

TO 150C

GENERAL INFORMATION

· Maximum recommended equipment diameter D_{tp} : approximately 750 mm

TECHNICAL DATA

U	Voltage range:	200-600 V
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)

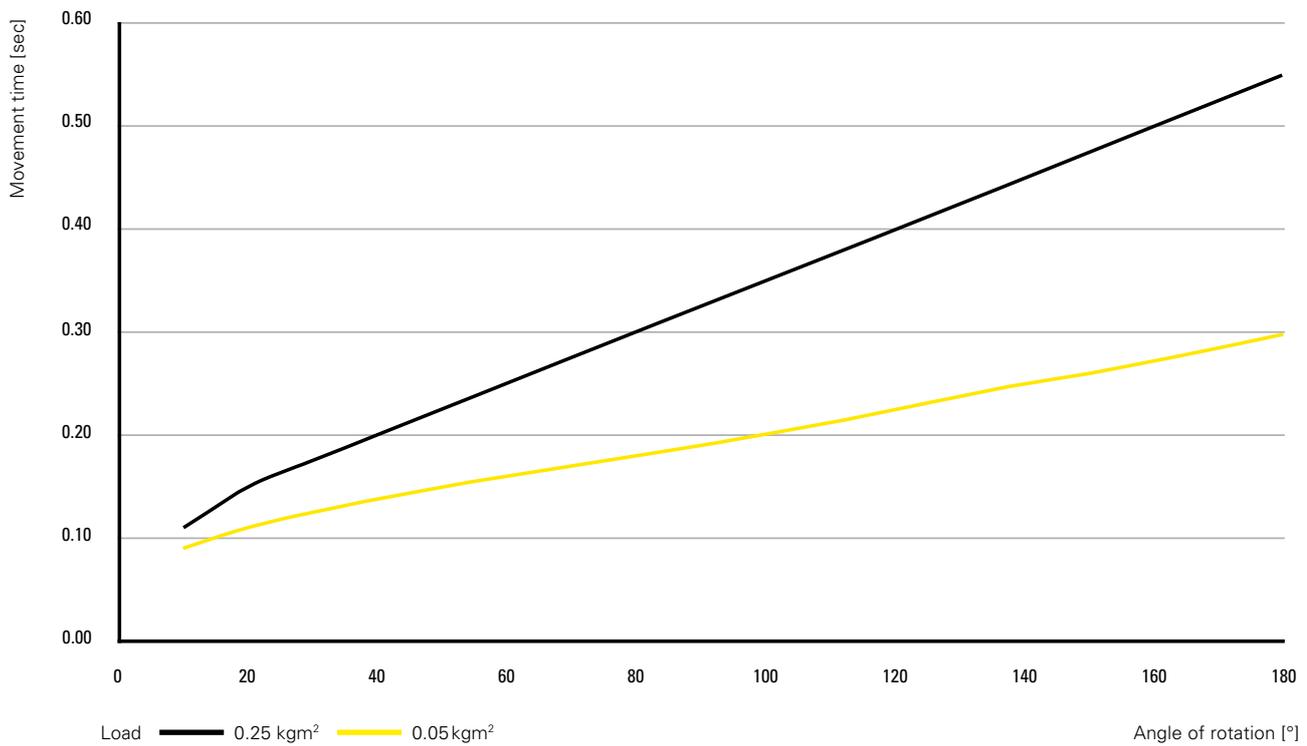
M_{2T stat}	Permitted static tilting moment:	600 Nm
F_{2A stat}	Permitted static axial force:	6000 N
F_{2R stat}	Permitted static radial force:	10000 N

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

ENCODER

Heidenhain ECN113 (absolute)	EnDat 2.1 (± 25")
Heidenhain ECN225 (absolute)	EnDat 2.1 (± 15")

TIMING DIAGRAM



TO 220C-1

GENERAL INFORMATION

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

TECHNICAL DATA

U	Voltage range:	200-600 V
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 ($\pm 25''$) 30 arcsec ($\pm 15''$) (optional)
A_r	Axial run-out of the drive flange:	(at $\varnothing 220$ mm) 0.02 mm
C_r	Concentricity of the output flange:	0.02 mm
m	Weight:	32 kg

LOAD DATA (for the output flange)

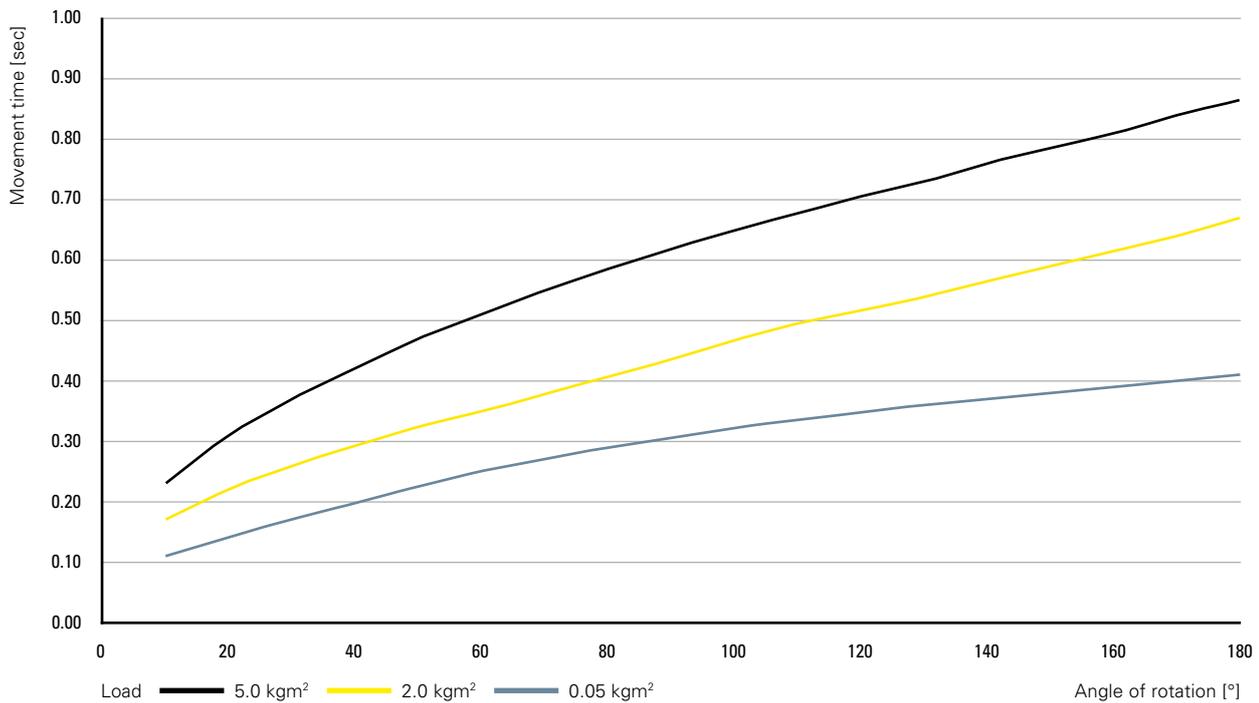
M_{2T stat}	Permitted static tilting moment:	1000 Nm
F_{2A stat}	Permitted static axial force:	10000 N
F_{2R stat}	Permitted static radial force:	15000 N

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

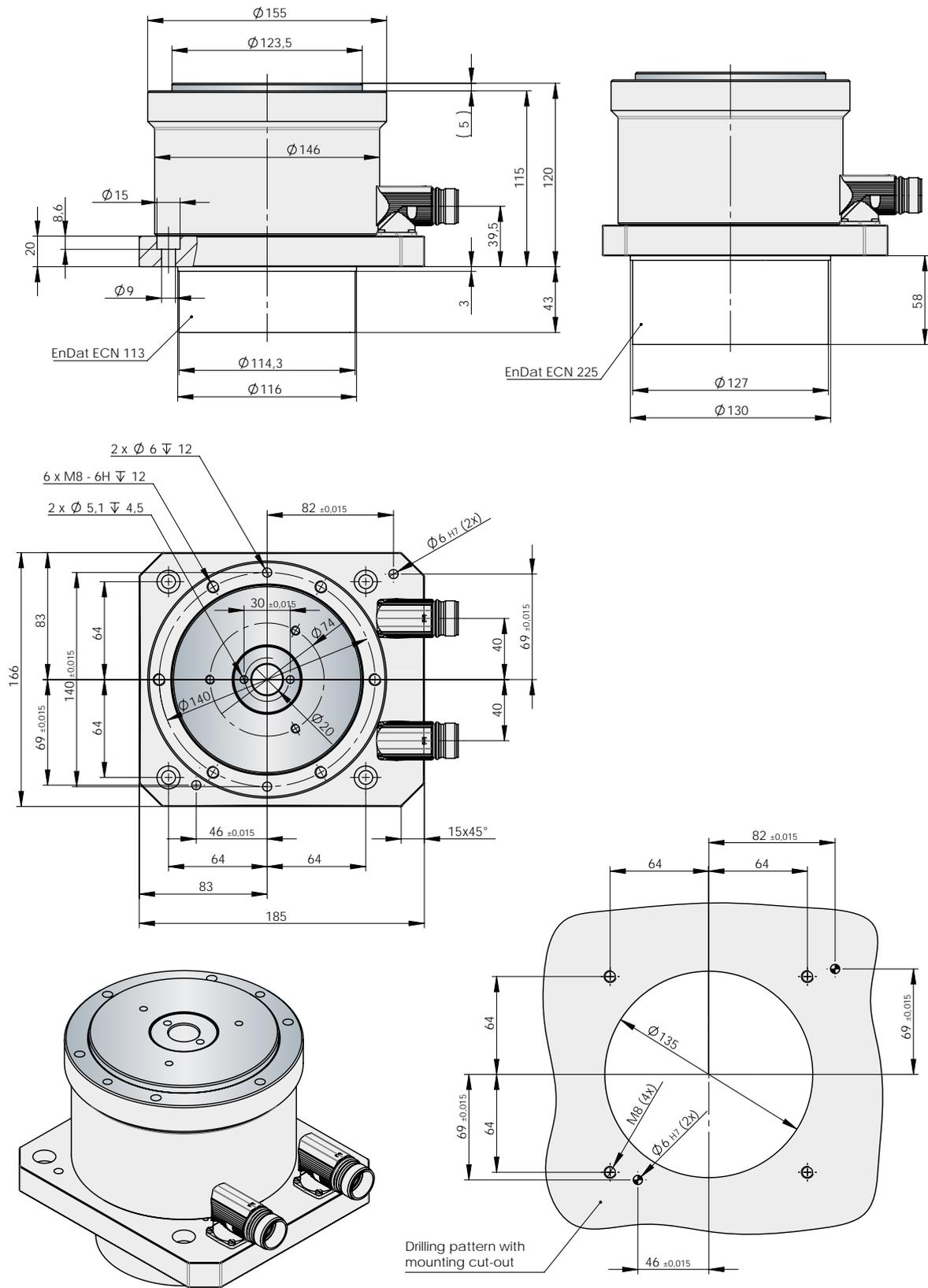
ENCODER

Heidenhain ECN113 (absolute)	EnDat 2.1 ($\pm 25''$)
Heidenhain ECN225 (absolute)	EnDat 2.1 ($\pm 15''$)

TIMING DIAGRAM



DIMENSIONS



TO 220C-2

GENERAL INFORMATION

- Maximum recommended equipment diameter D_{tp} : approximately 1100 mm
- The rotary table can also be water-cooled for even shorter cycle times and greater precision

TECHNICAL DATA

U	Voltage range:	200-600 V
n_{2Max}	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 ($\pm 15''$)
A_r	Axial run-out of the drive flange:	(at $\varnothing 220$ 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:	200 Nm
M_{TSP}	Permitted tilting moment:	500 Nm
F_{ASP}	Permitted axial force:	5000 N
F_{RSP}	Permitted radial force:	5000 N

LOAD DATA (for the output flange)

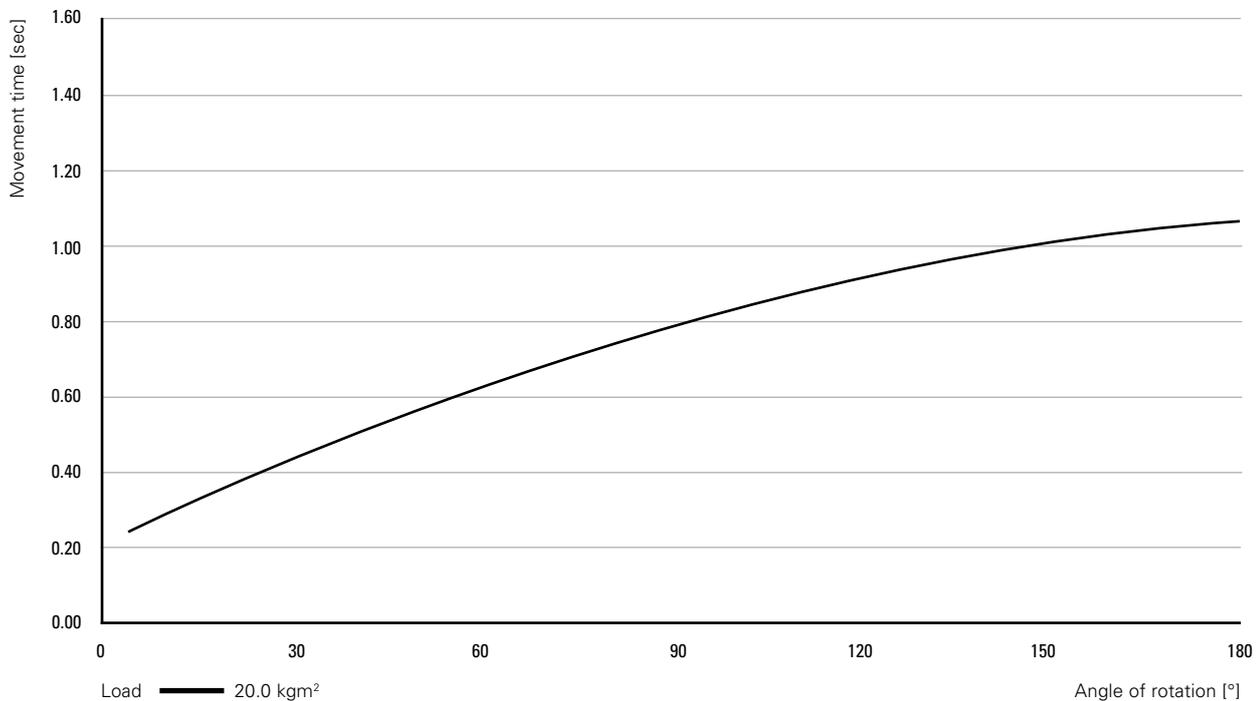
M_{2Tstat}	Permitted static tilting moment:	1000 Nm
F_{2Astat}	Permitted static axial force:	10000 N
F_{2Rstat}	Permitted static radial force:	15000 N

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

ENCODER

Heidenhain ECN225 (absolute)	EnDat 2.1 ($\pm 15''$)
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TIMING DIAGRAM



TO 400C

GENERAL INFORMATION

- Maximum recommended equipment diameter D_{tp} : approximately 1400 mm
- The TO rotary table can optionally be supplied with a brake
- The rotary table can also be water-cooled for even shorter cycle times and greater precision

TECHNICAL DATA

U	Voltage range:	200-600 V
n_{2Max}	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 ($\pm 10''$)
A_r	Axial run-out of the drive flange:	(at \varnothing 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

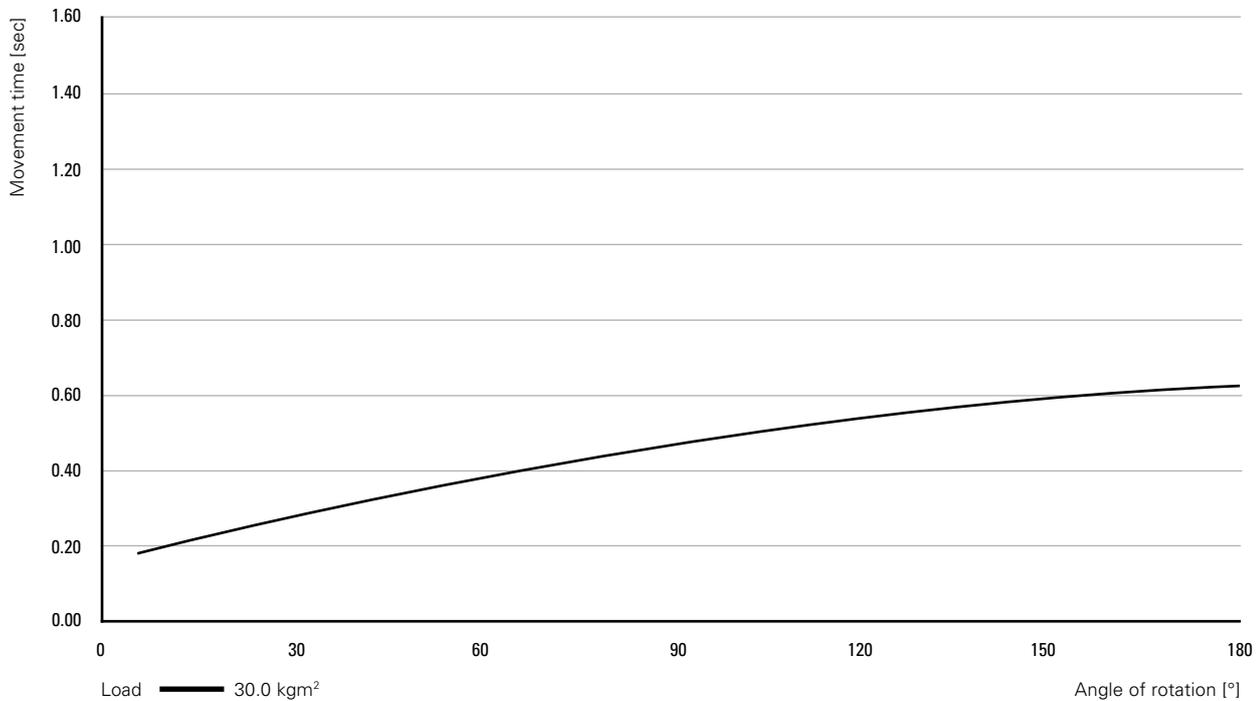
LOAD DATA (for the output flange)

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

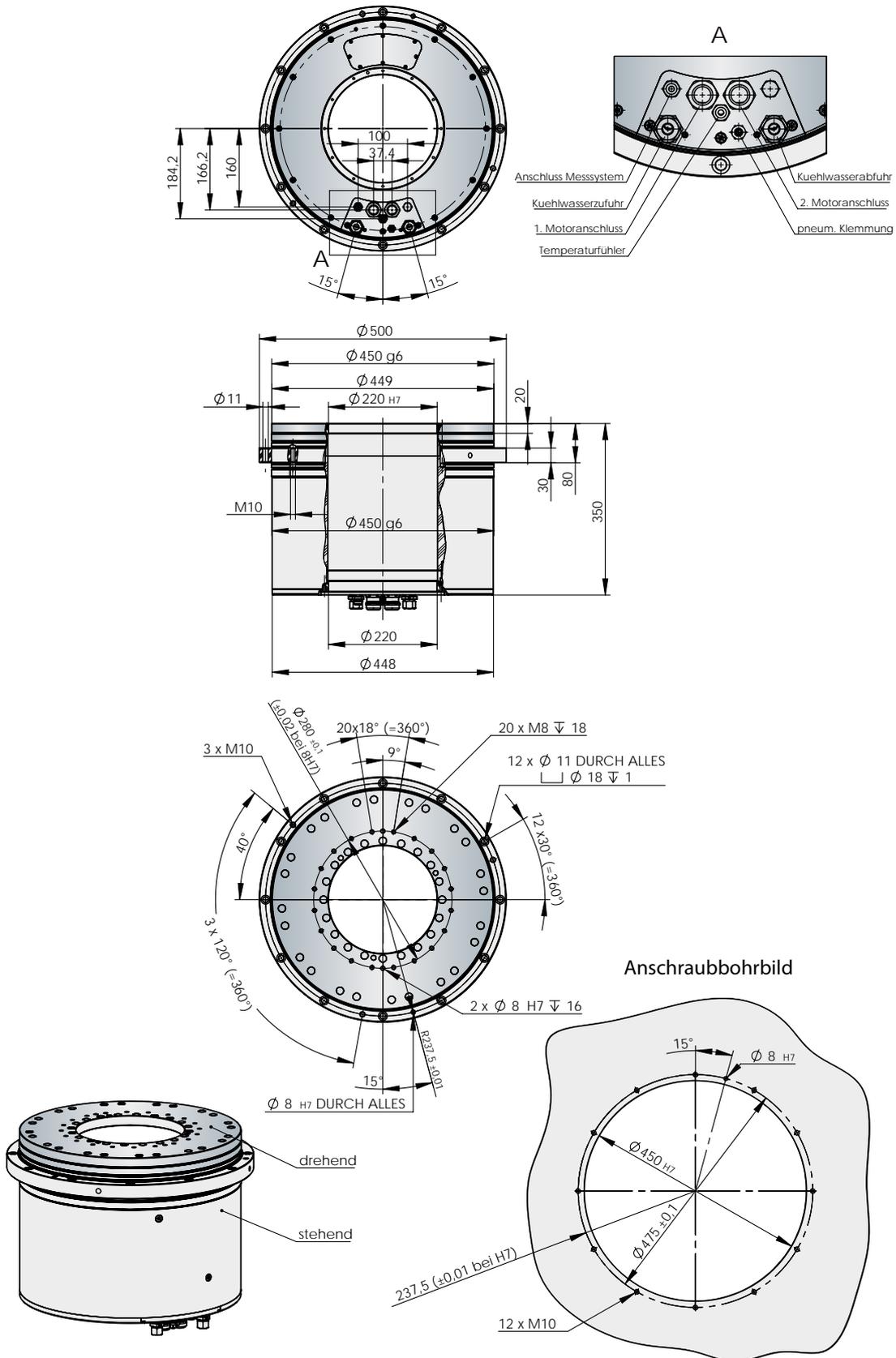
ENCODER

Renishaw Resolute (absolute)	BISS
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TIMING DIAGRAM



DIMENSIONS



TO 750C

GENERAL INFORMATION

- Maximum recommended equipment diameter D_{tp} : approximately 2500 mm
- The TO rotary table can optionally be supplied with a brake
- The rotary table can also be water-cooled for even shorter cycle times and greater precision
- In some cases, the rotary table can be equipped with functional safety (on request)

TECHNICAL DATA

U	Voltage range:	200-600 V
n_{2Max}	Max. output speed (400 V):	50 1/min
T_{2N}	Nominal torque without water cooling:	623 Nm
T_{2N}	Nominal torque with water cooling:	1700 Nm
T_{2P}	Peak torque:	3500 Nm
I_P	Peak current:	75 A
	Indexing precision:	20 arcsec ($\pm 10''$)
A_f	Axial run-out of the drive flange:	(at $\varnothing 750$ mm) 0.02 mm
C_f	Concentricity of the output flange:	0.02 mm
p_a	Clamping element opening pressure (pressure monitoring recommended)	4 bar (optional)
m	Weight:	270 kg

LOAD DATA (for the stationary central part)

T_{SP}	Permitted torque:	800 Nm
M_{TSP}	Permitted tilting moment:	2500 Nm
F_{ASP}	Permitted axial force:	25000 N
F_{RSP}	Permitted radial force:	15000 N

LOAD DATA (for the output flange)

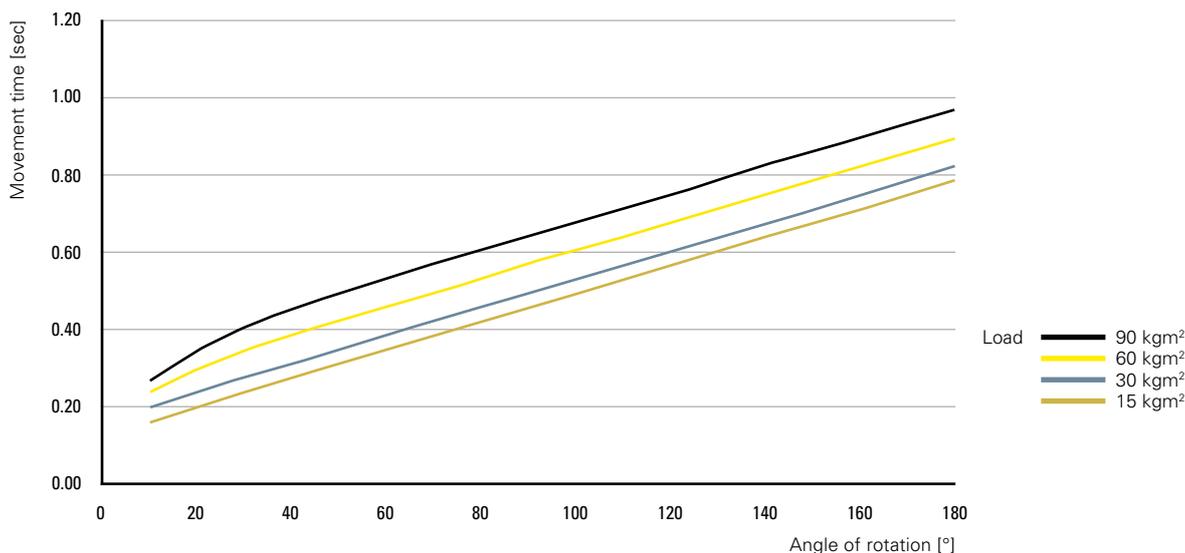
M_{2Tstat}	Permitted static tilting moment:	6000 Nm
F_{2Astat}	Permitted static axial force:	25000 N
F_{2Rstat}	Permitted static radial force:	25000 N

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

ENCODER

Renishaw Signum (incremental)	sin/cos
Renishaw Resolute (absolute)	BISS
Renishaw Resolute (absolute)	DRIVE-CLiQ
Heidenhain ECN 4410 FS (absolute)	EnDat 2.2

TIMING DIAGRAM



DIMENSIONS

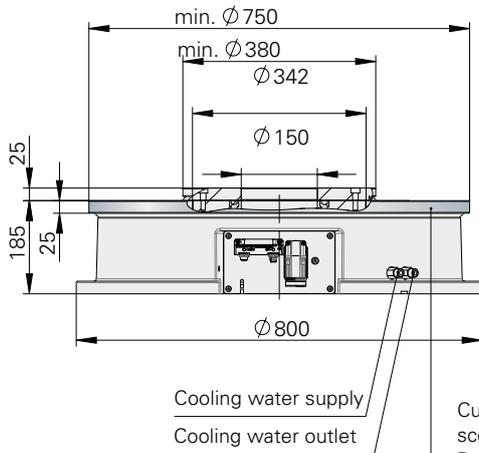
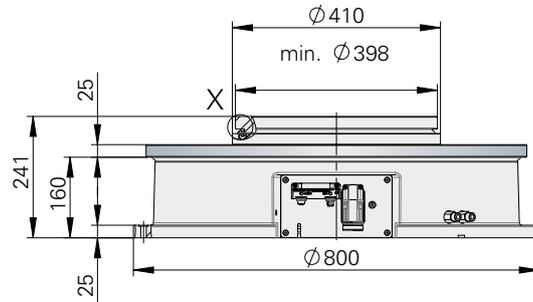
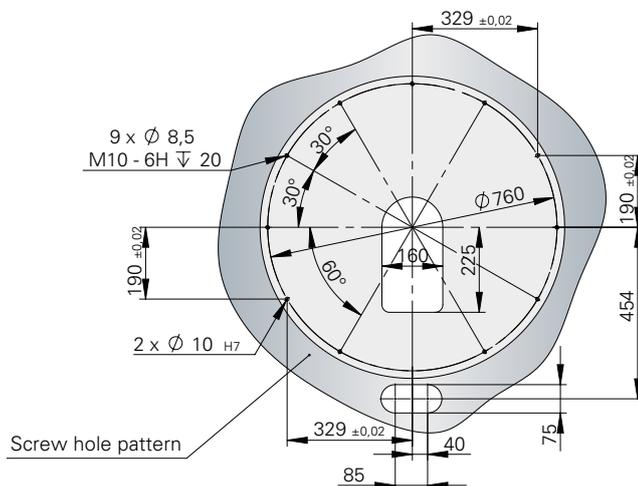
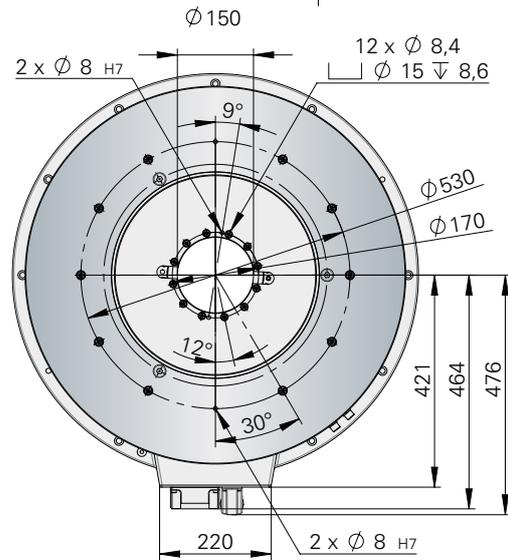
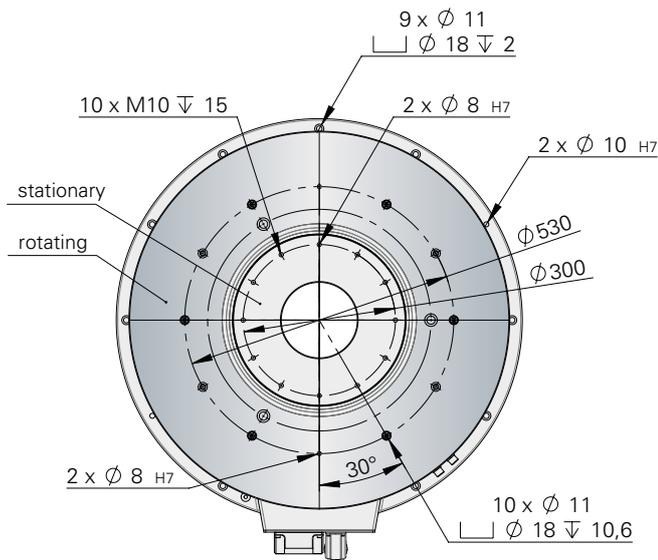
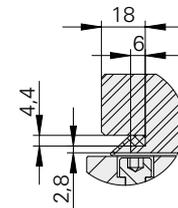


Diagram with holding brake option



Customer-specific plate design (included in the scope of functions offered by the TO)
Do not drill through the plate in the min./max. area



TO 1300C

GENERAL INFORMATION

- Maximum recommended equipment diameter D_{tp} : approximately 3500 mm
- The TO rotary table can optionally be supplied with a brake
- The rotary table can also be water-cooled for even shorter cycle times and greater precision

TECHNICAL DATA

U	Voltage range:	200-600 V
n_{2Max}	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 ($\pm 10''$)
A_r	Axial run-out of the drive flange:	(at \varnothing 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

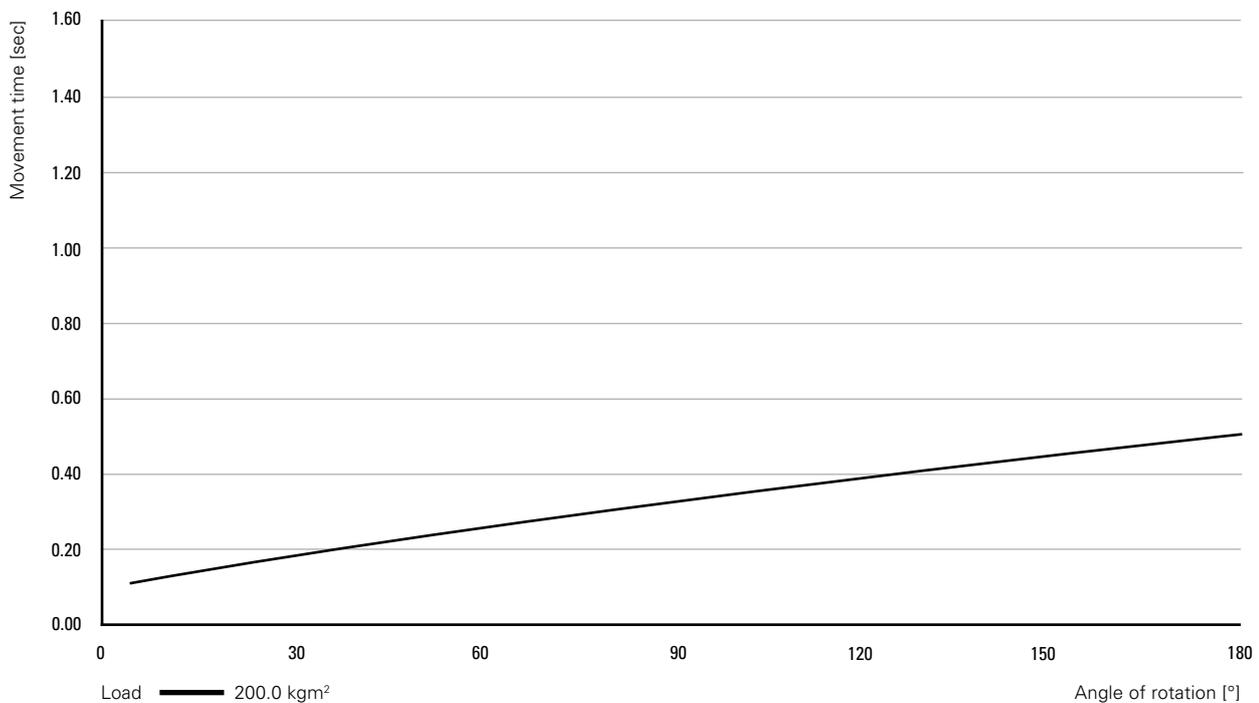
LOAD DATA (for the output flange)

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

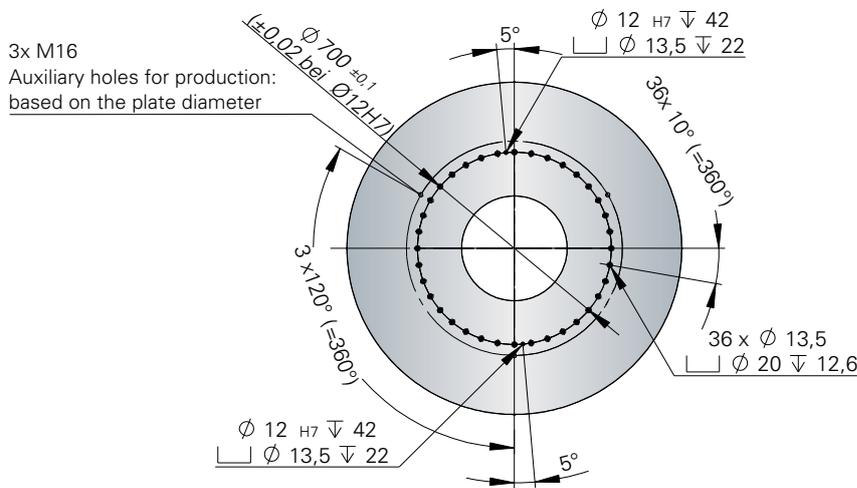
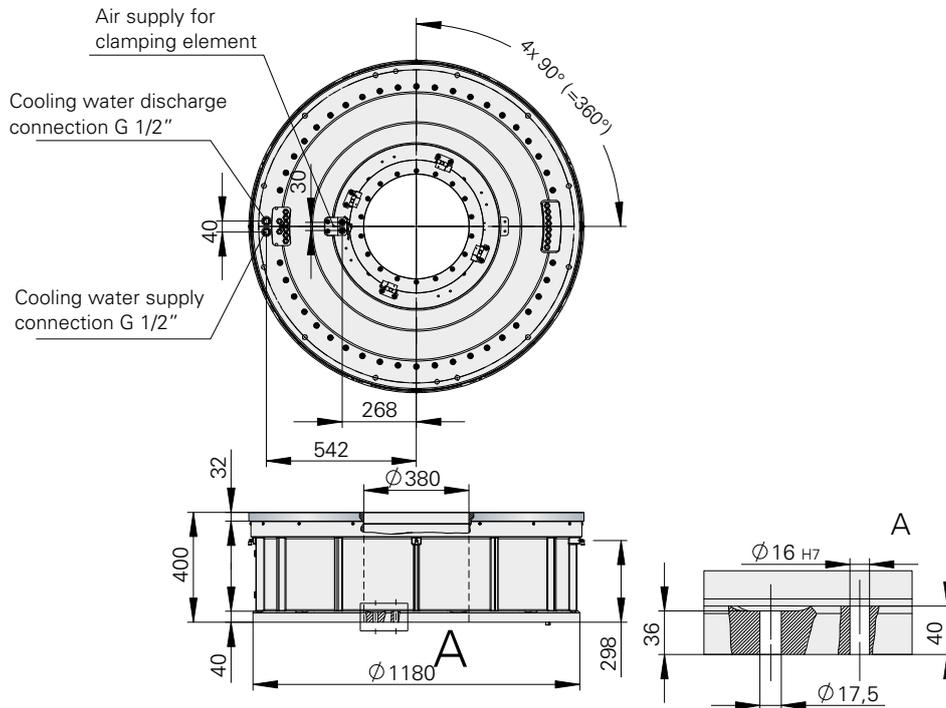
ENCODER

AMO (absolute)	SSI
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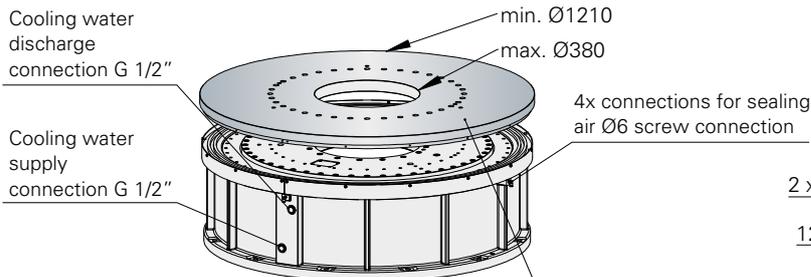
TIMING DIAGRAM



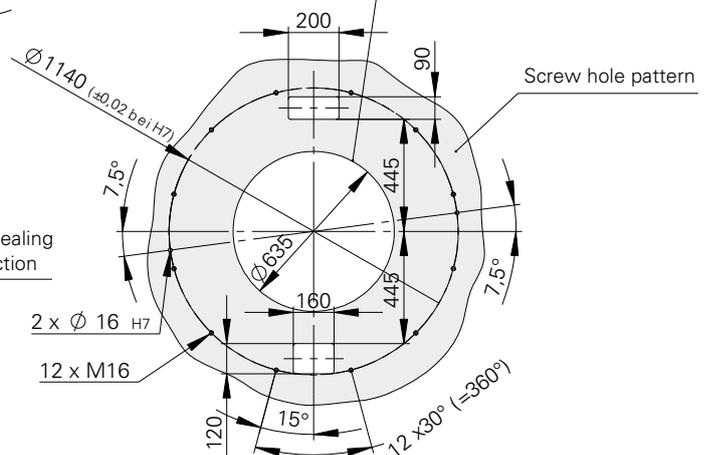
DIMENSIONS



Base plate breakthrough for using the central bore or for access to the measuring system and clamping element



Customer-specific plate design (included in the scope of functions offered by the TO)
Do not drill through the plate in the min./max. area



ST

ROTATING UNITS | ST TORQUE ROTATING UNIT



ST TORQUE ROTARY UNITS

CABLE CONNECTION

Compact connector for any orientation of cable connection

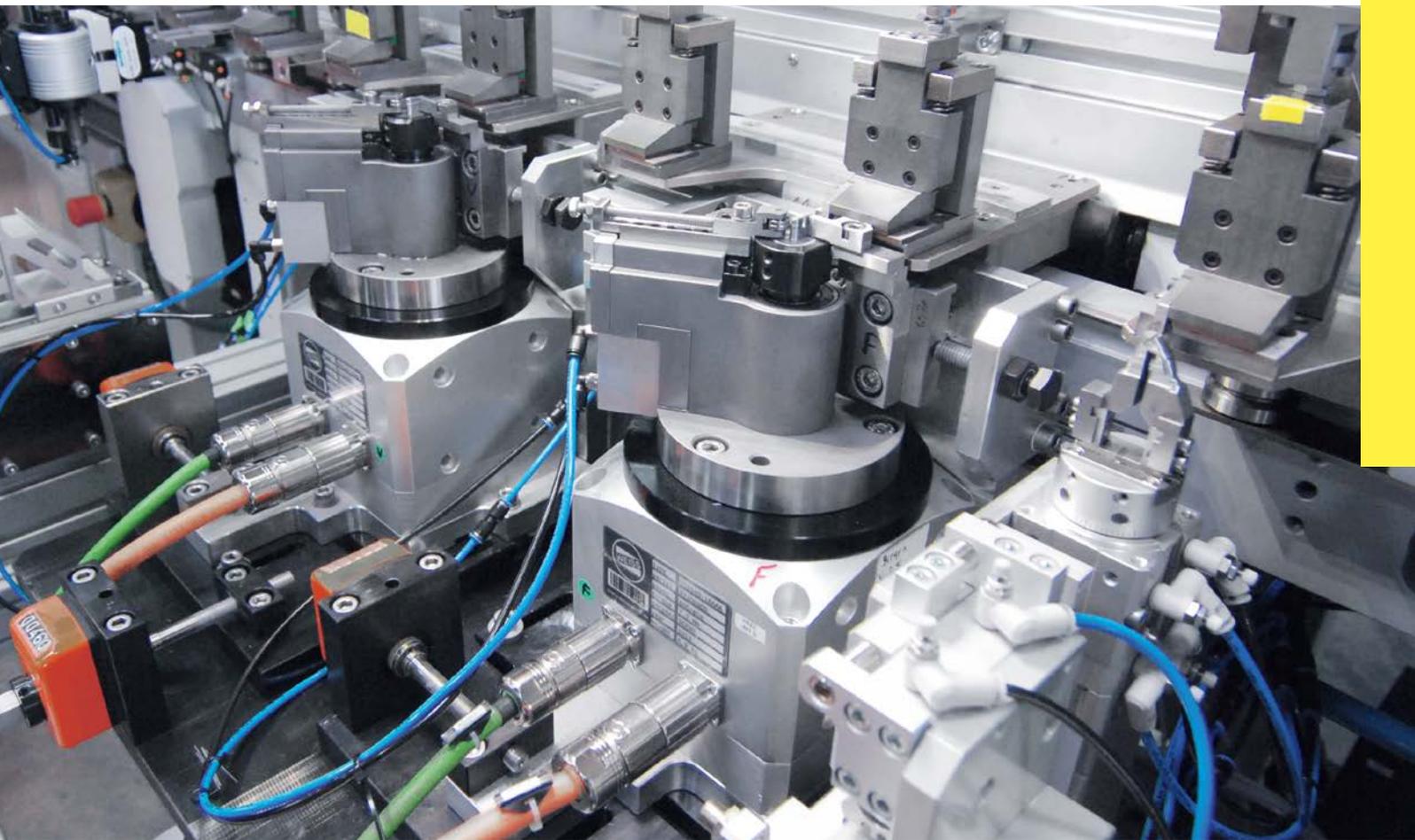


FREELY AND INTUITIVELY PROGRAMMABLE

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



The ST 140 rotary unit operating in perfect harmony with the LS 280 linear assembly system. The installation at Jouhsen-bündgens Maschinenbau GmbH is used to produce medical needles at high speeds. Thanks to the new system, it has been possible to almost double the output.



The ST rotating units with absolute rotary encoder are the ideal choice for precise and highly dynamic rotary, swivel and gripping movements. Whether used to supply and position components, as swivel units for grippers or as a replacement for servomotors with planetary gears, the ST rotating units offer the perfect solution. Their compactness, light weight, versatile attachment options, as well as the various designs and other options available allow a broad range of applications to be covered.

ADVANTAGES

- Extremely dynamic
- Long lifetime
- No maintenance cost
- Compact design – low weight
- Rigid mechanical design
- Absolute encoder
- High power density
- Optionally available with electric holding brake

ALLGEMEINE ANGABEN

- The ST model range comprises direct-drive rotating units (with the exception of ST55)
- ST rotating units are user-programmable
- Possible installation location: any
- The ST rotating units are “lubricated for life”
- All motors are equipped with overtemperature protection (PTC)
- 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.