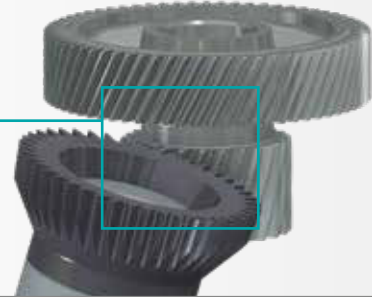


Profilator 300-V

the perfect machine platform for your gear cutting tasks
and of course also for e-mobility

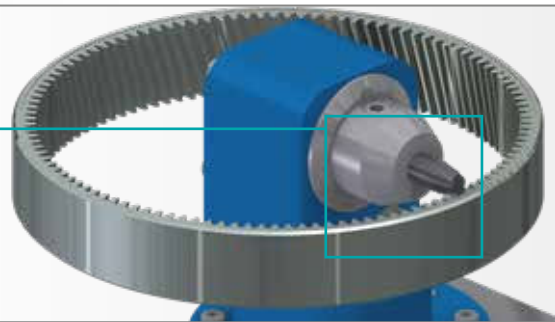
SCUDDING® of Stepped Gears

Machining of parallel gear profiles with undercut, both gears are machinable with a double tool



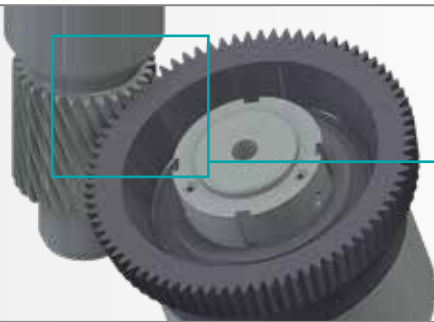
SCUDDING® of Internal Gears

Cost-efficient production of internal gears with high flexibility



Chamfer Cutting

Chamfering of the entry and exit side by cutting in one setting with the SCUDDING®. Fast and precise chamfering process with minimal space requirement

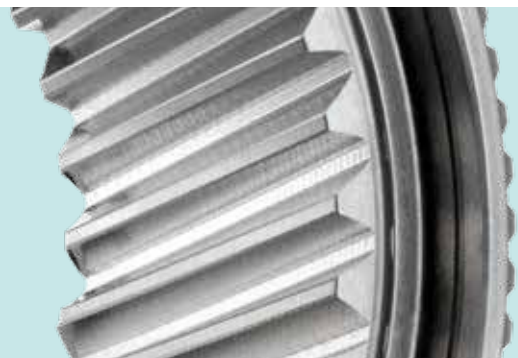


SCUDDING® of Shafts

Production of rotors, drives, and shafts

High Gearing Quality DIN 5-7

With SCUDDING® previously unattainable machining results are possible, namely exemplary cutting performance (DIN 5-7) with simultaneous low surface roughness (Rz 2-3)



Technical data

Workspace

Workpiece diameter	mm	350*
Swing Diameter	mm	475
Machining diameter	mm	300

Axis Travel

Travel X	mm / linear drive	800 - 3800 (type dependent)
Travel Y	mm / linear drive	-145 / +95
Travel Z	mm	480
Swivel angle B	Degree	-60° / +135°

Workpiece Spindle

Power	kW	41,6
Torque	Nm	265
Max. RPM	min ⁻¹	3.500
Spindle Nose Interface	Size	DIN 55026-A8

Tool Spindle

Power	kW	24,5
Torque	Nm	65
Max. RPM	min ⁻¹	4.000
Automatic clamping system	Type	optional
Tool interface	Type	Capto C8x

General Data

Dimensions	mm (LxWxH)	2.440 x 2.730 x 3.200 (for size 1800 mm)
Weight	kg	10.000 (for size 1800 mm)

* subject to geometric verification

About Profilator

- Founded in 1967 as an in-house machining solution for the hand tool manufacturer Wera
- Locations:
 - Wuppertal, Germany (headquarters)
 - Ann Arbor, Michigan, USA
 - Queretaro, Mexico
 - Shanghai, China



Profilator GmbH & Co. KG

Zum Alten Rangierbahnhof 18
D-42329 Wuppertal

Certificate DIN EN ISO 9001

Phone: +49 (0)202 27 88-0
Fax: +49 (0)202 27 88-100

Internet: www.profilator.de
E-Mail: info@profilator.de





Profilator 300-V

Vertical Modular Machine Platform

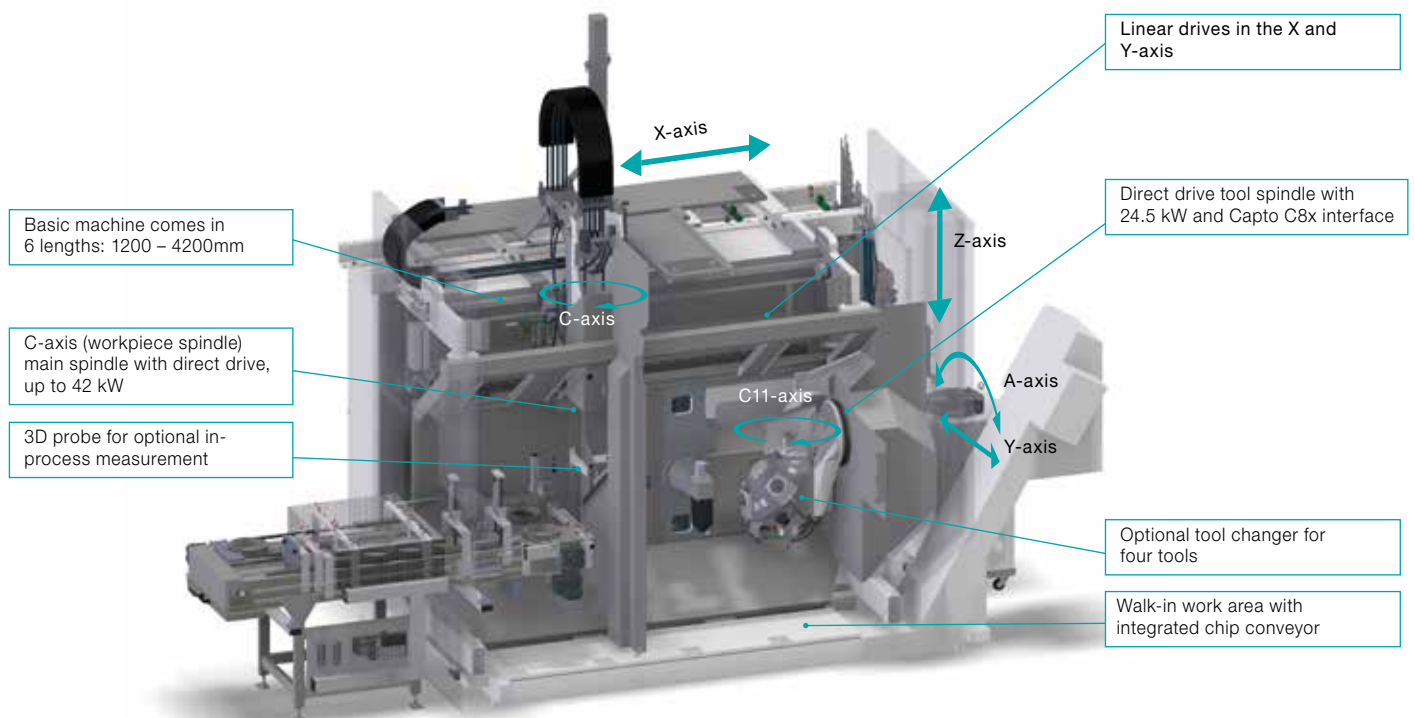


300-V

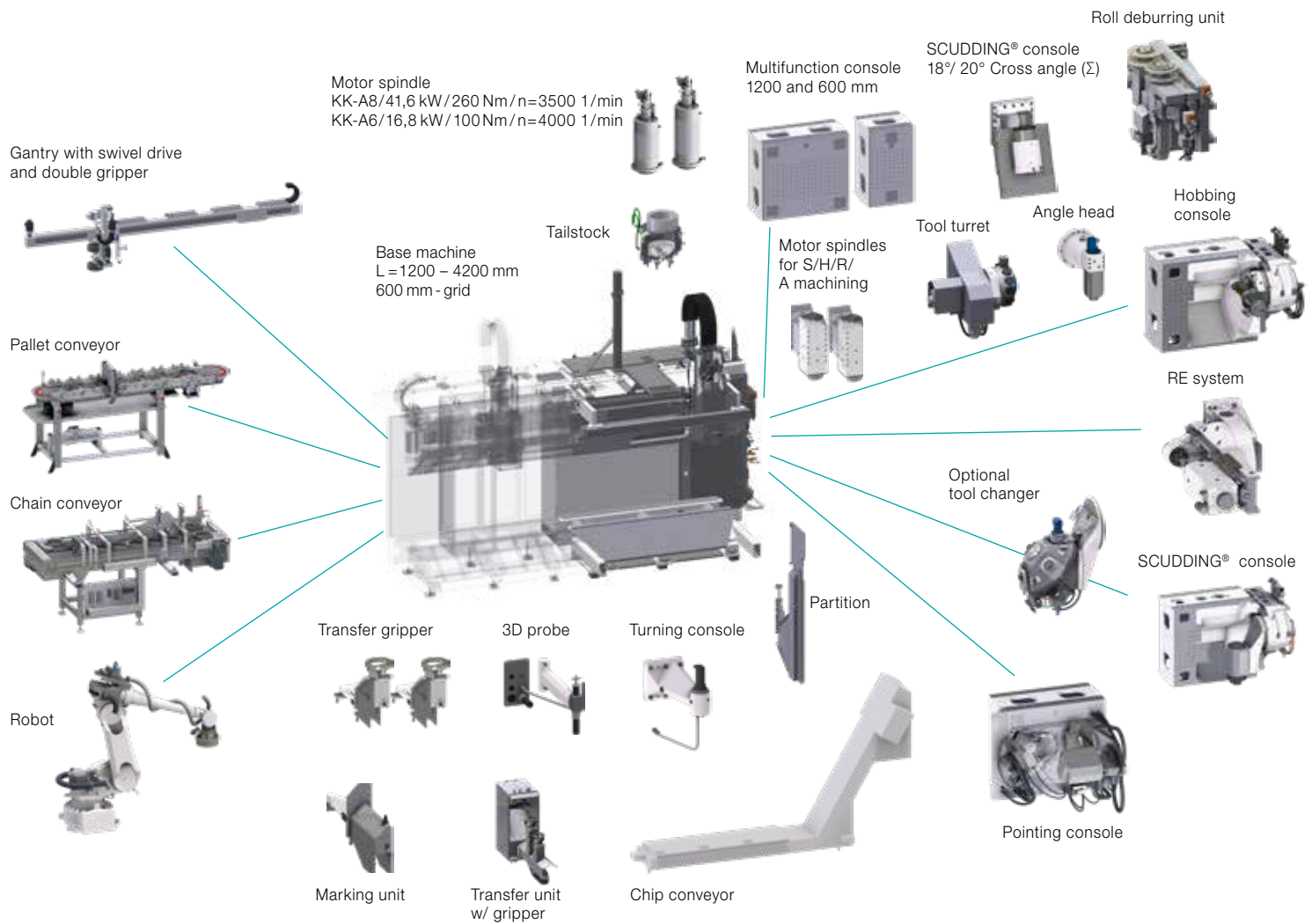


Features

- Modular machine platform in a compact design for gear production
- Maximum flexibility due to the modular design, configurable for a wide variety of machining processes (e.g. SCUDDING®, hobbing, pointing, cycloidal milling, chamfering and deburring)
- State-of-the-art linear drives in the X and Y-Axis with torque-drive in the A-axis:
 - High machine dynamics for short cycle times
 - Highest levels of accuracy and low maintenance costs due to backlash-free and wear-free linear drives
- High machine rigidity for HARD SCUDDING® application
- Optional tool changer for maximum machining flexibility
- User friendly interface for easy setup and programming
- Industry 4.0 capable, expandable with additional sensors for machine monitoring
- Multiple automation concepts available
- Easy setup and access due to open walk-in work area

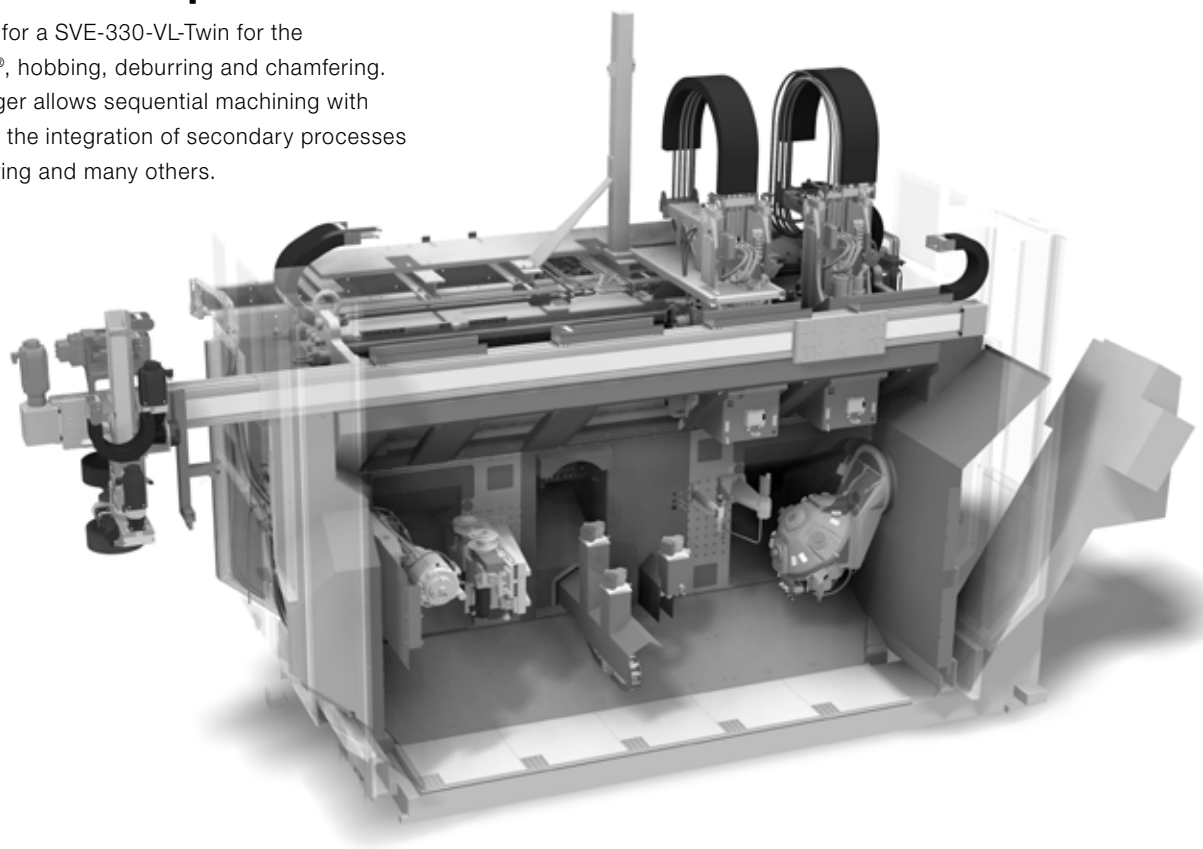


Modular Components for Single- and Double Spindle Machines

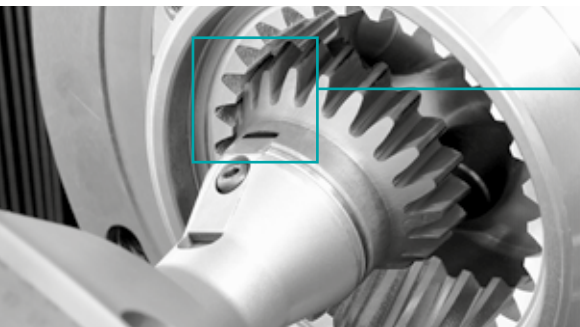


Configuration Example

Configuration example for a SVE-330-VL-Twin for the machining SCUDDING®, hobbing, deburring and chamfering. The optional tool changer allows sequential machining with SCUDDING® as well as the integration of secondary processes such as rotary chamfering and many others.



Available Machine Technologies

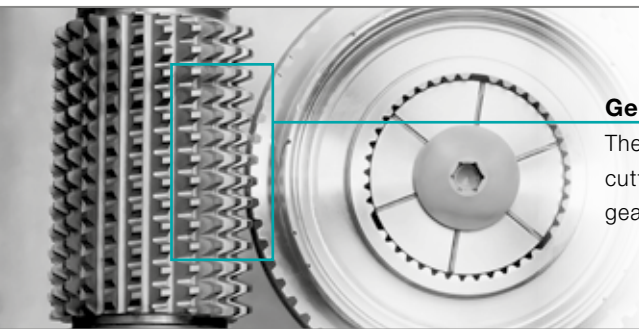
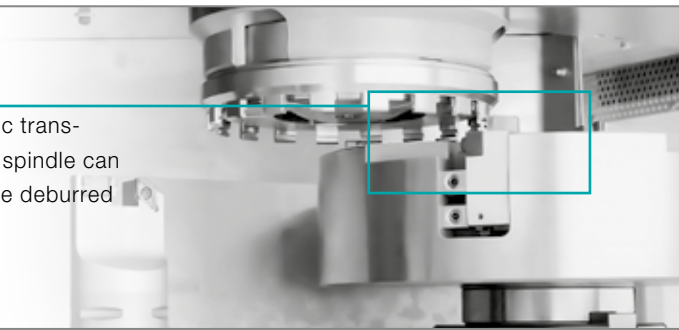


SCUDDING® Quality meets Speed

SCUDDING® is a continuous gear cutting process. Many different tooth variations can be produced with SCUDDING®. Involute profiles for gears (rings - pinions) along with non-involute and non-symmetrical profiles can be produced for pulleys and block wheels. The Profilator machine concept allows the production of both internal and external gears using SCUDDING® all on one machine.

Polygon and Castle Teeth

The polygon milling unit is used to machine face slot/castle teeth in automatic transmission parts. The revolving cutter head is synchronized with the workpiece spindle can create many possible tooth geometries (e.g. a front clutch), which can also be deburred with additional tools in the same processing step.

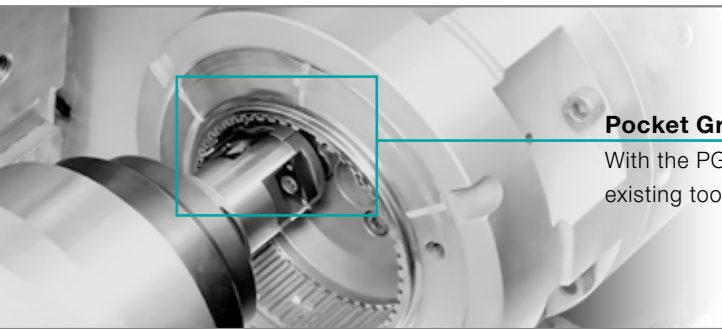
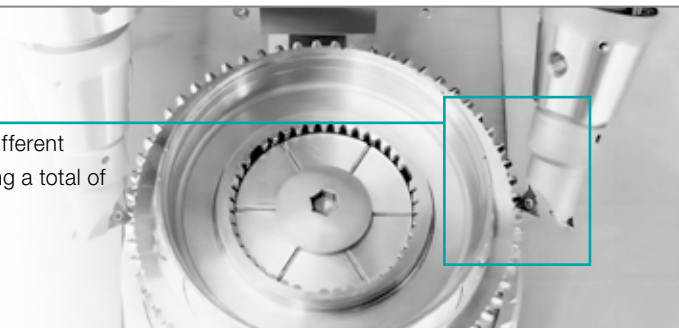


Gear & Spline Cutting

The modular system can accommodate fly cutter or hob process. When using a fly cutter tool, machining is carried out with indexable inserts, which produce spline gears, short gears and front gears very economically.

Pointing

The pointing unit can be operated via a rotary or indexed process. To produce different pointing angles, both pointing units can be adjusted during the cutting cycle using a total of 10 NC axes.



Pocket Groove Milling

With the PGM, freely programmable contours can be introduced on both sides into existing tooth flanks by means of synchronous machining.

Chamfering

For the chamfering of gears, Profilator offers a chamfering unit for cutting processing in one clamping with the SCUDDING®, which allows a fast and very precise chamfering process to be integrated into the machine with little space requirement.

