

Hot air flotation dryer for book printing

Application:
<2000 fpm (10 m/s)

Book printing

The printing of books in web offset requires both experience and a high degree of process knowledge. The quality requirements regarding paper moisture and fluting are extremely high even for one or two color printing. Some paper types require very low drying temperatures. Short runs and frequent signature changes require a quick heat up of the dryer to reduce waste. MEGTEC has put its 35 years of experience directly into the COANDA Book producing a hot air dryer especially adapted for book printing.



High quality

A high burner turn-down rate, in combination with MEGTEC's unique web temperature control system, ensures optimal drying at low paper temperatures thus retaining a high level of residual paper moisture.

Hi-Float® Air Bars

Hi-Float air bars provide print quality and reliability unmatched by any other system in their class with stable flotation and effective drying, all with low energy consumption.

Low running costs:

- A single burner (per zone) with fast heat-up from cold start and rapid re-start reduces make-ready waste, particularly important in book printing with typical short runs and frequent

- signature changes.
- An excellent cross flow allows maximum blanket wash solvent input to reduce washing time and paper waste.

Reliability & low maintenance

The long life construction features a minimum number of parts, a single burner (per zone) and proven components. The COANDA Book incorporates a rugged internal frame to ensure correct air bar alignment. Easy component accessibility reduces maintenance time and service costs.

Easy to use

Simple controls with a console display of complete equipment status. The press manufacturer's web

threading system can be incorporated to reduce make-ready times. During web-up and downtime, automatic web-up doors eliminate the need for time-consuming door operation.

Simple installation

The COANDA Book is available in a complete installation package that includes preassembled frames for mounting the exhaust and combustion fans, exhaust duct work, and piping from the burner to the combustion blower.

Temperature control

The standard model is equipped with air and web temperature control. The MEGTEC automatic paper temperature control features pyrometer linked to the PLC which adjusts the

temperature profile for all printing conditions (paper weight, press speed, dampening). This easy-to-use system eliminates operator errors, ensures consistent print quality, reduces paper waste and energy consumption.

Zero Paper Waste Interface Feature

Operator starts press line on console. The press logic enables the dryer preheat signal. At 2% rated press speed, the dryer preheats the air temperature to a value equal to the air temperature set point. The press then accelerates to the preset print speed. At 10% rated press speed set point, a second signal is given to the dryer to release web temperature control.

The complete product line for heatset book printing

MEGTEC offers a range of equipment dedicated to heatset book printing.

For webs exiting the print unit vertically, MEGTEC provides the optimum technical solution. The proven THERMOTURN air turn system combines increased product quality with easy handling of webs from 20 lbs (30 gsm) with a tension range of 1.5 - 4 pli (273-700 N/m) and an automated clearance control system.

MEGTEC offers chill roll systems with 3,4,5 or 6 rolls with shaftless drives or prepared to accept the press manufacturer's drive. Web break detectors and web guide systems can also be incorporated into the chill roll frames as well as press manufacturer's web-up systems.

Book printing with mono, mono and spot, or two color often results in low ink coverage and low solvent concentrations in the dryer's exhaust, but may still need pollution abatement to meet national codes. MEGTEC is the leading supplier of regenerative pollution control systems with up to 95% heat exchange efficiency to reduce energy costs.

MEGTEC offers a range of zero speed and flying splicers for webs from 40.15" (1020 mm) to 80.3" (2040 mm) and roll weights up to 7000 lb (3200 daN) plus manual or fully automated roll loading systems.

Performance parameters

Maximum nominal ink coverage < 1.55 lb (2.4 gsm) (= both sides)

Maximum paper weight <130 lb (200 gsm)

The length of the dryer is determined by the maximum printing speed for a selected maximum ink coverage and paper weight.

Zone lengths are dimensioned to obtain optimum paper temperature under maximum operating conditions.

Technical Specifications

Maximum Web Speed	2,000 fpm (10 m/s)
Maximum Web Width	66" (1,676 mm)
Air Bar	Hi-Float®
Air Bar Balance	Manual
Smoke Tunnel	Provided
Standard Dryer Control	PLC with touchscreen and Zero Paper Waste Interface Feature
Optional Dryer Control	Relay Logic with troubleshooting panel, no Zero Paper Waste Interface Feature
Web Break Detection	Optional
Motors	ODP with ODP High Efficiency on supply fans -TEFC optional
Explosion Relief/Access	Meets NFPA Guidelines

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