guide (refer to www.iplex.co.nz/iplex-resources/).

SECTION 2

IPLEX PE 100

IPLEX BLACKLINE™ HP PRODUCT RANGE

Product Code	Nominal Size (mm)	Pressure Rating Bar	Coil Length (m)
3500.63PN20.50B	63	20	50
3500.63PN20.100B	63	20	100
3500.90PN20.50B	90	20	50
3500.90PN20.100B	90	20	100
3500.110PN20.50B	110	20	50
3500.110PN20.100B	110	20	100
3500.63PN25.50B	63	25	50
3500.63PN25.100B	63	25	100
3500.90PN25.50B	90	25	50
3500.90PN25.100B	90	25	100
3500.110PN25.50B	110	25	50
3500.110PN25.100B	110	25	100



Iplex Blackline™ HP PE 100 pressure pipe.

SECTION 2

IPLEX PE 100

IPLEX POLIPEX® PE 100 PRESSURE PIPE

Iplex PoliPEX® is a range of metric series PE 100 polyethylene pressure pipe, including metric OD sizes from 75mm to 1200mm for pressure water applications.

High Stress Crack Resistant (HSCR) Resin

Subject to confirmation from Iplex Pipelines NZ Limited, alternative PE100 grades can be offered to suit the specific requirements of projects – such as PE100 HSCR resin.

Product Codes:

- 3500 Series
 - 3500 CX Blue
-

Specification

Iplex PoliPEX® is manufactured in accordance with AS/NZS 4130 'PE Pipes for Pressure Applications' using precompounded PE materials conforming to AS/NZS 4131 'PE Compounds for Pressure Pipes and Fittings' listed in PIPA Technical Guide POP004 - Polyethylene Pipe and Fittings compounds. (Refer to pipa.com.au)

(StandardsMark Licence number SMK20400.)

High Stress Crack Resistant Resin (HSCR):

- Complies with AS/NZS 4131
- Listed in PIPA POP004 Polyethylene Pipe and Fittings Compounds
- Meets the requirements of PIPA POP016 High Stress Crack Resistant PE100

Applications

Iplex PoliPEX® can be used for the following applications:

- Water distribution for town, rural and irrigation purposes
- Pressure sewer rising mains
- Submarine pipelines for ocean outfalls and under harbour pipelines
- Estuary and river crossings
- Above ground temporary and unrestrained pipelines
- Above ground fixed (restrained) pipe system
- Pipeline renovation liners
- Sleeve pipes for corrosion or mechanical protection
- Sub-soil drainage (when slotted)
- Dredge discharge lines
- Mine tailings disposal
- Trenchless installations, including horizontal directional drilling, pipe bursting and slip lining
- Landfill gas extraction

SECTION 2

IPLEX PE 100

IPLEX POLIPLEX® PE 100 PRESSURE PIPE

Installation

Joining Methods:

- Butt Fusion. The pipe ends are heated to melting point, then brought together in a Butt Fusion machine to form a homogeneous weld. The resulting joint is end load resistant and if installed correctly should perform under pressure similarly to the parent pipe.
- Electrofusion fittings. These employ an electrical heating coil incorporated inside a moulded socket. When energised from an electrofusion control box, the coil melts the adjacent material, causing the pipe and socket to fuse together.
- Butt Fusion / Flange combination

Design & Installation Standards:

Iplex Poliplex® pipe should be designed and installed in accordance with the following Standards and Guidelines.

- Buried Structural Design: AS/NZS 2566 Part 1 and supplement 1. "Buried Flexible Pipelines Structural Design"
- Detailed Installation and Site Pressure Testing: AS/ NZS 2566 Part 2 "Installation"
- AS/NZS 2033 Installation of polyethylene pipe systems

For more information on best practice installation and field testing procedures please consult the "PolyPete - How I Install PE Pipes " and "PolyPete - How I pressure test PE Pipes " guide (refer to www.iplex.co.nz/iplex-resources/).

Product Storage:

In direct hot sunlight, straight lengths of PE pipe may bow slightly due to uneven heating of individual pipe lengths. Rotation of bowed pipe by 180° in direct hot sunlight may assist with straightening.

Iplex recommends that coloured PE pressure pipes, (such as jacketed, striped or solid colours, but excluding solid black), are not stored in direct sunlight for more than 6 months from the date of manufacture. Coloured pipes held in storage for longer than 6 months should be shielded from direct sunlight, such as by covering with a breathable tarpaulin or storage inside a building.



Iplex Poliplex® PE 100 pressure pipe showing butt fusion welding.



Iplex Poliplex® PE 100 pressure pipe showing electro fusion welding.

SECTION 2

IPLEX PE 100

IPLEX POLIPLEX® PE 100 PRESSURE PIPE

Colour Options

Colour options may be subject to diameter, tooling availability, and minimum order quantity. Black (B) , Royal blue (CX Blue) jacket, cream (CX) jacket, Black with coloured stripes.



Fully black pipe, for **general applications**.



Dark blue jacket or stripes on black inner for **pressure drinking water applications**.



Cream jacket or stripes on black inner for **pressure wastewater applications**.



Purple jacket or stripes on black inner for **recycled or "grey" water applications**.



Light grey jacket or stripes on black inner for **gravity wastewater applications**.



SECTION 2

IPLEX PE 100

IPLEX POLIPLEX® PRODUCT RANGE

IPLEX POLIPLEX® Polythene Pipe Dimensions to AS 4130 Series 1 (mm)

			SDR41		SDR33		SDR26		SDR21		SDR17		SDR13.6		SDR11		SDR9		SDR7.4	
PN for PE100			4				6.3		8		10		12.5		16		20		25	
DN	Min O.D. (mm)	Max O.D. (mm)	Mean Wall	Mean I.D.	Mean Wall	Mean I.D.	Mean Wall	Mean I.D.	Mean Wall	Mean I.D.	Mean Wall	Mean I.D.	Mean Wall	Mean I.D.	Mean Wall	Mean I.D.	Mean Wall	Mean I.D.	Mean Wall	Mean I.D.
75	75	75.7	-	-	2.5	70.4	3.1	69.2	3.9	67.6	4.8	65.8	5.9	63.7	7.2	61.0	8.9	57.6	10.9	53.6
90	90	90.9	-	-	3.0	84.5	3.7	83.0	4.6	81.3	5.7	79.0	7.0	76.5	8.7	73.1	10.7	69.1	13.0	64.5
110	110	111	2.9	104.7	3.6	103.2	4.6	101.3	5.6	99.2	7.0	96.5	8.6	93.3	10.5	89.4	13.0	84.5	16.0	78.5
125	125	126.2	3.3	118.9	4.1	117.3	5.1	115.4	6.3	112.9	7.8	109.9	9.7	106.1	12.0	101.5	14.8	96.0	18.1	89.4
140	140	141.3	3.8	133.1	4.6	131.4	5.8	129.1	7.1	126.4	8.8	123.1	10.9	118.8	13.4	113.9	16.6	107.6	20.2	100.3
160	160	161.5	4.2	152.3	5.2	150.4	6.6	147.6	8.1	144.5	10.0	140.7	12.4	135.9	15.4	130.0	18.9	123.1	23.1	114.6
180	180	181.7	4.7	171.5	5.9	169.2	7.3	166.3	9.1	162.7	11.3	158.3	14.0	152.8	17.3	146.3	21.2	138.5	25.9	129.1
200	200	201.8	5.2	190.5	6.6	187.7	8.1	184.6	10.1	180.6	12.5	175.8	15.5	169.9	19.2	162.5	23.6	153.7	28.8	143.3
225	225	227.1	5.8	214.4	7.3	211.5	9.1	207.9	11.4	203.3	14.1	197.8	17.5	191.1	21.6	182.9	26.5	173.1	32.4	161.3
250	250	252.3	6.6	238.0	8.1	234.9	10.1	230.9	12.5	226.1	15.6	220.0	19.4	212.4	23.9	203.4	29.4	192.4	36.0	179.2
280	280	282.6	7.3	266.7	9.1	263.1	11.3	258.7	14.1	253.0	17.5	246.3	21.7	237.9	26.7	227.8	33.0	215.3	40.3	200.7
315	315	317.9	8.1	300.2	10.2	296.0	12.8	290.9	15.8	284.9	19.7	277.1	24.4	267.9	30.1	256.3	37.1	242.3	45.2	226.1
355	355	358.2	9.2	338.2	11.5	333.6	14.3	327.9	17.8	321.0	22.2	311.1	27.5	301.6	33.9	288.8	41.7	273.2	51.0	254.6
400	400	403.6	10.3	380.0	13.0	375.8	16.1	369.5	20.1	361.5	24.9	351.9	30.9	339.9	38.2	325.4	47.0	307.8	57.4	287.0
450	450	454.1	11.6	428.9	14.5	423.0	18.1	415.8	22.6	406.8	28.1	395.9	34.8	382.4	43.0	366.1	52.8	346.5	64.7	322.7
500	500	504.5	13.0	476.3	16.1	470.0	20.1	462.0	25.1	452.0	31.1	440.0	38.7	424.9	47.7	406.8	58.7	384.9	71.7	358.9
560	560	565	14.4	533.7	18.1	526.3	22.5	517.5	28.1	506.4	34.9	492.7	43.3	475.9	53.4	455.8	66.1	430.3	89.4	383.7
630	630	635.7	16.2	600.4	20.3	592.2	25.4	582.1	31.5	569.8	39.2	554.4	48.7	535.5	60.1	512.6	74.4	484.1	64.7	322.7
710	710	716.4	18.3	676.5	22.9	677.3	28.6	655.9	35.6	641.9	44.3	624.6	54.9	603.4	68.5	576.2	82.9	547.4	71.7	358.9
800	800	807.2	20.6	762.3	25.8	752.0	32.2	739.2	40.1	723.4	49.8	703.9	61.8	680.0	76.4	650.8	93.4	616.8	-	-
900	900	908.1	23.2	857.8	29.1	846.0	36.2	831.7	45.1	813.9	56.3	791.7	68.5	764.9	86.0	732.2	105.1	694.0	-	-
1000	1000	1009	25.8	952.9	32.2	940.1	40.2	924.1	50.2	904.1	62.4	879.7	77.3	852.3	95.5	813.5	116.7	771.1	-	-
1200	1200	1210	31.0	1143.1	38.6	1127.8	48.3	1108.4	60.2	1084.6	74.9	1062.3	92.8	1019.6	114.6	975.8	-	-	-	-
1400	1400	1410	36.2	1332.6	45.1	1314.8	56.0	1293.0	70.6	1264.8	87.1	1231.8	108.9	1188.8	134.7	1135.6	-	-	-	-
1600	1600	1610	41.2	1522.3	51.5	1502.0	64.7	1476.1	80.1	1444.8	98.9	1407.2	123.6	1357.8	-	-	-	-	-	-
1800	1800	1816.2	46.1	1712.7	58.3	1688.4	72.8	1662.8	90.1	1628.0	111.3	1585.6	139.1	1527.0	-	-	-	-	-	-
2000	2000	2018	51.3	1906.4	64.7	1879.4	80.8	1847.4	100.1	1808.9	123.6	1761.9	154.5	1696.1	-	-	-	-	-	-

- Available lengths are subject to PN class and maximum weight limits.
- For all Iplex Poliplex products 12 metre lengths or longer, freight costs are POA.
- 3500 series, 3100 series and 3500 ME series polyethylene products are not necessarily held in stock, and manufacture is subject to the quantity requested being viable to produce. Please contact Iplex NZ on 0800 800 262 for more information.

NOTES



IPLEX FITTINGS

SECTION 3

IPLEX PE FITTINGS

PLASSON LINE 7 PE COMPRESSION FITTINGS

Plasson Line 7 Fittings - Assembly Instructions (20mm - 63mm)

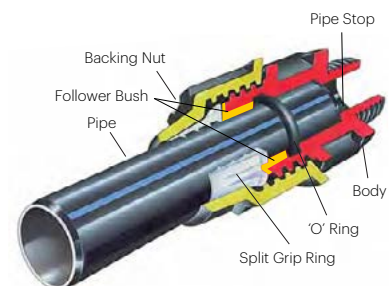
General Instructions

Follow these assembly Instructions for a secure connection.

- Ensure the pipe end to be inserted into the fitting, and the fitting itself, are both totally free of dirt, grit, scratches and any other damage
- **Do not overtighten the Backing Nut** when closing. NEVER use wrenches with handle lengths longer than 22cm – excessive torque during tightening can spread the Backing Nut cone and result in pullouts.
- If fittings are reused, ensure the Split Grip Ring is sharp and can bite into the pipe to avoid pull outs. Alternatively replace the Split Grip Ring.



20mm - 63mm



STEP 1

Cut the pipe square and remove burrs. It is good trade practice to chamfer (with a file or Plasson 2555 chamfering tool) and lubricate the pipe ends. (use Medlube or an approved equivalent). Chamfering and lubrication will ease insertion, particularly for sizes DN 40, DN 50 and DN 63, however these steps are optional.



STEP 2

Undo the nut up to the last thread. **Do not remove the Backing Nut** from the fitting body.



STEP 3

Twist the pipe into the fitting through the Backing Nut and through the Split Grip Ring until it meets the first resistance – pushing against the captive O-Ring. Then push and twist the pipe **through and past the O-ring** until it stops at the pipe stop inside the fitting – the final stop.



STEP 4

Firmly hand tighten the Backing Nut. Use a Plasson C-Ring wrench for a further half turn past hand tight for final tightening of fittings for diameters DN40, DN50 and DN63. The full hydraulic seal is achieved when the pipe passes through the O-Ring. Nut tightening is only to achieve pullout resistance - the hydraulic seal is automatically created when the pipe is pushed past the captive O-Ring.

SECTION 3

IPLEX PE FITTINGS

PLASSON LINE 7 PE COMPRESSION FITTINGS

Plasson Line 7 Fittings - Assembly Instructions (75mm - 125mm)

General Instructions



Cut the pipe, square. Unscrew the Backing Nut and **remove the Split Grip ring**. Reposition Backing Nut, Follower Bush and O ring on the pipe, two diameters back. Lubricate pipe and O ring, with Medlube.



Push the pipe fully into the fitting body, up to the internal stop. Push the O ring and Follower Bush forward until they rest against the fitting (They will not enter the body of the fitting).



Tighten the Backing Nut to drive the Follower Bush and O ring together, right into the fitting until the Follower Bush is flush with fitting mouth. Use a Plasson C ring spanner to assist as needed.



Fully unscrew the Backing Nut, and pull back along the pipe.



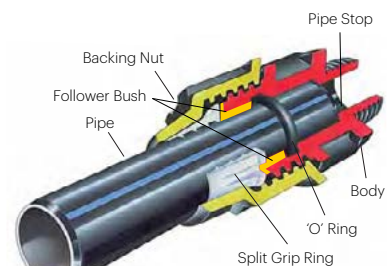
Now, open the Split Grip Ring and place directly over and onto the pipe, with the lugs and flat end, **facing and touching** the Follower Bush.



Firmly tighten the Backing Nut with only a Plasson "C-ring" spanner. (Max handle length = 46cm) Do not overtighten.



75mm - 125mm



SECTION 3

IPLEX PE FITTINGS

PLASSON LINE 7 PRODUCT RANGE

20 - 110mm: 16 bar pressure rating, unless stated otherwise

90° Elbow	Product Code	Size (mm)
	2501.20	20mm
	2501.25	25mm
	2501.32	32mm
	2501.40	40mm
	2501.50	50mm
	2501.63	63mm
	2501.75	75mm
	2501.90	90mm
	2501.110	110mm

Slip Tee 90°	Product Code	Size (mm)
 40mm - 63mm: 12.5 Bar	2502.20	20mm
	2502.25	25mm
	2502.32	32mm
	2502.40	40mm
	2502.50	50mm
	2502.63	63mm

Female Threaded Tee	Product Code	Size (mm) x BSP
	2503.20.15	20 x 1/2"
	2503.25.20	25 X 3/4"
	2503.32.25	32 x 1"
	2503.40.32	40 x 1 1/4"
	2503.50.40	50 x 1 1/2"
	2503.63.50	63 x 2"
	2503.75.65	75 x 2 1/2"
	2503.90.80	90 x 3"
	2503.110.100	100 x 4"
90mm: 10 Bar 110mm: 6 Bar		

Tee 90°	Product Code	Size (mm) x BSP
	2504.20	20mm
	2504.25	25mm
	2504.32	32mm
	2504.40	40mm
	2504.50	50mm
	2504.63	63mm
	2504.75	75mm
	2504.90	90mm
	2504.110	110mm

Reducing Tee 90°	Product Code	Size (mm) x BSP
	2505.25.20	25 x 20mm
	2505.32.25	32 x 25mm
	2505.40.32	40 x 32mm
	2505.50.40	50 x 40mm
	2505.63.50	63 x 50mm
	2505.75.63	75 x 63mm

Female Threaded Adapter	Product Code	Size (mm) x BSP
	2506.20	20 x 1/2"
	2506.25	25 X 3/4"
	2506.32	32 x 1"
	2506.40	40 x 1 1/4"
	2506.50	50 x 1 1/2"
	2506.63	63 x 2"
	2506.75.65	75 x 2 1/2"
	2506.90	90 x 3"
	2506.110	100 x 4"
90mm: 10 Bar 110mm: 6 Bar		

Male Threaded Elbow 90°	Product Code	Size (mm)
	2507.20	20 x 1/2"
	2507.25	25 X 3/4"
	2507.32	32 x 1"
	2507.40	40 x 1 1/4"
	2507.50	50 x 1 1/2"
	2507.63	63 x 2"

Female Threaded Elbow 90°	Product Code	Size (mm)
	2508.20	20 x 1/2"
	2508.25	25 X 3/4"
	2508.32	32 x 1"
	2508.40	40 x 1 1/4"
	2508.50	50 x 1 1/2"
	2508.63	63 x 2"

Wingback Female Adapter	Product Code	Size (mm)
	2509.20	20 x 1/2"
	2509.25	25 X 3/4"

SECTION 3

IPLEX PE FITTINGS

PLASSON LINE 7 PRODUCT RANGE

Coupling	Product Code	Size (mm)
  2510.160	2510.20	20mm
	2510.25	25mm
	2510.32	32mm
	2510.40	40mm
	2510.50	50mm
	2510.63	63mm
	2510.75	75mm
	2510.90	90mm
	2510.110	110mm
	2510.125 (PN16)	125mm
	2510.160 (PN10)	160mm

Slip Coupling	Product Code	Size (mm)
	2511.20	20mm
	2511.25	25mm
	2511.32	32mm
	2511.40	40mm
	2511.50	50mm
	2511.63	63mm

Designed for retrofit "slip" assembly into an existing pipeline.

Universal Coupling	Product Code	Size (mm)
 50mm: 10 Bar	2512.25.15-22	20 x 15 to 22
	2512.25.20-27	25 x 20 to 27
	2512.25.27-35	25 x 27 to 35
	2512.32.27-35	32 x 27 to 35
	2512.50.35-50	50 x 35 to 50

Adapts "metric OD" PE pipe to PVC, steel, copper, and Imperial OD LDPE or HDPE, within the OD size ranges above.

Male Threaded Adapter	Product Code	Size (mm) x BSP
	2513.20	20 x 1/2"
	2513.25.15	25 X 1/2"
	2513.25	25 X 3/4"
	2513.32	32 x 1"
	2513.40	40 x 1 1/4"
	2513.50	50 x 1 1/2"
	2513.63	63 x 2"
	2513.75.65	75 x 2 1/2"
	2513.90	90 x 3"
	2513.110	110 x 4"

Female Threaded Branch Saddle	Product Code	Size (mm) x BSP
  25mm - 63mm: 12.5 Bar 75mm - 110mm: 10 Bar	2519.25.20	25 x 1/4"
	2519.32.25	32 x 1"
	2519.40.25	40 x 1"
	2519.50.15	50 x 1/2"
	2519.50.20	50 x 3/4"
	2519.50.25	50 x 1"
	2519.50.32	50 x 1 1/4"
	2519.63.15	63 x 1/2"
	2519.63.20	63 x 3/4"
	2519.63.25	63 x 1"
	2519.63.32	63 x 1 1/4"
	2519.63.40	63 x 1 1/2"
	2519.75.25	75 x 1"
	2519.75.50	75 x 2"
	2519.90.25	90 x 1"
	2519.90.50	90 x 2"
	2519.110.25	110 x 1"
	2519.110.32	110 x 1 1/4"
	2519.110.40	110 x 1 1/2"

Reducing Coupling	Product Code	Size (mm)
	2523.25.20	25 x 20mm
	2523.32.25	32 x 25mm
	2523.40.32	40 x 32mm
	2523.50.40	50 x 40mm
	2523.63.50	63 x 50mm
	2523.75.63	75 x 63mm
	2523.90.75	90 x 75mm
	2523.110.90	110 x 90mm

SECTION 3

IPLEX PE FITTINGS

PLASSON LINE 7 PRODUCT RANGE

Reducing Set	Product Code	Size (mm)
 110mm x 75mm: 10 Bar 110mm x 90mm: 10 Bar	2524.25.20	25 x 20mm
	2524.32.20	32 x 20mm
	2524.32.25	32 x 25mm
	2524.40.25	40 x 25mm
	2524.40.32	40 x 32mm
	2524.50.25	50 x 25mm
	2524.50.32	50 x 32mm
	2524.50.40	50 x 40mm
	2524.63.25	63 x 25mm
	2524.63.32	63 x 32mm
	2524.63.40	63 x 40mm
	2524.63.50	63 x 50mm
	2524.75.63	75 x 63mm
	2524.110.63	110 x 63mm
	2524.110.75	110 x 75mm
	2524.110.90	110 x 90mm

Reduces the size of any Plasson Line 7 mechanical socket.

Shouldered Adapter	Product Code	Size (mm)
	2525.63	63mm
	2525.110	110mm

Plug Adapter	Product Code	Size (mm)
 12.5 Bar	2530.20	20mm
	2530.25	25mm
	2530.32	32mm
	2530.40	40mm
	2530.50	50mm
	2530.63	63mm

End Plug	Product Code	Size (mm)
	2531.20	20mm
	2531.25	25mm
	2531.32	32mm
	2531.40	40mm
	2531.50	50mm
	2531.63	63mm
	2531.75	75mm
	2531.90	90mm
	2531.110	110mm

Wrench	Product Code	Size (mm)
	2550.40.75	40 to 75mm
	2550.63.125	63 to 125mm

Designed for use with Plasson Line 7 fittings only.

Chamfering Tool	Product Code	Size (mm)
	2555.20.63	25 to 63mm

Inserts	Product Code	Size (mm)
	20mm Plasson Insert	20mm
	25mm Plasson Insert	25mm
	32mm Plasson Insert	32mm
	40mm Plasson Insert	40mm
	50mm Plasson Insert	50mm
	63mm Plasson Insert	63mm

SECTION 3

IPLEX PE FITTINGS

PLASSON LINE 7 PRODUCT RANGE

Barrel Union Threaded Male Adapter	Product Code	Size (mm) x BSP
	2572.25.15	25 x 1/2"
	2572.25.20	25 x 3/4"
	2572.32.15	32 x 1/2"
	2572.32.20	32 x 3/4"
	2572.32.25	32 x 1"
	2572.40.25	40 x 1"
	2572.40.32	40 x 1 1/4"
	2572.40.40	40 x 1 1/2"
	2572.50.25	50 x 1"
	2572.50.32	50 x 1 1/4"
	2572.50.40	50 x 1 1/2"
	2572.50.50	50 x 2"
	2572.63.25	63 x 1"
	2572.63.32	63 x 1 1/4"
	2572.63.40	63 x 1 1/2"
	2572.63.50	63 x 2"
	2572.63.65	63 x 2 1/2"
	2572.75.40	75 x 1 1/2"
	2572.75.50	75 x 2"
	2572.75.65	75 x 2 1/2"
	2572.75.80	75 x 3"
75mm: 12 Bar		
Modular Adapter	Product Code	Size (mm)
	2579.20	20mm
	2579.25	25mm
	2579.32	32mm
	2579.40	40mm
	2579.50	50mm
	2579.63	63mm

PLASSON BSP THREADED FITTINGS PRODUCT RANGE

Threaded Tee	Product Code	Size BSP
	2514.15	1/2"
	2514.20	3/4"
	2514.25	1"
	2514.32	1 1/4"
	2514.40	1 1/2"
	2514.50	2"
1/2" - 1": 16 Bar 1 1/4" - 2": 10 Bar		
Threaded Elbow	Product Code	Size BSP
	2515.15	1/2"
	2515.20	3/4"
	2515.25	1"
	2515.32	1 1/4"
	2515.40	1 1/2"
	2515.50	2"
1/2" - 1": 16 Bar 1 1/4" - 2": 10 Bar		
Threaded Nipple	Product Code	Size BSP
	2516.15	1/2"
	2516.20	3/4"
	2516.25	1"
	2516.32	1 1/4"
	2516.40	1 1/2"
	2516.50	2"
16 Bar		
Threaded Reducing Bush	Product Code	Size (mm) x BSP
	2517.20.15	3/4" x 1/2"
	2517.25.15	1" x 1/2"
	2517.25.20	1" x 3/4"
	2517.32.15	1 1/4" x 1/2"
	2517.32.20	1 1/4" x 3/4"
	2517.32.25	1 1/4" x 1"
	2517.40.15	1 1/2" x 1/2"
	2517.40.20	1 1/2" x 3/4"
	2517.40.25	1 1/2" x 1"
	2517.40.32	1 1/2" x 1 1/4"
	2517.50.15	2" x 1/2"
	2517.50.20	2" x 3/4"
	2517.50.25	2" x 1"
	2517.50.32	2" x 1 1/4"
	2517.50.40	2" x 1 1/2"
	2517.65.50	2 1/2" x 2"
1/2" - 1": 16 Bar 1 1/4" - 4": 10 Bar		

SECTION 3

IPLEX PE FITTINGS

PLASSON BSP THREADED FITTINGS PRODUCT RANGE

Threaded Reducing Bush	Product Code	Size (mm) x BSP
 ½" - 1": 16 Bar 1¼" - 4": 10 Bar	2517.80.25	3" x 1"
	2517.80.32	3" x 1¼"
	2517.80.40	3" x 1½"
	2517.80.50	3" x 2"
	2517.80.65	3" x 2½"
	2517.100.50	4" x 2"
	2517.100.80	4" x 3"

Threaded Reducing Nipple	Product Code	Size (mm) x BSP
 16 Bar	2518.20.15	¾" x ½"
	2518.25.15	1" x ½"
	2518.25.20	1" x ¾"
	2518.32.15	1¼" x ½"
	2518.32.20	1¼" x ¾"
	2518.32.25	1¼" x 1"
	2518.40.15	1½" x ½"
	2518.40.20	1½" x ¾"
	2518.40.25	1½" x 1"
	2518.40.32	1½" x 1¼"
	2518.50.15	2" x ½"
	2518.50.20	2" x ¾"
	2518.50.25	2" x 1"
	2518.50.32	2" x 1¼"
	2518.50.40	2" x 1½"

Threaded Socket	Product Code	Size BSP
 ½" - 1": 16 Bar 1¼" - 2": 10 Bar	2521.15	½"
	2521.20	¾"
	2521.25	1"
	2521.32	1¼"
	2521.40	1½"
	2521.50	2"

Threaded Plug	Product Code	Size BSP
 16 Bar	2530T.15	½"
	2530T.20	¾"
	2530T.25	1"
	2530T.32	1¼"
	2530T.40	1½"
	2530T.50	2"

PLASSON SWIVEL TEES AND MANIFOLDS PRODUCT RANGE

Tapper Swivel Tee For PE Pipe	Product Code	Size (mm)
	2536.63.25	63 x 25
	2536.110.25	110 x 25
	2536.125.25	125 x 25
	2536.125.32	125 x 32
	2536.180.25	180 x 25
	2536.180.32	180 x 32

Tapper Swivel Tee For Series 2 PVC Pipe	Product Code	Size (mm)
	2536.122.25	122 x 25
	2536.177.25	177 x 25

Centre Connection Meter Manifold	Product Code	Size (mm)
 *4 Port ** 6 Port	2540.50.4P*	50mm
	2540.50.6P**	50mm

SECTION 3

IPLEX PE FITTINGS

PLASSON POLYPROPYLENE VALVES PRODUCT RANGE

Quick Coupling Valve (10 bar)	Product Code	Size (mm)
	2711	¾"
	2712	1"

Riser Key	Product Code	Size (mm)
	2713	n/a

Check Valve Insert (16 bar)	Product Code	Size (mm)
	2720.25	25mm

Valve (10 bar)	Product Code	Size (mm)
	2731	¾"
	2732	1"

Angle Seat Valve (8 bar)	Product Code	Size (mm)
	2735.32	1 ¼"
	2735.40	1 ½"
	2735.50	2"

Compression Stopcock (16 bar)	Product Code	Size (mm)
	2741.20	20mm
	2741.25	25mm
	2741.32	32mm

Water Meter Valve Boxes	Product Code	Size (mm)
  blue lid green lid polyethylene (water meter) valve boxes	193*	155 x 200 x 200 high
	193LIDGR**	155 x 200
	193LIDBL***	155 x 200

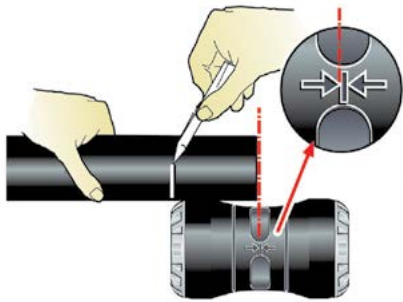
* Valve box only - no lid ** Green lid *** Blue lid

SECTION 3

IPLX PE FITTINGS

PLASSON SERIES 1 PUSH-FIT COMPRESSION FITTINGS

Installation Instructions



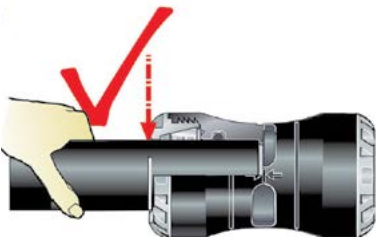
STEP 1

- Clean pipe end
- Remove burs
- Mark insertion depth using guide on fitting
- Sizes 40mm and above – chamfering the pipe with a Plasson chamfer tool and using silicone lubricant will ease insertion.



STEP 2

- Insert pipe past O-ring until it meets the internal stop.



STEP 3

- Check witness mark to ensure pipe is inserted correctly.

Disassembly

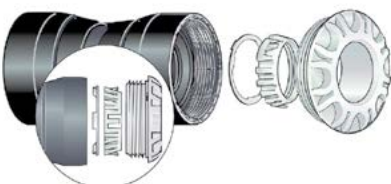
Plasson Series 1 fittings can be easily disassembled, to allow fitting removal or adjustment, and can be reassembled, for reuse of the fitting.



STEP 1

- Use a Plasson Series 1 wrench to loosen the nut.

Figure 1



STEP 2

- Remove the nut and slide pipe from fitting. When reassembling the fitting, ensure the components are placed into the fitting body in the correct orientation and assembly order. (Figure 1) Ensure any damaged/ blunted grip or split rings are replaced.

SECTION 3

IPLEX PE FITTINGS

PLASSON SERIES 1 PRODUCT RANGE

3501 - 90° Elbow	Product Code	Size (mm)
	3501.20	20mm
	3501.25	25mm
	3501.32	32mm
	3501.40	40mm
	3501.50	50mm
	3501.63	63mm

3503 - Female Threaded Tee	Product Code	Size (mm) x BSP
	3503.20.15	20 x 1/2"
	3503.25.15	25 x 1/2"
	3503.25.20	25 x 3/4"
	3503.32.25	32 x 1"

3504 - 90° Tee	Product Code	Size (mm)
	3504.20	20mm
	3504.25	25mm
	3504.32	32mm
	3504.40	40mm
	3504.50	50mm
	3504.63	63mm

3505 - Reducing Tee	Product Code	Size (mm)
	3505.25.20	25 x 20 x 25
	3505.32.20	32 x 20 x 32
	3505.32.25	32 x 25 x 32

3506 - Female Threaded Adapter	Product Code	Size (mm) x BSP
	3506.20.15	20 x 1/2"
	3506.25.20	25 x 3/4"
	3506.32.25	32 x 1"
	3506.40.32	40 x 1 1/4"
	3506.50.40	50 x 1 1/2"
	3506.63.50	63 x 2"

3507 - 90° Male Threaded Elbow	Product Code	Size (mm) x BSP
	3507.25.20	25 x 3/4"
	3507.32.25	32 x 1"

3508 - 90° Female Threaded Elbow	Product Code	Size (mm) x BSP
	3508.20.15	20 x 1/2"
	3508.25.15	25 x 1/2"
	3508.25.20	25 x 3/4"
	3508.32.25	32 x 1"
	3508.50.40	50 x 1 1/2"
	3508.63.50	63 x 2"

3509 - Female Wingback Adapter	Product Code	Size (mm) x BSP
	3509.20.15	20 x 1/2"

3510 - Coupling	Product Code	Size (mm)
	3510.20	20mm
	3510.25	25mm
	3510.32	32mm
	3510.40	40mm
	3510.50	50mm
	3510.63	63mm

3511 - Universal slip repair coupling F&F	Product Code	Size (mm)
	3511.24-28	24 - 28mm
	3511.31-35	31 - 35mm
	3511.40-43	40 - 43mm
	3511.48-51	48 - 51mm
	3511.60-64	60 - 64mm

3512 - Universal Coupling	Product Code	Size (mm)
	3512.25 14-18	20 x 14-18
	3512.25 19-22	25 x 19-22
	3512.25 24-28	32 x 24-28

3513 - Male Threaded Adapter	Product Code	Size (mm) x BSP
	3513.20.15	20 x 1/2"
	3513.25.20	25 x 3/4"
	3513.32.25	32 x 1"
	3513.40.32	40 x 1 1/4"
	3513.50.40	50 x 1 1/2"
	3513.63.50	63 x 2"

SECTION 3

IPLEX PE FITTINGS

PLASSON SERIES 1 PRODUCT RANGE

3523 - Reducing Coupler	Product Code	Size (mm)
	3523.25.20	25 x 20
	3523.25.20	32 x 20
	3523.25.25	32 x 25
	3523.40.32	40 x 32
	3523.50.25	50 x 25
	3523.63.50	63 x 50

3530 - End Plug	Product Code	Size (mm)
	3530.20	20mm
	3530.25	25mm
	3530.32	32mm
	3530.40	40mm
	3530.50	50mm
	3530.63	63mm

Plasson Series 1 Wrench	Product Code	Size (mm)
	Wrench.20.32	20 - 32
	Wrench.40.63	40 - 63

SECTION 3

IPLEX PE FITTINGS

BLACKLINE HP DUCTILE IRON FITTINGS PRODUCT RANGE

	Product Code	Description	Pipe OD (mm)		
	DIC63PE	Ductile Iron Coupling 63mm PN25	63mm		
	DIC90PE	Ductile Iron Coupling 90mm PN25	90mm		
	DIC110PE	Ductile Iron Coupling 110mm PN25	110mm		
	Product Code	Description	Pipe OD (mm)		
	DITC63PE	*Ductile Iron Transition Coupling 63mm PN25	63mm		
	DITC90PE	*Ductile Iron Transition Coupling 90mm PN25	90mm		
	DITC110PE	*Ductile Iron Transition Coupling 110mm PN25	110mm		
	Product Code	Description	Pipe OD (mm) x BSP "		
	SSMTA50	Stainless Steel Male Threaded Adapter 50mm BSP PN25	63 x 2"		
	SSMTA80	Stainless Steel Male Threaded Adapter 80mm BSP PN25	90 x 3"		
	SSMTA100	Stainless Steel Male Threaded Adapter 110mm BSP PN25	110 x 4"		
	Product Code	Description	Pipe OD (mm)	PCD (mm)	Hole Number
	DIUFA50	Ductile Iron Universal Flange Adapter 50mm PN25PN25	63mm	120 - 125	4
	DIUFA80	Ductile Iron Universal Flange Adapter 80mm PN25	90mm	150 - 160	8
	DIUFA100	Ductile Iron Universal Flange Adapter 100mm PN25	110mm	175 - 191	8

*Note: DITC Transition Coupler is used with either SSMTA (Male BSP Thread Adapter) , or DIUFA (Flange Adapter)

ASSEMBLY INSTRUCTIONS

Iplex Blackline™ HP Ductile Iron fittings are designed to mechanically join PE 100 Polyethylene pipe, up to pressure rating PN25 (25-bar). Note: Iplex Blackline™ HP fittings are not intended for use on other types of Iplex pipes.

STEP 1: Marking

Use a pen and tape measure to place marks 25mm from the end of each pipe. Ensure the pipe ends to be joined are accurately cut square and are totally free of any dirt or surface damage.

STEP 2: Gasket Mounting

Using a silicone based lubricant; slip the gasket over the pipe ends and center the gasket between the marks. Ensure the pipe ends are butted together.

STEP 3: Fitting Assembly

Place the housing over the gasket and insert bolts. Then tighten the nuts by hand.

STEP 4: Tightening Nuts

Using an appropriate tool, tighten the nuts sequentially until the fittings' housing bolt pads meet, metal to metal.

NOTES



I P L E X M O B I L E E X T R U S I O N

SECTION 4

IPLEX MOBILE EXTRUSION

IPLEX MOBILE EXTRUSION

Iplex – Mobile Extrusion is an innovative new mobile manufacturing plant that can be relocated to larger pipeline projects for onsite manufacture of high quality PE100 polyethylene pipe to AS/NZS 4130, ranging in diameter from DN75 to DN710 (Pressure Classes from PN6 – PN16 dependent on pipe size) and extruded in lengths up to 100m.

Key Benefits

1. Asset Owner

The requirements for an Asset Owner is asset integrity and security of supply. Iplex – Mobile Extrusion offers the following benefits to the Asset Owner:

- German technology that allows for onsite manufacturing.
- Sign off processes for each length of pipe supplied.
- Longer lengths, fewer welded joints.
- Pipe supplied will comply with AS/NZS 4130

2. Consultants

Consultants want the ability to easily specify reliable systems that they can trust. Iplex – Mobile Extrusion uses German technology for onsite manufacturing and quality assurance measurement. Onsite manufacturing using the Iplex – Mobile Extrusion plant delivers quality PE 100 polyethylene assets for large infrastructure projects.

- Pipe supplied will comply with AS/NZS 4130.
- PE 100 material complies with AS/NZS 4131 and PIPA Guideline POP004.
- German engineering extrusion technology.
- German quality measurement technology (by Sikora).

3. Contractors

A successful project for a contractor is about cost-effective solutions and ease of installation.

Iplex – Mobile Extrusion offers an innovative onsite manufacturing process. Lengths and fewer welds allow new smarter installation techniques to be adopted which may result in quicker project completion.

- Longer Lengths.
- Fewer welds.
- Onsite manufacture.
- Range of sizes available, DN75 to DN710.

SECTION 4

IPLEX MOBILE EXTRUSION

IPLEX MOVING PIPE ONSITE

Iplex – Mobile Extrusion plant produces high quality PE100 polyethylene pipe ranging anywhere in diameter from DN75 to DN710 (Pressure Classes from PN6 to PN16 dependent on pipe size). One of the key benefits of onsite manufacturing is that pipe can be extruded and handled in long continuous lengths up to 100m. This greatly reduces the amount of joints and welds required in a pipeline asset.

Moving pipe onsite is facilitated by the use of wheel dollies which allow the pipe to be easily towed to the required location. Wheel dollies can be made in a variety of designs and are typically part of the contractor's responsibility on a project.

Spacing of wheel dollies is dependent on the size and weight of the pipe. It is important that the correct spacing of wheel dollies is used when moving pipe. For assistance on spacings, please call Iplex Customer Support on 0800 800 262 and speak to our technical sales team.



Iplex PE 100 pressure pipe extruded on site in the Central Plains.

SECTION 4

IPLEX MOBILE EXTRUSION

IPLEX QUALITY STANDARDS

- Pipe supplied will comply with AS/NZS 4130.
- Iplex – Mobile Extrusion plant is the latest in German engineering and extrusion technology (Powered by Tubi).
- Precision in line wall thickness measurement technology (by Sikora) is used to consistently produce pipe with the dimensional specifications required.
- A valid Standards Mark Licence can be provided prior to project start.
- All projects are provided with the relevant compliance and quality documentation.
- A handover, quality check and sign off process are conducted onsite.

IPLEX ENVIRONMENTAL CONDITIONS

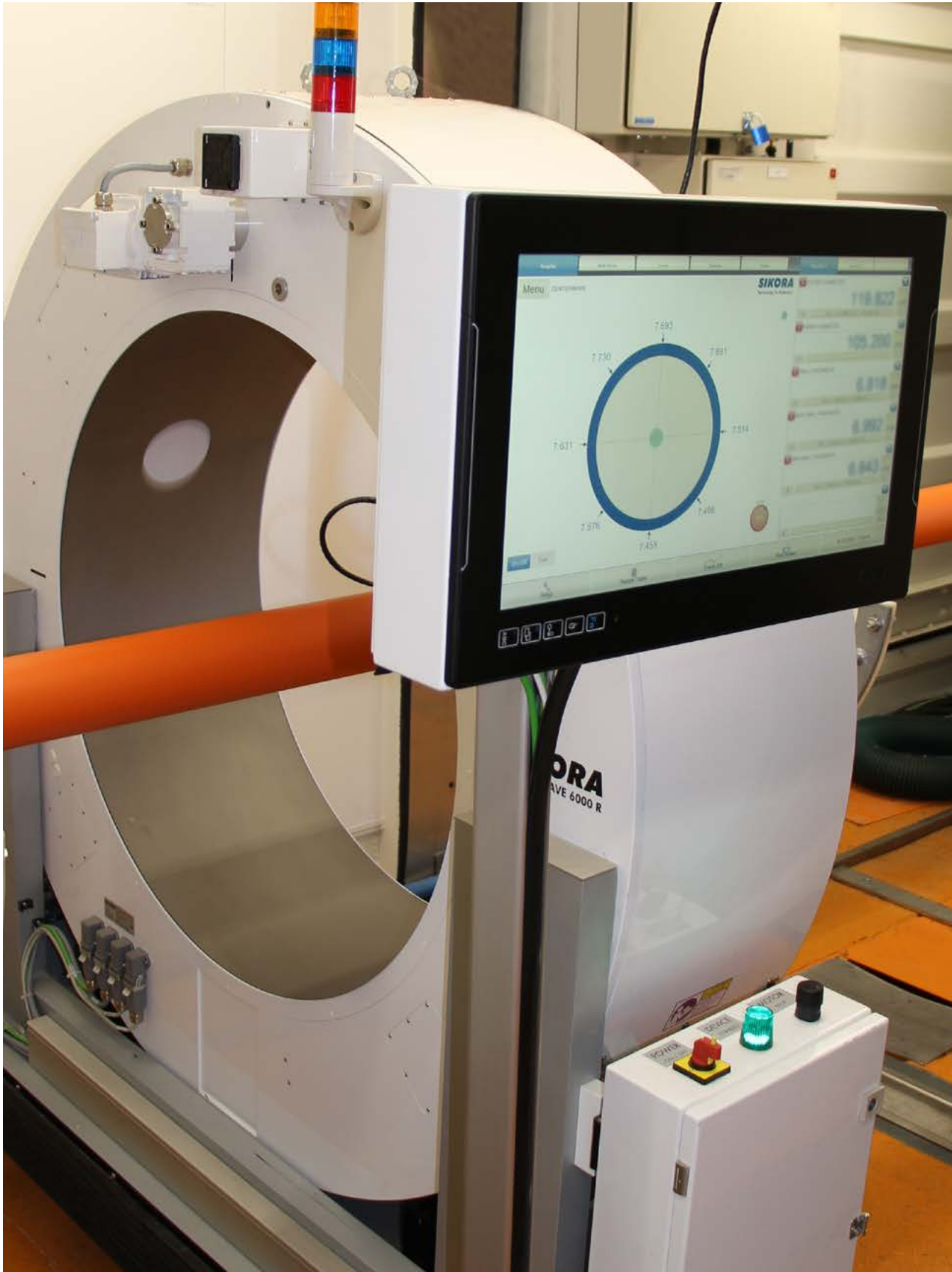
Manufacturing in a variety of environmental conditions is fully expected. This includes high humidity, cold winter conditions, hot dry summer conditions and dusty environments. The Iplex – Mobile Extrusion plant is climate controlled with the specifically designed containerised set up. Raw materials are kept dry and free from contamination at all stages of the handling process through a closed loop material feed and specialised driers.



Iplex PE Duct being extruded at the Iplex Ashburton plant.

SECTION 4

IPLX MOBILE EXTRUSION



Sikora in-line wall measurement technology used with Iplex Mobile Extrusion.

NOTES



INSTALLATION

SECTION 5

INSTALLATION

INSTALLATION

Trenchless Installation

Iplex PE pressure pipes may be installed either using trenchless methods such as Horizontal Directional Drilling, Pipe Bursting and Slip Lining, or by conventional open-cut trench methods. Guidelines for trenchless installation may be found on the Australasian Society for Trenchless Technology (ASTT) website.

Open-Cut Trench Installation

Bedding particle size

Bedding material in direct contact with the pipe, including directly under, alongside and directly above the pipe must be compactible, non-cohesive material, not exceeding 20mm maximum particle size. This may include approved imported aggregate or approved selected screened as-dug material, compliant to the contract specification.

Backfill materials

Trench backfill material may include approved imported compactible aggregate, or other approved selected as-dug material, compliant to the contract specification

Backfill compaction

As with any buried flexible pipe, including any type of PE pipe, compaction of the backfill under and alongside the pipe barrel is important to ensure good structural performance of the backfill and also of the completed pipeline. The correct sequence of backfill actions includes placement and compaction of the bedding, under the pipe and secondly, beside and surrounding the pipe barrel, BEFORE placement and compaction of trench backfill above the bedding zone.

Field Testing

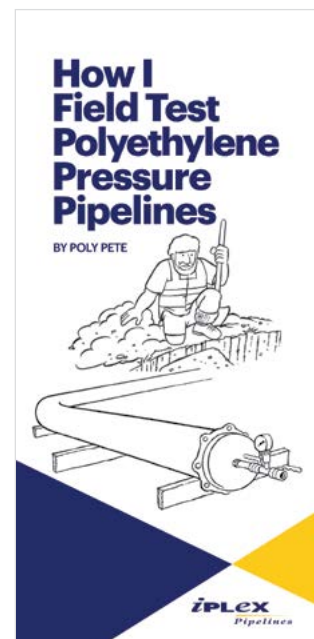
All pressure pipelines should be field tested to uncover any faults during pipeline construction.

You must check that:

- All pipe-joints, including butt fusion or electro fusion joints have been made correctly.
- All pipeline components valves, hydrants, bends, tees, tapping bands and any other fittings have been installed correctly.
- To determine that the pipeline will handle pressure greater than its design pressure— without leaking!

Best Practice Open-Cut Installation

Please consult the Iplex Installation guides; 'PolyPete - How I Install PE Pipes' and 'PolyPete - How I Field Test PE Pipelines'. For Iplex's recommendation for Iplex's recommendation for best practice installation refer to www.iplex.co.nz/iplex-resources/. You can also contact Iplex's technical support on 0800 800 262.



IPLEX QUALITY MANAGEMENT SYSTEMS

Quality Assurance

Creating products of consistently high quality is at the forefront of the Iplex manufacturing process, and central to the customer promise that Iplex product quality meets or exceeds standards claimed.

All Iplex manufacturing plants operate under a strict ISO 9001 Quality Management System (QMS). External certifying bodies carry out regular audits to provide third-party certification of the Company's QMS. Continued third-party product certification of Iplex plastic pipeline products to relevant Australian & New Zealand standards, is also provided by these bodies.

The Iplex mechanical testing laboratory in Palmerston North is an IANZ accredited facility, providing added assurance that any measurement and testing is carried out professionally and in a technically reliable manner in accordance with international standards.



CERTIFICATE TYPE	LICENCE NUMBER	CERTIFYING BODY
ISO 9001	QEC4169	SAI Global
AS/NZS 1254	SMKP20126 & SMKP20180	SAI Global
AS/NZS 1260	SMKP20184, SMKP20185 & SMK1305	SAI Global
AS/NZS 1477	SMK02569 & SMKP20181	SAI Global
AS/NZS 4130	SMKP20400	SAI Global
AS/NZS 4441	SMKP20682	SAI Global
AS/NZS 4765	SMK02570	SAI Global
AS/NZS 61386	LIC2901 & LIC2910	Bureau Veritas
NZ ISO/IEC 17025	ACCREDITATION NUMBER 61	IANZ

IPLEX PIPELINES NZ THE COMPANY

Iplex is one of New Zealand's leading manufacturers and suppliers of plastic pipeline systems. Iplex provides products and services throughout New Zealand and to export markets around the Pacific and other international markets. Iplex has manufacturing operations in Palmerston North, Christchurch and Ashburton, as well as access to the Iplex Australian network.

Iplex have been manufacturing plastic pipelines since 1938 and with over 80 years of industry service and technical experience.

Civil: Iplex provides a wide range of solutions for wastewater, drainage and potable water pipeline projects. Manufacturing both PE (Polyethylene) & PVC (Polyvinylchloride) for both pressure and non-pressure (gravity fed) pipeline systems including civil infrastructure, drainage systems and roading systems.

Iplex also services the following industry sectors:

Energy and Communications: an important sector for Iplex NZ and there is a wide range of conduits, ducts and fittings available for new development and maintenance projects. The range covers electrical, communication and gas.

Plumbing: The Iplex plumbing sector covers pipes and fittings used within the property boundary. This includes reticulation of potable and non-potable water, sanitary plumbing, wastewater, drainage and gas reticulation. Iplex have the capabilities of supplying drain, waste and vent pipes and fittings, rainwater systems, traps and accessories.

Rural: Iplex also service the rural market providing pipes and fittings for rural use. Iplex provide systems for irrigation, stock water, land drainage, culverts and farm dairy effluent.



Iplex Pipelines manufacturing plant and distribution hub in Palmerston North, New Zealand.

PE PRESSURE SYSTEMS SPECIFICATION AND INSTALLATION GUIDE, AUGUST 2020

LIMITATIONS

The information contained in this document is current as at August 2020 and is based on data available to Iplex Pipelines NZ Ltd at the time of going to print.

All photographic images are intended to provide a general impression only and should not be relied upon as an accurate example of Iplex Pipelines NZ Ltd products installed in accordance with this document or the referenced compliance documents..

This publication replaces all previous Iplex Pipelines NZ design information and literature relating to Iplex Pipelines NZ Ltd PE Pressure Systems products. Iplex Pipelines NZ Ltd reserves the right to change the information contained in this document without prior notice. It is your responsibility to ensure that you have the most up to date information available. You can call toll free on 0800 800 262 or visit www.iplex.co.nz to obtain current information.

Iplex Pipelines NZ Ltd has used all reasonable endeavours to ensure the accuracy and reliability of the information contained in this document. However, to the maximum extent permitted by law, Iplex Pipelines NZ Ltd assumes no responsibility or liability for any inaccuracies, omissions or errors in this information nor for any actions taken in reliance on this information. Pipes and fittings have been shown as typical configurations, however, in some cases product dimensions may vary or be changed without notice. In all instances, the reader should contact Iplex Pipelines for clarification that the specific product is appropriate for their circumstance.

TRADEMARKS

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