

## SYSTEC SP High-Speed Hybrid Series

Detailed Specifications  
METRIC UNITS



# Technical Data Systec SP 160/520

Sumitomo (SHI) Demag	
Model description	
International size description	
Clamping unit	
Clamping Force / Locking Force	[kN]
Max. mould opening stroke	[mm]
Min. mould height	[mm]
Max./enlarged mould height	[mm]
Daylight between platens max./enl.	[mm]
Mould platen (h x v)	[mm]
Distance between tie bars (h x v)	[mm]
Min. permissible mould diameter (k)	[mm]
Max mould weight / mov./ fixed	[kg]
Ejection stroke	[mm]
Ejection / Retraction force	[kN]
Injection unit	
Screw diameter	[mm]
Screw geometry	
L/D ratio	
Spec. injection pressure (up to 400°C)	[bar]
Cylinder head volume, max.	[cm <sup>3</sup> ]
Max. shot weight (PS, PE*)	[g]
Max. rate of injection <sup>2)</sup>	
> With accumulator	[cm <sup>3</sup> /s]
Plasticising rate (PS)	
> Electr. screw drive(PS/PE*)	[~g/s]
Max. screw stroke	[mm]
Max. dist. nozz. retract./auto mode <sup>3)</sup>	[mm]
Max. nozzle dipping depth (SVO)	[mm]
Nozzle sealing force	[kN]
Number of heating zones	
Hopper capacity, optional	[ltr.]
General data	
Oil tank capacity	[ltr.]
Installed electrical rating	
> Pump	[~kW]
> Electric screw drive	[~kW]
> Heating capacity of screw cylinder <sup>4)</sup>	[~kW]
> Total capacity	[~kW]
Dry cycle time (Euromap 6)	[s-mm]
Dry cycles with unlocking time	[s-mm]
Net weight (without oil) <sup>5)</sup>	[~kg]
Transport dimensions (l x w x h)	[~m]
Electric drive projection (h) <sup>6)</sup>	[mm]

Systec SP 160/520											
160/520-430				160/520-600				160/520-840			
1600-430				1600-600				1600-840			
160/520											
1600/1760											
500											
275											
585/685											
1085/1185											
770x770											
520x520											
300											
2200/1300/1700											
160											
46/22											
430				600				840			
35	40	35	40	40	45	40	45	45	50	45	50
standard	standard	special <sup>1)</sup>	special <sup>1)</sup>	standard	standard	special <sup>1)</sup>	special <sup>1)</sup>	standard	standard	special <sup>1)</sup>	special <sup>1)</sup>
20	20	25	25	20	20	25	25	20	20	25	25
2640	2025	2644	2025	2418	1914	2428	1914	2402	1946	2402	1946
177	231	177	231	255	323	255	323	358	442	358	442
161	210	129*	169*	232	294	186*	236*	326	402	261*	323*
587	767	587	767	767	970	767	970	875	1001	875	1001
37/32*	44/38*	37/32*	44/38*	48/42*	52/47*	48/42*	52/47*	53/48*	60/50*	53/48*	60/50*
184				203				225			
400	400	400	400	400	400	400	400	915	762		
20				20				20			
80				80				110			
4	4	4	4	4	4	4	5	5	5	5	5
35				50				70			
160/520-430				160/520-600				160/520-840			
400											
36											
27,0				26,7				31,5			
9,4	11,1	13,0	13,9	11,1	11,3	13,9	15,7	13,0	14,8	15,7	22,3
72,4	74,1	76,0	76,9	73,8	74,0	76,6	78,4	80,5	82,3	83,2	89,8
1,3-350											
1,5-350											
7500				7600				7850			
5,4x1,4x2,1				5,4x1,4x2,1				5,4x1,4x2,1			
0/0	0/0	0/0	0/0	0/0	0/4	0/0	0/4	406/1321	559/1321	631/1321	826/1321

The shown specifications reflect the state at the time of printing. We reserve the right to modify specifications.

Plasticising rate depends on processing conditions and material employed.

Electrical power supply refers to the standard configuration of the machine.

These parameters are based on a mains voltage 400 V. A deviating mains voltage will affect the machine parameters.

1) Shear and mixing unit

2) Rate of injection based on the standard plasticizing unit

3) Only valid for open nozzles (SVO). Carriage travel is shortened with shut-off or extended nozzles

4) Parallel movement of all axis possible

5) The net weight of the machine may vary depending on equipment

6) At nozzle contact / at max. distance of nozzle retraction

# Technical Data Systec SP 210/580

Sumitomo (SHI) Demag	
Model description	
International size description	
Clamping unit	
Clamping Force / Locking Force	[kN]
Max. mould opening stroke	[mm]
Min. mould height	[mm]
Max./enlarged mould height	[mm]
Daylight between platens max./enl.	[mm]
Mould platen (h x v)	[mm]
Distance between tie bars (h x v)	[mm]
Min. permissible mould diameter (k)	[mm]
Max mould weight / mov./ fixed	[kg]
Ejection stroke	[mm]
Ejection / Retraction force	[kN]
Injection unit	
Screw diameter	[mm]
Screw geometry	
L/D ratio	
Spec. injection pressure (up to 400°C)	[bar]
Cylinder head volume, max.	[cm <sup>3</sup> ]
Max. shot weight (PS, PE*)	[g]
<b>Max. rate of injection <sup>2)</sup></b>	
> With accumulator	[cm <sup>3</sup> /s]
Plasticising rate (PS)	
> Electr. screw drive(PS/PE*)	[~g/s]
Max. screw stroke	[mm]
Max. dist. nozz. retract./auto mode <sup>3)</sup>	[mm]
Max. nozzle dipping depth (SVO)	[mm]
Nozzle sealing force	[kN]
Number of heating zones	
Hopper capacity, optional	[ltr.]
General data	
Oil tank capacity	[ltr.]
Installed electrical rating	
> Pump	[~kW]
> Electric screw drive	[~kW]
> Heating capacity of screw cylinder <sup>4)</sup>	[~kW]
> Total capacity	[~kW]
Dry cycle time (Euromap 6)	[s-mm]
Dry cycles with unlocking time	[s-mm]
Net weight (without oil) <sup>5)</sup>	[~kg]
Transport dimensions (l x w x h)	[~m]
Electric drive projection (h) <sup>6)</sup>	[mm]

Systec SP 210/580											
210/580-600				210/580-840				210/580-1450			
2100-600				2100-840				2100-1450			
210/580											
2100/2310											
575											
340											
690/790											
1265/1365											
860x860											
580x580											
350											
3300/2000/2500											
180											
76/37											
600			840				1450				
40	45	40	45	45	50	45	50	50	60	50	60
standard	standard	special <sup>1)</sup>	special <sup>1)</sup>	standard	standard	special <sup>1)</sup>	special <sup>1)</sup>	standard	standard	special <sup>1)</sup>	special <sup>1)</sup>
20	20	25	25	20	20	25	25	20	20	25	25
2418	1914	2428	1914	2402	1946	2402	1946	2426	1905	2425	1905
255	232	255	323	358	442	358	442	530	763	530	763
232	294	186*	236*	326	402	261*	323*	482	695	387*	557*
767	970	767	970	875	1001	875	1001	1001	1272	1001	1272
48/42*	52/47*	48/42*	52/47*	53/48*	60/50*	53/48*	60/50*	64/53*	76/65*	64/53*	76/68*
203				225				270			
915	762	690	495	915	762	690	495	1100	803	690	495
20				20				20			
80				110				110			
4				5				5			
50				70				110			
210/580-600				210/580-840				210/580-1450			
400											
51											
26,7				31,5				34,5			
11,1	11,3	13,9	15,7	13,0	14,8	15,7	22,3	14,8	23,1	18,3	27,9
88,8	89,0	91,6	93,4	95,5	97,3	98,2	104,8	100,3	108,6	103,8	113,4
1,4-406											
1,6-406											
9200				9500				9700			
6,0x1,6x2,1				6,0x1,6x2,1				6,0x1,6x2,1			
0/0	0/0	0/0	0/0	206/1131	359/1131	431/1131	625/1131	554/1654	851/1654	851/1654	1148/1654

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Plasticising rate depends on processing conditions and material employed.

Electrical power supply refers to the standard configuration of the machine.

These parameters are based on a mains voltage 400 V. A deviating mains voltage will affect the machine parameters.

1) Shear and mixing unit

2) Rate of injection based on the standard plasticizing unit

3) Only valid for open nozzles (SVO). Carriage travel is shortened with shut-off or extended nozzles

4) Parallel movement of all axis possible

5) The net weight of the machine may vary depending on equipment

6) At nozzle contact / at max. distance of nozzle retraction

# Technical Data Systec SP 280/630

Sumitomo (SHI) Demag	
Model description	
International size description	
Clamping unit	
Clamping Force / Locking Force	[kN]
Max. mould opening stroke	[mm]
Min. mould height	[mm]
Max./enlarged mould height	[mm]
Daylight between platens max./enl.	[mm]
Mould platen (h x v)	[mm]
Distance between tie bars (h x v)	[mm]
Min. permissible mould diameter (k)	[mm]
Max mould weight / mov./ fixed	[kg]
Ejection stroke	[mm]
Ejection / Retraction force	[kN]
Injection unit	
Screw diameter	[mm]
Screw geometry	
L/D ratio	
Spec. injection pressure (up to 400°C)	[bar]
Cylinder head volume, max.	[cm <sup>3</sup> ]
Max. shot weight (PS, PE*)	[g]
<b>Max. rate of injection</b> <sup>2)</sup>	
> With accumulator	[cm <sup>3</sup> /s]
Plasticising rate (PS)	
> Electr. screw drive(PS/PE*)	[~g/s]
Max. screw stroke	[mm]
Max. nozzle dipping depth (SVO)	[mm]
Max. dist. nozz. retract./auto mode <sup>3)</sup>	[mm]
Nozzle sealing force	[kN]
Number of heating zones	
Hopper capacity, optional	[ltr.]
General data	
Oil tank capacity	[ltr.]
Installed electrical rating	
> Pump	[~kW]
> Electric screw drive	[~kW]
> Heating capacity of screw cylinder <sup>4)</sup>	[~kW]
> Total capacity	[~kW]
Dry cycle time (Euromap 6)	[s-mm]
Dry cycles with unlocking time	[s-mm]
Net weight (without oil) <sup>5)</sup>	[~kg]
Transport dimensions (l x w x h)	[~m]
Electric drive projection (h) <sup>6)</sup>	[mm]

Systec SP 280/630											
280/630-840				280/630-1450				280/630-2300			
2800-840				2800-1450				2800-2300			
280/630											
2800/3080											
675											
330											
710/830											
1385/1505											
930x930											
630x630											
400											
4300/2500/3300											
200											
76/37											
840			1450				2300				
45	50	45	50	50	60	50	60	60	70	60	70
standard	standard	special <sup>1)</sup>	special <sup>1)</sup>	standard	standard	special <sup>1)</sup>	special <sup>1)</sup>	standard	standard	special <sup>1)</sup>	special <sup>1)</sup>
20	20	25	25	20	20	25	25	20	20	25	25
2402	1946	2402	1946	2426	1905	2425	1905	2624	1877	2425	1877
358	442	358	442	530	763	530	763	891	1212	891	1212
326	402	261*	323*	482	695	387*	557*	810	1103	650*	885*
875	1001	875	1001	1001	1272	1001	1272	1272	1462	1272	1462
53/48*	60/50*	53/48*	60/50*	64/53*	76/65*	64/53*	76/68*	84/72*	87/74*	84/75*	87/79*
		225		270				315			
		20		20				20			
1100	803	690	495	1100	803	690	495	1100	803	690	495
		110		110				110			
		5		5				5			
		70		110				110			
280/630-840				280/630-1450				280/630-2300			
550											
51											
31,5				34,5				48,0			
13,0	14,8	15,7	22,3	14,8	23,1	18,3	27,9	23,1	27,0	27,9	32,2
95,5	97,3	98,2	104,8	100,3	108,6	103,8	113,4	122,1	126,0	126,9	131,2
1,65-441											
1,95-441											
13200				13200				14000			
6,6x1,8x2,2				6,6x1,8x2,2				6,6x1,8x2,2			
0/751	0/751	61/751	256/751	182/1284	478/1284	448/1284	778/1284	537/1692	841/1692	837/1692	1191/1692

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1) Shear and mixing unit

2) Rate of injection based on the standard plasticizing unit

3) Only valid for open nozzles (SVO). Carriage travel is shortened with shut-off or extended nozzles

4) Parallel movement of all axis possible

5) The net weight of the machine may vary depending on equipment

6) At nozzle contact / at max. distance of nozzle retraction

# Technical Data Systec SP 350/720

Sumitomo (SHI) Demag	
Model description	
International size description	
Clamping unit	
Clamping Force / Locking Force	[kN]
Max. mould opening stroke	[mm]
Min. mould height	[mm]
Max./enlarged mould height	[mm]
Daylight between platens max./enl.	[mm]
Mould platen (h x v)	[mm]
Distance between tie bars (h x v)	[mm]
Min. permissible mould diameter (k)	[mm]
Max mould weight / mov./ fixed	[kg]
Ejection stroke	[mm]
Ejection / Retraction force	[kN]
Injection unit	
Screw diameter	[mm]
Screw geometry	
L/D ratio	
Spec. injection pressure (up to 400°C)	[bar]
Cylinder head volume, max.	[cm <sup>3</sup> ]
Max. shot weight (PS, PE*)	[g]
<b>Max. rate of injection</b> <sup>2)</sup>	
> With accumulator	[cm <sup>3</sup> /s]
Plasticising rate (PS)	
> Electr. screw drive(PS/PE*)	[~g/s]
Max. screw stroke	[mm]
Max. dist. nozz. retract./auto mode <sup>3)</sup>	[mm]
Max. nozzle dipping depth (SVO)	[mm]
Nozzle sealing force	[kN]
Number of heating zones	
Hopper capacity, optional	[ltr.]
General data	
Oil tank capacity	[ltr.]
Installed electrical rating	
> Pump	[~kW]
> Electric screw drive	[~kW]
> Heating capacity of screw cylinder <sup>4)</sup>	[~kW]
> Total capacity	[~kW]
Dry cycle time (Euromap 6)	[s-mm]
Dry cycles with unlocking time	[s-mm]
Net weight (without oil) <sup>5)</sup>	[~kg]
Transport dimensions (l x w x h)	[~m]
Electric drive projection (h) <sup>6)</sup>	[mm]

Systec SP 350/720-840											
350/720-840				350/720-1450				350/720-2300			
3500-840				3500-1450				3500-2300			
350/720											
3500/3850											
730											
350											
745/950											
1475/1680											
1040x1060											
720x720											
400											
4700/2650/3600											
200											
76/37											
840			1450				2300				
45	50	45	50	50	60	50	60	60	70	60	70
standard	standard	special <sup>1)</sup>	special <sup>1)</sup>	standard	standard	special <sup>1)</sup>	special <sup>1)</sup>	standard	standard	special <sup>1)</sup>	special <sup>1)</sup>
20	20	25	25	20	20	25	25	20	20	25	25
2402	1946	2402	1946	2426	1905	2425	1905	2426	1877	2425	1877
358	442	358	442	530	763	530	763	891	1212	891	1212
326	402	261*	323*	482	695	387*	557*	810	1103	650*	885*
875	1001	875	1001	1001	1272	1001	1272	1272	1462	1272	1462
53/48*	60/50*	53/48*	60/50*	64/53*	76/65*	64/53*	76/68*	84/72*	87/74*	84/75*	87/79*
225				270				315			
923	769	698	503	1185	889	919	589	1155	851	855	501
20				20				20			
110				110				110			
5				5				5			
70				110				110			
350/720-840				350/750-1450				350/750-2300			
550											
59											
31,5				34,5				48,0			
13,0	14,8	15,7	22,3	14,8	23,1	18,3	27,9	23,1	27,0	27,9	32,2
103,5	105,3	106,2	112,8	108,3	116,6	111,8	121,4	130,1	134,0	134,9	139,2
1,85-504											
2,15-504											
15500				16000				16250			
6,9x1,8x2,2				6,9x1,8x2,2				6,9x1,8x2,2			
0/751	0/751	61/751	255/751	184/1369	481/1369	450/1369	781/1369	537/1692	841/1692	837/1692	1191/1692

The shown specifications reflect the state at the time of printing. We reserve the right to modify specifications.

Plasticising rate depends on processing conditions and material employed.

Electrical power supply refers to the standard configuration of the machine.

These parameters are based on a mains voltage 400 V. A deviating mains voltage will affect the machine parameters.

1) Shear and mixing unit

2) Rate of injection based on the standard plasticizing unit

3) Only valid for open nozzles (SVO). Carriage travel is shortened with shut-off or extended nozzles

4) Parallel movement of all axis possible

5) The net weight of the machine may vary depending on equipment

6) At nozzle contact / at max. distance of nozzle retraction

# Technical Data Systec SP 420/820

Sumitomo (SHI) Demag	
Model description	
International size description	
Clamping unit	
Clamping Force / Locking Force	[kN]
Max. mould opening stroke	[mm]
Min. mould height	[mm]
Max./enlarged mould height	[mm]
Daylight between platens max./enl.	[mm]
Mould platen (h x v)	[mm]
Distance between tie bars (h x v)	[mm]
Min. permissible mould diameter (k)	[mm]
Max mould weight / mov./ fixed	[kg]
Ejection stroke	[mm]
Ejection / Retraction force	[kN]
Injection unit	
Screw diameter	[mm]
Screw geometry	
L/D ratio	
Spec. injection pressure (up to 400°C)	[bar]
Cylinder head volume, max.	[cm <sup>3</sup> ]
Max. shot weight (PS, PE*)	[g]
<b>Max. rate of injection <sup>2)</sup></b>	
> With accumulator	[cm <sup>3</sup> /s]
Plasticising rate (PS)	
> Electr. screw drive(PS/PE*)	[~g/s]
Max. screw stroke	[mm]
Max. dist. nozz. retract./auto mode <sup>3)</sup>	[mm]
Max. nozzle dipping depth (SVO)	[mm]
Nozzle sealing force	[kN]
Number of heating zones	
Hopper capacity, optional	[ltr.]
General data	
Oil tank capacity	[ltr.]
Installed electrical rating	
> Pump	[~kW]
> Electric screw drive	[~kW]
> Heating capacity of screw cylinder <sup>4)</sup>	[~kW]
> Total capacity	[~kW]
Dry cycle time (Euromap 6)	[s-mm]
Dry cycles with unlocking time	[s-mm]
Net weight (without oil) <sup>5)</sup>	[~kg]
Transport dimensions (l x w x h)	[~m]
Electric drive projection (h) <sup>6)</sup>	[mm]

Systec SP 420/820												
420/820-1450				420/820-2300				420/820-3300				
4200-1450				4200-2300				4200-3300				
420/820												
4200/4620												
770												
380												
825/1050												
1595/1820												
1200x1200												
820x820												
420												
6600/3800/5100												
230												
128/56												
1450				2300				3300				
50	60	50	60	60	70	60	70	70	80	70	80	
standard	standard	special <sup>1)</sup>	special <sup>1)</sup>	standard	standard	special <sup>1)</sup>	special <sup>1)</sup>	standard	standard	special <sup>1)</sup>	special <sup>1)</sup>	
20	20	25	25	20	20	25	25	24	20	24	24	
2426	1905	2425	1905	2426	1877	2425	1877	2423	1855	2423	1855	
530	763	530	763	891	1212	891	1212	1362	1779	1362	1779	
482	695	387*	557*	810	1103	650*	885*	1240	1619	995*	1299*	
1001	1272	1001	1272	1272	1462	1272	1462	1462	1608	1462	1608	
64/53*	76/65*	64/53*	76/68*	84/72*	87/74*	84/75*	87/79*	105/95*	129/115*	105/95*	129/115*	
270				315				354				
1205	909	939	609	1155	851	855	501	980	980	-	-	
20				20				20				
110				110				110				
5	5	5	5	5	5	5	5	5	5	5	6	
110				110				110				
420/820-1450				420/820-2300				420/820-3300				
550												
59												
34,5				48,0				76,0				
14,8	23,1	18,3	27,9	23,1	27,0	27,9	32,2	30,6	30,6	32,2	42,6	
108,3	116,6	111,8	121,4	130,1	134,0	134,9	139,2	165,6	165,6	167,2	177,6	
2,25-574												
2,6-574												
21100				21500				24900				
8,0x2,0x2,5				8,0x2,0x2,5				8,0x2,0x2,5				
0/644	0/644	0/644	36/644	0/947	96/947	92/947	446/947	965/1945	956/1945	-	-	

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1) Shear and mixing unit

2) Rate of injection based on the standard plasticizing unit

3) Only valid for open nozzles (SVO). Carriage travel is shortened with shut-off or extended nozzles

4) Parallel movement of all axis possible

5) The net weight of the machine may vary depending on equipment

6) At nozzle contact / at max. distance of nozzle retraction

# Equipment System SP 1.600...4.200 kN

Clamping unit	160	210 ... 350	420
1 - Short-lengtht units with fully hydraulic clamping system with two clamp cylinders and a volume multiplier for fast machine cycles and low energy consumption	-	-	-
2 - Short-lengtht 5-point double toggle clamping unit	●	●	●
22 - Ejector coupling to DPG	●	●	●
24 - Tie bars of clamping unit chromed	●	●	●
27 - Upper tiebar on non-operator side retractable	-	-	-
41 - Central ejector with multi-stroke and stroke, pressure/force and speed programmable	●	●	●
43 - Short/long stroke ejector	●	●	●
47 - Two-stage adjustable clamp force	-	-	-
94 - Five-staged mould clamping- and four-staged mould-opening sequence	●	●	●
204 - Mould mounting dimensions in accordance to Euromap, without side ejector plate	●	●	●
205 - Mould mounting dimensions in accordance to Euromap, with side ejector plate	○	○	○
207 - Mould mounting dimensions similar to SPI	○	○	○
208 - Mould mounting dimensions U (universal; similar to Euromap, additionally two through-holes) with side ejector plate <sup>1)</sup>	-	-	-
2091 - Mould mounting dimensions similar to JIS	○	○	○
210 - Standard mould height	●	●	●
211 - Extended mould height	○	○	○
215 - Mould and ejector movements only when safety gate closed	●	●	●
2171 - Operating when safety gate is open on non-operator side	○	○	○
218 - Ejector pressure and speed programmable for serial operation with mould movement	-	-	-
219 - Ejector power and speed programmable for simultaneous operation with mould movement, including positioning control	●	●	●
224ff - 1-2 pneumatik 5/2 directional valves, mounted to moving or fixed platen and freely programmable	○	○	○
228 - Central service unit for pneumatic valves	○	○	○
229ff - Core puller with 1-4 circuits over proportional or on-/off- valve on mov. platen; Q-independent programmable; with unlockable check-valves against core-moving; incl. Manual pressure relief for core-puller 1-4 circuits over one common valve	○	○	○
237 - Additional ports for 2 core pullers on fixed mould platen	○	○	○
240 - Automatic safety gate on operator side	○	○	○
242 - Cover widened on non-operator side	○	○	○
243 - Blow through for mould cooling lines; manual	○	○	○
249 - Cooling water controller 4 circuits with temperature gauge	○	○	○
250 - Cooling water controller 8 circuits with temperature gauge	○	○	○
244 - Cooling water controller 12 circuits with temperature gauge	○	○	○
252 - Shut-off mould cooling, time programmable	●	●	●
282+283 - Pneumatik core puller 1 or 2-circuit via b/w valve on the movable platen including tubing	○	○	○
261 - Automatic mould height adjustment	○	○	○
18 - Moving platen supported by linear guides on machine base	●	●	●
264 - Manual clamping mechanism for tiebar retraction	○	○	○
265 - Automatic tiebar retraction, upper tiebar on non-operator side	○	○	○

Clamping unit	160	210 ... 350	420
266ff - Hot runner control (number of zones depending on machine size, max. 32)	○	○	○
275 - Hydraulic control for hot runner nozzles	○	○	○
280 - Automatic central oil lubrication for toggle	●	●	●
290 - Clamp force control with indication	●	●	●
293 - ActiveQ: Active mould safety via sensor with mould movement	●	●	●
295 - Additional manual adjustable control button mould-open-position	○	○	○
299 - Central grease lubrication manual	●	●	●

Injection unit	160	210 ... 350	420
Barrel adaptable for 3 injection units	-	-	-
92 - Regulated parameter for injection speed, pressure, ram pressure and screw speed programmable via profile	●	●	●
300 - Injection unit horizontal	●	●	●
302ff - Injection unit horizontal or vertical in seperating level or in backpack-position	-	-	-
310 - Hydraulic screw motor for high screw speeds (rpm) (motorI)	-	-	-
311 - Hydraulic screw motor for high torque (Motor II)	-	-	-
313 - Electrical screw motor, frequency-controlled	●	●	●
320 - Hopper for setup of an automatic filling system	○	○	○
322 - Hopper shutoff with emptying capability (with drill pattern for material conveyor)	-	-	-
341 - Temperature of funnel-zone-cooling regulated; maximum temperature 90°C +9°C tolerance	●	●	●
350 - Holding pressure switchover depending on hydraulic pressure with maximum value recording and pressure recording	●	●	●
352ff - Holding pressure switchover depending on cavity pressure with pressure recording for 1, 2, 4 pressure taker	○	○	○
357 - Holding pressure switchover over extern exit	○	○	○
355 - Back pressure programmable over screw-back stroke, polygon over 6 stabilisation points	●	●	●
361 - fast injection with accumulator; programmable	●	●	●
365 - Injection with regular pump, p+v regulated (closed loop)	-	-	-
131 - Injection, holding pressure and back pressure regulated over servo valve	-	-	-
370 - Melt temperature measuring (only for open nozzles)	○	○	○
380 - Nozzle sealing force with closed mould, programmable	●	●	●
385 - Nozzle system residual pressure with open mould, programmable	●	●	●
386 - Nozzle movement parallel to closing movement	●	●	●
388 - Screw position-controlled high speed	●	●	●
390 - Full guarding on injection unit operator side	-	-	-

Electronics	160	210 ... 350	420
110 - Supply voltage 400 V+/-10 %/ 50 Hz; 3 Ph + N + PE	●	●	●
111-117 - Specific national supply voltage	○	○	○
120 - Joint power supply for drive and heating	-	-	-
121 - Separate power supply for both drive and heating	●	●	●
160 - Single-phase 230 V/50 Hz/ 10 A socket in specific national version, defeatable over main switch	●	●	●

● Basic equipment

<sup>1)</sup> valid for CU through 120

○ Additional price

The shown specifications reflect the state at the time of printing. We reserve the right to modify specifications.

Electronics	160	210 ... 350	420
1601 - Socket CEE 3Ph/400V/16A, defeatable over main switch	○	○	○
1602 - Socket CEE 3Ph/400V/32A, defeatable over main switch	-	○	○
161 - Socket combination integrated, country-specific, defeatable over main switch and shut-down program	○	○	○
186 - Digital and wearfree stroke measuring system ultrasonic, respectively high-resolution rotary sensors for injection and injection unit movement, clamp and ejector movement	○	○	○
4921 - Integrated mesuring of energy consumption and the costs per piece	-	-	-

Functions	160	210 ... 350	420
420 - Process data entry (PDE) with 100 % monitoring and statistics with graphics for of process parameters	●	●	●
421 - Extended intern saving option for PDE-data, mould-records and journal entry	○	○	○
422 - Overlay of parameters of consecutive cycles in multiple graphs on one screen for a convenient evaluation of the process stability	●	●	●
424 - Pallet control; uses 2 separate to ordering programmable input/output	○	○	○
425 - Storing program for extern storage of statistic data	●	●	●
427 - Temperatur reduction over switchpoint with timing in manual mode activatable	●	●	●
428 - Dry cycle without heat via program switch	●	●	●
429 - Preselection part counter forstartup reject parts after every break of automatic-mode	●	●	●
430 - Start up program in 3 stages; including back pressure	○	○	○
440 - Switch-on program / switch-off program with purging	●	●	●
442 - switch-on program / switch-off program without purging	-	-	-
443 - switch-on program / switch-off program with ontime purging	-	-	-
445 - Flexible movement sequence for the injection unit without/with multiple movements from ejector and core pullers	●	●	●
446 - Flexible movement of the injection unit	●	●	●
460 - Printer program with automatic printing of error message log (alarms, messages and change log)	○	○	○
461 - Change reason; on-screen display	●	●	●
462 - Event journal	○	○	○
471 - factory data capture integrated in machine control	○	○	○
480 - Help function; integrated control indication over control	●	●	●
481 - Additional operating language	○	○	○
485 - Ergostart, integrated basic setting Program	-	-	-
486 - Ergosupport: program for faster fault recognition on basic setting/process optimisation and for extended monitoring of process sequence and deviations	○	○	○
488 - Service page	●	●	●
489 - Analysis of cycle time	●	●	●
493 - Two freely programmable sides	●	●	●
494 - Additional two freely programable sides	○	○	○
495 - Integration of extern user interfaces in operator panel with VNC-client (Active Remote)	○	○	○

Interfaces	160	210 ... 350	420
450 - Inputs / outputs freely programmable; 3 inputs and 3 outputs	○	○	○

Interfaces	160	210 ... 350	420
454 - Inputs / outputs freely programmable; 6 inputs and 6 outputs	○	○	○
510 - Socket for second nozzle heater band	○	○	○
523 - 50-pin handling device interface conf. to Euromap 67 (VDMA)	○	○	○
529 - Interface for handling device, version Asia	-	-	-
528 - Adapter cable for Euromap 67 (50-pole) to Euromap 12 (32-pole) and SPI AN-116 (32-pole)	○	○	○
532 - Additional controller nozzle 1 circuit	○	○	○
540 - Interfaces for ejector limit switch in mould, side action with LS and product detection	○	○	○
541 - Interface for mould protection (ejector plate safety)	●	●	●
542 - Interface for component ejection monitoring	○	○	○
544 - Interface for mould safety, side core safety mechanism	●	●	●
546 - Interface for screw-back unit	○	○	○
555 - Interface for mould temperature indication, 2 circuit	○	○	○
552 - CAN-Bus interface for temperature controllers (2 or 4 circuits), Demag-specific signal	○	○	○
556 - 20 mA interface (TTY-V24) for up to 6 units integrated temperature controllers	○	○	○
562 - Interface machine status	○	○	○
563 - Data interface for main computer systems to Euromap 63 and SPI AN-142	○	○	○
571 - WC5 - DPG World Connect; Remote maintenance and control of the machine	●	●	●

General	160	210 ... 350	420
10 - Injection moulding machine with CE-declaration of conformity (without periphery and automation), safety devices according to EN201 USA: machine and safety devices according to ANSI	●	●	●
14 - Oil pre-heating	●	●	●
13 - Oil temperatur regulated with temperatur indicator	●	●	●
15 - Ports for external oil cleaning	●	●	●
17 - Two staged filter control	●	●	●
23 - Clamp force adjustable at Ergocontrol control, including indication of actual valve	●	●	●
50 - Interface for handling device, mechanical according to VDMA 24466/Euromap 18	●	●	●
52 - Fault indication: free allocable output	-	-	-
67 - DPG-Interface mechanic (drilling pattern) for material conveyer	●	●	●
71 - USB-Device	●	●	●
80 - Interface for extern printer (hardcopy)	●	●	●
95 - Machine setup modus (reduced speed)	●	●	●
96 - Alarm management (alarms + indications)	●	●	●
97 - Setpoint entry switch-over to physical values (bar, cm <sup>3</sup> , mm/s)	●	●	●
98 - Process control	●	●	●
105 - Pump driving input I	-	-	-
106 - Pump driving input II, increased	●	●	●
109 - Pump combination for parallel movement CU	-	-	-
122 - Increase of mashine bed of 100 mm	○	○	○
123 - Kill switch on operator side	●	●	●
126 - Data display colored	●	●	●
135 - Oil cooling (cooling water supply up to 25°C)	-	-	-
136 - Oil cooling unit with increased cooling capacity	●	●	●

● Basic equipment

1) valid for CU through 120

○ Additional price

The shown specifications reflect the state at the time of printing. We reserve the right to modify specifications.



General	160	210 ... 350	420
137 - Integrated oil cleaning unit for microfibre bypass filtration	●	●	●
138 - Water supply for mould - and machine-cooling together	○	○	○
139 - Water supply for mould- and machine-cooling seperated	●	●	●
170 - Fault indication by flashing lamp	●	●	●
171 - Fault indication by acoustic alarm	○	○	○
180 - Anti-vibration mounts	●	●	●
705 - QS-switch with control; 2 directions	○	○	-
742 - Connection of the mould cooling up to the clamping plates	○	○	○
790 - Integrated printer including driver software	○	○	○
802 - ErgoCheck: Dokumentation of machine operative readiness	○	○	○
870 - PC-program for visualisation mould records	○	○	○
1092 - Speed-controlled energy saving pump (activeDrive)	●	●	●

Plastification	160	210 ... 350	420
60 - Cylinder change manual	●	●	●
61 - Central connector for cylinder heating and thermo sensor	●	●	●
68 - Operating range of screw cylinder up to 400°C	●	●	●
65 - Each temperature control circuit with setpoint deviation control and thermocouple break protection; barrel operating temperatures up to 450°C, with pressure limitation above 400°C (with bi-metal lining barrel)	●	●	●
66 - Fast cylinder change with main plugs für heating and thermo indicator and with automatic cylinder detection	●	●	●
601 - Energy-saving thermal insulation of the plasticizing	○	○	○
610 - Wear and corrosion resistant universal thermoplastic screw, nitrided barrel{\\Operating range of screw cylinder up to 400°C}	●	●	●
611ff - High-performance plastication unit; customised	○	○	○
640 - Flow back barrier (RSP), three-part ring-version	●	●	●
642 - Flow back barrier (RSP), ball-version	○	○	○
650 - Open nozzle	●	●	●
665 - Pneumatic shut off nozzle incl. control	○	○	○

All data and information in this prospectus have been compiled with great care. However, we are unable to guarantee its correctness. Furthermore we indicate that individual illustrations and information may deviate from the actual delivery condition of the machine.

Practical values of the melt correction factor for use in the calculation of shot weight for some common plastics.	
Material	Melt correction factor
HD-PE	0.75
LD-PE	0.73
PP	0.73
PS	0.91
SB	0.91
ABS	0.91
SAN	0.91
PA	0.93
PA 6 +30 % GF	1.14
PC	0.97
PC/ABS	0.94
PMMA	0.97
POM	1.15
PET	1.08
PBT	1.08
CA	1.03
CAB	0.98
PVC-w	1.05
PVC-h	1.15
shot weight = melt correction factor x swept volume	
The melt correction factor takes into account the change in volume at process temperature and also includes a factor for the flow characteristics of the shut off device on the end of the screw.	

Certified according to VDA 6.4

NOTE: Specifications subject to change without notice.



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