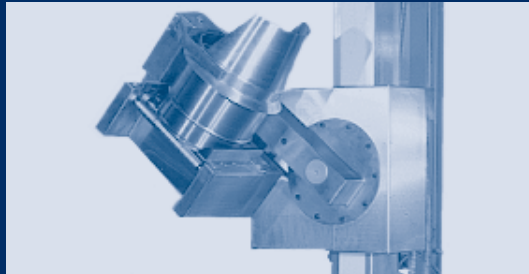


SERVOLIFT

Handling Technology for Pharmaceutical,
Chemical, Cosmetics, and Food Industries



Handling Systems

Bin Lifter

Lifter with Processing Components

Process Components with integrated Lifter System

Mobile Units without Drives

Mobile Units with Drives

Handling Systems in Automation

Components

Lifting. Blending. Pouring. Transporting. Pivoting.

SERVOLIFT

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Compact. Customized. The Servolift Handling Systems

SERVOLIFT GmbH

Handling Systems

Blenders

Process Chain Modules

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Today SERVOLIFT is one of the globally leading specialists in the area of container handling and blending technology, even though it only entered the market place in 1977.

Primary Reasons: Innovation and commitment of the team and the fact that comprehensive solutions can be offered for all areas in the pharmaceutical, chemical, cosmetics, and food industries. SERVOLIFT offers the most comprehensive machinery product line in this area.

This brochure provides an overview of the spectrum of Handling Systems.



SERVOLIFT



Handling of any Bin Type

► Bin Lifter

SERVOLIFT bin lifter are especially designed for the handling of all bin types.

A large variety of applications can be implemented due to the modularity of the system.

Manual, Electro-Mechanical or Electro-Hydraulic

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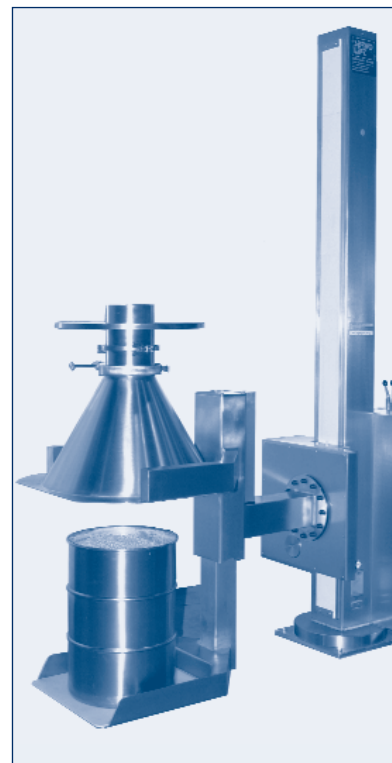
Handling Systems in Automation

Components

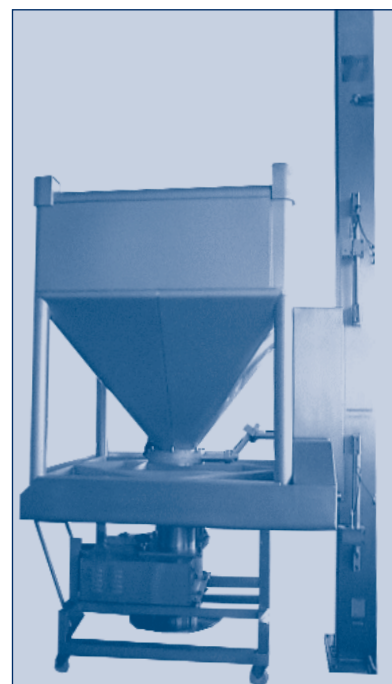
One of many system variant is the drum lifter with squeeze tunnel system. The opened drum with or without inliner is being placed on the platform and then pressed into a top mounted funnel. Due to various funnel sizes and adjustable lifting distance a single system can be used for drums with various diameters and heights. A safety switch monitors locking in place of the drums.

After lifting and rotating of the locked unit, the lifter can pivot to position the barrel exactly over the filler opening. The flowstop in the funnel can be opened manually with a lever or conveniently by pressing a switch on the operator panel.

Besides drum lifter SERVOLIFT also offers container lifter in its product range. The modular systems permit functional expansions by integrating add-on components and processing devices. For customer specific containers the receiver units can be adapted.



Drumfilter with squeeze tunnel system



Container lifter with process machines

SERVOLIFT



Various Carrier and Receiver Systems

► Lifts with Processing Units

Lifts can be equipped with various carrier and receiver systems. Processing Units can be bolted or in the case of exchangeable processing units they can be clamped in place at the mounting point of the carrier arms. The combination of lift and processing unit provides universal applications.

Flexible use of Add-On Units

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Handling Systems in Automation

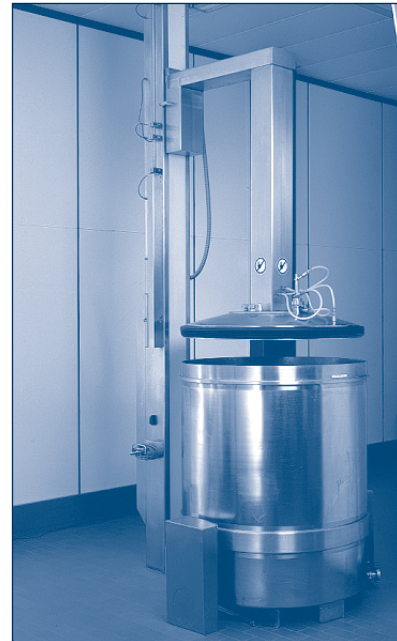
Components

Add-on devices range from sieving, stirring mechanisms, follower plates for gel and paste spreading to vacuum handling systems.

Depending on the application the lifter can be operated manually or fully automatic.

The circuitry of the process Units is located in the control cabinet of the lifter. The operator can choose to use controls on the lifter or away from the lifter. The power lines are inside the lifter as far as possible.

Customized mobile transport racks for removal of the process units can be supplied as well.



Follower plate



Stirring mechanism lifter



Container filling by vacuum conveyor system

SERVOLIFT



Careful, Quick, and Safe

► **Process Components with Integrated Lift System**

Due to the flexibility and orientation on process specific requirements SERVOLIFT handling systems are ideally suited for process integration. Our know-how is the basis for the development of low dust or dust-free product handling solutions and the implementation of diverse handling processes.

Multiple Process Steps integrated in a Single System

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Handling Systems

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Bin Lifter

Lifter with Processing Components

Process Components with integrated Lifter System

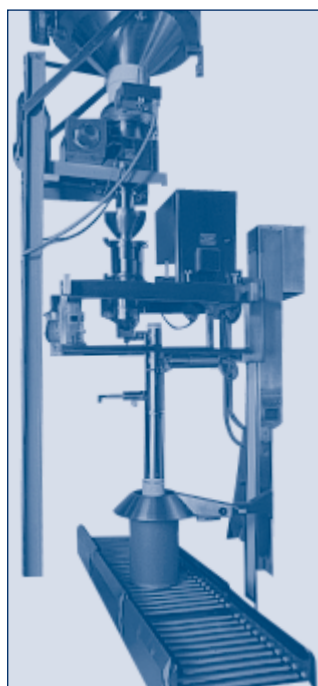
Mobile Units without Drives

Mobile Units with Drives

Handling Systems in Automation

Components

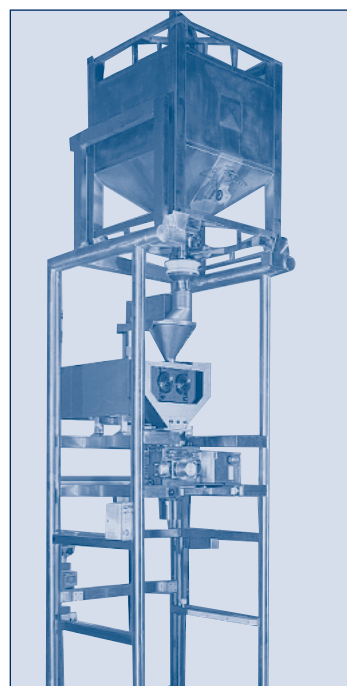
All lifters with or without sitting device can be individually equipped by adding or integrating additional handling devices or process components. By daisy-chaining various machinery or add-on components multiple process steps can be combined within one system. Roller-conveyors complete the process-chain. Integration of these handling components in larger scale systems will provide automated control and permanent monitoring.



Drum filling with metering, calibration, sampling, and weighing



Discharging of a product container with calibration and adding of flow enhancer



Compactor filling including dry granulation

SERVOLIFT



Prerequisite for Flexibility

► Mobile Units without Drives

Mobility is a prerequisite for flexibility. SERVOLIFT mobile units can be easily moved to different locations and hence can be utilized for various tasks at various locations.

Independent Mobility Through Battery Power

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Mobile Units with Drives

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***Mobile lifter with tilting function,
long or crosswise***



The basic component of this handling system is the lifter, which is mounted on a mobile chassis. The drive unit is mounted in a cabinet on the backside. The top of the cabinet serves as the operator station. Depending on needs, the unit can be connected to the power source with a coiled wire. For full mobility the unit uses maintenance free battery-power, located also within the cabinet.

If simpler lifting tasks with lower lifting heights are required, lower cost units are being used.

For greater lifting requirements with occasional low ceiling clearances telescopic lifters can be used.

The Lifters are delivered with the appropriate take-up system. Depending on requirements these units can be customized for gripping, locking jaws, platform, or tilting systems on stationary and mobile lifters.



***Lifter with manual pump for low
lift heights***

SERVOLIFT



Variable Speed Control

► Mobile Units with Drives

The integrated drive unit eases movement of heavy loads and coverage of longer distances. The variable electronic speed control including a safety switch is located within the tiller bar.

Battery Power for Increased Flexibility

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***Quick battery exchange with
telescoping drawers***



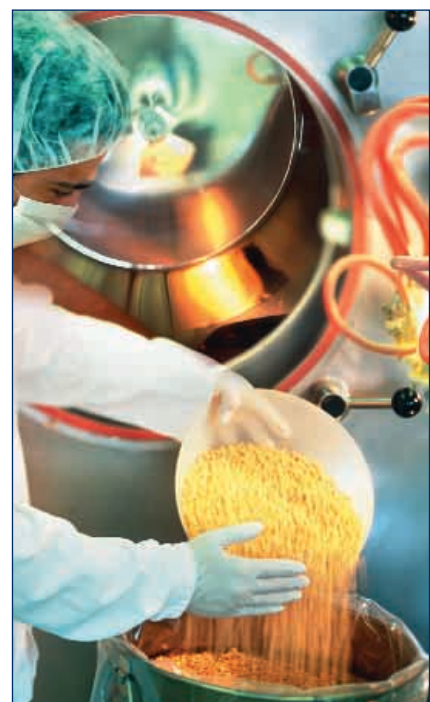
***Ergonomic control unit for
easy handling***

This type can also be fitted with various carrier and receiver systems.

All mobile units with drives are equipped with battery power. The integrated charger permits charging at any suitable power source.

Under extreme usage conditions it is recommended to change the batteries. This will allow continuous usage without delay caused by charging.

When used in explosive conditions, our lifters are equipped in accordance with EU directives 94 / 9 / EG (ATEX 100a).





SERVOLIFT



Excellent Integration

► Handling Systems in Automation

Fully automated processes permit full integration of SERVOLIFT machines in the overall process chain. Vast experience has led to development of optimized solutions in container handling and specialized development of control units.

Process Chain Integration of Complex Systems

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Handling Systems

Blenders

Process Chain Modules

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Mobile Units with Drives

Handling Systems in Automation

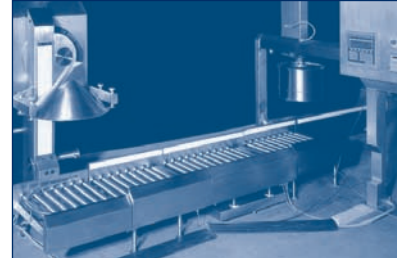
Components

SERVOLIFT components can be used to develop systems from simple movement paths to robotics, for integration in any production line. The basis is the requirements document that is being developed in conjunction with the customer.

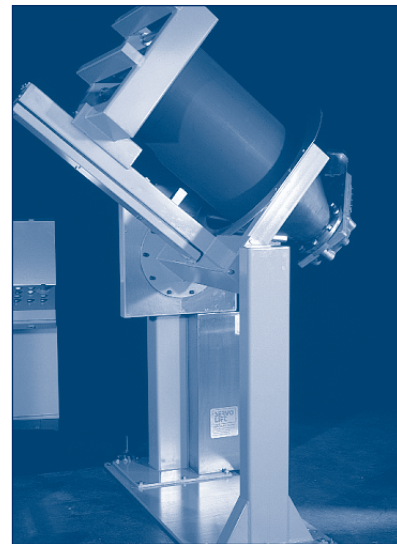
A packaging line for example can be a fully automated system with buffered container supply and removal, and integrated lifters with tilting device for container filling.

For the safety of the operator and the product and for environmental concerns the drum tilt mechanism can be enclosed with an integrated exhaust system.

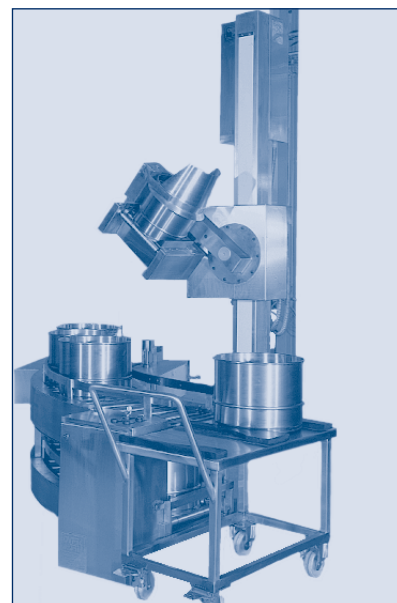
Automated roller conveyors can be used for container transport. For limited space requirements the supply and removal of materials a two-story roller conveyor can be the compact solution.



Discharging of drums with container supply



Enclosed discharge system



Space saving two-story roller conveyor

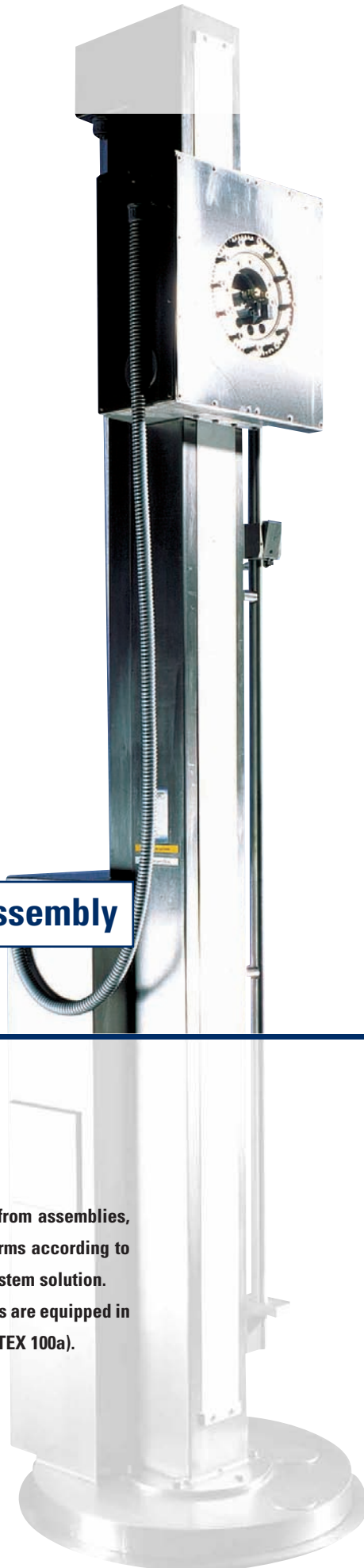
SERVOLIFT

Customized Assembly

► Component Overview

SERVOLIFT machines are being assembled from assemblies, operator controls, control units, drum and arms according to customer specifications for an affordable system solution.

When used in explosive conditions, our lifters are equipped in accordance with EU directives 94 / 9 / EG (ATEX 100a).



Barrel Receivers

Customized or Standard Solutions

Container Lifter

Lifter with Processing Components

Process Components with integrated Lifter System

Mobile Units without Drives

Mobile Units with Drives

Handling Systems in Automation

Components

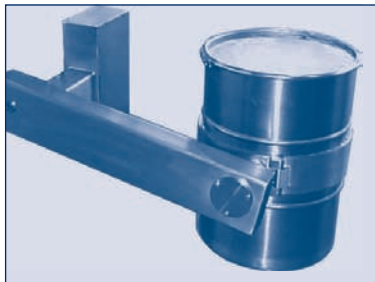
**Operator Elements
and Assemblies**

Carrier Arms

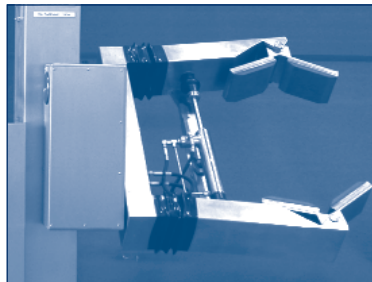
Drum Receivers

Drum Receivers are being manufactured from standard assemblies or customized based on individual needs.

This is the basis for an almost unlimited range of solutions.



**Drum sleeve on single arm
with tilting longwise to column**



**Prism clamping for various
drum diameters**



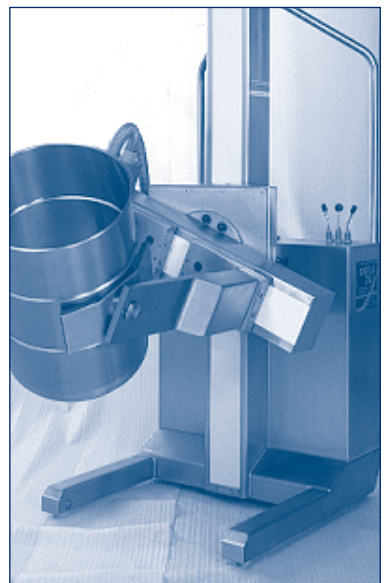
**Drum fixing by flange
on the funnel with torque support**



**Drum pressed on funnel for
various drums**



**Drum discharging drainer
with shut-off**



**Parallel clamping system with tilting
device, long- and crosswise**

Carrier Arms in almost Unlimited Variations

Container Lifter
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Operator Elements and Assemblies

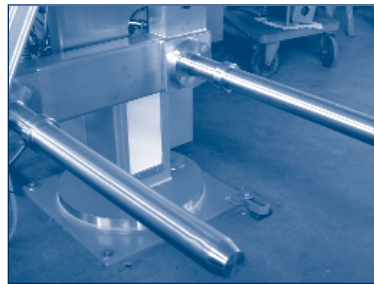
Carrier Arms

Drum Receivers

Besides all sorts of customer specific solutions, a large spectrum of container mounts is part of the extensive product range.



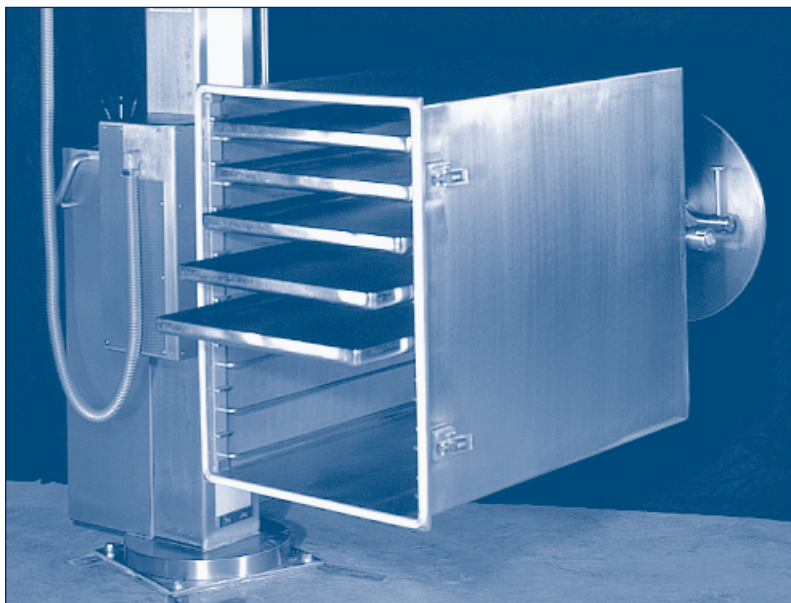
Adjustable carrier fork for various container types



Non-slip forks with safety switch



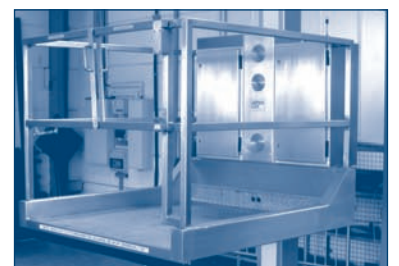
Filling and discharging cone for product containers (vortex layering system)



Discharging of dryer trays



C-frame for various containers



Conveyor basket for personnel and loads

Operator Controls and Assemblies With various Functions

Container Lifter
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Operator Elements and Assemblies

Carrier Arms

Drum Receivers

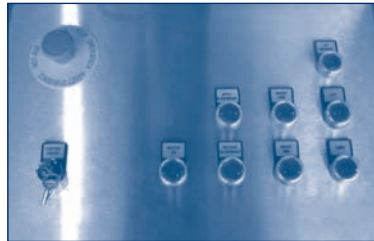
Listed operator controls and assemblies are only a small fraction of our product spectrum.



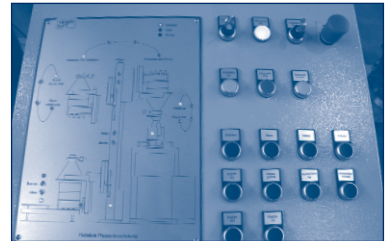
Operator controls according to GMP



Cost efficient lever controls



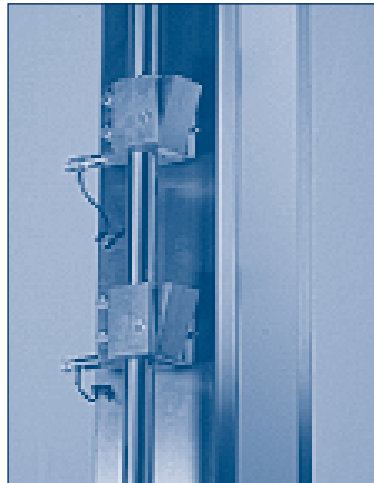
Water resistant push buttons



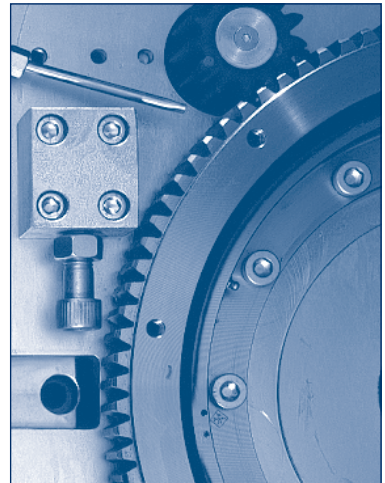
Operator panel with visual process monitor



Sealed floor bearing



Height-stops



Pivoting bearing with adjustable limit-stops

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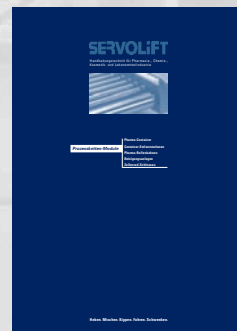


Infos, Service, News: www.servolift.de

► The Brochures

are available
from SERVOLIFT for

Blenders
Process Chain Modules
SERVOLIFT GmbH





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