DLytePRO500_V.1ENG_07/2022

DLyte PRO500

PRECISE METAL SURFACE FINISHING FOR MASS PRODUCTION

DLytePRO500 is the most advanced, powerful and versatile metal surface finishing equipment on the market specially designed for mass production. Its one-step automatic process reduces the complexity of current multi-step finishing processes, while improving cost efficiency and repeatability. This machine does not require a closed-up system to recycle water and sludge waste treatment machinery, therefore decreseasing space, labor, and environmental licenses for waste management.

FINISHING PROCESSES

+ **Precision finishing**
+ **Smoothing**
+ **Mirror finishing**
+ **Deburring**
+ **Rounding**
+ **Corrosion resistance**
+ **AM post-processing**

Workbowl and cathode set are not included.

01. MACHINE SPECIFICATIONS

TECHNICAL DATA	DIMENSION	Machine dimensions	*1,300 x 2,770 x 1,380 mm*
	CAPACITY	Electrolyte capacity	*250 l*
		Holder + piece area	*Ø500 x 540 mm (x1)*
			Ø200 x 540 mm (x8)
		Work piece area	*Up to Ø500 x 250 mm (x1)*
			Up to Ø200 x 200 mm (x8)
		Weight	*50 kg (work piece(s) + holder) (x1)*
			20 kg (work piece(s) + holder) (x8)
	MACHINE WEIGHT	DLyte PRO500 weight	*1600 kg*
		Tank with electrolyte	*400 kg*
	ELECTRICAL [1]	Rated power	*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 Ø10 mm)*
		Air flow (Main line)	*1,000 l/min [4]*
		Air supply (Holder line)	*6 - 7 bar (air connector Ø12 mm)*
		Air flow (Holder line)	*1,500 l/min [4]*
		Air quality (ISO 8573-1:2010)	*- . 4 . - (dewpoint ≤ +3°C)*
	DISTILLED WATER	Water supply	*Connection (Ø10 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.

02. DETAILED POWER CONSUMPTION

LOAD	CURRENT CONSUMPTION (A) 1 HOLDER	CURRENT CONSUMPTION (A) 8 HOLDERS	VOLTAGE (V)	POWER (W)	OTHER MODULES CONSUMPTION (W)	MACHINE POWER CONSUMPTION (W)
Low	*10*	*80*	*30*	*2400*	*7000*	*9400*
Medium	*25*	*200*	*30*	*6000*	*7000*	*13000*
High	*45*	*360*	*30*	*10800*	*7000*	*17800*
Max	*45*	*360*	*50*	*18000*	*7000*	*25000*

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

03. DETAILED AIR CONSUMPTION

The air consumption required for each line is (the duty cycle is specified in percentage):

			AIR CONSUMPTION (L/MIN)							
			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	*Up/Down movement*	*600*	*500 (100%)*	*0*	*0*	*500 (50%)*	*500 (100%)*	-	-	-
	Holder gripping	*600*	-	-	-		-	-	-	-
	Electrolyte blowers	*600*	-	*0*	*100 (20%)*	*100 (20%)*	-	-	-	-
	Cleaning system	*1000*							*600*	*1000*
Main Line	*Holder vibration*	*500*	-	-		*500 (100%)*		-	-	-
	Holder blowers	*1000*	-	-		*1000 (100%)*		-	-	-
TOTAL			*500*	*0*	*100*	*2100*	*500*	*0*	*600*	*1000*

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

04. TECHNICAL DRAW