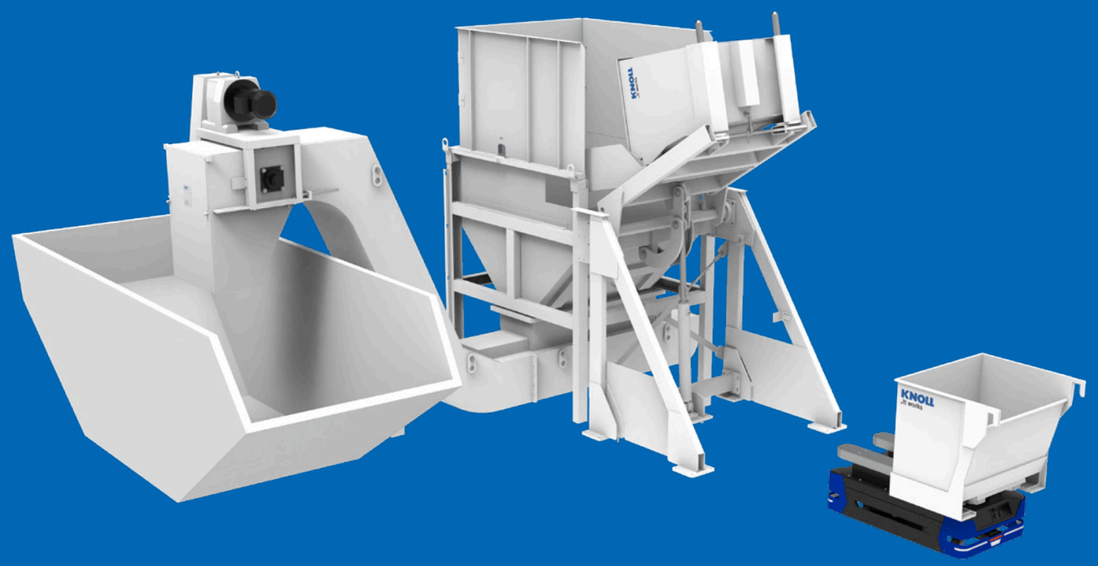
KNOLLINFO

KNOLL
.It works

Particularly suitable for:

- Networked production systems with a diverse range of machinery
- Production environments involving machining manufacturing and material handling
- New plant construction projects and retrofit solutions
- Automatic feeding of chip processing systems
- Unmanned shifts and 24/7 production

From the machine to the central collecting container – fully automated material flow for longer machine running times and reduced labour costs



Contact person:

Philipp Miller
Head of Area Sales and Automation
Tel.: +49 7581 2008-91175
philipp.miller@knoll-mb.de

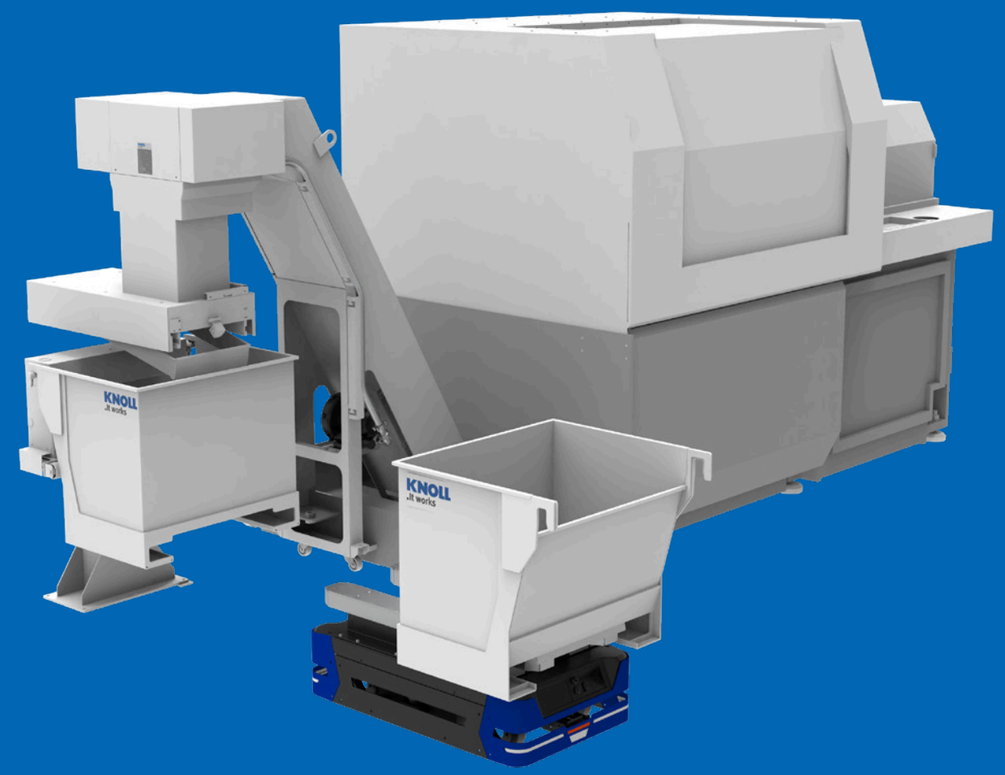
KNOLL Maschinenbau GmbH
Schwarzachstraße 20
DE-88348 Bad Saulgau
Tel.: +49 7581 2008-0
info.itworks@knoll-mb.de
www.knoll-mb.de

09.2026 | Photos: KNOLL

KNOLLINFO

Automated chip removal

Automated chip removal using automated guided vehicles (AGV)



KNOLL's **automated chip removal system** integrates machine tools, chip conveyors, automated guided vehicles (AGVs), buffer stations and chip processing into a comprehensive system with a continuous material flow.

Automatic level monitoring ensures maximum process reliability. The subsequent replacement, transport and emptying of the chip containers take place without manual intervention.

The result: higher productivity, reduced operating costs and the foundation for unmanned 24/7 production.

How the system works

1. **Automatic fill level detection**
Sensors continuously monitor the fill level of the chip containers on the machine tools.

2. **Intelligent transport request**
When a defined fill level is reached, a transport order is automatically created.

3. **Automatic container changeover**
The AGV brings an empty container to the machine and collects the full container.

4. **Safe transport**
The Transport Order Manager (TOM) takes charge of the overall management of transport processes and determines the optimal destination and transport route based on the stored material information.

5. **Automatic emptying**
The lifting and tilting device feeds the chips into the chip processing system.

6. **Reintegration into the process cycle**
The empty container is automatically fed into the production process.

KNOLLINFO

Your benefits at a glance

Higher productivity
Manual handling tasks are eliminated, allowing staff to focus on value-adding activities.

Less machine downtime
Full chip containers are automatically detected and replaced on time.

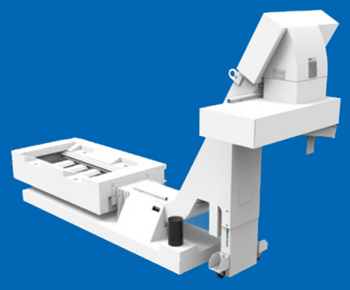
Maximum process reliability
Sensors monitor container status, fill levels and storage locations in real time.

Low running costs
Reduces forklift traffic and labour costs. Transport routes are optimised.

Sorting materials by type
Creates the ideal conditions for the processing and recycling of recyclable materials.

Full transparency
With the Transport Order Manager (TOM) and the Click.it system, process parameters can be viewed digitally at any time.

An overview of the solution



Chip conveyor

- Automatic removal of chips from the machine tool
- Available as a scraper belt, strap hinge, magnetic band, or slated plate belt conveyor
- Mechanical drip guard for a clean transfer point
- Customised to suit the specific installation situation



Mounting frame for chip containers

- Defined handover position between the chip conveyor and the AGV
- Automatic container detection and position control
- Fill level monitoring via integrated sensors



Automated guided vehicle

- Intelligent processing of all transport orders
- Connection between machine, buffer stations and unloading station
- Further applications for material transport in intralogistics (pallets, mesh boxes, etc.)



Lifting and tilting device

- Automatic emptying of the chip containers
- Transfer of chips to the chip processing system
- Separate processing of different materials