

AR80C

Match Speed Paster/Splicer



*High Performance at High Speeds
for Newspaper & Semi-Commercial Printing*



The AR80C is a high performance automatic match speed splicer, designed with focus on multi-web, double-width high production printing presses and insert presses. It is based on the proven AR80 which has been supplied on more than 300 high performance newspaper presses. Compact design and lowest possible height is ideal for limited space requirements, especially in newspaper printing. The AR80C matches exactly the demands of the press manufacturers and is integrated into the press concept.

The bottom line is process knowledge

AR80C

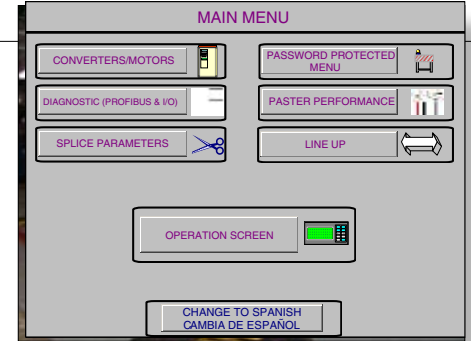
Match Speed Paster/Splicer



The AR80C features include splicer turret with standard split arms, 4 quadrant motors on each arm for drive and braking, pivoting splice arm, dancer assembly



To reduce space requirements to a minimum a turret frame concept was chosen



The touch screen control provides the operator with easy control and rapid access to information

Performance Benefits

- Compact size ideal for limited space requirements
- No bull shaft, smallest distance between two units
- Low height
- Split arm design, loading of two rolls of different widths at the same time
- Spring-loaded safety core chucks
- Automatic roll loading option
- Virtual elimination of splicer-caused web breaks
- Reduced paper waste and high press availability
- Extremely rapid web tension control reduces waste
- Simple splice preparation - straight continuous tape
- Flexibility to splice small roll diameters
- Reliable and low maintenance

Commercial and Insert Printing

AR80C specifications meet the needs for high performance tension control, reliability and ease of use. Split arms are standard to reduce make-ready times; simple splice preparation and numerous automated features further reduce make-ready time.

Newspapers

The AR80C is the high performance paster for double-width and smaller triple width newspapers. Full color printing quality with reduced waste can be aided by the integration of a compact infeed and auto sidelay. In multi-web newspaper printing usually the splicers are installed in the basement below the printing units. The compact design without bull shaft reduces the length of the system and is privileged for 8-high tower installations with a small distance between the towers.

Optional 60 inch Roll Diameter for Newspaper Applications

The AR80C is available in a roll diameter of 1524 mm (60 inches) for:

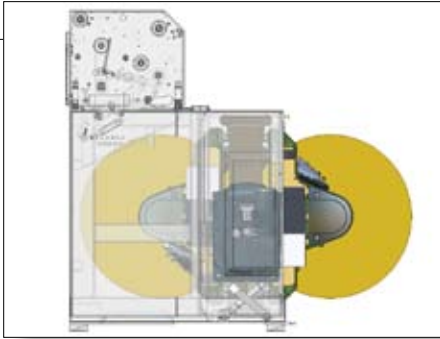
- Lower operating costs through reduced paper waste
- Lower splice tape consumption
- More efficient press time utilization
- Possibly reduced manning
- 31% fewer rolls to handle and store, rolls to strip and splices to prepare, roll changes with less associated waste and reduced web break risk.

Split Arm Design

Ergonomic correctness and user friendliness have been two of the most important considerations in the design of the AR80C. The machine roll width is adjusted to the printing width of the press and variations of up to 79 inches (2000 mm) are possible. Two motorized roll holders are placed on each side of the roll arm. These can be moved sideways by linear control independently of the other roll position. This permits the loading of two rolls of different widths in the machine. In turn, this facilitates very simple and rapid splicing to other roll widths without first having to take out both rolls and then re-adjusting the position of the roll arm.

Easy Roll Loading

Rolls can be loaded manually or automatically directly from the floor level into the arms. Fully automatic chucks improve operating efficiency and safety. Loading is controlled automatically or by a push button for chuck engagement with automatic tightening at the end of insertion. The chucks are positively locked into the core and do not have to be re-tightened during running - even after an emergency stop. As an added safety feature, the lock will not release even if electricity and compressed air supply is interrupted.



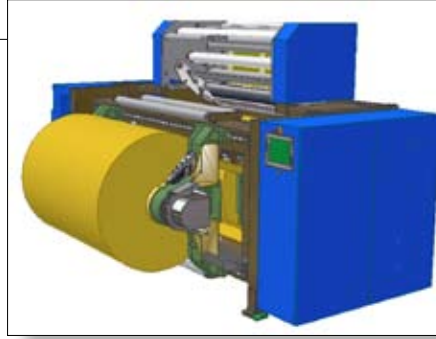
The paper rolls are positioned very close to the center of rotation. The overall height is reduced to a minimum

The low minimum roll diameter for splicing of 18 inches (450 mm) allows significant flexibility for running part rolls without special handling. Normal and symmetric configurations are available for dual-web center loading. The optional ROLLOAD® handling system enables roll preparation at a central unwrapping station. Roll data can be registered and processed. The benefits of operation include reduced paper waste, higher efficiency and enhanced safety.

4-Quadrant Core Acceleration and Braking

AC motors with vectorial flow control are a highly responsive drive and braking system which provides tension control up to 10 times faster than conventional systems. This provides a more constant web tension irrespective of variations of press speed. Butt rewinding is another function.

Stable web tension is assured from the pneumatic dancer roller assembly with potentiometer measurement. Tension is managed by the PLC which controls the four quadrant motors to constantly maintain the dancer in balance. Tension performance is further improved by the short web leads of the AR80C.



Benefits of the combined core drive and braking system include optimum web tension to reduce paper waste, the virtual elimination of paster-caused web breaks and less maintenance

Core braking replaces conventional pneumatic disc brakes. Additional benefits are reduced maintenance and noise level. Separate electric brakes prevent roll rotation during splice preparation and if required supply additional torque during an emergency stop.

Roll acceleration from the core improves control and eliminates contact with the paper surface. It gives better handling of damaged and out-of-round rolls, simplifies splice preparation and avoids the creation of air pockets.

Pasting

The splice preparation is very simple: A straight continuous tape. To detect the position of splice on the roll perimeter, a tab is added. Paste and cut are made simultaneously under tension. A constant short adjustable tail length minimizes potential folder jams. The new roll is lined up automatically on operator or drive side or the press center.



Simple straight splice preparation and black tab detection

PLC Control and Operator Interface

The splicing cycle and running operations are automatically managed by a PLC. Signal lamps and push buttons are logically grouped and the visual display provides the operator with machine status information. The operator panel features a touch screen control for paster setting with a display screen for status, fault finding, service diagnosis and help screens. Key functional hard buttons are available in the machine side frame. Like all MEGTEC Webline products, the paster can be integrated with the press control system. The integration of the paster into the web-up system is available for many press types.

Integrated Infeed Versions

Tension control begins at the paster. MEGTEC's splicers with integrated infeed can be used for optimum performance. This allows the paster to operate at a low tension to limit tension variations to be processed by the infeed. The integrated infeeds extremely stable tension is made possible by the use of high dynamic mechanical as well as electronic elements and provide fast and accurate tension control from 5 daN.

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March 2007

Standard AR80C Model Features

- 2 arm flying paster
- Pneumatic core chucks, spring loaded, air released
- Reel acceleration and web tension through reel center, enables easy straight across or "V" preparation
- Control and regulation by PLC
- Splicer carriage with pneumatic activated knife and roller
- Roll loading directly from floor
- Drillings for OEM web-up system
- Remote control of sidelay and web tension
- Independent frames (optional load bearing)
- Fully assembled, pre-wired, pre-piped and tested for easy installation

Versions

- Normal and symmetric configurations
- Load bearing frames
- Independent or integrated infeed with web guides
- Automatic chuck or edge alignment
- Automatic roll edge alignment before splice
- Automatic sidelay control
- MEGTEC motorized web-up device
- Roll handling systems from manual to fully automatic
- Communication with press
- Built-on web guide

Operating Specifications

Maximum running & splicing speed	2800 fpm	14 m/s
Maximum web width	79 inches	2000 mm
Maximum roll diameter	50 inches	1270 mm
Optional roll diameter	60 inches	1500 mm
Maximum roll weight		
Standard for roll diameter 1270 mm (50 inches)	4700 lbs	2150 daN
Option for roll diameter 1270 mm (50 inches)	5250 lbs	2750 daN
Minimum roll diameter for splicing	18 inches	450 mm
Minimum splicing speed	82 fpm	25 m/min
Roll core inner diameter	3 inches	76 mm
Sidelay adjustment	± 7/8 inches	± 20 mm
Standard tension range	14-88 lbs	6-40 daN
E-stop rate	295 fpm/s	1.5 m/s ²
Paper weight range	24-80 lbs	35-120 gsm