

Machinery in Perfection

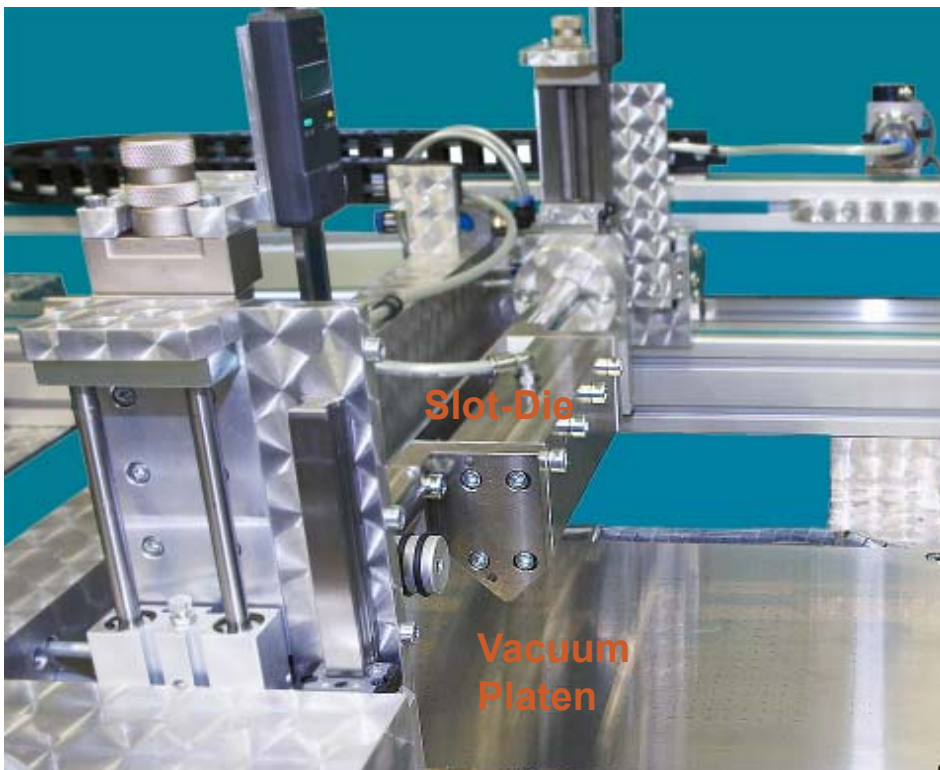
Coatema EFCC III Fuel Cell Stack Element Coater

The Coatema EasyFuelCellCoater III allows accurate, even, and repeatable applications of catalyst solutions to stack elements. The catalyst can be applied to either a carbon layer or a membrane layer. It is often equipped with a doctor-blade-over-heated-vacuum-platen and/or a knife-over-screen coating system designed to make the transition from handmade stack elements to precise machine coated components.

The principle of the EFCC III is a profession quality doctor-blade that spreads the catalyst solution evenly and accurately over the substrate, which is heated and held in place with the precision vacuum platen or plate.



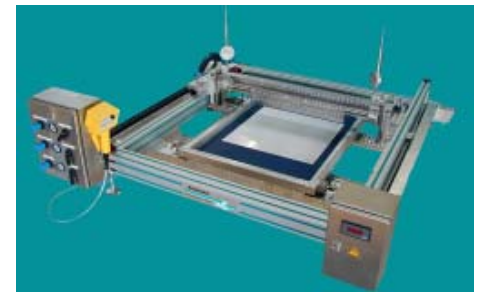
The EFCC III is available with a variety of coating application heads including a doctor-blade and/or slot-die over a heated vacuum platen.



The EFCC III can be equipped with multiple coating heads including a slot-die shown here over a vacuum platen, which holds the substrate in place.

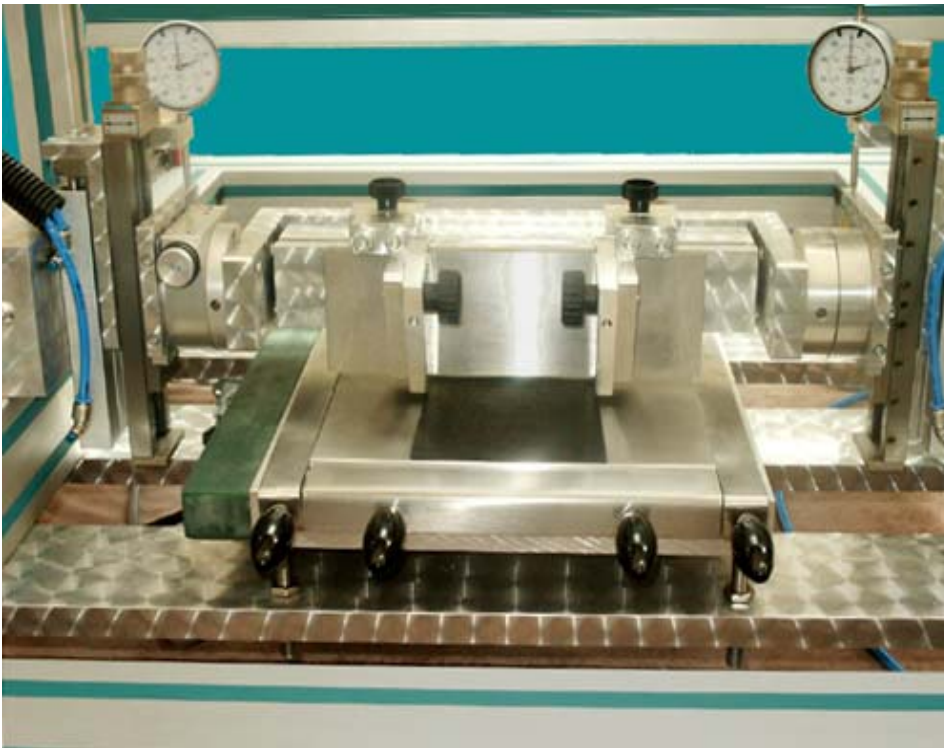
Direction of movement and speed of the coating head is controlled with a simple hand-held device.

Key components, along with coating techniques and parameter, can be transferred to a roll-to-roll coater for increased production in the future.



Screening for shape and size control is possible up to one meter square.

An optional pneumatically controlled polymer screen system allows the catalyst solution to be applied only in the desired areas to control the shape and pattern of the coated area. Pneumatics lift and lower the screen and blade to avoid catalyst smearing.



The blade-over-heated-vacuum-platen application system can be transferred, along to coating techniques and parameters, to a roll-to-roll system.

The EasyFuelCellCoater III is one of many laboratory, pilot plant and full production coating and laminating systems available from Coatema.

Coatema systems can be seen and tested at the Coatema Coating Center (C³) in Dormagen, Germany and at the Cleveland Fuel Cell Center in Cleveland, OH (CFCC).

These centers provides state of the art coating and laminating technology and offer a great opportunity for R&D and sample production. Chemical and process experts are on staff at the centers.

EurotecUSA, Inc. can assist process developers in the coordination and logistics involved in a visit to the Coatema Technical Center or the Cleveland Fuel Cell Center.

For more information on Coatema equipment go to www.eurotecusa.com and for information on the C³ and CFCC go to www.eurotecusa.net.

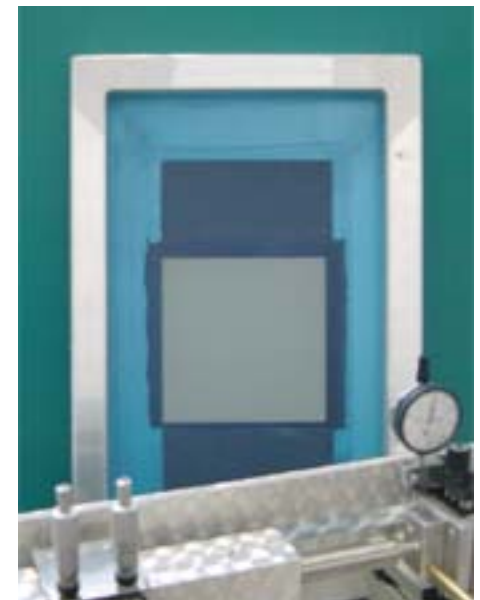


The direction and speed of the coating head is controlled with a convenient hand-held device.

Pneumatics provide both vacuum for the platen and pressure for the smooth lifting and lowering of the coating head and screen.

The substrate is heated and held in place and flat with a vacuum platen system.

The coating ink or paste is precisely spread by the application system while the coating head moves smoothly over the substrate.



Coat Areas Up to One Meter Square.

Bob Sandbank is the President of EurotecUSA and represents Coatema and the C³ and CFCC centers in the United States, Canada and South America. Contact Bob by phone at 520.818.9551 or by email at bob@eurotecusa.com.

You are invited to visit both the eurotecusa.com and eurotecusa.net website for more information.



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