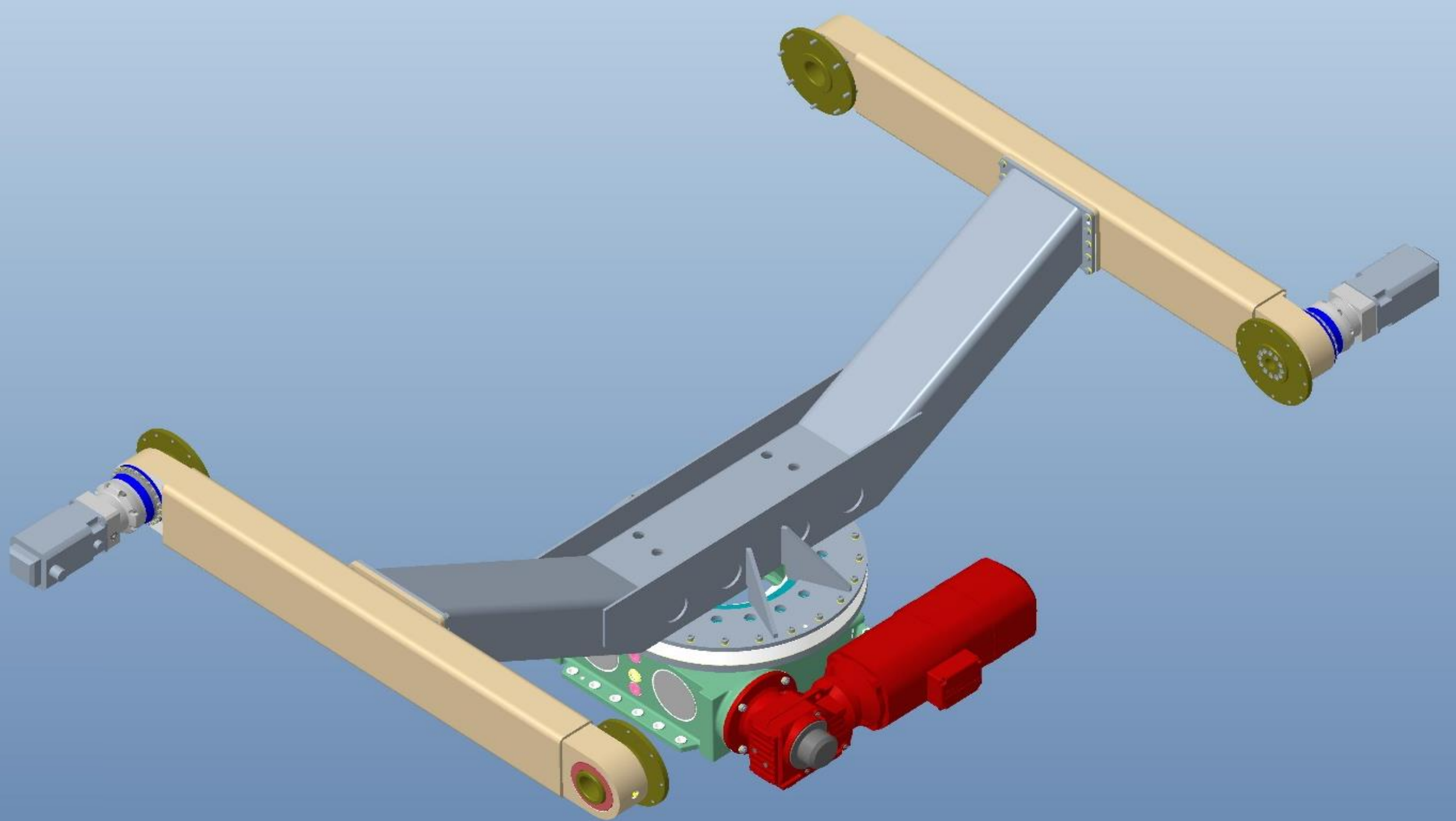


EXPERT TURNTABLE THREE-AXIS-POSITIONIER EDW

April 2023
INDEX | EXTERNAL





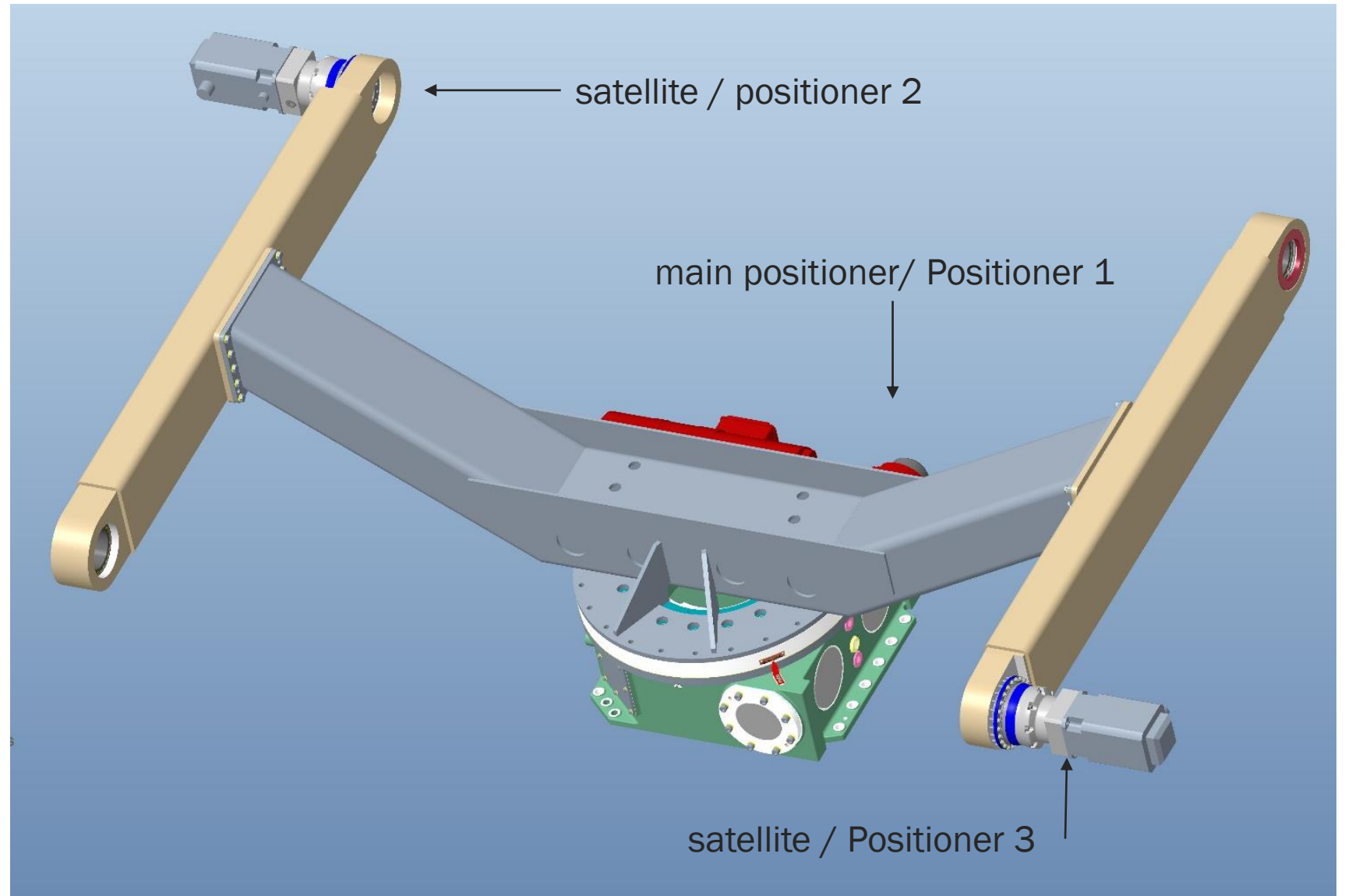
The goal

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 1890 kg

Positioner 1

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

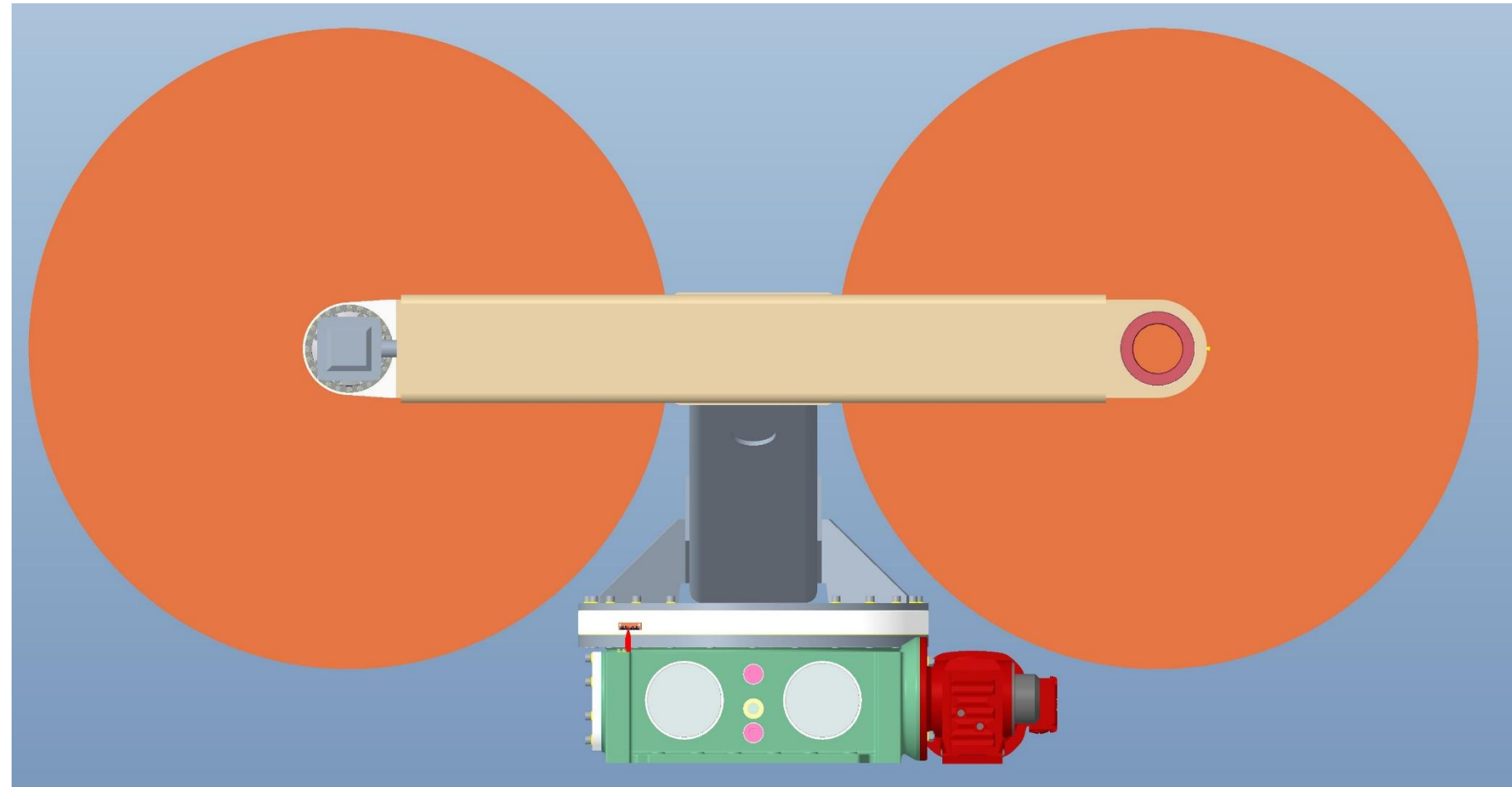
Positioner 2/3

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

Assumption:

Weight with max. 50 mm offset

Circle only represents the maximum diameter of 1300 mm.



standard solutions

Fanuc control

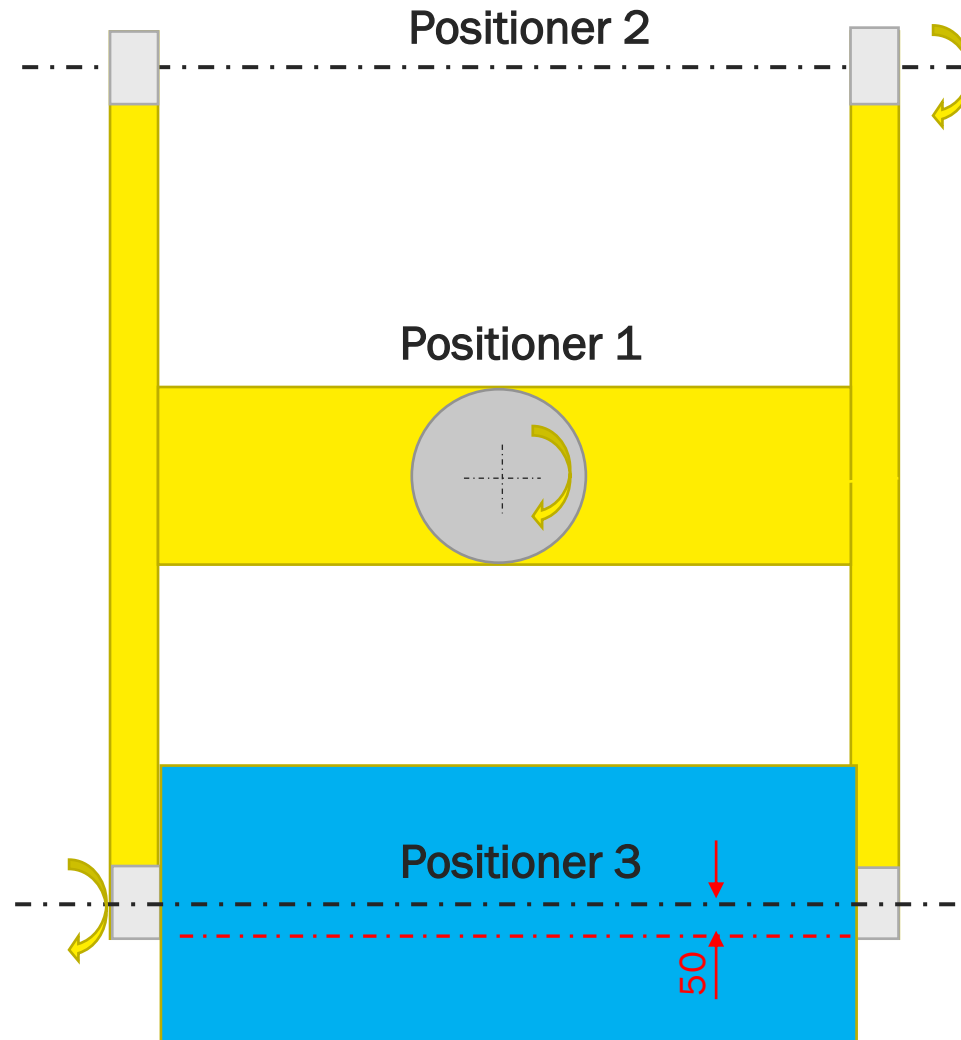
1a:EDH+960 + K57 +
FanucalphaF30-4000
or KUKA, SEW, ABB etc.

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: 14.1kg + 14.5kg = 28.6kg)

1b: PSC080-H; i = 90

Alternatively:

KUKA control

2a: TP 50 + KUKA

MG_110_130_40_S0

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

2b: PSC080-H; i = 90

The following times are possible

with both controls:

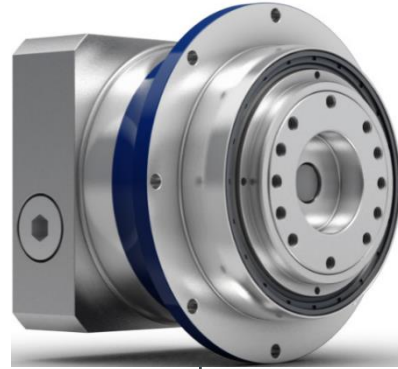
$\varphi_1: 180 \rightarrow t_1: 3s$

$\varphi_2: 90 \rightarrow t_2: 2s$

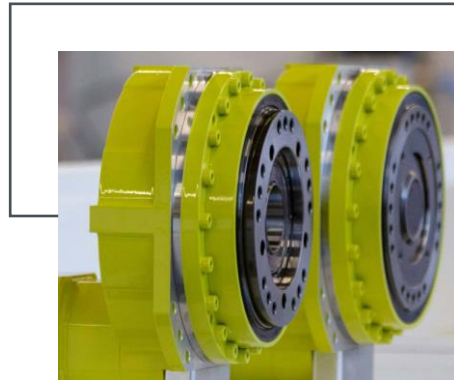
ALTERNATE:

EDH+610 or EDH+700 depending
on application.

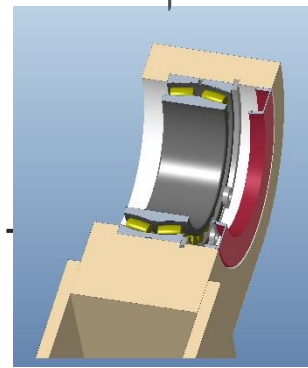
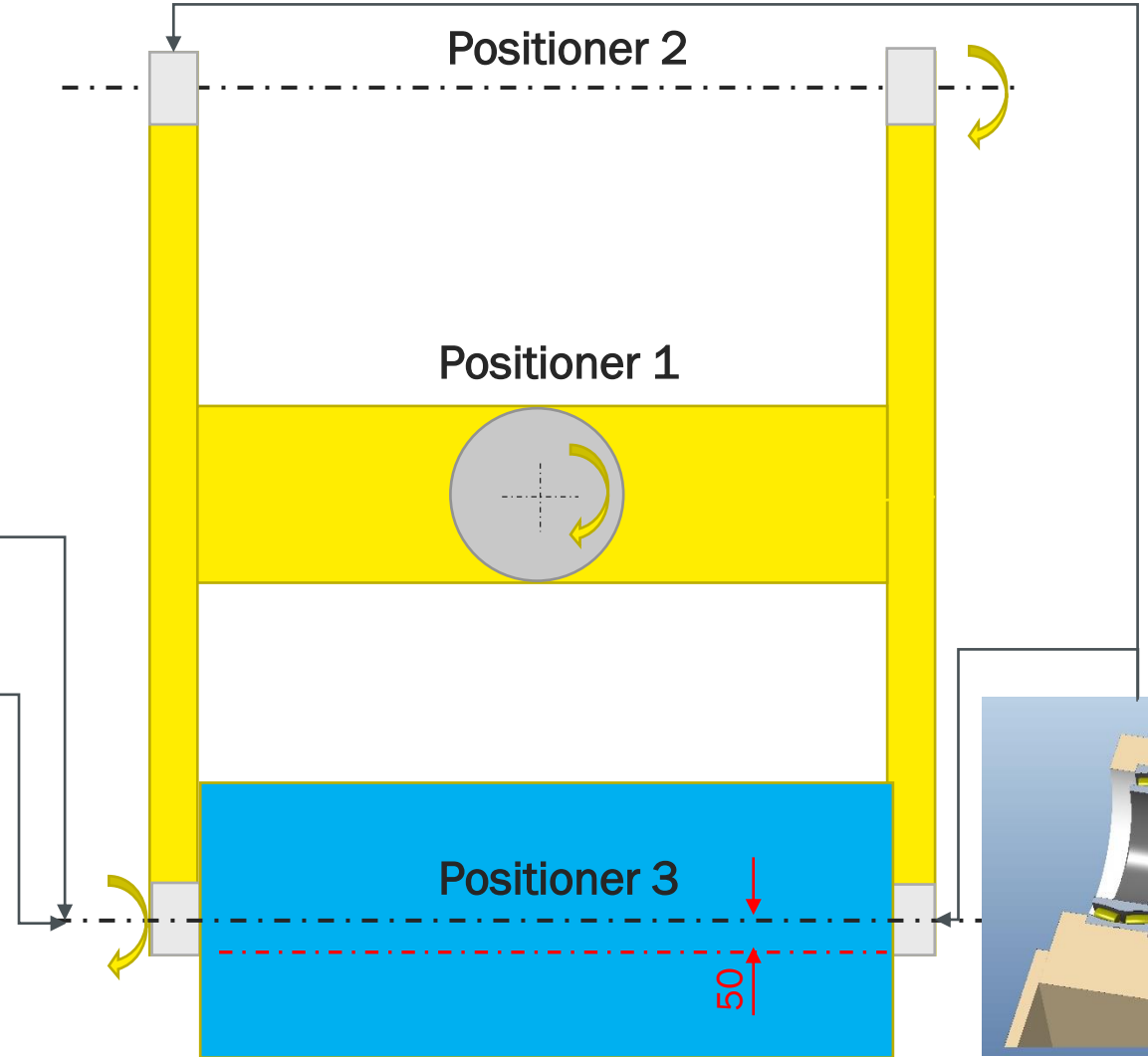
Select positioner 2/3



Wittenstein
TP50



alternative
MeliorMotion
PSC080-H



Select positioner 1 - rotary table

Fanuc control

1a: EDH+960

FanucalphaiF30-4000

1b: EDH+1170

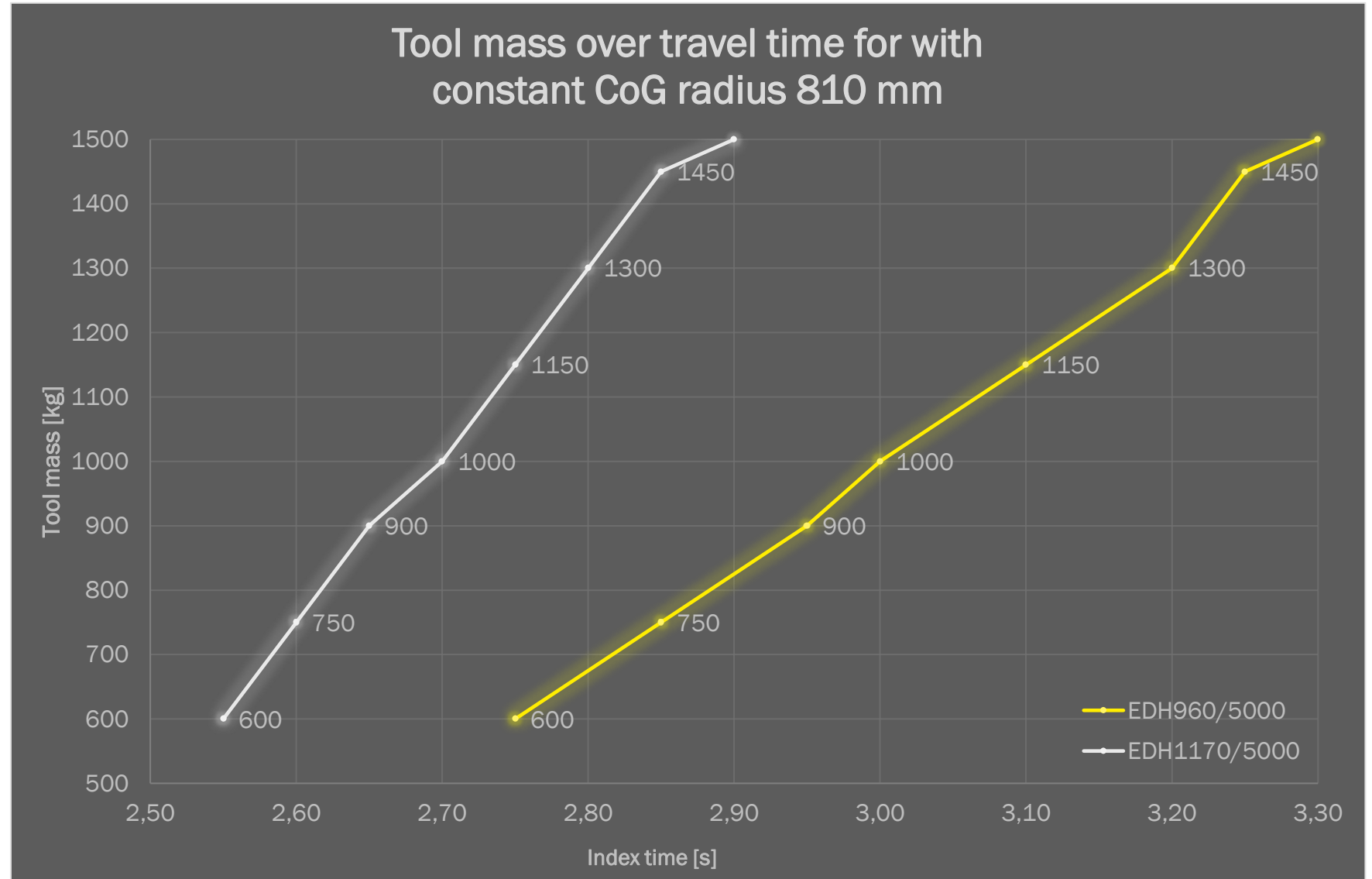
FanucalphaiF30-4000

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.

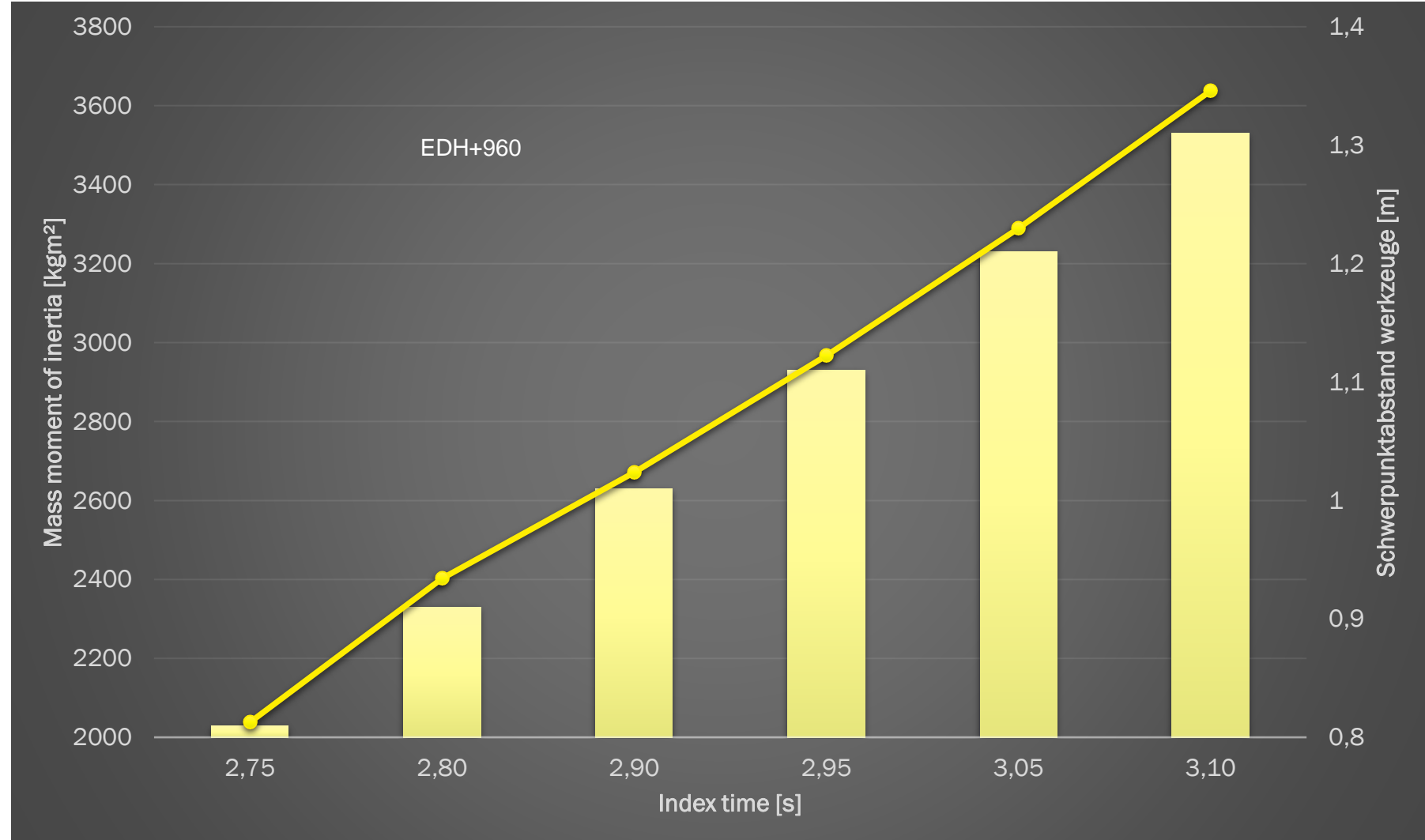


Fanuc control
1a:EDH+960 + K57 +
FanucalphaF30-4000

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



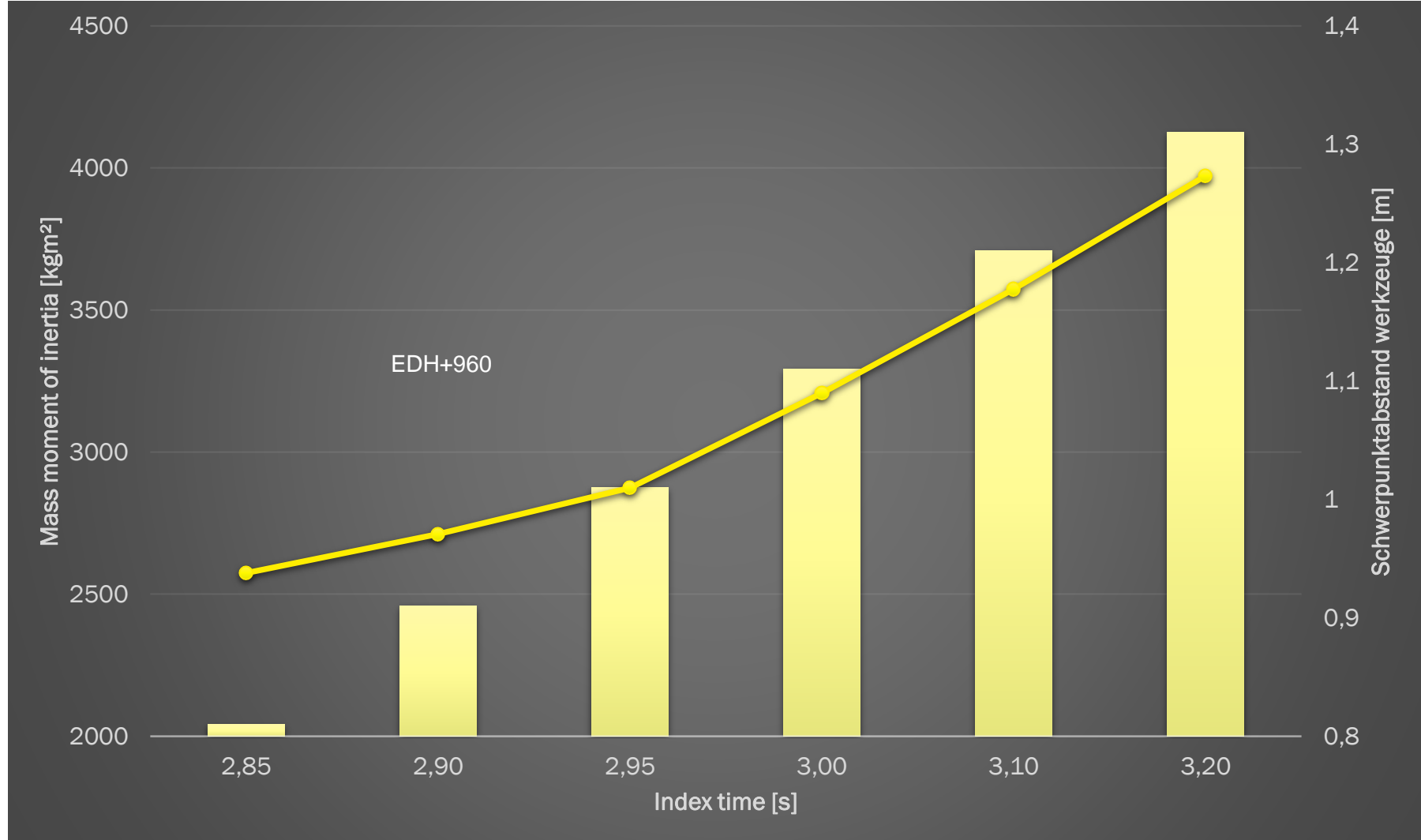
Positioner 1 selection – EDH+960 rotary table
inertia vs. Index time for 750kg tool mass
CofG distance from 810mm to 1310mm

Fanuc control

1a: EDH+960 + K57 +
Fanuc alphaiF30-4000

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

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



More application examples

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

key data

Base:

EDH+960

180° in 4.0s

3500 kg

4200 kgm²

Satellite:

EDH+700

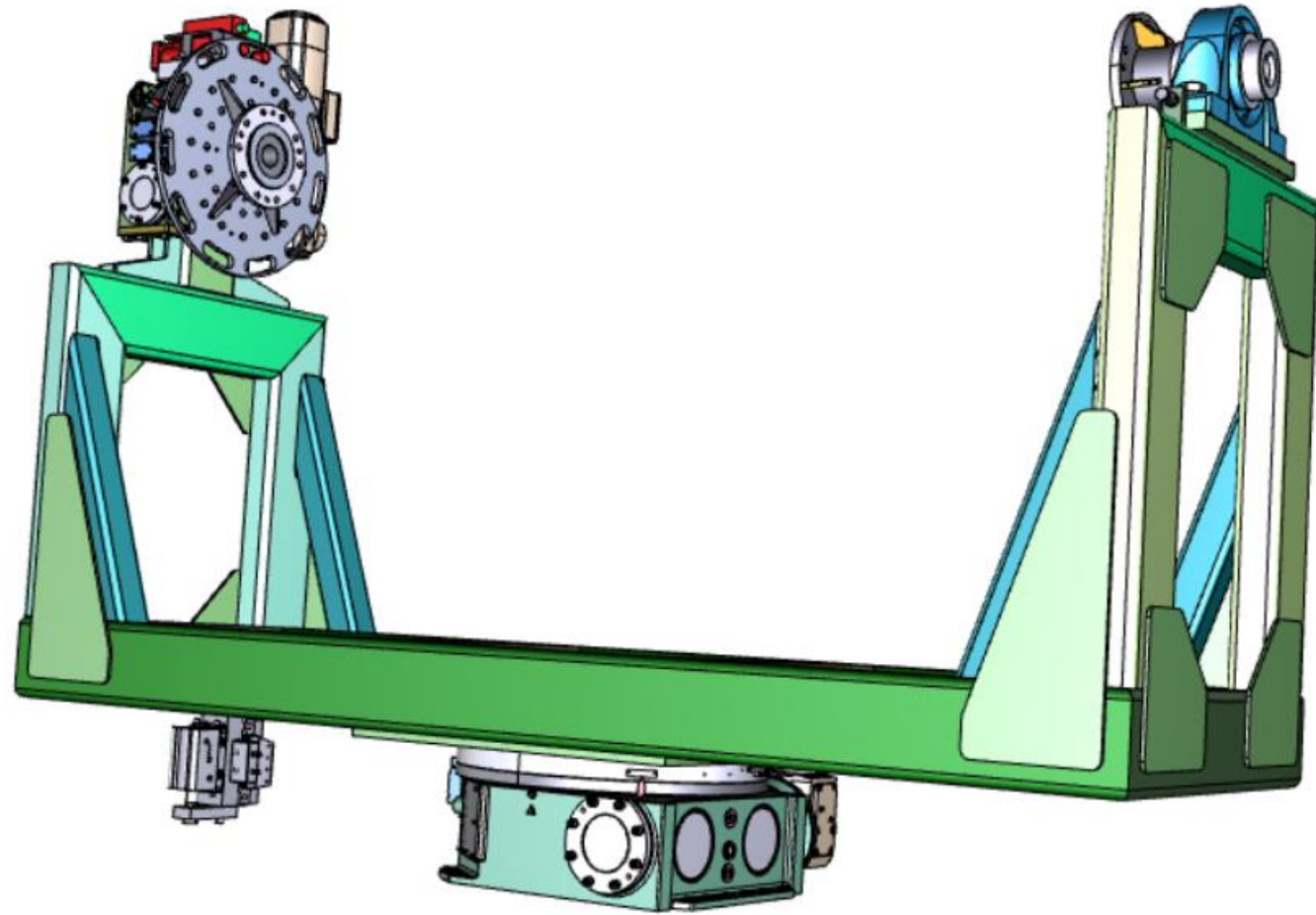
180° in 3.2 s

2144 kg

612 Nm

3050 Nm tilting moment

20 Nm imbalance



geometry data

Type	Ø table top	height	Maximum axial load
As a positioner 2 /Satellite/ drum			
EDH ⁺ 610	360mm	190mm	2,200kg
EDH ⁺ 700	450mm	240mm	6,000kg
As a positioner 1 /main positioner/ Turntable			
EDH ⁺ 960	710mm	310mm	10,000kg
EDH ⁺ 1170	920mm	360mm	13,000kg

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

www.expert-tuenkers.de

Some references

OEMS



Tier 1 & suppliers



plant builder



Other markets & areas



Thank you for your
attention.

Contact:
Nuno Martins

EXPERT TÜNKERS GmbH
Seehofstr. 56-58
64653 Lorsch

Telephone +49 (0) 6251 / 592334
Mobile: +49 (0) 172 5780811
Fax +49 (0) 6251 / 592100

Email nmartins@expert-tuenkers.de
Internet www.expert-tuenkers.de



**THANK
YOU**

