



ELECTRICAL DRILLING UNIT

CUTTING-EDGE DRILLING SOLUTIONS



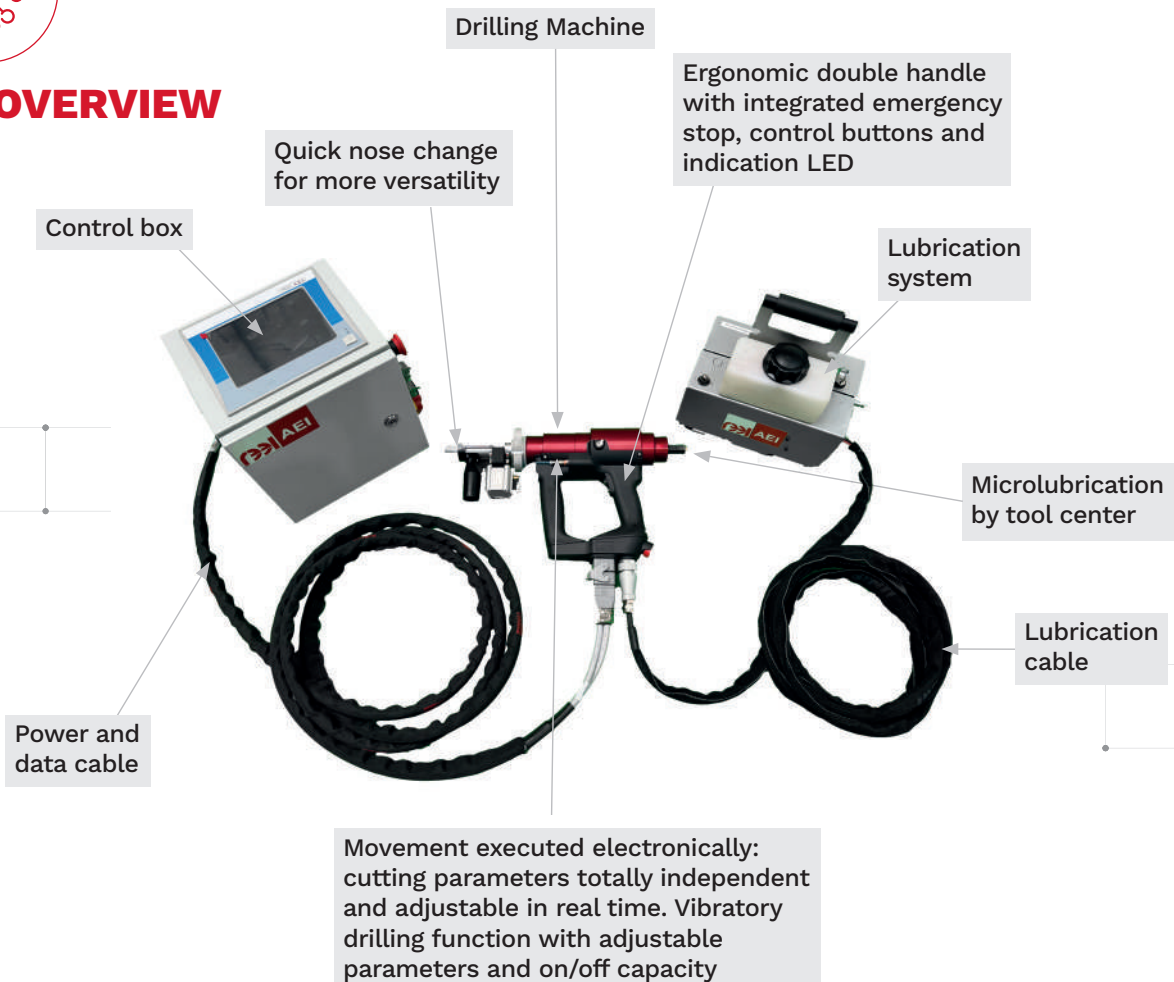
01. CONCEPT

REEL AEI designs and manufactures Electronic Drilling Units (EDU) for portable and light robot applications. These two-axis drilling machines are capable of drilling holes of diameter up to 24mm in a one-shot operation, with advanced functions such as: fully adjustable cutting parameters, electronic vibration drilling, first layer detection, automatic layer detection, countersink depth corrector...

The REEL AEI EDU, a patented technology, is the result of more than 10 years of co-development between REEL AEI, Arts & Métiers and Cetim. Lead by a disruptive 100% electrical driving technology, REEL AEI EDU machines are characterized by their direct drive architecture: energy from the motors is directly transmitted to the axis without using any gearbox.



02. OVERVIEW

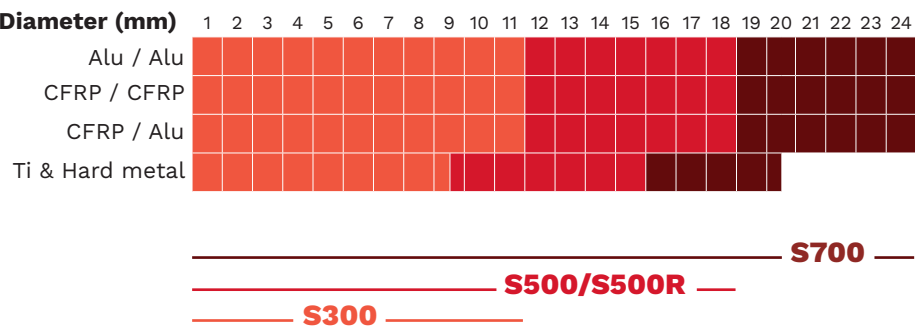




03. EDU RANGE

The REEL AEI EDU range is composed of 4 different models: S300, S500, S500R and S700. Each model being optimized for a certain diameter range.

MACHINE CAPACITY



S300



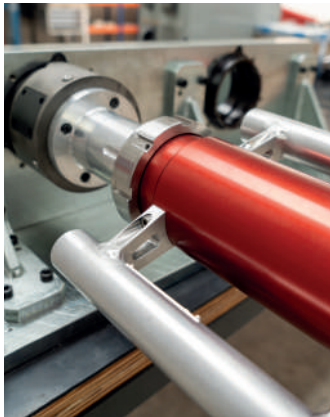
S500



S500R



S700



ENGINEERED FOR WORKERS

portative, easy to handle with intuitively designed control buttons.

100% ELECTRICAL DRIVING

100% configurable from the control box, including vibratory drilling parameters.

VERSATILITY

Quick-and-easy configuration of the machine, changing only the nose and selecting the program from the control box.

ACCURACY

Up to 20 µm for the 1st layer detection, ±10 µm for countersink depth.

SUITED FOR ROBOT USE

Easily integrable on robotic machinery, UDP communication protocol for exchange of information, automatic tool changing function.

DIGITALIZATION & READINESS FOR FACTORY 4.0

Process optimization, recording of cutting data up to 30 ms frequency, cutting tool wear management, UDP communication protocol from/to an external system, automatic layer detection.

ENVIRONMENT-FRIENDLY

Near maintenance-free and lubricant consumption reduction.

S300

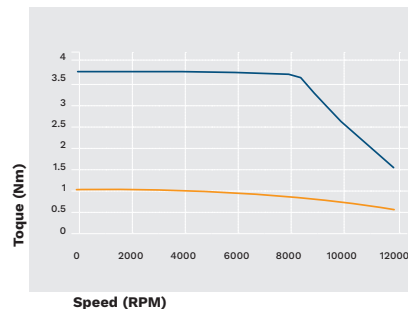


MACHINE CAPACITY

Rotation speed	0 - 10.000 RPM
Stroke	70 mm
Weight	4,5 kg
Power supply	230 V
Aluminium/CFRP	Ø 11 mm
Titanium	Ø 8,5 mm
Max Feed	0.2 mm/round
Continuous stall torque	1.18 Nm
Peak stall torque	3.69 Nm
Continuous stall force	1 357 N
Peak stall force	3 292 N

TORQUE CURVE

- Tpk at 25C
- Tcont at Chosen Ambient
- Rated Power



RANGE OF NOSES

The REEL AEI EDU are available with all the standard clamping systems used by the industry. The nose type depends on the EDU's models.



1/4 turn Concentric Collet

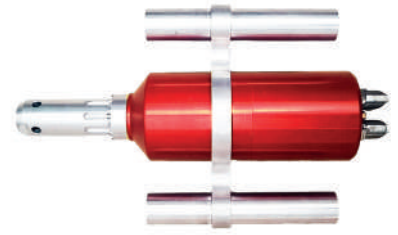
COMPATIBLE ACCESSORIES

The REEL AEI EDU's accessories are compatible with all our machines, allowing one accessory to be used for several machines and configurations.



Support trolley Lubrication system Handling connection
Barcode QR-code reader Box & connection cable

S500



0 - 6.500 RPM

70 mm

6 kg

400 V

Ø 18 mm

Ø 15 mm

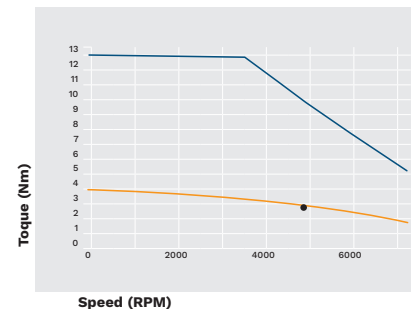
0.2 mm/round

3.57 Nm

12.70 Nm

1 307 N

3 167 N



1/4 turn Concentric Collet DASA



Support trolley Lubrication system Handling connection
Barcode QR-code reader Box & connection cable

S500R



0 - 6.500 RPM

40 mm

6 kg

400 V

Ø 18 mm

Ø 15 mm

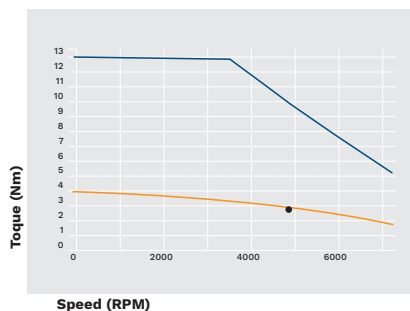
0.2 mm/round

3.57 Nm

12.70 Nm

1 307 N

3 167 N



1/4 turn



Concentric Collet



DASA



Support trolley



Lubrication system



Handling connection



Barcode QR-code reader

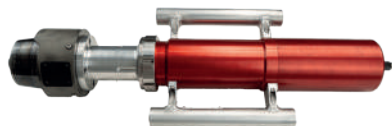


Box & connection cable



Tool changer

S700



0 - 5.000 RPM

120 mm

9 kg

400 V

Ø 24 mm

Ø 19,5 mm

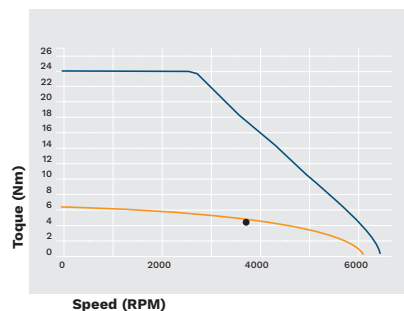
0.2 mm/round

6.13 Nm

23.73 Nm

3 927 N

10 776 N



Concentric Collet



DASA



Support trolley



Lubrication system



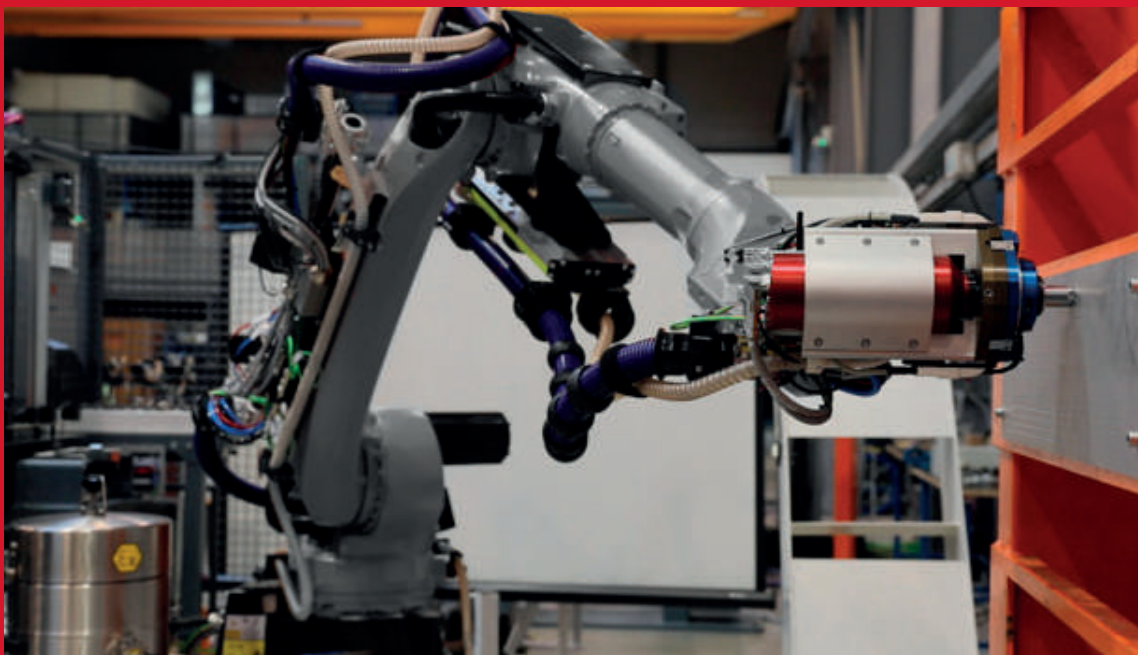
Handling connection



Barcode QR-code reader



Box & connection cable



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