orion®
Stretch Packaging Systems

MA Series rotary tower automatic

Stretch Wrapping Systems

orion MAX

The MA-X is Orion's flagship automatic. The MA-X offers customers the highest speeds and most robust frame design for years of reliable and economical operation.

orion MA Deluxe DX

Orion's MA-DX represents decades of proven technology and experience in automatic stretch wrapping. When solid construction and efficient operation matters, the medium price range Orion MA-DX is the best choice.

orion MA Standard ST

The entry level MA-ST offers many of the same performance features as the DX and X series and is available in 1-leg or 2-leg configurations.

Orion MA-X

Orion MA-DX

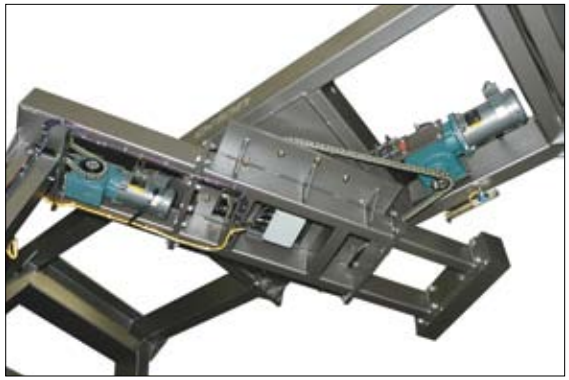
Orion MA-ST

orion MA X

- “A” Frame high-speed, extra-heavy frame structure
- Fully enclosed slip ring assembly for trouble-free operation
- Rotary tower well-suited for extra light, unstable or heavy loads
- Insta-Thread™ film delivery systems with 260% prestretch
- Maximum load weight 4,500 pounds, 6,000 lb. optional
- Automatically adjusts for various load heights
- 30 RPM counter-balanced rotary arm, our fastest automatic system
- Category 2 safety rating including full wire mesh surround fence
- State-of-the-art AB MicroLogix PLC Controller for maximum flexibility
- 30" precision ring bearing with ANSI chain/sprocket drive for ultra-reliability
- Many non-proprietary replacement parts can be purchased locally
- AC Variable Frequency Drive for reliability and easy maintenance
- Durable powder coat paint for super tough finish

Orion’s top-of-the-line MA-X represents over twenty years of stretch packaging innovation. With a specially designed A-shaped frame structure, the machine can withstand the rigors of high speed operation. Available options include a 30 inch film carriage and 36 RPM for maximum throughput speeds of up to 100 loads per hour. When demanding applications demand only the most durable and robust machinery, the Orion MA-X is the right machine for the job.

** Above photo includes optional maintenance platform/ladder, 30” film carriage, increased conveyor pass height.*

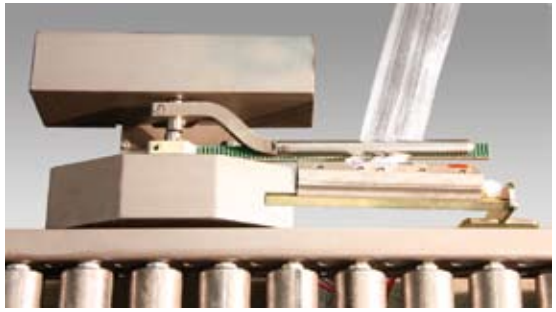


MA-X Tower Drive System

- 30" diameter precision ring bearing
- State-of-the-art, digitally programmed AC variable frequency drive
- Elegantly simple yet highly efficient & durable
- Fully enclosed slip ring assembly
- Industrial grade ANSI chain/sprocket
- Positive home position alignment
- Non-proprietary replacement parts
- All components easily accessible
- Adjustable soft-start and stop

MA-X Safety Fencing

As part of Category 2 safety rating the MA features full wire mesh enclosure surrounds the wrap area of the MA-X. Two electrically interlocked doors on the film tail side allow for convenient yet secure entry to the wrapping zone.



Pneumatically operated film clamp with high grip clamp for reliable grip & release of film tail

MASeries Tail Treatment

Simple, yet highly effective describes the unique film tail treatment system on MA systems. At the end of the wrapping cycle, The film clamp grips the film web while the "no build-up" thermal cutter bar severs the film. The load-seeking pneumatically actuated brush then smooths and secures the film tail to the side of the load as it exits. The result is an attractive, secure film tail that stays in place.

- New air knife eliminates hanging film tails
- Pneumatically actuated thermobar cutting system positively seeks the load for reliable, consistent film tail brush down.
- Hot knife design assures no build-up of film on cutting system
- Pneumatically actuated film tail brush load seeking film tail brush actually "seeks" the load and gently smooths and secures the film tail

MA Series Controller

A versatile menu driven touch screen guides users through a range of settings for easy adjustment of operating parameters. Settings can be password protected for added security.

- Free standing, UL Listed, NEMA 12 rated control panel
- State-of-the-art AB MicroLogix PLC Controller for maximum flexibility
- User friendly color menu driven touch screen HMI
- Large safety rated Emergency Stop button
- Separate count selectors for top & bottom Wraps
- Separate settings for carriage up and down speed
- Raise & lower film carriage manually with the Carriage Jog
- Rewrap button to rewrap load after film roll replacement or E-Stop
- Rotate the tower manually with the Tower Jog button
- Conveyor Jog controls
- Current overload protection
- Load/personnel safety stop photocell system
- Bypass mode selector switch for bypassing load through wrapper

Orion Conveyor

- 100% Orion manufactured using structural steel for maximum strength & durability
- Conveyorized systems include 25' powered conveyor (1 infeed, 1 wrap zone, 1 exit)
- 4,500 lb. capacity, upgradable to 6,000 lbs.
- 18" Height to Top of Rollers, 52" Effective conveyor width
- Close roller spacing: 2.5" diameter rollers on 3.25" centers
- All rollers driven via heavy duty ANSI loop-to-loop chain
- 30-60 fpm variable reversing standard conveyor speed
- AC Variable Frequency Drive for high reliability
- Fully automatic sequencing logic

orion

MA Deluxe DX

- 4-Leg reinforced structural steel heavy-duty frame structure
- Fully enclosed slip ring assembly for trouble-free operation
- Rotary tower well-suited for extra light, unstable or heavy loads
- Insta-Thread™ film delivery systems with 260% prestretch
- Maximum load weight 4,500 pounds, 6,000 lb. optional
- Automatically adjusts for various load heights
- 18 RPM counter-balanced rotary arm, upgradable to higher speeds
- Category 2 safety rating including full wire mesh surround fence
- State-of-the-art AB MicroLogix PLC Controller for maximum flexibility
- 23" precision ring bearing with robust ANSI chain/sprocket drive
- Many non-proprietary replacement parts can be purchased locally
- AC Variable Frequency Drive for reliability and easy maintenance
- Durable powder coat paint for super tough finish

The workhorse of the stretch packaging industry, the Orion MA-DX can be configured with a wide variety of available options to create a packaging system perfectly suited to your application. With thousands of systems running world-wide, today's MA wrapping systems represent the very latest technology for maximum economy, efficiency and machine durability.

Film clamp, cut & wipe

Simple, yet highly effective aptly describes the unique film tail treatment system on the MA-DX. At the end of the wrapping cycle, Orion's innovative asymmetrical film clamp grips the film web while the impulse hot wire cuts the film. Then, the load-seeking pneumatically actuated brush smooths and secures the film tail to the side of the load as it is conveyed to the exit conveyor. The result is an attractive, secure film tail that stays in place.

Drive System

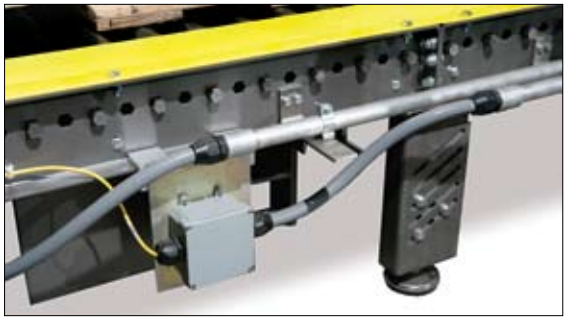
The MA-DA features a durable chain & sprocket tower drive system with a precision ring bearing to provide for durable and reliable operation for many years. The dry-lube chain requires little maintenance as compared to direct drive "tooth to tooth" direct gear drives which often require constant greasing. A fully enclosed slip ring assembly reduces maintenance and increases up-time.

Film Delivery System

The 'heart' of all MA machines is the Insta-Thread™ film delivery system, an extremely reliable and consistent film carriage engineered to accurately pre-stretch film at a fixed rate and deliver it to the load at a constant tension level.

The AC prestretch motor is controlled by a Variable Frequency Drive for a high degree of reliability because there are no brushes to replace as with conventional DC motors/drives.

- Lifetime warranty on prestretch rollers
- Uses standard 20" stretch film rolls
- Precision ground, polyurethane pre-stretch rollers for consistent, maximum film yield
- 260% standard pre-stretch ratio (optionally available from 100% to 300%)
- Carriage lifted by heavy-duty ANSI industrial chain
- Insta-Sense™ film out/broken sensing logic with indicator light on control box
- AC Variable Frequency Drive system assures fast motor response and eliminates brush replacement in motors as with DC drives.
- Electronic film tension control on control panel
- Full authority film dancer bar with non-wearing sensor adjusts film output to compensate for corners of load
- Heavy-duty ANSI chain & sprocket ratio control
- Multi-point UHMW precision carriage guidance system for smooth, trouble-free operation
- End of cycle film force release prevents film jams
- Highly responsive corner compensation assures consistent stretch film application
- Lock the load to the pallet with 'ultra low wrap' tilted carriage which wraps down to 2" above roller



Orion Elite Conveyor

Orion Elite Series conveyor is built entirely in-house to assure the best quality control over every step of the design and manufacturing process. All conveyor sections are pre-wired, conduit photocells and guards. Conveniently located junction boxes and connectors make trouble-shooting fast and easy.

Threading the Insta-Thread film carriage is fast and easy. Simply open the hinged roller gate and pull the film web through, then latch the roller frame closed.

Graphic instructions on top of the carriage guide the operator through film threading.

The Orion MA-ST automatic wrapping system is designed around the premise that quality and durability need not break the budget. Configured with many of the same high quality components as the DX and X systems, the MA-ST offers high efficiency film delivery, sophisticated controls, a durable and rugged drive system and many more features that make the MA-ST the best value in automated stretch packaging today.

orion MA Standard ST

The MA-ST is also available in a 1-leg configuration

Industrial Strength Drive & Support

Tower support and drive is supplied via a precision ring bearing driven by heavy duty chain for maximum reliability in harsh industrial conditions. Orion's Revo-Logic™ provides precise wrap counting and home positioning.

- Single leg or 2-leg gantry style frames available
- Fully enclosed slip ring assembly for trouble-free operation
- Rotary tower well-suited for extra light, unstable or heavy loads
- Insta-Thread™ film delivery system elongates film 260% (standard)
- Maximum load weight 4,500 pounds, 6,000 lb optional
- Automatically adjusts for various load heights
- 12 RPM rotary arm, upgradable to higher RPM
- Category 2 safety rating including full wire mesh surround fence
- State-of-the-art AB MicroLogix PLC Controller for maximum flexibility
- Precision ring bearing with robust ANSI chain/sprocket drive
- Many non-proprietary replacement parts
- AC Variable Frequency Drive for reliability and easy maintenance
- Durable powder coat paint

Human Machine Interface (HMI)

An advanced menu-driven HMI allows operators to easily change operating parameters on the machine.

Specifications	MA-X		MA-DX		MA-ST	
	Standard	Optional	Standard	Optional	Standard	Optional
Rotation Speed (RPM)	30	36	18	24 30	12	18
Production Capacity (Loads per Hour)*	60-75	to 120	50-65	to 90	30-45	to 60
Maximum Load Weight (lbs.)	4,500	6,000	4,500	6,000	4,500	6,000
Maximum Wrap Height	80"	95" 110"	80"	95" 110"	80"	95" 110"
Conveyor Speed (Feet per Minute)	50	30-60	40	30-60	30	30-60
Maximum Load Size	48"x48" (larger available: Factory Quote)					
Minimum Load Height	15"					
Minimum Wrap Height	2" from conveyor roller top					
Conveyor Roller Spacing	3.25"					
Controller / HMI	Allen Bradley MicroLogix 1400					
Controller NEMA rating	NEMA 12					
Independent Carriage Up/Down Speeds	Standard					
Independent Top/Bottom Wrap Counts	Standard					
Safety Rating	Category 2 (Cat 3 option available)					
Standard Voltage Requirements	480 VAC / 3ph / 60Hz					
Standard Air Requirements	80 PSI @ 6 CFM					
Warranty	3 Year components / 5 Year frame / Lifetime prestretch rollers					
Paint Finish	Electrostatic Powder Coat					

* Throughput rate calculated on a typical 48” x 48” x 60”H load with 2 top wraps, 2 bottom wraps, 2” film overlap and 3” top film overwrap. Higher througput speeds require optional upgrades.

What is Category 2 Safety Rating?

We take safety in the workplace seriously. That’s why Orion MA automatic systems are built to Category 2 safety standards. These standards include:

- Full wire mesh safety fencing 8 ft. high
- Two access doors with electrical interlock
- Light curtain on infeed & exit with muting
- Electrical air dump purges air in E-stop
- Separate Start and Control Power Reset buttons
- X and DX models also include regenerative braking with air brake to stop rotation faster during E-stop

Category 3 standards are available optionally.

MA Series Popular Options

- High speed tower rotation
- High speed conveyor
- 30” InstaThread™ film carriage
- Extended mast height for 95” or 110” high load
- Higher or lower conveyor pass height
- Category 3 safety rating (Cat 2 is standard)
- Xtra Duty 6,000 lb. conveyor
- 3-Strand chain conveyor section
- Additional powered conveyor sections
- Additional gravity conveyor sections
- Film tail heat seal
- Oversized load capability
- Automatic top sheet dispenser (over infeed or in wrap zone)
- Weather resistant top sheet programming
- Film roping carriage for 20” or 30” film
- Film tail heat seal for 20” or 30” film
- Weigh scale built in conveyor
- Photocell forklift detection for loading/unloading
- Remote lanyard switch for forklift loading
- Automatic bypass for min/max load height
- Custom paint color (powder coat)
- Maintenance platform with rail & caged ladder
- Load lift for wrapping under load

Not all options available on all models.
Consult your local Orion distributor.

Machine Dimensions			
	MA-X	MA-DX	MA-ST
Width	158"	131"	145"
Length	293"	293"	293"
Height	140"	134"	130"

90 Degree Turn Conveyor

Conveyor Leg Load Cell

6-Sided Wrapping System

Chain Transfer Conveyor

High Level Conveyor

Low Level Conveyor

Split Conveyor

Xtra-Duty conveyor detail

Top Sheet Dispenser
(Wrap area model also available)

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orion®
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All dimensions approximate. Orion reserves the right to change specifications without notice.