Technology that inspires

PRODUCT RANGE

Mechanics | Software | Electronics

Excerpt of the WEISS Product Range

SH LIFTING-ROTATING UNIT

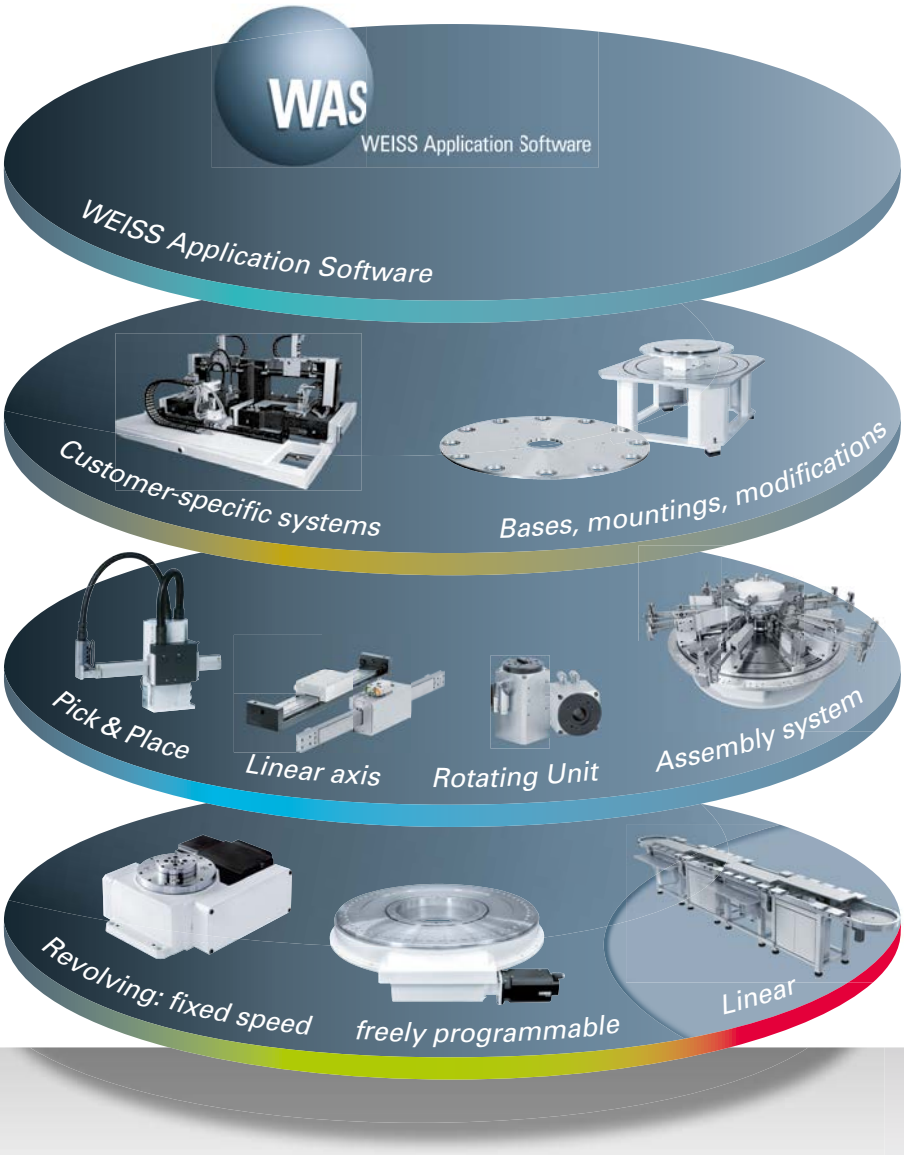
Four steps to perfect automation

4 I would like to commission my installation quickly and efficiently

3 I require machine frames, mounting bases or custom equipment

2 I require handling components

1 My transport is...



Fixed position rotary indexing tables

TC

TR

TC rotary indexing table
TR rotary indexing ring

User-programmable rotary indexing tables

NC

NR

CR

TO

TW

NC rotary indexing table NR rotary indexing ring
CR/TH heavy duty ring TO torque rotary indexing table
TW rotary indexing table

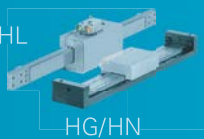
Linear assembly system

LS

LS 280

Handling modules

HP


HL

HG/HN

ST/SW

SH

PM

HP Pick & Place HL Linear axis
HG/HN Linear axes ST/SW rotary unit
SH Lifting-rotating unit PM Pick-o-Mat

Customer specific solutions

Plate

SK

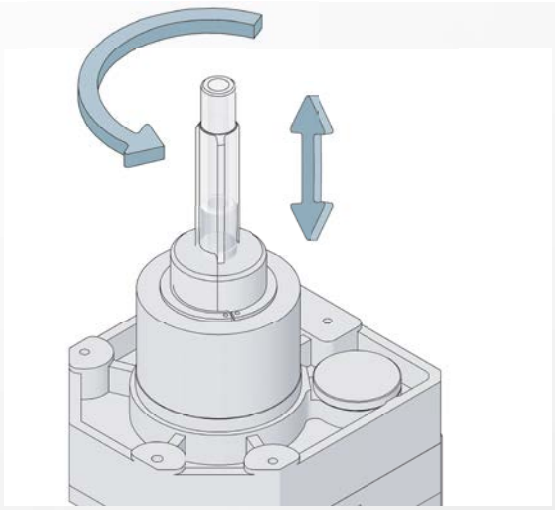
SR/SK indexing machine bases
Additional indexing plate

WAS-Software

WEISS Application Software (WAS)

SH lifting-rotating unit

The resounding success enjoyed by the SH 75 is largely thanks to its versatile and flexible deployment options. The lifting and rotary axes are user-programmable independently of one another – making the axis combination suitable for a wide range of applications, including varying tasks. A high power density, extremely compact dimensions, as well as fast and convenient start-up using the WEISS Application Software are further plus points. The new integrated servo motors have catapulted the unit into new categories of dynamics and precision.



Handling unit with independent servo axes for lifting and rotary movements

Fast, easy and secure setting through its unique user software

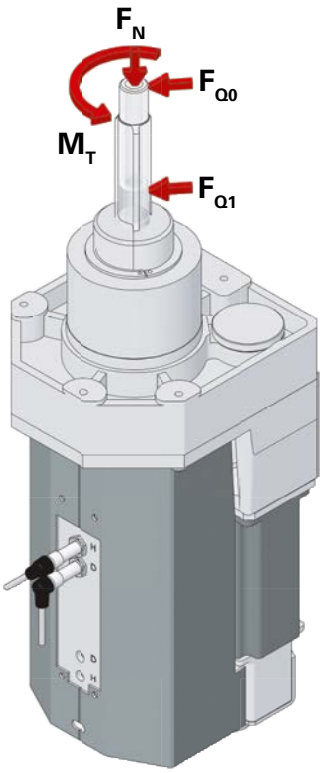
The key advantages at a glance

- *Compact design with high power density*
- *Excellent dynamics thanks to use of the latest servo drives*
- *Flexible deployment options throughout varying tasks/processes*
- *User programmability of the two independent lifting and rotary axes*
- *WEISS Application Software (WAS) for quick and easy start-up*

SH 75

Technical data

Stroke	0-75 mm user-programmable
Rotary axis	Any, endless rotation also possible
Repeatability accuracy (rotation)	± 115“
Repeatability accuracy (stroke)	± 0.02 mm
Output shaft	Ø 18 h6
Output shaft bore	Ø 11 mm (for air and sensor cables)
Installation position	Any
Weight	Approximately 15 kg
Max. lateral force with F_{Q0} shaft extended	500 N
Max. lateral force with F_{Q1} shaft retracted	1500 N
Max. normal force F_N	30 N
Torque M_T	10 Nm
Max. intermediate circuit voltage	560 V DC



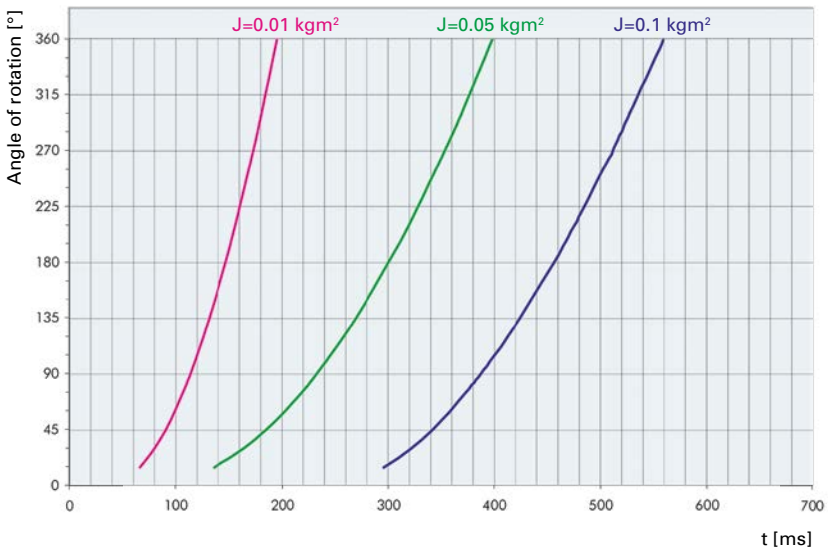
Cycle times

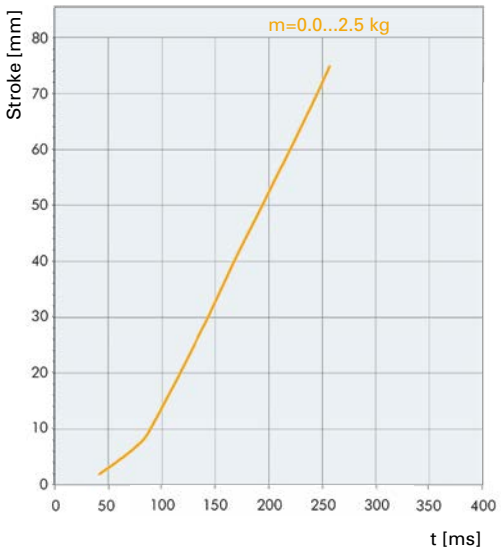
Diagrams can be used to determine the cycle times for your motion sequence based on the respective travel distance and load on the rotary axis.

Example:

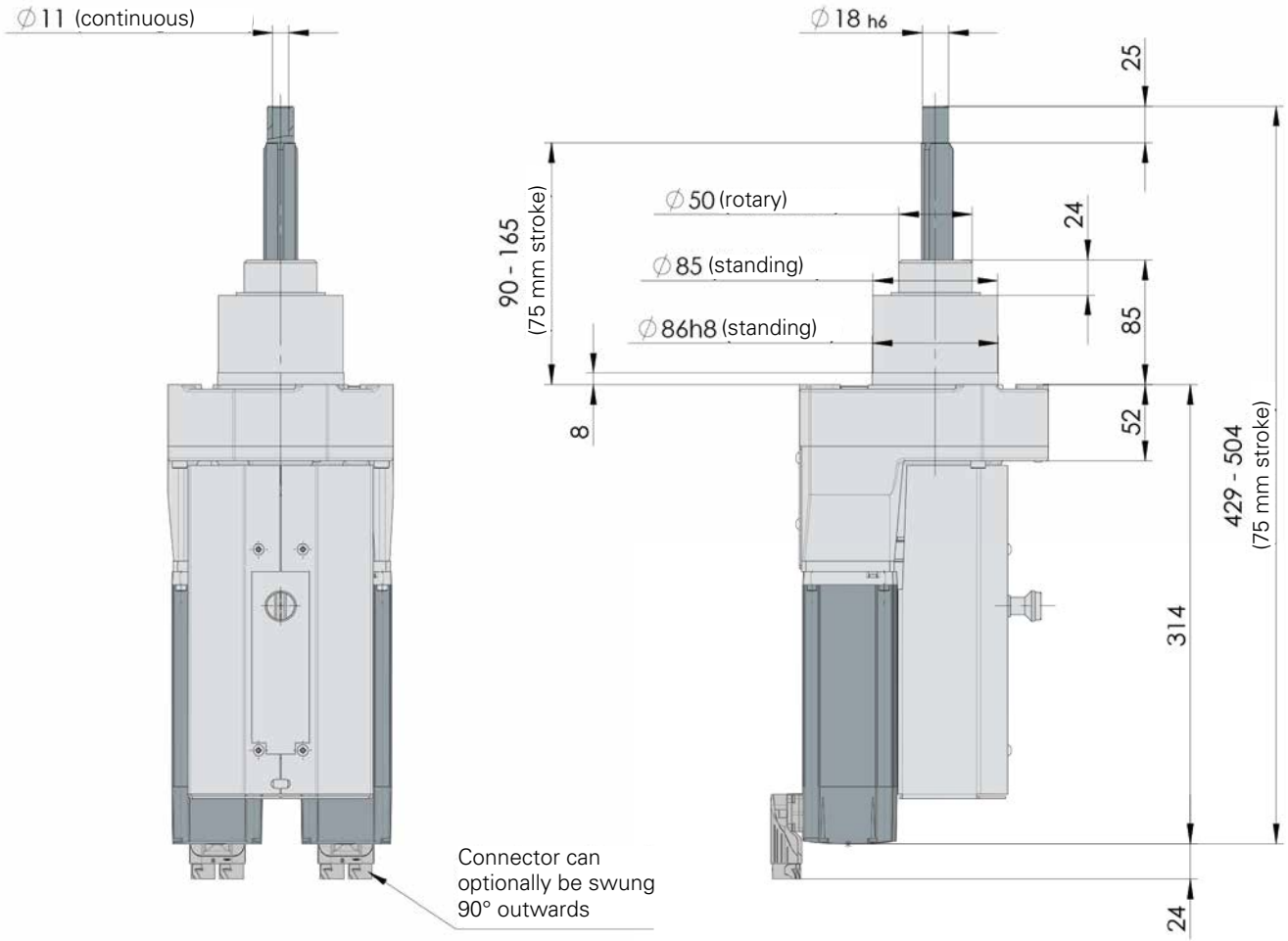
Load: 0.2 kg on 230 mm radius (corresponds to 0.01 kgm²)
Movement: Lifting 20 mm / rotation 90° / lowering 30 mm
Cycle time: $t_{Lift} + t_{Rotate} + t_{Lower}$ = 120 ms + 115 ms + 140 ms = 375 ms.

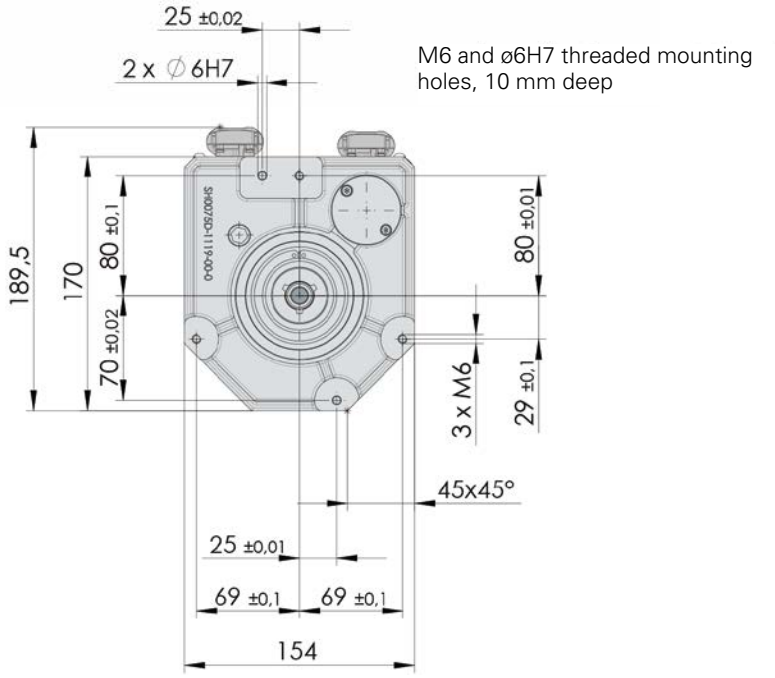
Drive Time





Dimensions SH 75





WAS – WEISS Application Software

In addition to the basic functions of the start up, WAS – WEISS Application Software also gives you easy access to the teaching of positions and programming of motion-sequences. Your Windows-PC will be connected through RS232 or Ethernet with our drive.

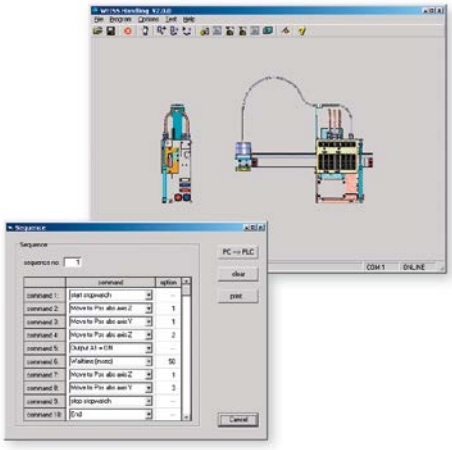
WAS.indexer
WEISS Application Software

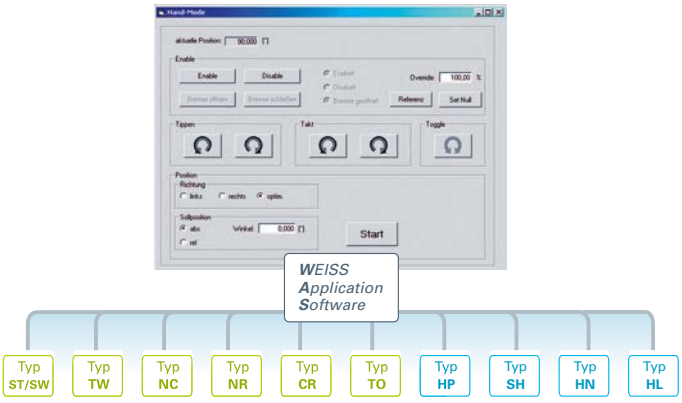
Communication

- *Profibus-DP*
- *Digital I/O*
- *Free ASCII protocol*
- *Ethernet*
- *DeciveNet-CAN*
- *EtherNet/IP*
- *Modbus TCP*
- *CAN*

Software

- *All positions and speeds are user programmable*
- *Up to 128 teaching positions*
- *Up to 32 programs can be stored*
- *Ability to force inputs and putputs (e.g. for initial start-up)*
- *Software cam-functions can be defined*





Machine Layout SH 75

☐ **Enquiry** ☐ **Enclosure with order**

Dear Customer,

Thank you for your interest in our SH 75 servo-mechanical lifting-rotating unit. To ensure optimum design of the system for your specific requirements, please answer the following questions:

☐ Mass moment of inertia _____ kgm²

☐ Weight (gripper + workpiece) _____ kg

Accessories

☐ Clamping set

Electrical components

☐ **WEISS control package**

Amplifier, WAS software
Cable lengths: ☐ 5m* ☐ 10m ☐ 15m ☐ 20m ☐ 25m

Interface to customer PLC

☐ Ethernet
☐ Profibus-DP*
☐ digital I/O
☐ CAN bus
☐ Free ASCII protocol
☐ DeviceNet-CAN (Rockwell)
☐ EtherNet/IP (Rockwell)
☐ Modbus TCP (Telemecanique)

Interface to the WEISS Application Software (WAS)

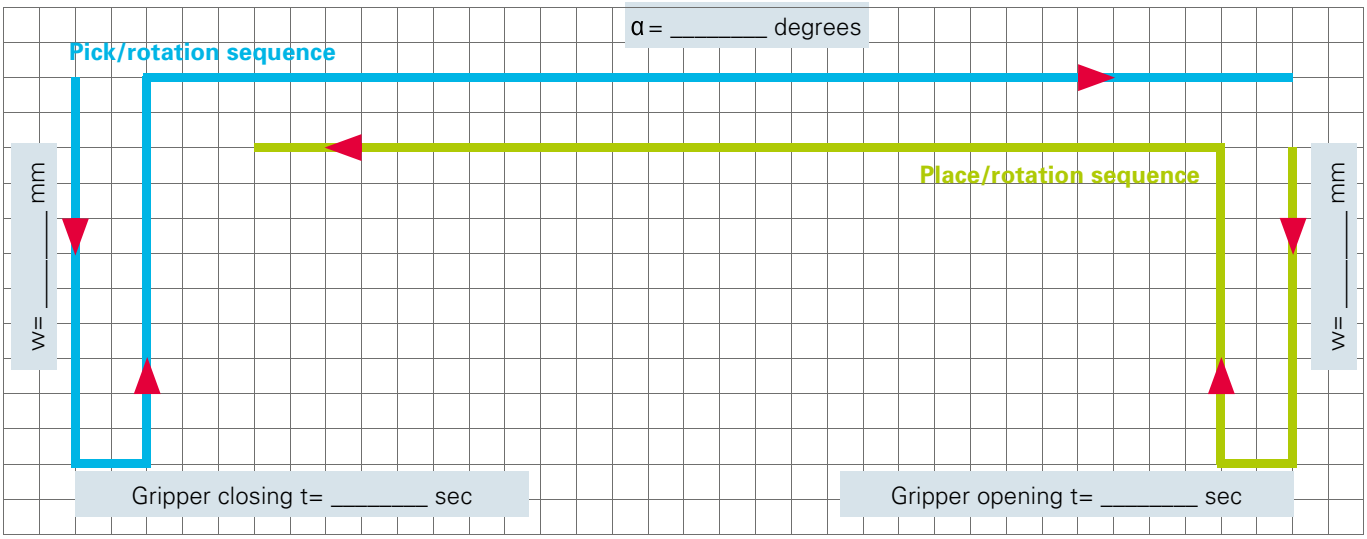
RS232 and Ethernet included as standard

☐ USB-to-RS232 adapter

Supply voltage

☐ 1 x 208 to 230 V ~ 50/60 Hz*
☐ 3 x 208 to 230 V ~ 50/60 Hz
☐ 3 x 400 to 480 V ~ 50/60 Hz (larger installation dimensions)

Cycle time calculation – please give us an idea of your desired motion sequence:



For technical enquiries

Company: _____ Desired delivery date: _____

Name: _____ Phone: _____ Fax: _____

Country: _____ email: _____

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