



Perfecting the Air

For Chilled Water FCU & Plumbing Applications



One Push Press Fitting
The Innovative System For
Plastic Piping



First In The World:
Toggle Method Fitting

THE INNOVATION OF MECHFIT

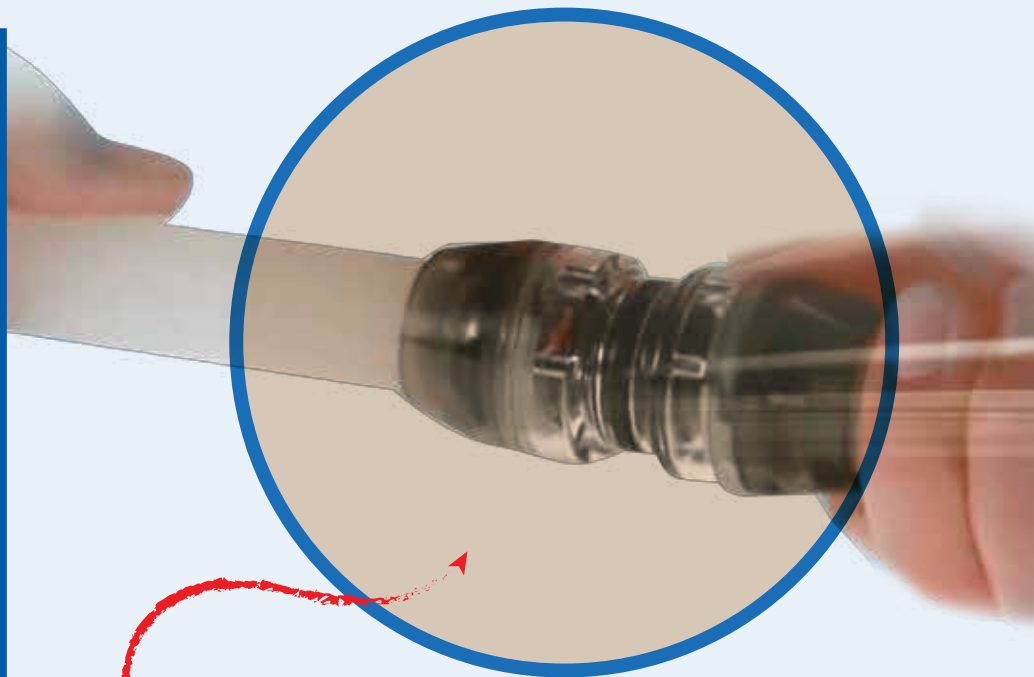
Introducing the MECHFit fitting, an innovative and reliable press-fitting method that does not require any tool yet connects tightly with PEX / AL / PEX pipes, hence ensuring a hassle-free and efficient installation that saves time.

HOW MECHFIT WORKS

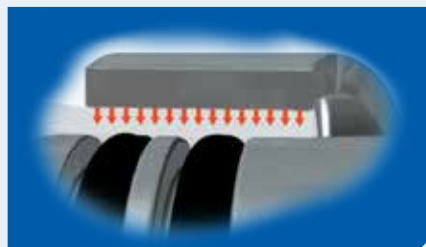
The key feature of MECHfit is its clamp ring that grips the pipe, making press-fitting without tools possible. This patented MECHfit clamp ring is made from a heat-treated special spring steel.

After inserting the pipe straight into the MECHfit fitting, a 'snap' sound can be heard and the small red 'jumping pin' will be pushed out of the clamp ring, easily completing the connection. The clamping then starts compressing the pipe from the outside, absorbing any dimensional changes occurring in the pipe.

The MECHfit clamp ring has a spring effect that guarantees a long-term water tightness connection. If there is a constant pressing force applying to the pipe, any possible fluctuation in the pipe dimension could be absorbed, unlike other push-fit type fittings. The clamp ring also firmly grips the pipe at work, preventing creep trouble.

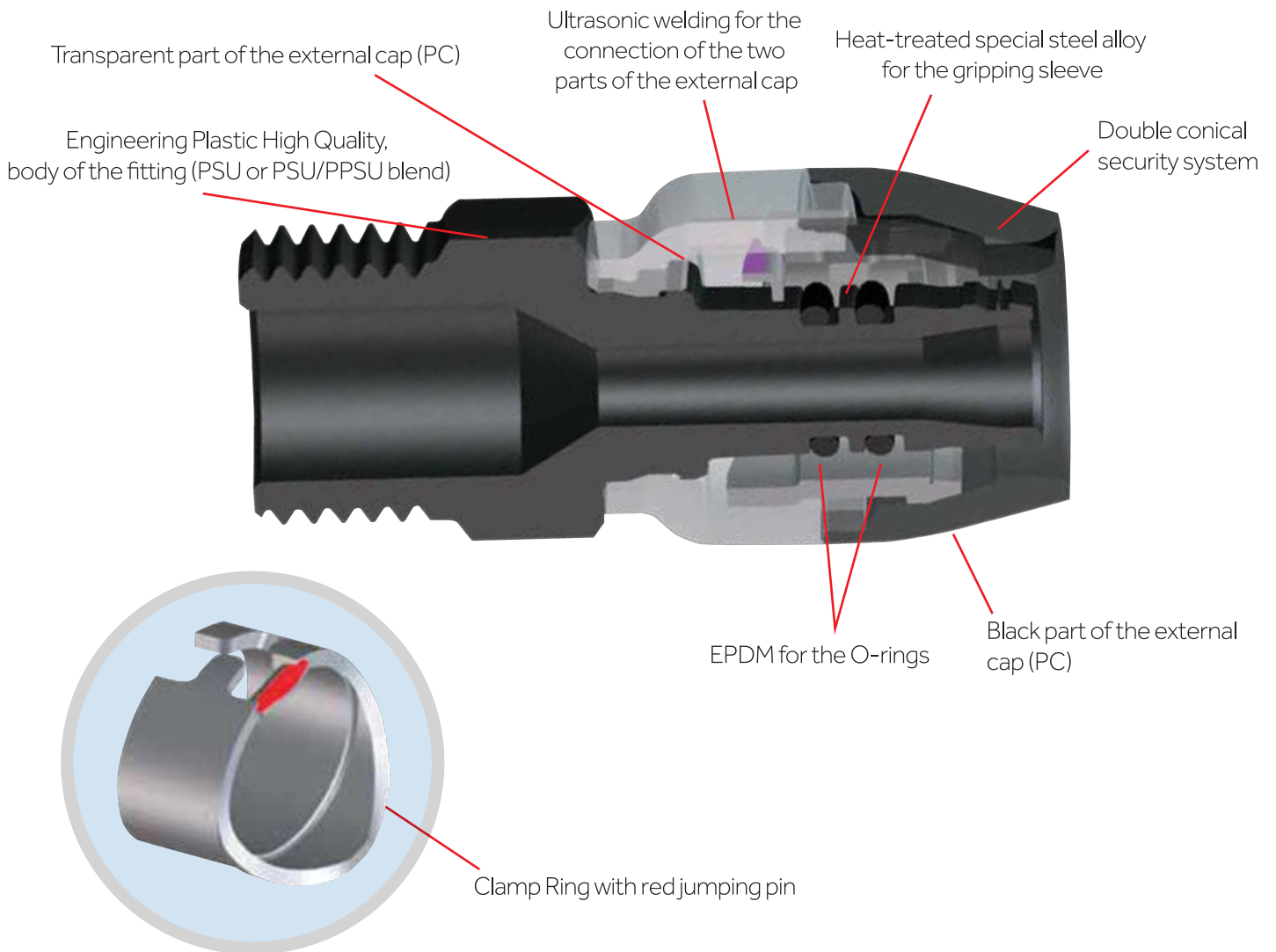


**One Push.
No Tool required.**



COMPONENTS

THE 'MECHFIT' SYSTEM USES THE BEST COMBINATION OF NEW GENERATION OF METAL AND PLASTIC MATERIALS:



BENEFITS

SIMPLE AND RELIABLE

MECHfit is easy to install, in which the red 'jumping pin' ensures a foolproof way to check for complete installation, and is extremely safe and reliable.

HIGH PRODUCTIVITY

As a tool-free, leak-free and secure pipe fitting, MECHfit improves productivity for use in all kinds of sanitary, heating and chilled water (FCU System) installations.

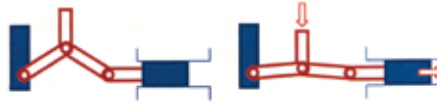
TIME AND COST SAVINGS

The efficient installation of MECHfit greatly reduces time and costs and provides a hassle-free solution to all installation works.

TOGLIT'S UNIQUE TECHNOLOGY

Toglit is the first in the world to use the "toggle method" for joints, which is one of the linking methods to generate a multipliable force by a small force. With this mechanism, larger piping work can be extremely fast and reliable, ensuring easy and user-friendly installation works.

Together with MECHfit, a unique combination system is formed. Using MECHfit for 16-32mm pipes and Toglit for 40mm pipes will ensure high productivity and workability, which results in time savings and cost reductions.



New System Combination

MECHfit

For 16 to 32mm



Toglit

For 40mm

HOW TOGLIT WORKS

1. Nut tightening



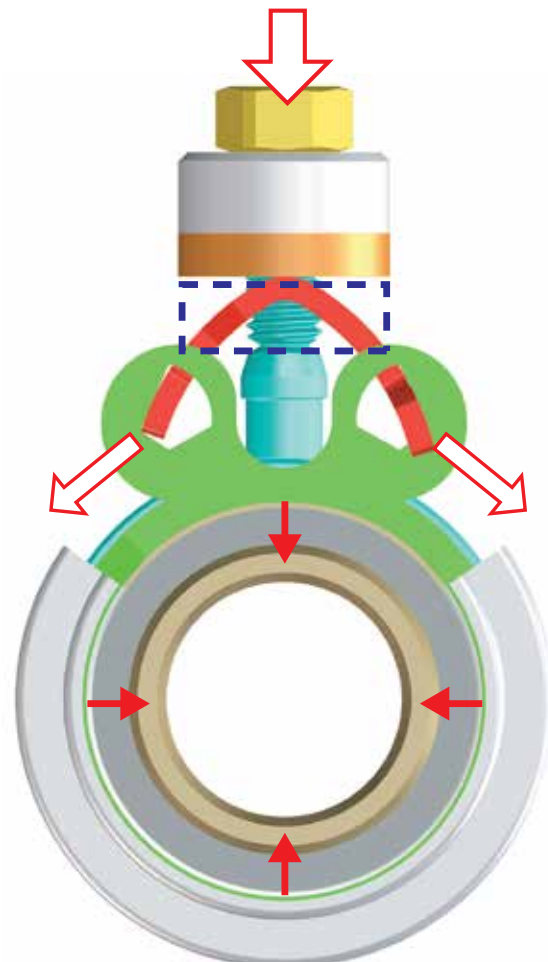
2. "TOGGLE" deformation



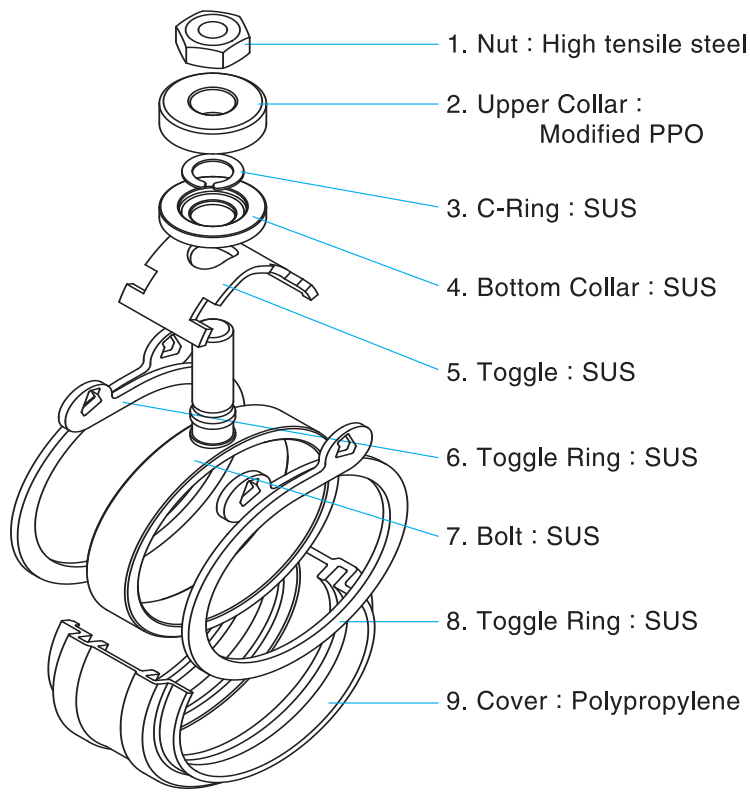
3. "TOGGLE RING" compression



4. Pipe squeezing



COMPONENTS



BENEFITS

● Quick & Easy Installation

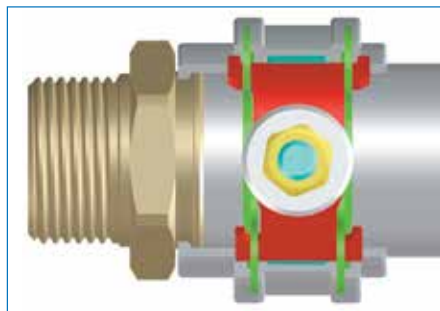
No special tools are required, simply tighten the nut with a common wrench.

● No Restrictions on Installation Place

Toglit is easy to install even in a tight and narrow working area, and it is also possible to install from the front.

● Prevention of Pipe Creep

Toglit clamps around the pipe with equal force all around, hence preventing any pipe creep or wrinkles.



● Easy Checking of Complete Installation

The bolt and nut will automatically be removed after installation is complete, making it easy and safe to ensure the work is done.

● Compact and Smooth Finish

Bulging is minimal after completion with cover.



PRODUCT LINE UP



Plastic Model

Code No.	Size	Pcs/Box
Elbow		
MP90L		
16	16	108
20	20	72
25	25	32
32	32	20

Code No.	Size	Pcs/Box
Equal and Reducing Tees		
MPTEE		
16	16	64
20	20	40
25	25	24
32	32	10
2016	20 X 16 X 16	56
2012	20 X 16 X 20	44
2020	20 X 20 X 16	44
2516	25 X 16 X 25	34
2520	25 X 20 X 20	30
2522	25 X 20 X 25	32
3220	32 X 20 X 32	14
3225	32 X 25 X 25	12
3223	32 X 25 X 32	10

Code No.	Size	Pcs/Box
Fixed Fitting with Female Thread		
MPMAD		
1604	16 X 1/2	120
2004	20 X 1/2	120
2506	25 X 3/4	76

Code No.	Size	Pcs/Box
Fixed Fitting with Male Thread		
MPOAG		
1604	16 X 1/2	192
2004	20 X 1/2	112
2006	20 X 3/4	112
2506	25 X 3/4	48

Code No.	Size	Pcs/Box
Elbow with Fixing Base (Short)		
MPZWL		
1604	16 X 1/2	68
2004	20 X 1/2	68

Code No.	Size	Pcs/Box
Terminal Elbow		
MPMAL		
1604	16 X 1/2	114
2004	20 X 1/2	102
2506	25 X 3/4	48

Code No.	Size	Pcs/Box
Terminal Elbow with Male Thread		
MPOAL		
1604	16 X 1/2	108

Code No.	Size	Pcs/Box
Loose Nut Elbow		
MPLNL		
2506	25 X 3/4	40

Code No.	Size	Pcs/Box
Equal and Reducing Union		
MPSOC		
16	16	136
20	20	70
25	25	48
32	32	30
2016	20 X 16	70
2516	25 X 16	48
2520	25 X 20	48
3225	32 X 25	30

DZR Model

Code No.	Size	Pcs/Box
Terminal Elbow		
MDMAL		
2006	20 X 3/4	68
2510	25 X 1	60
3210	32 X 1	28

Code No.	Size	Pcs/Box
Terminal Elbow with Male Thread		
MDOAL		
2004	20 X 1/2	84
2006	20 X 3/4	84
3204	32 X 1/2	28

Code No.	Size	Pcs/Box
Reducing Tees		
MDTEE		
3232	32 X 32 X 25	12
2525	25 X 25 X 20	30

Code No.	Size	Pcs/Box
Equal and Reducing Union		
MDSOC		
3216	32 X 16	30

Code No.	Size	Pcs/Box
Fixed Fitting with Female Thread		
MDMAD		
2006	20 X 3/4	120
2510	25 X 1	70
3210	32 X 1	30

Code No.	Size	Pcs/Box
Tee with Female Thread		
MDMNT		
1604	16 X 1/2	60
2004	20 X 1/2	44
2006	20 X 3/4	44

Code No.	Size	Pcs/Box
Fixed Fitting with Male Thread		
MDOAG		
2510	25 X 1	48
3210	32 X 1	30
3204	32 X 1/2	30
3212	32 X 1-1/4	30

Code No.	Size	Pcs/Box
Stop End		
MDSTE		
16	16	192
20	20	192

Code No.	Size	Pcs/Box
Calibrator		
MPTOL		
16	16 X 20 X 25	40
32	32 X 32 X 32	10

Code No.	Size	Pcs/Box
Test Plug		
MFTPG		
16	16	84
20	20	84
25	25	54
32	32	39



Plastic Model

Code No.	Size	Pcs/Box
Elbow		
TP90L40	40	10

Code No.	Size	Pcs/Box
Equal Tees		
TPTEE40	40	6

Code No.	Size	Pcs/Box
Equal Union		
TPSOC40	40	10

Brass Model

Code No.	Size	Pcs/Box
Fixed Fitting with Male Thread		
TGOAG4010	40'X1	15
TGOAG4012	40X1'-1/4"	15

Code No.	Size	Pcs/Box
Tee with Female Thread end		
TGMNT4010	40X1'	6
TGMNT4012	40X1'-1/4"	6

Code No.	Size	Pcs/Box
Terminal Flow		
TGMAL4010	40 X 1'	15

ADDED COCOMECH BRAND PIPES

SYSTEM PROPOSAL OF WORLD-LEADING PIPES + MOST ADVANCED FITTING

Introducing the PEX/AL/PEX pipe which meets the dimension and performance requirement ISO21003 (PEX/AL/PEX). Together with MECHFit, installation works are extremely easy, simple and reliable.

These pipes can be considered as the best piping material for hot and cold water supply system in the world with the following benefits:

- The flexibility of these lightweight coiled pipes improves workability in all processes of work.
- Excellent Corrosion Resistance, Chlorine Resistance, Electrical Resistance, Pipe-Creep Resistance, etc
- Coverage of wide temperature and pressure range in use.
- Safe from any toxic substance and promotes healthier water.



Pipe dimensional standard

Size	O.D.	I.D.	Thickness	Length (m)
D16	16.0	12.0	2.0	200
D20	20.0	16.0	2.0	100
D25	25.0	20.0	2.5	50
D32	32.0	26.0	3.0	50
D40*	40.0	33.0	3.5	5

* Use with Toglfit fitting

Technical Properties of Pipes

		16X2	20X2	25X2.5	32X3
		PEX-AL-PEX	PEX-AL-PEX	PEX-AL-PEX	PEX-AL-PEX
Outside pipe diameter	mm	16	20	25	32
Thickness of pipe	mm	2	2	2.5	3
Weight of 1m pipe	kg/m	0.099	0.127	0.206	0.323
Internal volume of 1m pipe	l/m	0.113	0.201	0.314	0.531
Heat conduction coefficient	Watt/m*K	0.43	0.43	0.43	0.43
Coefficient of linear expansion	mm/m*K	0.024	0.024	0.024	0.024
Roughness of internal surface	μm	1.5	1.5	1.5	1.5
Maximum punctual temperature	°C	110	110	110	110
Maximum operating temperature	°C	95	95	95	95
Minimum temperature of tube manipulation	°C	-40	-40	-40	-40
Minimum bending radius of internal spring	mm	80	100	125	160
Minimum bending radius with bending tool	mm	No kink	No kink	No kink	No kink
Gel content	%	>60	>60	>60	>60

* Based on pipe manufacturer's specifications

		Pressure (Multi)	Temperature	Hour Cycle	Test Procedure	Judgment	Results	
National Standard	ISO 15875 Part 5	Internal Pressure	12.5 Bar	95°C	1,000Hr	Continuous pressurized test for 1,000Hr at 95°C	No-Leakage	Pass
		Bending	33.9 Bar	20°C	1Hr Hold	Bending Radius: 5-time of ND	No-Leakage Find Burst	Pass
		Pull-Out		23 & 90°C	1Hr Hold	23°C=1.5F, 90°C=F	No-separation	Pass
	ISO 21003 Part 5	Thermal Cycle	10 Bar	23 & 95°C	5,000 Cycle	95°C×15Min→20°C×15Min Cycling test for 5,000 Cycle	No-Leakage	Pass
		Pressure Cycle	15 Bar & 0.5 Bar	23°C	10,000 Cycle	15Bar→0.5Bar Pulse pressure 30cycle/min.	No-Leakage	Pass
		Vacuum	-0.8 Bar Vacuum	23°C	1Hr Hold	Vacuum -0.8Bar 1Hr hold	Within 0.05Bar	Pass
ASTM F877 F2262	Thermo-Cycle	0.69 MPa	16°C Water 82°C Water	1,000 Cycle	82°CWater Immersion:10Min. 16°CWater Immersion:3Min. (ASTM:Min 2-Minutes)	No-Leakage Find Burst	Pass	
Factory Excessive Test	High Temp. Pressure Cycle Test	10 Bar & 3 Bar	95°C	1,000,000 Cycle	10Bar→3Bar Pulse pressure 30cycle/min.	No-Leakage Find Burst	Pass	
	Pull Pulsation Fatigue Cycle	Equivalent of internal pressure 3 MPa	23°C	1,000,000 Cycle	Tensile fatigue force of equivalent internal pressure 3 MPa	No-Leakage No-deformation	Pass	
	Water Pressure Test at High Temp.	Injection bursting internal water pressure	95°C	—	Increased water pressure until pipe bursting, after the specimen curing at 95°C for 8Hr	No pull out defect at connecting points	Pass	
	Slant Cut Pipe Insertion				Check the disposition of O-ring under the 3mm slant cut pipe	No-disposition of O-ring	Pass	
	Slant Insertion of Pipe				Check the disposition of O-ring under practical slant insertion	No-disposition of O-ring	Pass	



Perfecting the Air

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Sun & Public Holiday: Closed



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^o Specifications, designs and other content appearing in this brochure are correct as of March 2020 but subject to change without notice.