

MASROLL® System

is a functional processing roll system,
to absorb fluid, and to discharge the
fluid from the processing system.

It also works to apply fluid.

Working with distinctive Masroll
construction, system composition,
fluid-dynamic differential pressure
induction, micro-fiber composite
material properties, and
micro-capillaries action,

Masroll is especiall highly trusted and
renowned, in the advanced
processing scenes where utmost fluid
removal, its uniformity, quality finish
and durable consistency really count.



USP, EPC, JP and others - in major 12 countries -
granted (JP 4484168, etc.) and/or being applied

Information Request / Inquiry

Please ask Masroll agent or local sales associates
for inquiry and consultaion service

North America :

Chadwick Engineering (Local Sales & Servicing Central)
Vail Rubber Works (Local Sales & Servicing Central)

Europe, South America, Africa:

Masroll European Operations (Official Agent / Local Sales Central)
Osborn International (Local Sales & Servicing)
Wöhler Technik (Local Sales & Servicing)

Corporate web site:

<http://www.masroll.com/>

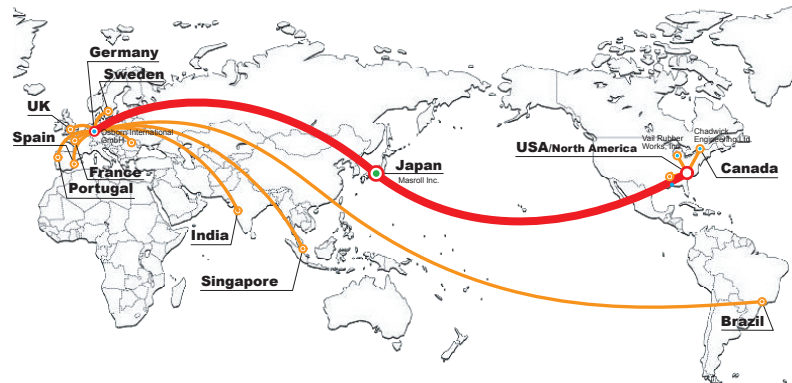
Product Catalogue
PC231110CEmn01E

Eco-friendly
MASROLL

handles fluid
for you

in
eco-friendly
world processing scenes

International Service/Supply Network



Group companies, associates, partners

Japan:

Masroll Systems Inc. / Masuda Seisakusho Co., Ltd.

マスロールシステムズ 株式会社 / 株式会社 増田製作所

Tel: (+81) 562-92-1211

Fax: (+81) 562-92-1217

Web site: <http://www.masroll.com/>

North America:

Chadwick Engineering Ltd.

Kingston, ON / Canada Tel: (+1) 613-384-2866

Web: <http://www.chadwickengineering.com/>

Vail Rubber Works Inc.

St. Joseph, MI / USA Tel: (+1) 269-983-1595
(HQ / Service Center)

Axis, AL / USA Tel: (+1) 251-675-5644
(Mobile Service Center)

Web: <http://www.vailrubber.com/>

Europe + South America, Africa:

Masroll European Operations

London / United Kingdom Tel: (+44)7984-985-209

e-mail: j_steele.mreu@masroll.com

Osborn International GmbH (Germany)

UK, France, Portugal, Romania, Spain, Sweden, Brazil, Singapore

Wöhler Technik GmbH (Germany)

Masroll Systems Inc.

Operating Sales and customer service of Masroll System and its derivatives, their engineering and R&D



Works 80-1 Nakanowari,
Shinden-cho, Toyoake,
Japan 470-1112

Phone 0562-92-1213
Fax 0562-92-1217

CEO Noriaki Masuda

Capital ¥30,000,000

Masuda Seisakusho Co., Ltd.

Operating Production of Masroll System and related products, cooperating work to assist R&D



Works 80-1 Nakanowari,
Shinden-cho, Toyoake,
Japan 470-1112

Phone 0562-92-1211
Fax 0562-92-1217

CEO Noriaki Masuda

Established in 1955

Affiliates

Masroll European Operations
(Europe /UK)

Quality and Consistency

For its uncomparable uniformity and consistency in processing, **real high quality production and production consistency** can be achieved.

Ultimate Processing

Positive fluid control by its distinctive system, shaft and roll-pad construction, and pad materials to include microfiber-elastomer composite kind, **enable the level that has been unattainable before.**

Durability

Its positive capability to maintain working functions and uncomparable resistance to wear and damages **contribute to quality control, stable production, and reduction of maintenance as well.**

● Effectiveness:

Masroll is especially highly trusted and renowned, in the advanced processing scenes where utmost fluid removal, its uniformity, quality finish and durable consistency really count.

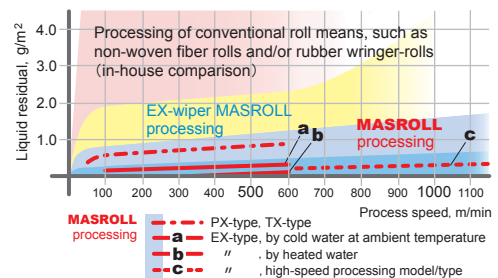
- Ultimate removal of fluid (after or before cleaning, etc.)
- Energy saving and equipment simplification achieved by the reduction of drying load
- Processing speed increase
- Upgrading in quality and production consistency by highly consistent and uniform processing capability
- Processing fluid recovery and recycling
- Fluid membrane application (coating) to various surfaces



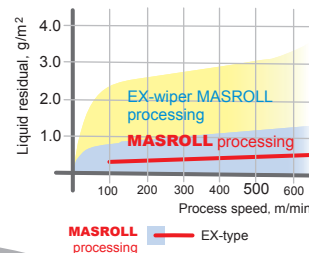
● Process Characteristics:

(Typical Examples)

- Processing of water-related, including liquid chemicals



- Processing of oil-related



● "EX-wiper Masroll" is a group product of Masroll

Fiber aggregated simple fiber-function roll, without positive fluid absorption and discharging constructions. To be used selectively for uses and purposes.

For more information, Please consult Masroll System Customer Service.

● Type of fluid handled:

Waters, oils, hydrocarbon solvents, plasticizers, acids (sulfuric, chromic, etc.), alkalines (NaOH, etc.), and other chemicals

● Field of applications and type of materials processed:

Steel and non-ferrous metals processing. Processing in automotive stamping and other metal working fields. Film and plastic sheet processing. Lead frames, PC boards and FPCs processing. Processing of various strips, hoops and sheets. Processing of roll and drum surfaces.

Customer Service

In order to provide utmost running state, quantitative measurements of state and their recordings are always with servicing, not to mention every factory dressing and roll-pad replacement. Technical support before and after Masroll introduction is also fully available all the time.

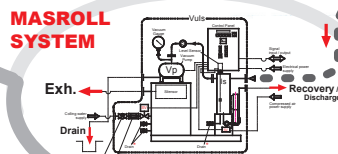
Pad and shaft selection to suite specific processing needs

- Roll-pad type:
- For regular processing, water or oil related..... EX-type
 - For heat and chemicals..... PX-type
 - Others..... TX-type
- Roll-shaft type:
- For high strength shaft requirementst..... MR Sh-type
 - For high speed processing condition..... MR Vh-type
 - Others..... Special purpose types

USP, EPC, JP and others granted and/or being applied



functional roll system, to absorb fluid, and to discharge it out from the processing system

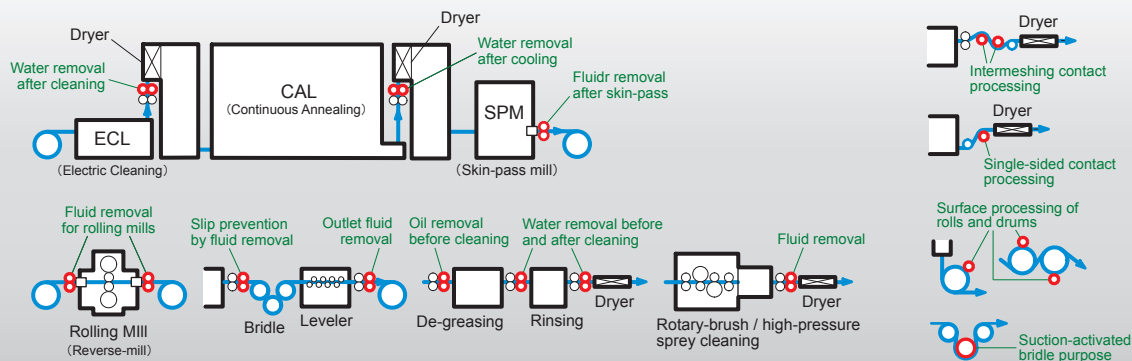


Rotary joint
Flexible tube

- Engineering and parts selection - e.g. regarding vacuum pump, discharging pump, etc. - to facilitate non-standard processing conditions are fully provided by request.
- For a vacuum system in water related application in general, Nash-type is recommended. In oil-related, Roots-type, which is either water or air cooled, is generally suggested. In case of Nash, vacuum shielding water is required. In case of water-cooled Roots, cooling water is in need.
- Inlet-separator equipment for fluid recovery can be with vacuum system, either integrally or separately.
- When connecting more than one Masroll, it is normally recommended to use a header manifold for effective flow distribution.
- When to apply reverse washing (back-wash), auxiliary equipment composed of header and valve controls should normally be provided.

In addition to the above, optional equipment for unique processing requirements and engineering to meet special processing needs can be provided by request.

MASROLL System - typical applications



Equipment to compose MASROLL System, and processing units (examples)



Nash-type vacuum unit, normally for water-related, with an exhaust separator.



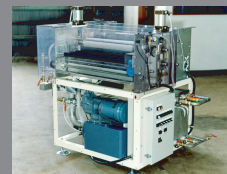
Roots-type vacuum unit, normally for oil-related. Water-cooled type, with a unitarily constructed inlet-separator unit.



Complete Masroll System processing unit.



Masroll roll-stand unit with cylinder actuators. All stainless steel structure model.



Complete Masroll PC-board cleaning and processing unit, fully equipped with controls.

Major MASROLL System related products and derivatives

EX-wiper Masroll

Desirable when Masrolls overdo, but conventional means are not satisfactory enough.



MR Wiper-block

For better simple wiping result and usability, by distinctive constructions and material properties.



MR Rod-wiper

Highly efficient for exterior wiping of tubes and rods. Unseen is the mist generated by air wiping.



For more information, inquiry, and consultation service, please ask Masroll Customer Service

Japan:

Masuda Seisakusho Co., Ltd.
Masroll Systems Inc.



Business Center

USA:

Chadwick Engineering Ltd.
Vail Rubber Works Inc.

Europe:

Masroll European Operations (UK)
Osborn International GmbH / Wöhler Technik GmbH



Roll Works

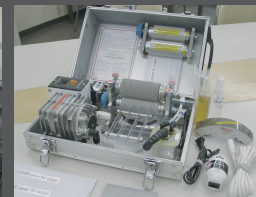


Resident evaluation and testing space

also serving...

"Asia" "Africa" "South America"

with our sales & servicing partners



Transportable evaluation and testing unit

Eco-friendly
MASROLL
handles fluid
for you

Masroll Systems Inc. / Masuda Seisakusho Co., Ltd.

マスロールシステムズ 株式会社 / 株式会社 増田製作所

80-1 Nakanowari, Shinden-cho, Toyoake 470-1112 Japan Phone: (+81) 562-92-1213 Fax: (+81) 0562-92-1217