SEKISUI

2022.2 1st Edition

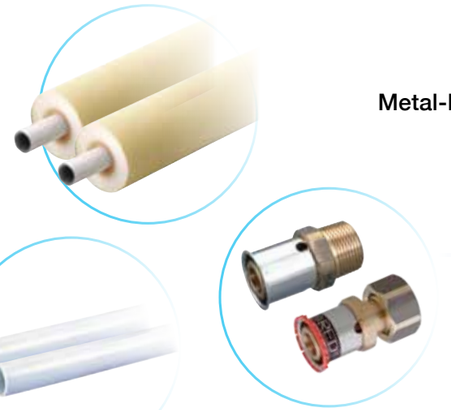
Eslon™ Super Eslometax Series

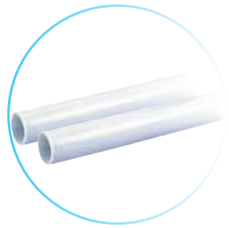
ESLON SUPER ESLOMETAX series

Metal-Reinforced Polypropylene Pipes
Eslon™ Super Eslometax

Metal-Reinforced Polyethylene Pipes (With Insulating Material)
Eslon™ Super Eslometax FC

Compression Fittings for Super Eslometax
Eslon™ Metacutte / Eslon™ Metacutte RED





Symbols in This Text

⚠Warning	Items where this symbol is shown can result in accidents such as severe injuries or burns if not observed, so please exercise caution.
⚠	Items where this symbol is shown are cautions that must be followed to ensure product performance.

http://www.eslontimes.com/en

* Colors of the actual products may vary from the colors shown in this printed material.
* Information in this document is subject to change without notice.

Feb. 2022 1st Edition

ESLON SUPER ESLOMETAX
Series catalog

SEKISUI CHEMICAL CO.,LTD.
Urban Infrastructure &
Environmental Products Company

2022. 2. 0TH TX

Air conditioning

For Connecting Cold/Hot Water Main Pipes to Fan Coil Units

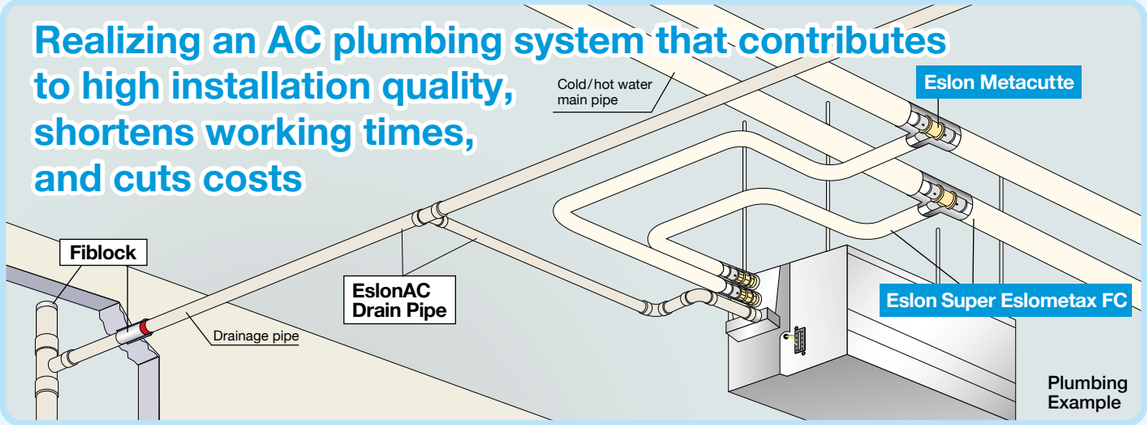
Metal-Reinforced Polyethylene Pipes (With Insulating Material)

Eslon™ Super Eslometax FC

Compression fittings for Super Eslometax

Eslon™ Metacutte / Eslon™ Metacutte RED

Realizing an AC plumbing system that contributes to high installation quality, shortens working times, and cuts costs



Workability in the Field

Saves labor and can be used to improve installation quality. Also ideal for repair work.

Shorter Working Time

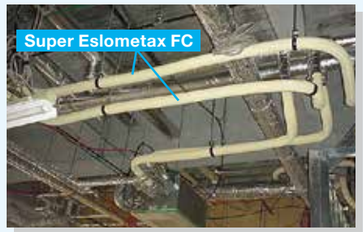
With Super Eslometax FC and AC Drain Pipe, insulation work finishes at the same time as plumbing, enabling speedy installation.

Reduced Installation/ Material Costs

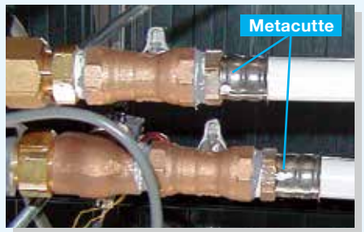
By reducing installation and material cost, overall costs can be cut.

More Compact Plumbing

Pipes can also be bent as needed during plumbing, allowing space-saving installations to be implemented more smoothly.



■Super Eslometax FC plumbing
*Separate insulation needed for fittings.



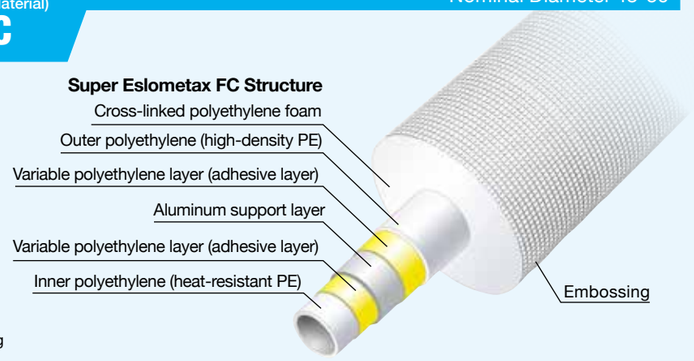
■Connection parts of Metacutte
*Separate insulation needed for fittings.

Metal-Reinforced Polyethylene Pipes (With Insulating Material)

Eslon™ Super Eslometax FC

Nominal Diameter 13-50

Super Eslometax FC Structure



Speedy installations with excellent insulation / anti-condensation properties

Since the insulation material is already part of the pipe, there is no need for separate insulating work after plumbing.
*Separate insulation needed for fittings

Long, pliable, and even keeps its shape when bent

No fittings are need for bends, and fine tuning after plumbing is also easy because of the pipes' flexibility.
*Bending plumbing can be carried out for nominal diameters of 25 or less.

No oxygen permeability, and air doesn't collect from pipeline deflection either

- Since there's an aluminum layer, oxygen cannot pass through
- Since there are no fittings in the pipes, there are no problems resulting from air getting trapped inside

Light and easy to handle, making even aerial work easy

Size 20 (30 t, 4 m) is a mere 1.66 kg, 1/4 the weight of SGP.

Usable at high temperatures and pressures and highly anti-corrosive

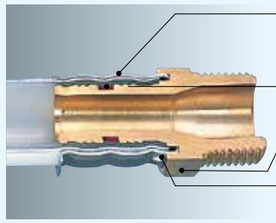
Heat-resistant and anti-corrosive polyethylene resin is used inside the pipes, so there is no need to worry about electrolytic corrosion or corrosion due to water quality.

See page 6 for the Eslon Super Eslometax FC product line and specifications.

Compression fittings for Super Eslometax

Eslon™ Metacutte

Nominal Diameter 13-50



Compression Ring (SUS316L)
Due to the reduced diameter of the ring, the pipe digs into the nipple, resulting in high retaining power and water-stopping power.

Rubber Seal (Chlorine-Resistant EPDM)
Rubber seal for stopping water

Fitting Body Water Passage (Bronze)
Clears new lead leakage standard (*)

Insertion Confirmation Hole
The connection status can be checked visually.

*This product conforms to the new lead leakage standard of 0.01 mg/L in Ministry of Health, Labor and Welfare Ordinance No. 138 (Ministerial Ordinance for Partial Amendment of Ministerial Ordinance on Structure and Material Standards for Water Supply Equipment), enforced from April 1, 2003.

With newly developed fittings, installation can be completed reliably and easily.

- They can be connected just by compressing the outside of the fitting with a specialized tool.
- No technical skill is required, and there is no variation in installation quality.

Installation can be managed easily.

- There are 3 insertion confirmation holes around the compression ring, and it's possible to check visually if the pipe has been inserted all the way inside the fitting

Installation can be completed safely and swiftly

- Can be worked with safely since no flammable gases are used
- The connections between pipes and fittings are compression-based, so speedy installation is possible.

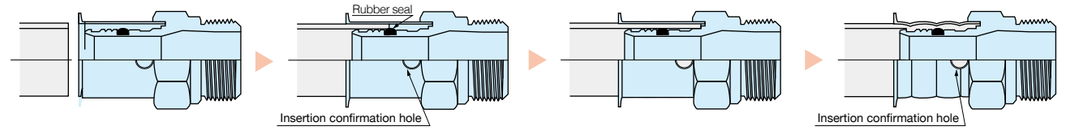
■Connection Mechanism

1. Insert pipe inside compression.

2. Pipe is inserted past rubber seal, all the way inside fitting. Insertion of pipe may be checked visually from insertion confirmation holes.

3. Compression ring diameter is reduced using specialized compression tools.

4. Inside of pipe digs firmly into nipple, providing retaining power and water-stopping power.



See page 7 for the Eslon Metacutte product line and specifications.

Related Products

Cold/Hot Water Pipe

High-performance polyethylene pipe for cold / hot water air-conditioning

ESLON™ Hyper CH

Polyethylene pipes with excellent durability and corrosion resistance are now usable for cold/hot water. Their light weight helps save work during installation.

*For details, see the separate Kucho Hyper CH Catalog.

Drain Plumbing

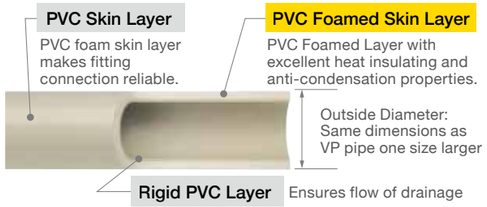
Rigid PVC Pipes and Resin fittings for Air Conditioning Drains With Anti-Condensation Layers

Eslon™ AC Drain Pipe and Fittings

These are rigid PVC pipes and resin fittings with anti-condensation layers for air conditioning drains. They function as insulation, allowing insulating work to finish at the same time as plumbing.

*See the separate AC Drain Pipes & fittings Catalog for details.

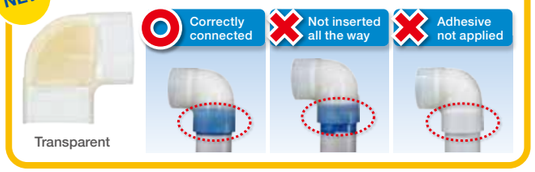
Straight pipes



Eslon™ Transparent AC Drain Fittings

NEW

Adhesion mistakes are reduced, and checks can be made at a glance. Installation can be managed reliably.



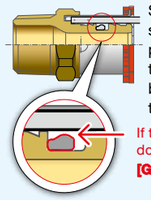
Metal-Reinforced Polyethylene Pipes (With Insulating Material)

Eslon™ Metacutte RED

Nominal Diameter 16-25

Characteristics

1 100% of untightened fittings can be found by water pressure testing



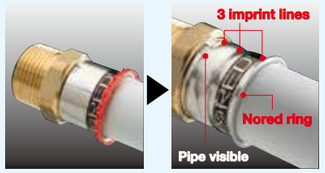
Since the structure doesn't stop the flow of water if the pipe is merely inserted, un-tightened fittings can always be found by water pressure testing.

If the pipe is merely inserted, it doesn't touch the rubber seal
[Gap present]

Compression tightening

2 Easily identify from the outside whether installation is complete

Since the change in outside appearance (color) after fitting compression can easily be confirmed visually, it's easy to find fittings that haven't been compressed before conducting water pressure testing.

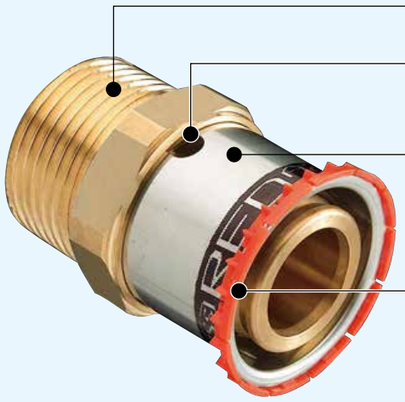


Before compression　After compression

3 Easy, reliable, speedy installation with tools designed for Metacutte RED

The specialized tools for Metacutte RED fittings have evolved, but since the structure and handling is the same as for conventional tools, there's no need for technical skill, and no variation in installation quality.

Structure



Fitting body (lead-free bronze)

Insertion confirmation hole

Visually check connection status.

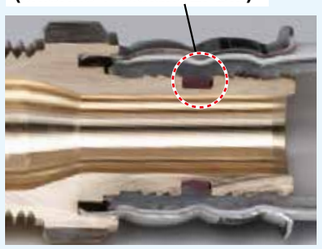
Compression ring (SUS316L)

Reduction in the ring's diameter causes the pipe to dig into the nipple, resulting in high retaining and water-stopping power.

Red ring (ABS resin)

Falls off when installed, making it easy to identify from the outside whether installation is complete.

Rubber seal (chlorine-resistant EPDM)

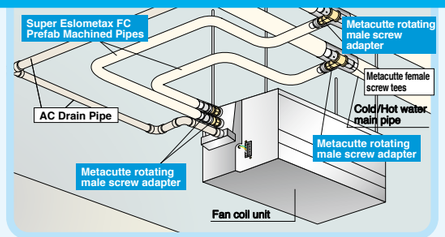


Sectional view (after plumbing connection)

See page 11 for the Eslon Metacutte RED product line and specifications.

Eslon™ Super Eslometax FC Prefab System

Pre-fabrication of fan coil unit plumbing



Since both ends of the pipes are already attached to the fittings in the manufacturing plant, high installation quality is guaranteed.

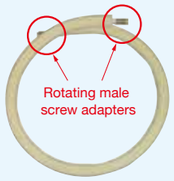
1. **Aerial compression work using specialized electric tools is unnecessary.**
2. **Installation management man-hours can be reduced.**

Details of Super Eslometax FC Prefab System

*All prefab systems are made to order.

Please contact on of our company's sales offices for detailed discussions.

Super Eslometax FC Prefab Machined Pipes



- Unlike SUS flexible pipes (inner bellows), the inside is smooth.
- The range of usable temperatures and pressures is the same as for ordinary Super Eslometax.
- No insulation needs to be installed on the pipes for insulated pipes.*

*Separate insulation is necessary for exposed pipe sections and fittings.

Nominal Diameter	Screw size	Insulation thickness	Piping length
16	R3/4	10mm	1.9m～10m (multiples of 0.5 m) (Special support available for multiples of 0.1 m)
		20mm	
		25mm	
20	R3/4	10mm	
		20mm	
		25mm	
25	R1	10mm	
		20mm	
		25mm	

Comparison of Installation Procedures Using Prefab vs Conventional Methods

Prefab Installation Method	Preparation work			Ceiling work				
	 Uncoiling		 Bending		 Screwing in fittings			
Conventional Installation Method	Preparation work					Ceiling work		
	Uncoiling	Cutting	Bending	Screwing in fittings	Finishing pipe end surfaces	Inserting pipes	Compressing fittings	

Prefab installation contributes to

- **Reduction in ceiling work**
- **Cutting installation management man-hours**

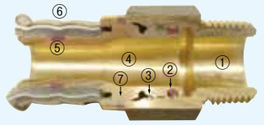
*See separate Installation Manual for installation procedure.

Special Items for Prefab Systems: Metacutte fittings Used in Factory Machining

Metacutte Rotating Male Screw Adapters

Rotating male screw adapters have rotating mechanisms inside the fittings, enabling screw-in connection.

Rotating male screw adapter structure



No.	Name	Material
①	Body A	Lead-free copper alloy
②	O-ring	Chlorine-resistant EPDM
③	C-ring	SUS304 WPB
④	Body B	Lead-free copper alloy
⑤	Rubber seal	Chlorine-resistant EPDM
⑥	Compression ring	SUS316L
⑦	Outside spacer ring	SUS304

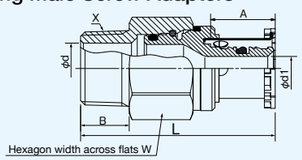
On-site Prefab Support Items: Metacutte RED fittings Used for Field Connection

New Product

We prepared rotating male screw adapters for Metacutte RED, for which water pressure testing can be used to find untightened fittings

・After completing fitting compression work in a good working environment such as the floor in advance, screw into the equipment.

Metacutte RED Rotating Male Screw Adapters



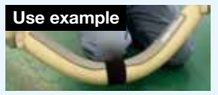
Units: mm

Product No.	Nominal Diameter × X	L	A	B	φd	W
RDKA162	16×R3/4	68.1	22.6	17.0	18.0	32
RDKA20	20×R3/4	75.0	27.8	17.0	18.0	32
RDKA25	25×R1	83.2	28.9	20.0	24.0	38

*As with Metacutte Rotating Male Screw Adapters, screw-in connection after compression is possible.
*Since they're connected on site, separate compression tools, etc. for Metacutte RED are necessary.
*See the separate Installation Manual for the installation procedure.

Special Items for Prefab Systems: Benders for Bending Pipes

Prefab Benders



Prefab Benders			Applicable Super Eslometax FC (Use With Items Marked •)									Number Packed
			Nominal 16			Nominal 20			Nominal 25			
			Insulation thickness (mm)			Insulation thickness (mm)			Insulation thickness (mm)			
Product No.	Product Name	Bending radius	10	20	25	10	20	25	10	20	25	
SMPB1	Type 1	200mm	•	•								5
SMPB2	Type 2	250mm			•	•	•	•				5
SMPB3	Type 3	300mm							•	•	•	3

*Prefab benders are made to order.

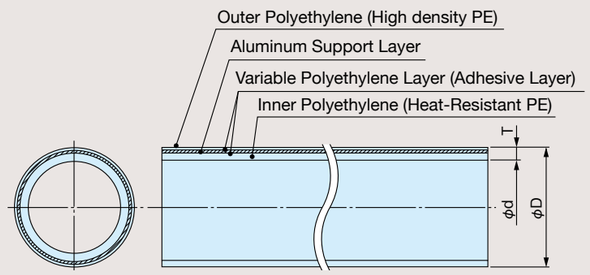
Prefab Benders are tools for bending insulated pipes. Touch the Prefab Bender to the outside of the insulation at the place to be bent and provisionally fix it against the insulated pipe with the surface fastener (the black belt in the middle), then use. To prevent buckling or pipe flattening from bending, please be sure to use a Prefab Bender when bending.

Pipe Specifications

Metal-Reinforced Polyethylene Pipes

Eslon™ Super Eslometax Product Line

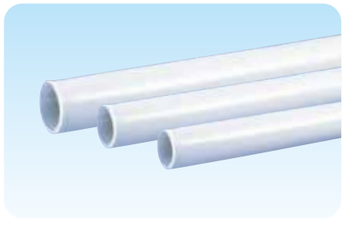
Shared Dimensions for Pipes

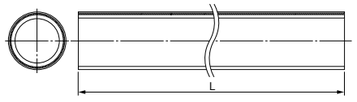


Units: mm

Nominal Diameter	Outer Diameter ϕD	Inner Diameter ϕd	Pipe Thickness T	Approx.Mass (kg/m)
13	16.1	12.1	2.00	0.11
16	20.1	15.6	2.25	0.16
20	25.1	19.6	2.75	0.24
25	32.1	26.1	3.00	0.35
32	40.1	33.1	3.50	0.54
40	50.1	42.1	4.00	0.80
50	63.1	53.1	5.00	1.26

Straight Pipes

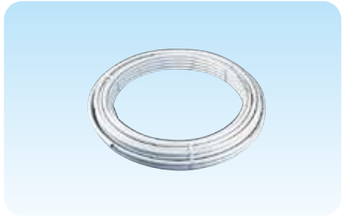


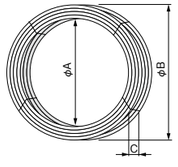


Units: mm

Product No.	Nominal Diameter	Standard Length L	Approx. Mass (kg/ piece)	Number Packed
SMX134	13	4,000	0.44	40
SMX164	16		0.63	30
SMX204	20		0.98	20
SMX254	25		1.39	15
SMX324	32		2.14	10
SMX404	40		3.18	6
SMX504	50		5.02	4

Long Tubes (Reels)





Units: mm

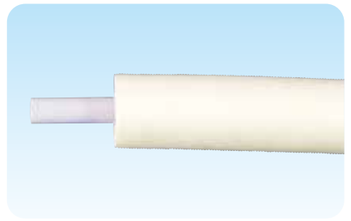
Product No.	Nominal Diameter	Reel Dimensions				Approx. Mass (kg / reel)	Number Packed
		Length (m/reel)	ID(ϕA)	OD(ϕB)	Wdh(C)		
SMX131H	13	100	600	830	120	10.9	1
SMX1650	16	50	600	810	110	7.9	
SMX2050	20	50	800	1,070	110	12.2	
SMX2550	25	50	980	1,250	140	17.3	

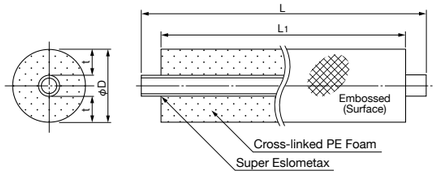
Pipe Specifications

Metal-Reinforced Polyethylene Pipes (With Insulating Material)

Eslon™ Super Eslometax FC (With Insulating Material) Product Line

Straight Pipes





Units: mm

Product No.	Nominal Diameter	Insulating Material OD(ϕD)	Insulating Material Thickness t	Standard Length (m) L	Standard Length (m) L1	Approx. Mass (kg / pipe)	Number Packed
SF13104	13	37	10	4,000	3,900	0.54	9
SF13204		57	20			0.72	
*SF13254		67	25			0.88	
*SF16104	16	41	10			0.75	
SF16204		61	20			0.96	
SF16254		71	25			1.10	
*SF20104	20	46	10			1.10	
SF20204		66	20			1.34	
SF20254		76	25			1.49	
SF20304		86	30			1.66	4
*SF25104	25	53	10			1.84	9
SF25204		73	20			2.13	
SF25254		83	25			2.29	6
SF25304		93	30			2.48	4
*SF32104	32	61	10			2.32	9
*SF32204		81	20			2.63	
*SF32254		91	25			2.81	4
*SF32304		101	30			3.02	
*SF40104	40	71	10			3.40	6
*SF40204		91	20			3.75	4
*SF40254		101	25			3.95	
*SF40304		111	30			4.18	
*SF50104	50	84	10			5.28	
*SF50204		104	20			5.69	
*SF50254		114	25			5.92	
*SF50304		124	30			6.18	

Note. Items marked * are made to order. Please confirm the delivery date.

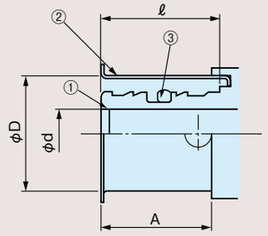
Long Tubes (Reels)

Units: mm

Product No.	Nominal Diameter	Insulating Material OD(ϕD)	Insulating Material Thickness t	Standard Length (m) L	Standard Length (m) L1	Approx. Mass (kg / reel)	Number Packed
SF1310Q	13	37	10	25	24.95	3.4	1
SF1320Q		57	20			4.5	
SF1610Q	16	41	10			4.7	
SF1620Q		61	20			6.0	
SF1625Q		71	25			6.9	
SF2010Q	20	46	10			6.9	
SF2020Q		66	20			8.4	
SF2025Q		76	25			9.3	
SF2030Q		86	30			10.4	
SF2510Q	25	53	10			11.5	
SF2520Q		73	20			13.3	
SF2525Q		83	25			14.3	
SF2530Q		93	30			15.5	

Screw Types: R ……Tapered male screws for pipes　　Rp ……Tapered parallel female screws for pipes
Rc ……Tapered female screws for pipes　　G ……Parallel screws for pipes

Shared Dimensions for Sockets



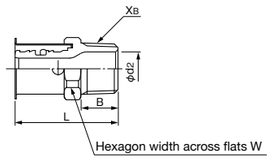
No.	Part Name	Material
①	Fitting Body Water Passage	Lead-free bronze or CAC406 (Lead-free)
②	Compression Ring	SUS316L
③	Rubber seal	Chlorine-resistant EPDM

Units: mm

Nominal Diameter	ℓ	A	ϕD	ϕd
13	20.5	19.0	17.3	6.5
16	22.0	20.5	21.3	8.8
20	27.5	27.0	26.3	12.6
25	29.2	27.2	33.6	18.6
32	29.2	27.2	41.6	24.65
40	38.1	36.6	52.25	33.2
50	40.6	39.6	65.3	43.1

Male Screw Adapters

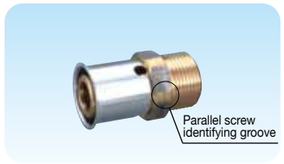
● Tapered screws

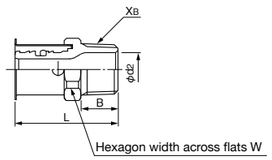


Units: mm

Product No.	Nominal Diameter ×XB	L	B	ϕd2	W	Number Packed
MKOA13	13×R1/2	41.5	15.5	14.0	22	210(70×3)
MKOA16	16×R1/2	43.0	15.5	14.0	24	120(20×6)
MKOA162	16×R3/4	46.5	17.0	18.0	28	120(20×6)
MKOA20	20×R3/4	53.0	17.0	18.0	30	90(15×6)
MKOA25	25×R1	57.2	20.0	24.0	36	72(12×6)
MKOA32	32×R1 1/4	62.2	21.0	32.0	46	36(12×3)
MKOA40	40×R1 1/2	71.6	21.0	38.0	56	24(8×3)
MKOA50	50×R2	79.6	25.0	49.0	70 (Octagon)	24(6×4)

● Parallel screws



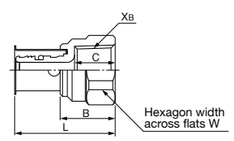


Units: mm

Product No.	Nominal Diameter ×XB	L	B	ϕd2	W	Number Packed
MKOA13G	13×G1/2	41.5	15.5	14.0	22	210(70×3)
MKOA16G	16×G1/2	43.0	15.5	14.0	24	120(20×6)
MKO162G	16×G3/4	46.5	17.0	18.0	28	120(20×6)
MKOA20G	20×G3/4	53.0	17.0	18.0	30	90(15×6)
MKOA25G	25×G1	57.2	20.0	24.0	36	72(12×6)
MKOA32G	32×G1 1/4	62.2	21.0	32.0	46	36(12×3)
MKOA40G	40×G1 1/2	71.6	21.0	38.0	56	24(8×3)
MKOA50G	50×G2	79.6	25.0	49.0	70 (Octagon)	24(6×4)

Note. 1: Parallel screws have an identifying groove in the gunmetal hexagon part.
2: Parallel screws are meant to be connected to the flexible cap nuts. They cannot be connected to the female tapered screws for pipes (Rp, Rc).

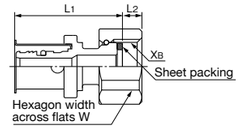
Female Screw Adapters



Units: mm

Product No.	Nominal Diameter ×XB	L	B	C	W	Number Packed
MKMA13	13×Rc1/2	42.0	23.0	17.0	27	192(32×6)
MKMA16	16×Rc1/2	44.0	23.5	17.0	27	192(32×6)
MKMA162	16×Rc3/4	45.5	25.0	18.5	35	72(12×6)
MKMA20	20×Rc3/4	52.0	25.0	18.5	35	72(12×6)
MKMA25	25×Rc1	56.7	28.5	21.0	41	54(9×6)
MKMA32	32×Rc1 1/4	59.2	32.0	23.5	50	36(12×3)
MKMA321	32×Rc1	56.7	29.5	21.0	46	36(12×3)
MKMA322	32×Rc3/4	54.2	27.0	18.5	46	36(12×3)
MKMA323	32×Rc1/2	52.7	25.5	17.0	46	36(12×3)
MKMA40	40×Rc1 1/2	69.1	32.5	23.5	56	24(8×3)
MKMA401	40×Rc1 1/4	69.1	32.5	23.5	56	24(8×3)
MKMA402	40×Rc1	66.6	30.0	21.0	56	24(8×3)
MKMA403	40×Rc3/4	64.1	27.5	18.5	56	24(8×3)
MKMA404	40×Rc1/2	62.6	26.0	17.0	56	24(8×3)
MKMA50	50×Rc2	76.6	37.0	27.0	70(Octagon)	18(6×3)
MKMA501	50×Rc1 1/2	73.1	33.5	23.5	70(Octagon)	18(6×3)
MKMA502	50×Rc1 1/4	73.1	33.5	23.5	70(Octagon)	18(6×3)
MKMA503	50×Rc1	70.6	31.0	21.0	70(Octagon)	18(6×3)
MKMA504	50×Rc3/4	68.1	28.5	18.5	70(Octagon)	18(6×3)

Cap Nut Adapters

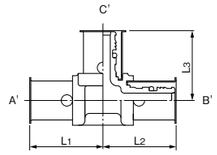


Units: mm

Product No.	Nominal Diameter ×XB	L1	L2	W	Number Packed
MKAD13	13×G1/2	41.5	7.5	27	96(32×3)
MKAD16	16×G1/2	43.5	7.5	27	96(32×3)
MKAD20	20×G3/4	51.5	8.5	32	72(12×6)
MKAD25	25×G1	57.7	10.5	41	54(9×6)
MKAD32	32×G1 1/4	60.2	12.5	50	36(12×3)
MKAD40	40×G1 1/2	71.6	12.5	56	24(8×3)
MKAD50	50×G2	82.1	16.5	70 (Octagon)	18(6×3)

Note. Water-stop screws with attached sheet packing.
Sheet packing material: non-asbestos

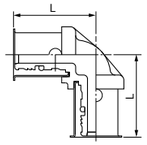
Tees



Units: mm

Product No.	Nominal Diameter (A'×B'×C')	L1	L2	L3	Number Packed
MKT13	13	32.5	32.5	31.0	96(8×12)
MKT16	16	36.5	36.5	33.5	72(6×12)
MKT161	16×16×13	34.5	34.5	32.0	96(8×12)
MKT1633	16×13×13	34.5	32.5	32.0	96(8×12)
MKT20	20	45.5	45.5	43.0	48(8×6)
MKT201	20×20×16	43.0	43.0	36.5	48(8×6)
MKT202	20×20×13	41.0	41.0	35.0	60(10×6)
MKT2033	20×13×13	41.0	32.5	35.0	24(8×3)
MKT25	25	51.7	51.7	47.2	36(6×6)
MKT251	25×25×20	48.7	48.7	46.0	48(8×6)
MKT252	25×25×16	46.2	46.2	39.5	48(8×6)
MKT32	32	55.2	55.2	51.2	24(4×6)
MKT321	32×32×25	50.2	50.2	52.2	36(6×6)
MKT322	32×32×20	47.2	47.2	51.0	18(6×3)
MKT40	40	69.6	69.6	65.6	12(3×4)
MKT401	40×40×32	64.6	64.6	56.2	16(4×4)
MKT402	40×40×25	59.6	59.6	57.2	16(4×4)
MKT50	50	80.1	80.1	75.6	12(3×4)
MKT501	50×50×40	73.1	73.1	72.6	12(3×4)
MKT502	50×50×32	68.1	68.1	63.2	12(3×4)

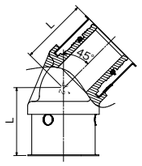
Elbows



Units: mm

Product No.	Nominal Diameter	L	Number Packed
MKL13	13	32.5	150(25×6)
MKL16	16	36.5	144(12×12)
MKL20	20	45.5	60(10×6)
MKL25	25	51.7	36(6×6)
MKL32	32	55.2	27(9×3)
MKL40	40	69.6	16(4×4)
MKL50	50	79.6	8(4×2)

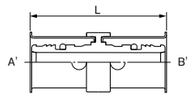
45° Elbows



Units: mm

Product No.	Nominal Diameter	L	Number Packed
MKQL32	32	44.2	18(6×3)
MKQL40	40	55.6	12(4×3)
MKQL50	50	63.1	6(3×2)

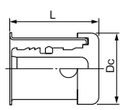
Sockets



Units: mm

Product No.	Nominal Diameter (A'×B')	L	Number Packed
MKS13	13	46.0	210(70×3)
MKS16	16	50.0	150(25×6)
MKS161	16×13	48.0	150(25×6)
MKS20	20	63.5	120(20×6)
MKS201	20×16	57.0	120(20×6)
MKS202	20×13	55.5	120(20×6)
MKS25	25	67.9	72(12×6)
MKS251	25×20	65.7	72(12×6)
MKS32	32	67.4	45(15×3)
MKS321	32×25	67.9	45(15×3)
MKS322	32×20	66.7	45(15×3)
MKS40	40	86.7	32(8×4)
MKS401	40×32	77.3	16(8×2)
MKS402	40×25	76.8	32(8×4)
MKS50	50	94.2	24(6×4)
MKS501	50×40	90.7	12(6×2)
MKS502	50×32	81.3	24(6×4)

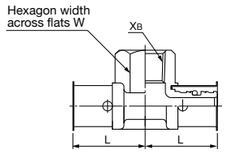
Caps



Units: mm

Product No.	Nominal Diameter	L	Dc	Number Packed
MKC13	13	25.0	22.0	144(12×12)
MKC16	16	27.0	25.0	144(12×12)
MKC20	20	33.5	31.0	144(12×12)
MKC25	25	35.7	36.0	144(12×12)
MKC32	32	35.7	46.0	90(15×6)
MKC40	40	45.6	56.0	48(8×6)
MKC50	50	49.6	70.0	36(6×6)

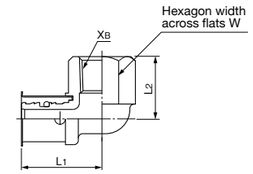
Female Screw Tees



Units: mm

Product No.	Nominal Diameter ×XB	L	W	Number Packed
MKMT16	16×Rc1/2	37.5	27	72(12×6)
MKMT20	20×Rc3/4	48.0	35	60(15×4)
MKMT201	20×Rc1/2	44.0	27	42(21×2)
MKMT25	25×Rc1	53.7	41	24(12×2)
MKMT251	25×Rc3/4	50.7	35	24(12×2)
MKMT252	25×Rc1/2	46.2	27	32(16×2)
MKMT32	32×Rc1 1/4	57.2	50	24(4×6)
MKMT321	32×Rc1	52.7	41	18(6×3)
MKMT322	32×Rc3/4	49.7	35	32(8×4)
MKMT323	32×Rc1/2	45.7	27	32(8×4)
MKMT40	40×Rc1 1/2	69.7	56	12(2×6)
MKMT401	40×Rc1 1/4	67.1	50	12(2×6)
MKMT402	40×Rc1	62.6	41	12(2×6)
MKMT403	40×Rc3/4	59.6	35	12(2×6)
MKMT404	40×Rc1/2	55.6	27	12(2×6)
MKMT50	50×Rc2	80.1	70 (Octagon)	8(2×4)
MKMT501	50×Rc1 1/2	74.1	56	12(3×4)
MKMT502	50×Rc1 1/4	70.1	50	12(3×4)
MKMT503	50×Rc1	65.6	41	12(3×4)
MKMT504	50×Rc3/4	62.6	35	12(3×4)
MKMT505	50×Rc1/2	60.1	27	12(3×4)

Female Screw Elbows



Units: mm

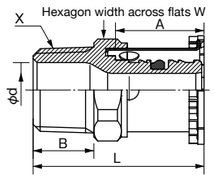
Product No.	Nominal Diameter ×XB	L1	L2	W	Number Packed
MKML16	16×Rc1/2	37.5	29.0	27	72(6×12)
MKML20	20×Rc3/4	48.0	33.5	35	48(4×12)
MKML25	25×Rc1	53.7	39.0	41	27(9×3)
MKML32	32×Rc1 1/4	57.2	46.5	50	24(6×4)
MKML321	32×Rc1	52.7	44.0	41	27(9×3)
MKML322	32×Rc3/4	49.7	41.5	35	27(9×3)
MKML323	32×Rc1/2	45.7	40.0	27	36(12×3)
MKML40	40×Rc1 1/2	70.1	51.5	56	12(6×2)
MKML401	40×Rc1 1/4	67.1	51.5	50	12(6×2)
MKML402	40×Rc1	62.6	49.0	41	16(8×2)
MKML403	40×Rc3/4	59.6	46.5	35	16(8×2)
MKML404	40×Rc1/2	55.6	45.0	27	16(8×2)
MKML50	50×Rc2	80.1	62.0	70 (Octagon)	8(4×2)
MKML501	50×Rc1 1/2	74.1	58.5	56	8(4×2)
MKML502	50×Rc1 1/4	70.1	58.5	50	16(4×4)
MKML503	50×Rc1	65.6	56.0	41	16(4×4)
MKML504	50×Rc3/4	62.6	53.5	35	16(4×4)

Fitting Specifications

Compression Fittings for Super Eslometax

Eslon™ **Metacutte RED** Product Line

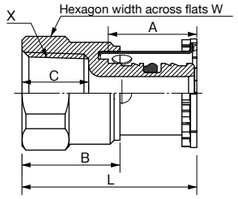
Male Screw Adapters



Units: mm

Product No.	Nominal Diameter	X	L	A	B	ϕd	W	Number Packed
RDOA16	16	R1/2	43.5	22.5	15.5	14	24	84(28×3)
RDOA162	16	R3/4	47.0	22.5	17.0	18	28	72(24×3)
RDOA20	20	R3/4	53.1	27.6	17.0	18	30	72(24×3)
RDOA25	25	R1	56.4	28.9	20.0	24	36	45(15×3)

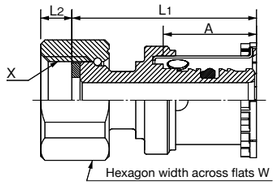
Female Screw Adapters



Units: mm

Product No.	Nominal Diameter	X	L	A	B	C	W	Number Packed
RDMA16	16	Rc1/2	44.5	22.5	25.0	17.0	27	84(28×3)
RDMA162	16	Rc3/4	46.0	22.5	26.5	18.5	35	45(15×3)
RDMA20	20	Rc3/4	52.1	27.6	26.5	18.5	35	45(15×3)
RDMA25	25	Rc1	55.9	28.9	30.0	21.0	41	36(12×3)

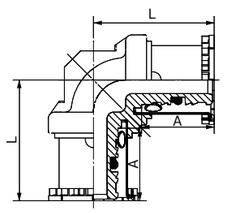
Cap Nut Adapters



Units: mm

Product No.	Nominal Diameter	X	L1	L2	A	W	Number Packed
RDAD16	16	G1/2	44.5	7.5	22.5	27	84(28×3)
RDAD20	20	G3/4	52.3	8.5	27.6	32	72(24×3)
RDAD25	25	G1	57.7	10.5	28.9	41	45(15×3)

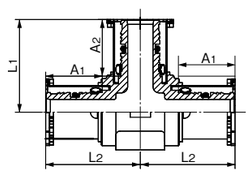
Elbows



Units: mm

Product No.	Nominal Diameter	L	A	Number Packed
RDL16	16	46.5	22.5	96(16×6)
RDL20	20	57.3	27.6	72(12×6)
RDL25	25	66.7	28.9	72(9×8)

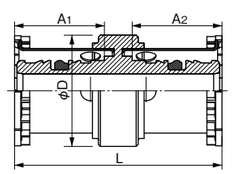
Tees



Units: mm

Product No.	Nominal Diameter	L1	L2	A1	A2	Number Packed
RDT20	20	45.5	46.5	27.8	27.8	48(8×6)
RDT251	25×25×20	49.2	48.7	28.9	27.8	18(6×3)

Sockets



Units: mm

Product No.	Nominal Diameter	L	A1	A2	ϕD	Number Packed
RDS16	16	52.0	22.5	22.5	28	84(28×3)
RDS20	20	65.1	27.8	27.8	33	72(24×3)
RDS25	25	67.9	28.9	28.9	40	45(15×3)
RDS251	25×20	66.7	28.9	27.8	40	45(15×3)

Performance

Performance of Eslon Super Eslometax FC / Metacutte

<Design>

- **Use Conditions**

Use Temperature (°C)	0-60	61-85	86-95
Maximum Water Pressure Tolerance MPa {kgf/cm²}	1.5 {15.3}	1.0 {10.2}	0.8 {8.2}

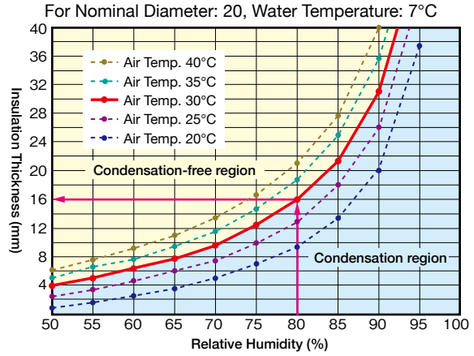
*Maximum water pressure tolerance values include hydraulic shock.

⚠ Please don't use with heat-generating equipment that has temperatures irregularly exceeding 95°C.

⚠Warning Use outside of the above range may result in broken pipes/fittings, leading to accidents such as severe injuries or burns, so please take care.

- **Anti-Condensation Performance (Selecting Super Eslometax FC Insulation Thickness)**

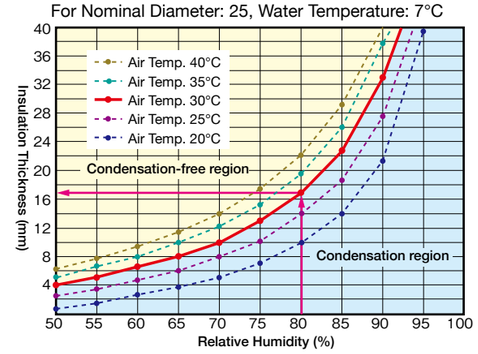
For Nominal Diameter: 20, Water Temperature: 7°C



●How to read this graph ·When the air temperature is 30°C

Relative humidity: 80% → 16 mm+ insulation needed

For Nominal Diameter: 25, Water Temperature: 7°C



●How to read this graph ·When the air temperature is 30°C

Relative humidity: 80% → 17 mm+ insulation needed

⚠ Take use conditions into account when selecting insulation thickness.

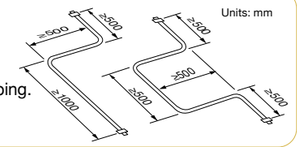
<Cautions During Design>

⚠Warning Use with Cold/Hot water pipes, not with air pipes or chemical pipes.

⚠Warning Do not exceed the maximum temperature or water pressure. Cannot be used with vapor pipes.

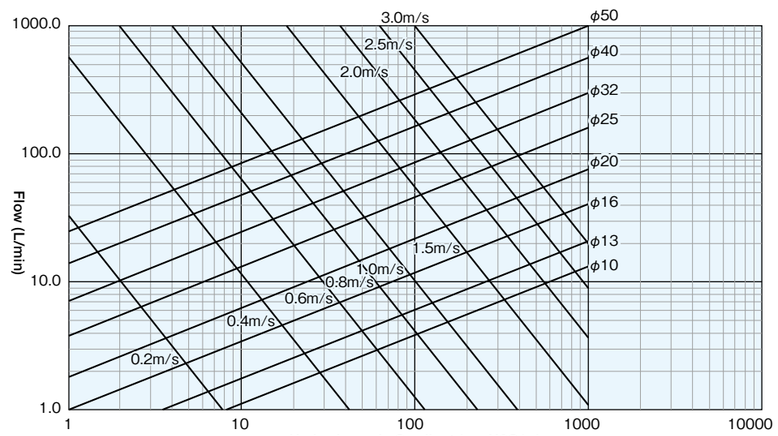
⚠ For piping around fan coil units, keep a face-to-face distance of at least 1.5 m and use offset piping.

⚠ When passing through fireproof compartments, take appropriate measures.



Hydraulic Characteristics of Eslon Super Eslometax / Metacutte

- **Super Eslometax Flow Diagram (Hazen-Williams Formula: C = 140)**



Performance

● Equivalent pipe length of Metacutte

Units: m

Nominal Diameter	Screw Adapter		Socket	Elbow	Tee		Cap Nut Adapter
	Male	Female			Direct Flow	Branch Flow	
13	2.2	4.4	4.3	8.3	6.3	8.8	4.1
16	4.3	5.0	4.7	6.7	6.3	8.8	4.9
20	3.5	4.3	4.4	5.3	6.3	8.3	4.0
25	2.6	3.1	3.6	5.2	3.9	6.4	3.8
32	3.6	4.3	4.1	6.5	4.1	7.0	3.9
40	1.7	3.5	2.8	9.9	3.2	5.8	5.8
50	1.3	2.1	2.8	10.8	3.1	11.2	4.3

■Super Eslometax / Metacutte Test Inspection Certificates

● Eslon Super Eslometax

● Eslon Metacutte

■ Scope of Use for Eslon Super Eslometax

Use Temperature (°C)	0-60	61-85	86-95
Maximum Water Pressure Tolerance MPa{kgf/cm²}	1.5 {15.3}	1.0 {10.2}	0.8 {8.2}
Bending Radius	At least R = 4D (for bare pipes)		
Nominal Diameter	13-50(for air conditioning)		

*Maximum water pressure tolerance values include hydraulic shock.

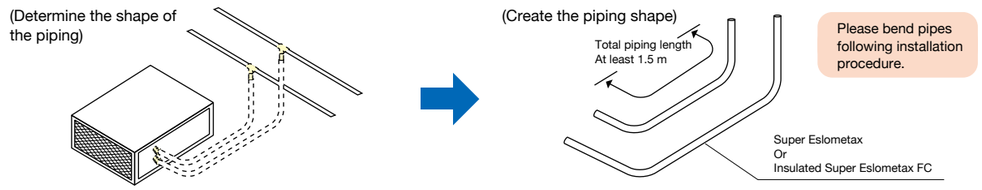
⚠ Please don't use with heat-generating equipment that has temperatures irregularly exceeding 95°C.

Warning Use outside of the above range may result in broken pipes/fittings, leadining to accidents such as severe injuries or burns, so please take care.

Installing Piping Around Fan Coils

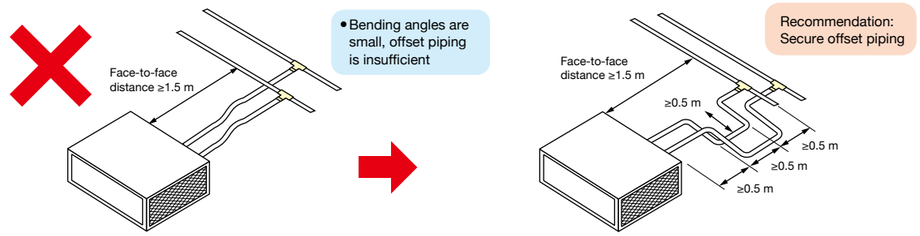
1) Creating Offset Piping Routes

Please use offset piping (total piping length of at least 1.5 m) when connecting fan coil equipment.

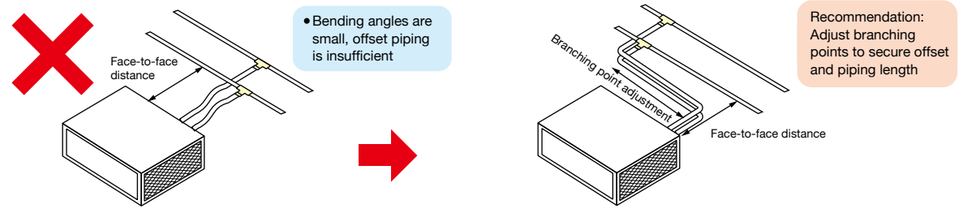


⚠ When piping around fan coils, pay attention to branching points and use offset piping with 2-3 turns.

1. When the face-to-face distance is insufficient, adjust branching points from the main pipe to secure piping length and offset piping.

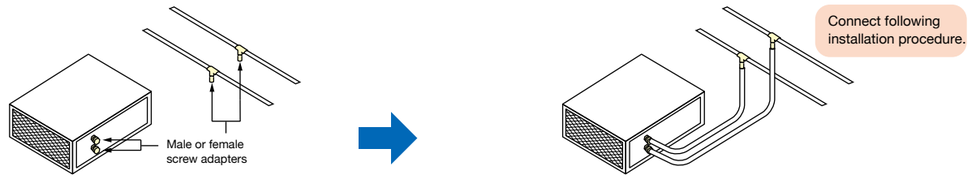


2. When the face-to-face distance is at least 1.5 m, offset can be secured regardless of the branching points from the main pipe.



2) Connecting Cold/Hot Water Pipes to Fan Coil Units

After connecting male or female screw adapters to the fan coil units and cold/hot water pipes, connect to a Super Eslometax (or Insulated Super Eslometax FC) that has already been bent into shape.



3) Insulation and Support

For Super Eslometax, install appropriate insulation (for Insulated Super Eslometax FC, insulate fittings separately). Follow the table below for the support intervals.

Item \ Nominal Diameter		13	16	20	25	32	40	50
Horizontal Piping	Max. Support Interval	≤1 m			≤1.5 m			≤2 m
	Valve/Equipment Support	• Support at or near valves and equipment so they don't bear weight. • For straight piping, stretch process every 10 m with offset piping.						

⚠ When attaching support brackets directly to pipes, use rubber-lined or plastic items.

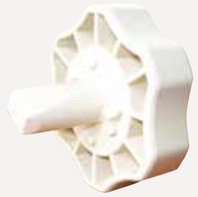
Tools for Eslon Super Eslometax / Metacutte

The tools needed to install Eslon Super Eslometax (Nominal Diameter 10-50) are the following.

1


2


3


4


5


6


7


8


No.	Tool Name	Purpose	Notes
1	PVC Cutter	For cutting pipes (DN 13-25)	Commercially available
2	Rotary Cutter (For PE Pipes)	For cutting pipes (DN 32-50)	Commercially available
3	Plastic Hammer	For inserting chamfers (DN 32-50)	Commercially available

⚠ Compression tools for Metacutte (manual and electric) require regular maintenance. The maintenance period is around one year for electric tools and two years for manual tools. Please contact one of our company's sales offices for details.

No.	Tool Name	Purpose	Product No. (For use with specific DN)	Nominal Diameter
4	Surface Finisher (Nominal Diameter: 10-25)	For finishing pipe surfaces	SMMZ13	13
			SMMZ16	16
			SMMZ20	20
			SMMZ25	25
5	Chamfer (Nominal Diameter: 32-50)	For chamfering pipes	SMMT32	32
			SMMT40	40
			SMMT50	50
6	Spring Bender	For bending pipes (use with bare pipes)	SMSB13	13
			SMSB16	16
			SMSB20	20
			SMSB25	25

No.	Tool Name	Purpose	Product No. (For use with specific DN)	Nominal Diameter
7	Inner Bender (3 m length)	For bending pipes (use with bare pipes or insulated pipes)	SMIB13	13
			SMIB16	16
			SMIB20	20
			SMIB25	25
8	Neoplug	For water pressure testing	SMTPP13	13
			SMTPP16	16
			SMTPP20	20

9


10


*1. Each size has a different color mark.

11


12


*1. Each size has a different color mark.

13


14


*1. Each size has a different color mark.

15


16


17


No.	Tool Name	Purpose	Product No. (For use with specific DN)	Nominal Diameter
9	Manual Compression Toolkit (DN: 13-20)	Set of items for connecting Metacutte (tools, dies, gage)	AK20HTF	13,16,20
*1 10	Die for Manual Compression Tools (DN: 13-20)	For connecting Metacutte	AKD13HT	13
			AKD16HT	16
			AKD20HT	20
11	Small Caliber Electric Compression Toolkit (DN: 13-20)	Set of items for connecting Metacutte (tools, dies, gage, battery, charger)	AK20RF	13,16,20
*1 12	Die for Small Caliber Electric Compression Tools (DN: 13-20)	For connecting Metacutte (for AK20RF body)	AKD13R	13
			AKD16R	16
			AKD20R	20
13	Small Caliber Electric Compression Toolkit (DN: 13-25)	Set of items for connecting Metacutte (tools, dies, gage, battery, charger)	AK25RF	13,16, 20,25
*1 14	Die for Small Caliber Electric Compression Tools (DN: 13-25)	For connecting Metacutte (for AK25RF body)	AKD135R	13
			AKD165R	16
			AKD205R	20
			AKD255R	25

No.	Tool Name	Purpose	Product No. (For use with specific DN)	Nominal Diameter
*2 15	Large Caliber Electric Compression Toolkit (DN: 25-50)	Set of items for connecting Metacutte (tools, gage, battery, charger)	AK50RS	25,32, 40,50
16	Set of Dies for Large Caliber Electric Compression Tools (DN: 25-50)	Set of items for connecting Metacutte	AKD50RS	25-50 Set
17	Die for Large Caliber Electric Compression Tools (DN: 25-50)	For connecting Metacutte	AKD25R	25
			AKD32R	32
			AKD40R	40
			AKD50R	50

*1. The color marks for each nominal diameter are as follows:
10: red, 13: green, 16: white, and 20: orange.
*2. Die (for large caliber) not included.

*When actually installing, please contact our company's nearest sales office.

Installation Procedure for Eslon Super Eslometax / Metacutte

1 Unraveling Pipes (With DN of 10-25)

(1) In a flat place where the outside surface of the pipe won't become scratched, unravel pipes while pressing down with a foot lightly enough that the pipe is not flattened.
(2) Use a spring bender to fix any kinks in short pipes.
(See 3. Bending Pipes)

⚠ If the pipe breaks while unraveling it, cut the pipe, and don't use the broken part.

2 Cutting Pipes

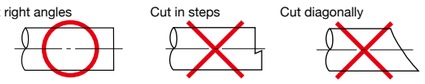
•When DN is 10-25

Cut at right angles using a PVC cutter. To prevent deformation of the cut surface, cut into the pipe gradually.

⚠ Never cut bent sections of pipe, since it's easy to end up cutting diagonally.

•When DN is 32-50

Use a rotary cutter (for PE pipes) to cut at right angles.



⚠ Cutting in steps or diagonally causes leakage at fitting joints, so cut at right angles.
⚠ Burrs on cut surfaces cause leakage, so be sure to remove them.

3 Bending Pipes (With DN of 10-25)

(1) Using a spring bender for Super Eslometax, bend pipes at a radius of no less than the minimum bending radius (4 times the outside diameter of the pipe).
(2) Holding both ends of the specialized spring bender, press your knee against the point to be bent, and create the desired shape by gradually shifting the position.

(For bare pipes)

Minimum Bending Radius for Spring Benders

Units: mm

Nominal Diameter	13	16	20	25
Min. Bending Radius	70	80	100	130

(For insulated pipes)

Minimum Bending Radius for Inner Benders

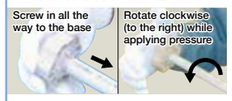
Units: mm

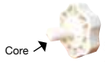
Nominal Diameter	Insulation Thickness	Min. Bending Radius
13	10	100
	20･25	150
16	10	100
	20･25	200
20	10	150
	20･25･30	250
25	10	200
	20･25･30	300

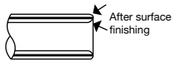
⚠ Use straight piping for at least 10 cm from the fitting socket.
⚠ Never bend or adjust bending using a fitting as a fulcrum.
⚠ Don't repeatedly bend pipes in the same place.
⚠ Pipes with nominal diameter of 32 or greater cannot be bent.

4 Correcting & Chamfering Pipe Ends (Surface Finishing)

•When DN is 13-25







(1) Screw the core of the surface finisher for the appropriate nominal diameter all the way to the base.
(2) By rotating the surface finisher clockwise (to the right) while applying pressure, it's possible to finish pipe end surfaces while correcting flatness.
(3) Use thoroughly until the entire circumference of the pipe has a finished surface (around 5 rotations).

Warning Surface finishing is not possible without screwing the core of the surface finisher all the way to the base and turning while applying pressure.

•When DN is 32-50

(1) Push the end of the specialized chamfer inside by hand, then hammer it all the way to the end of the pipe using a plastic hammer. Hammering it in makes it possible to correct flatness or distortion in the pipe end.
(2) Rotate the specialized chamfer clockwise (to the right) to chamfer.
*Be sure to chamfer the inside surface along the entire circumference.

⚠ Do not use a chamfering device such as a PVC reamer. It may cause insufficient insertion and leakage.
⚠ Please note that if chamfering is insufficient, rubber seals of fittings may be damaged, resulting in leakage.
⚠ If scraps from chamfering adhere to rubber seals of fittings, it may result in leakage, so be sure to remove them.

5 Inserting Pipes into Fittings (With DN of 13-50)

(1) Remove fittings from the packing box, and check for abnormalities.
(2) Insert pipes straight into fittings, pushing them all the way in. Check visually that pipes have been inserted all the way.
*Even if it's discovered that insertion was insufficient after fitting compression, reinsertion is not possible. We recommend marking pipes with lines.

Ref.) Insertion Length (Line marking len.) Units: mm

Nominal Diameter	13	16	20	25	32	40	50
Insertion Len.	21	22	28	29	29	38	41

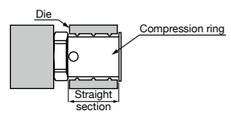
⚠ Don't use fittings if the compression ring has fallen off.
⚠ Insert pipes after screwing fittings into the main pipe, equipment, etc.
⚠ Forced insertion such as diagonal insertion can cause damage to the rubber seal of the fitting, so please be careful.

6 Compressing Fittings

•For Manual Tools (DN: 13-20)

•For Electric Tools (Small Caliber DN: 13-25, Large Caliber DN: 25-50)

(1) Compress compression rings using specialized tools. After compressing all the way,
•For manual tools, the die returns to its original position.
•For electric tools, the motor noise changes. Then, pressing the release switch causes the die to return to its original position (during compression, the release switch is locked and cannot be pressed).



(2) Detach compression tools from the fitting.

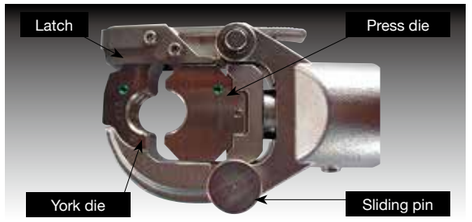
⚠ Compress so that the die goes into the straight section of the fitting's compression ring.
⚠ Be sure to use compression tools made for Eslon Super Eslometax. Using tools not made for Eslon Super Eslometax for installation will result in leakage.
⚠ Take care that the pipe does not come out during compression.
⚠ The dies of small caliber electric tools have different colored markings for each nominal diameter. ■The color marks for each DN are: 10: red、13: green、16: white、20: orange

7 Checking

(1) Check that the straight section of the fitting's compression ring has three compression imprint lines.
(2) Check that the pipe is visible from the insertion confirmation hole.
(3) Check the compression point on the outside of the fitting with an inspection gage.

⚠ After prolonged use, the die wears down, which could result in being unable to attain the appropriate amount of compression (the gage won't pass through) even after compressing all the way with the tool. If this happens, replace with a new die.

When Using Electric Compression Tools



Compression tool head (photo is of small caliber product)

Electric compression tool (photo is of small caliber product)

⚠ Fully insert sliding pins.

Compressing while sliding pins are not fully inserted causes the sliding pins to deform under the compressive force. Be sure to insert sliding pins all the way inside, then rotate them in the rotation direction before compressing.

■For small calibers

✕ (Sliding pin not fully inserted)

○ (Correctly inserted)

■For large calibers

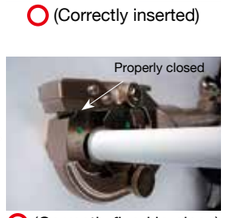
✕ (Sliding pin not fully inserted)

○ (Correctly inserted)

⚠ Correctly close york dies on the latch.

Compressing without closing latches properly not only causes compression to be insufficient, it also damages the tools. Be sure to close the jaw of the yoke die securely over the latch.
(Only applies to electric tools for small calibers.)

✕ (Latch partway closed)

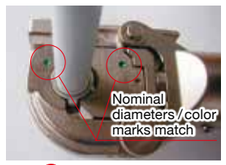


○ (Correctly fixed in place)

⚠ Use the die for the correct nominal diameter.

Use the die for the correct nominal diameter. Dies for small caliber electric tools are composed of a yoke die and a press die. Be sure to check that both of the dies equipped to the tool are of the correct nominal diameter before installing. Die parts for small caliber tools have different color markings for each nominal diameter, so please take advantage of them.

✕ (Incorrect match)



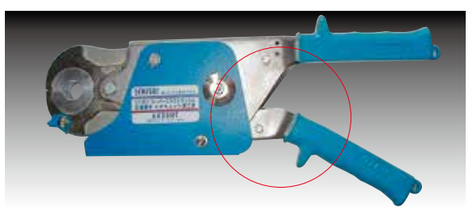
○ (Correct match)

■Color marks for each nominal diameter

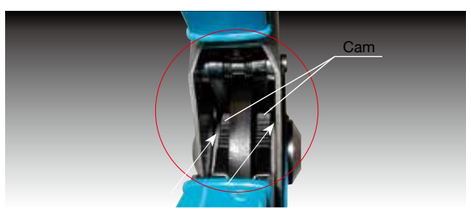
Nominal Diameter	13	16	20
Color Mark	Green	White	Orange

*When actually installing using electric compression tools, please refer to the separate Installation Manual and the User's Manual included with the compression tools

Maintenance of Manual Compression Tools



Manual compression tools (lubricate circled part of image)



Close-up of lubrication area

⚠ Regularly lubricate manual tools.

Manual tools are precision tools for mechanically compressing fittings. Regularly (about once a month) lubricate the cam inside the tool using commercially available lubricant spray

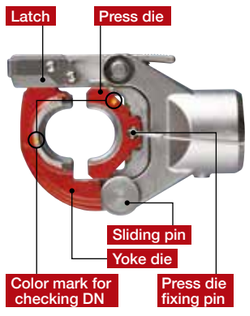
Eslon Metacutte RED Tools

NO.	Tool Name	Purpose	Notes	
1	PVC Cutter	For cutting pipes	Commercially available	
2	Rotary Cutter	For cutting pipes	Commercially available	
NO.	Tool Name	Purpose	Product No.	Nominal Diameter
3	Surface Finisher	For finishing pipe surfaces	SMMZ16	16
			SMMZ20	20
			SMMZ25	25
4	Spring Bender	For bending pipes (use with bare pipes)	SMSB16	16
			SMSB20	20
			SMSB25	25
5	Inner Bender (3 m length)	For bending pipes (use with bare pipes or insulated pipes)	SMIB16	16
			SMIB20	20
			SMIB25	25
6	Prefab Bender	For bending pipes (use with pipes with 10-25 mm insulation)	SMPB1	16*1
			SMPB2	16*2,20
			SMPB3	25
7	Toolkit for Metacutte RED (16-25)	Set of items for connecting Metacutte RED (tools, die, gage, charger, battery)	REK25F	16,20,25
	Ⓐ Main Compression Tool for Metacutte RED	Main tool for connecting Metacutte RED	REK25K	16,20,25
	Ⓑ Die for Metacutte RED	For connecting Metacutte RED (use with main tool REK25)	RED16	16
			RED20	20
			RED25	25
	Ⓒ Gage for Metacutte RED	For compression management	REG25	16,20,25
	Ⓓ Charger	——	AKBC	
	Ⓔ Battery	——	AKB	

*Please note that these tools and conventional Metacutte tools are not interchangeable.
*See the separate User's Manual for instructions on how to use Prefab Benders and Spring Benders.
⚠ Compression tools for Metacutte RED must be maintained regularly.The maintenance period is about one year. Please contact one of our company's sales offices for details.

*1 For use with nominal diameter 16 with 10 mm or 20 mm insulation.
*2 For use with nominal diameter 16 with 25 mm insulation.

When Using Tools for Metacutte RED



⚠ **Make sure to insert the fixing pin of the press die all the way**

Using with the fixing pin of the press die not fully inserted means that the press die will not be properly fixed in place, resulting in irregular compression. It will also cause the fixing pin of the press die to become deformed or damaged. Be sure to insert the pin all the way inside.

⚠ **Fully insert the sliding pin**

Compressing with the sliding pin not fully inserted will cause the sliding pin to deform from the compressive force. Be sure to insert the sliding pin all the way inside and rotate it in the rotation direction before compressing.

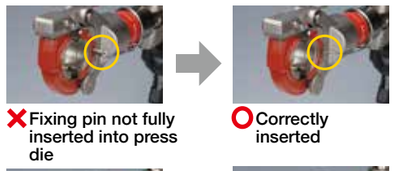
⚠ **Use the die for the correct nominal diameter**

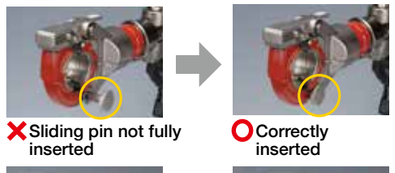
Use the die for the correct nominal diameter. Dies for tools for small caliber Metacutte RED are composed of a yoke die and a press die. Be sure to check that both of the dies equipped to the tool are of the correct nominal diameter before installing. Die parts for tools for small caliber Metacutte RED have different color markings for each nominal diameter, so please take advantage of them.

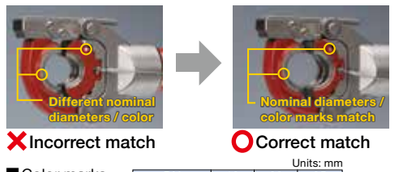
*When actually installing using Metacutte RED tools, please refer to the separate Installation Manual and the User's Manual included with the tools for Metacutte RED.

⚠ **Close the latch of the yoke die correctly**

If the latch is not properly closed when compressing, not only will compresion be insufficient, but the tools will be damaged. Be sure to close the jaw of the york die properly against the latch.



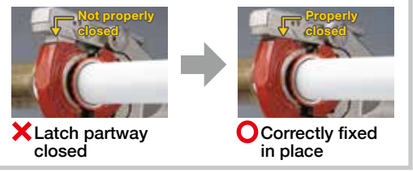




■Color marks for each DN

Units: mm

DN	16	20	25
Color Mark	White	Orange	None



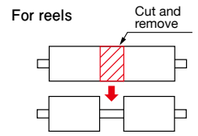
Installation Procedure for Eslon Metacutte RED

1. Unraveling Pipes

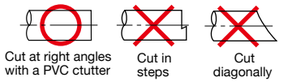
(1) In a flat place where the outside surface of the pipe won't become scratched, unravel pipes while pressing down with a foot lightly enough that the pipe is not flattened.
(2) Use a spring bender to fix any kinks in short pipes. (See 3. Bending Pipes)

⚠ If the pipe breaks while unraveling it, cut the pipe, and don't use the broken part.

2. Cutting Pipes

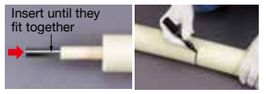


Do the following with the insulation at the cutting location:
●For straight pipes, move to one side
●For reels, cut and remove about 100 mm



⚠ Take care not to scratch pipes when removing insulation.
⚠ Cutting in steps or diagonally causes leakage at fitting joints, so cut at right angles.
⚠ Burrs on cut surfaces cause leakage, so be sure to remove them.

3. Bending Pipes



(1) Insert the inner bender for Super Eslometax into the pipe, marking the spot to be bent.

(2) Press your knee against the point to be bent, and create the desired shape by gradually shifting the position (bend while changing knee position about three times)

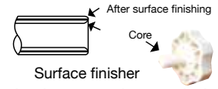
Inner Bender Minimum Bending Radius

Units: mm

DN	Insulation	Min. Bending Rad.	DN	Insulation	Min. Bending Rad.	DN	Insulation	Min. Bending Rad.
16	10	100	20	10	150	25	10	200
	20·25	200		20·25·30	250		20·25·30	300

⚠ Make sure to insert the inner bender until it fits together with the pipe (never hammer in).
⚠ Use straight piping for at least 10 cm from the fitting socket.
⚠ Never bend or adjust bending using a fitting as a fulcrum.
⚠ Don't repeatedly bend pipes in the same place.
⚠ To prevent the pipe from buckling, be sure to use an inner bender

4. Correcting & Chamfering Pipe Ends

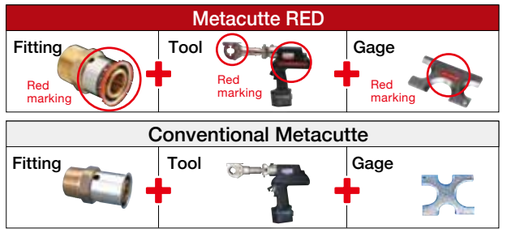


(1) Screw the core of the surface finisher for the appropriate nominal diameter all the way to the base (all the way inside).
(2) By rotating the surface finisher clockwise (to the right) while applying pressure, it's possible to finish pipe end surfaces while correcting flatness.
(3) Use thoroughly until the entire circumference of the pipe has a finished surface (around 5 rotations).

⚠ Surface finishing is not possible without screwing the core all the way to the base and turning while applying pressure.
⚠ Do not use a chamfering device such as a PVC reamer. It may cause insufficient insertion and leakage.
⚠ Please note that if chamfering is insufficient, rubber seals of fittings may be damaged, resulting in leakage.
⚠ If scraps from chamfering adhere to rubber seals of fittings, it may result in leakage, so be sure to remove them.

5. Checking Fittings & Tools

Verify that all fittings, tools, and gages are for Metacutte RED. (Red fittings, tools for Red, and gages for Red have red markings)



6. Inserting Pipes Into Fittings

(1) Be sure to check that fittings are equipped with red rings.
(2) Take out fittings from packing boxes andcheck that red rings and compression rings do not have any abnormalities such as deformation or damage, and are not detached or missing. Do not use fittings with abnormalities.
(3) Since dropping fittings or touching them with Metacutte RED tools may damage them, exercise due caution.
(4) Insert pipes straight inside fittings, pushing them all the way inside in one go. Use confirmation holes to visually check that pipes are inserted all the way inside.

*Even if it's discovered that insertion was insufficient after fitting compression, reinsertion is not possible.
We recommend marking pipes with lines.

Ref.) Insertion Length (Line marking len.)

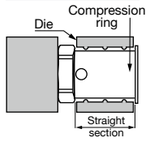
Units: mm

DN	16	20	25
Insertion Len.	22	28	29

⚠ Don't use fittings if the compression ring or red ring has fallen off or become deformed.
⚠ Insert pipes after screwing fittings into the main pipe, equipment, etc.
⚠ Forced insertion such as diagonal insertion can cause damage to the rubber seal of the fitting, so please be careful.

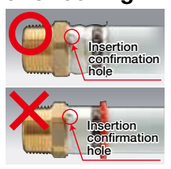
7. Compressing Fittings

(1) Make sure there are no shards of red rings or other foreign objects in the die.
(2) When fittings are fully compressed, the motor sound will change. Then, pressing the release switch will cause the die to go back to its original position (the release switch is locked during compression and cannot be pressed).
(3) Detach Metacutte RED tools from the fitting.
(4) If there are any shards of the red ring on the fitting after compression, gently brush them off with a hand.



⚠ Compress so that the die of the Metacutte RED tool goes into the straight section of the fitting's compression ring.
⚠ Take care that the pipe does not come out during compression.
⚠ The dies of Metacutte RED tools have different colored markings for each nominal diameter.
⚠ Be sure to use tools made for Metacutte RED. Do not compress using tools for conventional Metacutte

8. Checking



(1) Check that the pipe is visible from the insertion confirmation hole.
(2) Check that the straight section of the fitting's compression ring has three compression imprint lines.
(3) Make sure that the red ring has fallen off.
(4) Check the compression point on the outside of the fitting surface using a Metacutte RED gage (If the Metacutte RED gage passes through the single groove in the center, the test is passed.)

⚠ After prolonged use, the die wears down, which could result in being unable to attain the appropriate amount of compression (the gage won't pass through) even after compressing all the way with the tool. If this happens, replace with a new die.
⚠ Insulate the fitting area separately with an appropriate insulation material.

9. Water Pressure Testing

●After installation is complete, carry out water pressure testing, being sure to also check fitting connections at the same time visually and tactually, making sure that there are no leaks.
●If compression has not been carried out, there will always be a leak during water pressure testing. If there is a leak, connect the fitting and compress, following standard installation procedure.

⚠ Cautions During Use

1. Cautions During Design

Warning Use with cold/hot water plumbing, not with air piping or chemical piping.

Warning Follow maximum temperature and pressure tolerances. Cannot be used with vapor piping.

Warning For piping around fan coil units, keep face-to-face distance at least 1.5 m, using offset piping.

⚠ If the water flowing through the pipes is hot, there is a risk that pipe performance may be severely affected, so use design and installation methods that take into account future plumbing updates.

⚠ For exposed outdoor plumbing, protect against external impacts and ultraviolet deterioration with insulation or other outer surface coatings that block light.

When passing through fireproof compartments, take appropriate measures.

⚠ To prevent pipe pressure from increasing in cold/hot water or other plumbing due to external temperature increase or other factors when operation is paused, place expansion valves, release valves, etc. along pipelines. In particular, note that if electric valves or other valves are placed along pipes branching off from the main pipe, closing those valves causes the branch pipes to besealed off, potentially causing pressures in them to increase.

⚠ Cannot be used in parts meant to absorb large displacement from earthquakes, etc.

2. Cautions During Storage

⚠ Do not leave in extremely hot or cold places. Store indoors.

⚠ Do not use fires in the storage area. There is a risk that pipes or fittings could deteriorate because of sparks or heat.

3. Cautions During Transportation

⚠ Never throw boxes containing fittings. The impact could cause structural components of the fittings to break.

⚠ Do not subject fittings to strong impacts, such as by dropping them. There is a risk that they could be damaged and become unusable.

⚠ When transporting pipes, be sure to lift them up and carry them. Never drag, throw, or otherwise mishandle them.

4. Cautions During Pipe Installation

⚠ If pipes buckle or break during installation due to impacts or being stepped on, cut off the damaged parts and remove them.

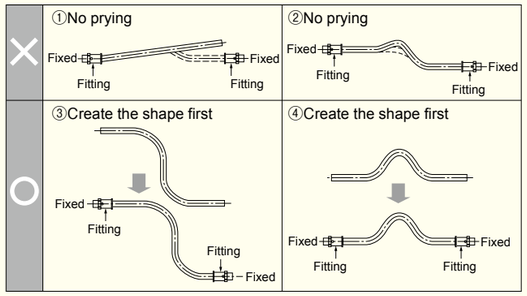
⚠ For exposed outdoor plumbing, protect from external impacts, freezing, etc. with insulation. Also, cover the outside surfaces of pipes and insulation so that they are not exposed to sunlight.

⚠ When attaching support brackets directly to pipes, use rubber-lined or plastic items.

⚠ Do not bend pipes using a fitting as a fulcrum. There is a risk that the pipe may buckle.

⚠ No Bowed Plumbing

Plumbing where fittings on both ends are first fixed to equipment as in ① below results in pry connections (bowed plumbing), and it can cause pipes to break at fitting sockets, so do not install plumbing in this manner. In such cases, first create a shape with enough spare length as in ③ or ④ and connect.



⚠ For suspended plumbing, don't apply too much force to the pipes. There is a risk that pipes will buckle or deform.

⚠ Pipes with a nominal diameter of 32 or greater cannot be bent.

⚠ During Metacutte RED installation, secure a gap of at least 30mm to place the die of the Metacutte RED tool on the fitting.

5. Cautions During Fitting Installation

⚠ Do not throw or drop fittings. There is a risk that they could be damaged and become unusable.

⚠ Fittings are designed so that the pipe cannot be removed once installed, so they cannot be reused. Install carefully so you don't make a mistake.

⚠ When actually installing, consult the separate "Installation Manual".

⚠ When connecting, clean the inside and outside of the pipe. In particular, for plumbing on the ground or buried in the ground, there is a danger of leakage, so be careful not to let dirt or sand adhere to the pipe.

⚠ In particular, for plumbing on the ground or buried in the ground, be careful not to allow foreign objects such as pebbles or sand to get inside the die when compressing fittings.

⚠ When connecting piping materials such as copper tubes using heat, first connect the copper tube or other material, then screw in the screw adapter after cooling. If done the other way around, the fitting will deteriorate from the heat, leading to leakage accidents.

⚠ If fluxes for items such as copper tubes are attached to pipes or fittings, the pipes or fittings may be destroyed, so never attach them.

⚠ Do not use Metacutte / Metacutte RED products if the fitting's compression ring is deformed or has fallen off.

⚠ Do not use Metacutte RED products if the red ring is deformed or has fallen off.

⚠ Do not compress fittings more than once.

⚠ If the red ring of Metacutte RED breaks but does not fall off during compression, gently brush it off with your hand.

⚠ If the red ring of Metacutte RED does not break when compressed, stop using the product and replace it with a new product.

6. Cautions When Handling Tools

⚠ Do not forcefully pull out inner benders out of pipes. It could result in scratches on the inside of the pipe or damage to the inner bender.

⚠ Be sure to use the correct tools. Installation using other tools has a risk of leading to leakage.

⚠ The dimensions of Super Eslometax are different than for conventional Metax, so make sure to use tools for Super Eslometax when installing.

⚠ Do not install Metacutte fittings using tools for Metacutte RED fittings.

⚠ Take care not to allow fingers or foreign objects to become trapped in the space between the die and the compression ring of the fitting.

⚠ Do not subject tools to strong impacts, such as by dropping them or throwing them. It could result in damage to the tools or compression failure.

Warning Use Metacutte or Metacutte RED tools correctly and safely after reading the attached User's Manual.

•For Metacutte RED

⚠ Verify that the tools are for Metacutte RED

*Metacutte RED tools and dies have red markings.

⚠ Installation using tools other than Metacutte RED tools has a risk of causing leakage.

⚠ Check that there are no foreign objects such as the remains of broken red rings in the die.

7. Cautions During Water Pressure Testing

⚠ After installation is complete, carry out water pressure testing while at the same time visually and tactually examining the fitting connection areas to make sure there are no irregularities such as leaks.

Warning Bleed out air before water pressure testing (if air is not bled out sufficiently, there is a risk that a fitting could pop out and hit someone's body).

⚠ Super Eslometax products are flexible, so applying water pressure creates a force in the direction of returning to be a perfect circle. Please note that there is a risk that this will cause water pressure to reduce slightly over time.

8. Other Cautions

⚠ If the ends, outside surface, or inside surface of a pipe gets scratched, cut off that part and remove it.

⚠ Do not spray or apply PVC adhesives, instant adhesives, insecticides, anti-corrosive agents (such as creosote), anti-termite agents, or similar substances to pipes or fittings. Also, please note that if organic solvents adhere to or touch pipes or fittings, there is a risk that they may be materially altered.

⚠ Do not embed pipes or fittings in asphalt. They will deteriorate from the heat, resulting in leakage accidents.

⚠ Do not stand on or hang from pipes.

⚠ When actually installing, please contact our company's nearest sales office.

⚠ Do not bring near sparks from electric welding or fire from blowtorches, gas burners, etc.

⚠ Regarding the separation distance between gas equipment such as gas water heaters and nearby plumbing, please follow the Japan Gas Appliance Inspection Association's installation standards and practical guidelines for gas appliances. These standards may be relaxed for some models of gas water heater, so please check with your gas provider or gas equipment manufacturer for specific separation distances.

⚠ Do not install plumbing near open fires such as gas stoves.

⚠ When using for plumbing in areas where the ambient temperature may be expected to increase such as attics, mainly in the case of sprinkler systems directy connected to the water supply, pressure increases may result in damage to pipes or equipment. To prevent this, please consider using expansion valves or escape valves suited for water supplies or similar devices (pressure setting: under 1.5 MPa).

⚠ When using for purposes other than those described in this document, please consult our company's nearest sales office.

•When installing Eslon Super Eslometax, please observe these cautions, and install safely and reliably.

*Our company shall assume no liability or responsibility for any damages or accidents resulting from use that does not follow the cautions listed in this catalog.