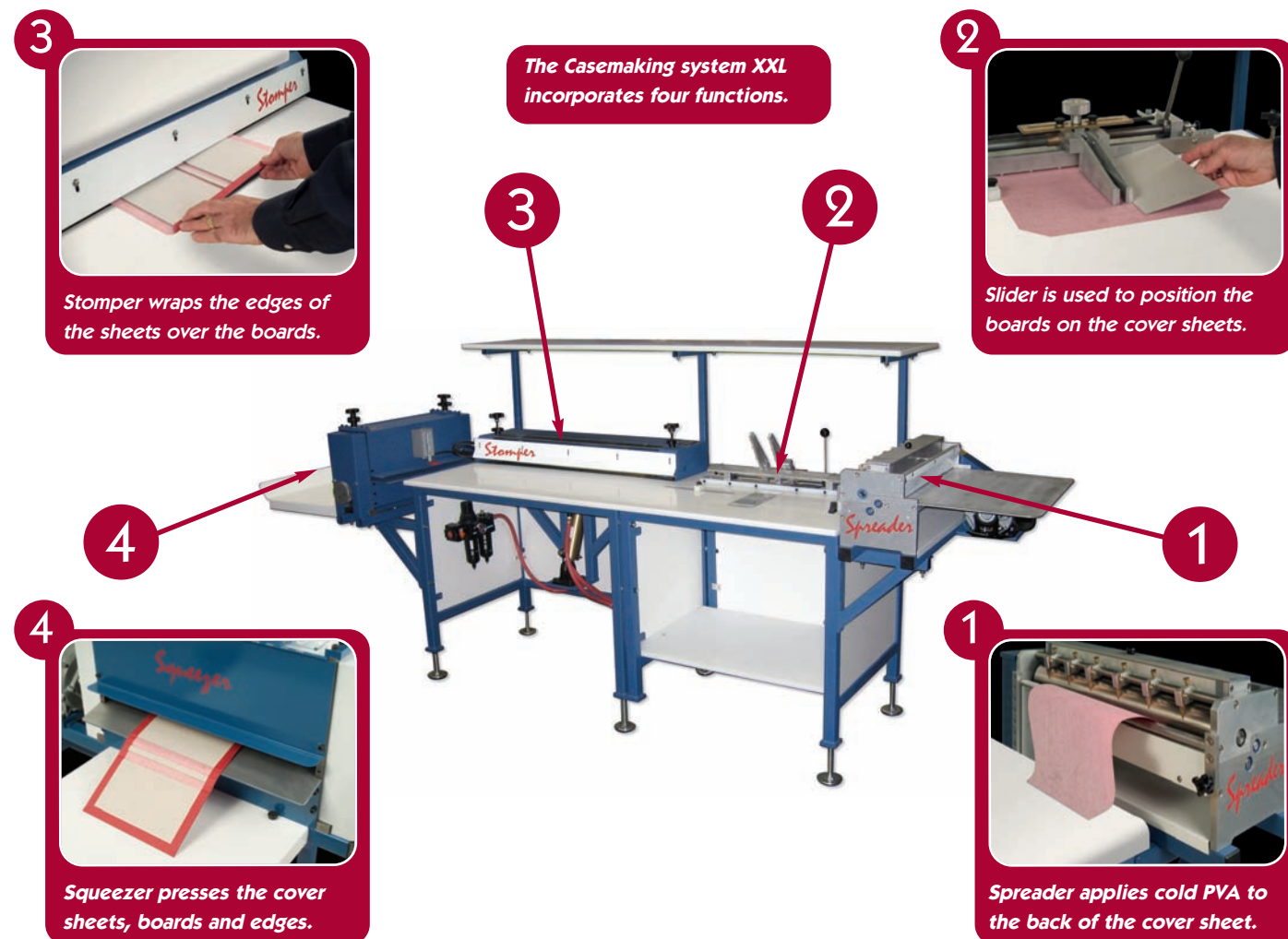


On Demand Machinery Case Binding System



A name like On Demand Machinery gives you a fair idea of what a company is going to offer. In this case it's equipment to produce 'library quality' case bound books in short runs or one-offs, so it's particularly relevant to our photo products theme this month. The company's tag line is 'Photo books made simple.'

Here we're looking in particular at the three machines that form the ODM Case Binding System: the Casemaking system XXL, Sticker XXL casing-in machine and Smasher XXL building-in machine. They are intended for companies entering the photo products or short run books market, and combine manual and semi-automated operations.

Total price would be just under £50,000, says company president John Jacobson Jr: 'With three people you can make about 800 books in an eight hour shift.' The more automated Super Sticker and Super Smasher versions are also available, as well as supporting systems.

ODM is based in Elizabeth, New Jersey, and all its products are designed and made in the USA. It started as a spin-off from American Graphic Arts (AGA), a company with roots going back to the 1920s as the H Weinstein Machinery Company, which made lithographic and diecutting presses. By the 1980s AGA specialised in refurbishing and custom modifications of presses and finishing equipment.

'In the early 1990s we got enquiries for short run on-demand

binding, says Mr Jacobson Jr, who joined AGA in 1987 when it was run by his father, John Jacobson senior. 'There was not much available then, so we decided to create our own.' By 1997 they had developed a complete line of hard cover equipment, leading to the formation of On Demand Machinery to handle it.

An early customer was Lightning Print, the pioneer of on-demand book production that started in Tennessee in 1997. Now named Lightning Source, it has expanded to four sites, including the UK where several ODM lines are used for case binding.

'We were ahead of our time and it was a bit slow at first,' Mr Jacobson Jr admits. 'But we went to shows and promoted it. Then photo books came out a few years ago and now we had a business. We sold machines and the rest is history!'

The Casemaking system XXL glues and wraps cloth, leather or paper sheets to three-piece cover boards at between 120 and 200 covers per hour. It can produce covers from 100 x 100 mm up to 457 x 762 mm (opened size), with an option for up to 457 x 914 mm.

This system is essentially a metal production bench holding several machines and alignment systems that are colourfully described as 'spreader, slider, stomper and squeezer.'

The Spreader is a motorised side gluer that applies cold PVA to the back of the cover sheet. Slider is an alignment gauge above a light

table, with movable arms that lets the operator position the boards easily and accurately over the glued cover sheets. Stomper is an air operated turning-in machine that wraps the four edges of the cover sheets tightly over the boards. Squeezer is the set of rollers that press the sheets flat onto the boards.

Sticker XXL, the casing-in machine, then attaches the covers to previously bound book blocks (which can be sewn, perfect bound or stapled). It's intended for entry level use, to produce from 100 to 300 books per hour, and has recently been re-engineered to work with wallet sizes up to tabloid size covers. In operation a block is placed on the 'wing' support, then the operator depresses a two button safety switch that drops the wing to the glue rollers, which apply a uniform coating of adhesive to the end-sheets. As the book emerges from the glue pots the operator places the cover in position and removes the book from the wing. No make-ready time is required as the machine is self-adjusting. The glue stations are also easily removed for a quick cleanup.

Super Sticker is the automated version, with conveyor loading and positioning of the covers, plus the option of a Nordson paste system to apply extra hot melt adhesive in the joint area. From 400 to 600 books per hour can be produced and there's an option to run inline with the automated Super Smasher, via an autoloader.

Smasher XXL is a self-adjusting hydraulic building-in machine. A hydraulic system clamps the book with 9000 kg of pressure. Heated joint irons help to form the joint by reactivating the adhesive and softening hard cover materials. Smasher XXL has an adjustable dwell timer and the heated joint irons are thermostat controlled.

Super Smasher is an automated version for up to 18 books per minute, or 1080 per hour. A touch screen control panel is used to set all functions. The front chute can be linked inline with a Super Sticker and the delivery chute can lead to a standard conveyor.

ODM also makes related and ancillary machines that can be used with the Casemaking System. Super Sewer is a side sewer for book blocks. Separator is a diecutter that cuts a window in a cover after it has been made. Other complementary systems include Stenciller, a pattern gluing machine for specialist use, Straightener, a roller system to flatten curled board, and an air press to flatten stacks of products.

When ODM started selling into European markets it sold directly from the USA initially, then got together a couple of years ago with ProBook in Switzerland to set up a European office with a showroom. ProBook in turn introduced ODM to Steve Giddins at Perfect Bindery Solutions in Oxfordshire, who is now the UK agent. ■

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