

LIBERTY IBM SYSTEM



The Liberty IBM System is a paradigm shift in IBM tool design. R&D/Leverage has cured the main frustrations that cost converters time, money, cause quality problems, and pose a safety risk.

THE LIBERTY IBM SYSTEM DELIVERS

- Faster, safer start-up with less labor and a longer mold life due to the breakthrough, patented Genesis IBM Hot Runner System which utilizes our thermally insulated nozzles, on-the-fly balancing, and eliminates further adjustments after initial mold set up.
- This mold system can be started up in a fraction of the time required for a traditional mold, after initial tool set up.
- This is the best production quality of any mold on the market. It eliminates mismatched threads, parting line mismatch, and gate damage. This is due to the patented, self-aligning cavities. These cavities are aligned perfectly on precision dowels, not key stock, to ensure perfect cavity alignment.
- A potentially larger process window than any other mold. That is because of our patented thermal isolation technology. For the first time ever, there is a mold where heat is held where required, and where areas which need to remain cooler do so as a result of thermal isolation.
- The highest Return On Investment (ROI) of any mold on the market. The Liberty IBM System reduces labor, resin use, waste, and changeover time, while increasing your process window and safety. You will produce more output with less time and less waste compared to any IBM mold you have ever owned.

TOOL FEATURES AT A GLANCE

Injection and blow cavities located on the die set with precision dowels

Designed with a gap between the injection cavities to negate the effect of thermal expansion across the injection tool

Options to allow change out of damaged cavities without removing the tool from the machine

Uses the R&D/Leverage patented Self Alignment System for the parison and blow stations

Uses multiple thermolator temperatures and multiple water lines connected to the injection cavities

Uses the R&D/Leverage patented neck insert/cavity thermal isolation technology

Uses the R&D/Leverage patented Genesis Manifold system with all of its value added technology

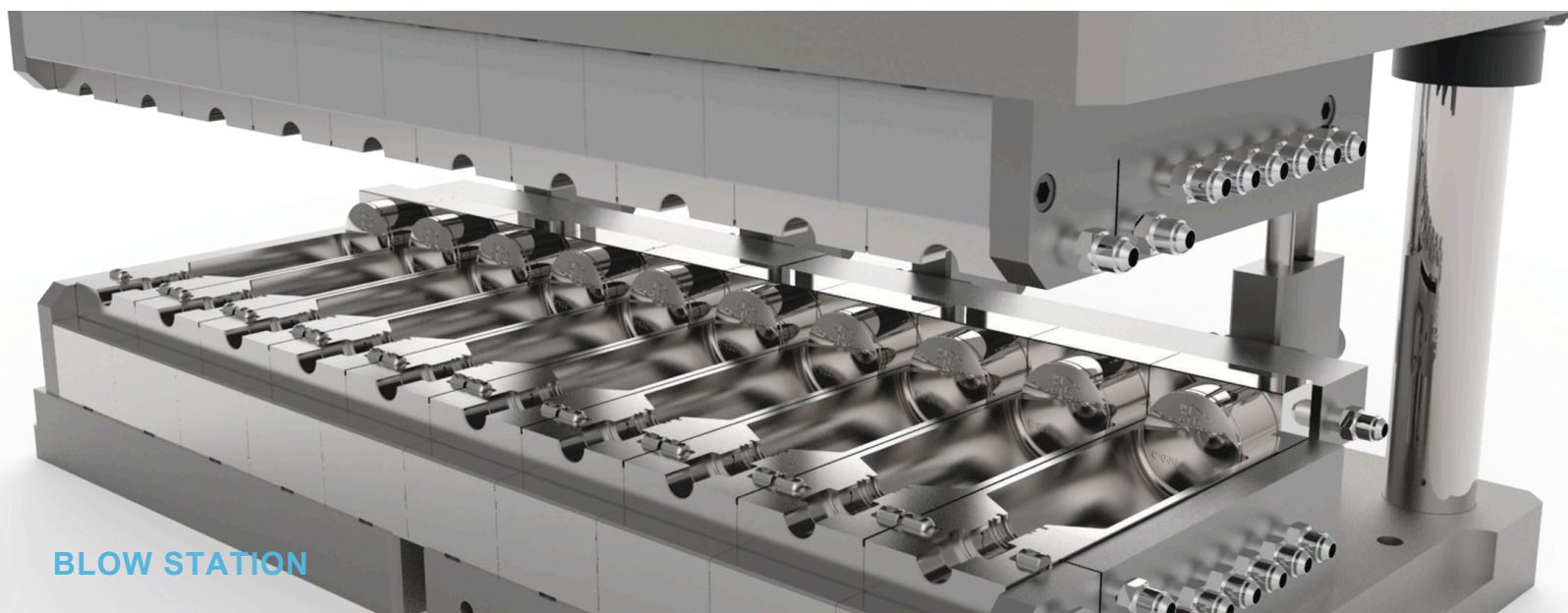
Uses the R&D/Leverage patented Cam Activation System for retractable blow cavity bases

R&D®

LEVERAGE | AN ADLER CO.

WE KNOW MOLDS™

BLOW STATION



LIBERTY IBM SYSTEM

R&D/Leverage is a leading manufacturer of Injection Blow Mold (IBM) tooling for all commercial molding machine platforms. R&D/Leverage offers our Liberty IBM System for your Injection Blow Molding needs.

Unlike traditional IBM tool design technologies that use key stock and all-thread to locate and clamp the mold inserts onto the die set, our Liberty IBM System uses dowels. This allows gaps to be designed between the mold inserts. This gap negates the effects of accumulated horizontal thermal expansion across the injection mold inserts.

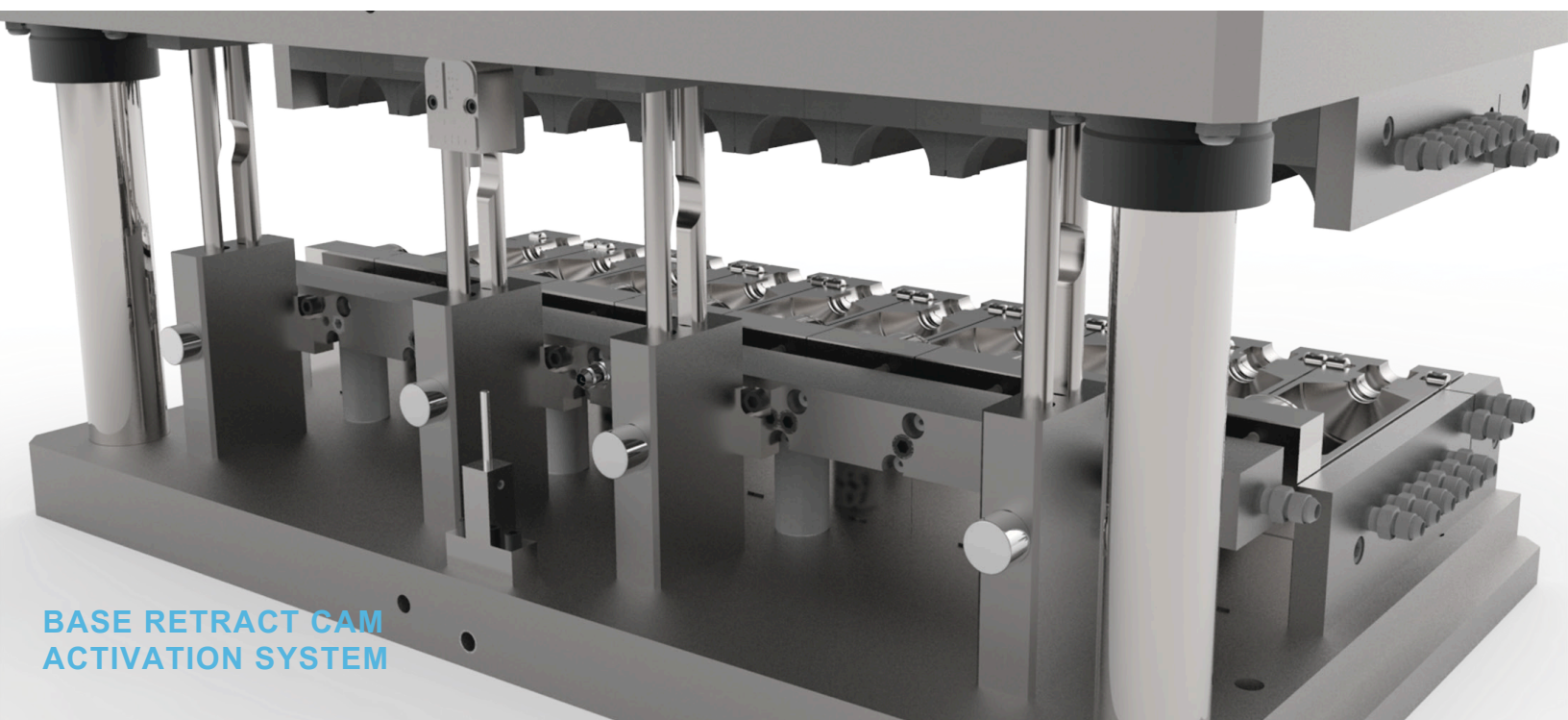
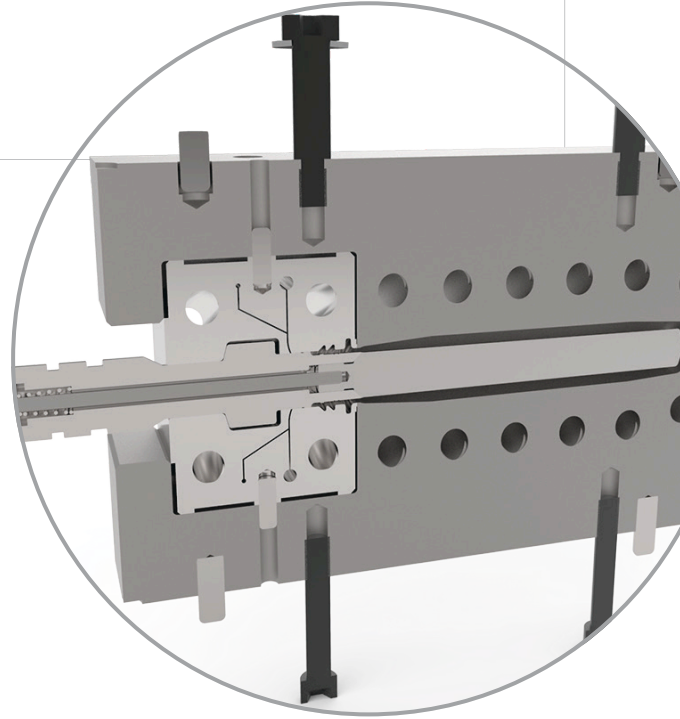
The Liberty IBM System also incorporates our newly developed patent pending Alignment System which ensures optimal cavity alignment. These new technologies are designed to allow fast and trouble free start-ups, improved bottle quality, and minimized tooling wear.

We have been awarded multiple patents for our Liberty IBM System. This sets us apart from all other traditional IBM mold makers.

The Liberty IBM System is the superior option for your Injection Blow Molding needs.



Watch the Liberty IBM System start-up on the R&D/Leverage LinkedIn page
<https://www.linkedin.com/company/r-&-d-leverage/>



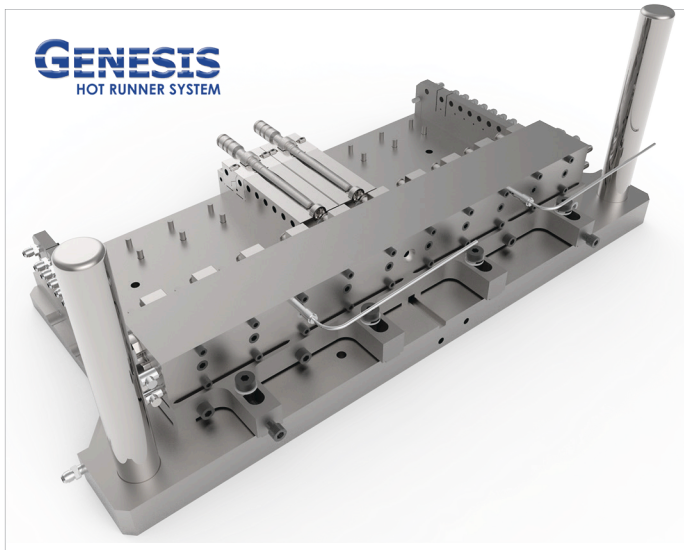
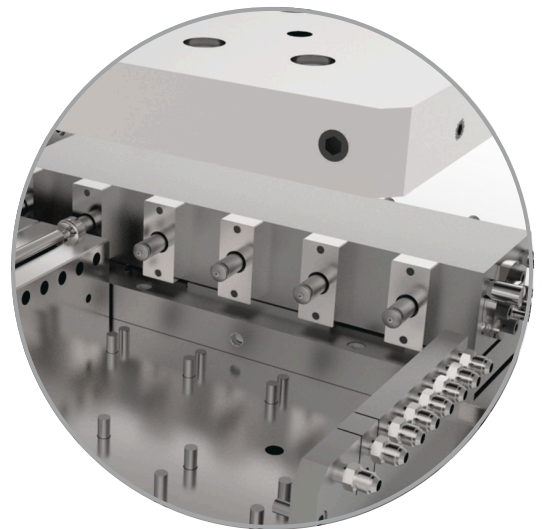
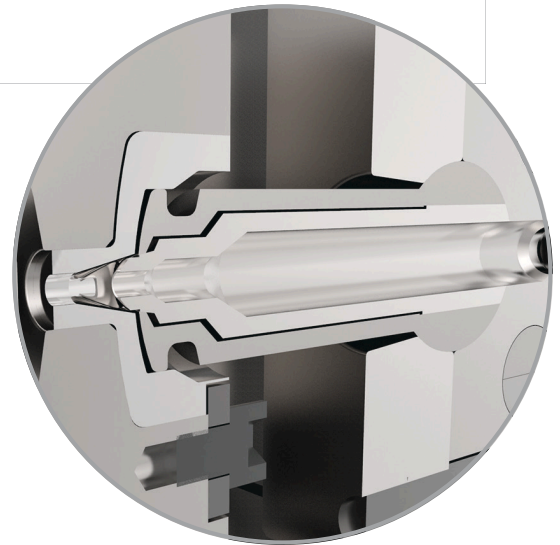
**BASE RETRACT CAM
ACTIVATION SYSTEM**

GENESIS IBM HOT RUNNER SYSTEM

R&D/Leverage offers the Genesis Hot Runner System as part of our continual effort to provide value added technology to the industry. This system was originally developed to provide superior performance on Injection Stretch Blow Molding platforms. It has proved to be even more beneficial on the IBM platform. LDPE, HDPE, PP, PC, Acrylic, K-Resin, Tritan, and PET resins can be used in this manifold. If easier and quicker tool start-ups, reduced technical support, reduced tool maintenance, and reducing part replacement costs are part of your lean initiatives, this hot runner system was developed for you.

Features and Benefits

- Our advanced design optimizes heat transfer from the manifold block to the nozzles. This allows the system to start without needing to torch nozzles.
- One nozzle orifice diameter is used across all cavities. This is possible because each nozzle can be conveniently adjusted to regulate flow, reducing the number of different spare parts.
- The interface of the nozzle tip insert and parison cavity prevents leakage caused by thermal expansion differences of the hot runner and die set.
- The interface design of the hot runner block, the hot runner nozzle and parison cavity, allows the manifold to remain in its forward set location during start-up and shut down without damage to the nozzle or parison cavity.
- Due to lack of wear, the nozzles no longer require replacement at regular intervals.
- Most existing tools can be easily retrofitted to accept our Genesis Hot Runner System.



GENESIS
HOT RUNNER SYSTEM

ADLER
INDUSTRIAL SOLUTIONS

R&D

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R&D/Leverage

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