Multi-Client Study

Research Proposal

【2024 version of Roller and Roller-related Market Forecast】

"The Latest Trends in the Components Industry Facing Market Maturity"

＝Detailed survey of production and shipment trends in rollers, belts, blades, and other functional parts＝

April 2024

Data Supply Inc.

<Overview>

I. Theme

"The Latest Trends in the Components Industry Facing Market Maturity"

=Detailed survey of production and shipment trends in rollers, belts, blades, and other functional parts=

II. Abstract

The MFP/printer industry is expected to see a slight recovery in 2024 after a sharp fall in shipments of MFPs and printers in 2023 as major manufacturers tried to eliminate excess inventories. However, print volume (PV) in offices remains at 80-90% of 2019 levels and is likely to remain at the current level (or even decline further) for the time being.

The situation continues to be challenging for office machine roller/belt manufacturers. Demand for such components remains well below the pre-pandemic levels due to sluggish sales of MFP and printer hardware and lower PV. High electricity and production costs caused by rising raw material prices are also a major blow to suppliers that takes strength away from them.

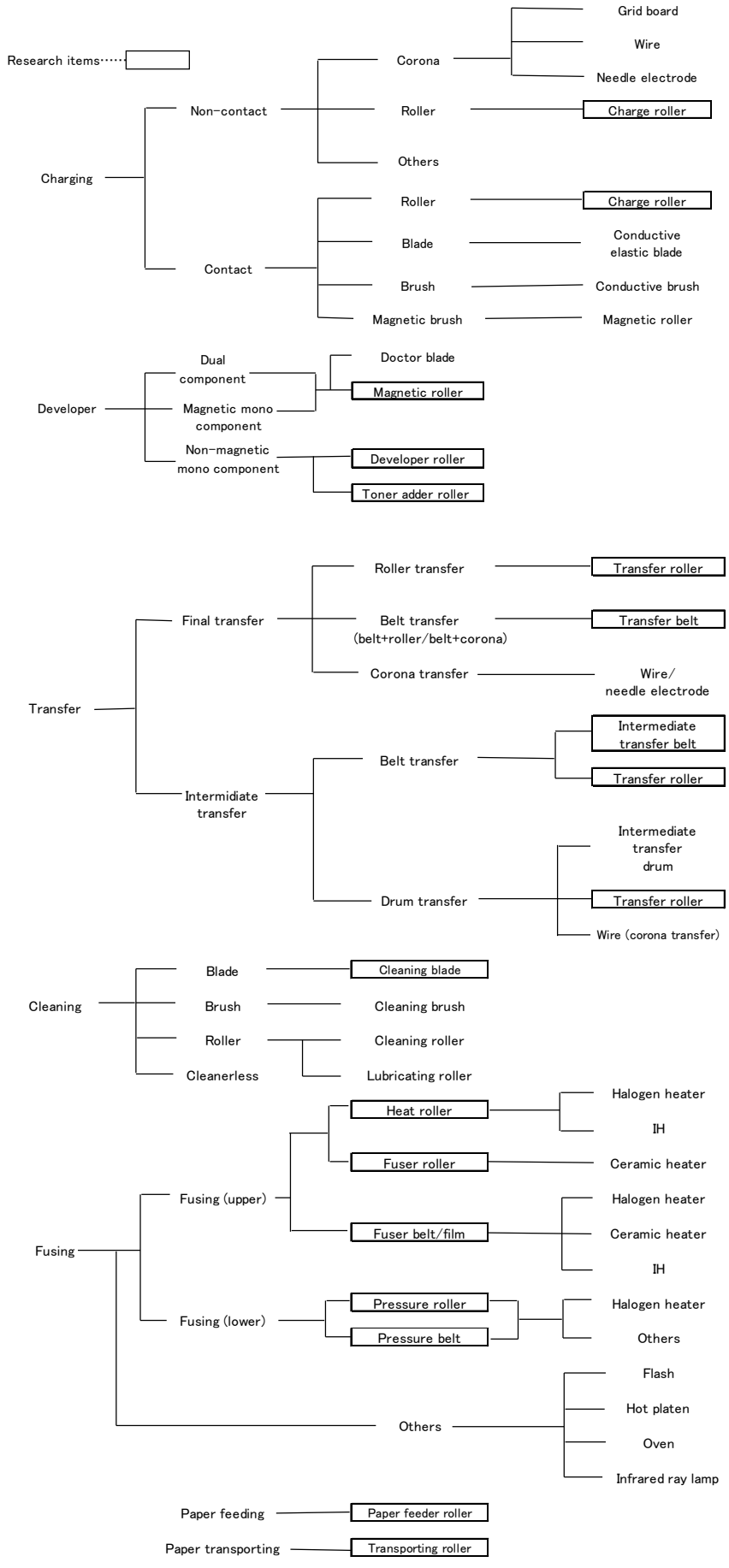
As the entire parts industry is weakening, the roller/belt manufacturers are forced to concentrate and select their businesses. In the past few years, Kaneka (2021), Bridgestone (2022), Hitachi Metals (2022) left the market permanently. While many others choose to keep their roller business, they partially ended the development and production of some unprofitable components. As machine makers, such as Ricoh and Toshiba TEC, have agreed to integrate their development and production to accelerate the industry reorganization, it is quite possible that parts makers will follow suit.

Since the electrophotographic technology consists of multiple key functional components, **the restructuring of such components manufacturers could shake the very foundation of the industry**. While the machine makers are required to review excessive price pressure they put on parts manufacturers, they are also trying to see which parts suppliers have the true strength to survive this difficult time and demonstrate a good balance between quality and cost.

The latest report surveys and analyzes the current landscape and future strategies of Japanese and overseas specialized as well as in-house manufacturers in terms of process component, such as charging, development, transfer, fusing, cleaning, and paper feeding/transporting. **This is the 19th publication of the Roller and Roller-related Component Market Forecast**. We will remain committed and continue to survey and analyze future trends in the industry from a professional and objective perspective beyond just general viewpoints. We hope that this report will be helpful to industry stakeholders working to develop their future strategies.

III. Items and Makers

1. Items



2. Makers
2-1. Roller specialist makers
Japanese makers **(32)** / South Korean makers **(9)** / Chinese makers **(48)** / Hong-Kong makers **(1)** / Taiwanese makers **(2)** / others **(6)** / In-house makers **(5)** **(103 makers in total)**
2-2. Hardware machine makers **(major 15 makers)**
MFP makers / Printer makers

IV. Target Years and Research Methodology
1. Target years
From 2021 to 2027
2. Research methodology
1) On-site and in-person interviews with target makers (including web-based surveys)
2) Analysis and review of open literatures, materials, statistics, and other sources
3) Analysis of Data Supply's own proprietary database

V. Research Form, Research Period, and Others
1. Research form: Multi-client study
2. Research period: March and April 2024
3. Publication date: **June 7, 2024**
(Japanese version will be published on April 25, 2024)
4. Report format: PDF format
5. Price: **$5,000-**
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7. How to purchase:
Please contact the researchers above or Data Supply Inc. at <infods@datasupply.jp>

VI. Items to Be Covered

VI-1. Comprehensive Analysis

1. Market trend by component

1-1. Shipment volume/shipment value by maker (specialist and in-house) (2021-2027)

1-2. Market trend by application (monochrome PPC/printer and color PPC/printer) and by size (A3/A4) (2023/2027)

1-3. Market trend by material
Shipment volume/shipment value

1-4. Technological and material trend by component

1-5. Component suppliers for production printers and wide-format printers

1-6. Price trend/product life cycle

1-7. Supply destinations

1-8. Production bases by component and maker

1-9. Sales classification of electrophotographic rollers and other rollers (inkjet/ATM, etc.)

2. Rollers and roller-related component makers

3. The number of components used in a hardware machine

4. Makers' latest trend by process (monochrome machine/color machine)

Charging/exposure/developer/transfer/fuser/cleaning

5. Shipment volume of hardware machines by maker (2023)

1) Copiers (monochrome/color)
(1) Hardware machine with dual component developer
(2) Hardware machine with magnetic mono component developer

2) Laser/LED printers (monochrome/color)
(1) Hardware machine with dual component developer
(2) Hardware machine with non-magnetic mono component developer
(3) Hardware machine with magnetic mono component developer

3) Production printers (monochrome/color)
(1) Hardware machine with dual component developer
(2) Hardware machine with magnetic mono component developer

4) Fax
(1) Hardware machine with dual component developer
(2) Hardware machine with non-magnetic mono component developer
(3) Hardware machine with magnetic mono component developer

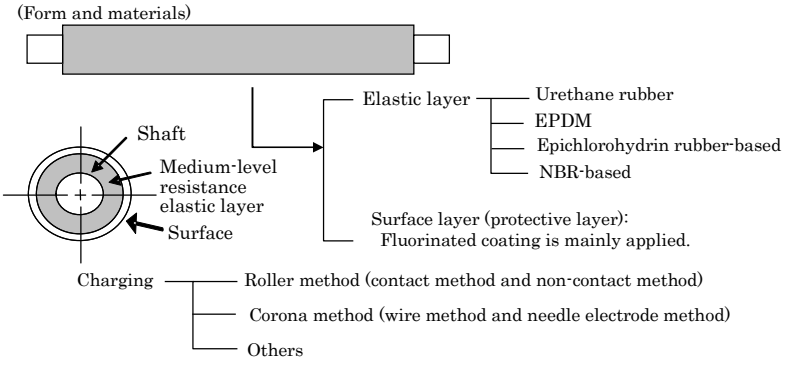
6. Hardware machine makers' and component makers' production bases in China and Southeast Asia (listed)

VI-2. Component Market

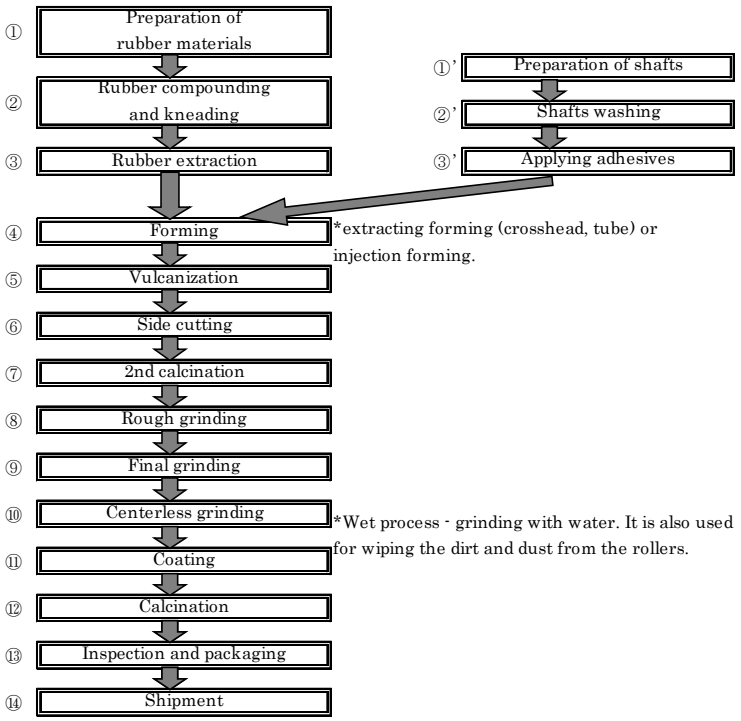
[1] Charge roller market (7 specialist makers, 2 in-house makers, and a dozen others)

- Market status: **2022 shipment volume was down 9% year on year.**
- Materials: Epichlorohydrin rubber, EPDM, and urethane rubber among others.
- Development theme: Maintaining of chargeability, release properties of the toner, and cost reduction

1. Component structure (illustration)/ 2. Manufacturing process (illustration)/ 3. Changes in shipment volume and shipment value by maker (2021-2027) 1) Genuine component market 2) Third-party component market/ 4. Changes in shipment volume and shipment value (2021-2027) by application (monochrome and color) and by size (A4/A3)/ 5. Shipment trend for production printers (volume and value)/ 6. Changes in shipment volume and shipment value by material (2021-2027) 1) EPDM 2) Epichlorohydrin rubber-based 3) Urethane rubber 4) NBR-based/ 7. Trend of charge roller's technology and materials 1) Layer structure 2) Control method of electric resistance 3) Future trend of materials/ 8. Price trend, life cycle, and manufacturing method of charge rollers/ 9. Supply destinations of charge rollers (Japan and overseas)/ 10. Trend of charge roller's production bases (Japan and overseas)



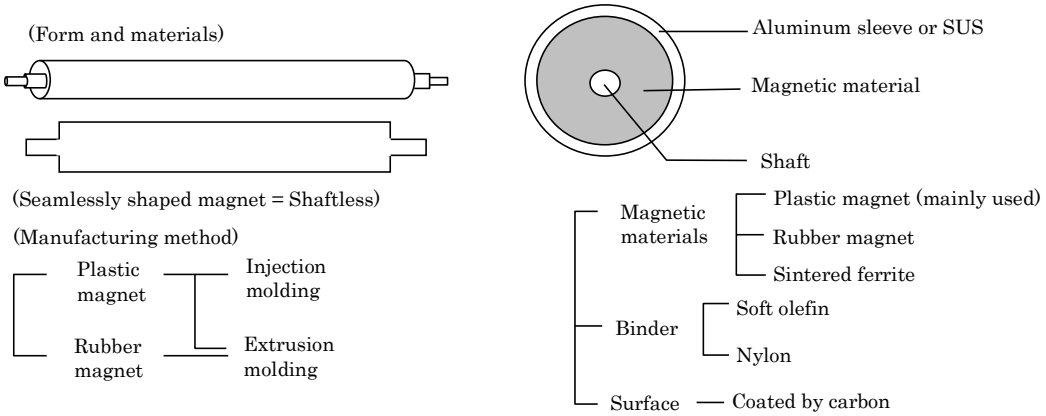
Manufacturing process of the charge roller



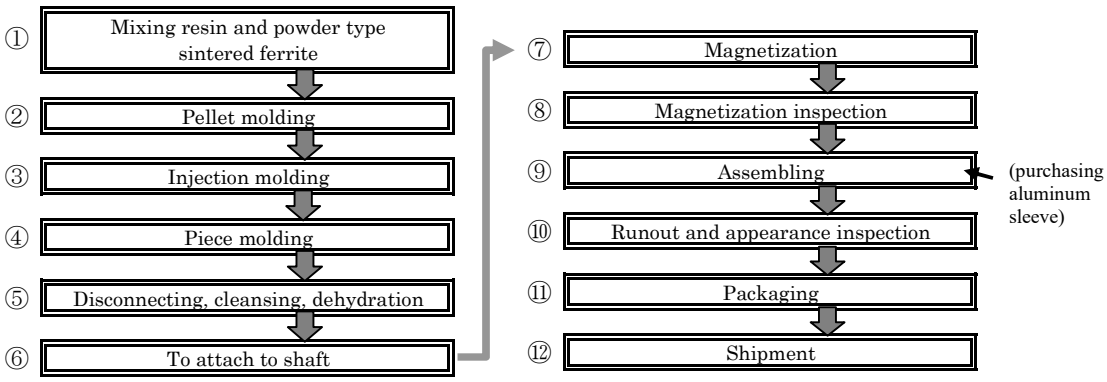
[2] Magnetic roller market (5 specialist makers, 3 in-house makers, and a dozen others)

・Market status: **2022 shipment volume was down 4.9% year on year.**
・Materials: Plastic magnet is mainly used. Materials for plastic and rubber magnets are mixed and used together.

1. Component structure (illustration)/ 2. Manufacturing process (illustration)/ 3. Changes in shipment volume and shipment value by maker (2021-2027) 1) Genuine component market 2) Third-party component market/ 4. Changes in shipment volume and shipment value (2021-2027) by application (monochrome and color) and by size (A4/A3)/ 5. Shipment trend for production printers (volume and value)/ 6. Changes in shipment volume and shipment value by material (2021-2027) 1) Plastic magnet 2) Rubber magnet 3) Sintered ferrite 4) Combined types/ 7. Trend of magnetic roller's technology and materials 1) Magnetic materials 2) Binder 3) Sleeves 4) Future trend of materials/ 8. Price trend and manufacturing method of magnetic rollers/ 9. Supply destinations of magnetic rollers (Japan and overseas)/ 10. Trend of magnetic roller's production bases (Japan and overseas)



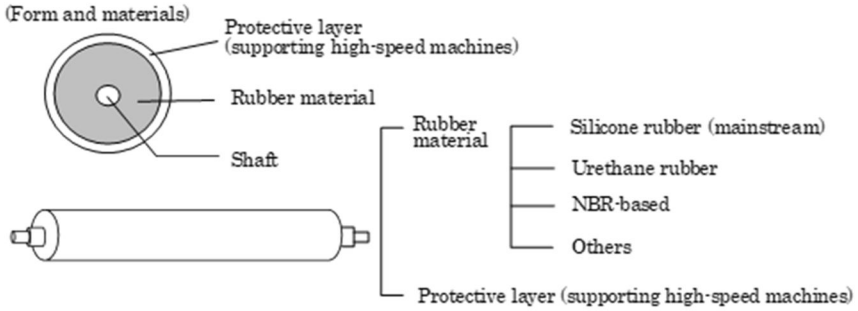
Manufacturing process of the magnetic developer roller (shaft attaching type)



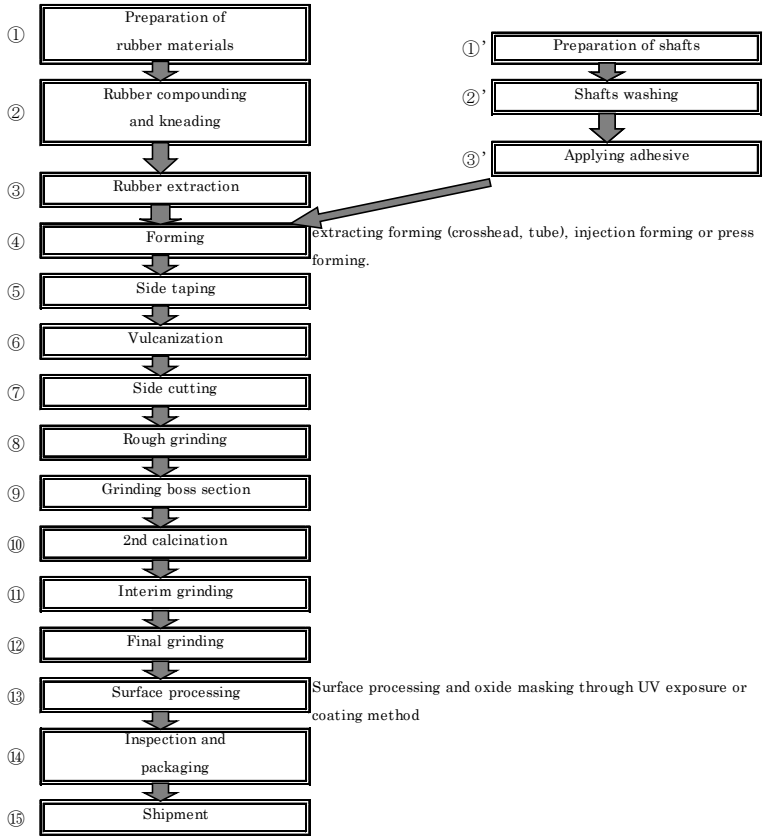
[3] Developer roller market (11 specialist makers, 2 in-house maker, and several others)

- Market status: **2022 shipment volume was down 4.4% year on year.**
- Materials: Silicone rubber, urethane rubber, and NBR among others.

1. Component structure (illustration)/ 2. Manufacturing process (illustration)/ 3. Changes in shipment volume and shipment value by maker (2021-2027) 1) Genuine component market 2) Third-party component market/ 4. Changes in shipment volume and shipment value (2021-2027) by application (monochrome and color) and by size (A4/A3)/ 5. Shipment trend for production printers (volume and value)/ 6. Changes in shipment volume and shipment value by material (2021-2027) 1) Silicone rubber 2) Urethane rubber 3) NBR-based/ 7. Trend of developer roller's technology and materials 1) Support for high-speed printing 2) Future trend of materials/ 8. Price trend, life cycle, and manufacturing method of developer rollers/ 9. Supply destinations of developer rollers (Japan and overseas)/ 10. Trend of developer roller's production bases (Japan and overseas)



Manufacturing process of the developer roller

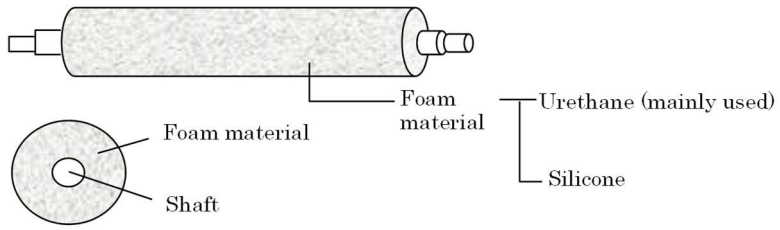


[4] Toner adder roller market (8 specialist makers, 1 in-house maker, and more than 10 others)

- Market status: **2022 shipment volume was down 2.9% year on year.**
- Materials: Urethane foam

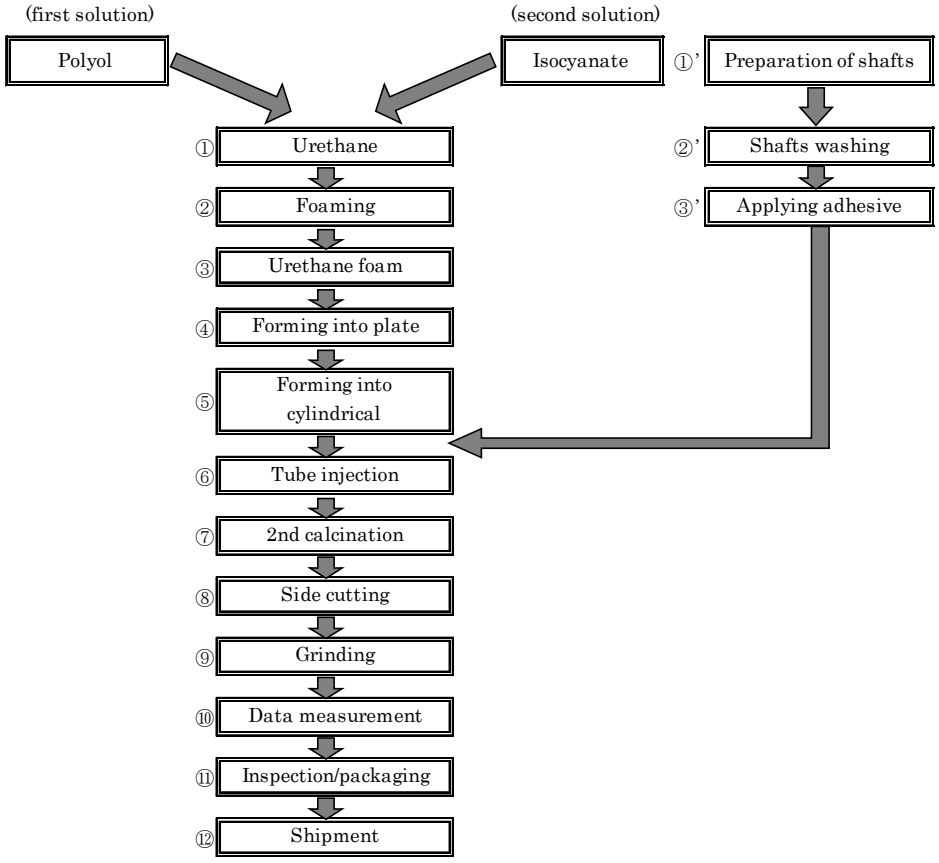
1. Component structure (illustration)/ 2. Manufacturing process (illustration)/ 3. Changes in shipment volume and shipment value by maker (2021-2027) 1) Genuine component market 2) Third-party component market/ 4. Changes in shipment volume and shipment value (2021-2027) by application (monochrome and color) and by size (A4/A3)/ 5. Shipment trend for production printers (volume and value)/ 6. Changes in shipment volume and shipment value by material (2021-2027) 1) Urethane form 2) Silicone form/ 7. Trend of toner adder roller's technology and materials 1) Support for high-speed printing 2) Future trend of materials/ 8. Price trend and life cycle of toner adder rollers/ 9. Supply destinations of toner adder rollers (Japan and overseas)/ 10. Trend of toner adder roller's production bases (Japan and overseas)

(Form and materials)



*It is used for printers running a non-magnetic mono-component system.

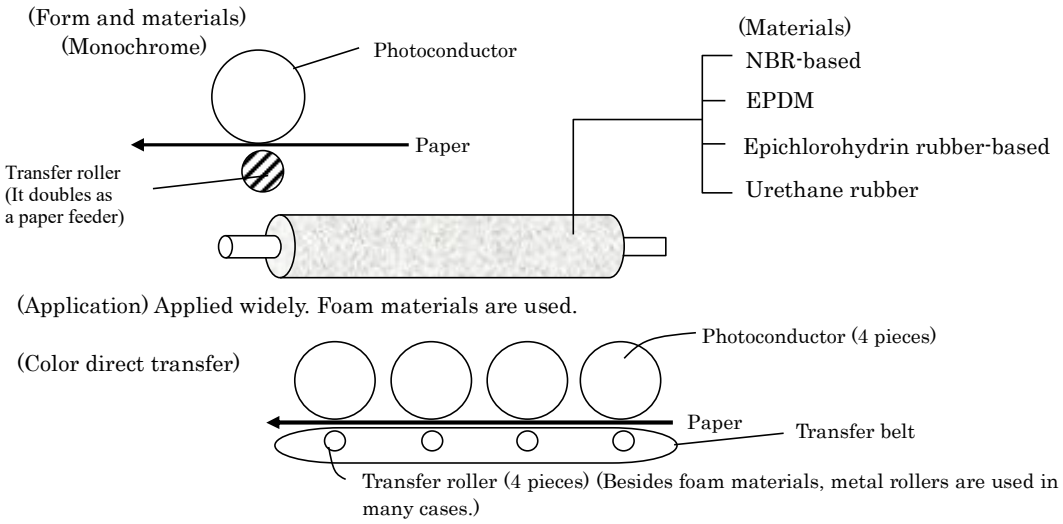
Manufacturing process of the toner adder roller (urethane foam)



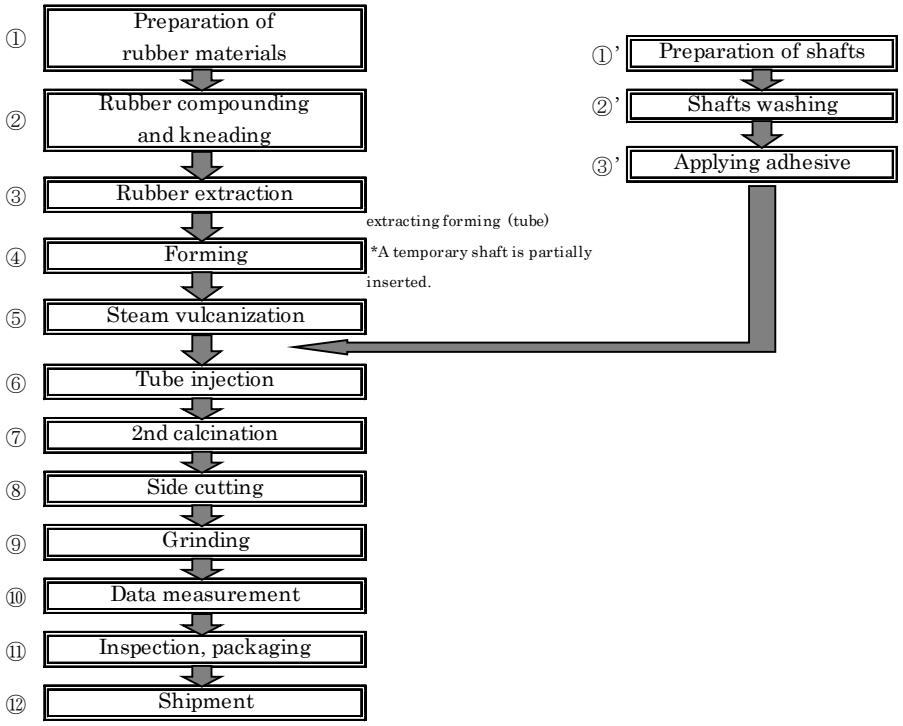
[5] Transfer roller market (10 specialist makers, 0 in-house maker, and a dozen others)
(including the first and second transfer)

- Market status: **2022 shipment volume was up 0.2% year on year.**
- Materials: NBR, epichlorohydrin rubber, urethane rubber, and EPDM.

1. Component structure (illustration)/ 2. Manufacturing process (illustration)/ 3. Changes in shipment volume and shipment value by maker (2021-2027) 1) Genuine component market 2) Third-party component market/ 4. Changes in shipment volume and shipment value (2021-2027) by application (monochrome and color) and by size (A4/A3)/ 5. Shipment trend for production printers (volume and value)/ 6. Changes in shipment volume and shipment value by material (2021-2027) 1) NBR-based 2) Epichlorohydrin rubber-based 3) Urethane rubber 4) EPDM/ 7. Trend of transfer roller's technology and materials/ 8. Price trend, life cycle, and manufacturing method of transfer rollers (first transfer/second transfer)/ 9. Supply destinations of transfer rollers (Japan and overseas)/ 10. Trend of transfer roller's production bases (Japan and overseas)



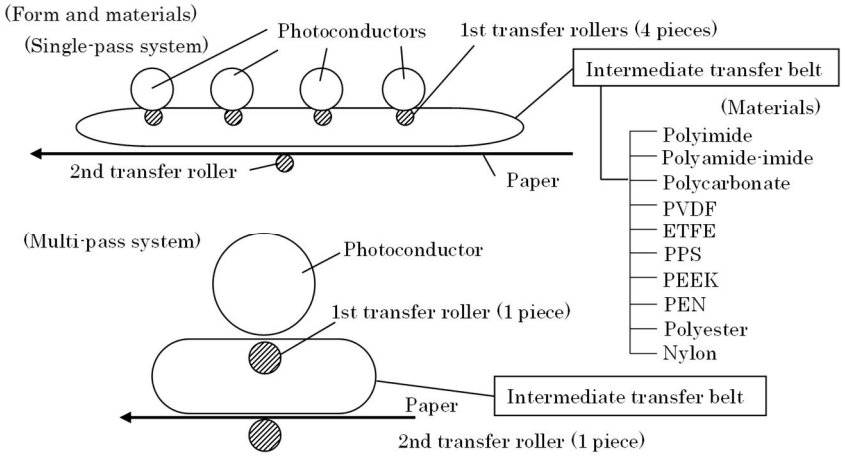
Manufacturing process of the transfer roller



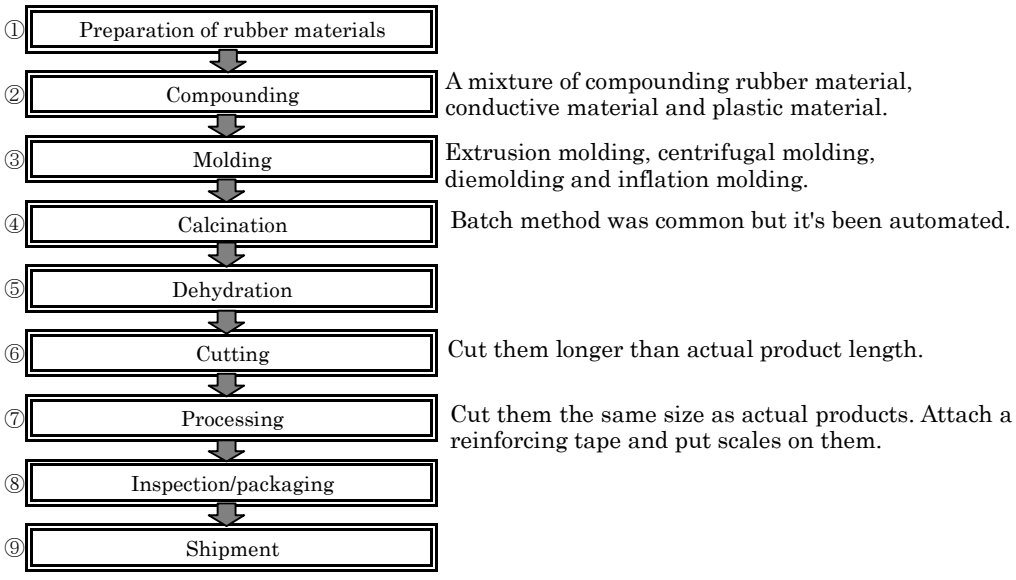
[6] Intermediate transfer belt market (7 specialist makers and 4 in-house makers)

・Market status: **2022 shipment volume was up 3.9% year on year.**
・Materials: PI, PAI, PEN, and PET among others.

1. Component structure (illustration)/ 2. Manufacturing process (illustration)/ 3. Changes in shipment volume and shipment value by maker (2021-2027) 1) Genuine component market 2) Third-party component market/ 4. Changes in shipment volume and shipment value (2021-2027) by application (monochrome and color) and by size (A4/A3)/ 5. Shipment trend for production printers (volume and value)/ 6. Changes in shipment volume and shipment value by material (2021-2027) 1) Polyimide 2) Polyamide-imide 3) Polycarbonate 4) ETFE 5) PPS 6) PVDF 7) PEEK 8) Polyester 9) Others/ 7. Trend of intermediate transfer belt's technology and materials 1) Base materials 2) Surface materials 3) Future trend of materials/ 8. Price trend, life cycle, and manufacturing method of intermediate transfer belts/ 9. Supply destinations of intermediate transfer belts (Japan and overseas)/ 10. Trend of intermediate transfer belt's production bases (Japan and overseas)



Manufacturing process of the intermediate transfer belt



[7] Heat roller market (7 specialist makers, 1 in-house maker, and more than 20 others)

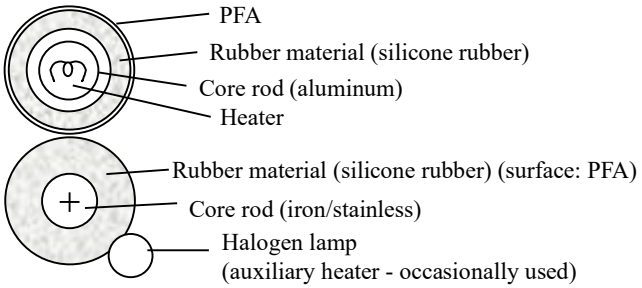
- Market status: **2022 shipment volume was up 7% year on year.**
- Materials: There are two types: one is a hard roller using fluorinated treatment on the core rod and the other is a soft roller using a silicone rubber and fluorinated treatment on the core rod.

1. Component structure (illustration)/ 2. Manufacturing process (illustration)/ 3. Changes in shipment volume and shipment value by maker (2021-2027) 1) Genuine component market 2) Third-party component market/ 4. Changes in shipment volume and shipment value (2021-2027) by application (monochrome and color) and by size (A4/A3)/ 5. Shipment trend for production printers (volume and value)/ 6. Changes in shipment volume and shipment value by material (2021-2027) 1) Hard rollers (PFA/PTFE) 2) Soft rollers (silicone rubber+PFA)/ 7. Trend of heat roller's technology and materials 1) Sleeves 2) Surface materials 3) Support for soft rollers used for color machines 4) Support for belt fusing 5) Future trend of materials/ 8. Price trend and life cycle of heat rollers/ 9. Supply destinations of heat rollers (Japan and overseas)/ 10. Trend of heat roller's production bases (Japan and overseas)

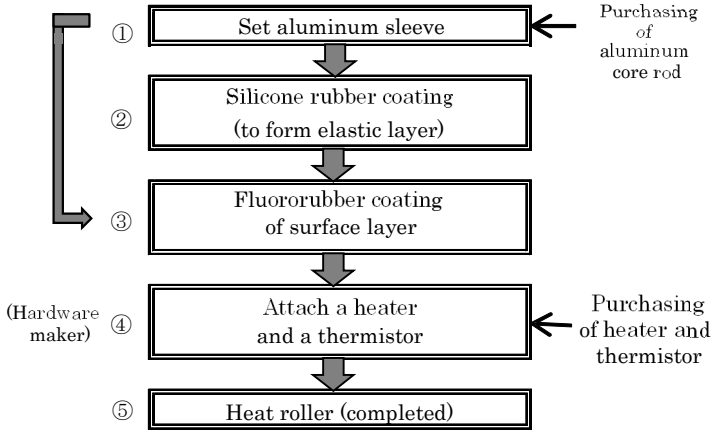
<Form and materials>
Heat roller + pressure roller

(Application)
*Brother Industries "MFC-L3780CDW"
*HP "Laser 1003a"
*Kyocera DS "ECOSYS PA2000"

<Number of pieces>
Upper and lower side: 1 piece per unit



Manufacturing process of the heat roller

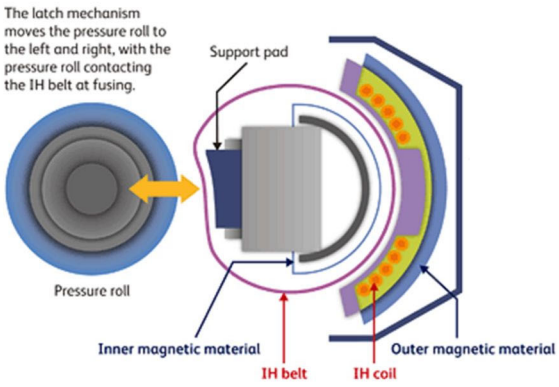


[8] Fuser belt (film) market (8 specialist makers, 3 in-house makers, and a dozen others)

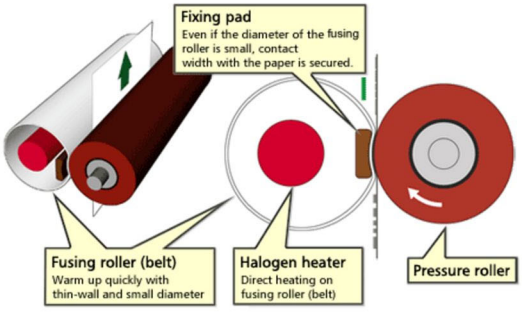
- Market status: **2022 shipment volume was down 2.5% year on year.**
- Materials: Polyimide, nickel, and SUS.

1. Component structure (illustration)/ 2. Manufacturing process (illustration)/ 3. Changes in shipment volume and shipment value by maker (2021-2027) 1) Genuine component market 2) Third-party component market/ 4. Changes in shipment volume and shipment value (2021-2027) by application (monochrome and color) and by size (A4/A3)/ 5. Shipment trend for production printers (volume and value)/ 6. Changes in shipment volume and shipment value by material (2021-2027) 1) Polyimide 2) Nickel 3) SUS 4) Others/ 7. Trend of technology and materials 1) Base materials 2) Surface treatment 3) Support for color machines 4) Future trend of materials/ 8. Price trend and life cycle of fuser belts/ 9. Supply destinations of fuser belts (Japan and overseas)/ 10. Trend of fuser belt's production bases (Japan and overseas)

1 Axis type

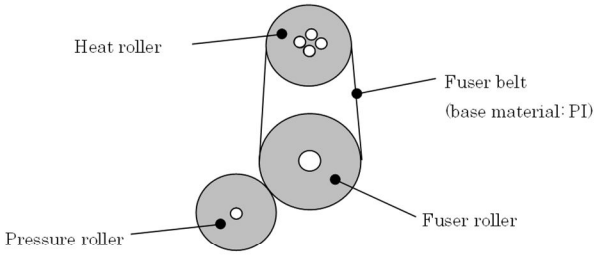


FUJIFILM BI "Apeos C6570"

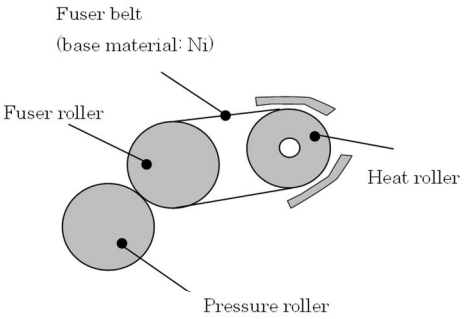


Ricoh "ROCOH IM C6010"

2 Axis type

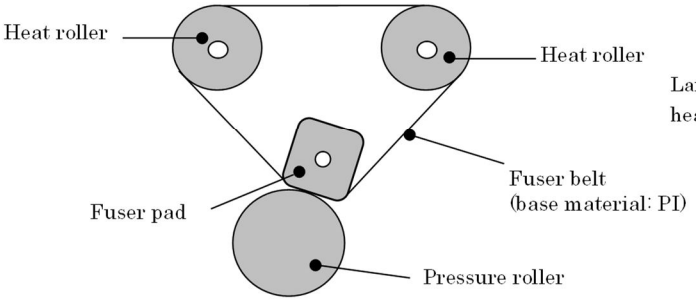


Konica Minolta "AccurioPress C4080"

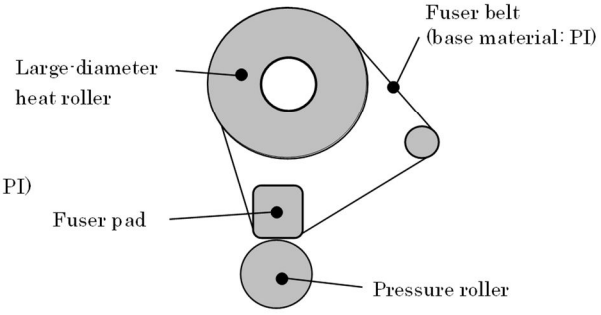


Ricoh "RICOH Pro C7500"

3 Axis type



FUJIFILM BI "Versant 4100"



Canon "imagePRESS V1350"

[9] Pressure roller/belt market (12 specialist makers, 0 in-house makers, and a dozen others)

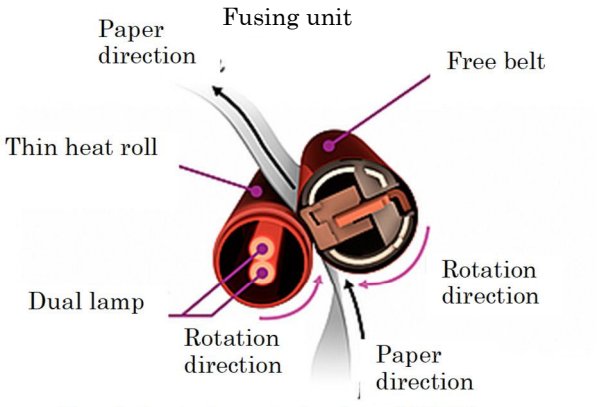
- Market status (pressure roller): **2022 shipment volume was down 1% year on year.**
- Materials: Silicone rubber. The surface layer is treated with fluorine.
- Market status (pressure belt): **2022 shipment volume was up 5.9% year on year.**
- Materials: Polyimide and PEEK. The surface layer is treated with fluorine.

1. Component structure (illustration)/ 2. Manufacturing process (illustration)/ 3. Changes in shipment volume and shipment value by maker (2021-2027) 1) Genuine component market 2) Third-party component market/ 4. Changes in shipment volume and shipment value (2021-2027) by application (monochrome and color) and by size (A4/A3)/ 5. Shipment trend for production printers (volume and value)/ 6. Changes in shipment volume and shipment value by material (2021-2027) 1) Silicone rubber+PFA/ Others (pressure rollers) 2) Polyimide (pressure belts)/ 7. Trend of technology and materials of pressure rollers 1) Layer structure 2) Support for heater-equipped machines 3) Future trend of materials/ 8. Trend of technology and materials of pressure belts 1) Base materials 2) Surface materials 3) Future trend of materials/ 9. Price trend, life cycle, and manufacturing method of pressure rollers and belts/ 10. Supply destinations of pressure rollers and belts (Japan and overseas)/ 12. Trend of pressure roller and belt's production bases (Japan and overseas)

Heat roller + pressure belt

(Application)
*FUJIFILM BI "ApeosPrint C4030"
*Konica Minolta "bizhub 4750i"

<Number of pieces>
Upper and lower side: 1 piece per unit

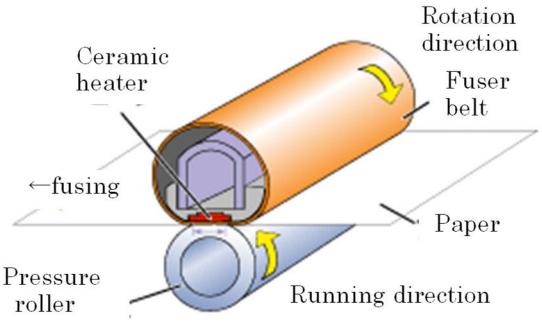


Free belt nip fuser technology (FBNF)

Fuser film + pressure roller

(Application)
*HP "Color LaserJet Pro 4201dn"
*Lexmark "CS531dw"

<Number of pieces>
Upper and lower side: 1 piece per unit



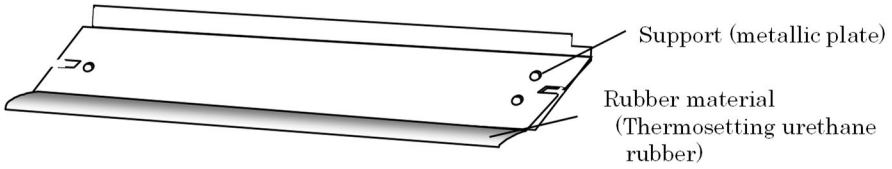
[10] Cleaning blade market (7 specialist makers, 1 in-house maker, and a dozen others)

・Market status: **2022 shipment volume was down 5% year on year.**
・Materials: Polyurethane rubber

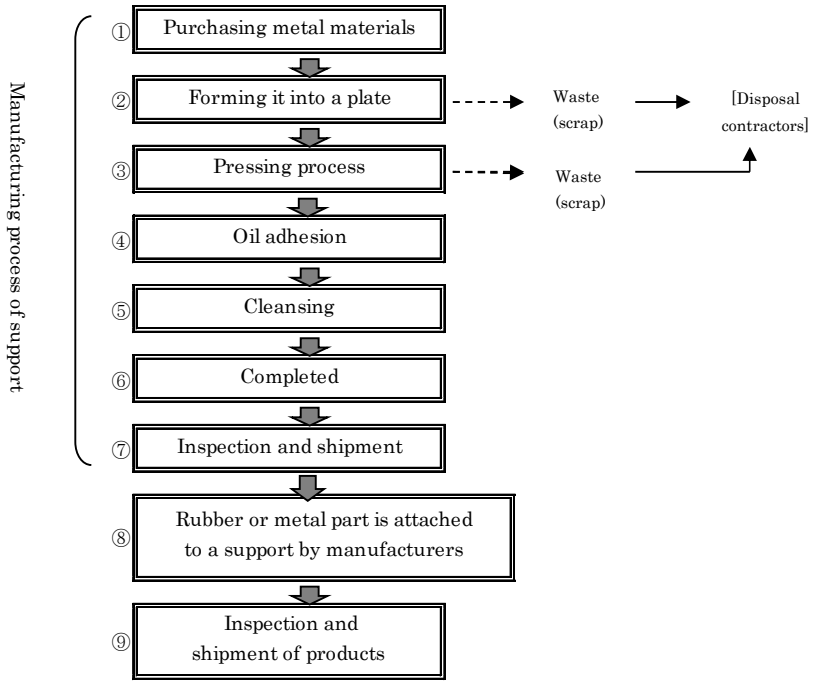
1. Component structure (illustration)/ 2. Manufacturing process (illustration)/ 3. Changes in shipment volume and shipment value by maker (2021-2027) 1) Genuine component market 2) Third-party component market/ 4. Changes in shipment volume and shipment value (2021-2027) by application (monochrome and color) and by size (A4/A3)/ 5. Shipment trend for production printers (volume and value)/ 6. Changes in shipment volume and shipment value by material (2021-2027) 1) Polyurethane rubber/ 7. Trend of technology and materials of cleaning blades 1) Metallic plates 2) Blade edge materials 3) Support for chemically prepared toner 4) Future trend of materials/ 8. Price trend, life cycle, and manufacturing method of cleaning blades/ 9. Supply destinations of cleaning blades (Japan and overseas)/ 10. Trend of cleaning blade's production bases (Japan and overseas)

It is an elastic blade used for cleaning in electrophotographic processes. Urethane rubber is often used due to its strength. A cleaning blade usually contacts a photoconductor rotating at a clock-wise direction. There's a type that has a rubber molded blade attached to the edge of a metal support.

(Form and materials)



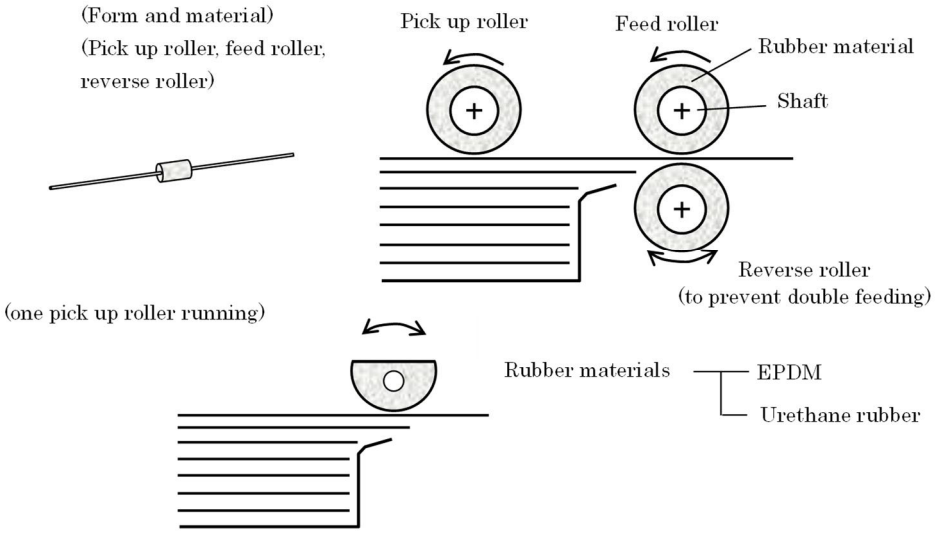
Manufacturing process of the cleaning blade



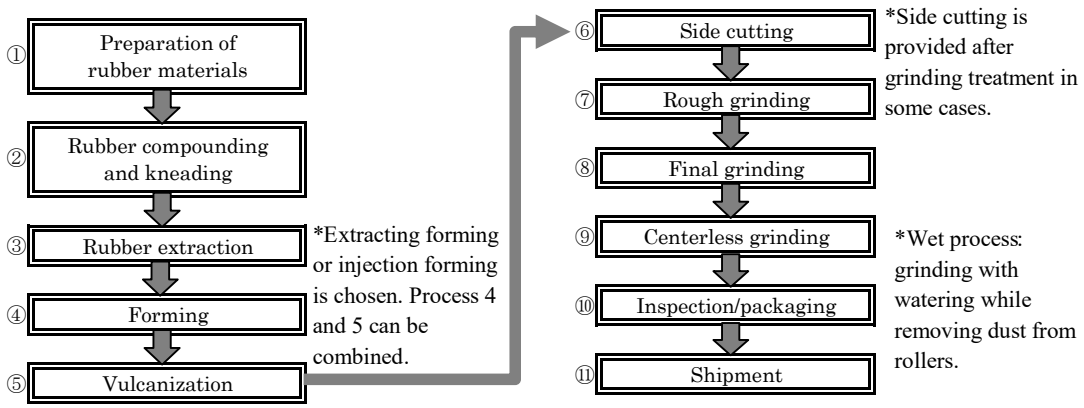
[11] Paper feeder roller market (7 specialist makers and 5 others)

- Market status: **2022 shipment volume was up 5.1% year on year.**
- Materials: EPDM and urethane rubber.

1. Component structure (illustration)/ 2. Manufacturing process (illustration)/ 3. Changes in shipment volume and shipment value by maker (2021-2027) 1) Genuine component market 2) Third-party component market/ 4. Changes in shipment volume and shipment value (2021-2027) by application (monochrome and color) and by size (A4/A3)/ 5. Shipment trend for production printers (volume and value)/ 6. Changes in shipment volume and shipment value by material (2021-2027) 1) EPDM 2) Urethane rubber/ 7. Trend of paper feeder roller's technology and materials 8. Price trend, life cycle, and manufacturing method of paper feeder rollers/ 9. Supply destinations of paper feeder rollers (Japan and overseas)/ 10. Trend of paper feeder roller's production bases (Japan and overseas)



Manufacturing process of the paper feeder roller

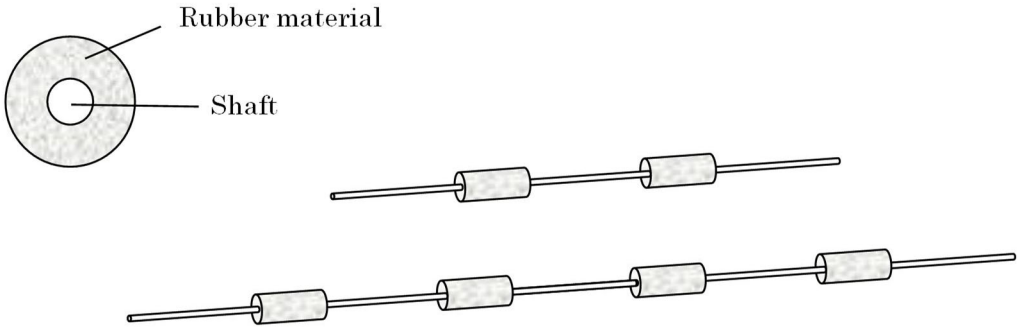


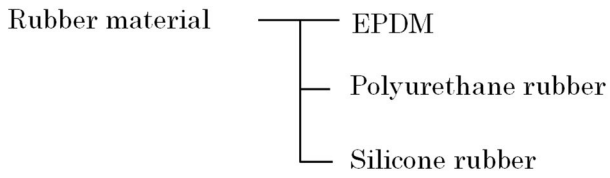
[12] Transporting roller market (10 specialist makers and several others)

- Market status: **2022 shipment volume was down 3.8% year on year.**
- Materials: EPDM

1. Component structure (illustration)/ 2. Manufacturing process (illustration)/ 3. Changes in shipment volume and shipment value by maker (2021-2027) 1) Genuine component market 2) Third-party component market/ 4. Changes in shipment volume and shipment value (2021-2027) by application (monochrome and color) and by size (A4/A3)/ 5. Shipment trend for production printers (volume and value)/ 6. Changes in shipment volume and shipment value by material (2021-2027) 1) EPDM 2) Silicone rubber 3) Polyurethane rubber/ 7. Trend of transporting roller's technology and materials 1) Support for high-speed printing 2) Future trend of materials/ 8. Price trend, life cycle, and manufacturing method of transporting rollers/ 9. Supply destinations of transporting rollers (Japan and overseas)/ 10. Trend of transporting roller's production bases (Japan and overseas)

(Form and material)





VI-3. Individual Makers (specialist makers/in-house makers)

Major makers

(Japanese specialist makers)

Archem (formerly Bridgestone) / I.S.T / Arai Seisakusho / Inoac Corporation / NOK/Synztec / Kinjo Rubber / Kinyosha / Gunze / Showa Cable Systems / Shin-Etsu Polymer / Sumitomo Rubber Industries / Sumitomo Electric Industries / Sumitomo Riko / TDK / Toho Rubber / Nissei Electric / Nitta Chemical Industrial Products / NEOMAX Engineering / Bando Chemical Industries / Fukoku / Proterial (formerly Hitachi Metals) / Meiji Rubber & Chemical / Yamauchi / Others

(In-house makers)

Canon / Ricoh / Fujifilm Business Innovation / Konica Minolta / Toshiba TEC / Kyocera Document Solutions

(Overseas specialist makers)

Ah-Sung Chemical (South Korea) / Foshan Ascend Precision Accessories (China) / Galaxia Device (South Korea) / Jahwa Electronics (South Korea) / Sang-A Frontec (South Korea) / Shenzhen Fancy Creation Industrial (China) / Shenzhen LEPUTAI Technology (China) / Taejin Precision (South Korea)

1. Market trend by component (2021-2027)

(1) Shipment volume (genuine and third-party products) (2) Shipment value

①Charge roller ②Magnetic roller ③Developer roller ④Toner adder roller ⑤Transfer roller ⑥Intermediate transfer belt ⑦Fusing system (heat roller/fuser belt) ⑧Pressure system (pressure roller/pressure belt) ⑨Cleaning blade ⑩Paper feeder roller ⑪Transporting roller ⑫Others

2. Market trend by application (2023/2027)

(1) Monochrome PPC (MFP) (2) Color PPC (MFP) (3) Monochrome printer (MFP)
(4) Color printer (MFP) (5) Fax

3. Market trend by size (2023/2027)

(1) A4 (2) A3 (3) Others

①Charge roller ②Magnetic roller ③Developer roller ④Toner adder roller ⑤Transfer roller ⑥Intermediate transfer belt ⑦Fusing system (heat roller/fuser belt) ⑧Pressure system (pressure roller/pressure belt) ⑨Cleaning blade ⑩Paper feeder roller ⑪Transporting roller

4. Market trend by material (2023/2027)

①Charge roller ②Magnetic roller ③Developer roller ④Toner adder roller ⑤Transfer roller ⑥Intermediate transfer belt ⑦Fusing system (heat roller/fuser belt) ⑧Pressure system (pressure roller/pressure belt) ⑨Cleaning blade ⑩Paper feeder roller ⑪Transporting roller

5. Shipment trend for production printers (volume and value)/Material trend

6. Technology and material trend by component

7. Price trend/life cycle/manufacturing method

8. Production bases by component

Japan / China / South Korea / Malaysia / Vietnam / Thailand / Philippines

9. Major supply destinations

Canon / Ricoh / Fujifilm Business Innovation / Konica Minolta / Sharp / Kyocera Document Solutions / Toshiba TEC / HP (HP Printing Korea) / Brother Industries / OKI / Muratec / Lexmark / Others

10. Sales classification of electrophotographic rollers and other rollers (inkjet/ATM, etc.)

Sample Page

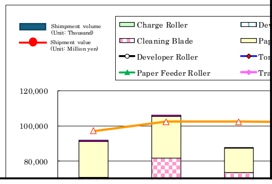
*The actual report has numbers and comments inserted.

S company

1. Overall

1) Changes in shipment volume and value (2020-2026)

	year	2020	2021	2022	2023 (Estimate)	2024 (Forecast)	2025 (Forecast)	2026 (Forecast)
Shipment volume (Unit: Thousand)	Charge Roller							
	Developer Roller							
	Toner Adder Roller							
	Intermediate Transfer Belt							
	Cleaning Blade							
	Paper Feeder Roller							
	Transporting Roller							
	%							
Shipment value (Unit: Million yen)	Charge Roller							
	Developer Roller							
	Toner Adder Roller							
	Intermediate Transfer Belt							
	Cleaning Blade							
	Paper Feeder Roller							
	Transporting Roller							
	%							



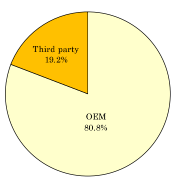
1. Shipment volume (2020-2026)

Unit: Thousand

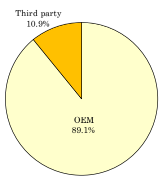
Year / Maker	2020	%	2021	%	2022	%	2023 (Estimate)	%	2024 (Forecast)	%	2025 (Forecast)	%	2026 (Forecast)	%
Archem (Former Bridgestone)														
INOAC														
NOK/Synztec														
Kinyosha														
Sumitomo Rubber Industries														

4. OEM/third-party ratio by component (2022)

	Shipment volume (unit: thousand)			Shipment value (unit: million yen)		
	OEM	Third party	Total	OEM	Third party	Total
Charge Roller						
Magnetic Roller						
Developer Roller						
Toner Adder Roller						
Transfer Roller						
Intermediate Transfer Belt						
Heat Roller						
Fuser Belt						
Pressure Roller						
Pressure Belt						
Cleaning Blade						
Paper Feeder Roller						
Transporting Roller						
Total						



(Shipment volume)



(Shipment value)

＊Back numbers of Roller and Roller-related Market Forecast＊

Published Date	Title	Price	Total pages
2008.4	"Future Trend in Competitiveness of the Market"	$4,400	679
2012.6	"Outlook of the industry"	$5,000	655
2015.7	"The Future of the Roller and Roller-Related Component Industry that Requires Intelligence in Marketing Technologies"	$4,000	683
2016.7	"The Reorganization of Hardware Machine Manufacturers Signals a New Phase for the Roller Component Industry"	$4,000	687
2017.8	"The Roller-related Parts Industry Converts to Modular Production"	$4,000	626
2018.8	"Restructuring or Withdrawal? Makers at a Crossroads in the Roller-related Component Industry"	$4,000	653
2019.8	"The Roller-related Component Industry in Dire Need of Strategic Transformation Plan"	$4,000	657
2020.11	"The Future of the Component Industry Depending on the Underlying Technology"	$4,000	651
2021	"The Future of the Roller-related Component Industry: Cost and Quality as the Lifeline" (Available upon request)	$5,000	630
2022.7	“Comprehensive Analysis of the Component Industry Aiming to Establish a Relationship of Coexistence and Mutual Prosperity”	$5,000	393
2023	"Comprehensive Analysis of the Parts Industry As It Enters an Era of Rising Prices" (Available upon request)	$5,000	385