



PHOENIX

PHOENIX LIFTING COLUMN PORTFOLIO

THE PHOENIX SERIES

The PHOENIX series has been developed using state-of-the-art technology to meet the diverse demands of industrial and medical applications. Whether for simple lifting functions or advanced robotic integration, it delivers reliable, future-oriented solutions. All PHOENIX lifting columns stand for premium quality, low maintenance, and universal usability. Three models cover a wide range of requirements: PHOENIX as the versatile base model, PHOENIX Compact for complex processes, and PHOENIX Robotics for automated systems.

PHOENIX

Medium-duty lifting column with load capacities from 500 kg to 2,500 kg.

PHOENIX COMPACT

Versatile model with a 130 kg load capacity, equipped with motor and control unit. Ideally suited for industrial and medical applications without direct robotic connection.

PHOENIX ROBOTICS

Specifically designed for demanding applications with a robot interface and plug-in software. The lifting column handles loads up to 130 kg.

OPTIONS

For special requirements, the lifting columns can be extended and customized with additional options. Each configuration is implemented with versatile solutions, top-quality components, and first-class service.

- Rotary encoder
- Custom head or base plates
- Direct mounting of IEC motors
- Ball screw drives (single-stage columns)
- Multi-start spindles
- Selected models available with electrically disconnectable safety nut

CONFIGURATION	PHOENIX	PHOENIX Compact	PHOENIX Robotics
Lifting column	■	■	■
Motor	■*	■	■
Ethernet (TCP/IP) control system	-	■	■
Robot mounting plate	-	-	■
Plug & Play software	-	-	■
Power supply unit	-	■	■
Handheld control device	-	■*	■*

*Optionally available



PHOENIX

The base model of the PHOENIX lifting column range reliably handles loads from 500 kg to 2,500 kg. This cost-efficient system combines lifting and guiding functions in a compact unit. A key advantage is its ability to safely absorb off-center forces. Thanks to its space-saving design, PHOENIX lifting columns offer a wide range of applications – from mechanical engineering to aerospace and the pharmaceutical industry.

HIGH LOAD CAPACITY AND LARGE STROKE LENGTHS

The PHOENIX lifting column is designed for heavy-duty industrial applications. Its robust spindle technology effortlessly moves loads in the upper weight range while achieving impressive stroke heights, ideal for large systems or modular assembly setups.

ROBUST DESIGN FOR CONTINUOUS INDUSTRIAL OPERATION

A solid housing, premium guide elements, and precisely manufactured components ensure a long service life, even under the toughest operating conditions.

MODULAR DESIGN AND FLEXIBLE CONFIGURATION

Every system is different, that's why PHOENIX can be individually configured. Various stroke lengths, drive options, and mounting possibilities allow easy seamless integration into existing installations.

DURABLE, LOW-MAINTENANCE, AND HIGHLY VERSATILE

With its precise mechanics and superior build quality, the PHOENIX minimizes downtime and maintenance requirements. It is suitable for a wide range of applications, from machine assembly to material handling systems.

TYPICAL APPLICATIONS

- Assembly and production lines
Lifting of fixtures or workpiece carriers between two working heights, e.g. in the automotive supply industry.
Example: A fixture holding an engine housing is automatically raised to an ergonomic working height.
- Testing and measurement stations
Precise lifting of test fixtures for repeatable measurements. *Example: A test table with sensors automatically moves to defined measuring positions.*
- Packaging systems
Height adjustment of infeed conveyors or pallet stations.
Example: The conveyor height is automatically adapted to different carton sizes without manual changeover.

PHOENIX

Reliable lifting performance for industrial applications requiring maximum stability, precision, and load capacity.



PHOENIX COMPACT



Versatile, efficient, and designed for a wide range of applications – the PHOENIX Compact lifting column is a flexible solution tailored for industries that require reliable lifting performance. Built for versatility, it ensures smooth operation across various industrial and medical environments, featuring an integrated motor and control unit for seamless functionality.

COMPACT DESIGN FOR LIMITED INSTALLATION SPACES

The PHOENIX Compact truly excels where space is at a premium. With its slim design, it can be easily integrated into existing systems, ideal for small automation cells or mobile equipment.

PRECISE MOVEMENT FOR LIGHT TO MEDIUM LOADS

Despite its compact size, the PHOENIX Compact delivers high repeatability and smooth motion. It enables exact positioning as required in electronics assembly or general conveyor applications.

COST-EFFICIENT SOLUTION FOR SIMPLE AUTOMATION TASKS

Where high loads are not required but precision movement is essential, the Compact version is the most economical choice. It offers all core functions of PHOENIX technology in a cost-effective, streamlined format.

EASY INTEGRATION INTO EXISTING SYSTEMS OR RETROFIT PROJECTS

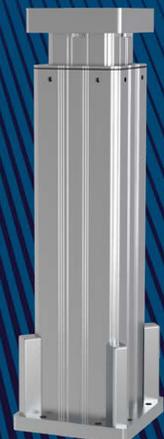
The PHOENIX Compact is quick to install and can be easily integrated into existing control systems. This makes it the ideal choice for upgrades or small-scale modernization projects.

TYPICAL APPLICATIONS

- Electronics production & precision assembly
Positioning of small components or devices at ergonomic working heights. *Example: In a PCB assembly line, the lifting column raises a component-handling system to precise assembly level.*
- Small-scale robotics & laboratory automation
Height adjustment of compact cobot cells or testing fixtures. *Example: A desktop robot automatically switches between two working levels during sample preparation.*
- Light conveyor systems
Integration into compact material handling systems. *Example: A small lifting column connects two roller conveyors with minimal height difference.*

PHOENIX COMPACT

Compact, precise, and cost-efficient lifting solution for confined spaces and lighter loads.



PHOENIX ROBOTICS

The PHOENIX Robotics lifting column delivers extended reach, innovative performance, and versatile functionality across multiple industries. It is particularly effective for robotic applications such as palletizing and depalletizing, where stability, load capacity, and safety are essential. With exceptionally low deflection, the lifting column ensures precise motion and safe operation without compromising robot performance.

STABILITY

The column impresses with its high rigidity. Even at full load, lateral deflection remains below 2 mm, enabling precise, smooth motion and excellent repeatability.

HIGH LOAD CAPACITY

Handles loads of up to 130 kg, providing reserves for larger cobots, gripper systems, and heavy workpieces.

COST SAVINGS

Greater reach – smaller budget: With PHOENIX Robotics, a compact cobot can be extended with a vertical axis, increasing range without requiring larger, more expensive robot models. This reduces both investment costs and mechanical modification efforts.

OPTIMIZED SPACE UTILIZATION

With its slim design and long stroke, the lifting column creates additional working space in confined environments. Production cells can thus be designed more compactly and flexibly, perfectly suited for modern manufacturing concepts.

ENHANCED SAFETY

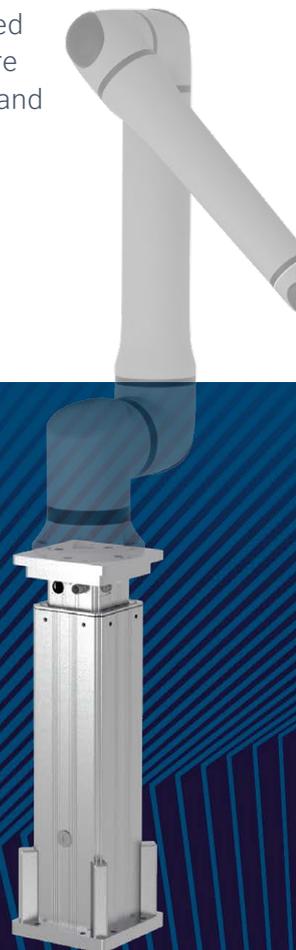
The PHOENIX Robotics lifting column is designed for safe collaboration with cobots. Features such as Safe Torque Off (STO), integrated drive, and reliable position control ensure maximum safety for people, machines, and processes.

TYPICAL APPLICATIONS

- Palletizing & depalletizing
Extending the cobot's working range for higher stacks and greater reach. *Example: A cobot stacks cartons up to 2 meters high using the lifting column's vertical motion.*
- Material handling & machine loading
Dynamic positioning of cobots between multiple working levels. *Example: A cobot loads parts into a milling machine at varying heights.*
- Bin picking & sorting processes
Flexible access to different gripping heights. *Example: A cobot picks components from containers of varying heights.*

PHOENIX ROBOTICS

Intelligent, electric lifting column for cobot automation – stable, modular, and seamlessly integrable



SYSTEM INTEGRATION & CONNECTIVITY

The lifting column is equipped with an Ethernet interface (TCP/IP protocol), providing a standardized, fast, and stable communication platform for seamless integration into robotic environments.

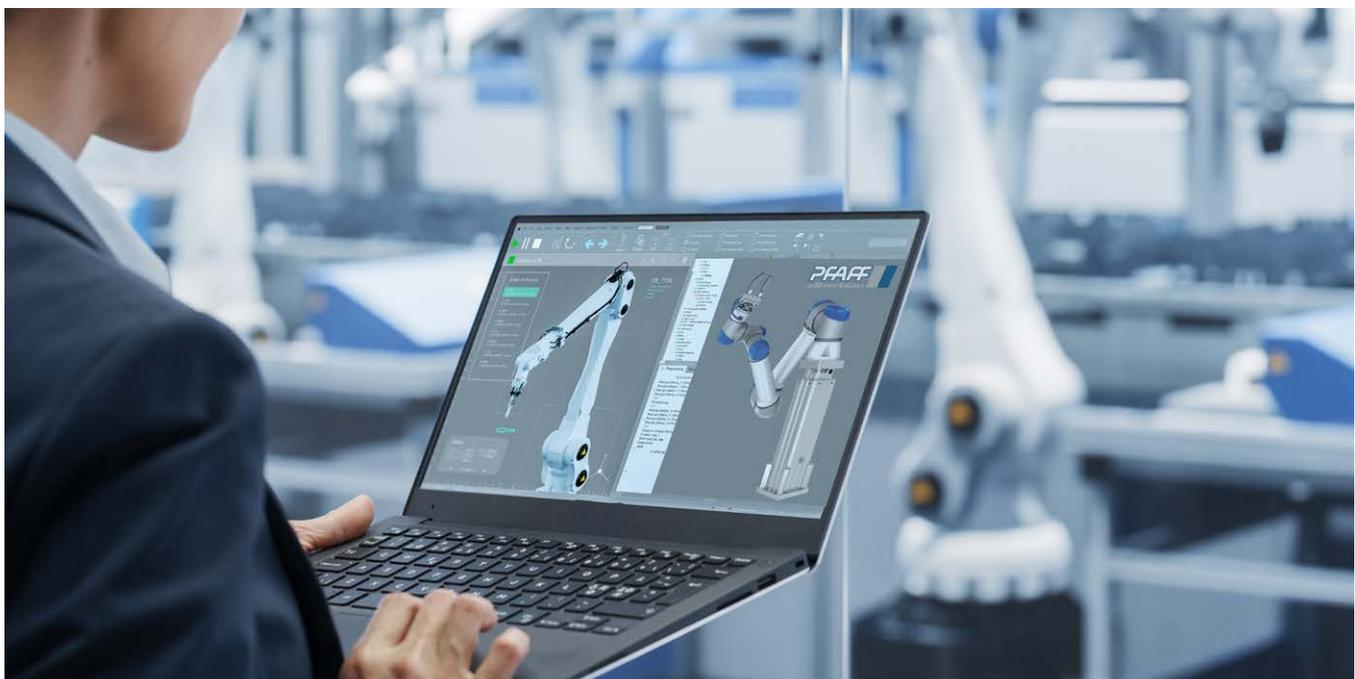
- The software is developed with a focus on performance and stability, ensuring reliable real-time communication between the robot and the lifting column.
- Use of the TCP/IP protocol is license-free, helping reduce costs and simplify integration. (Additional protocols available upon request)



PLUG-AND-PLAY COMPATIBILITY

Integrating new components into existing or planned robot cells is often time-consuming and complex, but not with PHOENIX Robotics. Thanks to its intelligent plug-and-play design, the lifting column can be seamlessly integrated with systems from ABB, FANUC, and Universal Robots, with additional manufacturers to follow. Simply connect, and the lifting column is automatically detected by the robot controller and can be operated directly via the existing interface.

- Fast commissioning results in less effort, shorter integration times, and higher efficiency.
- This certified solution guarantees compatibility and quality – verified by leading robot manufacturers.



CMCO

INTELLIGENT MOTION
Columbus McKinnon

Columbus McKinnon has a history of over 150 years and is a world leader in lifting and intelligent motion control technology. The innovative portfolio of high-quality brands, including STAHL Crane-Systems, Magnetek, Pfaff-silberblau, Duff-Norton, Yale, Dorner, CM, montratec and Garvey addresses the needs of our customers by enhancing safety and promoting growth and efficiency. Experience, expertise and innovation combined with a deep understanding of user needs are the formula for success that has long underpinned our portfolio of hoists, material handling equipment and lifting accessories. Columbus McKinnon is a global organization headquartered in Charlotte, USA (North Carolina). Its global presence includes offices and manufacturing facilities in North America, Latin America, Europe, Africa and Asia.



www.cmco.com

STAHL
Crane Systems



MAGNETEK

PAFF
silberblau



Duff-Norton

Yale

DORNER

CM

montratec

GARVEY