



*Press Fitting compatible with Stainless Steel BS EN 10312*

# **MOLCOJOINT™**

**BENKAN®**

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Our Authorized Distributor:

**BENKAN Corporation**

# Born in Japan

## Contributing to the world's cleanest drinking water since 1975

Japan has seen a transition from copper pipe to stainless steel for the past 40 years. We at Benkan Corporation has been a manufacturer and provider of fittings compatible with stainless steel pipes ever since, and Japan has gained recognition for one of the cleanest potable waters in the world. Our next goal is to contribute to the global public health and water safety.

We proudly present our press fitting, Molco Joint, equipped with the essence of our knowledge and experience in waterworks.

To say nothing of its strength and lightness, stainless steel is considered to be a clean and environmentally-friendly material for its high level of corrosion resistance and recyclability. In addition, using our Molco Joint has the following advantages.

- Installation is fire-free and does not require any soldering materials that can be harmful to human beings.
- The press tool is easy to handle and drastically reduces the installation time.
- Rigorously tested for strength and durability, enough to withstand frequent minor earthquakes in Japan.

Benkan has  
**40** years  
of achievements in  
stainless steel  
plumbing  
industry.

The  
recycling rate  
of stainless steel  
plumbing system in  
Japan is higher than  
**80** %.

The expected  
lifetime of a stain-  
less steel system  
equals that of the  
building itself.



### Structure

Molco Joint is compatible with stainless steel pipes conformed to BS EN 10312 Series1.

The fitting body is made from stainless steel (grade 304), with EPDM seal rings attached inside the grooves.

Once the pipe is inserted to an adequate depth, installation with Benkan press tools guarantees homogeneous and sufficient strength and water-tightness.



### Standards

Molco Joints are tested to AS3688. The seal ring is WRAS-certified (BS 6920) for use in contact with potable water.



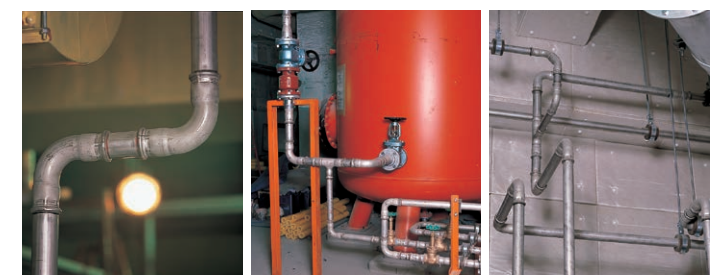
### Scope

Molco Joint can be used under the following conditions

Usage	Piping systems for cold water, hot water, hot & cold water, coolant water and *other fluids.
Operating Pressure	14 bar (1.4MPa) and below.
Operating Temperature	Below 80°C

\*Not suitable for steam piping

\*Please consult us on use for fluids other than listed above





# Quick, Safe and Fire-free Installation with press tool



## CUT

Cut the pipe into a desired length with a rotary cutter



## DEBURR

Remove any burrs around the pipe end to prevent damage to the seal ring



## MARK

Use the marking gauge (included in the press tool set) to mark the insertion depth on the pipe



## INSERT

Insert the pipe into the fitting to the marked depth



## PRESS

Press the fitting with a press tool approved by Benkan



## CHECK

Use the hexagonal gauge to see if the installation was properly done

\*The warranty does not cover leakage and other accidents arising from fittings installed without marking.

\*Please do not use press tools not authorized by Benkan, as it may lead to an installation failure.

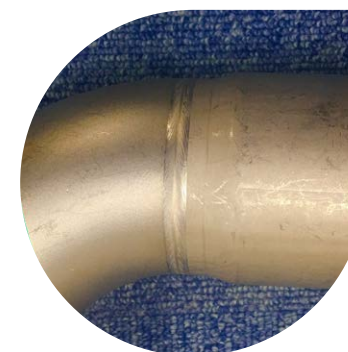
\*Make sure the marked line is within 3mm from the fitting end.

\*Please read the Molco Joint installation manual prior to construction.

# Uncompromising Quality Achieved through true craftsmanship and manufacturing

## How Are Molco Joints Made?

Stainless steel tubes are processed into desired shapes by cold forming method. Tee is formed by the bulging method. Some parts are joined with TIG (tungsten inert gas) welding. The weld area is protected from oxidation with an inert shielding gas with a very smooth finish at the bead.



The fine finish of the weld (above) is obtained by TIG welding method (below). The smooth bead (welded area) is vital for the water flow.



## Thorough Quality Assurance

The manufacturer's responsibility goes far beyond just production. Our skilled craftsmen run a minute visual check on every single joint to ensure the best quality. All welded fittings are examined for airtightness.

Molco Joints are **100%** visually examined by our craftsmen, all welded fittings checked for airtightness.



## Performance Tests

Molco Joint meets all the performance requirements set by the Japan Stainless Steel Association (SAS322), as well as many water authorities in and outside Japan






Pull-out test (above)  
Accelerated degradation test (below)  
Vibration test (bottom).






# Item List

## 90° Elbow

Compact Elbow		Reducer Elbow		Plain-end Elbow	
					
No.	Size (OD)	No.	Size (OD)	No.	Size (OD)
90CE15	15	90E2215	22×15	90SE15	15
90CE22	22			90SE22	22
90CE28	28			90SE28	28

## 45° Elbow

Elbow		Plain-end Elbow		Reducer		Plain-end Reducer	
							
No.	Size (OD)	No.	Size (OD)	No.	Size (OD)	No.	Size (OD)
45E15	15	45SE15	15	R2215	22×15	RP2215	22×15
45E22	22	45SE22	22	R2815	28×15		
45E28	28	45SE28	28	R2822	28×22		

## Coupler



No.	Size (OD)
S15	15
S22	22
S28	28

## Slip Coupling



No.	Size (OD)
BS15	15
BS22	22
BS28	28

## Tee





No.	Size (OD)
T15	15
T22	22
T2215	22×15
T28	28
T2815	28×15
T2822	28×22

## Plug




No.	Size (OD)
C15	15
C22	22
C28	28

## Items with BSP tapered thread


Coupler (male)		Coupler (female)		90° Elbow (male)		90° Elbow (female)	
							
No.	Size (OD)	No.	Size (OD)	No.	Size (OD)	No.	Size (OD)
ASM1512	15×1/2	ASF1512	15×1/2	AEM1512	15×1/2	AEF1512	15×1/2
ASM2234	22×3/4	ASF2212	22×1/2	AEM2234	22×3/4	AEF2212	22×1/2
ASM281	28×1	ASF2234	22×3/4	AEM281	28×1	AEF2234	22×3/4
		ASF2812	28×1/2			AEF281	28×1
		ASF2834	28×3/4				
		ASF281	28×1				

## Union I




No.	Size (OD)
U115	15
U122	22
U128	28

## Union II



No.	Size (OD)
U21512	15×1/2
U22234	22×3/4
U2281	28×1

## Insulation Union



No.	Size (OD)
IUG1512	15×1/2
IUG2234	22×3/4
IUG281	28×1

\*For information on items not listed here, please contact us.