



Drying Technologies

One of the key reasons for ASI's success is their ability to blend the most advanced drying technologies with process expertise that is both innovative and practical. This combination results in cost-effective custom drying solutions for a wide range of applications.

ASI possesses the largest and most comprehensive inventory of drying technology in the industry, including over two dozen patented air bar, slot, hole, and air foil designs. No matter how unique the product and drying need may be, ASI's inventory insures an optimum match with the most appropriate drying technology.



A sampling of ASI drying technology.

Maximum Efficiency

The efficient transfer of hot air energy to the moving web is perhaps the most important factor in drying performance. Independent industry testing has consistently confirmed that ASI air bars provide the highest indices of heat and mass transfer of all commercially available systems. For your dryer application, high heat transfer equates to reduced dryer length and reduced operating costs.

Ease of Maintenance

The ASI air bar mounting system allows for easy removal and reinstallation, eliminating the need to match-mark each air bar to a specific location. ASI's system of air bar interchangeability drastically reduces maintenance downtime.

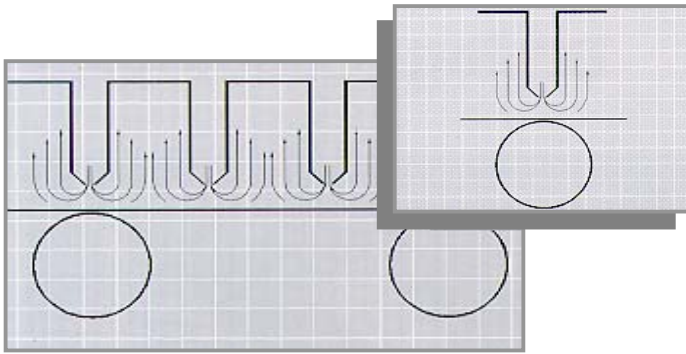
The Right Application of Drying Technology

Air bar selection is based on several different process variables that may include line tension, web porosity, web weight, temperature sensitivity, coating characteristics, and solvent volatility. The combination of these characteristics invariably results in a unique drying/curing requirement. For example, the selections of air bars, foils, slots, or hole bars are quite different for drying magnetic media, cooling foil laminates, or curing silicone coatings. ASI's broad range of drying options insures that the *right* solution is available for every process.



The introduction or commercial scale-up of new substrates, coating and saturates presents an ever-moving target. Many of the new or revised drying techniques are developed and tested on ASI's multi-

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Slot Nozzles

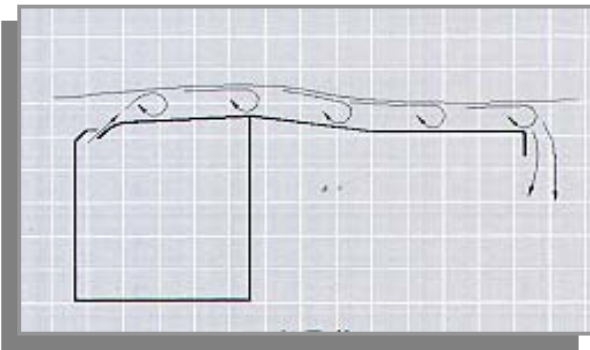
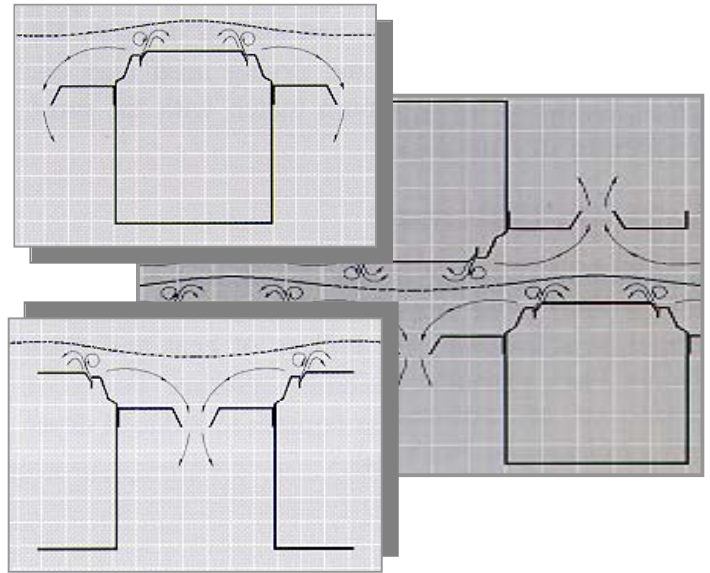
Slot type impingement nozzles have been in use for over forty years. They are still widely used today where single-sided heat and mass transfer are required, such as in conveyORIZED or roll support drying systems.

Impingement Air Bars

ASI maintains a large inventory of pressure pad air bars and air foils, each designed for a specific application. One of ASI's patented air bar designs features internal fine-scale turbulence generators to provide cross-web heat transfer uniformity that is unequalled in the drying industry.

Return-Air Baffles

ASI's patented spent air collection system eliminates cross-machine air flows. All supply and return air travels in a direction parallel to the centerline of the moving web. This method forms a protective air envelope which eliminates cross-machine air forces, a major cause of web weave and flutter.



Specialty Air Bars

ASI engineers are specialists at designing custom air bars and air foils to meet the unique requirements of our customers. For web transporting, ASI air foils can be mounted either above or below the web. With outlet velocities over 12,000 fpm, they provide the strongest lift, or hold-down force, of any air foil design available.



Interchangeable air bars, hole bars, slot and foils allow customers to pre-examine the flotation characteristics of a proposed drying configuration.



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...Where New Technology is in the Air

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