

WE
LC
OM
E

ELHA

MASCHINENBAU

#wemakemachines

www.elha.de



ELHA today

Owner-operated in the 3rd generation



Hans-Georg Liemke



Christof Liemke



Members of staff
approx. 240



Annual turnover
approx. 50 Mio. €



Locations
2x in Hövelhof

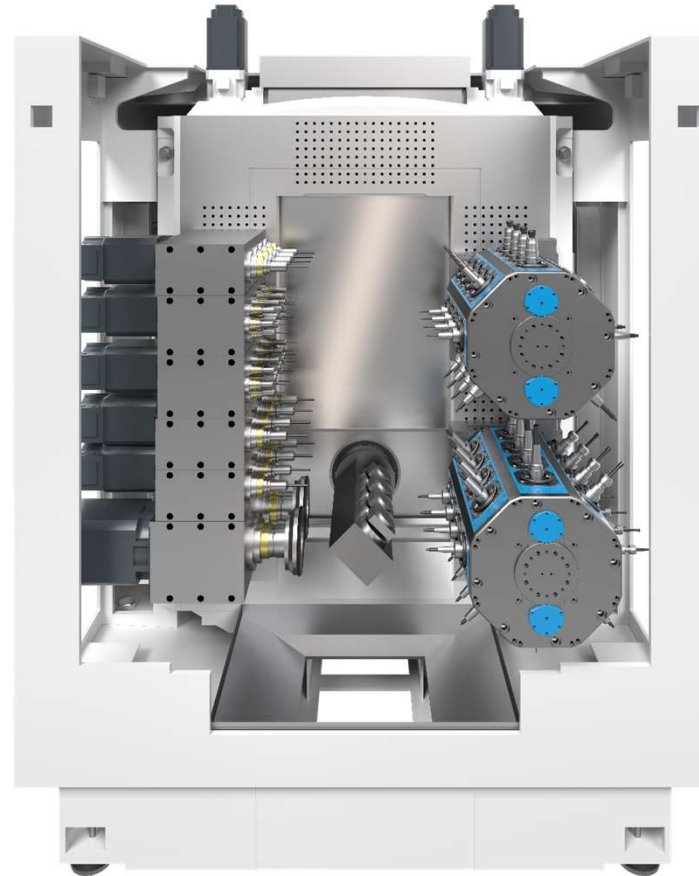


**Turn-Key
solutions**

Production Module

Ideal for:

- small / medium size workpieces
 - same / similar workpieces
 - from 100.000 parts / year
 - limited number of tools
-
- More than 400 machines delivered



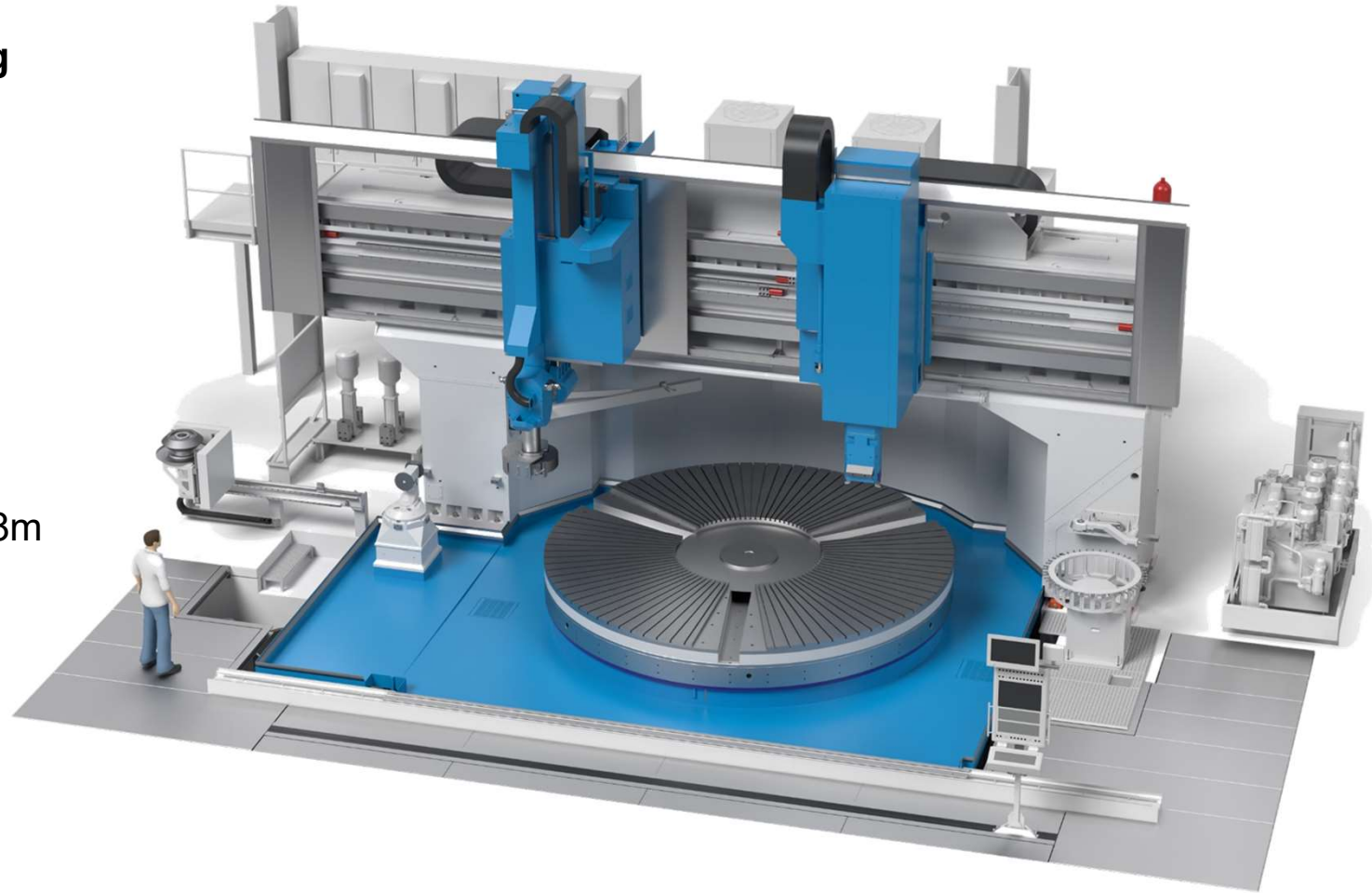
maximum productivity

maximum flexibility

Manufacturing Systems

Multitasking machining

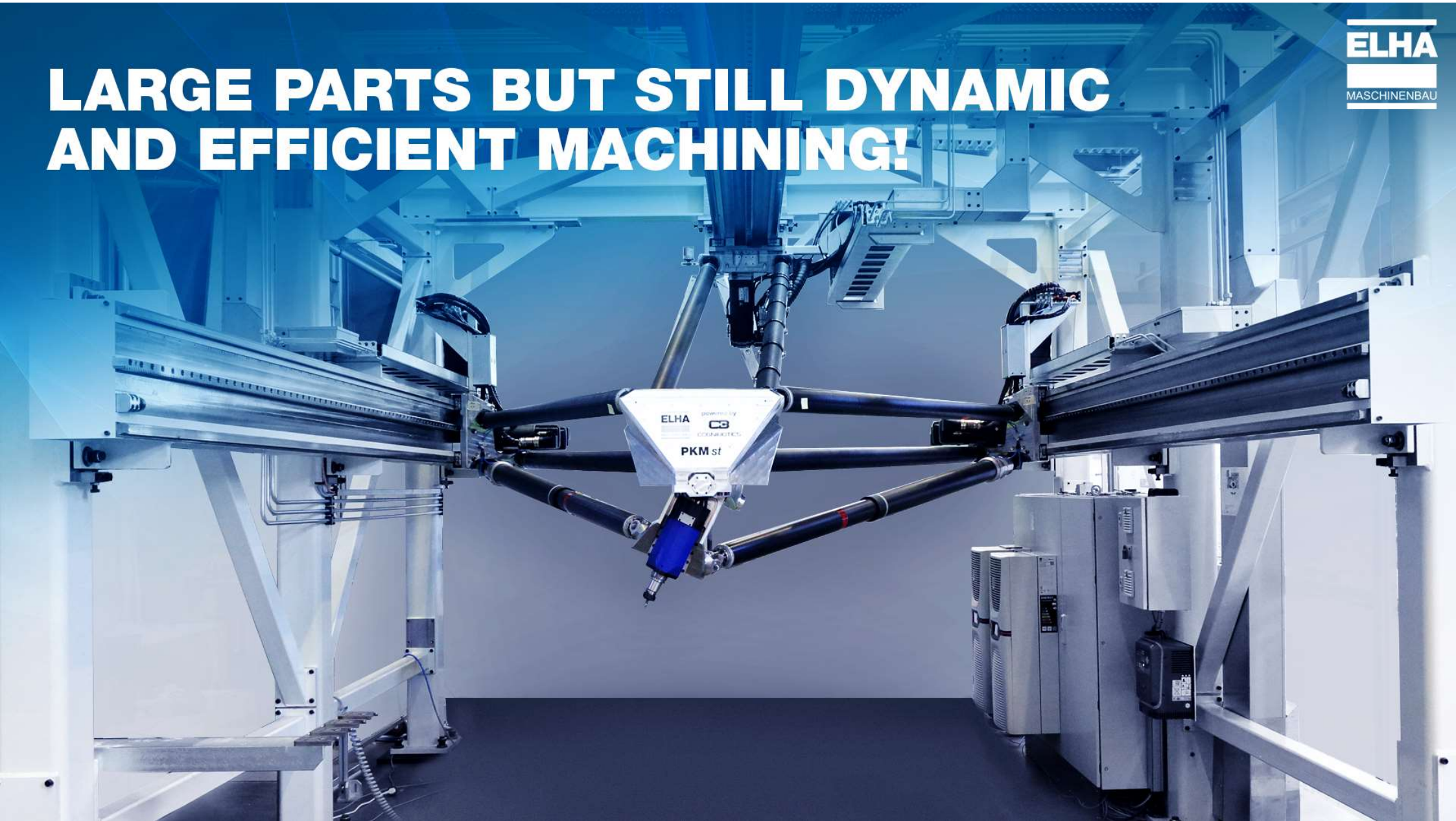
- Drilling
- Turning
- Grinding
- Milling
- Table diameter up to 8m



LARGE PARTS BUT STILL DYNAMIC AND EFFICIENT MACHINING!

ELHA

MASCHINENBAU

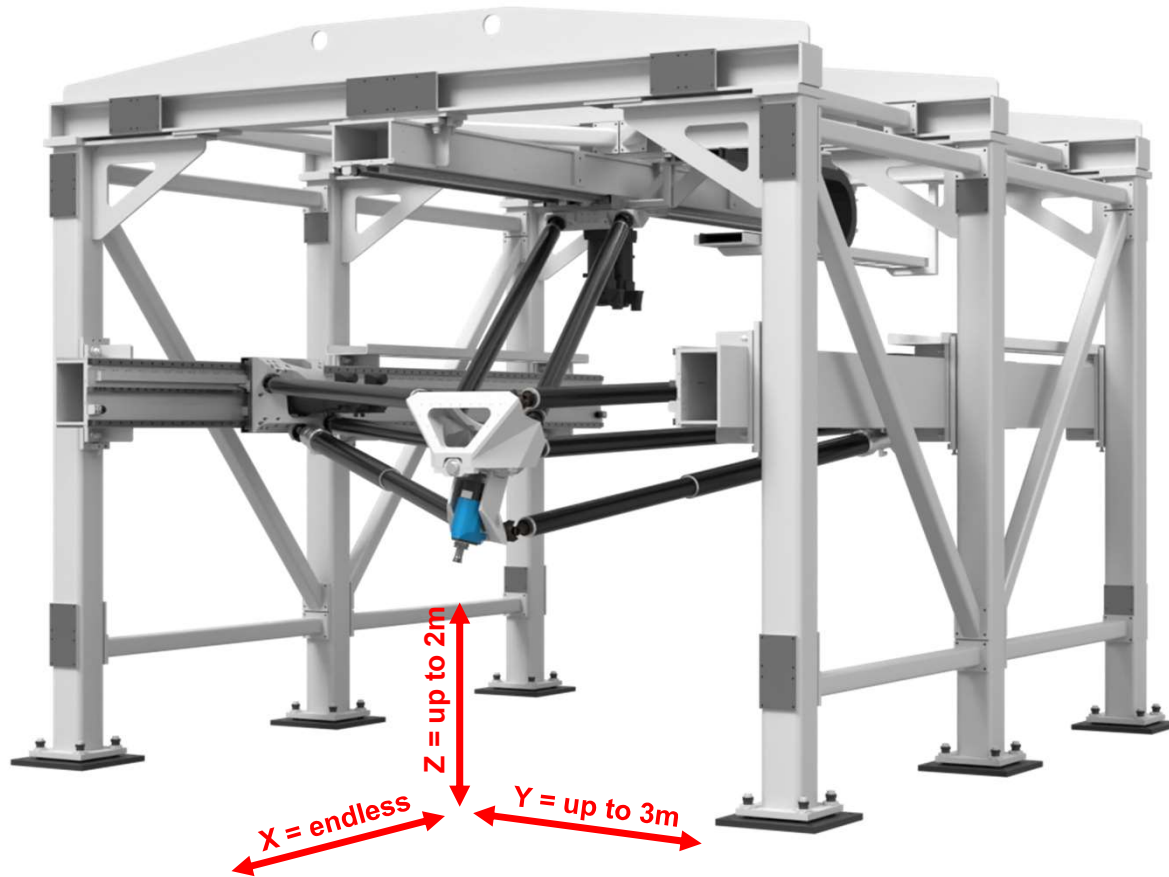


Parallel Kinematic Module (PKM)



Stiffness (TCP):
0.1 – 0.2 N/ μ m

www.elha.de



Stiffness (TCP):
5 - 10 N/ μ m

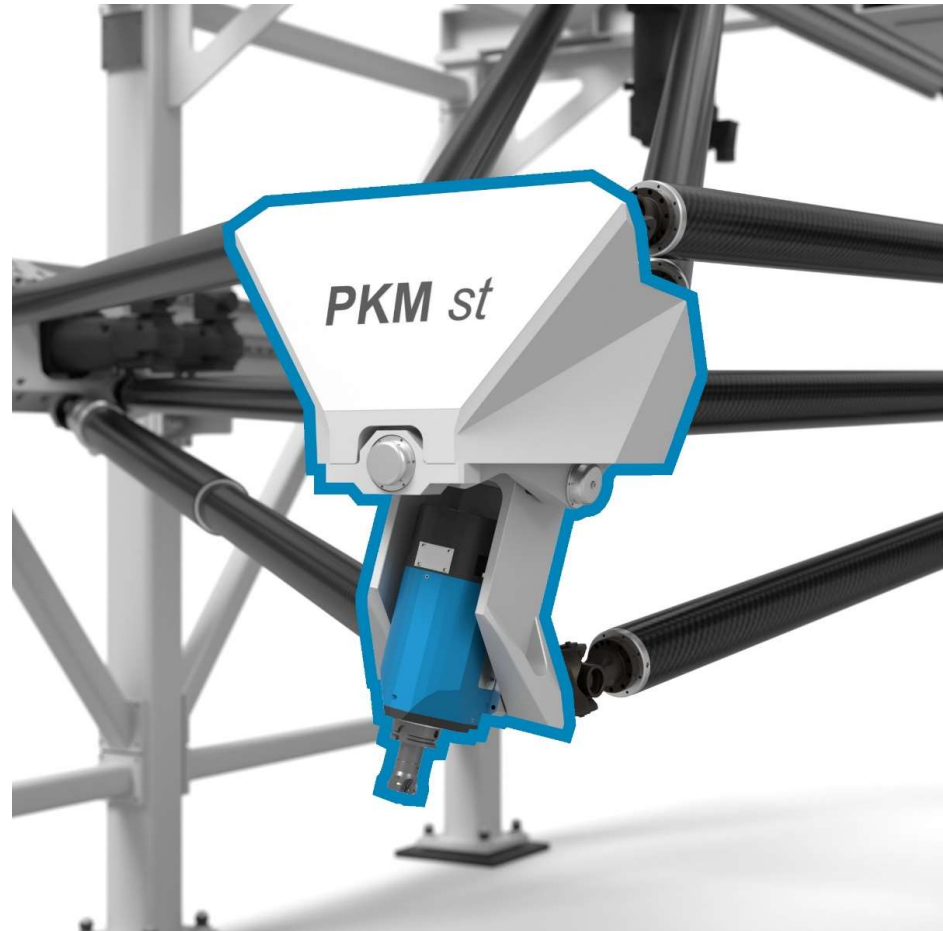
Closing the gap
between serial
arm robot and
machining
center



Stiffness (TCP):
30-35 N/ μ m

Mobility and Dynamics

- Up to **20x** less moving mass compared to classic machine tools
- Tool center point velocity up to **170m/min**
- Tool center point acceleration up to **2,5G** depending on application carrier (2,5G up to 40kg)
- Positioning repeatability up to **5μm**
- Tool path accuracy in the entire working area up to **0,04mm** (without process forces)



Examples



In-Line Manufacturing

Examples



Mobile machine with easy calibration possibilities

**Thank you
for your time and
your attention**

What are your tasks?