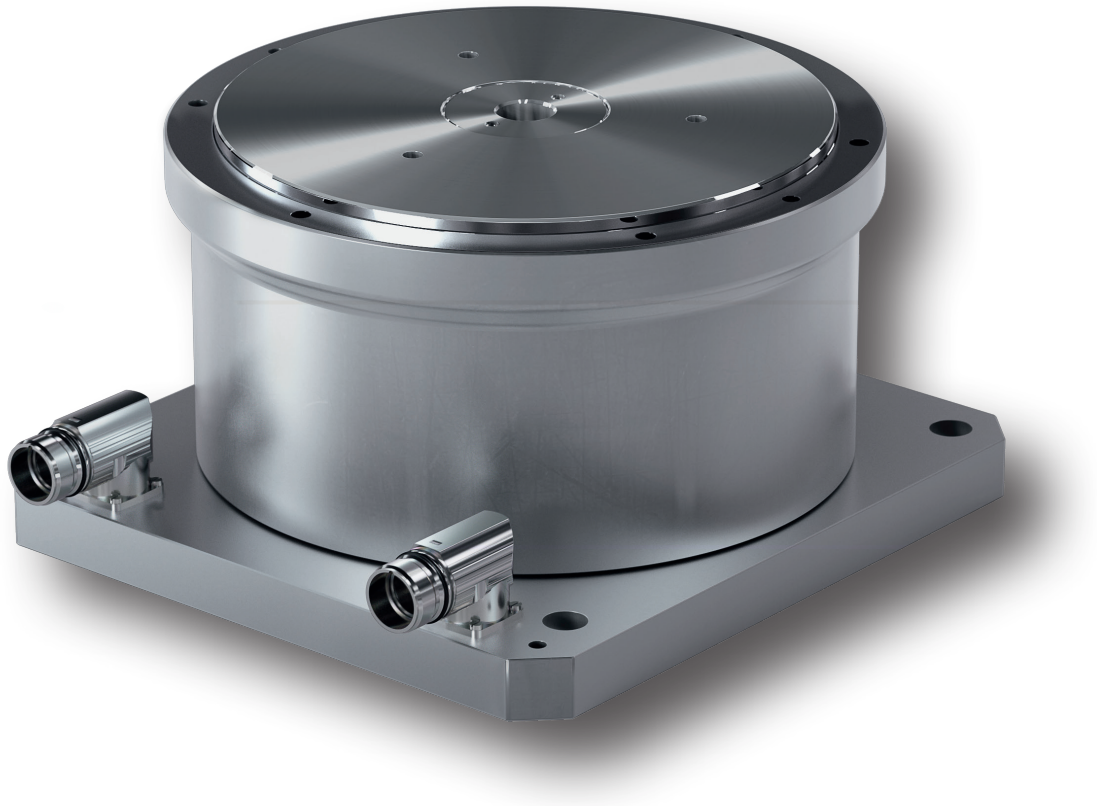
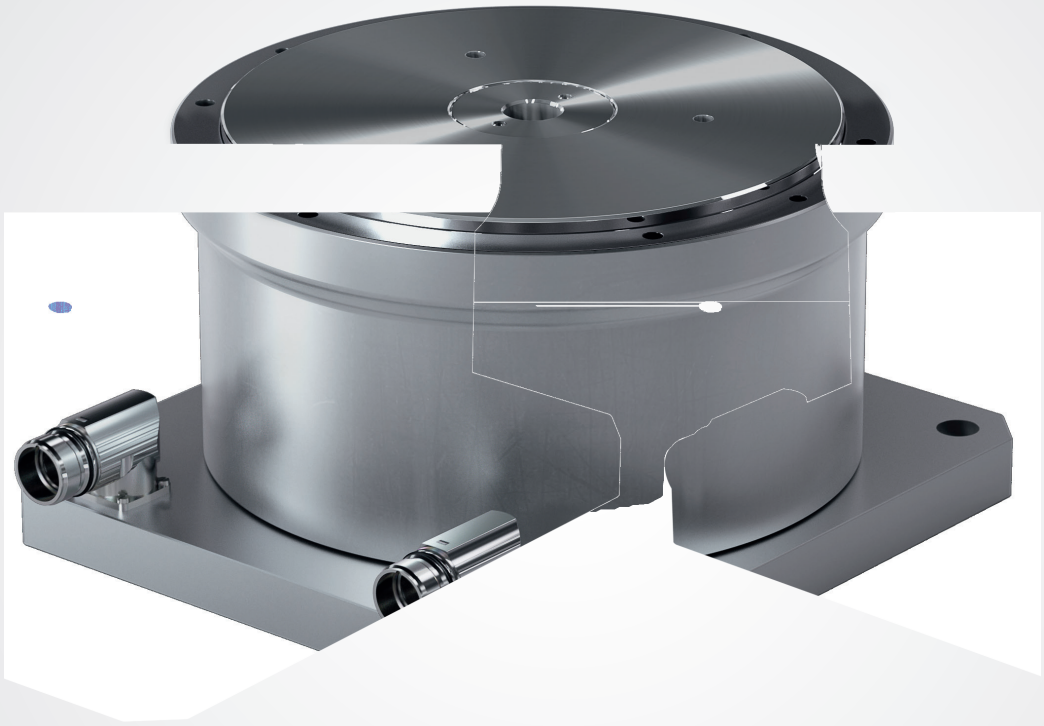
TORQUE ROTARY TABLE TO





Precise and fast mechanical integration through pin holes, secure electrical commissioning through perfectly matched control packages.

TO TORQUE ROTARY TABLE: DYNAMIC, FLEXIBLE, PRECISE

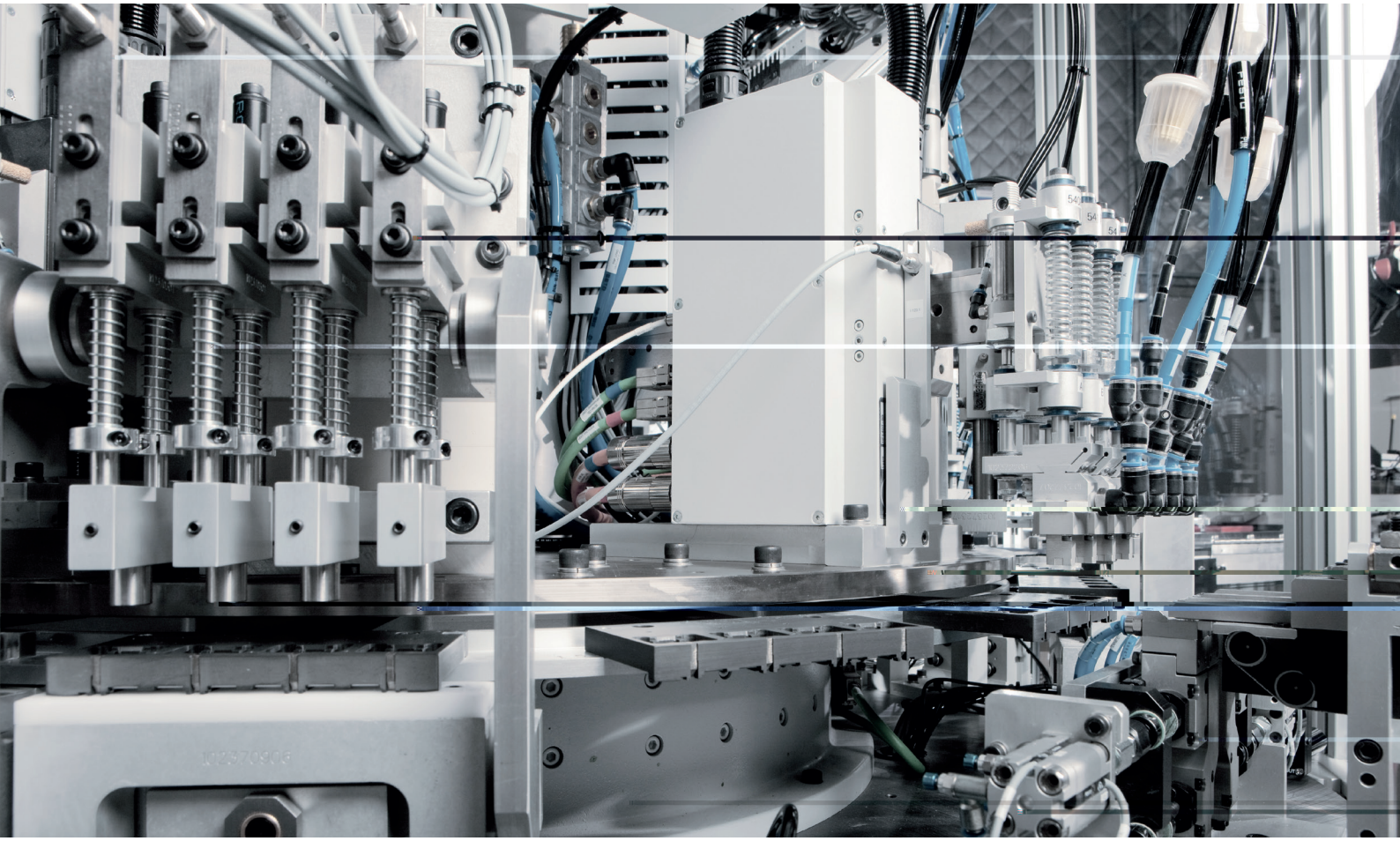
MATCHED BASE FRAMES AND PLATES

Simple integration into existing equipment. Highly dynamic, high-precision and ready-for-installation rotary table solution with unbeatable price-performance.

FREELY AND INTUITIVELY PROGRAMMABLE

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

The custom machine from INNOVATIVE Products & Equipment assembles and tests plastic parts for irrigation systems. The heart of the installation, a TO 750, beats at 75 cycles per minute. The four-track design allows production of 300 components per minute.
The HP140 Pick&Place units perform component handling.



The direct drive rotary table is freely programmable and allows the shortest indexing times at the highest precision.

ADVANTAGES

- Extremely dynamic
- Extremely high repeat accuracy
- Absolute measuring system
- High degree of reliability, long service life
- Zero backlash
- No wearing parts
- Direct, rigid connection of the load to the drive
- Compact design, small footprint, high level of torque

GENERAL INFORMATION

- Direction of rotation: user-programmable
- All motors are equipped with overtemperature protection (PTC)
- Possible installation location: any (Please consult WEISS for overhead mounting positions)
- The TO rotary tables are “lubricated for life”
- For a surcharge, a positioning accuracy measurement report can also be drawn up and a compensation table incorporated for error compensation in a further step. However, this requires a mechanical zero point alignment.

TO 150C

GENERAL INFORMATION

- Maximum recommended equipment diameter D_{tp}: approximately 750 mm (with consulting from WEISS larger diameters are possible)

TECHNICAL DATA

U	Voltage range:	200-480 $V_{AC\ effektiv}$
$n_{2\ Max}$	Max. output speed (230 V):	60 1/min
$n_{2\ Max}$	Max. output speed (400 V):	200 1/min
T_{2N}	Nominal torque:	15 Nm
T_{2P}	Peak torque:	45 Nm
I_P	Peak current:	6.23 A
	Indexing precision:	50 arcsec (± 25") 30 arcsec (± 15") (optional)
A_r	Axial run-out of the drive flange:	(at Ø 150 mm) 0.02 mm
C_r	Concentricity of the output flange:	0.02 mm
m	Weight:	16 kg

LOAD DATA (for the output flange)

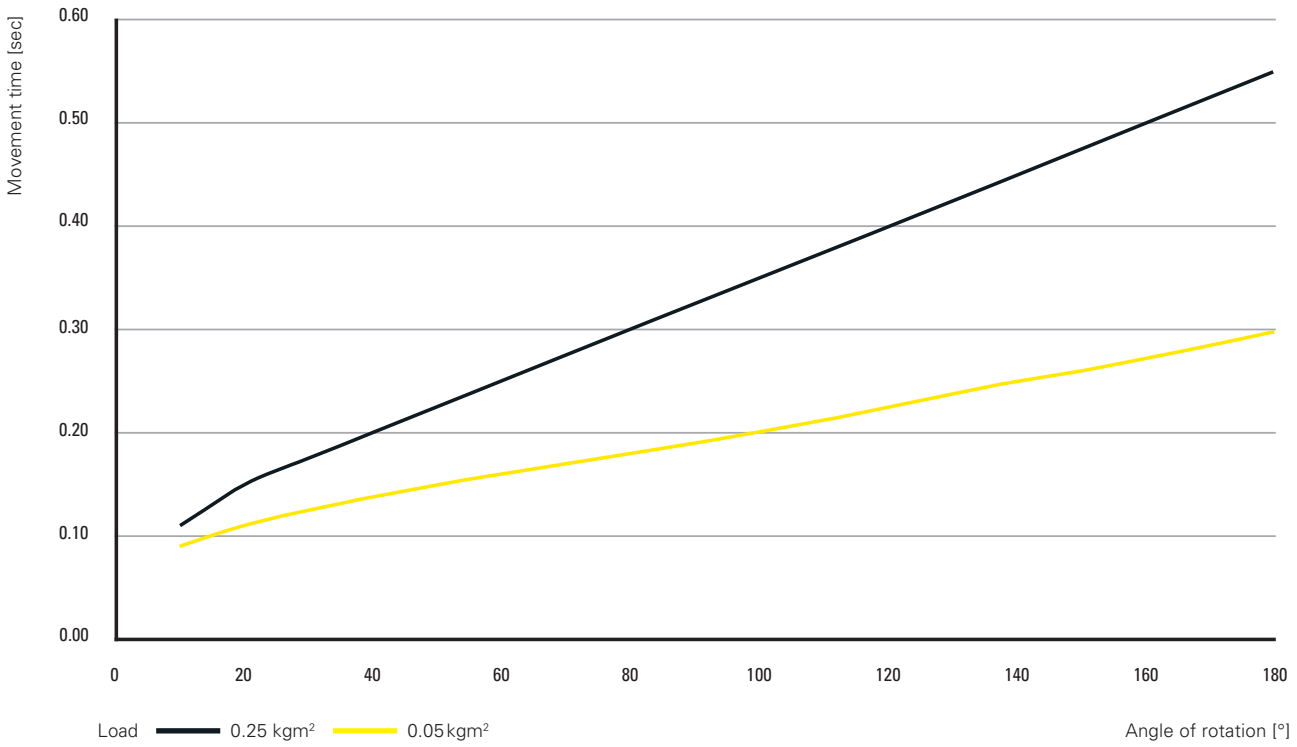
$M_{2T\ stat}$	Permitted static tilting moment:	600 Nm
$F_{2A\ stat}$	Permitted static axial force:	6000 N
$F_{2R\ stat}$	Permitted static radial force:	10000 N

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

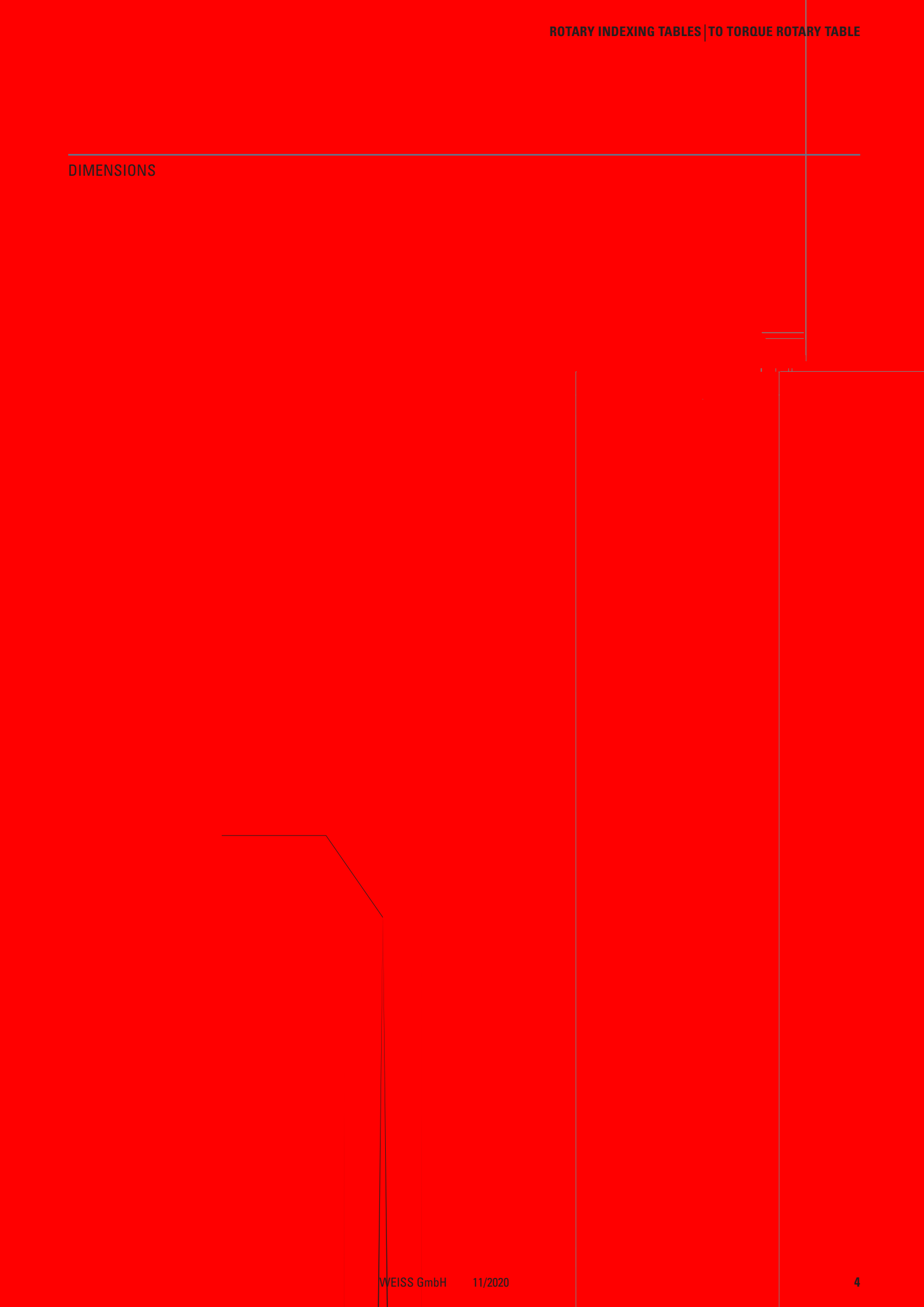
ENCODER

Heidenhain ECN113 (absolute)	EnDat 2.1 (± 25")
Heidenhain ECN2180 (absolute)	EnDat 2.1 (± 15")

TIMING DIAGRAM



DIMENSIONS



TO 220C-1

GENERAL INFORMATION

- Maximum recommended equipment diameter D_{tp}: approximately 1100 mm (with consulting from WEISS larger diameters are possible)

TECHNICAL DATA

U	Voltage range:	200-480 $V_{AC\ effektiv}$
$n_{2\ Max}$	Max. output speed (230 V):	80 1/min
$n_{2\ Max}$	Max. output speed (400 V):	250 1/min
T_{2N}	Nominal torque:	54 Nm
T_{2P}	Peak torque:	130 Nm
I_P	Peak current:	9 A
	Indexing precision:	50 arcsec (± 25") 30 arcsec (± 15") (optional)
A_r	Axial run-out of the drive flange:	(at Ø 220 mm) 0.02 mm
C_r	Concentricity of the output flange:	0.02 mm
m	Weight:	32 kg

LOAD DATA (for the output flange)

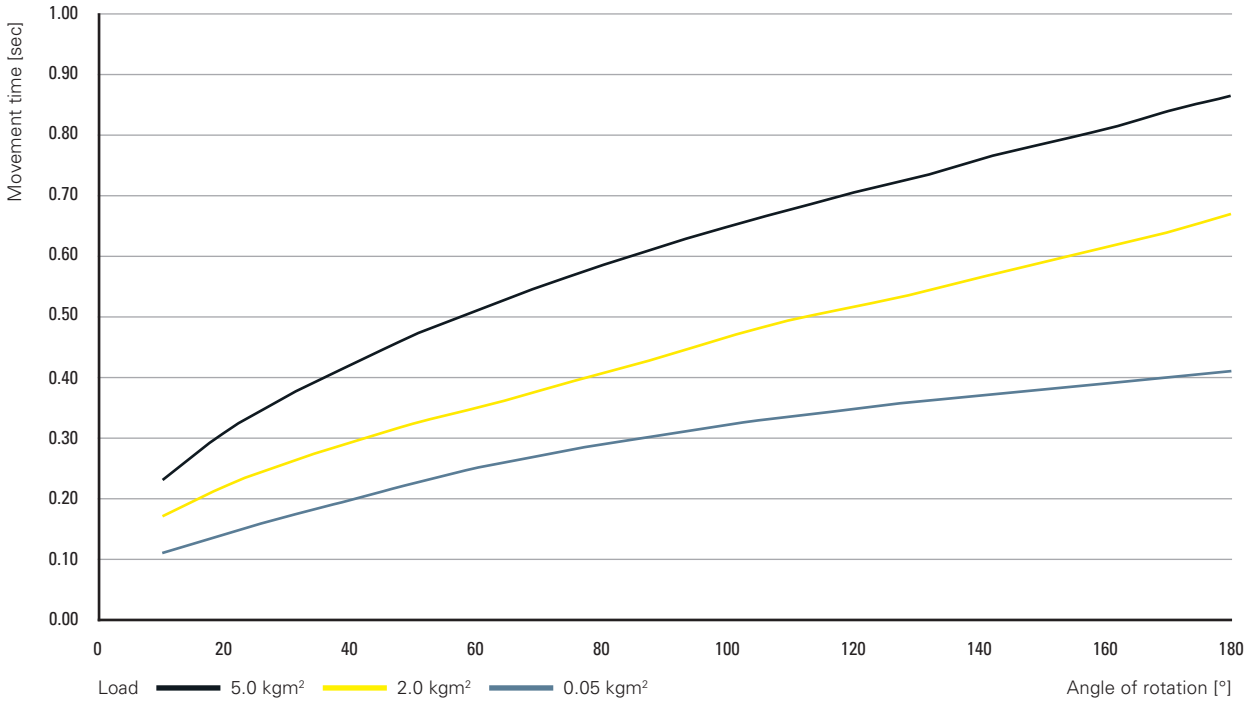
$M_{2T\ stat}$	Permitted static tilting moment:	1000 Nm
$F_{2A\ stat}$	Permitted static axial force:	10000 N
$F_{2R\ stat}$	Permitted static radial force:	15000 N

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

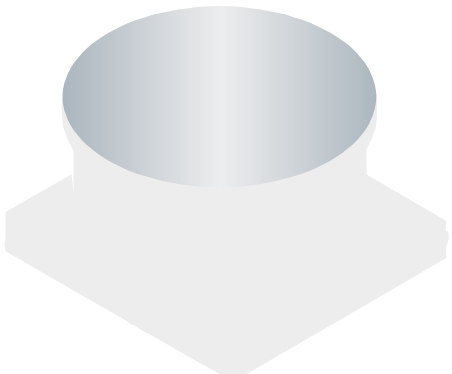
ENCODER

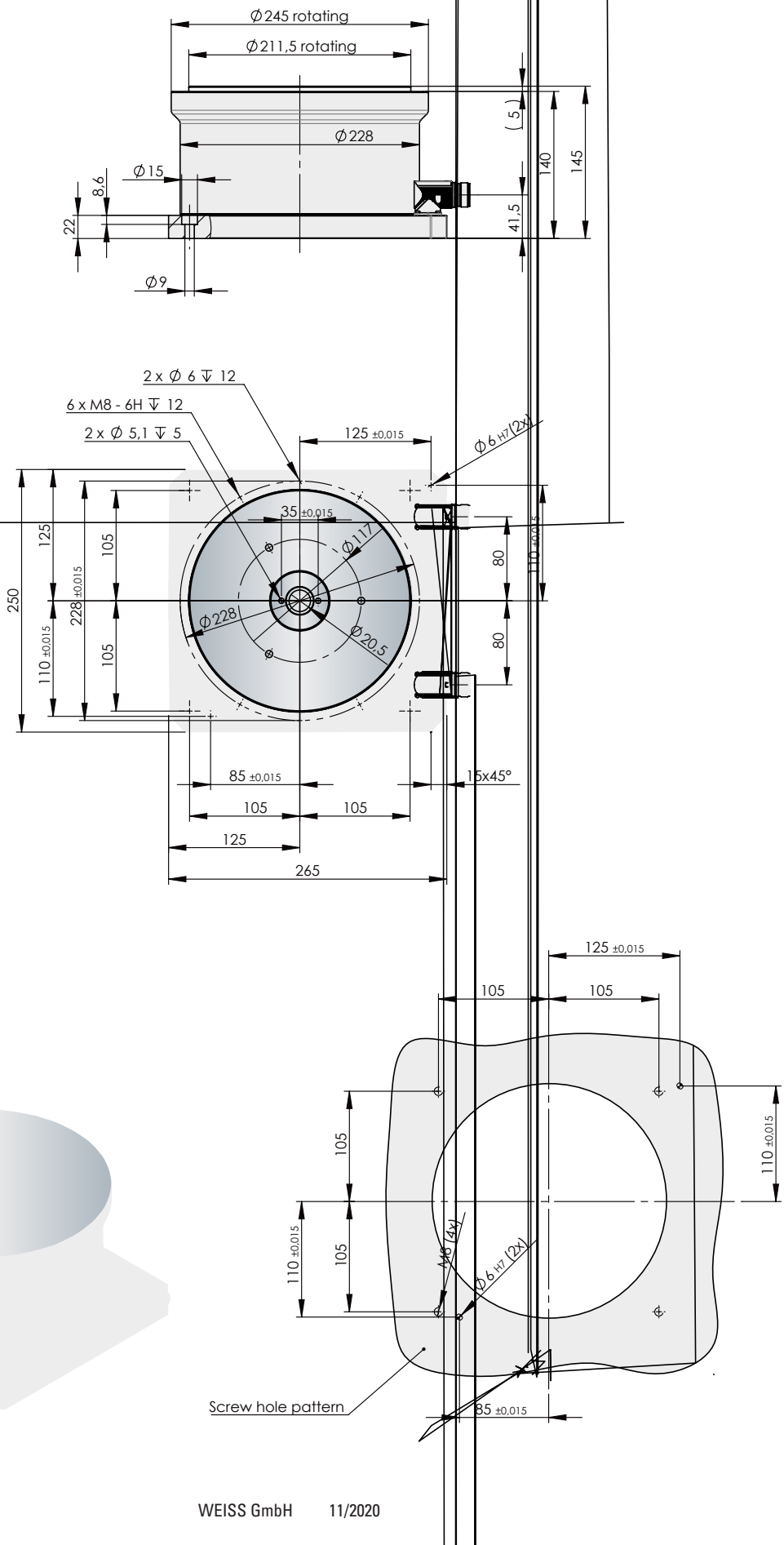
Heidenhain ECN113 (absolute)	EnDat 2.1 (± 25")
Heidenhain ECN2180 (absolute)	EnDat 2.1 (± 15")

TIMING DIAGRAM



DIMENSIONS




Ø245 rotating
Ø211,5 rotating
Ø228
Ø15
8,6
22
Ø9
(5)
140
145
41,5
2 x Ø 6 ↧ 12
6 x M8 - 6H ↧ 12
2 x Ø 5,1 ↧ 5
125 ±0,015
Ø6 H7 (2x)
35 ±0,015
Ø117
Ø228
Ø20,5
250
125
105
228 ±0,015
110 ±0,015
80
85 ±0,015
15x45°
265
Screw hole pattern

TO 220C-2

GENERAL INFORMATION

- Maximum recommended equipment diameter D_{tp}: approximately 1100 mm (with consulting from WEISS larger diameters are possible)
- The rotary table can also be water-cooled for even shorter cycle times and greater precision

TECHNICAL DATA

U	Voltage range:	400-600 V
$n_{2\,Max}$	Max. output speed (400 V):	110 1/min
T_{2N}	Nominal torque without water cooling:	123 Nm
T_{2N}	Nominal torque with water cooling:	194 Nm
T_{2P}	Peak torque:	260 Nm
I_P	Peak current:	18 A
	Indexing precision:	30 arcsec (± 15")
A_r	Axial run-out of the drive flange:	(at Ø 220 mm) 0.02 mm
C_r	Concentricity of the output flange:	0.02 mm
m	Weight:	42 kg

LOAD DATA (for the stationary central part)

T_{SP}	Permitted torque:	20 Nm
$M_{T\,SP}$	Permitted tilting moment:	100 Nm
$F_{A\,SP}$	Permitted axial force:	5000 N
$F_{R\,SP}$	Permitted radial force:	1000 N

LOAD DATA (for the output flange)

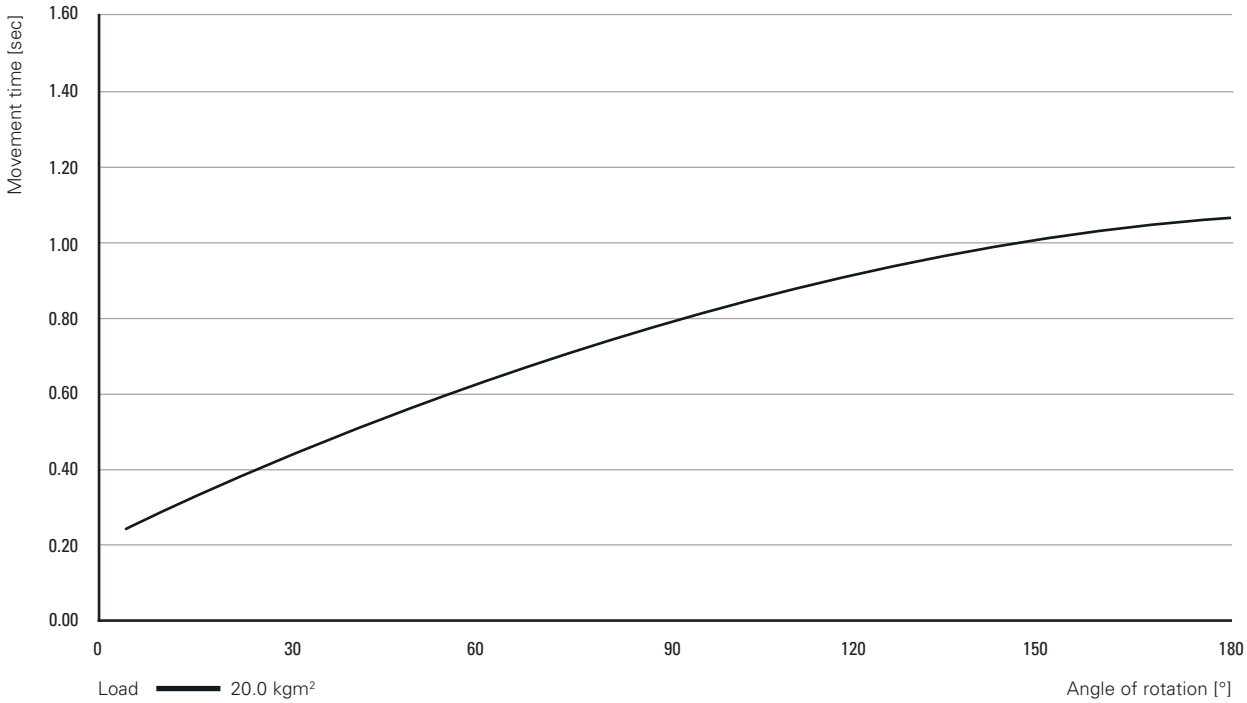
$M_{2T\,stat}$	Permitted static tilting moment:	1000 Nm
$F_{2A\,stat}$	Permitted static axial force:	10000 N
$F_{2R\,stat}$	Permitted static radial force:	15000 N

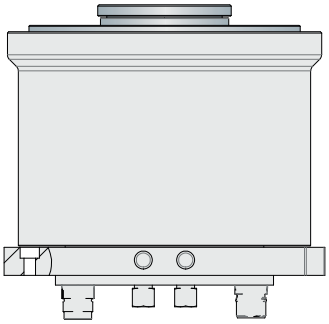
Combined loads and permitted process forces only after inspection by WEISS.

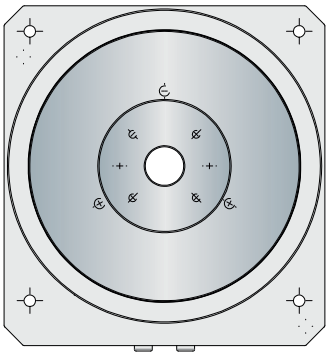
ENCODER

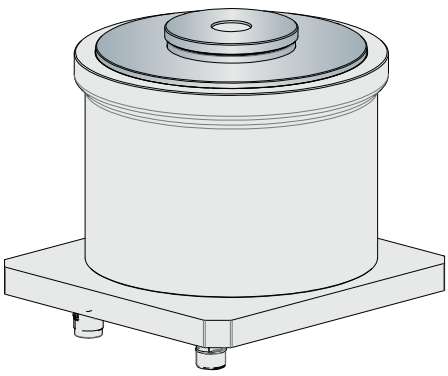
Heidenhain ECN2180 (absolute)	EnDat 2.1 (± 15")

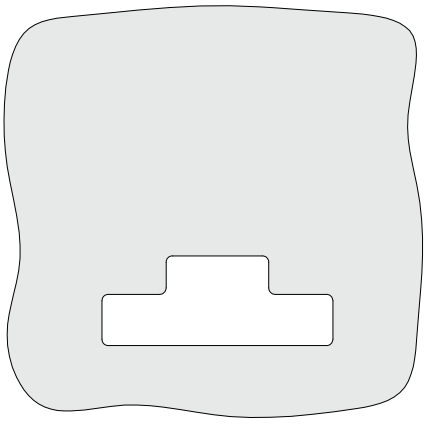
TIMING DIAGRAM











TO 400C

GENERAL INFORMATION

- Maximum recommended equipment diameter D_{tp}: approximately 1400 mm (with consulting from WEISS larger diameters are possible)
- The TO rotary table can optionally be supplied with a clamping unit
- The rotary table can also be water-cooled for even shorter cycle times and greater precision

TECHNICAL DATA

U	Voltage range:	400-480 $V_{AC\ effektiv}$
$n_{2\ Max}$	Max. output speed (400 V):	100 1/min
T_{2N}	Nominal torque without water cooling:	525 Nm
T_{2N}	Nominal torque with water cooling:	1240 Nm
T_{2P}	Peak torque:	2120 Nm
I_P	Peak current:	175 A
	Indexing precision:	20 arcsec (±10")
A_r	Axial run-out of the drive flange:	(at Ø 400 mm) 0.03 mm
C_r	Concentricity of the output flange:	0.03 mm
p_a	Clamping element opening pressure (pressure monitoring recommended)	4 bar (optional)
m	Weight:	290 kg

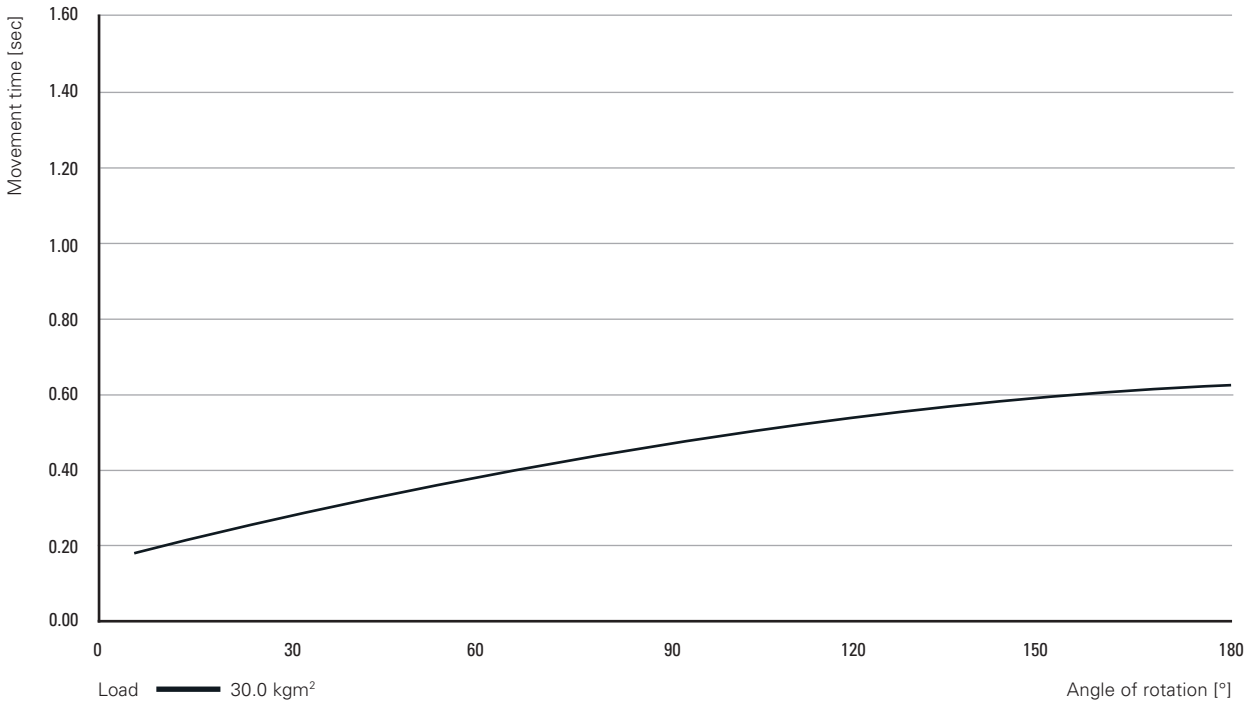
LOAD DATA (for the output flange)

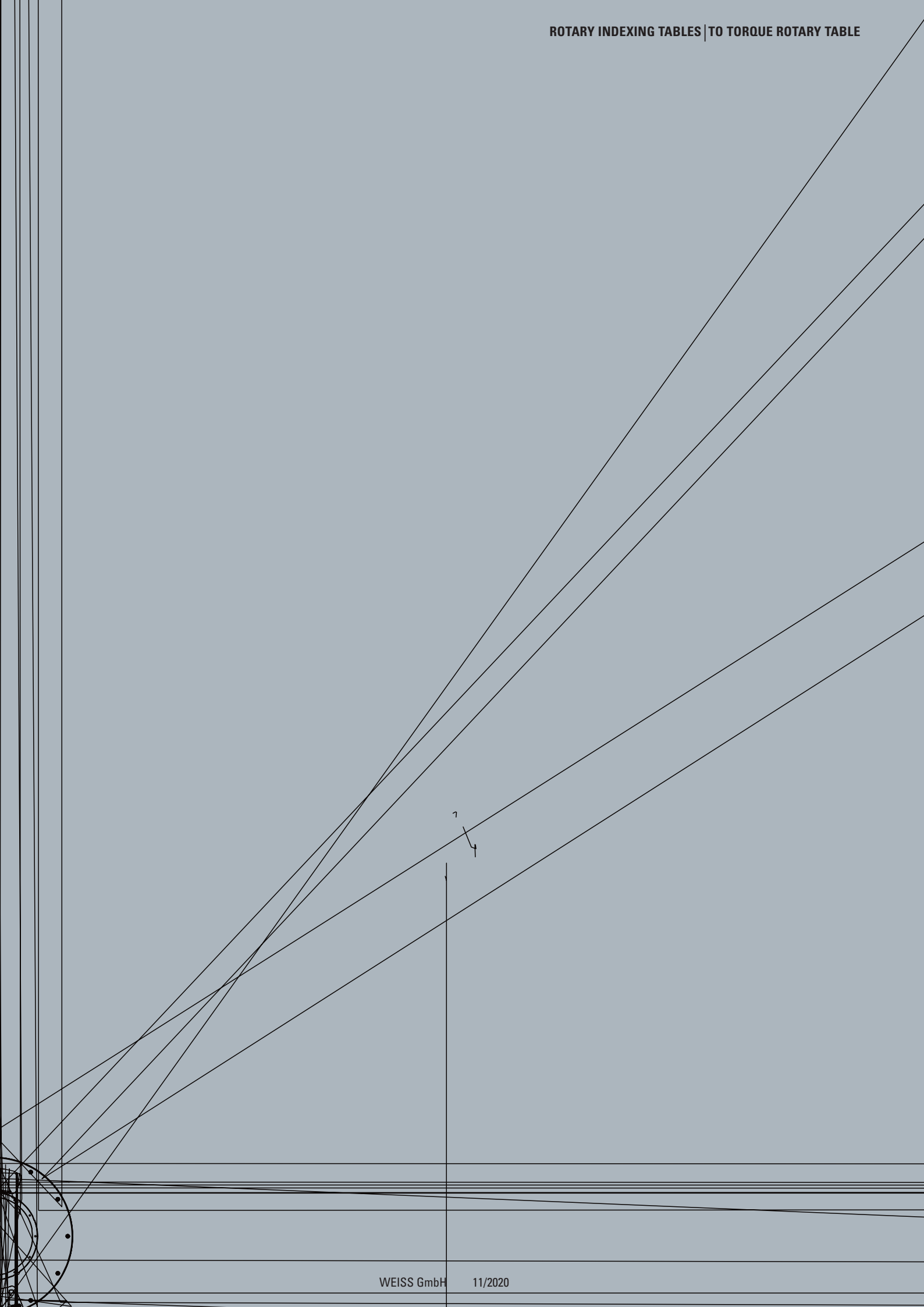
$M_{2T\ stat}$	Permitted static tilting moment:	8000 Nm
$F_{2A\ stat}$	Permitted static axial force:	40000 N
$F_{2R\ stat}$	Permitted static radial force:	50000 N

ENCODER

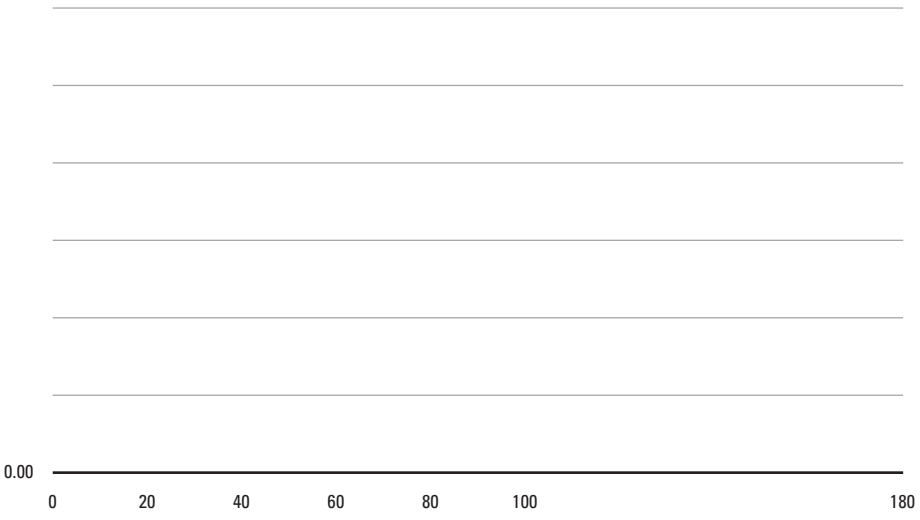
Renishaw Resolute (absolute)	BISS

TIMING DIAGRAM





TO 750C



TO 1300C

GENERAL INFORMATION

- Maximum recommended equipment diameter D_{tp}: approximately 3500 mm (with consulting from WEISS larger diameters are possible)
- The TO rotary table can optionally be supplied with a campling unit

TECHNICAL DATA

U	Voltage range:	400-480 $V_{AC\ effektiv}$
$n_{2\ Max}$	Max. output speed (400 V):	80 1/min
T_{2N}	Nominal torque without water cooling:	6460 Nm
T_{2N}	Nominal torque with water cooling:	15200 Nm
T_{2P}	Peak torque:	26600 Nm
I_P	Peak current:	888 A
	Indexing precision:	20 arcsec (±10")
A_r	Axial run-out of the drive flange:	(at Ø 1300 mm) 0.04 mm
C_r	Concentricity of the output flange:	0.03 mm
p_{cc}	Clamping element opening pressure (pressure monitoring recommended)	6 bar
m	Weight:	1350 kg

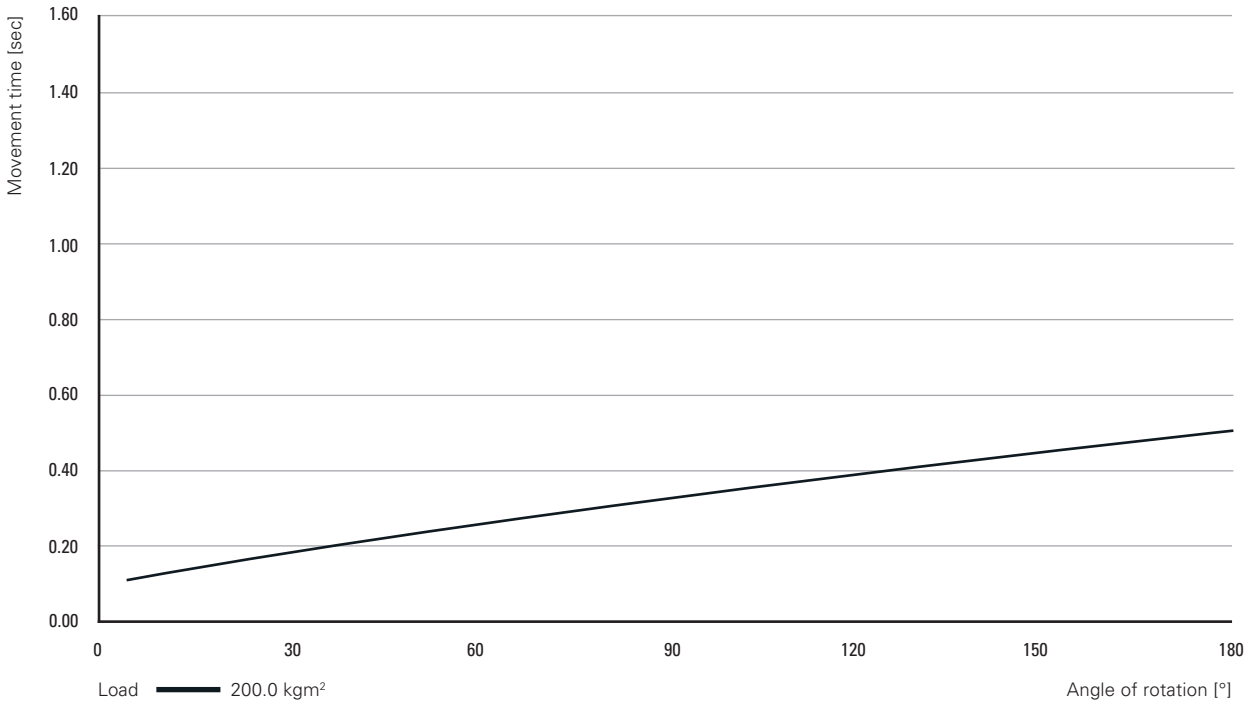
LOAD DATA (for the output flange)

$M_{2T\ stat}$	Permitted static tilting moment:	26000 Nm
$F_{2A\ stat}$	Permitted static axial force:	100000 N
$F_{2R\ stat}$	Permitted static radial force:	115000 N

ENCODER

Renishaw (absolute)	DRIVE-CLiQ

TIMING DIAGRAM



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