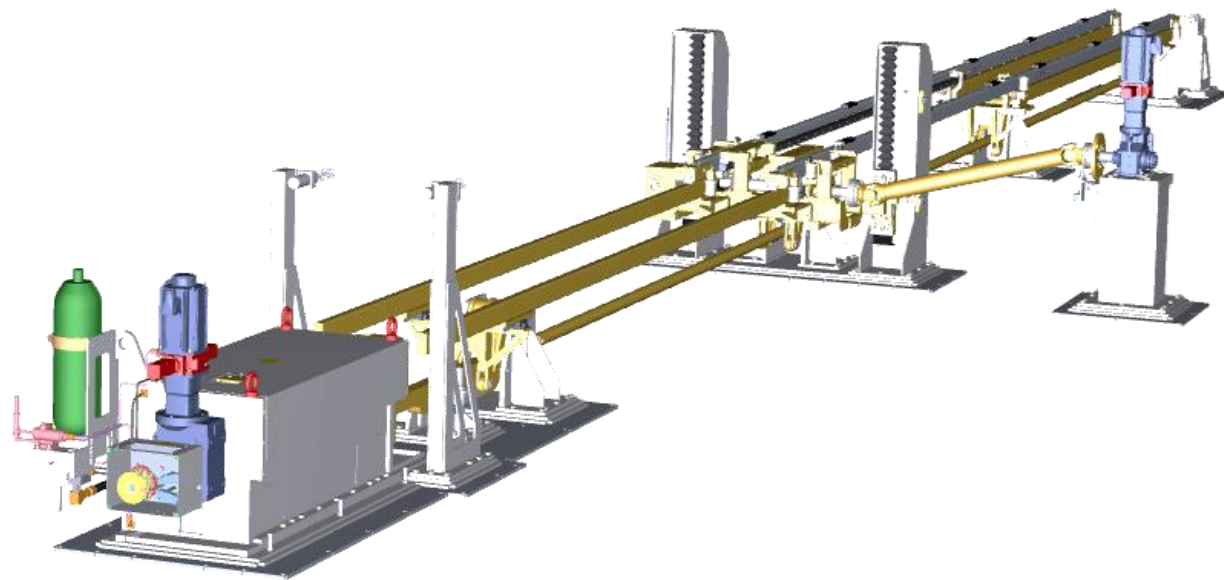


EXPERT LIFT AND SHIFT EHS SERIES

TRANSPORT TECHNOLOGY |
DECEMBER 2021



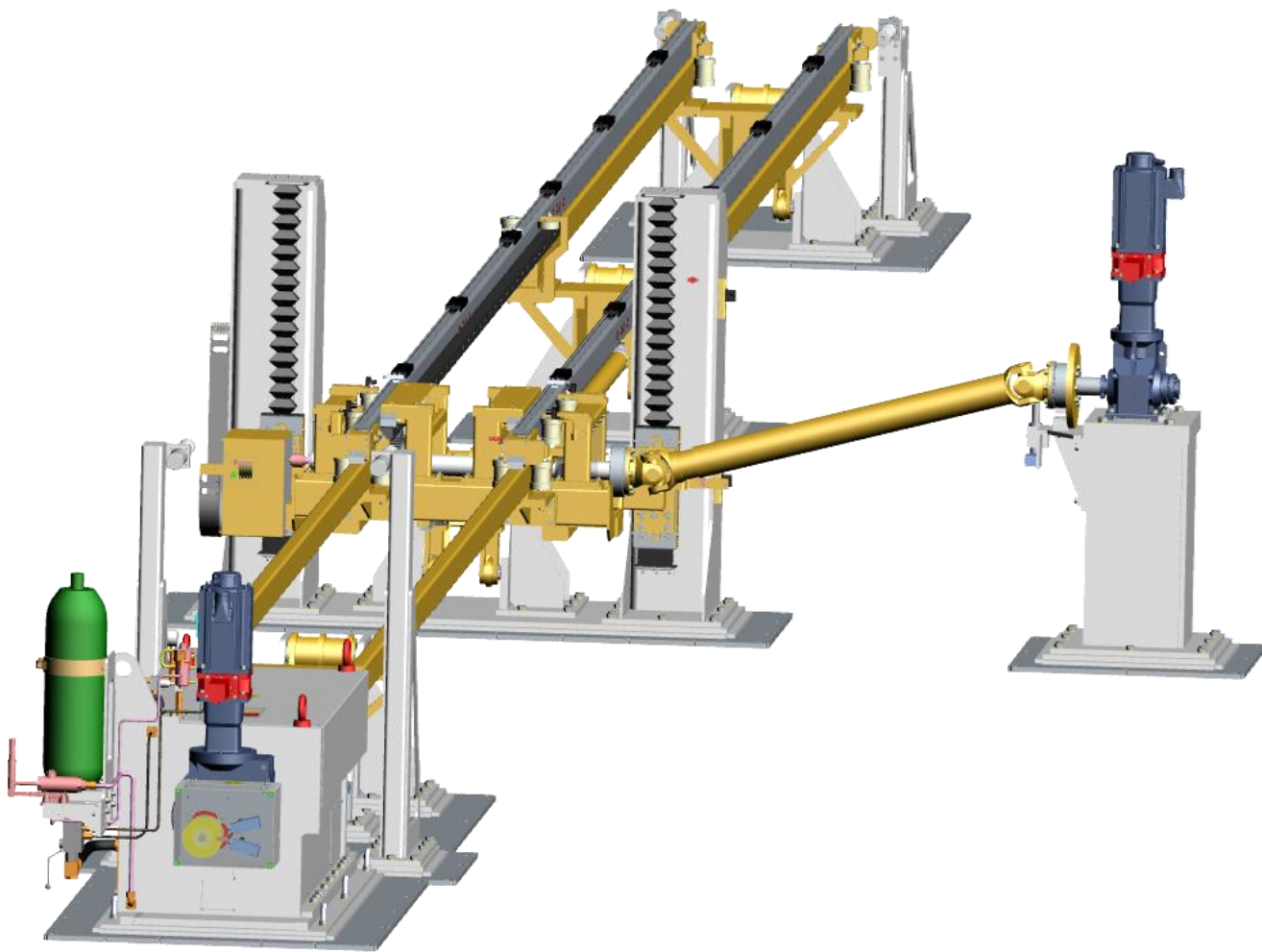
Lift. Shift. Repeat.

The EXPERT-TÜNKERS Lift and Shift EHS.

The perfect solution for transporting Car parts, underbodies and complete bodies superstructures and entire bodies in welding lines.

The EXPERT-TÜNKERS Lift and shift systems transport several components synchronously, jerk-free and shock-free from station to station. The components are translated synchronously and inserted again in the next station after the horizontal stroke. The gentle component transfer takes place with $V=0$ mm/sec.

In addition to our standard product range, individual special solutions are available at any time.



EXPERT-TÜNKERS Lift and Shift EHS Overview

Key data



Up to 500 kg
customer load /station



Up to 1,200 mm stroke



8,000 mm horizontal stroke



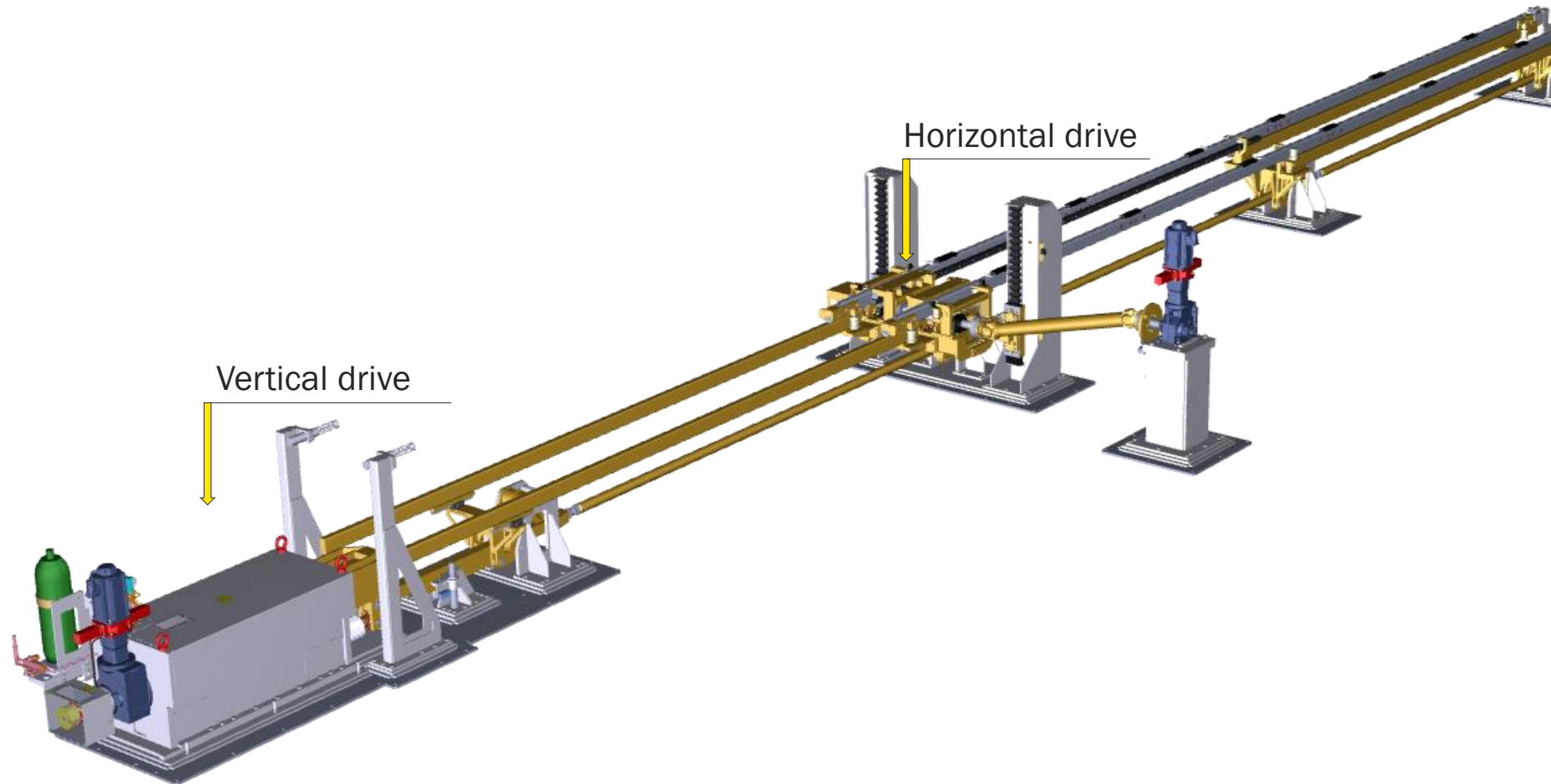
800 mm minimum height



Up to 15 stations



Optimized energy design

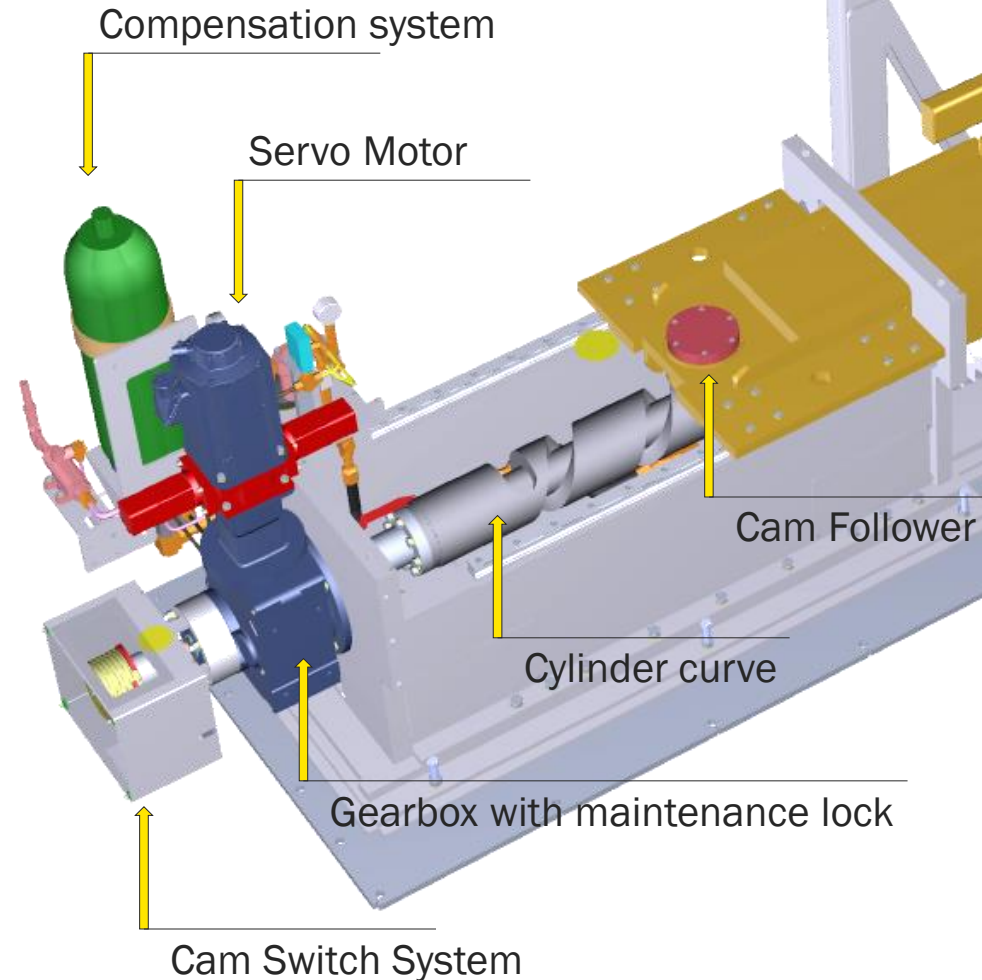


The vertical drive of the EHS is carried out by a high precision index cam principle.

An optimized cylinder curve in the index cam in cooperation with the cam follower bearing ensures a long service life and repeatability.

Over 50 years of know-how
Made in Germany.

Vertical drive Overview



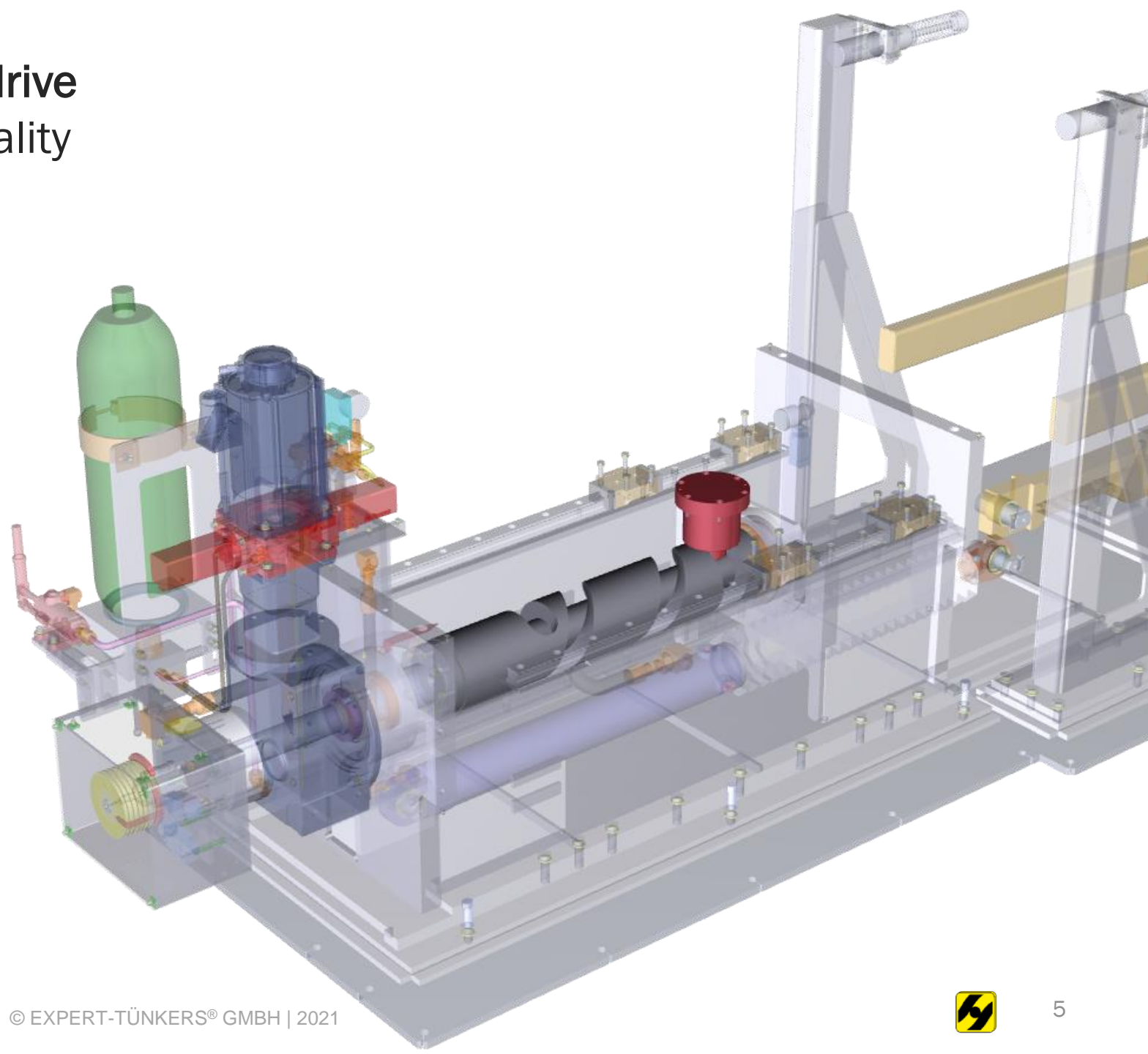
The cylinder curve is driven by an asynchronous or servo motor.

The acceleration and deceleration of the customer's load is generated by the milled groove, hardened and polished into the cylinder curve according to mathematical laws of motion.

The high-performance cam follower transmits the acceleration and deceleration to the linear carriage in a form-fitting way.

The mechanically synchronized connection to the lever mechanism of the lifting shuttle is made using tie rods.

Vertical drive Functionality



The vertical drive of the **EHS**
ELA > longitudinal drive with
Cam
ESR > Indexer swivel with Cam
ESK > single or double swivel
with one or more servo gear
motors, synchronized

Vertical drive Advantages

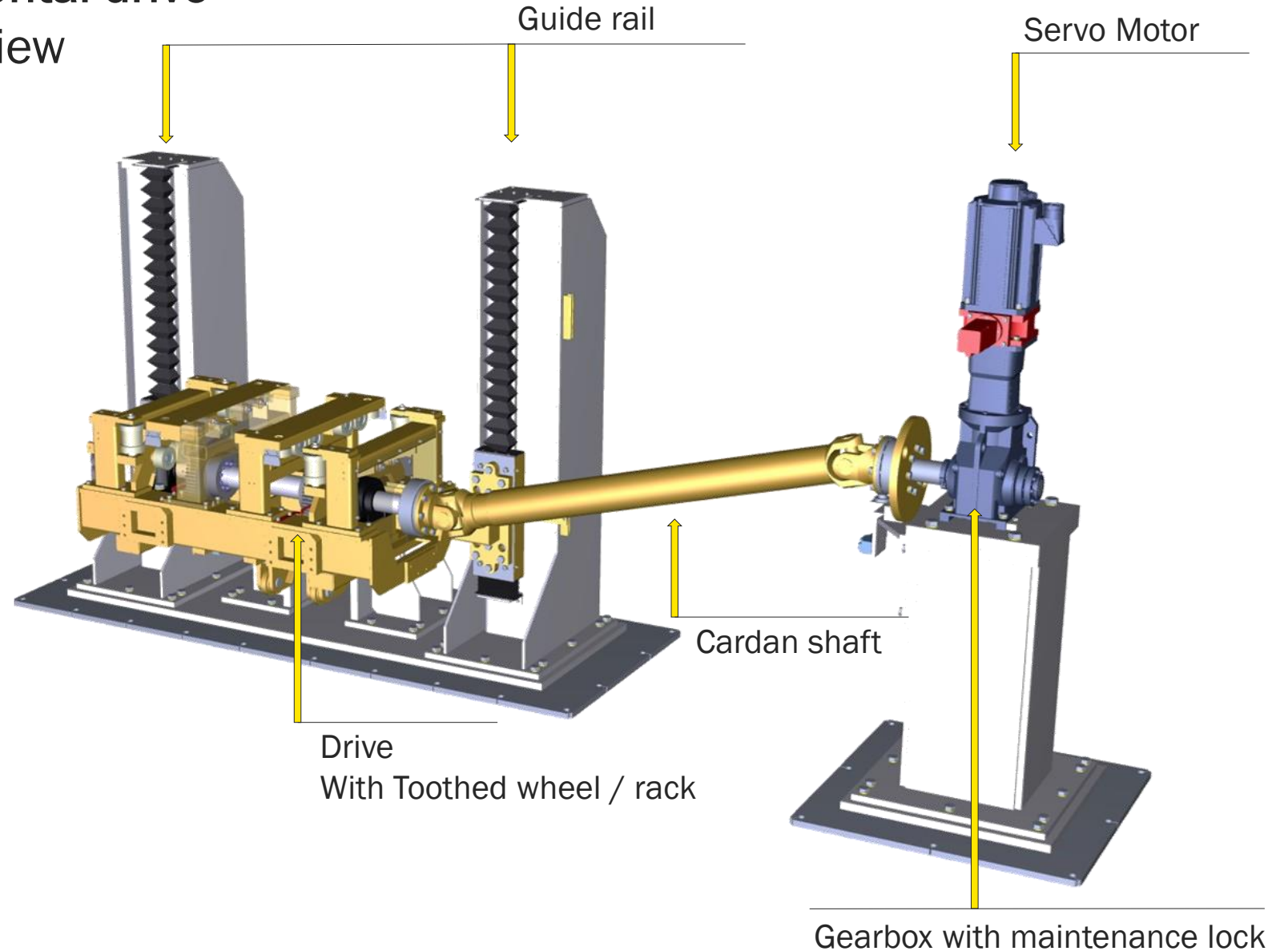
- 👍 Jerk and shock-free drive movements
- 👍 Freely selectable position of the component pick-up and drop:
 - 👍 Mechanical or with servo motor
 - 👍 Gentle component transfer with $V = 0$ mm/sec.
- 👍 Low drive consumption
- 👍 Most accurate, form-fitting, mechanically locked in end positions

The horizontal drive of the EHS is carried out by means of pinions and Rack.

Accurate and reliable control of movement.

Extremely smooth running and best positioning despite high transport loads are assured.

Horizontal drive Overview



Horizontal drive Advantages

Standard: Control with positioning (with servo motor)

- 👍 Precise positioning by means of servo drive
- 👍 Position control via Multiturn/SSI encoders
- 👍 End position protection by means of shock absorbers:
It is not possible to drive beyond the end position positions
- 👍

Optional: Speed controlled (with AC motor)

- 👍 With drive and end position lock:
It is not possible to drive over the end position positions
- 👍 Control of the fast and slow speed as well as the end positions made possible by cam-switch system.

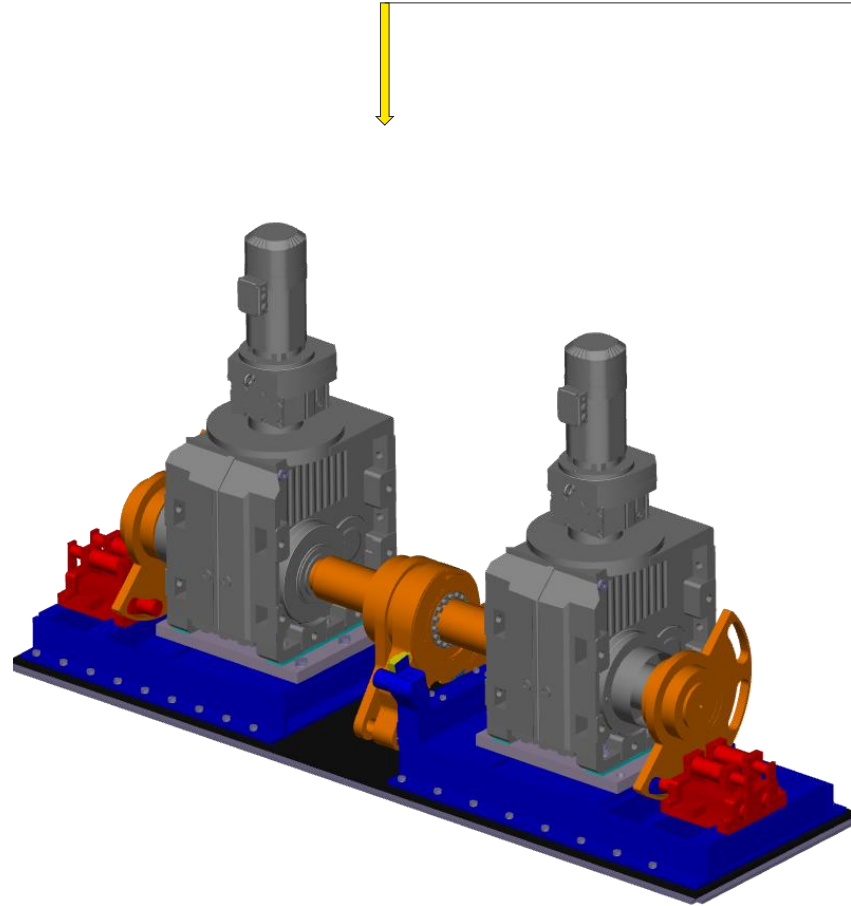
Optionen Schwenkeinheiten

No space, no problem!

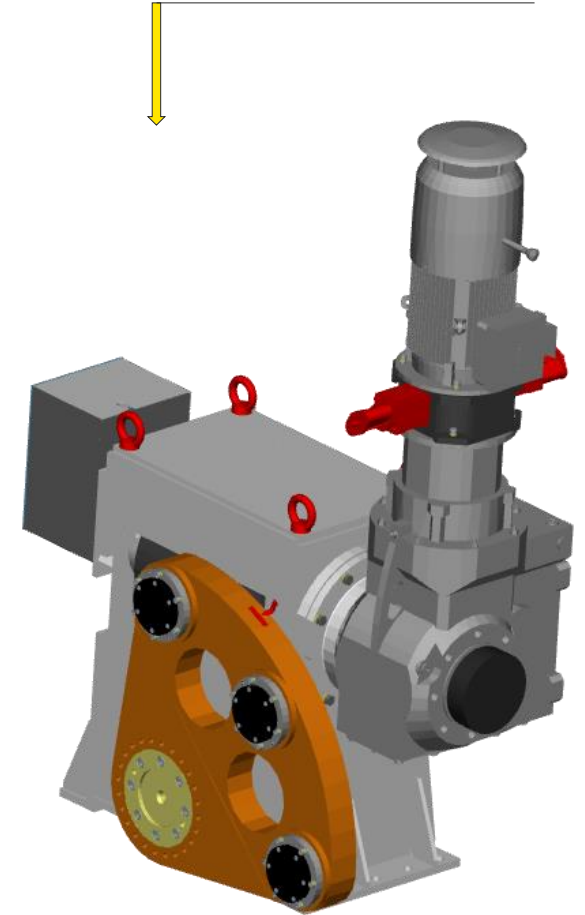
With our ultra-compact swivel units, you can realize the heaviest applications, even when space is scarce.

Speak to us, we will find the best solution for you.

Double geared swivel unit **ESK**



Index swivel unit **ESR**



Safety first!

To enable maintenance and repairs in any position, you can order the maintenance locks developed by us for your EHS.

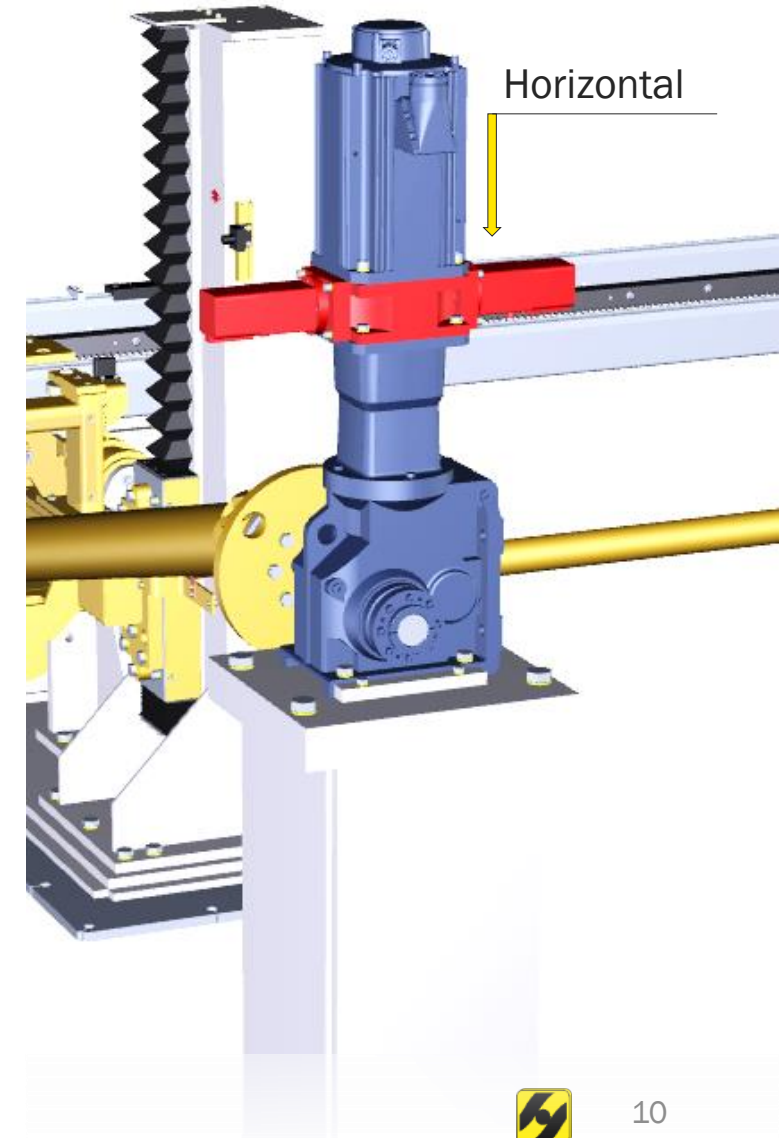
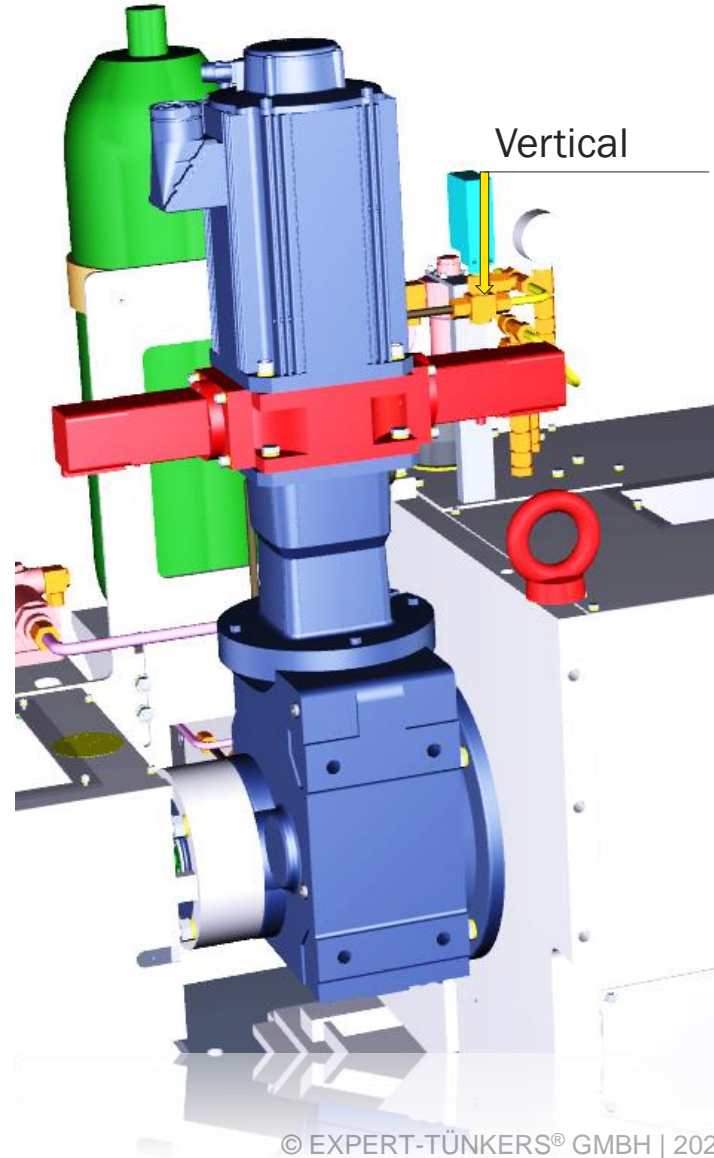
Extremely useful for motor replacement.

Activation takes place via the PLC control.

Remark: The locks can only be activated at a standstill

Options

Pneumatic maintenance lock outs



Options

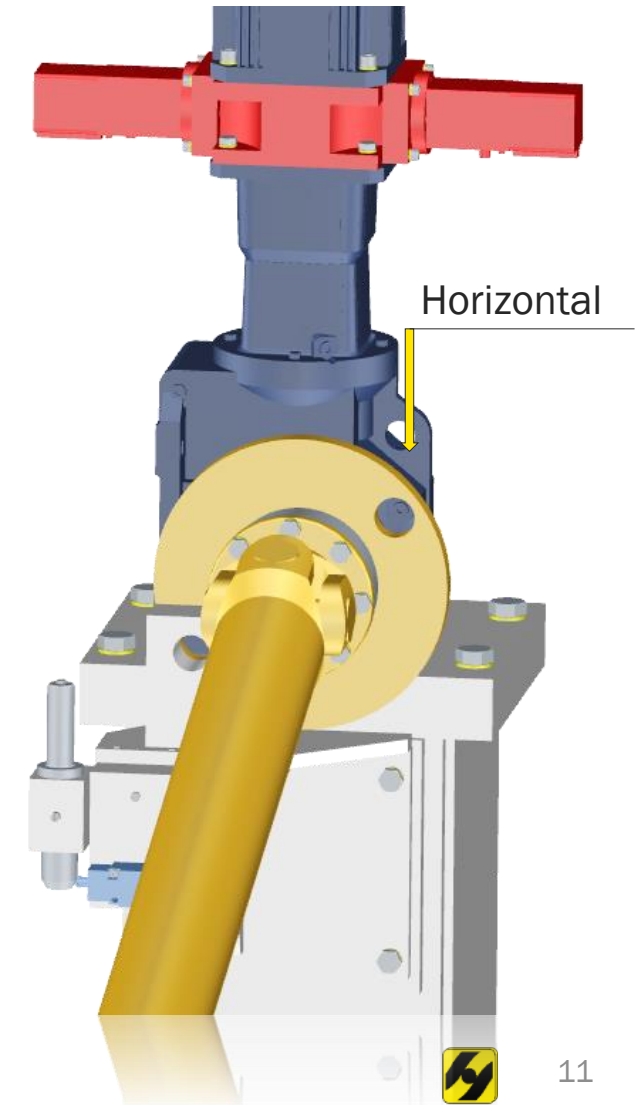
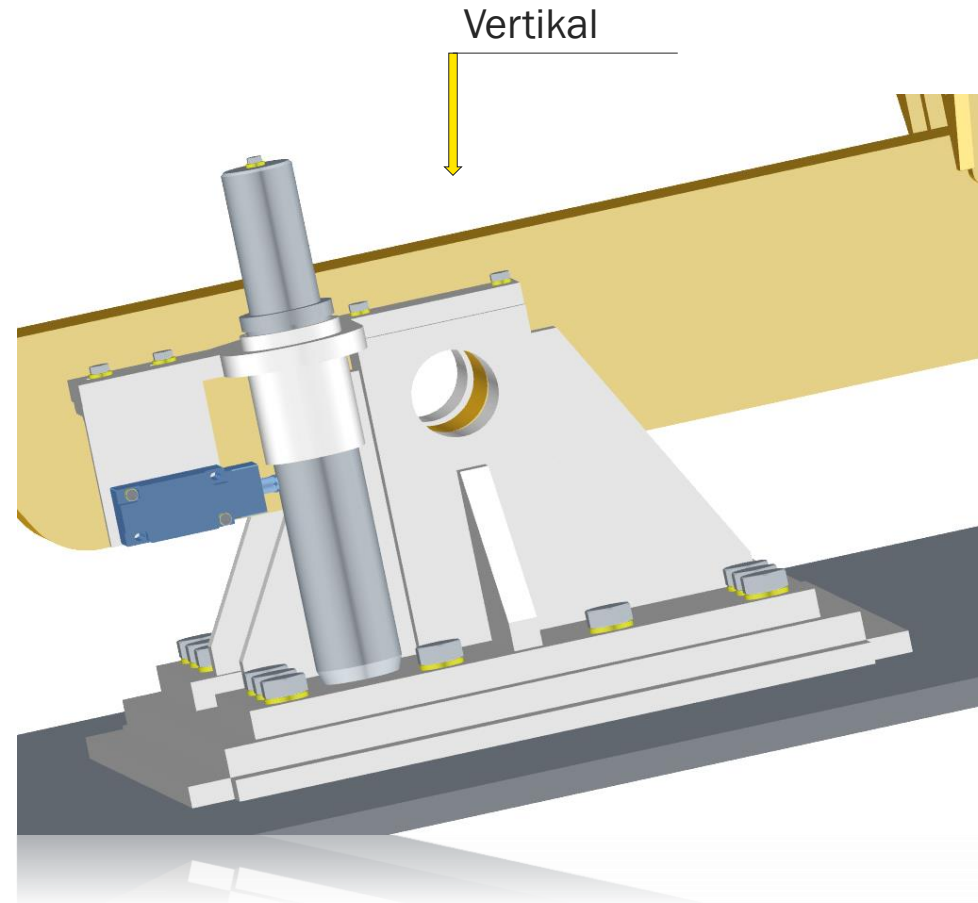
Manual maintenance locks

The easiest way to ensure security

To enable maintenance work and repairs in the upper and lower position (as well as front and rear) you can order the maintenance locks developed by us for your EHS.

Extremely useful in maintenance works on the compensation system.

Remark: The stakeouts also serve as a referencing device.



Special Solutions

e.g.

Lift and Shift **EHS6000**

Double geared swivel unit **ESK**

Key data

13 stations

600 kg per station

Horizontal

6000 mm

6,0 s

15 kW servo drives

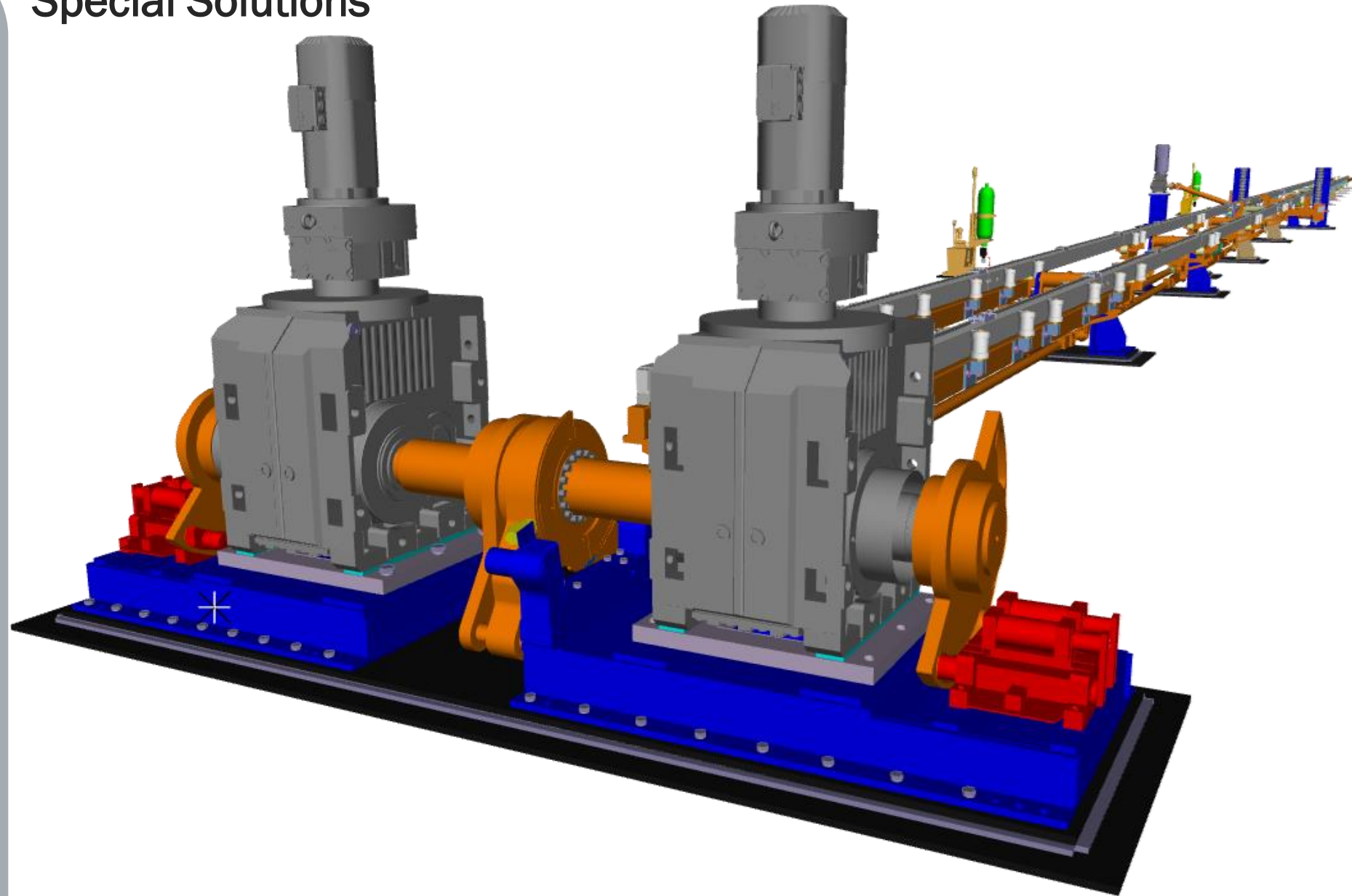
Vertical

720 mm

4.0 s

2 x 45 kW servo drives

Further special solutions on request



Special Solutions

e.g.

Lift and Shift **EHS5000**
Index swivel unit **ESR508**

Key data

6 stations
110 kg per station

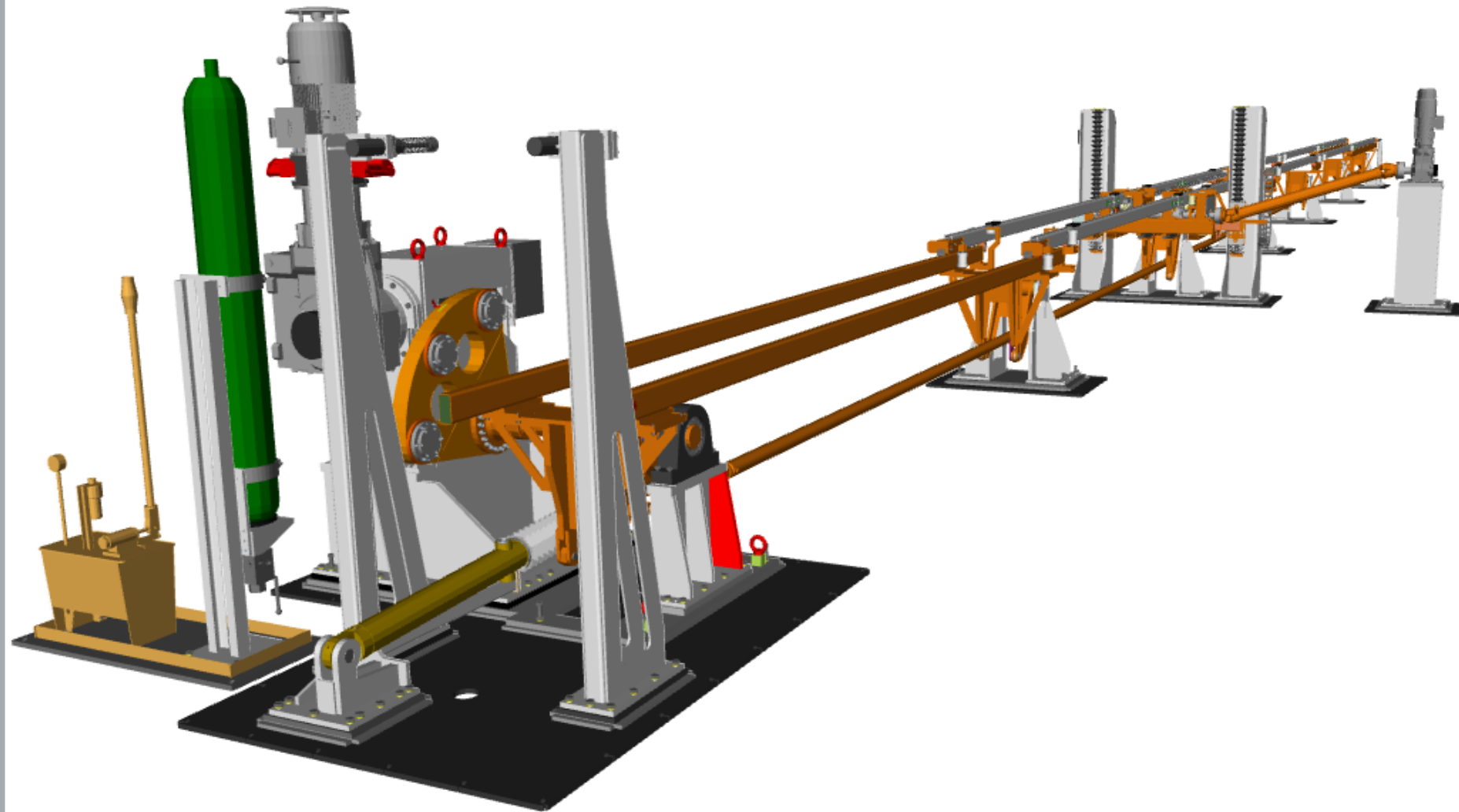
Horizontal

5500 mm
6.0 s
7,5 kW servo drives

Vertical

900 mm
3.5 s
22 kW servo drives

Further special solutions on request





Horizontal drive



Vertical drive

Simply contact us if you have technical requirements that deviate from the standard.

We use all common brands and manufacturers.

SPECIFICATIONS

EHS5000

Stroke: 3000 - 8000 mm

Time: See diagram

Stroke: 500 - 1200 mm

Time: See diagram

Number of stations: 3 - 10

Customer load per station: up to 300 kg, see diagram

Rail spacing: 550 - 1000 mm, in 50 mm steps

Height: 800 mm

(from the upper edge of the floor to the upper edge of clamping pieces in the lower shuttle position)



Horizontal drive



Vertical drive

Simply contact us if you have technical requirements that deviate from the standard.

We use all common brands and manufacturers.

SPECIFICATIONS

EHS6000

Stroke: 3000 - 10000 mm

Time: See diagram

Stroke: 500 - 1200 mm

Time: See diagram

Number of stations: 3 - 16

Customer load per station: up to 600 kg, see diagram

Rail spacing: 550 - 1000 mm, in 50 mm steps

Height: 800 mm

(from the upper edge of the floor to the upper edge of clamping pieces in the lower shuttle position)

TECHNICAL EXECUTION

EXPERT-TÜNKERS standard lift shuttle systems are technically designed and manufactured according to the guidelines of the automotive industry known.

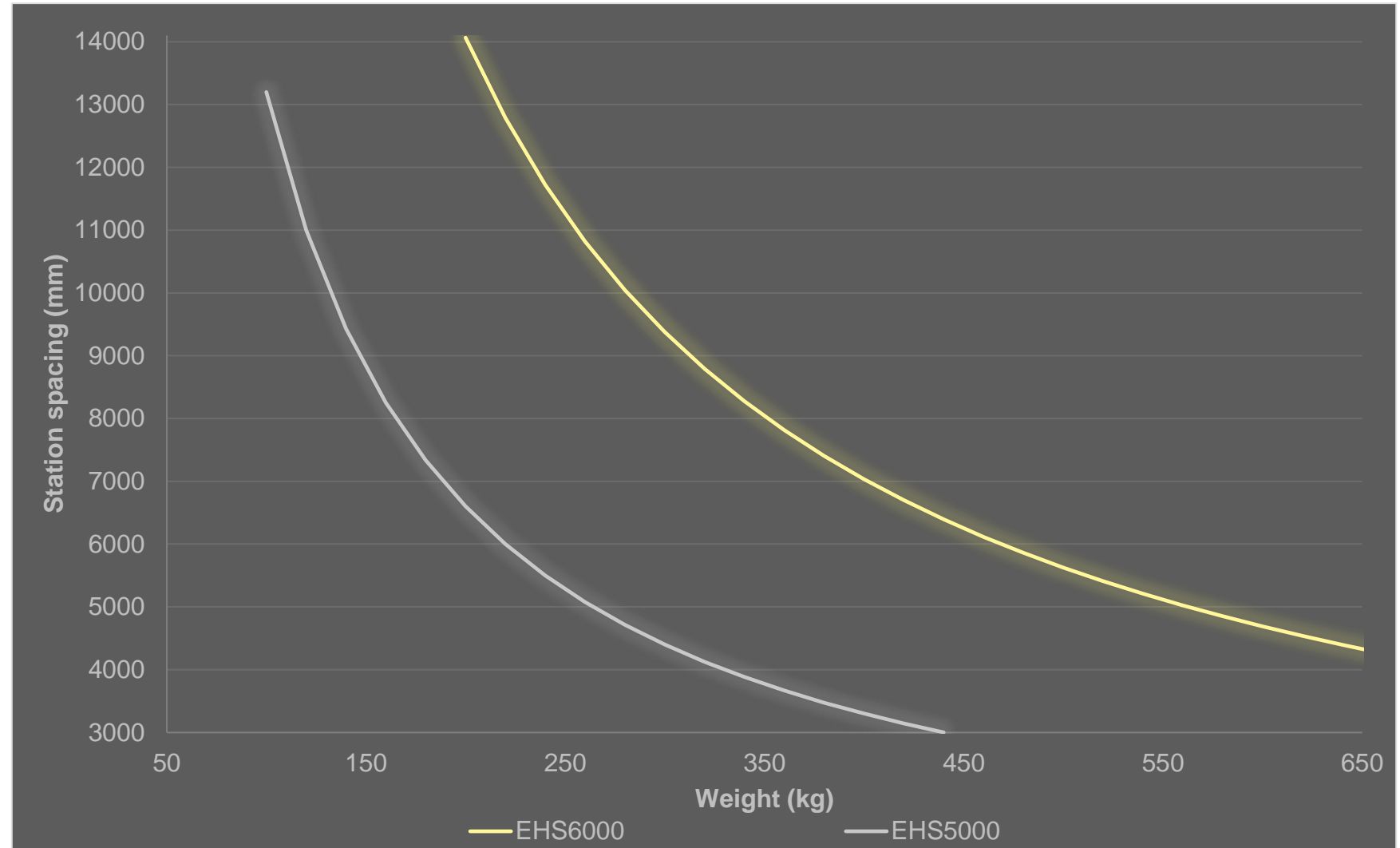
For example:

- Bellows for weld-resistant applications
- Lifetime lubrication
- Serviceability
- MTTR (Mean Time To Repair)
- MTBF (Mean Time Between Fail)
- FMEA (Failure Mode Effect Analyses)

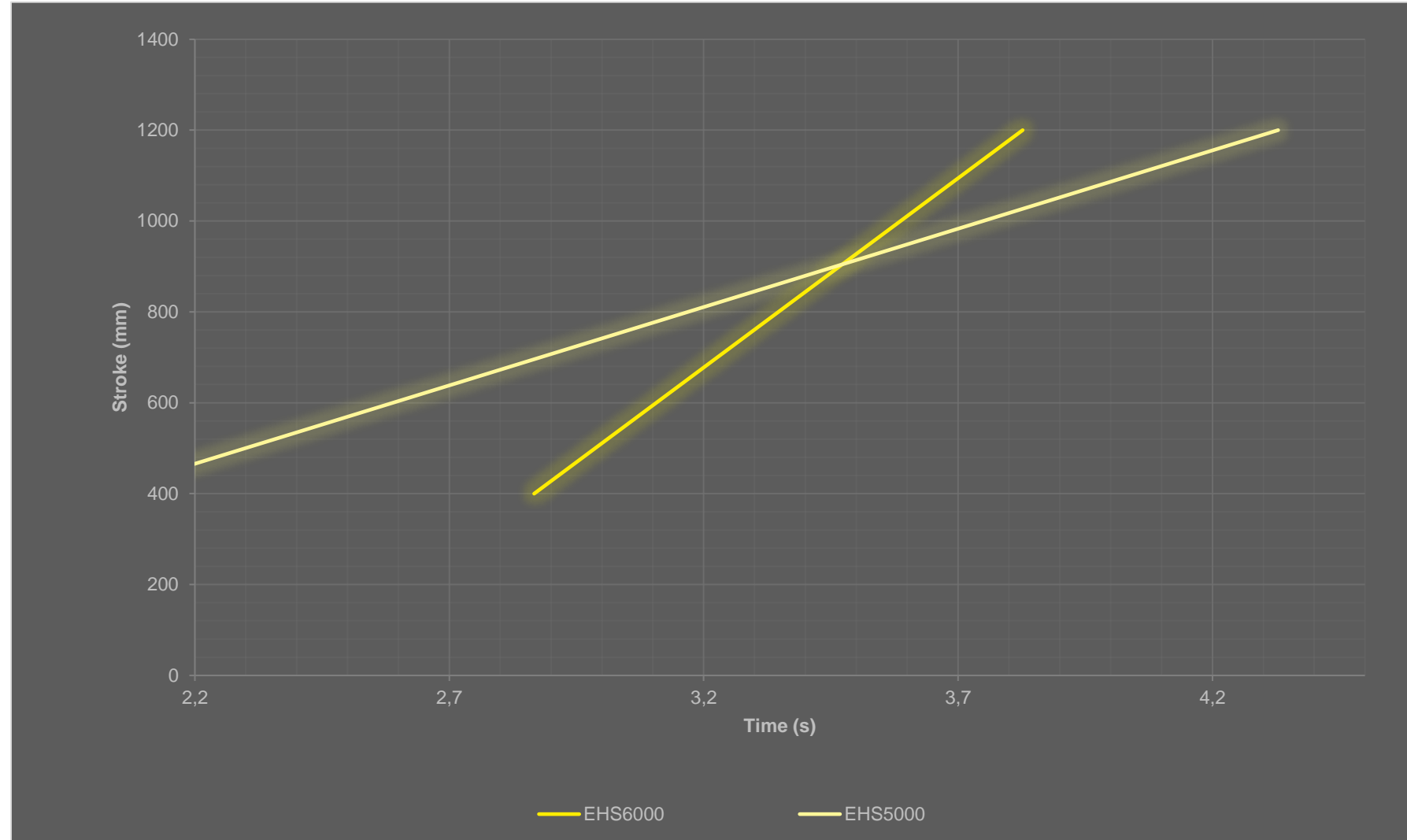
Simply contact us if you have technical requirements that deviate from the standard.

Technical data EHS5000 and EHS6000

Payload per station distance

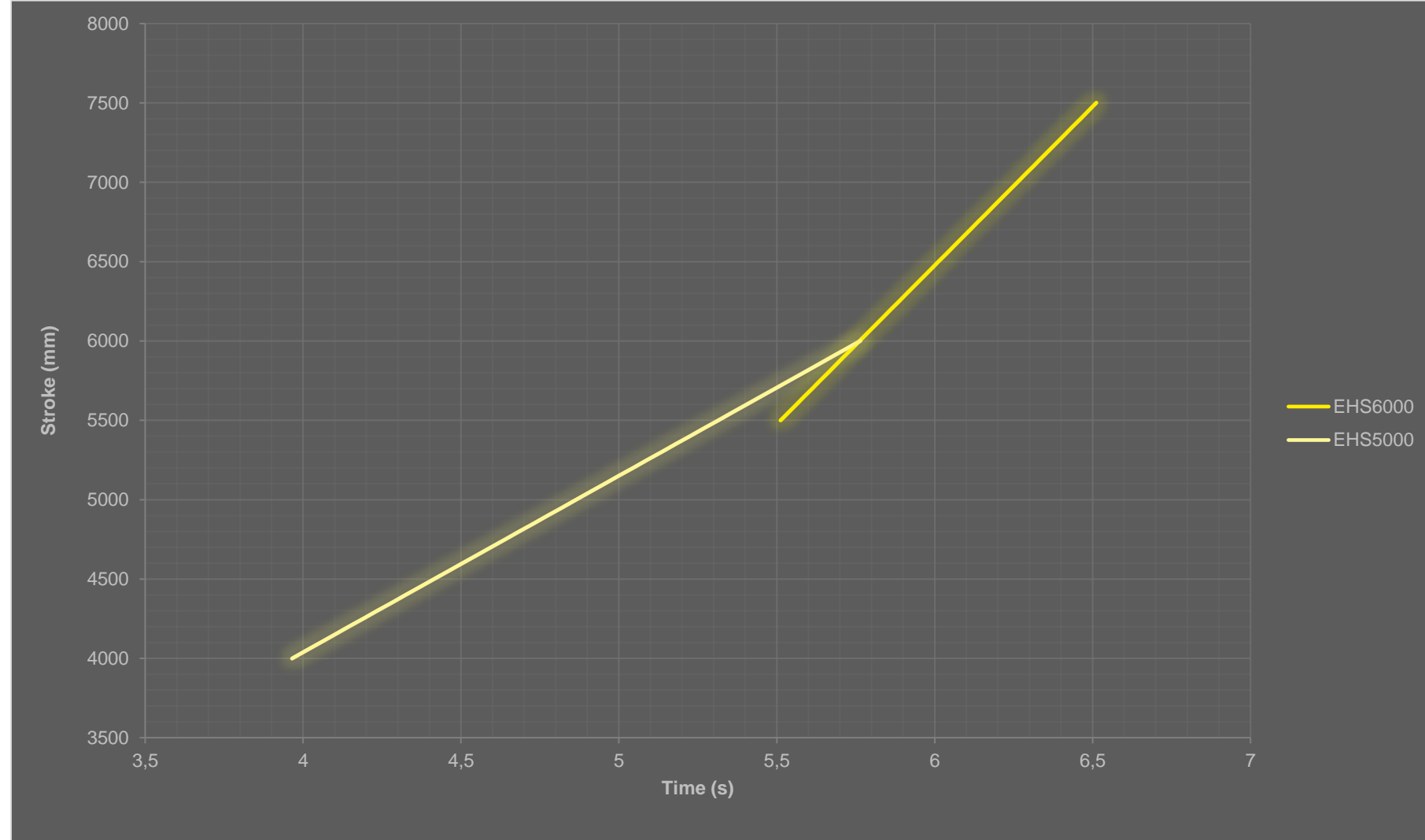


Technical data EHS5000 and EHS6000 Standard Lifting Times Vertical



Simply contact us if you have technical requirements that deviate from the standard.

Technical data EHS5000 and EHS6000 Standard Stroke Times Horizontal



Simply contact us if you have technical requirements that deviate from the standard.

SOME REFERENCES

CUSTOMER	PROJECT	TYPE	YEAR
PSA China	T9	EHS5000	2015
Ford Thailand	P375	EHS5000	2015
PSA China	X7 / R8	EHS5000	2015
PSA China	R8 / X7	EHS5000	2015
SGM China	T261	EHS6000	2015
Chery JLR China	X261	EHS6000	2015
SGM China	S258	EHS6000	2015
SGM China	SGM Dalian	EHS6000	2015
PSA Poissy	D34	EHS5000	2016
Ford USA	P375N	EHS5000	2017
Volvo	XC40	EHS6000	2017
OPEL Luton GB	KO Flexlink	EHS5000	2018
PSA Madrid	C41	EHS5000	2018
DES Ford Argentinien	P703	EHS5000	2020
VW Hannover	VW418	EHS5000	2021
DES Ford Südafrika	P703	EHS5000	2021
OPEL Poznan	X250	EHS6000	2021

Thank you for your
attention.

Further versions,
interfaces and models
available on request.

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