

DLYTE PRO500^{Carbide CT}

DLyte PRO500 Carbide CT is the **most advanced, powerful and versatile machine** for surface finishing of cutting tools, punches, and other cemented carbide components. It provides a fully automated, **high-precision surface treatment** for tools such as drills, endmills, and cutting inserts, meeting specific finishing requirements. This innovative system **enhances tool performance**, extends lifespan, preserves geometry and mechanical integrity.

The dry electropolishing method, developed by the Spanish tech company GPAINNOVA, is an **innovative and patented technology**. DryLyte does not remove material from the work pieces through mechanical abrasion but through an **ion exchange** between the metal components and an electrolyte embedded in polymer granulate.

*** The Rösler Group is the exclusive global sales partner for DLyte Carbide systems.**



All advantages at a glance

- ▶ **Finishing processes:** Cutting edge preparation, polishing, smoothing, coating droplet removal and decoating.
- ▶ **Advanced mechanical system:** The DLyte PRO500 Carbide CT features a robust combination of movements – including main axial rotation, secondary planetary rotation, and vertical movement – along with core and base vibrations.
- ▶ **Innovative and powerful electronics system:** Ensures exceptional repeatability, improved surface finishes, and shorter processing cycle times, maintaining power reliability for consistent results.
- ▶ **Efficient user experience:** Featuring a quick plug-and-release holder coupling system, the DLyte PRO500 minimizes loading and unloading times while maximizing ease of use.

Machine specifications / Technical data

Dimensions

Machine dimensions 1,300 x 2,770 x 1,380 mm

Capacity

Electrolyte capacity 250 l

Holder + piece area

Ø 500 x 540 mm (x1) Spindle
 Ø 360 x 540 mm (x2) Spindle
 Ø 310 x 540 mm (x4) Spindle
 Ø 200 x 540 mm (x8) Spindle

Work piece area

Up to Ø 500 x 250 mm (x1) Spindle
 Up to Ø 360 x 250 mm (x2) Spindle
 Up to Ø 310 x 250 mm (x4) Spindle
 Up to Ø 200 x 200 mm (x8) Spindle

Weight

50 kg (work piece(s) + holder) (x1)
 20 kg (work piece(s) + holder) (x2) (x4) (x8)

Machine weight	
DLyte PRO500 weight	1600 kg
Tank with electrolyte	400 kg
Electrical ⁽¹⁾	
Rated power	from 11,5 kW to 25 kW ⁽²⁾
Short-circuit breaking capacity (ics)	6 kA
Rated voltage	400 Vac ± 10 % (3P+N+GND)
Frequency	50 - 60 Hz
Rated current	35 A
Full load current	40 A
Grounding connection	TN system
Earth leakage current	>10 mA ⁽³⁾
Air	
Air supply (main line)	6 - 7 bar (air connector Ø 10 mm)
Air flow (two lines)	1,900 l/min ⁽⁴⁾
Air inlet pipe	Ø 20 mm
Air quality (ISO 8573-1:2010)	6. 4. 4 (ISO 8573-1:2010)
Distilled water	
Water supply	Connection (Ø 10 mm)
Water tank	16 l
Temperature	
Operating	5 °C to 35 °C
DLyte PRO500 storage	-10 °C to +70 °C
Electrolyte storage	5 °C to 40 °C (max. 24 months)
Protection index	
Machine	IP20
Electric cabinets and peripherals	IP22
Noise	
Holder vibrators OFF (EN ISO 11202)	<70 dB
Holder vibrators ON (EN ISO 11202)	74 dB (1 m); <70 dB (7m)

⁽¹⁾ The machine shall be connected to a power line with: A) Differential switch: 4P - 40A, 300mA – Type B. B) Circuit breaker switch:

4P - 40A, C curve. C) The female connector shall meet the IEC 60309 series.

⁽²⁾ Detailed power consumption in table 2. ⁽³⁾ Note leakage current: 20 mA. ⁽⁴⁾ Detailed air consumption in the last table.

Detailed power consumption The power consumption depends on the total surface to be polished in one cycle.

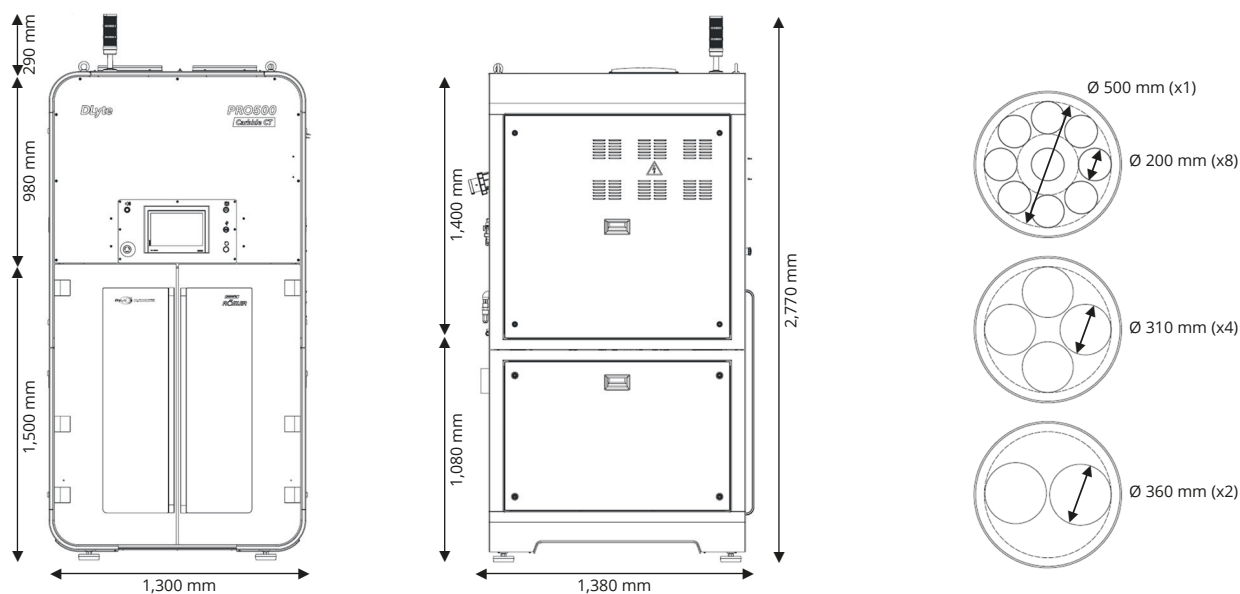
Load	Current consumption (A) 1 holder	Current consumption (A) 2 holders	Current consumption (A) 4 holders	Current consumption (A) 8 holders	Voltage (V)	Power (W) (1&8 holders/ 4 holders/ 2 holders)	Other modules consumption (W)	Machine power consumption (W)
Low	10	20	40	80	30	2400/ 1200/ 600	7000	9400
Medium	25	50	100	200	30	6000/ 3000/ 1500	7000	13000
High	45	90	180	360	30	10800/ 5400/ 2700	7000	17800
Max	45	90	180	360	50	18000/ 9000/ 4500	7000	25000

Detailed air consumption

Air shall never be required for both the polishing process and the cleaning process at the same time.

			Air consumption (l/min)							
The air consumption required for each line is (the duty cycle is specified in percentage):			Insert the core into the tank (8s)	Polishing process			Remove the core into the tank (8s)	Cleaning process		
Line	Function	Specification	Standard	Min	Most common	Max		Min	Med.	Max
Main Line	Load/Unload	400	400 (100 %)	-	-	-	400 (100 %)	-	-	-
	Swing movement		-	0	0	400 (100 %)	-	-	-	-
	Holder gripping	-	-	-	-	-	-	-	-	-
	Cleaning system	1000	-	-	-	-	-	0	600	1000
Holder line	Holder vibration	400	-	0	0	from 100 to 500 (100 %)	-	-	-	-
	Tank refrigeration	900	-	0	900 (20 %)	900 (100 %)	-	-	-	-
	Holder blowers	200	-	-	0	from 50 to 1000 (100 %)	-	-	-	-
Total			400	0	900	from 1450 to 2800	400	0	600	1000

Technical draw



More information about
 precise surface finishing of
 metal components with the
 DryLyte technology:



* This product is protected by one or more of the following patents and patent applications: Patents <https://www.gpainnova.com/patents>