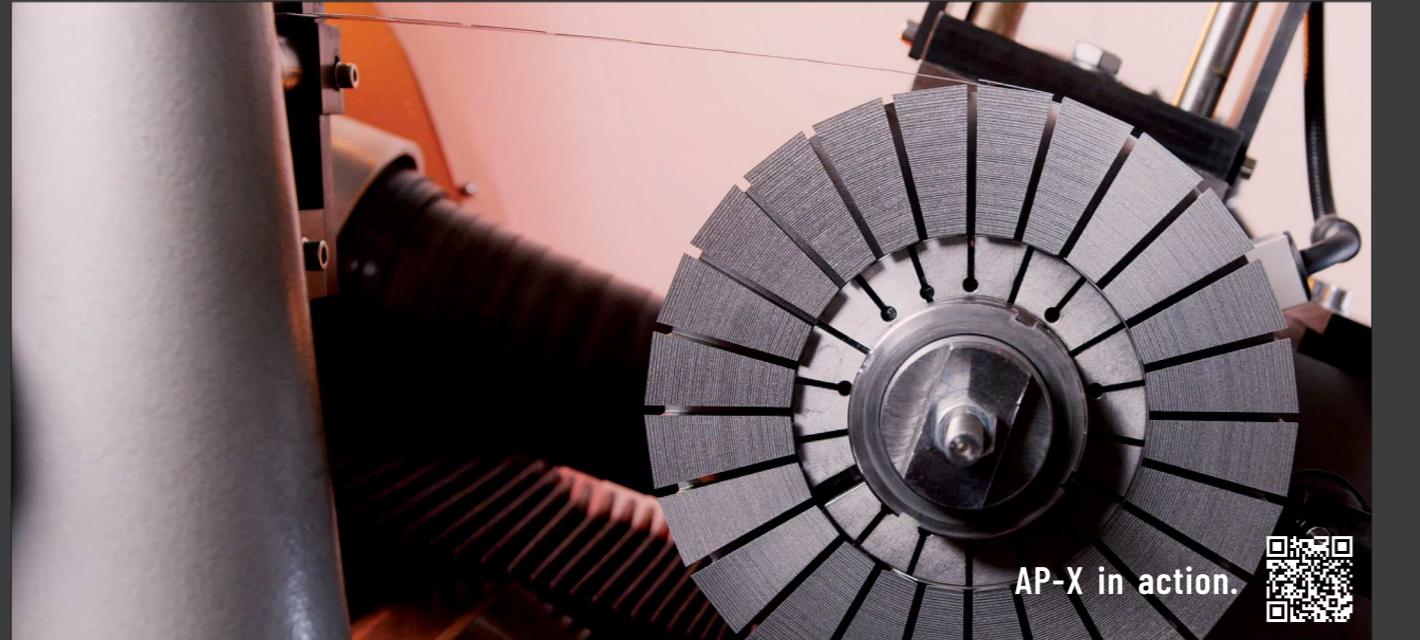


Unleash your potential by producing axial stators to your own specifications with precision.



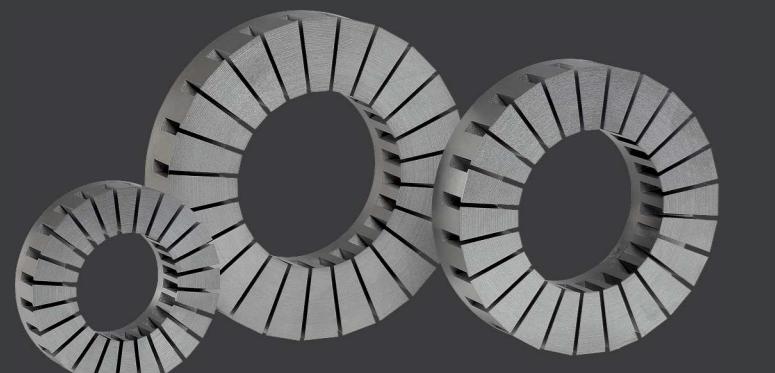
Stay flexible.

Vogel & Plötscher offers the opportunity to test customer-specific axial flux stators by providing support through the prototype, pre-series, and mid-series stages.

Therefore, it is possible to produce and test specific stators before the investment of an AP machine.

In the prototyping phase, often a theoretical solution seems to be the ideal one for the own motor. However, one must deal with different problems in the reality: unforeseen events, design changes, limited budget, or quantities, which are not enough to cover the investment. These situations are very difficult.

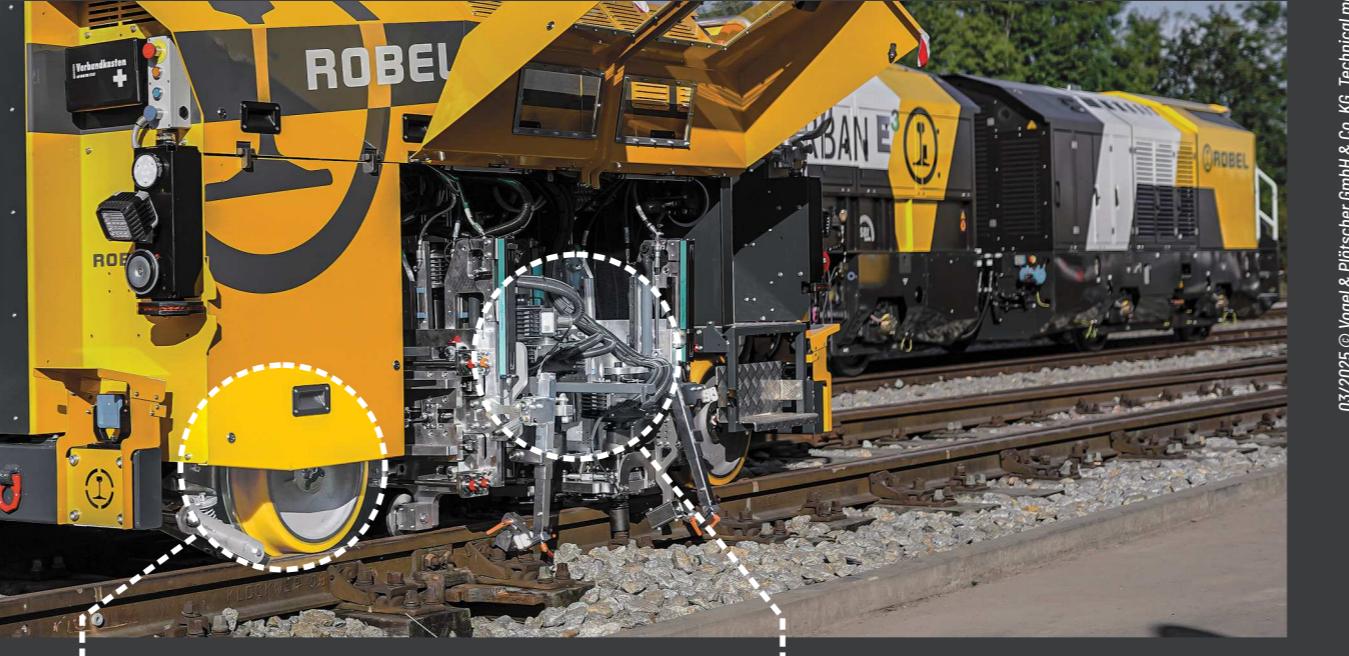
V&P's solution: Support in the prototype, small- and medium-series phase by producing stator cores according to customer's specifications to remove doubts and to remain flexible.



For more information or to get a quote, don't hesitate to contact
info@vopoe.de

Examples of various stator types crafted with AP-X.

Multiple drive integration possibilities, even in complex systems.



Accurate and repeatable wrench drive

Benefits of axial flux technology:

powerful - efficient - compact - low mass of inertia - durable - flexible

Can be used in many fields of application.



AGRICULTURE/
MUNICIPAL



CONSTRUCTION
MACHINERY



LOGISTIC



FIREFIGHTING



AUTOMOTIVE



AVIONICS



FAN



AND YOURS

- Up to 8 punches / second
- High precision
- High repeatability
- Patented technology

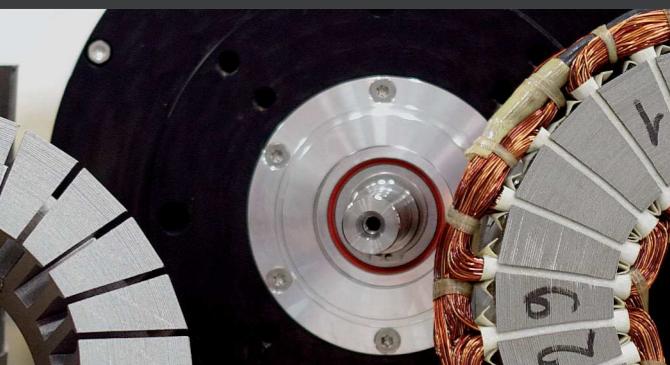


Vogel & Plötscher

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AP-X

Punching and winding machine



vogelundplotzscher.de

ROBEL
GROUP

ROBEL

**ROBEL RAIL
AUTOMATION**

**Vogel & Plötscher
antreiben.**

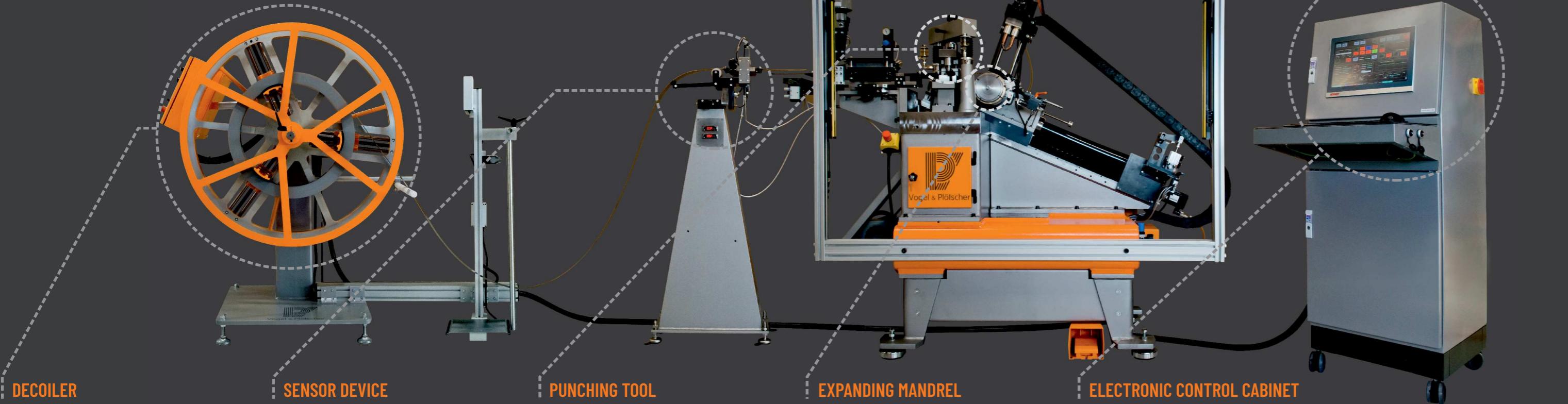
**Plässer & ROBEL
SERVICES**

AP-X working principle

The AP-X is a semi-automatic punching and winding machine to produce stator cores and rotors for electronic motors in axial flux design.

The machine offers high process reliability and easy operation at the same time. The specially developed software offers the greatest possible clarity and ease of use.

The tools made especially for your purposes are robust and highly precise.



DECOILER

Robust decoiler for loading the band material for the specific stator core. Optionally available as double decoiler.

SENSOR DEVICE

Band material monitoring for high process reliability.

PUNCHING TOOL

Individually adapted, high-precision punching tools for different slot designs.

EXPANDING MANDREL

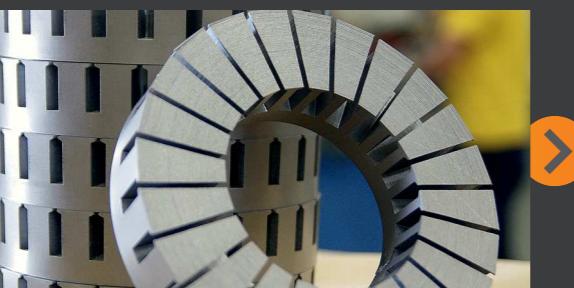
Specially designed coiler for precise and round finished products and their easy removal.

ELECTRONIC CONTROL CABINET

Specially developed software for easy and process-safe operation. All important functions at a glance.



Band material



Stator



Winding



Motor



Gear unit

AP-X

The AP-X machines are available in various designs and with different options. There are three different sizes of the machine which ensure an optimized production of your requirements.

	AP-2	AP-4	AP-5
I.D.	35 mm	50 mm	136 mm
O.D.	100 mm	150 mm	567 mm



Punching and winding process



Simple operation



Welding process

Your service

Vogel & Plötscher supports you in your project from the very beginning. We can help selecting the right machine type and options, produce the first prototypes for you or help finding a partner who will punch for your lower quantities.

Technical data

Band thickness:	0,15 – 0,8 mm
Band width:	up to 70 mm
Punching speed:	up to 8 punches/second*
Number of slots:	8 – 84
Misalignment:	± 0,01° / 0,25°
Stator flatness:	0,02-0,1 mm
ODID:	± 1,6 mm
Dimensions (l x w x h):	~ 6,0 x 1,6 x 2,1 m
Weight:	~ 2300 kg

*According to stator design.

Details for machines with other technical data on request.

