



**DESIGN &  
INSTALLATION  
GUIDE**

**COPPER  
PRESS-FIT  
FITTINGS FOR  
FOR USE WITH  
EUROPEAN  
PLUMBING TUBE  
BSEN 1057**



**A NEW GENERATION OF COPPER PRESS-FITTINGS OFFERING ALL THE BENEFITS OF COPPER AND NOW EVEN EASIER TO INSTALL.**

MM Kembla has combined the experience and knowledge of nearly 100 years of Australian copper tube manufacturing with press-fit technology and German engineering to produce the KemPress® copper press-fit connection system. 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.

MM Kembla has been supplying high quality copper tube into Hong Kong for over 20 years. Kembla has combined the technical knowledge and local know how to deliver KemPress® via Kembla Hong Kong.

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.

To make life easy for plumbers the KemPress® system is compatible with EN1057 copper tube.\*

\* See brochure Kembla Copper tube to European standard to BS EN 1057

**WHY USE KEMPRESS® ?**

- Complete plumbing system with one warranty
  - Kembla copper tube
  - Kembla KemPress® fittings
  - Kembla KemPress® tool
- Fast to install
  - Faster than conventional brazing
  - Reduced labour costs
- Easy to use
  - No need to drain water out of the system
  - No brazing skills required
- Flame free connection
  - No hot works permit required
- High quality fittings manufactured to stringent standards and quality controls
- Push and Stay
  - Fitting is tight enough to complete the rough in before securing placement by pressing
- High quality, lightweight KemPress® tool
  - Slim lightweight and ergonomic design
  - One hand operation. Once the jaws are inserted the weight is balanced
  - Smart Electronic controls
  - New KPL2 is lighter, shorter, contains Brushless Motor Technology for more presses per battery charge and press area illumination
  - Longest interval between servicing
    - KPXL 40,000 presses
    - KPL2 & KPXL2 unlimited for 2 years
    - KPL 40,000 presses
    - KPSA 35,000 presses
  - Second battery included
- Backed by Kembla Hong Kong's reputation for high quality products, service and customer care



## TECHNICAL SPECIFICATIONS

### Copper tube

MM Kembla recommends using our high quality Australian made Kembla copper tube. KemPress® is suitable for use with hard and half hard Table X & Y copper tube complying with EN1057 unless noted otherwise in the installation guidelines.

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 Kembla Hong Kong to obtain a hard copy or download the latest edition from our website: [www.kembla.com.au](http://www.kembla.com.au)

### Fittings

KemPress® fittings have been manufactured and quality controlled in accordance with EN1254.

Inside each fitting is an Elastomeric O-ring. See the O-ring compatibility table for specific applications.

It is essential that the O-rings are not contaminated or damaged by foreign material such as copper swarf or sharp metal.

### Push and Stay Feature

The KemPress® fittings 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.

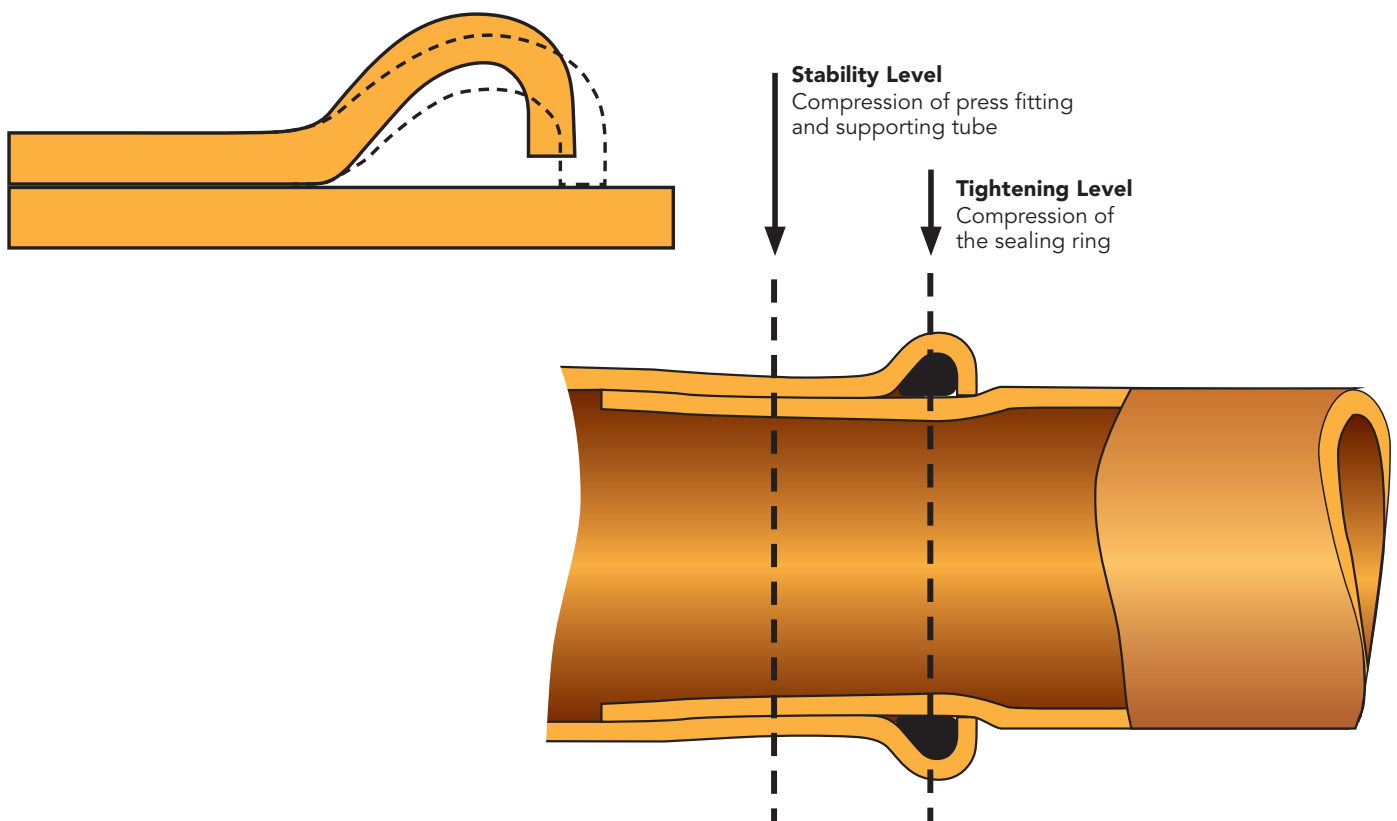
Note: Due to movement it is important to check that you have full engagement of your fittings on the tube prior to pressing. Use the mark made in step 4 of the installation process (See page 8) as your guide.

### 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.

### Pressing Process

The objective of the pressing process is to deliver a permanent connection while achieving the required pull out strength according to WRAS. The KemPress® process presses the lip of the fitting and then compresses the O-ring at the same time.



## 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.



Unpressed fitting - smooth with no indents.



Unpressed fitting - small gap between fitting and tube.



Pressed fitting - indents on the fitting.



Pressed fitting - no gap between fitting and tube.

## 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 the relevant plumbing installation code.

Drinking water installations should be tested and inspected in accordance with the code for leaks and remedial action taken if necessary.

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

## CERTIFICATION & TESTING

KemPress® has achieved WRAS certification and the Australian watermark certification. 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





## O-RING

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

For hot water temperatures exceeding 120°C please contact Kembla Hong Kong for guidance.

The pre-lubricated O-ring has passed the materials on contact with drinking water certification in Australia and through WRAS.






## 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	1600	Ambient
Compressed air installations (oil free)	1600	70







## PRODUCT RANGE

### COPPER FITTINGS




	Customer Dimension (mm)	Customer/Article No.	Pack Qty	Carton Qty
<b>90° Elbow</b> Female/Female 	15	J07000	10	350
	22	J07001	10	130
	28	J07002	5	75
	35	J07003	2	40
	42	J07004	2	24
	54	J07005	2	12
	67	J07180	1	6
	76	J07181	1	4
	108	J07182	1	1
<b>90° Elbow*</b> Male/Female 	15	J07006	10	350
	22	J07007	10	130
	28	J07008	5	75
	35	J07009	2	40
	42	J07010	2	22
	54	J07011	2	12
<b>45° Elbow</b> Female/Female 	15	J07012	10	350
	22	J07013	10	160
	28	J07014	5	100
	35	J07015	2	50
	42	J07016	2	30
	54	J07017	2	18
	67	J07201	1	12
	76	J07202	1	6
	108	J07237	1	2
<b>45° Elbow*</b> Male/Female 	15	J06998	10	400
	22	J06999	10	180
	28	J07018	5	100
	35	J07019	2	50
	42	J07020	2	30
	54	J07022	2	18
<b>Bushing</b> Male/Female 	22x15	J07068	10	350
	28x15	J07069	5	200
	28x22a	J07070	5	150
	35x22	J07071	2	100
	35x28	J07072	2	100
	42x22	J07073	2	70
	42x28	J07074	2	70
	42x35	J07131	2	60
	54x35	J07075	2	40
	54x42	J07076	2	36
	67x35	J07220	1	20
	67x42	J07221	1	18
	67x54	J07200	1	16
	76x54	J07222	1	12
	76x67	J07223	1	15
	108x42	J07215	1	4
	108x54	J07216	1	4
	108x67	J07218	1	4
	108x76	J07219	1	4






\* Available on request

### COPPER FITTINGS

	Customer Dimension (mm)	Customer/Article No.	Pack Qty	Carton Qty
<b>Connector</b> Female/Female 	15	J07023	10	500
	22	J07024	10	200
	28	J07025	5	125
	35	J07026	2	80
	42	J07027	2	40
	54	J07028	2	32
	67	J07210	1	14
	76	J07211	1	10
	108	J07212	1	4
<b>* Connector Slip</b> 	15	J07029	10	300
	22	J07030	10	150
	28	J07031	5	100
	35	J07032	2	50
	42	J07033	2	40
	54	J07034	2	24
	67	J07224	1	15
	76	J07225	1	10
<b>Tee - Equal</b> Female/Female /Female 	15	J07035	10	200
	22	J07036	10	80
	28	J07037	5	60
	35	J07038	2	30
	42	J07039	2	22
	54	J07040	2	12
	67	J07206	1	6
	76	J07186	1	3
	108	J07203	1	1
<b>Tee - Reducing</b> Female/Female /Female 	EndxBranchxEnd			
	22x15x15	J07041	10	150
	22x15x22	J07042	10	120
	22x22x15	J07043	10	100
	28x15x28	J07044	5	80
	28x22x28	J07045	5	60
	35x15x35	J07046	2	50
	35x22x35	J07047	2	50
	35x28x35	J07048	2	36
	42x22x42	J07049	2	30
	42x28x42	J07050	2	26
	42x35x42	J07051	2	24
	54x22x54	J07052	2	18
	54x28x54	J07053	2	14
	54x35x54	J07054	2	14
	54x42x54	J07055	2	14
	67x28x67	J07207	1	10
	67x35x67	J07190	1	10
	67x42x67	J07208	1	8
	67x54x67	J07191	1	6
	76x22x76	J07192	1	8
	76x28x76	J07193	1	6
	76x42x76	J07194	1	6
	76x54x76	J07213	1	6
	76x67x76	J07195	1	6
	108x54x108	J07196	1	2
	108x67x108	J07205	1	2
	108x76x108	J07197	1	2

## PRODUCT RANGE

COPPER FITTINGS	Customer Dimension (mm)	Customer/Article No.	Pack Qty	Carton Qty
<b>Reducer</b> Female/Female 	22x15	J07057	10	250
	22x18	J07058	10	250
	28x15	J07059	5	160
	35x22	J07060	2	10
	35x28	J07061	2	80
	42x22	J07062	2	70
	42x28	J07063	2	60
	42x35	J07064	2	44
	54x28	J07065	2	40
	54x35	J07066	2	40
	54x42	J07067	2	30
<b>End Cap</b> 	67	J07226	1	30
	76	J07227	1	20
	108	J07228	1	10
<b>Female Tee</b> 	22x1/2"	J07132	10	60
	28x1/2"	J07077	5	40
	28x3/4"	J07078	5	40
	35x1/2"	J07079	2	30
	42x1/2"	J07080	2	18
<b>Male Coupling</b> 	15x1/2"	J07081	10	300
	15x3/4"	J07082	10	200
	22x1/2"	J07083	10	150
	22x3/4"	J07084	10	120
	28x3/4"	J07085	5	100
	28x1"	J07086	5	100
	35x1-1/4"	J07087	2	50
	42x1-1/2"	J07088	2	40
	54x2"	J07089	2	16
	67x2-1/2"	J07229	1	10
	76x3"	J07230	1	5
	108x4"	J07231	1	2
<b>Female Coupling</b> 	15x1/2"	J07090	10	250
	15x3/4"	J07091	10	150
	22x1/2"	J07092	10	150
	22x3/4"	J07093	10	120
	28x3/4"	J07094	5	100
	28x1"	J07095	5	80
	35x1-1/4"	J07096	2	40
	42x1-1/2"	J07097	2	30
	54x2"	J07098	2	20
	67x2-1/2"	J07232	1	10
	76x2-1/2"	J07238	1	5

COPPER FITTINGS	Customer Dimension (mm)	Customer/Article No.	Pack Qty	Carton Qty
<b>Wallplate Elbow</b> 	15x1/2"	J07099	10	100
	22x3/4"	J07100	10	60
<b>Union Adaptor Flat Seal</b> 	15x3/4"	J07144	5	120
	22x3/4"	J07101	5	60
	76x3"	J07233	1	10
<b>90° Elbow</b> Female Coupling 	15x1/2"	J07133	10	150
	15x3/4"	J07134	10	100
	22x1/2"	J07135	10	100
	22x3/4"	J07136	10	80
	22x1"	J07137	10	40
	28x1/2"	J07138	5	80
	28x3/4"	J07139	5	50
	28x1"	J07140	5	30
	35x1-1/4"	J07141	2	20
	42x1-1/2"	J07142	2	12
<b>90° Elbow</b> Male Coupling 	15x1/2"	J07149	10	200
	15x3/4"	J07150	10	150
	22x1/2"	J07151	10	100
	22x3/4"	J07152	10	80
	22x1"	J07153	10	50
	28x1"	J07154	5	50
	35x1-1/4"	J07155	2	30
	42x1-1/2"	J07156	2	12
	54x2"	J07157	2	10
<b>Flange PN16</b> 	28	J07145	1	6
	35	J07146	1	4
	42	J07147	1	3
	54	J07148	1	2
	67	J07234	1	4
	76	J07235	1	3
	108	J07236	1	2



## 15MM - 35MM INSTALLATION GUIDELINES

The following is a step by step guide to installing the KemPress® System for EN sizes 15mm - 35mm. 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 relevant installation 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.



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



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.



2. Deburr carefully the end of the tube on the inside to minimize turbulence and pressure loss according to the relevant plumbing code and on the outside to avoid damaging the O-ring.



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 the table below.

Tube Size mm	Insertion Depth mm
15	20
22	24
28	27
35	32
42	38
54	43
66.7	47
76.1	50
108	69



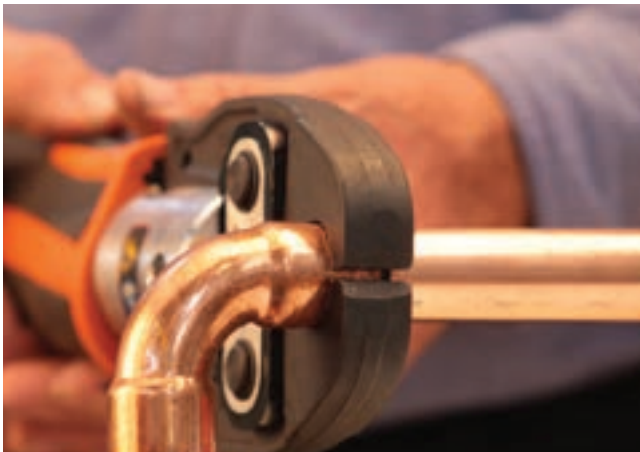
## 15MM - 35MM INSTALLATION GUIDELINES



6. 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.



8. Initiate the pressing job by pressing the start button. The automatic pressing process creates a tight connection.



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 (mm)	15	22	28	35	42	54	67	76	108
Minimum clearance to existing connection (mm)	350	550	730	875	1000	1400	1700	2000	2300
Minimum clearance to existing brazed fitting (mm)	10	10	10	10	20	20	20	20	20

## 42MM - 54MM INSTALLATION GUIDELINES

The following is a step by step guide to installing the KemPress® System for EN sizes 42mm - 54mm. 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 relevant installation standards and the KemPress® Design & Installation Guide. Failure to adhere to either can result in the warranty being voided.

For the dimensions 42 and 54mm, the use of the KPL, KPL2, KPXL, KPXL2 or other approved press tool is required. KemPress® tools require adaptor jaw ZB203 and 42 and 54mm collars for these sizes.

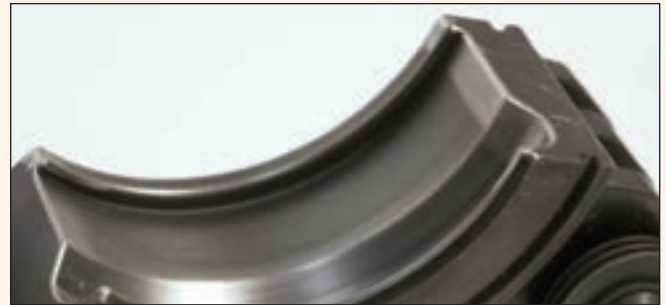
### RECOMMENDED 54MM TUBE

Kembla recommends the use of its newly released alternate wall thickness tube that is guaranteed for use with 54mm KemPress® fittings. This Kembla tube is specifically designed for use with 54mm KemPress fittings and has a 54mm outside diameter x1.5mm wall thickness as specified as an option in EN 1057. The tube is continuously marked as **KEMBLA – MADE IN AUSTRALIA EN1057 54 x 1.5 R290**. Alternatively, 54 x 2.0 (Table Y) tube is also guaranteed for use with 54mm KemPress® fittings.

Prior to the following installation steps, complete steps 1-4 as per the 15-35mm installations instructions on page 8.

### STEP 5

Select the appropriate press collar and check that it is clean and that the surface is smooth. In order to ensure correct operation of the press collars, the sliding segments must be free to move/slide. The sliding segments are tensioned by springs, holding them in the correct starting position. Please ensure that the marking lines on the inner and outer rings form a line for the correct starting position. If the segments are not freely moving, clean and lubricate with light machine oil or have them serviced by an approved KemPress® service agent.



### STEP 6

Place the collar around the KemPress® fitting such that the bead of the fitting is inserted into the groove of the press collar. Close press collar. Make certain that the press collar fits tightly into the fitting. Afterwards position the pressing collar by rotating it so that the pressing machine can be correctly attached.



**42MM - 54MM INSTALLATION GUIDELINES****STEP 7**

Select adaptor jaw ZB203 for the dimensions 42 mm and 54 mm. Insert the adaptor jaw into the press tool and close the locking bolts.

**STEP 8**

Open the adaptor jaw by depressing the jaw levers and attach to the press collar so that the claws of the adaptor jaw grip around the pins of the press collar. Check whether fittings outer edge lines up with the marker of the insertion depth then start the pressing procedure by pressing the start button. The pressing procedure should not be interrupted prematurely. Following this procedure ensures a permanently sealed connection always results. For safety, the pressing process can be stopped by pressing the emergency stop button. Once the emergency button has been activated, the tool will need to be reset. The affected fitting and tube section should be discarded and new components used.

**STEP 9**

Loosen the press collar by pulling apart.





## 66.7MM - 76.1MM INSTALLATION GUIDELINES

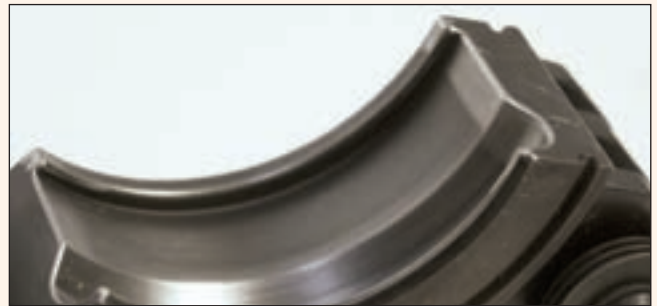
The following is a step by step guide to installing the KemPress® System for EN sizes 66.7mm and 76.1mm. For projects requiring maintenance and repair, visually inspect the copper tube to ensure it is in reasonable condition with no signs of external corrosion or scores. Installation shall be in accordance with relevant installation standards and the KemPress® Design & Installation Guide. Failure to adhere to either can result in the warranty being voided.

For the dimensions 66.7mm and 76.1mm, the use of the KPXL/ KPXL2 or other approved press tool is required. KemPress® tools require adaptor jaw ZB221 and 66.7mm, 76.1mm collars for these sizes.

Prior to the following installation steps, complete steps 1-4 as per the 15-35mm installations instructions on page 8.

### STEP 5

Select the appropriate press collar and check that it is clean and that the surface is smooth. In order to ensure correct operation of the press collars, the sliding segments must be free to move/slide. The sliding segments are tensioned by springs, holding them in the correct starting position. Please ensure that the marking lines on the inner and outer rings form a line for the correct starting position. If the segments are not freely moving, clean and lubricate with light machine oil or have them serviced by an approved KemPress® service agent.



### STEP 6

Place the collar around the KemPress® fitting such that the bead of the fitting is inserted into the groove of the press collar. Close press collar. Make certain that the press collar fits tightly into the fitting. Afterwards position the pressing machine by rotating it so that the pressing machine can be correctly attached.





## 66.7MM - 76.1MM INSTALLATION GUIDELINES

### STEP 7

Select adaptor jaw ZB221 for the dimensions 66.7 mm 76.1 mm. Insert the adaptor jaw into the press tool and close the locking bolts.



### STEP 8

Open the adaptor jaw by depressing the jaw levers and attach to the press collar so that the claws of the adaptor jaw grip around the pins of the press collar. Check whether fittings outer edge lines up with the marker of the insertion depth then start the pressing procedure by pressing the start button. The pressing procedure should not be interrupted prematurely. Following this procedure ensures a permanently sealed connection always results. For safety, the pressing process can be stopped by pressing the emergency stop button. Once the emergency button has been activated, the tool will need to be reset. The affected fitting and tube section should be discarded and new components used.



### STEP 9

Loosen the press collar by pulling apart.



## 108MM INSTALLATION GUIDELINES

The following is a step by step guide to installing the KemPress® System for EN size 108mm. 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 relevant installation standards and the KemPress® Design & Installation Guide. Failure to adhere to either can result in the warranty being voided.

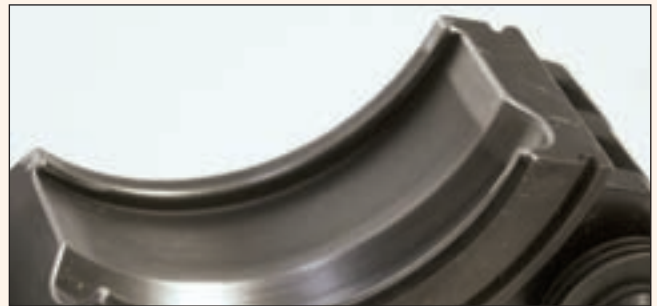
For the dimension 108mm, the use of the KPXL/KPXL2 or other approved press tool is required. KemPress® tools require adaptor jaw ZB221 (for the 1st press), adaptor jaw ZB222 (for the 2nd press) and the 108mm collar.

Prior to the following installation steps, complete steps 1-4 as per the 15-35mm installations instructions on page 8.

Note the 108mm installation requires 2 presses, the first press with the ZB221 adaptor jaw and the second press with the ZB222 adaptor jaw.

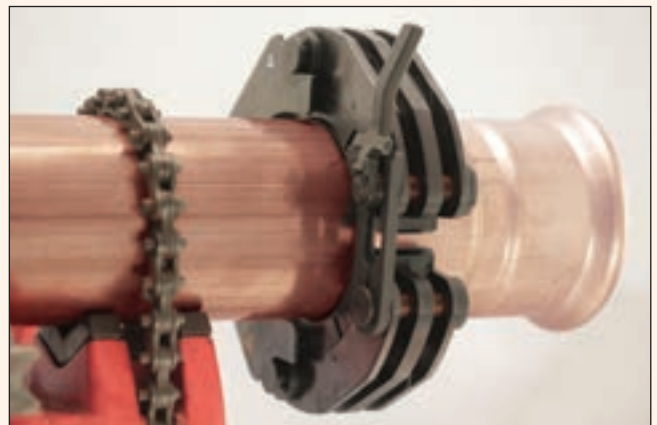
### STEP 5

Select the 108mm press collar and check that it is clean and that the surface is smooth. In order to ensure correct operation of the press collar, the sliding segments must be free to move/slide. The sliding segments are tensioned by springs, holding them in the correct starting position. Please ensure that the marking lines on the inner and outer rings form a line for the correct starting position. If the segments are not freely moving, clean and lubricate with light machine oil or have them serviced by an approved KemPress® service agent.



### STEP 6

Place the collar around the KemPress® fitting such that the bead of the fitting is inserted into the slot of the press collar. Close press collar and secure the fastening latch. Make certain that the press collar fits tightly into the fitting. Afterwards position the pressing collar by rotating it so that the pressing machine can be correctly attached.



## 108MM INSTALLATION GUIDELINES

### STEP 7

Select adaptor jaw ZB221 for the 108mm dimensions first press. Insert the adaptor jaw into the press tool and close the locking bolts.



### STEP 8

Open the adaptor jaw by depressing the jaw levers and attach to the press collar so that the claws of the adaptor jaw grip around the pins of the press collar. Check whether fittings outer edge lines up with the marker of the insertion depth then start the pressing procedure by pressing the start button. The pressing procedure should not be interrupted prematurely. Following this procedure ensures a permanently sealed connection always results. After completing the pressing process, the pressing tool can be removed from the press collar by opening the intermediate jaw. Then carry out step 7 to 9 using the intermediate jaw ZB222 to complete the second stage of pressing in order to close the press collar completely. For safety, the pressing process can be stopped by pressing the emergency stop button. Once the emergency button has been activated, the tool will need to be reset. The affected fitting and tube section should be discarded and new components used.

**NOTE:** Step 8 requires the use of the ZB221 and ZB222 adaptor jaws. The process requires two presses in total.



### STEP 9

Loosen the press collar by releasing the fastening latch and then pull apart.





## PRESS TOOL

The KemPress® tool is 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
  - KPXL2 - Unlimited, service every 2 years
  - KPXL - 40,000 pressing cycles
  - KPL2 - Unlimited, service every 2 years
  - KPL - 40,000 pressing cycles
  - KPSA - 35,000 pressing cycles
- Smart electronic controls: Flashes if not pressed correctly Battery status indicator
- Second battery included, rapid recharge (30 mins)
- Tool Service Program: Service centre operated by Kembla Hong Kong Loan tool provided during service/repair

**Small tool (KPSA)** designed for 15, 22, 28, and 35mm

**Large tool (KPL, KPL2)** designed for 15, 22, 28, 35, 42 and 54mm

**Extra Large tool KPXL/KPXL2** designed for 15, 22, 28, 35, 42, 54, 66.7, 76.1 and 108mm



KEMPRESS EN COPPER TOOLING SPECIFICATIONS				PRESSING CYCLES		
TECHNICAL DATA	Small Tool (KPSA)	Large Tool (KPL2)	Extra Large Tool (KPXL2)	Tool	OD Size (mm)	Presses per battery Life
Dimensions	15mm to 35mm	15mm to 54mm	15mm to 108mm	KPSA	15	129
Weight incl. battery	1.7 kg	2.8 kg	3.9 kg		22	116
Length	319 mm	387 mm	480 mm		28	105
Width	70 mm	75 mm	83 mm		35	104
Height	96 mm	111 mm	113 mm	KPL2	15	127
Power consumption	240 W	450 W	450 W		22	125
Piston Force (minimum press force)	21 kN	32 kN	32 kN		28	120
Piston stroke	30 mm	40 mm	80 mm		35	119
Battery	12V/1.5 Ah Li-Ion	18V/1.5 Ah Li-Ion	18V/3.0 Ah Li-Ion		42	94
Charging time	30 min	30 min	60 min		54	62
Number of presses before service	35,000	Unlimited, service every 2 years	Unlimited, service every 2 years	KPXL2	15	242
					22	239
					28	231
					35	228
					42	185
					54	129
					67	57
					76	59
					108	21



### Key Features

- 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
- Automatic press cycle. Once it starts, it will automatically complete. (manual override)
- Electronic log book allows for quick and precise analysis of errors for servicing and repair
- Electronic monitoring of the jaw locking bolt and visual error indicator (KPL)
- 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
- Rotatable head (KPSA)

### 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, contact Kembla Hong Kong for advice. If the red and green LEDs flash alternately, the tool is ready for a service, contact Kembla Hong Kong 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.

### Tool Maintenance

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 the jaws, adaptor jaws and collars and general application of anti-corrosive spray is recommended to maintain a serviceable condition and function.

The pressing device, jaws and batteries must be serviced at least within 40,000 presses for the KemPress Large Tool (KPL) and Extra Large Tool (KPXL), 35,000 for the KemPress Small Tool (KPSA) and every 2 years for the KPXL2 and KPL2. It is recommended to have the press tool, jaws, adaptor jaws and collars inspected by Kembla Hong Kong at least once per year. Failure to have the required services carried out may affect the warranty.

### Tool Service Program

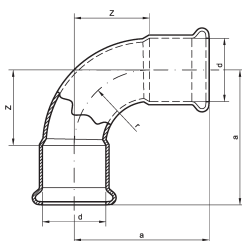
The Kembla Hong Kong tool service and repair program is easy, ensures minimal down time and provides known maximum costs for repairs. The key components of the program include:

- Replacement tools available while your tool is being serviced/repared
- 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
- Kembla recommends an annual service of the tools, jaws, adaptor jaws and collars

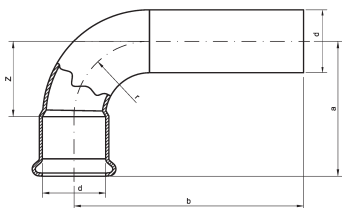
Any service or repair of the KemPress® pressing tool or jaws, requiring opening the device, or mechanical repairs, shall only be carried out by Kembla Hong Kong or their authorised agent. Failure to do so may void the warranty.



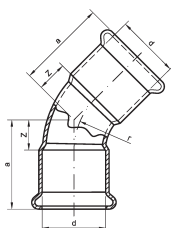
## FITTINGS MEASUREMENTS



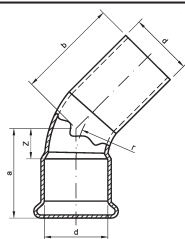
Product Code	Dimension	a	z
J07000	15	36	18
J07001	22	50	27
J07002	28	61	34
J07003	35	75	43
J07004	42	89	51
J07005	54	108	65
J07180	67	129	91
J07181	76	142	92
J07182	108	200	131



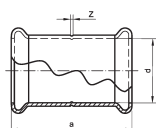
Product Code	Dimension	a	b	z
J07006	15	36	44	18
J07007	22	50	58	27
J07008	28	61	68	34
J07009	35	75	82	43
J07010	42	89	103	51
J07011	54	108	123	65



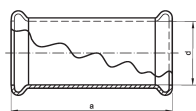
Product Code	Dimension	a	z
J07012	15	26	8
J07013	22	35	11
J07014	28	41	14
J07015	35	50	18
J07016	42	59	21
J07017	54	70	27
J07201	67	82	34
J07202	76	89	39
J07237	108	124	55



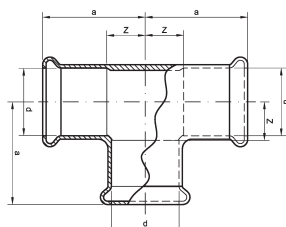
Product Code	Dimension	a	b	z
J06998	15	26	34	8
J06999	22	29	37	9
J07018	28	41	49	14
J07019	35	50	58	18
J07020	42	59	74	21
J07022	54	70	85	27



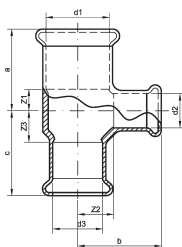
Product Code	Dimension	a	z
J07023	15	38	2
J07024	22	49	2
J07025	28	55	2
J07026	35	66	2
J07027	42	79	3
J07028	54	88	3
J07210	67	113	17
J07211	76	117	17
J07212	108	156	17



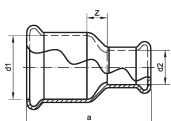
Product Code	Dimension	a
J07029	15	47
J07030	22	64
J07031	28	72
J07032	35	88
J07033	42	104
J07034	54	119
J07224	67	112
J07225	76	116



Product Code	Dimension	a	b	c	z	z1	z2	z3
J07035	15	34	27	34		16	9	16
J07036	22	39	37	39		15	13	15
J07037	28	43			17			
J07038	35	53			21			
J07039	42	63			25			
J07040	54	73			31			
J07206	67	89	97	89		41	51	
J07186	76	97	106	97		47	57	
J07203	108	135	145	135		65	75	

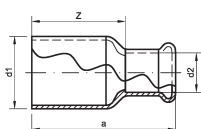


Product Code	Dimension	a	b	c	z1	z2	z3
J07041	22 x 15 x 15	33	31	32	10	13	14
J07042	22 x 22 x 15	33	31	33	10	13	10
J07043	22 x 15 x 22	37	37	35	13	13	17
J07044	28 x 28 x 15	37	34	37	10	16	10
J07045	28 x 28 x 22	40	40	40	14	16	14
J07046	35 x 35 x 15	43	47	43	11	29	11
J07047	35 x 35 x 22	46	44	46	14	20	14
J07048	35 x 35 x 28	49	47	49	17	21	17
J07049	42 x 42 x 22	53	48	53	15	24	15
J07050	42 x 42 x 28	56	51	56	18	25	18
J07051	42 x 42 x 35	59	57	59	21	25	21
J07052	54 x 54 x 22	57	65	57	15	30	15
J07053	54 x 54 x 28	60	68	60	18	41	18
J07054	54 x 54 x 35	64	73	64	21	42	21
J07055	54 x 54 x 42	67	69	67	25	31	25
J07207	67 x 67 x 28	70	76	70	22	49	22
J07190	67 x 67 x 35	75	81	75	27	49	27
J07208	67 x 67 x 42	78	87	78	30	49	30
J07191	67 x 67 x 54	83	92	83	35	49	35
J07192	76 x 76 x 22	76	87	76	27	63	27
J07193	76 x 76 x 28	76	87	76	27	60	27
J07209	76 x 76 x 35	76	86	76	27	54	27
J07194	76 x 76 x 42	80	92	80	30	54	30
J07213	76 x 76 x 54	86	97	86	36	54	36
J07214	76 x 76 x 64	91	104	91	41	57	41
J07195	76 x 76 x 67	91	105	91	41	57	41
J07196	108 x 108 x 54	108	115	108	38	72	38
J07204	108 x 108 x 64	113	122	113	43	75	43
J07205	108 x 108 x 67	113	123	113	43	75	43
J07197	108 x 108 x 76	119	125	119	49	75	49



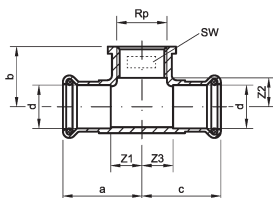
Product Code	Dimension	a	z
J07057	22 x 15	48	6
J07058	22 x 18	48	5
J07059	28 x 15	54	10
J07060	35 x 22	65	10
J07061	35 x 28	65	7
J07062	42 x 22	75	13

Product Code	Dimension	a	z
J07063	42 x 28	75	10
J07064	42 x 35	77	7
J07065	54 x 28	86	16
J07066	54 x 35	88	13
J07067	54 x 42	90	9

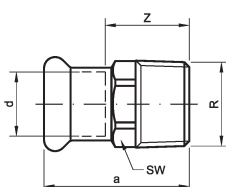


Product Code	Dimension	a	z
J07068	22 x 15	51	33
J07069	28 x 15	57	39
J07070	28 x 22	58	34
J07071	35 x 22	68	44
J07072	35 x 28	67	40
J07073	42 x 22	77	54
J07074	42 x 28	77	51
J07131	42 x 35	77	58
J07075	54 x 35	90	58
J07076	54 x 42	91	53
J07103	67 x 28	124	98
J07220	67 x 35	126	94

Product Code	Dimension	a	z
J07221	67 x 42	129	91
J07200	67 x 54	128	85
J07104	76 x 35	131	99
J07105	76 x 42	133	95
J07222	76 x 54	133	90
J07223	76 x 67	129	81
J07215	108 x 42	179	141
J07216	108 x 54	179	136
J07217	108 x 64	178	131
J07218	108 x 67	178	129
J07219	108 x 76	174	124

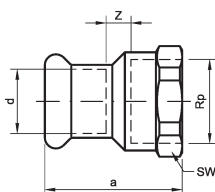


Product Code	Dimension	a	b	c	d	Rp	SW	z	z1	z2
J07132	22 x 22 x 1/2	37	27	37	22	1/2	26	13	14	13
J07077	28 x 28 x 1/2	40	29	40	28,0	1/2	32	14	16	14
J07078	28 x 28 x 3/4	42	31	42	28,0	3/4	32	16	16	16
J07079	35 x 35 x 1/2	45	32	45	35,0	1/2	39	13	19	13
J07080	42 x 42 x 1/2	51	36	51	42,0	1/2	47	13	23	13

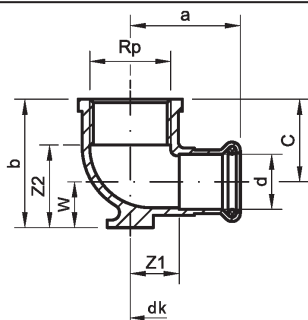


Product Code	Dimension	a	d	R	SW	z
J07081	15 x 1/2	36	15,0	1/2"	22	18
J07082	15 x 3/4	36	15,0	3/4"	19	18
J07083	18 x 1/2	37	18,0	1/2"	21	17
J07084	18 x 3/4	38	18,0	3/4"	22	17
J07085	22 x 1/2	40	22,0	1/2"	26	16
J07086	22 x 3/4	41	22,0	3/4"	27	17
J07087	28 x 3/4	45	28,0	3/4"	32	18
J07088	28 x 1	46	28,0	1"	34	19
J07089	35 x 1-1/4	53	35,0	1 1/4"	46	21
J07090	42 x 1-1/2	60	42,0	1 1/2"	50	23
J07091	54 x 2	71	54,0	2"	60	29
J07229	67 x 2-1/2	85	67	2 1/2"	77	36,8
J07230	76 x 3	92	76	3"	90	42,1
J07231	108 x 4	120	108	4"	117	50,5

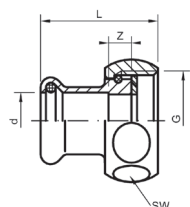
**Note:** All measurements in mm



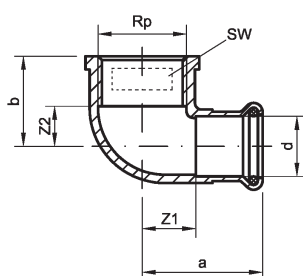
Product Code	Dimension	a	d	R	SW	z
J07090	15 x 1/2	35	15	1/2"	25	3
J07091	15 x 3/4	40	15	3/4"	30	7
J07092	22 x 1/2	39	22	1/2"	26	3
J07093	22 x 3/4	42	22	3/4"	32	3
J07094	28 x 3/4	42	22	3/4"	32	3
J07095	28 x 1	48	28	1"	38	4
J07096	35 x 1 1/4	58	35	1 1/4"	47	4
J07097	42 x 1 1/2	62	42	1 1/2"	55	3
J07098	54 x 2	73	54	2"	65	7
J07232	67 x 2-1/2	85	67	2 1/2"	85	7
J07238	76 x 2-1/2	86	76	2 1/2"	85	4



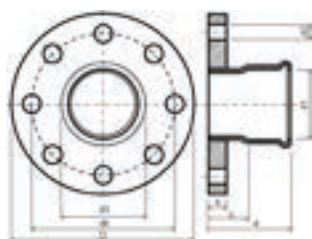
Product Code	Dimension	a	b	c	d	dk	Rp	W	z	z1
J07099	15 x 1/2	33	36	23	15,0	40	1/2	22	15	9
J07100	22 x 3/4	40	46	29	22,0	40	3/4	31	16	14



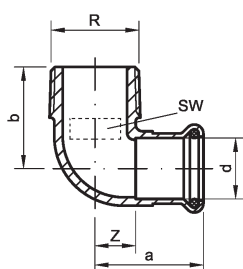
Product Code	Dimension	d	G	SW
J07144	15 x 3/4"	15	3/4	30
J07101	22 x 3/4"	22	3/4	30
J07233	76 x 3"	76	3	94



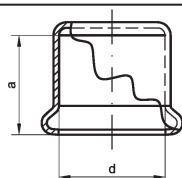
Product Code	Dimension	a	b	z1	z2	SW
J07133	15 x 1/2"	33	23	15	10	26
J07134	15 x 3/4"	36	25	18	9	32
J07135	22 x 1/2"	37	27	13	14	26
J07136	22 x 3/4"	40	29	16	14	32
J07137	22 x 1"	44	30	20	13	39
J07138	28 x 1/2"	40	29	14	16	27
J07139	28 x 3/4"	44	31	28	16	32
J07140	28 x 1/2"	46	33	20	16	39
J07141	35 x 1-1/4"	57	42	25	20	49
J07142	42 x 1-1/2"	65	45	27	23	56
J07143	54 x 2"	78	55	36	31	68



Product Code	Dimension	b	d1	d2	d3	dk	z
J07145	28	16	28	14	68	85	35
J07146	35	18	35	18	78	100	30
J07147	42	18	42	18	88	110	26
J07148	54	20	54	18	102	125	23
J07234	67	22	67	18	122	145	19
J07235	76	22	76	18	122	145	28
J07236	108	26	108	22	162	190	8

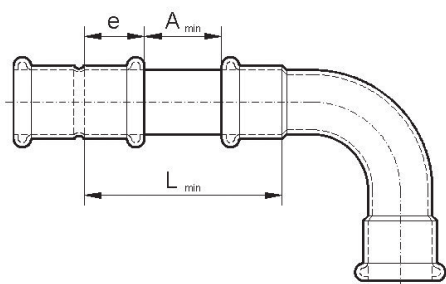


Product Code	Dimension	a	b	z1	z2	SW
J07149	15 x 1/2"	26	15	1/2"	20	9
J07150	15 x 3/4"	28	15	3/4"	24	12
J07151	22 x 1/2"	33	22	1/2"	26	12
J07152	22 x 3/4"	33	22	3/4"	26	12
J07153	22 x 1"	38	22	1"	32	18
J07154	28 x 1"	38	28	1"	32	15
J07155	35 x 1-1/4"	45	35	1-1/4"	40	20
J07156	42 x 1-1/2"	48	42	1-1/2"	45	22
J07157	54 x 2"	59	54	2"	58	28

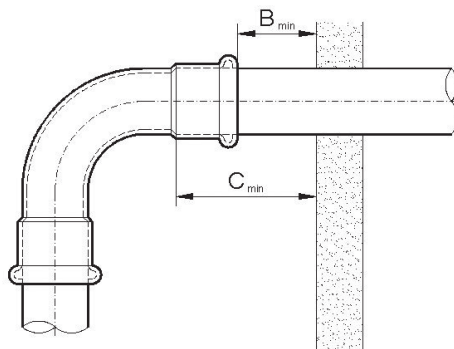


Product Code	Dimension	a
J07226	67	48
J07227	76	50
J07228	108	70





Minimum spacing between two press points. **See table 1.**



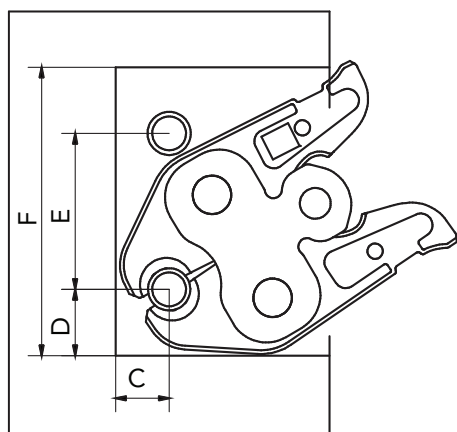
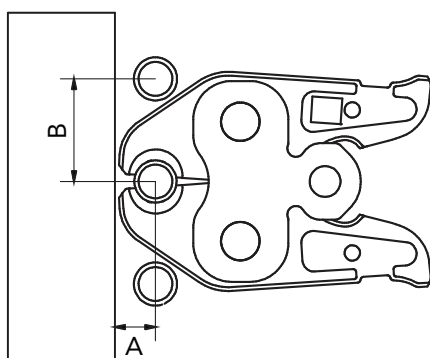
Minimum spacing to the wall points. **See table 1.**

## FITTINGS SPACE REQUIREMENTS

The distance required between tubes and walls, in corners and wall recesses is shown in the sketches and table 1 below.

**TABLE 1**

Size mm	A mm	L mm	B mm	C mm	e Insertion Depth
15	0	50	60	80	20
22	10	58	60	84	24
28	10	64	60	87	27
35	10	74	60	92	32
42	20	96	60	98	38
54	20	106	60	103	43
66.7	30	126	60	108	47
76.1	30	130	60	110	50
108	30	168	60	129	69



Above: Tool Space Requirements. **See table 2.**

## TOOL SPACE REQUIREMENTS

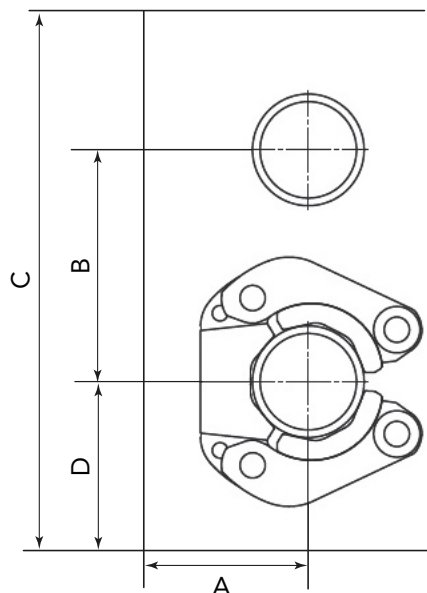
The distance required to operate the KemPress® Tool as shown in the sketches on the left and tables 2 & 3 below.

**TABLE 2**

Size mm	A mm	B mm	C mm	D mm	E mm	F mm
15	20	56	32	40	80	155
22	25	65	32	50	82	175
28	25	75	32	54	82	182
35	30	83	36	65	85	205

**TABLE 3**

Size mm	A mm	B mm	C mm	D mm
42	61	94	230	68
54	68	108	254	73
66.7	81	139	335	98
76.1	88	156	372	108
108	108	204	478	137



Above: Tool Space Requirements. **See table 3.**

## O-RING SPECIFICATION TABLE

Application	Comment		P[kPa]	T [°C]	Water (EPDM)
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	✓
Other Gas					
Oxygen			1600	Ambient	✓
Argon	For welding		1600	Ambient	✓
Carbogen			1600	70	✓
Compressed Air	Oil Content Maximum 25 mg/m³ of Air		1600	70	✓
Nitrogen – N <sub>2</sub>	After the evaporator		1600	70	✓
Hydrogen – H <sub>2</sub>	Will leak at <0.001cm³/minute		500	70	✓
Carbon dioxide – CO <sub>2</sub>	Dry		1600	70	✓
Carbon monoxide – CO	Stainless steel components not permitted		1600	70	✓
Low vacuum	P <sub>abs</sub> = 200mbar				✓
Forming gas	80% Argon / 20% CO2		1600	70	✓
Helium – He <sub>2</sub>			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

### Not Suitable:

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



## TOOL WARRANTY

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

The KemPress® 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/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.

**For further information:** Refer to the current edition of The Plumbers Handbook available through your Kembla Hong Kong representative.

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.



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Technical Bulletin No: E65/16

A close-up photograph of a man with light brown hair and a slight smile, wearing a light blue button-down shirt. He is holding a black and orange KemPress K22 copper press tool. The tool has a silver-colored die head with a barcode and the 'KemPress' logo. The man's face is on the left side of the frame, and the tool is on the right.

**FASTER. EASIER.  
FLAME FREE.  
QUALITY.**

**THE COPPER  
PRESS-FIT  
CONNECTION  
SYSTEM FROM  
MM KEMBLA.**

 **KEMBLA**  
**KemPress®**  
[www.kembla.com.au](http://www.kembla.com.au)