



**Solvent / Plastics
Recycling Systems
Debinding Systems
PIM MIM CIM AM**



30 years: 1991–2021

**Technology Leader in Solvent Recycling and
Solvent Debinding**

**Key plant equipment supplier for the
CreaSolv® Technology – the world's most
versatile physical plastics recycling process**

www.loemi.com

LÖMI – GERMAN ENGINEERING

- Established in 1991 – 30 years of experience in process technology
- LÖMI is engineer-operated, almost half of our staff are engineers
- In-house design engineering and safety engineering departments
- Including technical consulting and support of your project planning
- Accredited company according to the EU Water Framework Directive
- Numerous research and development projects with renowned partners from industry, universities and research organisations

REFERENCE CUSTOMERS

We are proud to count the big players in the various industries among our customers:

- Alcatel
- Bosch
- Carl Zeiss
- Continental
- Ericsson
- Indo-MIM
- Motorola
- Osram
- Philips
- Procter & Gamble
- Samsung
- Siemens
- Swarovski
- Unilever
- Würth

LÖMI – INDUSTRY STANDARD

LÖMI, an owner-managed company, has been a pioneer in environmental technology since its formation. Our systems are operated world-wide and have set many standards in numerous industrial sectors:

- Automotive, Aerospace
- Plastics, Chemical
- Optical
- Surface Technology
- Electronics
- Printing & Packaging, Paints
- Industrial Component Cleaning
- Pharmaceutical, Medical

30 YEARS OF EXPERIENCE

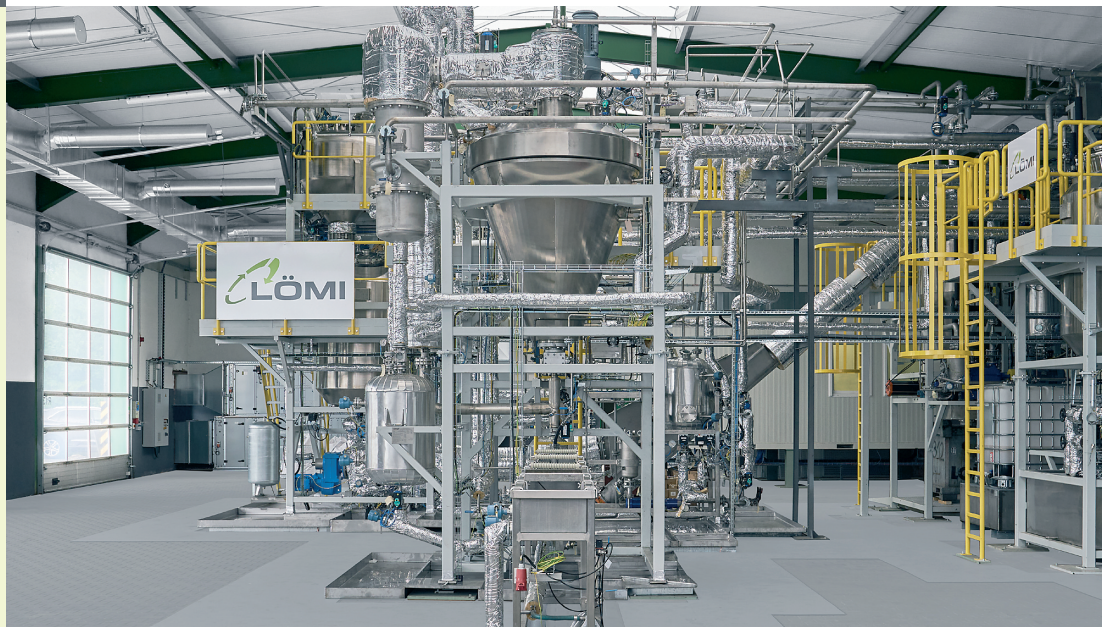
Company Milestones

- 1991 LÖMI founded by Managing Partner Diplom-Ingenieur (FH) José Manuel Dias da Fonseca
- 1993 Development of a completely new Solvent Recovery System for customers such as Motorola and Ericsson
- 1995 Development of a new process with Technische Universität Braunschweig for recovering lubricating oils, precious metals and high-alloy steel from metal grinding sludge
- 2001 Development of the world's first industrial Solvent Debinding System for the Powder Injection Moulding (PIM) manufacturing process
- 2004 Production of a large-scale Debinding Plant for Schunk Group – with six 2,400 liter Debinding Systems and one 3,000 liter Solvent Recovery System
- 2007 Development and manufacturing of the world's first industrial-scale plant for reprocessing oily magnesium chips from engine production in the automotive industry
- 2016 Engineering and manufacturing of a pilot-scale CreaSolv® Plastics Recycling Facility for Unilever to recycle multi-layer packaging waste
- 2018 Strategic partnership with GAW Group to manufacture large-scale industrial facilities for plastics recycling
- 2018 Development of a new Solvent Debinding Series for Additive Manufacturing / Industrial 3D Printing – from tabletop unit to fully automatic system
- 2019 Key equipment supplier for the CreaSolv® Pilot Plant for the European Union's project »MultiCycle« – as one of 19 partners from 10 countries
- 2020 Establishment of LÖMI's second location in Germany – with a CreaSolv® Technology Demonstration Plant to support customers in large-scale testing
- 2021 After 20 years of successful cooperation with the Fraunhofer Institute IVV, LÖMI is granted the status as key plant equipment supplier for the CreaSolv® Technology

The physical CreaSolv® Process, patented by the Fraunhofer Institute IVV, is capable of recycling numerous composite and multi-layer plastic materials; CreaSolv® is a registered trademark of CreaCycle GmbH

We understand ourselves as the industry's partner. Our goal is a long-term, trusting cooperation with our customers.

We cordially invite you to visit us to get an idea of what we are about.



PROCESS TECHNOLOGY SYSTEMS

Solvent Recycling Systems

Our systems are capable of reprocessing all organic solvents in outstanding quality by applying the special LÖMI vacuum technology with automatic operation. Integration into existing purification processes is possible in a fast and economical way.

Your advantages:

- ➔ Rapid amortization of a LÖMI solvent recycling system
- ➔ Continuous cost savings:
 - Minimization of disposal costs for solvent / solvent-based medium
 - Minimization of external transportation costs
 - Minimization of storage and in-house handling costs
- ➔ Excellent LÖMI recycling quality:
 - Recycled solvent with same physical and chemical properties as new solvent
 - Recovery rate up to 99 percent
 - Consistent solvent quality for your process
- ➔ Safe and environment-friendly process

Debinding Systems for PIM (MIM/CIM) and AM

LÖMI Debinding Systems for Powder (Metal and Ceramic) Injection Moulding and for Additive Manufacturing / Industrial 3D Printing. Our systems can process numerous feedstocks, as they extract the binder components with organic solvents or with water. LÖMI systems are available from 15 to 1.200 liters of batch loading volume and can be extended on a modular basis.

Your advantages:

- ➔ 3 high-performance processes in one single LÖMI system:
 - Debinding of parts
 - Drying of parts
 - Solvent recovery
- ➔ Compact design, durable through minimal wear and tear
- ➔ Fully customizable automated processes by Programmable Logic Control PLC
- ➔ Real-time parameter visualization and process traceability through touch panel
- ➔ Process-reliable, easy loading and unloading of parts
- ➔ Safe and environment-friendly through Advanced Clean Technology and closed system

Plastics Recycling Systems

LÖMI has engineered technologies for a plastics circular economy that are new across the globe.

In cooperation with the Fraunhofer Institute IVV, we engineered, built and installed the **CreaSolv® Sachet Recycling Facility for Unilever** in Indonesia. It is the first plant globally that is capable of recycling post-consumer multi-layer plastic film waste and regaining the polymer in new product quality.

LÖMI participates in the German BMBF Project »Circular Packaging« and in the prestigious **European Union's Innovation Action project »MultiCycle«*** as a key equipment supplier. At the heart of MultiCycle is the engineering and operation of a CreaSolv® Pilot Plant, capable of recycling **both** fiber-reinforced composites and multi-layer packaging.

If you are interested in a commercial plant for recycling plastic waste materials, we offer you to run test series on our **LÖMI CreaSolv® Demonstration Plant**. We will customize the process to your specific plastic waste materials.



Process Technology Systems for New Processes

You are looking for an explosion-proof customized system for handling solvents or other complex fluids?

In this case, we are your perfect partner as well. We develop a system for your process. Challenge us!

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AUXILIARY EQUIPMENT

At LÖMI, we will provide you with auxiliary equipment of any kind from a single source:

- ➔ Tanks, vessels, collecting trays
- ➔ Overfill protections, level measurement devices
- ➔ Pumps, decanting systems
- ➔ Cooling or heating systems
- ➔ Columns, coalescers, demisters
- ➔ Containers and hall systems for installation of our systems



SERVICE

We offer you a personal telephone service, optionally with a **24 or 48 hour response time**.

If needed, we support you via **remote maintenance** in the operation of your LÖMI system.

Extra-long LÖMI warranty:

For our high-quality systems, you can choose to extend the **warranty period** to up to **5 years**.



YOU HAVE QUESTIONS? – WE OFFER THE SOLUTION:

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www.loemi.com

LÖMI WORLD-WIDE



- LÖMI locations in Germany
- Our international representations
- A selection of our customers

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