

# SELECTIVE CONFORMAL COATING AND DISPENSING SOLUTIONS

## CF395 IL IN-LINE COATER AND DISPENSER



### RELIABLE, ACCURATE AND EASY-MAINTENANCE SOLUTIONS FOR COATING AND DISPENSING

- ACCURATE 4 AND 5-AXIS (X, Y, Z, ROTATION AND TILT) ROBOTS TO PROVIDE THE HIGHEST QUALITY SUPPORT FOR DISPENSING AND COATING PURPOSES.
- REAL ELIMINATION OF MASKING OPERATIONS, SAVING TIME, MONEY AND GETTING HIGH EFFICIENCY AND REPEATABILITY LEVELS ON PCB'S PROTECTION PURPOSES.
- HIGH SPEED AND ACCURACY ON CONFORMAL COATING AND DISPENSING.
- AN EASY PROGRAMMING SYSTEM WITH SPECIALIZED SOFTWARE IS DESIGNED FOR PROGRAMMING LINES, DOTS, ARCS, CIRCLES, POLYLINES, AREAS, ETC.
- EASY MULTI-BOARD PROGRAMMING SYSTEM.
- HIGH RESOLUTION CAMERA TEACHING - PROGRAMMING SYSTEM.
- CONTROL SOFTWARE **COATcontrolPRO 2** THAT ALLOWS US TO MANAGE ALL THE PARAMETERS NECESSARY FOR DISPENSING AND COATING PROCESSES ON SCREEN. ELEMENTS AS LEVEL SENSORS, STATE OF DOORS, CONTROL OF CONVEYOR, ETC. THEY ARE ALWAYS IN PRESENT IN OUR DAY TO DAY.
- **PATHCOAT** WINDOWS EXCLUSIVE SOFTWARE FOR GETTING THE BEST PRODUCTION RATIOS. AUTOMATIC OPTIMIZATION SYSTEM AND CAD IMPORT PROVIDE A HELPFUL TOOL FOR IMPROVING PATTERNS FROM A PIC.
- FLOW METER MODULE. GET ON REAL TIME AMOUNT OF DISPENSED MATERIAL.
- OPTIONAL TRACEABILITY MODULE INCLUDING RECOGNITION OF 1D AND 2D BAR CODES (QR, DATAMATRIX, ETC.) FOR COMPLETE TRACEABILITY.
- OPTIONAL FIDUCIAL MARKS RECOGNITION RECALCULATE X AND Y POSITIONS IN DISPENSING OPERATIONS.
- OPTION OF MULTIPLE SENSORS AS "COATING WIDTH MEASUREMENT", OR MEASUREMENT OF "WARPAGE", AVAILABLE UNDER DEMAND
- ALL PARTS ARE MADE OF STAINLESS STEEL AND ALUMINUM FOR EASY CLEANING AND EFFICIENT PROTECTION AGAINST SOLVENTS AND ANY AGGRESSIVE LIQUID.
- EASY CONTROL OF ALL COATING AND DISPENSING PARAMETERS.
- BLACK LIGHT FOR INSPECTION AND WHITE LED LIGHT FOR PROGRAMMING.
- FLEXIBLE, ROBUST AND ACCURATE GANTRY SYSTEMS INTEGRATED WITH A BALL-SCREWED MOTION SYSTEM AND SERVO MOTORS PROVIDE LONG-TERM RELIABILITY.
- A FULL RANGE OF VALVES IS AVAILABLE TO COVER ALL DISPENSING AND COATING DEMANDS. COATINGS, GASKETS, FILLINGS, AND OTHER KIND OF PROCESSES ARE ALSO POSSIBLE.

VIDEO APPS CF395 IL FULL LINE WITH UV OVEN <https://youtu.be/LXa8qLEk2PQ>

VIDEO APPS CF395 FULL LINE WITH IR OVEN <https://youtu.be/Bh6yiQH64eY>



MATERIALS: CONFORMAL COATINGS, ACRYLICS, URETHANES, SILICONES, RTV, BI-COMPONENT MATERIALS, ETC.



# CF395 IL VALVES

FULL VALVES RANGE FOR ALL KIND OF APPLICATIONS

SPRAY  
MICROSPRAY  
COATING/FILM  
AGUJA  
SPOOL  
MICROSPPOOL  
ROTARY  
CAVITY  
JET



SPRAY / MICROSPRAY



SPOOL



ROTARY



MINI SPOOL

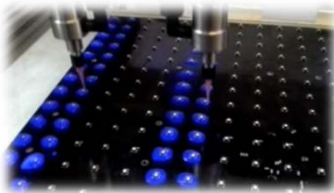


COATING FILM

*SELECTIVE COATING  
MICRO-SPRAY  
'SPRAYING' AND 'FILM'  
DISPENSING  
GASKETING  
UNDERFILLING  
'POTTING'*



CAVITY PUMP MICRO



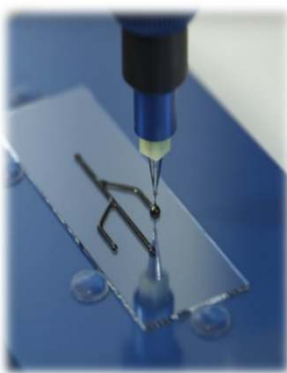
CAVITY PUMP



JET



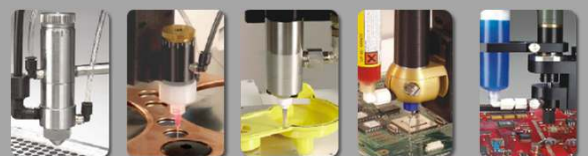
CAVITY PUMP MICRO VALVES



CAVITY PUMP VAL FOR ABRASIVES

*'LEDS' APPS  
MILITARY  
AUTOMOTIVE  
MEDICAL*

MATERIALS: CONFORMAL COATINGS, ACRYLICS, URETHANES, SILICONES, RTV, BI-COMPONENT MATERIALS, ETC.



# CF395 IL COATCONTROLPRO 2.0 SOFTWARE

## CONTROL SOFTWARE COATcontrolPRO 2.0

EXCLUSIVE SOFTWARE THAT ALLOWS US TO CONTROL ALL PARAMETERS AND EXTRAS SUCH AS CONVEYOR, STOPPERS, DOORS, EMERGENCIES, TANK AND T CARTRIDGE LEVEL ALARMS, PRODUCTION CONTROL, ETC.

WITH THIS SOFTWARE WE ALSO CONTROL THE QUANTITY OF MATERIAL DISPENSED PER BOARD AND YOU CAN SAVE THE VALUES IN CASE TRACEABILITY MODULE INSTALLED(IF FLOW METERS OPTION IS INSTALLED).

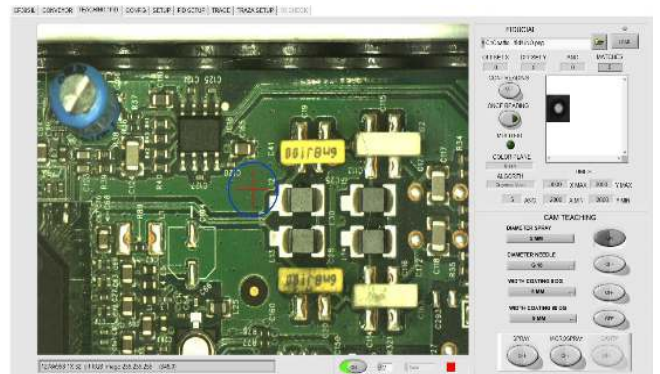
REAL-TIME VIEW OF WHICH VALVE IS WORKING, COMMUNICATION STATUS WITH UPPER AND LOWER MACHINES (MOD INLINE).  
REAL-TIME CONTROL OF SPRAY PRESSURE.



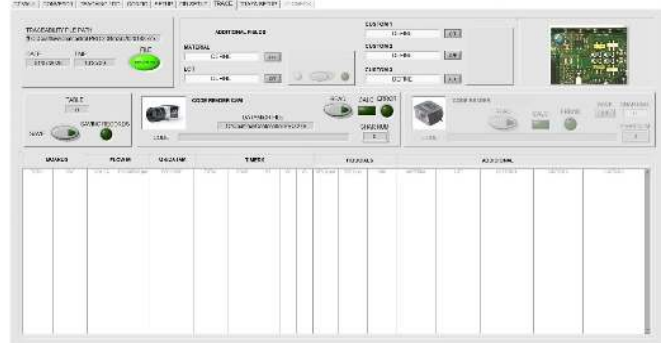
Main tab of COATcontrolPRO 2 SOFTWARE

### REAL-TIME VIEW ON THE MAIN SCREEN :

- NUMBER OF DAY AND TOTAL CYCLES
- TOTAL CYCLE, TOTAL DISPENSING TIME AND DISPENSING VALVE PER VALVE
- MISCELLANEOUS ALARMS STATUS
- SERVO MOTORS AND DRIVERS STATUS
- CONVEYOR STATUS (MOD INLINE)
- STOPPERS STATUS , REGISTERING PINS AND CELLS ( MOD INLINE)
- LEVELS OF TANKS, CARTRIDGES AND SYRINGES
- STATUS OF INSTALLED VALVES
- LOW PRESSURE AND SPRAY VALVE ALARM.
- **FLOW METER** STATUS, REAL TIME QUANTITY, LAST BOARD VALUE AND TOTAL
- SMEMA STATUS (MOD INLINE)
- BLACK/WHITE LIGHT STATUS SWITCH
- DOOR / DRAWER STATUS
- VALVES STATUS
- PROGRAMMING / VISION CAMERAS (OPTIONAL)
- FIDUCIAL PROCESS (OPTIONAL)
- 1D / 2D BARCODE VALUES (OPTIONAL)



VISION PROGRAMMING MODULE



TRACEABILITY MODULE

MATERIALS: CONFORMAL COATINGS, ACRYLICS, URETHANES, SILICONES, RTV, BI-COMPONENT MATERIALS, ETC.



# CF395 IL PATHCOAT SOFTWARE

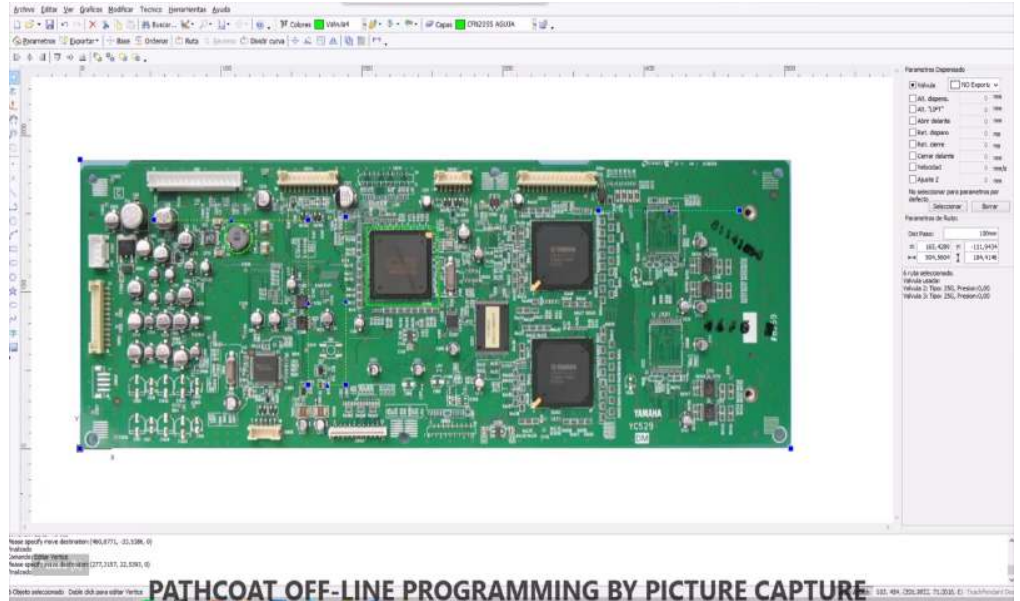
## OFF-LINE PROGRAMMING SOFTWARE PATHCOAT 6 (INCLUDED)

EXCLUSIVE PROGRAMMING OFFLINE WINDOWS SOFT. YOU CAN IMPORT A CAD FILE OR YOU CAN MAKE A PICTURE OF YOUR BOARD TO PLACE ALL KIND OF PATHS LINE DOTS, LINES, DOTS, ARCS, POLYLINES, AREAS, ETC.

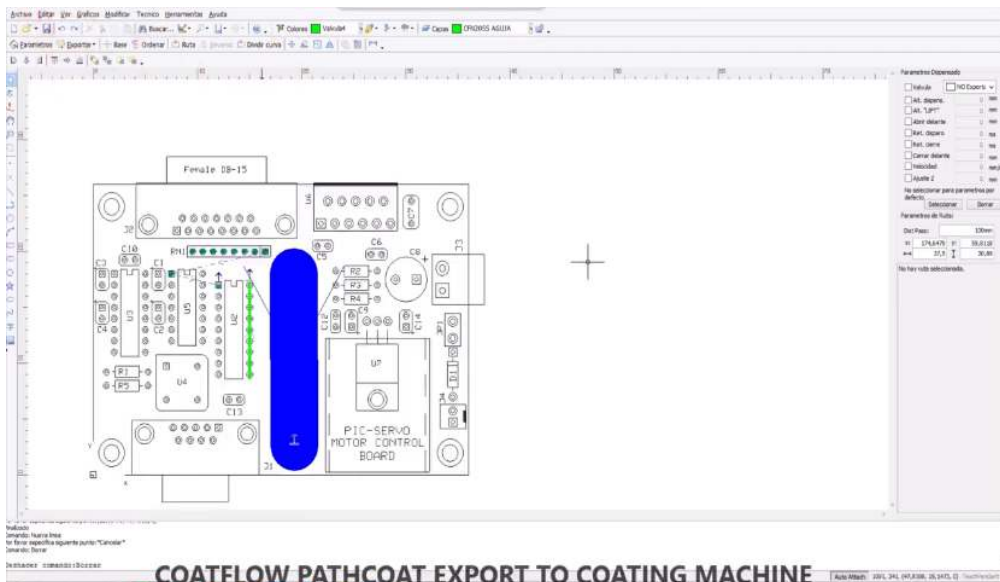
CONTROL OF ALL DISPENSING AND COATING PARAMETERS.

YOU CREATE AN EXPORTABLE PROGRAM VIA USB TO MACHINE TEACH PENDANT.

POSSIBILITY OF IMPORTING AN IMAGE MADE TO A PCB AND "PAINTING" DIRECTLY ON IT.  
SELECTION OF THE VALVE MODEL (REAL VALVE WIDTH VIEW) AND TOTAL CONTROL OF PARAMETERS AS OPENING, CLOSED, Z-RETRACT, ETC.



PATHCOAT OFF-LINE PROGRAMMING BY PICTURE CAPTURE



POSSIBILITY OF IMPORTING A PCB FROM DXF FORMAT.  
SELECTION OF THE VALVE MODEL (REAL VALVE WIDTH VIEW) AND TOTAL CONTROL OF PARAMETERS AS OPENING, CLOSED, Z-RETRACT, ETC

MATERIALS: CONFORMAL COATINGS, ACRYLICS, URETHANES, SILICONES, RTV, BI-COMPONENT MATERIALS, ETC.



# CF395 IL ACCESSORIES

## CHAIN CONVEYOR WITH STOPPERS. ADJUSTABLE SPEED BY SOFT.

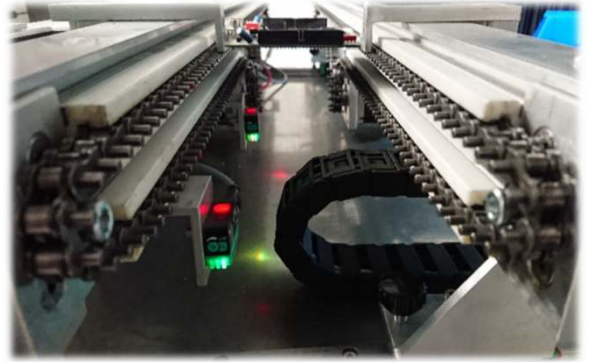
NOVEDOUS VARIABLE SPEED SYSTEM THAT ALLOWS TO LOAD PCB'S IN HIGH SPEEDS AND DOWNLOAD TO SLOWER SPEEDS TO ENSURE TRANSPORTATION WITHOUT VIBRATIONS OR JUMPS IN PCB'S ALREADY COATED.

VERY SLOW SPEED OF APPROACH TO STOPPERS, WHICH ALLOWS A STOP OF PRECISION WITH AN ERROR IN CLOSE TO 0 ( MAX +-100 MICRONS) IN PCB PLACEMENT.

ALL SPEEDS ARE CONFIGURABLE BY THE USER.

MANUALLY ADJUSTABLE WIDTH CONVEYOR (OPTIONAL AUTOMATIC CONTROL) FROM 50 TO 500 MM. IT IS MANUFACTURED WITH ALUMINUM, STEEL AND TEFLON PROFILES FOR A MAXIMUM RESISTANCE AGAINST CLEANING AGENTS AND SOLVENTS.

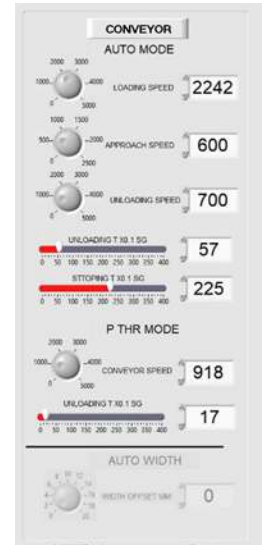
THE CHAIN IS DELIVERED WITH PINS OF 5 MM LONG AS STANDARD. OTHER MEASURES AVAILABLE.



CONVEYOR WITH *STOPPERS* Y REGISTER PIN *CUSTOM*



CONVEYOR WITH *STOPPERS*

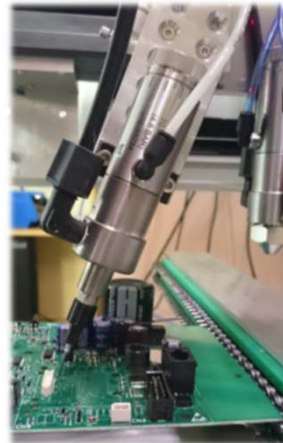
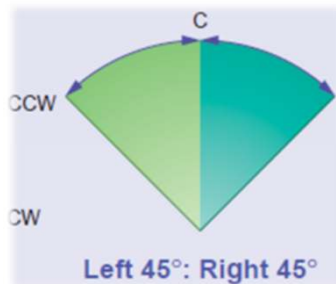


SPEEDS AND TIMERS CONFIG

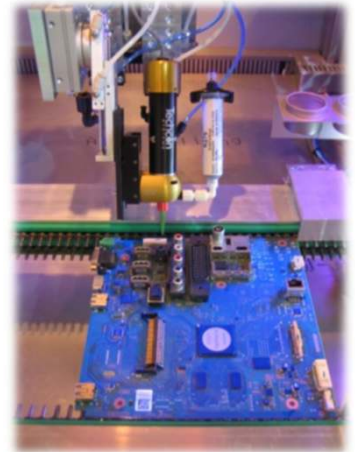
## 5° AXIS TILT (INCLUDED)

POSSIBILITY OF *TILTING* THE VALVE BY SOFTWARE A PRE-DEFINED ANGLE TO INTRODUCE THE MATERIAL IN "DARK" AND COMPLEX AREAS TO ATTACK VERTICALLY.

POSSIBILITY OF PLACING 2 OR 3 POSITIONS TILT.



NEEDLE VALVE "TILTED"



ROTARY VALVE IN "TILT" POS

MATERIALS: CONFORMAL COATINGS, ACRYLICS, URETHANES, SILICONES, RTV, BI-COMPONENT MATERIALS, ETC.



# CF395 IL ACCESSORIES

## FLOW METER 'REAL-TIME MATERIAL QUANTITY METER (NOT INCLUDED)

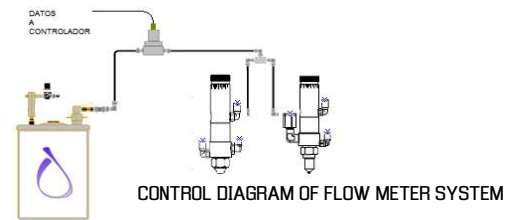
THIS OPTION ALLOWS US TO HAVE A TOTAL TRACEABILITY ON THE QUANTITY OF MATERIAL APPLIED PER BOARD (AND THEREFORE THE THICKNESS ALSO) AS WELL AS THE PRECISE CONTROL OF POSSIBLE OCCLUSIONS IN THE VALVE.

THE SYSTEM CONSISTS OF A PRECISION 'ENCODER' WHICH IS MEASURING IN REAL TIME THE AMOUNT OF MATERIAL THAT IS CIRCULATING THROUGH THE SUPPLY HOSE, UPDATING DATA TO THE CONTROLLER IN REAL TIME.

**OPTIONAL MOD TRACEABILITY TABLE MANAGEMENT (SAVED IN EXCEL)** WITH ALL THE PARAMETERS RELATED TO THE PROCESS, LIKE QR CODE, DISPENSING TIME, QUANTITY OF MATERIAL, TYPE OF COATING, ETC..



TRACEABILITY MODULE IN COATONTROPRO 2.0



CONTROL DIAGRAM OF FLOW METER SYSTEM

## AUTOMATIC PARK AND PURGE SYSTEM (INCLUDED)

THIS SYSTEM ALLOWS US TO ALWAYS KEEP THE VALVES READY FOR USE. THE SYSTEM TAKES CARE THAT EACH CERTAIN TIME (PROGRAMMABLE) THE VALVES WILL PERFORM A PURGE IN SPECIAL CUPS, TO KEEP THE END PART ALWAYS IN PERFECT CONDITION AND AVOID THE LOGICAL PROBLEMS THAT OCCUR WITH AMBIENT HUMIDITY IF VALVE IS NOT DISPENSING CONTINUOUSLY.

THEY CAN ALSO BE IMMERSED IN THE CUPS WITH SOLVENT, AND WHEN WE START WORKING, THEY WILL AUTOMATICALLY BE PURGED IN THE PURGE CUPS PREPARED FOR THIS.

THIS SYSTEM CAN BE PROGRAMMED EVERY CERTAIN TIME OR EACH CERTAIN NUMBER OF CYCLES.



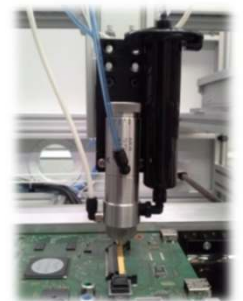
VALVES IN AUTOMATIC PURGE PROCESS

## MATERIALS HANDLING

FULL RANGE OF PRESSURE TANKS OF 2, 10 AND 30 LITRES WITH LOW LEVEL SENSOR.

6 AND 12 OZ-CARTRIDGES FOR SOLVENTS IN PURGING, TRIALS OR EVEN FOR SMALL PRODUCTIONS.

FOR 3, 5, 10, AND 30 CC SYRINGES ADAPTOR FOR ADHESIVES AND SOLDER PASTES.



VALVE WITH 30 CC SYRINGE ADAPTOR (UV CURE CONFORMAL COATING)

MATERIALS: CONFORMAL COATINGS, ACRYLICS, URETHANES, SILICONES, RTV, BI-COMPONENT MATERIALS, ETC.



# CF395 IL ACCESSORIES

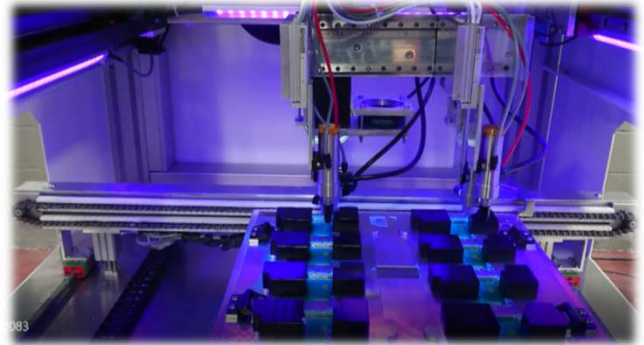
## DUPLICATION OF VALVES IN HEAD (NOT INCLUDED)

THIS OPTION ALLOWS US TO DRASTICALLY REDUCE THE CYCLE TIME IN PCB'S PANELIZED BY DUPLICATING THE VALVE / S.

THE SYSTEM ALLOWS TO WORK WITH THE MAIN VALVE/S AND THE DUPLICATED VALVES AS INDEPENDENT VALVES WITH INDEPENDENT PROGRAMMING OR AS A COPY SYSTEM SO THAT ONLY THE MASTER VALVE/S MUST BE PROGRAMMED AND THE COPY WILL PERFORM THE SAME.

WE COULD HAVE THE SAME MATERIAL FEEDING ALL THE VALVES OR DIFFERENT MATERIALS IN EACH ONE.

THIS SERIES SYSTEM BRINGS MANUAL VALVE DISTANCE ADJUSTMENT, WITH THE POSSIBILITY OF AUTOMATING THIS PROCESS BY SOFTWARE (OPTIONAL).



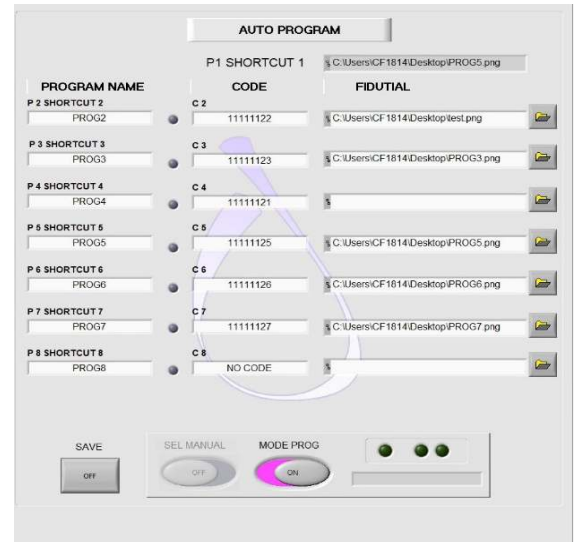
SPRAY AND NEEDLE VALVES DUPLICATION SYSTEM WITH MANUAL ADJUSTMENT

## AUTOMATIC PROGRAM SELECTION BASED ON CODE (NOT INCLUDED)

THIS OPTION ALLOWS TO AUTOMATE THE PRODUCTION IN CASE OF HAVING SEVERAL REFERENCES IN PRODUCTION AT THE SAME TIME.

THE SYSTEM WILL READ THE QR OR DATAM CODE AND COMPARE IT WITH THE PRE-ASSIGNED CODES, LOADING AND EXECUTING IN REAL TIME THE SPECIFIC COATING PROGRAM FOR THAT BOARD.

EACH PROGRAM MAY BE ASSIGNED AN INDEPENDENT FIDUCIAL CHECK PATTERN.



ASSIGNMENT OF PROGRAM, CODE AND FIDUCIAL MARK

## MATERIAL HEATING (NOT INCLUDED)

THIS SYSTEM ALLOWS TO HEAT THE MATERIAL TO OBTAIN A LOWER VISCOSITY AND THEREFORE A BETTER CONTROL OF THICKNESS AND SIDE GEOMETRIES.

INDEPENDENT CONTROLS FOR TANK AND HEATED PIPE.

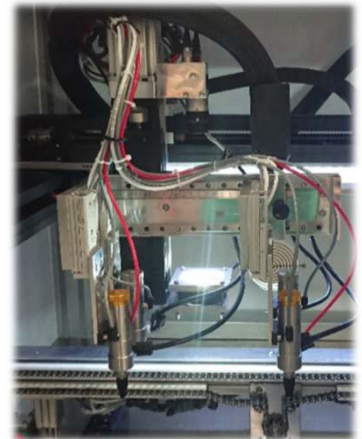
**ATTENTION:** NOT ALL MATERIALS ARE ALLOWED TO BE HEATED.



PID TEMPERATURE CONTROL. CONTROLS ARE INDEPENDENT IN TANK AND HOSES.



HEATED TANK



HEATED HOSE

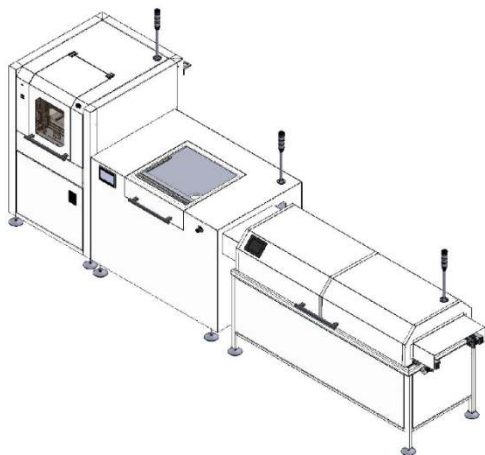
MATERIALS: CONFORMAL COATINGS, ACRYLICS, URETHANES, SILICONES, RTV, BI-COMPONENT MATERIALS, ETC.



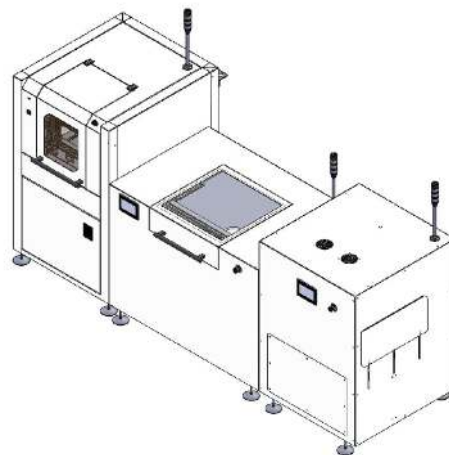
# CF395 IL MACHINES CONFIGURATION

## FULL PROTECTION SOLUTIONS

- FOR A COMPLETE LEVEL OF AUTOMATION AND A TOTAL CONTROL OF ALL THE PARAMETERS RELATED TO THE PROCESS OF PROTECTION OF PCB'S, WE HAVE COMPLETE SOLUTIONS, WHICH WILL RAISE THE LEVEL OF AUTOMATION TO EXTREMES IN WHICH THE HUMAN FACTOR BECOMES A MERA ANECDOTE.
- DEPENDING ON THE TYPE OF POLYMER USED TO PROTECT PCB'S WE HAVE SEVERAL TECHNOLOGIES.



- CONFORMAL COATING MACHINE IN LINE, INSPECTION STATION / FLUSH OFF AND CURING OVEN BY IR TECHNOLOGY.
- IDEAL FOR ACRYLIC, POLYURETHANES AND SILICONE MATERIALS (WHICH DO NOT REQUIRE SPECIFIC HUMIDITY CONTROL). THE FLUSH-OFF STATION WILL ALLOW US TO EVAPORATE SOLVENTS AND ALLOW BUBBLES TO COME OUT THAT IN ANOTHER CASE THEY WOULD BE CAUGHT IN THE CURING PROCESS.



- CONFORMAL COATING MACHINE IN LINE, INSPECTION STATION / FLUSH OFF AND CURING OVEN BY UV TECHNOLOGY.
- IDEAL FOR ACRYLIC MATERIALS, POLYURETHANES, EPOXIS AND UV CURING SILICONES. THE INSPECTION STATION WILL ALLOW US TO REVISE VISUALLY WITH THE BUILT-IN BLACK LIGHT IF THE PROCESS HAS BEEN SATISFACTORY.



MATERIALES: BARNICES, ACRÍLICOS, POLIURETANOS, SILICONAS, EPOXI, RTV, MATERIALES BI-COMPONENTE, ETC.





# CF395 IL ESPECIFICACIONES

## GENERAL SPECIFICATIONS INCLUDED

### MOTION:

- BALL SCREW DRIVEN BY SERVO MOTORS
- X, Y SPEED: 0 A 900 MM/SG
- Z SPEED: 0 A 900 MM/SG
- POSITIONAL ACCURACY: 0.005 MM
- POSITIONAL PRECISION: 0.01 MM

### WORKING AREA:

- STANDARD 500X500X100 MM

### CONVEYOR

- CONVEYOR WIDTH ADJUSTABLE FROM 50 TO 500 MANUALLY WITH NEUMATIC LOCK (HANCRAK OR AUTOMATIC BY SOFT OPTIONAL)
- CHAIN BOARD CLEARANCE BY DEFAULT 5 MM (OTHER PIN LENGTHS AVAILABLE)
- COMPONENT CLEARANCE UP TO 80 MM (BELOW AND ABOVE) 120 MM OPTIONAL
- SMEMA COMMUNICATION FROM UPPER AND LOWER MACHINES
- STOPPERS INCLUDED. REGISTERING PINS OPTIONAL

### WORKING MODES

- CONTINUOUS (ADJUSTABLE SPEED FROM 0.02 TO 2.0 M/MIN)
- PASS THROUGH
- DOUBLE STOP (OPTIONAL)

### CONTROL

- TOUCH SCREEN

### SOFTWARE

- COATCONTROL PRO 2.0 @ INCLUDED
- PATHCOAT @ OFFLINE INCLUDED

### ACCESORIES INCLUDED

- AUTOMATIC PARK AND PURGE SYSTEM
- AUTOMATIC CONTROL OF VALVE PARAMETERS
- **FLOW METER** AND AMOUNT OF MATERIAL
- 5TH-AXIS TILT IN NEEDLE OR MICROSPRAY VALVES
- PROGRAMMING CAMERA INTEGRATED WITH **COATCONTROL PRO 2.0**
- THREE-COLOURS AND BUZZER LIGHT TOWER
- 10 LITRES PRESSURE TANK WITH LOW LEVEL SENSOR
- 6 OZ-CARTRIDGE WITH LOW LEVEL SENSOR
- SYRINGES ADAPTOR 30 AND 55 CC

### VALVES CONFIGURATION

- 2 OR 3 VALVES: PRECISION SPRAY, MICROSPRAY, NEEDLE, ROTARY ETC.

### POWER SUPPLY

- 110/230V 1 FASE. 10A MAX

### SECURITY

- EMERGENCY BUTTON
- SECURITY INTERLOCKS IN DOOR
- EXHAUST PUMP SENSOR
- SPRAY SENSOR CONTROL

### CERTIFICATION

- CE AND SMEMA

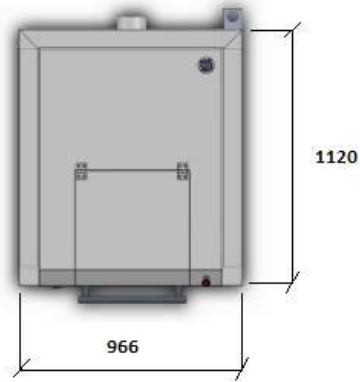
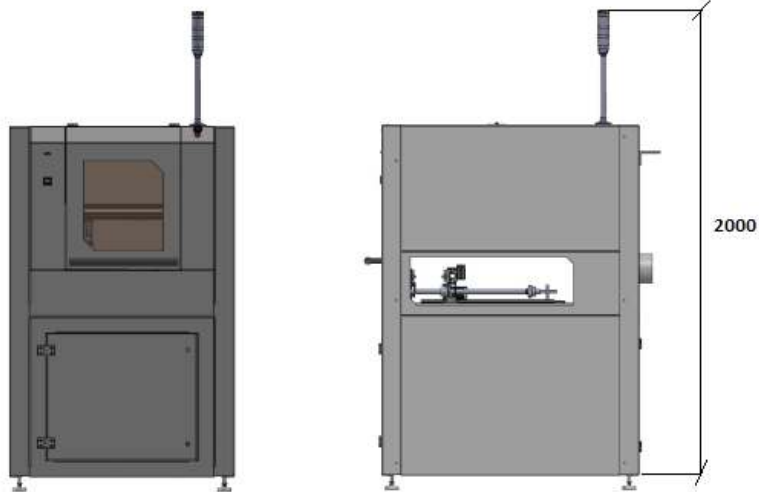


## OPTIONAL EQUIPMENT

- 4TH-AXIS ROTATION IN HEAD
- PROGRAMMABLE MARK FIDUCIAL SYSTEM
- AUTOMATIC WIDTH PATTERN IN COATING VALVE
- DOUBLE STOP CONVEYOR MODULE
- CONVEYOR WIDTH ADJUSTMENT BY SOFT
- TRACEABILITY MODULE. BARCODE READER (CAM) QR, DATAM, ETC.
- SELECTION AND AUTOMATIC LOADING OF PROGRAM ACCORDING TO CODE (DATAMATRIX, QR, 2D, ETC)
- HEATING SYSTEM IN TAKS AND HOSES
- VALVES DUPLICATION FOR LOWER CYCLE TIME
- SOFTWARE AVAILABLE IN LOCAL LANGUAGES
- PRESSURE TANKS (FROM 2 TO 30 LITRES)
- CARTRIDGE RETAINER (2.5, 6, 8, 12 AND 20 OZ)
- LOW LEVEL SENSOR FOR TANKS AND CARTRIDGES. SCALE TYPE
- SYRINGES ADAPTOR (3, 5, 10, 30 AND 55 CC)



# CF395 IL DIMENSIONS



## INSTALLATION REQUERIMENTS

EQUIPMENT WEIGHT 650 KG.  
800 MM CLEARANCE IN THE FRONT IS REQUIRED FOR DOOR OPENING.  
900 MM CLEARANCE IN THE REAR IS REQUIRED FOR ELECTRIC CABINET OPENING.

PNEUMATIC AIR SUPPLY NEEDS TO BE DRY AND WITH NO DUST, OIL, ETC.  
AIR SUPPLY 5.5 BARS / 80 PSI – 10 BARS / 145 PSI (MIN AND MAX).  
8 MM-DIAMETER QUICK CONNECTION HOSE.

ELECTRIC POWER 110/230V 10A MAX. 50-60 HZ.

MINIMUM EXHAUST 250 M3/H. HOSE DIAMETER 125 MM.  
EXHAUST PUMP NOT INCLUDED

PC UNDER WINDOWS 10 FOR **PATHCOAT**® OFFLINE SOFTWARE AND **COATcontrolPRO 2**® INCLUDED

MEASURES IN CM

## INTERNATIONAL SALES DEPARTMENT

TEL. +34 925 258 073  
FAX +34 925 581 457  
[coatflow@coatflow.com](mailto:coatflow@coatflow.com)  
[www.coatflow.com](http://www.coatflow.com)  
[www.innomelt.com](http://www.innomelt.com)

LOCAL DISTRIBUTOR

## OTHER COATFLOW SOLUTIONS

