OPTI VACUUM STUFFING & PUMPING SYSTEMS

High Volume. Continuous.
Optimal Performance.

MARLEN

MARLEN. REAL. SMART.

RELIABLE CONTINUOUS TWIN PISTON STUFFING AND PUMPING

Our high volume Marlen Opti Series stuffing and pumping systems feature twin-piston pumps for the gentlest handling while providing optimal vacuumization for the most superior particle definition and highest product integrity. From whole muscle to sectioned, formed and emulsified meat and poultry products to sliced peaches, diced tomatoes and lobster filled ravioli, our Opti stuffers and pumps can be equipped with a variety of hopper options designed to match application and product requirements.

BENEFITS / FEATURES

Superior particle definition and product integrity.

- With its product inlet valve measuring 8 9/16" in diameter, the Opti stuffing and pumping system allows product to be diffused across the pump's sheeting valve for the gentlest handling while maximizing vacuumization. This highly engineered design delivers premium whole muscle meats with the least amount of product damage. Producers of products with particulates such as pepperoni, salami and mortadella along with those who manufacturer whole muscle meats rely on our Opti series pumps for best-in-class particle definition and product integrity.

Optimal vacuumization.

- Marlen's patented twin-piston and sleeve design allows for maximum vacuumization throughout the system's hopper and pumping chamber. By exposing the product to optimal removal of entrapped air and achieving up to 29" of mercury, better weight control is achieved; shelf life extended, and increased casing savings result through the delivery of denser products.

Continuous flow.

- Constant pressure and speed is maintained via Marlen's hydraulic powered units which retain the same pressure while stopped as when in motion. The result: a precise metered flow for better weight control at the speeds required for high volume production environments.

METHOD OF OPERATION

The Opti's twin-piston positive displacement pumping design is engineered for maximum versatility. As the piston and sleeve retract, a perfect vacuum is created to facilitate loading of product into the pumping chamber. As product enters the sheeting valve, maximum surface area is exposed. This feature along with auger assist allows the pump to utilize full vacuum in the hopper, resulting in the highest vacuumization possible.

Finally, continuous stuffing and pumping action without pulsation and precise metering allow the Opti to maintain constant pressure and speeds for a continuous product flow.

With pumping capacities up to 34,000 pounds per hour, a variety of hopper options, and a host of auxiliary equipment such as in-line grinders, transfer valves, portioners and depositors, the Opti series features a wide range of models for ultimate versatility and an endless number of applications.

SYSTEMS DESIGNED TO DELIVER OPTIMAL QUALITY PRODUCTS WH

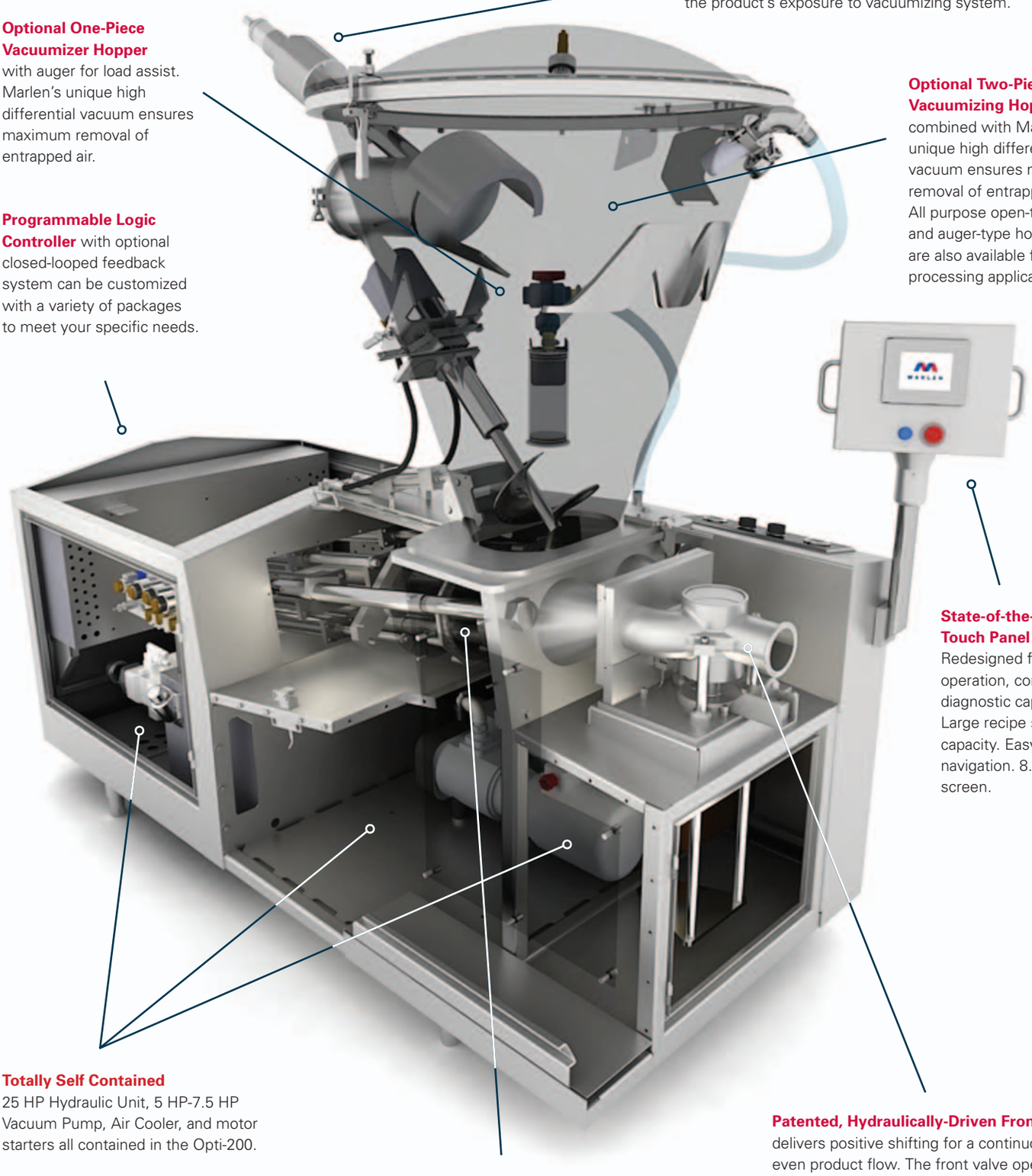
A LOOK INSIDE OUR OPTI 200 MODEL

Patented Externally Adjustable Diffuser Valve with 8" inlet enables the Opti-Series to maximize the product's exposure to vacuumizing system.

Optional One-Piece Vacuumizer Hopper with auger for load assist. Marlen's unique high differential vacuum ensures maximum removal of entrapped air.

Optional Two-Piece Vacuumizing Hopper when combined with Marlen's unique high differential vacuum ensures maximum removal of entrapped air. All purpose open-top plain and auger-type hoppers are also available for every processing application.

Programmable Logic Controller with optional closed-looped feedback system can be customized with a variety of packages to meet your specific needs.



State-of-the-Art Touch Panel Control Redesigned for easier operation, control and diagnostic capabilities. Large recipe storage capacity. Easy screen navigation. 8.4" touch screen.

Totally Self Contained 25 HP Hydraulic Unit, 5 HP-7.5 HP Vacuum Pump, Air Cooler, and motor starters all contained in the Opti-200.

Twin-Piston Pumping Chamber features an 10° incline that increases product flow into the pumping chamber. Easier loading into the pumping chamber ensures maximum operating efficiencies.

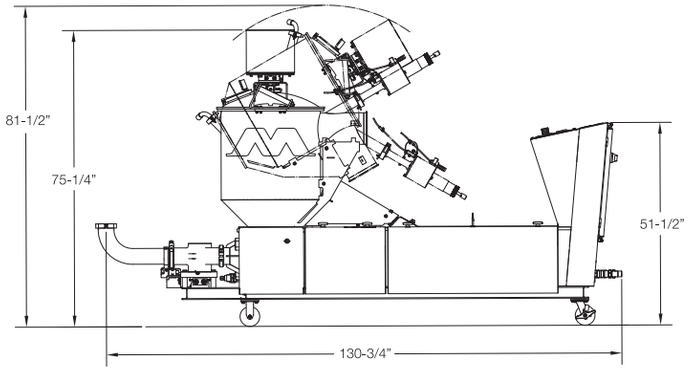
Patented, Hydraulically-Driven Front Valve delivers positive shifting for a continuous, even product flow. The front valve opening is unobstructed, plus our new design eliminates loose parts and simplifies cleanup.

ILE PROCESSING AT MAXIMUM CAPACITIES.

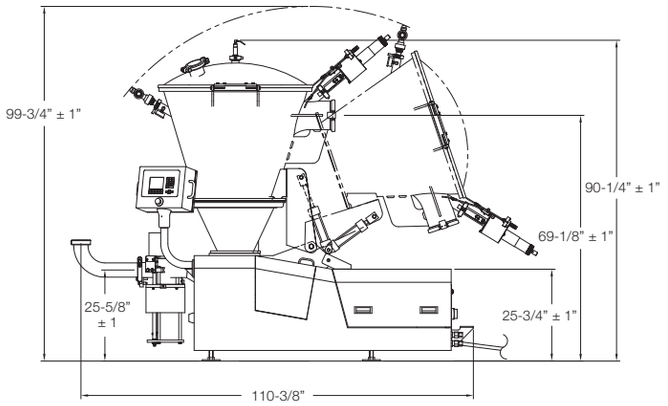
MARLEN OPTI SERIES TECHNICAL SPECIFICATIONS

Model	Piston Diameter	Piston Stroke	Maximum (wt.) Capacity	Maximum Volume	Product Outlet	Max Product Pressure	Machine Weight
Opti 100	7-1/8″ 181 mm	14″ 355 mm	10,000 lbs/hr 4,536 kg/hr	20.0 gpm 76 lpm	4″ 102 mm	250 psi 17 BAR	2,300 lbs 1,043 kg
Opti 140 HP	6-1/2″ 166 mm	10″ 250 mm	12,000 lbs/hr 5,443 kg/hr	22.7 gpm 86 lpm	4″ 102 mm	500 psi 34 BAR	3,400 lbs 1,542 kg
Opti 140 HS	8-9/16″ 217 mm	10″ 250 mm	20,000 lbs/hr 9,071 kg/hr	37.8 gpm 143 lpm	4″ 102 mm	250 psi 17 BAR	3,400 lbs 1,542 kg
Opti 200	8-9/16″ 217 mm	14″ 355 mm	20,000 lbs/hr 9,071 kg/hr	37.8 gpm 143 lpm	4″ 102 mm	250 psi 17 BAR	4,270 lbs 1,937 kg
Opti 280	8-9/16″ 217 mm	14″ 355 mm	28,000 lbs/hr 12,701 kg/hr	55 gpm 208 lpm	4″ 102 mm	500 psi 34 BAR	4,000 lbs 1,815 kg
Opti 340	8-9/16″ 217 mm	14″ 355 mm	34,000 lbs/hr 15,421 kg/hr	66 gpm 250 lpm	4″ 102 mm	250 psi 17 BAR	4,000 lbs 1,815 kg

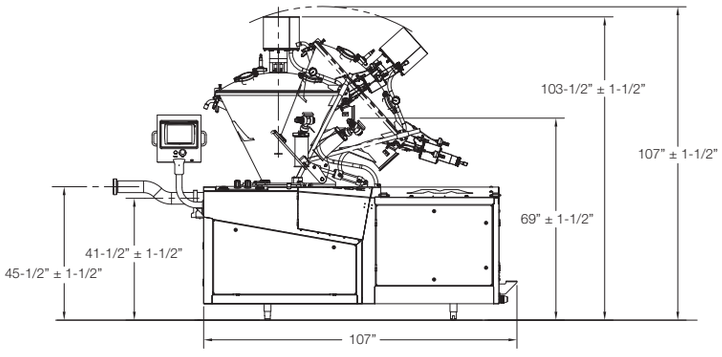
Model	Pump Utilities	Air Requirements	Power Unit Utilities	Cooling Water	Vacuum Pump
Opti 100	110 V 10 Amp (single phase)	3 CFM at 100psi	25 hp, 230/460 V (3 Ph/60Hz 68/34 Amp)	Up to 8 gpm	5 hp, 230/460 V (7.6 Amp)
Opti 140 HP	110 V 10 Amp (single phase)	3 CFM at 100psi	25 HP 230/460 V (3 Ph/60Hz 68/34 Amp)	Up to 8 gpm	5 hp, 230/460 V (7.6 Amp)
Opti 140 HS	110 V 10 Amp (single phase)	3 CFM at 100psi	40 HP 230/460 V (3 Ph/60Hz 104/52 Amp)	Up to 8 gpm	7.5 hp, 230/460 V (11.4 Amp)
Opti 200	460 V 60 Amp (3-ph)	3 CFM at 100psi	Onboard power unit	Up to 8 gpm	5 hp, 230/460 V (7.6 Amp)
Opti 280	110 V 10 Amp (single phase)	3 CFM at 100psi	40 HP 230/460 V (3 Ph/60Hz 104/52 Amp)	Up to 8 gpm	7.5 hp/10 hp, 230/460 V (11.4 Amp)
Opti 340	110 V 10 Amp (single phase)	3 CFM at 100psi	40 HP 230/460 V (3 Ph/60Hz 104/52 Amp)	Up to 8 gpm	7.5 hp/10 hp, 230/460 V (11.4 Amp)



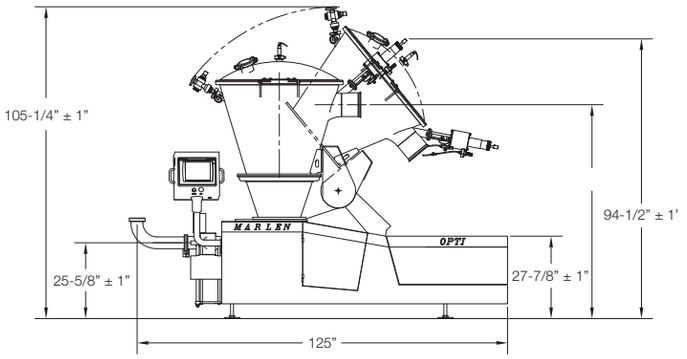
OPTI 100



OPTI 140 HP-HS



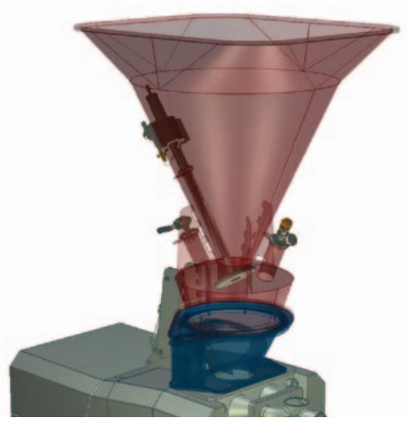
OPTI 200



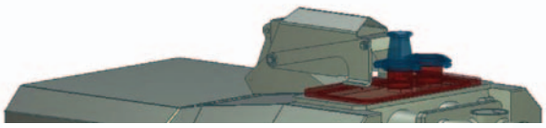
OPTI 280-340

HOPPER STYLES

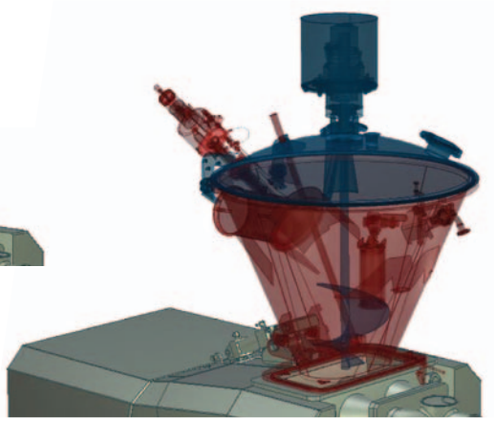
Vacuumizer Combo Hopper



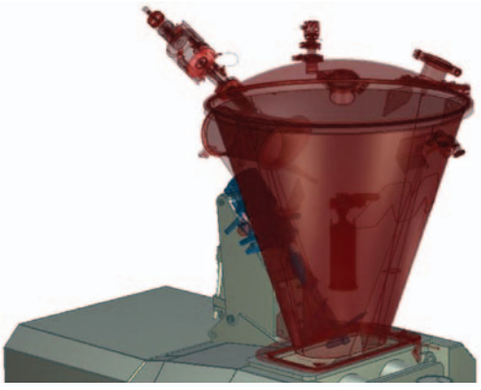
Flat Plate



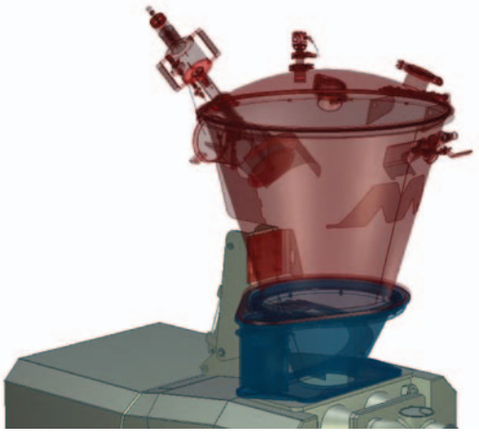
One-Piece Auger Hopper



One-Piece Load Assist Auger Hopper



Two-Piece Auger Hopper



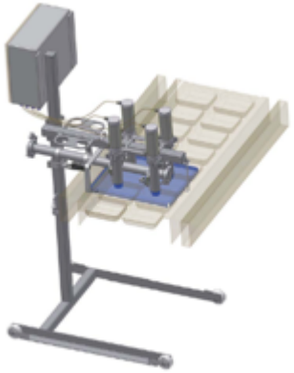
AUXILIARY EQUIPMENT

Volumetric Portioners

Model COV

Model RS

Model VPT



Transfer Valve
(multi-depositor pictured)

In-line Grinder

Vari-Kut

High Volume, Continuous Vacuum Stuffing and Pumping Systems

From twin-piston pumps and stuffing systems to extruders, transducer portioning systems, depositors, forming systems and volumetric portioners, Marlen's stuffing and portioning offering assures value through the highest consistency, accuracy, and product integrity and has long set the standard for quality and performance.

About Marlen International

Recognized as a premium manufacturer of highly engineered food processing equipment and systems, Marlen International designs and builds equipment to process meat, poultry, pet food, fish, vegetables, fruit, bakery goods, confectionaries, snacks, dairy goods and many other products.

Whether it's stuffing, pumping, portioning, size reduction, thermal processing or food handling, our teams of expert engineering, design and technical personnel act as industry consultants and process partners and have been trusted by the world's leading food brands for over 60 years.

Marlen International delivers the optimum customer experience through Marlen Care predictive maintenance – an operational excellence program – and 24/7, 365 days/year factory-direct support. Marlen International is a Duravant Company.

QUALITY. PERFORMANCE. INNOVATION.

MARLEN

MARLEN INTERNATIONAL
A DURAVANT COMPANY

4780 NW 41st St, Ste. 100 • Riverside, MO 64150

Tel 913.888.3333 | Toll Free 800.862.7536 | Fax 913.888.6440 | email: sales@marlen.com | www.marlen.com

DURAVANT

THE **DURAVANT** FAMILY OF COMPANIES

MARLEN INTERNATIONAL | HAMER-FISCHBEIN | FISCHBEIN INTERNATIONAL | MESPACK | FMH CONVEYORS www.duravant.com