

**IESMAK**

DATE : 26.08.2023

PROFORMA NO : P20232608/01

**PROFORMA INVOICE**

COMPANY	: Niroo Transfo Mfg Co.
ADDRESS	: 7th Floor, No. 35 East Sarv Street, Saadat abad Blvd, Kaj Square, Tehran, Iran
Proforma Valid:	: 30 DAYS

NO	DESCRIPTION	QTY	UNIT	UNIT PRICE	İSK. %	TOTAL
1	Power & Free conveyor line 215m PFU with loading/unloading aparat	1,00	PCS	\$ 565.000,00	20,00	\$ 452.000,00
2	Liquid Paint booth with heating and positive pressure	2,00	PCS	\$ 72.000,00	20,00	\$ 115.200,00
3	Tunnel type oven 11.200 x 5.000 x 3.000 mm 120 °	1,00	PCS	\$ 98.000,00	20,00	\$ 78.400,00
4	Tunnel type oven 21.200 x 5.000 x 3.000 mm 220 °	1,00	PCS	\$ 132.300,00	20,00	\$ 105.840,00
5	Tunnel type oven 25.200 x 5.000 x 3.000 mm 220 °	1,00	PCS	\$ 180.600,00	20,00	\$ 144.480,00
6	Pre-Treatment line with 6 bath	1,00	PCS	\$ 262.300,00	20,00	\$ 209.840,00
7	Flash-off tunnel	2,00	PCS	\$ 9.500,00	20,00	\$ 15.200,00
8	System control unit PLC with display and remote control	1,00	PCS	\$ 18.100,00	20,00	\$ 14.480,00
9	Wagner Manuel powder coating gun	2,00	PCS	\$ 5.100,00	20,00	\$ 8.160,00
10	Wagner Automatic powder coating gun	6,00	PCS	\$ 5.000,00	20,00	\$ 24.000,00
11	Powder coating cabin compact cyclone 15.000 m³	1,00	PCS	\$ 18.600,00	20,00	\$ 14.880,00
12	Robot Reciprocator for powder coating	2,00	PCS	\$ 4.800,00	20,00	\$ 7.680,00

MADE IN ORIGINAL TURKEY

TOTAL EXW \$ 1.190.160,00

IT WAS MANUFACTURED IN 2023 AND IS NEW AND UNUSED. OUR PRODUCTS ARE MANUFACTURED IN CE STANDARDS

PAYMENT : %50 WITH ORDER, %50 BEFORE SHIPPING

PRICES : TL V.A.T. IS NOT INCLUDED

BRAND : IESMAK

COMPANY NAME : İESMAK DIŞ TİCARET ANONİM ŞİRKETİ

BANK : HALK BANKASI

ACCOUNT (USD) : 53000638

BRANCH : 9647 SULTANBEYLİ BRANCH, İSTANBUL / TÜRKİYE

IBAN NO : TR 4600 0120 0964 7000 5300 0638

SWIFT : TRHBTR2A

Construction Time	160 Business days
Shipping Time	2 week
Delivery Time	3 week
Installation Time	45 business days
NET WEIGHT	70 TON +-20
GROSS WEIGHT	80 TON +-20

Scheduling, manufacturing and installation will be handled by Seller company. Shipping of the system will be handled by buyer company. Seller company will provide an after Sales service (onside and offside), spare parts, installation, commissioning, personel training and guaranteeing the quality of products and installed production line supports.

IESMAK DIŞ TİCARET ANONİM ŞİRKETİ

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TAX Office &amp; NO : TUZLA/3701344089

## DIŐ TİCARET ANONİM ŐİRKETİ

## 2.. IRON PHOSPHATE SPRAY SYSTEM SURFACE TREATMENT CLEANING LINE

## 2.1 TECHNICAL DAT

TUNNEL WIDTH : 3.900 mm  
TANK WIDTH : 3.900 mm  
TOTAL WIDTH : 3.900 mm  
TUNNEL HEIGHT : 3.850 mm  
TANK HEIGHT : 1.800 mm  
TOTAL HEIGHT : 6.700 mm  
TOTAL LENGTH : 33.800 mm

STEAM SUCTION FAN : 2,500 m<sup>3</sup>/h  
NOZZLE PRESSURE : 1.0-1.5 bar  
NOZZLE FLOW RATE : 15 Lt/min  
NOZZLE ANGLE : 60°  
BUILDING MATERIAL : AISI 304 2mm stainless sheet



## 2.2.1. TUNNEL ENTRANCE HALL

EXHAUST ASPIRATOR : 7.000 m<sup>3</sup>/h  
BUILDING MATERIAL : AISI 304 2mm stainless sheet



## 2.2.2. PRE- DEGREASING+IRON PHOSPHATE

PROCESS TIME : **3 MINUTES**  
PART LENGTH : 4.000 mm  
NUMBER OF RINGS : 9 PCS X 2 (1 ¼ 304 chrome)  
RING AXIS RANGE : 350 mm  
NOZZLE AXIS RANGE : 350 mm  
NUMBER OF NOZZLES IN RING : 15 PCS  
TOTAL NUMBER OF NOZZLES : 270 PCS  
NOZZLE FLOW RATE : 15 Lt/min  
NOZZLE TYPE : BODY PLASTIC-SPRINKLER MINE  
SPRAY PUMP : 240 m<sup>3</sup>/h — 1500 d/min SUCKING PUMP OR STANDARD PUMP  
TYPE OF SEAL : MECHANICAL SEAL

**DIŞ TİCARET ANONİM ŞİRKETİ**

TANK MATERIAL	: AISI 304 QUALITY 2 mm CHROME NICKEL
PROCESSING OPERATION TEMPERATURE:	50 —60°C
TYPE OF HEATING	: 120.000 kcal/h "ECOFLAM" GAS BURNER WITH THERMOBLOCK SYSTEM
HEATING UNIT STRUCTURE	: 2.5mm 304 chrome, Ø60x3mm
TUNNEL BUILDING MATERIAL	: AISI 304 QUALITY 2 mm CHROME NICKEL
ENGINES USED IN PLANT:	GAMAK or WAT
TANK ISOLATION:	TANK 5 cm ROCK WOOL,
SHEETING	: AISI 304 STAINLESS SHEET
PUMP PRESSURES	: INDICATORS FROM BAR 1 TO 3 BAR ARE AVAILABLE
VALVES	: Rubber-covered butterfly valve
AUTOMATIC FILLING	: Automatic level controlled by float
CASCADE SYSTEM	: Valve adjusted system for recovery between boilers

**2.2.3 DEGREASING+IRON PHOSPHATE**

PROCESS TIME	: <b>3 MINUTES</b>
PART LENGTH	: 4.000 mm
NUMBER OF RINGS	: 9 PCS X 2 (1 ¼ 304 chrome)
RING AXIS RANGE	: 350 mm
NOZZLE AXIS RANGE	: 350 mm
NUMBER OF NOZZLES IN RING	: 15 PCS
TOTAL NUMBER OF NOZZLES	: 270 PCS
NOZZLE FLOW RATE	: 15 Lt/min
NOZZLE TYPE	: BODY PLASTIC-SPRINKLER MINE
SPRAY PUMP	: 240 m <sup>3</sup> /h — 1500 d/min SUCKING PUMP OR STANDARD PUMP
TYPE OF SEAL	: MECHANICAL SEAL
TANK MATERIAL	: AISI 304 QUALITY 2 mm CHROME NICKEL
PROCESSING OPERATION TEMPERATURE:	50 —60°C
TYPE OF HEATING	: 120.000 kcal/h "ECOFLAM" GAS BURNER WITH THERMOBLOCK SYSTEM
HEATING UNIT STRUCTURE	: 2.5mm 304 chrome, Ø60x3mm

**DIŞ TİCARET ANONİM ŞİRKETİ**

TUNNEL BUILDING MATERIAL	: AISI 304 QUALITY 2 mm CHROME NICKEL
ENGINES USED IN PLANT:	GAMAK or WAT
TANK ISOLATION:	TANK 5 cm ROCK WOOL,
SHEETING	: AISI 304 STAINLESS SHEET
PUMP PRESSURES	: INDICATORS FROM BAR 1 TO 3 BAR ARE AVAILABLE
VALVES	: Rubber-covered butterfly valve
AUTOMATIC FILLING	: Automatic level controlled by float
CASCADE SYSTEM	: Valve adjusted system for recovery between boilers

**2.2.3 RINSING 1**

PROCESS TIME	: <b>1 MINUTES</b>
PART LENGTH	: 4.000 mm
NUMBER OF RINGS	: 9 PCS X 2 (1 ½ 304 chrome)
RING AXIS RANGE	: 350 mm
NOZZLE AXIS RANGE	: 350 mm
NUMBER OF NOZZLES IN RING	: 15 PCS
TOTAL NUMBER OF NOZZLES	: 270 PCS
NOZZLE FLOW RATE	: 15 Lt/min
NOZZLE TYPE	: BODY PLASTIC-SPRINKLER MINE
SPRAY PUMP	: 240 m <sup>3</sup> /h — 1500 d/min STANDARD OR SUCKING PUMP
TYPE OF SEAL	: MECHANICAL SEAL
TANK MATERIAL	: AISI 304 QUALITY 2mm CHROME NICKEL
SHEETING	: AISI 304 STAINLESS SHEET
PUMP PRESSURES	: INDICATORS FROM BAR 1 TO 3 BAR ARE AVAILABLE
VALVES	: 3 Inches Rubber-covered butterfly valve
AUTOMATIC FILLING	: Automatic level controlled by float
CASCADE SYSTEM	: Valve-adjusted system for recovery between boilers

**2.2.4 RINSING 2**

PROCESS TIME	: <b>1 MINUTES</b>
PART LENGTH	: 4.000 mm

**DIŐ TİCARET ANONİM ŐİRKETİ**

NUMBER OF RINGS	: 9 PCS X 2 (1 ¼ 304 chrome)
RING AXIS RANGE	: 350 mm
NOZZLE AXIS RANGE	: 350 mm
NUMBER OF NOZZLES IN RING	: 15 PCS
TOTAL NUMBER OF NOZZLES	: 270 PCS
NOZZLE FLOW RATE	: 15 Lt/min
NOZZLE TYPE	: BODY PLASTIC-SPRINKLER MINE
SPRAY PUMP	: 240 m <sup>3</sup> /h — 1500 d/min STANDARD OR SUCKING PUMP
TYPE OF SEAL	: MECHANICAL SEAL
TANK MATERIAL	: AISI 304 QUALITY 2mm CHROME NICKEL
SHEETING	: AISI 304 STAINLESS SHEET
PUMP PRESSURES	: INDICATORS FROM BAR 1 TO 3 BAR ARE AVAILABLE
VALVES	: 3 Inches Rubber-covered butterfly valve
AUTOMATIC FILLING	: Automatic level controlled by float
CASCADE SYSTEM	: Valve-adjusted system for recovery between boilers

**2.2.4 PHOSPHATING**

PROCESS TIME	: <b>3 MINUTES</b>
PART LENGTH	: 4.000 mm
NUMBER OF RINGS	: 9 PCS X 2 (1 ¼ 304 chrome)
RING AXIS RANGE	: 350 mm
NOZZLE AXIS RANGE	: 350 mm
NUMBER OF NOZZLES IN RING	: 15 PCS
TOTAL NUMBER OF NOZZLES	: 270 PCS
NOZZLE FLOW RATE	: 15 Lt/min
NOZZLE TYPE	: BODY PLASTIC-SPRINKLER MINE
SPRAY PUMP	: 240 m <sup>3</sup> /h — 1500 d/min STANDARD OR SUCKING PUMP
TYPE OF SEAL	: MECHANICAL SEAL
TANK MATERIAL	: AISI 304 QUALITY 2mm CHROME NICKEL
SHEETING	: AISI 304 STAINLESS SHEET
PUMP PRESSURES	: INDICATORS FROM BAR 1 TO 3 BAR ARE AVAILABLE
VALVES	: 3 Inches Rubber-covered butterfly valve

**DIŐ TİCARET ANONİM ŐİRKETİ**

AUTOMATIC FILLING	: Automatic level controlled by float
CASCADE SYSTEM	: Valve-adjusted system for recovery between boilers
<b>2.2.4 RINSING 3</b>	
PROCESS TIME	<b>: 1 MINUTES</b>
PART LENGTH	: 4.000 mm
NUMBER OF RINGS	: 9 PCS X 2 (1 ¼ 304 chrome)
RING AXIS RANGE	: 350 mm
NOZZLE AXIS RANGE	: 350 mm
NUMBER OF NOZZLES IN RING	: 15 PCS
TOTAL NUMBER OF NOZZLES	: 270 PCS
NOZZLE FLOW RATE	: 15 Lt/min
NOZZLE TYPE	: BODY PLASTIC-SPRINKLER MINE
SPRAY PUMP	: 240 m <sup>3</sup> /h — 1500 d/min STANDARD OR SUCKING PUMP
TYPE OF SEAL	: MECHANICAL SEAL
TANK MATERIAL	: AISI 304 QUALITY 2mm CHROME NICKEL
SHEETING	: AISI 304 STAINLESS SHEET
PUMP PRESSURES	: INDICATORS FROM BAR 1 TO 3 BAR ARE AVAILABLE
VALVES	: 3 Inches Rubber-covered butterfly valve
AUTOMATIC FILLING	: Automatic level controlled by float
CASCADE SYSTEM	: Valve-adjusted system for recovery between boilers

## DIŐ TİCARET ANONİM ŐİRKETİ

**9. AUTOMATION CONTROL PANEL WITH PLC CONTROL**

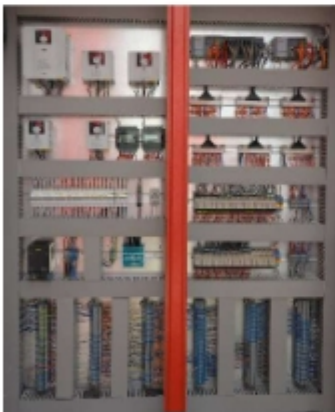
The electrical control panel will be installed in the area suitable for transportation at the powder coating facility and complete installation wiring operations will be operated including signaling installations.

PLC control and electrical materials used in the control panel will be Schneider, Siemens and Ls. There is a sensor in the system that adjusts the automatic vertical strokes and horizontal positions with Z-Vertical and Y-Horizontal axis reading and activates and deactivates the guns. Company officials will authorize the facility control unit and prevent access with the passwords designated by themselves so that speeds and values are not changed.

With the real-time clock system, it offers the possibility of furnaces to be operated at any time before working hours and ready for the facility before the start of work. Apart from the main thermostat of the furnaces, there is also a safety thermostat to protect the combustion chamber and to control the temperature coming out of the chimney.

The automatic lubrication station located on the conveyor line is activated as specified during certain periods of time without leaving the control to the human and lubricates the conveyor automatically. It notifies the problems that may occur in the conveyor line to the system at the moment of jamming or snagging and shows it on the main screen.

In the event of a possible malfunction of all electrical and electronic equipment used on the facility, the contractor firm will provide a solution by the technical service unit from the IESMAK Factory as soon as possible with remote access permission.

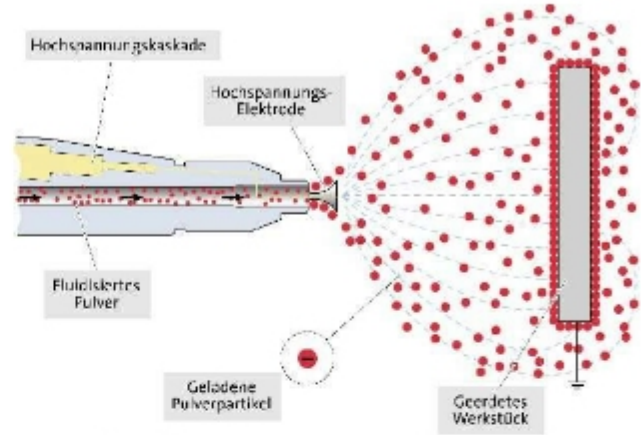


**10. WAGNER ELECTROSTATIC POWDER COATING SYSTEM**

The powder coating gun and electrostatic power unit to be used in the system are systems manufactured with the latest technology. The power units used in electrostatic powder coating loading have the ability to be operated in accordance with both the CORONA system and the TRIBO system. Today, powder coating production suitable for corona system is predominant in Turkey. However, in the coming years, paint production suitable for the TRIBO system will be started and powder coating systems with TRIBO properties will be on the agenda for the disposal of these paints. In this awareness, we, as a company, would like to offer you a power unit that can be adapted to both systems.

Another important point that should be noted is that the protection class of the power units we offer you has IP 64 class. The biggest advantage of having this protection class is that in case of any voltage rise and decrease, the machine protects itself and automatically saves the system from damage.

The gun and power unit used in this new system, which is produced with the latest technology of the Wagner group, also adjusts the distance between the gun and the workpiece in direct proportion and automatically detects the amperage and voltage according to the distance and ensures that the paint adheres to the surface of the part at the maximum level.

**10.1. WAGNER ELECTROSTATIC GUN MODEL PEM X1**

It is the latest technology pistol of the Wagner group.

All high tension operated gun parts are thin and low connected from the end of this pistol.

It is connected to the control module by voltage cable. Therefore, the powder coating cloud can be easily adjusted from the steering wheel with modular technique. The electro-pneumatic control module can easily regulate powder powder transfer, paint dosing and vortex air.



**DIŐ TİCARET ANONİM ŐİRKETİ**

The most important characteristics of these pistols are:

1. The high-voltage cascade is integrated into the gun.
2. The pistol body has the property of high resistance.
3. The nozzle, which can be sprayed uniformly, can be used both manually and automatically.
4. Best powder coating atomizability
5. Optimal loading
6. Ability to wish control with the latest module technique.
7. This is because it has compact dimensions that can be used in all robots.

**10.2.TECHNICAL SPECIFICATIONS**

Dimensions (length x width): 410 x 85 mm.

Weight (without feed line): 535 gr.

Style of construction: Accord.EN 50177

Protection class: IP 54

Air inlet pressure: Max.3 bar.43.5 psi

Air consumption: Max 10 Nm<sup>3</sup>/hour

Powder coating output amount: Max. 450 g/min

Loading: Negative

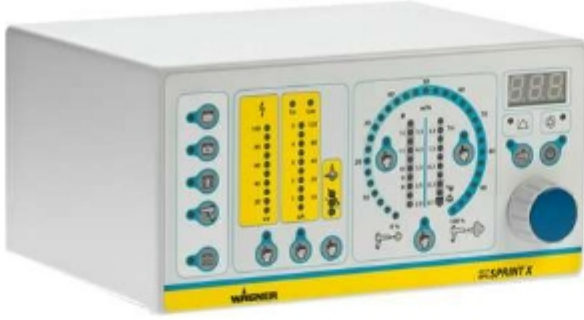
Output voltage: Max.100 kV DC

Output current: Max.200 micro A DC

Input voltage: Max.22 Vpp

Input current: Max.0.9 A

Frequency: 19...30 kHz

**10.3. NEW MODEL EPG PRIMA SPRINT POWER PACK POWER BOX**

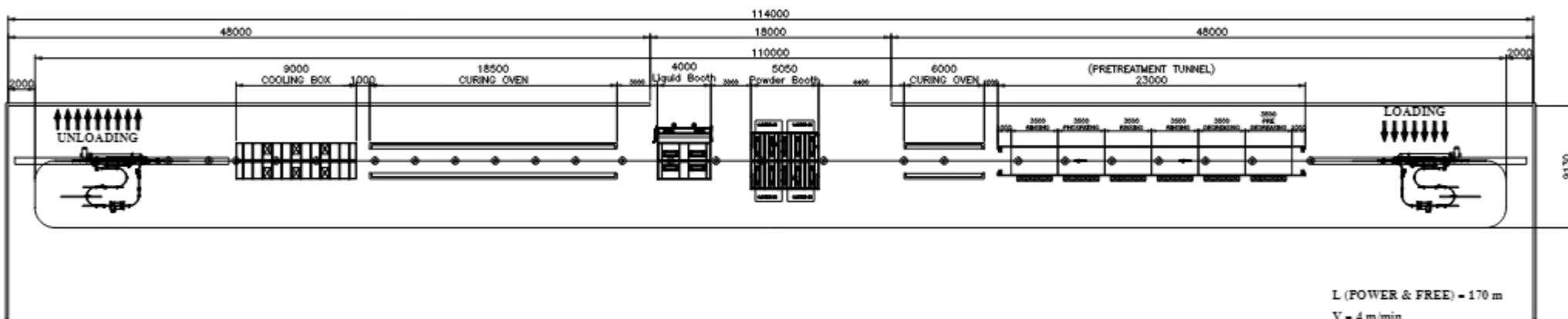
EPG SPRINT electrostatic power unit is a unit that provides air control of the powder coating spray system and steplessly regulated voltage to the gun. This unit is a device used in both manual guns and automatic units called ECOTECH.

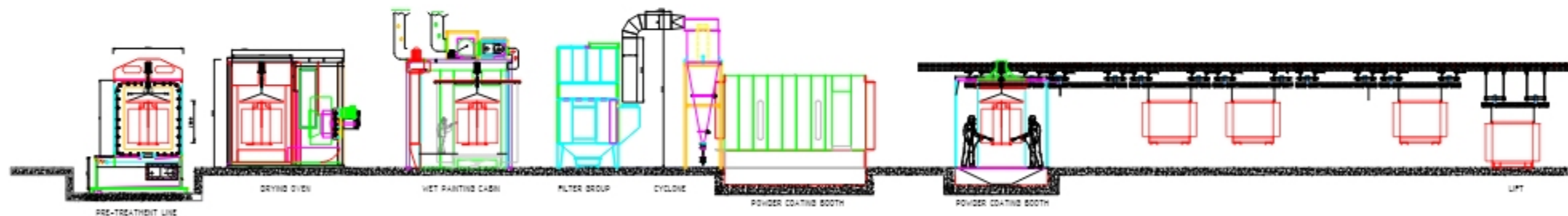
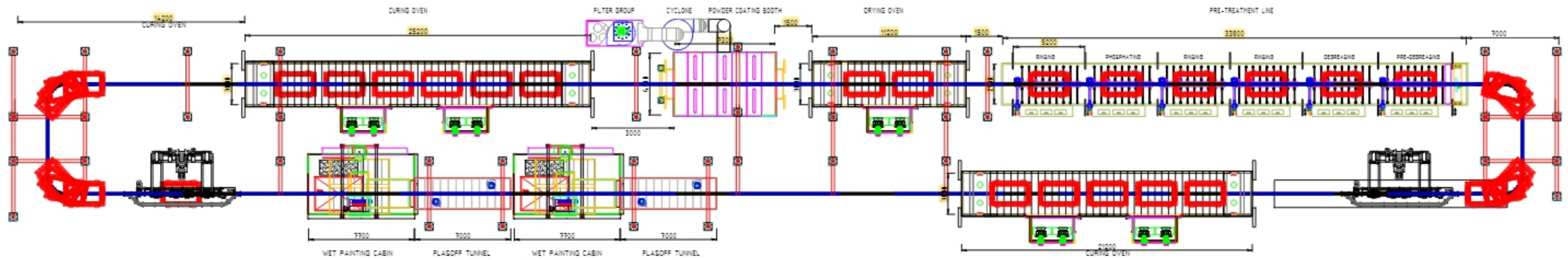
The power unit has the ability to work with both TRIBO and CORONA systems. Whether you are working with a tribo or corona, it is possible to read and adjust all voltage values from the control panel on the front surface of the module. It is also possible to adjust the dosing air and the supply air from here. The protection class is manufactured as IP 64 unlike other systems. Thanks to the memory cards and programmable memory on the digital module used in the system, it has the ability to store the desired parts by adjusting the voltage and amperage and to recall these settings. Painting of flat surfaces, painting of indented protruding parts and painting at the desired level, re-coating the parts that are in question with a second powder coating coating are available in memory on the module, and since these programs are set, it is possible to call them up without the need for re-adjustment and to paint without losing time with this device.

In addition, there are 50 different program memories on the module and it is possible to re-set all air and electrical settings by means of these programs.

The paint and air percentage can be automatically adjusted via loop. The air dosage adjustment and the auxiliary supply air are adjusted through this loop, set to the desired program memory and can be called up digitally according to the program number again via the display together with the voltage-amperage values entered.

In addition, the cascade, which performs electrostatic charging accordingly, can be monitored from the device in 3 stages of the characteristic adjustment.





DATE	24 / 10 / 2022	 <b>IESMAK</b> <small>İSTANBUL ELEKTROSTATİK MAKİNE VE KİMYA SANAYİ VE TİCARET A.Ş.</small>
PROJECT	ENG.KUDRET CELENK	
DRAWING	ENG.KUDRET CELENK	<small>İSTANBUL ELEKTROSTATİK MAKİNE VE KİMYA SANAYİ VE TİCARET A.Ş. YATIRIM VE İNŞAAT BÖLÜMÜ          TELEFON: +90212 261 27 41 FAX: +90212 261 27 41 E-MAIL: info@iesmak.com</small>
CONTROL	ENG.KUDRET CELENK	
PRODUCT	POWDER COATING LINE	<b>NIRO TRANSFORMATOR</b>
PROJECT NO	NR-1	
	2015-0224	1:100
<small>All rights of this drawing belongs to İSTANBUL ELEKTROSTATİK LTD.          Can not be used and copied without permission.</small>		OFFER <input type="checkbox"/> APPLICATION <input checked="" type="checkbox"/>