



**SPECIFICATIONS & INSTALLATION GUIDE** 

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### SECTION 1. 50 YEAR PRODUCT WARRANTY



History tells us Market needs often dictate product development. We also know that products used in different regions around the globe may not be suitable for the harsh Australian environment that requires dedicated product development that will stand the test of time.

At Robusto Plumbing Systems, we understand this. Our research team spend significant time & effort testing our product to ensure it meets the need of the Australian market.

All fittings across our gas and water range are made of the premium quality, corrosion resistant, DR Brass providing both reliability and strength to stand the test of time.

UV Resistant to handle the harsh Australian conditions.

Sold in Australia by Plumbers Supplies Co-op assuring availability of supply across the range.

We believe in the quality of our product at Robusto Plumbing Systems, therefore we are proud to announce a 50 year warranty on both our gas and water systems.



### SECTION 1. INTRODUCTION





Robusto Plumbing Systems are manufactured exclusively for Plumbers Co-op by Forza Global, The World Force in Plumbing Systems who are an Australian Owned & Operated business that provides exceptional service and quality products throughout Australia and New Zealand. Robusto Gas Systems includes the BRASS FITTING COPPER RING CRIMP system for potable water, rainwater and recycled water.

#### **GAS PIPE**

Robusto Gas Pipe is multi layered, incorporating a layer of aluminium between an inner of PE-X and an outer of HDPE. This combination gives stability while still being flexible and strong.

Robusto GAS Pipe is guaranteed against manufacturing defect for a period of 50 years when installed and used in accordance of the Australian and New Zealand Plumbing Codes and or the Local or State Authority and when installed by a licensed Plumber. Robusto Gas Pipe complies and is manufactured in accordance with the standards as set out in AS4176.

#### **GAS CRIMP**

Robusto Gas Crimp fittings are Manufactured from quality DR Brass and are precision CNC machined to Australian and New Zealand Standards.

Robusto GAS Crimp fittings have strengthened copper rings with depth inspection windows and the longest joining barbs on the market.

Robusto Gas Crimp fittings do not rely on an 'O' Ring for gas seal, using Robusto Gas

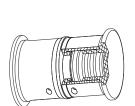
eliminates the risk of installer error due to damaged or rolled 'O' Rings.

Robusto Gas Crimp unlike other systems will fail a manometer test if fittings are not crimped, thus eliminating the chance of fittings blowing at a later date when under pressure for a period of time.

# SECTION 2. Robusto Gas Pipe Packaging

PIPE SIZE	PACKAGING
16MM	5M LENGTHS, 100M COILS
20MM	5M LENGTHS, 100M COILS
25MM	5M LENGTHS, 50M COILS
32MM	5M LENGTHS, 50M COILS



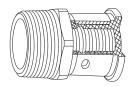


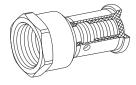
PART NO	CODE	SIZE	DESCRIPTION
			JOINER
689140	RG11616	DN16	ROBUSTO GAS JOINER 16MM
689141	RG12020	DN20	ROBUSTO GAS JOINER 20MM
689142	RG12525	DN25	ROBUSTO GAS JOINER 25MM
689143	RG13232	DN32	ROBUSTO GAS JOINER 32MM

			REDUCING JOINER
689150	RG22016	DN20-16	ROBUSTO GAS REDUCER 20MM X 16MM
689151	RG22516	DN25-16	ROBUSTO GAS REDUCER 25MM X 16MM
689152	RG22520	DN25-20	ROBUSTO GAS REDUCER 25MM X 20MM
689153	RG23220	DN32-20	ROBUSTO GAS REDUCER 32MM X 20MM
689154	RG23225	DN32-25	ROBUSTO GAS REDUCER 32MM X 25MM

			MALE JOINER
689185	RG31615	DN16X1/2"MI	ROBUSTO GAS MALE JOINER 16MM X 1/2"
689182	RG31620	DN16X3/4"MI	ROBUSTO GAS MALE JOINER 16MM X 3/4"
689186	RG32015	DN20X1/2"MI	ROBUSTO GAS MALE JOINER 20MM X 1/2"
689187	RG32020	DN20X3/4"MI	ROBUSTO GAS MALE JOINER 20MM X 3/4"
689184	RG32515	DN25X1/2"M	ROBUSTO GAS MALE JOINER 25MM X 1/2"
689188	RG32520	DN25X3/4"MI	ROBUSTO GAS MALE JOINER 25MM X 3/4"
689189	RG32525	DN25X1''MI	ROBUSTO GAS MALE JOINER 25MM X 1"
689191	RG33225	DN32X1''MI	ROBUSTO GAS MALE JOINER 32MM X 1"
689192	RG33232	DN32X1-1/4"MI	ROBUSTO GAS MALE JOINER 32MM X 1-1/4"

			FEMALE JOINER
689170	RG41615	DN16X1/2"FI	ROBUSTO GAS FEMALE JOINER 16MM X 1/2"
689171	RG42015	DN20X1/2"FI	ROBUSTO GAS FEMALE JOINER 20MM X 1/2"
689172	RG42020	DN20X3/4"FI	ROBUSTO GAS FEMALE JOINER 20MM X 3/4"
689174	RG42520	DN25X3/4"FI	ROBUSTO GAS FEMALE JOINER 25MM X 3/4"
689175	RG42525	DN25X1"FI	ROBUSTO GAS FEMALE JOINER 25MM X 1"
689167	RG43220	DN32X3/4"FI	ROBUSTO GAS FEMALE JOINER 32MM X 3/4"
689176	RG43225	DN32X1"FI	ROBUSTO GAS FEMALE JOINER 32MM X 1"
689168	RG43232	DN32X1 1/4"FI	ROBUSTO GAS FEMALE JOINER 32MM X 1 1/4"







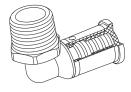
PART NO	CODE	SIZE	DESCRIPTION
			ELBOW
689210	RG51616	DN16	ROBUSTO GAS ELBOW 16MM
689211	RG52020	DN20	ROBUSTO GAS ELBOW 20MM
689212	RG52525	DN25	ROBUSTO GAS ELBOW 25MM
689213	RG53232	DN32	ROBUSTO GAS ELBOW 32MM

			MALE ELBOW
689240	RG61615	DN16X1/2" MI	ROBUSTO GAS MALE ELBOW 16MM X 1/2"
689242	RG62020	DN20 X 3/4" MI	ROBUSTO GAS MALE ELBOW 20MM X 3/4"
689244	RG62525	DN25 X 1" MI	ROBUSTO GAS MALE ELBOW 25MM X 1"
689245	RG63225	DN32 X 1" MI	ROBUSTO GAS MALE ELBOW 32MM X 1"

			MALE LUGGED ELBOW
689275	RG66161565	DN16X1/2" MIX65MM	ROBUSTO GAS LUGGY 16MM X 1/2" M.I X 65MM
689276	RG66161590	DN16X1/2" MIX90MM	ROBUSTO GAS LUGGY 16MM X 1/2" M.I X 90MM
689278	RG66201595	DN20X1/2" MIX95MM	ROBUSTO GAS LUGGY 20MM X 1/2" M.I X 95MM

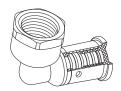
		EXTENDED MALE LUGGED ELBOW
689277	RG661615200	ROBUSTO GAS LUGGY 16MM X 1/2" M.I X 200MM
689280	RG662020200	ROBUSTO GAS LUGGY 20MM X 3/4' MI X 200MM
167282	RCPGWM201575	ROBUSTO COPPER PRESS GAS LUGGED ELBOW 20MM X 1/2" BSPM X 75MM
167283	RCPGWM201590	ROBUSTO COPPER PRESS GAS LUGGED ELBOW 20MM X 1/2" BSPM X 90MM
167284	RCPGWM2015200	ROBUSTO COPPER PRESS GAS LUGGED ELBOW 20MM X 1/2" BSPM X 200MM
167287	RCPGWM2015250	ROBUSTO COPPER PRESS GAS LUGGED ELBOW 20MM X 1/2" BSPM X 250MM
167292	RCPGWM2525250	ROBUSTO COPPER PRESS GAS LUGGED ELBOW 25MM X 1" BSPM X 250MM
167293	RCPGWM3225250	ROBUSTO COPPER PRESS GAS LUGGED ELBOW 32MM X 1" BSPM X 250MM

			FEMALE ELBOW
689255	RG71615	DN16 X 1/2" FI	ROBUSTO GAS FEMALE ELBOW 16MM X 1/2"
689256	RG72015	DN20 X 1/2" FI	ROBUSTO GAS FEMALE ELBOW 20MM X 1/2"
689257	RG72020	DN20 X 3/4" FI	ROBUSTO GAS FEMALE ELBOW 20MM X 3/4"
689258	RG72520	DN25 X 3/4" FI	ROBUSTO GAS FEMALE ELBOW 25MM X 3/4"
689259	RG72525	DN25 X 1" FI	ROBUSTO GAS FEMALE ELBOW 25MM X 1"
689260	RG73225	DN 32 X 1" FI	ROBUSTO GAS FEMALE ELBOW 32MM X 1"
			FEMALE LUGGED ELBOW
689270	RG771615	DN16 X 1/2" FI	ROBUSTO GAS LUGGY 16MM X 1/2" FI
689272	RG772015	DN20 X 1/2"FI	ROBUSTO GAS LUGGY 20MM X 1/2" FI
689271	RG772020	DN20 X 3/4"FI	ROBUSTO GAS LUGGY 20MM X 3/4" FI

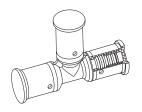






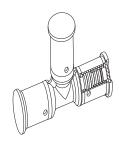






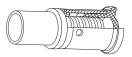
PART NO	CODE	SIZE	DESCRIPTION
			EQUAL TEE
689285	RG8161616	DN16	ROBUSTO GAS TEE 16MM
689286	RG8202020	DN20	ROBUSTO GAS TEE 20MM
689287	RG8252525	DN25	ROBUSTO GAS TEE 25MM
689288	RG8323232	DN32	ROBUSTO GAS TEE 32MM

			CENTRE REDUCING TEE
689300	RG9202016	DN20 X 20 X 16	ROBUSTO GAS TEE 20MM X 20MM X (16MM)
689302	RG9252516	DN25 X 25 X 16	ROBUSTO GAS TEE 25MM X 25MM X (16MM)
689301	RG9252520	DN25 X 25 X 20	ROBUSTO GAS TEE 25 MM X 25MM X (20MM)
689305	RG9323220	DN32 X 32 X 20	ROBUSTO GAS TEE 32 MM X 32MM X (20MM)
689303	RG9323225	DN32 X 32 X 25	ROBUSTO GAS TEE 32 MM X 32MM X (25MM)



l				END AND CENTRE REDUCING TEE
	689334	RG9201616	DN20 X 16 X 16	ROBUSTO GAS TEE 20MM X 16MM X (16MM)
	689335	RG9252020	DN25 X 20 X 20	ROBUSTO GAS TEE 25 MM X 20MM X (20MM)
	689336	RG9322525	DN32 X 25 X 25	ROBUSTO GAS TEE 32 MM X 25MM X (25MM)

			END REDUCING TEE
689325	RG9201620	DN20 X 16 X 20	ROBUSTO GAS TEE 20MM X 16MM X (20MM)
689326	RG9252025	DN25 X 20 X 25	ROBUSTO GAS TEE 25 MM X 20MM X (25MM)



I				CONNECTING BARB SOCKET
	689380	RGCB1615F	DN16X1/2"CU	ROBUSTO GAS CONN. BARB 16MM X 1/2" COPPER
	689381	RGCB2020F	DN20X3/4"CU	ROBUSTO GAS CONN. BARB 20MM X 3/4" COPPER
	689382	RGCB2525F	DN25X1"CU	ROBUSTO GAS CONN. BARB 25MM X 1" COPPER



			END STOPPER
689365	RGS16	DN16	ROBUSTO GAS STOPPER 16MM
689366	RGS20	DN20	ROBUSTO GAS STOPPER 20MM
689367	RGS25	DN25	ROBUSTO GAS STOPPER 25MM
689368	RGS32	DN32	ROBUSTO GAS STOPPER 32MM

			COPPER PRESS ADAPTER
167306	RGCP1615	DN16X1/2"	ROBUSTO GAS CRIMP 16MM X COPPER PRESS 1/2"
163307	RGCP2020	DN20X3/4"	ROBUSTO GAS CRIMP 20MM X COPPER PRESS 3/4"
167308	RGCP2525	DN25X1"	ROBUSTO GAS CRIMP 25MM X COPPER PRESS 1"
167010	RGCP2520	DN25X3/4"	ROBUSTO GAS 25MM X COPPER PRESS 3/4"
167011	RGCP3225	DN32X1"	ROUBSTO GAS 32MM X COPPER PRESS 1"
167012	RGCP4040	DN40X1-1/2"	ROBUSTO GAS 40MM X COPPER PRESS 1-1/2"
167013	RGCP5050	DN50X2"	ROBUSTO GAS 50MM X COPPER PRESS 2"

			GAS REVERSION KIT
657520	RG20RK	DN16	ROBUSTO GAS CRIMP 20MM GAS REVERSION KIT
657521	RG25RK	DN20	ROBUSTO GAS CRIMP 25MM GAS REVERSION KIT
657522	RG32RK	DN25	ROBUSTO GAS CRIMP 32 MM GAS REVERSION KIT



### SECTION 4. SIZING TABLES FOR CRIMP FITTINGS (NATURAL GAS)

	HIGI	H PRESSURE	I PRESSU	RE DROP 0.	25KPA (METI	ER PRESSUF	RE 2.75KPA)					
	LENGTH OF STRAIGHT PIPE IN METRES											
NOM. SIZE	2	4	6	8	10	12	14	16	18			
16MM	161	111	89	76	68	61	56	52	49			
20MM	323	222	178	153	135	122	113	105	98			
25MM	629	433	348	298	264	239	220	205	192			
32MM	1267	871	699	598	530	480	442	411	386			

	LENGTH OF STRAIGHT PIPE IN METRES										
NOM. SIZE	20	25	30	35	40	45	50	55	60		
16MM	46	41	37	34	32	30	28	26	23		
20MM	93	82	75	69	64	60	57	54	51		
25MM	181	161	146	134	125	117	110	105	100		
32MM	364	323	293	269	250	235	222	211	201		

HIGH PRESSURE (VIC. SA. QLD. TAS AND NT	) I PRESSURE DROP 0.75KPA (METER PRESSURE 2.75KPA)

	LENGTH OF STRAIGHT PIPE IN METRES												
NOM. SIZE	2	4	6	8	10	12	14	16	18				
16MM	292	201	161	138	122	111	102	95	89				
20MM	585	402	323	276	245	222	204	190	178				
25MM	1142	785	630	539	478	433	398	371	348				
32MM	2295	1577	1267	1084	961	871	801	745	699				

	LENGTH OF STRAIGHT PIPE IN METRES										
NOM. SIZE	20	25	30	35	40	45	50	55	60		
16MM	84	75	68	62	58	54	51	49	46		
20MM	168	149	135	124	116	109	103	97	93		
25MM	328	291	264	243	226	212	200	190	181		
32MM	660	585	530	488	454	426	402	382	364		

### SECTION 4. SIZING TABLES FOR CRIMP FITTINGS (NATURAL GAS)

	HIGH PRE	ESSURE (NSV	V, WA) I PR	ESSURE DR	OP 1.50KPA	(METER PRE	SSURE 2.75	KPA)	
			LE	NGTH OF ST	RAIGHT PIPI	E IN METRES	;		
NOM. SIZE	2	4	6	8	10	12	14	16	18
16MM	426	292	235	201	178	161	148	138	130
20MM	851	585	470	402	356	323	297	276	259
25MM	1661	1142	917	785	695	630	580	539	506
32MM	3339	2295	1843	1577	1398	1267	1165	1084	1017

			LE	NGTH OF ST	RAIGHT PIPI	E IN METRES	;		
NOM. SIZE	20	25	30	35	40	45	50	55	60
16MM	122	109	98	90	84	79	75	71	68
20MM	245	217	197	181	168	158	149	142	135
25MM	478	424	384	353	328	308	291	276	264
32MM	961	851	772	710	660	620	585	556	530



### SECTION 4. SIZING TABLES FOR CRIMP FITTINGS (NATURAL GAS)

	LOV	V PRESSURE	I PRESSU	RE DROP 0.0	)75KPA (ME1	TER PRESSU	RE 1.1KPA)		
			LE	NGTH OF ST	RAIGHT PIPI	E IN METRES	;		
NOM. SIZE	2	4	6	8	10	12	14	16	18
16MM	84	58	46	40	35	32	29	26	23
20MM	168	116	93	80	70	64	59	55	51
25MM	328	226	181	155	138	125	115	107	100
32MM	660	454	364	312	276	250	230	214	201

			LE	NGTH OF ST	RAIGHT PIP	E IN METRES	;		
NOM. SIZE	20	25	30	35	40	45	50	55	60
16MM	21	17	14	12	11	9	8	8	7
20MM	48	43	39	35	30	27	24	22	20
25MM	95	84	76	70	65	61	58	55	52
32MM	190	168	153	140	131	123	116	110	105

	LOV	V PRESSURE	I PRESSU	RE DROP 0."	I2KPA (METI	ER PRESSUF	RE 1.25KPA)		
			LE	NGTH OF ST	RAIGHT PIP	E IN METRES	;		
NOM. SIZE	2	4	6	8	10	12	14	16	18
16MM	109	75	60	51	45	41	38	35	33
20MM	217	149	120	103	91	82	76	70	66
25MM	424	291	234	200	177	161	148	138	129
32MM	851	585	470	402	356	323	297	276	259

			LE	NGTH OF ST	RAIGHT PIPI	E IN METRES	;		
NOM. SIZE	20	25	30	35	40	45	50	55	60
16MM	31	27	22	19	17	15	13	12	11
20MM	62	55	50	46	43	40	38	35	32
25MM	122	108	98	90	84	79	74	71	67
32MM	245	217	197	181	168	158	149	142	135

### SECTION 5. SIZING TABLES FOR CRIMP FITTINGS (LPG)

LPG I PRESSURE DROP 0.25KPA (METER PRESSURE 2.75KPA)									
			LEI	NGTH OF ST		E IN METRES	;		
NOM. SIZE	2	4	6	8	10	12	14	16	18
16MM	277	190	153	131	116	105	97	90	84
20MM	554	381	306	262	232	210	193	180	169
25MM	1081	743	597	511	453	410	377	351	329
32MM	2173	1494	1199	1027	910	824	758	706	662

			LE	NGTH OF ST	RAIGHT PIP	E IN METRES	;		
NOM. SIZE	20	25	30	35	40	45	50	55	60
16MM	80	71	64	59	55	51	49	46	44
20MM	159	141	128	118	110	103	97	92	88
25MM	311	276	250	230	214	201	189	180	172
32MM	625	554	502	462	430	403	381	362	345

		LPG I PI	RESSURE DR	OP 10.0KPA	(METER PRI	ESSURE 70.0	KPA)		
			LE	NGTH OF ST	RAIGHT PIPI	E IN METRES	;		
NOM. SIZE	2	4	6	8	10	12	14	16	18
16MM	2648	1820	1462	1251	1109	1005	924	860	807
20MM	5297	3640	2923	2502	2218	2009	1848	1720	1614
25MM	10337	7104	5705	4883	4327	3921	3607	3356	3149
32MM	20779	14281	11468	9815	8699	7882	7251	6746	6330

			LE	NGTH OF ST	RAIGHT PIPI	E IN METRES	;		
NOM. SIZE	20	25	30	35	40	45	50	55	60
16MM	762	675	612	563	524	491	464	441	421
20MM	1524	1351	1224	1126	1048	983	928	882	841
25MM	2974	2636	2388	2197	2044	1918	1812	1721	1642
32MM	5979	5299	4801	4417	4109	3856	3642	3459	3300

# SECTION 6. CERTIFICATE OF CONFORMITY



# CERTIFICATE OF CONFORMITY

### ApprovalMark International hereby grants:

Forza Global Pty Ltd 2/8 Barclay Road Derrimut, VIC 3030 AUSTRALIA

#### ISO Type 5 Certificate of Conformity

Evaluated to:

AS 4176.8: 2010 - Multilayer pipes for pressure applications

Part 8: Multilayer pipe systems for consumer gas installations with a maximum operating pressure up to and including 5 bar (500 kPa) -Specifications for systems (ISO 17484-1:2006, MOD)

The ISO Type 5 License shall comply with all the terms and conditions as stipulated by the governance of the operating rules of the ISO Type 5 Scheme and shall comply with the standard requirements at all times including when the standard is amended. The ISO Type 5 License only covers the product which is identified in the attached product schedule.

#### Certificate No. AMI 74632

Issued: 2<sup>nd</sup> August 2022

Expires: 12th August 2025

John PRASAD

ApprovalMark International Pty Ltd 20/33 Holbeche Road, Arndell Park 2148, Australia www.approvalmark.com





Original Issue: 12th August 2015

**Registered by:** ApprovalMark International Pty Ltd (ABN 69 143 259 974) Unit 20, 33 Holbeche Road, Arndell Park NSW 2148 Australia. The assessment was carried with appropriate skill and assessment by ApprovalMark International Pty Ltd, however it will only accept its responsibility for proven negligence. The certificate remains the property of ApprovalMark International Pty Ltd.

# SECTION 7. CRIMP GAS INSTALLATION INSTRUCTIONS

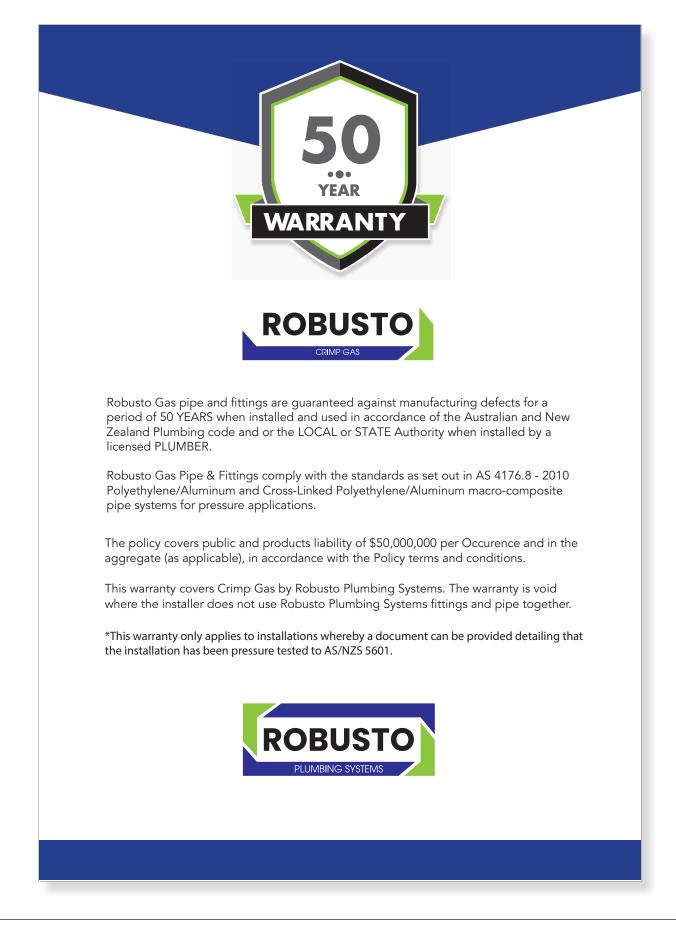
The following instructions explain the correct installation procedure for Robusto Crimp Gas fittings in conjunction with Robusto Gas pipe.



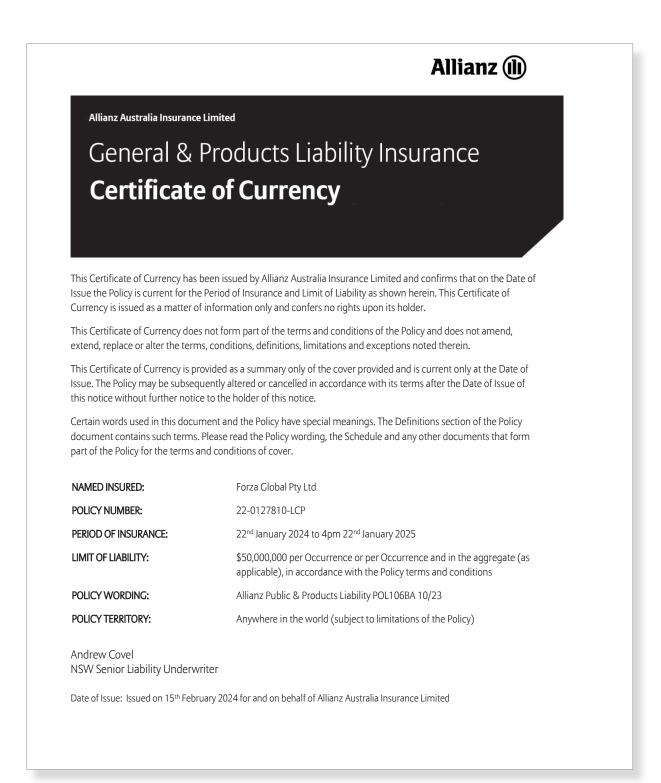
### SECTION 7. CRIMP GAS INSTALLATION INSTRUCTIONS



### SECTION 8. 50 YEAR PRODUCT WARRANTY



# SECTION 9. INSURANCE CERTIFICATE



# SECTION 10. FREQUENTLY ASKED QUESTIONS

Q. Can you rotate a Robusto Crimp Gas fitting once installed?

A. No, once pressed, it cannot be rotated.

Q. Can Robusto Crimp Gas be dismantled and reused?

A. No, this is a permanent installation.

Q. What is the warranty on Robusto Gas Crimp?.

A. The product has a 50 year limited warranty when installed and used in accordance of the Australian Plumbing code and or the LOCAL or STATE Authority.

Q. Are there any storage issues?

A. Fittings should be stored in a cool dry place in their original packaging. This protects the fittings from contamination, damage and dirt.

Q. Do I use Robusto's recommended tooling?

A. Our tools are designed for use on our systems to ensure the system is warranted. Other approved brand tools may be used should they meet our standards. Check with Robusto Plumbing systems to make sure you're covered.

Q. How is the Robusto Crimp Gas system installed?

A. You can check how each system is installed by viewing the installation guides available from the downloads tab on the home page.








ROBUSTO PLUMBING SYSTEMS WWW.ROBUSTO.COM.AU