

DG SERIES

INJECTION MOLDING MACHINE SPECIFICATION



★ Possible combinations of clamp units/injection units **ISO 9001**

SMALL & MEDIUM SIZE

Clamp unit	Injection unit												
KN	30	70	120	170	240	360	460	620	800	1000	1700	2000	2400
250	●☆												
500		●☆	●										
900		●	●	●☆	●								
1200		●	●	●	●☆	●							
1600		●	●	●	●	●☆	●						
2000			●	●	●	●	●☆	●	●				
2400			●	●	●	●	●	●☆	●				
2800						●	●	●	●☆	●			
3200								●	●	●☆			
3500								●	●	●	●☆		
4000										●	●	●☆	
4500										●	●	●	●☆

LARGE SIZE

Clamp unit	Injection unit												
KN	1700	2000	2400	2700	3400	4200	4800	5500	7400	9500	12000	15000	18000
5000	●	●	●	●☆									
6500	●	●	●	●	●☆	●							
8500					●	●☆	●	●					
10500					●	●	●☆	●					
13000					●	●	●	●☆					
15000						●	●	●	●☆				
18000									●	●☆	●		
22000											●☆	●	
26000											●	●☆	●

☆ Standard injection combination for each clamp unit



DER GANG MACHINERY CO., LTD.

★ High Performance Standard Specification for DG Series.

NO.	Item	Standard	Optional
Clamping unit			
1	Greasless toggle bushings	○	
2	Automatic greasing	○	
3	High performance mold platen support	○	
4	Hydraulic safety device for mold closing	○	
5	Electrical safety device for mold closing	○	
6	Mechanical safety device for mold closing		●
7	Hydraulic driven mold thickness adjusting system	○	
8	Automatic clamping force adjustment device	○	
9	4 stages of pressure & speed control on open mold	○	
10	4 stages of pressure & speed control on close mold	○	
11	Low pressure mold protecting device	○	
12	Ejection : Standard 、 Vibrating & Half eject	○	
13	Ejector plate return confirmation circuit		●
14	Ejection mode change		●
15	No.1 hydraulic core puller circuit	○	
16	No.2 hydraulic core puller circuit		●
17	No.3 hydraulic core puller circuit		●
18	Cores and mold sets protection		●
19	No.1 air jet		●
20	No.2 air jet		●
21	Hydraulic motor for unscrewing		●
22	Photocell type product chute confirmation		●
23	Automatic safety door opening and closing device		●
24	Drilling of product take-out robot mounting holes		●
25	Circuit for product take-out robot		●
26	Dual function (ejector during mold opening)		●
27	Dual function(screw rotation during mold opening & closing)		●
28	Daylight extension		●
29	T-grooved plate		●
Hydraulic unit & related equipment			
1	Variable pump for energy saving device		●
2	Oil temperature display	○	
3	Oil temperature stabilizer		●
4	Oil filter		●
5	Oil low level alarm		●
6	Oil temperature upper and lower limits alarm	○	
7	Oil preheating circuit	○	
8	"Y" strainer of cooling water		●
9	Mold cooling water with flow indicator		●
10	Mold cooling water with flow controller	○	
Monitor			
1	Cylinder temperature upper and lower alarm	○	
2	Production quantity control	○	
3	Packaging quantity control	○	
4	Abnormal alarm buzzer	○	
5	Abnormal flashlight	○	
6	Upper and lower limit for molding conditions	○	
7	Cycle monitor display	○	
8	Machine process monitor	○	
9	History of alarm (100sets)	○	
10	History of molding conditions value (100sets)	○	

NO.	Item	Standard	Optional
Injection unit			
1	Screw cylinder (one set of H 、 A 、 B or C)	○	
2	Back flow preventing ring	○	
3	Open nozzle	○	
4	Open long nozzle		●
5	Bi-metal cylinder for abrasion		●
6	Bi-metal screw for abrasion		●
7	Screw for rigid PVC		●
8	Shut-off nozzle (Hydraulic)		●
9	Cold start-up prevention	○	
10	Swivel for injection unit	○	
11	Barrel temperature pause changeover function	○	
12	24 hours warm keeping and temperature control	○	
13	PID control on temperature control	○	
14	Automatic purging circuit	○	
15	Retraction select for injection unit	○	
16	Screw suck-back device	○	
17	Automatic residual material (cushion) adjustment	○	
18	1~6 steps injection speed (adjust.)	○	
19	1~6 steps injection pressure (adjust.)	○	
20	1~4 steps holding speed (adjust.)	○	
21	1~4 steps holding pressure (adjust.)	○	
22	1~4 steps holding time (adjust.)	○	
23	1~3 steps screw speed (adjust.)	○	
24	1~3 steps screw back pressure (adjust.)	○	
25	Transfer to holding pressure by sensing injection position	○	
26	Transfer to holding pressure by sensing injection time	○	
27	Transfer to holding pressure by pressure sensor		●
28	Screw revolution display		●
29	Purge cover (with interlock)		●
30	Accumulator circuit for injection		●
31	Servo circuit for injection		●
32	Gas injection circuit		●
33	Flow molding circuit	○	
34	Injection pressure and speed curve display immediately		●
Controller			
1	Color LCD for C-6000 controller	○	
2	80 sets memory of molding conditions	○	
3	200 sets memory of molding conditions		●
4	Data card		●
5	Information printing		●
6	Configuration unit description	○	
7	Panel brightness adjustment	○	
8	Diagnose input and output status	○	
9	Execute input / output detecting	○	
10	Input and output points correction setting	○	
11	Multiple layer password setting	○	
12	Protection key lock parameter setting key board lock up	○	
13	Column setting with cursor	○	
14	Setting changes through panel key	○	
15	4 language switching function (Chinese, English, Spain, Italy)	○	
16	Other language select		●

★DG250

Clamp unit DG250/...		
Clamp force	kN	250
Opening stroke	mm	220
Mold height(min-max)	mm	100-250
Maximum daylight	mm	470
Distance between tie-bars	mm	270×270
Platen dimensions	mm	410×410
Ejector points		1
Ejector stroke	mm	60
Ejector force	kN	13.4
Oil tank volume	l	100

★DG500

Clamp unit DG500/...		
Clamp force	kN	500
Opening stroke	mm	260
Mold height(min-max)	mm	100-300
Maximum daylight	mm	560
Distance between tie-bars	mm	310×310
Platen dimensions	mm	460×460
Ejector points		5
Ejector stroke	mm	60
Ejector force	kN	27.4
Oil tank volume	l	130

☆

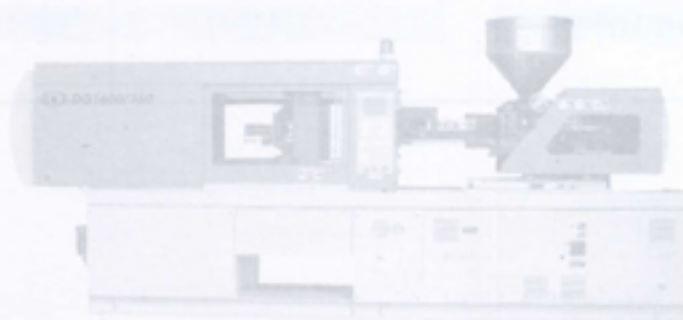
Injection unit		DG 250/30		
International size		30		
Screw symbol		H	A	B
Screw diameter	mm	18	20	22
Injection pressure	bar	2593	2100	1735
Theoretical shot volume	cm ³	20	25	30
Shot weight(PS)	g	18	22	27
Screw L/D ratio		22.2	20	18.2
Injection rate	cm ³ /s	43	53	64
Plasticizing capacity(PS)	kg/hr	13	16	21
Screw revolution	rpm	335		
Temperature control zones		1+3		
Pump driving motor	kW	7.5		
Barrel heating	kW	3.2		
Machine weight	kg	1900		
Machine dimensions	m	2.8×1.1×1.75		

☆

DG500/70				DG500/120			
70				120			
H	A	B	C	H	A	B	C
24	26	28	30	26	28	30	34
2722	2319	2000	1742	2702	2330	2030	1580
45	53	61	70	66	77	88	113
40	47	54	63	60	69	79	102
22.1	20.4	18.9	17.7	23	21.4	20	17.6
57	27	78	89	58	68	77	99
20	22	25	28	22	30	38	46
335				270			
1+3				1+3			
11				11			
5.04				5.5			
2900				2900			
3.66×1×1.51				3.66×1×1.51			

☆Standard injection combination for each clamp unit

Selection scheme for injection unit			
Clamp unit	250	500	
Injection unit	30	70	120
Drive power kW(HP)	7.5(10)	11(15)	



★ Summary of clamp units/Injection units

250-4500kN/.../30-.../2400

INJECTION UNITS			CLAMP UNITS																					
																		DG4500/...						
																		DG4000/...						
														DG3500/...										
														DG3200/...										
												DG2800/...												
									DG2400/...															
									DG2000/...															
									DG1600/...															
									DG1200/...															
									DG900/...															
									DG500/...															
									DG250/...															
	Screw diameter	mm	18	20	22	24	26	28	30	34	38	42	48	52	55	60	65	70	75	80	85			
.../30	Injection pressure	bar	2593	2100	1735																			
	Theoretical shot volume	cm³	20	25	30																			
.../70	Injection pressure	bar				2722	2319	2000	1742															
	Theoretical shot volume	cm³				45	53	61	70															
.../120	Injection pressure	bar				2702	2330	2030	1580															
	Theoretical shot volume	cm³				66	77	88	113															
.../170	Injection pressure	bar							2333	1861	1454													
	Theoretical shot volume	cm³							106	136	170													
.../240	Injection pressure	bar									2325	1861	1523											
	Theoretical shot volume	cm³									154	192	235											
.../360	Injection pressure	bar											2421	1982	1517									
	Theoretical shot volume	cm³											226	277	362									
.../460	Injection pressure	bar												2332	1786	1522								
	Theoretical shot volume	cm³												304	398	467								
.../620	Injection pressure	bar													2138	1822	1629							
	Theoretical shot volume	cm³													470	552	617							
.../800	Injection pressure	bar														2143	1915	1610						
	Theoretical shot volume	cm³														594	665	792						
.../1000	Injection pressure	bar															2341	1967	1676					
	Theoretical shot volume	cm³															760	904	1061					
.../1700	Injection pressure	bar																	2226	1920	1672			
	Theoretical shot volume	cm³																	1327	1539	1767			
.../2000	Injection pressure	bar																		1920	1672	1470		
	Theoretical shot volume	cm³																		1539	1767	2010		
.../2400	Injection pressure	bar																			1747	1535	1360	
	Theoretical shot volume	cm³																			1899	2161	2440	

★ Summary of clamp units/Injection units

5000-26000kN/.../1700-.../18000

INJECTION UNITS			CLAMP UNITS																	
																DG 26000/...				
																DG 22000/...				
													DG 18000/...							
										DG 15000/...										
								DG 13000/...												
								DG 10500/...												
								DG 8500/...												
			DG 6500/...																	
			DG 5000/...																	
	Screw diameter	mm	65	70	75	80	85	90	95	100	105	110	120	130	140	150	160			
.../1700	Injection pressure	bar	2226	1920	1672															
	Theoretical shot volume	cm ³	1327	1539	1767															
.../2000	Injection pressure	bar		1920	1672	1470														
	Theoretical shot volume	cm ³		1539	1767	2010														
.../2400	Injection pressure	bar			1747	1535	1360													
	Theoretical shot volume	cm ³			1899	2161	2440													
.../2700	Injection pressure	bar				1915	1696	1513												
	Theoretical shot volume	cm ³				2186	2468	2767												
.../3400	Injection pressure	bar					1936	1726	1549											
	Theoretical shot volume	cm ³					2723	3053	3402											
.../4200	Injection pressure	bar						1726		1398										
	Theoretical shot volume	cm ³						3371		4162										
.../4800	Injection pressure	bar								1947		1594								
	Theoretical shot volume	cm ³								3969		4849								
.../5500	Injection pressure	bar										1843		1523						
	Theoretical shot volume	cm ³										4555		5512						
.../7400	Injection pressure	bar											1792	1506						
	Theoretical shot volume	cm ³											6272	7464						
.../9500	Injection pressure	bar												1813	1545					
	Theoretical shot volume	cm ³												8143	9556					
.../12000	Injection pressure	bar													1770	1526				
	Theoretical shot volume	cm ³													10353	12006				
.../15000	Injection pressure	bar														1851	1612			
	Theoretical shot volume	cm ³														12930	14843			
.../18000	Injection pressure	bar															1824	1603		
	Theoretical shot volume	cm ³															15903	18095		



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