# Microduct Accessories & Tools



Straight Connector
Connector Cover
End Cap
Reducer
Divisible Sealing Connector
Gas-block Connector
Bulkhead Connector
Reducer Gas Block
Locking Pin
DBL Connector & End Cap
Tools





# Straight Connector



### Description

The Push-fit straight connectors manufactured with high quality materials and transparent body assure easy and quick installation.

The connector can be re-used 10 times remaining maintained the high performance requirements for airblown installation systems.

#### Main Features & Characteristic

• Material: Clear PC

• Leakage Pressure: 15 bar

Negative Pressure: 750mm Hg(10 Torr)

• Proof Pressure: 25 bar

■ Temperature Range: -10 ~60°C

• For Tubing Type: PE, PU, Nylon,

Polyurethane

• Burst Pressure: > 25bar

Water Immersion test: Pass (Water proof)

Push-fit test: Pass

Hydraulic pressure test: Pass(Resisting

at 13 bar for 2 minutes

Size (mm)		Product Codes
OD	ID	Product Codes
3	2.1	RC3AU
4	2.5	RC4BU
5	3.5	RC5AU
6	4	RC6BU
7	5.5	RC7CU
7	3.5	RC7AU
8	6	RC8CU
8	3.5	RC8AU
10	8	RC10BU
12	10	RC12BU
14	12	RC14CU
14	10	RC14AU
16	14	RC16CU
16	13	RC163AU
16	12	RC16AU
18	16	RC18BU
18	14	RC18AU

X Please inquiry different size from the table



# Connector Cover



### Description

The connector cover is typically used in place of a duct closure to protect the connector and the end cap for direct burial



Product Codes
RCC5U
RCC7U
RCC8U
RCC10U
RCC12U
RCC14U
RCC16U
RCC18U

X Please inquiry different size from the table

- Connector protection to withstand external impact and crush.
- Lock Pin function to prevent tube escape.
- Prevention from the inflow of sand and mud into the connector groove.
- Easy to install and remove.
- Used for Direct burial, manhole (hand hole), in-building.
- Used for end cap protection as well.
- Material : Polypropylene



# **End Cap**



### Description

The end cap for permanent or temporarily sealing of unused microducts to prevent obstacles such as water, mud, dust and so on.

The body is transparent for easy fault location and fix the problem easily during installation.

Size (mm)	Product Codes
3	RE3AU
4	RE4AU
5	RE5AU
6	RE6AU
7	RE7AU
8	RE8AU
10	RE10AU
12	RE12AU
14	RE14AU
16	RE16AU
18	RE18AU

X Please inquiry different size from the table

### Main Features & Characteristic

• Material: Clear PC

Leakage Pressure: 15 bar

Negative Pressure: 750mm Hg(10 Torr)

• Proof Pressure: 25 bar

Temperature Range: -10 ~60°C

Burst Pressure: BT MA 321 High Pressure

Performance

• hydraulic pressure test: Pass(Resisting at 13.5kgf/m² for 2 minutes.)

• Burst Pressure: > 25bar

Water Immersion test: Pass (Water

proof)



# Reducer



### Description

The Reducer allows interconnection between microducts that are difference in outer diameters. Usually, this is used in the point of tramstion from DB to DI microducts entering the office, house.

Size	(mm)	Product Codes
5.3.5	3/2.1	RR53AU
5/2.1	4/2.1	RR54AU
7/4	4/2.1	RR74AU
7/3.5	5/3.5	RR75BU
8/4.4	5/3.5	RR85AU
8/5.5	5/3.5	RR85BU
10/8	8/6	RR10EU
10/8	8/5.5	RR10FU
10/6	8/6	RR10GU
10/5.5	7/5.5	RR10CU
10/8	7/3.5	RR10DU
12/8	10/6	RR12FU
12/8	10/8	RR12GU
12/10	10/8	RR12HU
12/10	7/3.5	RR12BU
12/10	7/5.5	RR12CU
14/10	12/8	RR14FU
14/10	12/10	RR14HU
14/12	12/10	RR14GU
16/12	14/10	RR16DU
16/12	12/10	RR16BU
16/12	12/8	RR16CU

#### Main Features & Characteristic

• Material: Clear PC

• Leakage Pressure: 15 bar

Negative Pressure: 750mm Hg(10 Torr)

• Proof Pressure: 25 bar

Temperature Range: -10 ~60°C

■ Burst Pressure: > 25.5kgf/m²

Water Immersion test: Pass (Water proof)

Expected Life time: Minimum 20 years

hydraulic pressure test: Resisting at

13.5kgf/m for 2 minutes

X Please inquiry different size from the table



# **Divisible Sealing Connector**



### Description

The divisible sealing connector manufactured as compact design, small dimension enables installation within ODFs with difficult access.

Thanks to the optimized design for easy installation of sealing mini/micro ducts which are newly installed or remaining existed,

the installation is only matter of sliding the rubber seal over the fiber & pushing it against the duct wall.

Size (mm)		Product Codes
Duct	Cable	Product Codes
5	2.5 > 2.25	RDSAAU
7	1.6 > 1.1	RDSBAU
7	2.5 > 2.0	RDSBBU
7	3.0 > 2.5	RDSBCU
8	1.6 > 1.1	RDSCAU
8	2.5 > 2.0	RDSCBU
8	3.0 > 2.5	RDSCCU

X Please inquiry different size from the table

- Gas- and water tight up to 0,5 bar
- Suitable for retro fitting
- Easy installation
- No need to slide the seal over the fiber for installation
- Slim design
- Other versions available upon request



# Divisible Sealing Connector



Size (mm)		
Duct	Cable	Product Codes
10	3.5 > 2.5	RDSDAU
10	5.0 > 3.5	RDSDBU
10	6.5 > 5.0	RDSDCU
10	8.0 > 6.5	RDSDDU
12	3.5 > 2.5	RDSEAU
12	5.0 > 3.5	RDSEBU
12	6.5 > 5.0	RDSECU
12	8.0 > 6.5	RDSEDU
14	2.5 > 1.5	RDSFAU
14	3.5 > 2.5	RDSFBU
14	5.0 > 3.5	RDSFCU
14	6.5 > 5.0	RDSFDU
14	8.0 > 6.5	RDSFEU
14	10.0 > 8.0	RDSFFU
16	2.5 > 1.5	RDSGAU
16	3.5 > 2.5	RDSGBU
16	5.0 > 3.5	RDSGCU
16	6.5 > 5.0	RDSGDU
16	8.0 > 6.5	RDSGEU
16	10.0 > 8.0	RDSGFU

### Description

Optimized design of divisible sealing connector enables fast and easy installation even at the point of termination completed.

It means that the divisible sealing connector can be installed easily without any damage to the other materials at the complicated existing point.

- Gas and Watertight up to 0.50 bar
- Suitable for retrofitting.
- Easy installation.
- Slim design.
- Other versions available upon request.



# Gas Block Connector



### Description

The design of Gasblock is to prevent the gas leaking at the point where the connection between a duct and fiber optic cable inside.

Gasblock connector can be installed at home, office, inside building not to allow the inflow of materials which has the harmful gas, water and dust.

Size (mm)		Product Codes
MD	Cable	Troduct codes
5	0.5-3.5	RGAAU
7	1-4.6	RGBAU
8	3-6	RGCAU
10	3-6	RGEAU
10	5-8	RGEBU
12	3-6	RGFAU
12	5-8	RGFBU
12	7-10	RGFCU
14	3-6	RGHAU
14	5-8	RGHBU
14	7-10	RGHCU
14	9-12	RGHDU
16	3-6	RGJAU
16	5-8	RGJBU
16	7-10	RGJCU
16	9-12	RGJDU

**X** Please inquiry different size from the table

#### Main Features & Characteristic

- Blowing Pressure: Between temperatures of -10°C and +60°C, all connectors size can be used for blowing operations at pressures up to 16bar.
- Burst Pressure: > 26bar
- Gas Tightness:
  - Leakage at 16 bar gas pressure: 1ml/min
  - Leakage at 0.7bar gas pressure: 0.1ml/min
- Water ingress: The connectors shall seal against a 6m head of water.
- Insertion force: 50N max (5kg)
- Retention force: 55N min (5mm m/d)135N min (12mm m/d)155N min (14mm m/d)

(collect not held in)



# **Bulkhead Connector**



### Description

The Bulkhead Connector is used for distributing and arranging the inner tubes of bundled microduct on the frame combined by Mounting Rack and Patch Panel, which is mostly installed in MDF room of the building. The structure of bulkhead is to fix the connector the hole of the Patch Panel. It's also suitable to apply in Air Blown System.

Size (mm)	Product Codes
5/3.5	RBC5U



**Tube Patch Panel** 

#### Main Features & Characteristic

Material: POM

• Leakage Pressure: 15 bar

Negative Pressure: 750mm Hg(10 Torr)

• Proof Pressure: 25 bar

Temperature Range: -10 ~60°C
For Tubing Type: PE, PU, Nylon,

Polyurethane

Burst Pressure: > 25bar

Water Immersion test: Pass (Water

proof)

Push-fit test: Pass

Hydraulic pressure test: Pass(Resisting)

at 13 bar for 2 minutes



# Reducer Gas Block



### Description

The Reducer Gas block connectors have integrated functions of Reducer and Gas block connectors in one connector.

It is designed to connect two different sized tubes and block gas and water at the same time.

Size (mm)		Product
MD	Cable	Codes
7-5 Reducer	0.5-3.5	RRG75U
8-7 Reducer	1-4.6	RRG87U

X Please inquiry different size from the table

#### Main Features & Characteristic

- Blowing Pressure: Between temperatures of -10°C and +60°C, all connectors size can be used for blowing operations at pressures up to 16bar.
- Burst Pressure: > 26bar
- Gas Tightness:
- Leakage at 16 bar gas pressure:
  1ml/min
  - Leakage at 0.7bar gas pressure:
- 0.1ml/min
- Water ingress: The connectors shall seal against a 6m head of water.
- Insertion force: 50N max (5kg)
- Retention force: 55N min (5mm m/d)
   135N min (12mm m/d)
   155N min (14mm m/d)

(collect not held in)



# Locking Pin



### Description

The Locking Pin is used together with the Straight Connector or End Cap, to reinforce the connection between tube and connector or end cap, avoiding the possible falling-off.

The Locking Pin is designed just as big as the groove of Connector/End cap, so that it will not easily fall off.

Size (mm)	Product Codes
5	RLCAU
6	RLCBU
7	RLCCU
8	RLCDU
8.5	RLCEU
10	RLCFU
12	RLCGU
12.7	RLCHU
14	RLCJU
16	RLCKU
18	RLCMU
20	RLCNU
22	RLCPU

- Easy installation
- Small but strong effect



# DBL Connector & End Cap



### Description

The DBL connector and endcap is used at the end point of direct buried thick walled microduct to prevent from the potential obstacles such as dust, water and so on.

With the same functionality as conventional connectors or endcaps, installation simply involves pushing the microduct into the end cap.

#### **DBL Connector**

Size (mm)	Product Codes
7/4	RDC7U
8/4	RDC8U
10/6	RDC10U
12/8	RDC12U
14/10	RDC14U

### **DBL End Cap**

Size (mm)	Product Codes
7	RDE7U
8	RDE8U
10	RDE10U
12	RDE12U
14	RDE14U

X In addition to above table, any size can be ordered.

#### Main Features & Characteristic

Material: HDPE

Leakage Pressure: 15 bar

Negative Pressure: -750mm Hg(10 Torr)

Proof Pressure: 25 bar

Temperature Range: -10 ~60°C
 Burst Pressure: > 25.5kgf/m²

Water Immersion test: Pass (Water proof)

Expected Life time: Minimum 20 years



# **Tools**

#### Microduct Duct Cutter

Microduct Cutter is used for precise cutting of PP and PE pipes with minimum effort. Knife blades deliver clean and straight cuts on pipe diameters up to 63mm and especially for all the current plastic types used in installation. The aluminum construction guarantees precise operation and long professional service use.



Product Code	Cutting Range	Dimension	Weight
MDC63	63mm	300mm * 75mm	710g
MDC42	42mm	200mm * 55mm	230g

## Microduct Duct Sheath Remover & Hook Cutter

The Microduct Sheath Remover(Slitter) is used when dismantling the outer sheath of a double-sheathed microduct (direct buried) and Hook cutter is for others i/o TWD



Product Code	Cutting depth	Dimension	Weight
MSR08 (Sheath Remover)	5mm	150mm * 35mm	170g
MHC25(Hook Cutter)	25mm	170mm * 45mm	50g

#### Microduct Tube Cutter

The Microduct Tube Cutter is used in the situation of cutting a tube cleanly 90 °in order to make a connection with another tube perfectly

Product Code	Cutting Range	Dimension	Weight
MTC14	14mm	150mm * 35mm	30g

## Microduct Tube Deburring Tool

The Microduct Tube Deburring It is used in the situation of the tube after cutting, the inside of the tube can be gently cut to increase the blowing performance.

Product Code	Blade	Dimension	Weight
MDBE100	E100	145mm * 10mm	50a





# **Tools**

### Microduct Round Cutter

This Telescopic ratchet pipe cutter is used for precise cutting of PP, PE pipes as well as sound-insulated drain pipes.

Product Code	Model	Duct Size (mm)	Cutting depth (mm)	Weight (g)
TDC3R	TC 67 PL	Ф 6 - 67	7	700

## **Tube Boundary Cutter**

Tube Round Cutter is used to cut the tube without causing any damage to fiber installed inside. Depending on sizes of individual tube, different sizes of cutter such as 4 & 5mm, 6 & 7mm can be used.



Item	Division	Division Product	Dimension (mm)			Weight(g)
rtem	Codes	L	Н	W	weight(g)	
Tube Round	4 / 5	TRCAK	45	28	23	15
Cutter	6/7	TRCBK	50	28	23	16
Tube Sheath Cutter	-	TSCAK	64	36	23	31

## Microduct Dismantling Tool



Duct Dismantling Tool is used to remove thin layer of Microduct sheath. By adjusting the length of knife blade, duct sheath can be easily removed for the size between  $\Phi$  4  $\sim$  50mm.

Product Code	Duct Size (mm)	Dimension (mm)	Weight (g)
TDSAL	Ф 4 - 16	128	75
TDSBL	Ф 8 - 28	132	77
TDSCL	Ф 28 - 35	153	85
TDSDL	Ф 35 - 50	166	90



# **Tool Kit Case**

## **Tool Kits in Case**

Knet's Microduct **Tool Kit Case** contains a total of 7 tools. It consists of special Microduct tools that can be used efficiently at the installation site.

This portable toolbox is an essential item for Microduct cutting, branching and termination.

The inside is protected by a sponge and the exterior is made of a lightweight aluminum body.



#### 450X350X100mm Gross Weight 4kg

#### Microduct Duct Cutter

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Product Code	Cutting Range	Dimension	Weight
MDC63	63mm	300mm * 75mm	710g
MDC42	42mm	200mm * 55mm	230g



### Microduct Duct Sheath Remover & Hook Cutter

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Product Code	Blade	Dimension	Weight
MDBE100	E100	145mm * 10mm	50g











#### Internationally Certified