



BRANDS

NEW ZEALAND'S LEADING SUPPLIER OF
QUALITY PIPING & PLUMBING PRODUCTS



**KEMGUARD™
TECHNOLOGY**

COPPER
PRESS-FIT
CONNECTION
SYSTEM FOR
WATER & GAS



KEMBLA

KemPress®

DESIGN & INSTALLATION GUIDE

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THE HIGHEST QUALITY COPPER PRESS-FIT TECHNOLOGY OFFERING, EASE OF USE AND IMPROVED INSTALLATION QUALITY.

MM Kembla® has combined the experience and knowledge of over 100 years of Australian copper tube manufacturing with press-fit technology and engineering to produce the KemPress® Copper Press-fit connection system. Now incorporating KemGuard Technology; a unique set of features to improve installation quality, minimise risk and manage and monitor installation performance. With a warranty of 25 years, and a design life of over 50 years, KemPress® offers you peace of mind and the simplicity that you want.

When you need the highest quality press-fit system, use Kembla copper tube, KemPress® fittings and the KemPress® tool. Our tools are of the highest quality, are the lightest on the market and have the longest service life.





WHY USE KEMPRESS?

The advantages of installing KemPress copper fittings include:

Faster and easier to use

- Considerably faster than conventional brazing
- No need to drain water out of the system.

Flame free connection

- No hot works permit required.

High quality fittings manufactured and quality controlled to AS3688

KemGuard Technology

- New un-pressed fitting ID (Leak Path)
- Bluetooth Kempress tools
- Unique Push & Stay
- Universal Profile
- KemCore Technology
- Visual Identification
- Dual Layer Grip Ring
- 25 Year Warranty.

Universal Copper Press-fit system

- All KemPress® fittings are compatible with recognised press-fit tools such as Viega, Rothenberger, Novopress, Milwaukee & Ridgid with Australian sized compatible jaws, making it a truly universal system.
- The KemPress® system is compatible with Type A & B copper tube complying with AS1432.

High quality, lightweight KemPress® tools

- Slim lightweight and ergonomic design
- One hand operation. Once the jaws are inserted the weight is balanced
- Smart Electronic Controls and Bluetooth technology for use with the Novocheck App
- Longest interval between servicing
- Loan tool provided while servicing
- Small tool (KPS2) handles tube up to DN32
- Large tool (KPL3) handles tube up to DN100
- Brushless Motor Technology for more presses per battery charge
- Press area illumination
- 180° Rotatable head on KPS2 small tool.

KemPress Warranty

- With a warranty of 25 years, and a design life of over 50 years, KemPress® offers you peace of mind.
- Backed by MM Kembla's reputation for high quality products, service and customer care.





KEMGUARD™ TECHNOLOGY



**PROTECTING
YOUR PRESS-FIT
INSTALLATION**



WATCH VIDEO
SCAN QR CODE

NOW WITH
UNPRESSED
FITTING ID
(LEAK PATH)



WHAT IS KEMGUARD™ TECHNOLOGY?

A unique set of features incorporated into the KemPress Copper Press-Fit Connection system:

- Improve installation quality
- Minimise risks during and after installation
- Provide identifiable cues for incorrect installation
- The ability to manage and monitor on-site performance



UNIVERSAL PROFILE

Suitable for use with all press tools



UNIQUE PUSH & STAY

Prepare rough-in before securing



UNPRESSED FITTING ID

Designed to identify unpressed fittings



BLUETOOTH KEMPRESS TOOLS

Manage on-site performance



DUAL LAYER GRIP RING DN 65-100

Provides extra connection strength



KEMCORE COPPER TUBE

Uniform wall thickness
Optimised for press



VISUAL IDENTIFICATION

Press identification through indentation



25 YEAR WARRANTY

All KemPress fittings conform to AS3688 and Australian Watermark Certification



50 YEAR DESIGN LIFE

The Kempress connection system is designed not to leak for a minimum of 50 years

NEW UN-PRESSED FITTING ID (LEAK PATH)

KemPress fittings are now equipped with the "Un-Pressed Fitting ID" feature to assist in identifying un-pressed fittings.

Designed to allow water or air to escape from any un-pressed fitting via low pressure testing.

Utilises a combination of O-ring design and fitting tolerances to help you identify an unpressed fitting.



HOW DO I KNOW MY FITTING HAS THIS FEATURE?

Just look for the KemGuard logo on any KemPress fitting up to DN50.

For sizes DN65-100, the Kempress fitting design will show a leak if unpressed.



HOW TO ACTIVATE A LEAK PATH USING A LOW PRESSURE TEST



WATER TEST

1
LEAK PATH TEST AT 100kPa

Pressurise the line to 100kPa for a period of 10 minutes.

2
INSPECT ALL JOINTS

Whilst under pressure. Inspect all joints. If fitting is un-pressed, a bead of water will be visible from the un-pressed joint.

3
PRESSURE TESTING

Pressure test as per the requirements of AS/NZS 3500.

PERFORMING A LOW PRESSURE (LEAK PATH) TEST

A leak and a pressure drop will be noticeable during the low pressure test.

The low pressure test can be achieved by using a water test or an air test. Note when utilising the water method, be sure to flush the system completely after testing to ensure no stagnant water is present.

AIR TEST

1
LEAK PATH TEST AT 15kPa

Pressurise the line at 15kPa for a period of 120 minutes.

2
IDENTIFY IF PRESSURE DROPS

No pressure drop should be evident. If a pressure drop occurs, inspect all joints for any un-pressed fitting.

3
PRESSURE TESTING

As per the requirements of AS/NZS 3500 or AS/NZS5601 for Gas Installations.



WATER TEST



100 kPa



10 Minutes

AIR TEST



15 kPa



120 Minutes

BLUETOOTH KEMPRESS TOOLS



Manage on-site tool performance and calibration.

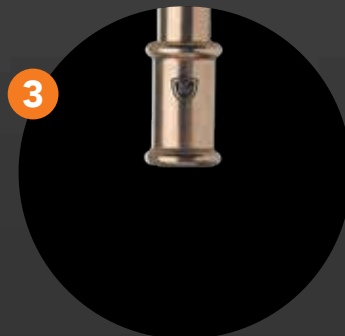
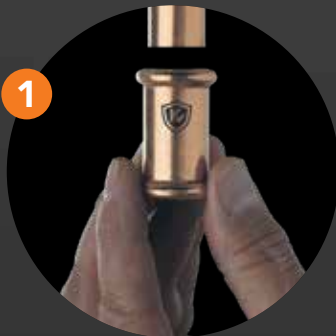
- KPS2 and KPL3 tools are Bluetooth
- Access live diagnostic data of all presses via the Novocheck App
- Generate site reports showing press completion and data logs of press performance
- Compare press completion with number of presses required on a section of work.



UNIQUE PUSH & STAY



Fittings up to DN50 are manufactured and designed tight enough on insertion to complete a rough in prior to pressing the fittings.



UNIVERSAL PROFILE

KemPress fittings up to DN50 have been designed with a unique universal profile, to ensure no matter what press tool you are using, your fitting warranty remains intact.

The unique SA press profile of KemPress fittings means you can use any press tool with jaw profiles V, SA or M suitable for use on AS3688 size fittings to complete your press connection. Meaning you don't need to purchase a new press tool to begin using KemPress fittings or worry about using the wrong press tool across job sites.

TOOLS COMPATIBLE WITH KEMPRESS FITTINGS

KemPress® KPS, KPL & KPL2

Viega Picco & Picco 6 Plus, Pressgun 4B, 5, 6 & Picco 6 Plus

Novopress ACO102, ACO202, ACO203, ECO202 & ECO203

Ridgid RP 210-B & RP 340

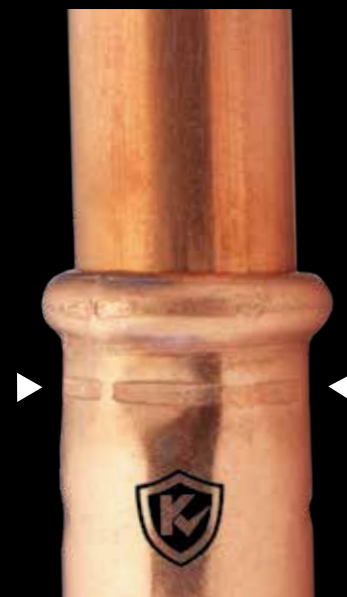
Milwaukee M12 & M18 Force Logic

Rothenberger Compact and ROMAX 3000 & 4000

VISUAL IDENTIFICATION

Press identification through indentation.

- Once pressed, fittings will display a visual indentation mark around the fitting.
- After pressing look for a straight indentation mark on the fitting to confirm all fittings have been pressed.
- It is also recommended to mark the fitting with a marker or paint once visual identification of press has occurred – encourages good workmanship.



DUAL LAYER RING GRIP



Provides extra connection grip.

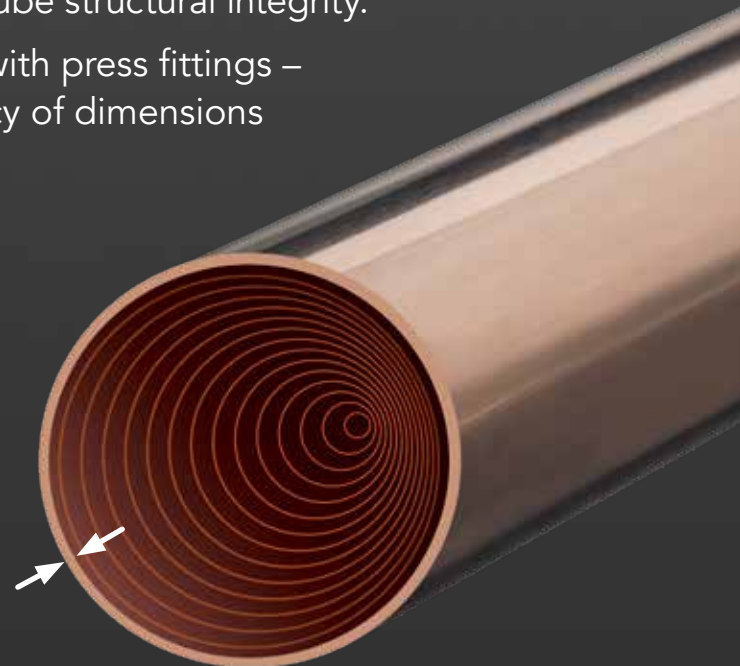
- Dual layer Stainless Steel grip ring on all XL DN65-100 fittings
- Provides extra connection strength and prevents fitting slippage
- Exceeds performance requirements for minimum pull out strength.



KEMCORE™ COPPER TUBE



- A press-fit system is only as good as the tools, fittings and tube you press with.
- Kembla Copper Tube with KemCore utilises inline technology up to size DN50 to measure and control tube concentricity across the entire length:
 - Providing superior wall thickness control and optimal press conditions
 - Reduces variance in wall thickness which results in unequal distribution of press force, reducing the tube structural integrity.
- Kembla copper tube is optimised for use with press fittings – requiring additional control and consistency of dimensions under pressing force.



**SUPERIOR TUBE
WALL THICKNESS
CONTROL FOR
OPTIMUM PRESS
PERFORMANCE**

25 YEAR WARRANTY



The KemPress press-fit system is backed by a 25 year warranty.

- MM Kembla's manufacturing processes and quality systems are built upon over 100 years of experience in manufacturing copper tube in Port Kembla, Australia.
- An intensive ISO 9001 certified quality control system is applied to all MM Kembla KemPress fittings to ensure they conform to AS3688 and Australian Watermark certification requirements.

50 YEAR DESIGN LIFE



The KemPress press-fit system has a 50 year design life.

- Just like copper, KemPress fittings are designed to last. When installed carefully according to our installation instructions, suitable plumbing system designs to required standards and adequate system maintenance, KemPress fittings have a 50 year design life.
- An intensive ISO 9001 certified quality control system is applied to all MM Kembla KemPress fittings to ensure they conform to AS3688 and Australian Watermark certification requirements.



PRODUCT RANGE

COPPER FITTINGS

COPPER FITTINGS HT
(High Temperature)







COPPER ALLOY FITTINGS







PRODUCT RANGE

COPPER FITTINGS	Diameter (DN)	Water Code	Pack Qty	Carton Qty	Gas Code	Pack Qty	Carton Qty
Connector 	15	69000	10	500	69320	10	300
	20	69001	10	300	69321	10	150
	25	69002	5	125	69322	5	60
	32	69003	2	60	69323	2	30
	40	69004	2	50	69324	2	20
	50	69005	2	30	69325	2	12
	65	69540	1	24	69780	1	24
	80	69541	1	16	69781	1	16
	100	69542	1	8	69782	1	8
	Connector Slip 	15	69055	10	500	69370	10
20		69056	10	250	69371	10	120
25		69057	5	100	69372	5	50
32		69058	2	60	69373	2	30
40		69059	2	40	69374	2	20
50		69060	2	24	69375	2	12
65		69545	1	22	69783	1	22
80		69546	1	16	69784	1	16
100		69547	1	8	69785	1	8
Elbow 45 Degree 		15	69010	10	500	69330	10
	20	69011	10	200	69331	10	100
	25	69012	5	100	69332	5	50
	32	69013	2	60	69333	2	30
	40	69014	2	40	69334	2	20
	50	69015	2	16	69335	2	10
	65	69570	1	16	69795	1	16
	80	69571	1	10	69796	1	10
	100	69572	1	5	69797	1	5
	Elbow 90 Degree 	15	69061	10	500	69380	10
20		69062	10	200	69381	10	100
25		69063	5	100	69382	5	50
32		69064	2	50	69383	2	20
40		69065	2	30	69384	2	14
50		69066	2	14	69385	2	6
65		69575	1	12	69798	1	12
80		69576	1	6	69799	1	6
100		69577	1	4	69800	1	4
Elbow 90 degree M&F 		15	69020	10	500	69340	10
	20	69021	10	200	69341	10	100
	25	69022	5	100	69342	5	50
	32	69023	2	50	69343	2	20
	40	69024	2	30	69344	2	14
	50	69026	2	14	69345	2	6
	65	69580	1	12	69753	1	12
	80	69581	1	8	69754	1	8
	100	69582	1	4	69755	1	4

PRODUCT RANGE

COPPER FITTINGS	Diameter (DN)	Water Code	Pack Qty	Carton Qty	Gas Code	Pack Qty	Carton Qty
Tee Equal  	15	69070	10	200	69390	10	120
	20	69071	10	80	69391	10	60
	25	69072	5	60	69392	5	25
	32	69073	2	30	69393	2	16
	40	69074	2	22	69394	2	12
	50	69075	2	12	69395	2	4
	65	69585	1	9	69801	1	9
	80	69586	1	7	69802	1	7
	100	69587	1	3	69803	1	3
Tee Reducing  	20x20x15	69030	10	150	69350	10	50
	20x15x15	69275	10	200	69291	10	110
	20x15x20	69274	10	150	69290	10	70
	25x25x15	69031	5	60	69351	5	30
	25x25x20	69032	5	70	69352	5	30
	32x32x15	69626	2	60	69646	2	30
	32x32x20	69627	2	60	69647	2	30
	32x32x25	69033	2	30	69353	2	18
	40x40x20	69628	2	40	69648	2	20
	40x40x25	69629	2	30	69649	2	16
	40x40x32	69034	2	24	69354	2	12
	50x50x20	69630	2	20	69650	2	8
	50x50x25	69631	2	20	69651	2	10
	50x50x40	69277	2	16	69294	2	10
	65x65x50	69590	1	12	69804	1	12
	80x80x50	69591	1	9	69805	1	9
	80x80x65	69592	1	8	69806	1	8
	100x100x50	69593	1	5	69807	1	5
100x100x65	69594	1	4	69808	1	4	
100x100x80	69595	1	3	69809	1	3	
Reducer  	20x15	69035	10	250	69355	10	150
	25x20	69036	5	125	69356	5	70
	25x15	69280	5	150	69300	5	90
	32x15	69620	2	120	69640	2	60
	32x20	69281	2	100	69301	2	60
	32x25	69282	2	60	69302	2	50
	40x20	69621	2	90	69641	2	40
	40x25	69622	2	70	69642	2	30
	40x32	69283	2	60	69303	2	30
	50x20	69623	2	40	69643	2	20
	50x25	69624	2	50	69644	2	16
	50x32	69625	2	30	69645	2	20
	50x40	69284	2	30	69304	2	14
	65x32	69550	1	30	69744	1	30
	65x40	69551	1	30	69745	1	30
	65x50	69552	1	30	69786	1	30
	80x40	69553	1	25	69747	1	25
	80x50	69554	1	24	69748	1	24
	80x65	69555	1	21	69749	1	21
	100x50	69556	1	16	69750	1	16
100x65	69557	1	12	69751	1	12	
100x80	69558	1	12	69752	1	12	









PRODUCT RANGE

COPPER FITTINGS	Diameter (DN)	Water Code	Pack Qty	Carton Qty	Gas Code	Pack Qty	Carton Qty
Reducer M&F 	20x15	69101	10	400	69400	10	150
	25x15	69103	5	200	69401	5	100
	25x20	69105	5	150	69402	5	90
	32x25	69108	2	60	69403	2	40
	40x25	69110	2	60	69404	2	36
	40x32	69112	2	60	69405	2	30
	50x25	69113	2	40	69406	2	20
	50x32	69114	2	40	69407	2	20
	50x40	69115	2	36	69408	2	20
	65x40	69560	1	30	69787	1	30
	65x50	69561	1	25	69788	1	25
	80x40	69562	1	20	69789	1	20
	80x50	69563	1	20	69790	1	20
	80x65	69564	1	20	69791	1	20
	100x50	69565	1	14	69792	1	14
	100x65	69566	1	14	69793	1	14
	100x80	69567	1	12	69794	1	12
	Flange Adaptor 	40	69119	1	1		
50		69120	1	1			
65		69160	1	1			
80		69161	1	1			
100		69162	1	1			
HT (High Temperature) COPPER FITTINGS							
HT Connector 	15	66700	10	300			
	20	66701	10	150			
HT Elbow 90 Degree 	15	66761	10	250			
	20	66762	10	100			

PRODUCT RANGE

COPPER & COPPER ALLOY FITTINGS	Diameter (DN)	Water Code	Pack Qty	Carton Qty	Gas Code	Pack Qty	Carton Qty
End Caps  	15	69121	10	1000	69326	10	400
	20	69122	10	750	69327	10	300
	25	69123	5	250	69328	5	150
	32	69124	2	100	69329	2	80
	40	69125	2	100	69336	2	40
	50	69126	2	72	69337	2	32
	65	69600	1	30	69810	1	30
	80	69601	1	28	69811	1	28
	100	69602	1	18	69812	1	18
Male Line Adaptor 	15x1/2" BSP	69040	10	250	69360	10	250
	15x3/4" BSP	69041	10	200	69361	10	200
	20x1/2" BSP	69042	10	200	69362	10	200
	20x3/4" BSP	69044	10	150	69363	10	150
	25x3/4" BSP	69046	5	100	69364	5	100
	25x1" BSP	69047	5	100	69365	5	100
	32x1-1/4" BSP	69048	2	50	69366	2	50
	40x1-1/2" BSP	69050	2	40	69367	2	40
50x2" BSP	69052	2	16	69368	2	16	
Female Line Adaptor 	15x1/2" BSP	69130	10	250	69534	10	250
	20x3/4" BSP	69131	10	150	69535	10	150
	25x1" BSP	69132	5	80	69536	5	80
	32x1-1/4" BSP	69133	2	40	69537	2	40
	40x1-1/2" BSP	69134	2	30	69538	2	30
50x2" BSP	69135	2	20	69539	2	20	
Unions (62) 	15x1/2" BSP	69053	10	240	69067	10	240
	20x3/4" BSP	69054	10	120	69068	10	120
Unions (69) 	25x1" BSP	69076	5	30	69450	5	30
	32x1-1/4" BSP	69077	2	20	69451	2	20
	40x1-1/2" BSP	69078	2	10	69452	2	10
	50x2" BSP	69079	2	8	69453	2	8
Plug In Adaptor (Female Thread) 	15x1/2" BSP	69140	10	200	Universal usage		
	20x1/2" BSP	69141	10	170			
	20x3/4" BSP	69142	10	100			
Plug In Adaptor (Male Thread) 	15x1/2" BSP	69037	10	170	Universal usage		
	20x1/2" BSP	69038	10	170			
	20x3/4" BSP	69039	10	120			

PRODUCT RANGE
**COPPER & COPPER
ALLOY FITTINGS**

	Diameter (DN)	Water Code	Pack Qty	Carton Qty	Gas Code	Pack Qty	Carton Qty
	15x1/2" BSP MI	69116	10	60	69410	10	60
	15x1/2" BSP FI	69117	10	100	69411	10	100
	20x3/4" BSP FI	69118	10	60	69412	10	60
Back Plated Male Elbow (96mm) 	15x1/2" BSP	69127	10	50	69427	10	50
Female Threaded Elbow 90 Degree 	15x1/2" BSP	69813	10	150	69817	10	150
	20x3/4" BSP	69814	10	70	69818	10	70
Male Threaded Elbow 90 Degree 	15x1/2" BSP	69815	10	150	69819	10	150
	20x3/4" BSP	69821	10	100	69822	10	100
KemPress Copper to KemPex Slide Connector 	15/16mm	69816	10	150			
	20mm	69820	10	100			
	25mm	69825	10	100			
	32mm	69832	10	100			
KemPress Copper to KemPex Crimp Connector 	15/16mm	69833	10	320	69845	10	320
	20mm	69834	10	200	69846	10	200
	25mm	69835	10	100	69847	10	100
	32mm	69836	10	70	69848	10	70
KemPress Copper to Rifeng Crimp Connector 	15/16mm	913764	5	360	913758	5	360
	20mm	913765	5	225	913759	5	225
	25mm	913766	5	120	913761	5	120
	32mm	913767	5	90	913763	5	90
	15/20mm				913760	5	225
	20/25mm				913762	5	120
Swivel Adaptor 	15x1/2" BSP	913708	45	360			
	20x3/4" BSP	913709	25	200			
	20x1/2" BSP	913710	25	200			

KEMPRESS INSTALLATION GUIDE

DN 15-50 & DN 65-100
COPPER FITTINGS

DN15-50 INSTALLATION

The following is a step by step guide to installing the KemPress® System for diameters DN15-50. For projects requiring maintenance and repair visually inspect the copper tube to ensure it is in reasonable condition with no signs of external corrosion or scores. Installation shall be in accordance with Australian standards and the KemPress® Design & Installation Guide. Failure to adhere to either can result in the warranty being voided.



1. Cut copper tube to length using a pipe cutter.



2. Deburr carefully the end of the tube on the inside to minimise turbulence and pressure loss according to AS3500 and on the outside to avoid damaging the O-ring.



3. For existing copper tube, clean the end with emery paper or a soft scourer.



4. Mark the insertion depth by lining up the fitting side by side with the tube and mark the tube. When the fitting is inserted onto the tube the outer edge of the fitting must line up with the marking. For correct insertion depths see column **e** of the Fittings Space Requirements table, page 22.



5. Select pressing jaw according to the fitting dimension and insert into the pressing machine. Arrest the locking bolts of the machine. Check the jaws are free from debris and in good working order.

**SCAN QR CODE TO
VIEW THE KEMPRESS
INSTALLATION VIDEO**



DN15-50 INSTALLATION



6. Ensure you have the correct fitting for the application (e.g. water or gas). Check the fitting is clean and the O-ring is free from debris and correctly sitting in place. Push fitting on tube all the way to the engagement marking.



7. Check the fitting outer edge still lines up with the marking. Open the pressing jaw and close it around the fitting so the raised bump in the fitting rests inside the groove of the pressing jaw. Ensure the jaw is engaged square with the fitting and not on an angle.



8. Initiate the pressing job by pressing the start button. The automatic pressing process guarantees a tight connection. The pressing process can be interrupted by pressing the emergency-stop button.



9. Visually inspect the fitting to ensure the press has been completed. The KemPress® tool will flash if the fitting did not press correctly. If this occurs a new fitting and tube section is required. At the end of the project visually inspect each fitting to ensure none have been missed.

CAUTION

Brazing or soldering near to KemPress® joints should be avoided as this may cause the seal to degrade due to heat transfer. The table below states the minimum distance away from the press joint which is acceptable to braze. If this distance cannot be maintained then adequate precautions must be taken such as fabricating the brazed section prior to assembly with the press fittings, wrapping the press joint in a wet rag and keeping cool during brazing or applying tube freezing spray.

MINIMUM DISTANCE FOR BRAZING NEAR A KEMPRESS FITTING

Tube Size	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100
Minimum Clearance to existing connection (mm)	350	500	650	800	1000	1300	1650	2000	2500
Minimum Clearance to existing brazed fitting (mm)	10	10	10	10	20	20	20	20	20

DN65-100 INSTALLATION

DN65-100 installations require the use of the KemPress® Large Tool (KPL/KPL2) and KemPress® DN65-100 Collars and ZB203 Adaptor Jaw or other approved pressing tools. For projects requiring maintenance and repair, visually inspect the copper tube to ensure it is in reasonable condition with no signs of external corrosion or scores and clean the ends with emery paper or a soft scourer. Installation shall be in accordance with Australian standards and the KemPress® Design & Installation Guide. Failure to adhere to either can result in the warranty being voided.



1. Cut copper tube to length using a pipe cutter or fine tooth saw and ensure the pipe is cut square.



2. Carefully deburr and wipe clean the end of the tube internally and externally to minimise turbulence and pressure loss according to AS3500 and avoid damaging the O-ring.



3. Ensure you have the correct sized fitting, check the fitting is clean and the stainless steel grip ring and O-ring are free from debris and correctly seated in the fitting.



4. Mark the insertion depth on the tube by lining up the fitting side by side with the tube or by inserting the fitting onto the tube until it reaches the tube stop. When fitting is inserted onto the tube the outer edge of the fitting must line up with the marking.

Refer to the table below for the minimum insertion depth.



WARNING. 1st generation KemPress DN65 Collars and Fittings are not to be used with new KemPress® DN65 Collars and Fittings.

1st generation DN65 fittings & collars can be identified by the following: **1.** Fittings have a different profile and do not contain a stainless steel grip ring. **2.** Collars have a groove on the inside of the collar rather than a flat surface.

If you are unsure of the fitting or collar you are using, please contact MM Brands Customer Service on 800 536 252 for clarification.

Tube Size	Minimum Insertion Depth
DN40	36mm
DN50	40mm
DN65	43mm
DN80	47mm
DN100	55mm

DN65-100 INSTALLATION



5. Secure the tube in a vise or pipe support to prevent any movement of the tube and insert the fitting onto the tube. Ensure the outer edge of the fitting lines up with the insertion depth mark made in step 4.



6. Select the appropriate sized KemPress® collar, check it is clean and that the surface of the pressing area is smooth.



7. Open the collar and place it around the fitting, such that the bump on the fitting is rested into the groove of the pressing collar. Close the press collar ensuring it fits square with the fitting and check the insertion depth mark still lines up with the outer edge of the fitting.



8. Select the ZB203 Adaptor Jaw, insert onto the KPL/KPL2 pressing tool and arrest the locking bolts of the tool.



9. Open the ZB203 Adaptor Jaw by depressing the jaw levers and attach to the press collar so that the claws of the jaw grip around the pins of the press collar. Initiate the pressing job by pressing the start button. The pressing procedure should not be interrupted prematurely unless in an emergency by pressing the emergency stop button. The KemPress tool will flash if the fitting does not press correctly.



10. Release the adaptor jaw from the collar and the collar from the fitting. Remove the KemPress® label to indicate completion of the press.

PRESSURE TESTING PROTOCOLS

WET TEST
(For Water Systems)

DRY TEST
(For Water Systems)

AIR TEST
(For Gas Systems)



PRESSURE TEST LOGS

MM Kembla's KemPress copper press-fit connection system incorporates a unique set of features referred to as "KemGuard Technology" designed to; improve installation quality, minimise risks during and after installation, provide identifiable cues for incorrect installation, create the ability to manage and monitor on-site performance.

With the new "Un-pressed Fitting ID" feature, KemPress fittings are designed to allow a small amount of water or air to escape from a fitting that is un-pressed, providing a visual pressure drop and leak to identify unpressed fittings. This low-pressure test can be completed with air or water and leak paths on press fittings only activate when low pressure testing is completed. Below are the requirements to test to identify any un-pressed fittings. Once completed and no pressure drop has been found (or a visible leak), you can proceed to standard system pressure testing as per AS/NZS 3500 or relevant installation standard.

It is also a good practice to visually inspect all fittings for visual identification of indentation marks, ensuring they are present and straight. It is also strongly recommended to mark all fittings after visual inspection to encourage good installation practice.

When water fitting installations are complete, it is essential to flush with water before use to remove dust, debris and flux residues, in accordance with AS/NZS 3500. Drinking water installations should be tested and inspected in accordance with AS/NZS 3500 for leaks and remedial action taken if necessary. KemPress® fittings maintain earth continuity without the need for additional continuity straps.

The KemPress system should comprise of two parts: Firstly, a low pressure leak test, which will allow any un-pressed fittings to be identified by the 'Un-Pressed Fitting ID' feature, and the second part of the test at a higher pressure to act as a 'Tightness Test'. Both the 'Leak Path' and the 'Tightness Test' should be carried out and recorded on the 'Pressure Test Log'.

WATER TEST (WATER)

- Constant checks should be made while charging the system for early leakage signs / identifying an un-pressed fitting
- Ideally, pressure testing should be done with water that is as close to ambient temperature as possible. Using water that is heated can cause a false pressure drop reading if allowed to cool over an extended 'Tightness Test' period. We recommend a 30min settling period to allow any temperature variances to equalise. The ambient temperature, and the water temperature, should be recorded in the 'Pressure Test Log'. Once filled, care should also be taken to ensure that all water and air is removed from the system.

Preliminary leak test:

- Once the system has settled, the 'Leak Path' test should be carried out at 100 kPa, for a period of 10 minutes. During this time, we recommend a visual inspection of all joints and connections, and this inspection should be recorded on our 'Pressure Test Log'. If a fitting has been left un-pressed, then the un-pressed fitting should be visible as a bead of water coming from the un-pressed joint.
- If an un-pressed fitting is detected, the pressure should be released from the system before the fitting is pressed. Please also ensure that the pipe is still inserted to the correct depth before pressing. Once the press has been completed, the test should be repeated.

Main test:

- Once the 'Leak Path' test is complete, then the main pressure test can begin. AS/NZS 3500 specifies that the piping system is to be tested to 1500kPa for 30 minutes minimum (According to AS/NZS 3500.1 Cold Water and AS/NZS 3500.4 Heated Water)
- We suggest that the pressure to be built up in stages. For example, raised to 500 kPa for few minutes, then raised to 1000 kPa and finally to 1500 kPa (This is not mandatory,

but if a fitting has been pressed but is incorrectly installed, and it fails, it is better that it fails at a lower pressure).

DRY TEST (COMPRESSED AIR/ INERT GAS)

- When testing with air/gas, at pressures higher than 1 bar, due care and attention must be taken when considering the potential health/safety hazards to workers in the vicinity. Air/gas, when compressed to high pressures, can store significant energy. In the event of a joint failure due to a fitting being incorrectly installed, this energy, which if released suddenly, can have an explosive like effect.
- Constant checks should be made while charging the system for early leakage signs / identifying an un-pressed fitting.

Preliminary leak test:

- The initial air test is a 'Leak Path' test and should be performed at 15 kPa at least for 120 minutes, for a system with a volume up to 100 litres. Additional 20 minutes of testing time should be added for every additional 100 litres of system volume.
- No pressure drop is allowed during this test period. Record the results of the test on the 'Pressure Test Log'. Once the 'Leak Path' test has been completed and passed, a mechanical strength test can commence. A maximum pressure of 300 kPa, for a period of 10 minutes is recommended. We also suggest the pressure is elevated in steps of 100 kPa per 10 min. Again, no pressure drop is allowed during this period.
- If during any testing a pressure drop is detected, then the testing process should be halted, and the location of the leak identified and remedied. A report should be made and kept of the initial failed test. Once the fault has been corrected, the whole pressure test process should be re-commenced from the beginning.

PRESSURE TEST LOG - WET TEST (FOR WATER SYSTEMS)

Project / Stage: _____

Customer / Representative: _____

Customer / Representative: _____

Start (Date/Time):	End (Date/Time):
Ambient Temp (°C):	Water Temp (°C):
Copper: <input type="checkbox"/> Stainless Steel: <input type="checkbox"/>	Total Pipe Length of Water System (m):
The system has been tested: As a complete system <input type="checkbox"/> Or in: _____ (Sections)	
<input type="checkbox"/> Visual inspection of plug, press and screw connections carried out <input type="checkbox"/> Plug, press and screw connectors were leak-proof during visual inspection	
<input type="checkbox"/> PRELIMINARY LEAK TEST (APPROXIMATELY 10 MINUTES) <ul style="list-style-type: none"> • Permissible operating pressure: 1000 kPa • Test pressure (maximum): 100 kPa Test pressure 10 minutes after start of test (kPa): _____ Time: _____ During the test leakage observed: Yes: <input type="checkbox"/> No: <input type="checkbox"/> During the test time pressure loss observed: Yes: <input type="checkbox"/> No: <input type="checkbox"/>	
MAIN TEST (DIRECTLY AFTER PRELIMINARY) <ul style="list-style-type: none"> • Test pressure: 1500 kPa • Duration: No less than 30 minutes Test pressure 30 min. after start of test (kPa): _____ Time: _____ During the test leakage observed: Yes: <input type="checkbox"/> No: <input type="checkbox"/> During the test time pressure loss observed: Yes: <input type="checkbox"/> No: <input type="checkbox"/>	
Comments	

Date: _____

Date: _____

Name: _____

Name: _____

Signature of client/representative

Signature of client/representative

PRESSURE TEST LOG - DRY TEST (FOR WATER SYSTEMS)

Project / Stage: _____

Customer / Representative: _____

Customer / Representative: _____

Start (Date/Time):	End (Date/Time):
Ambient Temp (°C):	Water Temp (°C):
Test Medium: Compressed Air: <input type="checkbox"/> N2: <input type="checkbox"/> CO ² : <input type="checkbox"/>	Total Pipe Length of Water System (m):
The system has been tested: As a complete system <input type="checkbox"/> Or in: _____ (Sections)	
<input type="checkbox"/> All pipelines are closed with metal stoppers, caps or blanks or blind flanges <input type="checkbox"/> Devices, pressure tanks or drinking water heaters must be disconnected from the pipes <input type="checkbox"/> Visual inspection of all pipe connections for correct execution was carried out <input type="checkbox"/> Check manometre accuracy (10 kPa measuring accuracy is ideal)	
<input type="checkbox"/> PRELIMINARY LEAK TEST (APPROXIMATELY 10 MINUTES) <ul style="list-style-type: none"> • Test pressure: 15 kPa • Duration for up to 100 litres pipeline volume: at least 120 minutes • The test time should be increased by 20 minutes for every additional 100 litres • Wait for the temperature and steady-state condition before starting 	
Pipe volume: _____ litres Test Time: _____ minutes	
Test pressure: _____ minutes after start of test (kPa): _____	
During the test time fall in pressure observed: Yes: <input type="checkbox"/> No: <input type="checkbox"/>	
MAIN TEST (DIRECTLY AFTER PRELIMINARY) <ul style="list-style-type: none"> • Test pressure: for water pipeline ≤ DN50: 300 kPa • Test pressure: for water pipeline > DN50: 100 kPa • Test Duration: at least 10 minutes 	
Test pressure _____ minutes after start of test (kPa): _____ Time: _____	
During the test time fall in pressure observed: Yes: <input type="checkbox"/> No: <input type="checkbox"/>	
Pipeline is leak proof: Yes: <input type="checkbox"/> No: <input type="checkbox"/>	
Comments	

Date: _____

Date: _____

Name: _____

Name: _____

Signature of client/representative

Signature of client/representative

PRESSURE TEST LOG - AIR TEST (FOR GAS SYSTEMS)

Project / Stage: _____

Customer / Representative: _____

Customer / Representative: _____

Start (Date/Time):	End (Date/Time):
Ambient Temp (°C):	Water Temp (°C):
Test Medium: Compressed Air: <input type="checkbox"/> N2: <input type="checkbox"/> CO2: <input type="checkbox"/>	Total Pipe Length of Water System (m):
The system has been tested: As a complete system <input type="checkbox"/> Or in: _____ (Sections)	
<input type="checkbox"/> All pipelines are closed with metal stoppers, caps or blanks or blind flanges <input type="checkbox"/> Devices, pressure tanks or drinking water heaters must be disconnected from the pipes <input type="checkbox"/> Visual inspection of all pipe connections for correct execution was carried out <input type="checkbox"/> Check manometre accuracy (10 kPa measuring accuracy is ideal)	
<input type="checkbox"/> PRELIMINARY LEAK TEST (APPROXIMATELY 10 MINUTES) <ul style="list-style-type: none"> • Test pressure: 15 kPa • Duration for up to 100 litres pipeline volume: at least 120 minutes • The test time should be increased by 20 minutes for every additional 100 litres • Wait for the temperature and steady-state condition before starting 	
Pipe volume: _____ litres Test Time: _____ minutes Test pressure: _____ minutes after start of test (kPa): _____ During the test time pressure loss observed: Yes: <input type="checkbox"/> No: <input type="checkbox"/>	
MAIN TEST (DIRECTLY AFTER PRELIMINARY) <ul style="list-style-type: none"> • Test pressure: Operating pressure or 2.0 kPa, whichever is the greater. • Test Duration: 5 minutes 	
Test pressure 5 minutes after start of test (kPa): _____ Time: _____ During the test time fall in pressure observed: Yes: <input type="checkbox"/> No: <input type="checkbox"/> Pipeline is leak proof: Yes: <input type="checkbox"/> No: <input type="checkbox"/>	
Comments 	

Date: _____

Date: _____

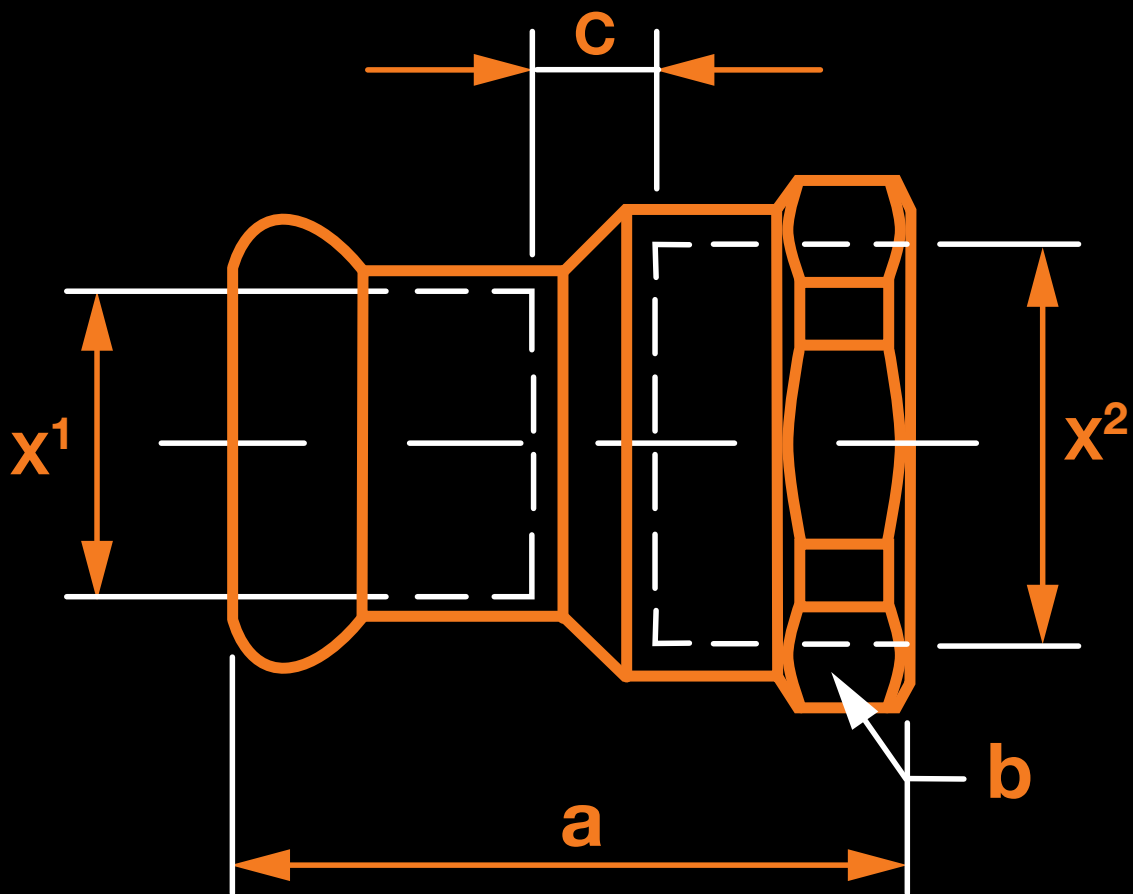
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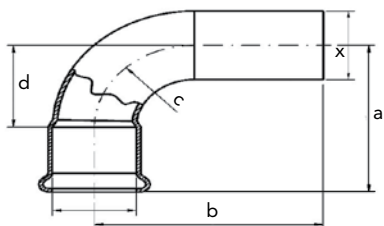
Signature of client/representative

Signature of client/representative

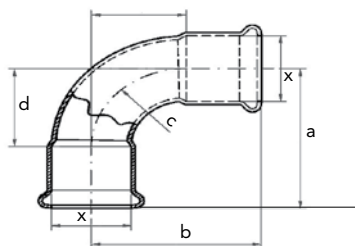
FITTING MEASUREMENTS



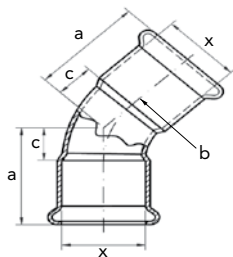
DN 15-50 FITTINGS MEASUREMENTS



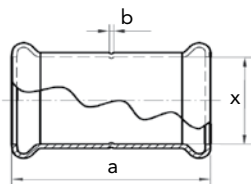
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69021	44.1	52.0	22.9	23.2	20
69022	56.1	63.6	30.5	30.8	25
69023	67.9	76.1	38.1	38.6	32
69024	80.7	90.0	45.8	46.3	40
69026	102.8	114.3	61.0	61.5	50



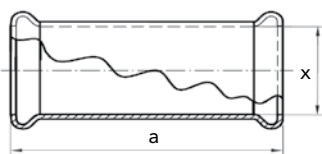
Product Code	a	b	c	x
69061	31.9	15.3	15.6	15
69062	44.1	22.9	23.2	20
69063	56.1	30.5	30.8	25
69064	67.9	38.1	38.6	32
69065	80.7	45.8	46.3	40
69066	102.8	61.0	61.5	50



Product Code	a	b	c	x
69010	22.9	15.3	6.6	15
69011	30.7	22.9	9.7	20
69012	38.2	30.5	12.9	25
69013	45.6	38.1	16.3	32
69014	53.9	45.8	19.5	40
69015	67.0	61.0	25.8	50

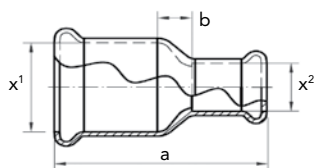


Product Code	a	b	x
69000	34.4	1.8	15
69001	43.6	1.8	20
69002	52.2	1.8	25
69003	60.9	2.5	32
69004	71.1	2.5	40
69005	84.9	2.5	50

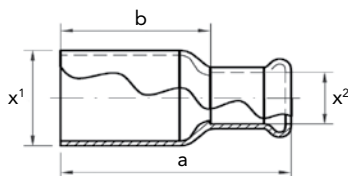


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69058	81.1	32
69059	96.0	40
69060	115.9	50

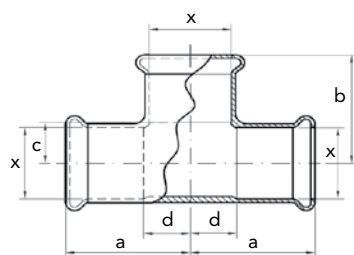
DN 15-50 FITTINGS MEASUREMENTS



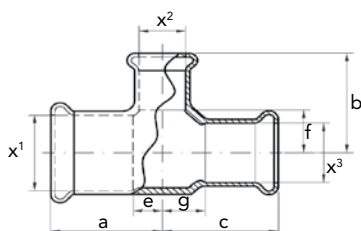
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69280	53.1	10.4	25	15
69036	53.6	7.3	25	20
69620	60.1	13.5	32	15
69281	61.7	10.5	32	20
69282	62.9	7.3	32	25
69621	70.1	13.7	40	20
69622	71.2	10.5	40	25
69283	72.2	7.5	40	32
69623	83.5	20.3	50	20
69624	84.3	16.8	50	25
69625	85.1	13.6	50	32
69284	87.0	10.0	50	40



Product Code	a	b	x ¹	x ²
69101	50.0	33.6	20	15
69103	58.0	41.6	25	15
69105	58.5	37.6	25	20
69108	67.6	42.1	32	25
69110	78.0	52.5	40	25
69112	77.7	48.2	40	32
69113	93.6	68.1	50	25
69114	94.1	64.6	50	32
69115	96.9	62.3	50	40

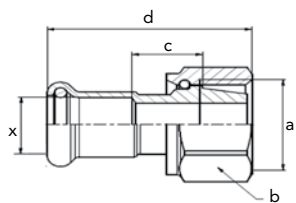


Product Code	a	b	c	d	x
69070	30.9	24.6	8.3	14.6	15
69071	35.2	32.7	11.8	14.3	20
69072	41.6	40.6	15.3	16.3	25
69073	48.5		19.2	19.2	32
69074	56.9		22.5	22.5	40
69075	70.8		29.0	29.0	50

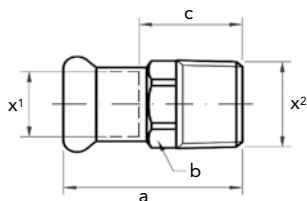


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69275	31.8	28.2	31.8		10.8	11.8	14.8	20	15	15
69274	31.8	28.2	31.8		10.8	11.8	10.8	20	15	20
60030	35.0	33	35.0		14.0	12.0	18.0	20	20	15
69031	33.9	31.6	33.9		8.6	15.3	8.6	25	15	15
69032	37.1	36.2	37.1		11.8	15.3	11.8	25	25	20
69626	38.1	45	38.1		8.8	28.6	8.8	32	32	15
69627	41.3	40	41.3		12.0	19.0	12.0	32	32	20
69033	45.3	44.3	45.3		16.0	19.0	16.0	32	32	25
69628	46.4	53.5	46.4		12.0	32.5	12.0	40	40	20
69629	50.4	47.8	50.4		16.0	22.5	16.0	40	40	25
69034	53.6	51.8	53.6		19.2	22.5	19.2	40	40	32
69630	53.3	60.5	53.3		12.0	39.5	12.0	50	50	20
69631	57.3	64.8	57.3		16.0	39.5	16.0	50	50	25
69631	64.3	63.4	64.3		22.5	29.0	22.5	50	50	40

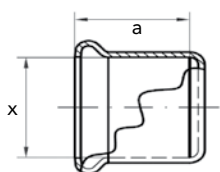
DN 15-50 FITTINGS MEASUREMENTS



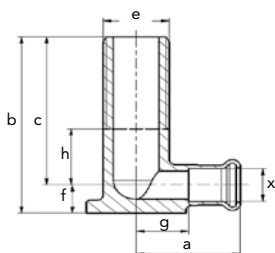
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69054	19.05	30	17.3	47.5	20



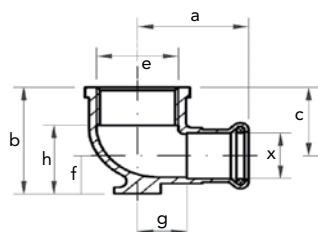
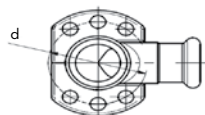
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69040	36	22	20	15	12.70
69041	38	27	22	15	19.05
69042	39	23	18	20	12.70
69044	40	27	19	20	19.05
69046	44	30	19	25	19.05
69047	45	34	20	25	25.40
69048	54	43	25	32	31.75
69050	59	49	25	40	38.10
69052	70	49	29	50	50.80



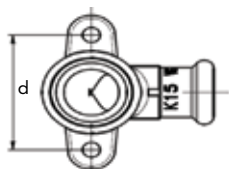
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69122	20.9	20
69123	25.2	25
69124	29.2	32
69125	34.3	40
69126	41.2	50



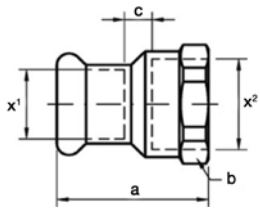
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69111	33	69	58	32	12.7	11	15	22	15
69127	33	96	85	32	12.7	11	15	19	15



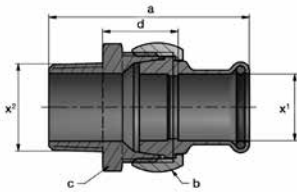
Product Code	a	b	c	d	e	f	g	h	x
69117	16	69		32	12.70	11	15	7	15
69117	31	33	22	35	12.70	11	15	7	15
69118	40	46	29	40	19.05	17	19.3	12	20



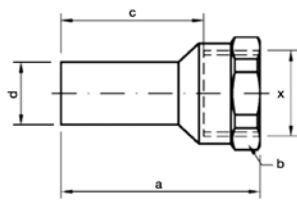
DN 15-50 FITTINGS MEASUREMENTS



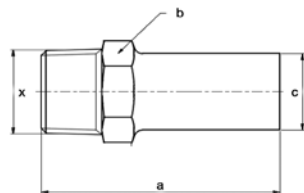
Product Code	a	b	c	x ¹	x ²
69130	34	24	4.7	15	12.70
69131	40	30	4.1	20	19.05
69132	47	38	5	25	25.40
69133	55	46	6.7	32	31.75
69134	63	55	6.7	40	38.10
69135	74	60	7.5	50	50.80



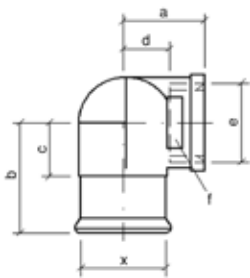
Product Code	a	b	c	d	x ¹	x ²
69076	71	46	45	27	25	25.4
69077	77	52	50	26	32	31.75
69078	85.5	59	50	30	40	38.1
69079	100	75	70	33	50	50.8



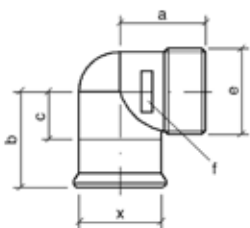
Product Code	a	b	c	d	x
69140	47	24	32.8	12.65	12.70
69141	48	24	33.8	18.95	12.70
69142	55	30	39	18.95	19.05



Product Code	a	b	c	x
69037	48	22	12.65	12.70
69038	55	22	18.95	12.70
69039	58	27	18.95	19.05

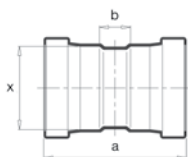


Product Code	a	b	c	d	e	f	x
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69814	29	40	19	12.5	19.05	32	20

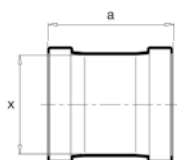


Product Code	a	b	c	d	e	f	x
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69816	33	36	15		19.05	26	20

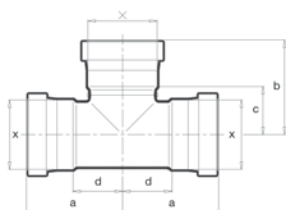
DN 65-100 FITTINGS MEASUREMENTS



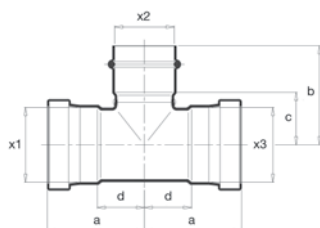
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69541	118	24	80
69542	136	26	100



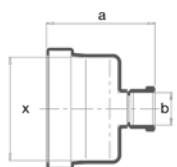
Product Code	a	x
69545	90	65
69546	98	80
69547	114	100



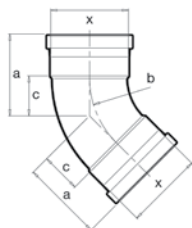
Product Code	a	b	c	d	x
69585	89	87.5	44.5	46	65
69586	98.5	99	52	51.5	80
69587	120.5	121.5	66.5	65.5	100



Product Code	a	b	c	d	x
69590	83.5	85	45	40.5	65
69591	88	91.5	51.5	41	80
69592	92	94	51	45	80
69593	96.5	106	66	41.5	100
69594	102.5	108.5	65.5	47.5	100
69595	108.5	113	66	53.5	100

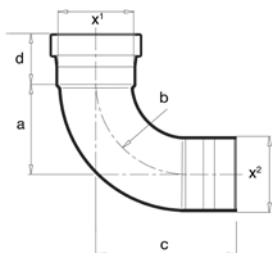


Product Code	a	b	x
69600	43	19.05	65
69601	47	19.05	80
69602	55	19.05	100

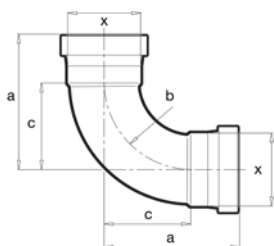


Product Code	a	b	c	x
69570	76	77	33	65
69571	87	92	40	80
69572	107.5	120	52.5	100

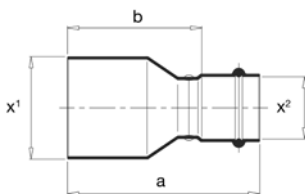
DN 65-100 FITTINGS MEASUREMENTS



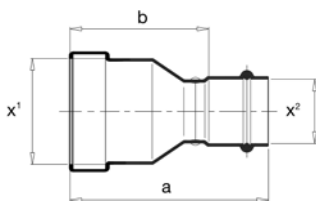
Product Code	a	b	c	d	x1	x2
69580	76	58.3	127	43	65	65
69581	92	69.8	146	47	80	80
69582	102	94.5	182	55	100	100



Product Code	a	b	c	x
69575	119	77	76	65
69576	139	92	92	80
69577	175	120	120	100



Product Code	a	b	x¹	x²
69560	107.5	71.3	65	40
69561	101	61	65	50
69562	133.5	97.5	80	40
69563	127.5	87.5	80	50
69564	122	79	80	65
69565	155.5	115.5	100	50
69566	149.5	106.5	100	65
69567	145	98	100	80



Product Code	a	b	x¹	x²
69550	88.5	68	65	32
69551	92.5	75	65	40
69552	94.0	83	65	50
69553	102.5	79	80	40
69554	107.0	87	80	50
69555	101.0	90	80	65
69556	127.5	95	100	50
69557	127.0	98	100	65
69558	120.0	102	100	80

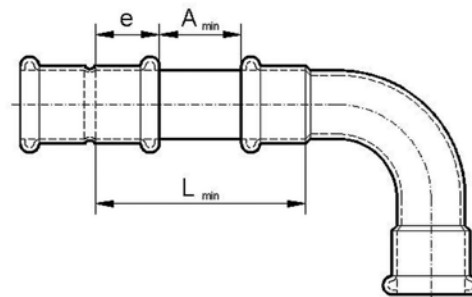
FITTINGS SPACE REQUIREMENTS

The distance required between tubes and walls, in corners and wall recesses is shown in the sketches and table below.

DN15-50 FITTINGS

Nominal Size	Actual OD mm	A mm	L mm	B mm	C mm	e Insertion Depth
DN15	12.70	10	42.6	60	76.3	16.3
DN20	19.05	10	51.8	60	80.9	20.9
DN25	25.40	10	60.4	60	85.2	25.2
DN32	31.75	10	68.4	60	89.2	29.2
DN40	38.10	20	88.6	60	94.3	34.3
DN50	50.80	20	102.4	60	101.2	41.2

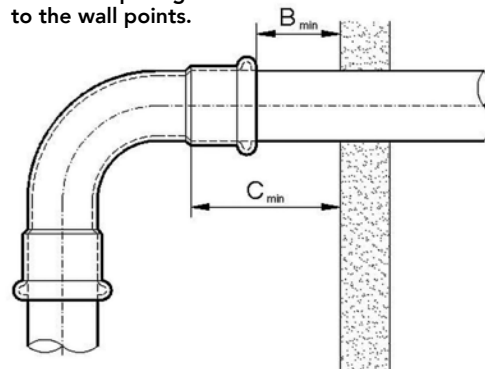
Minimum spacing between two press points.



DN65-100 FITTINGS

Nominal Size	Actual OD mm	A mm	L mm	B mm	C mm	e Insertion Depth
DN40	38.10	20	92	60	96	36
DN50	50.80	20	100	60	100	40
DN65	63.50	15	101	60	103	43
DN80	76.10	15	109	60	107	47
DN100	101.60	15	125	60	115	55

Minimum spacing to the wall points.

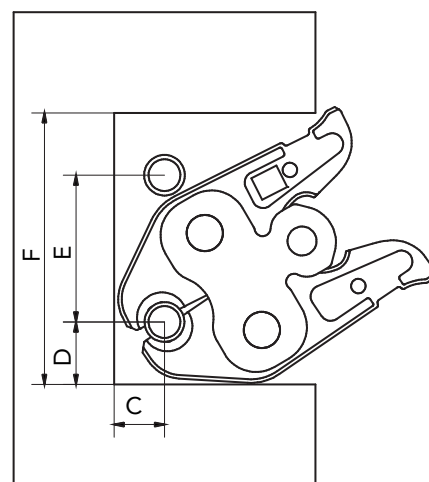
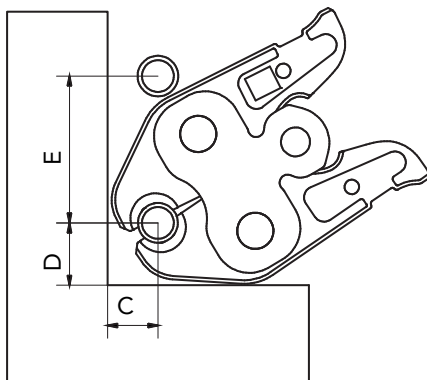
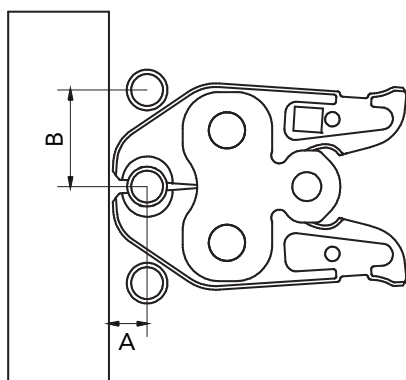


TOOL SPACE REQUIREMENTS

The distance required to operate the KemPress® Tool as shown in the sketches and table below.

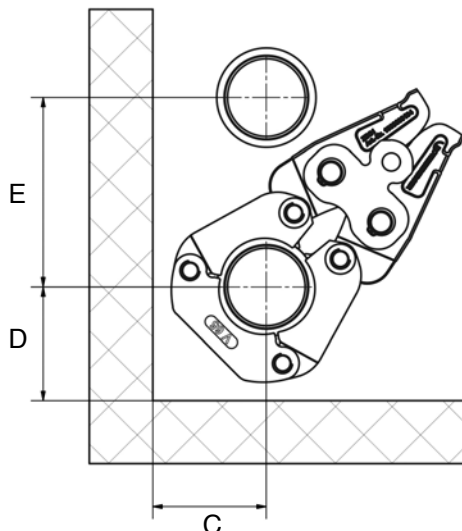
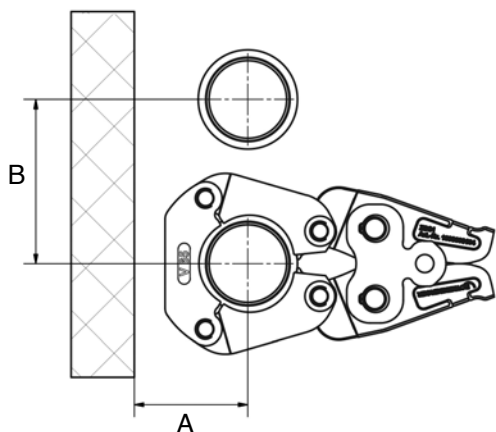
DN15-50 FITTINGS

Nominal Size	A mm	B mm	C mm	D mm	E mm	F mm
DN15	19	48	25	31	73	135
DN20	23	58	30	37.5	80	155
DN25	25	64	30	38.5	83	160
DN32	30	75	36	45	90	180
DN40	34	87	42	54.5	103	212
DN50	45	120	54	73.5	129	276



DN65-100 FITTINGS

Nominal Size	A mm	B mm	C mm	D mm	E mm
DN65	90	130	90	90	150
DN80	95	145	95	100	165
DN100	110	165	110	115	190



WARRANTIES



WARRANTY

Tool Warranty

The KemPress® tool, jaws, adaptor jaws and collars are guaranteed to work for a minimum of 3 years from date of purchase. The warranty covers the repair of any damage or malfunction to the tool that is the cause of defective materials or parts. It will not cover damage caused by improper use, inadequate maintenance or mishandling of the tool (for example, major impact caused by dropping the tool or water damage).

The KemPress® 12V & 18V Li-ion batteries and battery chargers are covered by a limited 12 month warranty.

The following faults are not covered by the warranty (for examples of how MM Kembla can detect these faults, please contact customer service):

1. Tool damaged by dropping
2. Water damage
3. Heavily affected by dirt
4. Unauthorized opening
5. Inappropriate handling
6. Continuous operation
7. Operation without jaws and fitting
8. Inserting the battery by force



Fittings and Copper Tube Warranty

For full details of the MM Kembla warranty please see <http://www.kembla.com.au/support/trading-terms> and download the Standard Conditions of Sale for Goods.

There are three elements to a Press-fit system. The copper tube, the fittings and the press tool. MM Kembla has tested Kembla copper tube, KemPress® fittings and the KemPress® tools in accordance with the relevant standards and guarantees. When installed by a licensed plumber in accordance with the Design and Installation Guide (located on our website) the tube and fittings will be fit for their intended purpose for a period of not less than 25 years.

This means that the system is designed not to leak for a minimum of 50 years and guaranteed not to leak for 25 years.

When using copper tube compliant to AS1432 other than Kembla copper tube, MM Kembla will provide the same warranty as above for the same period as the warranty of the copper tube to a maximum of 25 years. If the copper tube warranty is 10 years, then the Kembla warranty for the KemPress® fittings is 10 years.

When using Kembla copper tube with other press-fit fittings, Kembla will provide a warranty for the copper tube only. The fittings manufacturer must provide the warranty for the fittings.

The below list of press tools sold in Australia (up to September 2022) with AS3688 size press jaws and collars have been tested for use on our KemPress fittings. This guarantee covers licensed plumbers using these tools on our fittings. The warranty does not cover faults arising from incorrect installations and faults arising from competitor fittings used on the same installation.

TOOLS COMPATIBLE WITH KEMPRESS FITTINGS

KemPress® KPS, KPL and KPL2 & KPS3

Viega Picco & Picco 6 Plus, Pressgun 4B, 5, 6 & Picco 6 Plus

Novopress ACO102, ACO202, ACO203, ECO202 & ECO203

Ridgid RP 210-B & RP 340

Milwaukee M12 & M18 Force Logic

Rothenberger Compact and ROMAX 3000 & 4000

CAUTION: Product data, design details, performance figures, advice and other information given herein (the "Information") is provided only as a guide to available information. MM Kembla does not accept any liability whatsoever (including arising from negligence) for the accuracy of the Information and for injuries, expense or loss, which may arise as a result of the use of the Information by the recipient.

For further information: Refer to the current edition of The Plumbers Handbook available through your MM Brands representative or contact Customer Service: 0800 536 252



TECHNICAL SPECIFICATIONS



TECHNICAL SPECIFICATIONS

Copper tube

MM Kembla recommends using our high quality Kembla copper tube, incorporating KemCore technology for superior wall thickness control and optimal press performance. KemPress® is suitable for use with hard, half hard and annealed Type A & B copper tube complying with AS 1432.

KemPress® fittings can also be used on existing copper tube complying with AS 1432. The tube must be in reasonable condition with no signs of external corrosion or any surface damage.

For detailed information on copper tube specifications refer to The Plumbers Handbook. Contact MM Kembla to obtain a hard copy or download the latest edition from our website: www.kembla.com.au

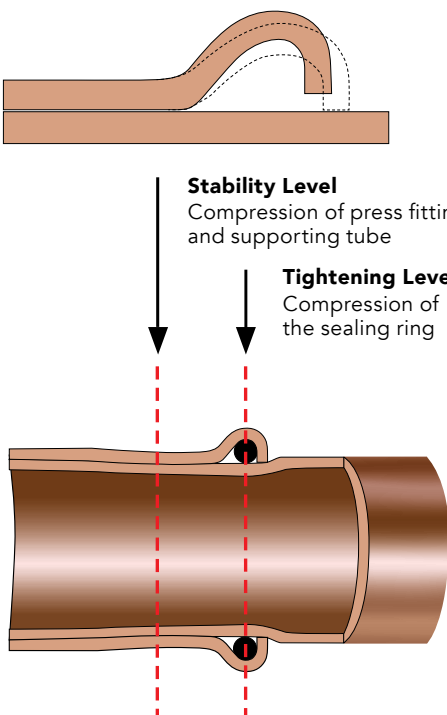
Fittings

Inside each fitting is a sealing element called an Elastomeric O-ring. They are not interchangeable for their different applications. See the O-ring Compatibility table for specific applications.

As well as an Elastomeric O-ring, DN65-100 fittings also contain a double layered stainless steel grip ring and separation ring which deliver the required joint strength when pressed.

It is essential that the O-rings are not contaminated or damaged by foreign material such as copper swarf or sharp metal. Gas fittings have a yellow O-ring and are clearly marked on the fittings up to 50mm and also on the packaging with a distinctive yellow colour and the word GAS.

DN15-50 FITTING



Push and Stay Feature

The KemPress® fittings up to DN50 have been designed to provide a tight fit when pushed together to allow the rough in to be completed prior to pressing. This ensures you have the right design and tube placement and allows you to make adjustments, if required, prior to pressing. This is especially beneficial for vertical installations.

Note: Due to movement it is important to check that you have full engagement of your fittings on the tube prior to pressing. Use the mark made in step 4 of the DN15-50 installation process (see page 20) as your guide.

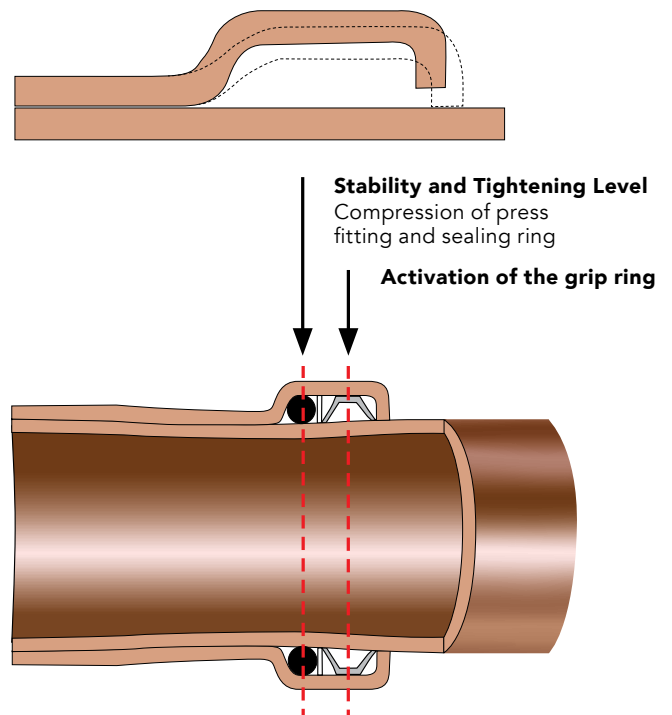
Press profile

The KemPress® fittings are designed to deliver minimal deformation to the internal shape of the tube they are connecting to, reducing turbulence in the flow of the fluid. The connection provides a rigid coupling with excellent resistance to torsional forces. This is particularly beneficial when connecting mechanical threaded connections.

Press Process

The objective of the press process is to deliver a permanent connection while achieving the required pull out strength according to AS 3688. The KemPress® process presses the lip of the fitting and then compresses the O-ring at the same time. For DN65-100 fittings, the process presses the lip of the fitting, compresses the O-ring and forces the teeth of the grip ring against the tube.

DN65-100 FITTINGS



UNPRESSED FITTINGS

Once pressed the KemPress® fittings will not leak. It is important to check every fitting has been pressed. The KemPress® system has been designed to make it very obvious to detect an unpressed fitting prior to the commissioning of the system.

Visual Inspection

Pressed and unpressed fittings are clearly distinguished on a visual inspection. For DN65-100 fittings also inspect the fitting for the presence of a KemPress label that is to be removed after pressing to indicate the fitting has been pressed.

Un-pressed Fitting ID (Leak Path)

All KemPress DN15-50 Water & Gas fittings are equipped with the Un-pressed Fitting ID feature which identifies un-pressed fittings via low pressure tests. Utilising a combination of O-ring and fitting design, KemPress fittings will allow a small amount of water to escape and a subsequent pressure drop when a low pressure test is performed.



Unpressed fitting - smooth with no indents.



Unpressed fitting - small gap between fitting and tube.



Pressed fitting - indents on fitting.



Pressed fitting - no gap between fitting and tube.



For DN65-100 fittings, remove the KemPress® label to indicate completion of the press.



KemPress® KemGuard, Water & Gas O-rings will leak under low pressure testing if unpressed.

TESTING & COMMISSIONING

When water fitting installations are complete, it is essential to flush with water before use to remove dust, debris and flux residues, in accordance with AS/NZS 3500.

Drinking water installations should be tested and inspected in accordance with AS/NZS 3500 for leaks and remedial action taken if necessary.

Gas installation should be tested in accordance with the requirements specified in AS/NZS 5601.

CERTIFICATION & TESTING

KemPress® fittings maintain earth continuity without the need for additional continuity straps.

KemPress® has a Watermark license and is compliant to AS 3688 and AS 4020. The fittings have undergone a rigorous testing program including:

- Prototype testing
 - burst pressure
- Watermark testing
 - Water tightness
 - Strength of fabrication
 - Strength of joint assembly
 - Pull-out strength
 - Thermal cycling
- Material in contact with drinking water
- Press testing every product in the range
- Press testing every tool and Jaw
- Gas testing standard compliant to the gas fitting test requirements of AS 3688.

KemPress Fittings have undergone stringent testing by a NATA accredited laboratory to ensure compliance with AS 3688. The KemPress® Gas Fittings have the same metallic body but use a special o-ring sealing element that is compatible with most gases.

These KemPress® Gas Fittings have been subjected to low pressure pneumatic tests to simulate the use when conveying gases at the pressures stated in AS 5601 Gas Installation. KemPress Gas fittings are also subject to resistance to temperature cycling testing which check for leak tightness under internal pneumatic pressure to establish an airtight joint under variations of temperature (hot and cold).



O-RINGS

The KemPress® O-Ring is pre-lubricated and should be protected from contamination by foreign objects to avoid damaging the integrity of the product (for example copper filings when cutting copper tubes).

Water

Water applications use an EPDM (Ethylene Propylene Diene Monomer) O-ring sealing element. This O-ring is suitable for standard water applications designated below.

It can be used for domestic solar hot water applications. For industrial solar or hot water temperatures exceeding 120°C please contact MM Kembla for guidance.

Gas

Gas applications use a HNBR (Hydrogenated Nitrile Butadiene Rubber) O-ring sealing element. HNBR has been used for decades in automotive and industrial

applications. It is designed for gas, oil and chemical resistance. It is not suitable for drinking water.

Gas fittings have a yellow O-ring and are clearly marked with a distinctive yellow colour and the word GAS.

High Temperature (HT)

High temperature applications use an FKM (fluorocarbon) O-ring sealing element.

This O-ring is suitable for domestic or industrial solar hot water applications or applications where hot water temperatures exceed 120°C (up to 200°C). HT fittings have a red O-ring and are clearly marked with a distinctive red colour and the word HT.



WATER FITTINGS

Application	Pressure KPa	Temperature °C
Hot & cold potable water	1600	120
Chilled water	1600	-25
Rainwater installations*	1600	Ambient
Vacuum	- 80	Ambient
Domestic fire sprinkler systems and fire hose reel	1600	Ambient
Compressed air installations (oil free)	1600	70
Solar hot-water systems	Compliant to AS/NZS 2712, AS 3498 and AS 3498:2009	

* The composition of untreated supplies and bore water should be examined to ensure compatibility with copper prior to installation of piping. Untreated tank water may not be compatible with copper due to the lack of stability and potential microbiological variability.

GAS FITTINGS

Application	Pressure KPa	Temperature °C
Natural gas installations	1600	100
Liquid gas installations (LPG)	1600	100
Compressed air installations (with oil content)	1600	70
Engine Oils & Lubricants	1000	70
Heating Oil, Diesel	500	40

Not Suitable for:

Refrigeration and Air Condition Applications, Acetylene, Urea Solution, Methanol, Glycerin Triacetate, Coolant Inhibitor, Sodium Hydroxide, Ammoniac-gaseous.

Note: For information regarding suitability of KemPress® fittings for additional applications contact MM Kembla customer service.

O-RING SPECIFICATION TABLE

Application	Comment	P [kPa]	T [°C]	Water	Gas (HNBR)	HT (FKM)
WATER SUPPLY						
Hot and cold potable water	Australian Watermark approved, N.B. Watermark certification for all plumbing products is restricted 1400 kPa at 95°C	1600	120	✓		✓
Solar systems (flat-panel collectors)	System capable of handling 200°C as a peak temperature but not sustained temperature over a period of time	1600	120	✓		✓
	System operates at a sustained temperature of 200 °C (eg. At the solar collector)	1600	200			✓
Fire Services – Fire Sprinkler & Hose Reel	Capable of handling the required test pressure of 1700kPa or 1.5 times the design pressure as specified by AS2419.1	1600	120	✓		✓
Chilled water	Must contact Kembla customer service for open systems (inhibitors)	1600	≥ -25	✓		✓
Steam	Low pressure steam equipment	≤100	120	✓		✓
Spring water	Must contact Kembla customer service	1600	120	✓		✓
Pump circulated HW systems	Compliant with EN 12828	1600	120	✓		✓
ANTI-FREEZE / CORROSION PROTECTION / INHIBITORS						
Anti-freeze cooling concentration 50%	Product	Manufacturer	1600	-25 to 120		
	Antifrogen N	Clariant			✓	✓
	Antifrogen L	Clariant			✓	✓
	Ethylene Glycol	Various			✓	✓
	Propylene Glycol	Various			✓	✓
	Tyfor	Tyforop-Chemie			✓	✓
	Tyfor L	Tyforop-Chemie			✓	✓
OTHER MEDIA						
Ethanol		1600	25	✓		✓
Condensate	Steam equipment	1600	110	✓		✓
Leakage indicator liquid for oil tanks	Brenntag R 36522	100	-20 to 30	✓		✓
Acetone	Liquid	500	-10 to 40	✓		✓
NATURAL GAS						
Natural gas	Australian gas approved, N.B. The scope of AS5601 for all gas system is restricted to 200kPa	200	100		✓	
Liquid gas					✓	
OILS, COOLING MATERIALS AND LUBRICANTS						
Engine oils	Product	Manufacturer	1000	70		
	Mahler HA	Q8			✓	
	Pegasus 710	Mobil			✓	
	Pegasus SHC	Mobil			✓	
	GTX	Castrol			✓	
Lubricants	Blasocut BC25	Swisslube AG		✓		
	Garia Oil	Shell		✓		
	GL 4	German Oil		✓		
	Formula SLX	Castrol		✓		
Heating oil, Diesel in acc with EN590		500	40		✓	
OTHER GAS						
Oxygen		1600	Ambient	✓	✓	✓
Argon	For welding	1600	Ambient	✓	✓	
Carbogen		1600	70	✓	✓	
Compressed Air	Oil Content Maximum 25 mg/m ³ of Air	1600	70	✓		✓
	With Oil Content greater than 25mg/m ³ of Air	1600	70		✓	
Nitrogen – N ₂	After the evaporator	1600	70	✓	✓	✓
Hydrogen – H ₂	Will leak at <0.001cm ³ /minute	500	70	✓	✓	✓
Carbon dioxide – CO ₂	Dry	1600	70	✓	✓	✓
Carbon monoxide – CO	Stainless steel components not permitted	1600	70	✓	✓	✓
Low vacuum	P _{abs} = 200mbar			✓	✓	✓
Forming gas	80% Argon / 20% CO ₂	1600	70	✓	✓	✓
Helium – He ₂		1600	70	✓	✓	✓
Krypton		1600	70	✓	✓	✓
Neon		1600	70	✓	✓	✓
Xenon		1600	70	✓	✓	✓

P [kPa] Maximum safe working pressure (continuous operating pressure), greater short duration peaks possible

T (°C) Maximum continuous operating temperature, greater short duration peaks possible

EPDM Ethylene Propylene Diene Monomer

HNBR Hydrogenated Nitrile Butadiene Rubber

FKM Fluorocarbon Rubber

NOT SUITABLE

Refrigeration and Air Condition Applications, Acetylene, Urea Solution, Methanol, Glycerin Triacetate, Coolant Inhibitor, Sodium Hydroxide, Ammoniac gaseous, Medical Gas Applications.

KEMPRESS TOOLS



PRESS TOOL



The KemPress® tools are the smartest, lightweight copper pressing tool on the market and its slim line design makes it easy to handle. It has been specifically designed and tested to work with KemPress® fittings.

There is a small tool and a large tool which deliver different pressing forces.

The jaws have been designed specifically for each tool and are not interchangeable.

- Lightest tools on the market
- One hand operation (Patent)
- Perfectly balanced with Jaws
- Longest Maintenance interval:
KPS2 - Unlimited, service every 2 years
KPL3 - Unlimited, service every 2 years
- Smart electronic controls:
Flashes if not pressed correctly
Battery status indicator
- New KPS2 tool is lighter, shorter, contains Brushless Motor Technology for more presses per battery charge & press area illumination
- Second battery included, rapid recharge (30 mins)
- Tool Service Program:
Operated by MM Brands Service Agents
Loan tool provided during service/repair

Small tool (KPS2) designed for DN15, 20, 25, 32mm
Large tool (KPL3) designed for DN15, 20, 25, 32, 40, 50, 65, 80 and 100.

Key Features

- Equipped with Bluetooth technology so you can manage your tool and work via the Novocheck App on your smart phone or smart device
- Safe handling with slip-proof rubberised housing
- Signals if press not completed correctly - Immediately after the pressing cycle a green lights shows if the required pressing force was achieved, a red light if not
- Press cycle must be completed once it starts
- Electronic log book has bluetooth connectivity with the Novocheck App which allows for quick and precise analysis of errors for servicing and repair
- Electronic monitoring of the jaw locking bolt and visual error indicator
- When you reach the maximum number of presses before a service is required a warning light flashes. The machine will not close down enabling you to complete the job in hand
- Redundant switch-off
- Press area illumination
- 180° Rotatable head (KPS2)
- Latest generation tools have service interval of 2 years.

Tool Operation

Holding the tool securely, press and hold the start button for 2 seconds to begin the automatic press cycle (the green LED will go out). Release the start button and continue to hold the tool securely. The green LED will light when the press cycle is complete. To cancel the automatic press cycle press and hold the release button on the side of the tool until the tool turns off.

If the red LED lights up, press the start button. If the tool does not run, call MM Brands for advice. If the red and green LEDs flash alternately, the tool is ready for a service, contact MM Brands Customer Service: 0800 536 252

The tool will turn off automatically after 30 minutes of no use. Turn the tool ON by quickly pressing and releasing the start button and open the jaws around the fitting.

Bluetooth Connectivity and Novocheck App

Next Generation KemPress Small 2.0 and KemPress Large 3.0 tools are equipped with Bluetooth technology so you can connect to your press tool from the your smart device via the NovoCheck App. This new feature as part of the risk minimising suite of KemGuard Technology features, allows you to perform the following via your smart device:

- Pre-start tool checks before you star your work to ensure you tool is ready for the job
- Analysis of tool performance and press performance that helps you to identify incomplete presses
- Usage diagnostics and next service reminders
- Changes to your tool settings
- Generation of logs and site reports showing complete and incomplete presses. Great for submission during handover of your work.

Ability to monitor on-site activity and performance
Download the Novocheck App and connect with your KemPress® tool today!



PRESS TOOL

Tool Maintenance

KemPress® tool, jaws, adaptor jaws and collars are low maintenance, however, to ensure optimal performance and safety there are minimum precautions and maintenance procedures that need to be followed.

Carry out basic inspection of the pressing device and jaws prior to each use to ensure they are clean and free from debris and dirt. The pressing jaws should be visually inspected to ensure there are no cracks. If there are any cracks in the pressing jaws, do not use them, as there is risk of the jaws shattering and potential injury from flying fragments. It is recommended to always wear appropriate eye protection whenever using the pressing device.

When inspecting the pressing jaws, also ensure that there are no foreign material deposits and that the contours of the jaw surfaces are in order.

Failure to do this may result in damage to the jaws and/or the pressing device. Always remove the battery before performing regular cleaning and maintenance work. Regular application of light machine oil to the moving parts of jaws, adaptor jaws and collars and general application of anti-corrosive spray is recommended to maintain serviceable condition and function.

The KemPress Small Tool 2.0 (KPS2) and KemPress Large Tool 3.0 (KPL3) pressing device, jaws and batteries must be serviced at least every 2 years.

It is recommended to have the press tool, jaws, adaptor jaws and collars inspected by MM Brands Service Agents at least once per year. There are costs associated with the service work. Failure to have the required services carried out may affect the warranty.

Tool Service Program

The MM Brands tool service and repair program is easy, ensures minimal down time and provides known maximum costs for repairs. The key components of the program include:

- MM Brands - Customer Service: 0800 536 252
- Replacement tools available while your tool is being serviced/repared
- Convenient and easy process for lodging your tool for service/repair via MM Brands Service Agents, the place of purchase or via our express courier exchange program
- Maximum repair price guarantee: the cost won't exceed our maximum repair price and if the cost of repair is less, you only get charged that amount
- No fix, no charge
- Up to 12 months warranty on repairs
- MM Brands recommends an annual service of your tools jaws, adaptor jaws and collars

Any service or repair of the KemPress® pressing tool or jaws, requiring opening the device, or mechanical repairs, shall only be carried out by Brands or their authorised service agent. Failure to do so may void the warranty.





KEMPRESS COPPER TOOLING SPECIFICATIONS

TECHNICAL DATA	Small Tool (KPS2)	New Large Tool (KPL3)
Dimensions	DN15-DN32	DN15-DN100
Weight incl. battery	1.7 kg	2.8 kg
Length	319 mm	387 mm
Width	70 mm	75 mm
Height	96 mm	111 mm
Power Consumption	240 W	450 W
Piston Force (minimum press force)	21 kN	32 kN
Piston Stroke	30 mm	40 mm
Battery	12V/2.0 Ah Li-Ion	18V/2.0 Ah Li-Ion
Charging Time	30 mins	30 mins
Number of Presses Before Service	Unlimited, Service Every 2 Years	Unlimited, Service Every 2 Years
Noise Pressure at User's Ear	75.5 db(A)	76.5 db(A)
Type of Protection	IP20	IP20


KEMPRESS COPPER TOOLS


ITEM	ITEM CODE	DESCRIPTION	INCLUDES
	69506	KEMPRESS KPS2 TOOL KIT DN15-32 Copper (AUS)	KPS2 Battery Powered Hydraulic Press Tool
			KPS DN15 Jaw
			KPS DN20 Jaw
			KPS DN25 Jaw
			KPS DN32 Jaw
			2 x 12V 2.0Ah Lithium-ion Batteries
			1 x 12V Battery Charger
			Carry Case

ITEM	ITEM CODE	DESCRIPTION	INCLUDES
 	69517	KEMPRESS KPL3 TOOL KIT DN15-50 Copper (AUS) (Suitable for use up to DN100)	KPL3 Battery Powered Hydraulic Press Tool
			KPS DN15 Jaw
			KPS DN20 Jaw
			KPS DN25 Jaw
			KPS DN32 Jaw
			KPS DN40 Jaw
			KPS DN50 Jaw
			2 x 12V 2.0Ah Lithium-ion Batteries
			1 x 12V Battery Charger
			Carry Case
DN40 & DN50 Jaw Carry Case			

ITEM	ITEM CODE	DESCRIPTION	INCLUDES
	69524	KEMPRESS DN65-100 COLLAR & ADAPTOR JAW KIT (AUS) (Suitable for use with KPL3)	DN65 Collar
			DN80 Collar
			DN100 Collar
			ZB203 Adaptor Jaw
			Carry Case

KEMPRESS COPPER TOOLS

ITEM	ITEM CODE	DESCRIPTION	INCLUDES
	69501	KemPress KPS DN15 Jaw	DN15 Jaw for KPS2
	69502	KemPress KPS DN20 Jaw	DN20 Jaw for KPS2
	69503	KemPress KPS DN25 Jaw	DN25 Jaw for KPS2
	69504	KemPress KPS DN32 Jaw	DN32 Jaw for KPS2


ITEM	ITEM CODE	DESCRIPTION	INCLUDES
	69509	KemPress KPI DN15 Jaw	DN15 Jaw for KPL3
	69510	KemPress KPI DN20 Jaw	DN20 Jaw for KPL3
	69511	KemPress KPI DN25 Jaw	DN25 Jaw for KPL3
	69512	KemPress KPI DN32 Jaw	DN32 Jaw for KPL3
	69513	KemPress KPI DN40 Jaw	DN40 Jaw for KPL3
	69514	KemPress KPI DN50 Jaw	DN50 Jaw for KPL3

ITEM	ITEM CODE	DESCRIPTION	INCLUDES
	913782	KEMPRESS KPS2 TOOL KIT - NO JAWS	KPS2 Battery Powered Hydraulic Press Tool
			2 x 12V 2.0Ah Lithium-ion Batteries
			1 x 12V Battery Charger
			Carry Case

ITEM	ITEM CODE	DESCRIPTION	INCLUDES
	913783	KEMPRESS KPL3 TOOL KIT - NO JAWS	KPL3 Battery Powered Hydraulic Press Tool
			2 x 12V 2.0Ah Lithium-ion Batteries
			1 x 12V Battery Charger
			Carry Case

ITEM	ITEM CODE	DESCRIPTION	INCLUDES
	913784	KemPress KPS 12V Li-ion 2.0Ah Battery	KPS 12V Li-ion 2.0Ah Battery
	913785	KemPress KPS 12V Li-ion 3.0Ah Battery	KPS 12V Li-ion 3.0Ah Battery
	913786	KemPress KPL 18V Li-ion 2.0Ah Battery	KPL 18V Li-ion 2.0Ah Battery
	913787	KemPress KPL 18V Li-ion 3.0Ah Battery	KPL 18V Li-ion 3.0Ah Battery

ITEM	ITEM CODE	DESCRIPTION	INCLUDES
	913788	KemPress KPS 12V Battery Charger 230V 50-60HZ	12V Battery Charger
	913789	KemPress KPL 18V Battery Charger 230V 50-60HZ	18V Battery Charger

ITEM	ITEM CODE	DESCRIPTION	INCLUDES
	913790	KPS2 Tool Kit Carry Case	KPS2 Carry Case
	913791	KPL3 Tool Kit Carry Case	KPL3 Carry Case

FREQUENTLY ASKED QUESTIONS

Q1: What standard of copper tube are KemPress fittings compatible with?

A: KemPress fittings are suitable for use with AS1432 type A and B copper plumbing tube in the annealed, half hard (bendable) and hard drawn tempers.

Q2: Can KemPress be used on Chrome Plated Copper Tube?

A: Yes, however it is recommended to test a piece first as some splitting of the chrome plating may occur.

Q3: Why can't the Water (EPDM) O-ring be used for Gas and the Gas O-ring (HNBR) for water?

A: The O-rings are made from different materials for specific applications and are not suitable for the same applications. Using them for the wrong application can reduce the life of the installation or contaminate the pipeline supply.

Q4: Can the water O-ring be used for solar hot water heaters?

A: The water O-ring maximum temperature is 120 Deg. Usually the tube from the panel to the collector is 150-200 Deg. If the system exceeds 120 Deg then KemPress HT must be used.

Q5: What is the testing process for your "Un-Pressed Fitting ID" feature (or leak path)?

A: Unpressed fittings are able to be identified by pressurising the system at target pressures of 100kPa for water and 15kPa for air/gas. A leak or pressure drop should be evident. Final pressure testing of the system should be conducted in accordance with AS/NZS 3500 and/or AS/NZS 5601 once the low pressure leak testing has been completed.

It's also recommended that you employ a "visual inspection" check. It is obvious if the fitting has been pressed or not. Good practice has been to mark the fitting after pressing or inspection with a marker or paint to indicate all fittings have been pressed and inspected.

Q6: Can the fitting be pressed more than once?

A: No. Repeated pressing can incorrectly deform the fitting, affect the seal and create a leak.

Q7: What is the Maximum operating temperature of each O-ring:

EPDM (Water) -25°C to +120°C

HNBR (Gas) -20°C to +100°C

FKM (High temperature) -25°C to +200°C

Q8: Can KemPress be used for Refrigeration gases?

A: No the fittings cannot handle the higher pressure. Maximum pressure is 1600kpa.

Q9: Can KemPress be used for Medical gases?

A: No, press fittings are not approved for use in the Australian Medical Gas Installation Standard AS2896. Only Silver brazing alloy (15% silver content) is to be used to connect copper tube and fittings for Medical Gas applications.

Q10: Do you have to use Kembla Copper tube with KemPress fittings?

A: KemPress fittings are suitable for use with any AS1432 type A and B copper plumbing tube in the annealed, half hard (bendable) and hard drawn tempers.

If you use Kembla Copper Tube you get one warranty from one supplier and KemPress fittings have been developed and optimised for use with high quality Kembla Copper Tube.

Q11: Can KemPress be installed underground?

A: Yes exactly the same as brazed copper fittings. If the environment is aggressive then it needs to be lagged or wrapped in tape. Refer to the requirements of AS/NZS 3500 regarding location of fitting installations under concrete slabs.

Q12: Is de-burring the copper tube essential?

A: It is essential. Failing to De-bur can result in leaking pipes and void the warranty.

Q13: Can you press fittings directly against each other?

A: No. Minimum distance is 10mm for 15-32 and 20mm for 40 & 50mm.

Q14: Can you use the fittings on Oxygen, Hydrogen or Helium?

A: Yes but not for medical gas installation purposes.

Q15: If there is movement in the fittings what should I do? Will it leak?

A: As long as you have full engagement of the fitting on the tube and relevant low pressure tests and full pressure testing have been completed and passed. That means the fitting must be inserted up to the witness mark. If you do not have a witness mark then re-do the fitting to be safe.

Q16: Once pressed, the tube shape looks to have changed. Is that normal?

A: Yes, the compression of the fitting onto the tube enables the connection to be permanent. There is no change in performance for water flow and friction loss.

Q17: What do the LED lights mean on my tool:

LED DISPLAY	STATUS/CAUSE	MEASURE
All LEDs off	The device is switched off	Briefly press the start button (1)
Green LED (2) lights up	On standby	
Green LED (2) off (press operation in progress).	Automatic press cycle is on, device ends the press operation automatically	
Green LED (2) flashes.	Insufficient battery charge.	Charge or replace battery.
Green LED (4).	Battery charge display.	
Red LED (3) lights up.	Device fault.	Press the start button (1) If this is unsuccessful, the press device is defective. Send the device to a specialist workshop. Note: The pressing operation may not have been completed; please check and repeat if required.
Red and Green LED (2) flash alternately.	Service interval reached.	Take the press device to be serviced.

Q18: Can I use KemPress for Gas coming off the main supply line?

A: Gas coming off main lines is in a liquid state and at very high pressures, which can exceed the O-ring working pressure capability of 1600kpa. For industrial use check the pressure rating (for high-pressure gas installations) and if the pressure is > 1600kpa then No.

For domestic supply, the liquid gas evaporates into low-pressure gas through a regulator to below 200kpa (which is well under 1600kpa).

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Created by the team at IGS Group, BIMcontent.com sets a new standard in easy access to the highest quality Revit and CAD content across a wide range of product categories from numerous leading manufacturers.

MM Kembla had worked with IGS Group for a number of years to create Revit content across its range of pipes and fittings, and it was a natural evolution for that content to

find a home on BIMcontent.com to provide access to as many engineers, architects and designers as possible.

Felix Velasco, MM Kembla Marketing and Commercial Support Manager, said, "We wanted to make it easy for engineers, architects and designers to include our products in their designs and documentation from the earliest stage, with certainty that the Revit content and data was accurate and in the right format for them to use."

"It was an easy decision to provide this content on the new platform created by the IGS Group to ensure as many people could access it as possible."

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