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Wechat

Feb 2020

BU-V Two-Platen Series

Large • Intelligent • Stable
Expert of Intelligent Two-Platen IMM

BORCHE BU

The Biggest Two-Platen IMM Manufacturer in Asia

Borche BU6800 is the biggest two platen injection molding machine in Asia in terms of combination of clamping force and injection volume as well as power saving effect.

The clamping force reaches to 68000 KN. Machine is with ultra-long daylight and super large mold thickness.

Borche BU two platen injection molding machine can be widely applied to aerospace field, automotive industry, transportation field, household appliance, and new rural construction.

Intelligent Two-platen IMM With PlasCloud App as Standard

PlasCloud makes injection molding more efficient



BORCHE BU



Patent

Patent: One type clamping device of two platen IMM
Patent No.: ZL200820125062.5

Patent: One type clamping cylinder of two platen IMM
Patent No.: ZL201220120091.9

Patent: One type guiding device of moving platen of two platen IMM
Patent No.: ZL201120188992.7

Patent: One type of anti-inclining and adjustable support for moving platen of two platen IMM
Patent No.: ZL201020510647.6

Patent: One type new compressing molding circuit
Patent No.: ZL201320198430.X

Patent: One type of clamping structure, injection molding equipment, die casting equipment
Patent No.: ZL201520776696.7

Patent: One type of sliding support for moving platen
Patent No.: ZL201620416972.3

Patent: Mold structure with rebound prohibited function
Patent No.: ZL201620816096.3

Patent: One type tie bar fixing device for two platen IMM
Patent No.: ZL201120408710.X

Patent: One type connecting device for mold moving cylinder of two platen IMM
Patent No.: ZL201120470815.8

Patent: One type bush structure for mold moving cylinder
Patent No.: ZL201220676060.1

Patent: One type support structure for ejector of two platen IMM
Patent No.: ZL201320085742.X

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2007, Borche worked with European R&D team to launch two platen IMM, and gained many national patents;

2012, Borche new generation two platen IMM was put into production, its technological performance has been in a leading position;

2013, Borche BU6800 was launched, which set up the new benchmark in the industry;

2017, Borche become the expert of intelligent two platen IMM and the biggest two platen IMM manufacturer in Asia

2019, Second prize of national science and technology progress award

Software name: Borche IMM BU series machine locking program
Registered No.: 2012SR135365

Software name: Borche IMM BU series micro-cell machine program
Registered No.: 2013SR020689

Software name: Borche IMM BU series oscilloscope program
Registered No.: 2013SR049306

Software name: Borche IMM BU series automatic adjusting of mold lock cylinder position program
Registered No.: 2013SR160472

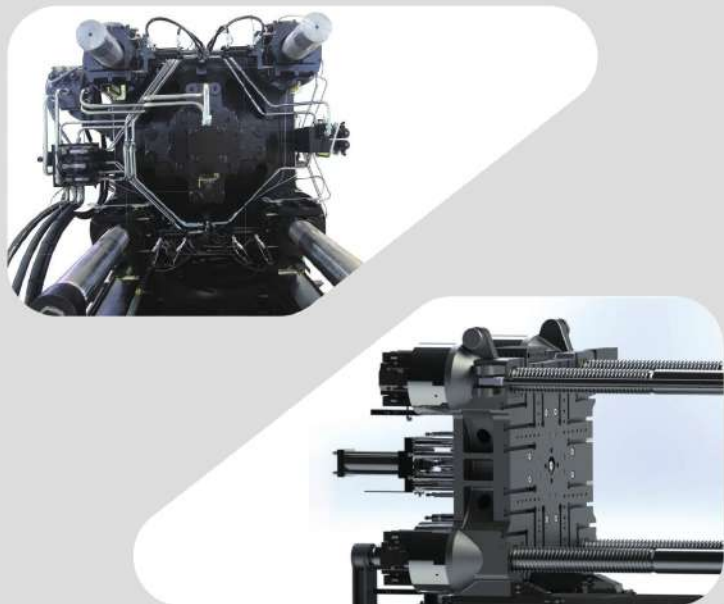
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Machine Features

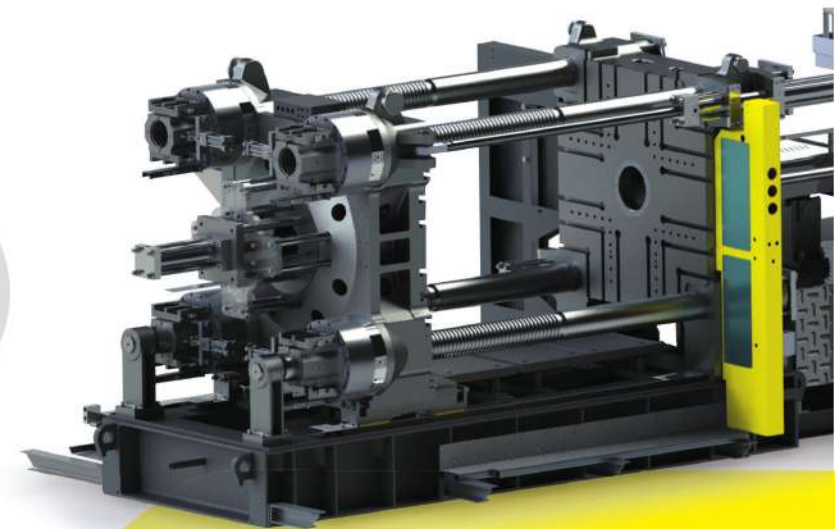
Super Long Lasting Tie Bar

During high pressure locking, four tie bars are under equal force, no inbalanced load occurred, avoiding tie bar broken theoretically.



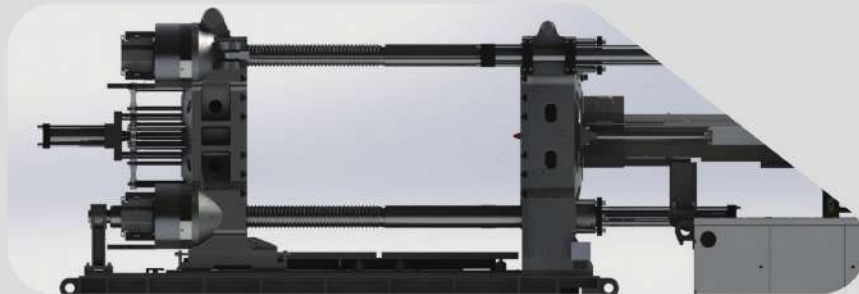
Moving Platen Clamping

Tie bars move across clamping cylinder, no contact with seals, less leakage risk;
Module type clamping cylinder, can be assembled and disassembled together, easy for maintenance
Pistons of four cylinders are controlled separately, which can adjust the locking Position precisely, and assure fast and precise locking.
Clamping cylinder assembled in the moving platen can balance the load of mold, avoiding forward tilt, improve stability of mold open and clamping movement



Tie Bar Guiding

Borche BU machine adopts the structure of fixing two bottom tie bars, assures platen moving guiding.
Machine frame works as the support during platen moving, bottom tie bars work as guiding and auxiliary support.
Above new guiding structure can guarantee mold movement stability and reliability, avoiding unbalanced force on tie bars and mold jiggling motion, and can load heavier mold.



Shorter Cycle Time

High performance and response controller
12" touch screen
Intel 1.1G CPU

Better application scalability meets complicated production requirements. With special hydraulic circuit, optimized movement calculation, dry cycle time of the machine is less.



Innovated Injection Structure

Both carriage cylinder and injection adopt linear guider, which guarantee stable and fast movement. Injection supporting made by one piece casting, is rigid and compact.
Double carriage cylinder assures injection unit better centering, and stable movement.



Intelligent Interconnection

The human-computer interface from IMM enables the intelligent interconnection of IMM, peripherals (cooling machine, mold temperature controller etc.), and robot. All equipments are under close loop control and all data is corresponding with each other, thus product quality is improved, and production cost is decreased.

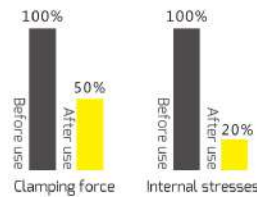


Municipal Engineering & Environmental Protection Industry

Machine Model: BU4000
Molding Technique: Compression Injection Molding
Product: Filter Plate
Size: 2000mmX2000mmX50mm
Weight: 165kg
Raw Material: PP+6%GF



Comparison btw use compression molding and not



The product is heavy weight and with big projected area, requires precise dimension and small deformation. Low MFI sticky compound needs 8000 ton clamping force to make the products under general molding condition. With compression molding it can be realized with 4000ton. Note: Compression molding is an improved molding method which can increase flow length ratio, allow smaller clamping force, lessen internal stresses, and increase production efficiency.

Auto Parts

Machine Model: BU3300
Molding Technique:
Charging during mold open
Core out/Ejection forward during mold open
Core in/Ejection backward during mold open
Product: Bumper
Weight: 4.5kg
Raw Material: Modified PP



Adopted servo charging, BU3300 realizes three parallel movements, lessen dry cycle time. Cycle can be reduced more if mold cooling time less. Servo valve used for injection increases shot repeatability, meets the high precision and efficiency requirement of auto part molding.



New Rural Construction Products

Machine Model: BU2500
Molding Technique: Enlarge Injection Weight
Product: Septic Tank
Weight: 22.5kg
Material: PE

Super large injection unit of Borsche BU2500, and equal force of clamping, makes the parts molding easily and efficiently.



Logistics

Machine Model: BU1800
Molding Technique: Deep Cavity products/High pressure mold open
Product: 240L trash
Weight: 11.5kg
Material: PP/PE

Borche BU machine has super large mold opening stroke, and strong opening force, which is perfect to make deep cavity products



Household Appliance

Machine Model: BU1200
Molding Technique: Big Mold Opening Stroke
Product: Washing Machine Barrel
Weight: 3.2kg
Material: PP

Think wall and complicated shape product, needs good plasticizing, high shot speed and stable injection end position. Special designed BU 1200 can meet all the requirements of household appliance industry.

Clamping Unit	Injection Unit												
Model	1367	2239	3266	4155	5700	7400	11500	13500	17650	29500	40700	51400	64000
BU500-V													
BU600-V													
BU700-V													
BU800-V													
BU900-V													
BU1000-V													
BU1200-V													
BU1350-V													
BU1500-V													
BU1650-V													
BU1800-V													
BU2200-V													
BU2500-V													
BU2800-V													
BU3300-V													

Standard  Optional 

Description

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MODEL	UNIT	BU500-V												BU600-V								BU700-V								BU800-V																			
		1367				2239				3266				4155				2239				3266				4155				5700				3266				4155				5700				7400			
Injection Unit																																																	
Screw Diameter	mm	50	60	70	60	70	80	70	80	90	80	85	95	60	70	80	70	80	90	80	85	95	90	100	105		70	80	90	80	85	95	90	100	105	100	105	115											
Shot Volume	cm³	589	848	1155	990	1947	1759	1539	2011	2545	2262	2554	3190	990	1347	1759	1539	2011	2545	2262	2554	3190	3181	3927	4330		1539	2011	2545			2262	2554	3190	3181	3927	4330	4123	4546	5453									
Shot Weight(PS)	g	536	772	1051	901	1226	1601	1401	1830	2316	2058	2324	2903	901	1226	1601	1401	1830	2316	2058	2324	2903	2895	3574	3940		1401	1830	2316			2058	2324	2903	2895	3574	3940	3752	4137	4962									
Shot Weight(PS)	CZ	19	27	37	32	43	56	49	65	82	73	82	102	32	43	56	49	65	82	73	82	102	102	126	139		49	65	82			73	82	102	102	126	139	132	146	175									
Injection Pressure	Mpa	232	161	118	226	166	127	212	162	128	184	163	130	226	166	127	212	162	128	184	163	130	181	147	133		212	162	128			184	163	130	181	147	133	180	163	136									
Screw L/D Ratio	L/d	25	21	18	24.5	21	18.5	24	21	19	22.3	21	19	24.5	21	18.5	24	21	19	22.3	21	19	25	22.5	21		24	21	19			22.3	21	19	25	22.5	21	24	23	21									
Injection Stroke	mm	300				350				400				450				350				400				450				500				400				450				500				525			
Screw Rotary Speed Max	rpm	250				210				170				168				210				170				168				134				170				168				134				115			
Nozzle Contact Force	KN	40				70				80				80				70				80				80				200				80				80				200				200			
Nozzle Stroke	mm	500				620				620				620				620				620				620				675				620				620				675				770			
Clamping Unit																																																	
Clamping Force	KN	5000												6000								7000								8000																			
Mould Opening Stroke	mm	1335 / 770												1450 / 880								1500 / 950								1600 / 1000																			
Platen Size(HxV)	mm×mm	1210x1180												1310x1310								1500x1350								1550x1450																			
Space Between Tie Bars(HxV)	mm×mm	860x830												910x910								1060x910								1110x1010																			
Daylight Max	mm	1600												1750								1900								2000																			
Mold Thickness(min-max)	mm	265-830												300-870								400-950								400-1000																			
Ejector Stroke	mm	250												280								300								300																			
Ejector Force	KN	110												135								210								210																			
Ejector Pin	unit	4+8+4+1												8+8+4+1								8+8+4+1								8+8+4+1																			
Power Unit																																																	
System pressure	Mpa	17.5				17.5				17.5				17.5				17.5				17.5				17.5				17.5				17.5				17.5				17.5							
Pump Motor	kW	52(30+22)				52(30+22)				59(37+22)				67(45+22)				52(30+22)				59(37+22)				67(45+22)				82(60+22)				59(37+22)				67(45+22)				82(60+22)				97(60+37)			
Heating Capacity	kW	16.2				18.5				25				32				18.5				25				32				41				25				32				41				49			
NO of Heater Zones	unit	6				6				6				6				6				6				6				8				6				6				8				8			
General Unit																																																	
Oil Tank Capacity	L	520				520				520				600				520				520				600				730				520				600				730				960			
Machine Dimensions(LxWxH)	mm×mm×mm	7.2x2.35x2.1				7.2x2.35x2.1				7.2x2.35x2.1				7.3x2.35x2.1				7.5x2.35x2.2				7.5x2.35x2.2				7.6x2.35x2.2				8.26x2.35x2.2				7.85x2.87x2.4				7.94x2.87x2.4				8.6x2.87x2.4				8.97x2.87x2.4			
Machine Weight	KG	16000				16500				17000				17500				19000				20000				20000				22000				24000				24000				26000				28000			

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Description

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MODEL	UNIT	BU1500-V										BU1650-V				BU1800-V				BU2200-V																				
		7400		11500		13500		17650		11500		13500		17650		29500		11500		13500		17650		29500		40700														
Injection Unit																																								
Screw Diameter	mm	100	105	115	105	115	130	115	130	140	130	140	150	105	115	130	115	130	140	130	140	150	150	160	170	105	115	130	115	130	140	130	140	150	150	160	170	165	185	205
Shot Volume	cm ³	4123	4546	5453	5195	6232	7964	6751	8628	10006	9291	10776	12370	5195	6232	7964	6751	8628	10006	9291	10776	12370	16611	18900	21336	5195	6232	7964	6751	8628	10006	9291	10776	12370	16611	18900	21336	19779	24864	30531
Shot Weight(PS)	g	3752	4137	4962	4728	5671	7247	6144	7851	9105	8455	9806	11257	4728	5671	7247	6144	7851	9105	8455	9806	11257	15116	17199	19416	4728	5671	7247	6144	7851	9105	8455	9806	11257	15116	17199	19416	17999	22626	27783
Shot Weight(PS)	CZ	132	146	175	167	200	256	217	277	321	298	346	397	167	200	256	217	277	321	298	346	397	533	607	685	167	200	256	217	277	321	298	346	397	533	607	685	635	798	980
Injection Pressure	Mpa	180	163	136	221	184	144	200	157	135	191	164	143	221	184	144	200	157	135	191	164	143	178	156	139	221	184	144	200	157	135	191	164	143	178	156	139	207	165	134
Screw L/D Ratio	L/d	24	23	21	24	22	20	25	22	20.5	24	22	21	24	22	20	25	22	20.5	24	22	21	23	21.6	20	24	22	20	25	22	20.5	24	22	21	23	21.6	20	26	23	21
Injection Stroke	mm	525		600		650		700		600		650		700		940		600		650		700		940		600		650		700		940		925						
Screw Rotary Speed Max	rpm	115		110		105		102		110		105		102		82		110		102		102		85		110		120		102		85		72						
Nozzle Contact Force	KN	200		200		200		200		200		200		290		200		200		200		290		290		200		200		200		290		290						
Nozzle Stroke	mm	675		850		900		965		850		900		965		1110		850		900		965		1110		900		900		965		1110		1110						
Clamping Unit																																								
Clamping Force	KN	15000										16500				18000				22000																				
Mould Opening Stroke	mm	2400 / 1700										2500 / 1700				2500 / 1700				2800 / 1900																				
Platen Size(HxV)	mm×mm	2120×2120										2215×2115				2400×2240				2620×2370																				
Space Between Tie Bars(HxV)	mm×mm	1480×1480										1580×1480				1650×1550				1850×1600																				
Daylight Max	mm	3100										3200				3200				3600																				
Mold Thickness(min-max)	mm	700-1400										700-1500				700-1500				800-1700																				
Ejector Stroke	mm	380										380				380				450																				
Ejector Force	KN	300										300				300				390																				
Ejector Pin	unit	8+8+8+1										8+8+8+1				8+8+8+1				8+8+8+1																				
Power Unit																																								
System pressure	Mpa	17.5		17.5		17.5		17.5		17.5		17.5		17.5		17.5		17.5		17.5		17.5		17.5		17.5		17.5		17.5		17.5		17.5		17.5				
Pump Motor	kW	105(60+45)		127(60+45+22)		135(60+45+30)		165(60+2+45)		135(60+45+30)		135(60+45+30)		165(60+2+45)		165(60+2+45)		135(60+45+30)		135(60+45+30)		165(60+2+45)		176(94+60+22)		165(60+2+45)		165(60+2+45)		165(60+2+45)		176(94+60+22)		193(94+60+45)						
Heating Capacity	kW	49		79		79		79		59		79		79		97		59		79		79		97		59		79		79		97		176						
NO of Heater Zones	unit	8		9		9		9		9		9		9		9		9		9		9		9		9		9		9		9		15						
General Unit																																								
Oil Tank Capacity	L	960		1250		1250		1550		1250		1250		1550		1750		1250		1250		1550		1750		1250		1250		1550		1750		2880						
Machine Dimensions(LxWxH)	mm×mm×mm	1041x3.5x3.6		1124x3.5x3.6		1128x3.5x3.6		1197x3.5x3.6		1162x3.6x3.6		1166x3.6x3.6		12.35x3.6x3.6		13.71x3.6x3.6		11.62x3.8x3.6		11.66x3.8x3.6		12.35x3.8x3.6		13.71x3.8x3.6		12.38x4.3x3.8		12.42x4.3x3.8		13.11x4.3x3.8		14.5x4.3x3.8		15.5x4.3x3.8						
Machine Weight	KG	57000		59000		61000		63000		66000		68000		70000		78000		77000		79000		81000		89000		96000		98000		100000		138000		116000						

Description

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MODEL INTERNATIONAL CLASS NO.	UNIT	BU2500-V									BU2800-V									BU3300-V														
		17650			29500			40700			17650			29500			40700			51400		64000		17650			29500			40700			51400	
Injection Unit																																		
Screw Diameter	mm	130	140	150	150	160	170	165	185	205	130	140	150	150	160	170	165	185	205	205	215	130	140	150	150	160	170	165	185	205	205	215		
Shot Volume	cm ³	9291	10776	12370	16611	18900	21336	19779	24864	30531	9291	10776	12370	16611	18900	21336	19779	24864	30531	32287	45744	9291	10776	12370	16611	18900	21336	19779	24864	30531	38287	45744		
Shot Weight(PS)	g	8455	9806	11257	15116	17199	19416	17999	22626	27783	8455	9806	11257	15116	17199	19416	17999	22626	27783	34482	41627	8455	9806	11257	15116	17199	19416	17999	22626	27783	34842	41627		
Shot Weight(PS)	CZ	298	346	397	533	607	685	635	798	980	298	346	397	533	607	685	635	798	980	1229	1468	298	346	397	533	607	685	635	798	980	1229	1468		
Injection Pressure	Mpa	191	164	143	178	156	139	207	165	134	191	164	143	178	156	139	207	165	134	134	140	191	164	143	178	156	139	207	165	134	134	140		
Screw L/D Ratio	L/d	24	22	21	23	21.6	20	26	23	21	24	22	21	23	21.6	20	26	23	21	21	21	24	22	21	23	21.6	20	26	23	21	21	21		
Injection Stroke	mm	700			940			925			700			940			925			1160		1260	700			940			925			1160		1260
Screw Rotary Speed Max	rpm	110			85			72			114			85			72			72		60	114			85			72			72		60
Nozzle Contact Force	KN	200			290			290			200			290			290			290		290	200			290			290			290		290
Nozzle Stroke	mm	965			1110			1110			965			1100			1110			1110		1110	965			1100			1110			1110		1110
Clamping Unit																																		
Clamping Force	KN	25000									28000									33000														
Mould Opening Stroke	mm	2800 / 1900									3100 / 2100									3160 / 2260														
Platen Size(HxV)	mm×mm	2740×2540									2840×2640									3060×2800														
Space Between Tie Bars(HxV)	mm×mm	1950×1750									2000×1800									2160×1900														
Daylight Max	mm	3600									4000									4160														
Mold Thickness(min-max)	mm	800-1700									900-1900									1000-2000														
Ejector Stroke	mm	450									550									550														
Ejector Force	KN	390									550									550														
Ejector Pin	unit	8+8+8+1									8+8+8+8+1									8+8+8+8+1														
Power Unit																																		
System pressure	Mpa	17.5			17.5			17.5			17.5			17.5		17.5		17.5		17.5	17.5			17.5			17.5		17.5		17.5			
Pump Motor	kW	176(94+60+22)			176(94+60+22)			199(94+60+45)			184(94+60+30)			184(94+60+30)		199(94+60+45)		214(60x2+94)		233(94x2+45)	184(94+60+30)			184(94+60+30)			199(94+60+45)			214(60x2+94)		233(94x2+45)		
Heating Capacity	kW	79			97			176			79			97		176		176		186	79			97			176			176		186		
NO of Heater Zones	unit	9			9			15			9			9		15		15		15	9			9			15			15		15		
General Unit																																		
Oil Tank Capacity	L	1550			1750			2880			1550			1750		2880		2880		2880	1550			1750			2880			2880		2880		
Machine Dimensions(LxWxH)	mm×mm×m	13.22x4.3x3.9			14.6x4.3x3.9			15.6x4.3x3.9			14.0x4.3x3.9			15.35x4.3x3.9		16.35x4.3x3.9		16.35x4.3x3.9		17.2x4.3x3.9	14.29x4.55x4.1			15.65x4.55x4.1			16.65x4.55x4.1			16.65x4.55x4.1		17.5x4.55x4.1		
Machine Weight	KG	110000			118000			126000			126000			134000		142000		142000		146000	146000			154000			162000			162000		166000		

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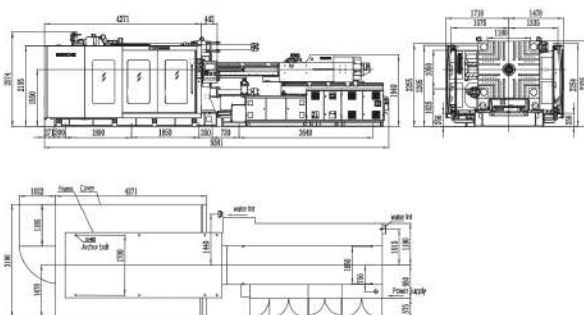
BU900-V

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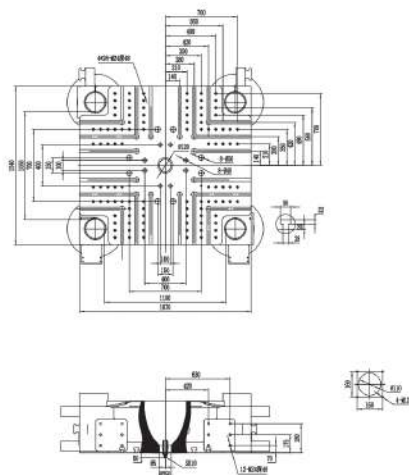
DESCRIPTION

MODEL INTERNATIONAL CLASS NO.	UNIT	BU900-V											
		4155		5700		7400		11500					
Injection Unit													
Screw Diameter	mm	80	85	95	90	100	105	100	105	115	115	130	
Shot Volume	cm ³	2262	2554	3190	3181	3677	4330	4123	4546	5453	5195	6232	7954
Shot Weight(g)	g	2058	2324	2935	2855	3574	3940	3752	4137	4962	4728	5671	7247
Shot Weight(Ps)	OZ	73	82	102	102	126	139	132	146	175	167	200	256
Injection Pressure	Mpa	184	163	130	181	147	133	180	163	136	221	184	144
Screw L/D Ratio	L/D	22.3	21	19	25	22.5	21	24	23	21	24	22	20
Injection Stroke	mm	450	500	525	600								
Screw Rotary Speed Max	rpm	168	134	115	110								
Nozzle Contact Force	kN	80	200	200	200								
Nozzle Stroke	mm	620	675	770	850								
Clamping Unit													
Clamping Force	kN	9000											
Mold Opening Stroke	mm	1700 / 1150											
Platen Size(HW)	mm×mm	1670×1540											
Space Between Tie Bars(HW)	mm×mm	1180×1050											
Daylight Max.	mm	2200											
Mold Thickness (min-max)	mm	500-1050											
Ejector Stroke	mm	350											
Ejector Force	kN	210											
Ejector Pin	unit	8+8+1											
Power Unit													
System pressure	Mpa	17.5		17.5		17.5		17.5		17.5			
Pump Motor	kW	75(45+30)		82(60+22)		97(60+37)		127(60+45+22)					
Heating Capacity	kcal	32		41		49		59					
NOF Heater Zones	unit	6		8		8		8		9			
General Unit													
Oil Tank Capacity	L	600		730		960		1250					
Machine Dimensions (LWH)	mm×mm×mm	8356×2631		9106×2631		9443×2631		10226×2631					
Machine Weight	KG	33000		35000		37000		39000					

Appearance and Installation Dimensions



Mold Platen Drawing



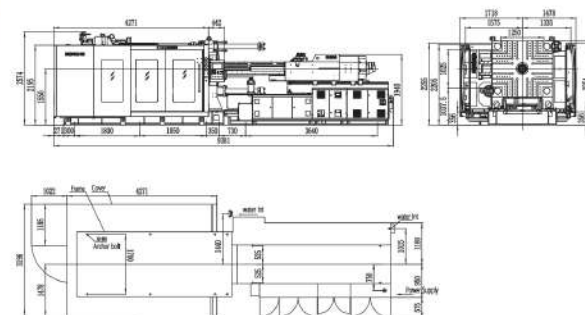
BU1000-V

BORCHE

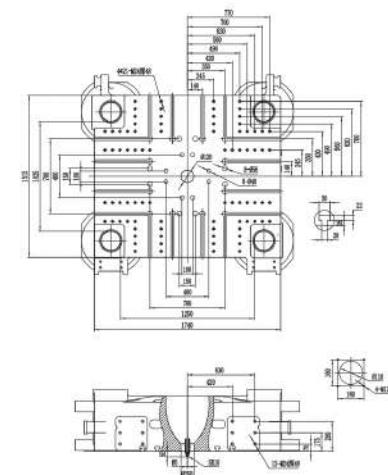
DESCRIPTION

MODEL INTERNATIONAL CLASS NO.	UNIT	BU1000-V										
		4155		5700		7400		11500				
Injection Unit												
Screw Diameter	mm	80	85	95	90	100	105	100	105	115	115	115
Shot Volume	cm ³	2262	2554	3190	3181	3677	4330	4123	4546	5453	5195	6232
Shot Weight(g)	g	2058	2324	2935	2855	3574	3940	3752	4137	4962	4728	5671
Shot Weight(g)	OZ	73	82	102	102	126	139	132	146	175	167	200
Injection Pressure	Mpa	184	163	130	181	147	133	180	163	136	221	184
Screw L/D Ratio	L/d	22.3	21	19	25	22.5	21	24	23	21	24	22
Injection Stroke	mm	450				500			525		600	
Screw Rotary Speed Max	rpm	168				134			115		110	
Nozzle Contact Force	kN	80				200			200		200	
Nozzle Stroke	mm	620				675			770		850	
Clamping Unit												
Clamping Force	kN	10000										
Mould Opening Stroke	mm	1800 / 1200										
Platen Size(HW)	mm×mm	1740×1515										
Space Between Tie Bars(HW)	mm×mm	1250×1025										
Daylight Max.	mm	2300										
Mold Thickness (min-max)	mm	500-1100										
Ejector Stroke	mm	350										
Ejector Force	kN	210										
Ejector Pin	unit	8+8+1										
Power Unit												
System pressure	Mpa	17.5		17.5		17.5		17.5				
Pump Motor	kW	82(60+22)		82(60+22)		97(60+37)		97(60+37)		127(60+45+22)		
Heating Capacity	kcal	32		41		49		49		59		
NOF Heater Zones	unit	6		8		8		8		9		
General Unit												
Oil Tank Capacity	L	600		730		960		960		1250		
Machine Dimensions (LWH)	mm×mm×mm	8356×2631		9106×2631		9443×2631		9443×2631		10226×2631		
Machine Weight	KG	34000		36000		38000		38000		40000		

Appearance and Installation Dimensions



Mold Platen Drawing



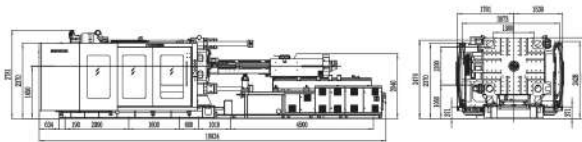
BU1200-V

BORCHE

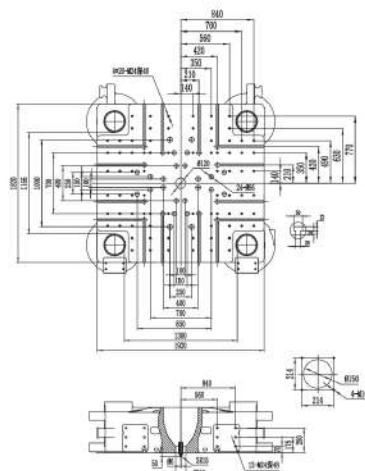
DESCRIPTION

MODEL INTERNATIONAL CLASS NO.	UNIT	BU1200-V											
		5700	7400	11500	13500								
Injection Unit													
Screw Diameter	mm	90	100	105	115	105	115	130	115	130	140		
Shot Volume	cm ³	3180	3927	4330	4123	4546	5493	5195	6232	7964	6751	8628	10000
Shot Weight(g)	g	2895	3574	3940	3752	4187	4962	4728	5671	7247	6144	7851	9105
Shot Weight(lb)	oz	102	126	139	132	146	175	167	200	256	217	277	321
Injection Pressure	Mpa	181	147	133	180	163	156	221	184	144	200	157	143
Screw L/D Ratio	L/D	25	22.5	21	24	23	21	24	22	20	25	22	20.5
Injection Stroke	mm	500	500	500	500	500	500	500	500	500	500	500	500
Screw Rotary Speed Max	rpm	134	115	115	115	115	115	115	115	115	115	115	115
Nozzle Contact Force	kN	200	200	200	200	200	200	200	200	200	200	200	200
Nozzle Stroke	mm	675	675	675	675	675	675	675	675	675	675	675	675
Clamping Unit													
Clamping Force	kN	12000											
Mold Opening Stroke	mm	2000 / 1400											
Platen Size(H/W)	mm×mm	1920×1820											
Space Between Tie Bars(H/W)	mm×mm	1300×1200											
Daylight Max.	mm	2600											
Mold Thickness (min-max)	mm	600-1200											
Ejector Stroke	mm	380											
Ejector Force	kN	300											
Ejector Pin	unit	8+8+8+1											
Power Unit													
System pressure	Mpa	17.5	17.5	17.5	17.5								
Pump Motor	kW	52(KV-22)	97(KV-17)	27(KV-4-2)	15(KV-6+30)								
Heating Capacity	kw	41	48	51	79								
MOF Heater Zones	unit	8	8	9	9								
General Unit													
Oil Tank Capacity	L	730	960	151	1550								
Machine Dimensions (L/W/H)	mm×mm×mm	9748×3320×1511	11163×3320×1511	11943×3320×1511	12973×3320×1511								
Machine Weight	KG	44000	46000	48000	50000								

Appearance and Installation Dimensions



Mold Platen Drawing



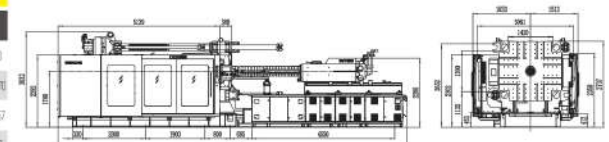
BU1350-V

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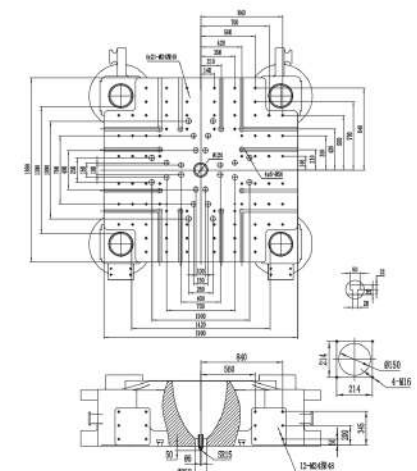
DESCRIPTION

MODEL INTERNATIONAL CLASS NO.	UNIT	BU1350-V											
		7400	11500	13500	17650								
Injection Unit													
Screw Diameter	mm	100	105	115	125	130	140	140	140				
Shot Volume	cm ³	4023	4546	5493	5995	6232	7964	6751	8628	10000	9091	10776	
Shot Weight(g)	g	3752	4187	4962	4728	5671	7247	6144	7851	9105	8455	9806	
Shot Weight(lb)	oz	132	146	175	167	200	256	217	277	321	298	346	
Injection Pressure	Mpa	180	163	136	221	184	144	200	157	135	181	164	
Screw L/D Ratio	L/D	24	23	21	24	22	20	25	22	20.5	24	22	
Injection Stroke	mm	525				500			500			700	
Screw Rotary Speed Max	rpm	115				110			115			112	
Nozzle Contact Force	kN	200				200			200			200	
Nozzle Stroke	mm	675				650			600			965	
Clamping Unit													
Clamping Force	kN					13500							
Mold Opening Stroke	mm					2250 / 1550							
Platen Size(H/W)	mm×mm					1990×1890							
Space Between Tie Bars(H/W)	mm×mm					1420×1300							
Daylight Max.	mm					2900							
Mold Thickness (min-max)	mm					650-1350							
Ejector Stroke	mm					380							
Ejector Force	kN					300							
Ejector Pin	unit					8+8+8+1							
Power Unit													
System pressure	Mpa	17.5		17.5		17.5		17.5		17.5		17.5	
Pump Motor	kW	105(KV-45)		127(KV-45+22)		158(KV-4+3)		165(KV-6+45)		165(KV-6+45)		165(KV-6+45)	
Heating Capacity	kw	48		58		78		78		78		78	
MOF Heater Zones	unit	8		9		9		9		9		9	
General Unit													
Oil Tank Capacity	L	960		1250		1250		1250		1550		1550	
Machine Dimensions (L/W/H)	mm×mm×mm	10273×3320		11623×3320		12223×3320		12223×3320		13963×3320		13963×3320	
Machine Weight	kg	50000		54000		58000		58000		58000		58000	

Appearance and Installation Dimensions



Mold Platen Drawing



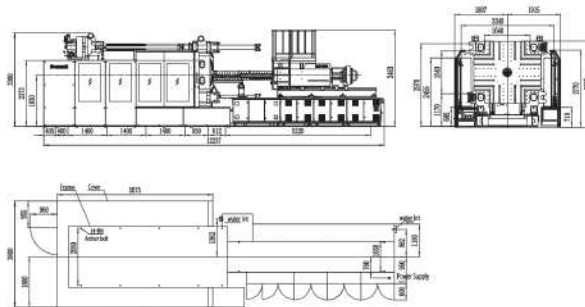
BU1800-V

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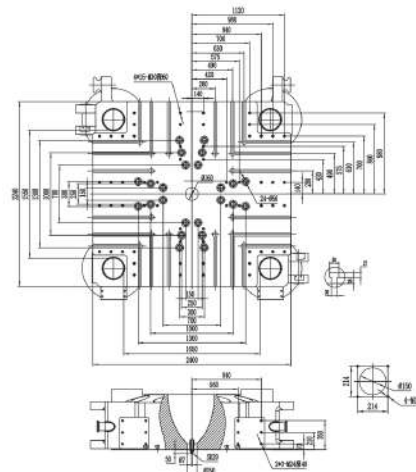
DESCRIPTION

MODEL INTERNATIONAL CLASS NO.	UNIT	BU1800-V								
		11500		13500		17650		29500		
Injection Unit										
Screw Diameter	mm	105	115	130	145	160	180	190	200	210
Shot Volume	cm ³	5385	6282	7064	8151	8628	10008	3291	10776	12370
Shot Weight(g)	g	4728	5671	7247	8444	7851	9105	8455	9805	11257
Shot Weight(lbs)	OZ	167	200	256	297	277	321	298	346	397
Injection Pressure	Mpa	220	184	144	200	157	125	191	164	140
Screw L/D Ratio	L/D	24	22	20	25	22	20.5	24	22	21
Injection Stroke	mm	600			650			700		940
Screw Rotary Speed Max	rpm	110			102			102		85
Nozzle Contact Force	kN	200			200			200		290
Nozzle Stroke	mm	850			900			965		1100
Clamping Unit										
Clamping Force	kN	18000								
Mold Opening Stroke	mm	2500 / 1700								
Platen Size(HxW)	mm×mm	2400×2240								
Space Between Tie Bars(HxW)	mm×mm	1650×1550								
Daylight Max.	mm	3200								
Mold Thickness (min-max)	mm	700-1500								
Ejector Stroke	mm	380								
Ejector Force	kN	300								
Ejector Pin	unit	8+8+8+1								
Power Unit										
System pressure	Mpa	17.5		17.5		17.5		17.5		
Pump Motor	kW	15.6(21.4-5+3)		15.6(21.4-5+3)		15.6(21.4-5)		15.6(21.4-5+2)		
Heating Capacity	kcal	58		79		79		97		
NOF Heater Zones	unit	9		9		9		9		
General Unit										
Oil Tank Capacity	L	1250		1250		1250		1750		
Machine Dimensions (LxWxH)	mm×mm×mm	11620×8036		11660×8036		12350×8036		13700×8036		
Machine Weight	KG	7000		7800		8100		9000		

Appearance and Installation Dimensions



Mold Platen Drawing



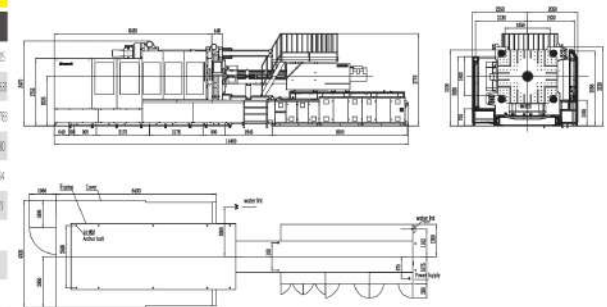
BU2200-V

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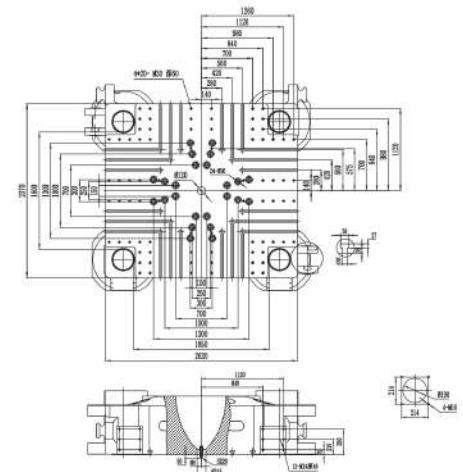
DESCRIPTION

MODEL INTERNATIONAL CLASS NO.	UNIT	BU2200-V				
		11500	13500	17650	29500	40700
Injection Unit						
Screw Diameter	mm	105 115 130 145 160 180	130 140 150 160 180 200	150 160 180 200 220 240	180 200 220 240 260 280	200 220 240 260 280 300
Shot Volume	cm ³	5385 6282 7064 8151 8628 10008	8201 10776 12370 13611 15900 21338	15911 18900 21338 24384 28344 33336		
Shot Weight(g)	g	4738 5671 7247 8444 7851 9105	8455 9805 11257 12176 13991 19476	15911 18900 21338 24384 28344 33336		
Shot Weight(Ps)	OZ	167 200 256 297 277 321	298 346 397 533 607 685	560 667 768 860 980 1110		
Injection Pressure	Mpa	220 184 144 200 157 125	191 164 140 178 156 139	178 156 139 178 156 139		
Screw L/D Ratio	L/D	24 22 20 25 22 20.5	24 22 21 23 21.6 20	24 22 21 23 21.6 20		
Injection Stroke	mm	600	650	700	940	950
Screw Rotary Speed Max	rpm	110	102	102	85	72
Nozzle Contact Force	kN	200	200	200	290	290
Nozzle Stroke	mm	900	900	965	1100	1100
Clamping Unit						
Clamping Force	kN	22000				
Mould Opening Stroke	mm	2800 / 1900				
Platen Size(HxW)	mm×mm	2620×2370				
Space Between Tie Bars(HxW)	mm×mm	1850×1600				
Daylight Max.	mm	3600				
Mold Thickness (min-max)	mm	800-1700				
Ejector Stroke	mm	450				
Ejector Force	kN	390				
Ejector Pin	unit	8+8+8+1				
Power Unit						
System pressure	Mpa	17.5	17.5	17.5	17.5	17.5
Pump Motor	kW	15.6(21.4-3)	15.6(21.4-3)	15.6(21.4-3)	15.6(21.4-3)	15.6(21.4-3)
Heating Capacity	kcal	58	79	79	97	118
Mold Heater Zones	unit	9	9	9	9	15
General Unit						
Oil Tank Capacity	L	1250	1250	1250	1750	2800
Machine Dimensions (LxWxH)	mm×mm×mm	12300×8036	12340×8036	12340×8036	12340×8036	12340×8036
Machine Weight	KG	8600	9800	10000	10800	13000

Appearance and Installation Dimensions



Mold Platen Drawing



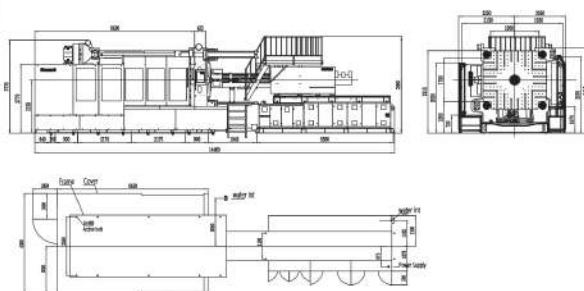
BU2500-V

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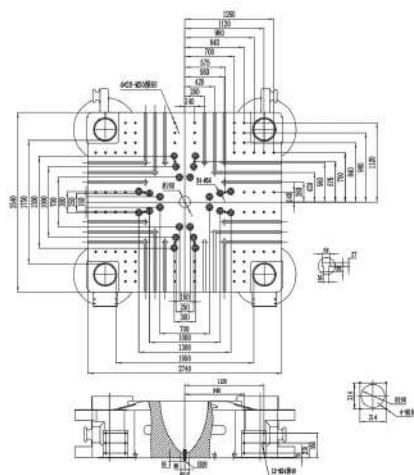
DESCRIPTION

MODEL INTERNATIONAL CLASS NO.	UNIT	BU2500-V							
		17650		29500		40700			
Injection Unit									
Screw Diameter	mm	130	140	150	160	170	165	185	205
Shot Volume	cm ³	9291	10776	12370	16611	18900	21336	19779	24854
Shot Weight(g)	g	8455	9806	11257	15116	17199	19416	17999	22626
Shot Weight(Ps)	OZ	298	345	397	533	607	685	635	798
Injection Pressure	Mpa	191	164	143	178	156	139	207	165
Screw L/D Ratio	L/d	24	22	21	23	21.6	20	26	23
Injection Stroke	mm	700			340		925		
Screw Rotary Speed Max	rpm	110			115		72		
Nozzle Contact Force	kN	200			290		290		
Nozzle Stroke	mm	965			1100		1100		
Clamping Unit									
Clamping Force	kN	25000							
Mold Opening Stroke	mm	2800 / 1900							
Platen Size(HxW)	mm x mm	2740x2540							
Space Between Tie Bars(HxW)	mm x mm	1950x1750							
Daylight Max.	mm	3600							
Mold Thickness (min-max)	mm	800-1700							
Ejector Stroke	mm	450							
Ejector Force	kN	390							
Ejector Pin	unit	8+8+8+1							
Power Unit									
System pressure	Mpa	17.5		17.5		17.5			
Pump Motor	LW	176(94+60+22)		295(94+60+22)		399(94+60+45)			
Heating Capacity	kcal	79		91		176			
NO of Heater Zones	unit	9		9		15			
General Unit									
Oil Tank Capacity	L	1550		1750		2080			
Machine Dimensions (LxWxH)	mm x mm x mm	13,224x3,329		16,433		15,644x3,329			
Machine Weight	KG	11000		18000		26000			

Appearance and Installation Dimensions



Mold Platen Drawing



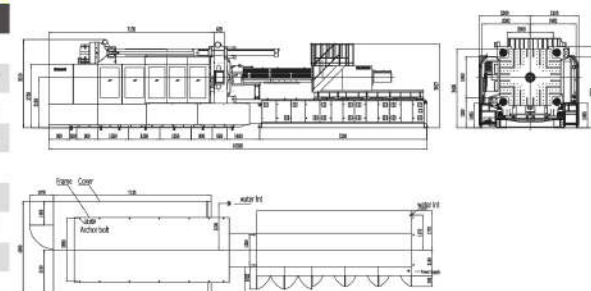
BU2800-V

BORCHE

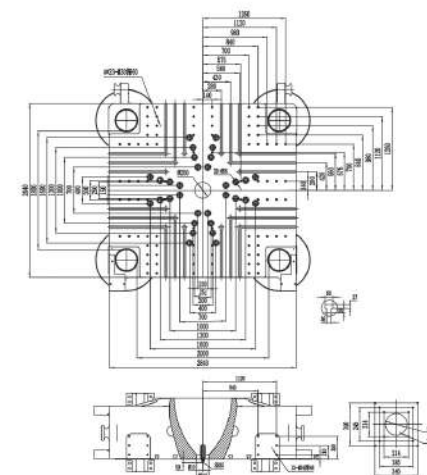
DESCRIPTION

MODEL INTERNATIONAL CLASS NO.	UNIT	BU2800-V				
		17650	29500	40700	51400	64000
Injection Unit						
Screw Diameter	mm	130	140	150	160	205
Shot Volume	cm³	9291	10776	12370	15116	24864
Shot Weight(g)	g	855.265	1257	516.719	941	1399.238
Shot Weight(lb)	oz	298.146	353	182.685	265	495.788
Injection Pressure	Mpa	191	164	143	128	134
Screw L/D Ratio	L/D	24	22	23	21.5	21
Injection Stroke	mm	700	340	340	555	1160
Screw Rotary Speed Max	rpm	110	115	115	72	60
Nozzle Contact Force	kN	200	200	200	290	290
Nozzle Stroke	mm	965	1100	1100	1100	1100
Clamping Unit						
Clamping Force	kN	28000				
Mould Opening Stroke	mm	3100 / 2100				
Platen Size(HxW)	mm x mm	2840x2640				
Space Between Tie Bars(HxW)	mm x mm	2000x1800				
Daylight Max.	mm	4000				
Mold Thickness (min-max)	mm	900-1900				
Ejector Stroke	mm	550				
Ejector Force	kN	550				
Ejector Pin	unit	8+8+8+8+1				
Power Unit						
System pressure	Mpa	17.5	17.5	17.5	17.5	17.5
Pump Motor	kW	176(94+60+22)	295(94+60+22)	399(94+60+22)	514(94+60+22)	640(94+60+22)
Heating Capacity	kcal	79	91	106	176	186
Mold Heater Zones	unit	9	9	15	15	15
General Unit						
Oil Tank Capacity	L	1550	1750	2080	2880	2880
Machine Dimensions (LxWxH)	mm x mm x mm	13224x3329x1322	16433x3329x1322	15644x3329x1322	17243x3329x1322	17243x3329x1322
Machine Weight	KG	11000	18000	26000	40000	46000

Appearance and Installation Dimensions



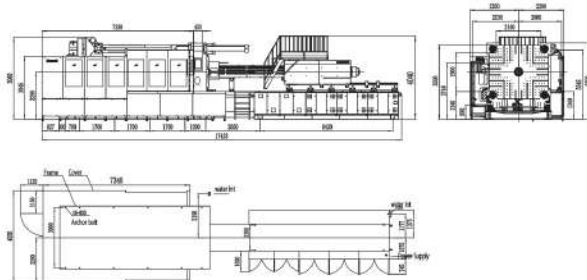
Mold Platen Drawing



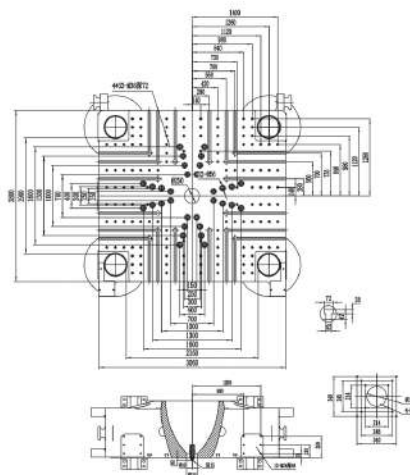
DESCRIPTION

MODEL INTERNATIONAL CLASS NO.	UNIT	BU3300-V				
		17650	29500	40700	51400	64000
Injection Unit						
Screw Diameter	mm	30 40 50 55 60 65 70 75 80 85 90	215	215	215	215
Shot Volume	cm ³	525 1078 1575 1800 1900 1950 2000 2050 2100 2150 2200	45744	45744	45744	45744
Shot Weight(g)	g	345 995 1575 1800 1900 1950 2000 2050 2100 2150 2200	41642	41642	41642	41642
Shot Weight(Pa)	QZ	28 36 35 33 30 28 26 24 22 20 18	1468	1468	1468	1468
Injection Pressure	Mpa	19 24 24 19 16 15 14 13 12 11 10	140	140	140	140
Screw L/D Ratio	L/d	24 22 21 20 19 18 17 16 15 14 13	21	21	21	21
Injection Stroke	mm	70 80 90 100 110 120 130 140 150 160 170	120	120	120	120
Screw Rotary Speed Max	r/min	14 16 18 20 22 24 26 28 30 32 34	60	60	60	60
Nozzle Contact Force	kN	20 28 36 44 52 60 68 76 84 92 100	200	200	200	200
Nozzle Stroke	mm	95 100 105 110 115 120 125 130 135 140 145	110	110	110	110
Clamping Unit						
Clamping Force	kN	33000				
Mould Opening Stroke	mm	3160 / 2260				
Platen Size(H/W)	mm×mm	3060×2800				
Space Between Tie Bars(H/W)	mm×mm	2160×1900				
Daylight Max.	mm	4150				
Mold Thickness (min-max)	mm	1000-2000				
Ejector Stroke	mm	550				
Ejector Force	kN	550				
Ejector Pin	unit	8+8+8+8+1				
Power Unit						
System pressure	Mpa	17.5 17.5 17.5 17.5 17.5 17.5	17.5	17.5	17.5	17.5
Pump Motor	kW	55(4+2+1) 55(4+2+1) 55(4+2+1) 55(4+2+1) 55(4+2+1) 55(4+2+1)	21450(2+94)	21450(2+94)	21450(2+94)	21450(2+94)
Heating Capacity	kw	78 97 116 135 154 173	176	176	176	176
NOF Heater Zones	unit	1 1 1 1 1 1	15	15	15	15
General Unit						
Oil Tank Capacity	L	150 170 200 230 260 290	2880	2880	2880	2880
Machine Dimensions (L/W/H)	mm×mm×mm	1624(554) 1554(554) 1554(554) 1554(554) 1554(554) 1554(554)	1754(554)	1754(554)	1754(554)	1754(554)
Machine Weight	KG	1600 1800 2000 2200 2400 2600	16000	16000	16000	16000

Appearance and Installation Dimensions



Mold Platen Drawing



Features Configuration

Standard Features

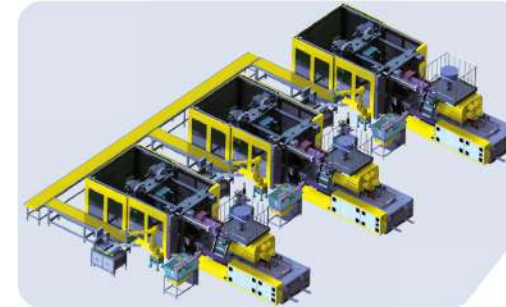
SAFETY UNIT	
1	China New Safety Standard
2	Full covered design
3	Double emergency button (≤600T), four emergency button (≥700T)
INJECTION UNIT	
1	Twin carriage structure
2	Balancing twin injection cylinder
3	Wear resistant screw and barrel
4	Chrome plated screw
5	3 sizes of screw/barrel available(ABC)
6	Nozzle centering calibration
7	Injection unit adopts linear guide rail
8	High torque hydraulic motor
9	Ceramic heater band
10	With screw and barrel support. (≥IU5700)
11	Bearing supported hopper slider (≤IU13500)
12	Hopper platform (≥IU17650)
13	Electric lock on nozzle cover
14	Protection cover on heater band
15	Nonslip embossed aluminum sheet
16	High pressure/temperature tube for cooling ring on hopper throat
17	Leakage protection when suckback
18	Screw RPM sensor
19	Screw cold start protection
20	4 ways of carriage backward
21	10 stages of injection, pressure/speed adjustable
22	10 stages of pressure holding, pressure/speed adjustable
23	5 stages of plasticizing, pressure/speed adjustable
24	Temp. sensor on hopper throat
25	Temp. sensor on transmission shaft
CLAMPING UNIT	
1	Proportional valve for mold open and close
2	Anti-inclining and adjustable support for moving platen
3	Ejector backward position confirmation function
4	Pull back ejector pins
5	T-slot together with thread hole platen
6	Strong chrome plated tiebar
7	Synchronized half nut
8	Half nut independent lubrication
9	With robot mounting hole
10	Abrasion resistance strip
11	With hopper (≤600T)
12	Safety platform under mold area (≥700T)
13	Automatic safety door
14	Water manifold 9in/out, one on each platen(BU500-BU800)
15	Water manifold 10in/out, one on each platen(BU900-BU6800)
16	5 stages of closing/opening, pressure/speed adjustable
17	3stages/multi ways of ejector control(pressure, position, speed)
18	Auto mold thickness adjustment
19	Clamping force realtime monitor
20	Lubrication end pressure monitor
21	Magnetostrictive transducer for platen moving

HYDRAULIC UNIT	
1	Servo motor power
2	Low pressure mold protection
3	Parallel ejector/core
4	Spring mold function
5	4core pull(2 on fixed platen, 2 on moving platen). (≥1200 T)
6	2 core pull(on moving platen). (≤1000T)
7	Efficient hydraulic oil cooler(≥IU4155)
8	Independent oil cooler(≥IU5700)
9	Bypass oil filter (≥IU4155)
10	Return filter(≥IU5700)
11	Pump with oil release function
12	High pressure 2-step release
13	Digital back pressure
14	One way valve for carriage
15	Boost open function
16	Low level alarm
17	Sucking filter with check valve(with sucking block alarm)
18	Exposure protective chain on hi-pressure pipes
19	High pressure mold opening function
CONTROL UNIT	
1	Keba controller
2	Internet connection port
3	Multi language available
4	Self diagnosis system
5	With SPC function
6	Process parameter quick setting
7	Robot interface
8	Auto purge
9	Timer heating function
10	Electric heating protection by fuse or auto switch
11	PID programmable barrel heating
12	Precise position sensor
13	With 2G CF card, capable for 200sets of parameter
14	Parameter lock
15	Solid relay temperature setting
16	3-color alarm
17	380V/32A/5P 3ph, 2 sets
18	380V/16A/5P 3ph, 2 sets
19	220V/10A socket, 1 sets
INTERCONNECTED UNIT	
1	Temporary authorization of OPC-UA/DA
2	PlasCloud App, basic version
2.1	Machine Kanban: status, cycle and output, etc.
2.2	Remote view: process parameter, SPC, machine setup
2.3	Machine management: spot check, maintenance, repair
2.4	Report: daily report, monthly report
OTHER UNIT	
1	Borche standard VI
2	Backup socket
3	Adjustable level pad
4	With standard tool kit
5	With standard spare parts set

Optional Functions Of Intelligent Manufacturing:

- 1 With Industry 4.0 on IMM, three mold change ways can be realized with mold change platform: one-stop automatic mold change, semi-automatic mold change and manual mold change. IMM can automatically identify mold and acquire parameter of mold change, technique and peripherals. The hole of IMM should be tailored to suit that of the mold change platform and hydraulic clamp. IMM will evaluate the safety of above holes. Safety lock is active when matching signal received. IMM plays a responsible role in mold change platform and hydraulic clamp.
- 2 IMM controller can display all machines' (peripherals included) operation condition and malfunction alarm. There are eight malfunction alarm interfaces for following peripherals: one robot, two mould temperature controllers, one water cooler, one dryer and all-in-one compact dryer. The communication and alarm function of other peripherals are connected to IMM through external connection cabinet so that intelligent interconnection of IMM and peripherals is built.
- 3 Plug and play, intelligently inter-connected water cooler operated and controlled in IMM with close-loop connection. Intelligent interconnection of IMM and chiller can be operated and controlled by IMM controller. Data is close-loop interconnection.
- 4 Intelligent interconnection of IMM and mould temperature controller can be operated and controlled by IMM controller. All data is close-loop interconnection.
- 5 Intelligent interconnection of IMM and all-in-one compact dryer can be operated and controlled by IMM controller. All data is close-loop interconnection.
- 6 Compression injection molding technique
- 7 High speed proportional valve for mold open and close and non-contact maglev linear transducer realize real-time monitor
- 8 Robot connects with IMM in real-time, which reduce the interference of robot, IMM and mold. Robot can be fixed on the top or side of fixed platen according to parts pick requirements
- 9 Automation system of IMM and peripherals interact with MES management system
 - 1) Order Monitor
 - 2) CProduction Status Display
 - 3) Alarm Monitor
 - 4) Technique Parameter Management
 - 5) Equipment Management
 - 6) Production Report
- 10 iPHM, IMM Prognoses and Health Management (Equipment Online Doctor)
 - 1) Safe and reliable bidirectional terminal is equipped with built-in firewall and remote VPN connection; various networking is available. Cloud platform connects IMM controller in real-time.
 - 2) Data of equipment operation, malfunction alarm and worker operation is collected in real time. IMM data visualization on Cloud Platform is realized.
 - 3) Self diagnose module of failure and performance based on the dynamic data, can reduce the malfunction rate, and improve the equipment performance.
 - 4) Operation and maintenance system connects the on-line management platform of after-sales service. It realizes remote on-line program upgrading, and improves the maintenance efficiency and quality.
 - 5) IMM condition and performance report can be checked through mobile terminal; After-sales service request can be reported via WeChat.
- 11 Mold Visual Monitor
 - 1) Low pressure mold protection for higher precision and efficiency.
 - 2) Accurate checkup
 - 3) Self-adaption to exterior light change
 - 4) Self-adaption to inaccurate mold open position
 - 5) Real-time record
- 12 Visual Detective System for surface quality checking.
 - 1) Fast detection, detection precision reaches to 0.001mm
 - 2) Defectives check of contamination, color difference, flake, and short injection.
 - 3) Wide application
- 13 Vision-induced System
 - 1) Accurate positioning
 - 2) Sensitive identification
 - 3) Wide application

- 01** Factory Layout- Borsche specializes in intelligent IMM factory design. Many intelligent factory cases carried out worldwide in IMM industry.



- 02** Flexible Automation -360° visual detection, robot operation, automatic assembling, parts insert, polishing and deburring...

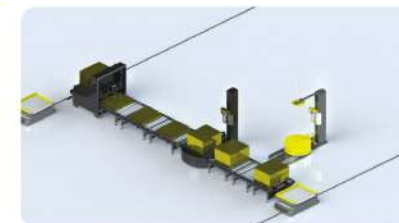
Visual Detective System



Robot Application (part pick-up, casting insert, assembling, stacking, deburring, degating)



- 03** Intelligent Logistics- AGV, rolling line, automatic packing, wrapper.



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