

**VL DUO line**



**MANUFACTURING SYSTEM FOR  
CHUCKED COMPONENTS**

**think**

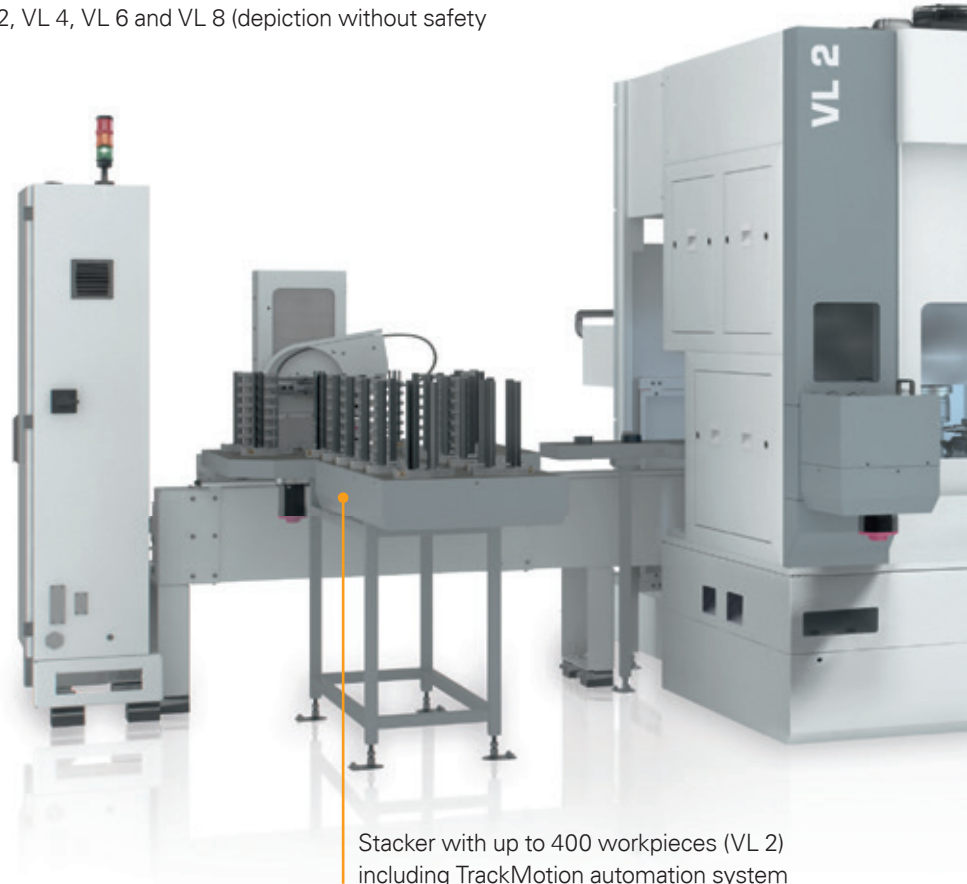
**VERTICAL**



## MAXIMUM FLEXIBILITY

Each machine in the DUO line is configured individually to the manufacturing requirement. The entire list of options, which is also available for single machines, is freely available for every machine in the DUO line, including driven tools, Y-axis, probe, etc.

The VL DUO line is available in the vertical turning machine versions VL 2, VL 4, VL 6 and VL 8 (depiction without safety fences).



Stacker with up to 400 workpieces (VL 2) including TrackMotion automation system

MANUFACTURING SYSTEM FOR CHUCKED COMPONENTS

## The Right Solution for Your Production Process

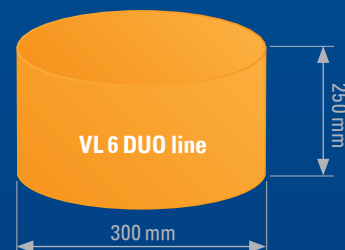
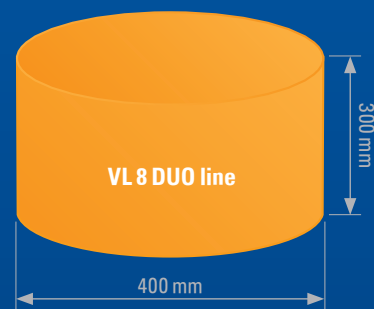
Parts storage facility, automation system and machining – the DUO line guarantees perfectly coordinated manufacturing. Every DUO line consists of two modular machines from the VL-series with the TrackMotion automation system and a parts storage facility for raw and finished parts. The modular approach of the DUO line allows twin spindle manufacturing of a wide range of workpieces with the benefits of single machines.



POWER



## WORKPIECE DIMENSIONS OF THE VL DUO line



### TECHNICAL DATA

		VL 2 DUO line	VL 4 DUO line	VL 6 DUO line	VL 8 DUO line
<b>Chuck diameter</b>	mm	160	260	400	500
	inch	6.5	10	15.5	19.5
<b>X-travel</b>	mm	700	740	880	995
	inch	27.5	29	34.5	39
<b>Z-travel</b>	mm	375	400	480	580
	inch	15	15.5	19	23
<b>Y-travel (optional)</b>	mm	± 50	± 30	± 30	± 30
	inch	± 2	± 1	± 1	± 1
<b>Main spindle</b>					
» Power rating at 40 % / 100 %	kW	18 / 14	27 / 18	39 / 28	44 / 34,5
	hp	24 / 19	36 / 24	52 / 38	59 / 46
» Torque at 40 % / 100 %	Nm	77 / 59	303 / 202	460 / 320	775 / 600
	ft-lb	56 / 43	223 / 149	339 / 236	572 / 443
» Speed, max.	1/min	6.000	4.500	3.100	2.850
	rpm	6,000	4,500	3,100	2,850
<b>TrackMotion</b>					
» Workpiece weight (gripper), max.	kg	5	20	40	60
	lb	11	44	88	132
» Horizontal travel speed	m/min	150	150	150	150
	ipm	5,907	5,907	5,907	5,907
» Vertical travel speed	m/min	25	25	25	25
	ipm	984	984	984	984
» Stroke in Z (TransLift)	mm	450	450	650	650
	inch	17.5	17.5	25.5	25.5

## THE BENEFITS OF THE TRACKMOTION AUTOMATION SYSTEM

- + Minimal set-up time – the TrackMotion automation system is ready for use as soon as the workpiece height and part diameter have been entered
- + Universal NC gripper – no retooling required
- + Time saving by turning the workpiece during transport
- + Space-saving since the whole TrackMotion automation system is installed behind the machines
- + Measuring equipment, marking systems, cleaning machines and a lot of other functions can be integrated
- + Short part transport time: Horizontal travel speed: 150 m/min and vertical: 25 m/min

## TrackMotion: the Automation System for the VL DUO line

**The TrackMotion is an automation solution which combines the previous concept of conveyor belts, pick-and-place units and changers in a single system.**

On the TrackMotion automation system, a so-called TransLift unit runs on a rail system through the machines ("track"). The TransLift grips the parts at different heights, while also positioning and turning the workpiece over. The machines can be linked to each other very easily using a TrackMotion automation system. What is more, the TrackMotion automation system is also extremely fast.



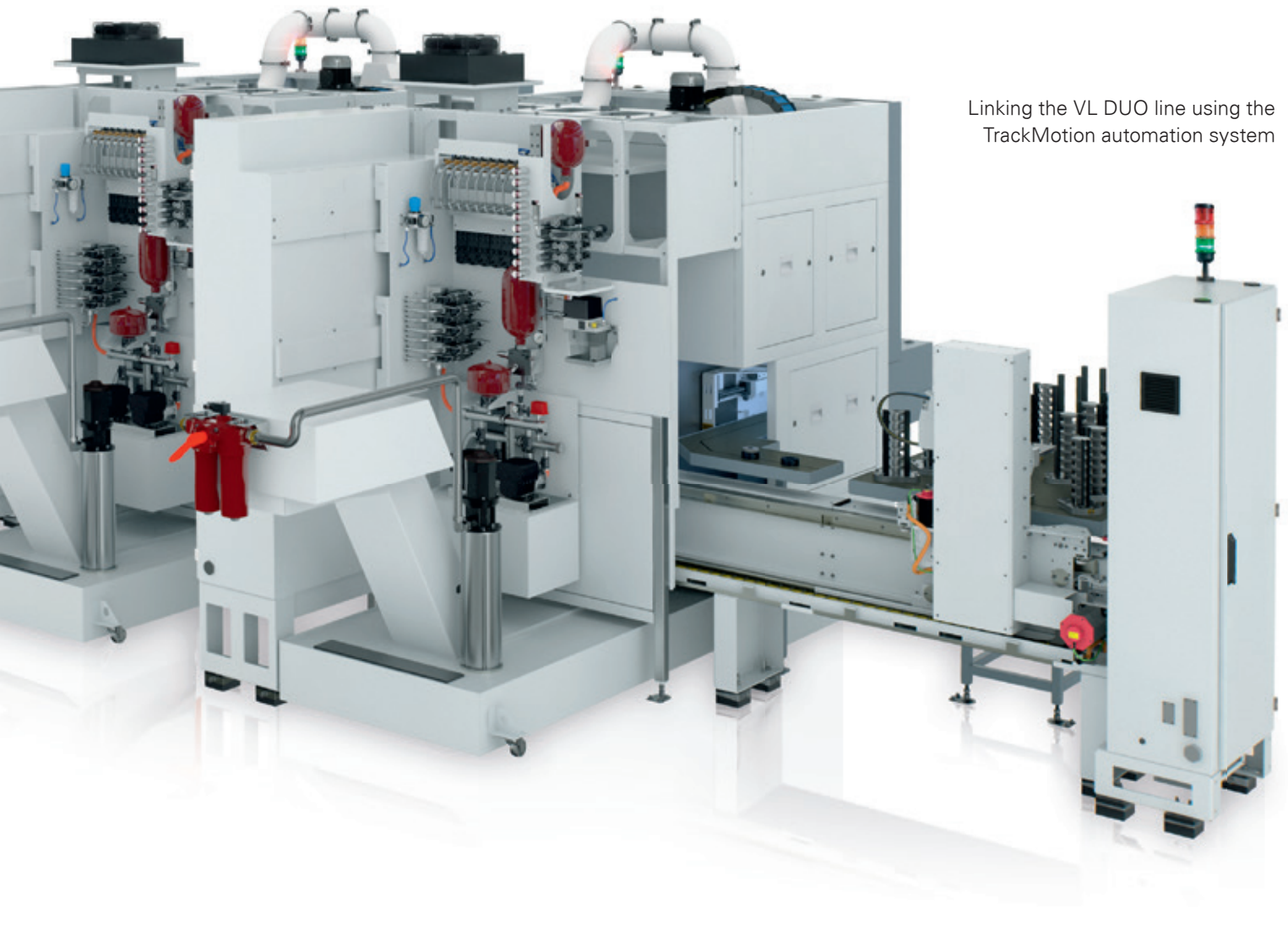
TRACKMOTION



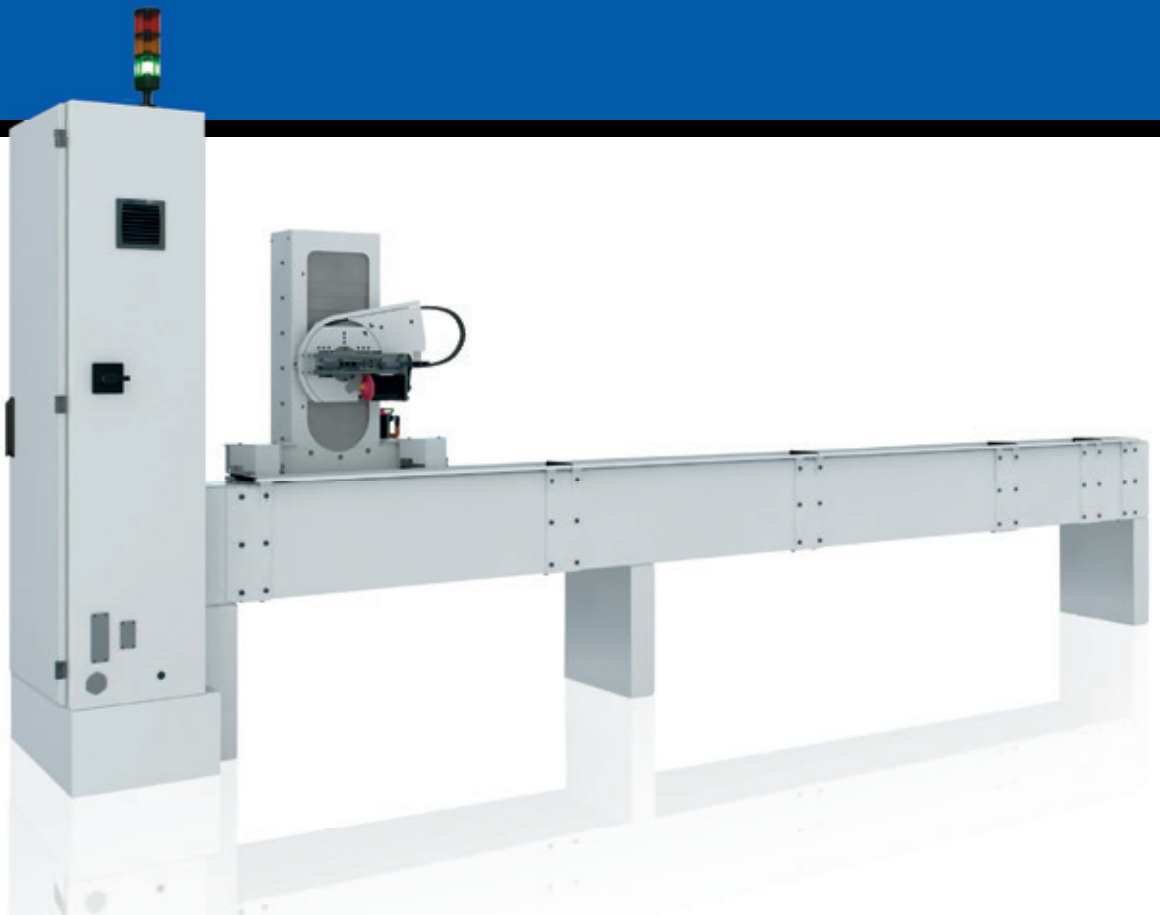
Machining in the first clamping operation OP 10



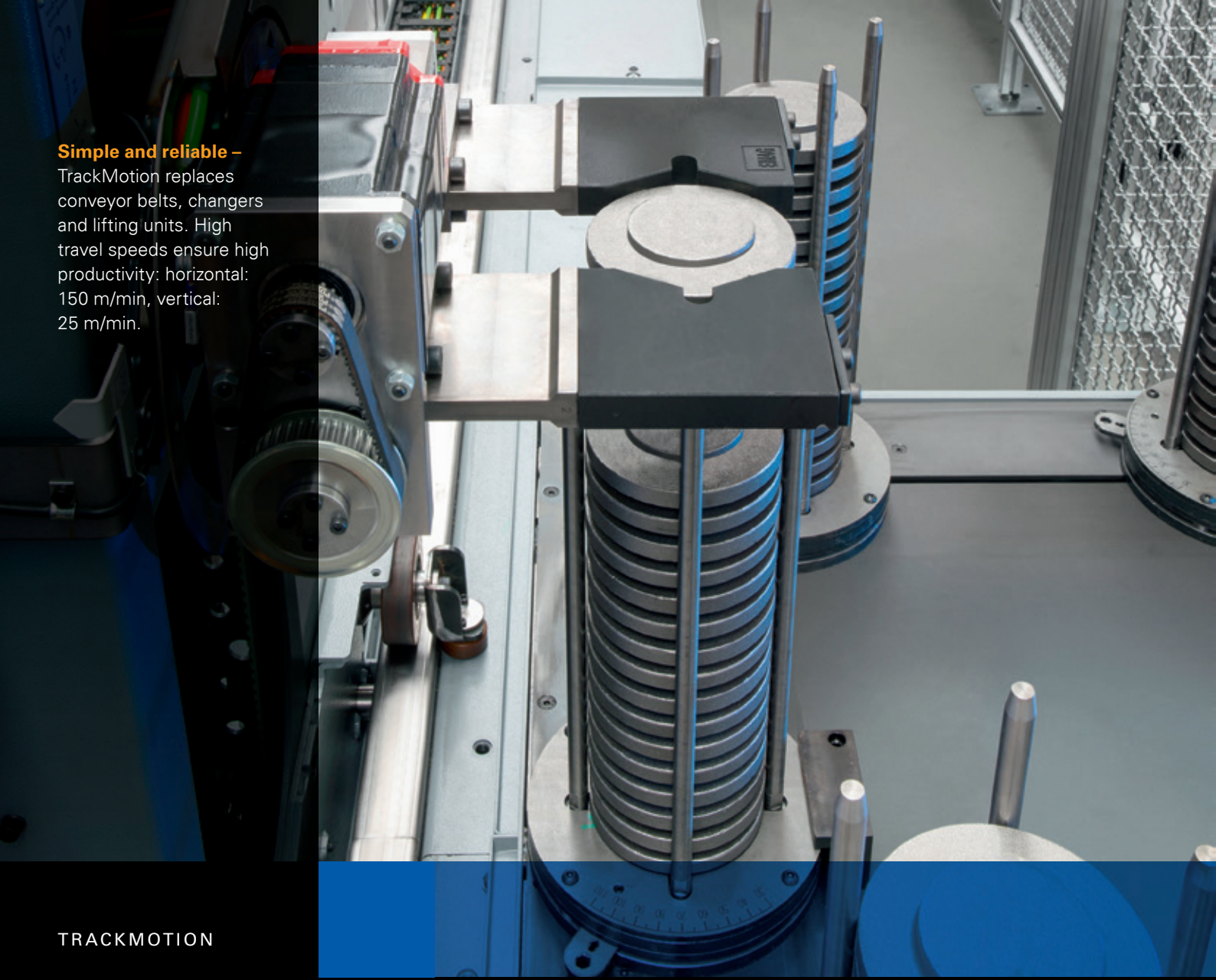
Machining in the second clamping operation OP 20



Linking the VL DUO line using the TrackMotion automation system



EMAG TrackMotion – the highly flexible automation system for the VL DUO line: TransLift, track and control unit

A detailed view of a TrackMotion industrial machine, showing a complex assembly of metal parts, gears, and a large cylindrical workpiece storage unit. The machine is primarily blue and silver, with a focus on the mechanical components and the storage unit. The background is a blurred industrial setting.

### Simple and reliable –

TrackMotion replaces conveyor belts, changers and lifting units. High travel speeds ensure high productivity: horizontal: 150 m/min, vertical: 25 m/min.

TRACKMOTION

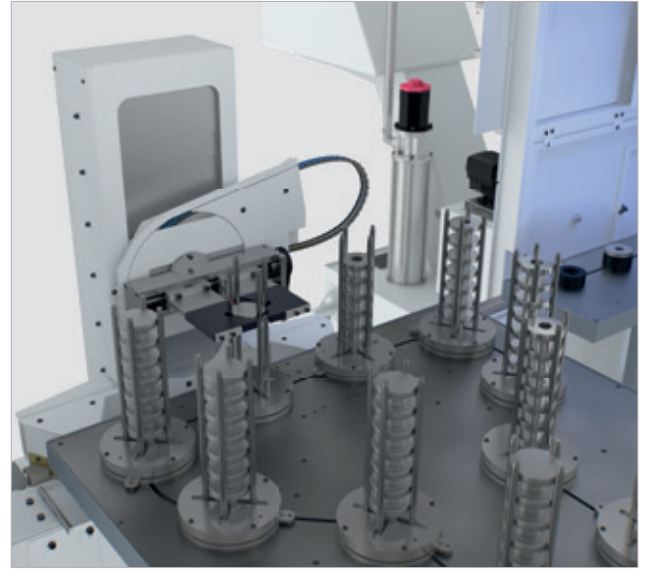
## Use the Workpiece Storage for More Productivity

The VL DUO line was specially developed for machining chucked parts in two clamping operations in medium to large series. The low cost, large workpiece storage means that the line can also manufacture autonomously until all the supplied raw parts have been machined which can take up to 3-4 hours (depending on the workpiece and tool).

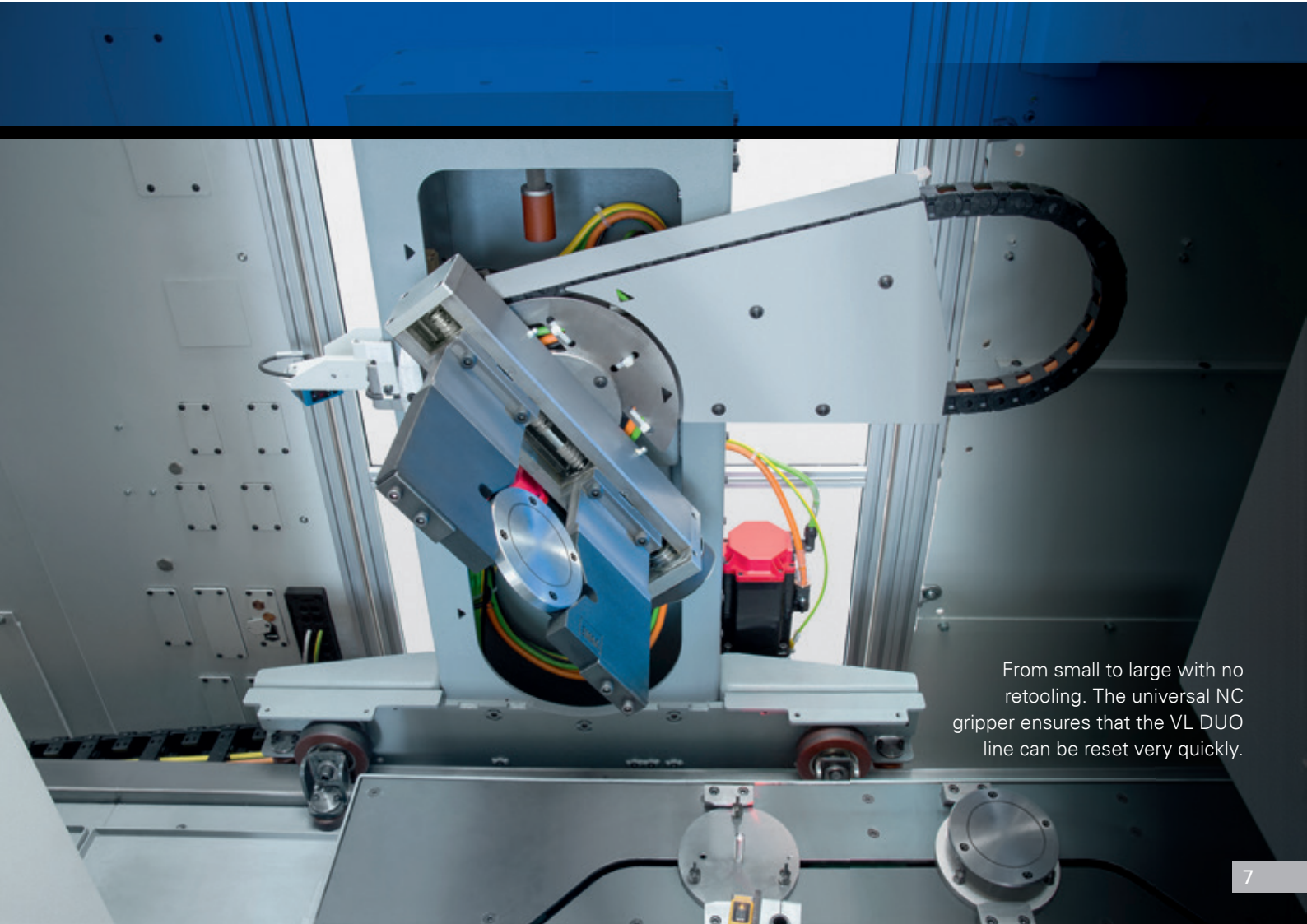
### Resetting in a very short time

All the TrackMotion axes, including the gripper, are CNC-controlled. The resetting process takes place by entering the dimensions of the new workpiece. If you wish to reset the machine for a known workpiece, this can simply be done by opening the appropriate workpiece data record.

EFFICIENT



The raw parts are supplied by a parts storage facility. This has a capacity of up to 400 parts, depending on the geometry of the workpiece.



From small to large with no retooling. The universal NC gripper ensures that the VL DUO line can be reset very quickly.

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