



MACHINES FOR PRINTED CIRCUIT BOARDS

## COMPANY PRESENTATION

**Maurizio Bonati**



- ❖ ORIGINALLY FOUNDED IN 1968 PRIVATELY OWNED
- ❖ 90 EMPLOYEES WORLDWIDE
- ❖ 3 MANUFACTURING LOCATIONS IN ITALY
- ❖ GLOBAL FOOTPRINT WITH DIRECT SALES AND SERVICE AND STOCK OF SPARE PARTS IN; USA , ASIA AND EUROPE
- ❖ > 3,000 WORKING SYSTEMS INSTALLED WORLDWIDE
- ❖ EXPORT 90% OF TOTAL SALES
- ❖ ISO9001 - VISION CERTIFIED

## COMPANY OVERVIEW



## PLURITEC'S SPECIALIZED DIVISIONS FOR PCB MANUFACTURING



### DRILLING | ROUTING | X-RAY | AUTOMATION

Mechanical drilling and routing | X-ray tooling holes optimizer | X-Ray measuring machines and final quality check | Automation systems for panel handling | PCBA Routing | Metal Credit card manufacturing solutions



### WET PROCESSING | SURFACE PREPARATION | FINISHING | RESIST LINES

Brushing | Jet scrubbing | Micro etching | Developing | Etching | Stripping | Washing | Drying | Automation | Panel handling | Buffers | Metal etching | Glass



### SPRAY COATING | PRE AND FINAL CURE OVENS

Spray coating systems | Oven for pre and final cure | Automation | Loading unloading devices

**PRODUCT'S DEDICATED DIVISION**



VIA CANDOSSINO 6 -  
BUROLO (TO) – ITALY  
3,500 mq / 38,000 sq/f  
Mechanical machines

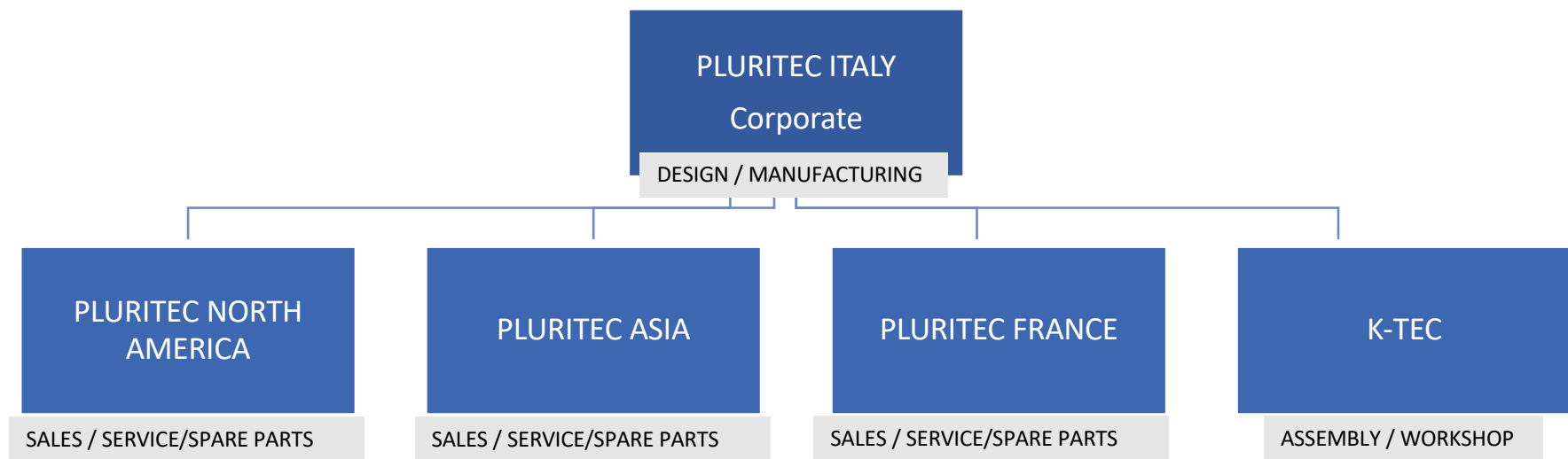


VIA BREDA 38 - BUROLO  
(TO) – ITALY  
2,000 mq / 21,000 sq/f  
Wet / Processing line



VIA MORENA 4 - GOZZANO  
(NO) – ITALY  
2,500 mq / 27,000 sq/f  
Spray / parts workshop

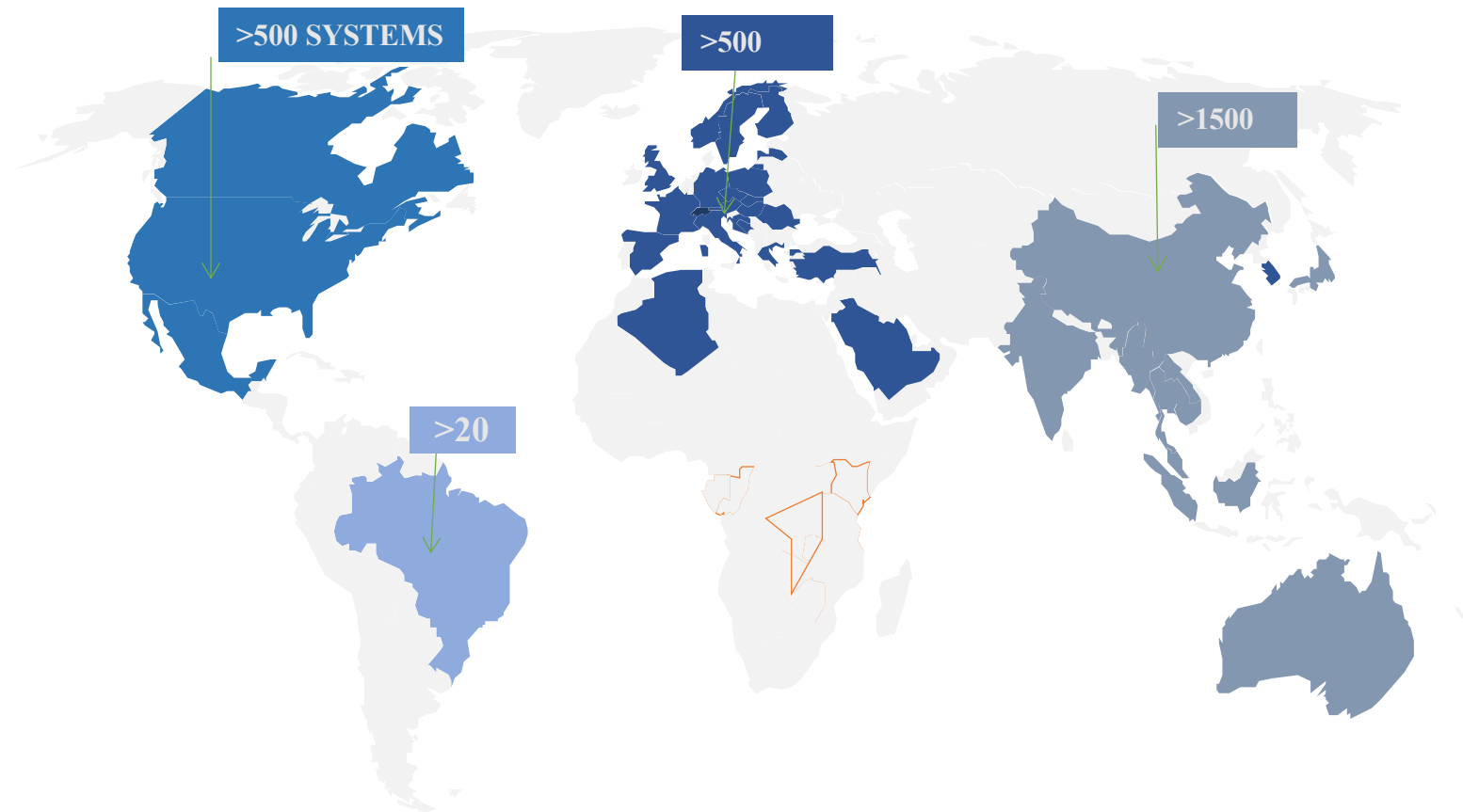
**MANUFACTURING LOCATIONS**



**CORPORATE**



**PLURITEC SALES AND SERVICE ORGANIZATION**



**INSTALLATION REACH**





*Made in Italy*  
**pluritec® GROUP**

**SES OR DES LINES**



**ETCHERS ACID**



**ETCHERS ALKALINE**



**MECETCHBOND**



**TIN STRIP**



**CHEM CLEAN AND SURFACE PREP**



**SOLDER MASK DEVELOPER**



**DEBUR AND SCRUB**



**ROLL TO ROLL 1 MIL PROCESS**



**WET PROCESS LINE-UP**





**POST HAL**



**PRE HAL**



**MICROETCH**



**CHEM CLEAN**



**WET PROCESS LINE-UP**



DURAPREP



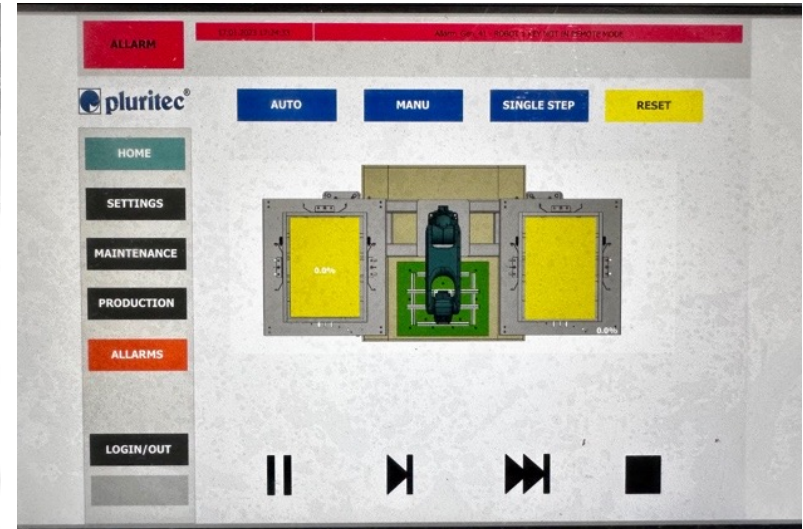
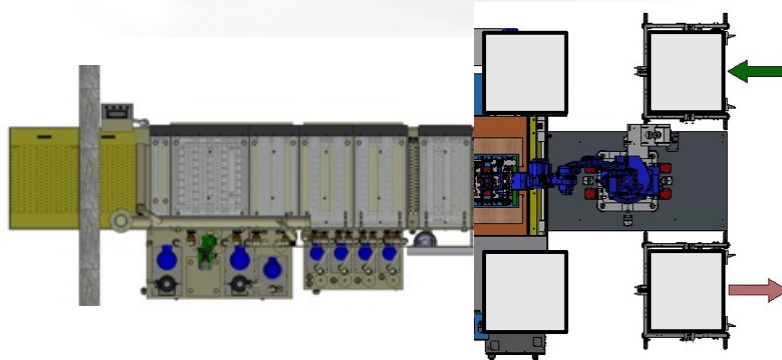
DES WITH FERRIC CHLORIDE ETCHER



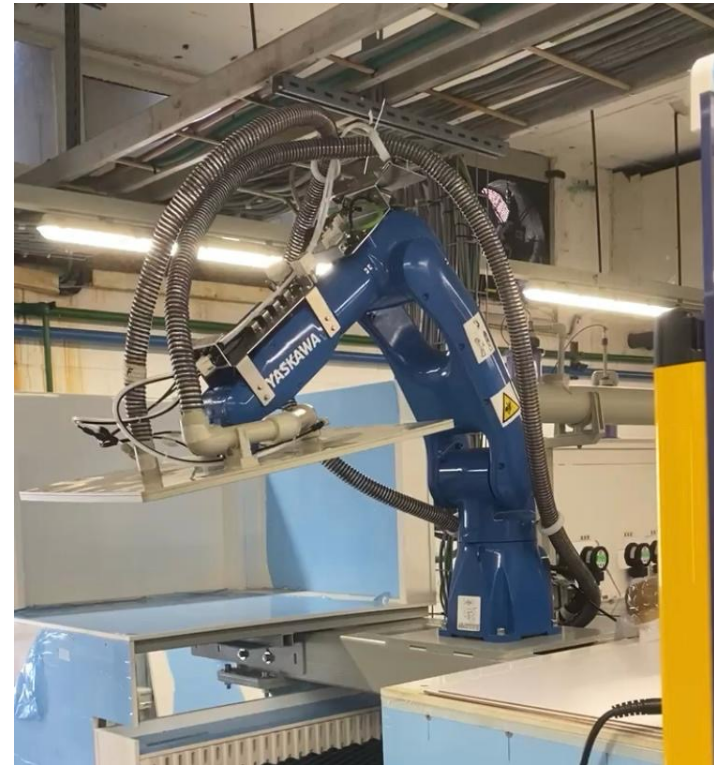
PUMIFLEX



CHEMICAL MILLING LINES



**WET PROCESS AUTO LOAD UNLOAD**



**ULTRA THIN MATERIAL HANDLING**





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**AUTOMATIC DOUBLE SIDE SPRAY COATING LINE**



**MANUAL DOUBLE SIDE SPRAY COATING UNIT**



**TACK OVEN**



**BUFFER BELT**



**BUFFER 20/40/80**



**FINAL CURE OVEN**



**UV OVEN**



**SPRAY COATING AND OVENS**



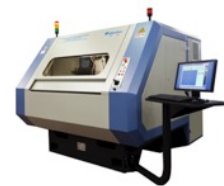
INSPECTA COMBO



INSPECTA S1 -TWIN



INSPECTA SX



X-MEASURE



X-VISION

**Model: INSPECTA COMBO | Driller | Router | Real time X-Ray targets detection**

Multiple machines in one - X-Ray optimizer | Drilling | Routing | Quality control | Measuring | Multiple patterns optimization | Complete data analysis software | Traceability  
 Available with:

- ☐ Additional CCD Camera for vision drilling and routing
- ☐ Depth controlled drilling/routing
- ☐ Surface mapping, back drilling, pocket routing
- ☐ Panel code marker – Code reading (inner |outer layers)

**Model: INSPECTA S1 | X-Ray Optimizer for multiple**

X-Ray optimizer | Quality control | Measuring | Multiple patterns optimization | Complete data analysis software | Traceability | 2D code reading |panel marking

Dedicated registration for individual areas - Flexible configuration – Large working area  
 Available with:

- ☐ Back unloader – Left to right loading unloading with trolley
- ☐ Panel code marker – Code reading (inner |outer layers)

**Model: INSPECTA SX | X-Ray Optimizer for tooling holes**

X-Ray optimizer |inspection|Measuring |Complete data analysis software | Traceability | 2D code reading |Panel marking  
 Available with:

- ☐ **Anthropomorphic** robot for automatic panel loading unloading
- ☐ X-Ray pre-alignment system for panels with flash
- ☐ Dedicated in line marking station for improved output
- ☐ Back unloader – Left to right loading unloading with trolley
- ☐ Panel code marker – Code reading (inner |outer layers)

**Model: X-MEASURE | X-Ray Coordinate Measuring machine**

X-Ray inspection |quality control | measuring | Complete data analysis software | traceability | 2D code reading |panel marking

Available with:

- ☐ Dedicated in line marking station for improved output
- ☐ Back unloader – Left to right loading unloading with trolley
- ☐ Panel code marker – Code reading (inner |outer layers)

**Model: X-VISION | X-Ray quality control machine**

X-Ray inspection |quality control | measuring | Complete data analysis software | traceability | 2D code reading |panel marking

- ☐ Manual Xray viewing system



MULTISTATION EVO



C1 / C2 / C3



D2 / D2ix



D6 / D6ix

**Model: MULTISTATION EVO  
| Micro Drilling | Precision  
Routing**

- ❑ **1 station** - Single head - 1 spindle Driller or Router
- ❑ 1 Station – Single head – 2 spindles Drill and Rout Spindles
- ❑ Multi station integration for up to 8 Cells per block
- ❑ 18 Slot Automation at 24x30" Panels
- ❑ XL Extended Table offers 24.8x36" flexibility

**Model: C | Micro Drilling |  
Precision Routing**

- ❑ **1-2-3 stations** - Flexible configuration with large format
- ❑ 1 Spindle large format 32" x 55" Panels
- ❑ 2 Spindle (digital link) offer 2 EA 25" x 30" (unlinked) 31" x 41"
- ❑ 2 Spindle Automated offers 2 EA 25" x 30 with 36 Available loading slots
- ❑ 3 Spindle offers 3 EA 18" x 24" (Hardware Link Z)

**Model: D2 - D2ix | Micro  
Drilling | Precision Routing  
2 stations - D2ix with  
dedicated vision registration  
for each station**

- ❑ 200K Spindles, 210 tools and FULL independent XY&Z movement
- ❑ CCD Camera at each spindle for Independent Alignment and scaling
- ❑ 2D/Bar code reader
- ❑ Automatic panel loading unloading
- ❑ Max panel size 22.4x 27.0"

**Model: D6 - D6ix | Micro  
Drilling | Precision Routing  
6 stations – D6ix with  
dedicated vision registration  
for each station**

- ❑ 200K Spindles, 210 tools and FULL independent XY&Z movement
- ❑ CCD Camera at each spindle for Independent Alignment and scaling
- ❑ 2D/Bar code reader
- ❑ Automatic panel loading unloading
- ❑ Max panel size 22.4» x 27»

**MECHANICAL DRILLING ROUTING**





LOADING UNLOADING SYSTEM



SINGLE | DOUBLE 18 POSITIONS  
PANEL LOADING UNLOADING



ROBOT LOADER | UNLOADER



IN LINE LOADING  
BUFFER

## AUTOMATION



DRILLING | ROUTING UP TO 50X110"



X-RAY DRILLING | ROUTING UP TO  
50X118"

## LARGE FORMATS



**THANK YOU**

**[WWW.PLURITEC.COM](http://WWW.PLURITEC.COM)**