Premium Injection Molding Machine 550~3600 (US Tons)

the ONE* SERIES



LS Mtron

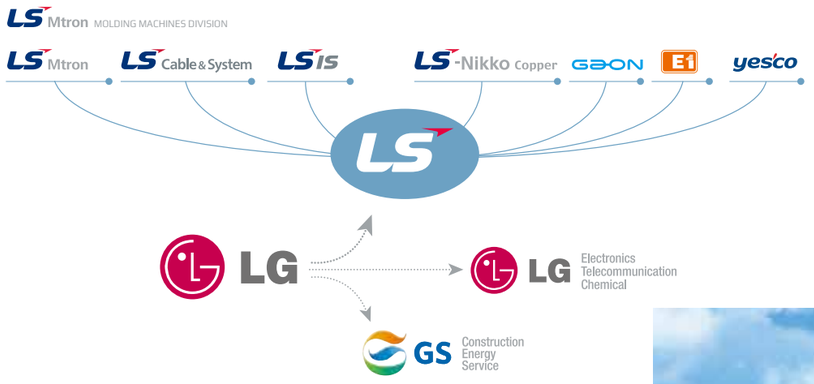
LS Mtron

Injection Molding Machine

About LS Mtron

LS Mtron, a subsidiary of the LS Group, a conglomerate based in South Korea, employs over 25,000 people and reports annual revenues exceeding USD 30 billion, with profits around USD 1 billion. The Injection Molding Machines division of LS Mtron (LS IMM) was established in 1969 by the South Korean tech behemoth LG Corporation, known as one of the largest plastic molders globally. Initially created to meet its demand for injection molded parts for their renowned TVs, appliances, electronics, and other products, LS IMM now manufactures approximately 3,000 machines annually. These machines cater not only to LS and LG-related companies but also to a global clientele of molders.

Originating with the invention of Korea's first Injection Molding Machines, LS IMM is celebrated for its commitment to quality, customer service, and rapid delivery times. Leveraging the collective capabilities of the LS Group's companies, LS IMM addresses several global supply chain challenges. This synergy enables LS IMM to offer custom molding machines to its customers in North America within just 100 days from casting to shipment, with the possibility of even quicker delivery times from its pre-stocked inventory.



INNOVATIVE
TECHNOLOGY PARTNER

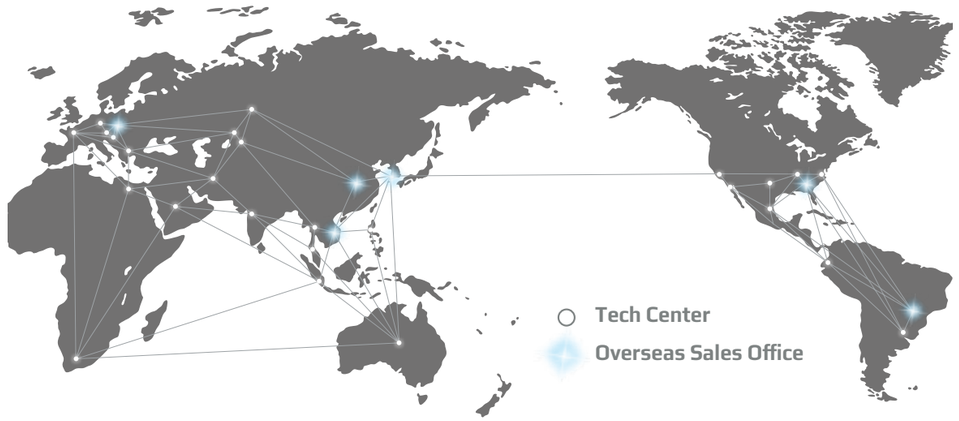








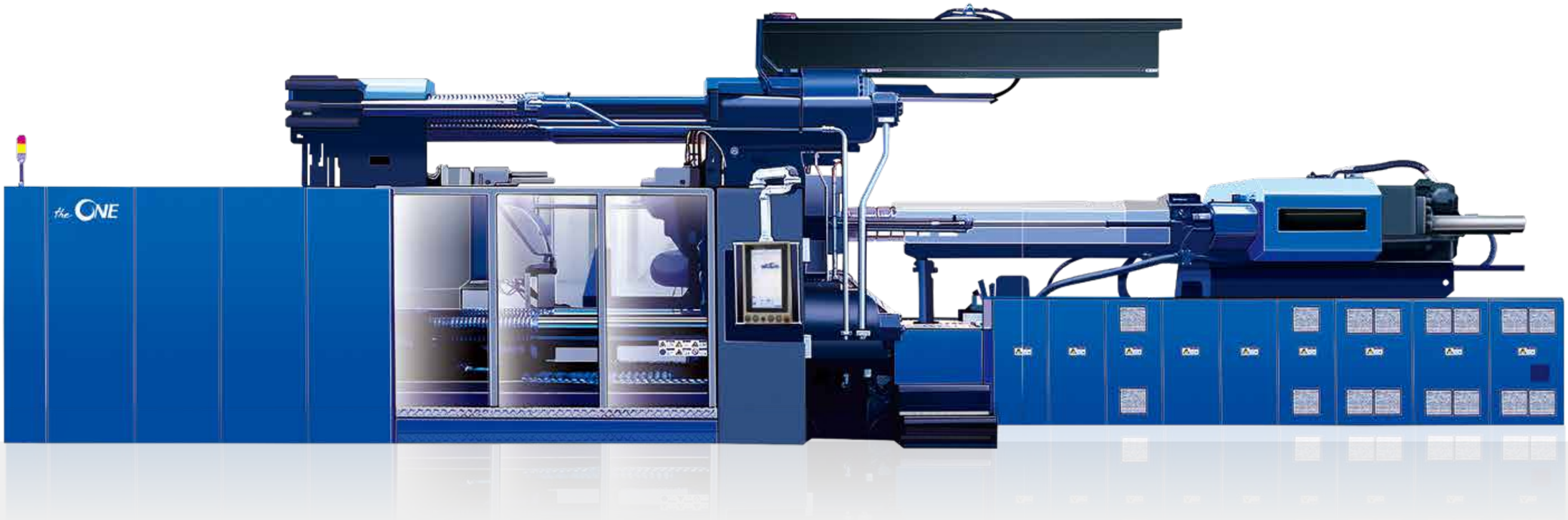
Integrated ***ONE Solution***
Smart Machine *for Industry 4.0*
Delivering ***Value***



Premium Injection Molding Machine

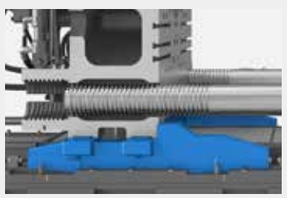
the ONE* 550~3600 (US Tons)

Fast Cycle Time | High Precision | Easy and Convenient Maintenance | Large Mold Weight Capacity | High Durability

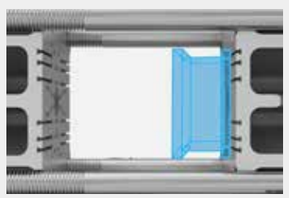




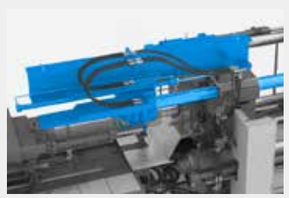
Fast and Precise Clamping Unit



Greaseless Sliding Bushings



Heavy Mold Installation



Tie-Bar Pulling System (Option)



Quick-Change Barrel System



Simplified Injection Unit Design

BEST SOLUTION FOR
AUTOMOTIVE PARTS



the ONE*
Best Solution for Production of Automobile Parts

Premium hybrid injection molding machine "*the* ONE*" is the most suitable IMM for high-precision molding items and optimized for light body structure injection, requiring precise and complete surface treatment. *the* ONE* helps to efficiently produce high-end body parts.

- **High productivity** Cycle time reduction
- **Defect rate zero** Minimized defect rate to optimise the production of body parts requiring completeness
- **Maintenance** Easy maintenance improves workers' productivity



"LS Mtron challenge to the customer does not stop."

PREMIUM INJECTION MOLD MACHINE FOR HIGH –END WHITE GOODS



the ONE*
Optimization solution for High end products

LS Mtron offer suitable solution against the customer's needs. We can design the IMM for high –precision. We can supply not only IMM but also the high performance values.

- **High Design Reproducibility** Meet the customer's need with Special IMM
- **Clean Surface** Precision injection ensures complete surface treatment
- **Innovative Jump** High quality solution with set up of Smart Factory









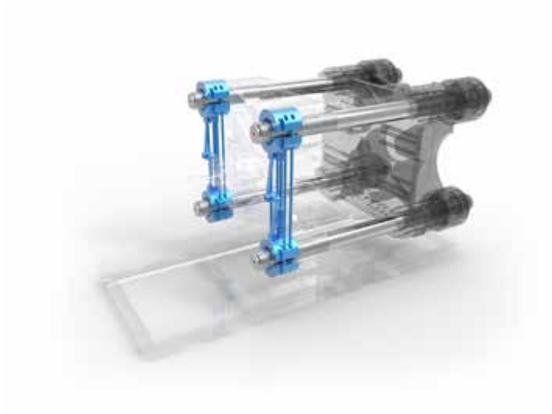
"LS Mtron challenge to the customer does not stop."

the ONE* Series

Special features

Reduction the running time 30%

- Vertical tightening at once



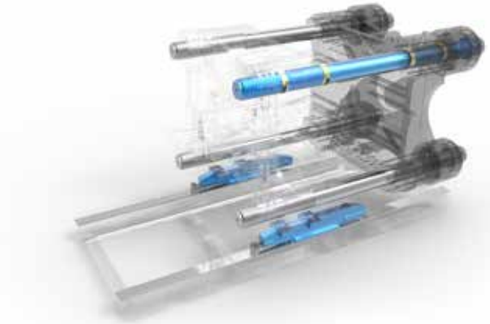


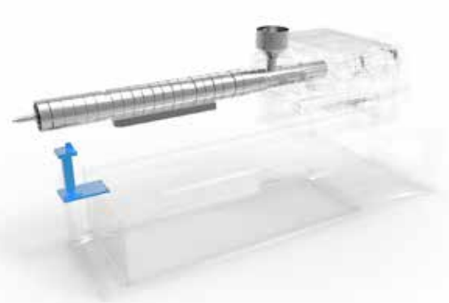
Optimized Screws for Injection

- Technical Agreement between LS Mtron and Nordson XALOY
- General screw for thermoplastic material
- 3 times more mixing compared with normal screw

Slide bush design without oil

- Tie-bar bending improvement : 40%
- Low wear and No lubrication



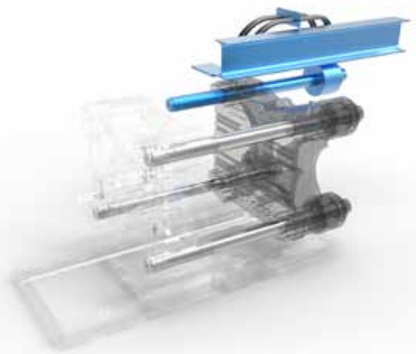


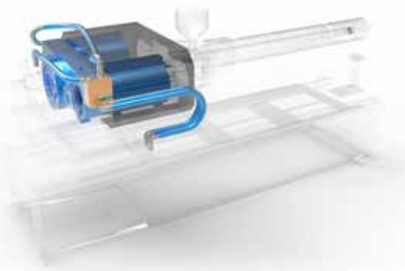
High durability of Barrel and Screw

- Support design for Barrel

Tie bar Pulling System option

- Easy maintenance with Once touch type
- No mold carrier even low ceiling





Simple structure of Hydraulic line

- Clean design : simplify the pipe and put inside

IMPROVING SPEED FOR MOLD OPENING AND CLOSING AND REPRODUCIBILITY FOR POSITION

the ONE* Reducing cycle time

- High pressure and rapid acceleration of hydraulic equipment
- Compact mold open & close transfer cylinder
- High Speed Mechanism without Frictional Force of tie bar of moving platen
- Application of special Oil-free sliding bush with abrasion resistance and shock resistance for fast moving platen-> No thermal deformation, optimized for high loads and continuous production
- Fast and accurate half-nut system

the ONE* SSI Type High-precision digital position sensor

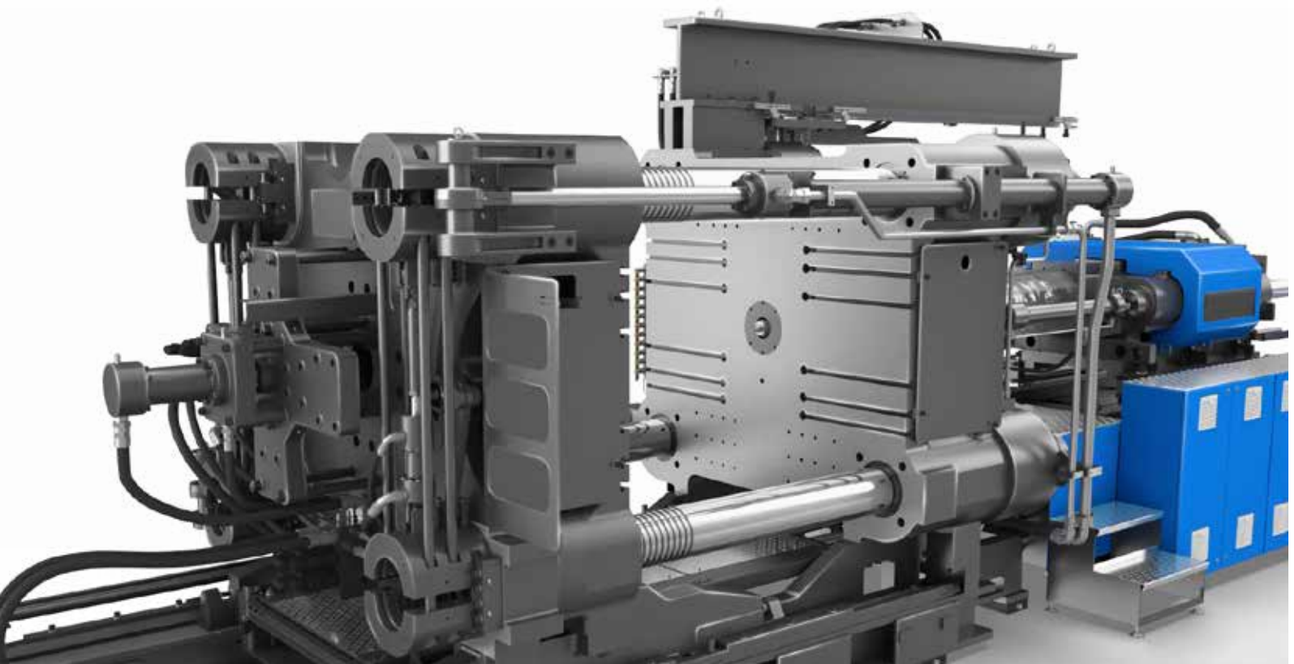
- More precise than previous analog type sensor
- The resolution is 1μm
- Repeat precision : Below±0.001%
- Linearity : Below±0.001%



the ONE* High-performance high-capacity electronic proportional valve

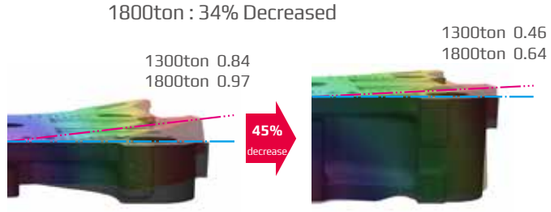
- Flow Precision Control Functions
- Maximum flow rate 180 →1000 ℓ/min
- Hysteresis : below 0.1%
- Repeatability : below 0.05%





the ONE* High-Strength Platen Structure

- Improved platen thickness and stiffness design (reducing deformation reduction and improving maintaining clamping force)
- Deformation test
  1400ton : 45% Decreased
  1800ton : 34% Decreased



* Above is comparison data with the previous model

the ONE* Improving structure of half-nut

- Reducing time of half nut tightening (30%)
- Simultaneous left and right movements
  -> simultaneous upper and low movements
- Horizontal support effect for tie bar when half nut is closed Improved shape of tie-bar, half-nut and screw
  -Trapezoidal screw → U-shaped screw
  -Reinforcement of screw strength and reduced half-nut bite error
  -Improved stability for high pressure mold opening
- Applies oil-free sliding bushings
  Clean environment with small amount of grease
- Location sensor forclamping unit : SSI type

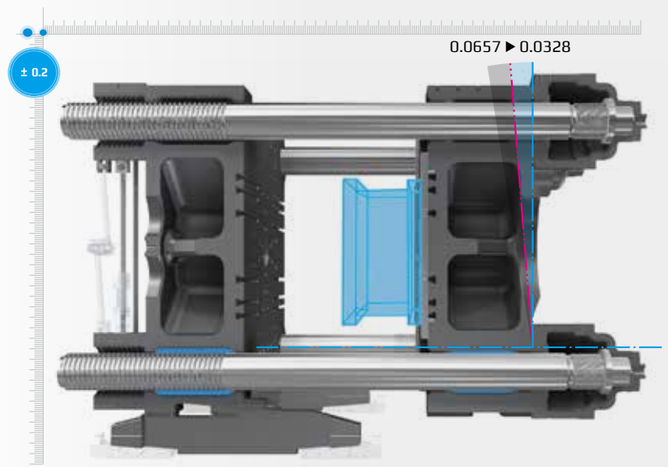




NEW model's half nut structure



New model's U-shaped tooth form

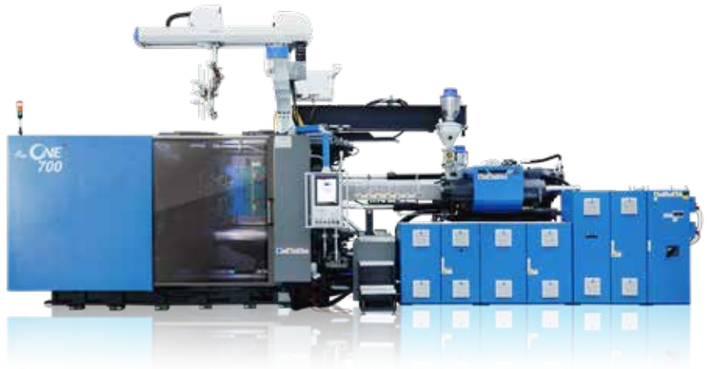


Available for heavy mold mounting

- Reproducibility of open and closed position : ± 0.2 (improving for speed of Mold open & close and Location reproducibility
- No tie bar bush on moving platen (High-speed mechanism without friction) Structural improvement for support system of fixing and moving platen
- Heavy mold weight of 2.5% of tonnage allowed

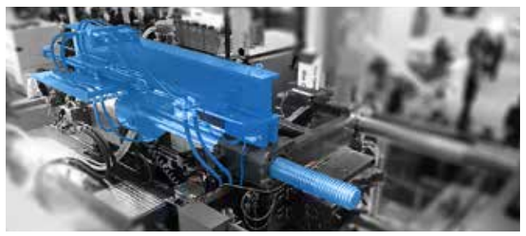


Existing madel NEW model



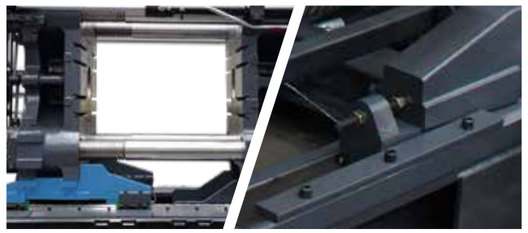
the ONE* **Tie-bar pulling system** option

- One touch Tie bar separation
- No need to disassemble & reassemble
- Easy mold replacement on low ceiling factory
- No need to use mold carrier on low ceiling factory



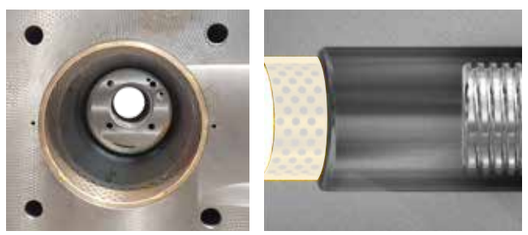
the ONE* **No lubrication Sliding Bush applied**

- 40% improvement on Tie-bar dropping
- Semipermanent self-lubrication Bush applied
- No need for Maintanence



the ONE* **Remove moving platen Tie-bar bush**

- No Bush abrasion
- No need for lubrication



Injection Unit
Structure improvement applied

the ONE* **Quick barrel change system**

- Lift barrel up when Barrel assy is replaced, not turning a whole injection unit

the ONE* **Good for Modulation**

- Barrel assy change & Nozzle cylinder adjustment for Y,A,B screw replacement
- Injection unit change for down-modulation without frame change or adjustment.

the ONE* **Movement Zero nozzle touch structure**

- Nozzle cylinders are installed parallel to a barrel, so it can prevent Moment by one-side deflection
- Improvement for resin leakage
- Longer durability of cylinder & plasticizing capacity components.

the ONE* **Applies the barrel support device standard (Deflection prevention)**

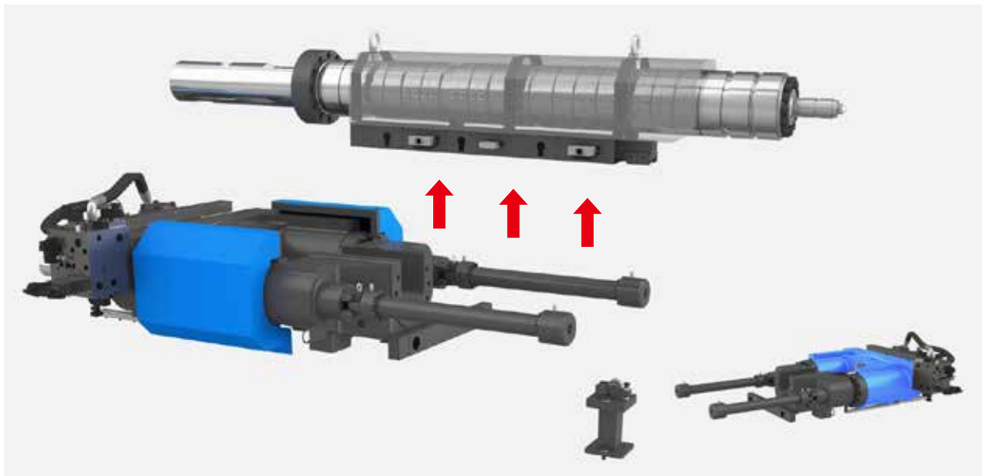
- Longer durability of barrel & screw

the ONE* **Injection Piston structure improvement**

- Prevents piston rod nut from loosening
- Simplified hydraulic lines
- Improved injection speed, pressure by high pressurization

the ONE* **Simplify hydraulic line**

- Oil line inside platen to prevent oil leakage and improve appearance



Easy and convenient maintenance

the ONE* Simple & Safe maintenance

- Stable production by Barrel supporting part
- Clean working environment by clamping side oil lubrication and recovery system.
- Various safety interlocks for safe work environment

the ONE* Oil leakage prevention

- No welding slug and Zinc galvanized pipe is applied
- FKM[1)] sealing applied pipe fitting & O-ring type hose fitting
- Oil tank special coating Oil cleanliness improved

1) FKM

Optimal sealing for injection molding machine with great durability to prevent oil leakage







the ONE* 100% No Welding slug

- Zinc galvanized pipe is applied
- No Welding slug generation
- FKM sealing applied pipe fitting & O-ring type hose fitting

the ONE* Oil tank internal cleanliness improved

- Tank internal part is ceramic & glass special coating applied



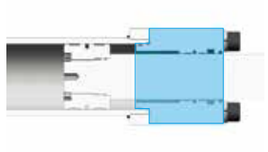
Tank Traditional



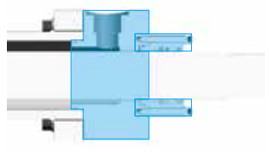
Tank Now madel

the ONE* Packing cover separate structure applied

- Easier for packing replacement



Previous Model
(Packing cover integrated structure)



New model
(Packing cover separable structure)

CONTROL SYSTEM (KEBA CONTRLLER)

User Sequence changed : Easy maintenance & Flexible for user demand



- Provides operational convenience for users by increasing the screen size
- Convenient operation with High-response color panel

- Easy and various graphic functions
- Real-time data adjustment and operation
- Function to search data on molds

- Easy to analyze cycles with monitoring screen
- East to convert unit
- Adds a memo function : possible to make an independent memo and associate with mold information

- Possible to monitor and communicate with peripheral devices.
- Possible to monitor I/O and turn ON/OFF the forced output on the touch screen

- User-friendly UI
- User can change the sequence of cycles
- Mix and match units (psi,inch,mm,bar, etc.)
- Multi language selection
- Multi-level, customizable password control for each user.

Clamping Page



Core Page



Injection Page



Graph Page



Heater Page



Setting Page



the ONE* Customer's Benefits

- Easy to analyze and monitor an injection molding process with the improved user interface
- Easy to maintain and change the User's sequence
- Responding flexibly to customer's demand

CSI 4.0*

Connected Smart Injection 4.0 option

LS-Mtron's CSI 4.0 is a solution that can help customers quickly respond to the 4th industrial revolution and digital transformation.
The solution starts with accurate data collection, transforming this data into meaningful information, and using data processing technology to improve processes through intelligent applications of AI.

SMART PRODUCTION

SMART PRODUCTION



Smart Monitoring	24/7 Mobile Access From Anywhere
Smart Production Control	Real-Time Monitoring Control
Smart Mold Recongnition	RFID check and Immediate Upload of Molding Parameters via QR Code
Smart Equipment Control	Real-time Monitoring
Smart Data interface	Data Transfer to Customer Monitoring Systems

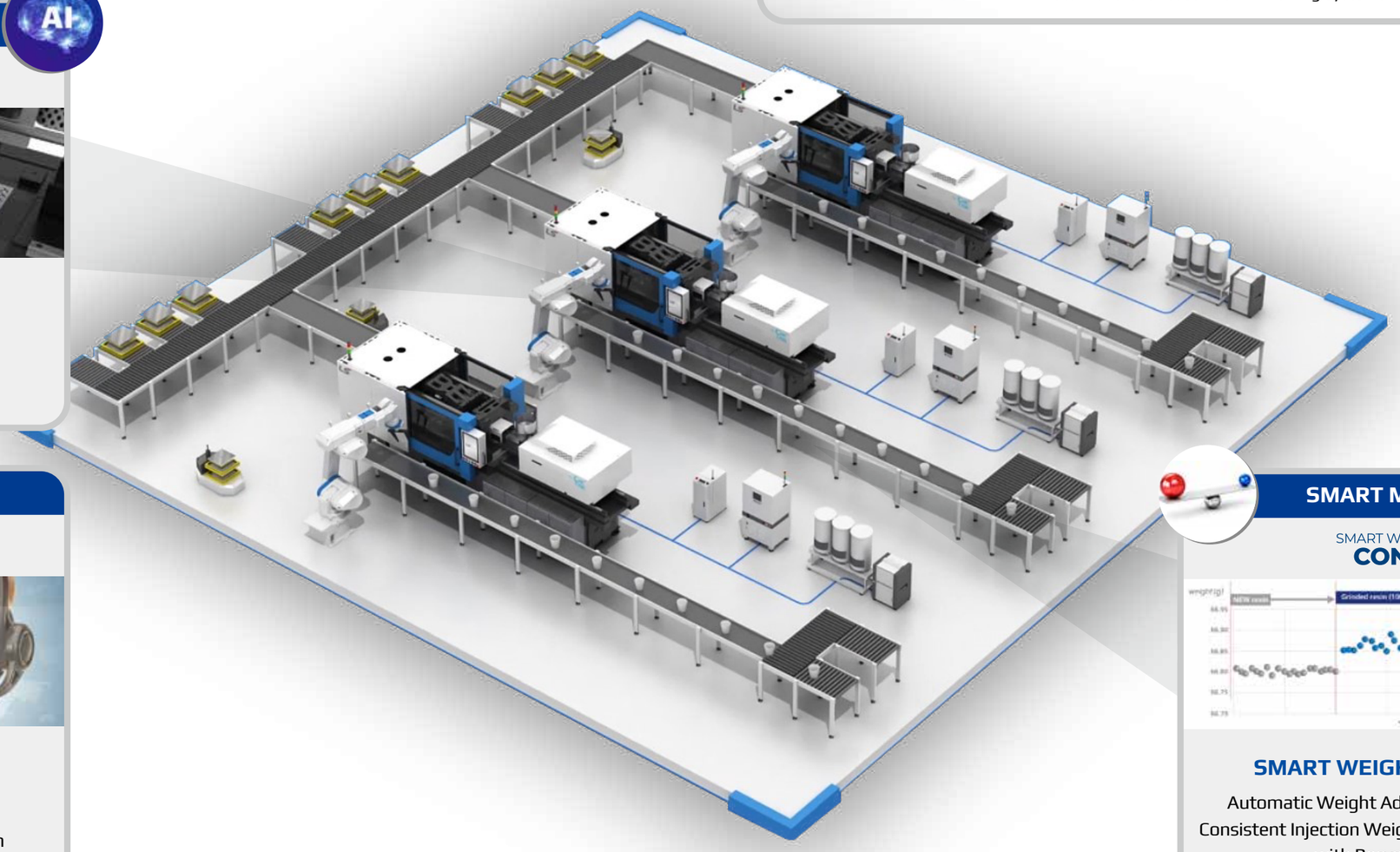
AI

AI INJECTION SYSTEM



AI Injection System

AI Molding Assistant
AI Weight Control
Smart Injection Molding Machine



SMART SERVICE

SMART REMOTE SERVICE



SMART REMOTE SERVICE

Remotely Monitor

Access and Troubleshoot Machines in Use at Customer Sites

SMART MACHINE

SMART WEIGHT CONTROL

SMART WEIGHT CONTROL

Automatic Weight Adjustment Maintains Consistent Injection Weight even when Blending with Recycled Resin

Premium Injection Molding Machine

the ONE*



Specification (US Ton)

Model			Unit	the ONE* 550						the ONE* 660									the ONE* 770												the ONE* 1000								
Injection Unit	Injection Unit Code			i30 (Standard)			i46			i30			i46 (Standard)			i64			i30			i46			i64 (Standard)			i101			i46			i64			i101 (Standard)			i135		
	Screw Type			Y	A	B	Y	A	B	Y	A	B	Y	A	B	Y	A	B	Y	A	B	Y	A	B	Y	A	B	Y	A	B	Y	A	B	Y	A	B	Y	A	B	Y	A	B
	Screw Diameter		in	2.36	2.76	3.15	2.76	3.15	3.54	2.36	2.76	3.15	2.76	3.15	3.54	3.15	3.54	4.13	2.36	2.76	3.15	2.76	3.15	3.54	3.15	3.54	4.13	3.54	4.13	4.53	2.76	3.15	3.54	3.15	3.54	4.13	3.54	4.13	4.53	4.13	4.53	4.92
			mm	60	70	80	70	80	90	60	70	80	70	80	90	80	90	105	60	70	80	70	80	90	80	90	105	90	105	115	70	80	90	80	90	105	90	105	115	105	115	125
	Screw Stroke		in	15.2			17.3			15.2			17.3			19.5			15.2			17.3			19.5			22.8			17.3			19.5			22.8			25.0		
			mm	385.0			440.0			385.0			440.0			495.0			385.0			440.0			495.0			580.0			440.0			495.0			580.0			635.0		
	Calculated Injection Volume		in³	66.4	90.4	118.1	103.3	135.0	170.8	66.4	90.4	118.1	103.3	135.0	170.8	151.8	192.2	261.6	66.4	90.4	118.1	103.3	135.0	170.8	151.8	192.2	261.6	225.2	306.5	367.6	103.3	135.0	170.8	151.8	192.2	261.6	225.2	306.5	367.6	335.5	402.5	475.5
			cm³	1089	1482	1935	1693	2212	2799	1089	1482	1935	1693	2212	2799	2488	3149	4286	1089	1482	1935	1693	2212	2799	2488	3149	4286	3690	5022	6024	1693	2212	2799	2488	3149	4286	3690	5022	6024	5498	6596	7793
	Injection Capacity	PS	oz	35.4	48.2	62.9	55.0	71.9	91.0	35.4	48.2	62.9	55.0	71.9	91.0	80.9	102.4	139.3	35.4	48.2	62.9	55.0	71.9	91.0	80.9	102.4	139.3	119.9	163.2	195.8	55.0	71.9	91.0	80.9	102.4	139.3	119.9	163.2	195.8	178.7	214.4	253.3
			g	1003	1365	1783	1560	2038	2579	1003	1365	1783	1560	2038	2579	2293	2902	3950	1003	1365	1783	1560	2038	2579	2293	2902	3950	3400	4628	5551	1560	2038	2579	2293	2902	3950	3400	4628	5551	5067	6078	7181
	Injection Pressure		Psi	39,594	29,089	22,272	38,506	29,481	23,294	39,594	29,089	22,272	38,506	29,481	23,294	36,667	28,972	21,285	39,594	29,089	22,272	38,506	29,481	23,294	36,667	28,972	21,285	39,086	28,716	23,939	38,506	29,481	23,294	36,667	28,972	21,285	39,086	28,716	23,939	34,808	29,017	24,560
			Mpa	273	201	154	265	203	161	273	201	154	265	203	161	253	200	147	273	201	154	265	203	161	253	200	147	269	198	165	265	203	161	253	200	147	269	198	165	240	200	169
	Injection Rate		in³/sec	23.5	31.9	41.7	28.2	36.8	46.5	23.5	31.9	41.7	28.2	36.8	46.5	39.7	50.3	68.4	23.5	31.9	41.7	28.2	36.8	46.5	39.7	50.3	68.4	49.1	66.9	80.2	28.2	36.8	46.5	39.7	50.3	68.4	49.1	66.9	80.2	62.3	74.7	88.3
			cm³/sec	385	524	684	461	603	763	385	524	684	461	603	763	651	823	1121	385	524	684	461	603	763	651	823	1121	805	1096	1315	461	603	763	651	823	1121	805	1096	1315	1021	1225	1447
	Injection Speed		in/sec	5.3			4.7			5.3			4.7			5.1			5.3			4.7			5.1			5.0			4.7			5.1			5.0			4.6		
			mm/sec	134			120			134			120			129			134			120			129			127			120			129			127			118		
	Plasticizing Capacity	PS	oz/sec	2.5	3.1	3.7	2.9	3.7	4.3	2.5	3.1	3.7	2.9	3.7	4.3	3.7	4.3	5.4	2.5	3.1	3.7	2.9	3.7	4.3	3.7	4.3	5.4	4.3	5.4	6.0	2.9	3.7	4.3	3.7	4.3	5.4	4.3	5.4	6.0	5.4	6.0	6.7
			g/sec	71	87	104	83	104	121	71	87	104	83	104	121	104	121	154	71	87	104	83	104	121	104	121	154	121	154	170	83	104	121	104	121	154	121	154	170	154	170	191
	Screw Speed		rpm	240	210	180	200	180	160	240	210	180	200	180	160	180	160	140	240	210	180	200	180	160	180	160	140	160	140	125	200	180	160	180	160	140	160	140	125	140	125	115
Clamping Unit	Clamping Force		US Ton (kN)	551 (4902)						664 (5909)									773 (6878)												1000 (8852)								
	Tie-Bar Distance (H x V)		in	36.2 x 31.9						39.8 x 35.8									43.7 x 37.8												46.5 x 39.8								
			mm	920 x 810						1010 x 910									1110 x 960												1180 x 1010								
	Platen Dimensions (H x V)		in	51.2 x 49.2						55.1 x 53.1									59.4 x 56.7												63.8 x 60.6								
			mm	1300 x 1250						1400 x 1350									1510 x 1440												1620 x 1540								
	Daylight		in (mm)	61.1 (1550)						68.9 (1750)									72.9 (1850)												90.6 (2300)								
	Mold Height	Min	in (mm)	13.8 (350)						15.8 (400)									17.8 (450)												19.7 (500)								
		Max	in (mm)	35.4 (900)						39.4 (1000)									43.3 (1100)												47.2 (1200)								
	Max. Mold Weight		US Ton (Ton)	8.8 (8)						10.5 (9.5)									12.1 (11)												14.3 (13)								
	Ejector Force		US Ton (kN)	11.9 (106)						11.9 (106)									11.9 (106)												24.5 (218)								
	Ejector Stroke		in (mm)	9.8 (250)						9.8 (250)									9.8 (250)												11.8 (300)								
	DRY CYCLE (EUROMAP 6)		sec	2.6						2.9									3.3			2.9									4.5			3.8			3.3					
General	Oil Capacity		gal	291						291						370			291						370						291			370						476		
			ℓ	1100						1100						1,400			1,100						1,400						1,100			1,400						1,800		
	Pump Motor Capacity		kW	28.3 + 56.3						28.3 + 56.3						36.7 + 71.9			28.3 + 56.3						36.7 + 71.9			71.9 x 2			28.3 + 56.3			36.7 + 71.9			71.9 x 2			56.3 x 3		
	Barrel Heating Capacity		kW	18.6	24.1	31.3	23.3	31.3	40.5	18.6	24.1	31.3	23.3	31.3	40.5	30.5	40.5	57.5	18.6	24.1	31.3	23.3	31.3	40.5	30.5	40.5	57.5	41.2	57.5	68.6	23.3	31.3	40.5	30.5	40.5	57.5	41.2	57.5	68.6	51.9	68.6	86.0
	Machine Dimensions (L x W x H)		ft	24.9 x 7.9 x 7.6						24.9 x 7.9 x 7.6						28.5 x 8.5 x 8.2			26.9 x 8.5 x 8.2						29.2 x 8.9 x 8.2						29.8 x 10.2x 8.5			31.9 x 9.5 x 8.9								
			m	7.6 x 2.4 x 2.3						7.9 x 2.4 x 2.3						8.7 x 2.6 x 2.5			8.1 x 2.6 x 2.5						8.9 x 2.7 x 2.5						9.1 x 3.1 x 2.6			9.7 x 2.9 x 2.7								
	Machine Weight		US Ton (TTL)	15.4 + 6.1			15.4 + 9.4			18.2 + 6.1			18.2 + 9.4			18.2 + 11			23.1 + 6.1			23.1 + 9.4			23.1 + 11			23.1 + 15.4			30.9 + 9.4			30.9 + 11			30.9 + 15.4			30.9 + 17.1		
			Ton (TTL)	14 + 5.5			14 + 8.5			16.5 + 5.5			16.5 + 8.5			16.5 + 10			21 + 5.5			21 + 8.5			21 + 10			21 + 14			28 + 8.5			28 + 10			28 + 14			28 + 15.5		



Specification (US Ton)

Model			Unit	the ONE* 1200												the ONE* 1400												the ONE* 2000											
Injection Unit	Injection Unit Code			i46			i64			i101 (Standard)			i135			i64			i101			i135 (Standard)			i174			i101			i135			i174 (Standard)			i216		
	Screw Type			Y	A	B	Y	A	B	Y	A	B	Y	A	B	Y	A	B	Y	A	B	Y	A	B	Y	A	B	Y	A	B	Y	A	B	Y	A	B	Y	A	B
	Screw Diameter		in	2.76	3.15	3.54	3.15	3.54	4.13	3.54	4.13	4.53	4.13	4.53	4.92	3.15	3.54	4.13	3.54	4.13	4.53	4.13	4.53	4.92	4.53	4.92	5.51	3.54	4.13	4.53	4.13	4.53	4.92	4.53	4.92	5.51	4.92	5.51	6.30
			mm	70	80	90	80	90	105	90	105	115	105	115	125	80	90	105	90	105	115	105	115	125	115	125	140	90	105	115	105	115	125	115	125	140	125	140	160
	Screw Stroke		in	17.3			19.5			22.8			25.0			19.5			22.8			25.0			27.2			22.8			25.0			27.2			30.3		
			mm	440.0			495.0			580.0			635.0			495.0			580.0			635.0			690.0			580.0			635.0			690.0			770.0		
	Calculated Injection Volume		in³	103.3	135.0	170.8	151.8	192.2	261.6	225.2	306.5	367.6	335.5	402.5	475.5	151.8	192.2	261.6	225.2	306.5	367.6	335.5	402.5	475.5	437.4	516.7	648.2	225.2	306.5	367.6	335.5	402.5	475.5	437.4	516.7	648.2	576.6	723.3	944.8
			cm³	1693	2212	2799	2488	3149	4286	3690	5022	6024	5498	6596	7793	2488	3149	4286	3690	5022	6024	5498	6596	7793	7167	8468	10622	3690	5022	6024	5498	6596	7793	7167	8468	10622	9449	11853	15482
	Injection Capacity	PS	oz	55.0	71.9	91.0	80.9	102.4	139.3	119.9	163.2	195.8	178.7	214.4	253.3	80.9	102.4	139.3	119.9	163.2	195.8	178.7	214.4	253.3	233.0	275.2	345.3	119.9	163.2	195.8	178.7	214.4	253.3	233.0	275.2	345.3	307.2	385.3	503.2
			g	1560	2038	2579	2293	2902	3950	3400	4628	5551	5067	6078	7181	2293	2902	3950	3400	4628	5551	5067	6078	7181	6604	7803	9788	3400	4628	5551	5067	6078	7181	6604	7803	9788	8708	10923	14266
	Injection Pressure		Psi	38,506	29,481	23,294	36,667	28,972	21,285	39,086	28,716	23,939	34,808	29,017	24,560	36,667	28,972	21,285	39,086	28,716	23,939	34,808	29,017	24,560	34,579	29,268	23,332	39,086	28,716	23,939	34,808	29,017	24,560	34,579	29,268	23,332	32,474	25,888	19,821
			Mpa	265	203	161	253	200	147	269	198	165	240	200	169	253	200	147	269	198	165	240	200	169	238	202	161	269	198	165	240	200	169	238	202	161	224	178	137
	Injection Rate		in³/sec	28.2	36.8	46.5	39.7	50.3	68.4	49.1	66.9	80.2	62.3	74.7	88.3	39.7	50.3	68.4	49.1	66.9	80.2	62.3	74.7	88.3	67.2	79.4	99.6	49.1	66.9	80.2	62.3	74.7	88.3	67.2	79.4	99.6	77.3	96.9	126.6
			cm³/sec	461	603	763	651	823	1121	805	1096	1315	1021	1225	1447	651	823	1121	805	1096	1315	1021	1225	1447	1101	1301	1632	805	1096	1315	1021	1225	1447	1101	1301	1632	1266	1588	2074
	Injection Speed		in/sec	4.7			5.1			5.0			4.6			5.1			5.0			4.6			4.2			5.0			4.6			4.2			4.1		
			mm/sec	120			129			127			118			129			127			118			106			127			118			106			103		
	Plasticizing Capacity	PS	oz/sec	2.9	3.7	4.3	3.7	4.3	5.4	4.3	5.4	6.0	5.4	6.0	6.7	3.7	4.3	5.4	4.3	5.4	6.0	5.4	6.0	6.7	6.0	6.7	8.1	4.3	5.4	6.0	5.4	6.0	6.7	6.0	6.7	8.1	6.7	8.1	9.3
			g/sec	83	104	121	104	121	154	121	154	170	154	170	191	104	121	154	121	154	170	154	170	191	170	191	229	121	154	170	154	170	191	170	191	229	191	229	264
	Screw Speed		rpm	200	180	160	180	160	140	160	140	125	140	125	115	180	160	140	160	140	125	140	125	115	125	115	105	160	140	125	140	125	115	125	115	105	115	105	90
Clamping Unit	Clamping Force		US Ton (kN)	1216 (10818)												1434 (12754)												2000 (17708)											
	Tie-Bar Distance (H x V)		in	55.9 x 45.3												60.2 x 50.4												72.8 x 63.4											
			mm	1420 x 1150												1530 x 1280												1850 x 1610											
	Platen Dimensions (H x V)		in	76.8 x 65.0												82.3 x 74.0												96.5 x 89.0											
			mm	1950 x 1650												2090 x 1880												2450 x 2260											
	Daylight		in (mm)	94.5 (2400)												120.1 (3050)												133.9 (3400)											
	Mold Height	Min	in (mm)	23.7 (600)												27.6 (700)												31.5 (800)											
		Max	in (mm)	51.2 (1300)												55.12 (1400)												63 (1600)											
	Max. Mold Weight		US Ton (Ton)	23.1 (21)												33.1 (30)												49.6 (45)											
	Ejector Force		US Ton (kN)	24.5 (218)												29 (258)												29 (258)											
	Ejector Stroke		in (mm)	11.8 (300)												11.8 (300)												11.8 (300)											
	DRY CYCLE (EUROMAP 6)		sec	4.8			4.5			3.9						5.0						4.4						5.5			4.9								
General	Oil Capacity		gal	291			370						476			370						476			555			370			476			555			660		
			ℓ	1,100			1,400						1,800			1,400						1,800			2,100			1,400			1,800			2,100			2,500		
	Pump Motor Capacity		kW	36.7 + 71.9			71.9 x 2			71.9 x 2			56.3 x 3			71.9 x 2			71.9*2			56.3 x 3			56.3 x 3			71.9 x 2			56.3 x 3			56.3 x 3			56.3 x 2 + 71.9		
	Barrel Heating Capacity		kW	23.3	31.3	40.5	30.5	40.5	57.5	41.2	57.5	68.6	51.9	68.6	86.0	30.5	40.5	57.5	41.2	57.5	68.6	51.9	68.6	86.0	65.0	86.0	99.8	41.2	57.5	68.6	51.9	68.6	86.0	65.0	86.0	99.8	75.3	99.8	130.0
	Machine Dimensions (L x W x H)		ft	32.4 x 10.5 x 8.9									36 x 11.1 x 8.5			38.4 x 11.8 x 9.2						41.3 x 11.8 x 9.2						39.3 x 12.8 x 10.8			42.6 x 12.8 x 10.8						44.9 x 12.8 x 10.8		
			m	9.9 x 3.2 x 2.7									11 x 3.4 x 2.6			11.7 x 3.6 x 2.8						12.6 x 3.6 x 2.8						12 x 3.9 x 3.3			13.0 x 3.9 x 3.3						13.7 x 3.9 x 3.3		
	Machine Weight		US Ton (TTL)	43 + 9.4			43 +11			43 +15.4			43 +17.1			6 +11			6 +15.4			6 +17.1			6 + 22			7.9 +15.4			7.9 +17.1			7.9 + 22			7.9 + 41.9		
			Ton (TTL)	39 + 8.5			39 +10			39 +14			39 +15.5			54 +10			54 +14			54 +15.5			54 + 20			72 +14			72 +15.5			72 + 20			72 + 38		

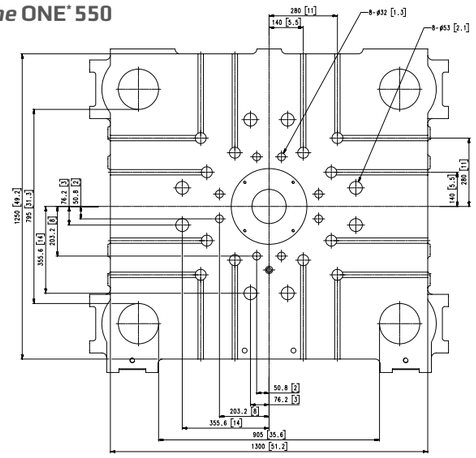


Specification (US Ton)

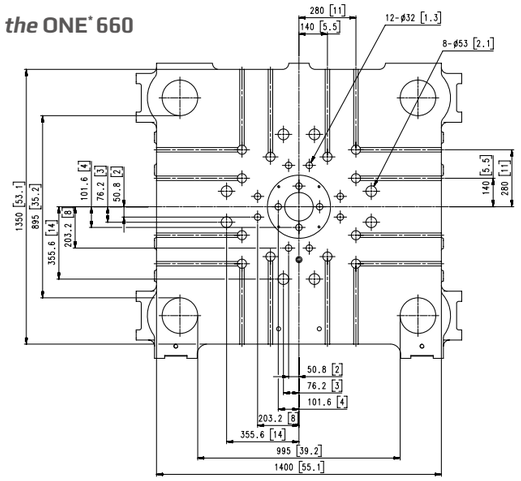
Model			the ONE* 2500												the ONE* 3000												the ONE* 3600								
	Injection Unit Code		i135			i174			i216 (Standard)			i332			i174			i216			i332 (Standard)			i630			i216			i332			i630 (Standard)		
	Screw Type		Y	A	B	Y	A	B	Y	A	B	Y	A	B	Y	A	B	Y	A	B	Y	A	B	A	B	C	Y	A	B	Y	A	B	A	B	C
Injection Unit	Screw Diameter	in	4.13	4.53	4.92	4.53	4.92	5.51	4.92	5.51	6.30	5.51	6.30	7.09	4.53	4.92	5.51	4.92	5.51	6.30	5.51	6.30	7.09	7.87	9.06	9.84	4.92	5.51	6.30	5.51	6.30	7.09	7.87	9.06	9.84
		mm	105	115	125	115	125	140	125	140	160	140	160	180	115	125	140	125	140	160	140	160	180	200	230	250	125	140	160	140	160	180	200	230	250
	Screw Stroke	in	25.0			27.2			30.3			34.6			27.2			30.3			34.6			43.3			30.3			34.6			43.3		
		mm	635.0			690.0			770.0			880.0			690.0			770.0			880.0			1100.0			770.0			880.0			1100.0		
	Calculated Injection Volume	in³	335.5	402.5	475.5	437.4	516.7	648.2	576.6	723.3	944.8	826.7	1079.7	1366.5	437.4	516.7	648.2	576.6	723.3	944.8	826.7	1079.7	1366.5	2108.8	2788.9	3295.0	576.6	723.3	944.8	826.7	1079.7	1366.5	2108.8	2788.9	3295.0
		cm³	5498	6596	7793	7167	8468	10622	9449	11853	15482	13547	17693	22393	7167	8468	10622	9449	11853	15482	13547	17693	22393	34558	45702	53996	9449	11853	15482	13547	17693	22393	34558	45702	53996
	Injection Capacity PS	oz	178.7	214.4	253.3	233.0	275.2	345.3	307.2	385.3	503.2	440.3	575.1	727.9	233.0	275.2	345.3	307.2	385.3	503.2	440.3	575.1	727.9	1123.3	1485.6	1755.1	307.2	385.3	503.2	440.3	575.1	727.9	1123.3	1485.6	1755.1
		g	5067	6078	7181	6604	7803	9788	8708	10923	14266	12483	16305	20635	6604	7803	9788	8708	10923	14266	12483	16305	20635	31845	42115	49757	8708	10923	14266	12483	16305	20635	31845	42115	49757
	Injection Pressure	Psi	34,808	29,017	24,560	34,579	29,268	23,332	32,474	25,888	19,821	34,808	26,650	21,057	34,579	29,268	23,332	32,474	25,888	19,821	34,808	26,650	21,057	25,930	19,607	16,595	32,476	25,889	19,822	34,809	26,651	21,057	25,931	19,608	16,596
		Mpa	240	200	169	238	202	161	224	178	137	240	184	145	238	202	161	224	178	137	240	184	145	179	135	114	224	178	137	240	184	145	179	135	114
	Injection Rate	in³/sec	62.3	74.7	88.3	67.2	79.4	99.6	77.3	96.9	126.6	94.3	123.2	155.9	67.2	79.4	99.6	77.3	96.9	126.6	94.3	123.2	155.9	148.1	195.9	231.5	77.3	96.9	126.6	94.3	123.2	155.9	148.1	195.9	231.5
		cm³/sec	1021	1225	1447	1101	1301	1632	1266	1588	2074	1546	2019	2555	1101	1301	1632	1266	1588	2074	1546	2019	2555	2427	3210	3793	1266	1588	2074	1546	2019	2555	2427	3210	3793
	Injection Speed	in/sec	4.6			4.2			4.1			4.0			4.2			4.1			4.0			3.0			4.1			4.0			3.0		
		mm/sec	118			106			103			100			106			103			100			77			103			100			77		
	Plasticizing Capacity PS	oz/sec	5.4	6.0	6.7	6.0	6.7	8.1	6.7	8.1	9.3	7.7	9.3	10.9	6.0	6.7	8.1	6.7	8.1	9.3	7.7	9.3	10.9	11.4	15.0	15.5	6.7	8.1	9.3	7.7	9.3	10.9	11.4	15.0	15.5
		g/sec	154	170	191	170	191	229	191	229	264	218	264	309	170	191	229	191	229	264	218	264	309	323	425	439	191	229	264	218	264	309	323	425	439
	Screw Speed	rpm	140	125	115	125	115	105	115	105	90	100	90	80	125	115	105	115	105	90	100	90	80	65	60	50	115	105	90	100	90	80	65	60	50
Clamping Unit	Clamping Force	US Ton (kN)	2545 (22642)												3000 (26574)												3640 (32385)								
	Tie-Bar Distance (H x V)	in	79.9 x 63.4												86.2 x 68.9												89.4 x 71.3								
		mm	2030 x 1610												2190 x 1750												2270 x 1810								
	Platen Dimensions (H x V)	in	107.1 x 96.1												117.3 x 104.3												122.8 x 106.3								
		mm	2720 x 2440												2980 x 2650												3120 x 2700								
	Daylight	in (mm)	145.7 (3700)												153.6 (3900)												161.5 (4100)								
	Mold Height Min	in (mm)	31.5 (800)												35.5 (900)												39.4 (1000)								
	Mold Height Max	in (mm)	70.8 (1800)												78.7 (2000)												82.7 (2100)								
	Max. Mold Weight	US Ton (Ton)	68.3 (62)												82.7 (75)												89.3 (81)								
	Ejector Force	US Ton (kN)	47.5 (422)												47.5 (422)												47.5 (422)								
	Ejector Stroke	in (mm)	15.7 (400)												15.7 (400)												15.7 (400)								
	DRY CYCLE (EUROMAP 6)	sec	6.5			6.0			5.5						8.2			7.6			5.8						9.9			8.0			6.8		
General	Oil Capacity	gal	476			555			660			766			555			660			766			872			660			766			872		
		ℓ	1,800			2,100			2,500			2,900			2,100			2,500			2,900			3,300			2,500			2,900			3,300		
	Pump Motor Capacity	kW	56.3 x 3			56.3 x 3			56.3 x 2 + 71.9			56.3 x 2 + 71.9			56.3 x 3			56.3 x 2 + 71.9			56.3 x 3 + 71.9			71.9 x 4			56.3 x 2 + 71.9			56.3 x 3 + 71.9			71.9 x 4		
	Barrel Heating Capacity	kW	51.9	68.6	86.0	65.0	86.0	99.8	75.3	99.8	130.0	87.3	130.0	140.7	65.0	86.0	99.8	75.3	99.8	130.0	87.3	130.0	140.7	190.8	217.8	231.3	75.3	99.8	130.0	87.3	130.0	140.7	190.8	217.8	231.3
	Machine Dimensions (L x W x H)	ft	44.9 x 14.1 x 11.4						47.2 x 14.1 x 11.4			50.2 x 14.1 x 11.4			46.2 x 14.7 x 12.1			48.5 x 14.7 x 12.1			51.1 x 14.7 x 12.1			57.4 x 14.7 x 12.1			49.2 x 16.4 x 12.8						58 x 16.4 x 12.8		
		m	13.7 x 4.3 x 3.5						14.4 x 4.3 x 3.5			15.3 x 4.3 x 3.5			14.1 x 4.5 x 3.7			14.8 x 4.5 x 3.7			15.6 x 4.5 x 3.7			17.5 x 4.5 x 3.7			15 x 5.0 x 3.9						17.7 x 5.0 x 3.9		
	Machine Weight	US Ton (TTL)	10.6 +17.1			10.6 + 22			10.6 + 41.9			10.6 + 45.2			13.4 + 22			13.4 + 41.9			13.4 + 45.2			13.4 + 21.7			16 + 41.9			16 + 45.2			16 + 21.7		
		Ton (TTL)	96 + 15.5			96 + 20			96 + 38			96 + 41			122 + 20			122 + 38			122 + 41			122 + 65			145 + 38			145 + 41			145 + 65		

Moving Platen Drawing

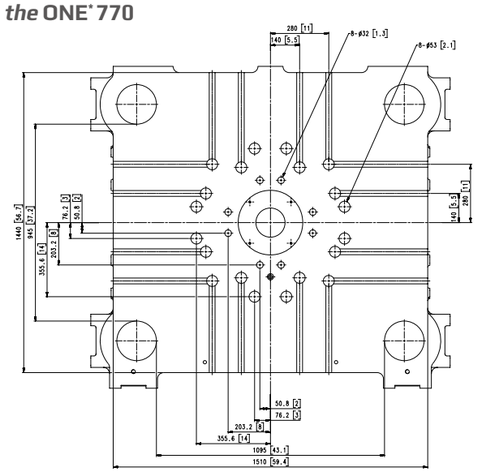
the ONE* 550



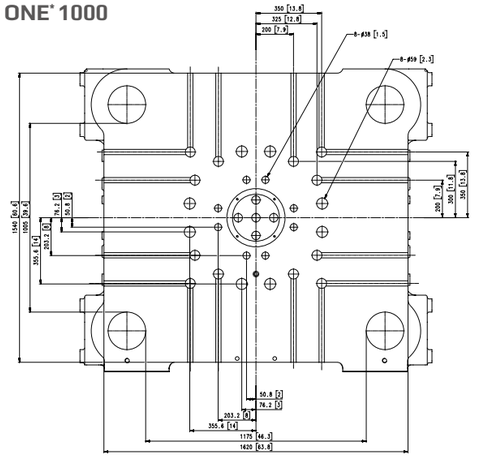
the ONE* 660



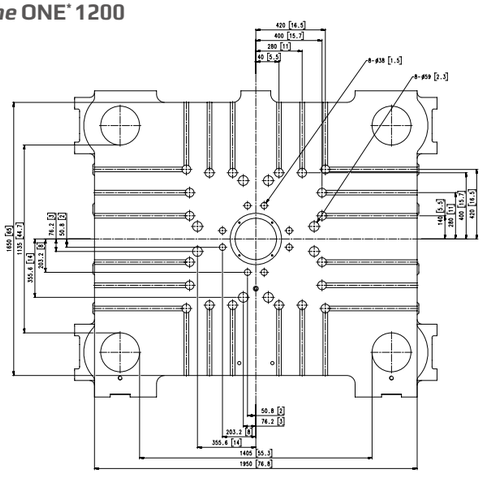
the ONE* 770



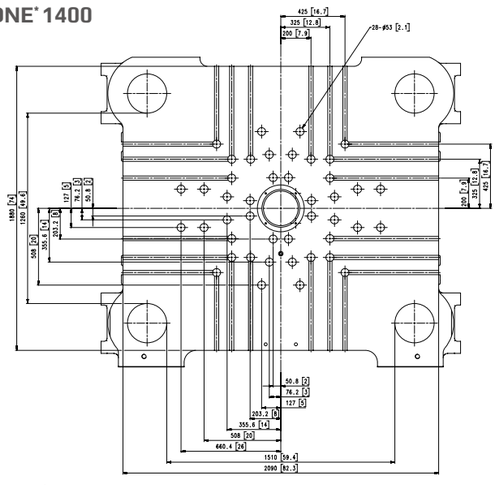
the ONE* 1000



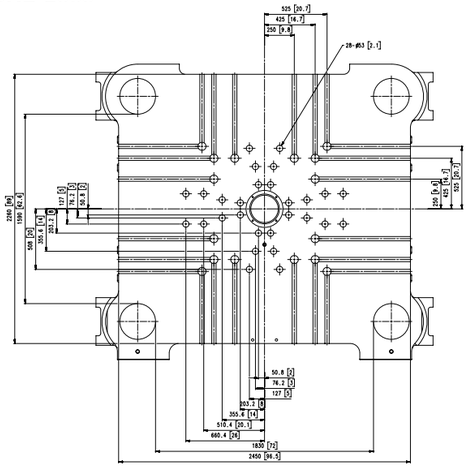
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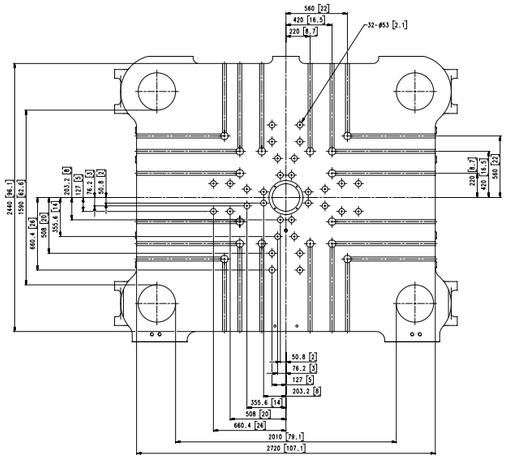
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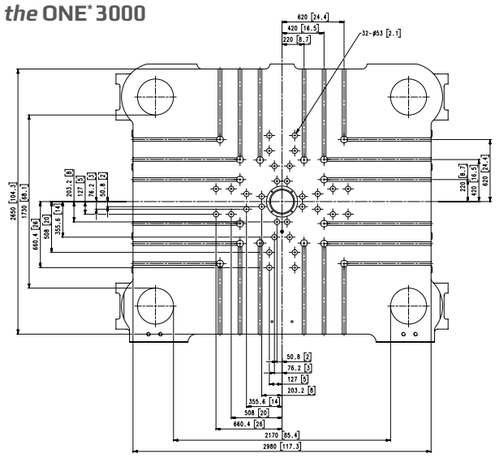
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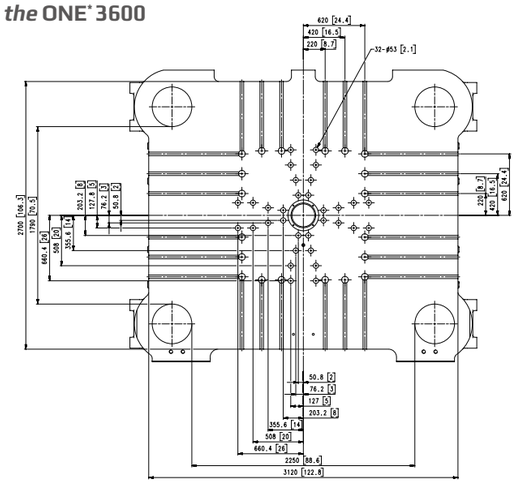
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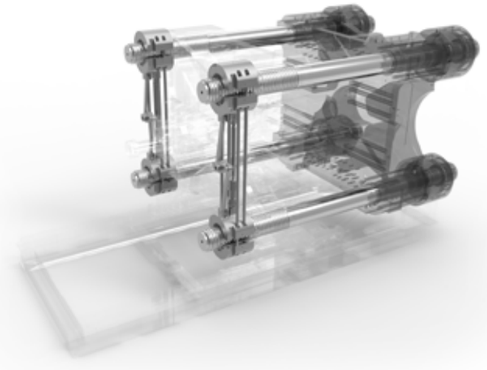
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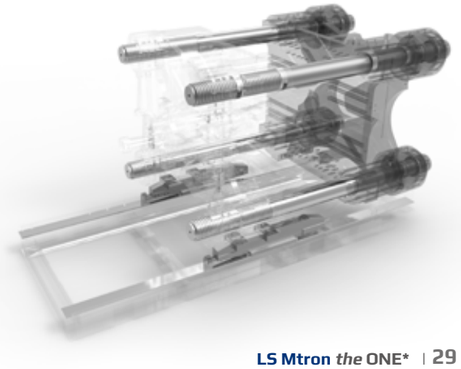


the ONE* 3600



Notes. Dimensions in ( ) are in Inch
Tapped hole pattern available





Standard/Optional Equipment

	Standard Features	Optional Equipment
Clamping Unit	Vertical & Horizontal T-Slots (Includes T-Clamps)	Daylight Extension
	Automatic Lubrication System	Tapped Hole Pattern on Platens
	LM Guides under Moving Platen and Bushing-Free Tiebars (theONE*550~770)	Locate Ring (Non-Standard Size)
	Greaseless Composite Material Moving Platen Carriers (theONE*1000~4400)	Additional Hyd. Core Pulls
	Automatic Mold Height Adjustment	Hydraulic Valve Gates
	Automatic Clamping Force Adjustment	Pneumatic Valve Gates
	High-Speed Mold Open/Close Circuit	Additional Air Eject Circuits
	Mold Protect Mode	Water Manifold Non-Standard Type
	Digital Position Sensor	Tie-Bar Puller
	Lock-Nut Simultaneous Movement	Safety Foot Board (Option for theONE*550~770)
	Air Eject (STA 1 / MOV 1)	Pneumatic Core Valves
	Hyd. Core Pulls (STA 1 / MOV 1) A/B/C/D Modes	Insulator Boards
	Eject During Mold Open	Temp. Sensor for Cooling Water Manifolds
	Hydraulic Ejector Forward Holding Circuit with Valve	Mechanical Safety Device (Drop Bar)
	Multi-Eject and Vibratory Eject	Rotary Table for Multi-Shot Applications
	Ejector Return Confirmation	
	Safety Gate & Covers	
	Access Door Behind Clamp for Service	
	Safety Foot Board in Mold Area (theONE*1200~4000)	
	OP-Side Automatic Safety Door	
	Water Manifolds (theONE*550~1000) • In/Out Port (10) Zones (+1 for Feed Throat), Port Size 10mm, • PT 1", Ball Valves Included	
	Water Manifolds (theONE*1200~4400) • In/Out Port (24) Zones (+1 for Feed Throat), Port Size 12mm, • PT 1 1/4", Ball Valves Included	
	Moving (12) / Stationary (12)	
	Locate Ring 4" / 5" (Dual Type)	
	Valve Gate (1) Zone (Interface Only - 24VDC or 110VAC)	
	Spring Mold Close/Open Mode	
	Robot Mounting Pattern	
Injection Unit	Anti-Wear Screw & Barrel (AW1 - Up to 20% GF)	Various Screw and Barrel Designs (Anti-Wear/Anti-Corrosion, Mixing, etc.)
	Closed Loop Control for Injection Process	Non-Standard Nozzle Option
	Ceramic Heater Bands for Barrel	Electric Screw Drive
	Cable Heater for Nozzle Zone	Hyd. Shut-Off Nozzle
	Pre-Heating Temperature Control	Pneumatic Shut-Off Nozzle
	Removable Nozzle Tip (R1/2" x D7/32" x L100mm) with 7/8-14 Thread	Hopper Slide Drain Port
	Nozzle Retract Timing Selector (Sprue Break)	Cooling Fan for Barrel Temperature Control
	Screw Back Pressure Regulator	Hopper Access Ladder
	Screw Cold Start Prevention	Hopper Platform
	Screw Tip (for General Resins, Non-Return Valve Type)	High-Speed Injection Option
	Injection Speed & Pressure Control Device	Injection Compression (Coining)
	Feed Throat Temperature Control Device	Barrel Heater Insulation Cover
	Nozzle Retract Sensor	Flow Meter for Hopper Temperature Control
	LM Guides for Injection Unit and Carriage	Mold Open and Close During Screw Recovery
	Screw 1st and 2nd Retract	
	Heater Thermocouples (J-Type)	
	Hyd. Oil Filtration System	
	Hyd. Oil Level and Temperature Sensors	
	Injection Unit Dual Pull-In Cylinders	
	Barrel Support	

	Standard Features	Optional Equipment
Control System	Main Power 480V / 3P / 60Hz	Alternate Main Power Options (575V, 240V, etc.)
	Closed Loop Control System	Euromap 73 (Safety Fence Interface)
	Energy Saving Servo-Hydraulic System	Robot Interface E12
	PID Temperature Control	Interface for Additional Valve Gates
	Graphs for Injection Speed & Pressure	Integrated Hot Runner System
	Automatic Motor Power Off	Air Conditioning Unit In Control Cabinet
	Automatic Purging Program	Additional Single-Phase Outlets (110V)
	Back Pressure Relief Circuit	Additional Three-Phase Outlets (240V, 480V)
	Emergency Stop Switches	Gas Injection Interlock Circuit
	Three-Color Alarm Light & Buzzer	Uninterrupted Power Supply (UPS) for Controller
	Hydraulic Oil Pre-Heat Function	Additional Programmable I/O
	Robot Interface E67	CE Marking
	Core Pull or Eject During Mold Open	UL/CSA Certified Electric Parts
	ANSI Safety Standard	Safety Label Language (Spanish/French/etc.)
	Motion/No Motion Key Switch	RFID Passkey System for Security Login
	Nozzle Safety Cover with Interlock	Barcode Scanning System for Mold Data Retrieval
	USB Port (Molding Data Transfer, Screen Shot, etc.)	
	KEBA 18.5" Touchscreen Controller	
	MIOSHA 2nd Power Disconnect	
	Dual 110V Convenience Outlet at Operator Station (Single Phase)	
	Internal Lights for Control Cabinet & Cabinet Door Hinges	
	Programmable I/O (8 Inputs / 8 Outputs)	
	Valve Gate (Interface Only / 1 Zone DC24V or AC220V)	
	Ethernet Port for Remote Monitoring	
	Wi-Fi Router for Remote Service	
	Ejector Check Valve	
	Core Pressure Release	
	Barrel Cover	
	Oil Temperature Display	
	Pre-Heating Control for Barrel	
	Automatic Power Shut-Down Circuit	
	Production Counter	
Genral	Leveling Pads	
	Basic Tool Kit Package	
	Spare Parts Package (Screw Tip, Heater Bands, Thermocouples)	





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