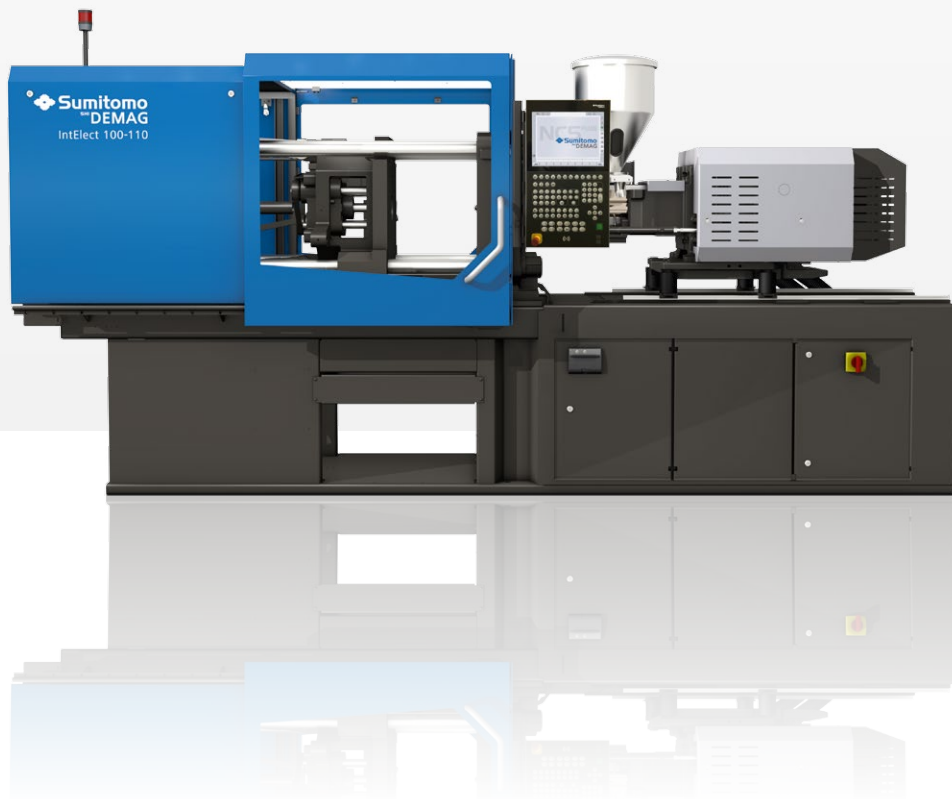


# All-electric.

IntElect.

Maximum Efficiency – Highest Precision



**60,000 AND  
COUNTING...**

## The IntElect

Technology, competence and experience.

With more than 60,000 electric injection moulding machines delivered around the world, Sumitomo (SHI) Demag sets the benchmark in electrical machine engineering. Our goals are maximum dynamics, the highest level of efficiency and 100% production quality along with full mould safety. Being the only European

manufacturer of electric injection moulding machines, we design and produce all the core electrical drive components in our company. This is the only way the IntElect can achieve maximum dynamics and precision with the highest level of efficiency. Try our technology, expertise and experience for yourself.



# The IntElect

Your benefits at a glance.

## 1 – Company developed drive technology

In our in-house research & development centre we develop, manufacture and test our direct drives and converter technology as well as control system components all of which are designed to be used specifically in injection moulding machines. This allows the highest level of dynamics with maximum precision and efficiency and thus the highest repeatability.

## 2 – Intelligent machine design

Thanks to the high level of expertise in the field of electric drive technology, the complete control system of the machine can be integrated into the machine bed. This makes the machine more compact and provides more space for peripheral units. Another important feature of the design is clear and clean machine surfaces.

## 3 – Comprehensive mould safety

The new CentrePressPlaten have been designed using finite element analysis. This provides up to 20% more platen rigidity and, in combination with linear guides and other design components, guarantees a high degree of mould safety even with higher mould weights.

## 4 – Intuitive control

The intuitive control of the IntElect provides a variety of options for process monitoring and control. The intuitive and easily programmed control with predefined flexible machine sequences allows the user to fully utilise the IntElect's flexibility and efficiency.



## Efficiency

### Application-based motor design.

#### Up to 20% less energy consumption

The combination of company developed drive motors and frequency converters as well as the entire servomotor control system allows us to produce one of the most efficient injection moulding machines on the market. Compared to conventional full-electric injection moulding machines, the IntElect consumes up to 20% less energy.

#### Up to 10% more production capacity

Higher production capacity is possible due to an on average two percent higher machine availability which combined with dynamic, precise and parallel movements provides up to 10% more capacity. In addition, the high precision of the machine prevents the production of reject parts. In this way you can significantly increase your production capacity while optimising your production costs.

#### In-house development for drive technology

In our in-house research and development centre we develop the best direct drives for injection moulding machines. Our research involves various topics, including magnetic flux analysis, thermal stress simulation, materials analysis and the overall production process, therefore we can provide drive motors which are specifically designed for the requirements of injection moulding machines. This level of dynamics, precision and efficiency cannot be achieved with standard drive motors. Since the direct drives as well as their controls are precisely matched and come from the same manufacturer, the IntElect has a response time of 0.1 ms. This is 20 times faster than conventional injection moulding machines and 1000 times faster than a blink of an eye.

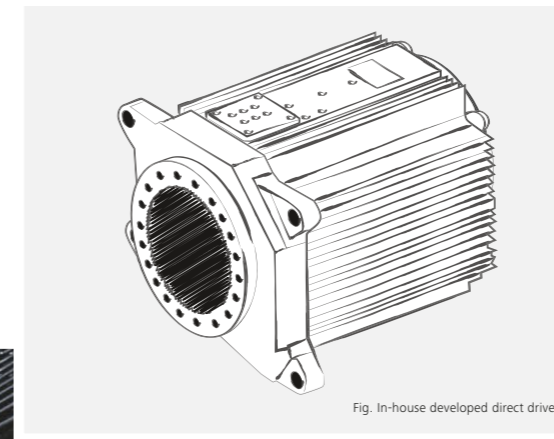


Fig. In-house developed direct drive

#### Application-based motor design.

- Enhanced heat dissipation due to specially developed casting materials
- Ability to operate under continuous load with a maximum torque of up to 40%
- Slim design for minimum mass inertia and maximum dynamic

**HIGHER PERFORMANCE.  
LOWER CONSUMPTION.**

## Parts quality

Meeting the highest quality requirements.

### The tightest process window

Due to the use of direct drives, mechanical tolerances are minimised. Compared to other drive technologies, significantly fewer components are within each other's force flux. In addition to the sophisticated control technology and additional efficiency components, this forms an important basis for achieving the highest precision.

### Long-term production stability

Due to the longstanding experience in the construction of electric injection moulding machines in combination with the IntElect's individual drive concept, we are able to ensure a constant process control throughout the service life of the machine. This advantage is of particular importance when it comes to the compliance with validated process parameters.

### Dynamic injection movements

With the combination of high dynamics and speed, the IntElect allows process applications that cannot be achieved with other full-electric injection moulding machines. Due to the unconditional precision and repeatability, the IntElect will allow a wide range of demanding applications. Not only high accelerations, but also fast deceleration both are an essential prerequisite for high quality of parts. For instance, it is possible to consistently avoid burrs during injection by very rapid switching from injection pressure to holding pressure.

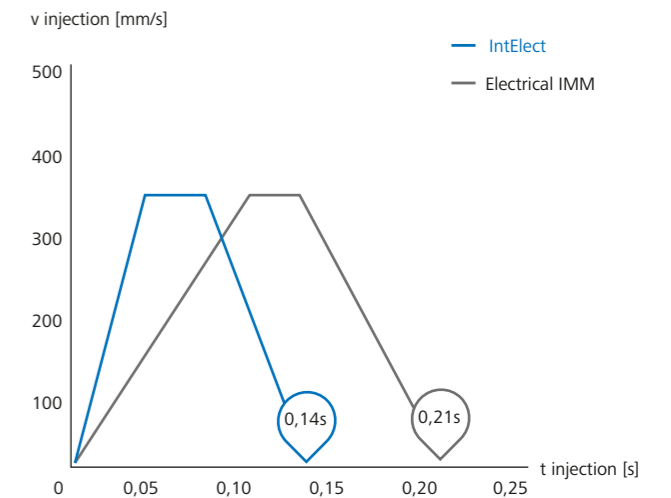
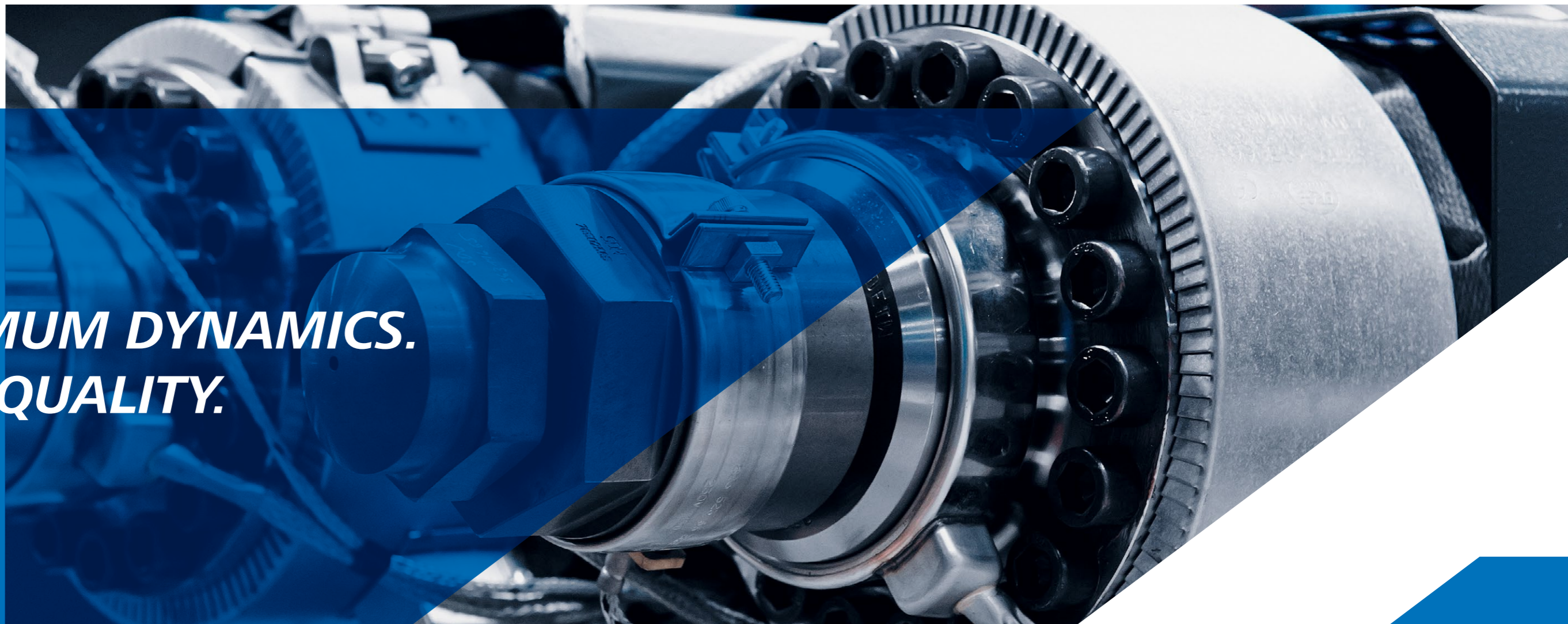


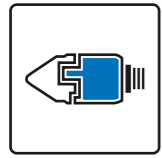
Diagram: Dynamics of the machine during the injection

**MAXIMUM DYNAMICS.  
100% QUALITY.**



# Parts quality

Additional efficiency components.



**activeLock**  
Quality assurance

Due to our activeLock technology, it is possible to reduce shot weight fluctuations by up to 60%. The switchable non-return valve prevents the melt from flowing back into the plasticizing cylinder at the beginning of the injection phase. This ensures that your injection moulded parts can be produced with the highest quality.

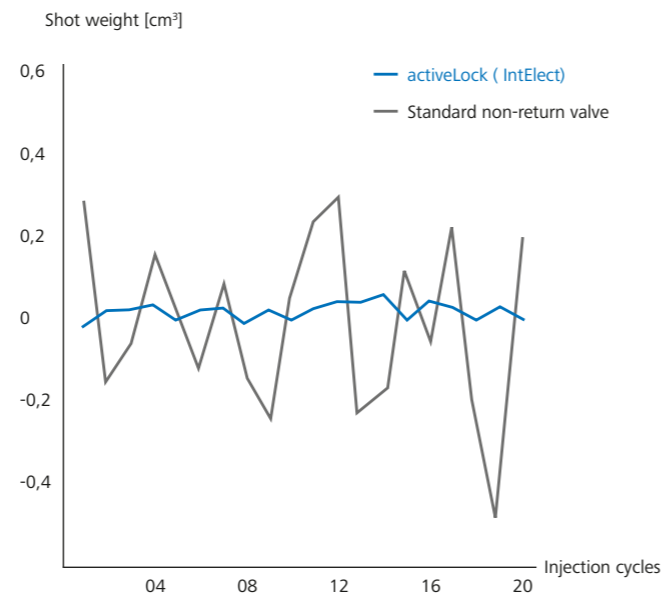


Diagram: Shot weight distribution per cycle



**activeFlowBalance**  
Quality assurance

Due to our ActiveFlowBalance technology component, it is possible to balance filling fluctuations in injection moulds. In doing so, the negative effects of uneven mould filling are compensated for and a uniform moulding quality is achieved when multiple cavity moulds are used. This reduces the reject rate and increases the quality of your parts.

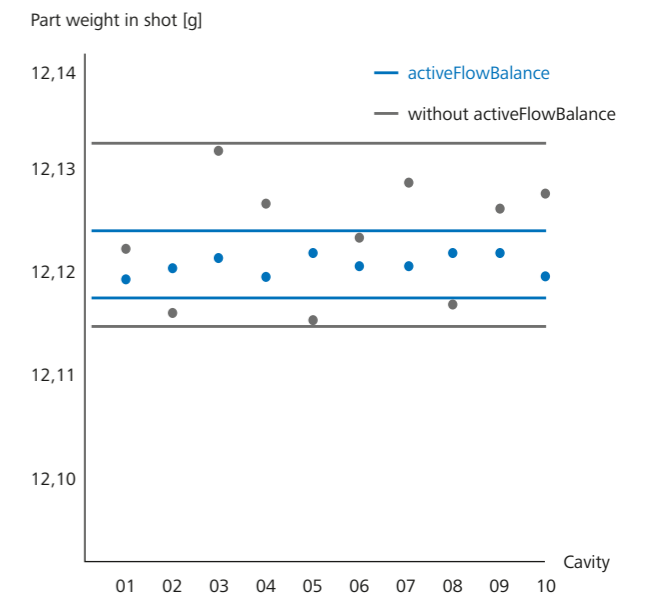


Diagram: Weight distribution in the individual cavities for an injection process



Fig. without activeFlowBalance



Fig. with activeFlowBalance

**HIGHEST  
PRECISION.**

## Mould safety

Quality with full safety.

### Monitoring with profile

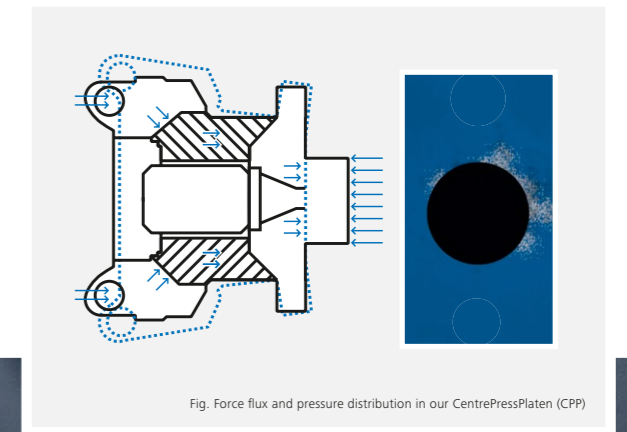
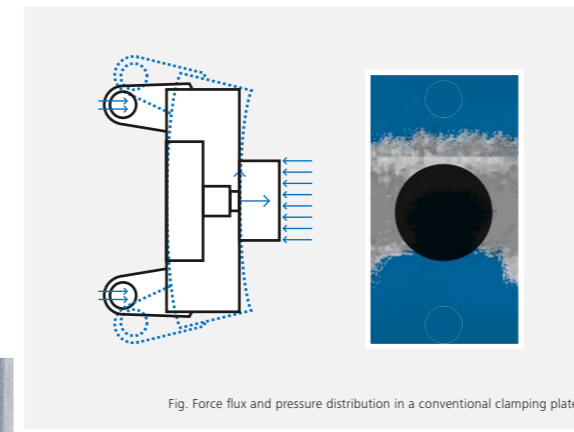
IntElect protects your investment in every respect. Our active mould protection system activeProtect uses a specially developed mould protection sensor and software which by means of an envelope curve monitors the force flux during the closing movement. This allows the machine to detect even the smallest objects and your mould is perfectly protected. Additionally, it is possible to monitor the force of the ejector and the injection pressure curve of the machine. This guarantees maximum protection even at full speed.

### Maximum platen parallelism

Generously dimensioned linear guides in combination with increased rigidity in the machine bed ensure maximum parallelism of the platens and thus minimise mould wear. In addition, the symmetrical force submission of the nozzle system prevents a deformation of the fixed platen. This ensures the highest parallelism of the platens on both sides.

### Clamping plates with 20% higher rigidity

The new mould platens (CentrePressPlaten CPP) of the IntElect have been precisely optimised for the application by means of the finite element analysis. Conventional platens can deform during locking, depending on the type and shape of the mould. This deflection is transferred to the injection moulded parts by the mould. Our platens (CPP) intelligently distribute forces in the platen and thus offer up to 20% more rigidity than conventional clamping plates.



**MOULD PROTECTION.  
MAXIMUM PARALLELISM.**

# TECHNICAL DATA.



### Contents

IntElect 50	16
IntElect 75	18
IntElect 100	20
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IntElect 180	24
Connection Dimension	26

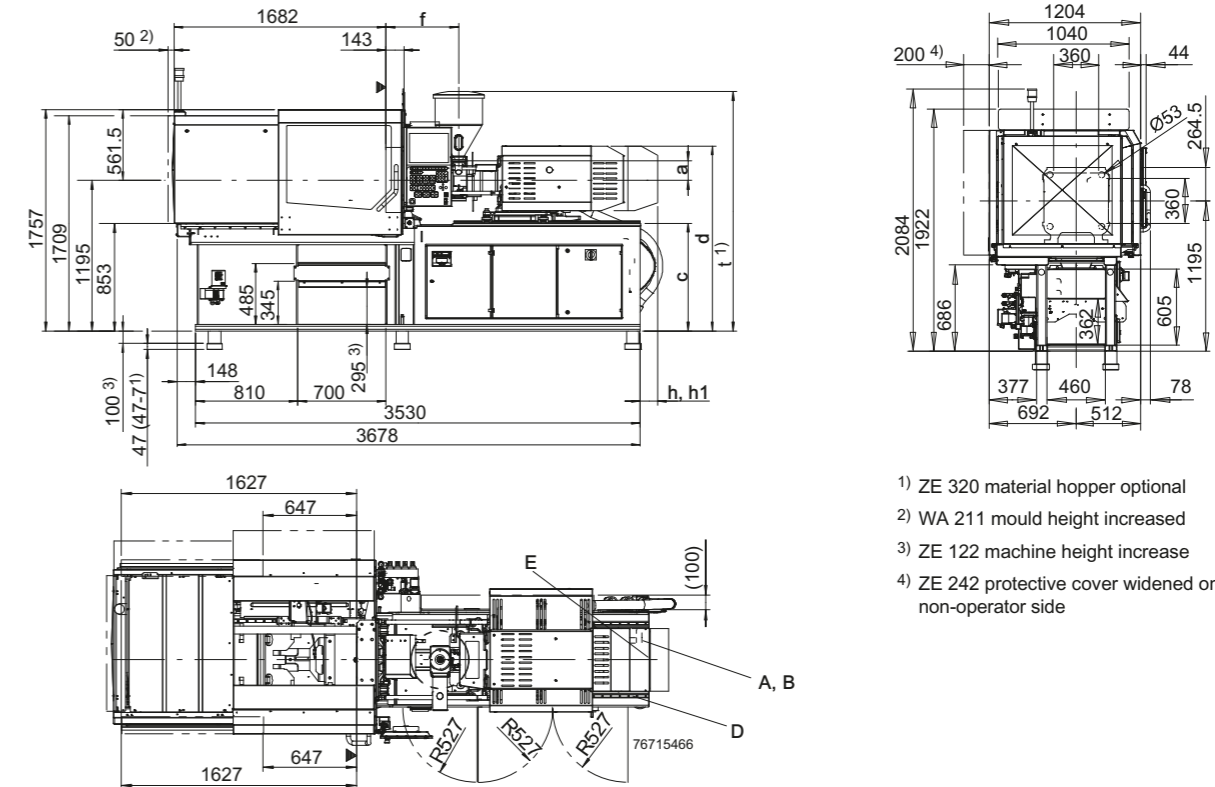


Sumitomo (SHI) Demag	IntElect 50											
Model description	IntElect 50/360-65			IntElect 50/360-110			IntElect 50/360-250					
International size description	500-65			500-110			500-250					
<b>Clamping unit</b>												
Clamping Force / Locking Force	[kN] 500 / 550											
Max. mould opening stroke	[mm] 250											
Mould height Min.	[mm] 160											
Max./enlarged mould height	[mm] 350 <sup>1)</sup> / 400											
Daylight between platens max. / enl.	[mm] 600 <sup>1)</sup> / 650											
Mould platen (h x v)	[mm] 500x500											
Distance between tie bars (h x v)	[mm] 360x360 / 370x370 <sup>6)</sup>											
Min. permissible mould diameter (k)	[mm] 200											
Max mould weight / mov. platen	[kg] 320											
Ejection stroke std./enlarged	[mm] 70 / 120											
Ejection / Retraction force	[kN] 21											
<b>Injection unit</b>												
Screw diameter	[mm] 65			110			250					
L/D ratio	14	18	22	18	22	25	30	22	25	30		
Spec. injection pressure (up to 400 °C)	2800	2800	2220	2800	2800	2222	1543	2800	2800	2510		
Cylinder head volume, max.	12	20	30	23	40	51	73	40	61	99		
Max. shot weight (PS)	11	18	26	20	35	45	65	35	55	88		
<b>Max. injection speed</b>												
> Version force <sup>1)</sup>	[mm/s] 200			200			200					
> Version speed (S-Paket) <sup>2) 3)</sup>	[mm/s] 550			500			200					
> Version high speed IntElect	[mm/s] 550			500			200					
<b>Max. rate of injection</b>												
> Version force <sup>4)</sup>	31	51	76	44	76	98	141	56	88	141		
> Version speed (S-Paket) <sup>2) 3)</sup>	[mm/s] 85			140			209			110		
> Version high speed	[mm/s] 85			140			209			110		
Max. plasticising rate (PS) <sup>5)</sup>	1,0	3,7	6,0	3,7	6,0	10,0	16,7	6,0	10,0	16,7		
Heating capacity	4,0	4,0	5,2	4,2	5,2	5,7	8,3	5,2	5,7	8,3		
Max. screw stroke	78	78	78	90	104	104	104	110	125	140		
Max. nozzle stroke	380			380			380					
Max. nozzle dipping depth (WA 650)	20			20			20					
Nozzle sealing force	30			30			43					
Number of heating zones	4			4			4					
Hopper capacity, optional	[ltr.] 35			35			35					
<b>General data</b>												
Dry cycle time (Euromap 6)	[s-mm] 1,2-250			1,2-250			1,2-250					
Net weight <sup>5)</sup>	[kg] 2650			2750			2900					

The shown specifications reflect the state at the time of printing and refer to the standard configuration. We reserve the right to modify specifications. The maximum injection speed and maximum injection pressure are values, which can not be available simultaneously. The maximum injection pressure and maximum hold pressure are no pressures that can be generated during the whole process. These parameters are based on a main voltage 400 V. A deviating main voltage will affect the machine parameters.

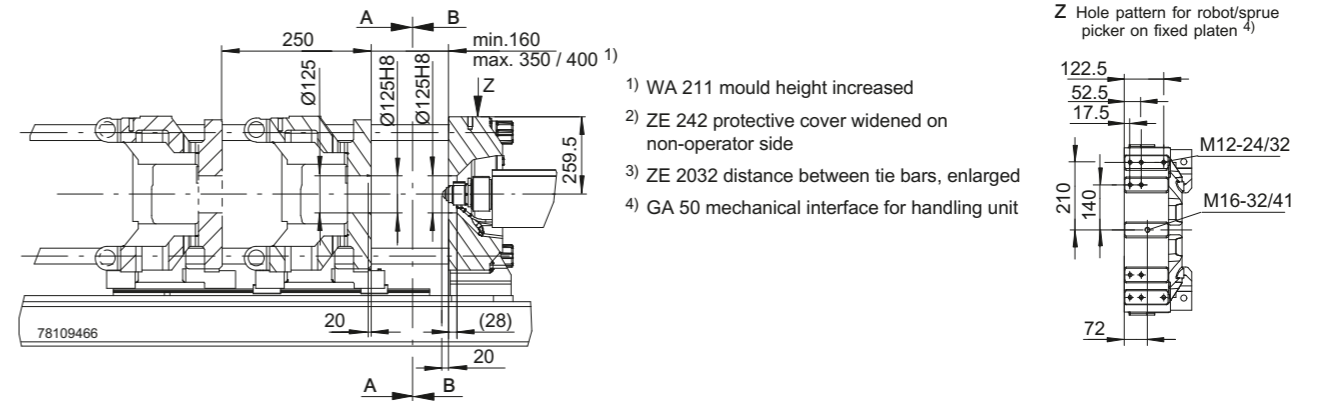
- 1) Basic equipment
- 2) Higher maximum injection speed on request
- 3) Option for IntElect
- 4) Plasticising rate depends on processing conditions and used material
- 5) The net weight of the machine may vary depending on equipment
- 6) ZE 2032 Distance between tie bars, enlarged

Machine dimensions IntElect 50

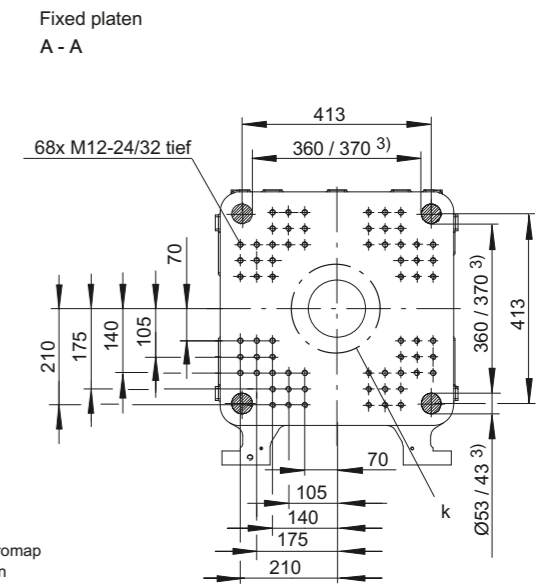
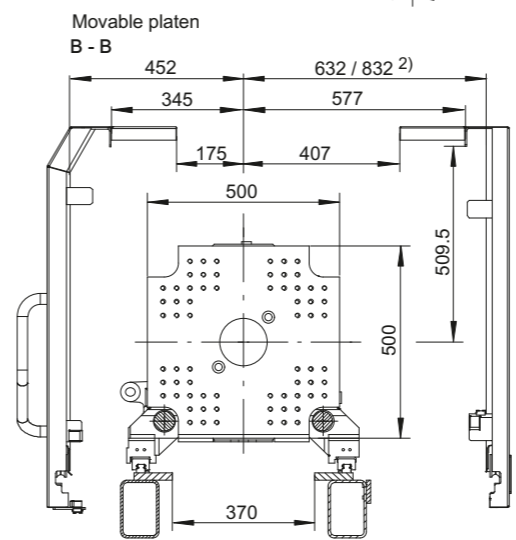


- 1) ZE 320 material hopper optional
- 2) WA 211 mould height increased
- 3) ZE 122 machine height increase
- 4) ZE 242 protective cover widened on non-operator side

Platen dimensions IntElect 50



- 1) WA 211 mould height increased
- 2) ZE 242 protective cover widened on non-operator side
- 3) ZE 2032 distance between tie bars, enlarged
- 4) GA 50 mechanical interface for handling unit



Hole pattern according Euromap k see Technical Description

Sumitomo (SHI) Demag	IntElect 75			
Model description	IntElect 75/420-65	IntElect 75/420-110	IntElect 75/420-110	IntElect 75/420-250
International size description	750-65	750-110	750-250	750-450

Clamping unit		75	
Clamping Force / Locking Force	[kN]	750 / 825	
Max. mould opening stroke	[mm]	300	
Mould height Min.	[mm]	160	
Max./enlarged mould height	[mm]	410 <sup>1)</sup> / 460	
Daylight between platens max. / enl.	[mm]	710 <sup>1)</sup> / 760	
Mould platen (h x v)	[mm]	580x580	
Distance between tie bars (h x v)	[mm]	420x420	
Min. permissible mould diameter (k)	[mm]	200	
Max mould weight / mov. platen	[kg]	500	
Ejection stroke std./enlarged	[mm]	80 / 130	
Ejection / Retraction force	[kN]	26	

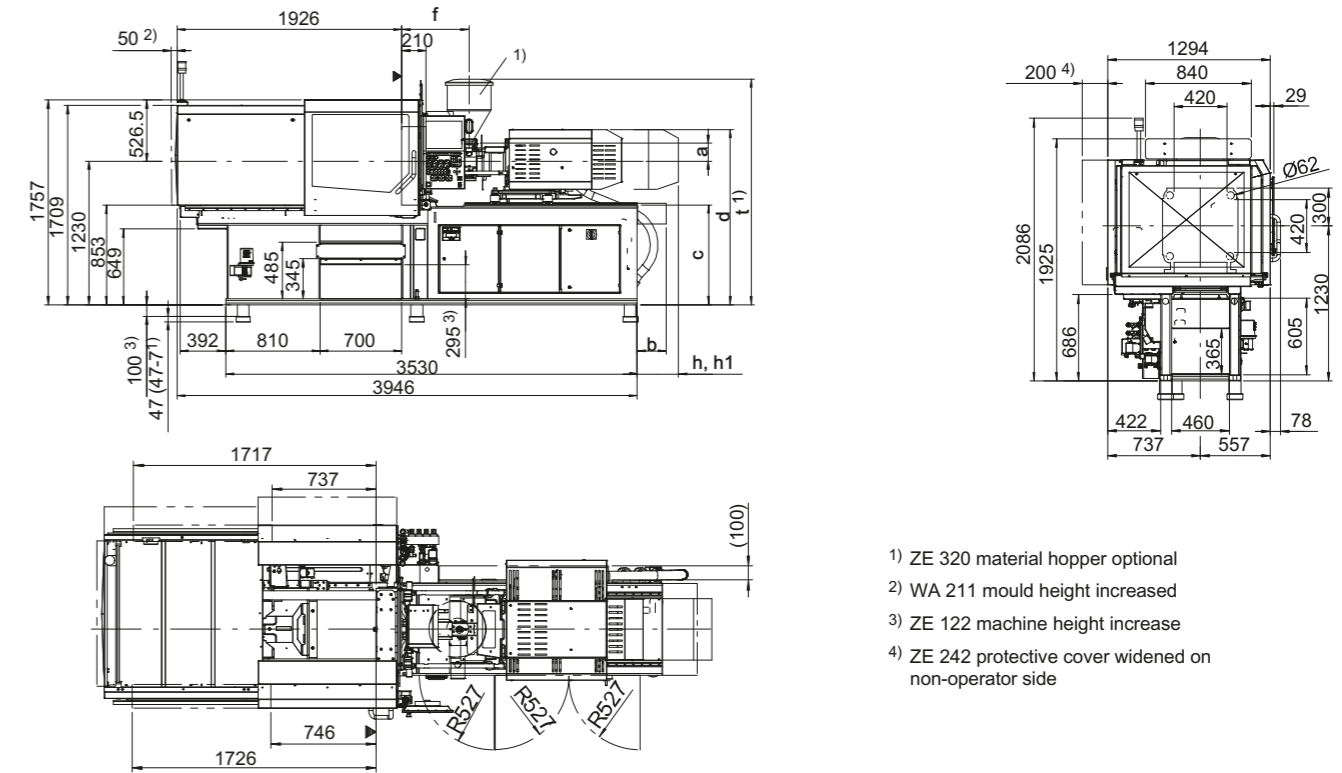
Injection unit		65				110				250				450			
Screw diameter	[mm]	14	18	22	18	22	25	30	22	25	30	35	30	35	40		
L/D ratio		20	20	20	20	20	20	20	20	20	20	20	20	20	20		
Spec. injection pressure (up to 400 °C)	[bar]	2800	2800	2220	2800	2800	2222	1543	2800	2800	2510	1850	2800	2790	2140		
Cylinder head volume, max.	[cm <sup>3</sup> ]	12	20	30	23	40	51	73	40	61	99	135	113	154	201		
Max. shot weight (PS)	[g]	11	18	26	20	35	45	65	35	55	88	120	101	137	179		
<b>Max. injection speed</b>																	
> Version force <sup>1)</sup>	[mm/s]	200				200				200				200			
> Version speed (S-Paket) <sup>2) 3)</sup>	[mm/s]									350				350			
> Version high speed IntElect	[mm/s]	550				500											
<b>Max. rate of injection</b>																	
> Version force <sup>4)</sup>	[mm/s]	31	51	76	44	76	98	141	56	88	141	192	141	192	251		
> Version speed (S-Paket) <sup>2) 3)</sup>	[mm/s]									99				247			
> Version high speed	[mm/s]	85	140	209	110	190	245	353									
Max. plasticising rate (PS) <sup>5)</sup>	[g/s]	1,0	3,7	6,0	3,7	6,0	10,0	16,7	6,0	10,0	16,7	22,7	16,7	22,7	33,3		
Heating capacity	[kW]	4,0	4,2	5,2	4,2	5,2	5,7	8,3	5,2	5,7	8,3	9,4	8,3	9,4	11,1		
Max. screw stroke	[mm]	78	78	78	90	104	104	104	110	125	140	140	160	160	160		
Max. nozzle stroke	[mm]	380				380				380				380			
Max. nozzle dipping depth (WA 650)	[mm]	20				20				20				20			
Nozzle sealing force	[kN]	30				30				43				43			
Number of heating zones		4				4				4				4			
Hopper capacity, optional	[ltr.]	35				35				35				35			

General data	75/420-65	75/420-110	75/420-250	75/420-450	
Dry cycle time (Euromap 6)	[s-mm]	1,3-287	1,3-287	1,3-287	1,3-287
Net weight <sup>5)</sup>	[kg]	3350	3450	3600	3800

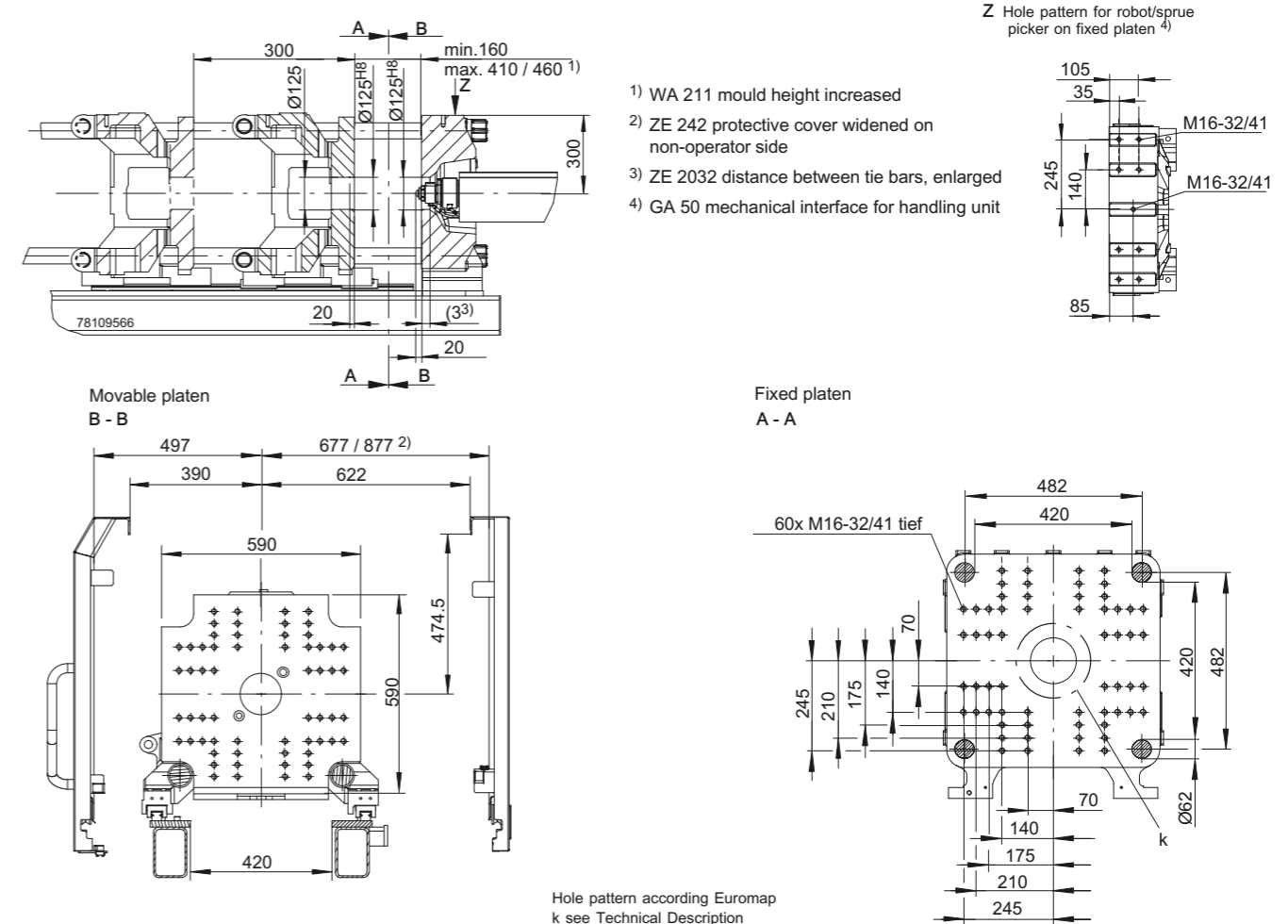
The shown specifications reflect the state at the time of printing and refer to the standard configuration. We reserve the right to modify specifications. The maximum injection speed and maximum injection pressure are values, which can not be available simultaneously. The maximum injection pressure and maximum hold pressure are no pressures that can be generated during the whole process. These parameters are based on a main voltage 400 V. A deviating main voltage will affect the machine parameters.

- 1) Basic equipment
- 2) Higher maximum injection speed on request
- 3) Option for IntElect
- 4) Plasticising rate depends on processing conditions and used material
- 5) The net weight of the machine may vary depending on equipment
- 6) ZE 2032 Distance between tie bars, enlarged

Machine dimensions IntElect 75



Platen dimensions IntElect 75



Sumitomo (SHI) Demag	IntElect 100				
Model description	IntElect 100/460-110	IntElect 100/460-250	IntElect 100/460-450	IntElect 100/460-560	IntElect 100/460-700
International size description	1000-110	1000-250	1000-450	1000-560	1000-700

Clamping unit		100				
Clamping Force / Locking Force	[kN]	1000 / 1100				
Max. mould opening stroke	[mm]	350				
Mould height Min.	[mm]	180				
Max./enlarged mould height	[mm]	450 <sup>1)</sup> / 550				
Daylight between platens max. / enl.	[mm]	800 <sup>1)</sup> / 900				
Mould platen (h x v)	[mm]	650x650				
Distance between tie bars (h x v)	[mm]	460x460 / 470x470 <sup>6)</sup>				
Min. permissible mould diameter (k)	[mm]	200				
Max mould weight / mov. platen	[kg]	700				
Ejection stroke std./enlarged	[mm]	150 / 150				
Ejection / Retraction force	[kN]	32				

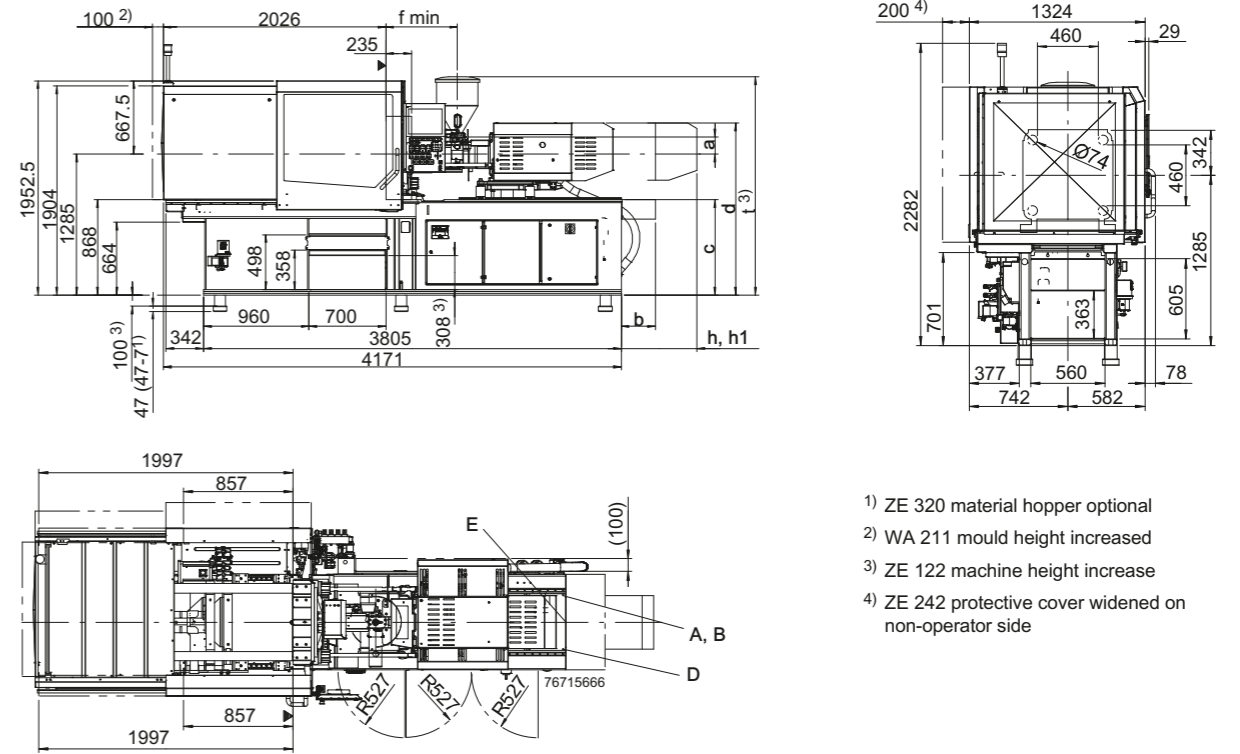
Injection unit		110		250			450				560			700							
Screw diameter	[mm]	18	22	25	30	22	25	30	35	40	30	35	40	45	35	40	45	35	40	45	
L/D ratio		20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	
Spec. injection pressure (up to 400 °C)	[bar]	2800	2800	2222	1543	2800	2800	2510	1850	1410	2800	2790	2140	1690	2800	2418	2200	2800	2418	2200	
Cylinder head volume, max.	[cm <sup>3</sup> ]	23	40	51	73	40	61	99	135	176	113	154	201	254	154	201	254	178	251	318	
Max. shot weight (PS)	[g]	20	35	45	65	35	55	88	120	156	101	137	179	226	137	179	226	158	224	283	
<b>Max. injection speed</b>																					
> Version force <sup>1)</sup>	[mm/s]	200			200			200				200			200						
> Version speed (S-Paket) <sup>2) 3)</sup>	[mm/s]				350			350				350			350						
> Version high speed IntElect	[mm/s]	500																			
<b>Max. rate of injection</b>																					
> Version force <sup>1)</sup>	[mm/s]	44	76	98	141	56	88	141	192	251	141	192	251	320	192	251	318	192	251	318	
> Version speed (S-Paket) <sup>2) 3)</sup>	[mm/s]				99	153	247	337	440	247	337	440	556	337	440	556	337	440	556		
> Version high speed	[mm/s]	1110	190	245	353																
Max. plasticising rate (PS) <sup>5)</sup>	[g/s]	3,7	6,0	10,0	16,7	6,0	10,0	16,7	22,7	33,3	16,7	22,7	33,3	42,0	22,7	33,3	42,0	22,7	33,3	42,0	
Heating capacity	[kW]	4,2	5,2	5,7	8,3	5,2	5,7	8,3	9,4	11,1	8,3	9,4	11,1	11,3	9,4	11,1	11,3	9,4	11,1	11,3	
Max. screw stroke	[mm]	90	104	104	104	110	125	140	140	140	160	160	160	160	160	160	160	185	200	200	
Max. nozzle stroke	[mm]	380			380			380				380			450						
Max. nozzle dipping depth (WA 650)	[mm]	20			20			20				20			20						
Nozzle sealing force	[kN]	30			43			43				43			43						
Number of heating zones		4			4			4				4			4						
Hopper capacity, optional	[ltr.]	35			35			35				50			50						

General data		100/460-110	100/460-250	100/460-450	100/460-560	100/460-700
Dry cycle time (Euromap 6)	[s-mm]	1,3-322	1,3-322	1,3-322	1,3-322	1,3-322
Net weight <sup>5)</sup>	[kg]	4550	4700	4900	5150	5150

The shown specifications reflect the state at the time of printing and refer to the standard configuration. We reserve the right to modify specifications. The maximum injection speed and maximum injection pressure are values, which can not be available simultaneously. The maximum injection pressure and maximum hold pressure are no pressures that can be generated during the whole process. These parameters are based on a main voltage 400 V. A deviating main voltage will affect the machine parameters.

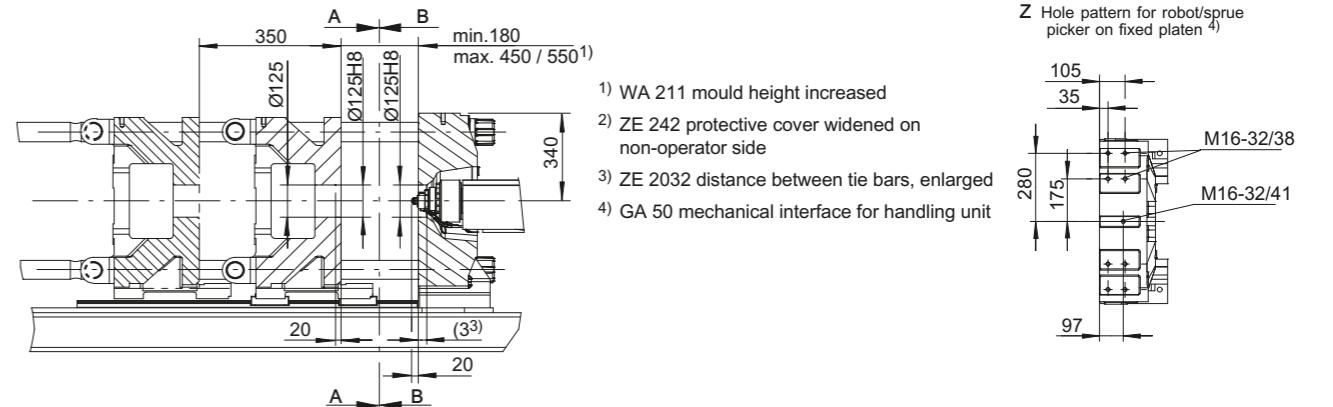
1) Basic equipment  
 2) Higher maximum injection speed on request  
 3) Option for IntElect  
 4) Plasticising rate depends on processing conditions and used material  
 5) The net weight of the machine may vary depending on equipment  
 6) ZE 2032 Distance between tie bars, enlarged

Machine dimensions IntElect 100

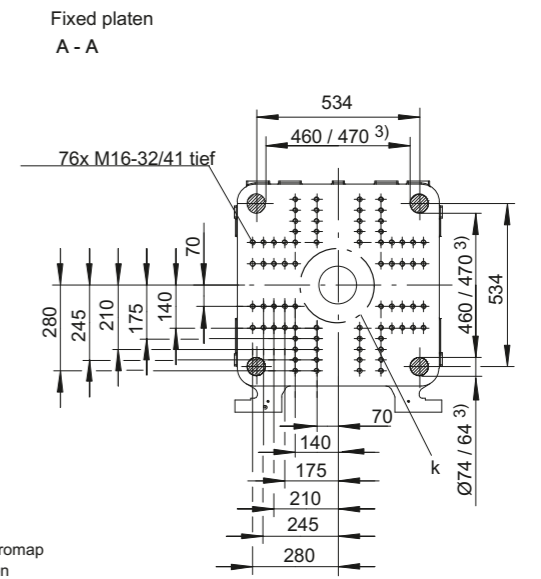
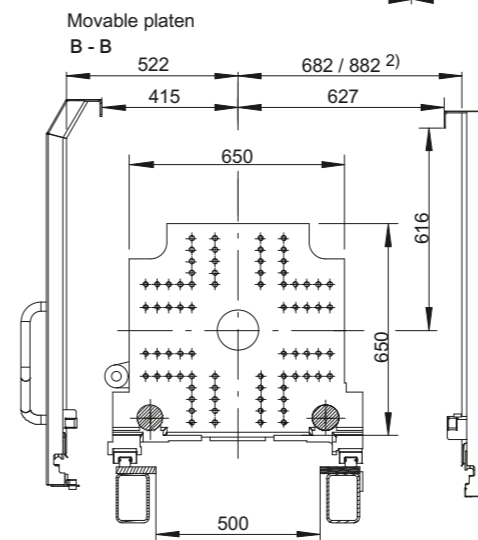


- 1) ZE 320 material hopper optional
- 2) WA 211 mould height increased
- 3) ZE 122 machine height increase
- 4) ZE 242 protective cover widened on non-operator side

Platen dimensions IntElect 100



- 1) WA 211 mould height increased
- 2) ZE 242 protective cover widened on non-operator side
- 3) ZE 2032 distance between tie bars, enlarged
- 4) GA 50 mechanical interface for handling unit



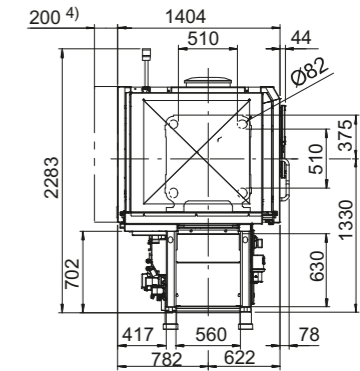
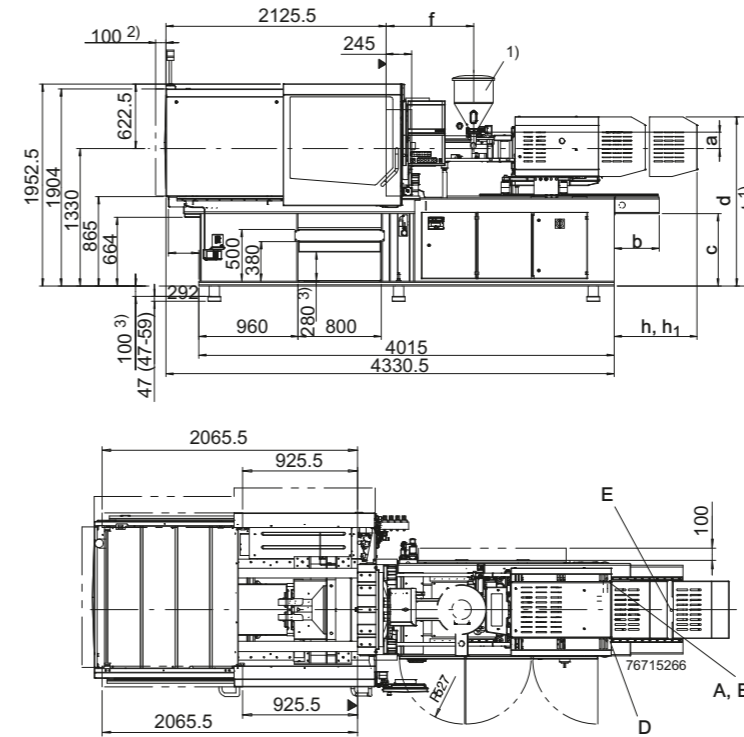
Hole pattern according Euromap k see Technical Description

Sumitomo (SHI) Demag	IntElect 130														
Model description	IntElect 130/510-110			IntElect 130/510-250			IntElect 130/510-450			IntElect 130/510-560			IntElect 130/510-700		
International size description	1300-110			1300-250			1300-450			1300-560			1300-700		
<b>Clamping unit</b>															
130															
Clamping Force / Locking Force	[kN] 1300 / 1430														
Max. mould opening stroke	[mm] 400														
Mould height Min.	[mm] 180														
Max./enlarged mould height	[mm] 450 <sup>1)</sup> / 550														
Daylight between platens max. / enl.	[mm] 850 <sup>1)</sup> / 950														
Mould platen (h x v)	[mm] 720x720														
Distance between tie bars (h x v)	[mm] 510x510 / 520x520 <sup>6)</sup>														
Min. permissible mould diameter (k)	[mm] 200														
Max mould weight / mov. platen	[kg] 860														
Ejection stroke std./enlarged	[mm] 150 / 150														
Ejection / Retraction force	[kN] 32														
<b>Injection unit</b>															
	110			250			450			560			700		
Screw diameter	[mm] 18 22 25 30 22 25 30 35 40 30 35 40 45 35 40 45 50 35 40 45 50														
L/D ratio	20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20														
Spec. injection pressure (up to 400 °C)	[bar] 2800 2800 2222 1543 2800 2800 2510 1850 1410 2800 2790 2140 1690 2800 2418 2200 1780 2800 2418 2200 1780														
Cylinder head volume, max.	[cm <sup>3</sup> ] 23 40 51 1543 40 61 99 135 176 113 154 201 254 154 201 254 314 178 251 318 393														
Max. shot weight (PS)	[g] 20 35 45 65 35 55 88 120 156 101 137 179 226 137 179 226 279 158 224 283 349														
<b>Max. injection speed</b>															
> Version force <sup>1)</sup>	[mm/s] 200 200 200 200 200														
> Version speed (S-Paket) <sup>2) 3)</sup>	[mm/s] 350 350 350 350														
> Version high speed IntElect	[mm/s] 500														
<b>Max. rate of injection</b>															
> Version force <sup>1)</sup>	[mm/s] 44 76 98 141 56 88 141 192 251 141 192 251 320 192 251 318 393 192 251 318 393														
> Version speed (S-Paket) <sup>2) 3)</sup>	[mm/s] 99 153 247 337 440 247 337 440 556 337 440 556 687 337 440 556 687														
> Version high speed	[mm/s] 110 190 245 353														
Max. plasticising rate (PS) <sup>5)</sup>	[g/s] 3,7 6,0 10,0 16,7 6,0 10,0 16,7 22,7 33,3 16,7 22,7 33,3 42,0 22,7 33,3 42,0 57,3 22,7 33,3 42,0 57,3														
Heating capacity	[kW] 4,2 5,2 5,7 8,3 5,2 5,7 8,3 9,4 11,1 8,3 9,4 11,1 11,3 9,4 11,1 11,3 15,7 9,4 11,1 11,3 15,7														
Max. screw stroke	[mm] 90 104 104 104 110 125 140 140 140 160 160 160 160 160 160 160 160 185 200 200 200														
Max. nozzle stroke	[mm] 450 450 450 450														
Max. nozzle dipping depth (WA 650)	[mm] 20 20 20 20														
Nozzle sealing force	[kN] 30 43 43 43 43														
Number of heating zones	4 4 4 4 4														
Hopper capacity, optional	[ltr.] 35 35 35 50 50														
<b>General data</b>															
Dry cycle time (Euromap 6)	130/510-110			130/510-250			130/510-450			130/510-560			130/510-700		
	[s-mm] 1,4-357 1,4-357 1,4-357 1,4-357 1,4-357														
Net weight <sup>5)</sup>	[kg] 5150 5300 5450 5700 5700														

The shown specifications reflect the state at the time of printing and refer to the standard configuration. We reserve the right to modify specifications. The maximum injection speed and maximum injection pressure are values, which can not be available simultaneously. The maximum injection pressure and maximum hold pressure are no pressures that can be generated during the whole process. These parameters are based on a main voltage 400 V. A deviating main voltage will affect the machine parameters.

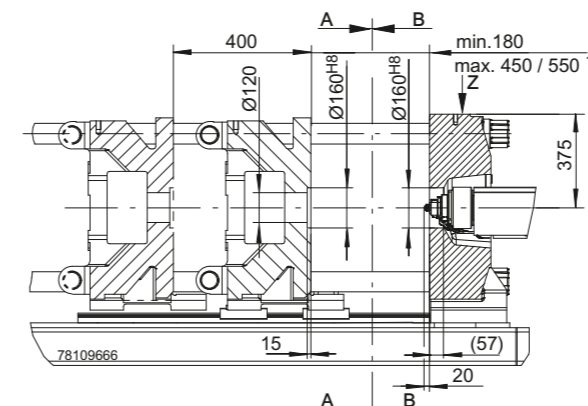
- 1) Basic equipment
- 2) Higher maximum injection speed on request
- 3) Option for IntElect
- 4) Plasticising rate depends on processing conditions and used material
- 5) The net weight of the machine may vary depending on equipment
- 6) ZE 2032 Distance between tie bars, enlarged

Machine dimensions IntElect 130

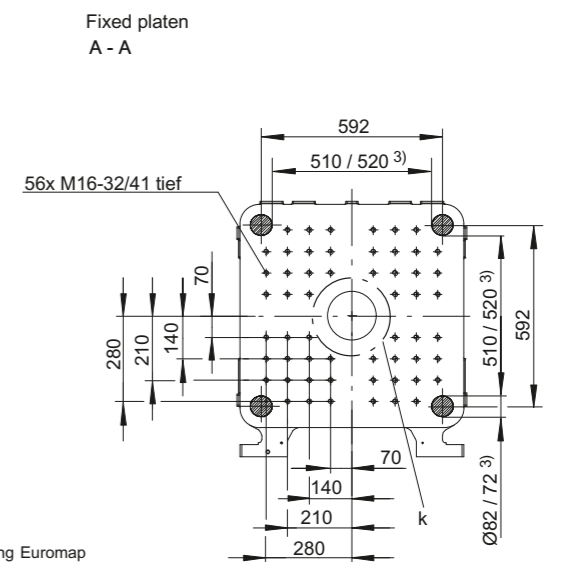
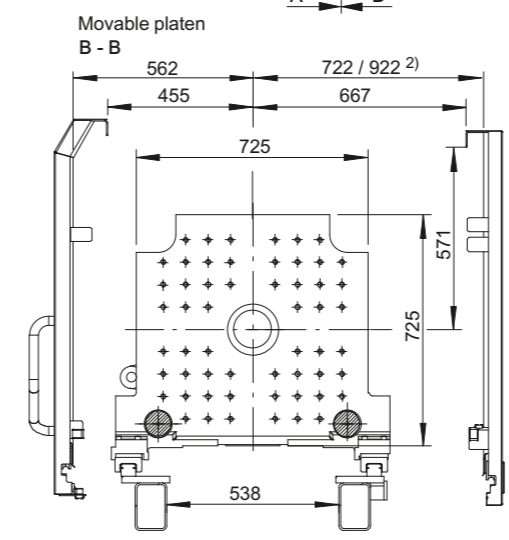
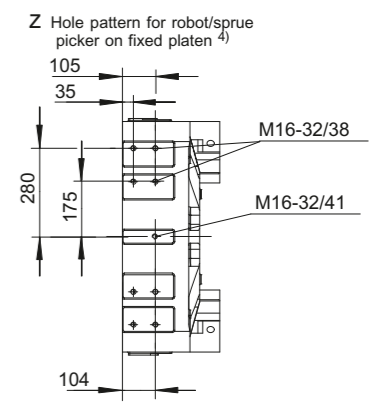


- 1) ZE 320 material hopper optional
- 2) WA 211 mould height increased
- 3) ZE 122 machine height increase
- 4) ZE 242 protective cover widened on non-operator side

Platen dimensions IntElect 130



- 1) WA 211 mould height increased
- 2) ZE 242 protective cover widened on non-operator side
- 3) ZE 2032 distance between tie bars, enlarged
- 4) GA 50 mechanical interface for handling unit



Hole pattern according Euromap k see Technical Description

Sumitomo (SHI) Demag	IntElect 180			
Model description	IntElect 180/560-250	IntElect 180/560-450	IntElect 180/560-560	IntElect 180/560-700
International size description	1800-250	1800-450	1800-560	1800-700

Clamping unit		180			
Clamping Force / Locking Force	[kN]	1800 / 1980			
Max. mould opening stroke	[mm]	450			
Mould height Min.	[mm]	200			
Max./enlarged mould height	[mm]	500 <sup>1)</sup> / 600			
Daylight between platens max. / enl.	[mm]	950 <sup>1)</sup> / 1050			
Mould platen (h x v)	[mm]	800x795			
Distance between tie bars (h x v)	[mm]	560x560 / 570x570 <sup>6)</sup>			
Min. permissible mould diameter (k)	[mm]	200			
Max mould weight / mov. platen	[kg]	1160			
Ejection stroke std./enlarged	[mm]	150 / 150			
Ejection / Retraction force	[kN]	45			

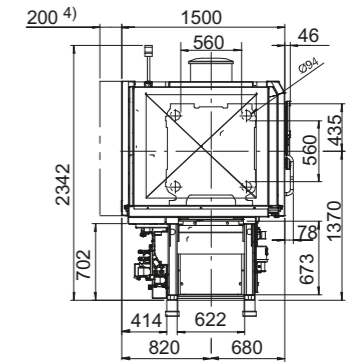
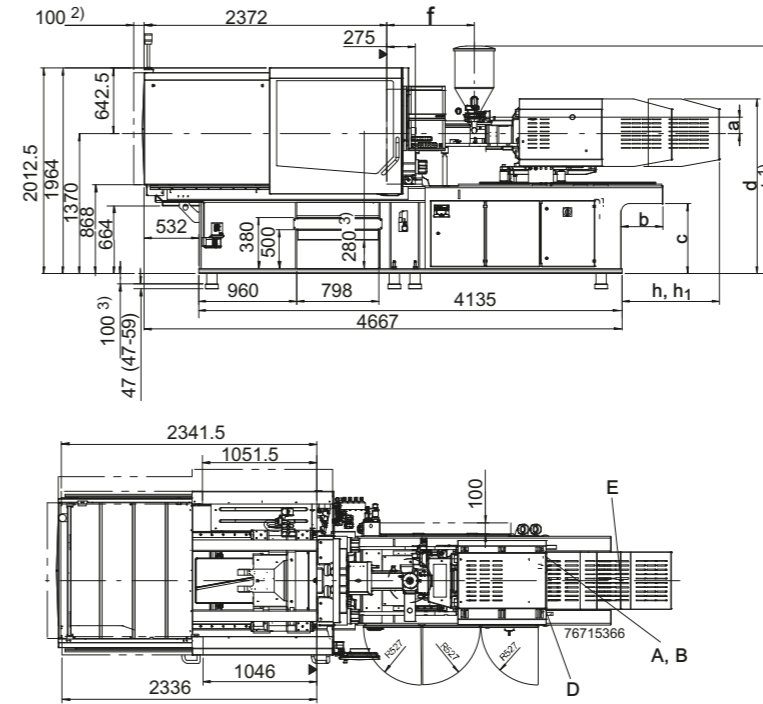
Injection unit		250				450				560				700				
Screw diameter	[mm]	22	25	30	35	40	30	35	40	45	35	40	45	50	35	40	45	50
L/D ratio		20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
Spec. injection pressure (up to 400 °C)	[bar]	2800	2800	2510	1850	1410	2800	2790	2140	1690	2800	2418	2200	1780	2800	2418	2200	1780
Cylinder head volume, max.	[cm <sup>3</sup> ]	40	61	99	135	176	113	154	201	254	154	201	254	314	178	251	318	393
Max. shot weight (PS)	[g]	35	55	88	120	156	101	137	179	226	137	179	226	279	158	224	283	349
<b>Max. injection speed</b>																		
> Version force 1)	[mm/s]	200				200				200								
> Version speed (S-Paket 2) 3)	[mm/s]	350				350				350								
> Version high speed IntElect	[mm/s]																	
<b>Max. rate of injection</b>																		
> Version force 4)	[mm/s]	56	88	141	192	251	141	192	251	320	192	251	318	393	192	251	318	393
> Version speed (S-Paket 2) 3)	[mm/s]	99	153	247	337	440	247	337	440	556	337	440	556	687	337	440	556	687
> Version high speed	[mm/s]																	
Max. plasticising rate (PS) <sup>5)</sup>	[g/s]	6,0	10,0	16,7	22,7	33,3	16,7	22,7	33,3	42,0	22,7	33,3	42,0	57,3	22,7	33,3	42,0	57,3
Heating capacity	[kW]	5,2	5,7	8,3	9,4	11,1	8,3	9,4	11,1	11,3	9,4	11,1	11,3	15,7	9,4	11,1	11,3	15,7
Max. screw stroke	[mm]	110	125	140	140	140	160	160	160	160	160	160	160	160	185	200	200	200
Max. nozzle stroke	[mm]	450				450				380				450				
Max. nozzle dipping depth (WA 650)	[mm]	20				20				20				20				
Nozzle sealing force	[kN]	43				43				43				43				
Number of heating zones		4				4				4				4				
Hopper capacity, optional	[ltr.]	35				35				50				50				

General data		180/560-250				180/560-450				180/560-560				180/560-700			
Dry cycle time (Euromap 6)	[s-mm]	1,5-392				1,5-392				1,5-392				1,5-392			
Net weight <sup>5)</sup>	[kg]	6600				6750				6950				6950			

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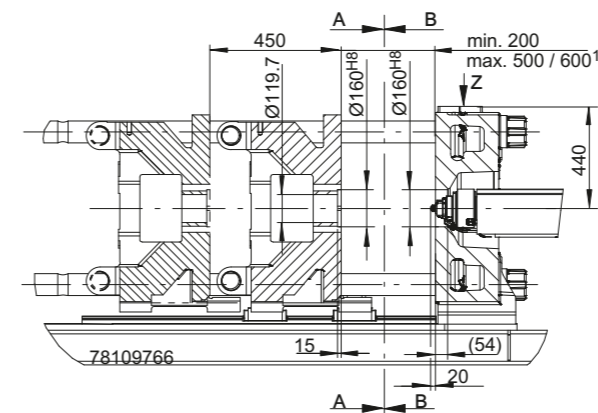
- 1) Basic equipment
- 2) Higher maximum injection speed on request
- 3) Option for IntElect
- 4) Plasticising rate depends on processing conditions and used material
- 5) The net weight of the machine may vary depending on equipment
- 6) ZE 2032 Distance between tie bars, enlarged

Machine dimensions IntElect 180

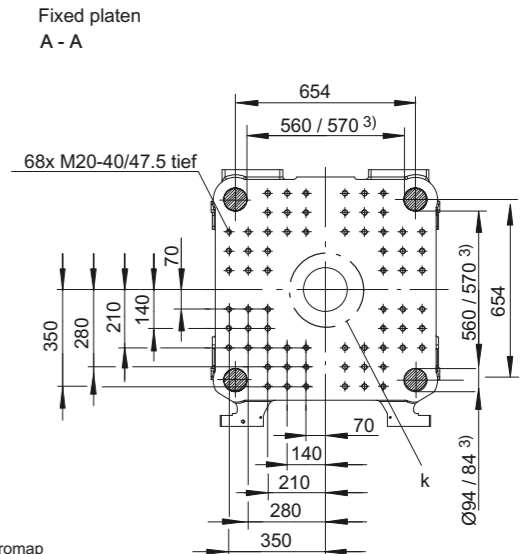
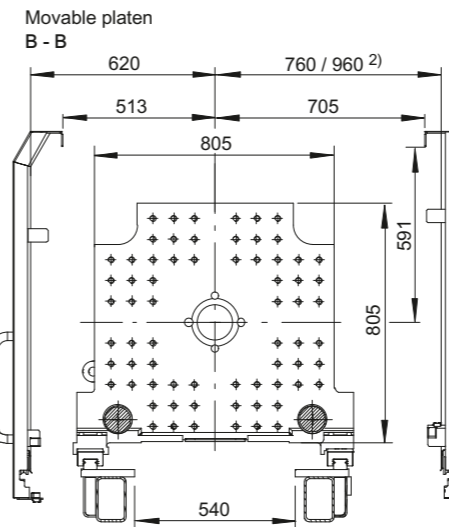
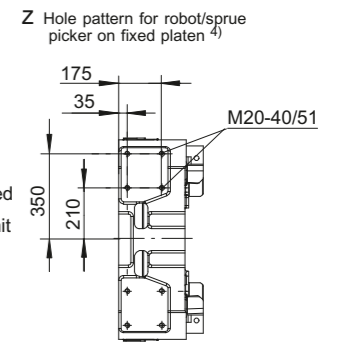


- 1) ZE 320 material hopper optional
- 2) WA 211 mould height increased
- 3) ZE 122 machine height increase
- 4) ZE 242 protective cover widened on non-operator side

Platen dimensions IntElect 180



- 1) WA 211 mould height increased
- 2) ZE 242 protective cover widened on non-operator side
- 3) ZE 2032 distance between tie bars, enlarged
- 4) GA 50 mechanical interface for handling unit



Hole pattern according Euromap k see Technical Description

Connection Dimension

A	Cooling water inlet, machine	Ø19
B	Cooling water outlet, machine	Ø19
D	Electrical connection	
E	Pneumatic connection	Ø <sub>A</sub> = 10

Injection unit	a	b	c	d	f <sub>min.</sub>	t	h	h <sub>1</sub> Transport
IntElect 50 EE 65 (WA 316, WA 314)	157	-	855	1450	405	1900	110	0
IntElect 50 EE 110 (WA 316, WA 314)	157	-	855	1467	507	1900	395	134
IntElect 50 EE 250 (WA 315, WA 314)	157	-	855	1477	591	1900	555	254
IntElect 75 EE 65 (WA 316, WA 314)	157	0	855	1485	405	1935	110	0
IntElect 75 EE 110 (WA 316, WA 314)	157	0	855	1502	507	1935	395	134
IntElect 75 EE 250 (WA 315, WA 314)	157	0	855	1512	591	1935	555	254 / 354
IntElect 75 EE 450 (WA 315, WA 314)	157	250	690	1537	781	1935	979	427 / 677
IntElect 100 EE 110 (WA 316, WA 314)	157	0	870	1557	507	1990	270	40
IntElect 100 EE 250 (WA 315, WA 314)	157	0	870	1567	591	1990	692	210 / 360
IntElect 100 EE 450 (WA 315, WA 314)	157	305	690	1592	781	1990	1016	582 / 632
IntElect 100 EE 560 (WA 315, WA 314)	157	305	690	1622	887	1990	1150	796
IntElect 100 EE 700 (WA 315)	157	305	690	1622	887	1990	1259	796
IntElect 130 EE 110 (WA 316, WA 314)	157	0	870	1602	507	2035	280	28
IntElect 130 EE 250 (WA 315, WA 314)	157	0	870	1612	591	2035	702	200 / 300
IntElect 130 EE 450 (WA 315, WA 314)	157	425	690	1637	781	2035	1026	620
IntElect 130 EE 560 (WA 315, WA 314)	157	425	690	1667	887	2035	1283	835
IntElect 130 EE 700 (WA 315, WA 314)	157	425	690	1667	887	2035	1438	990
IntElect 180 EE 250 (WA 315, WA 314)	157	400	677	1652	591	2075	617	134 / 184
IntElect 180 EE 450 (WA 315, WA 314)	157	400	677	1677	781	2075	941	507
IntElect 180 EE 560 (WA 315, WA 314)	157	400	677	1707	887	2075	1198	771
IntElect 180 EE 700 (WA 315, WA 314)	157	400	677	1707	887	2075	1353	926

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- 1) Basic equipment
- 2) Higher maximum injection speed on request
- 3) Option for IntElect
- 4) Plasticising rate depends on processing conditions and used material
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- 6) ZE 2032 Distance between tie bars, enlarged



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