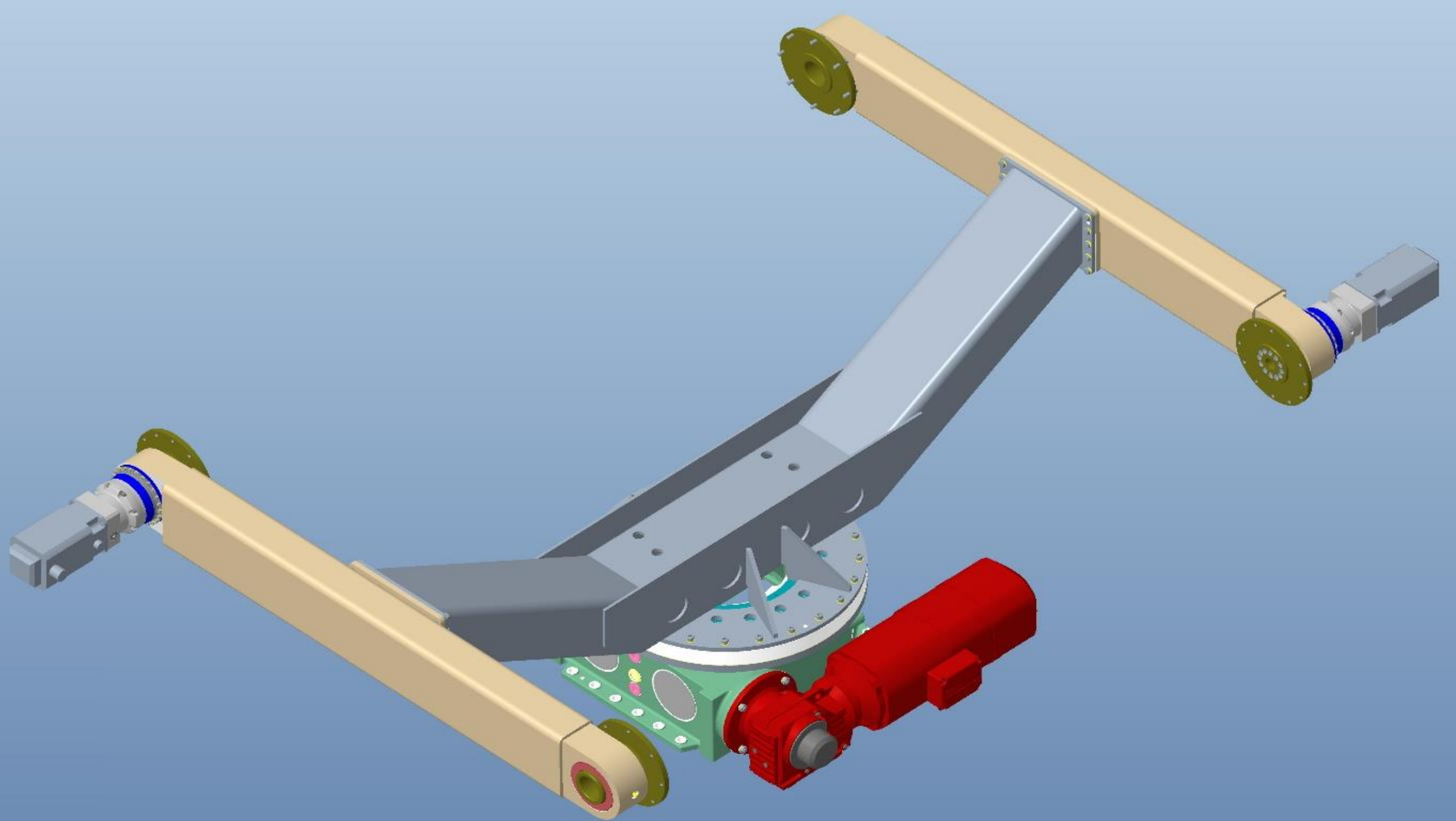


EXPERT TURNTABLE THREE-AXIS-POSITIONIER EDW

April 2023
INDEX | EXTERNAL





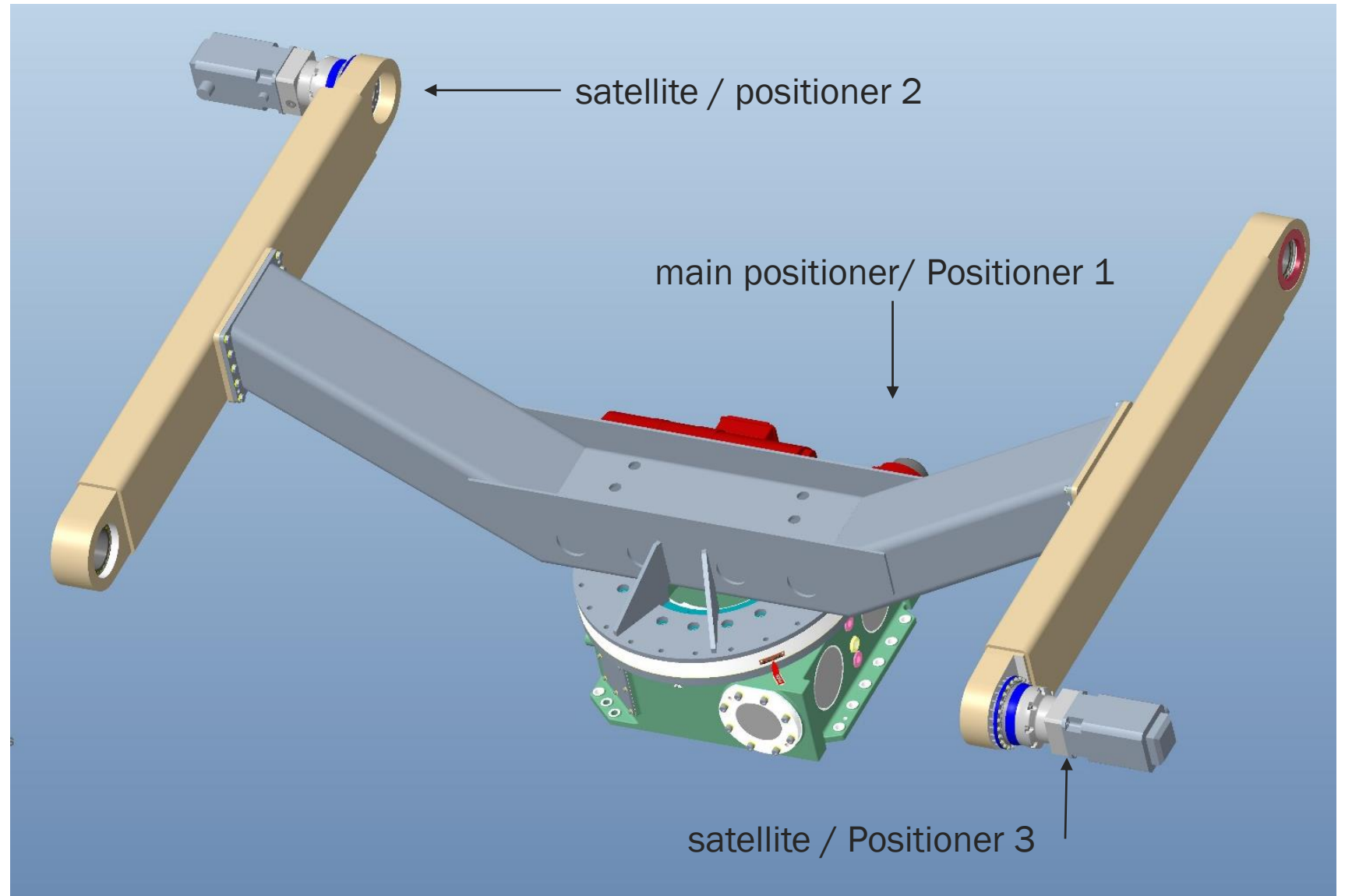
The goal

Our customers want to be able to turn standard cells faster and more cost-effectively.

The synergies NIMAK and EXPERT bring the perfect solution for this!

The EXPERT three-axis positioner!

Layout and function



The application

Tools up to 2x 750 kg

Base frame up to 1.890 kg

Positioner 1

$t > 180^\circ / 2.55-2.85 \text{ s}$

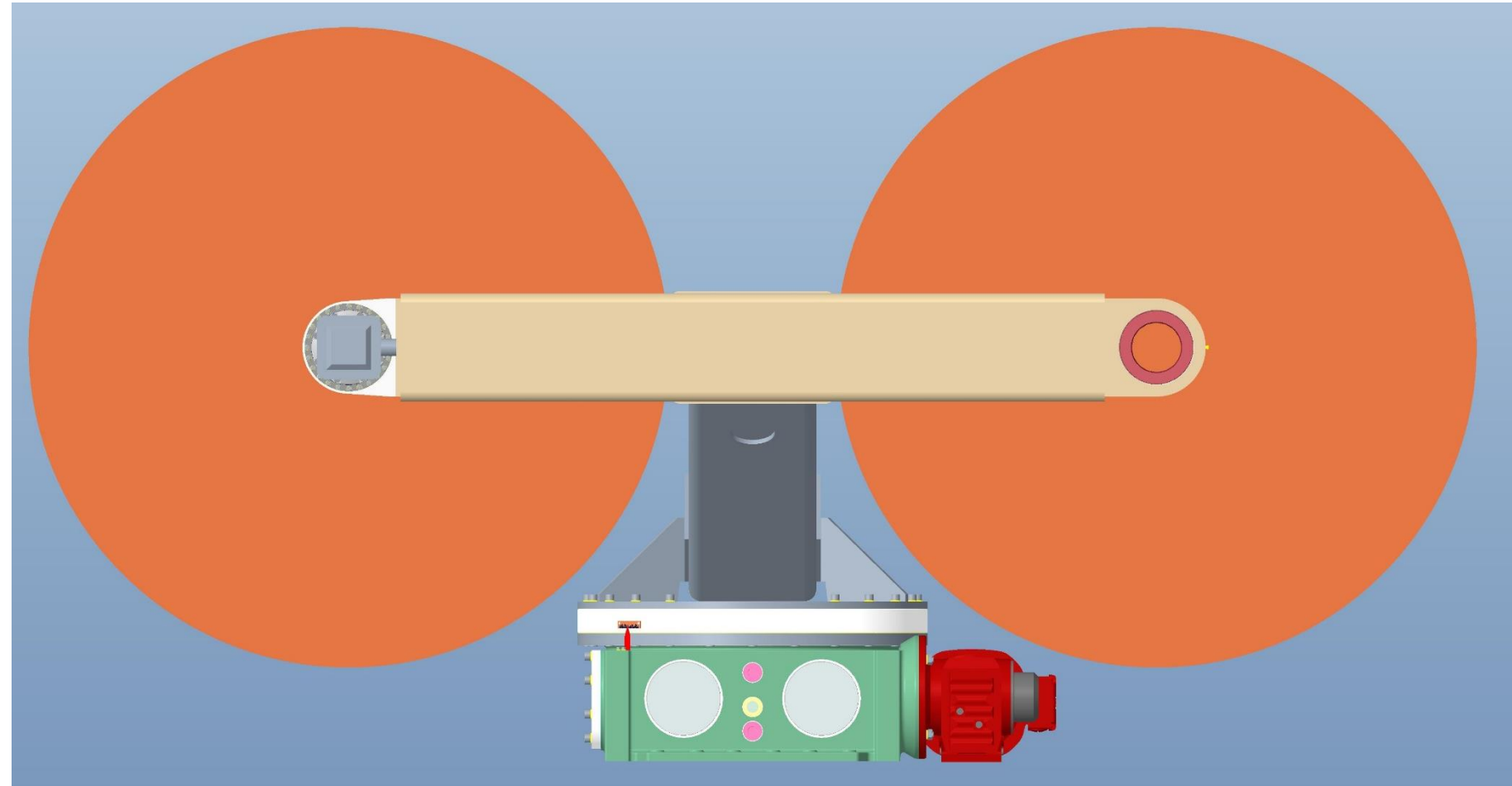
Positioner 2/3

$t = 180^\circ / 2.3-2.6 \text{ s}$ or $360^\circ / 3.9-4.3 \text{ s}$

Assumption:

Weight with max. 50 mm offset

Circle only represents the maximum diameter of 1.300 mm



standard solutions

Fanuc control

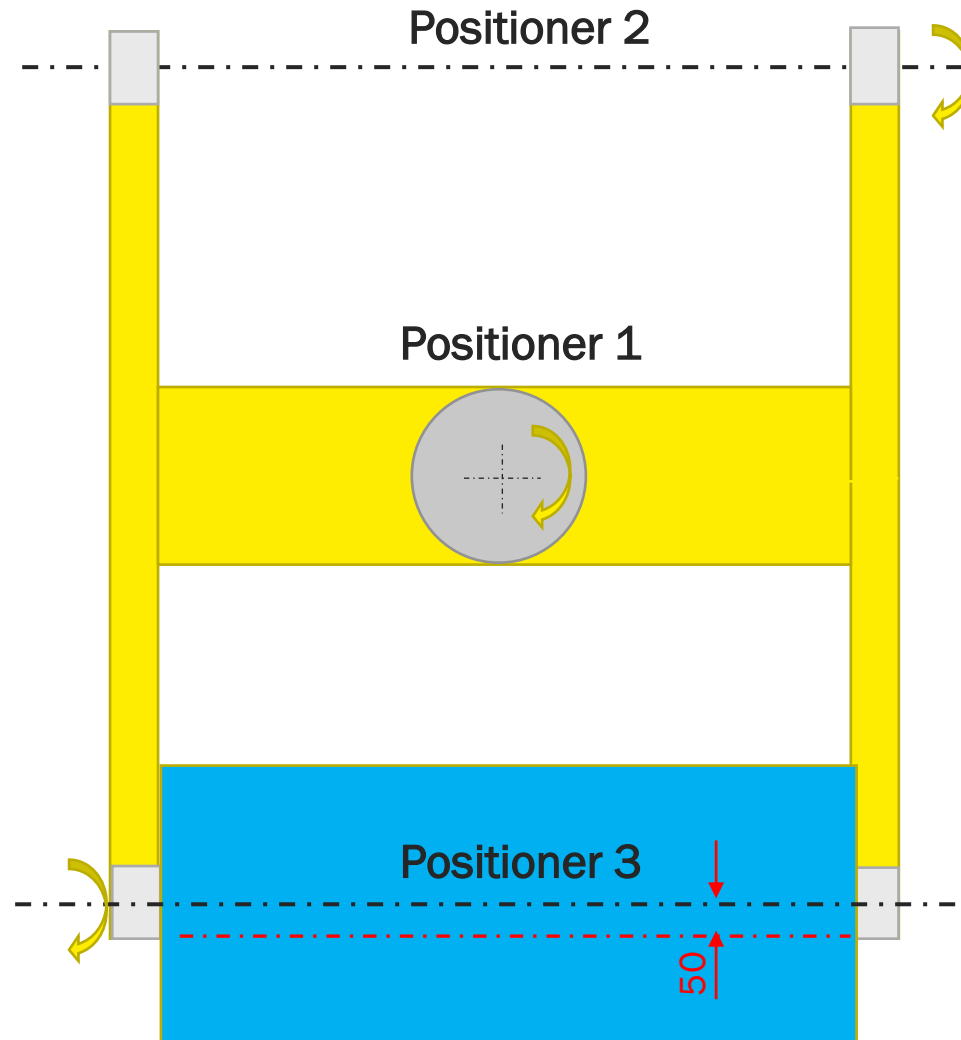
1a:EDH+960 + K57 +
FanucalphaF30-4000
or KUKA, SEW, ABB etc.

1b:EDH+1170+K77+
FanucalphaF30-4000
or KUKA, SEW, ABB etc.

The following times are
possible with both controls
(see diagrams)

We can calculate more precise values for you
with an individual offer.

Select positioner 1



standard solutions

Fanuc control

1a: TP50 + FanucalphaF 8-3000

(m: 14.1 kg + 14.5 kg = 28.6 kg)

1b: PSC080-H; i = 90

Alternatively:

KUKA control

2a: TP 50 + KUKA

MG_110_130_40_S0

(m: 14.1 kg + 13.8 kg = 27.9 kg)

2b: PSC080-H; i = 90

The following times are possible

with both controls:

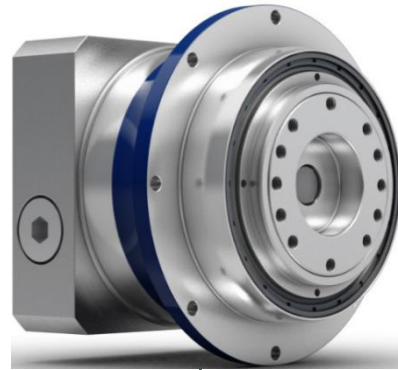
$\varphi_1: 180 \rightarrow t_1: 3 \text{ s}$

$\varphi_2: 90 \rightarrow t_2: 2 \text{ s}$

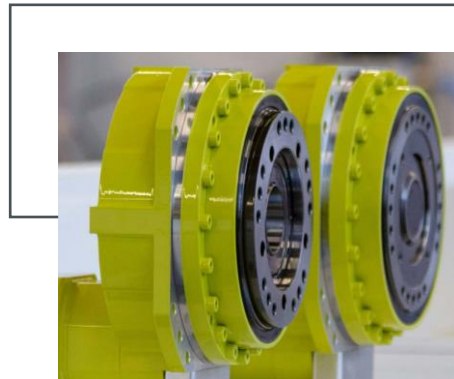
ALTERNATE:

EDH+610 or EDH+700 depending
on application

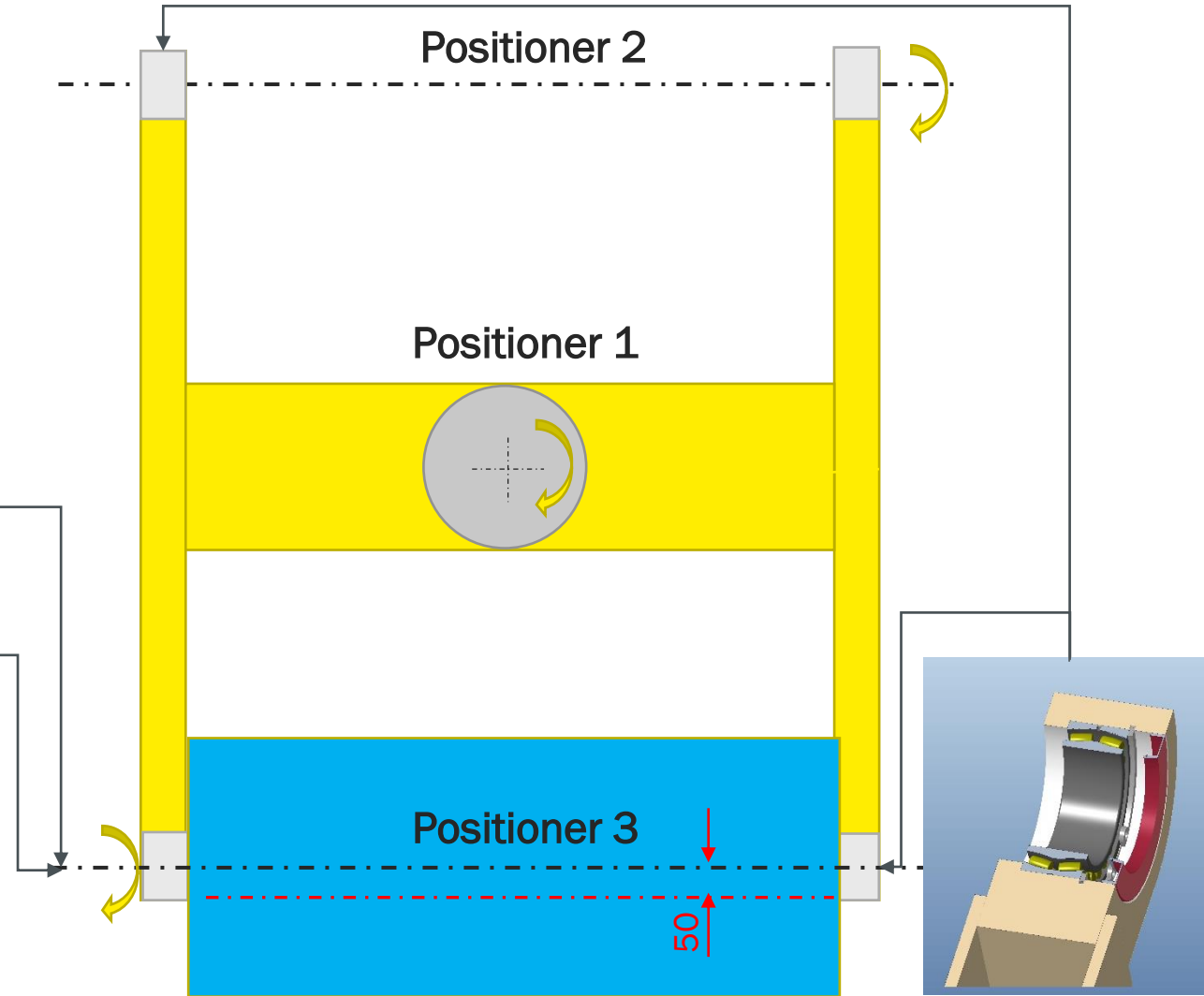
Select positioner 2/3



Wittenstein
TP50



alternative
MeliorMotion
PSC080-H



Select positioner 1 - rotary table

Fanuc control

1a: EDH+960

FanucalphaiF30-4000

1b: EDH+1170

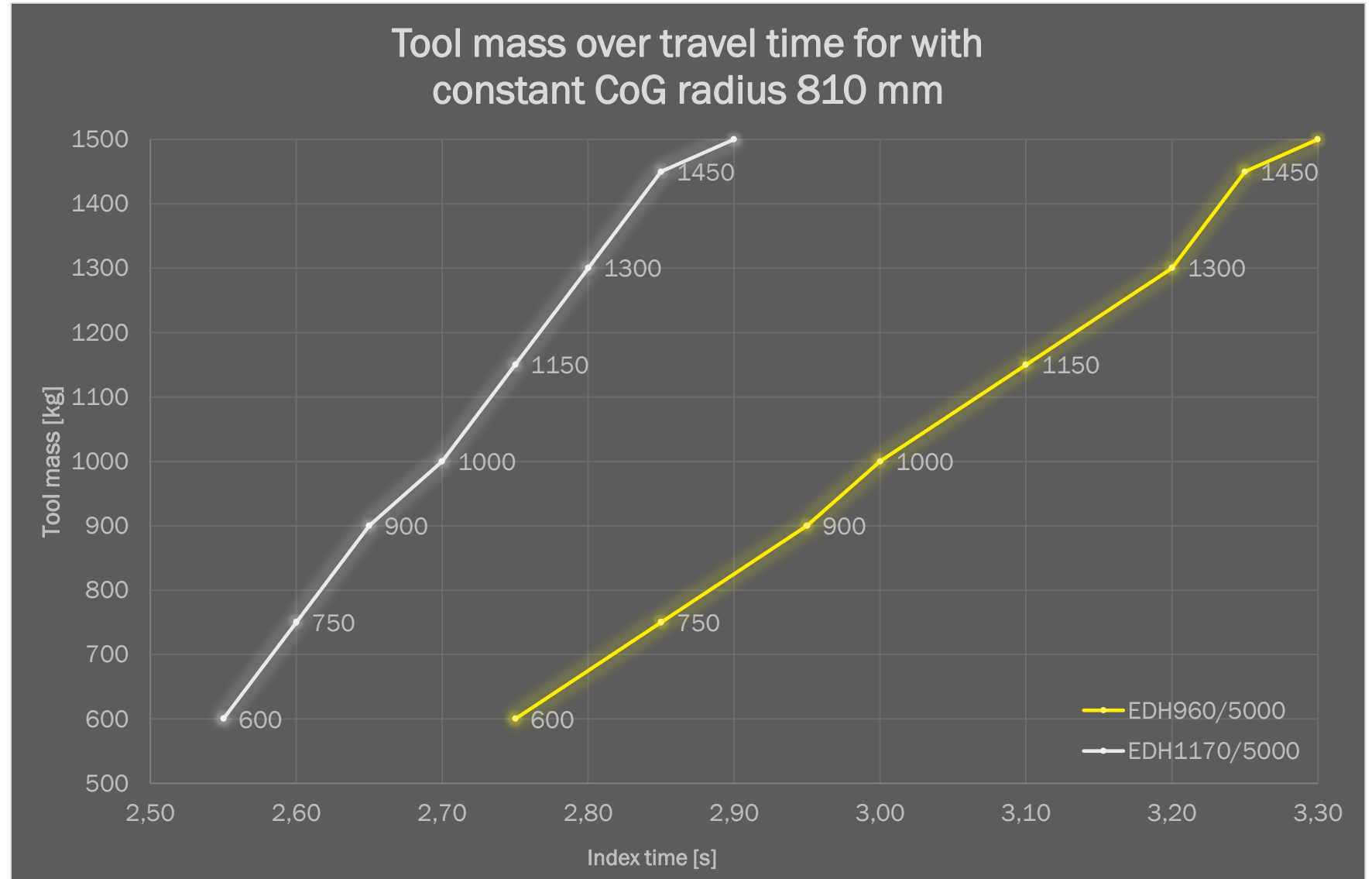
FanucalphaiF30-4000

Other

manufacturers/configurations on request.

The following times are possible with both controls (see diagrams).

We can present more precise values in tabular form or provide all calculations.



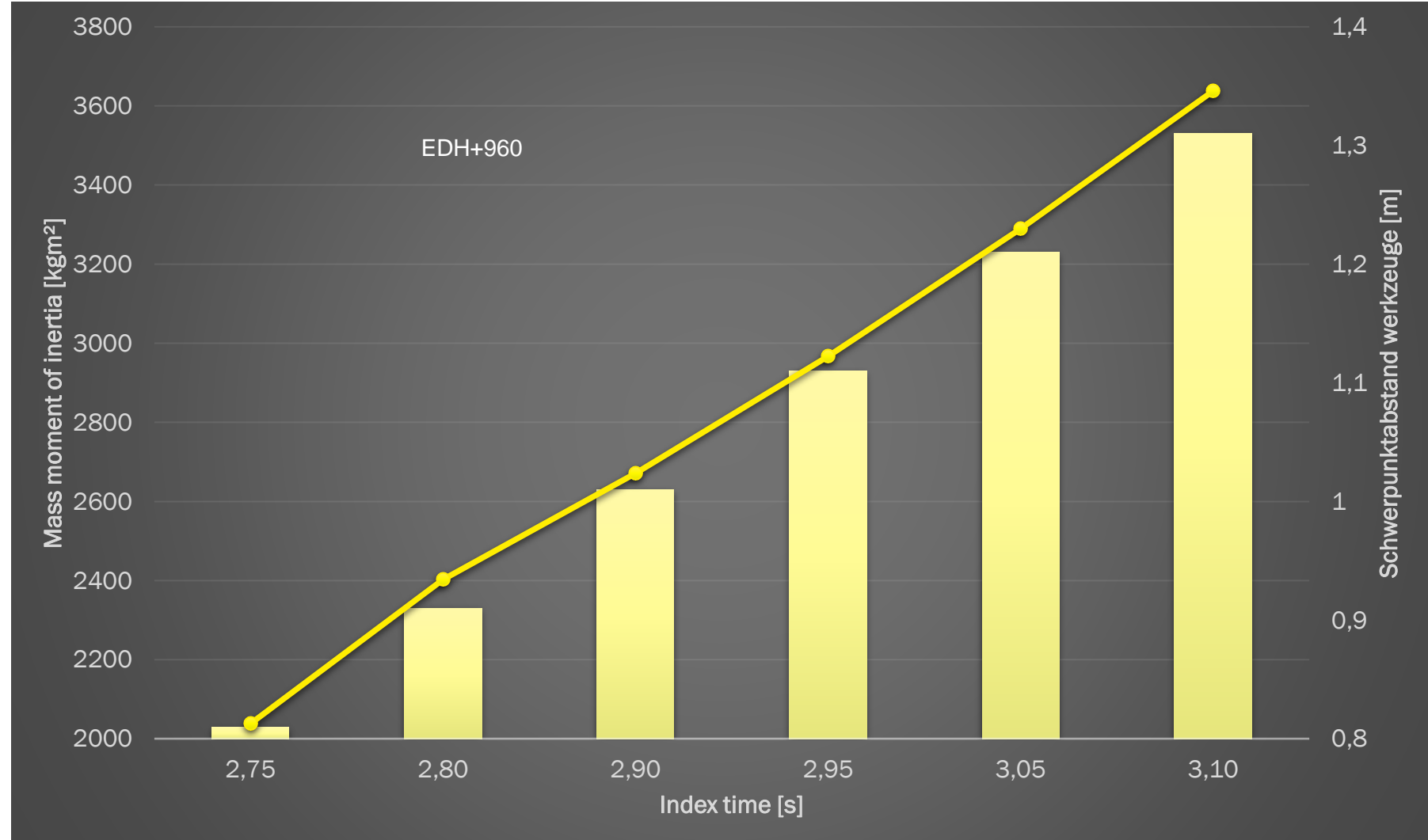
Fanuc control

1a: EDH+960 + K57 +
FanucalphaF30-4000

The following times are possible
with both controls (see diagrams).

We can present more precise
values in tabular form or provide all
calculations.

**Positioner 1 selection – EDH+960 rotary table
inertia vs. Index time for 600kg tool mass
CofG distance from 810mm to 1310mm**



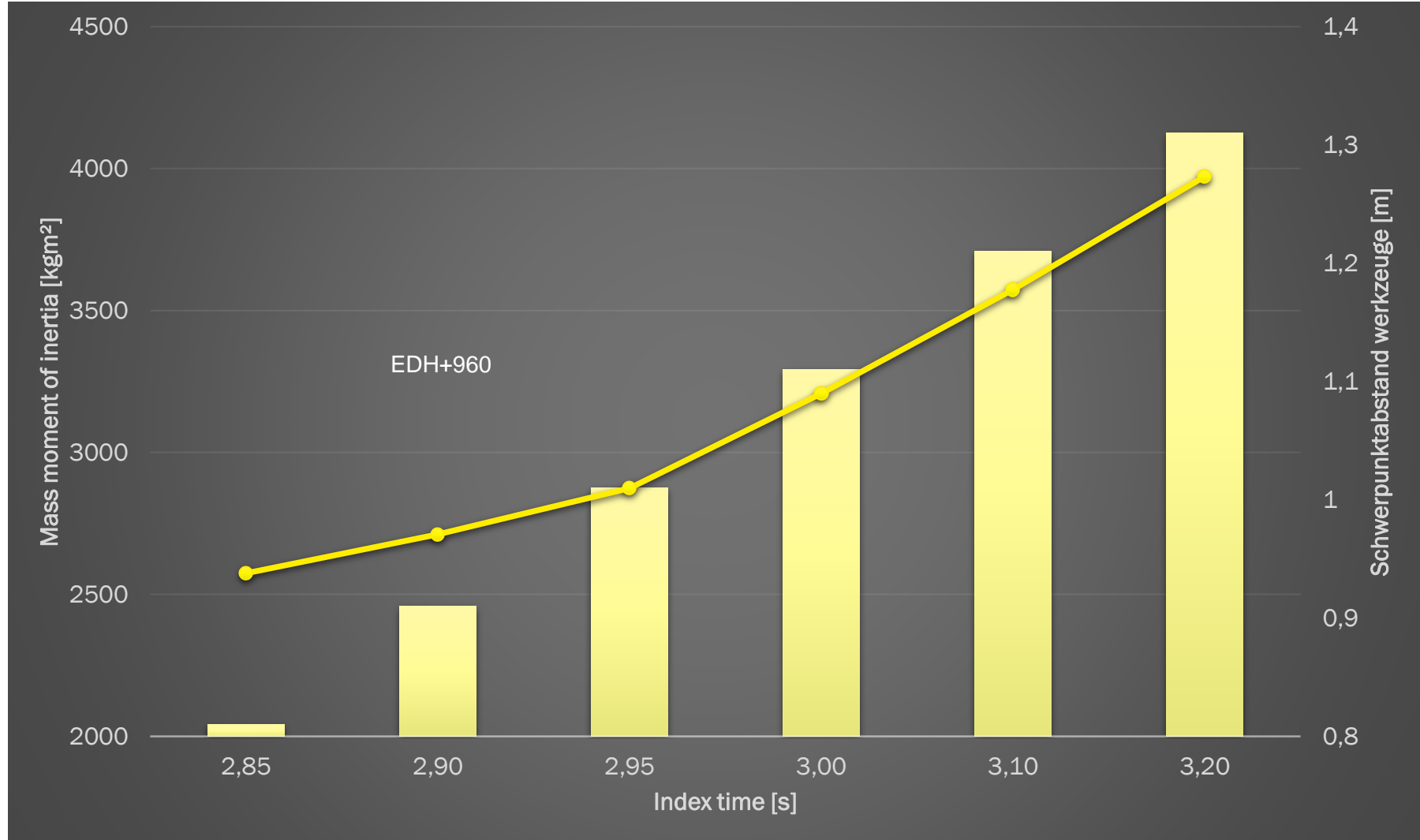
Positioner 1 selection – EDH+960 rotary table
inertia vs. Index time for 750kg tool mass
CofG distance from 810mm to 1310mm

Fanuc control

1a: EDH+960 + K57 +
FanucalphaF30-4000

The following times are possible
with both controls (see diagrams).

We can present more precise
values in tabular form or provide all
calculations.



Application examples

EDW with EDH+960 as base
and EDH+700 as satellite
as an "I-Frame"

key data

Base:

EDH+960

180° in 4.0 s

3500 kg

4200 kgm²

Satellite:

EDH+700

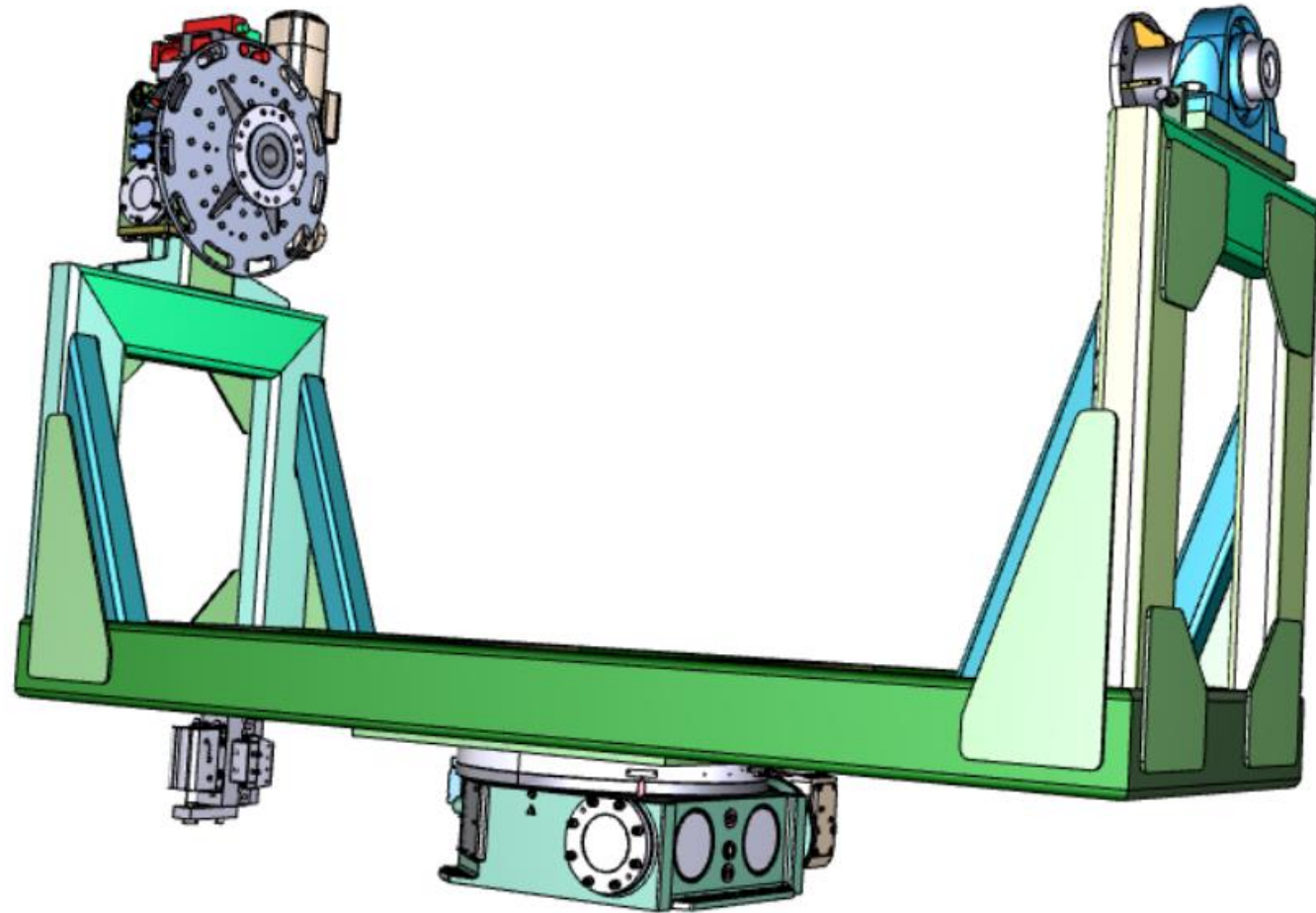
180° in 3.2 s

2144 kg

612 Nm

3050 Nm tilting moment

20 Nm imbalance



Application examples

EDW with EDH⁺1170 as base
and EDH⁺700 as satellite
as an "I-Frame"

key data

Base:

EDH⁺1170

180° in 5.5 s

6300 kg

11396 kgm²

Satellite:

EDH⁺700

180° in 6.0 s

2000 kg

2717 Nm tilting moment

300 Nm imbalance



geometry data

Type	Ø Table top	Height	Maximum axial load
As a positioner 2 / Satellite / Drum			
EDH ⁺ 610	360 mm	190 mm	2.200 kg
EDH ⁺ 700	450 mm	240 mm	6.000 kg
As a positioner 1 / Main positioner/ Turntable			
EDH ⁺ 960	710 mm	310 mm	10.000 kg
EDH ⁺ 1170	920 mm	360 mm	13.000 kg

3D models, data sheets and further information can be found at

www.expert-tuenkers.de

References

Automobil Manufacturers



Line Builders



Other Branches



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attention.

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**THANK
YOU**

