

# ROLLER COVERINGS

Meeting The Exact Demands  
for Printing & Industrial Use.



<http://www.verstaerkerrolle.com>

<http://www.print-roller.com>



We produce roller coverings  
for all types of printing machines

- Sheetfed
- Web
- Continuous
- Letter Press
- Exchange on these machine models:
  - Heidelberg
  - Roland
  - Komori and
  - Mitsubishi Machines etc.



### Contact us for a quotation

We pride ourselves on our competitive pricing and our fast turnaround, while maintaining the highest quality.



威德嘉(馬)有限公司

**VERSTAERKER.ROLLE (M) SDN BHD** (185136-T)

**Print-Roller Manufacturing (M) Sdn Bhd** (473904 X)

**Polythane Supplies (M) Sdn Bhd** (473440 U)

Lot 40, Jalan P10/16, Taman Industri Selaman, 43650 Bandar Baru Bangi, Selangor, Malaysia.

Tel: 603-8926 9888 | Fax: 603-8926 9688 | Email: info@verstaerkerrolle.com, info@print-roller.com

No. 72 Ground Floor, Lebuhraya Kapal, Chain Ferry Complex, 12100, Butterworth, Penang, Malaysia.

Tel: 604-3311 282 | Fax: 604-3311 282



# Company profile

Verstaerker Rolle (M) Sdn Bhd has been established since 1989. From humble beginnings, we are proud to have progressed into one of the leading suppliers of rubber rollers in Malaysia. Production of rubber rollers has increased many folds since, in line with our growth and expansion. Currently Verstaerker Rolle (M) Sdn Bhd has a workforce of about 100 personnel.

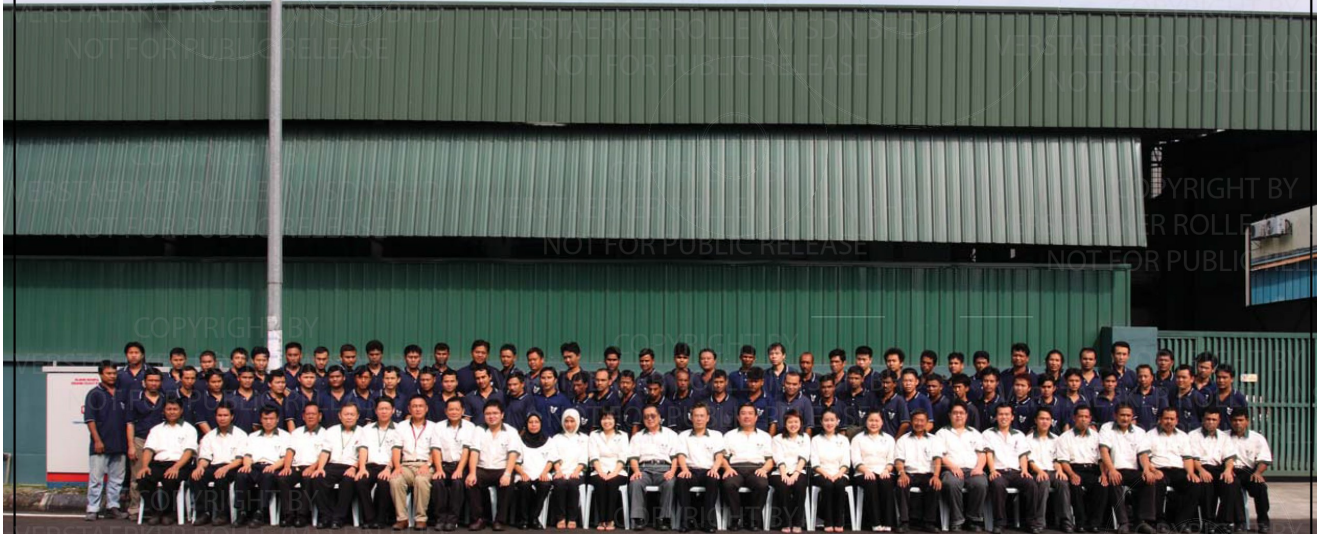
Our main activity is the manufacture of natural and synthetic rubber rollers for use in various industries. A greater part of our sales effort is concentrated in the paper printing industries, as this industry uses a great quantity of rollers that must be of high precision and quality.

Our knowledge and understanding of various polymers has also led us to diversify into the production of moulded rubber parts to fulfill the different needs and applications required by many industries.

Polyurethane material has outstanding properties which have led to increased usage by all industries. Due to this, the production of castable polyurethane products was started 10 years ago through our subsidiary company, Polythane Supplies (M) Sdn Bhd.

As customer satisfaction is our never ending focus, everything is done with their current and future requirements in mind, continuous efforts are made to improve and maintain the highest quality. We are also happy to advise customers who seek our knowledge and experience to improve productivity.

To sum it all up, our mission is to manufacture rubber rollers of the highest quality in order to ensure the happiness of our main priority - our customers.



# Offset Lithographic Printing Rollers

We manufacture high quality rubber rollers for sheet fed and web presses. These rollers offer savings in the long run on roller replacement and maintenance costs.

These rollers have a long service life and are glaze resistant while maintaining the flexibility of rubber for a longer time thus requiring less roller replacement.

They are dimensionally stable with excellent ink transferability. The rollers also maintain nip-width for much longer which means that time is saved on resetting which in turn reduces downtime and operating costs.

These advantages mean our rollers give you precise and even transfer of ink and dampening solutions, resulting in excellent and consistent printing requiring only minor adjustments. This enables you to keep the presses running longer with optimum printing results.

Our web press rollers are designed to withstand the extreme demands that newspaper and web presses subject them to. They resist shrinking caused by soy-based inks, meaning that they can run longer without the need for resetting. Other excellent characteristics include low heat build-up, superior ink transferability, abrasion resistant and less deterioration with age. They also deliver the precision necessary for colour printing which is becoming increasingly common in newspapers.

To put it simply, our rollers lower overall costs. This is due to the fact that they last longer, require less change and maintenance, fewer adjustments and resetting, deliver good results even after extended use, easy to clean, and able to perform millions of impressions.



## Other Rubber Parts

### Types of rubber

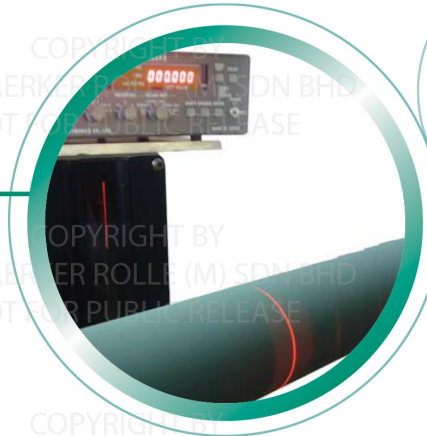
- Natural Rubber
- Styrene Butadiene Rubber
- Nitrile Rubber
- Neoprene Rubber
- Nitrile PVC
- EPDM
- Silicone
- Polyurethane
- Viton
- Butyl





## Quality Control

In order to produce a stabilized product and make necessary improvements, we have a system of total quality control that inspects the product beginning with the base materials used in the final product.

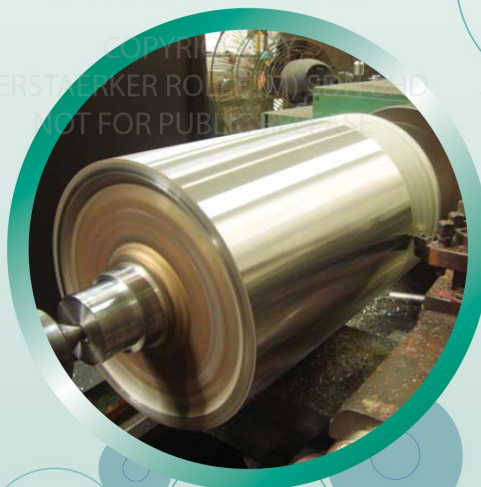


## Roughness Tester

Roughness tester to confirm a surface's suitability for its function, to measure the hills and valleys of the surface undulation. Surface measurement using the international standard of Ra or Rz.

## Grinding/Finishing

Your rollers are precision ground within the exact limits for diameter concentricity and straightness.



## Repair & New Core Fabrication






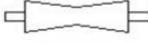







With an in-house, full service machine shop, we have the technology and resources to handle jobs from a simple journal repair to the fabrication of a new core. Rapid response to roller repairs and rubber cover recoating to provide on time delivery is our commitment to our customers.

# CNC- Grinding/ Groove Machine

With specialized digital-controlled software, this CNC machine can make many types of roller profiles.

For instance, parabolic crowning and concave, cosine crowning and concave, circular, cone, coarse pitch, herringbone, diamond, straight groove, horizontal groove and others.



GROOVING:	GRINDING:
Chevron 	Straight 
Herring Bone 	Convex 
Spiral 	Concave (Parabolic) 
Step and Plunge 	Tapered Ends 
Ruling 	Double Tapered 
Spreader 	Full Tapered 
Diamond/Serrated 	

## Dynamic Balancing



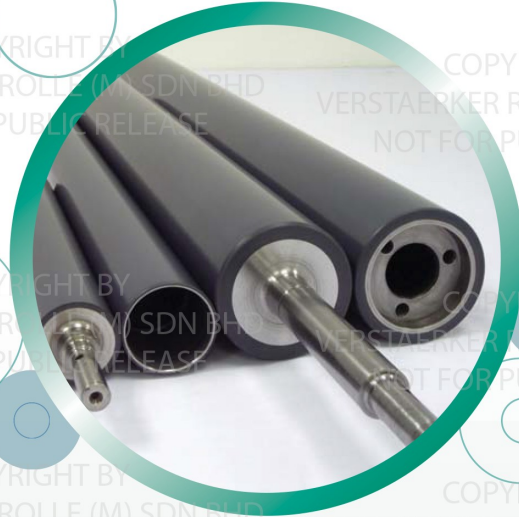
Verstaerker Rolle recently installed a dynamic balancing system, increasing our roller service capabilities even further.

Detailed balancing reports recording both initial and final balance readings are produced as a finished document for quality system requirements.

- Balancing Capacity**
- Max Diameter : 1500mm**
- Max Length : 4000mm**
- Max Weight : 500kg**



# RILSAN Rollers



Rilsan Fine Powder coated rollers resist heavy abrasion and attack from solvent and inks. The mechanical and chemical resistant properties of Rilsan Fine Powder increase the service life of rollers used in newspaper and other printing presses.



## Coating characteristics

- Excellent corrosion resistance
- High impact resistance
- Electrical insulation
- Abrasion resistance  
Taber test: 12mg after 1000 cycles (Wheel CS 17, load 1 kg (ISO 9352))
- Hardness  
Shore D:75 (ISO868)
- Surface aspect  
Roughness: 2-4µm variations after machining
- Low friction  
Coefficient of friction (NFT 54-112)  
Static K : 0,15 to 0,3  
Dynamic K: 0, 05 to 0, 2
- Resistance to inks and ink solvents
- Compatibility with food products
- Good hygienic properties
- Long service life
- Easy to clean

# Folding Rollers

## For folding machines

MBO, Stahl, H & H, Shoei etc

## Other characteristics

- High bond strength
- Concentricity
- Straightness

## Polyurethane material with these properties:

- Extremely high wear resistance
- Excellent resistance to tear
- Excellent oil and fuel resistance
- Heat resistance up to 140°C
- Outwear other rubber by factor of 10 to 1



# VR Eco

**Rubber Inking Rollers for Offset Printing using various types of Vegetable Ink, Soy Ink, Non- Aromatic Ink.**

- **Excellent dimensional stability with environmentally friendly ink**
- **Minimal hardness increase**
- **Glaze resistance**
- **Extraordinary small heat generation even during the high speed runs which lead to:**
  - **Minimal changes of the nip-width**
  - **Smaller changes of ink viscosity**
  - **More Stable printing quality**

### Drying Characteristic Test

**Method: Put the ink which have been kneaded on each material roller and check ink drying hourly.**

**Test Temperature : Room Temperature**

**\*\* Remarks: Level of Drying**

**Beginning** **Dry Completely**

1                    2                    3                    4                    5                    6

**1. Conventional Ink – Aroma Free (Magenta) – Made in Japan**

Material	Beginning	2 hrs	4 hrs	6 hrs	8 hrs	24 hrs
VR Eco	0	1	2	2	3	4
VR	0	1	3	4	4	5

**2. Soy Ink (for multiple color machines/ Magenta) – Made in Japan**

Material	Beginning	2 hrs	4 hrs	6 hrs	8 hrs	24 hrs
VR Eco	0	0	1	2	2	3
VR	0	2	2	2	3	4



# VR UV “UV roller”

**For UV Offset Printing, Label Printing, etc**

- Excellent Ink Transfer
- Excellent Stability
- Less Ink Glazing
- Excellent Dot Reproduction

## Recommended products for UV ink printing

	<b>DP 30 Dual Purpose</b>	<b>UP 30 Dual Purpose</b>	<b>UE 30 UV only</b>
<b>Physical Property</b>	<b>Good</b>	<b>Fair</b>	<b>Good</b>
<b>Resistance to UV ink</b>	<b>Good</b>	<b>Excellent</b>	<b>Good</b>
<b>Resistance to Oil – based ink</b>	<b>Good</b>	<b>Excellent</b>	<b>Bad</b>
<b>Switching from UV – Oil based ink</b>	<b>Break – in time required</b>	<b>Break – in time required</b>	<b>Cannot use with oil – based ink</b>
<b>Aromatic Wash (e.g Toluene)</b>	<b>Good</b>	<b>Excellent</b>	<b>Bad</b>
<b>Aliphatic Wash (e.g. oil)</b>	<b>Excellent</b>	<b>Excellent</b>	<b>Bad</b>
<b>Ester, Ketone Wash</b>	<b>Bad</b>	<b>Bad</b>	<b>Excellent</b>
<b>Alcohol Wash</b>	<b>Good</b>	<b>Good</b>	<b>Excellent</b>
<b>Ink Dryness</b>	<b>Fair</b>	<b>Good</b>	<b>Excellent</b>
<b>Ink Transferability – Lable Printing – Offset Printing</b>	<b>Good Excellent</b>	<b>Excellent Excellent</b>	<b>Good Excellent</b>
<b>Hydrolysis</b>	<b>No</b>	<b>After a certain period</b>	<b>No</b>

# Sigma Eco

Environmentally friendly offset inks ( vegetable ink, Non- aromatic ink, etc.,) generally gives more negative effects to rubber rollers such as;

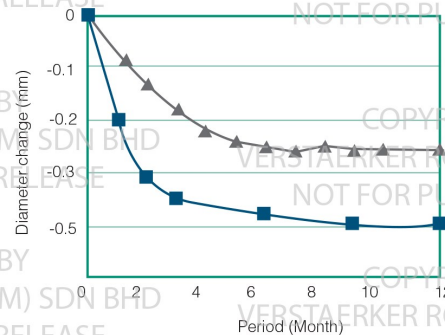
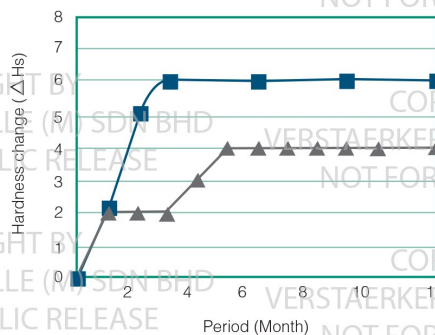
1. Gradual roller shrinkage
2. Frequent nip-width adjustment
3. Short roller life

## DO YOU HAVE THESE PROBLEMS?

Sigma Eco overwhelmingly minimizes such annoying effects because of its outstanding features as follows;

### Features

1. Highly resistant to inks and roller wash, which enables minimal change in diameter and hardness.
2. Minimal heat build-up and Permanent set. It prevents temperature rise of rubber rollers and inks in the press. Less ink-fly and printing quality is more stable.
3. Highly-intensive. Minimal damage on rubber surface which increase durability



▲ Σ ECO30    ■ Σ EKING30



連続給水用ゴムローラ

# ウォーターマンシリーズ“ニューW4”

ノンアルコール用 連続給水ローラ

## WATERMAN Series "NEW W4" Continuous Water Dampening Rollers

Continuous Water Dampening Rollers for Non-alcohol printing

### ウォーターマンシリーズの特長

- 1) 新配合の高親水性付与により、均一で薄い水膜を長期間安定して形成できます。
- 2) 環境対応インキに対して、経時変化が小さいので長期間安定してご使用できます。
- 3) インキガラミ、堆積が少ないので長時間安定して使用できます。
- 4) 水幅が広いので給水量の調整が簡単です。
- 5) 触感がソフトで、版が長持ちします。
- 6) IPA及びエッチ液に対して強い抵抗性があります。

### Features of WATERMAN Series

- 1) An even and thin layer of water is formed for a long period by giving new blend of hydrophilicity.
- 2) As it is hardly aged by eco-friendly inks, you can use it long period stably.
- 3) Less ink fill-in and accumulation to maintain stable, long-term use.
- 4) Easy to adjust the water supply because the water supplied area is wide.
- 5) The soft touch surface provides longer plate life.
- 6) Strong resistance to IPA and fountain solution.

### ウォーターマンシリーズの親水性

#### Hydrophilic properties of WATERMAN Series



### ウォーターマンシリーズの使用上の注意

- ☆通常の印刷では、昼・夕方・印刷終了時の1日3回の洗浄をお勧めします。
- ☆特色インキ(金、銀、蛍光、UVなど)をご使用の場合は、水元(調量)ローラにインキが絡み易く、しかも除去しにくいので、洗浄回数を増やして下さい。
- ☆塩素系溶剤及びケトン類等の極性溶剤のご使用は避けて下さい。

※洗浄には、弊社「ニューマチックグリーンECO」のご使用をお勧め致します。

色 調：濃緑色  
硬 さ：20・25・30

### Care of WATERMAN Series ROLLERS

- In normal printing, we recommend cleaning three times a day: at noon, in the evening, and when finished printing.
- When using special ink colors (e.g. metallic, fluorescent, or UV), the ink tends to adhere on the water fountain (metering) roller, and is not removed easily, so we recommend cleaning this more frequently.
- Do not use chlorine solvents or polarized solvents such as ketone.
- We recommend our NEW MATICLEAN ECO for cleaning.

Color: Dark Green  
Hardness(JIS-A): 20/25/30



# Always be high in quality

**Quality is not something that is naturally born; it is something that is created. We will continue to deliver trusted products that are based upon the highest standard of quality control.**

Our Production activities are based on the philosophy that "Product Quality is Created." It is not something that is naturally born. Quality is created by effectively monitoring closely the production processes from the raw materials to the finished products, and thereby creating a unified system of production. We do our best to take into consideration about demands from our customers as well as feedback from employees in the production process of our products. Since the founding of our company, we have continued to uphold this to the motto "Only deliver to the customer the products that can be trusted." We are more aware than anyone else that this trust is based on the quality of the products that we deliver to our customers.



Working instruction



Material



Compounding



Mixing



Metal Core



Surface Treatment



Compounding



Sheeting



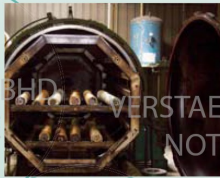
Rubber Build Up



Press Cure



Wrapping



Vulcanisation



Grinding



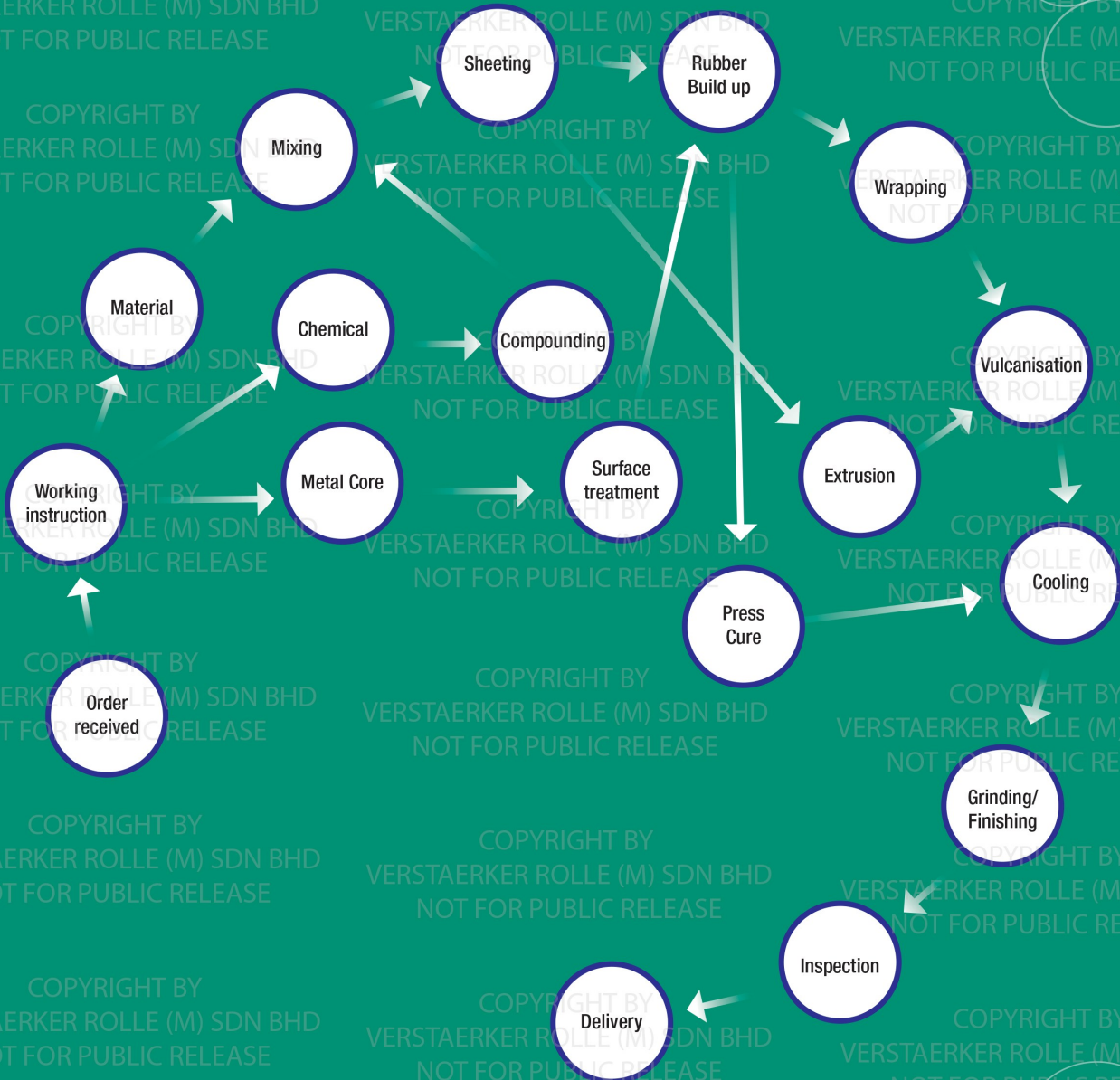
Inspection



Delivery



# Production Process



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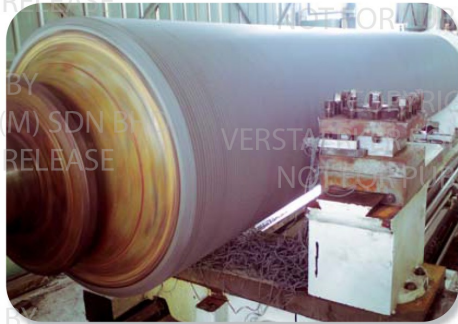
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# Our Products

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Paper Mill Bottom Press Roller



Rilsan Roller



Web Roller



Wood Roller



Grooved Roller



PU Hose



PU Tapered Roller



Silicone Roller

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Tin Plate Printing



Crushless Roller



Guide Roller



Silicone Gasket



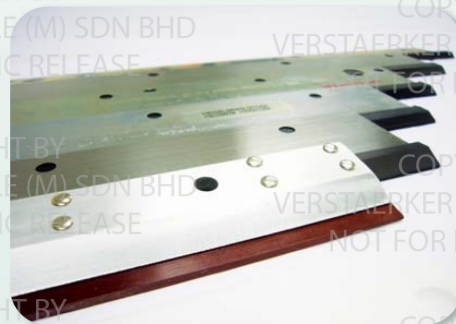
PU Parts



Grooved Tapered Roller



Antistatic Roller



Wash Up Blade

## Examples of Applications:

### STEEL AND METAL INDUSTRY

Varnishing rollers, press rollers, fountain rollers with good homogeneity and constant stability.

### WOOD AND FURNITURE INDUSTRY

Contact rollers, varnish rollers, glue spreading rollers for an even application and a perfect surface finish.

### PAPER INDUSTRY

Couch rollers, wet press rollers, size press rollers, spreader rollers.

### TEXTILE INDUSTRY

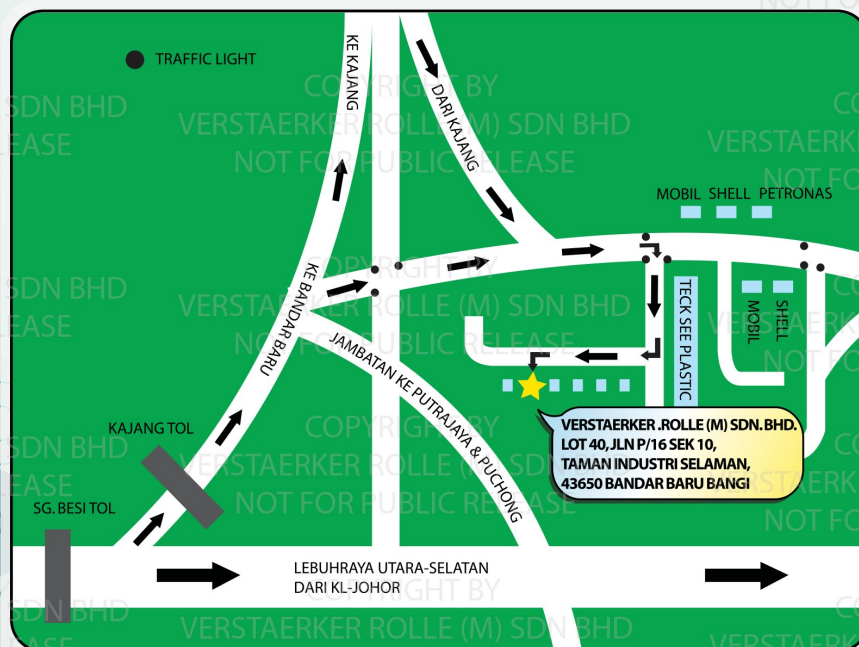
Calender and dyeing rollers, press rollers, spreader rollers.

### PLASTICS INDUSTRY

Back up rollers for embossing, grooving rollers, guide rollers, spreader rollers.

### GENERAL ENGINEERING

Conveyor rollers, driving rollers, lift truck rollers, press rollers, pressure rollers, coating rollers, etc.



GPS location (N 02° 58.813' E 101° 44.827')