

# MRV *Miravo Crease Removing Roller*

## Features

- No-Bow and Linear crease removing rollers
- Designed to remove creases from web materials such as nonwoven, plastic films, paper, glass fibers and metallic foils
- Rubber tube covering roller outer surface will expand and contract along with roller rotation
- Wider applicability to web materials; additionally including ultra thin flexible film (a few microns) and rigid Cu, Al metallic sheet.



## Applications

- Nonwoven Industry: Winders, Slitters, Coaters
- Film Industry: Winders, Slitters, Printing Machines, Coaters, Vacuum Evaporators
- Glass Fiber Industry: Winders, Weaving Machines
- Paper Industry: Winders, Slitters, Coaters
- Foil Industry: Cu/Al foil production plants

## Specifications

Type	Roller Dia. (mm)	Roller Length (mm)	Rubber Expansion (mm) (*1)	Starting Torque (kg cm) (*2)	Line Speed (m/min)	Applicable Web	Environment
<b>MRV-12</b>	120	240~2040 (40 pitch)	0.6~6.3	3 ~ 5	400~300	Nonwovens Films Paper Glass fibers Metallic Foils	Dry (*3)
<b>MRV-16</b>	160	300~2600 (50 pitch)	1.0~8.4	4 ~ 40	500~400		Max. operation temp. 80°C
<b>MRV-20</b>	200	1050~3450 (75 pitch)	2.9~10.5	5 ~ 130	600~450		

(\*1) Rubber expansion varies according to the rotation position of the roller shaft

(\*2) These data do not indicate guarantee value but show reference with wide range depending on operation conditions

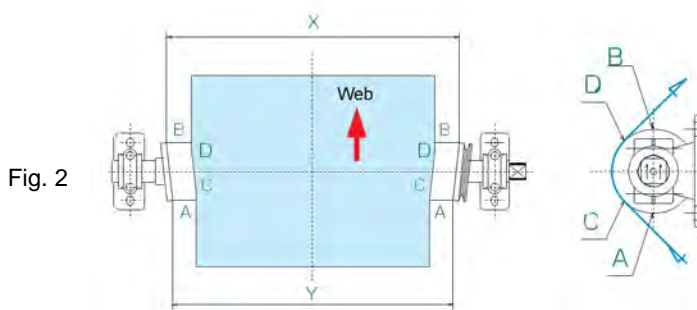
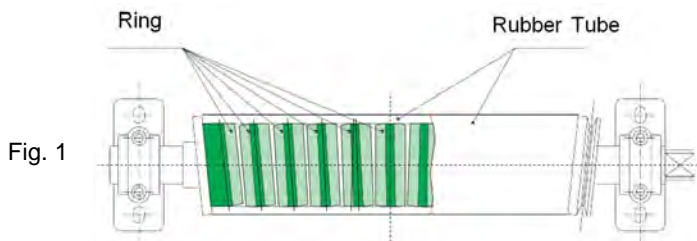
(\*3) Also available specially specified MRV rollers for vacuum environments

Please contact Izumi International, Inc. for special requirements

## Crease Removing Principle

Figure 1: Miravo roller: MRV-This type is a non-bow rubber covered expander. The inner part consists of multiple inclined bearings. This inclination expands the rubber covering during rotation, thus expands the web. This unit can be used for high-speed applications, and also is compatible with very thin ( a few microns) material.

Figure 2: At A point, rubber tube is contracted and at point B, it is expanded. As the roller rotates, the web wound on the roller at point C is spread through point D. This is how the creases can be removed.



Max. Rubber expansion = X-Y

## Characteristics of Available Materials

	EPT (Black / White)	NBR (Black / White)	Silicone
Max. operation temperature	120°C (*)	100°C (*)	150°C (*)
Residual strain tolerance	Good	Good	Excellent
Wear resistance	Excellent	Good	Fair
Tensile strength	Excellent	Good	Fair
Electrical conductivity	Excellent	Excellent	X
Oil resistance	X	Excellent	Fair
Water resistance	Excellent	Excellent	Excellent
Alkali resistance	Excellent	Excellent	Excellent
Acid resistance	Excellent	Good	X
Ozone resistance	Excellent	Fair	Excellent

(\*) This is the heat resistance temperature of rubber tube itself. Recommended to use MRV rollers at 80°C or below if long life operation is required.