

Technology that inspires



PRODUCT RANGE

Mechanics | Software | Electronics



Excerpt of the WEISS Product Range

ROTARY INDEXING TABLE TW



freely programmable

4

I would like to commission my installation quickly and efficiently



3

I require machine frames, mounting bases or custom equipment



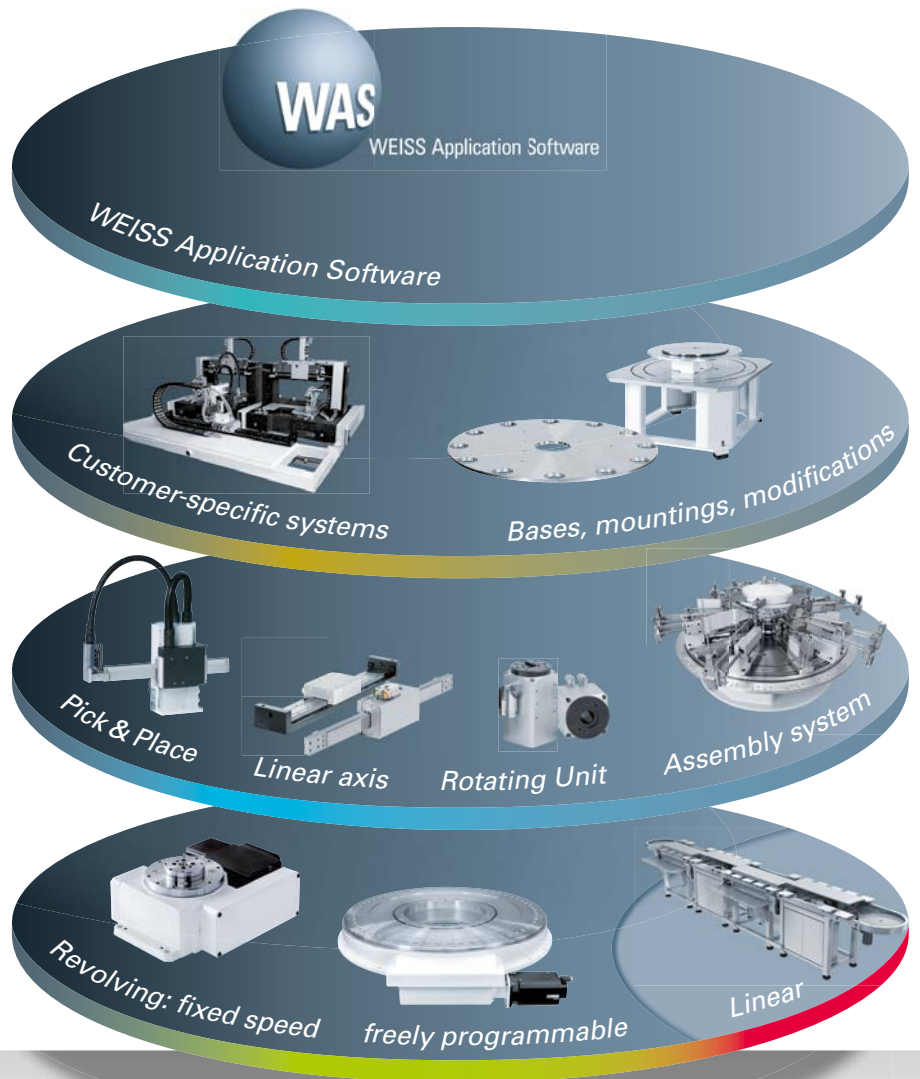
2

I require handling components



1

My transport is...



Four steps to perfect automation

Fixed position rotary indexing tables



TC rotary indexing table
TR rotary indexing ring

User-programmable rotary indexing tables



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

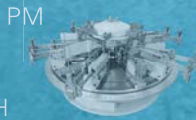


LS 280

Handling module

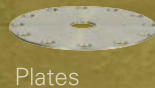


HG/HN



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



SK



SR/SK indexing machine bases
Additional indexing plate



WAS-Software

WEISS Application Software (WAS)



The TW with Hybrid-Drive

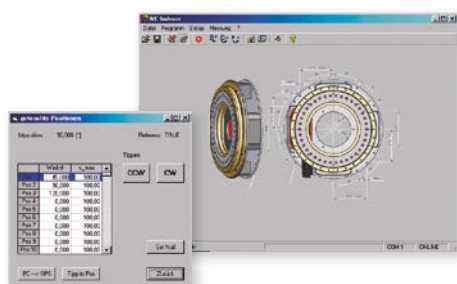
A direct drive motor integrated with a high-precision gear, absolute encoder and built-in brake combined with a robust mechanical platform.

The TW sets new standards in the compact rotary indexing table-area in the following characteristics: dynamic, precision, user programmable and ease of use, power density. These products are designed to greatly outperform any pneumatic indexing solutions available.

Additional user benefits: Comparable in cost to pneumatic solutions, a clear cost advantage is developed through enhancement in productivity, lower operating cost and reduced maintenance cost.



Available in three sizes



Fast, easy and secure setting through ist unique user software.

The key advantages at a glance:

- User programmable
- Much faster than pneumatic solution
- Much more precise than pneumatic solution
- Higher power density than pneumatic solution
- Very little dwelltime
- Absolute encoder
- Precise zero-point through locating holes in the body
- No wear
- Precise teaching of each position
- Rigid stationary center section in various levels
- Electronic overload protection
- Any mounting position possible
- High energy efficiency
- Indexing in any angles possible

TW 150

Technical data

Cont. torque (Nm):	33	Cont. current (Arms):	2
Peak torque (Nm):	75	Peak current (Arms):	5
Max. speed (rpm):	80	Radial run out (mm):	0.02
Friction (Nm):	5	Axial run out at Ø 140 (mm):	0.02
Max. load (kgm²):	5	Thermal sensor:	PTC
Index precision ("): 	±65	Internal inertia (kgm²):	0.0054
Max. DC-Voltage (VDC):	800	Weight (kg):	27
Mounting Position:	any*	Gear ratio:	1:9

All values in relation to the table-top
 * Please consult WEISS for overhead mounting positions.

Encoder


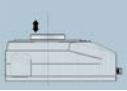

Interface Sick-Stegmann Hiperface

Accuracy: SEL52 ±65"




Interface Heidenhain EnDat (on request)

Accuracy: EQI ±65"

Load data (for the stationary center section)

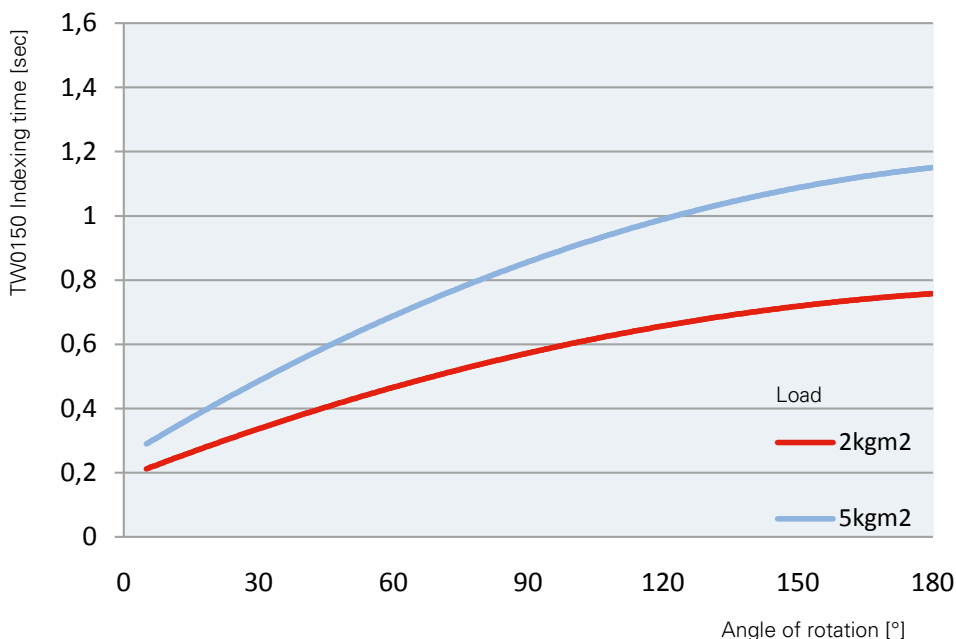
		
<i>perm. tilting moment acting on the center section</i> 200 Nm	<i>perm. force acting vertically on the center section</i> 3500 N	<i>perm torque acting on the center section</i> 150 Nm
<i>perm. radial force acting on the center section</i> 2500 N		

Load data (for the rotary indexing dial plate)

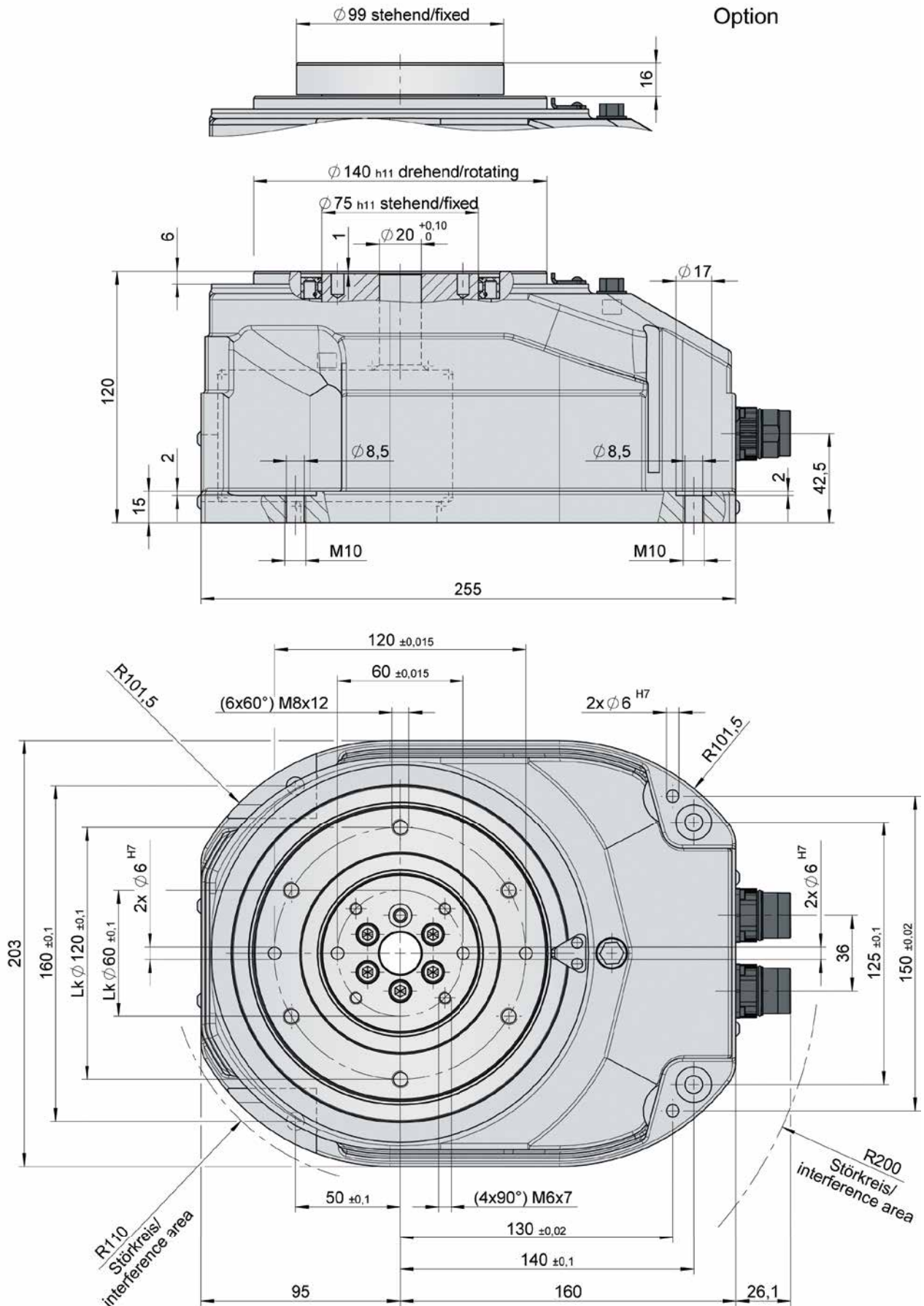
		
<i>perm. tilting moment acting on the locked dial plate</i> 500 Nm	<i>perm. operating force (acting vertically on the locked dial plate with the nominal Ø)</i> 5500 N	<i>perm. torque with brake</i> 12 Nm
<i>perm. radial force acting on the locked dial plate</i> 6000 N		<i>perm. torque acting on running motor (steady)</i> 33 Nm

Combined loads only after inspection by WEISS.

Timing diagram



Dimensions TW 150



Max. center line deviation between stationary center section and housing $\pm 300''$

TW 200

Technical data

Cont. torque (Nm):	100	Cont. current (Arms):	3.12
Peak torque (Nm):	220	Peak current (Arms):	7
Max. speed (rpm):	120	Radial run out (mm):	0.02
Friction (Nm):	15	Axial run out at Ø 190 (mm):	0.02
Max. load (kgm²):	25	Thermal sensor:	PTC
Index precision ("): 	±55	Internal inertia (kgm²):	0.031
Max. DC-Voltage (VDC):	800	Weight (kg):	42
Mounting Position:	any*	Gear ratio:	1:10

All values in relation to the table-top
 * Please consult WEISS for overhead mounting positions.

Encoder


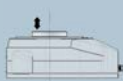

Interface Sick-Stegmann Hiperface

Accuracy: SEL52 ±55"




Interface Heidenhain EnDat (on request)

Accuracy: EQI ±55"

Load data (for the stationary center section)

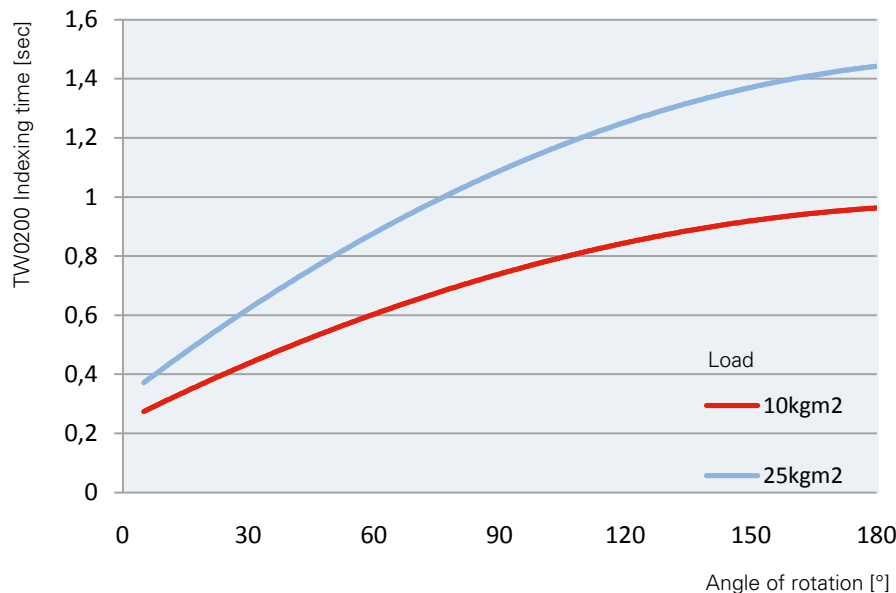
		
<i>perm. tilting moment acting on the center section</i> 300 Nm	<i>perm. force acting vertically on the center section</i> 5000 N	<i>perm torque acting on the center section</i> 200 Nm
<i>perm. radial force acting on the center section</i> 4000 N		

Load data (for the rotary indexing dial plate)

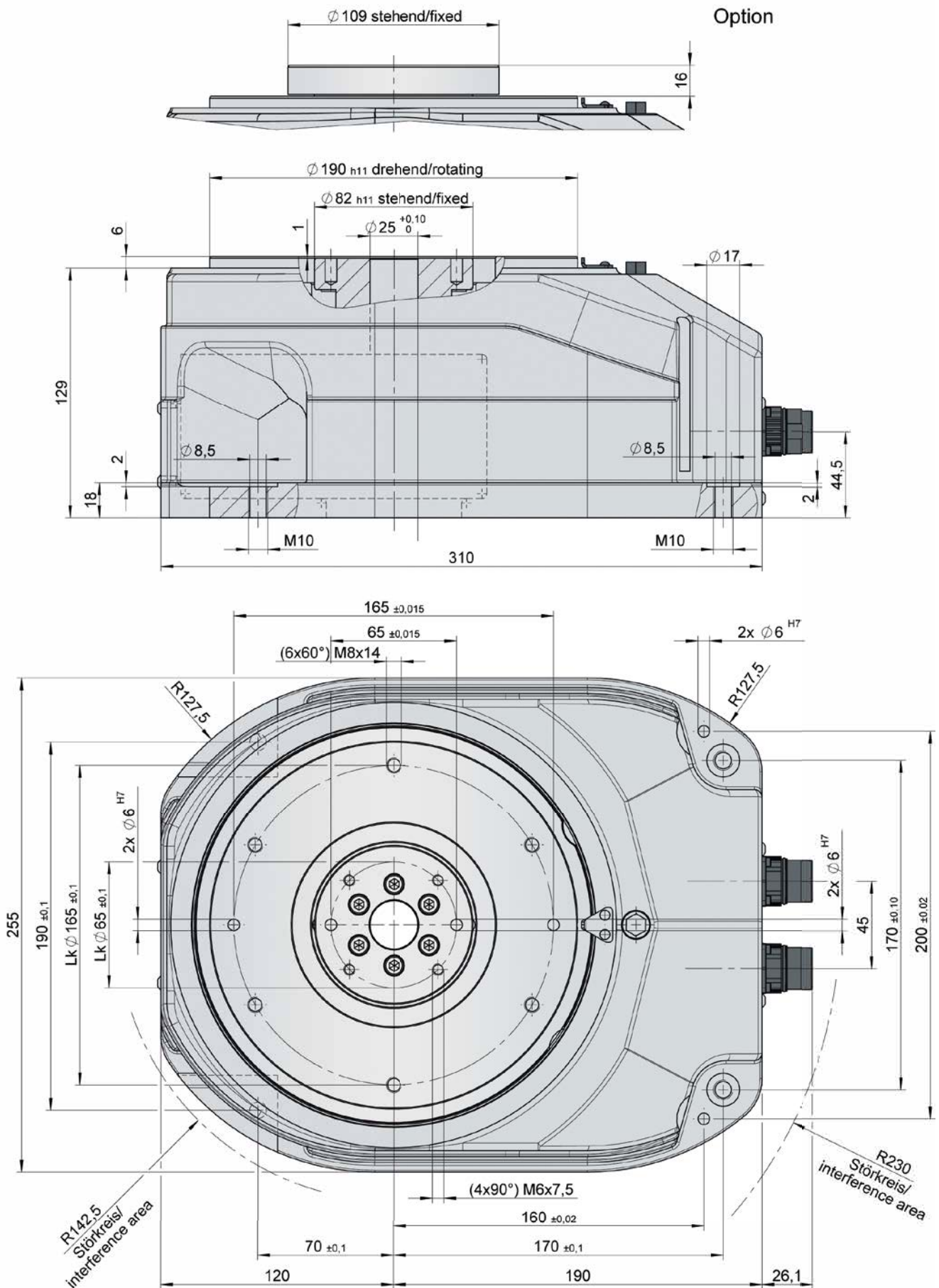
		
<i>perm. tilting moment acting on the locked dial plate</i> 700 Nm	<i>perm. operating force (acting vertically on the locked dial plate with the nominal Ø)</i> 7500 N	<i>perm. torque with brake</i> 70 Nm
<i>perm. radial force acting on the locked dial plate</i> 8000 N		<i>perm. torque acting on running motor (steady)</i> 100 Nm

Combined loads only after inspection by WEISS.

Timing diagram



Dimensions TW 200



Max. center line deviation between stationary center section and housing $\pm 300''$

TW 300

Technical data

Cont. torque (Nm):	200	Cont. current (Arms):	4.8
Peak torque (Nm):	450	Peak current (Arms):	12
Max. speed (rpm):	109	Radial run out (mm):	0.02
Friction (Nm):	20	Axial run out at Ø 280 (mm):	0.02
Max. load (kgm²):	50	Thermal sensor:	PTC
Index precision ("): 	±45	Internal inertia (kgm²):	0.28
Max. DC-Voltage (VDC):	800	Weight (kg):	106
Mounting Position:	any*	Gear ratio:	1:11

All values in relation to the table-top
 * Please consult WEISS for overhead mounting positions.

Encoder




Interface Sick-Stegmann Hiperface

Accuracy: SEL52 ±45"




Interface Heidenhain EnDat (on request)

Accuracy: EQI ±45"

Load data (for the stationary center section)

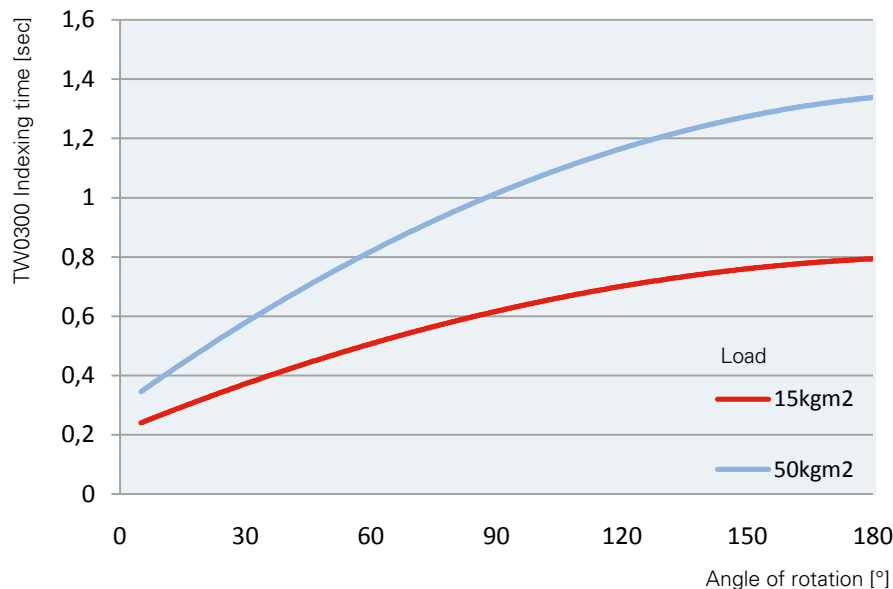
		
<i>perm. tilting moment acting on the center section</i> 1800 Nm	<i>perm. force acting vertically on the center section</i> 18000 N	<i>perm torque acting on the center section</i> 800 Nm
<i>perm. radial force acting on the center section</i> 2000 N		

Load data (for the rotary indexing dial plate)

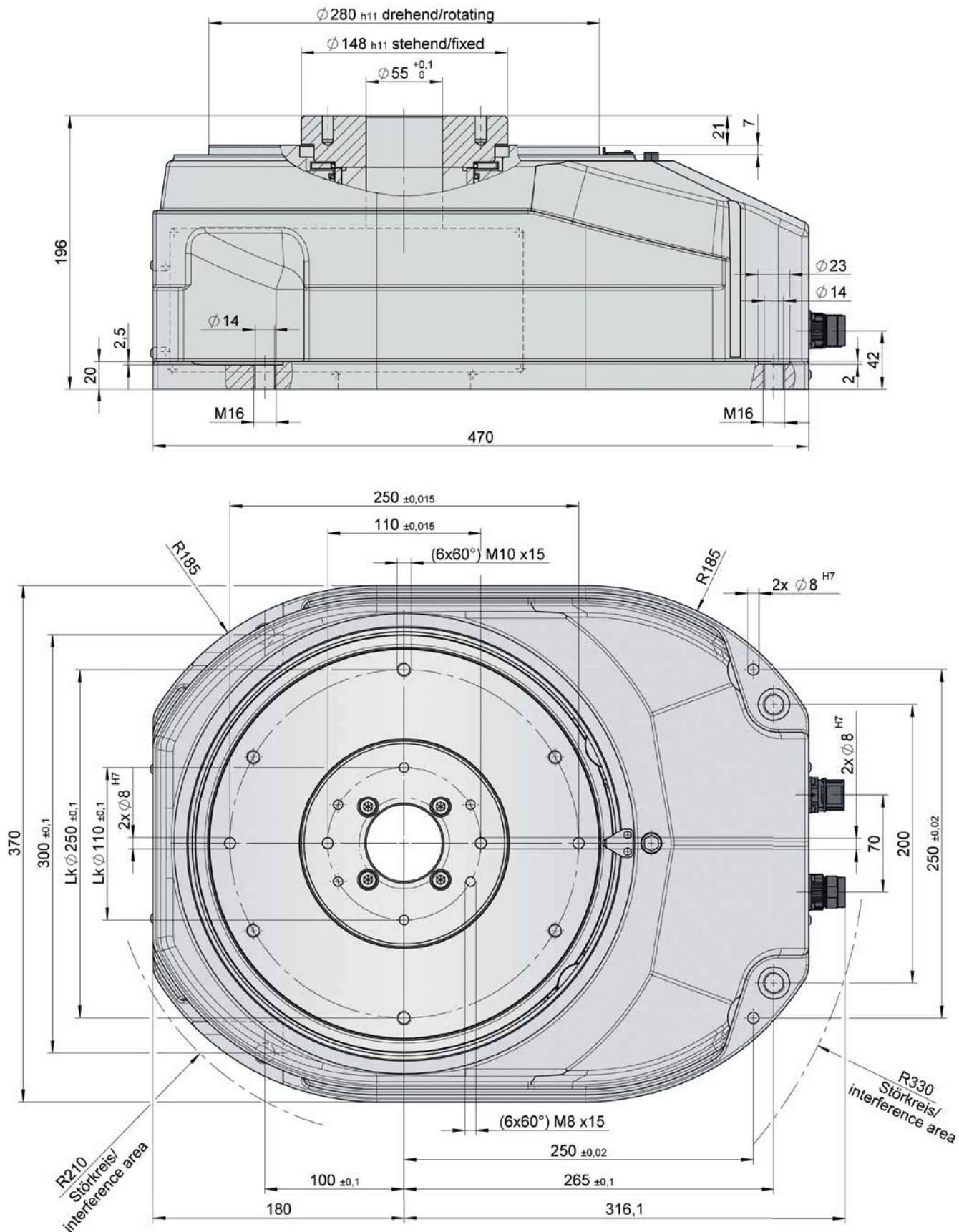
		
<i>perm. tilting moment acting on the locked dial plate</i> 2250 Nm	<i>perm. operating force (acting vertically on the locked dial plate with the nominal Ø)</i> 15000 N	<i>perm. torque with brake</i> 150 Nm
<i>perm. radial force acting on the locked dial plate</i> 15000 N		<i>perm. torque acting on running motor (steady)</i> 200 Nm

Combined loads only after inspection by WEISS.

Timing diagram



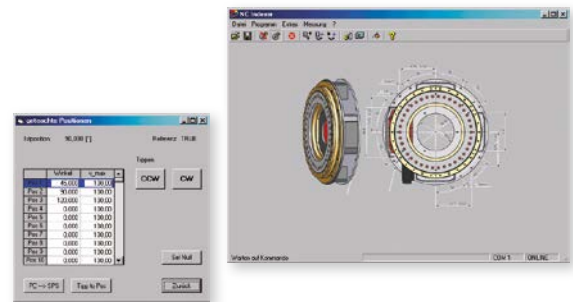
Dimensions TW 300



Max. center line deviation between stationary center section and housing $\pm 300''$

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.



Communication

- Profibus-DP
- Digital I/O
- Free ASCII protocol
- Ethernet
- DeviceNet-CAN (tested on Rockwell)
- EtherNet/IP
- Modbus TCP
- CAN

Software

- Up to 128 teaching positions
- Up to 10 programs can be stored
- Ability to force inputs and outputs (e.g. for initial start-up)
- Software cam-functions can be defined



Machine Layout TW

Enquiry Enclosure with order

Dear customer,

Thank you for your interest in our TW indexing tables. To ensure we supply the correct unit to suit your application, we kindly ask you to answer the following questions:

Model

- TW 150
 TW 200
 TW 300

Switching time

Based on the calculated mass inertia, do you require:

- The shortest switching time
 A longer switching time of approx. _____ sec.
 Angle of rotation _____ °
 Standing time _____ sec
 Total mass inertia: _____ kg m²

Colour

- RAL 7035 (light grey)
 Special colour RAL _____ (for additional charges)

Electrical data

WEISS control system package

Amplifier, WAS - Software

Cables length: 5m 10m 15m 20m 25m

Interfaces to the customer SPS

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

Interfaces to WAS – WEISS Application Software

RS232 and Ethernet are included in the scope of delivery
 Converter USB to RS232

Electrical source

- 1 or 3 x 208 ... 230V ~ 50/60Hz
 3 x 400 ... 480V ~ 50/60Hz (duty with TW300)

For technical enquiries

Company: _____

Name: _____

Country: _____

Adjustment connection plug



90°



straight

Dial Plate

- Included in the scope of offer and delivery
 Processing according to drawing No. _____

Fixture and parts

Number: _____

Weight per station: _____ kg

Diameter according the center to drawing No.: _____ mm

Extra indexing table

- Included in the scope of offer and delivery
 Don't deliver
 Diameter: _____ mm Size: _____ mm
 Material Al St other

Encoder

- Hiperface (Standard with WEISS control package)
 EnDat (for third-party control systems)

Stationary center section

- above mounting level
 under mounting level (not with TW300)

Mounting position

- standard (vertical rotation axis)
 overhead (vertical rotation axis)
 horizontal rotation axis

Desired delivery date: _____

Phone: _____ Fax: _____

email: _____

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