



e-Profit Series

...the energy efficient molding solution



**50 Ton - 180 Ton
Injection Molding Machine**

 Servo  Energy Efficient  Industry 4.0 Ready

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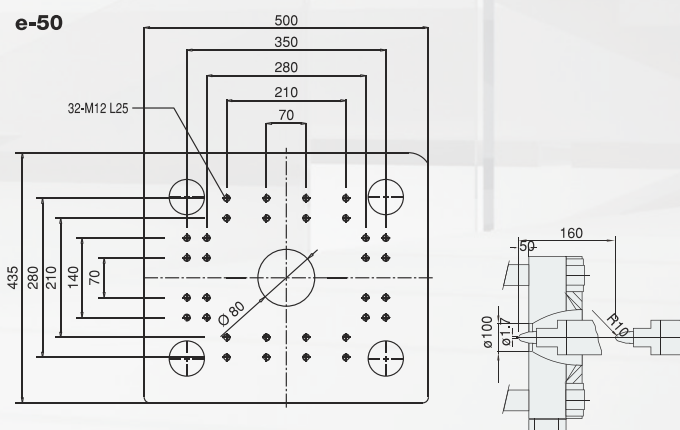


Technical Specifications:

Machine Model - e-Profitt		50-128-15				50-214-18			80-128-15			
International dimensions		500H-128				500H-214			800H-128			
Injection Unit number		128				214			128			
Injection Unit		X	A	B	C	A	B	C	X	A	B	C
Screw diameter	mm	22	28	31	35	31	35	40	22	28	31	35
Screw L/D ratio	L/D	23	21	19	17	22	19	17	23	21	19	17
Stroke volume	cm ³	42	68	83	106	102	130	170	42	68	83	106
Injection weight max. *	g	40	64	79	100	97	123	161	40	64	79	100
Injection rate #	cm ³ /s	65	105	129	164	99	126	164	65	105	129	164
Plasticizing rate #	g/s	6.5	9.6	11.8	15.1	11.8	15.0	19.6	6.5	9.6	11.8	15.1
Injection Pressure	bar	2850	1897	1548	1214	2096.8	1644.9	1259.4	2850	1897	1548	1214
Screw rpm	min-1	354				271			354			
Clamping Unit												
Clamping force	kN	500				500			800			
Mold opening stroke	mm	220				220			300			
Dist. Bet. Tie bars, H X V	mm	300 x 234				300 x 234			350 x 310			
Mold thickness, min. - max.	mm	150-320				150-320			125 - 330			
Ejector stroke	mm	50				50			65			
Ejector force	kN	33.4				30.4			33.4			
Ejector number	pcs	1				1			1			
General Data												
Pump drive **	kW	12 (8.2)				12 (8.2)			12 (8.2)			
Installed heating capacity	kW	6.46				7.65			6.46			
Total Connected power	kW	18.46 (14.66)				19.65 (15.85)			18.46 (14.66)			
Machine dimensions, L x W x H	m	3.5 x 1.5 x 1.7				3.5 x 1.6 x 1.8			3.5 x 1.6 x 1.8			
Oil tank capacity	L	100				100			200			
Net weight (without oil)	T	2.8				3			3.6			

Platen Dimensions

Moving platen



e-Profitt Series

Clamping force: 500 - 1800 kN

"e-Profitt" series machine is characterized by :

- It is driven by the most energy efficient servo mechanism resulting in highest energy savings, consistent, repeatable & smoother machine performance.
- About 20 to 60% energy saving compared to a conventional hydraulic machine.

CLAMP

- Sturdy and optimized five-point double toggle system, known for its quick mold open and close movements along with its good mold safety characteristics; is one of the most preferred clamping mechanism in the world.

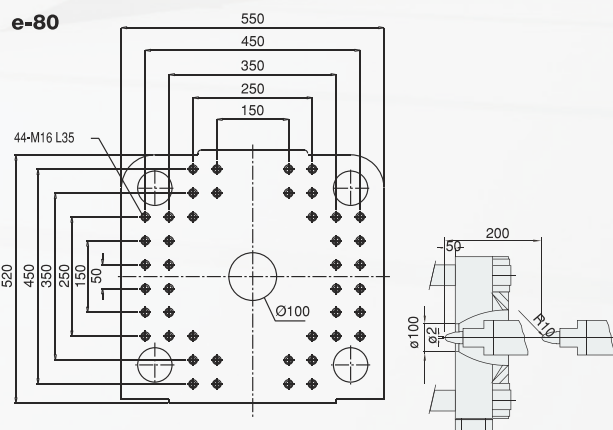
- Sturdy and optimized platen design.
- Hard chrome plated, high tensile steel tie bars.
- Stress-relieved sturdy machine base frame.
- Closing and opening speeds, pressures and positions independently settable. Each programmable in 05 stages.
- Linear position transducer for accurate clamp position control.
- Auto-lubrication with grease, based on number of clamp cycles.
- Self-lubricating bushes for toggle mechanism.
- Automatic, motorized mould height adjustment sensed through proximity switch.

80-214-18 800H-214			80-451-18 800H-451			110-214-18 1100H-214			110-451-18 1100H-451		
214			451			214			451		
A	B	C	A	B	C	A	B	C	A	B	C
31	35	40	40	45	50	31	35	40	40	45	50
22	19	17	20	18	16	22	19	17	20	18	16
102	130	170	203	258	318	102	130	170	203	258	318
97	123	161	193	245	302	97	123	161	193	245	302
99	126	164	95	120	148	99	126	164	95	120	148
11.6	14.8	19.3	16.9	21.4	26.4	11.6	14.8	19.3	16.9	21.4	26.4
2097	1645	1259	2217.6	1752.2	1419.3	2097	1645	1259	2217.6	1752.2	1419.3
	271			235			271			235	
	800			800			1100			1100	
	300			300			340			340	
	350 x 310			350 x 310			410 x 370			410 x 370	
	125 - 330			125 - 330			150 - 380			150 - 380	
	65			65			80			80	
	30.4			30.9			30.4			30.9	
	1			1			5			5	
	12 (8.2)			12 (8.2)			12 (8.2)			12 (8.2)	
	7.65			10.3			7.65			10.30	
	19.65 (15.85)			22.30 (18.50)			19.65 (15.85)			22.30 (18.50)	
	3.5 x 1.6 x 1.8			3.7 x 1.7 x 1.9			4.2 x 1.7 x 1.9			4.2 x 1.7 x 1.9	
	200			260			260			260	
	3.7			3.8			4.2			4.3	

Note: # Achieved in air injection. *Theoretical value; actual value may vary depending on material, melt density & residence time.

Specifications are subject to change due to continuous improvements.

To be used strictly under standard electrical supply conditions of 415V $\pm$ 5% MAX., 50Hz, 3 Phase + N.



EJECTOR

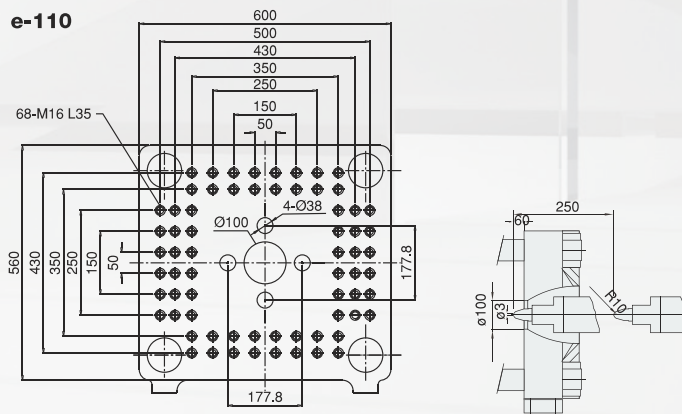
- Central hydraulic ejector with multiple stroke feature. Speed, pressure and position independently settable in both directions.
- Linear position transducer for accurate ejector position control.
- Ejector forward speed and pressure programmable in two stages.

INJECTION

- Wide choice of injection units with A/B/C screw/barrel combinations.
- Fitted with nitrided screw and nitrided barrel, non-return valve and barrel closure assembly with open nozzle suitable for various thermoplastics.
- Injection speed and pressure profile programmable in 06, position dependent stages.
- Follow up/hold on pressure profile programmable in 05, time dependent stages.
- Screw speed control profile programmable in 05, position dependent stages.
- Strong & balanced twin cylinder injection unit distributes the load/pressure equally along the screw centerline.
- High torque, low speed direct hydraulic screw drive.
- Proven screw geometry for optimum plasticizing capacities with excellent melt homogeneity.
- Switch over from fill to pack based on position or time.
- Linear position transducer for accurate injection position control.

Technical Specifications:

Machine Model - e-Profilt		110-573-18			110-592-22			140-451-18		
International dimensions		1100H-573			1100H-592			1400H-451		
Injection Unit number		573			592			451		
Injection Unit		A	B	C	A	B	C	A	B	C
Screw diameter	mm	45	50	55	45	50	55	40	45	50
Screw L/D ratio	L/D	21	19	17	21	19	17	20	18	16
Stroke volume	cm³	286	353	427	286	353	427	203	258	318
Injection weight max. *	g	272	336	406	272	336	406	193	245	302
Injection rate #	cm³/s	102	125	152	127	157	190	95	120	148
Plasticizing rate #	g/s	20	25.1	30.4	25.2	31.5	38.1	16.9	21.4	26.4
Injection Pressure	bar	2003.2	1622.6	1341	2068.9	1675.8	1385	2217.6	1752.2	1419.3
Screw rpm	min-1	206			258			235		
Clamping Unit										
Clamping force	kN	1100			1100			1400		
Mold opening stroke	mm	340			340			400		
Dist. Bet. Tie bars, H X V	mm	410 x 370			410 x 370			450 x 385		
Mold thickness, min. - max.	mm	150 - 380			150 - 380			160 - 420		
Ejector stroke	mm	80			80			100		
Ejector force	kN	29.9			30.9			49.1		
Ejector number	pcs	5			5			5		
General Data										
Pump drive **	kW	12 (8.2)			12 (8.2)			12 (8.2)		
Installed heating capacity	kW	13.75			13.75			10.30		
Total Connected power	kW	25.75 (21.95)			25.75 (21.95)			22.30 (18.50)		
Machine dimensions, L x W x H	m	4.5 x 1.8 x 2.0			4.5 x 1.8 x 2.0			4.5 x 1.8 x 2.0		
Oil tank capacity	L	300			300			300		
Net weight (without oil)	T	4.5			4.5			5.3		



TEMPERATURE CONTROL

- 4 / 5 self-optimizing temperature control zones/circuits for the barrel and nozzle flange heating system.
- PID controlled barrel heater bands, with solid state relays and fast blowing semi conductor fuses for barrel heating system.

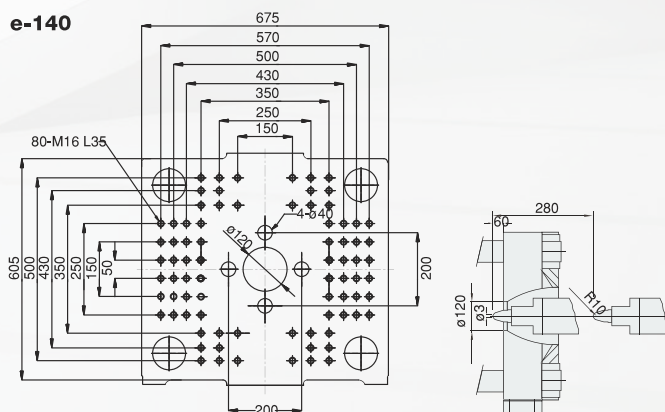
CONTROLS

- Intelligent operator-machine interface with large, TFT, multi-color display, with alpha numeric keyboard.
- Actual position measuring/indicating system for moving platen, screw travel and ejector.
- Overview screen with live display of machine operations.
- Continuous process control via monitoring of important process parameters with selectable tolerance band.
- Data storage on USB.
- Internal storage of up to 200 sets of mold data.
- Important parameters as well as hourly Production data monitoring.
- Built-in Energy management with live display of voltage, current & energy.

140-573-18 1400H-573			140-592-22 1400H-592			140-851-22 1400H-851		
573			592			851		
A	B	C	A	B	C	A	B	C
45	50	55	45	50	55	50	55	60
21	19	17	21	19	17	21	19	17
286	353	427	286	353	427	396	480	571
272	336	406	272	336	406	377	456	542
102	125	152	127	157	190	118	143	170
20	25.1	30.4	25.2	31.5	38.1	23.454	28.353	33.735
2003.2	1622.6	1341	2068.9	1675.8	1385	2147.2	1774.5	1491.1
	206			258			200	
1400			1400			1400		
400			400			400		
450 x 385			450 x 385			450 x 385		
160 - 420			160 - 420			160 - 420		
100			100			100		
47.5			49.1			47.5		
5			5			5		
12 (8.2)			18.2 (12.4)			18.2 (12.4)		
13.75			13.75			15.9		
25.75 (21.95)			31.95 (26.15)			34.10 (28.30)		
4.5 x 1.8 x 2.0			4.5 x 1.8 x 2.0			5.2 x 1.8 x 2.0		
300			300			400		
5.5			5.5			5.8		

Note: # Achieved in air injection. *Theoretical value; actual value may vary depending on material, melt density & residence time.
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To be used strictly under standard electrical supply conditions of 415V $\pm$ 5% MAX., 50Hz, 3 Phase + N.

e-140



HYDRAULICS

- Highly energy efficient hydraulic drive system with gear pump and servo motor.
- Ergonomically designed easy to access and easy to service hydraulic circuit layout.
- Fast responding hydraulic door safety interlock.

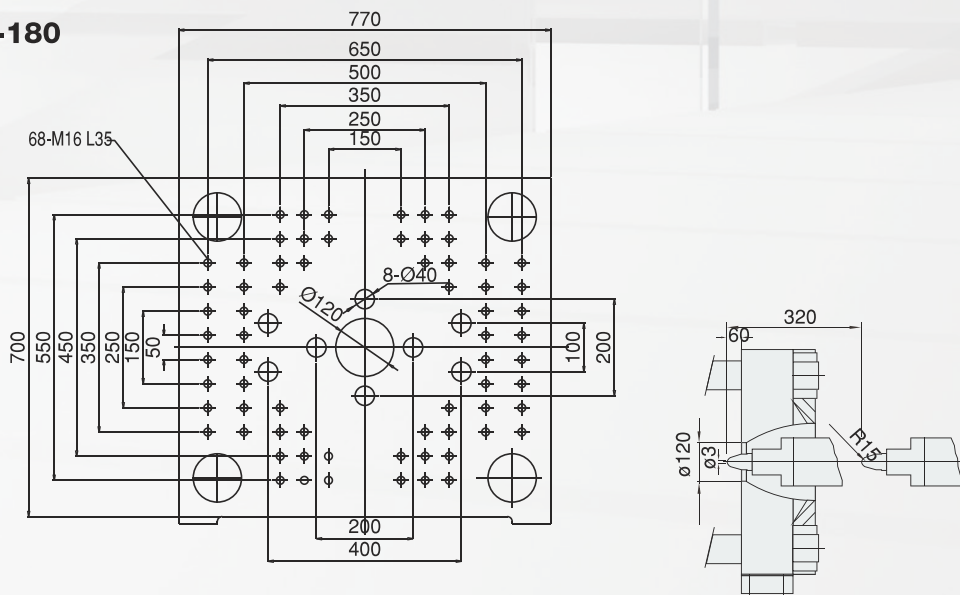
GENERAL

- Ergonomically designed machine covers and doors for safety, with elegant aesthetics.
- Flexible machine support with anti vibration pads.
- Set of electrical output - single phase (1 x 16 A) and three phase (1 x 32 A) sockets.

Technical Specifications:

Machine Model - e-Profitt		140-893-32			180-573-18			180-592-22		
International dimensions		1400H-893			1800H-573			1800H-592		
Injection Unit number		893			573			592		
Injection Unit		A	B	C	A	B	C	A	B	C
Screw diameter	mm	50	55	60	45	50	55	45	50	55
Screw L/D ratio	L/D	21	19	17	21	19	17	21	19	17
Stroke volume	cm ³	396	480	571	286	353	427	286	353	427
Injection weight max. *	g	377	456	542	272	336	406	272	336	406
Injection rate #	cm ³ /s	174	211	251	102	125	152	127	157	190
Plasticizing rate #	g/s	34.4	41.6	49.5	20	25.1	30.4	25.2	31.5	38.1
Injection Pressure	bar	2252.8	1861.8	1564.4	2003.2	1622.6	1341	2068.9	1675.8	1385
Screw rpm	min-1	294			206			258		
Clamping Unit										
Clamping force	kN	1400			1800			1800		
Mold opening stroke	mm	400			460			460		
Dist. Bet. Tie bars, H X V	mm	450 x 385			520 x 450			520 x 450		
Mold thickness, min. - max.	mm	160 - 420			200 - 500			200 - 500		
Ejector stroke	mm	100			100			100		
Ejector force	kN	49.9			46.7			49.1		
Ejector number	pcs	5			9			9		
General Data										
Pump drive **	kW	28.30 (19.20)			12 (8.2)			18.2 (12.4)		
Installed heating capacity	kW	15.9			13.75			13.75		
Total Connected power	kW	44.20 (35.1)			25.75 (21.95)			31.95 (26.15)		
Machine dimensions, L x W x H	m	5.2 x 1.8 x 2.0			5.2 x 1.8 x 2.0			5.2 x 1.8 x 2.0		
Oil tank capacity	L	400			400			400		
Net weight (without oil)	T	5.8			6.6			6.6		

e-180



180-851-22			180-893-32			180-972-32		
1800H-851			1800H-893			1800H-972		
851			893			973		
A	B	C	A	B	C	A	B	C
50	55	60	50	55	60	55	60	67
21	19	17	21	19	17	21	19	17
396	480	571	396	480	571	539	642	800
377	456	542	377	456	542	512	609	760
118	143	170	174	211	251	211	251	312
23.454	28.353	33.735	34.4	41.6	49.5	39.9	47.5	55.7
2147.2	1774.5	1491.1	2252.8	1861.8	1564.4	1804	1516	1215
200			294			243		
1800			1800			1800		
460			460			460		
520 x 450			520 x 450			520 x 450		
200 - 500			200 - 500			200 - 500		
100			100			100		
47.5			49.9			48.3		
9			9			9		
18.2 (12.4)			28.3 (19.2)			28.3 (19.2)		
15.9			15.9			18.43		
34.10 (28.30)			44.20 (35.10)			46.73 (37.63)		
5.2 x 1.8 x 2.0			5.2 x 1.8 x 2.0			5.2 x 1.8 x 2.0		
400			400			400		
6.7			6.7			6.8		

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OPTIONAL FEATURES

- Additional core pulling control set for hydraulic cores, independently programmable for sequential or parallel operation.
- Air blast with pneumatic valve on moving / stationary platen.
- Rotating core (hydraulic un-screwing) interface.
- Electrical un-screwing interface.
- Robotic arm interface - Std. or Euromap - 12.
- Photo-sensor arrangement for molded part drop detection, recommended for single cavity.
- Interface for ejector retract (back) verification with limit switch.

- Interface for additional nozzle heater band (plug-in only).
- Special screws for better melt homogenization and plasticizing.
- Wear resistant / corrosion resistant, bimetallic screw and barrel for processing abrasive / corrosive materials.
- Hydraulic motor for higher plasticizing rates.
- Insulated energy saving heater bands.
- Water battery with flow rate control and temperature indicator.
- Feed throat temperature indication.
- Accumulator for Higher Injection rate
- Back pressure adjustment through controller.



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