POLYCHEM
PLASTIC STRAPPING SYSTEMS

PCU

CORRUGATED SYSTEMS
CORRUGATED UNITIZER - PCU

Polychem’s corrugated unitizer secures loads using plastic strap to improve production while enhancing your product’s appearance. Polychem’s ruggedly designed PCU will save production time, material handling and labor while automatically conveying, compressing, and strapping your corrugated production loads. The PCU basic system comes with 2, 3 or 4 high speed TR14HD strapping heads mounted on a compression platen. Our unique arch and dispenser system will reduce downtime and improve your efficiency and cost effectiveness. Some additional options include: pallet void feeder, integrated lift and turn, package centering device, and additional conveyor. Our PCU is equipped with the TR14HD high speed strapping head which heat seals either polyester or polypropylene strap for safe and consistent joint strength.

- FAST
- RELIABLE
- BUILT TO LAST

Polychem Systems
Eliminate the Fear of
The “PACKAGING BOTTLENECK”

**STANDARD SPECIFICATIONS**

- Heads: 2, 3 or 4 TR14HD Strapping Heads
- Compression System: Electric
- Internal Conveyor: 102” wide x 86.5” long x 12” T.O.R.
- Head Spacing: 8”, 16” and 24”
- Electrical Power: 480 VAC, 3 phase, 60 Hz
- PLC: Allen Bradley SLC - 5/03

**Options**
- Internal Lift and Turn Mechanism
- Pallet Void Feeders
- Spare Strapping Heads and Test Stand
- Hoist for Head Removal
- A-B Panel View Touch Screen Controls
- Modem for Remote Troubleshooting

**STRAPPING MACHINE**
Electronic Compression System

Electronic compression is the most reliable and efficient way to go. No more messy hydraulics to leak and maintain.

Tough, Reliable OMS TR-14HD Strapping Head

There are over 10,000 OMS strapping heads in operation worldwide. The TR-14HD produces a superior strength heat seal with a heavy duty heater blade that is automatically monitored and cleaned by a thermocouple. You can expect up to 3x less maintenance with the TR-14HD strapping head because wear parts are made of hardened steel.

Power Conveyor System

The closely spaced chain driven conveyor rollers (2.75” Dia. x 3” O.C.) smoothly convey the toughest products. The center of the conveyor is reinforced to the base to minimize stress and deflection. Conveyor speed can be adjusted to precisely match the mating conveyor.

PCU OPTIONS

Touch Screen Control Panel

Integrated Lift and Turn Mechanism
**Strong, Sturdy, Steel Frame**

The structure of this machine is designed far well over double the rated compression of the machine.

**Fully Gated Chute System**

The heavy duty fully gated chute system provides reliable strap feeds to minimize downtime due to misfeeds. The tightly designed system greatly reduces the possibility of the strap escaping.

**Heavy-Duty Steel Dispensers**

The dispensers are easy to load. The all-mechanical design simplifies the mechanism and reduces parts.

**SAFETY FEATURES**

The self-engaging brake requires power to allow the platen to move. During a loss of power, the brake automatically engages. A completely independent secondary brake system insures safety in the unlikely case of primary brake failure.

A safety lockout pin mechanically and electrically locks out the machine to provide a third layer of safety when servicing the machine.
CB3500

In-Line Corrugated Bundler

- Easy to use
- Reliable
- Built to last

Technical Data

- Capacity: Up to 35 cycles per min.*
- Arch Opening: 49" & 65" wide x 19.5" high
- Conveyor Height: 27" - 54" standard
- Strap Size: 5mm polypropylene
- Core Size: 8" diameter x 8" wide
- Electric Power: 220 / 440V, 3 Phase, 60Hz
- Air Power: 3 CFM @ 90 PSI
- Strap Feed: Fully automatic
- Press: Double belt soft press
- Weight: 1232 lbs.

*Depending on arch size and package size

FEATURES

CB3500 Standard Features

- Up to 35 straps per minute*
- Machine designed with the mechanic in mind: easy access, easy assembly and disassembly, minimal maintenance
- Mitsubishi programmable logic controller with input / output diagnostics
- Outside easy loading reel with easy access
- Fully automatic strap threading
- Pre-lubricated sealed bearings throughout
- Easy to understand control panel
- Interlock connections to communicate with other equipment
- Solid state switches and photocells for reliability
- Loop ejector to eject accidentally actuated straps
- Complete safety interlocks
- Seven digit, non-resettable maintenance counter
- Long life heater blade with smoke exhaust system
- Heavy duty knurled steel roller conveyor
- Highly visible machine status light pole
- Variable speed conveyor

CB3500 Optional Features

- Quick change reel
- Spare reel
- Box frame for additional height adjustment

* Depending on arch size and package size
CORRUGATED INDUSTRY PACKAGING APPLICATIONS

1. Mainline Knock-Down (K.D.) Cartons - Bale Unitizing

Primary use of strap in corrugated plant. Finished cartons are stacked in K.D. fashion to produce bale loads (no pallets). Cartons are stacked on "waster sheets" and same are used on top of loads. These provide stability and serve as corner protectors under the straps. Bales are either "one-up" or "column-stack" and loads can vary in length and width, but most popular dimensions are 45" wide x 45" high. Strap patterns vary, but 2 x 2 is prevalent.

Automatic compression unitizers with conveyor width openings between .77" and 102", and height openings to 90" are used to apply straps. Each bale is compressed, strapped, rotated (if needed) and strapped in cross direction. It is then exited to accumulation conveyor. (Some use of pallets continues and pallet void feeding attachments, a part of the unitizer, are used to feed the strap through the pallet void.)

2. Bundling Application

Some corrugated customers require that their boxes be bundled incrementally. To facilitate, an automatic strapping machine is placed at the end of the "flexos" (flexographic, folder/gluer/printer/sloter). Cartons are accumulated, counted and presented to a strapping machine that compresses the individual bundles and places a single 5MM or 6MM strap. The bundles then convey to bale preparation area and become a part of a larger bale.

POLYESTER STRAP:

- **POLYCHEM**
  - **COMPETITOR CODE**
  - **NOMINAL WIDTH**
  - **STANDARD WIDTH**
  - **NOMINAL THICKNESS**
  - **FEET PER COIL**
  - **COILS PER PALLET**

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POLYBOPROPYLENE:

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**Warranty** - Seller warrants that the products sold hereunder will conform to Seller's specifications and will be free of defects in workmanship and materials for a period of one (1) year from the date of production. EXCEPT AS EXPRESSLY STATED HEREIN, SELLER MAKES NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED AND EXPRESSLY DISCLAIMS ALL WARRANTIES REGARDING THE MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OF THE PRODUCTS DESCRIBED HEREIN. The equipment and procedures utilized to apply the product and environmental conditions are among the factors which may adversely affect the performance of the product. It is essential that the user evaluate whether the product is fit for a particular purpose and user's method of application.

POLYCHEM CORPORATION
6277 HESLEY ROAD
MENTOR, OHIO 44060
(440) 357-1500
FAX (440) 352-9553

WEST COAST DISTRIBUTION CENTER
19200 ALTAMAR PLACE
SANTA FE SPRINGS, CA 90670
(562) 903-4576
FAX (562) 903-4579
1-800-899-0822

EVERGREEN PLASTICS FACILITY
220 WATERTOWER DRIVE
CLYDE, OH 43410
(419) 547-1400
FAX (419) 547-4651

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www.polychem.com
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