

GASTITE™



Crimp Fit
For **GAS...**
Plumbing
Made Easy



User Guide
and product
information



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AS4176.8
ISO TYPE 5
AMI 74540



For full warranty, product must be installed by a licensed gas fitter as per AS/NZS 5601-1-2013

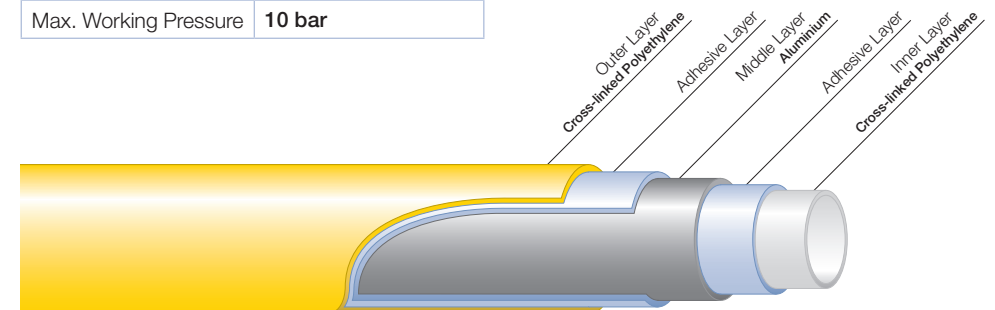
Gastite™ – Crimp fit for GAS plumbing made easy.

For full warranty, product must be installed by a licensed gas fitter as per AS/NZS 5601-1-2013.

1. Gastite™ pipe

- Gastite™ pipe has been tested in accordance with AS4176:8 under licence No AMI 74540
- Gastite™ pipe is constructed from layers of aluminium and cross-linked polyethylene pipe and is impenetrable from gases/oxygen.
- The structure and design of the pipe compensates for snap-back forces and linear expansion caused by temperature changes.
- The system is simple, safe and pipe installation is fast.
- Pipe is easy to bend by hand, cut, chamfer, ream and crimp.

Type of pipe	B1
Pipe Colour	Yellow
Materials	PEX / AL / PEX
Applications	Gas Supply
Service Temperatures	-40°C ~ +95°C
Max. Working Pressure	10 bar



Sizing Table for Crimp Fittings (LP Gas Only)

Pressure Drop of 10.0 kPa (Metre Pressure 40.0kPa - 70.0 kPa)

GAS flow through PE-X/AL/PE-X Composite Pipe Crimped Fittings (MJ/h)
Length of straight pipe in metres

Norm Size mm	2	4	6	8	10	12	14	16	18	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	correction (+) metres per fitting
16	2805	1968	1597	1377	1226	1115	1029	959	903	854	759	689	635	592	556	525	499	477	457	439	423	408	395	383	372	361	1.7
20	6188	4347	3531	3045	2714	2470	2280	2127	2001	1894	1685	1533	1413	1316	1237	1171	1112	1063	1018	979	943	911	882	855	830	809	1.4
25	11467	8060	6552	5654	5042	4590	4239	3955	3721	3523	3137	2853	2632	2454	2306	2182	2075	1983	1900	1827	1762	1702	1649	1599	1552	1512	0.8
32	24003	16887	13737	11860	10579	9635	8901	8309	7820	7406	6598	6003	5541	5168	4860	4599	4375	4181	4008	3855	3718	3593	3481	3377	3280	3194	0.6
40	35937	25294	20582	17774	15885	14445	13347	12463	11730	11110	9903	9010	8319	7761	7299	6910	6574	6283	6024	5795	5589	5403	5233	5078	4936	4804	n/a
50	66663	46949	38219	33016	29467	26847	24813	23174	21816	20667	18427	16775	15491	14457	13601	12878	12256	11713	11235	10809	10427	10081	9766	9478	9252	8969	n/a
63	131922	92961	75706	65422	58407	53229	49206	45963	43279	41008	36578	33309	30771	28726	27032	25600	24369	23295	22348	21505	20748	20063	19440	18871	18364	17862	n/a

Sizing Table for Crimp Fittings (LP Gas Only)

Pressure Drop of 0.250 kPa (Supply Pressure 2.75 kPa - 5.0kPa)

LP GAS flow through PE-X/AL/PE-X Composite Pipe Crimped Fittings (MJ/h)
Length of straight pipe in metres

Norm Size mm	2	4	6	8	10	12	14	16	18	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	correction (+) metres per fitting
16	448.0	303.0	241.0	204.0	180.0	162.0	148.0	137.0	128.0	116.0	106.0	95.0	88.0	81.0	76.0	71.0	67.0	64.0	61.0	58.0	56.0	54.0	52.0	50.0	48.0	47.0	1.7
20	847.0	574.0	457.0	388.0	342.0	308.0	282.0	262.0	245.0	229.0	203.0	182.0	167.0	155.0	144.0	136.0	129.0	123.0	117.0	112.0	107.0	104.0	100.0	96.0	94.0	91.0	1.4
25	1721.0	1169.0	931.0	792.0	699.0	631.0	578.0	536.0	501.0	473.0	416.0	375.0	343.0	318.0	298.0	280.0	265.0	252.0	241.0	231.0	222.0	214.0	206.0	200.0	192.0	188.0	0.8
32	3463.0	2358.0	1881.0	1602.0	1414.0	1276.0	1171.0	1086.0	1016.0	963.0	844.0	762.0	698.0	647.0	606.0	570.0	540.0	514.0	491.0	471.0	453.0	436.0	421.0	408.0	396.0	384.0	0.6
40	4921.0	3354.0	2677.0	2281.0	2014.0	1819.0	1669.0	1548.0	1449.0	1366.0	1205.0	1087.0	997.0	924.0	865.0	815.0	772.0	735.0	702.0	673.0	647.0	624.0	603.0	583.0	566.0	550.0	n/a
50	9076.0	6197.0	4952.0	4222.0	3730.0	3370.0	3093.0	2871.0	1688.0	2534.0	2237.0	2020.0	1852.0	1719.0	1608.0	1516.0	1436.0	1368.0	1307.0	1254.0	1206.0	1162.0	1124.0	1088.0	1055.0	1024.0	n/a
63	17719.0	12118.0	9694.0	8271.0	7311.0	6609.0	6068.0	5634.0	5277.0	4977.0	4396.0	3971.0	3645.0	3381.0	3166.0	2985.0	2830.0	2694.0	2586.0	2472.0	2378.0	2293.0	2216.0	2146.0	2084.0	2022.0	n/a

Sizing Table for Crimp Fittings (Natural Gas Only)

Table 1A

Pressure Drop of 0.075 kPa (Meter Pressure 1.1 kPa)

NATURAL GAS flow through PE-X/AL/PE-X Composite Pipe Crimped Fittings (MJ/h)
Length of straight pipe in metres

Norm Size mm	2	4	6	8	10	12	14	16	18	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	correction (+) metres per fitting	
16	84	57	45	38	37	36	34	30	27	24	19	16	14	12	11	10	9	8	-	-	-	-	-	-	-	-	-	1.3
20	158	106	84	72	63	57	52	48	45	43	41	40	35	30	27	24	22	20	18	17	-	-	-	-	-	-	-	1.2
25	314	211	167	142	125	113	103	96	89	84	79	75	71	68	64	62	60	58	54	50	48	46	45	45	44	44	44	0.5
32	602	405	322	273	240	216	198	184	172	162	142	128	117	109	102	98	95	89	85	83	80	78	76	74	73	71	71	0.6
40	985	663	526	446	393	354	324	300	281	264	233	210	192	178	166	157	150	141	136	131	126	121	117	113	110	107	107	0.9
50	1900	1278	1014	860	757	682	625	579	541	510	449	404	370	343	321	302	285	272	256	248	238	229	221	214	207	201	201	n/a
63	3691	2505	1994	1696	1495	1349	1236	1146	1072	1010	889	802	734	680	636	598	567	539	515	494	474	457	452	427	414	402	402	n/a

Table 1B

Pressure Drop of 0.75 kPa (Meter Pressure 2.75 kPa - 5.0kPa)

NATURAL GAS flow through PE-X/AL/PE-X Composite Pipe Crimped Fittings (MJ/h)
Length of straight pipe in metres

Norm Size mm	2	4	6	8	10	12	14	16	18	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	correction (+) metres per fitting	
16	315	214	168	142	125	113	103	96	90	84	74	67	61	57	53	50	47	45	42	44	39	37	36	35	34	33	33	1.7
20	589	396	314	267	235	212	194	179	168	158	139	125	115	106	99	94	88	84	80	77	74	71	69	67	65	63	63	1.4
25	1169	787	624	530	466	420	385	356	333	314	276	249	228	211	197	186	181	178	167	157	151	146	141	137	133	128	128	0.8
32	2246	1511	1199	1017	895	807	739	684	640	602	530	478	438	405	379	357	340	335	329	321	309	298	287	278	270	262	262	0.6
40	3671	2470	1960	1662	1463	1319	1207	1119	1046	985	867	781	715	663	620	583	555	526	505	484	466	449	434	420	408	396	396	n/a
50	7082	4766	3780	3207	2823	2544	2329	2158	2018	1900	1672	1507	1380	1278	1195	1125	1027	1014	936	897	863	832	804	778	756	734	734	n/a
63	13362	8995	7125	6040	5313	4784	4379	4055	3806	3586	3172	2878	2645	2452	2286	2156	2043	1946	1860	1784	1716	1654	1599	1548	1503	1459	1459	n/a

Sizing Table for Crimp Fittings (Natural Gas – NSW & QLD Only)

Pressure Drop of 1.50 kPa (Metre Pressure 2.75kPa)

GAS flow through PE-X/AL/PE-X Composite Pipe Crimped Fittings (MJ/h)
Length of straight pipe in metres

Norm Size mm	2	4	6	8	10	12	14	16	18	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	correction (+) metres per fitting
16	461	314	246	208	183	166	151	141	132	123	108	98	89	84	78	73	70	66	60	52	43	36	28	19	0	0	1.7
20	863	580	460	391	344	311	284	262	246	231	204	183	168	155	145	138	129	123	118	114	109	106	102	97	90	84	1.4
25	1713	1153	914	776	683	615	564	522	488	460	404	365	334	309	289	272	258	245	236	227	218	211	204	192	173	158	0.8
32	2246	2214	1757	1490	1311	1182	1083	1002	938	882	776	700	642	593	555	523	512	496	467	420	384	356	332	313	296	281	0.6
40	5378	3619	2871	2435	2143	1932	1768	1639	1532	1443	1270	1144	1047	971	908	854	825	795	768	743	700	630	577	534	499	470	n/a
50	10375	6982	5538	4698	4136	3727	3412	3161	2956	2784	2449	2208	2022	1872	1751	1648	1555	1495	1441	1392	1348	1270	1144	1048	971	908	n/a
63	14558	11637	9922	8767	7921	7270	6749	6320	5960	5261	4753	4356	4042	3783	3565	3379	3217	3075	2949	2837	2735	2643	2559	2411	2175	1993	n/a

3. Gastite™ product range

The Gastite™ product range includes a variety of fittings and pipe to suit 16mm / 20mm / 25mm gas applications. Cutting and fitting tools are also required to make it easy to complete the work successfully and securely.



ITEM DESCRIPTION	ITEM No.
Gastite Gas Crimp Coupling 16mm Straight	4700371
Gastite Gas Crimp Coupling 20mm Straight	4700372
Gastite Gas Crimp Coupling 25mm Straight	4700373
Gastite Gas Crimp Reducer 20mm x 16mm	4700374
Gastite Gas Crimp Reducer 25mm x 20mm	4700376
Gastite Gas Crimp Union MI 16mm x 16mm	4700377
Gastite Gas Crimp Union MI 20mm x 16mm	4700378
Gastite Gas Crimp Union MI 20mm x 20mm	4700379
Gastite Gas Crimp Union MI 25mm x 25mm	4700380
Gastite Gas Crimp Union FI 16mm x 16mm	4700381
Gastite Gas Crimp Union FI 20mm x 20mm	4700382
Gastite Crimp Elbow Equal 16mm	4700384
Gastite Crimp Elbow Equal 20mm	4700385

ITEM DESCRIPTION	ITEM No.
Gastite Crimp Elbow Equal 25mm	4700386
Gastite Crimp Elbow MI 16mm x 16mm	4700387
Gastite Crimp Elbow MI 20mm x 20mm	4700388
Gastite Crimp Elbow MI 25mm x 25mm	4700389
Gastite Crimp Elbow FI 16mm x 16mm	4700390
Gastite Crimp Tee Equal 16mm	4700392
Gastite Crimp Tee Equal 20mm	4700393
Gastite Crimp Tee Equal 25mm	4700394
Gastite Crimp Tee Reducing 20mm x 16mm x 16mm	4700395
Gastite Crimp Tee Reducing 20mm x 16mm x 20mm	4700396
Gastite Crimp Tee Reducing 25mm x 20mm x 20mm	4700397
Gastite Crimp Elbow MI Wallplate 16mm x 16mm x 65mm	4700398
Gastite Crimp Elbow MI Wallplate 16mm x 16mm x 90mm	4700399
Gastite Crimp Elbow MI Wallplate 20mm x 16mm x 90mm	4700400
Gastite Crimp Tool only with Toolbox Suits 16mm x 20mm x 25mm	4700401
Gastite Crimp Insert 16mm	4700402
Gastite Crimp Insert 20mm	4700403
Gastite Crimp Insert 25mm	4700404
Gastite Reamer 16mm x 20mm x 25mm	4700405
Gastite Gas Pex Pipe Length 16mm x 1.2m	4700407
Gastite Gas Pex Pipe Coil 16mm x 6m	4700410
Gastite Gas Pex Pipe Coil 16mm x 20m	4700413
Gastite Gas Pex Pipe Length 20mm x 1.2m	4700408
Gastite Gas Pex Pipe Coil 20mm x 6m	4700411
Gastite Gas Pex Pipe Coil 20mm x 20m	4700415
Gastite Gas Pex Pipe Length 25mm x 1.2m	4700409
Gastite Gas Pex Pipe Coil 25mm x 6m	4700412
Gastite Gas Pex Pipe Coil 25mm x 20m	4700416
Gastite Pipe Cutter	4700417

3.1 Reamer tool

Designed for easy use and is made of plastic with steel cutting blades. Tool is inserted into the pipe for chamfering and recalibrating/rounding, in preparation for the fitting to be installed.

Use reamer tool for recalibrating/rounding and chamfering pipes in 16, 20 and 25mm sizes.



Item No. 4700405

3.2 Pipe cutting tool

Racheting action, designed for smooth, even cutting of Gastite™ pipe

Used for cutting Gastite™ PEX / AL / PEX pipes 16, 20, 25mm.



Item No. 4700417

3.3 Crimping tool

Gastite™ manual crimping tool allows for strong and stable connection of Gastite fittings to pipe.




Adjustable manual crimping tool with press jaws



Item No. 4700401

3.4 Crimp inserts

Crimp tool inserts are available in the following sizes, to suit manual crimping tool:

IMAGE	INSERT SIZE	ITEM No.	CRIMPING TOOL ITEM No.
	16mm	4700402	4700401
	20mm	4700403	
	25mm	4700404	

Installation

Refer to "installing the crimp inserts" on page 16.



4. Gastite™ fitting instructions

Pipe preparation

Inspect and ensure pipe is in good order, free of any dirt or damage. Cut pipe to required length, the pipe end should be cut square at 90°



Chamfering and recalibrating of pipe

The pipe end must be chamfered and recalibrated correctly so as not to damage the O-ring during fitting installation and to also allow the fitting to be inserted easily into the pipe.



Checking the profile of pipe after chamfering and recalibrating

Make sure the pipe end profile is recalibrated and chamfered smoothly. All shavings caused by chamfering operation need to be removed and cleaned from the inside and the outside of the pipe end.



Connecting fittings to pipe

Check the fitting and pipe sizes are compatible. ie 25mm fittings = 25mm pipe.

Pipe must be pushed straight into fitting sleeve until the pipe outer surface can be seen through the inspection hole, as per the photos below.



Please Note: Do not “screw” or turn pipe when inserting fitting into the pipe – it should be pushed only.



Installing the crimp inserts

Select compatible crimp inserts according to the pipe and fitting size being used. Unscrew locking bolts in crimping tool jaws and place crimp insert into jaw head, ensuring both halves of the insert are same way up – eg. size number engraved. Replace locking bolt and screw into the crimp insert, tightening firmly with spanner.



Crimping the fittings

Open jaws of crimping tool and align against yellow plastic collar of the fitting. Ensure jaws are pushed flush against the yellow collar, leaving no gap. Using handles of crimping tool, close the close jaws completely, applying firm pressure to ensure a secure crimp.



When the jaw is completely closed, the handles will be self-locked. Open the handles and remove the Crimping tool from the fitting and the installation is complete.



repeat steps (4) and (5) until all fitting ends have been crimped



5. Final testing

Once installation has been completed Installation needs to be leak tested this should be carried out in accordance with the standard AS/NZS 5601-1-2013 and any local regulation or requirements.

It is the responsibility of the licenced installer to ensure that all joints and fittings are inspected, checked and tested for leaks, that all crimping operation are correct and that the installation is safe and compliant.

6. Frequently asked questions

Can Gastite™ fittings be used to connect to existing PEX / AL / PEX systems?

Gastite™ fittings are not recommended to be used on other suppliers PEX / AL / PEX pipe. To do so would void warranty, as we cannot guarantee the sizing of the alternative supplier's pipe (we suggest using a BSP union connecting the fitting between the two systems).

Can Gastite™ be used above ground and be exposed to sunlight?

Gastite™ pipe is not UV stabilised. However, it can be installed above ground only if the pipe is sleeved, covered or wrapped.

What is the bend radius of Gastite™ pipe? Minimum bend radius:

16mm pipe = 100mm radius, 20mm pipe = 150mm radius, 25mm pipe = 200mm radius

Can Gastite™ pipe be bent manually by hand?

Yes, Gastite™ is flexible and able to be bent without the use of a tool.

Can Gastite™ be fitted to existing copper pipework?

Yes, Gastite™ can be connected to existing copper installation via a BSP union fitting.

Can Gastite™ pipe and fittings be installed within concrete?

Yes. However, no joints are to be used in the concrete. The pressure cannot exceed 7kPa and the pipe should be placed between the top and bottom layers of the reinforcement, in accordance with AS/NZS 5601-1-2013.

Can Gastite™ pipe and fittings be installed underground?

Yes. However, joints that are used underground should be protected to waterproof against possible corrosion of fittings from moisture or harmful soil contents. In accordance with AS/NZS 5601-1-2013, the minimum depth of cover required is 450mm with marker tape installed 150mm above pipe.

General product information

Gastite™ products are only to be used on gas applications. The products are not approved for any water installations.

Gastite™ cannot be used for direct appliance connections.

Gastite™ pipe sizing table charts are available at www.gastite.com.au All applications should only use Gastite™ sizing charts which are specific to the Gastite™ system.

Gastite™ temperature and pressure rating:

70kpa @ 80°C (Gas applications only).

The Gastite™ Pipe Reamer tool must be used to chamfer and prepare pipe end after every cut. Failure to use the tool will void warranty.

Gastite™ has a 25 year warranty

For full warranty, product must be installed by a licensed gas fitter as per AS/NZS 5601-1-2013.

Need more information?

For further information about Gastite™ visit
www.gastite.com.au