

The

Mini-System

The All-in-One Robotic Palletizer & Stretch Wrapper

orion
ANYTHING LESS IS A GAMBLE

Brenton
ENGINEERING COMPANY

Pro Mach Operating Partners

The Mini-System will help you:

- Save on labor costs
- Improve throughput
- Avoid ergonomically related workplace injury
- Reduce product damage from improperly built unit loads
- Produce consistently built unit loads
- Ship attractive, neatly wrapped unit loads



Orion Packaging Systems and Brenton Engineering, two of the most respected names in the packaging industry today, are proud to introduce the Mini-System, the “all-in-one” robotic palletizer / automatic stretch wrapping system designed to increase productivity by integrating separate material handling and packaging operations into one fully integrated system.

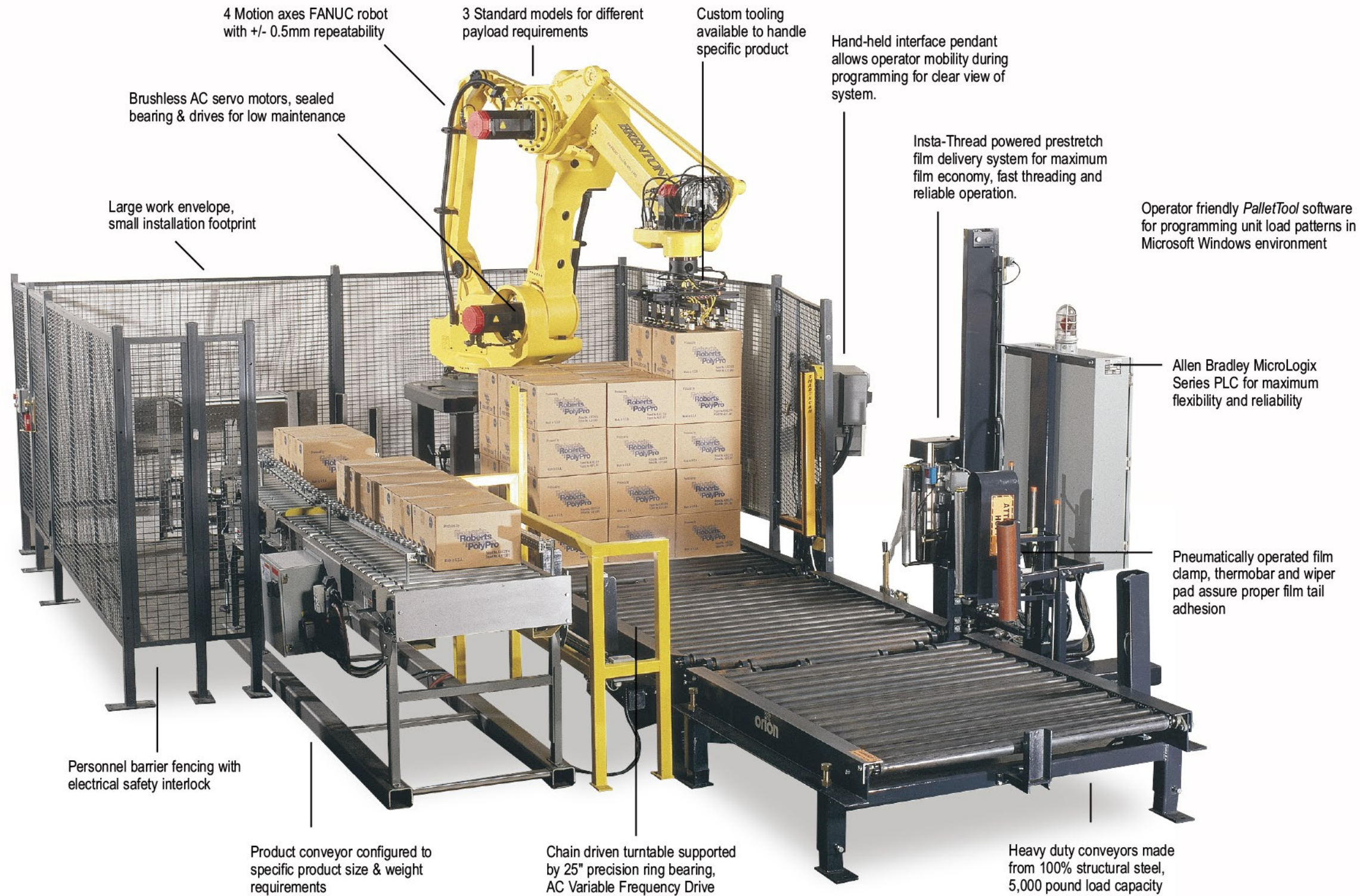
The Mini-System is a complete, end-of-line packaging solution which can handle a wide variety of product types, sizes and weights and can easily be programmed to handle a variety of stacking patterns. The use of tried and true proven technology makes the Mini-system highly reliable, fast and simple to service.



The Mini-System pictured above uses an Orion turntable style stretch wrapping system. The Mini-system can also be configured with an Orion rotary tower model depending on the application.

The Mini-System

FEATURES



Robotic Palletizing



The robot is an electric servo-driven, four-axis model by FANUC Robotics. With an integrated mechanical and control unit, the M-410i (RJ3) series of robots provide high speed, high payload capability without sacrificing accuracy and repeatability. Capable of handling payloads up to 880 pounds (400kg) and axis speeds up to 300 degrees per second, the M-410i is the best-in-class solution for your automated palletizing / depalletizing needs.

Load Unitizing



One of the most popular stretch wrapping systems for the Mini-System is the Orion® model FA-44, the most reliable and rugged stretch wrapper in its class. Orion also offers rotary tower models for more demanding applications. Orion heavy-duty conveyors feature AC variable frequency drive for low maintenance and long motor life. Soft start and stop assure that loads will be transported smoothly through the system. The FA-44 also features an all structural steel frame for long-term durability, a chain driven 25" precision ring bearing turntable support, and state-of-the-art Allen Bradley PLC controls. Orion's proven Insta-Thread® film delivery system features fast and easy film threading and consistent film elongation. With a maximum turntable rotation speed of 16 RPM, the FA-44 can process up to 75 loads per hour.

Stretch Wrapper Specifications



Orion FA-44 Machine Performance

Turntable rotation	Variable to 16 RPM
Production capacity	55 - 75 loads / hour

Film Delivery System

Prestretch ratio	245% (standard) (100% to 425% avail. as option)
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Load Specifications

Maximum load weight	5,000 lbs. dynamic 20,000 lbs. static
Maximum load size	48"W x 48"L x 72" H
Minimum load size	30"W x 30"L x 26" H

Conveyor Specifications

Speed	50 fpm
Roller spacing	2.5 dia. on 3.75" centers
Drive	AC variable frequency drive

Power Requirements 208 / 3 / 60 20 amp

Pneumatic Requirements 3 CFM @ 80 psi

Structural Design

- 100% Structural steel used throughout
- Steel safety railing around outer turntable
- Side facing carriage for easy roll changes

Estimated Shipping Weight 6,500 pounds

Robotic Palletizer Specifications



FANUC M-410 Series Performance

Function speed	Up to 15 cycles per minute
Production capacity	55 - 75 loads / hour

Vertical Reach

115"

Load Weight Capacities

M-410i HS	220 lbs.
M-410i HW	550 lbs.
M-410i WW	880 lbs.

Operating Environment

Temperature	32°F to +113°F
Humidity	75% RH or less non-condensing

Mechanical Weight

M-410i HS	3,450 lbs.
M-410i HW	3,450 lbs.
M-410i WW	5,357 lbs.

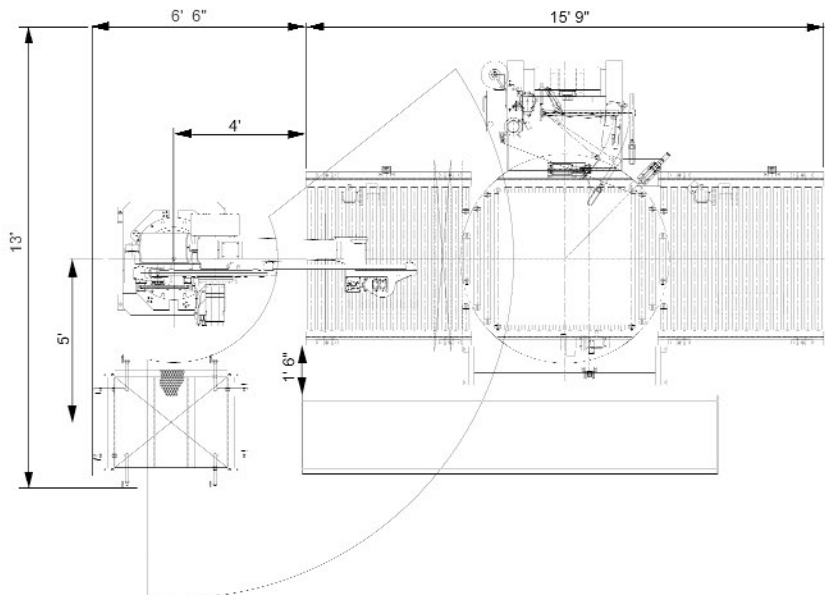
Mounting Method

Upright

Axis Speed

Up to 300° per second

Typical Layout Dimensions

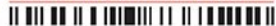


Shown is a basic setup. Virtually every Mini-System layout will vary due to the specific parameters of the application. Your dimensions will vary from those shown above. All dimensions approximate. Orion Packaging, Brenton Engineering & FANUC robotics reserve the right to change specifications without notice.



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