

"X-Pump[®]" equipped
Eco-Friendly Molding Machine (Hybrid Type)

NISSEI[®]

NPX7 Advance

- NISSEI original "X-PUMP[®]" equipped hybrid type machine that achieves high-precision stable molding and high energy efficiency
- A groundbreaking 12mm inline screw that broadens moldable range

NPX7 Advance with NISSEI original innovative hybrid "X-Pump[®]" system possesses the advantages of both electric and hydraulic injection molding machines. It offers well-balanced performance with its high-rigidity direct-pressure clamping system, excellent injection performance, and supreme energy efficiency. It redefines the concept of hydraulic injection molding systems.

□ The Ultimate Level of Energy-Saving

- About 40% saving in power consumption
(in comparison with conventional hydraulic machines)

□ Outstanding Injection Performance

- High injection response time: 25ms
- A wide range of injection from ultra-low to high-speed (230mm/s)
- "High-pressure + long-sustained" injection holding pressure performance

□ High-Rigidity Direct-Pressure Clamping

- Linear guide for movable platen slide base section
- Stable mold open/close movement and uniform mold pressure distribution
- Wide tie-bar (150 x 150mm mold can be mounted)

□ Excellent Controllability

- Better operability and molding data management feature of the all-new TACT IV[®] Controller



NPX7 Advance
(Equipped with options)

Performance Specifications

Specification item		Unit	NPX7 Advance
Injection	Screw diameter	mm	12
	Injection capacity	cm ³	4.5
	Plasticizing capacity (PS)	kg/h	-
	Injection pressure	MPa	159
	Injection rate	cm ³ /s	17
	Injection velocity	mm/s	150
	Screw rotation speed	rpm	0~205
	Hopper capacity (optional)	L	4.3
Clamping	Clamping force	kN	69 [7]
	Clamping stroke	mm	170
	Min. mold thickness	mm	110
	Max. daylight opening	mm	280
	Tie bar clearance (H× V)	mm	170× 155
	Die plate dimensions (H× V)	mm	230× 225
	Ejector stroke	mm	40
Others	Pump motor	kW	5.5
	Heater band capacity	kW	1.33
	Hydraulic oil quantity	L	50
	Machine dimensions (L× W× H)	m	1.99× 0.58× 1.20
	Floor dimensions (L× W)	m	1.82× 0.53
	Machine weight	t	0.72

- Actual plasticizing capacity may vary, depending on the molding conditions and materials used.
- The specifications are subject to change without notice due to performance upgrades.
- 1MPa=10.2kgf/cm²≈10kgf/cm², 1kN=0.102tf≈0.1tf

NISSEI PLASTIC INDUSTRIAL CO., LTD.
NISSEI AMERICA, INC.

NPX7 Advance

Standard equipment

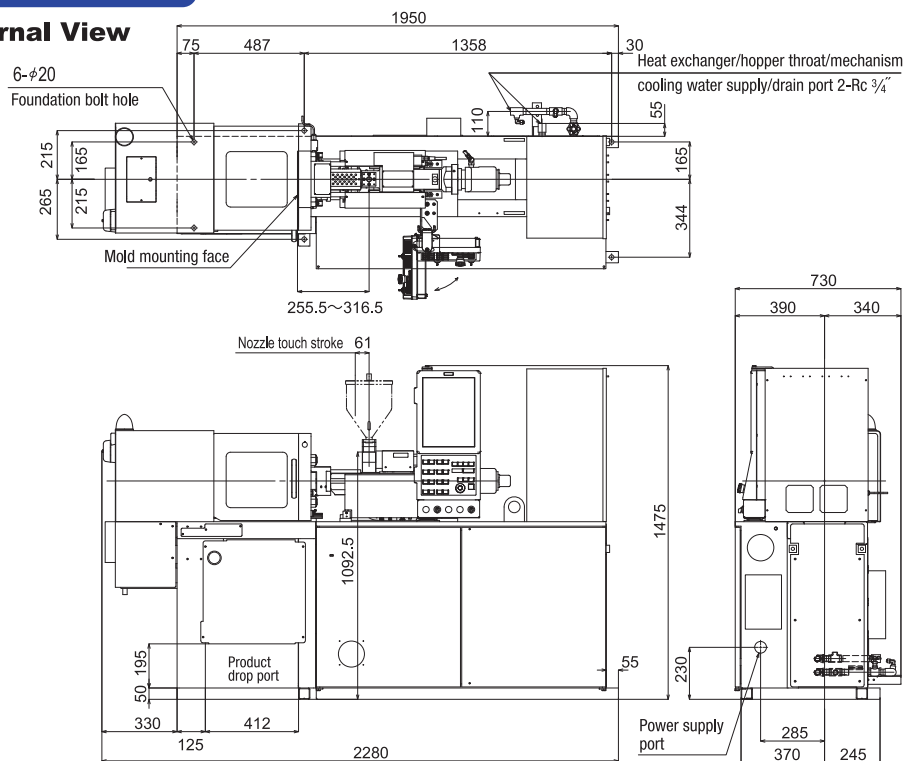
Control: TACT® IV (15-inch vertical display and dual window display)	Monitor display / product pass/fail judgment monitor
Low-pressure mold clamping (mold protection)	Shot counter / production management counter / lot management counter
Ejector delay timer	Product take-out robot interface
Ejector plate return confirmation (terminal output)	Molding conditions internal memory (max. 500 conditions)
Clamping slide base: high-precision linear guide	Statistical processing function
Platen cooling circuit (stationary and movable platen)	Error history display
Digital setting of injection/mold positions	6-language display system
Injection process control: 3-speed, 3-pressure (encoder specification)	USB port / data saving in an external memory (USB flash drive)
Over packing prevention circuit	Calendar timer (barrel heat-up)
Automatic purging circuit	Password protected molding conditions
Screw cold start prevention (all zones)	Air blow (standard spec. for circuit only)
Nozzle backward start timer / metering start timer	Alarm lamp/buzzer / emergency stop button (operator side)
Nozzle/barrel temperature control (screen setting, PID/SSR control)	Mold clamping safety device (mechanical and electric types)
Back pressure control (manual setting)	Error display function / emergency power shutdown
Hopper throat temperature control: electromagnetic valve	Nozzle/barrel temperature upper/lower limit alarm
Nozzle/barrel heat insulation circuit (forced and emergency heating)	Built-in electrical outlet
Injection response increase	

Optional equipment

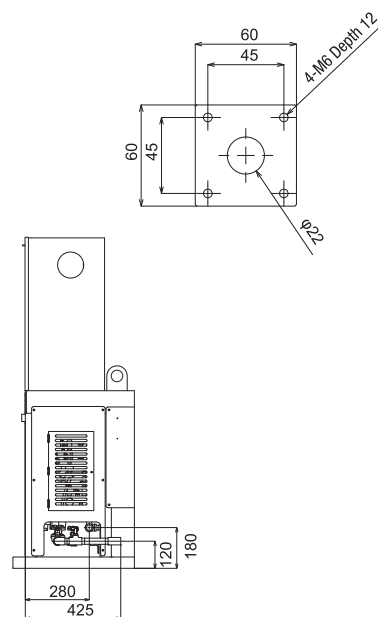
Connector nozzle
Wear resistant barrel and screw
High-temperature resistant barrel
Insulation plate
Mold temperature control
Hydraulic oil heat-up
Fixed chute
Swing chute
Heater disconnection alarm
Hopper
Mounting pad
Castor

NPX7 Advance

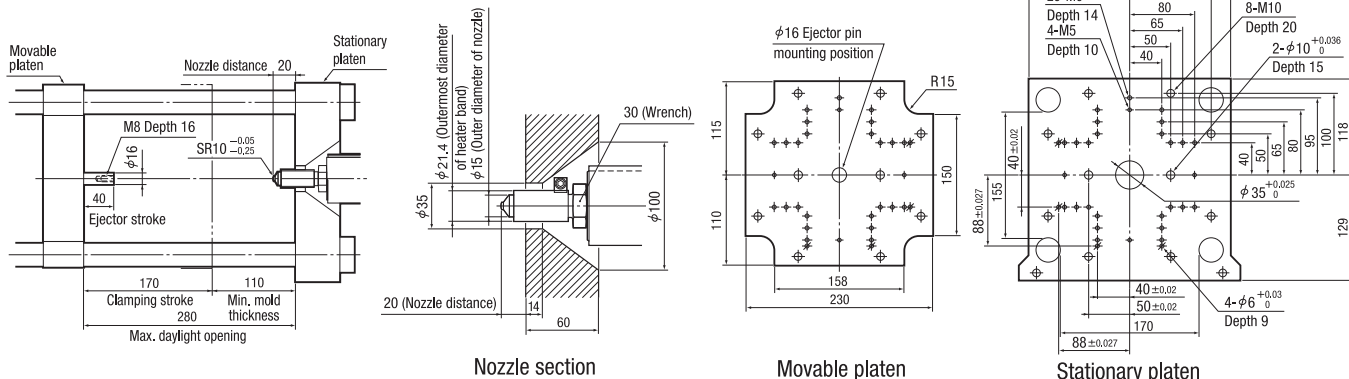
External View



Hopper Fixation Diagram



Mold Attachment Diagram



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