

NEC NARESH
ENGINEERING
CORPORATION

An ISO 9001 : 2008 Certified Company



The ultimate perfection in

plastic injection moulding with a difference...

World class technology,
for a better tomorrow !



Servo & Hybrid Plastic Injection Moulding Machines

• Servo & Standard Series • PET Series • PVC Series • Fruit / Vegetable Basket Series • Thermoset / Bakelite Series

Pneumatic Robot for Part Pick Up

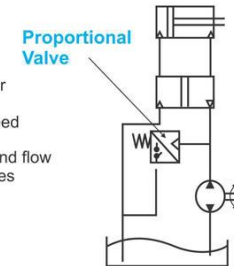
Recommended IMM (Ton)	60- 160
Vertical Stroke	650
Crosswise Stroke	120
Swing Angle (Degree)	60 - 90
Dry Take Out Time (Sec)	1.1
Max. Loading (Kg)	2
Dry Cycle Time	4.2 / 4.4
Air Consumption (Ni / Cycle)	13
Net Weight (Kg)	36
Air Working Pressure (Kg)	5
Max. Allowed Pressure (Kg)	8



Conventional Hydraulic Control System

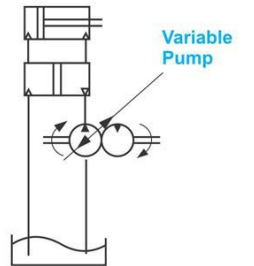
FIXED PUMP

Asynchronous Motor
Constant Motor Speed
Different pressure and flow
by proportional valves
Constant Flow
Energy Saving 0%

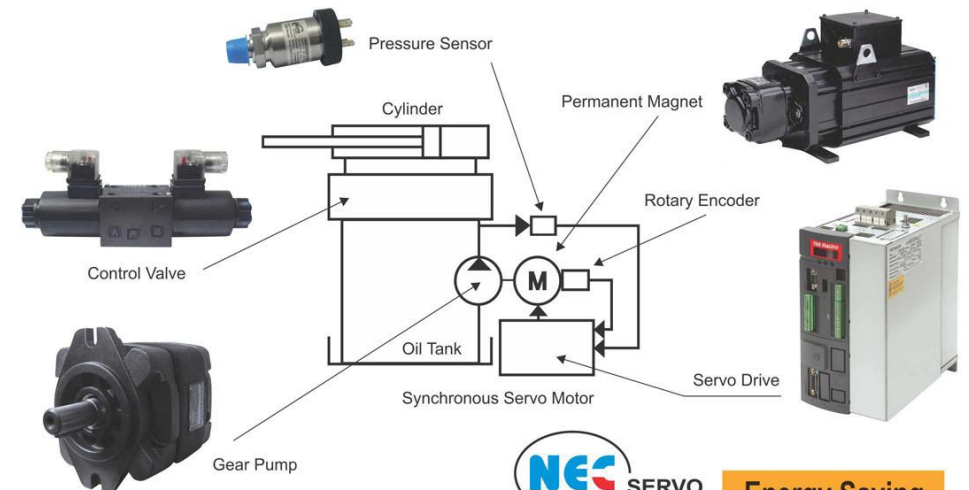


VARIABLE PUMP

Asynchronous Motor
Constant Motor Speed
System Flow depends on
requirement
Variable Flow
Energy Saving 15-20%



Servo Hydraulic Control System



Save energy for the future

NEC SERVO
INJECTION
MOULDING
MACHINES

Energy Saving
30 - 50%



Dual-cylinder driven injection carriage ensures its smooth running. High efficiency due to melting by screw directly driven by imported step-less high torque hydraulic motor and compact structure.



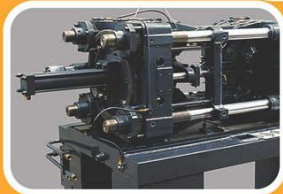
Newly designed oil and electric circuit can meet the requirement of more precise production, and enhance the performance of mechanical parts.



Optimize combination of world famous branded hydraulic parts. Oil circuit plate in aproximity of main actuation elements to ensure fast response.



The precise and energy-saving system is specially developed for injection molding machine, and its highly effective energy saving effects realize cost cutting for the machine



Larger mould stroke, mould capacity and tie-bar distance to accommodate more applicable mould.

Large volume mold memory storing of mold data and parameters, facilitates easy mold change for customers. The password lock guarantees safety of data.

Servo & Hybrid plastic injection moulding machines



Technical Specifications

MODEL	NEC-70			NEC-90			NEC-130			NEC-160			
	A	B	C	A	B	C	A	B	C	A	B	C	
INJECTION UNIT													
Screw Diameter	mm	32	35	38	35	38	42	38	42	45	42	45	50
Screw Ratio	L/D	22	20.1	18.5	22	20.3	18.4	24	22	20.5	23.6	22	19.8
Shot Size (Theoretical)	cm ³	133	160	190	163	193.2	235	226	277	318	311	357	441
Injection Weight (PS)	Gms	121	146	173	148	176	214	206	252	289	283	325	402
Injection Pressure	Mpa	203	170	144	219	184	152	208	171	149	203	177	143
Screw Speed	r.p.m.	225			210			185			180		
CLAMPING UNIT													
Clamp Tonnage	Kn	850			1000			1300			1700		
Toggle Stroke	mm	320			350			380			435		
Tie Bar Diameter	mm	60			65			70			80		
Space Between Tie bars	mm	360*340			370*370			420*420			470*470		
Max. Mold Height	mm	350			380			450			520		
Min. Mold Height	mm	150			150			160			180		
Ejector Stroke	mm	90			120			140			140		
Ejector Tonnage	Kn	30			38			50			50		
Ejector Number		5			5			5			5		
OTHERS													
Max. Pump Pressure	Mpa	16			16			16			16		
Pump Motor Power / Servo	kw	7.5 / 9			7.5 / 11			10 / 15			15 / 15		
Heater Power	kw	6.5			7.5			8			12.5		
Machine Dimension (LxWxH)	m	3.9*1.2*1.8			4.3*1.3*2.0			4.6*1.5*2.1			5.1*1.5*2.2		
Machine Weight	T	2.8			3.4			4			6		

MODEL	NEC-400			NEC-450			NEC-550				
	A	B	C	A	B	C	A	B	C	D	
INJECTION UNIT											
Screw Diameter	mm	70	75	80	75	80	85	80	85	90	95
Screw Ratio	L/D	21.4	20	18.8	21.3	20	18.8	23	21.1	19.5	18.8
Shot Size (Theoretical)	cm ³	1324	1520	1729	1679	1910	2156	2187	2468	2767	3082
Injection Weight (PS)	Gms	1205	1383	1573	1528	1738	1962	1990	2246	2518	2805
Injection Pressure	Mpa	199	173	152	195	172	152	188	167	149	134
Screw Speed	r.p.m.	160			155			150			
CLAMPING UNIT											
Clamp Tonnage	Kn	4000			4500			5500			
Toggle Stroke	mm	710			760			900			
Tie Bar Diameter	mm	120			130			150			
Space Between Tie bars	mm	760*670			800*720			900*820			
Max. Mold Height	mm	780			800			850			
Min. Mold Height	mm	250			300			350			
Ejector Stroke	mm	200			200			250			
Ejector Tonnage	Kn	110			110			250			
Ejector Number		9			13			13			
OTHERS											
Max. Pump Pressure	Mpa	16			16			16			
Pump Motor Power / Servo	kw	37 / 30			45 / 20+20			55 / 30+30			
Heater Power	kw	26			34			36			
Machine Dimension (LxWxH)	m	7.3*1.96*2.41			7.6*1.9*2.3			9.3*2.1*2.4			
Machine Weight	T	14.2			18.8			23			

Servo & Hybrid plastic injection moulding machines

MODEL	NEC-200			NEC-250			NEC-270			NEC-320			
	A	B	C	A	B	C	A	B	C	A	B	C	
INJECTION UNIT													
Screw Diameter	mm	45	50	55	50	55	60	55	60	65	65	70	75
Screw Ratio	L/D	24.4	22	20	24	22	20.3	24	22	20.3	21.5	20	18.7
Shot Size (Theoretical)	cm ³	397	490	593	592	704	826	676	805	945	1161	1226	1407
Injection Weight (PS)	Gms	362	446	540	539	641	752	615	733	860	1057	1226	1407
Injection Pressure	Mpa	207	168	138	202.3	170	144.9	202.3	170	144.9	195	168	146
Screw Speed	r.p.m.	155			220			220			160		
CLAMPING UNIT													
Clamp Tonnage	Kn	2200			2600			2900			3500		
Toggle Stroke	mm	475			540			590			670		
Tie Bar Diameter	mm	90			95			100			110		
Space Between Tie bars	mm	520*520			570*570			620*620			710*630		
Max. Mold Height	mm	560			600			630			710		
Min. Mold Height	mm	200			200			200			260		
Ejector Stroke	mm	150			150			150			200		
Ejector Tonnage	Kn	70			70			70			90		
Ejector Number		5			5			5			5		
OTHERS													
Max. Pump Pressure	Mpa	16			16			16			16		
Pump Motor Power	kw	18.5 / 20			22.5 / 20			22.5 / 28			37 / 30		
Heater Power	kw	14			19			19			24.5		
Machine Dimension (LxWxH)	m	5.7*1.6*2.3			6.2*1.5*2.2			6.3*1.7*2.4			7.3*1.8*2.2		
Machine Weight	T	7			8.3			9.3			12.5		

MODEL	NEC-650				NEC-750				
	A	B	C	D	A	B	C	D	
INJECTION UNIT									
Screw Diameter	mm	85	90	95	100	90	95	105	110
Screw Ratio	L/D	22.3	21	19.9	18.9	23.2	22	19.9	19
Shot Size (Theoretical)	cm ³	2303	2582	2877	3188	2868	3195	3903	4283
Injection Weight (PS)	Gms	2096	2350	2618	2901	2610	2907	3552	3898
Injection Pressure	Mpa	206	184	164	149	195	175	143	131
Screw Speed	r.p.m.	125				130			
CLAMPING UNIT									
Clamp Tonnage	Kn	6500				7500			
Toggle Stroke	mm	930				1000			
Tie Bar Diameter	mm	160				165			
Space Between Tie bars	mm	960*880				1000*940			
Max. Mold Height	mm	900				1000			
Min. Mold Height	mm	350				400			
Ejector Stroke	mm	260				300			
Ejector Tonnage	Kn	200				200			
Ejector Number		13				13			
OTHERS									
Max. Pump Pressure	Mpa	16				16			
Pump Motor Power	kw	30+30 / 37+37				30+37 / 30+30+11			
Heater Power	kw	37.2				49			
Machine Dimension (LxWxH)	m	9.6*2.4*2.7				10.6*2.6*2.8			
Machine Weight	T	32				39			

Standard Features

CLAMP

- Heavy duty 'T' slotted platens for quick mould changing
- Automatic mould height adjustment with sun gear
- 5-point double toggle design
- Precise double mould safety
- Precise speed & pressure control
- Automatic lubrication
- High tensile strength, Chrome plated, Bigger diameter tie rod
- Generous dimensions of platen
- Platen design on finite element analysis
- Skates for moving platen

EJECTOR

- Knock-out bar
- Speed & Pressure adjustable through screen
- Pulsating ejector strokes

INJECTION

- Balanced two drive injection cylinders
- Multi stage injection profile
- Efficient plasticizing with radial piston hydro motor
- PID barrel temperature controller
- Multi choice of injection units
- Injection suck back before / after refilling or both
- Aluminum chequered plate below purge area
- Ceramic heater bands
- Cooling device of feed throat

GENERAL FEATURES

- Double block air ejection
- Double block hydraulic core pull
- Bimetallic barrel & hardened / coated screw
- Water manifolds
- Part drop chute



CONTROL

- TFT color display with alpha-numeric keypad
- Large memory
- Mould data storage
- Individual keys for manual functions
- Multi level passwords
- Graphically presentation of production
- I/O diagnosis - Analog & Digital
- Linear position transducer for clamp, injection & ejector
- Machine over view on screen with graphical display
- Soft keys for fast access of select menus
- Provision of alarm history
- Actual time display
- Selected SPC as required

HYDRAULICS

- Efficient designed servo motor with gear pump
- Valves near at actuators for fast response
- Pressure sensing by pressure transducer
- Pump & Motor out from base for ease of maintenance
- Oil filtration
- Hydraulic Valve with LED connector
- Low oil level alarm

OPTIONS

- Insulated heater band
- Single part drop detect
- Robot interface (SPI / EUROMAP)
- Hot runner interface
- Gas assist interface
- Pneumatic core pull
- Extra heating zones
- PID oil temperature controller
- Feed throat temperature control
- Parallel hydraulic ejector
- Pneumatic power gate (400 tons)



Corporate Office :

62-A, Badli Extn. (Near Outer Ring Road),
Badli Village, New Delhi-110042
Ph. : 011-27855162
Mob.: 9810654362, 9910654362
e-mail : necmachinery@gmail.com
web : www.necmachinery.com

Works :

E-112, Sector-2, DSIIDC Industrial Area,
Bawana, Delhi-110039
Mob. : 9310654362, 9310354362