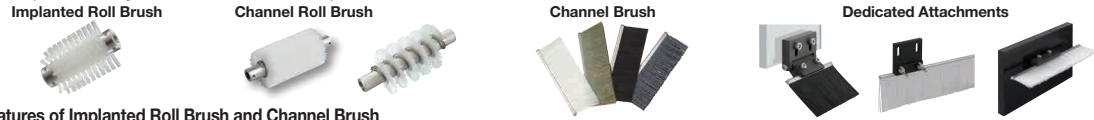


# Brush Overview

## Overview

Offers Bar Type Channel Brush and Roll Brush, which are well suited for various industrial applications such as parts leveling, dusting and washing. Additionally, MISUMI original attachment bracket are provided.

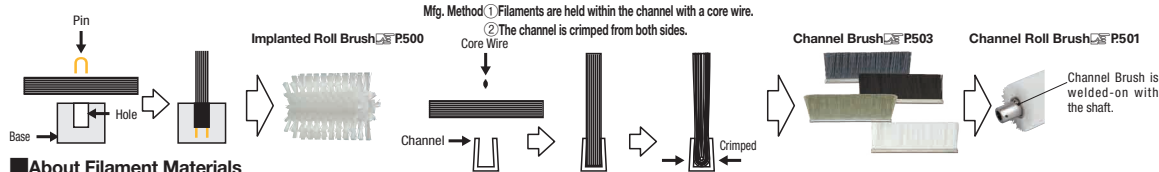


## Features of Implanted Roll Brush and Channel Brush

There are 2 ways to manufacture brush: "Implanted Roll Brush" which is used to plant the filaments and "Channel Brush" which is used to clamp and fix the filaments arranged on a straight line. "Implanted Roll Brush" has the feature that clogging is unlikely to occur. "Channel Brush" features holding more filament which do not fall out easily.

○ Implanted Roll Brush Mfg. Method

○ Channel Brushes / Channel Roll Brush Mfg. Method



## About Filament Materials

Filament Material	Features
Nylon 6	Good wear resistance, fatigue resistance, and resiliency characteristics suitable for long term operation. Suitable for food processing. Maximum temp. limit for the filaments is 100°C. Care should be taken since it dissolves in strong hydrochloric acid, sulfuric acid, formic acid, and phenolic acid.
Thunderon®	The organic conductive fiber made by copper sulfide chemically bonded to acrylic fiber has static neutralizing functionality. Flexible and has excellent wear resistant characteristics in spite of its low specific density. ⓂThunderon® is a registered trademark of Nihon Sanmo Dyeing Co., Ltd.
Conductive Nylon Mono-Eight®	Carbon is compounded with nylon so that it is antistatic even if directly contacting with workpiece. Use conditions conform to Nylon 6. Has thicker filament diameter than Thunderon. Resilient filament is usable for anti-static measures. ⓂMono-Eight® is a registered trademark of TORAY MONOFILAMENT CO., Ltd.
Nylon with Abrasive Grain	Abrasive particles are compounded with nylon so that it is more resistant to breakage and burrs than Nylon 6. Uses Alumina #320.

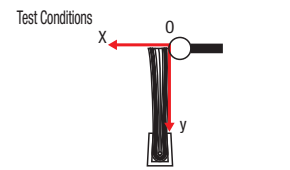
## Filament Diameter of Channel Brush (for 30mm)

Channel Width	5mm					3mm			
	Nylon 6		Conductive Nylon Mono-Eight®	Nylon with Abrasive Grain	Nylon 6	Thunderon®	Conductive Nylon Mono-Eight®		
Filament Dia.	0.2	0.3	0.5	0.3	0.6	0.2	0.3	0.075	0.3
Photo									
Channel Brush	○	○	○	○	○	○	○	○	○
Roll Brush	○	○	○	○	○	○	○	○	○

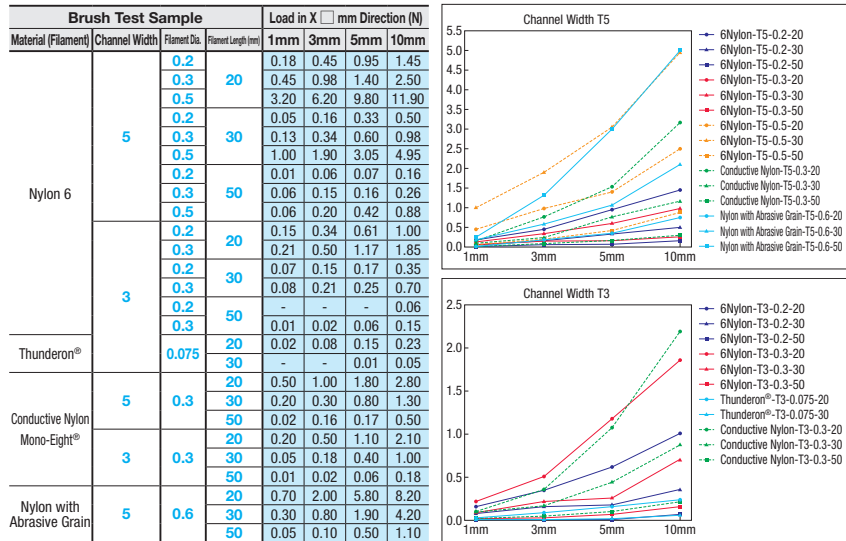
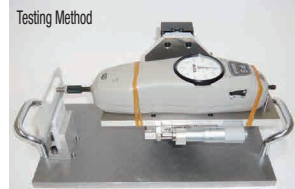
Filament Material	Filament Dia.	Features
Nylon 6	0.2	Feel of Tooth Brush (Normal)
	0.3	Feel of Bathbrush. Harder than Tooth Brush (Hard)
	0.5	Hard. Feel of Deck Brush
Thunderon®	0.075	Diameter and Feel of Average Human Hair.
Conductive Nylon Mono-Eight®	0.3	Feel of Bathbrush. Harder than Tooth Brush (Hard)
Nylon with Abrasive Grain	0.6	Harder and more resilient than Nylon 6, 0.5.

## Elasticity Test of Channel Brush

See the test conditions on the left.



Loads are measured while the filament tip (y0 ~ 1mm) is pushed in X direction to cause the leaning of 1, 3, 5, and 10mm. Measured values are not guaranteed values, but an example of measured values.



ⓂValues are for reference only, not guaranteed.

## Precaution for Use

- Brush's service life will vary depending on usage conditions and frequency. Pulling off some filaments may cause entire falling-out.
- Maximum temp. limit for the filaments is 100°C. The filaments will melt and fall off at above that.
- Nylon 6 dissolves in strong hydrochloric acid, sulfuric acid, formic acid, and phenolic acid.
- Brush press contact length should be 2mm or less. Do not press further than necessary.
- Do not bend the channel brush.
- The Channel Brush has ±2mm bow/bend per L100mm.

## Precaution for Use and Storage

- Beware of the deformation of the filaments in storage. If the brush is left in contact with workpiece while in storage, the filaments may be deformed permanently. Additionally, avoid filament tips from contacts when storing the brush by itself.
- Dry before storage.
- Remove any foreign objects from the brush.
- Do not use in high temp. environment or near fire.

# Roll Brush Implanted Roll Brush

Offers roll brush with uneven shafts for interlocking from stock. Only having to replace the worn part leads to cost reduction.

**Brush Body**

Type	Type	Material
Brush Body	Fixed	URBSN Nylon 6
	Configurable	URBSNF Nylon 66 (Filament Dia. No. 0.1) Nylon 6 (Filament Dia. No. 0.2 - 0.5)
		URBSMF Conductive Nylon Mono-Eight®
Dedicated Shaft Collar	URBSSC	SUS304

**Dedicated Shaft Collar Construction Diagram**

Type	Filament Dia.	d
URBSNF	0.1	0.1
	0.2	0.21
	0.3	0.295
URBSMF	0.15	0.15
	0.3	0.3

Fixed by interlocking concave-convex surface.

**Dedicated Shaft Collar**

Part Number	L	Filament Dia.	d	D1	V	H	Proper Motor Power (Unit: kW) Reference Value	Unit Price L50 L100
URBSN	80	50	0.3	0.3	0.295	35 15 22.5	0.4	
	100					40 20 30.0		
	150	100				40 20 55.0	0.75	

**Brush Configurable**

Part Number	D 5mm Increment	L Selection	Filament Dia. No. Selection	V	H (H=(D-D1)/2)	Proper Motor Power (Unit: kW) Reference Value	
URBSNF	35	60-80	50	0.1	15	12.5-22.5	0.4
	40	70-150	100	0.2	20	10-55	0.75
				0.3			
URBSMF	35	60-80	50	0.15	15	12.5-22.5	0.4
	40	70-150	100	0.3	20	10-55	0.75

**Dedicated Shaft Collar (Concave-Convex at Both Sides, 2 pcs.)**

Part Number	D1	V	Accessory:	Unit Price
URBSSC	35	15	Hex Socket Set Screw (Flat End) MSFS5-8 (SUS304 Equivalent)	
	40	20		

Select the same size as the brush body D1.

**Advantages**

- Can be lengthened by interlocking
- Only have to replace the worn parts.
- Can be positioned only on the required parts

## Brush Configurable

Part Number	D1	D	L	Filament Dia.			
Type	D1	D	L	0.1	0.2	0.3	0.5
URBSNF	35	60-80	50				
	40	70-150	50				
	35	60-80	100				
	40	70-150	100				

Part Number	D1	D	L	Filament Dia.	
Type	D1	D	L	0.15	0.3
URBSMF	35	60-80	50		
	40	70-150	50		
	35	60-80	100		
	40	70-150	100		