CoExtrusion Technology

From material selection to the finished product, we work closely with you to ensure that the product we deliver is exactly what you need.
Ever Cloeren product is custom designed to meet your specifications. We work in close partnership with you and your project team, from material selection to finished product, helping you to optimize your processes, and we do so in complete confidentiality.

To ensure that our products consistently live up to the performance standards upon which we have built our reputation, Cloeren uses the most advanced machine tools and operational techniques available. Our engineering and manufacturing departments are computer-integrated to ensure consistency and reliability.

The end result is flawlessly manufactured Cloeren equipment, built as designed to exacting tolerances and carefully inspected to ensure many years of service.
UNPRECEDENTED ACCOUNTABILITY When you choose a Cloeren system, you will receive the highest quality, most innovative components available in the industry. From on-time delivery through the life of your equipment, you will have our commitment to superior service and unequalled technical support.

ADVANCED TECHNOLOGY FOR OPTIMUM PRODUCTIVITY

Coextrusion is the process of combining different polymers to achieve an optimal balance of physical properties within a single structure. This method of polymer processing emerged to address the increasing demand for greater product performance and the additional need for source reduction in packaging.

Coextrusion remains the most economical means of creating products with multiple performance characteristics, such as enhanced barrier, aesthetics, heat scalability, variable slip and thermoformability.

As the acknowledged leader in developing innovative solutions and technologies for coextrusion, the Cloeren name has become synonymous with coextrusion. Our unique approach to controlling the diverse materials utilized in coextrusion has lead to greater flexibility, uniformity and superior value for our customers. Ongoing technological improvements have increased product performance and value, minimized material usage and lowered the cost of production.

Special Cloeren design features enable our products to process the widest range of melt viscosities and melt temperature differentials. Cloeren has commercialized installations that produce up to 14 conventional polymer layers, microlayer coextrusions up to 500 layers and widths up to 33 feet (10 meters).
The Cloeren Variable Geometry (VG™) Feedblock's patented, externally adjustable vanes enable you to adjust for layer-structure changes without interrupting operations.
CLOEREN FEEDBLOCKS

Cloeren was the pioneer in commercializing feedblock technology. Our feedblocks allow users to handle a wide range of polymers, rates and structures without sacrificing performance.

To meet your specific needs for versatility and economics, Cloeren offers different types of feedblocks - Variable Geometry (VGTM) Feedblocks and Fixed Geometry (FGTM) Feedblocks.

VARIABLE GEOMETRY FEEDBLOCK OFFERS MAXIMUM FLEXIBILITY

The most versatile of the feedblock designs is the patented Variable Geometry Feedblock. It features the Cloeren developed Selector Plug™ Cartridge, plus our exclusive externally adjustable vane and distribution pin designs.
The Cloeren developed Selector Plug is an interchangeable cartridge located upstream of the combining section. It enables the operator to quickly change the structure materials without completely disassembling the feedblock. By simply exchanging the Selector Plug with one having a different channel routing, you can alter the product layer sequence in less than 30 minutes.

Our patented, movable vane design provides for simple, external adjustment of the combining section flow geometry. This feature allows you to compensate for changes in individual layer structure.

Our externally adjustable distribution pins, which can be profiled for your particular polymer application, provide compensation at the point of convergence for visco-elastic differences between polymer layers. This feature fine-tunes individual layer uniformity for optimum product quality, and reduces downtime during the structure development process.

**FIXED GEOMETRY FEEDBLOCK**

The Cloeren Fixed Geometry (KG) Feedblock comprises removably mounted, fixed geometry flow inserts and a Selector Plug Cartridge for layer sequencing. The KG Feedblock is simple to set up and operate, and is best suited for the more defined process and high viscosity applications such as sheet. The KG Feedblock is custom designed and manufactured using proprietary flow modeling and the latest CAE, CAD and CAM technologies. We work with you to determine exactly what materials and percentages will be processed before the unit is designed and built. KG Feedblocks are available in two, three, four or five layer configurations.

**SINGLE SOURCE, MULTIPLE SOLUTIONS**

Cloeren offers solutions for every type of flat coextrusion application. We have developed the most innovative systems available through custom combinations of our patented feedblocks, single manifold dies, multi-manifold dies and optional equipment. We build systems to solve the most basic and the most complex design requirements. Cloeren remains committed to the ongoing development of new technologies to make your processes more productive and more cost-efficient, and to enhance the quality of your finished products.

**Cloeren Extrusion Die Systems for Exacting Performance Demands**

In the field of international plastics and flexible packaging, Cloeren Incorporated has become the world leader thanks to continuous technological innovation, unsurpassed product quality and the availability of timely customer service. Since the introduction of our first patented feedblock in 1975, Cloeren Incorporated has continued to advance the development of flat die extrusion technologies, providing our customers with proprietary processing solutions to meet the ever-
increasing demands for performance and value.

YOUR BEST VALUE FOR EVERY FLAT DIE EXTRUSION APPLICATION

At Cloeren, we design, engineer and manufacture customized coextrusion feedblocks, single and multi-manifold dies, and process-related accessories. There is a proven Cloeren technology for virtually every flat die application. Our extensive knowledge of the industry - its raw materials, processes and finished products - provides reliability, cost optimization and on-time delivery, the same benefits that you would expect from proven pre-engincered components, all in a system designed and tailored to your unique requirements. Whether your market depends on cast film, extrusion coating, biaxially oriented film, sheet, proximity coating, pelletizing or other specialty applications, you can always rely on Cloeren's commitment to excellence.
Cloeren’s patented three-layer Variable Geometry (VG™) Feedblock offers optimum flexibility for flat coextrusion applications.
The Cloeren FG™ Feedblock, comprising our Selector Plug™ and removable flow inserts.
Cutaway view of the FG™ Feedblock illustrates streamlined internal flow geometry.