



KEMBLA
KemPress®



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.

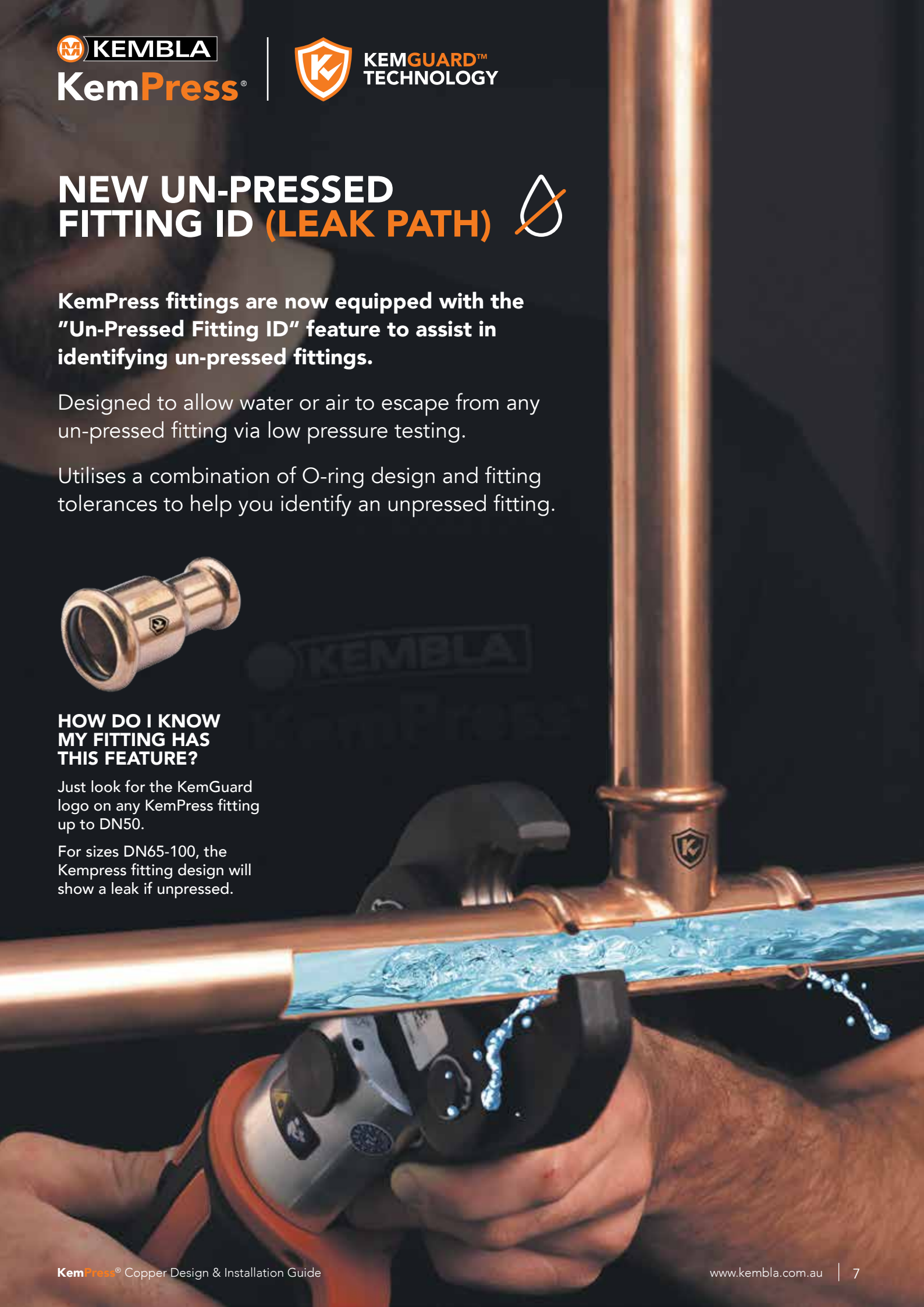
Utilises a combination of O-ring design and fitting tolerances to help you identify an unpressed fitting.



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.

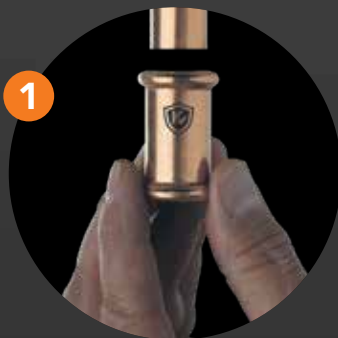
- KPS2 and KPL3 tools are Bluetooth
- Access live diagnostic data of all presses via the Novocheck App
- Generate site reports showing press completion and data logs of press performance
- Compare press completion with number of presses required on a section of work.



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

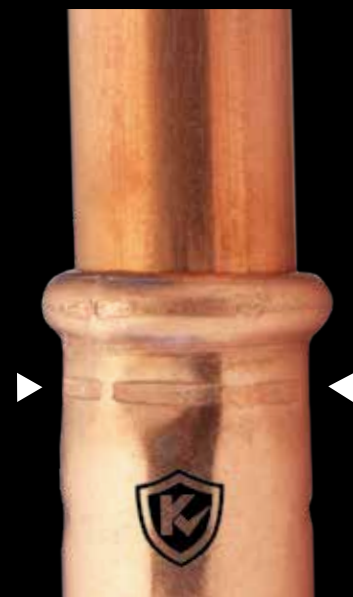
Rothenberger Compact and ROMAX 3000 & 4000

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.

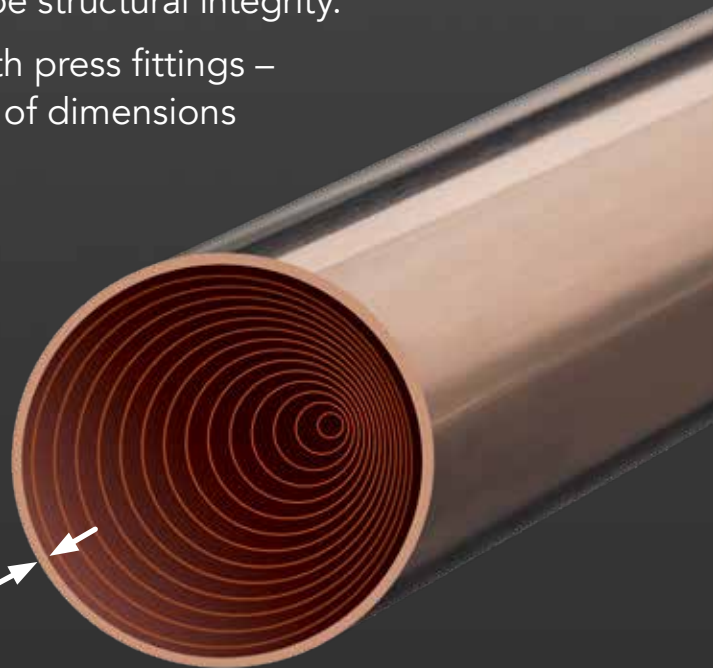


KEMCORE™ COPPER TUBE



- 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 | J09000 | 10 | 500 | J09320 | 10 | 300 |
| | 20 | J09001 | 10 | 300 | J09321 | 10 | 150 |
| | 25 | J09002 | 5 | 125 | J09322 | 5 | 60 |
| | 32 | J09003 | 2 | 60 | J09323 | 2 | 30 |
| | 40 | J09004 | 2 | 50 | J09324 | 2 | 20 |
| | 50 | J09005 | 2 | 30 | J09325 | 2 | 12 |
| | 65 | J09540 | 1 | 24 | J09780 | 1 | 24 |
| | 80 | J09541 | 1 | 16 | J09781 | 1 | 16 |
| | 100 | J09542 | 1 | 8 | J09782 | 1 | 8 |
| | Connector Slip  | 15 | J09055 | 10 | 500 | J09370 | 10 |
| 20 | | J09056 | 10 | 250 | J09371 | 10 | 120 |
| 25 | | J09057 | 5 | 100 | J09372 | 5 | 50 |
| 32 | | J09058 | 2 | 60 | J09373 | 2 | 30 |
| 40 | | J09059 | 2 | 40 | J09374 | 2 | 20 |
| 50 | | J09060 | 2 | 24 | J09375 | 2 | 12 |
| 65 | | J09545 | 1 | 22 | J09783 | 1 | 22 |
| 80 | | J09546 | 1 | 16 | J09784 | 1 | 16 |
| 100 | | J09547 | 1 | 8 | J09785 | 1 | 8 |
| Elbow 45 Degree  | | 15 | J09010 | 10 | 500 | J09330 | 10 |
| | 20 | J09011 | 10 | 200 | J09331 | 10 | 100 |
| | 25 | J09012 | 5 | 100 | J09332 | 5 | 50 |
| | 32 | J09013 | 2 | 60 | J09333 | 2 | 30 |
| | 40 | J09014 | 2 | 40 | J09334 | 2 | 20 |
| | 50 | J09015 | 2 | 16 | J09335 | 2 | 10 |
| | 65 | J09570 | 1 | 16 | J09795 | 1 | 16 |
| | 80 | J09571 | 1 | 10 | J09796 | 1 | 10 |
| | 100 | J09572 | 1 | 5 | J09797 | 1 | 5 |
| Elbow 90 Degree  | 15 | J09061 | 10 | 500 | J09380 | 10 | 250 |
| | 20 | J09062 | 10 | 200 | J09381 | 10 | 100 |
| | 25 | J09063 | 5 | 100 | J09382 | 5 | 50 |
| | 32 | J09064 | 2 | 50 | J09383 | 2 | 20 |
| | 40 | J09065 | 2 | 30 | J09384 | 2 | 14 |
| | 50 | J09066 | 2 | 14 | J09385 | 2 | 6 |
| | 65 | J09575 | 1 | 12 | J09798 | 1 | 12 |
| | 80 | J09576 | 1 | 6 | J09799 | 1 | 6 |
| | 100 | J09577 | 1 | 4 | J09800 | 1 | 4 |


PRODUCT RANGE

| COPPER FITTINGS | Diameter (DN) | Water Code | Pack Qty | Carton Qty | Gas Code | Pack Qty | Carton Qty |
|--|--|------------|----------|------------|----------|----------|------------|
| Elbow 90 degree M&F   | 15 | J09020 | 10 | 500 | J09340 | 10 | 250 |
| | 20 | J09021 | 10 | 200 | J09341 | 10 | 100 |
| | 25 | J09022 | 5 | 100 | J09342 | 5 | 50 |
| | 32 | J09023 | 2 | 50 | J09343 | 2 | 20 |
| | 40 | J09024 | 2 | 30 | J09344 | 2 | 14 |
| | 50 | J09026 | 2 | 14 | J09345 | 2 | 6 |
| | 65 | J09580 | 1 | 12 | J09753 | 1 | 12 |
| | 80 | J09581 | 1 | 8 | J09754 | 1 | 8 |
| | 100 | J09582 | 1 | 4 | J09755 | 1 | 4 |
| | Tee Equal   | 15 | J09070 | 10 | 200 | J09390 | 10 |
| 20 | | J09071 | 10 | 80 | J09391 | 10 | 60 |
| 25 | | J09072 | 5 | 60 | J09392 | 5 | 25 |
| 32 | | J09073 | 2 | 30 | J09393 | 2 | 16 |
| 40 | | J09074 | 2 | 22 | J09394 | 2 | 12 |
| 50 | | J09075 | 2 | 12 | J09395 | 2 | 4 |
| 65 | | J09585 | 1 | 9 | J09801 | 1 | 9 |
| 80 | | J09586 | 1 | 7 | J09802 | 1 | 7 |
| 100 | | J09587 | 1 | 3 | J09803 | 1 | 3 |
| Tee Reducing   | | 20x20x15 | J09030 | 10 | 150 | J09350 | 10 |
| | 20x15x15 | J09275 | 10 | 200 | J09291 | 10 | 110 |
| | 20x15x20 | J09274 | 10 | 150 | J09290 | 10 | 70 |
| | 25x25x15 | J09031 | 5 | 60 | J09351 | 5 | 30 |
| | 25x25x20 | J09032 | 5 | 70 | J09352 | 5 | 30 |
| | 32x32x15 | J09626 | 2 | 60 | J09646 | 2 | 30 |
| | 32x32x20 | J09627 | 2 | 60 | J09647 | 2 | 30 |
| | 32x32x25 | J09033 | 2 | 30 | J09353 | 2 | 18 |
| | 40x40x20 | J09628 | 2 | 40 | J09648 | 2 | 20 |
| | 40x40x25 | J09629 | 2 | 30 | J09649 | 2 | 16 |
| | 40x40x32 | J09034 | 2 | 24 | J09354 | 2 | 12 |
| | 50x50x20 | J09630 | 2 | 20 | J09650 | 2 | 8 |
| | 50x50x25 | J09631 | 2 | 20 | J09651 | 2 | 10 |
| | 50x50x40 | J09277 | 2 | 16 | J09294 | 2 | 10 |
| | 65x65x50 | J09590 | 1 | 12 | J09804 | 1 | 12 |
| | 80x80x50 | J09591 | 1 | 9 | J09805 | 1 | 9 |
| | 80x80x65 | J09592 | 1 | 8 | J09806 | 1 | 8 |
| | 100x100x50 | J09593 | 1 | 5 | J09807 | 1 | 5 |
| | 100x100x65 | J09594 | 1 | 4 | J09808 | 1 | 4 |
| | 100x100x80 | J09595 | 1 | 3 | J09809 | 1 | 3 |


PRODUCT RANGE

| COPPER FITTINGS | Diameter (DN) | Water Code | Pack Qty | Carton Qty | Gas Code | Pack Qty | Carton Qty | |
|--|--|-------------------|-----------------|-------------------|-----------------|-----------------|-------------------|-----|
| Reducer  | 20x15 | J09035 | 10 | 250 | J09355 | 10 | 150 | |
| | 25x20 | J09036 | 5 | 125 | J09356 | 5 | 70 | |
| | 25x15 | J09280 | 5 | 150 | J09300 | 5 | 90 | |
| | 32x15 | J09620 | 2 | 120 | J09640 | 2 | 60 | |
| | 32x20 | J09281 | 2 | 100 | J09301 | 2 | 60 | |
| | 32x25 | J09282 | 2 | 60 | J09302 | 2 | 50 | |
| | 40x20 | J09621 | 2 | 90 | J09641 | 2 | 40 | |
| | 40x25 | J09622 | 2 | 70 | J09642 | 2 | 30 | |
| | 40x32 | J09283 | 2 | 60 | J09303 | 2 | 30 | |
| | 50x20 | J09623 | 2 | 40 | J09643 | 2 | 20 | |
| | 50x25 | J09624 | 2 | 50 | J09644 | 2 | 16 | |
| | 50x32 | J09625 | 2 | 30 | J09645 | 2 | 20 | |
| | 50x40 | J09284 | 2 | 30 | J09304 | 2 | 14 | |
| |  | 65x32 | J09550 | 1 | 30 | J09744 | 1 | 30 |
| 65x40 | | J09551 | 1 | 30 | J09745 | 1 | 30 | |
| 65x50 | | J09552 | 1 | 30 | J09786 | 1 | 30 | |
| 80x40 | | J09553 | 1 | 25 | J09747 | 1 | 25 | |
| 80x50 | | J09554 | 1 | 24 | J09748 | 1 | 24 | |
| 80x65 | | J09555 | 1 | 21 | J09749 | 1 | 21 | |
| 100x50 | | J09556 | 1 | 16 | J09750 | 1 | 16 | |
| 100x65 | | J09557 | 1 | 12 | J09751 | 1 | 12 | |
| 100x80 | | J09558 | 1 | 12 | J09752 | 1 | 12 | |
| Reducer M&F  | | 20x15 | J09101 | 10 | 400 | J09400 | 10 | 150 |
| | 25x15 | J09103 | 5 | 200 | J09401 | 5 | 100 | |
| | 25x20 | J09105 | 5 | 150 | J09402 | 5 | 90 | |
| | 32x25 | J09108 | 2 | 60 | J09403 | 2 | 40 | |
| | 40x25 | J09110 | 2 | 60 | J09404 | 2 | 36 | |
| | 40x32 | J09112 | 2 | 60 | J09405 | 2 | 30 | |
| | 50x25 | J09113 | 2 | 40 | J09406 | 2 | 20 | |
| | 50x32 | J09114 | 2 | 40 | J09407 | 2 | 20 | |
| | 50x40 | J09115 | 2 | 36 | J09408 | 2 | 20 | |
| |  | 65x40 | J09560 | 1 | 30 | J09787 | 1 | 30 |
| | | 65x50 | J09561 | 1 | 25 | J09788 | 1 | 25 |
| | | 80x40 | J09562 | 1 | 20 | J09789 | 1 | 20 |
| | | 80x50 | J09563 | 1 | 20 | J09790 | 1 | 20 |
| | | 80x65 | J09564 | 1 | 20 | J09791 | 1 | 20 |
| 100x50 | | J09565 | 1 | 14 | J09792 | 1 | 14 | |
| 100x65 | | J09566 | 1 | 14 | J09793 | 1 | 14 | |
| 100x80 | | J09567 | 1 | 12 | J09794 | 1 | 12 | |
| Flange Adaptor  | 40 | J09119 | 1 | 1 | | | | |
| | 50 | J09120 | 1 | 1 | | | | |



PRODUCT RANGE
**HT (High Temperature)
COPPER FITTINGS**

| | Diameter (DN) | Water Code | Pack Qty | Carton Qty | Gas Code | Pack Qty | Carton Qty |
|---|---------------|------------|----------|------------|----------|----------|------------|
| HT Connector  | 15 | J06700 | 10 | 300 | | | |
| | 20 | J06701 | 10 | 150 | | | |


HT Elbow 90 Degree

| | | | | | | | |
|--|----|--------|----|-----|--|--|--|
|  | 15 | J06761 | 10 | 250 | | | |
| | 20 | J06762 | 10 | 100 | | | |


COPPER & COPPER ALLOY FITTINGS
End Caps

| | | | | | | | |
|--|-----|--------|----|------|--------|----|-----|
|  | 15 | J09121 | 10 | 1000 | J09326 | 10 | 400 |
| | 20 | J09122 | 10 | 750 | J09327 | 10 | 300 |
| | 25 | J09123 | 5 | 250 | J09328 | 5 | 150 |
| | 32 | J09124 | 2 | 100 | J09329 | 2 | 80 |
| | 40 | J09125 | 2 | 100 | J09336 | 2 | 40 |
| | 50 | J09126 | 2 | 72 | J09337 | 2 | 32 |
|  | 65 | J09600 | 1 | 30 | J09810 | 1 | 30 |
| | 80 | J09601 | 1 | 28 | J09811 | 1 | 28 |
| | 100 | J09602 | 1 | 18 | J09812 | 1 | 18 |


Male Line Adaptor

| | | | | | | | |
|--|---------------|--------|----|-----|--------|----|-----|
|  | 15x1/2" BSP | J09040 | 10 | 250 | J09360 | 10 | 250 |
| | 15x3/4" BSP | J09041 | 10 | 200 | J09361 | 10 | 200 |
| | 20x1/2" BSP | J09042 | 10 | 200 | J09362 | 10 | 200 |
| | 20x3/4" BSP | J09044 | 10 | 150 | J09363 | 10 | 150 |
| | 25x3/4" BSP | J09046 | 5 | 100 | J09364 | 5 | 100 |
| | 25x1" BSP | J09047 | 5 | 100 | J09365 | 5 | 100 |
| | 32x1-1/4" BSP | J09048 | 2 | 50 | J09366 | 2 | 50 |
| | 40x1-1/2" BSP | J09050 | 2 | 40 | J09367 | 2 | 40 |
| | 50x2" BSP | J09052 | 2 | 16 | J09368 | 2 | 16 |


Female Line Adaptor

| | | | | | | | |
|--|---------------|--------|----|-----|--------|----|-----|
|  | 15x1/2" BSP | J09130 | 10 | 250 | J09534 | 10 | 250 |
| | 20x3/4" BSP | J09131 | 10 | 150 | J09535 | 10 | 150 |
| | 25x1" BSP | J09132 | 5 | 80 | J09536 | 5 | 80 |
| | 32x1-1/4" BSP | J09133 | 2 | 40 | J09537 | 2 | 40 |
| | 40x1-1/2" BSP | J09134 | 2 | 30 | J09538 | 2 | 30 |
| | 50x2" BSP | J09135 | 2 | 20 | J09539 | 2 | 20 |







Unions (62)

| | | | | | | | |
|--|-------------|--------|----|-----|--------|----|-----|
|  | 15x1/2" BSP | J09053 | 10 | 240 | J09067 | 10 | 240 |
| | 20x3/4" BSP | J09054 | 10 | 120 | J09068 | 10 | 120 |

Unions (69)

| | | | | | | | |
|--|---------------|--------|---|----|--------|---|----|
|  | 25x1" BSP | J09076 | 5 | 30 | J09450 | 5 | 30 |
| | 32x1-1/4" BSP | J09077 | 2 | 20 | J09451 | 2 | 20 |
| | 40x1-1/2" BSP | J09078 | 2 | 10 | J09452 | 2 | 10 |
| | 50x2" BSP | J09079 | 2 | 8 | J09453 | 2 | 8 |

PRODUCT RANGE

| COPPER ALLOY FITTINGS | Diameter (DN) | Water Code | Pack Qty | Carton Qty | Gas Code | Pack Qty | Carton Qty |
|---|----------------|------------|----------|------------|-----------------|----------|------------|
| Plug In Adaptor (Female Thread)  | 15x1/2" BSP | J09140 | 10 | 200 | Universal usage | | |
| | 20x1/2" BSP | J09141 | 10 | 170 | | | |
| | 20x3/4" BSP | J09142 | 10 | 100 | | | |
| Plug In Adaptor (Male Thread)  | 15x1/2" BSP | J09037 | 10 | 170 | Universal usage | | |
| | 20x1/2" BSP | J09038 | 10 | 170 | | | |
| | 20x3/4" BSP | J09039 | 10 | 120 | | | |
| Back Plated Elbow  | 15x1/2" BSP MI | J09116 | 10 | 60 | J09410 | 10 | 60 |
| | 15x1/2" BSP FI | J09117 | 10 | 100 | J09411 | 10 | 100 |
| | 20x3/4" BSP FI | J09118 | 10 | 60 | J09412 | 10 | 60 |
| Back Plated Male Elbow (96mm)  | 15x1/2" BSP | J09127 | 10 | 50 | J09427 | 10 | 50 |
| Female Threaded Elbow 90 Degree  | 15x1/2" BSP | J09813 | 10 | 150 | J09817 | 10 | 150 |
| | 20x3/4" BSP | J09814 | 10 | 70 | J09818 | 10 | 70 |
| Male Threaded Elbow 90 Degree  | 15x1/2" BSP | J09815 | 10 | 150 | J09819 | 10 | 150 |
| | 20x3/4" BSP | J09816 | 10 | 100 | J09820 | 10 | 100 |

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 Kembla Customer Service on 1800 804 631 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"/> 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 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: _____

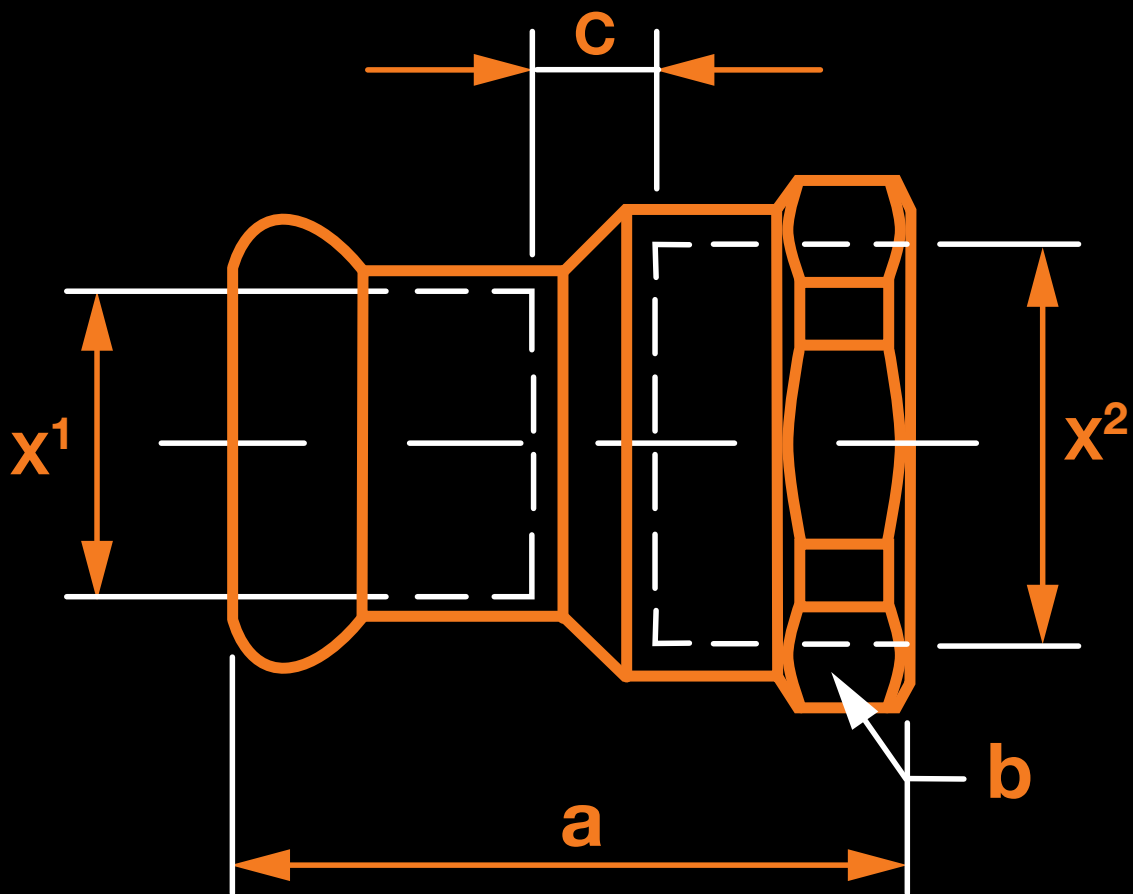
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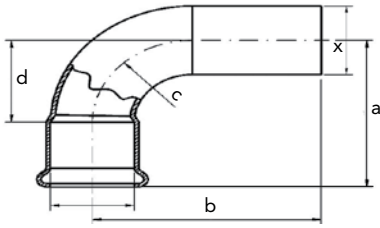
Signature of client/representative

Signature of client/representative

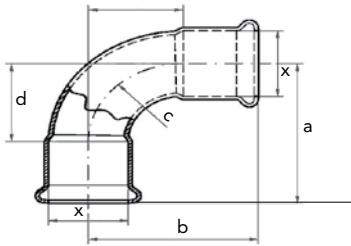
FITTING MEASUREMENTS



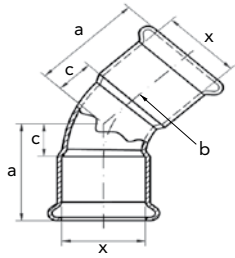
DN 15-50 FITTINGS MEASUREMENTS



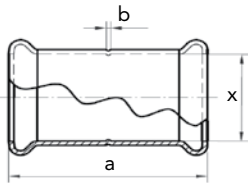
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| J09020 | 31.9 | 40.0 | 15.3 | 15.6 | 15 |
| J09021 | 44.1 | 52.0 | 22.9 | 23.2 | 20 |
| J09022 | 56.1 | 63.6 | 30.5 | 30.8 | 25 |
| J09023 | 67.9 | 76.1 | 38.1 | 38.6 | 32 |
| J09024 | 80.7 | 90.0 | 45.8 | 46.3 | 40 |
| J09026 | 102.8 | 114.3 | 61.0 | 61.5 | 50 |



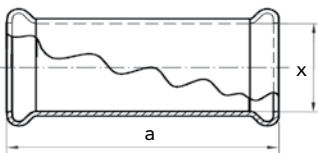
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|--------------|-------|------|------|----|
| J09061 | 31.9 | 15.3 | 15.6 | 15 |
| J09062 | 44.1 | 22.9 | 23.2 | 20 |
| J09063 | 56.1 | 30.5 | 30.8 | 25 |
| J09064 | 67.9 | 38.1 | 38.6 | 32 |
| J09065 | 80.7 | 45.8 | 46.3 | 40 |
| J09066 | 102.8 | 61.0 | 61.5 | 50 |



| Product Code | a | b | c | x |
|--------------|------|------|------|----|
| J09010 | 22.9 | 15.3 | 6.6 | 15 |
| J09011 | 30.7 | 22.9 | 9.7 | 20 |
| J09012 | 38.2 | 30.5 | 12.9 | 25 |
| J09013 | 45.6 | 38.1 | 16.3 | 32 |
| J09014 | 53.9 | 45.8 | 19.5 | 40 |
| J09015 | 67.0 | 61.0 | 25.8 | 50 |

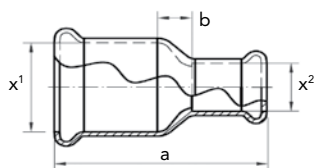


| Product Code | a | b | x |
|--------------|------|-----|----|
| J09000 | 34.4 | 1.8 | 15 |
| J09001 | 43.6 | 1.8 | 20 |
| J09002 | 52.2 | 1.8 | 25 |
| J09003 | 60.9 | 2.5 | 32 |
| J09004 | 71.1 | 2.5 | 40 |
| J09005 | 84.9 | 2.5 | 50 |

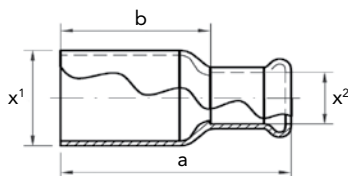


| Product Code | a | x |
|--------------|-------|----|
| J09055 | 42.8 | 15 |
| J09056 | 56.2 | 20 |
| J09057 | 68.7 | 25 |
| J09058 | 81.1 | 32 |
| J09059 | 96.0 | 40 |
| J09060 | 115.9 | 50 |

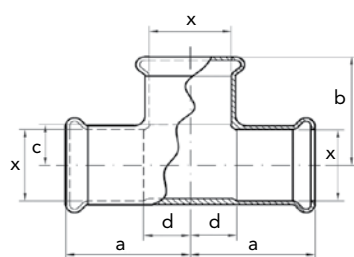
DN 15-50 FITTINGS MEASUREMENTS



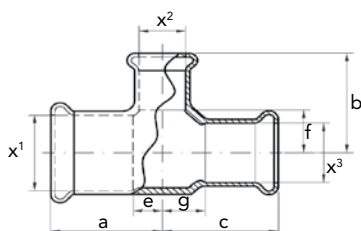
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|--------------|------|------|----------------|----------------|
| J09035 | 44.6 | 7.3 | 20 | 15 |
| J09280 | 53.1 | 10.4 | 25 | 15 |
| J09036 | 53.6 | 7.3 | 25 | 20 |
| J09620 | 60.1 | 13.5 | 32 | 15 |
| J09281 | 61.7 | 10.5 | 32 | 20 |
| J09282 | 62.9 | 7.3 | 32 | 25 |
| J09621 | 70.1 | 13.7 | 40 | 20 |
| J09622 | 71.2 | 10.5 | 40 | 25 |
| J09283 | 72.2 | 7.5 | 40 | 32 |
| J09623 | 83.5 | 20.3 | 50 | 20 |
| J09624 | 84.3 | 16.8 | 50 | 25 |
| J09625 | 85.1 | 13.6 | 50 | 32 |
| J09284 | 87.0 | 10.0 | 50 | 40 |



| Product Code | a | b | x ¹ | x ² |
|--------------|------|------|----------------|----------------|
| J09101 | 50.0 | 33.6 | 20 | 15 |
| J09103 | 58.0 | 41.6 | 25 | 15 |
| J09105 | 58.5 | 37.6 | 25 | 20 |
| J09108 | 67.6 | 42.1 | 32 | 25 |
| J09110 | 78.0 | 52.5 | 40 | 25 |
| J09112 | 77.7 | 48.2 | 40 | 32 |
| J09113 | 93.6 | 68.1 | 50 | 25 |
| J09114 | 94.1 | 64.6 | 50 | 32 |
| J09115 | 96.9 | 62.3 | 50 | 40 |

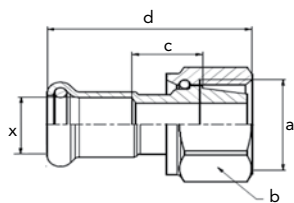


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| J09070 | 30.9 | 24.6 | 8.3 | 14.6 | 15 |
| J09071 | 35.2 | 32.7 | 11.8 | 14.3 | 20 |
| J09072 | 41.6 | 40.6 | 15.3 | 16.3 | 25 |
| J09073 | 48.5 | | 19.2 | 19.2 | 32 |
| J09074 | 56.9 | | 22.5 | 22.5 | 40 |
| J09075 | 70.8 | | 29.0 | 29.0 | 50 |

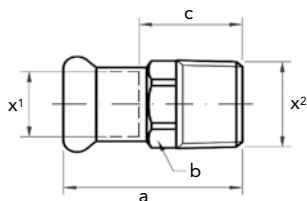


| Product Code | a | b | c | d | e | f | g | x ¹ | x ² | x ³ |
|--------------|------|------|------|---|------|------|------|----------------|----------------|----------------|
| J09275 | 31.8 | 28.2 | 31.8 | | 10.8 | 11.8 | 14.8 | 20 | 15 | 15 |
| J09274 | 31.8 | 28.2 | 31.8 | | 10.8 | 11.8 | 10.8 | 20 | 15 | 20 |
| J90030 | 35.0 | 33 | 35.0 | | 14.0 | 12.0 | 18.0 | 20 | 20 | 15 |
| J09031 | 33.9 | 31.6 | 33.9 | | 8.6 | 15.3 | 8.6 | 25 | 15 | 15 |
| J09032 | 37.1 | 36.2 | 37.1 | | 11.8 | 15.3 | 11.8 | 25 | 25 | 20 |
| J09626 | 38.1 | 45 | 38.1 | | 8.8 | 28.6 | 8.8 | 32 | 32 | 15 |
| J09627 | 41.3 | 40 | 41.3 | | 12.0 | 19.0 | 12.0 | 32 | 32 | 20 |
| J09033 | 45.3 | 44.3 | 45.3 | | 16.0 | 19.0 | 16.0 | 32 | 32 | 25 |
| J09628 | 46.4 | 53.5 | 46.4 | | 12.0 | 32.5 | 12.0 | 40 | 40 | 20 |
| J09629 | 50.4 | 47.8 | 50.4 | | 16.0 | 22.5 | 16.0 | 40 | 40 | 25 |
| J09034 | 53.6 | 51.8 | 53.6 | | 19.2 | 22.5 | 19.2 | 40 | 40 | 32 |
| J09630 | 53.3 | 60.5 | 53.3 | | 12.0 | 39.5 | 12.0 | 50 | 50 | 20 |
| J09631 | 57.3 | 64.8 | 57.3 | | 16.0 | 39.5 | 16.0 | 50 | 50 | 25 |
| J09631 | 64.3 | 63.4 | 64.3 | | 22.5 | 29.0 | 22.5 | 50 | 50 | 40 |

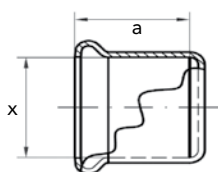
DN 15-50 FITTINGS MEASUREMENTS



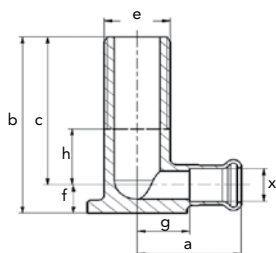
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| J09053 | 12.70 | 24 | 13.7 | 39.5 | 15 |
| J09054 | 19.05 | 30 | 17.3 | 47.5 | 20 |



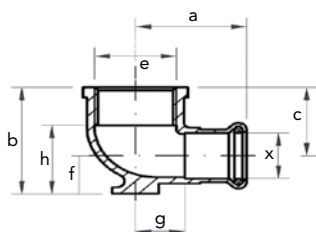
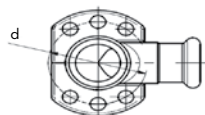
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|--------------|----|----|----|----------------|----------------|
| J09040 | 36 | 22 | 20 | 15 | 12.70 |
| J09041 | 38 | 27 | 22 | 15 | 19.05 |
| J09042 | 39 | 23 | 18 | 20 | 12.70 |
| J09044 | 40 | 27 | 19 | 20 | 19.05 |
| J09046 | 44 | 30 | 19 | 25 | 19.05 |
| J09047 | 45 | 34 | 20 | 25 | 25.40 |
| J09048 | 54 | 43 | 25 | 32 | 31.75 |
| J09050 | 59 | 49 | 25 | 40 | 38.10 |
| J09052 | 70 | 49 | 29 | 50 | 50.80 |



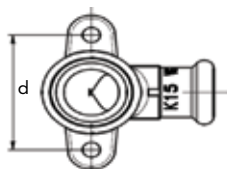
| Product Code | a | x |
|--------------|------|----|
| J09121 | 16.3 | 15 |
| J09122 | 20.9 | 20 |
| J09123 | 25.2 | 25 |
| J09124 | 29.2 | 32 |
| J09125 | 34.3 | 40 |
| J09126 | 41.2 | 50 |



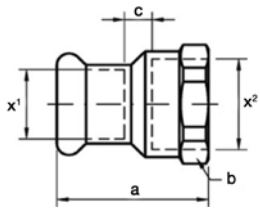
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|--------------|----|----|----|----|------|----|----|----|----|
| J09111 | 33 | 69 | 58 | 32 | 12.7 | 11 | 15 | 22 | 15 |
| J09127 | 33 | 96 | 85 | 32 | 12.7 | 11 | 15 | 19 | 15 |



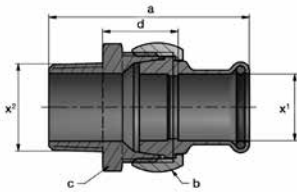
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| J09117 | 16 | 69 | | 32 | 12.70 | 11 | 15 | 7 | 15 |
| J09117 | 31 | 33 | 22 | 35 | 12.70 | 11 | 15 | 7 | 15 |
| J09118 | 40 | 46 | 29 | 40 | 19.05 | 17 | 19.3 | 12 | 20 |



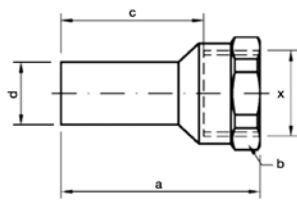
DN 15-50 FITTINGS MEASUREMENTS



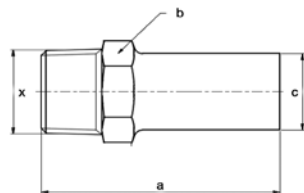
| Product Code | a | b | c | x ¹ | x ² |
|--------------|----|----|-----|----------------|----------------|
| J09130 | 34 | 24 | 4.7 | 15 | 12.70 |
| J09131 | 40 | 30 | 4.1 | 20 | 19.05 |
| J09132 | 47 | 38 | 5 | 25 | 25.40 |
| J09133 | 55 | 46 | 6.7 | 32 | 31.75 |
| J09134 | 63 | 55 | 6.7 | 40 | 38.10 |
| J09135 | 74 | 60 | 7.5 | 50 | 50.80 |



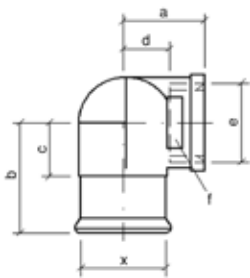
| Product Code | a | b | c | d | x ¹ | x ² |
|--------------|------|----|----|----|----------------|----------------|
| J09076 | 71 | 46 | 45 | 27 | 25 | 25.4 |
| J09077 | 77 | 52 | 50 | 26 | 32 | 31.75 |
| J09078 | 85.5 | 59 | 50 | 30 | 40 | 38.1 |
| J09079 | 100 | 75 | 70 | 33 | 50 | 50.8 |



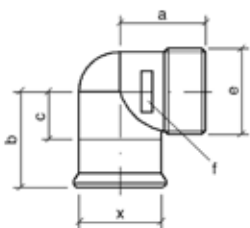
| Product Code | a | b | c | d | x |
|--------------|----|----|------|-------|-------|
| J09140 | 47 | 24 | 32.8 | 12.65 | 12.70 |
| J09141 | 48 | 24 | 33.8 | 18.95 | 12.70 |
| J09142 | 55 | 30 | 39 | 18.95 | 19.05 |



| Product Code | a | b | c | x |
|--------------|----|----|-------|-------|
| J09037 | 48 | 22 | 12.65 | 12.70 |
| J09038 | 55 | 22 | 18.95 | 12.70 |
| J09039 | 58 | 27 | 18.95 | 19.05 |

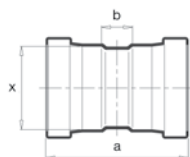


| Product Code | a | b | c | d | e | f | x |
|--------------|----|----|----|------|-------|----|----|
| J09813 | 22 | 30 | 14 | 7 | 12.7 | 26 | 15 |
| J09814 | 29 | 40 | 19 | 12.5 | 19.05 | 32 | 20 |

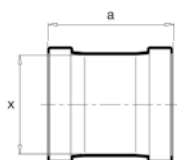


| Product Code | a | b | c | d | e | f | x |
|--------------|----|----|----|---|-------|----|----|
| J09815 | 25 | 26 | 10 | | 12.7 | 19 | 15 |
| J09816 | 33 | 36 | 15 | | 19.05 | 26 | 20 |

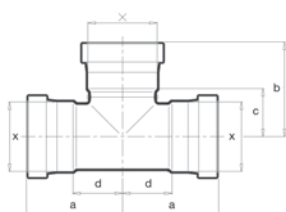
DN 65-100 FITTINGS MEASUREMENTS



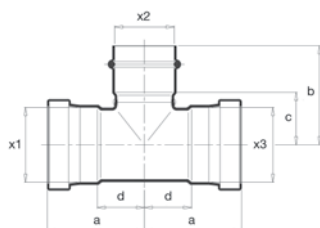
| Product Code | a | b | x |
|--------------|-----|----|-----|
| J09540 | 110 | 24 | 65 |
| J09541 | 118 | 24 | 80 |
| J09542 | 136 | 26 | 100 |



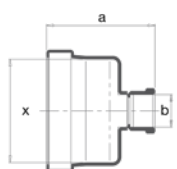
| Product Code | a | x |
|--------------|-----|-----|
| J09545 | 90 | 65 |
| J09546 | 98 | 80 |
| J09547 | 114 | 100 |



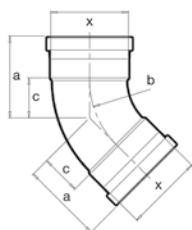
| Product Code | a | b | c | d | x |
|--------------|-------|-------|------|------|-----|
| J09585 | 89 | 87.5 | 44.5 | 46 | 65 |
| J09586 | 98.5 | 99 | 52 | 51.5 | 80 |
| J09587 | 120.5 | 121.5 | 66.5 | 65.5 | 100 |



| Product Code | a | b | c | d | x |
|--------------|-------|-------|------|------|-----|
| J09590 | 83.5 | 85 | 45 | 40.5 | 65 |
| J09591 | 88 | 91.5 | 51.5 | 41 | 80 |
| J09592 | 92 | 94 | 51 | 45 | 80 |
| J09593 | 96.5 | 106 | 66 | 41.5 | 100 |
| J09594 | 102.5 | 108.5 | 65.5 | 47.5 | 100 |
| J09595 | 108.5 | 113 | 66 | 53.5 | 100 |

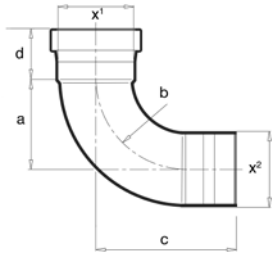


| Product Code | a | b | x |
|--------------|----|-------|-----|
| J09600 | 43 | 19.05 | 65 |
| J09601 | 47 | 19.05 | 80 |
| J09602 | 55 | 19.05 | 100 |

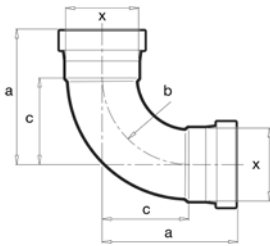


| Product Code | a | b | c | x |
|--------------|-------|-----|------|-----|
| J09570 | 76 | 77 | 33 | 65 |
| J09571 | 87 | 92 | 40 | 80 |
| J09572 | 107.5 | 120 | 52.5 | 100 |

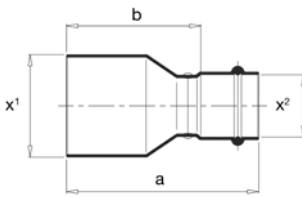
DN 65-100 FITTINGS MEASUREMENTS



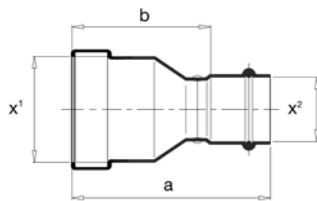
| Product Code | a | b | c | d | x1 | x2 |
|--------------|-----|------|-----|----|-----|-----|
| J09580 | 76 | 58.3 | 127 | 43 | 65 | 65 |
| J09581 | 92 | 69.8 | 146 | 47 | 80 | 80 |
| J09582 | 102 | 94.5 | 182 | 55 | 100 | 100 |



| Product Code | a | b | c | x |
|--------------|-----|-----|-----|-----|
| J09575 | 119 | 77 | 76 | 65 |
| J09576 | 139 | 92 | 92 | 80 |
| J09577 | 175 | 120 | 120 | 100 |



| Product Code | a | b | x¹ | x² |
|--------------|-------|-------|-----|----|
| J09560 | 107.5 | 71.3 | 65 | 40 |
| J09561 | 101 | 61 | 65 | 50 |
| J09562 | 133.5 | 97.5 | 80 | 40 |
| J09563 | 127.5 | 87.5 | 80 | 50 |
| J09564 | 122 | 79 | 80 | 65 |
| J09565 | 155.5 | 115.5 | 100 | 50 |
| J09566 | 149.5 | 106.5 | 100 | 65 |
| J09567 | 145 | 98 | 100 | 80 |



| Product Code | a | b | x¹ | x² |
|--------------|-------|-----|-----|----|
| J09550 | 88.5 | 68 | 65 | 32 |
| J09551 | 92.5 | 75 | 65 | 40 |
| J09552 | 94.0 | 83 | 65 | 50 |
| J09553 | 102.5 | 79 | 80 | 40 |
| J09554 | 107.0 | 87 | 80 | 50 |
| J09555 | 101.0 | 90 | 80 | 65 |
| J09556 | 127.5 | 95 | 100 | 50 |
| J09557 | 127.0 | 98 | 100 | 65 |
| J09558 | 120.0 | 102 | 100 | 80 |

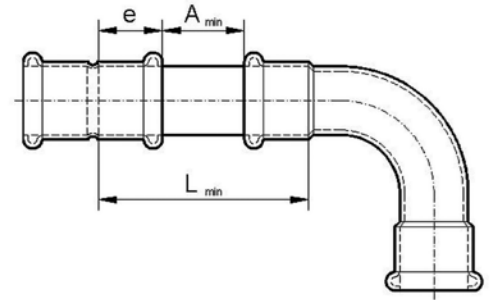
FITTINGS SPACE REQUIREMENTS

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 |

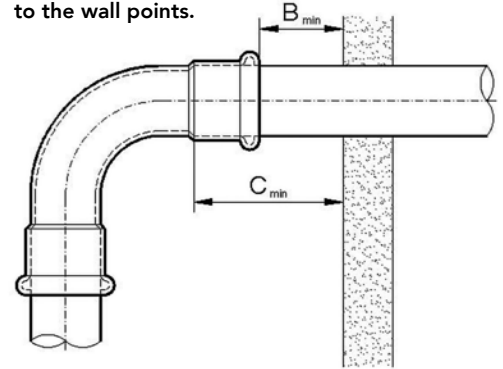
Minimum spacing between two press points.



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 |

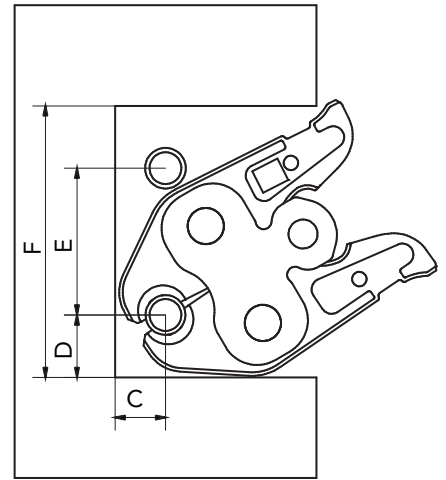
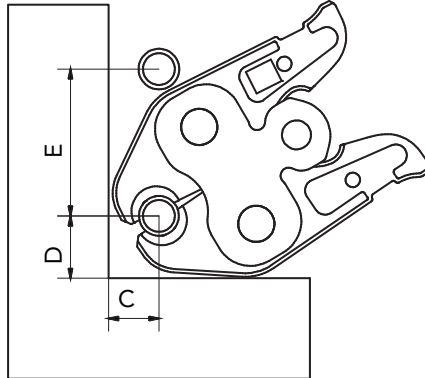
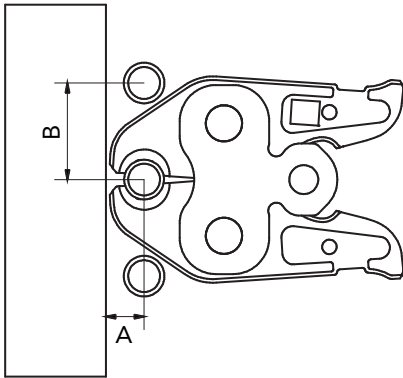
Minimum spacing to the wall points.



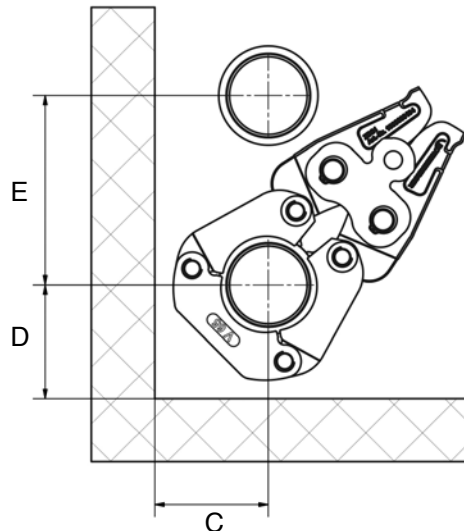
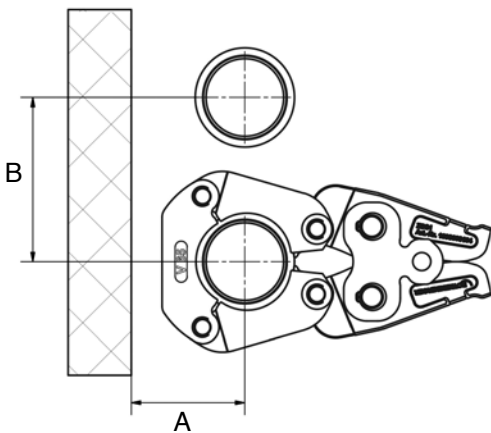
TOOL SPACE REQUIREMENTS

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

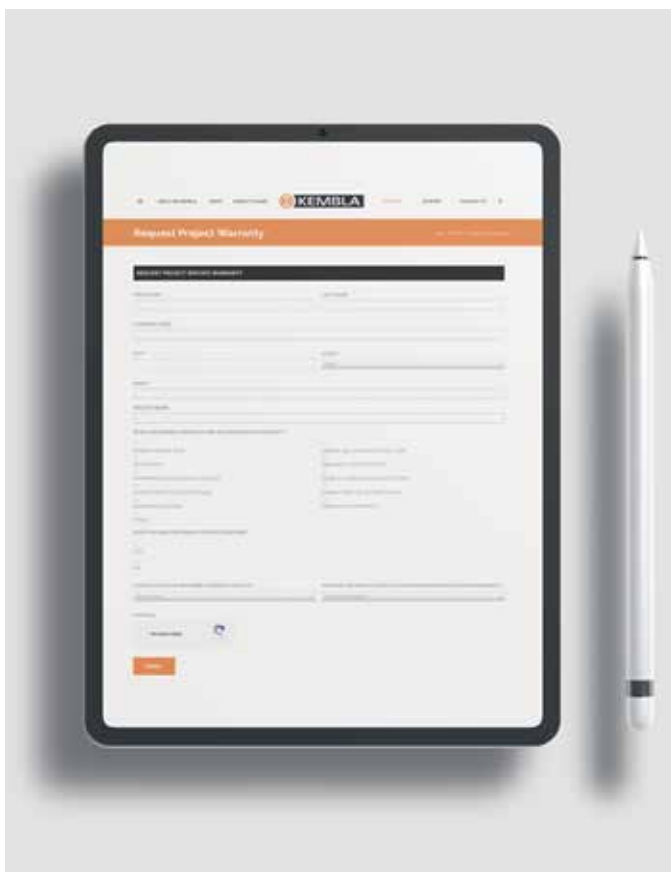
Ridgid RP 210-B & RP 340

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 Kembla representative or contact Customer Service



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

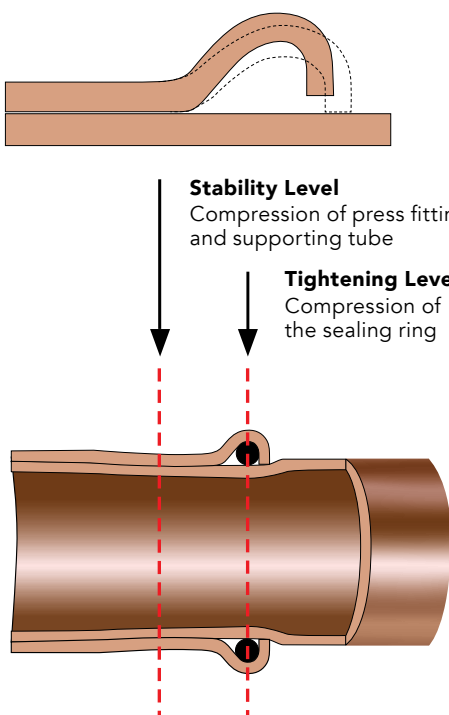
Fittings

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.

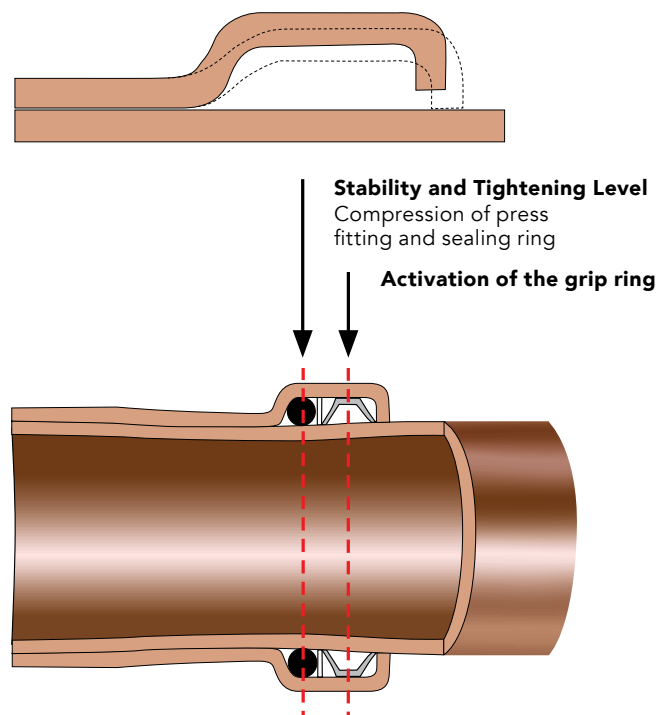
Press profile

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 | | | ✓ | |
| Lubricants | GTX | Castrol | | ✓ | | |
| | Blasocut BC25 | Swisslube AG | | ✓ | | |
| | Garia Oil | Shell | | ✓ | | |
| | GL 4 | German Oil | | ✓ | | |
| Heating oil, Diesel in acc with EN590 | | | 500 | 40 | | ✓ |
| Formula SLX | Castrol | | | | ✓ | |
| 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:
KPL2 - Unlimited, service every 2 years
KPL - 40,000 pressing cycles
KPS - 35,000 pressing cycles
- Smart electronic controls:
Flashes if not pressed correctly
Battery status indicator
- New KPL2 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:
National service centre operated by Kembla
Loan tool provided during service/repair

Small tool (KPS) designed for DN15, 20, 25, 32mm
Large tool (KPL/KPL2) 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 light 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 Kembla for advice. If the red and green LEDs flash alternately, the tool is ready for a service, contact MM Kembla Customer Service Centre.

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 Kembla 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 Kembla 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:

- 1800 804 631 National Customer Service Centre
- Replacement tools available while your tool is being serviced/repared
- Convenient and easy process for lodging your tool for service/repair via MM Kembla branches, 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 Kembla 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 MM Kembla or their authorised 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 |
|---|-----------|---|---|
|  | J09549 | 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 |
|---|-----------|---|---|
|   | J09548 | 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 |
|---|-----------|---|-------------------|
|  | J09501 | 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 |
|---|-----------|-----------------------|-------------------|
|  | J09501 | KemPress KPS DN15 Jaw | DN15 Jaw for KPS2 |
| | J09502 | KemPress KPS DN20 Jaw | DN20 Jaw for KPS2 |
| | J09503 | KemPress KPS DN25 Jaw | DN25 Jaw for KPS2 |
| | J09504 | KemPress KPS DN32 Jaw | DN32 Jaw for KPS2 |


| ITEM | ITEM CODE | DESCRIPTION | INCLUDES |
|---|-----------|-----------------------|-------------------|
|  | J09509 | KemPress KPI DN15 Jaw | DN15 Jaw for KPL3 |
| | J09510 | KemPress KPI DN20 Jaw | DN20 Jaw for KPL3 |
| | J09511 | KemPress KPI DN25 Jaw | DN25 Jaw for KPL3 |
| | J09512 | KemPress KPI DN32 Jaw | DN32 Jaw for KPL3 |
| | J09514 | KemPress KPI DN40 Jaw | DN40 Jaw for KPL3 |
| | J09515 | KemPress KPI DN50 Jaw | DN50 Jaw for KPL3 |

| ITEM | ITEM CODE | DESCRIPTION | INCLUDES |
|---|-----------|---|---|
|  | J09616 | 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 |
|---|-----------|---|---|
|  | J09615 | 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 |
|---|-----------|---------------------------------------|------------------------------|
|  | J09506 | KemPress KPS 12V Li-ion 2.0Ah Battery | KPS 12V Li-ion 2.0Ah Battery |
| | J09507 | KemPress KPS 12V Li-ion 3.0Ah Battery | KPS 12V Li-ion 3.0Ah Battery |
| | J09516 | KemPress KPL 18V Li-ion 2.0Ah Battery | KPL 18V Li-ion 2.0Ah Battery |
| | J09521 | KemPress KPL 18V Li-ion 3.0Ah Battery | KPL 18V Li-ion 3.0Ah Battery |

| ITEM | ITEM CODE | DESCRIPTION | INCLUDES |
|---|-----------|---|---------------------|
|  | J09530 | KemPress KPS 12V Battery Charger 230V 50-60HZ | 12V Battery Charger |
| | J09531 | KemPress KPL 18V Battery Charger 230V 50-60HZ | 18V Battery Charger |

| ITEM | ITEM CODE | DESCRIPTION | INCLUDES |
|---|-----------|--------------------------|-----------------|
|  | J09532 | KPS2 Tool Kit Carry Case | KPS2 Carry Case |
| | J09614 | 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-safe working pressure capability of 1600kpa. For industrial use check the pressure rating (and other state requirements 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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High Quality BIM Content

MM Kembla has teamed up with leading BIM content platform BIMcontent.com to provide architects and designers with consistent, high quality Revit product content. You can design and document a range of MM Kembla pipes and fittings as part of MM Kembla's integrated piping system offering – including the renowned KemPress Copper & Stainless systems, KemblaCopper Tube and much more.

For architects and designers working on major commercial projects, access to reliable, consistent and high quality Revit content has always been hit and miss. While most manufacturers provide access to 3D product content, it is often in the wrong format, not of a desired level of quality and not readily available when needed.

BIMcontent.com set out to change all that, and since launching, the platform has become a valuable, free resource for engineers, architects and designers.

IGS Group

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."

The team behind BIMcontent.com has set out to create a resource that:

- Promotes quality over quantity, with a commitment to high quality standards
- Is intuitive and easy-to-use, enabling a range of search categories and options to provide fast access to quality content
- Offers a breadth of choice, with an extensive range of product categories and multiple manufacturers in each category.

Access Free Kembla BIM Content

For access to high quality Revit content for a range of MM Kembla pipes and fittings, visit: www.kembla.com/kemspec/mm-kembla-bim-solutions/

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