

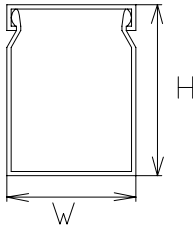
TOGI Products Guide

Wiring Duct



- Material : Rigid vinyl chloride
(Self-extinguishing material rated 94V-0)
- Color : Gray
- Length : 2m
- Designation Format : TD- (Type) – (Length) – (Side Holes)
Ex.: Type26, length 2m and H type side holes → TD-26-20H

Product in compliance with RoHS Directive



We have a great choice of sizes. Please ask the sizes to your nearest dealer or see TOGI catalog. (ELECTRONIC PARTS A7-14)

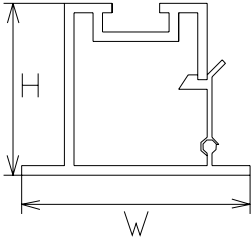
Physicality

Item	Unit	Standard Value
Specific gravity	—	1.47
Tensile strength	Mpa	35 or above
Elongation	%	100 or above
Charpoy impact	KJ/m ²	8.8 or above
Flexibility temperature	°C	73±3
Rockwell hardness	—	112
Volume receptivity	Ω—m	>10
Withstand voltage	MV/m	>40
Permittivity	PF/m	29
Specific	J/(Kg.K)	1200
Thermal expansion coefficient		7×10^{-5}

Connect Lock Duct

Product in compliance with RoHS Directive

Cross Section



- Material

Rigid vinyl chloride(Self-extinguishing material rated 94V-0)

- Color

Gray

- Quantity

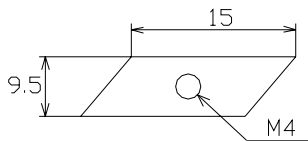
10 pieces

Parts name	W	H	Standard length
TDCR-A	72	58	1200
TDCR-B	82	85	1200

Exclusive nut for DCR

- Surface Treatment

Trivalent chromate treatment

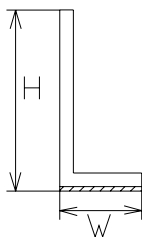


Parts name	PKG qty
TDN-4	200PCS

Separator

Product in compliance with RoHS Directive

Cross Section



- Material

Rigid vinyl chloride(Self-extinguishing material rated 94V-0)

- Color

Gray

- Quantity

10 pieces

■ Separator without side hole

■ H type separator with side hole

Parts name	W	H	Standard length	Form	W	H	Standard length
TDS-60	12	55	1,000mm	TDS-60H	12	55	1,000mm
TDS-80	15	75		TDS-80H	15	75	
TDS-100	15	95		TDS-100H	15	95	

※ Standard products: Includes mounting hole and double-faced tape.

※ Also available without mounting hole or tape upon request

Wiring Bracket

Product in compliance with RoHS Directive



Feature

- One-piece assembly of a base rail and a bracket with wire space
- The front of the wire space accepts various control parts
- Integral design of base rail and wire space permits one-time instillation into a board, reducing man hour.
- IN/OUT wiring is accomplished through wiring hole and openings
- Wiring holes are chamfered

How to use

- Secure the bracket to the installation face with screw through the mounting holes
- Install wires through wiring holes and openings

Color

- Silver

Parts name	W	H	Length	Material	PKG qty
TWB-45	50	45	1,000mm	Aluminum	14pcs
TWB-65	50	65			

Wiring Bracket Bush

Parts name	W	H	Material	PKG qty
TWB-B	39.8	23.8	Nylon 66	300pcs

Wiring Bracket Hunger

Product in compliance with RoHS Directive



Feature

- Fitting to a wiring bracket improves shock resistance
- Allows for upward and downward installation
- The hungers can be fit even after wiring work is done
- Wiring work can be done even after the hungers are fit

Application : Designed to support a wiring bracket

Material : Steel sheet

Surface Treatment : Trivalent chromate treatment

Quantity : 50 sets (1 set : one piece for right and left each)

Wiring Bracket Hunger

Parts name	Parts number
TWB-H45	TWB-45
TWB-H65	TWB-65

Notes for Use

- Downward installation may loosen the mounting screws due to vibration from transportation etc.
To prevent this, use spring washers etc.
- Do not use the product for application other than the above

Snap Tube

Product in compliance with RoHS Directive

Future



- Snap type that can be fit and released easily without using a tool
 - Available in 8 sizes from $\Phi 15$ to $\Phi 100$, the tube ensures ideal installation for different wiring needs
 - The snap design makes it easy to change or check the wiring
 - The material is so flexible that can fit any shape and help produce a neat appearance
- Partially detachable, the tube permits the branching of wiring
 - The reversible type (black and gray) flexibly meets application purpose
 - The reversible type (black and gray) flexibly satisfies inventory needs, contributing a lot to inventory reduction

Color

- Reversible type (black and gray)
- Gray

Designation Format

- Reversible type TST-(Normal size) R Example : TST-20R
- Gray type TST-(Normal size) G Example : TST-30G

Packing and Packing Unit

- Every 25m of a tube is packed in a compact card board case
- When using the tube, you can just pull out the required length from the slot of the case

Snap Tube

Parts name	Nominal Size	Length	Material
TST-15	$\Phi 15$	25m	©Sheet section
TST-20	$\Phi 20$		Fire-resistant vinyl
TST-25	$\Phi 25$		Chloride with polyester fabric
TST-30	$\Phi 30$		
TST-40	$\Phi 40$		©Interlock section
TST-50	$\Phi 50$		Snap buttons
TST-70	$\Phi 70$		(Placental resin)
TST-100	$\Phi 100$		

Snap Tube [Clear Type]

Product in compliance with RoHS Directive

Feature



- The clear sheet permits the wire way interior to be checked
- Like conventional snap tube, the tube requires no special tool for binding plus is quick and easy to fit and release
- The snap design makes it easy to change or check the wiring
- The material is so flexible that it can fit any shape and help produce a neat appearance
- Available in a variety of size, the tube ensures ideal installation for different wiring needs.

Color: clear

Parts name	Nominal Size	Length	Material
TST-15C	Φ 15	25m	©Sheet section Fire-resistant vinyl Chloride ©Interlock section Snap buttons (Placental resin)
TST-20C	Φ 20		
TST-25C	Φ 25		
TST-30C	Φ 30		
TST-40C	Φ 40		
TST-50C	Φ 50		
TST-70C	Φ 70		
TST-100C	Φ 100		

Assist Fitting

Product in compliance with RoHS Directive



Features

- Useful fittings to support the installation of base rails

Material

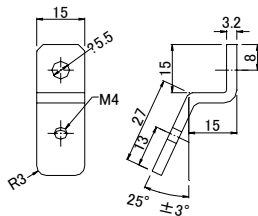
- Steel sheet

Surface Treatment

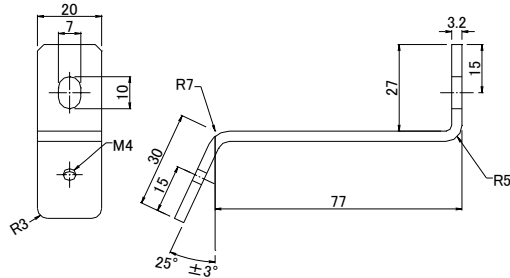
- Trivalent chromate treatment

Fig.

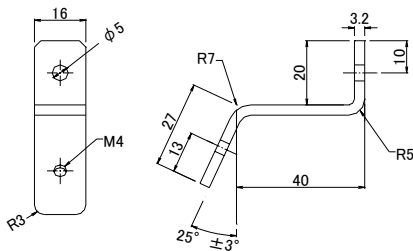
TK-1 (100pcs./ pkg.)



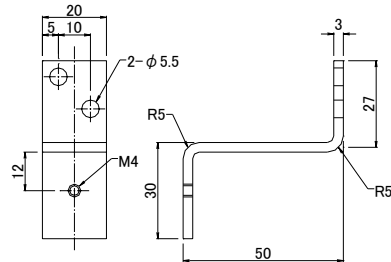
TK-3 (50pcs./ pkg.)



TK-2 (100pcs./ pkg.)



TK-4 (100pcs./ pkg.)



Magic Tube



Product in compliance with RoHS Directive

Feature

- The magic fasteners permit the tube to be fit and released quickly without using a tool.
- Available in 8 sizes from $\Phi 15$ to $\Phi 100$, the tube ensures ideal insulation for different wiring needs
- Quick and easy to fit and release, the tube makes it easy to change or check the wiring.
- The material is so flexible that it can fit any shape and help produce a neat appearance

- Partially detachable, the tube permit the branching of wiring
- The reversible type (black and gray) flexibly meets application purposes
- The reversible type (black and gray) flexibly satisfies inventory needs, contributing a lot to inventory reduction

- Color

Reversible type (black and gray)

Gray

- Designation Format

Reversible type TMT-N(Normal size) R Example: TMT-N20R

Gray type TMT-N(Normal size) G Example: TMT-N20G

Packing and Packing Unit

- Every 25m of a tube is packed in a compact card board case

When using the tube, you can just pull out the required length from the slot of the case

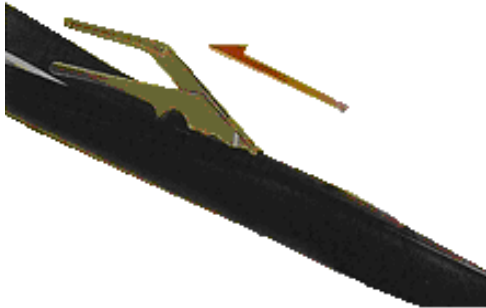
Parts name	Nominal Size	Length	Material
TMT-N15	$\Phi 15$	25m	◎Sheet section
TMT-N20	$\Phi 20$		Fire-resistant vinyl Chloride with polyester fabric
TMT-N25	$\Phi 25$		
TMT-N30	$\Phi 30$		◎Interlock section
TMT-N40	$\Phi 40$		Hook-and loop fasteners with of hook and loop fasteners
TMT-N50	$\Phi 50$		
TMT-N70	$\Phi 70$		$\Phi 15—\Phi 20$: 12mm
TMT-N100	$\Phi 100$		$\Phi 25—\Phi 100$: 16mm

Slide Lock Tube

Product in compliance with RoHS Directive

Feature

- Extra workability is ensured by the material of the interlock section that changes its hardness little even at a low temperature
- The interlock section provides excellent air-tightness to prevent the inclusion of external dust
- Available in 10 sizes from $\Phi 10$ to $\Phi 100$, the tube ensures ideal insulation for different wiring needs
- The material is so flexible that it can fit any shape and help produce a neat appearance.



Exclusive tool

How to Interlock

- The tube can be interlock easily using the exclusive slider (optional)

Color : Black, Gray

Packing

- The external case has a slot from which you can pull the tube out to use
- Not using any metallic parts, the bobbin and the external case can be readily disposed of.

Parts name	Nominal Size	Length	Material
TSL-10	Φ 10	50m	©Sheet section
TSL-15	Φ 15		Fire-resistant vinyl Chloride
TSL-20	Φ 20		with polyester fabric
TSL-25	Φ 25		©Interlock section
TSL-30	Φ 30		Hook-and loop fasteners
TSL-35	Φ 35		width of hook and loop fasteners
TSL-40	Φ 40		Φ 15—Φ 20: 12mm
TSL-50	Φ 50	25m	Φ 25—Φ 100: 16mm
TSL-70	Φ 70		
TSL-100	Φ 100		

Corrugate Tube

Product in compliance with RoHS Directive



Features

- The slit design permits wires to be trapped with ease
- Made from fire-resistant polypropylene (Self-extinguishing material)
- Easy cut with a knife etc.
- Lightweight, highly impact-resistant, and excellent in stability

Color : Black

Material : Fire-resistant polypropylene

Specification : Small box type / Wrap roll type / Big box type

※ Available to choose from according to the required quantity to use

Dimension Table of Corrugate Tube

Fire-resistant Black Corrugate Tube with a Slit

※Standard specs : Fire-resistant with a slit

Size	a	b	p	t (± 0.05)
07	7.35	10.2	2.7	0.25
10	10.75	14.1	2.7	0.25
13	13.25	17.5	3.5	0.25
15	15.35	19.5	3.6	0.25
19	19.35	23.8	3.6	0.25
22	22.3	27.1	4.3	0.3
25	25.4	30.2	4.3	0.35
28	28.5	34.2	4.4	0.35

Base Rail Cutter



Features

- The burr-free cutter eliminates the need to debar the cut surface with a file etc, after cutting.
- Reduces cutting time and saves man hour
- So easy and simple to handle that anyone can cut DIN rails readily
- Using the exclusive scale permits just the required length to be cut off with ease

Weight: 3.3Kg Length: 450mm

Through Tube Product in compliance with RoHS Directive



Feature

- Excellent in elasticity, the tube can stretch about 1.5 to 4 times if compressed
- Available in 8 size from $\Phi 15$ to $\Phi 100$, the tube ensures ideal insulation for different wiring needs
- The material is so flexible that it can fit any shape and help produce a neat appearance
- Provides excellent abrasion resistance
- Mesh type that prevents the accumulation of moisture and heat

Application

- Binding and protection of wiring from robots, FA equipment, etc
- Binding and protection of wiring in control pane, distribution panel, and cabinet
- Binding and protection of wiring around OA equipment and computer terminal

Material : Polyester

Color : Black

Through Tube : How to use

- Fold the tip portion back to open the insertion hole
- Draw an electric wire etc. Through the insertion hole you opened

UL No.E205682

Parts name	Min Size	Max Size	Width	Length	Parts name
TPT-3	$\Phi 3$	$\Phi 12$	6mm	200m	TPT-3N
TPT-6	$\Phi 6$	$\Phi 24$	15mm	150m	TPT-6N
TPT-10	$\Phi 10$	$\Phi 28$	19mm	150m	TPT-10N
TPT-12	$\Phi 12$	$\Phi 33$	22mm	100m	TPT-12N
TPT-19	$\Phi 19$	$\Phi 45$	30mm	100m	TPT-19N
TPT-30	$\Phi 30$	$\Phi 55$	35mm	100m	TPT-30N
TPT-40	$\Phi 40$	$\Phi 75$	55mm	25m	TPT-40N
TPT-50	$\Phi 50$	$\Phi 90$	60mm	25m	TPT-50N

Birdie Cutter



Features

- The birdie cutter is a cutoff tool whose cutting part has an optional shape for cutting hard and soft plastics.
- A combination of the concaves on the receiving part with the slide cover or the square attachment permits various plastic materials to be cut easily, such as wiring ducts and terminal box covers.

Application

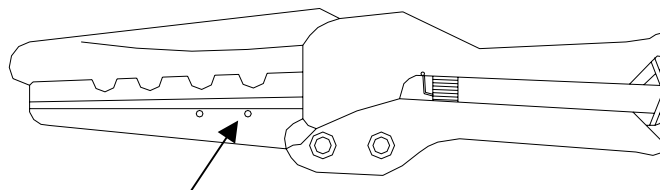
- Designed to cut plastic materials such as wiring ducts, terminal box covers, and laces/braids for telecommunications.

Example of Use

1: Cutting of wiring duct. 2: Cutting of terminal box cover 3: Cutting of duct cover

Parts No.	Length	Length of cutting Blade	Attachments
TC-100	270mm	115mm	Slide cover A, slide cover B, and square attachment

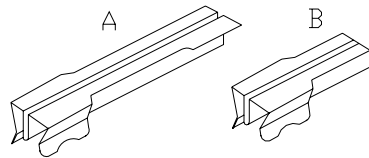
☆ Each of the attachment is sold separately as a replacement parts



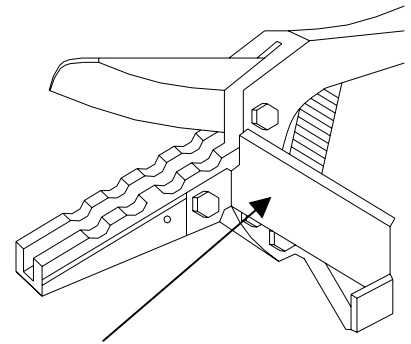
Hole for fixing of square attachment

The Slide Cover A or B is used when cutting terminal blocks covers

- 1: Insert the Slide Cover A or B on the Flute
- 2: Put a cover on the cutter and then cut

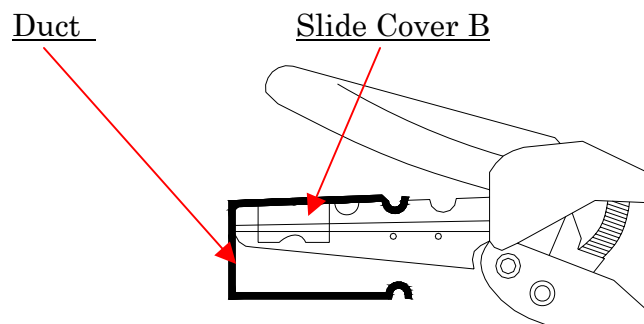


Slide Cover A&B



Square Attachment

When cutting ducts, put a duct on the cutter and fix it on the hole a shown below



Duct Nippers



Features

- The duct nippers can cut the pillar section(up to 100mm long) between the side holes(wiring holes) of wiring duct.
- The spring-operated handles require no pulling them back manually
- The cutting edges are of pinching-off type that provides a smooth cut surface
- The advantage in producing a cutting force permits a duct to be cut with a minimum force
- The duct nippers are designed to cut the pillar section between the side hole(wiring holes) of a wiring duct

Besides, it can be used to cut the gates deep inside a resin product

Part name	Part No.	Length	Depth	Width of cutting Edge	Weight
Duct Nipper	TDN-100	327mm	96mm	18.5mm	460g

Safety Instructions

Before using, be sure to read the instruction manual to ensure proper use of the products

How to use

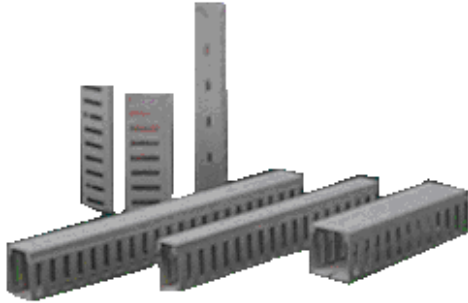
To cut in alignment with the lower ends of side holes:

- 1: Apply the tip of one blade to the lower end of a side hole. Turn the blade toward front while lightly gripping the blade handles.
- 2: Cut the pillar with the outer side of the blade facing straight in front
- 3: The pillar can be cut in line with the lower ends of side holes



ECO Wiring Duct

Product in compliance with RoHS Directive



Feature

- Made from non-halogen eco-friendly material
- About 20% lighter than the conventional PVC duct
- Provides better heat resistance than the conventional PVC duct
- The material is UL94V0 approved

Color Ivory

Designation Format

TDE-(Type)-(Length)-(Side Holes) Example: TDE-36-20-H

We have a great choice of sizes. Please ask the sizes to your nearest dealer or see TOGI catalog. (ELECTRONIC PARTS A7-14)

ECO Snap Tube

Product in compliance with RoHS Directive



Feature

- Made from non-halogen eco-friendly material
- Snap type that can be fit and released easily without a tool
- Available in 8 sizes from $\Phi 15$ to $\Phi 100$, the tube ensures perfect insulation for different wiring needs
- Partially detachable, the tube permits the branching of wiring

Eco Snap Tube Packing:

- The external case has a slot from which you can pull the tube out to use
- Not using any metallic parts, the bobbin and the external case can be readily disposed of.

Parts No.	Nominal size	Length	Materials / Characteristic
TSTE-15	$\Phi 15$	25m	Sheet section Film with non-halogen fire retardant (Ole fin EVA contained) Polyester fiber Inter lock section Snap buttons Polyester resin
TSTE-20	$\Phi 20$		
TSTE-25	$\Phi 25$		
TSTE-30	$\Phi 30$		
TSTE-40	$\Phi 40$		
TSTE-50	$\Phi 50$		
TSTE-70	$\Phi 70$		
TSTE-100	$\Phi 100$		

Physical Characteristics

Item	Lengthwise		Crosswise		Notes
	Unit: N	Unit: Kgf	Unit: N	Unit: Kgf	
Thickness	0.31				JIS L 1096
Mass	0.285				JIS L 1096
Density (paces/in)	23		24		JIS L 1096
Tensile strength	538	54.9	566	57.8	JIS L 1096
Tensile ductility	26.8		26		JIS L 1096
Tear strength (N) by trapezoid method	125.9	12.9	103.9	10.6	JIS L 1096
Weld shear	446.4	45.6	558.6	57	1cm blade \times 2 points Lengthwise: thread-off fracture Crosswise: fracture of main body
Cold resistance (Dropping test)	-30°C: Acceptable				Dropping test to JIS K 6328
Fire prevention test	Class 3: Acceptable				A

Rubber Sponge

Product in compliance with RoHS Directive



Feature

- NRC (Natural Rubber) : Most popular black sponge that is light in weight and excellent in tensile, strength, elasticity, and abrasion resistance
- CR (Chloroprene Rubber) : Excellent in oil, heat, and weather resistance and ideal for outside use.
- ERP (Ethylene Propylene Rubber) : Excellent especially in weather, ozone, and heat resistance.
- NEO (Neo Latex) : NR Sponge is coated with CR rubber

Designation Format

(Material)-(Thickness)-(Width)-(Spec/ S : 1m type or L: 20m roll type)

Example

TNR-5-20-S Natural rubber Thickness 5mm, Width 20mm, and 1m long

TCR-3-30-L Chloroprene rubber Thickness 3mm, Width 30mm, and 20m roll

TCEO-10-20 Neo Latex Thickness 10mm, Withed 20mm, and 20m roll

■ Performance

	NR	CR	EPR
Abrasion resistance	◎	○	○
Weather resistance	△	○	◎
Ozone resistance	△	○	◎
Heat resistance (Cut)	120°C	130°C	150°C
Heat resistance(Normal)	70°C	100°C	110°C
Electrical Insulation	◎	○	◎
Oil/gasoline resistance	×	○	×

◎Excellent ○Good △Acceptable ×Unacceptable

■ Specifications

Material	Thickness	Width (mm)	Specification
NC	2mm	10 20 25	1m × 100pcs 20m roll Adhesive
CR	3mm	15 20 25 30	
EPR	5mm	20 25 30 40	
NEO	5mm	10 15 20 25 30 35 40	30m roll with a double-faced tape
	8mm	10 20	
	10mm	10 15 20 25 30	
	20mm	40	