

CR/TH

FREELY PROGRAMMABLE ROTARY TABLES | CR/TH HEAVY DUTY ROTARY TABLE



CR/TH HEAVY DUTY ROTARY TABLE: MAKES LIGHT WORK OF HEAVY LOADS

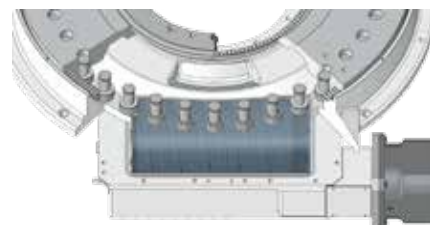
FOR HORIZONTAL AXES

User-programmable rotary barrel drive of the TH range for horizontal loads and high breakdown torque levels. With screw-on surfaces for Buhl pinning and optional rotary encoder.



THE TECHNOLOGY MAKES THE DIFFERENCE

The cam drive, positioned far toward the outside, enables the highest precision and dynamic performance.



This cooling carousel at one of Cirex's casting stations in the Netherlands has a diameter of 10 metres and weighs 30 tonnes. It is driven by a CR. A special bearing has been fitted to handle the high breakdown moment as a result of the uneven load.



Flat heavy duty rotary table with large central opening. A real powerhouse. User-programmable. The flat design frees up space for ergonomically optimal workplaces. The table is fully user-programmable using our WEISS Application Software.

ADVANTAGES

- Extremely flat design
- Large central opening for optimum feed-through of supply cables
- User-programmable
- Extremely smooth and quiet running (<70 dBA)
- Splashproof
- Covered gaskets for protection from welding sparks
- The flexible motor flange principle makes it easy to connect third-party motors
- Maximum power transmission with zero backlash thanks to multiple cam rollers that are tensioned against one another and meshed
- Highest parts and repeat accuracy
- CR range with available manual hand crank
- Impressive price-performance
- Mounted on high-precision needle bearings to handle the heaviest loads in both the axial and radial direction
- Permanent status monitoring through W.A.S. – WEISS Application Software

TH 400F

TECHNICAL DATA

Direction of rotation:	Freely programmable
Mounting position:*	Rotation axis hor./vert. (preferred cam shaft down, horizontal)
Indexing precision (arcsec):	± 15" (standard with additional shaft encoder), ± 50" (without additional shaft encoder)
Repeatability (arcsec):	± 5" standard (with additional shaft encoder), ± 40" (without additional shaft encoder)
Max. axial run-out of output flange:	0.03 mm
Max. concentricity of output flange:	0.03 mm
Weight:	Approx. 430 kg (without motor)

DRIVING DATA**

i _{Rotary indexer}	14
i _{Bevel gear}	15.86 (standard, other transmissions possible)
i _{Total}	222.04 (standard, other transmissions possible)
M _{Motor max}	22 Nm (for standard bevel gear transmission)
M _{Brake max.}	10 Nm (for standard bevel gear transmission)

* Please consult WEISS for overhead mounting positions.

** It is possible to fit popular alternative motors from various manufacturers. We are happy to advise you if you require any further information.

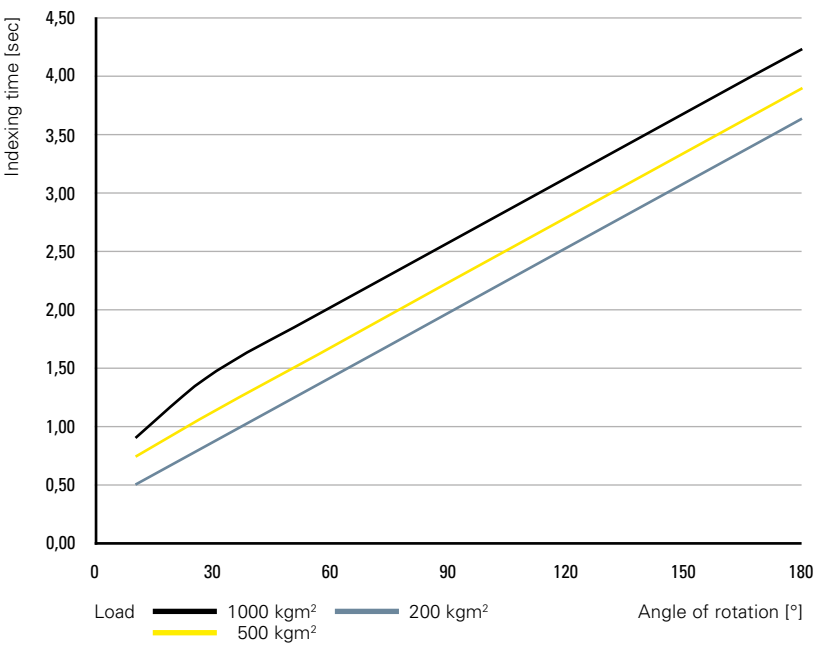
LOAD DATA (for the rotary plate)

F_A : Perm. axial force		F_R : Perm. radial force		M_K : Perm. tilting moment		T_A : Perm. torque	
dynamic	static	dynamic	static	dynamic	static	dynamic***	static
20 kN	90 kN	127 kN	290 kN	27 kNm	62 kNm	4.8 kNm	7 kNm

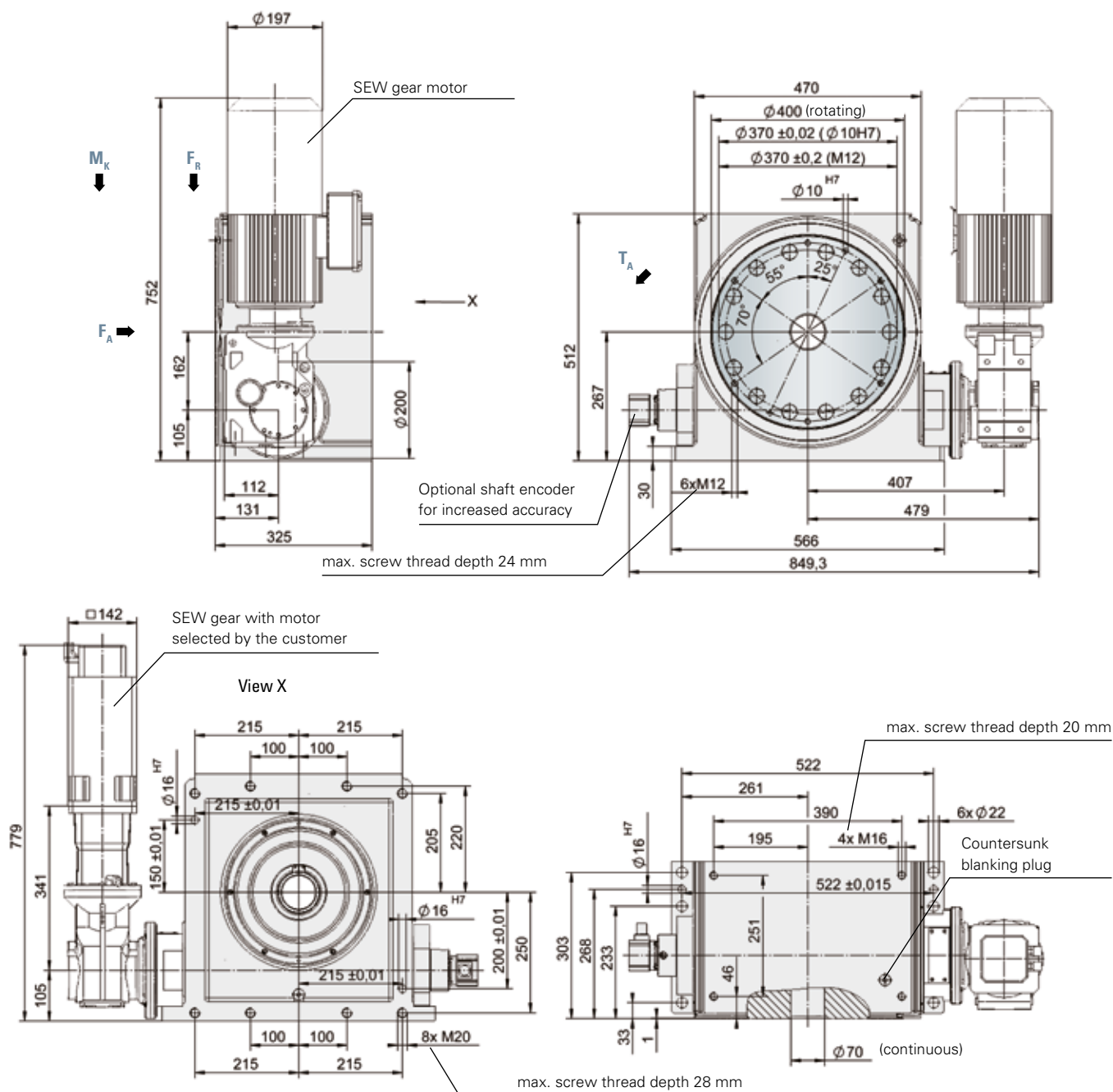
Combined loads only after inspection by WEISS.

*** max. driving torque at rotary plate (depends on drive)

TIMING DIAGRAM for standard transmission (please contact us for other requests)



DIMENSIONS



The shown position of the dial plate corresponds to the home position (state of delivery).

The motor dimensions refer to the model 8LSA56.E1022D200-0 von B&R. It is possible to fit alternative motors from various manufacturers.

When using an alternative motor, the angular gearbox must be matched to your motor.

TH 700F

TECHNICAL DATA		DRIVING DATA*	
Direction of rotation:	Freely programmable	i_{Total}	144
Mounting position:	Rotation axis horizontal (cam shaft down, horizontal)	$n_{Motor\ max}$	2000 rpm
Indexing precision (arcsec):	$\pm 15''$	$M_{Motor\ max}$	80 Nm
Repeatability (arcsec):	$\pm 10''$	$M_{Brake\ max}$	50 Nm
Max. axial run-out of output flange:	0.02 mm	<div>* It is possible to fit popular alternative motors from various manufacturers. (an additional reduction gear may be required with several motors). We are happy to advise you if you require any further information.</div>	
Max. concentricity of output flange:	0.02 mm		
Weight:	Approx. 630 kg. (without motor)		
Handwheel:	Freely accessible square shaft		

LOAD DATA (for the stationary central part)

Perm. axial force	Perm. radial force	Perm. tilting moment	Perm. torque
F_A: 3.5 kN	F_R: 19 kN	M_K: 3.5 kNm	T_A: 1.7 kNm

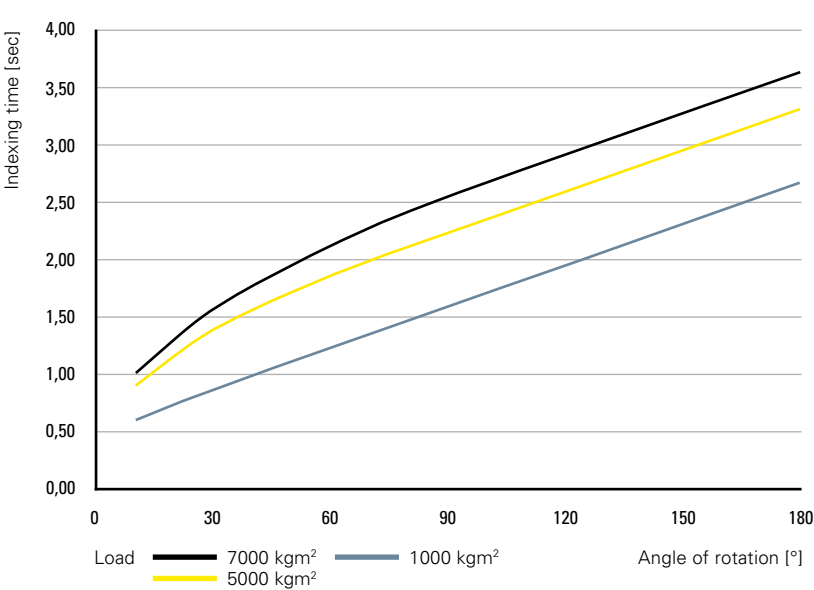
LOAD DATA (for the rotary plate)

F_A: Perm. axial force		F_R: Perm. radial force		M_K: Perm. tilting moment		T_A: Perm. torque	
dynamic	static	dynamic	static	dynamic	static	dynamic**	static
70 kN	150 kN	30 kNm	50 kNm	10 kNm	20 kNm	11.5 kNm	17 kNm

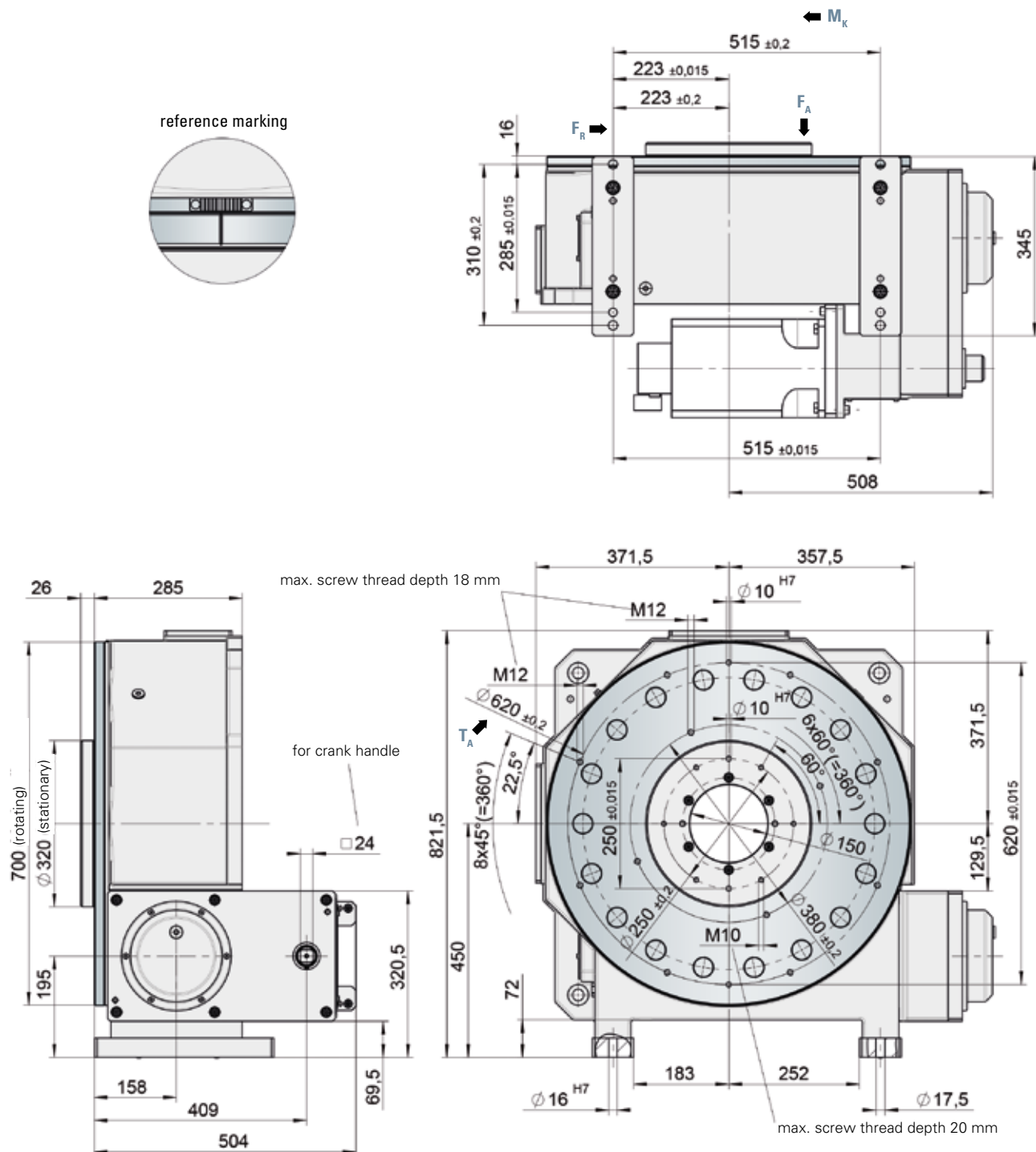
Combined loads only after inspection by WEISS.

** max. driving torque at rotary plate

TIMING DIAGRAM for standard transmission (please contact us for other requests)



DIMENSIONS



The shown position of the dial plate corresponds to the home position (state of delivery).

It is possible to fit popular alternative motors from various manufacturers. The drive flange geometries are motor-dependent.

TH 1000F

TECHNICAL DATA

Direction of rotation:	Freely programmable
Mounting position:	Rotation axis horizontal (cam shaft down, horizontal)
Indexing precision (arcsec):	$\pm 15''$
Repeatability (arcsec):	$\pm 10''$
Max. axial run-out of output flange:	0.02 mm
Max. concentricity of output flange:	0.02 mm
Weight:	Approx. 1500 kg (without motor)

DRIVING DATA*

i_{Total}	200
$n_{Motor\ max}$	2000 rpm
$M_{Motor\ max}$	120 Nm
$M_{Brake\ max}$	100 Nm

* It is possible to fit popular alternative motors from various manufacturers. (an additional reduction gear may be required with several motors). We are happy to advise you if you require any further information.

LOAD DATA (for the stationary central part)

F_A: Perm. axial force	F_R: Perm. radial force	M_K: Perm. tilting moment	T_A: Perm. torque
45 kN	19 kN	6 kNm	2 kNm

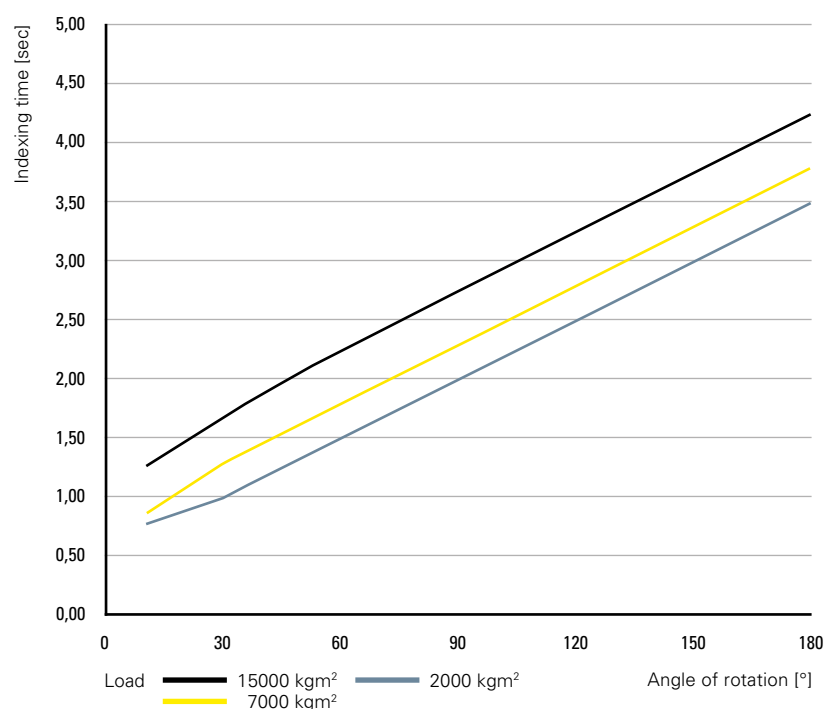
LOAD DATA (for the rotary plate)

F_A: Perm. axial force	F_R: Perm. radial force	M_K: Perm. tilting moment	T_A: Perm. torque
dynamic static	dynamic static	dynamic static	dynamic** static
120 kN 250 kN	100 kNm 220 kNm	25 kNm 50 kNm	24 kNm 32 kNm

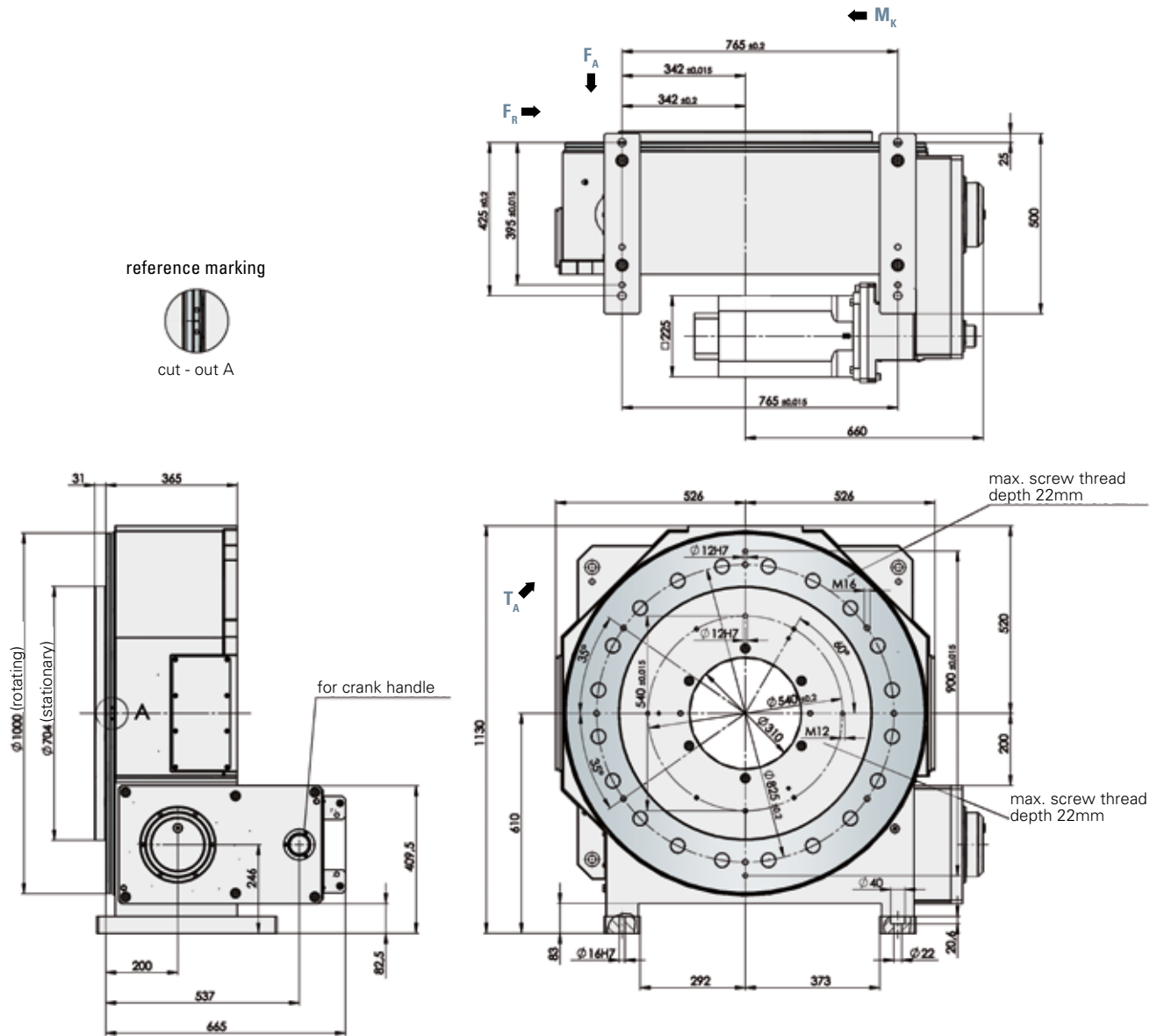
Combined loads only after inspection by WEISS.

** max. driving torque at rotary plate

TIMING DIAGRAM for standard transmission (please contact us for other requests)



DIMENSIONS



It is possible to fit popular alternative motors from various manufacturers. The drive flange geometries are motor-dependent.

CR 300E

TECHNICAL DATA

Direction of rotation:	Freely programmable
Mounting position:*	Rotation axis vertical/horizontal (cam shaft down, horizontal)
Indexing precision (arcsec):	$\pm 30''$
Repeatability (arcsec):	$\pm 20''$
Max. axial run-out of output flange:	0.01 mm
Max. concentricity of output flange:	0.01 mm
Weight:	Approx. 210 kg (without motor)
Handwheel:	Freely accessible square shaft

DRIVING DATA**

i_{Total}	130.2
$n_{\text{Motor max}}$	2000 rpm
$M_{\text{Motor max}}$	28 Nm
$M_{\text{Brake max}}$	15 Nm

* Please consult WEISS for overhead mounting positions.

** It is possible to fit popular alternative motors from various manufacturers. (an additional reduction gear may be required with several motors). We are happy to advise you if you require any further information.

LOAD DATA (for the stationary central part)

F_A: Perm. axial force 6.5 kN	F_R: Perm. radial force 3.5 kN	M_K: Perm. tilting moment 0.3 kNm	T_A: Perm. torque 0.15 kNm
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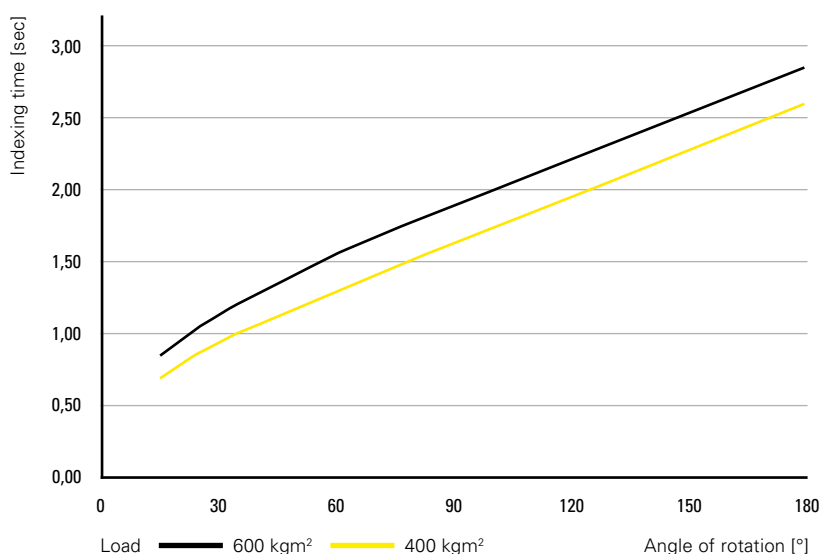
LOAD DATA (for the rotary plate)

F_A: Perm. axial force	F_R: Perm. radial force	M_K: Perm. tilting moment	T_A: Perm. torque
dynamic static	dynamic static	dynamic static	dynamic*** static
20 kN 28 kN	$\pm 5.5 \text{ kNm} \quad \pm 9 \text{ kNm}$	3 kNm 4 kNm	1.2 kNm 1.6 kNm

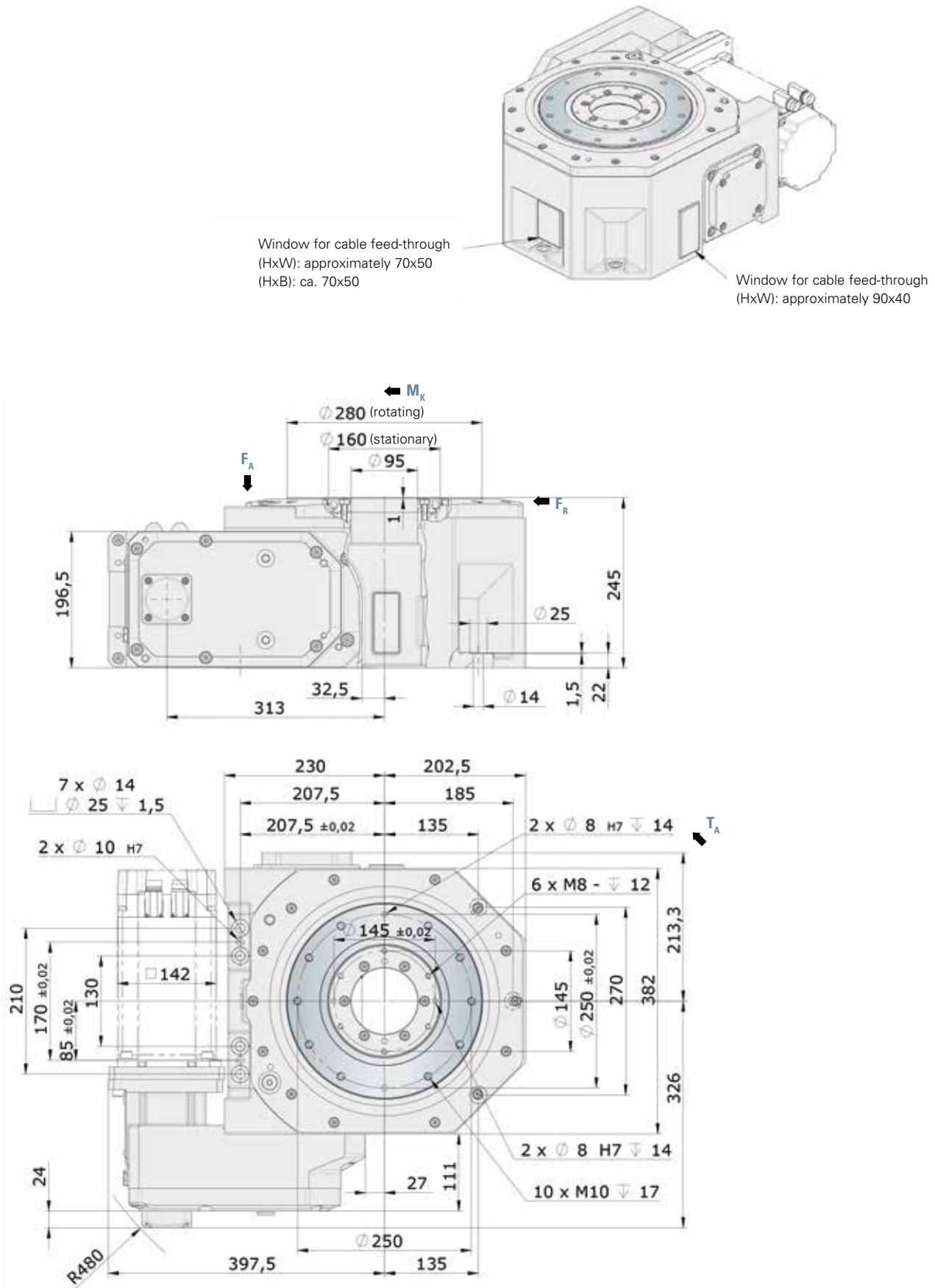
Combined loads only after inspection by WEISS.

*** max. driving torque at rotary plate

TIMING DIAGRAM (please contact us for other requests)



DIMENSIONS



It is possible to fit popular alternative motors from various manufacturers. The drive flange geometries are motor-dependent.

CR 400E

TECHNICAL DATA

Direction of rotation:	Freely programmable
Mounting position:*	Rotation axis vertical/horizontal (cam shaft down, horizontal)
Indexing precision (arcsec):	± 15" standard (with additional rotary encoder) ± 50" standard (without additional rotary encoder)
Repeatability (arcsec):	± 5" standard (with additional rotary encoder) ± 40" standard (without additional rotary encoder)
Max. axial run-out of output flange:	0.015 mm
Max. concentricity of output flange:	0.015 mm
Weight:	Approx. 300 kg (with standard gear-box, without motor)

DRIVING DATA**

$i_{\text{Rotary indexer}}$	14
$i_{\text{Bevel gear}}$	15.86
i_{Total}	222.04 rpm
$M_{\text{Motor max}}$	22 Nm
$M_{\text{Brake max}}$	10 Nm

* Please consult WEISS for overhead mounting positions.

** It is possible to fit popular alternative motors from various manufacturers. The drive flange geometries are motor-dependent. We are happy to advise you if you require any further information.

LOAD DATA (for the stationary central part)

F_A : Perm. axial force
10 kN

F_R : Perm. radial force
6 kN

M_K : Perm. tilting moment
0.65 kNm

T_A : Perm. torque
0.3 kNm

LOAD DATA (for the rotary plate)

F_A : Perm. axial force
dynamic **30 kN** static **50 kN**

F_R : Perm. radial force
dynamic **8 kN** static **14 kN**

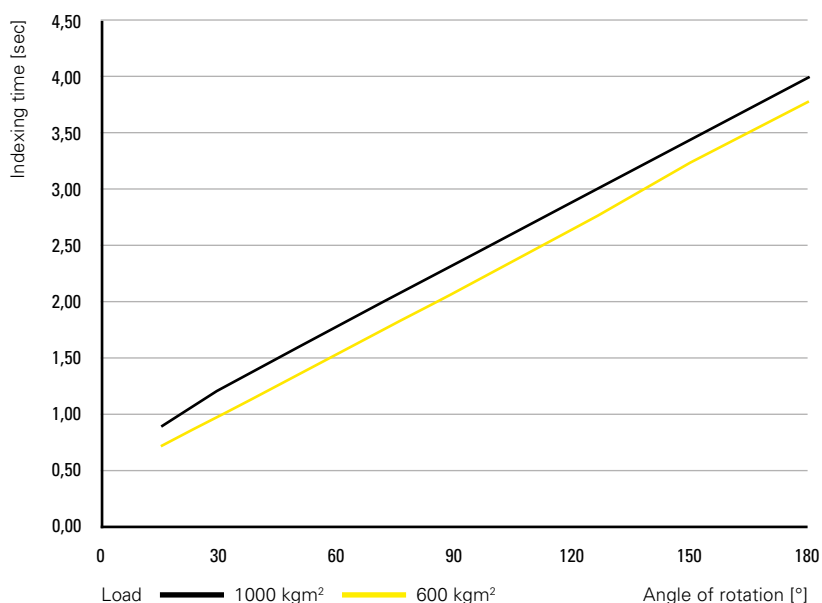
M_K : Perm. tilting moment
dynamic **3 kNm** static **4 kNm**

T_A : Perm. torque
dynamic*** **1.65 kNm** static **2 kNm**

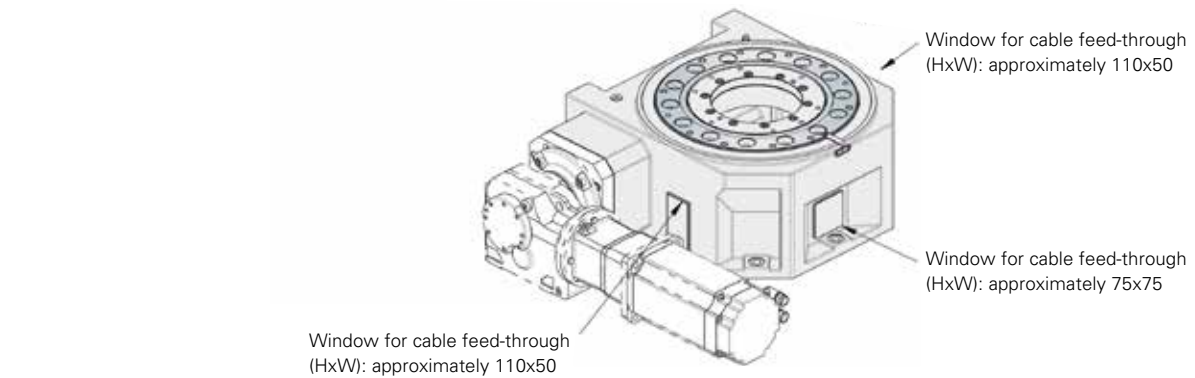
Combined loads only after inspection by WEISS.

*** max. torque at rotary plate

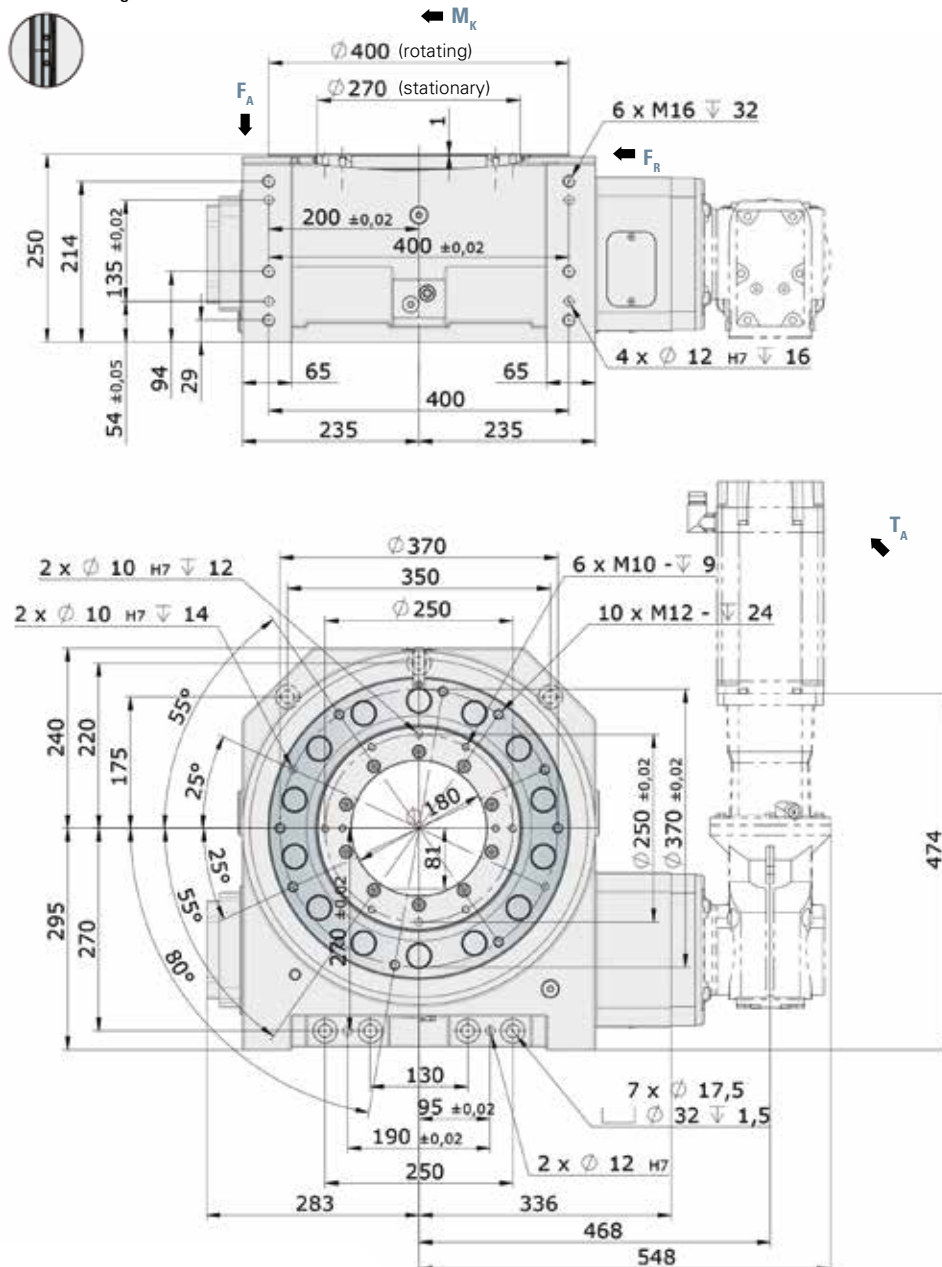
TIMING DIAGRAM (please contact us for other requests)



DIMENSIONS



Reference marking



It is possible to fit popular alternative motors from various manufacturers. The drive flange geometries are motor-dependent.

CR 500E

TECHNICAL DATA

Direction of rotation:	Freely programmable
Mounting position:*	Rotation axis vertical/horizontal (cam shaft down, horizontal)
Indexing precision (arcsec):	$\pm 25''$
Repeatability (arcsec):	$\pm 15''$
Max. axial run-out of output flange:	0.015 mm
Max. concentricity of output flange:	0.015 mm
Weight:	Approx. 420 kg (without motor)
Handwheel:	Freely accessible square shaft

DRIVING DATA**

i_{Total}	163.69
$n_{Motor\ max}$	2000 rpm
$M_{Motor\ max}$	39 Nm
$M_{Brake\ max}$	32 Nm

* Please consult WEISS for overhead mounting positions.

** It is possible to fit popular alternative motors from various manufacturers. The drive flange geometries are motor-dependent. We are happy to advise you if you require any further information.

LOAD DATA (for the stationary central part)

F_A : Perm. axial force
18 kN

F_R : Perm. radial force
10 kN

M_K : Perm. tilting moment
1.5 kNm

T_A : Perm. torque
0.5 kNm

LOAD DATA (for the rotary plate)

F_A : Perm. axial force
dynamic static
40 kN 75 kN

F_R : Perm. radial force
dynamic static
15 kNm 25 kNm

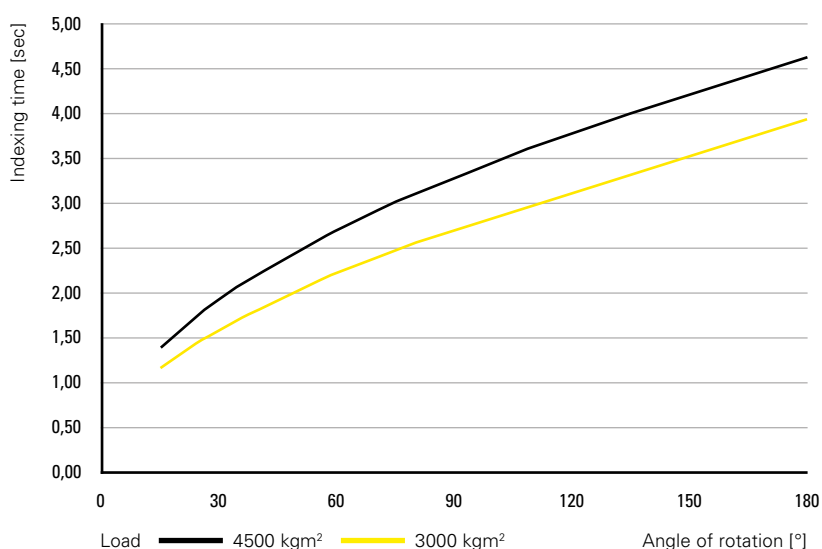
M_K : Perm. tilting moment
dynamic static
3.5 kNm 7 kNm

T_A : Perm. torque
dynamic*** static
2.8 kNm 3.8 kNm

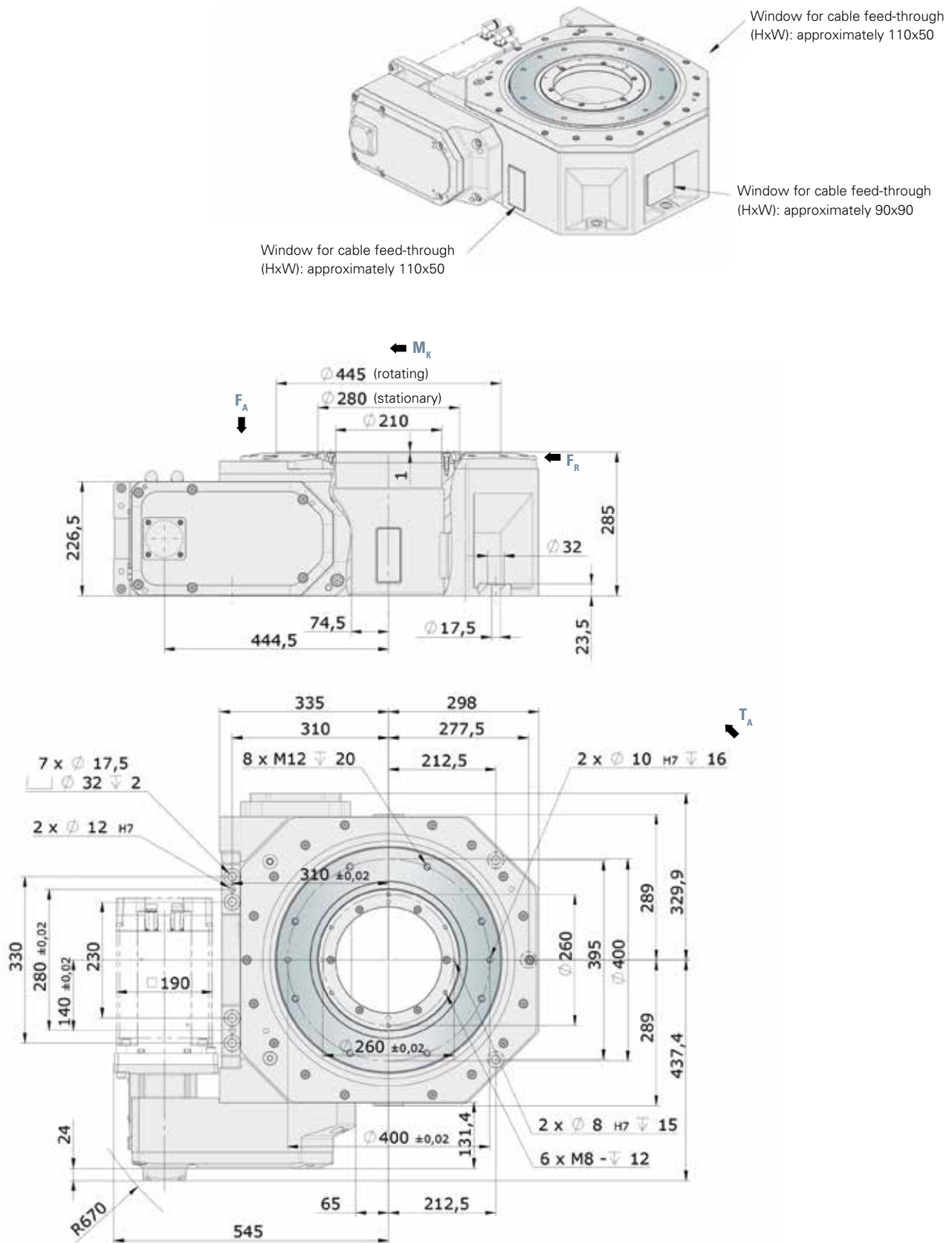
Combined loads only after inspection by WEISS.

*** max. torque at rotary plate (depends on drive)

TIMING DIAGRAM (please contact us for other requests)



DIMENSIONS



It is possible to fit popular alternative motors from various manufacturers. The drive flange geometries are motor-dependent.

CR 700C

TECHNICAL DATA

Direction of rotation:	Freely programmable
Mounting position:*	Rotation axis vertical/horizontal (cam shaft down, horizontal)
Indexing precision (arcsec):	± 15"
Repeatability (arcsec):	± 10"
Max. axial run-out of output flange:	0.02 mm
Max. concentricity of output flange:	0.02 mm
Weight:	Approx. 630 kg (without motor)
Handwheel:	Freely accessible square shaft

DRIVING DATA**

i_{Total}	144
$n_{Motor\ max}$	2000 rpm
$M_{Motor\ max}$	80 Nm
$M_{Brake\ max}$	50 Nm

* Please consult WEISS for overhead mounting positions.

** It is possible to fit popular alternative motors from various manufacturers. The drive flange geometries are motor-dependent. We are happy to advise you if you require any further information.

LOAD DATA (for the stationary central part)

F_A : Perm. axial force
35 kN

F_R : Perm. radial force
19 kN

M_K : Perm. tilting moment
3.5 kNm

T_A : Perm. torque
1.7 kNm

LOAD DATA (for the rotary plate)

F_A : Perm. axial force
dynamic **70 kN** static **150 kN**

F_R : Perm. radial force
dynamic **30 kN** static **50 kN**

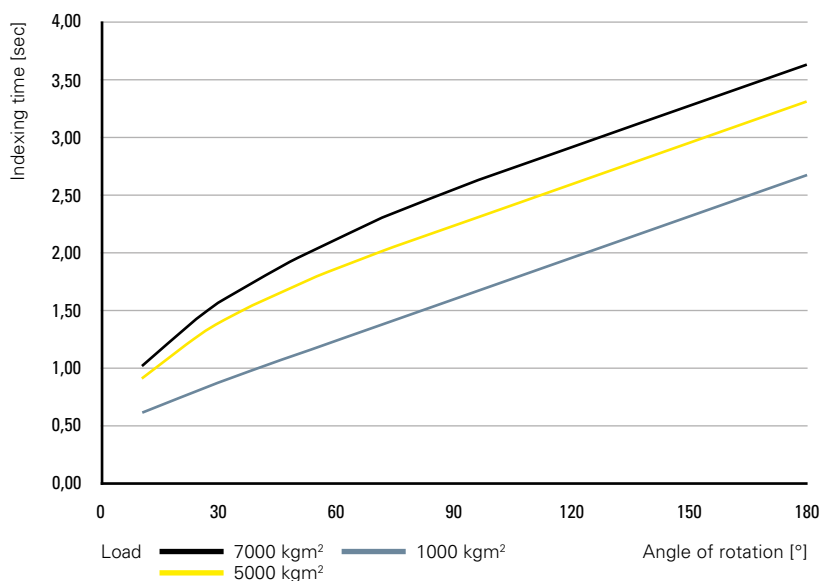
M_K : Perm. tilting moment
dynamic **10 kNm** static **20 kNm**

T_A : Perm. torque
dynamic*** **11.5 kNm** static **17 kNm**

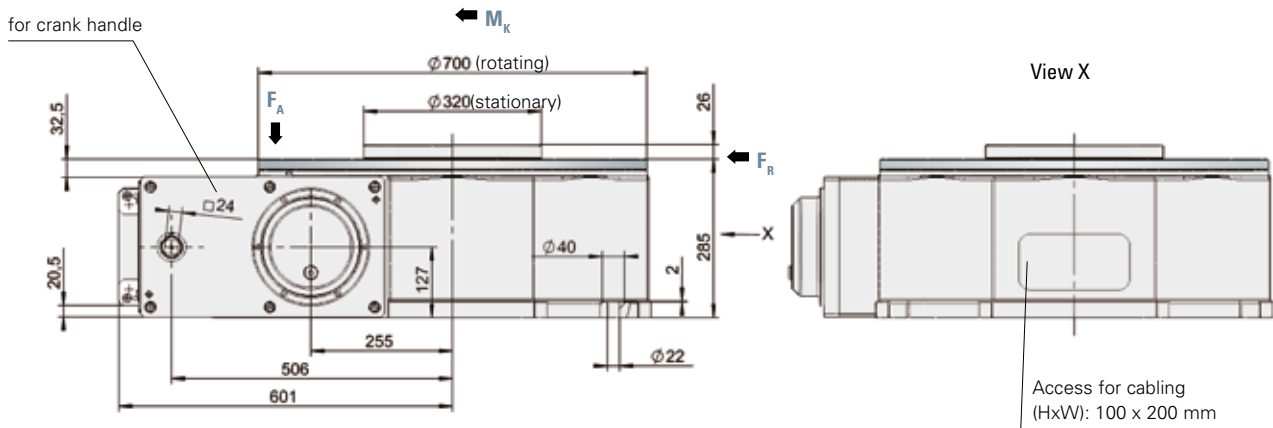
Combined loads only after inspection by WEISS.

*** max. torque at rotary plate

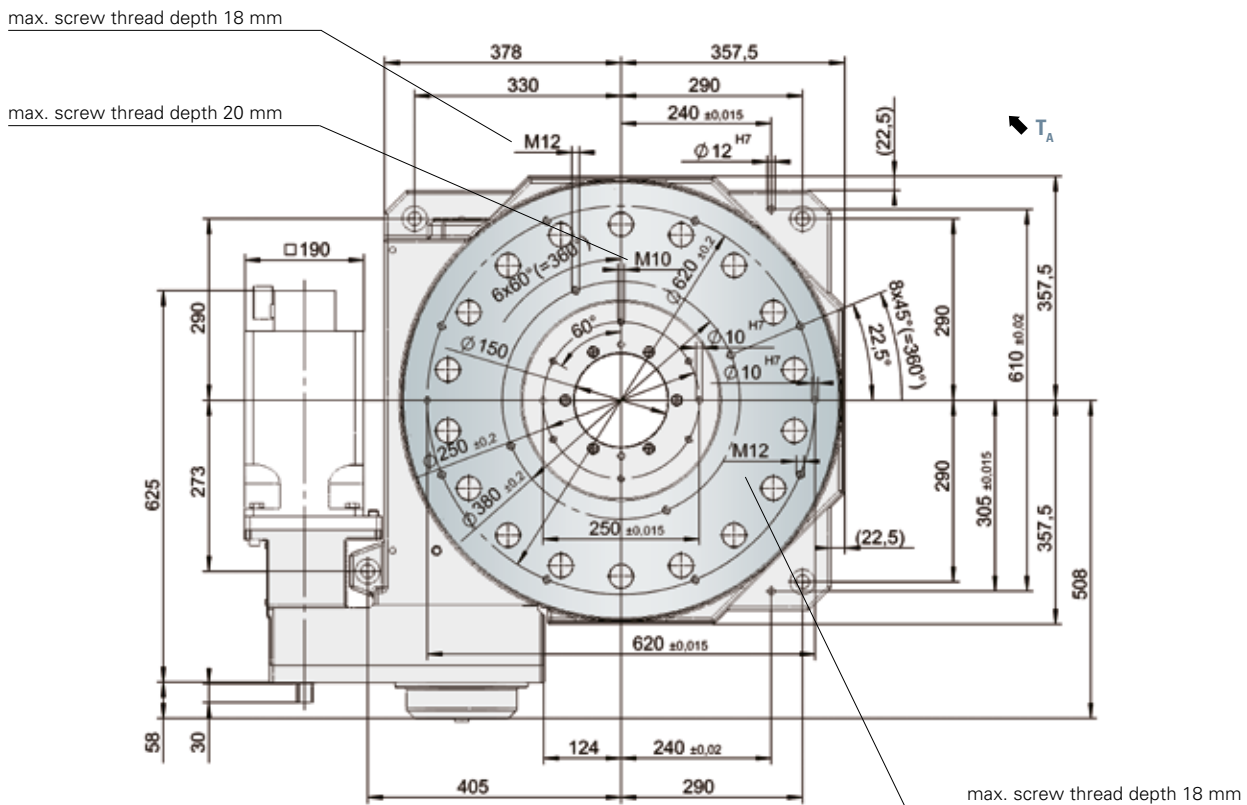
TIMING DIAGRAM (please contact us for other requests)



DIMENSIONS



reference marking



The shown position of the dial plate corresponds to the home position (state of delivery).

It is possible to fit popular alternative motors from various manufacturers. The drive flange geometries are motor-dependent.

CR 1000C

TECHNICAL DATA

Direction of rotation:	Freely programmable
Mounting position:	Rotation axis vertical (cam shaft down horizontal)
Indexing precision (arcsec):	$\pm 15''$
Repeatability (arcsec):	$\pm 10''$
Max. axial run-out of rotating plate:	0.02 mm
Max. concentricity of output flange:	0.02 mm
Weight:	Approx. 1450 kg (without motor)
Handwheel:	Freely accessible square shaft

DRIVING DATA*

i_{Total}	200
$n_{Motor\ max}$	2000 rpm
$M_{Motor\ max}$	120 Nm
$M_{Brake\ max}$	100 Nm

* It is possible to fit popular alternative motors from various manufacturers. The drive flange geometries are motor-dependent. We are happy to advise you if you require any further information.

LOAD DATA (for the stationary central part)

F_A: Perm. axial force 45 kN	F_R: Perm. radial force 19 kN	M_K: Perm. tilting moment 6 kNm	T_A: Perm. torque 2 kNm
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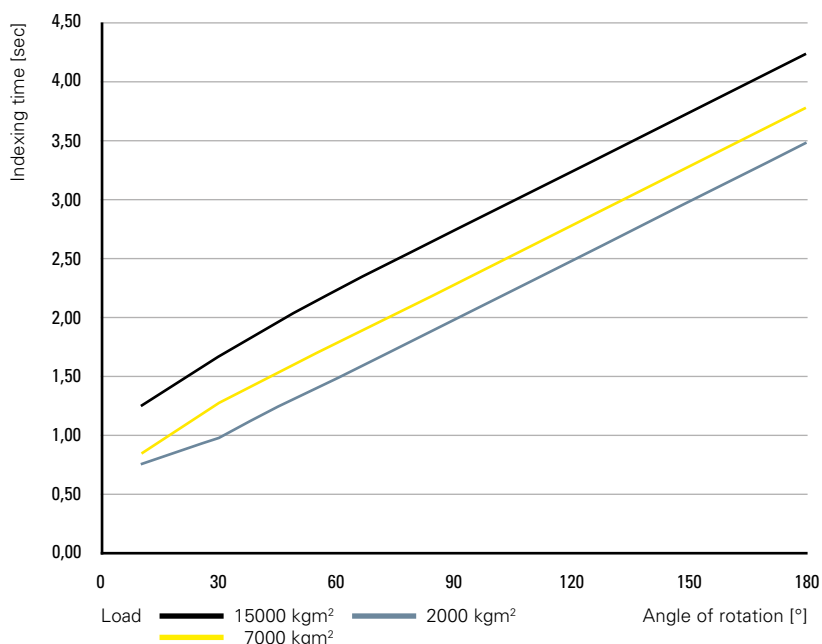
LOAD DATA (for the stationary central part)

F_A: Perm. axial force dynamic static 120 kN 250 kN	F_R: Perm. radial force dynamic static 100 kN 220 kN	M_K: Perm. tilting moment dynamic static 25 kNm 50 kNm	T_A: Perm. torque moment dynamic** static 24 kNm 32 kNm
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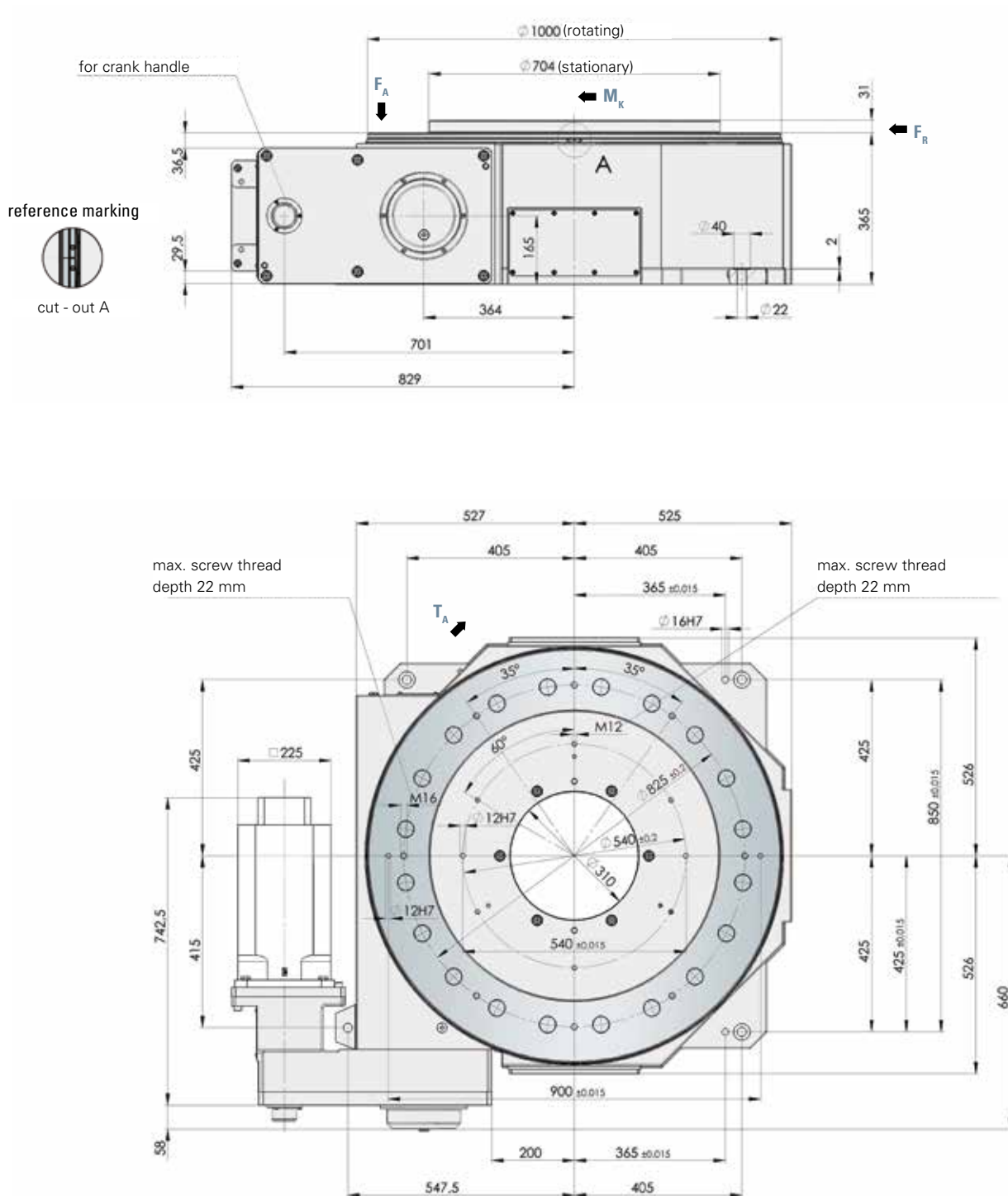
Combined loads only after inspection by WEISS.

** max. torque at rotary plate

TIMING DIAGRAM (please contact us for other requests)



DIMENSIONS



The motor dimensions refer to the model 8LSA84.E1022D200-0 von B&R. It is possible to fit alternative motors from various manufacturers.

CR 1300C

TECHNICAL DATA

Direction of rotation:	Freely programmable
Mounting position:	Vertical rotation axis
Indexing precision (arcsec):	$\pm 12''$
Repeatability (arcsec):	$\pm 5''$
Max. axial run-out of rotating plate:	0.03 mm
Max. concentricity of output flange:	0.03 mm
Weight:	Approx. 2000 kg (without motor)
Handwheel:	Freely accessible square shaft

DRIVING DATA*

i_{Total}	180
$n_{Motor\ max}$	2000 rpm
$M_{Motor\ max}$	150 Nm
$M_{Brake\ max}$	80 Nm

* It is possible to fit popular alternative motors from various manufacturers. The specified concentricity and axial and radial run-out tolerances can only be achieved with accurate supporting surfaces. With unsymmetrical loads (e.g. single-sided load) please contact us concerning the connecting surface (flatness of base plate must be 0.1 mm or less). We are happy to advise you if you require any further information.

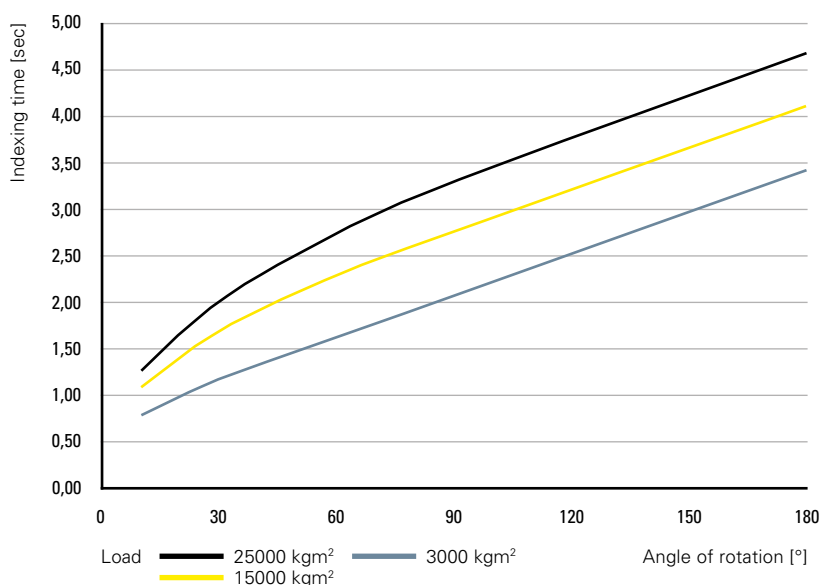
LOAD DATA (for the rotary plate)

F_A: Perm. axial force		F_R: Perm. radial force		M_K: Perm. tilting moment		T_A: Perm. torque	
dynamic	static	dynamic	static	dynamic	static	dynamic**	static
150 kN	280 kN	100 kN	230 kN	35 kNm	70 kNm	27 kNm	40 kNm

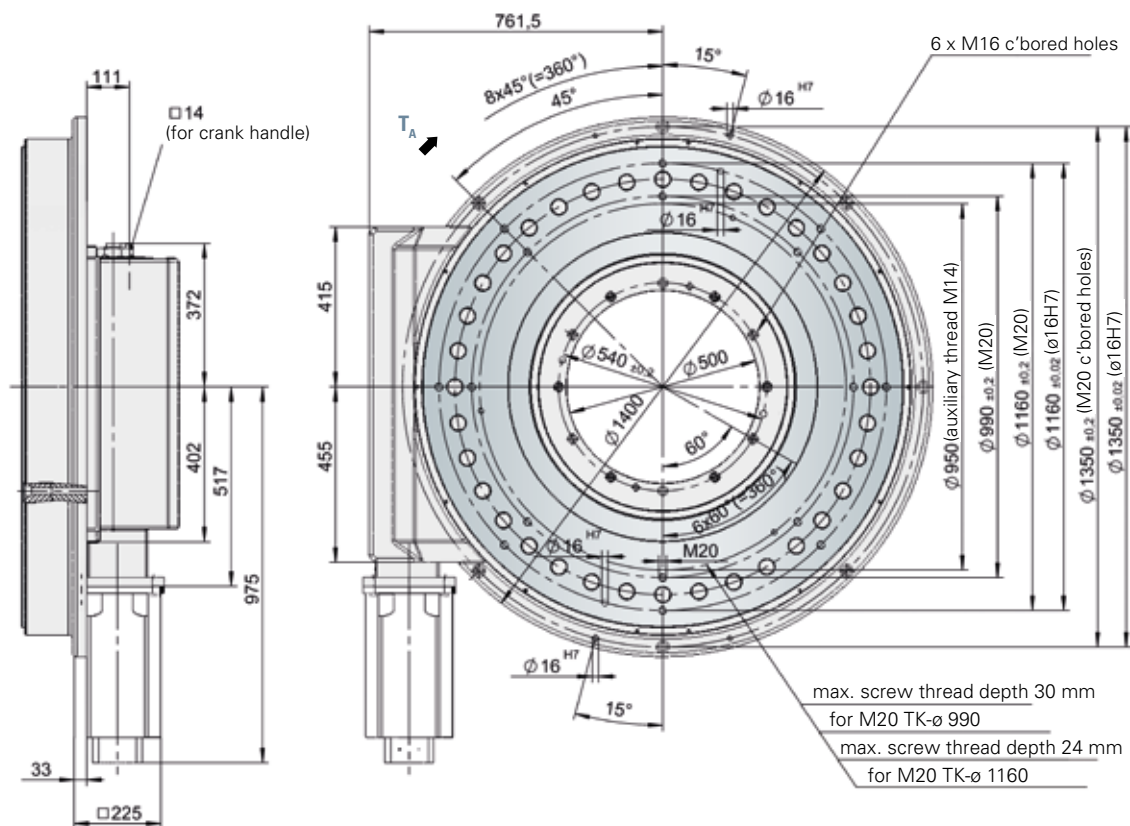
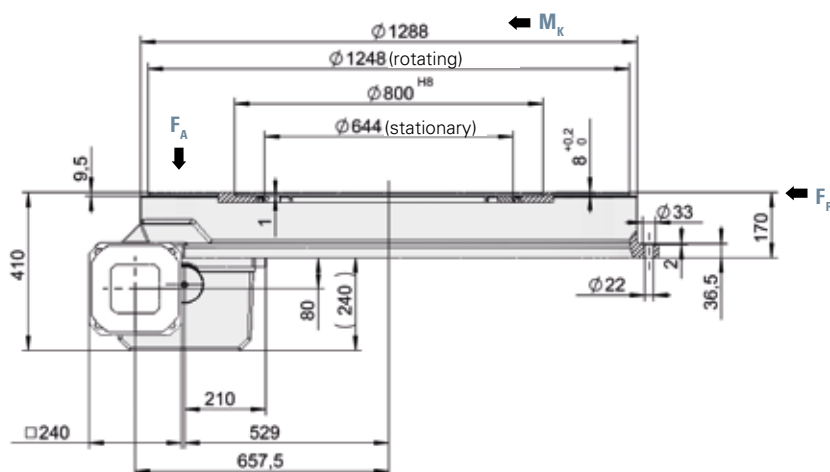
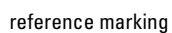
Combined loads only after inspection by WEISS.

** max. torque at rotary plate (depends on drive)

TIMING DIAGRAM (please contact us for other requests)



DIMENSIONS



The shown position of the dial plate corresponds to the home position (state of delivery).

The motor dimensions refer to the model 8LSA84.E1022D200-0 von B&R. It is possible to fit alternative motors from various manufacturers. An additional reduction gear may be required with several motors. We are happy to advise you if you require any further information.

CR 2000C

TECHNICAL DATA

Direction of rotation:	Freely programmable
Mounting position:	Vertical rotation axis
Indexing precision (arcsec):	$\pm 10''$
Repeatability (arcsec):	$\pm 5''$
Max. axial run-out of rotating plate:	0.03 mm
Max. concentricity of output flange:	0.03 mm
Weight:	Approx. 3600 kg (without motor)
Handwheel:	Freely accessible square shaft

DRIVING DATA*

i_{Total}	310
$n_{Motor\ max}$	2000 rpm
$M_{Motor\ max}$	150 Nm
$M_{Brake\ max}$	80 Nm

* It is possible to fit popular alternative motors from various manufacturers. The specified concentricity and axial and radial run-out tolerances can only be achieved with accurate supporting surfaces. With unsymmetrical loads (e.g. single-sided load) please contact us concerning the connecting surface (flatness of base plate must be 0.1 mm or less). We are happy to advise you if you require any further information.

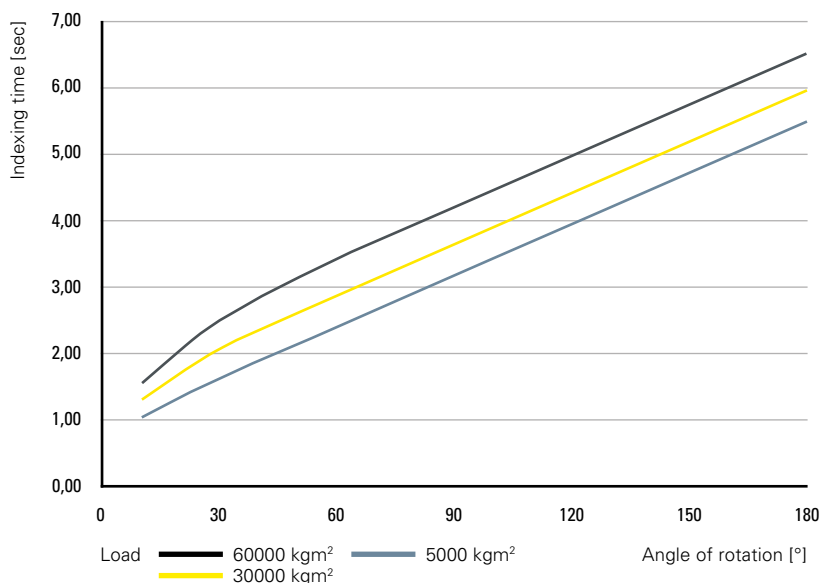
LOAD DATA (for the rotary plate)

F_A: Perm. axial force	F_R: Perm. radial force	M_K: Perm. tilting moment	T_A: Perm. torque
dynamic static	dynamic static	dynamic static	dynamic** static
250 kN 450 kN	125 kN 290 kN	55 kNm 110 kNm	46.5 kNm 61 kNm

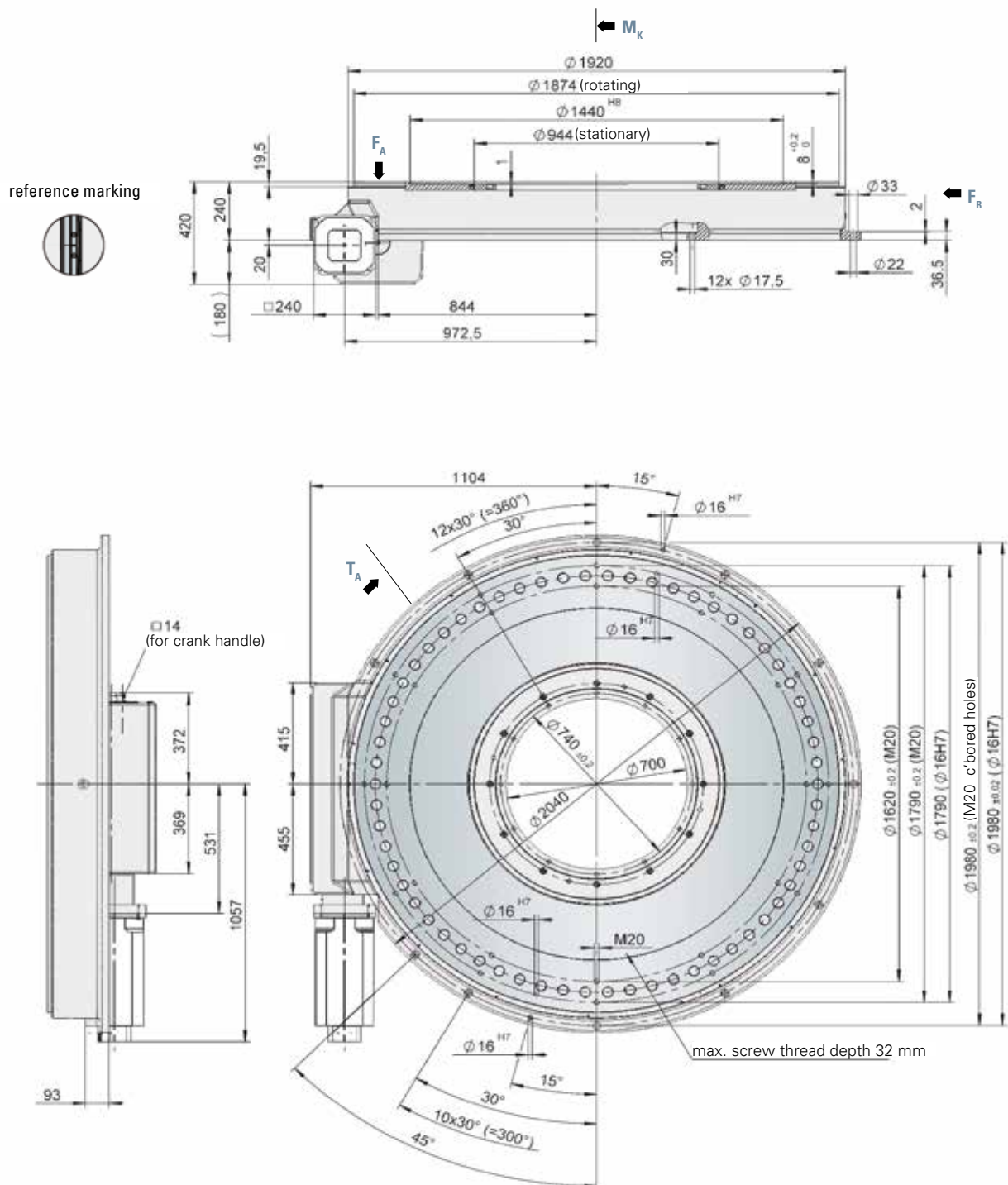
Combined loads only after inspection by WEISS.

** max. torque at rotary plate (depends on drive)

TIMING DIAGRAM (please contact us for other requests)



DIMENSIONS



The shown position of the dial plate corresponds to the home position (state of delivery).

The motor dimensions refer to the model 8LSA73.E1022D200-0 von B&R. It is possible to fit alternative motors from various manufacturers.

An additional reduction gear may be required with several motors. We are happy to advise you if you require any further information.