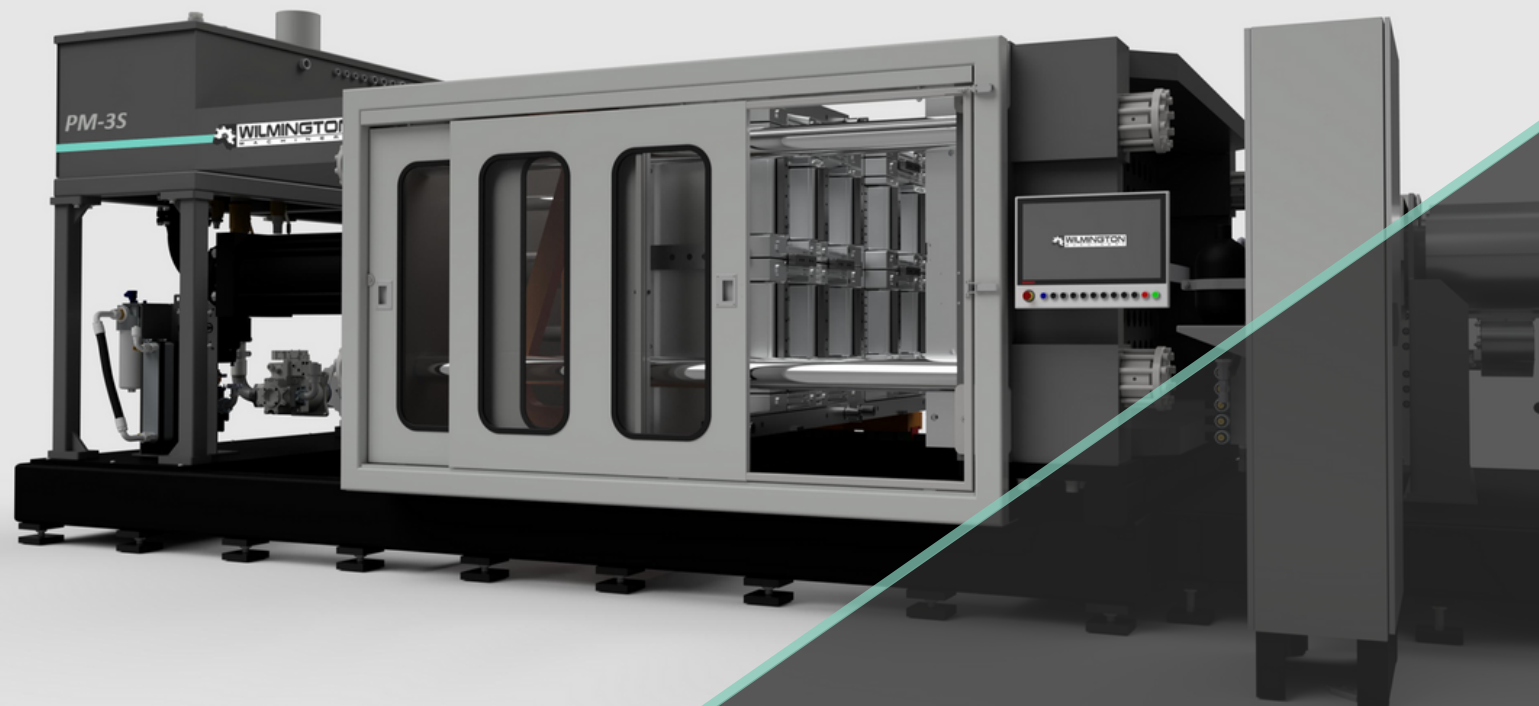


# STRUCTURAL FOAM INJECTION MOLDING



## WHO WE ARE

Wilmington Machinery was founded in 1972 to build low pressure structural foam injection molding machines. And that remains the cornerstone of our business. The machines have evolved to include gas assist and gas counterpressure molding techniques and many other innovations. Wilmington's extensive tenure and dedication to building machines to match each customer's individual budget and needs assures the best ROI and lowest cost structural plastic moldings. Faster cycles, lighter parts, maximum uptime, reduced labor and low utility costs are Wilmington goals that have made the company an industry leader and trusted machinery supplier for nearly 50 years.

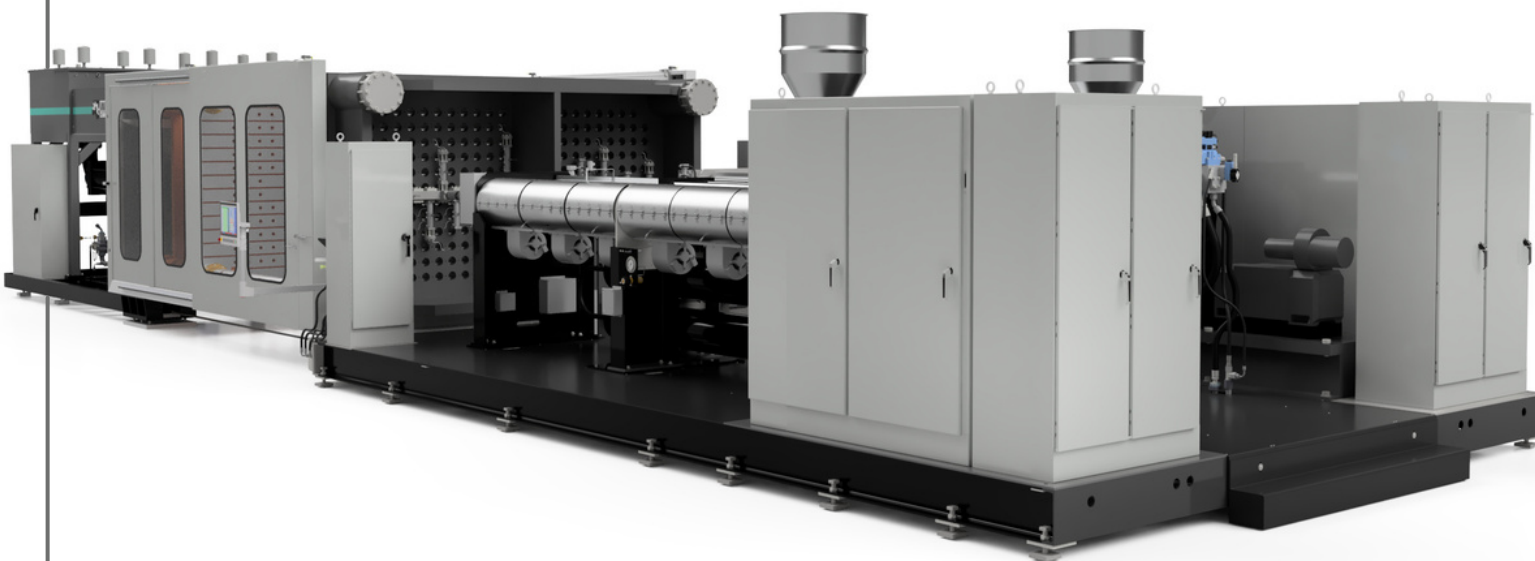
The diverse range of Wilmington Machinery's experience with industrial applications ensures success in any field of structural plastics manufacturing. Wilmington Machines have produced brush handles, battery boxes, enclosures of all types, equipment housings, automotive structural components, recreational equipment, drainage components, pallets, bins and much more. Product design assistance, prototyping, pilot run and laboratory trials for raw material or mold trials are all available services. In addition to low and medium pressure structural plastics molding, Wilmington has expertise in many other plastics processes including blow molding, foam extrusion, sheet extrusion and thermoforming.

Wilmington Machinery is located in the Atlantic Port City of Wilmington, North Carolina. It occupies a modern 65,000 square foot facility with heavy lifting equipment fronting Interstate 40.

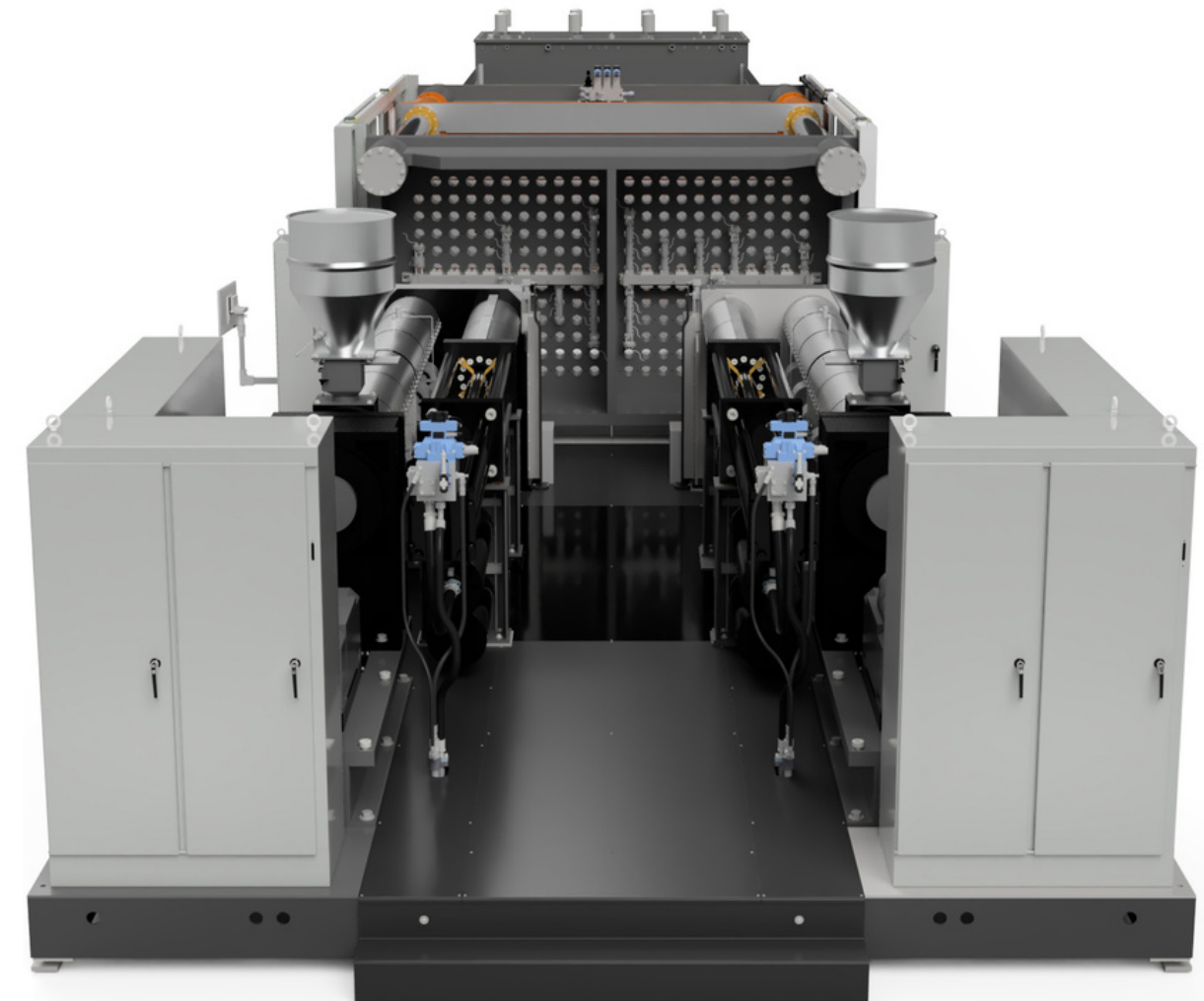
## SERVING THE PLASTICS INDUSTRY SINCE 1972.

# THE *LUMINA*: STRUCTURAL FOAM INJECTION MOLDING

Wilmington Machinery is a recognized leader in producing large-part, low-pressure injection molding machines with shot capacities to 300 lb. (135 kg). The combination of two-stage (extruder/accumulator) and configurable multi-nozzle injection with Versafil control results in strong, lightweight and economical products. Long-life, low-cost molds, very long-life machinery, and the ability to mold 100% recycled plastics are hallmarks of our process!



## MACHINERY THAT FITS YOUR NEEDS.



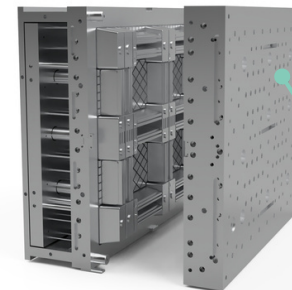
### Features and Advantages

- Robust construction optimized through comprehensive FEA analysis
- 5-cylinder clamp construction for superior force distribution
- Advanced accumulator / configurable nozzle injection
- Versa-Fill injection control of each nozzle independently
- Large platen area and more mold mounting space
- High torque extruders for fast recovery and faster cycles
- Open construction – ease of access for setup and maintenance
- Gas assist, counterpressure molding capabilities

# WILMINGTON MACHINERY'S TWO-STAGE LARGE PART STRUCTURAL FOAM MOLDING MACHINES

## CLAMP FEATURES

- (4) Press tonnage cylinders
- Extended daylight and stroke
- Closed loop press motion for precise position and speed control
- Hydraulic core/ejector valve package
- High speed traverse
- Excellent force distribution



## MOLD TYPES

- Gas Assist
- Low cost aluminum
- Stack molds
- Hot runner
- Gas counter pressure
- Core back molding

## PLASTIC ACCUMULATORS

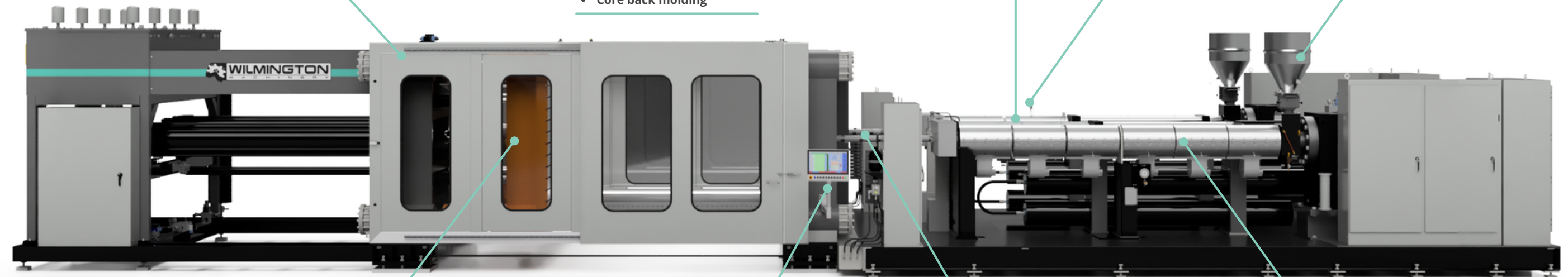
- Large capacity up to 300 lbs.
- 25 - 150 lbs.
- 10 lbs. per second injection speeds

## GAS PORT

- Standard gas port for foaming plastic with on / off and regulating controls

## MATERIAL FEED

- Large capacity hoppers with low level sensors
- Magnet drawers
- Crammer feeder available for low density recycled plastics



## 3 PLATEN CLAMP

- Classic 6" grid pattern for hundreds of nozzle locations
- Smooth platen acceleration/deceleration and mold protect
- Large platens for multiple mold installations
- Low profile or elevated press design
- Easy access for quick mold change

## CONTROLS

- Easy to use Allen Bradley PLC/OIT
- Integrated auxiliary equipment screens
- Velocity and or pressure injection control
- SPI core pull sequence logic
- Remote support access

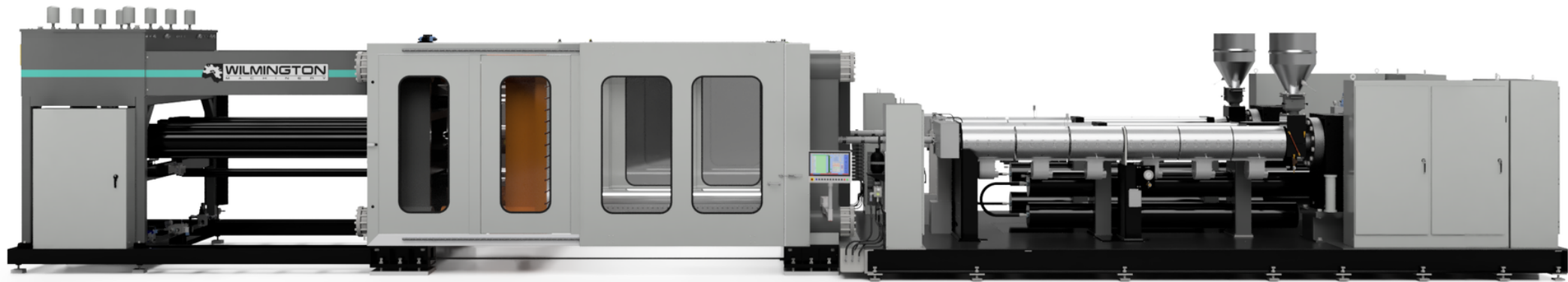
## EASE OF ACCESS

- Extended melt pipe for easy access to nozzles / spacers / manifold

## MULTIPLE EXTRUDER FEATURES

- 30:1 L/D extruders standard
- Dual mixing sections for material additives and virtual compound
- Feed screws designed for 100% recycled plastic materials
- Closed loop temperature controls
- Feedscrew w/ colmonoy flight tips

# LUMINA SPECIFICATIONS



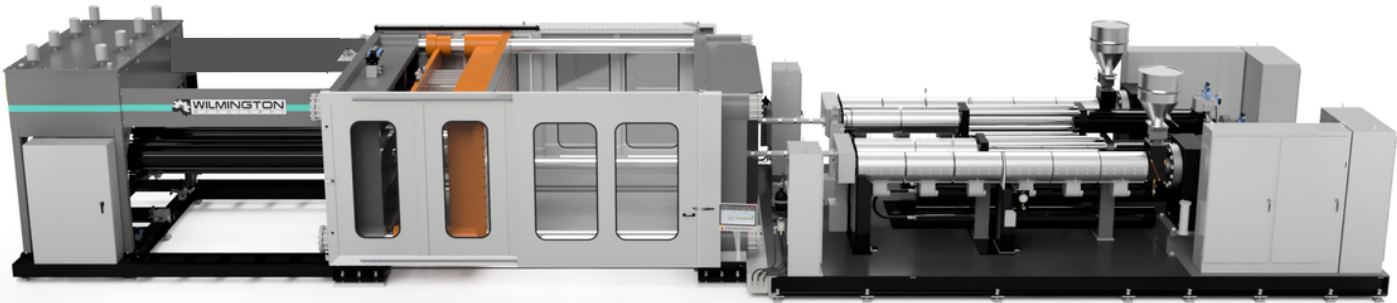
| MODEL   | 1600h                        | 2400h                         | 3200h                            | LP500                        | LP600 WP                         | LP750                          | LP1000 WP                             | LP1500 WP                             | LP2000 WP                             |
|---|------------------------------|-------------------------------|----------------------------------|------------------------------|----------------------------------|--------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Clamp Force (US Tons)   | 300                          | 400                           | 500                              | 500                          | 600                              | 750                            | 1000                                  | 1500                                  | 1500                                  |
| PLATEN SIZE<br>V X H (in)<br><i>OPTIONAL</i>                  | 54 x 70                      | 70 x 80                       | 56 x 126                         | 96 x 90<br><i>(108 x 90)</i> | 96 x 131<br><i>(108 x 131)</i>   | 96 x 167<br><i>(108 x 167)</i> | 96 x 186<br><i>(108 x 186)</i>        | 96 x 186<br><i>(108 x 186)</i>        | 110 x 200                             |
| TIE BAR CLEARANCE<br>V X H (in)<br><i>OPTIONAL</i>            | 38 x 54                      | 52 x 62                       | 38 x 108                         | 72 x 67<br><i>84 x 67</i>    | 72 x 108<br><i>85 x 108</i>      | 70 x 141<br><i>82 x 141</i>    | 68 x 159<br><i>80 x 159</i>           | 62 x 153<br><i>74 x 153</i>           | 69 x 160                              |
| SHOT SIZE<br>(POUNDS PER CUBIC INCH)<br><i>OPTIONAL</i>       | 25   800<br><i>Single 50</i> | 50   1600<br><i>Single 75</i> | Dual 25   1600<br><i>Dual 50</i> | Single 100   3200            | Dual 50   3200<br><i>Dual 75</i> | Dual 75   4800                 | Dual 75   4800<br><i>Dual 100/150</i> | Dual 75   4800<br><i>Dual 100/150</i> | Dual 75   4800<br><i>Dual 100/150</i> |
| STROKE (in)<br><i>OPTIONAL</i>                                | 60                           | 72                            | 72                               | 72<br><i>108</i>             | 108                              | 108                            | 108                                   | 108<br><i>120</i>                     | 108<br><i>120</i>                     |
| PLASTICATING CAPACITY<br>(POUNDS PER HOUR)<br><i>OPTIONAL</i> | 800                          | 1200<br><i>1500</i>           | 1500                             | 1800                         | 1800<br><i>2200 - 2600+</i>      | 1800                           | 1800<br><i>2600 - 5000+</i>           | 2600<br><i>3600 - 5000+</i>           | 2600<br><i>3600 - 5000+</i>           |



# LUMINA FEATURES















| EXTRUDERS:  | STD | OPT |
|---|-----|-----|
| Heavy duty gear reducers with cooling as needed                                 | ☞   |     |
| Long life thrust bearings (100,000 hours at 150 RPM, 2000 psi)                  | ☞   |     |
| Xaloy or equivalent bimetallic barrel - 30:1 L/D                                | ☞   |     |
| Feed screws with Colmony flight tips, chrome plating and double mixing sections | ☞   |     |
| Cast aluminum heaters with heat/cool control, stainless steel shrouds           | ☞   |     |
| Nitrogen gas port with on/off and regulating controls                           | ☞   |     |
| Melt pressure transducer at head  | ☞   |     |
| Water cooled feed throat  | ☞   |     |
| Large capacity material hopper and magnet drawer                                | ☞   |     |
| Mixing sections specific to your material needs                                 |     | ☞   |
| 36:1 L/D barrel with static mixer   |     | ☞   |
| Xaloy 800 grade bimetallic liner  |     | ☞   |

















| CLAMPS:   | STD | OPT |
|---|-----|-----|
| Heavy duty construction with oversize tie bars and classic 6" x 6" nozzle grid pattern, 3-platen type | ☞   |     |
| 108" stroke, 12" minimum daylight (more or less as needed optional)                                   | ☞   | ☞   |
| 800 IPM open / close (more optional)  | ☞   |     |
| Flow / pressure modulated hydraulic power unit with Rexroth components                                | ☞   |     |
| Variable frequency servo hydraulics   |     | ☞   |
| Mechanical ejection   | ☞   |     |
| Hydraulic ejection  |     | ☞   |
| Core pull sequence logic  | ☞   |     |
| Core pull valving   |     | ☞   |
| Closed loop clamp motion control  | ☞   |     |
| Easily serviceable linear transducer built into hydraulic cylinder                                    | ☞   |     |
| Manual lube   | ☞   |     |
| Auto lube   |     | ☞   |
| Linear rail mold support system   |     | ☞   |
| Manual operator and non-operator gates  | ☞   |     |
| Powered operator and non-operator gates   |     | ☞   |
| Powered operator and non-operator gates   |     | ☞   |



# LUMINA FEATURES

(CONTINUED)

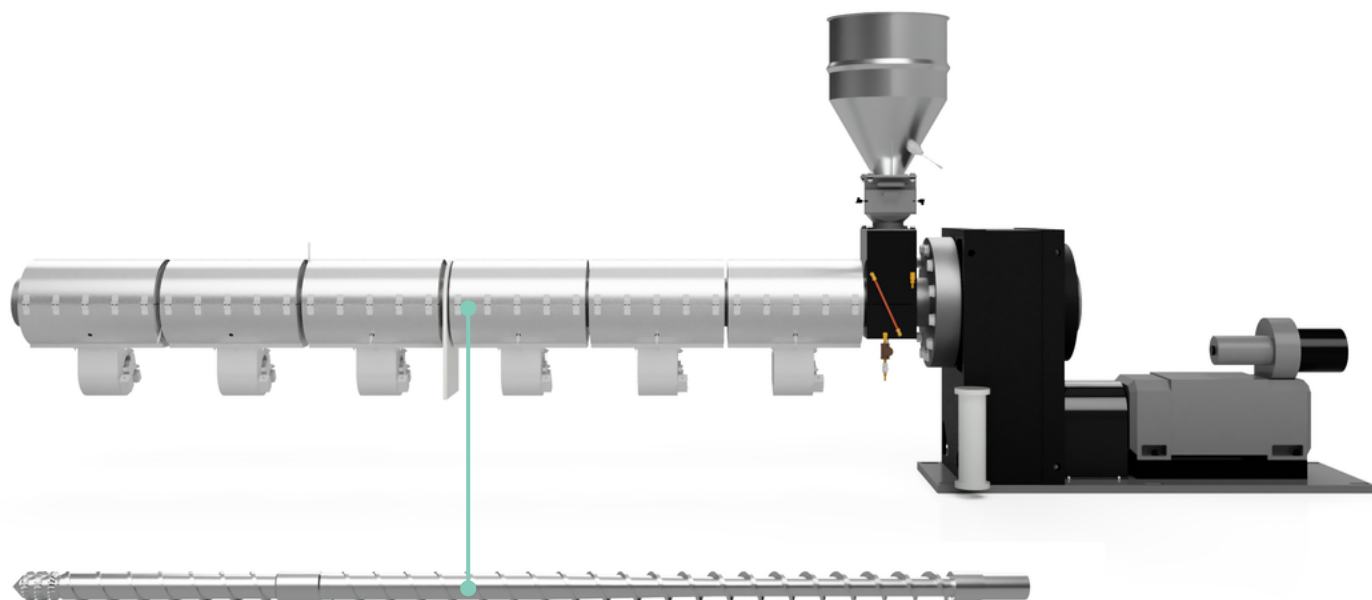
| INJECTION:  | STD   | OPT   |
|---|---|---|
| Closed loop speed or pressure control   |    |   |
| Shot capacity of 25, 50, 75, 100, 125, 150 lb.  |    |   |
| Larger shot or custom shot sizes available  |   |    |
| Extruder bores 3.5", 4.5", 130 mm, 6" and 175mm   |    |   |
| Larger extruder bore sizes available  |   |    |
| 6000 psi injection pressure   |   |   |
| 10,000 psi injection pressure   |   |  |
| Rexroth hydraulic valving and components  |  |   |
| Vickers, Parker, others optional  |   |  |
| Easily serviced linear transducers built into the injection cylinders   |  |   |
| VERSAFIL injection control of each nozzle for up to 8 molds and 4 speed/pressure steps per mold                     |  |   |
| Nozzle temperature and hydraulic provisions provided, quantities dependent upon machine size (more / less optional) |  |   |
| Purge valve with controls   |   |  |
| Purge valve with controls   |  |   |

| GENERAL:   | STD   | OPT   |
|--|---|---|
| Standard control package for classic external multi-nozzle structural foam molding |    |   |
| Controls package for gas assist, hot runners, and other molding techniques         |   |    |
| Allen Bradley PLC Control System   |    |   |
| Beckhoff, Siemens, others available  |   |    |
| Data acquisition, SPC charting,  |   |  |
| SPI/EUROMAP Robotic interface  |  |   |
| Low Profile design for overhead robotics   |  |   |
| Elevated clamp   |   |  |
| Kidney loop oil heat exchange/filtration   |  |   |
| Care in design for ease of component access for servicing                          |  |   |
| Integrated "smart" control / troubleshooting of auxiliaries                        |   |  |
| Remote access via Wi-Fi, Ethernet, or cellular (Satellite Optional)                |  |  |
| One year warranty on all manufactured Wilmington manufactured components           |  |   |
| 480 volts – 3 phase – 60 Hz.   |  |   |
| 380 volts – 3 phase – 50 Hz.   |   |  |

# LUMINA CONSTRUCTION & OPERATING FEATURES

## EXTRUDERS

Lumina Extruders are ruggedly constructed for demanding service. Gear reducers are typically a helical type with minimum 1.5 service factors. Thrust bearings are sized for a minimum 100,000 hour B-10 life. Drives are AC inverter type and are available for maximum screw speeds of 100, 125 and 150 RPM. Extruder barrels are wear grade bimetallic type with pressure and gas injection taps. Feed Screws are a two-stage type with Colmonoy flight tips and dual mixing sections for melt quality and gas dissolution. Heaters on most models are cast aluminum type with forced air cooling.



(Shown above: Wilmington Machinery 6" Extruder Assembly with 6", 30:1 L/D Feed Screw)

## ACCUMULATORS

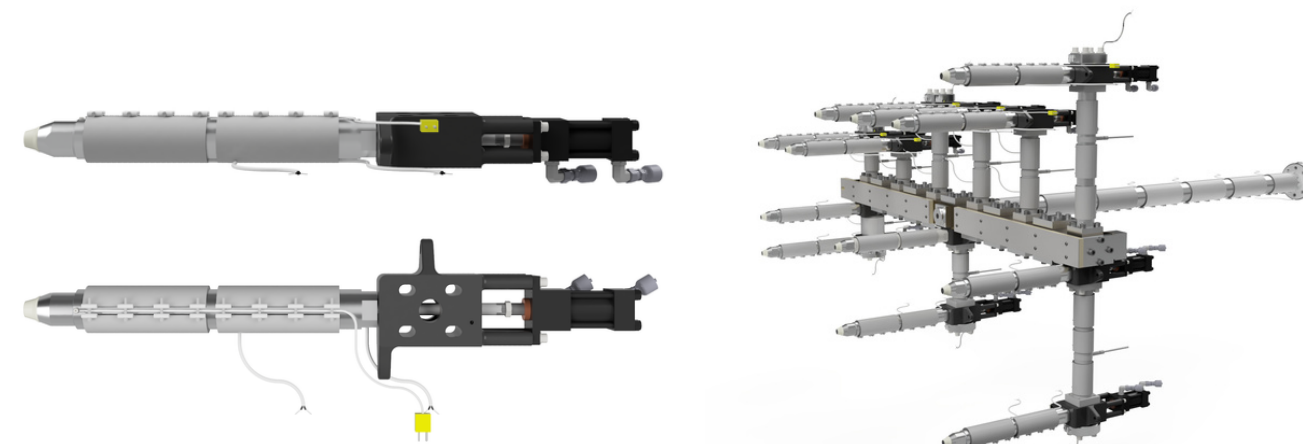
Lumina Accumulators are constructed with bimetallic lined barrels and close-fitting hardened steel pistons. Pistons are designed for complete discharge with each shot preventing degradation of sensitive plastic materials. Accumulators are heated with long-life tubular band heaters. Easily serviced check valves isolate the extruder from the accumulator during injection. Pressure transducers display both extrusion and injection pressures. Shot size is measured by a linear transducer built into the hydraulic ram cylinder. Accumulator discharge rate is precisely controlled by proportional type hydraulics.



(Shown above: Wilmington Machinery 75 lb. Accumulator)

## MANIFOLDS / NOZZLES

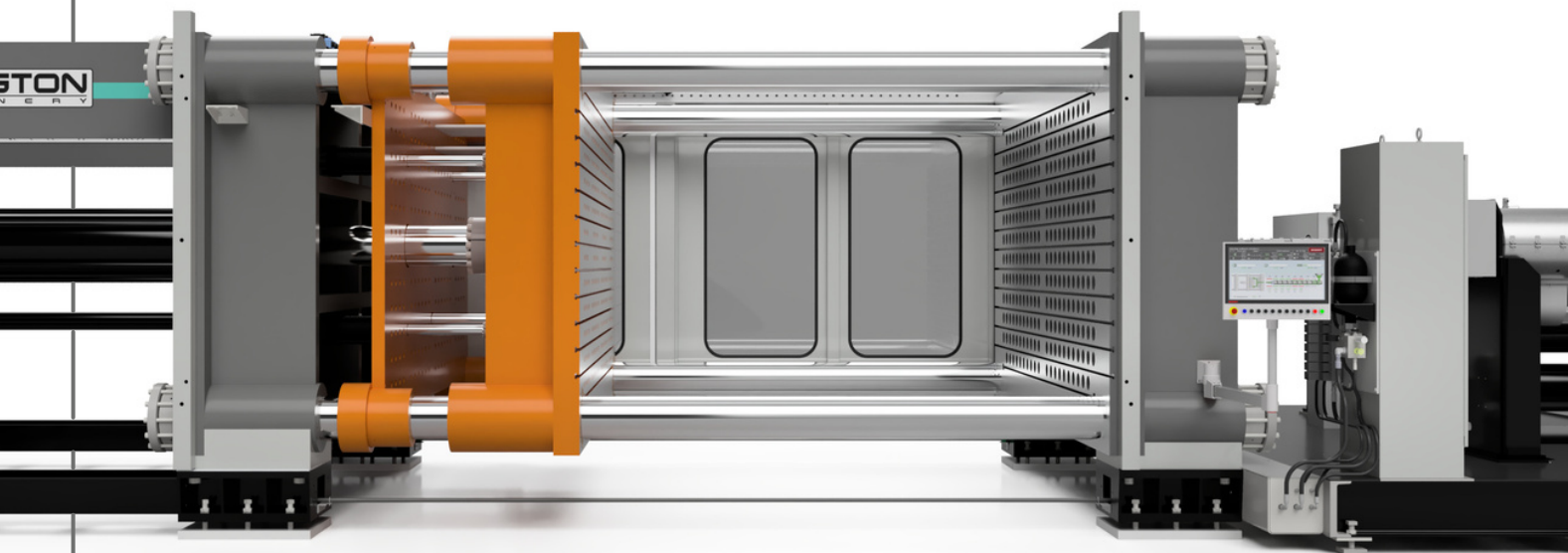
Lumina manifold/nozzle components are designed for interchangeability with other makes/ sources. Manifolds are provided with block-off plug provision to eliminate stagnant melt buildup. Spacers are available in a variety of lengths to match the 6" x 6" grid pattern for nozzle placement. The Lumina Nozzle features a forged body with generous flow characteristics and variable length nozzle extensions. Conveniently located electrical and hydraulic plug-in panels are provided for nozzles and spacers.



(Shown above: Wilmington Machinery Nozzles & Manifolds)

## LUMINA PRESSES

Lumina Presses are designed using the latest FEA technology to assure rugged and reliable, yet fast moving press components. The LP Series pioneered the low-profile design friendly to plants with low ceiling height and top mounted robotics. They also provide for a 5-cylinder clamping method which greatly improves force distribution of the clamp and life of bearing and other components. The Lumina h Series of smaller machines provides an elevated type press with a linear bearing guidance/carrying system for the moving platen. Hydraulic componentry on Lumina presses is chosen for availability, efficiency and serviceability. Hydraulic knockout and core pull provisions are optional.

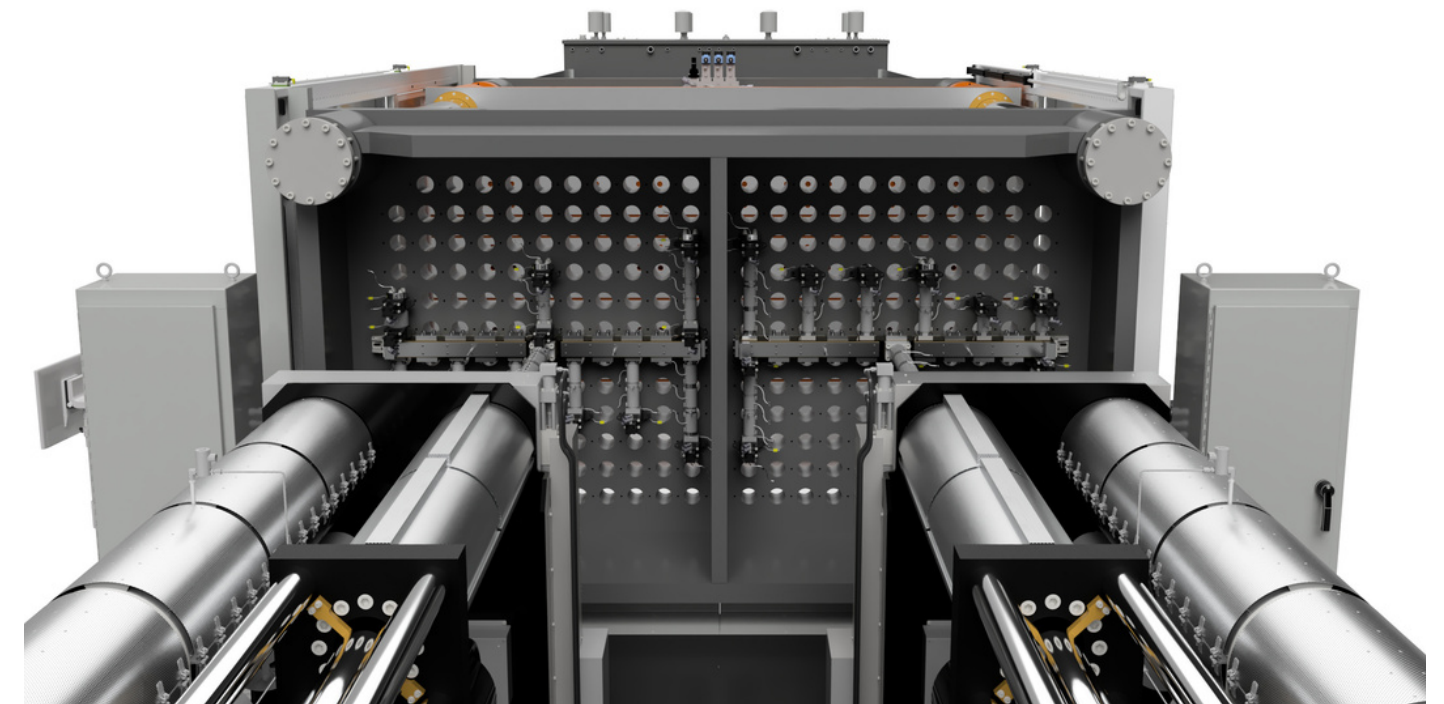


## LUMINA CONTROLS

Allen Bradley is standard on Lumina machines. They are an open architecture type and are supplemented with individual componentry of other brands for the very best performance in temperature, pressure, motion and other forms of control. The operator interface is a generous size color touch screen monitor for all control and machine diagnostic functions. Setup recipe storage is available both on the machine and/ or removable memory storage devices. Ethernet or modem connectivity to machines is available for off-site service support. Data acquisition and printout provisions are available.

## VERSAFIL INJECTION CONTROL

Every nozzle on a Lumina machine is individually controlled for open/close timing and fill rate. Lumina's unique control system accomplishes this from a single screen on the operator's panel. The result is controlled filling of each of several molds mounted in a Lumina machine at a given time. The advantage is more precise and lower part weight, stronger parts and better appearing parts.



## LUMINA PROCESSING

Lumina machines provide a degree of control, robust construction, simplicity and accessibility that make setup, operation and service economical, dependable and understandable. Large extrusion and shot capacities provide for big applications and future flexibility. Make-sense manifold/nozzle components with precise control further provide for the most economical, strong and best appearance parts.

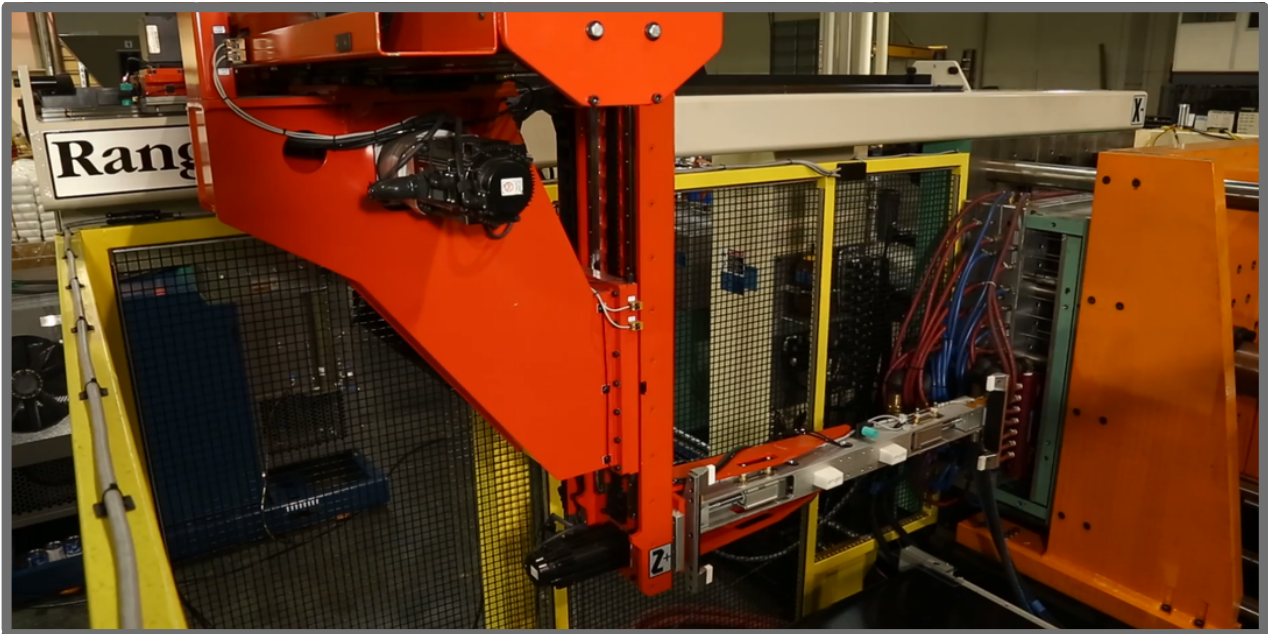
Lumina machines are designed to accept as few as one mold to as many as eight. With stack mold capability as many as sixteen cavities can be molded on the machine at the same time. Shot capacities and extrusion capacities are available to match the number of molds (cavities).



# LUMINA ACCESSORIES

Lumina machines are available with carefully chosen accessories to optimize the performance of the molding machine and maximize the quality of the molded product. Common accessories include molds, gas generation equipment and plastic raw material handling/blending. Available accessories include robotic parts removal, core pull power units and chilled water systems for mold cooling.

Accessorized Lumina machines are always provided as “turnkey” systems with all components tested and demonstrated for acceptance. Comprehensive training in the operation, care and maintenance are provided prior to shipment. Startup assistance and additional training are offered at the customer’s plant. Wilmington also offers a full-service laboratory for product development, process development, plastic material testing and short production runs.



(Shown above: Side entry Robot on a LUMINA Machine)

## TURN-KEY SYSTEMS AVAILABLE

# SUPERB SERVICE

Wilmington’s customer service is the hallmark of the company. We provide fast, knowledgeable service through technologies that create a machine-to-company connection, providing you with the most accurate troubleshooting assistance. Our service group goes beyond the call of duty to actively help our customers, suggesting retrofits for improved machine capabilities and keeping them constantly informed of the latest safety updates. Our senior management maintains detailed involvement and focus on every job and builds personal relationships with every customer.

Nearly all of the structural plastic injection molding machines or blow molding machines ever built by Wilmington Machinery are still in good service today. We are committed to continuing our tradition of forward thinking and producing the finest machines ever made. Your success is what Wilmington Machinery is all about.

## SERVICE DRIVEN SINCE 1972



(Shown above: Wilmington performing machine training)



# LUMINA APPLICATIONS

Wilmington Machinery's two-stage large part injection molding machines and turnkey fully integrated molding systems produce large parts up to 15 feet (4.5m), or multiples of parts weighing up to 300 pounds (135kg). The machines have melting capacities to 10,000 pounds per hour (4500kg).

Simple, long-lasting aluminum molds typically utilize the external configurable multi-nozzle injection technique. Hot runner or cold runner single injection point molds are readily adaptable and standard on some models.

The two-stage injection system is ideal for processing recycled plastics up to 100%. This system is also capable of additive compounding on the molding machine with its superior mixing capabilities for foamed and non-foamed parts.

The numerous applications for our large part injection molding machines include the following:

- Automotive
- Electrical enclosures
- Drainage and irrigation enclosures
- Material handling pallets & bins
- Recreational
- Agricultural
- Building & infrastructure
- Anything large and structural



## LARGE PART STRUCTURAL FOAM



PLASTIC PALLETS



AUTOMOTIVE



STORM WATER MANAGEMENT



AGRICULTURAL



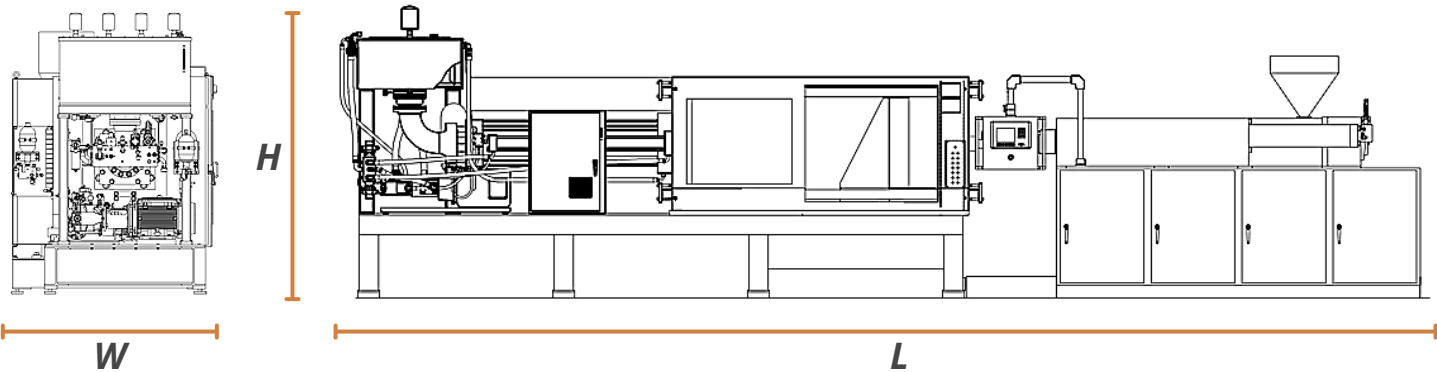
FOOD AND BEVERAGE



CONSUMER GOODS

# THE *LUMINA*: 1600h SPECIFICATIONS

300 Ton | 25 lb. Shot Size | 54 x 70 Platen



(Model is subject to change)

| MODEL                                    | 1600h   |
|--|---------|
| Clamp Force (US Tons)                    | 300     |
| Stripping Force (US Tons)                | 25      |
| Platen Size V X H (in)                   | 54 x 70 |
| Tie Bar Clearance V X H (in)             | 38 x 54 |
| Tie Bar Diameter (in)                    | 4       |
| STROKE (in)                              | 60      |
| Clamp Speed Max (in/min)                 | 800     |
| Daylight - Max (in)                      | 72      |
| Daylight - Min (in)                      | 12      |
| Platen Plate Thickness (in)              | 12.5    |
| Moving Platen Mold Carry Capacity (lbs.) | 6000    |
| Extruder Diameter @ 30:1 Ratio (in)      | 3.5     |
| Extruder Drive (Hp)                      | 150     |

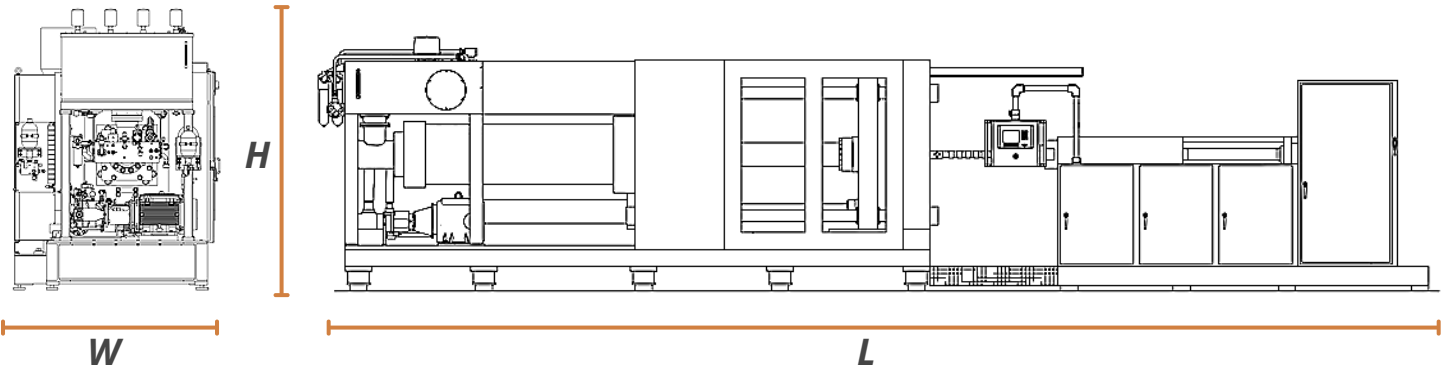
| LUMINA 1600h   |                                      |
|--|--------------------------------------|
| Plasticating Capacity (lbs./hr) (HDPE)                       | 800                                  |
| Shot Size (pounds per cubic inch)<br><small>OPTIONAL</small> | 25   800<br><small>Single 50</small> |
| Injection Pressure - Max (psi)                               | 6000                                 |
| Nozzle Locations (Qty @ 6" x 6")                             | 64                                   |
| Nozzle Provisions - hyd & elec (Qty)                         | 8                                    |
| Nozzle Provisions - hyd & elec (Qty)                         | 4                                    |
| Base Type  | Elevated                             |

| LUMINA 1600h                           |     |
|--|-----|
| (L) Estimated length (feet)            | 36  |
| (W) Estimated Width (feet)             | 7.1 |
| (H) Estimated height (feet)            | 9   |
| Estimated weight (lbs. x 1,000)        | 71  |
| Est power consumption @ 100% (kW) Std. | 156 |



# THE *LUMINA*: 2400h SPECIFICATIONS

400 Ton | 50 lb. Shot Size | 70 x 80 Platen



(Model is subject to change)

| MODEL  | 2400h      |
|--|------------|
| Clamp Force (US Tons)                          | 400        |
| Stripping Force (US Tons)                      | 40         |
| Platen Size V X H (in)                         | 70 x 80    |
| Tie Bar Clearance V X H (in)                   | 52 x 62    |
| Tie Bar Diameter (in)                          | 5.5        |
| STROKE (in)                                    | 72         |
| Clamp Speed Max (in/min)                       | 800        |
| Daylight - Max (in)                            | 84         |
| Daylight - Min (in)                            | 12         |
| Platen Plate Thickness (in)                    | 12.5       |
| Moving Platen Mold Carry Capacity (lbs.)       | 12,000     |
| Extruder Diameter @ 30:1 Ratio (in)            | 4.5        |
| Extruder Drive (Hp)<br><small>OPTIONAL</small> | 200<br>250 |

| LUMINA 2400h  |                                       |
|---|---------------------------------------|
| Plasticating Capacity (lbs./hr) (HDPE)<br><small>OPTIONAL</small>     | 1200<br>1500                          |
| Shot Size (pounds per cubic inch)<br><small>OPTIONAL</small>          | 50   1600<br><small>Single 75</small> |
| Injection Pressure - Max (psi)  | 6000                                  |
| Nozzle Locations (Qty @ 6" x 6")                                      | 72                                    |
| Nozzle Provisions - hyd & elec (Qty)                                  | 12                                    |
| Nozzle Provisions - hyd & elec (Qty)<br><small>OPTIONAL UP TO</small> | 6<br>10                               |
| Base Type   | Elevated                              |

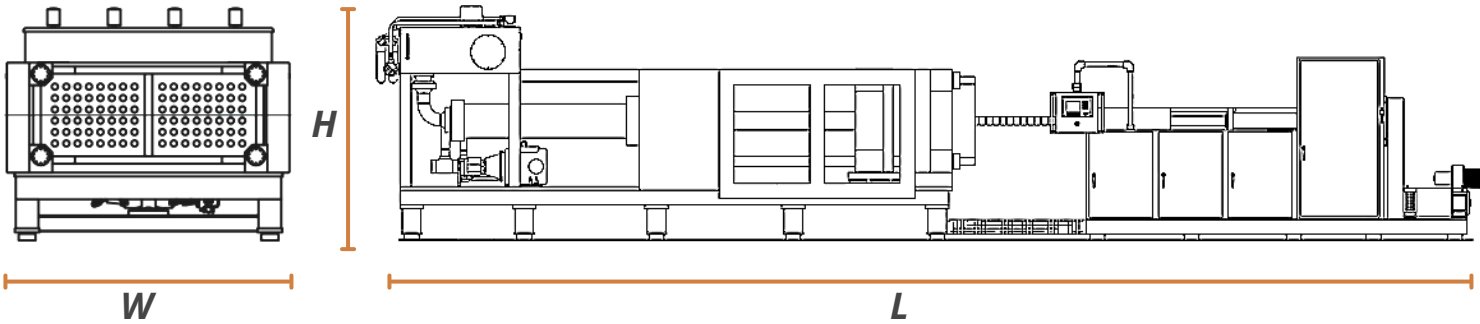
| LUMINA 2400h                           |      |
|--|------|
| (L) Estimated length (feet)            | 42.5 |
| (W) Estimated Width (feet)             | 7.5  |
| (H) Estimated height (feet)            | 10   |
| Estimated weight (lbs. x 1,000)        | 120  |
| Est power consumption @ 100% (kW) Std. | 224  |





# THE *LUMINA*: 3200h SPECIFICATIONS

500 Ton | Dual 25 lb. Shot Size | 56 x 126 Platen



(Model is subject to change)

| MODEL                                    | 3200h    |
|--|----------|
| Clamp Force (US Tons)                    | 500      |
| Stripping Force (US Tons)                | 50       |
| Platen Size V X H (in)                   | 56 x 126 |
| Tie Bar Clearance V X H (in)             | 38 x 108 |
| Tie Bar Diameter (in)                    | 5.5      |
| STROKE (in)                              | 72       |
| Clamp Speed Max (in/min)                 | 800      |
| Daylight - Max (in)                      | 84       |
| Daylight - Min (in)                      | 12       |
| Platen Plate Thickness (in)              | 8        |
| Moving Platen Mold Carry Capacity (lbs.) | 12,000   |
| Extruder Diameter @ 30:1 Ratio (in)      | 4.5      |
| Extruder Drive (Hp)                      | 250      |

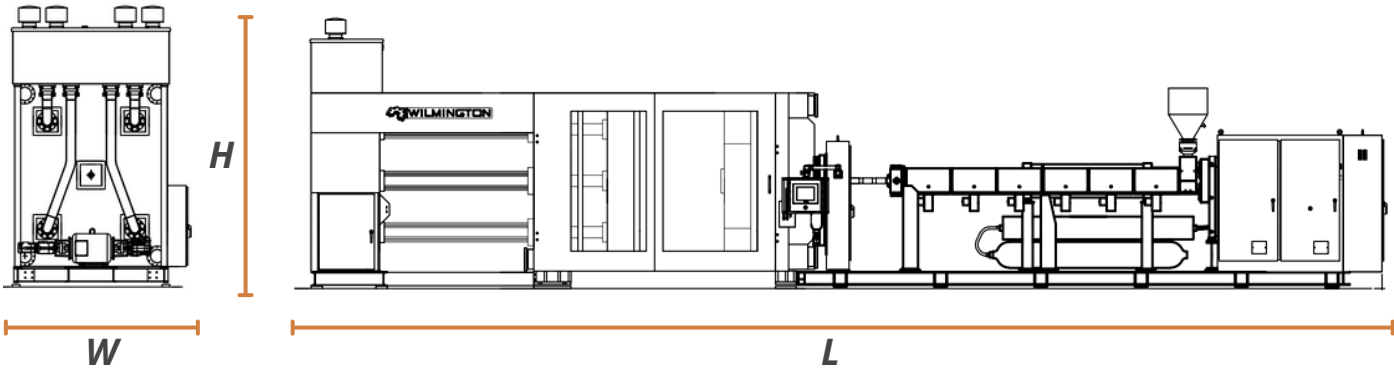
| LUMINA 3200h  |  |
|---|--|
| Plasticating Capacity (lbs./hr) (HDPE)                                | 1500                                     |
| Shot Size (pounds per cubic inch)<br><small>OPTIONAL</small>          | Dual 25   1600<br><small>Dual 50</small> |
| Injection Pressure - Max (psi)  | 6000                                     |
| Nozzle Locations (Qty @ 6" x 6")                                      | 118                                      |
| Nozzle Provisions - hyd & elec (Qty)<br><small>OPTIONAL UP TO</small> | 12<br><small>18</small>                  |
| Nozzle Provisions - hyd & elec (Qty)<br><small>OPTIONAL UP TO</small> | 8<br><small>16</small>                   |
| Base Type   | Elevated                                 |

| LUMINA 3200h                           |      |
|--|------|
| (L) Estimated length (feet)            | 48   |
| (W) Estimated Width (feet)             | 10.5 |
| (H) Estimated height (feet)            | 10.5 |
| Estimated weight (lbs. x 1,000)        | 140  |
| Est power consumption @ 100% (kW) Std. | 287  |



# THE *LUMINA*: LP500 SPECIFICATIONS

500 Ton | 100 lb. Shot Size | 96 x 90 Platen



(Model is subject to change)

| MODEL   | LP500               |
|---|---------------------|
| Clamp Force (US Tons)                                   | 500                 |
| Stripping Force (US Tons)                               | 50                  |
| Platen Size V X H (in)<br><small>OPTIONAL</small>       | 96 x 90<br>108 x 90 |
| Tie Bar Clearance V X H (in)<br><small>OPTIONAL</small> | 72 x 67<br>84 x 67  |
| Tie Bar Diameter (in)                                   | 9                   |
| STROKE (in)<br><small>OPTIONAL</small>                  | 72<br>108           |
| Clamp Speed Max (in/min)                                | 950                 |
| Daylight - Max (in)<br><small>OPTIONAL</small>          | 84<br>120           |
| Daylight - Min (in)                                     | 12                  |
| Platen Plate Thickness (in)                             | 8                   |
| Moving Platen Mold Carry Capacity (lbs.)                | 20,000              |
| Extruder Diameter @ 30:1 Ratio (in)                     | 6                   |
| Extruder Drive (Hp)<br><small>OPTIONAL</small>          | 300<br>400/500      |

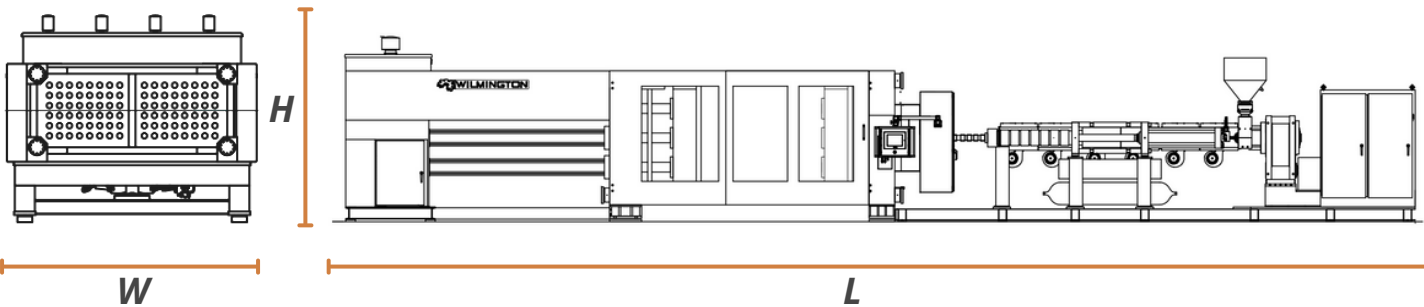
| LUMINA LP500  |                         |
|---|-------------------------|
| Plasticating Capacity (lbs./hr) (HDPE)                                | 1800                    |
| Shot Size (pounds per cubic inch)                                     | Single 100   3200       |
| Injection Pressure - Max (psi)  | 6000                    |
| Nozzle Locations (Qty @ 6" x 6")<br><small>OPTIONAL</small>           | 166<br>192              |
| Nozzle Provisions - hyd & elec (Qty)<br><small>OPTIONAL UP TO</small> | 18<br>48                |
| Nozzle Provisions - hyd & elec (Qty)<br><small>OPTIONAL UP TO</small> | 20<br>40                |
| Base Type<br><small>OPTIONAL</small>                                  | Low Profile<br>Elevated |

| LUMINA LP500                           |     |
|--|-----|
| (L) Estimated length (feet)            | 61  |
| (W) Estimated Width (feet)             | 9.7 |
| (H) Estimated height (feet)            | 12  |
| Estimated weight (lbs. x 1,000)        | 150 |
| Est power consumption @ 100% (kW) Std. | 384 |



# THE *LUMINA*: LP600 WP SPECIFICATIONS

600 Ton | Dual 50 lb. Shot Size | 96 x 131 Platen



(Model is subject to change)

| MODEL  | LP600 WP             |
|--|----------------------|
| Clamp Force (US Tons)  | 600                  |
| Stripping Force (US Tons)                                      | 60                   |
| Platen Size V X H (in)<br><small>OPTIONAL</small>              | 96 x 90<br>108 x 167 |
| Tie Bar Clearance V X H (in)<br><small>OPTIONAL</small>        | 72 x 67<br>85 x 108  |
| Tie Bar Diameter (in)  | 9                    |
| STROKE (in)  | 108                  |
| Clamp Speed Max (in/min)                                       | 950                  |
| Daylight - Max (in)  | 120                  |
| Daylight - Min (in)  | 12                   |
| Platen Plate Thickness (in)                                    | 8                    |
| Moving Platen Mold Carry Capacity (lbs.)                       | 35,000               |
| Extruder Diameter @ 30:1 Ratio (in)<br><small>OPTIONAL</small> | 6<br>2 x 130         |
| Extruder Drive (Hp)<br><small>OPTIONAL</small>                 | 300<br>400/500       |

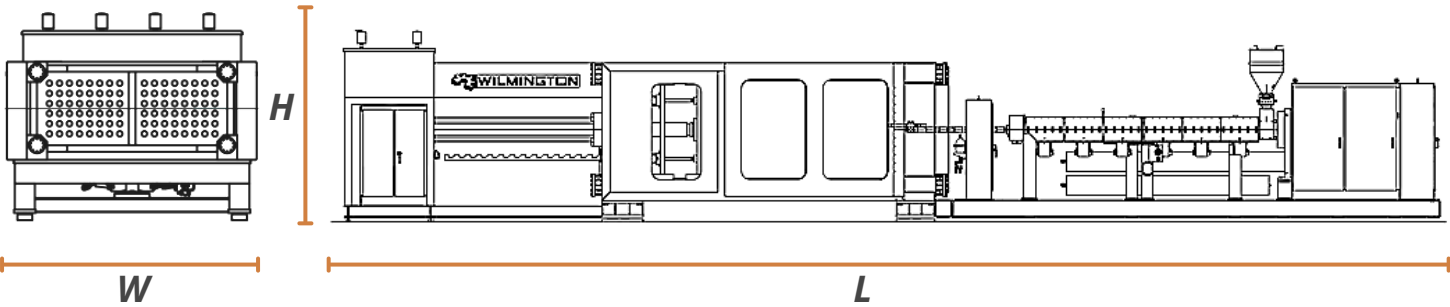
| LUMINA LP600 WP   |                           |
|---|---------------------------|
| Plasticating Capacity (lbs./hr) (HDPE)<br><small>OPTIONAL</small>     | 1800<br>2200 - 2600+      |
| Shot Size (pounds per cubic inch)<br><small>OPTIONAL</small>          | Dual 50   3200<br>Dual 75 |
| Injection Pressure - Max (psi)  | 6000                      |
| Nozzle Locations (Qty @ 6" x 6")<br><small>OPTIONAL</small>           | 236<br>272                |
| Nozzle Provisions - hyd & elec (Qty)<br><small>OPTIONAL UP TO</small> | 24<br>48                  |
| Nozzle Provisions - hyd & elec (Qty)<br><small>OPTIONAL UP TO</small> | 20<br>40                  |
| Base Type<br><small>OPTIONAL</small>                                  | Low Profile<br>Elevated   |

| LUMINA LP600 WP                        |       |
|--|-------|
| (L) Estimated length (feet)            | 63.75 |
| (W) Estimated Width (feet)             | 11    |
| (H) Estimated height (feet)            | 11    |
| Estimated weight (lbs. x 1,000)        | 155   |
| Est power consumption @ 100% (kW) Std. | 400   |



# THE *LUMINA*: LP750 SPECIFICATIONS

750 Ton | Dual 75 lb. Shot Size | 96 x 167 Platen



| MODEL  | LP750                                |
|--|--------------------------------------|
| Clamp Force (US Tons)  | 750                                  |
| Stripping Force (US Tons)                                      | 75                                   |
| Platen Size V X H (in)<br><small>OPTIONAL</small>              | 96 x 167<br><small>108 x 167</small> |
| Tie Bar Clearance V X H (in)<br><small>OPTIONAL</small>        | 72 x 141<br><small>82 x 141</small>  |
| Tie Bar Diameter (in)  | 10                                   |
| STROKE (in)  | 108                                  |
| Clamp Speed Max (in/min)                                       | 800                                  |
| Daylight - Max (in)  | 120                                  |
| Daylight - Min (in)  | 12                                   |
| Platen Plate Thickness (in)                                    | 8                                    |
| Moving Platen Mold Carry Capacity (lbs.)                       | 35,000                               |
| Extruder Diameter @ 30:1 Ratio (in)<br><small>OPTIONAL</small> | 6<br><small>2 x 130</small>          |
| Extruder Drive (Hp)<br><small>OPTIONAL</small>                 | 300<br><small>400/500</small>        |

| LUMINA LP750  |  |
|---|--|
| Plasticating Capacity (lbs./hr) (HDPE)                                | 1800                                   |
| Shot Size (pounds per cubic inch)                                     | Dual 75   4800                         |
| Injection Pressure - Max (psi)  | 6000                                   |
| Nozzle Locations (Qty @ 6" x 6")                                      | 278                                    |
| Nozzle Provisions - hyd & elec (Qty)<br><small>OPTIONAL UP TO</small> | 24<br><small>48</small>                |
| Nozzle Provisions - hyd & elec (Qty)<br><small>OPTIONAL UP TO</small> | 20<br><small>40</small>                |
| Base Type<br><small>OPTIONAL</small>                                  | Low Profile<br><small>Elevated</small> |

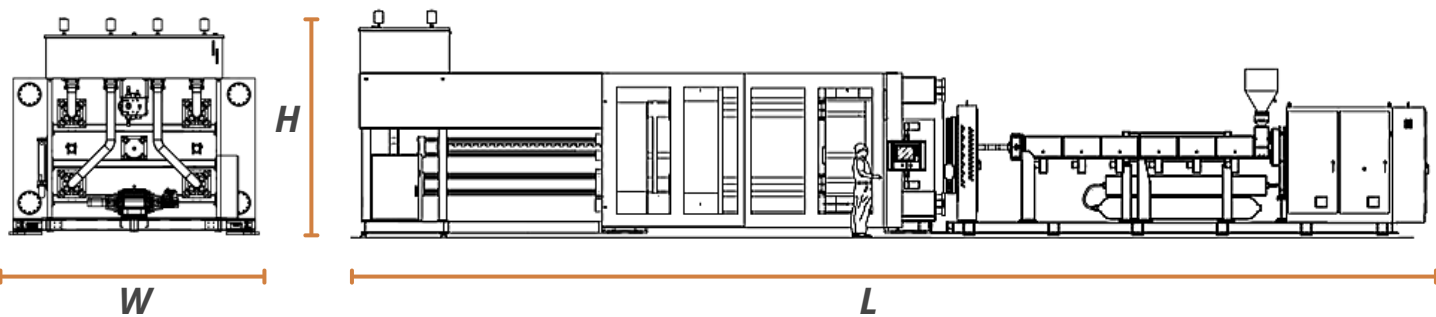
| LUMINA LP750                           |      |
|--|------|
| (L) Estimated length (feet)            | 57.5 |
| (W) Estimated Width (feet)             | 15   |
| (H) Estimated height (feet)            | 10.3 |
| Estimated weight (lbs. x 1,000)        | 267  |
| Est power consumption @ 100% (kW) Std. | 400  |





# THE *LUMINA*: LP1000 WP SPECIFICATIONS

1000 Ton | Dual 75 lb. Shot Size | 96 x 186 Platen



(Model is subject to change)

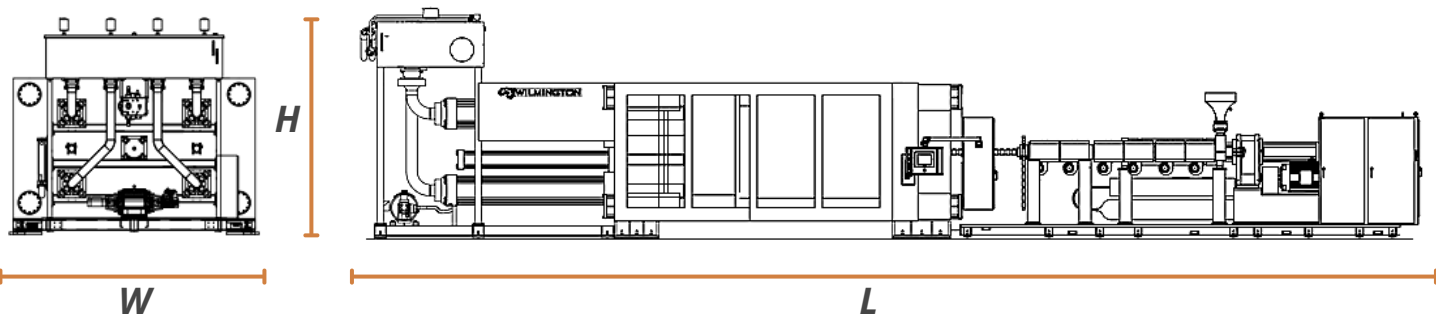
| MODEL  | LP1000 WP                            |
|--|--------------------------------------|
| Clamp Force (US Tons)  | 1000                                 |
| Stripping Force (US Tons)                                      | 100                                  |
| Platen Size V X H (in)<br><small>OPTIONAL</small>              | 96 x 186<br><small>108 x 186</small> |
| Tie Bar Clearance V X H (in)<br><small>OPTIONAL</small>        | 68 x 159<br><small>80 x 159</small>  |
| Tie Bar Diameter (in)  | 11                                   |
| STROKE (in)  | 108                                  |
| Clamp Speed Max (in/min)                                       | 800                                  |
| Daylight - Max (in)  | 120                                  |
| Daylight - Min (in)  | 12                                   |
| Platen Plate Thickness (in)                                    | 8                                    |
| Moving Platen Mold Carry Capacity (lbs.)                       | 35,000                               |
| Extruder Diameter @ 30:1 Ratio (in)<br><small>OPTIONAL</small> | 6<br><small>2 x 130, 2 x 6</small>   |
| Extruder Drive (Hp)<br><small>OPTIONAL</small>                 | 300<br><small>400/500</small>        |

| LUMINA LP1000 WP  |   |
|---|---|
| Plasticating Capacity (lbs./hr) (HDPE)<br><small>OPTIONAL</small>     | 1800<br><small>2600 - 5000+</small>           |
| Shot Size (pounds per cubic inch)<br><small>OPTIONAL</small>          | Dual 75   4800<br><small>Dual 100/150</small> |
| Injection Pressure - Max (psi)  | 6000  |
| Nozzle Locations (Qty @ 6" x 6")<br><small>OPTIONAL</small>           | 284<br><small>332</small>                     |
| Nozzle Provisions - hyd & elec (Qty)<br><small>OPTIONAL UP TO</small> | 24<br><small>48</small>                       |
| Nozzle Provisions - hyd & elec (Qty)<br><small>OPTIONAL UP TO</small> | 20<br><small>40</small>                       |
| Base Type<br><small>OPTIONAL</small>                                  | Low Profile<br><small>Elevated</small>        |

| LUMINA LP1000 WP                       |     |
|--|-----|
| (L) Estimated length (feet)            | 65  |
| (W) Estimated Width (feet)             | 18  |
| (H) Estimated height (feet)            | 13  |
| Estimated weight (lbs. x 1,000)        | 325 |
| Est power consumption @ 100% (kW) Std. | 420 |

# THE *LUMINA*: LP1500 WP SPECIFICATIONS

1500 Ton | Dual 75 lb. Shot Size | 96 x 186 Platen



(Model is subject to change)

| MODEL  | LP1500 WP                                 |
|--|---|
| Clamp Force (US Tons)  | 1500                                      |
| Stripping Force (US Tons)                                      | 150                                       |
| Platen Size V X H (in)<br><small>OPTIONAL</small>              | 96 x 186<br><small>108 x 186</small>      |
| Tie Bar Clearance V X H (in)<br><small>OPTIONAL</small>        | 68 x 159<br><small>74 x 153</small>       |
| Tie Bar Diameter (in)  | 13  |
| STROKE (in)<br><small>OPTIONAL</small>                         | 108<br><small>120</small>                 |
| Clamp Speed Max (in/min)                                       | 800                                       |
| Daylight - Max (in)<br><small>OPTIONAL</small>                 | 120<br><small>132</small>                 |
| Daylight - Min (in)  | 12  |
| Platen Plate Thickness (in)                                    | 8   |
| Moving Platen Mold Carry Capacity (lbs.)                       | 35,000                                    |
| Extruder Diameter @ 30:1 Ratio (in)<br><small>OPTIONAL</small> | 2 x 130 mm<br><small>2 x 6</small>        |
| Extruder Drive (Hp)<br><small>OPTIONAL</small>                 | 2 x 250<br><small>2 x 300/400/500</small> |

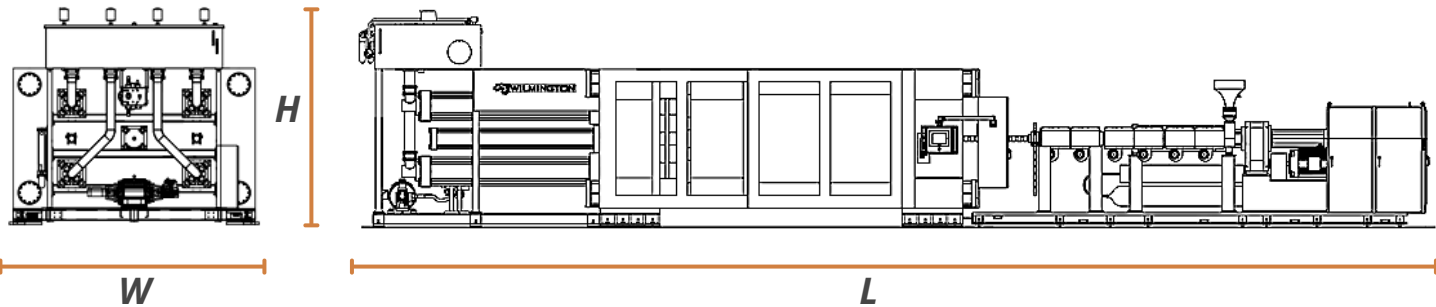
| LUMINA LP1500 WP  |   |
|---|---|
| Plasticating Capacity (lbs./hr) (HDPE)<br><small>OPTIONAL</small>     | 2600<br><small>3600 - 5000+</small>           |
| Shot Size (pounds per cubic inch)<br><small>OPTIONAL</small>          | Dual 75   4800<br><small>Dual 100/150</small> |
| Injection Pressure - Max (psi)  | 6000  |
| Nozzle Locations (Qty @ 6" x 6")<br><small>OPTIONAL</small>           | 276<br><small>324</small>                     |
| Nozzle Provisions - hyd & elec (Qty)<br><small>OPTIONAL UP TO</small> | 24<br><small>48</small>                       |
| Nozzle Provisions - hyd & elec (Qty)<br><small>OPTIONAL UP TO</small> | 24<br><small>40</small>                       |
| Base Type<br><small>OPTIONAL</small>                                  | Low Profile<br><small>Elevated</small>        |

| LUMINA LP1500 WP                       |       |
|--|-------|
| (L) Estimated length (feet)            | 68.25 |
| (W) Estimated Width (feet)             | 18    |
| (H) Estimated height (feet)            | 14    |
| Estimated weight (lbs. x 1,000)        | 380   |
| Est power consumption @ 100% (kW) Std. | 420   |



# THE *LUMINA*: LP2000 WP SPECIFICATIONS

2000 Ton | Dual 75 lb. Shot Size | 110 x 200 Platen



(Model is subject to change)

| MODEL  | LP2000 WP                  |
|--|----------------------------|
| Clamp Force (US Tons)  | 2000                       |
| Stripping Force (US Tons)                                      | 150                        |
| Platen Size V X H (in)   | 110 x 200                  |
| Tie Bar Clearance V X H (in)                                   | 69 x 160                   |
| Tie Bar Diameter (in)  | 17                         |
| STROKE (in)<br><small>OPTIONAL</small>                         | 108<br>120                 |
| Clamp Speed Max (in/min)                                       | 800                        |
| Daylight - Max (in)<br><small>OPTIONAL</small>                 | 120<br>132                 |
| Daylight - Min (in)  | 12                         |
| Platen Plate Thickness (in)                                    | 10                         |
| Moving Platen Mold Carry Capacity (lbs.)                       | 45,000                     |
| Extruder Diameter @ 30:1 Ratio (in)<br><small>OPTIONAL</small> | 2 x 130 mm<br>2 x 6, 2 x 8 |
| Extruder Drive (Hp)<br><small>OPTIONAL</small>                 | 2 x 250<br>2 x 300/400/500 |

| LUMINA LP2000 WP  |                                |
|---|--------------------------------|
| Plasticating Capacity (lbs./hr) (HDPE)<br><small>OPTIONAL</small>     | 2600<br>3600 - 5000+           |
| Shot Size (pounds per cubic inch)<br><small>OPTIONAL</small>          | Dual 75   4800<br>Dual 100/150 |
| Injection Pressure - Max (psi)  | 6000                           |
| Nozzle Locations (Qty @ 6" x 6")                                      | 360                            |
| Nozzle Provisions - hyd & elec (Qty)<br><small>OPTIONAL UP TO</small> | 36<br>48                       |
| Nozzle Provisions - hyd & elec (Qty)<br><small>OPTIONAL UP TO</small> | 32<br>40                       |
| Base Type<br><small>OPTIONAL</small>                                  | Low Profile<br>Elevated        |

| LUMINA LP2000 WP                       |       |
|--|-------|
| (L) Estimated length (feet)            | 39.75 |
| (W) Estimated Width (feet)             | 18.5  |
| (H) Estimated height (feet)            | 14.5  |
| Estimated weight (lbs. x 1,000)        | 430   |
| Est power consumption @ 100% (kW) Std. | 430   |

