DER TW MIT HYBRID-DRIVE

FREELY AND INTUITIVELY PROGRAMMABLE

W.A.S. 2 – WEISS Application Software: secure and fast commissioning with free-of-charge user software.

SMALL, MEDIUM, LARGE

Available in three sizes!

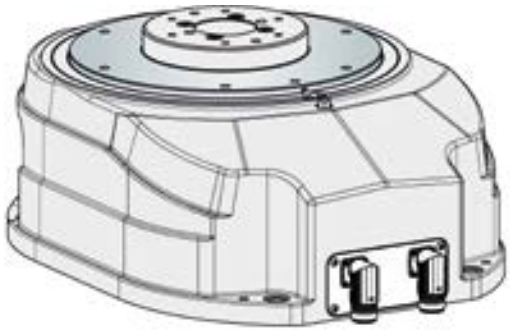
A direct drive motor integrated with a high-precision gear, absolute encoder and built-in brake combined with a robust mechanical platform. The TW sets new standards in the compact rotary table-area in the following characteristics: dynamic, precision, user programmable and ease of use, power density and the precise and robust WEISS mechanics.

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.

ADVANTAGES

- 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
- Integrated holding brake

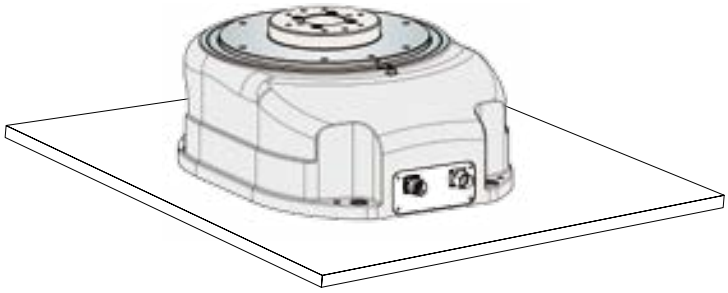
VERSIONS: CONNECTOR OUTLET



ANGLED 90° DOWNWARD

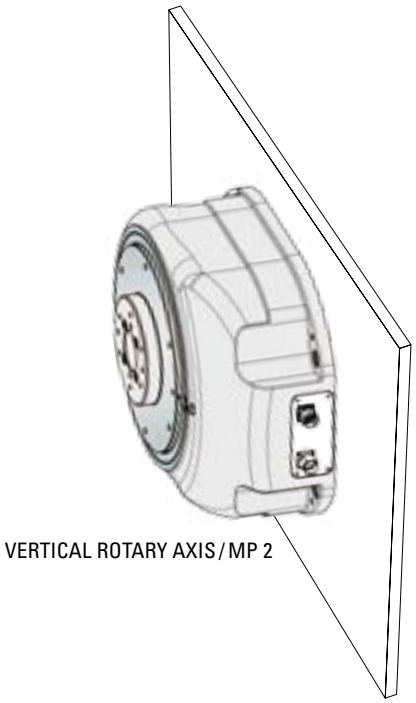
STRAIGHT

VERSIONS: MOUNTING POSITION



STANDARD / MP 1

OVERHEAD / MP 3



VERTICAL ROTARY AXIS / MP 2

GENERAL INFORMATION ON THE MODEL RANGE

- TW Rotary tables with hybrid drive are user-programmable
- TW Rotary tables with hybrid drive are "lubricated for life"!
- The maximum stated radial force and torque of the stationary central section and the output flange refer only to the rotary indexing table.
- When determining the maximum actual load of the overall system, the influence of the plate material and the plate attachment means must also be taken into account.
- We would be happy to advise and support you in dimensioning your overall system.

OPTIONS

- Possible mounting positions: vertical rotary axis, standard or overhead (Please consult WEISS for overhead mounting positions)
- With the TW0150 and TW0200 models, users can choose between a lowered or raised central section.
- With the TW0300 model, only the version with raised central section is available.
- All sizes in the TW model range can optionally be equipped with an absolute encoder.
  - » Standard: Sick-Stegmann, type SEL52 – Hiperface interface
  - » Custom option: Heidenhain, type EQI 1130 – EnDat 2.1 interface
- Connector outlet straight or angled 90° downward
- Standard colour: RAL7035 (other colours available on request)

TW 150A

GENERAL INFORMATION

· Maximum recommended equipment diameter D_{tp}: approximately 800 mm

TECHNICAL DATA

$n_{2\ Max}$	Max. motor speed:	100 1/min
i_{tot}	Overall gear ratio:	9
$T_{2\ Stat}$	Static torque (braked):	13.5 Nm
	Indexing precision:	130 arcsec (± 65")
A_r	Axial run-out of the drive flange:	(at Ø 140 mm) 0.02 mm
C_r	Concentricity of the output flange:	0.02 mm
P	Parallelism between the output flange and screw-on surface of the housing:	0.03 mm
m	Total weight, including motor:	approximately 27 kg
D_i	Min. inside diameter of the rotary plate (on variant with raised stationary central section)	100 mm

LOAD DATA (for the stationary central part)

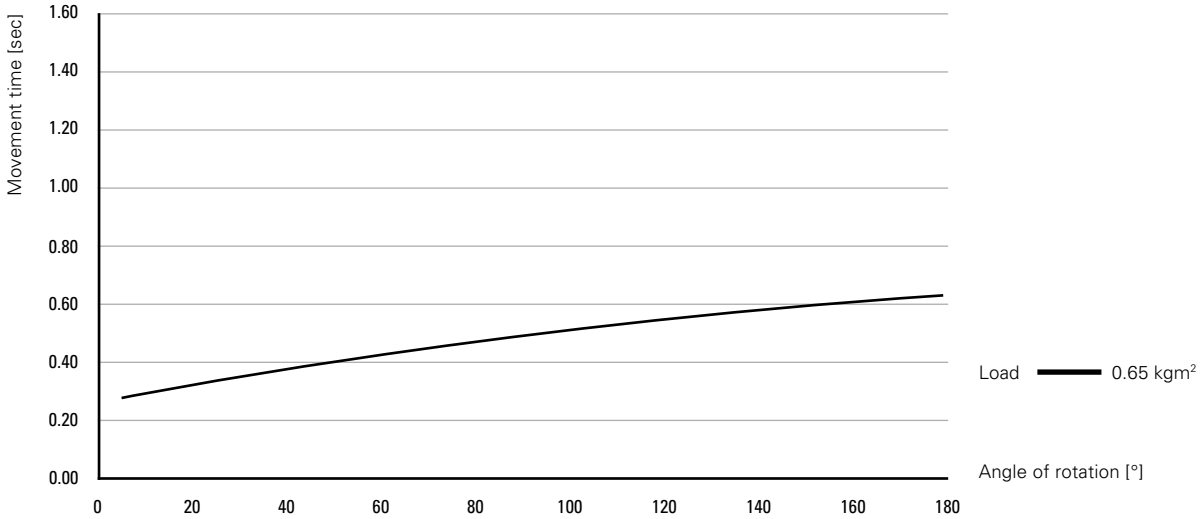
T_{SP}	Permitted torque:	140 Nm
$M_{T\ SP}$	Permitted tilting moment:	200 Nm
$F_{A\ SP}$	Permitted axial force:	3500 N
$F_{R\ SP}$	Permitted radial force:	2500 N

Combined loads and permitted process forces only after inspection by WEISS.

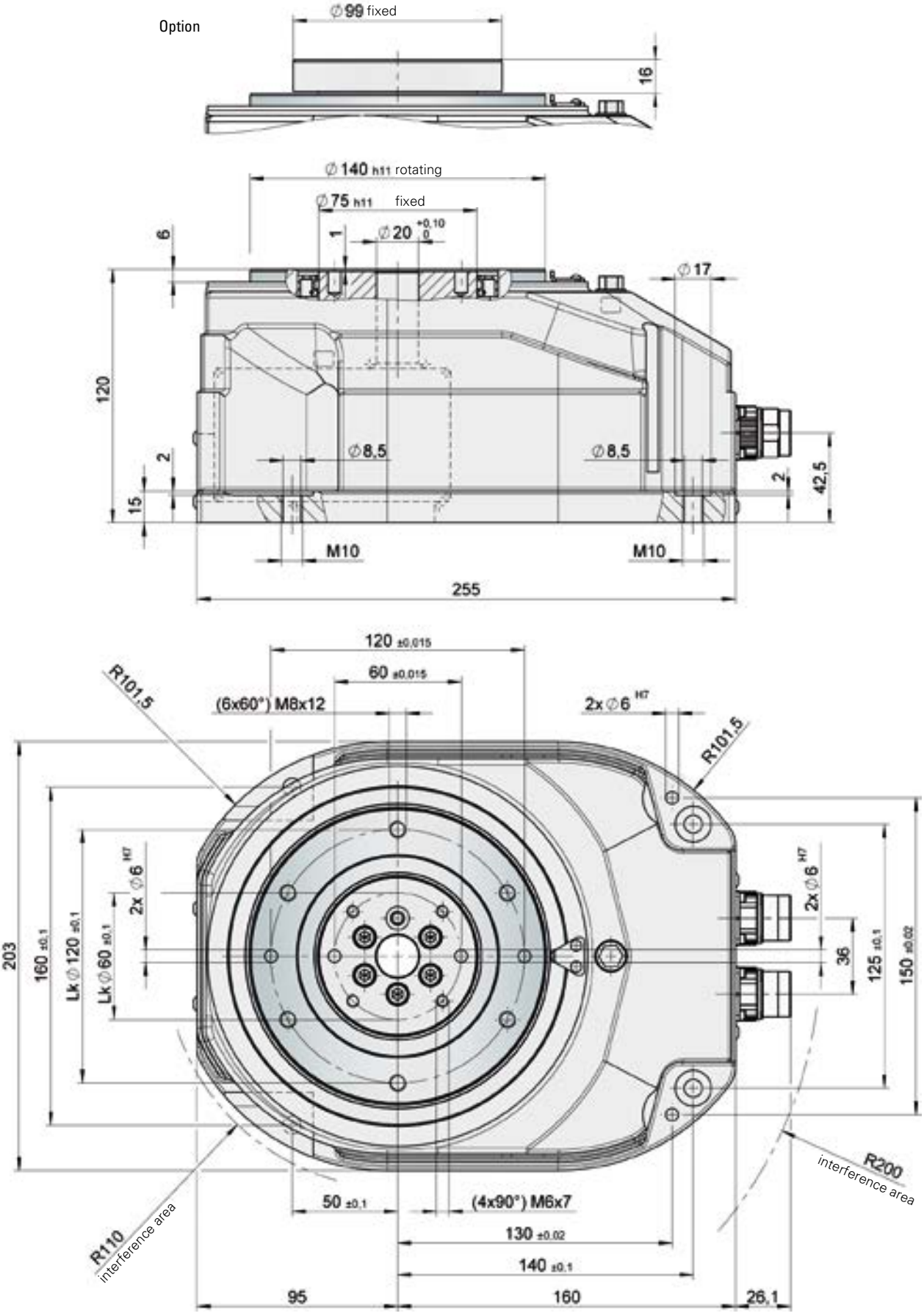
LOAD DATA (for the output flange)

T_{2A}	Max. acceleration torque:	60 Nm
T_{2N}	Nom. torque:	30 Nm
$M_{2T\ dyn}$	Permitted dynamic tilting moment:	500 Nm
$F_{2A\ dyn}$	Permitted dynamic axial force:	5500 N
$F_{2R\ dyn}$	Permitted dynamic radial force:	6000 N

TIMING DIAGRAM



DIMENSIONS



Max. center line deviation between stationary center section and housing ± 300″

TW 200A

GENERAL INFORMATION

· Maximum recommended equipment diameter D_{tp}: approximately 1100 mm

TECHNICAL DATA

$n_{2\ Max}$	Max. motor speed:	120 1/min
i_{tot}	Overall gear ratio:	10
$T_{2\ Stat}$	Static torque (braked):	75 Nm
	Indexing precision:	110 arcsec (± 55″)
A_r	Axial run-out of the drive flange:	(at Ø 190 mm) 0.02 mm
C_r	Concentricity of the output flange:	0.02 mm
P	Parallelism between the output flange and screw-on surface of the housing:	0.03 mm
m	Total weight, including motor:	approximately 40 kg
D_i	Min. inside diameter of the rotary plate (on variant with raised stationary central section)	110 mm

LOAD DATA (for the stationary central part)

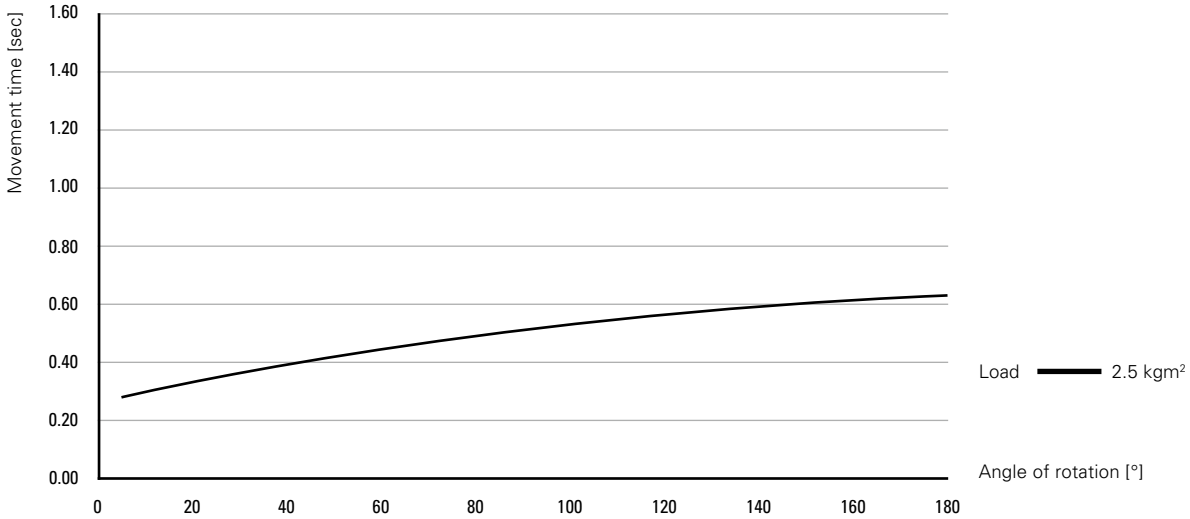
T_{SP}	Permitted torque:	145 Nm
$M_{T\ SP}$	Permitted tilting moment:	300 Nm
$F_{A\ SP}$	Permitted axial force:	5000 N
$F_{R\ SP}$	Permitted radial force:	4000 N

Combined loads and permitted process forces only after inspection by WEISS.

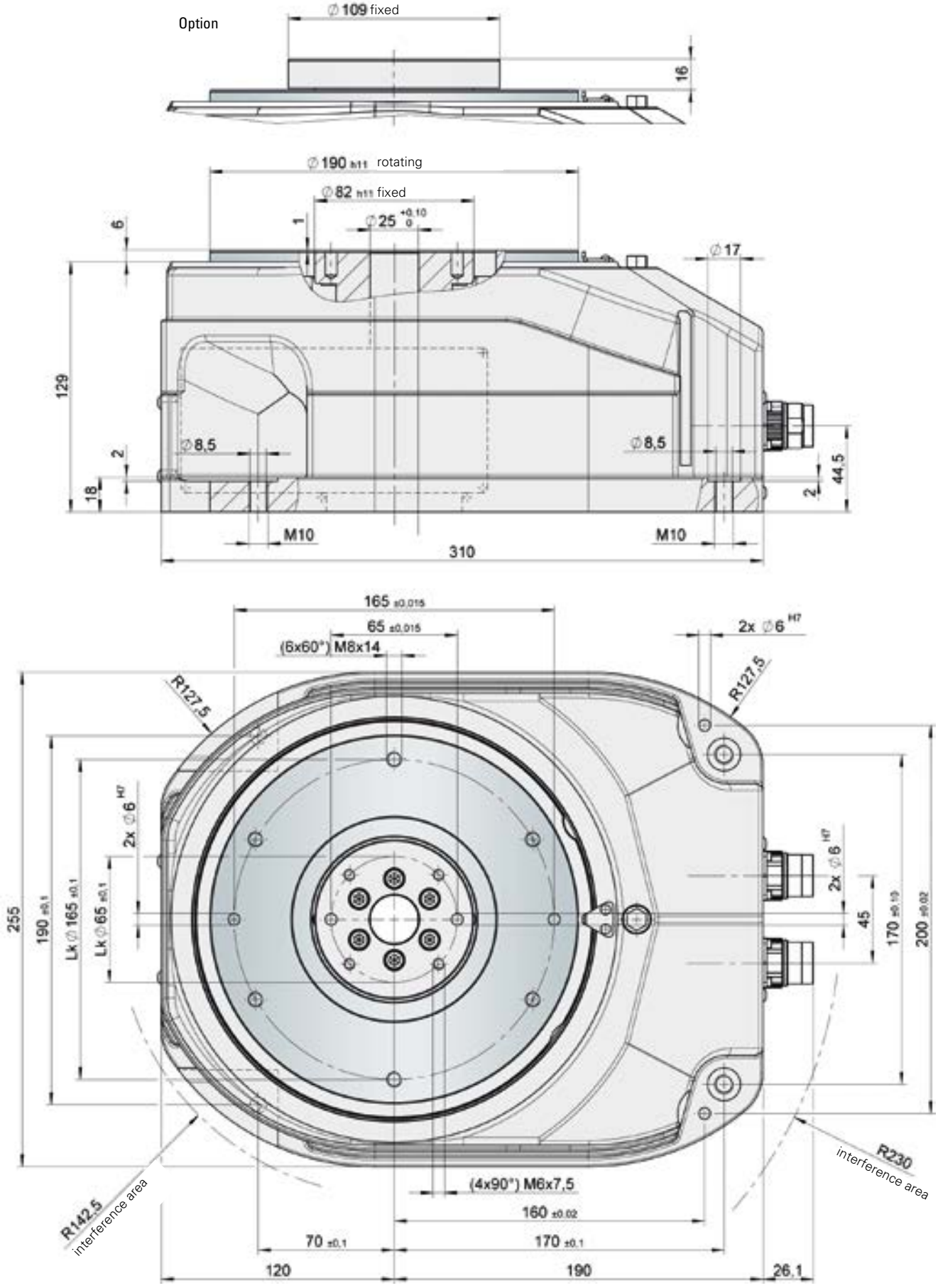
LOAD DATA (for the output flange)

T_{2A}	Max. acceleration torque:	180 Nm
T_{2N}	Nom. torque:	90 Nm
$M_{2T\ dyn}$	Permitted dynamic tilting moment:	700 Nm
$F_{2A\ dyn}$	Permitted dynamic axial force:	7500 N
$F_{2R\ dyn}$	Permitted dynamic radial force:	8000 N

TIMING DIAGRAM



DIMENSIONS



Max. center line deviation between stationary center section and housing ± 250"

TW 300A

GENERAL INFORMATION

· Maximum recommended equipment diameter D_{tp}: approximately 1400 mm

TECHNICAL DATA

$n_{2\ Max}$	Max. motor speed:	110 1/min
i_{tot}	Overall gear ratio:	11
$T_{2\ Stat}$	Static torque (braked):	165 Nm
	Indexing precision:	90 arcsec (± 45")
A_r	Axial run-out of the drive flange:	(at Ø 280 mm) 0.02 mm
C_r	Concentricity of the output flange:	0.02 mm
P	Parallelism between the output flange and screw-on surface of the housing:	0.03 mm
m	Total weight, including motor:	approximately 106 kg
D_i	Min. inside diameter of the rotary plate	150 mm

LOAD DATA (for the stationary central part)

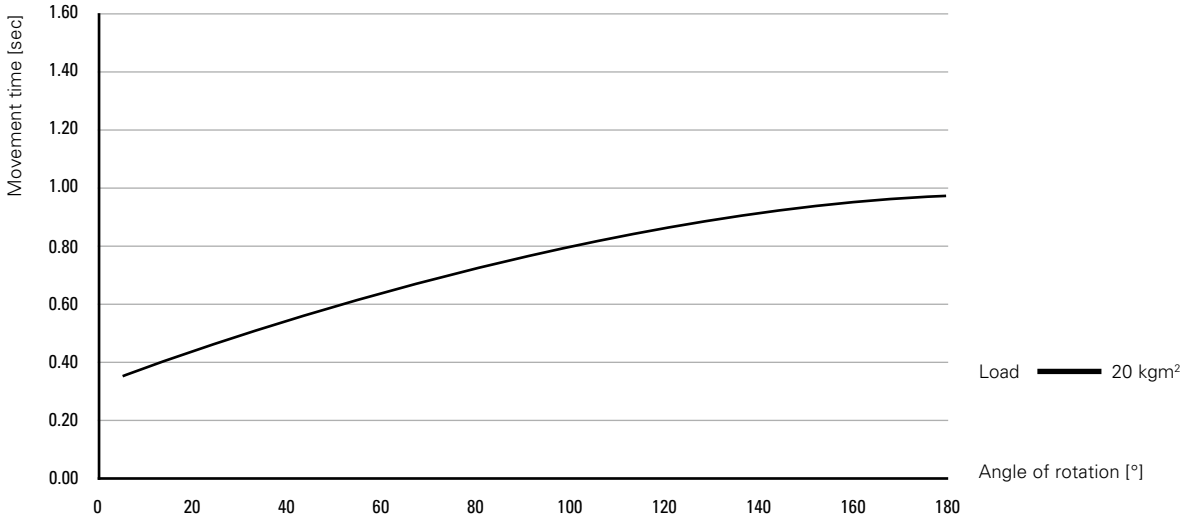
T_{SP}	Permitted torque:	800 Nm
$M_{T\ SP}$	Permitted tilting moment:	1800 Nm
$F_{A\ SP}$	Permitted axial force:	18000 N
$F_{R\ SP}$	Permitted radial force:	6000 N

Combined loads and permitted process forces only after inspection by WEISS.

LOAD DATA (for the output flange)

T_{2A}	Max. acceleration torque:	450 Nm
T_{2N}	Nom. torque:	225 Nm
$M_{2T\ dyn}$	Permitted dynamic tilting moment:	2250 Nm
$F_{2A\ dyn}$	Permitted dynamic axial force:	15000 N
$F_{2R\ dyn}$	Permitted dynamic radial force:	13000 N

TIMING DIAGRAM



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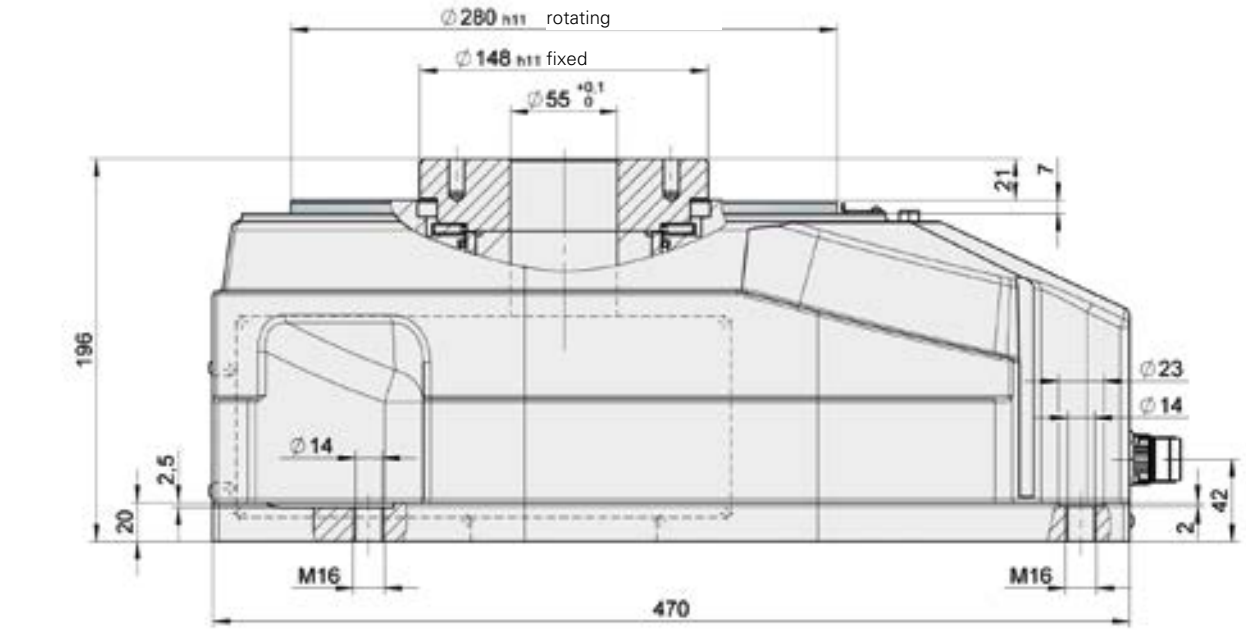

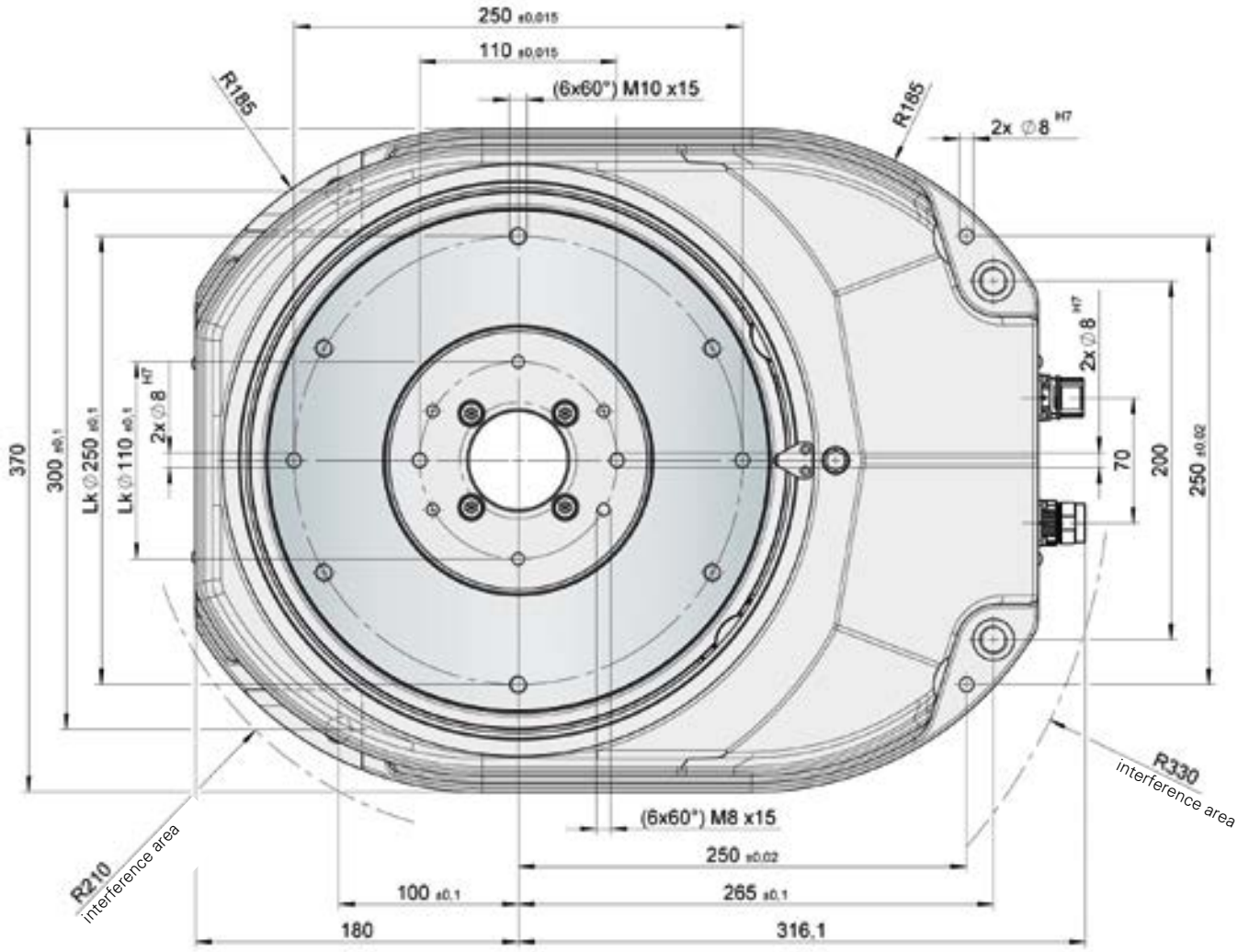

Max. center line deviation between stationary center section and housing ± 210"