

NR

FREELY PROGRAMMABLE ROTARY TABLES | NR ROTARY RING TABLE



All NR rings allow customer-specific drive motors to be connected

NR ROTARY RING TABLE: FLEXIBLE IN EVERY RESPECT

WHEN IT'S GOT TO BE EXACT

We manufacture high-precision plates from AlMg4.5Mn (also available anodised on request), as well as steel plates (also available chemically nickel-plated on request), as per your drawings. With test protocol – everything from a single source.

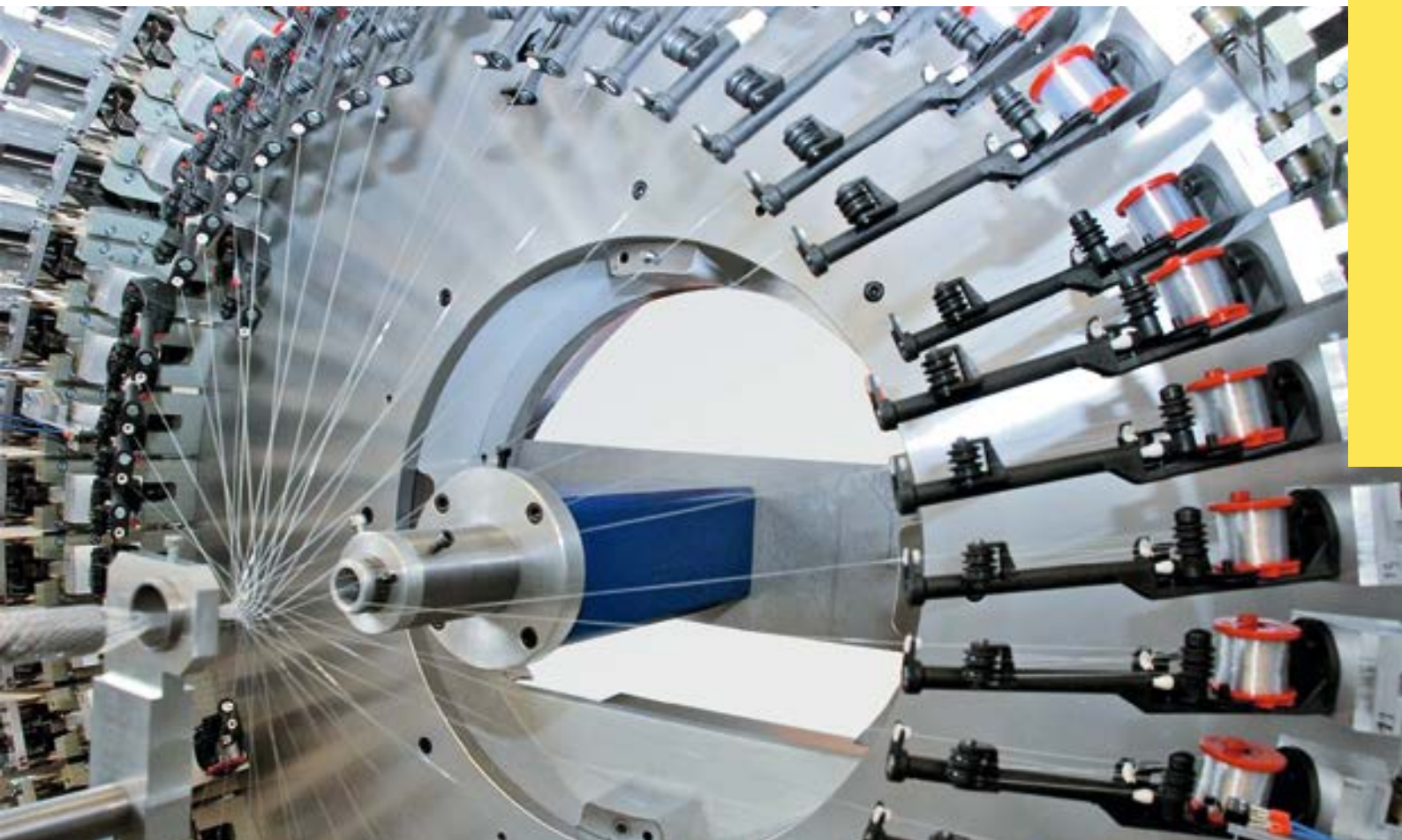


FREELY AND INTUITIVELY PROGRAMMABLE

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



Production of technical braidings at Bossert + Kast: the NR 750 rotary ring table is used as a gear-driven turntable: large bearing, integrated gears, large central opening.

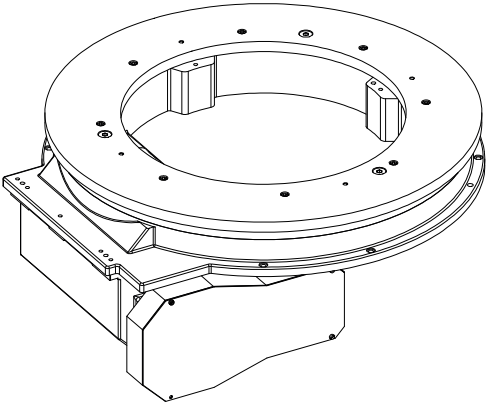


Rotary ring table with very large central opening, extremely flat design and high parts accuracy. The ring-shaped design allows extra free design space. The rotating aluminium ring can be adjusted to your specifications in terms of diameter and thickness.

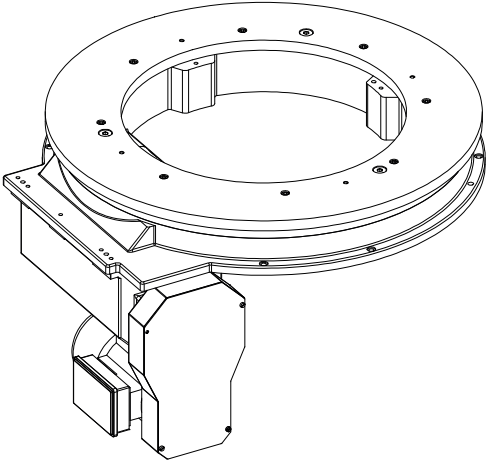
ADVANTAGES

- Ring-shaped rotary table with very large central opening
- High level of parts accuracy through locking on the outer edges
- Highly dynamic with smooth acceleration
- Flat, compact design – compatible with our tried and tested machines
- Four sizes
- Excellent price-performance
- Appealing design
- Optionally available with standard motor and control package with W.A.S. 2

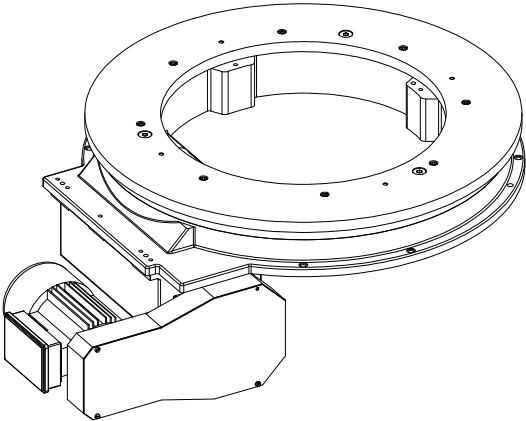
VERSIONS: DRIVE POSITION



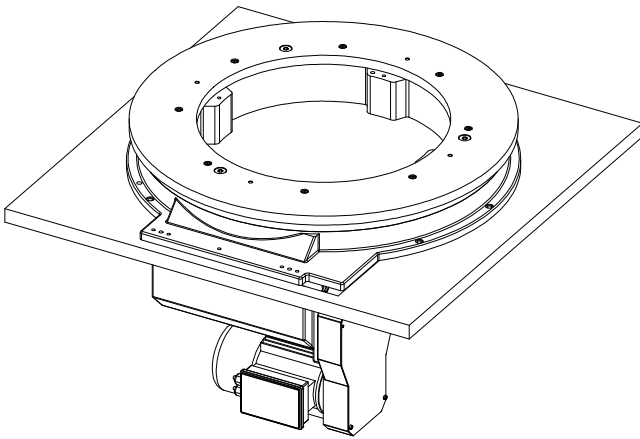
DRIVE HOUSING INSIDE/DP 1



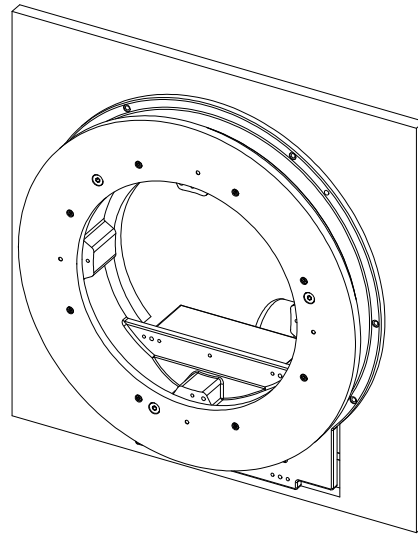
DRIVE HOUSING BELOW /DP 2



DRIVE HOUSING OUTSIDE/DP 3

VERSIONS: MOUNTING POSITION


STANDARD / MP 1


 VERTICAL DRIVE AT BASE / MP 2
 (only possible for model NR0750A)

GENERAL INFORMATION ON THE MODEL RANGE

- NR rotary ring table can be operated clockwise, anti-clockwise and also in reversing mode.
- The NR rotary ring tables are “lubricated for life”!
- All NR rotary indexing rings can be equipped with servo motors. The size of the motors should be optimally matched to the respective rotary indexing ring configuration so that the drive can never damage the rotary indexing ring.
- The aluminium rotating ring should be anodised so that the seal at the bottom runs on a low-wear surface.

OPTIONS

- Possible installation location: vertical rotary axis with output flange at the top
- Custom installation location, only possible for the NR0750A: horizontal rotary axis with cam housing at the base
- The 8LSA model range from B+R or the MS2N model range from Bosch Rexroth are available as standard servo motors.
- It is possible to fit popular alternative motors from various manufacturers.
- Standard colour: RAL7035 (other colours available on request)

NR 750Z



GENERAL INFORMATION

· Maximum recommended equipment diameter D_{tp} : approximately 1500 mm

TECHNICAL DATA

| | | |
|---------------------|--|-----------------------------------|
| $n_{1 \text{ Max}}$ | Max. motor speed: | 2000 1/min |
| $n_{2 \text{ Max}}$ | Max. output speed: | 23 1/min |
| i_{tot} | Overall gear ratio: | Level K: 90 Level G: 180 |
| | Indexing precision: | 36 arcsec ($\pm 18''$) |
| A_r | Axial run-out of the drive flange: | (at $\varnothing 635$ mm) 0.05 mm |
| A_r | Axial run-out, including the rotary ring: | (at $\varnothing 750$ mm) 0.07 mm |
| C_r | Concentricity of the output flange: | 0.03 mm |
| P | Parallelism between the output flange and screw-on surface of the housing: | 0.05 mm |
| m | Total weight without rotary ring or motor: | 230 kg |

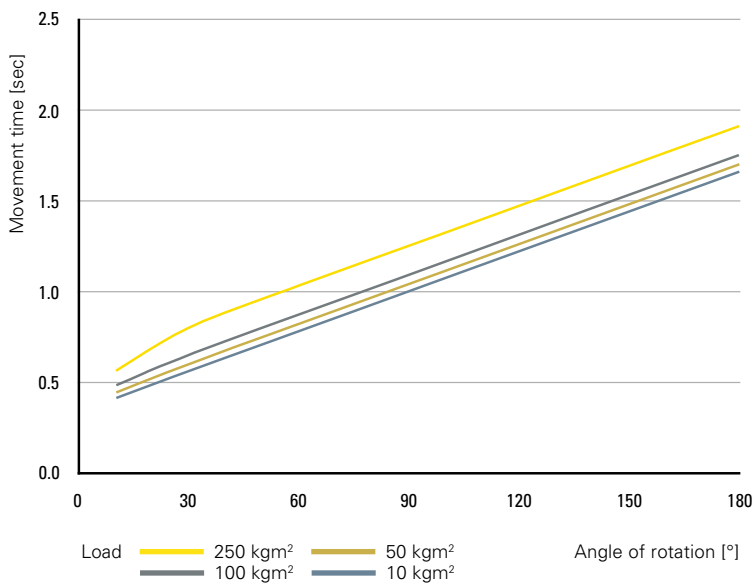
The values stated for axial run-out and concentricity can only be achieved with precise mounting surfaces.

LOAD DATA (for the output flange)

| | | |
|----------------------|-----------------------------------|--------|
| $M_{2T \text{ dyn}}$ | Permitted dynamic tilting moment: | 750 Nm |
| $F_{2A \text{ dyn}}$ | Permitted dynamic axial force: | 7000 N |
| $F_{2R \text{ dyn}}$ | Permitted dynamic radial force: | 7000 N |

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

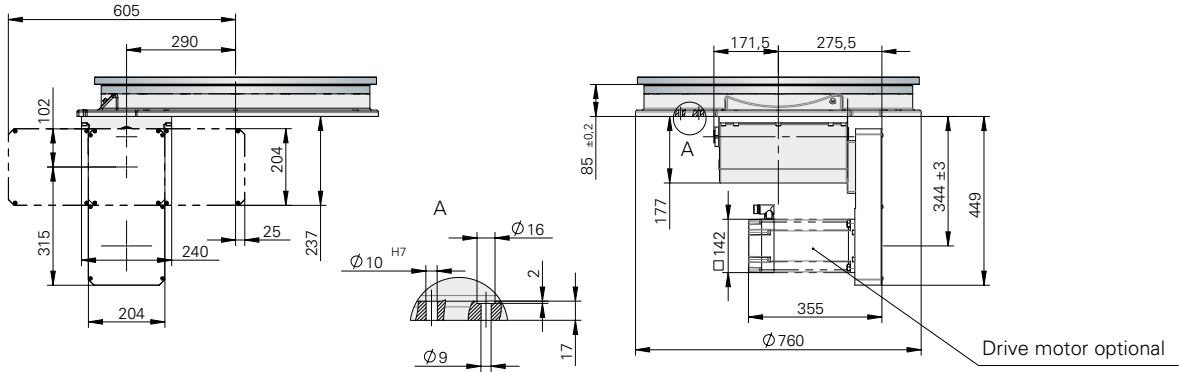
TIMING DIAGRAM



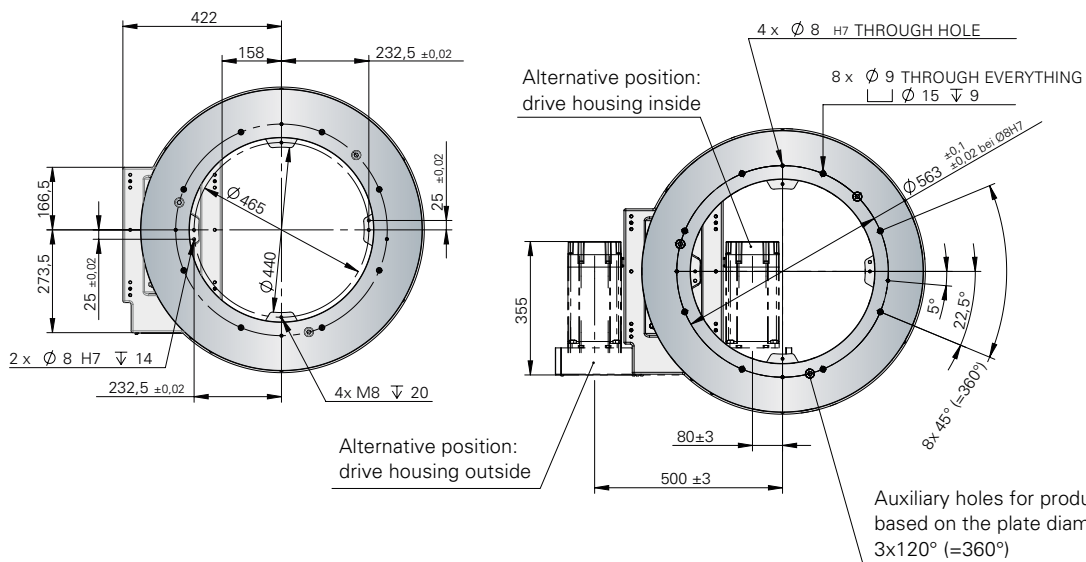
The mass moment of inertia of the aluminium rotary ring in standard dimensions is 1.4 kgm².

DIMENSIONS

The shown position of the rotating ring corresponds to the home position (state of delivery). Additional indexing plates are not included in the standard delivery scope and are subject to an extra charge. They are calculated separately as per your details.

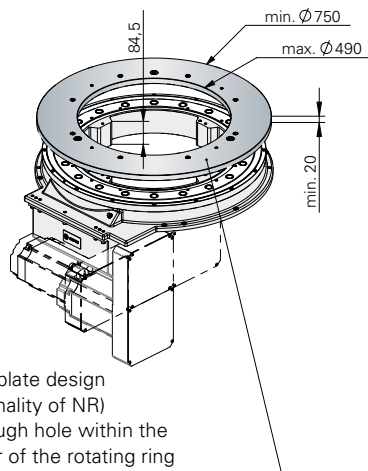


Drive motor optional

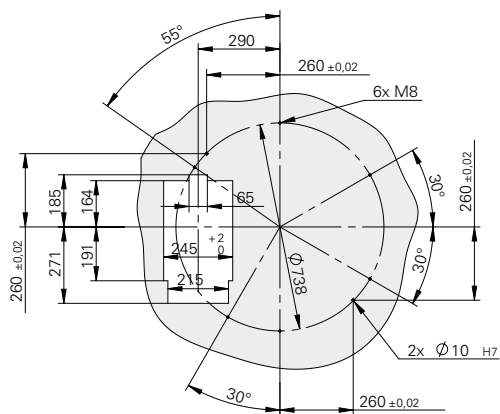


Alternative position:
drive housing outside

Auxiliary holes for production:
based on the plate diameter;
3x120° (=360°)



Customer-specific plate design
(part of the functionality of NR)
Never make a through hole within the
min./max. diameter of the rotating ring



NR 1100Z



GENERAL INFORMATION

· Maximum recommended equipment diameter D_{tp} : approximately 2200 mm

TECHNICAL DATA

| | | |
|---------------------|--|------------------------------------|
| $n_{1 \text{ Max}}$ | Max. motor speed: | 2000 1/min |
| $n_{2 \text{ Max}}$ | Max. output speed: | 23 1/min |
| i_{tot} | Overall gear ratio: | Level K: 88 Level G: 176 |
| | Indexing precision: | 36 arcsec ($\pm 18''$) |
| A_r | Axial run-out of the drive flange: | (at $\varnothing 945$ mm) 0.06 mm |
| A_r | Axial run-out, including the rotary ring: | (at $\varnothing 1100$ mm) 0.07 mm |
| C_r | Concentricity of the output flange: | 0.04 mm |
| P | Parallelism between the output flange and screw-on surface of the housing: | 0.06 mm |
| m | Total weight without rotary ring or motor: | 310 kg |

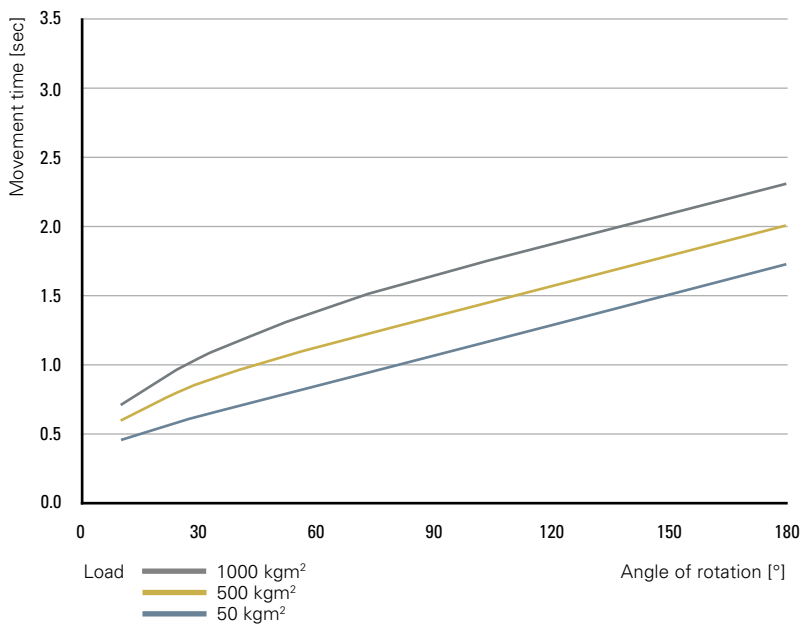
The values stated for axial run-out and concentricity can only be achieved with precise mounting surfaces.

LOAD DATA (for the output flange)

| | | |
|----------------------|-----------------------------------|---------|
| $M_{2T \text{ dyn}}$ | Permitted dynamic tilting moment: | 2500 Nm |
| $F_{2A \text{ dyn}}$ | Permitted dynamic axial force: | 12000 N |
| $F_{2R \text{ dyn}}$ | Permitted dynamic radial force: | 12000 N |

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

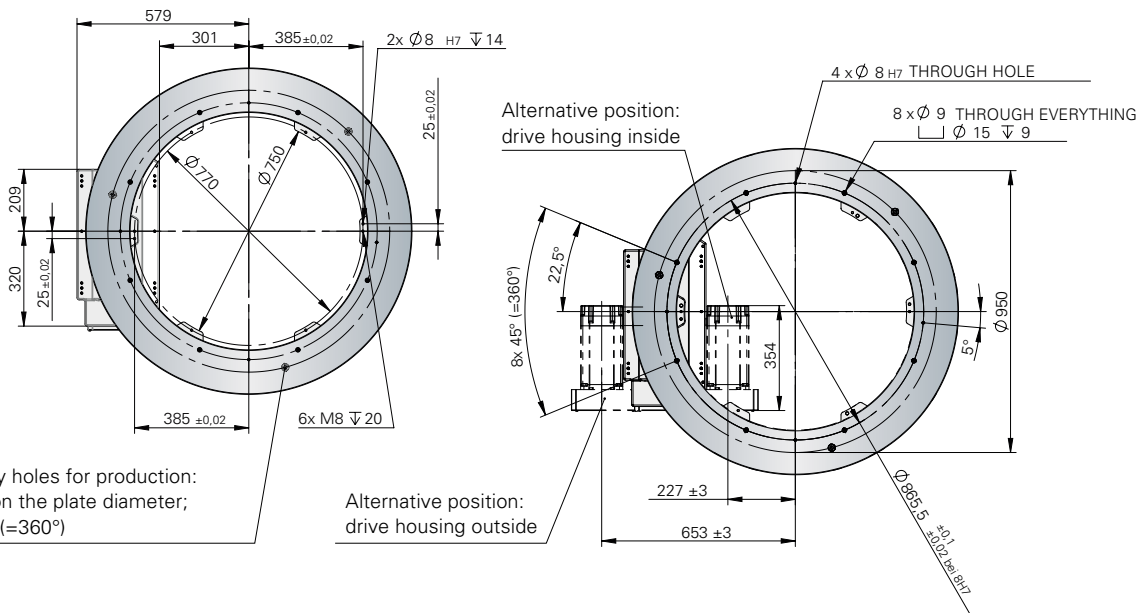
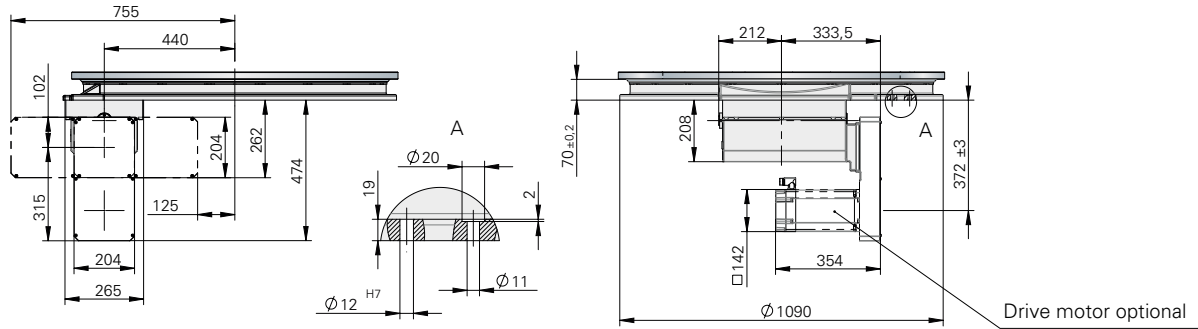
TIMING DIAGRAM



The mass moment of inertia of the aluminium rotary ring in standard dimensions is 7.0 kgm².

DIMENSIONS

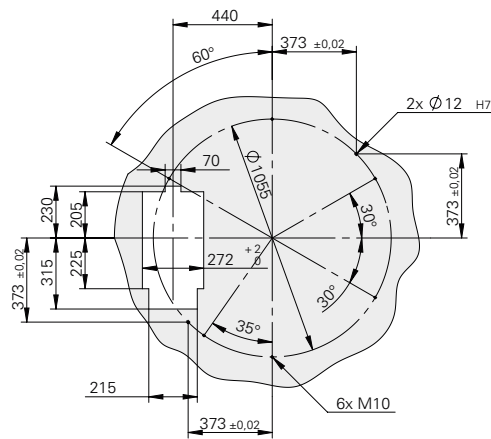
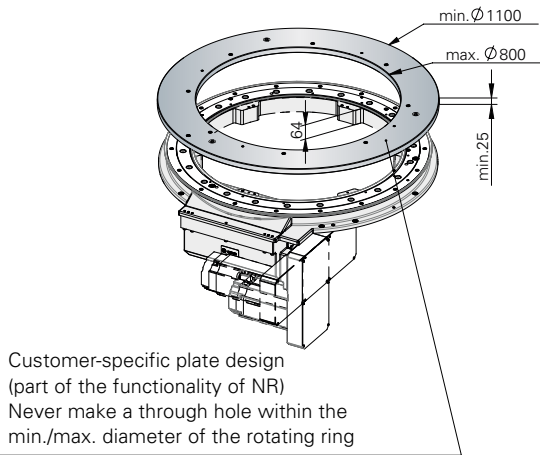
The shown position of the rotating ring corresponds to the home position (state of delivery). Additional indexing plates are not included in the standard delivery scope and are subject to an extra charge. They are calculated separately as per your details.



Auxiliary holes for production:
based on the plate diameter;
3x120° (=360°)

Alternative position:
drive housing outside

Alternative position:
drive housing inside



NR 1500Z



GENERAL INFORMATION

· Maximum recommended equipment diameter D_{tp} : approximately 3000 mm

TECHNICAL DATA

| | | |
|---------------------|--|------------------------------------|
| $n_{1 \text{ Max}}$ | Max. motor speed: | 2000 1/min |
| $n_{2 \text{ Max}}$ | Max. output speed: | 18 1/min |
| i_{tot} | Overall gear ratio: | Level K: 112 Level G: 224 |
| | Indexing precision: | 30 arcsec ($\pm 15''$) |
| A_r | Axial run-out of the drive flange: | (at $\varnothing 1275$ mm) 0.08 mm |
| A_r | Axial run-out, including the rotary ring: | (at $\varnothing 1500$ mm) 0.1 mm |
| C_r | Concentricity of the output flange: | 0.04 mm |
| P | Parallelism between the output flange and screw-on surface of the housing: | 0.08 mm |
| m | Total weight without rotary ring or motor: | 400 kg |

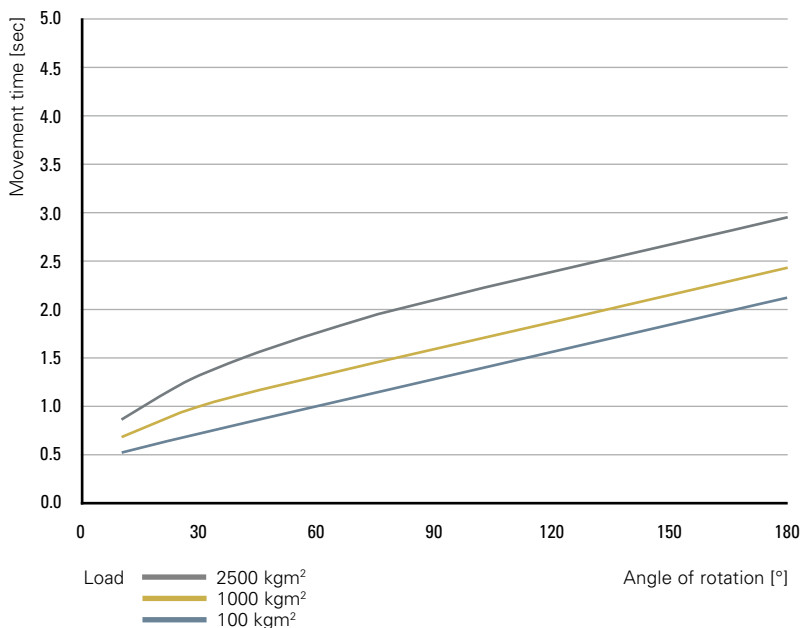
The values stated for axial run-out and concentricity can only be achieved with precise mounting surfaces.

LOAD DATA (for the output flange)

| | | |
|----------------------|-----------------------------------|---------|
| $M_{2T \text{ dyn}}$ | Permitted dynamic tilting moment: | 3200 Nm |
| $F_{2A \text{ dyn}}$ | Permitted dynamic axial force: | 16000 N |
| $F_{2R \text{ dyn}}$ | Permitted dynamic radial force: | 16000 N |

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

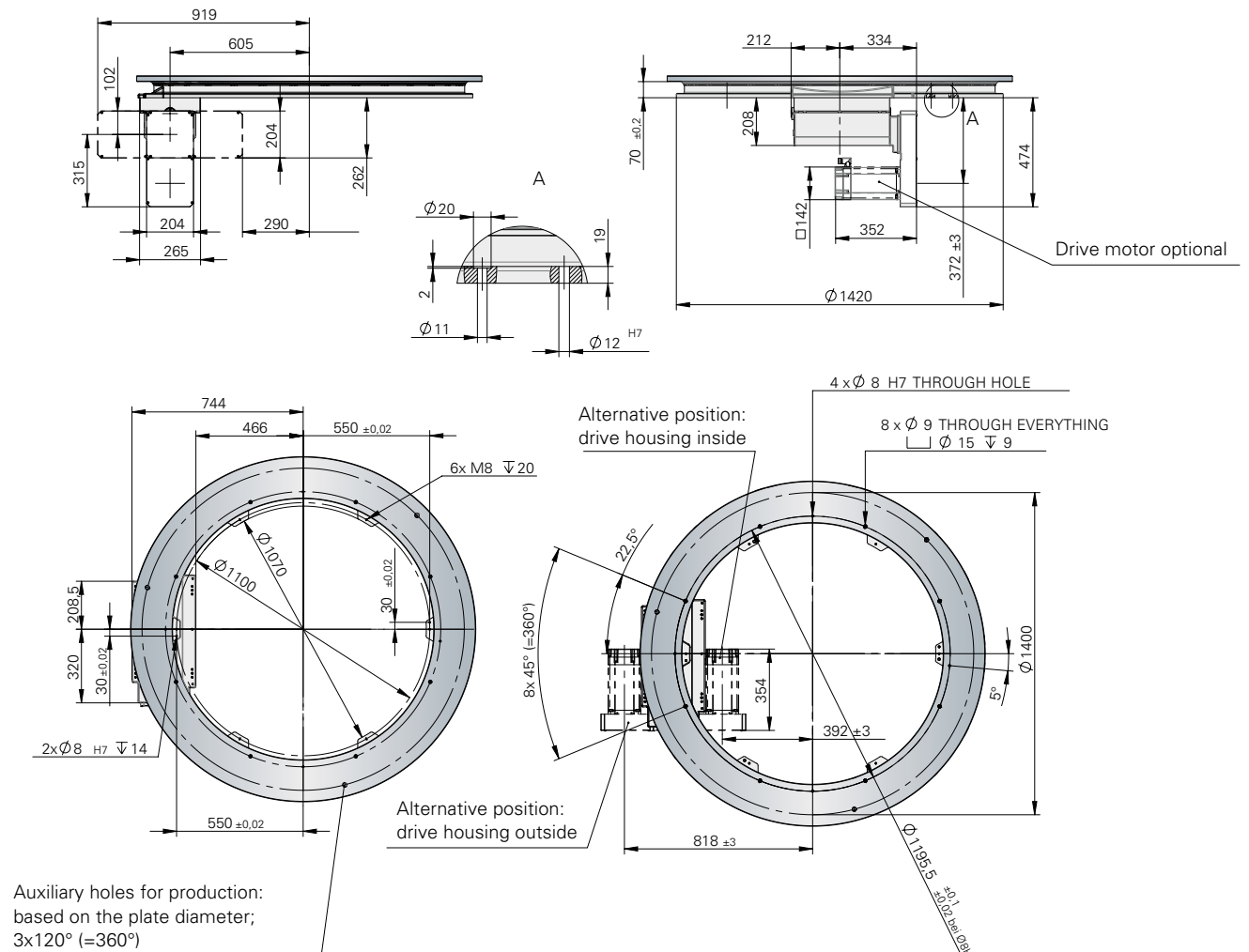
TIMING DIAGRAM



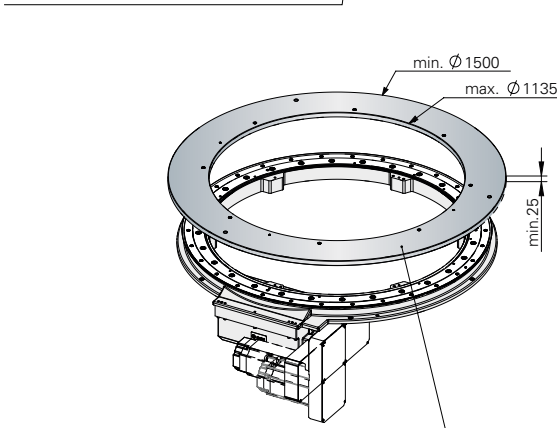
The mass moment of inertia of the aluminium rotary ring in standard dimensions is 22.5 kgm².

DIMENSIONS

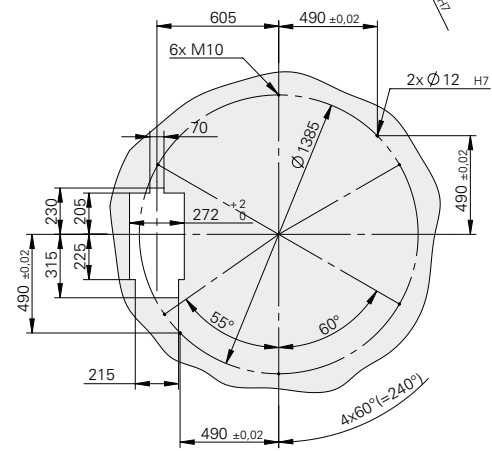
The shown position of the rotating ring corresponds to the home position (state of delivery). Additional indexing plates are not included in the standard delivery scope and are subject to an extra charge. They are calculated separately as per your details.



Auxiliary holes for production:
based on the plate diameter;
3x120° ($\approx 360^\circ$)



Customer-specific plate design
(part of the functionality of NR)
Never make a through hole within the
min./max. diameter of the rotating ring



NR 2200Z



GENERAL INFORMATION

· Maximum recommended equipment diameter D_{tp} : approximately 4400 mm

TECHNICAL DATA

| | | |
|---------------------|--|------------------------------------|
| $n_{1 \text{ Max}}$ | Max. motor speed: | 2000 1/min |
| $n_{2 \text{ Max}}$ | Max. output speed: | 9 1/min |
| i_{tot} | Overall gear ratio: | Level K: 220 Level G: 440 |
| | Indexing precision: | 24 arcsec ($\pm 12''$) |
| A_r | Axial run-out of the drive flange: | (at \varnothing 1990 mm) 0.08 mm |
| A_r | Axial run-out, including the rotary ring: | (at \varnothing 2200 mm) 0.15 mm |
| C_r | Concentricity of the output flange: | 0.05 mm |
| P | Parallelism between the output flange and screw-on surface of the housing: | 0.08 mm |
| m | Total weight without rotary ring or motor: | 950 kg |

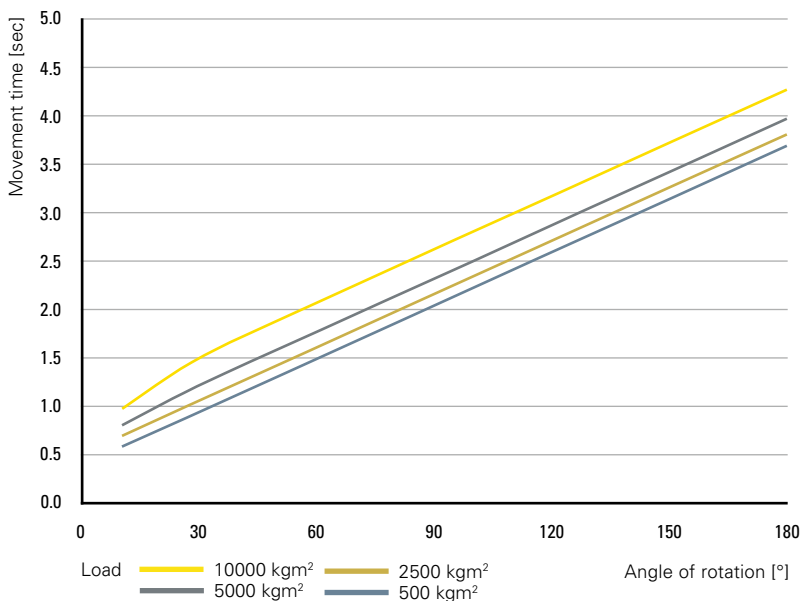
The values stated for axial run-out and concentricity can only be achieved with precise mounting surfaces.

LOAD DATA (for the output flange)

| | | |
|----------------------|-----------------------------------|---------|
| $M_{2T \text{ dyn}}$ | Permitted dynamic tilting moment: | 4500 Nm |
| $F_{2A \text{ dyn}}$ | Permitted dynamic axial force: | 30000 N |
| $F_{2R \text{ dyn}}$ | Permitted dynamic radial force: | 30000 N |

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

TIMING DIAGRAM



The mass moment of inertia of the aluminium rotary ring in standard dimensions is 111.7 kgm².

