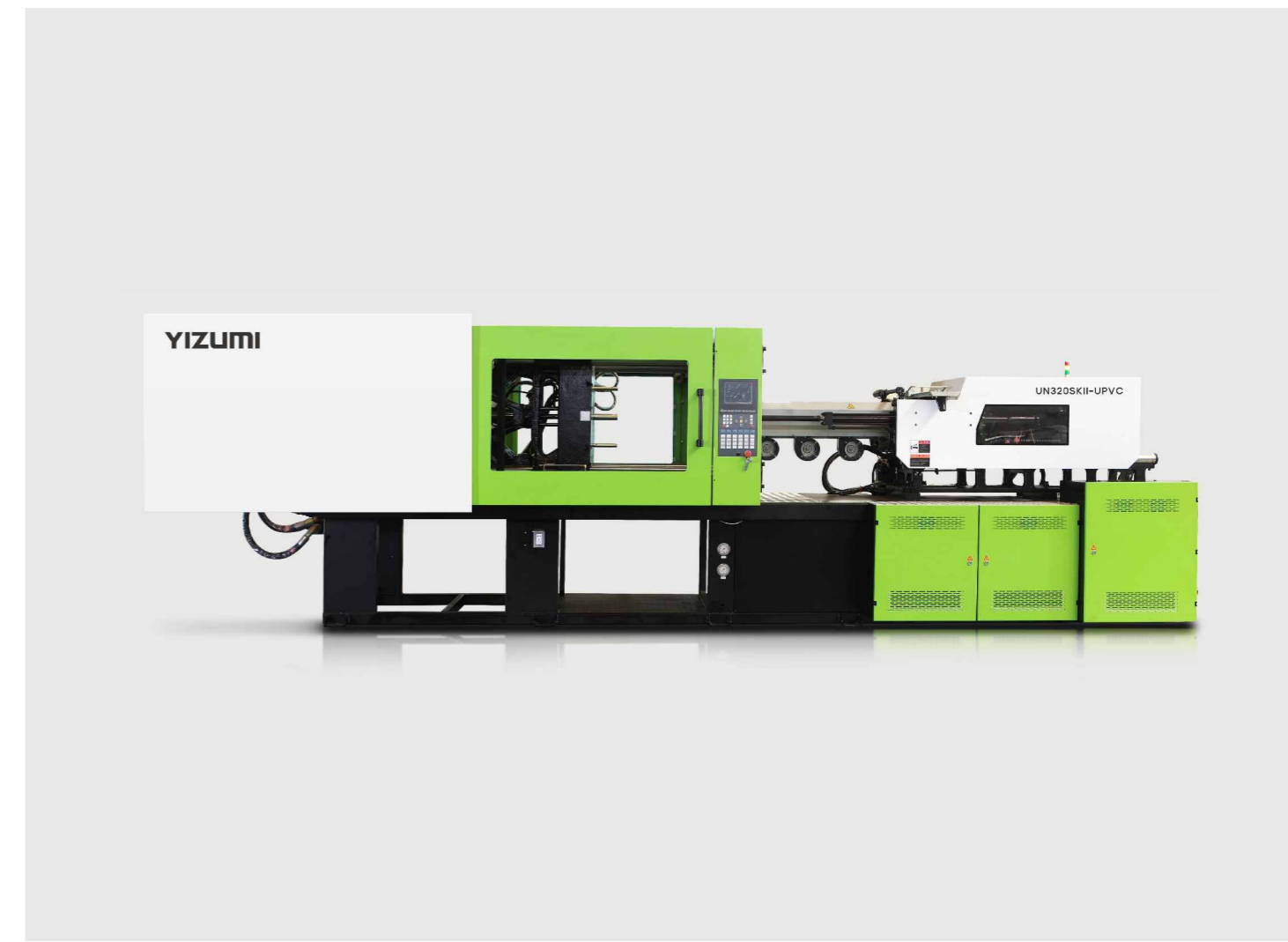


UPVC & PPR

**SPECIAL INJECTION MOLDING MACHINE
FOR PIPE FITTING**

UPVC (200T-750T) & PPR (160T-2600T)



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[DISCLAIMER]

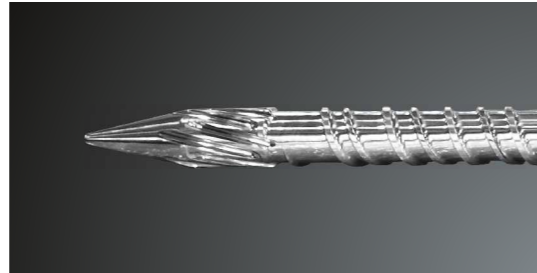
- [1] YIZUMI reserves the right to modify the product description in the catalogue. Specification might be changed without prior notice.
- [2] The picture in the catalogue is for reference only. The real object should be considered as final.
- [3] The data in the catalogue is obtained from internal testing in YIZUMI laboratory.
Please refer to the actual machine for the final data. YIZUMI reserves the right of final interpretation upon disputes and ambiguities.



Features of the injection molding machine for UPVC pipe fittings

UPVC special plasticizing screw and barrel

UPVC special screw and barrel consist of dual alloy hard chrome plated screw and dual alloy hard chrome plated nozzle flange, with better wear resistance and corrosion resistance. It can better achieve high-quality plasticizing effect and mixing effect, to produce products with smooth surface.



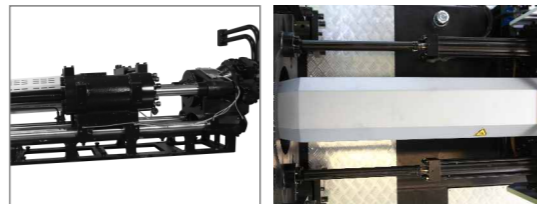
Enlarged plasticizing motor

Plasticizing motor with upgraded configuration and increased torque can adapt to UPVC material, which is of high viscosity and poor liquidity, ensuring stable plasticizing.



One-piece carriage support + horizontal double-carriage design

Use one-piece carriage support + horizontal double-carriage design to ensure the coaxial alignment between the motion of injection unit and the force applied on screw, prevent the rising of nozzle during injection, maintain the clearance between the screw and the barrel, and to avoid dark mark defects due to overheat caused by unilateral shear.

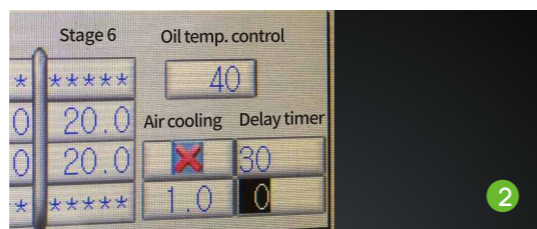


Forced cooling fan

① Employ a circular air flow design and segmented control to achieve closed-loop temperature control. Also short-circuit prevention design is also added to achieve dynamic temperature control within a deviation range of $\pm 1^{\circ}\text{C}$.

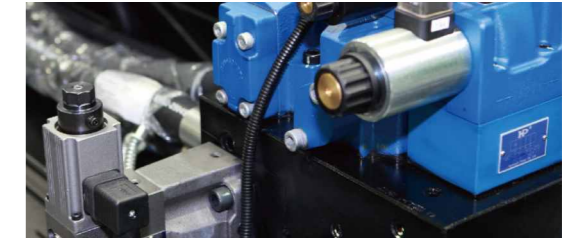
② Separate control of fan power supply driven by dedicated program (The fan stops the program with a 30 minutes time delay after turning off the heater or pressing the emergency stop button) to ensure that the melt will not be decomposed or carbonized due to barrel overheat caused by machine pause or shutdown and result in problems such as black spots in products or tough carbon deposit on screw surface.

③ Special process: The blower starts to work after the machine stops operating for 10 minutes to ensure the melt will not be decomposed or carbonized due to overheating in the barrel for a long cycle time, and to avoid dark spots on the products and tough-to-clean carbon deposition on the screw.



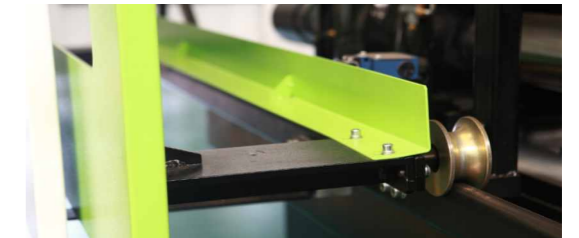
Proportional back pressure control

Use independent numerically controlled proportional back pressure approach to facilitate precise control by computer and adapt to the thermal sensitivity of UPVC material to shearing heat.



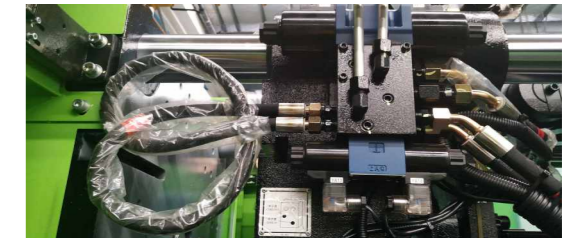
Extended safety doors

Front and rear safety doors are extended to allow the size of customer's mold side core-pull cylinder for their pipe fitting mold.



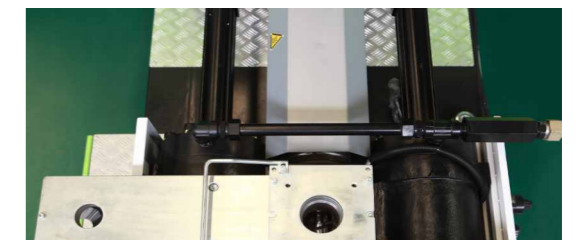
Two sets of core pulling devices as standard

Two sets of core pulling devices as standard to meet the needs of pipe fitting mold.



Hopper

Equipped with movable hopper slider for switching of raw materials.



UN200~480A5 Special Machine for UPVC Pipe Fitting

Specifications

Description	UNIT	UN200A5-UPVC	UN260A5-UPVC	UN320A5-UPVC	UN400A5-UPVC	UN480A5-UPVC
International size		895/2000	1269/2600	1885/3200	2693/4000	3330/4800
INJECTION UNIT						
Shot volume	cm ³	518.5	749.3	1071.3	1497.0	2050.5
Shot weight (UPVC)	g	617.0	891.7	1274.8	1781.4	2440.1
	oz	21.8	31.5	45.0	62.8	86.1
Screw diameter	mm	53	60	68	76	84
Injection pressure	MPa	172.8	169.4	176.1	179.9	162.5
Injection rate (UPVC)	g/s	233.6	265.8	393.2	480.4	600.1
Screw L:D ratio		21 : 1	21 : 1	21 : 1	21 : 1	21 : 1
Max. injection speed	mm/s	89	79	91	89	91
Screw stroke	mm	235	265	295	330	370
Screw speed	r/min	0-143	0-131	0-154	0-125	0-104
CLAMPING UNIT						
Clamping force	kN	2000	2600	3200	4000	4800
Opening stroke	mm	490	530	640	700	780
Space between tie bars (WxH)	mmxmm	530x530	610x570	710x670	760x710	830x810
Max. daylight	mm	1040	1140	1300	1430	1590
Mold thickness (min.-max.)	mm	180-550	195-610	220-660	240-730	260-810
Ejector stroke	mm	150	160	170	210	220
Ejector number		5	13	13	13	17
Ejector force	kN	49	77	77	110	110
POWER UNIT						
Max. system pressure	Mpa	17.5	17.5	17.5	17.5	17.5
Pump motor	kW	25	30	51	59.6	60.5
Heating power	kW	9.8	13.5	18	22	25
Number of temperature control zones		5	5	5	6	6
GENERAL UNIT						
Oil tank capacity	L	255	335	445	570	760
Extended safety doors (both sides)	mm	400	500	500	750	750
Machine dimensions (after extension in width LxWxH)	mxmxm	5.76x1.85x2.09	6.24x2.14x2.39	6.96x2.35x2.50	7.73x2.91x2.45	8.47x2.96x2.49
Machine weight	kg	6500	8500	13500	16000	20500

Note: 1. Theoretical shot volume= Barrel sectional area * injection stroke. 2. Shot weight=shot volume *1.19 (for UPVC)
3. Specifications are subject to change without prior notice.

UN200~750SKII Special Machine for UPVC Pipe Fitting

Specifications

Description	UNIT	200SKII-UPVC	260SKII-UPVC	320SKII-UPVC		350SKII-UPVC	400SKII-UPVC		480SKII-UPVC		500SKII-UPVC	630SKII-UPVC	750SKII-UPVC
International size		895/2000	1269/2600	1885/3200	1269/3200	2205/3500	1885/4000	2693/4000	2693/4800	3330/4800	3330/5000	4200/6300	4200/6300
INJECTION UNIT													
Shot volume	cm ³	518	749	749	1071	1252	1071	1497	1497	2050	2326	2675	3123
Shot weight (UPVC)	g	617	892	892	1275	1490	1275	1781	1781	2440	2768	3183	3716
	oz	21.8	31.5	31.5	45.0	52.7	45.0	62.8	62.8	86.1	97.8	112.5	131.3
Screw diameter	mm	53	60	60	68	68	68	76	76	84	84	88	92
Injection pressure	MPa	173	169	169	176	176	176	180	180	163	163	158	181
Injection rate (UPVC)	g/s	207	270	328	315	393	492	470	470	536	536	666	727
Screw L:D ratio		21 : 1	21 : 1	21 : 1	21 : 1	21 : 1	21 : 1	21 : 1	21 : 1	21 : 1	21 : 1	22 : 1	23 : 1
Max. injection speed	mm/s	79	80	97	73	91.2	114	87	101.9	81.2	81.2	92	92
Screw stroke	mm	235	265	265	295	345	295	330	330	370	420	440	470
Screw speed	r/min	0~128	0~132	0~163	0~123	0~139	0~192	0~122	0~122	0~92	0~92	0~85	0~97
CLAMPING UNIT													
Clamping force	kN	2000	2600	3200		3500	4000		4800	5000	6300	7500	
Opening stroke	mm	460	530	580		640	660		760	780	900	980	
Space between tie bars (WxH)	mmxmm	510x510	570x570	670x670		710x670	710x710		810x810	830x810	880x880	980x960	
Max. daylight	mm	980	1140	1240		1500	1390		1570	1690	1800	1960	
Mold thickness (min.-max.)	mm	180-520	195-610	220-660		220-760	240-730		260-810	260-910	400-900	400-980	
Ejector stroke	mm	150	160	170		170	210		220	220	280	280	
Ejector number		5	13	13		13	13		13	17	21	21	
Ejector force	kN	49	77	77		77	110		110	110	182	182	
POWER UNIT													
Max. 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	19.6	24	34.7		48.1	59.6	59.6	60.5	60.5	59.6	68	75.1
Heating power	kW	9.8	13.5	13.5	18	18	18	22	22	25	25	28	32
Number of temperature control zones		5	5	5		5	5	6	6	6	6	7	7
GENERAL UNIT													
Oil tank capacity	L	260	335	445		445	570		760	760	550	700	
Extended safety doors (both sides)	mm	400	500	500		500	750		750	750	750	750	750
Machine dimensions (after extension in width LxWxH)	mxmxxm	5.68x1.72x1.82	6.24x2.09x1.96	6.84x2.23x2.03		6.84x2.23x2.03	7.78x2.87x2.03		8.55x2.95x2.10	8.55x2.95x2.10	9.35x2.9x2.18	10.16x3.10x2.3	
Machine weight	kg	5800	8000	10500		10500	14500		19000	19000	26000	36000	

Note: 1. Theoretical shot volume= Barrel sectional area * injection stroke. 2. Shot weight=shot volume *1.19 (for UPVC)
3. Specifications are subject to change without prior notice.

UN160-2600 A5 Special Machine for PPR Pipe Fitting

Specifications

Description	UNIT	UN160A5-PPR	UN200A5-PPR	UN260A5-PPR	UN320A5-PPR	UN400A5-PPR	UN480A5-PPR	UN560A5-PPR	UN650A5-PPR	UN800A5-PPR	UN1000A5-PPR	UN1400A5-PPR	UN1800A5-PPR	UN2200A5-PPR	UN2600A5-PPR
International size		604/1600	895/2000	1269/2600	1885/3200	2693/4000	3330/4800	3330/5600	4820/6500	6780/8000	9015/10000	12053/14000	18471/18000	21215/22000	29880/26000
INJECTION UNIT															
Shot volume	cm ³	371	518.5	749.3	1071.3	1497	2050.5	2050.5	2659	3769.9	5038.5	7363.1	11559.1	14151.9	20313.3
Shot weight (UPVC)	g	270.8	378.5	547.0	782.0	1092.8	1496.9	1496.9	1941.1	2752.0	3678.1	5375.1	8438.1	10330.9	14828.7
	oz	9.5	13.2	19.1	27.4	38.2	52.4	52.4	67.9	96.3	128.7	188.1	295.3	361.6	519.0
Screw diameter	mm	48	53	60	68	76	84	84	92	100	108	125	145	155	165
Injection pressure	MPa	162.9	172.8	169.4	176.1	179.9	162.5	162.5	181.4	180.2	179.1	163.7	159.8	149.9	147.1
Injection rate (UPVC)	g/s	130.8	143.3	163.1	241.2	294.7	368.1	368.1	422.2	527.5	595.2	725.6	1000.5	1198.4	1623.4
Screw L:D ratio		20 : 1	20 : 1	20 : 1	20 : 1	20 : 1	20 : 1	20 : 1	22 : 1	22 : 1	22 : 1	20 : 1	22 : 1	22 : 1	22 : 1
Max. injection speed	mm/s	99	89	79	91	89	91	91	87	92	89	81	83	87	104
Screw stroke	mm	205	235	265	295	330	370	370	400	480	550	600	700	750	950
Screw speed	r/min	0-185	0-165	0-143	0-165	0-156	0-140	0-140	0-127	0-143	0-116	0-106	0-110	0-100	0-116
CLAMPING UNIT															
Clamping force	kN	1600	2000	2600	3200	4000	4800	5600	6500	8000	10000	14000	18000	22000	26000
Opening stroke	mm	420	490	530	640	700	780	850	900	1040	1220	1350	1560	1750	1950
Space between tie bars (WxH)	mmxmm	460x460	530x530	610x570	710x670	760x710	830x810	850x810	930x930	1000x1000	1160x1160	1310x1310	1560x1560	1850x1650	1950x1800
Max. daylight	mm	940	1040	1140	1300	1430	1590	1700	1800	2040	2380	2700	3210	3570	3830
Mold thickness (min.-max.)	mm	160-520	180-550	195-610	220-660	240-730	260-810	330-850	350-900	400-1000	450-1160	600-1350	800-1650	850-1820	900-1880
Ejector stroke	mm	140	150	160	170	210	220	220	280	280	320	380	400	430	430
Ejector number		5	5	13	13	13	17	17	21	21	21	29	33	33	33
Ejector force	kN	42	49	77	77	110	110	166	182	182	274	303	303	460	460
POWER UNIT															
Max. 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
Pump motor	kW	25	25	30	51	59.6	60.5	60.5	47.2+28.8	47.2+56.1	56.1x2	70x2	60x3	70x3	60x4
Heating power	kW	10.9/12.1	14.4/16.8	16.6/19	22.2/24.6	26.4/30.9	33.1/36.2	33.1/43	38/47	42/51	46.5/63.6	65.6/69.9	95	106.6	126.1
Number of temperature control zones		4	5	5	5	6	6	6	6	6	7	8	8	10	10
GENERAL UNIT															
Oil tank capacity	L	2.4	2.7	2.8	3.2	4	4.5	5.5	6.5	7	8	9.5	13	16.5	17
Extended safety doors (both sides)	mm	220	255	335	445	570	760	760	1000	1150	1300	1600	1900	2000	2300
Machine dimensions (after extension in width LxWxH)	mxmxxm	5.35x1.37 x2.13	5.76x1.45 x2.21	6.24x1.64 x2.39	6.96x1.85 x2.50	7.73x2.11 x2.45	8.47x2.16 x2.49	8.73x2.16 x2.49	9.57x2.25 x2.66	10.51x2.38 x2.73	11.37x2.60 x2.66	12.64x3.00 x3.16	14.42x3.30 x3.34	16.38x3.93 x3.76	17.84x4.12 x4.00
Machine weight	kg	5000	6500	8500	13500	16000	20500	21500	29500	40000	50000	75000	108000	145000	190000

Note: 1. Theoretical shot volume= Barrel sectional area * injection stroke. 2. Shot weight=shot volume *0.73 (for PPR)
3. Specifications are subject to change without prior notice.

Standard and Optional Features

Features	Standard	Optional
UPVC special screw and barrel (equipped with chrome plated, double-threaded and low shearing one-piece screw)	●	
Enlarged plasticizing motor	●	
Injection unit equipped with one-piece carriage support (standard for 260-480T and optional for 160-200T)	●	
Movable hopper slider	●	
Nozzle cold slug prevention	●	
Proportional back pressure control	●	
Two sets of core pulling devices	●	
Servo pump system (domestic brand)	●	
Low-speed flow linear optimization	●	
Standard plasticizing back pressure display with quality monitoring data	●	
Extended safety doors (Total increase of front and rear door width - 200T: 400mm; 260~320T: 500mm; 400~480T: 750mm)	●	
Forced cooling fan controlled through separate power supply	●	
Cooling fan with delayed shut off feature	●	
Pre-injection function (Nozzle cold slug injection)	●	
Other standard configurations are the same as standard model	●	
Multiple sets of core pulling devices with fast connector		○
Core-pull forward/backward signal confirmation		○
Force-return device for ejector		○
Computer network communication protocol OPC interface		○
Removal injection unit		○

● Standard ○ Optional

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