

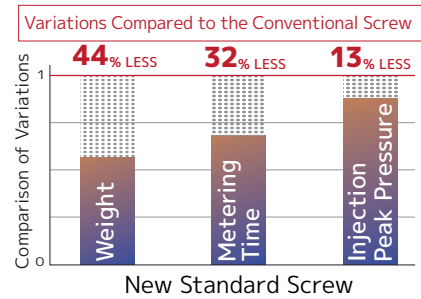
Improved Molten Resin Quality, Contact Pressure, and Mold Open/Close Speed

## Faster and More Precise

The NEX-V Series is equipped with the newly designed standard screw, which suppresses variations in molten resin state and metering to stabilize plasticization and eliminate molding defects. The "New Type Flat Clamp Mechanism" takes NISSEI's original clamping mechanism to the next level, significantly improving the uniformity of contact pressure while materializing highly repeatable stable precision molding. The newly designed toggle mechanism makes the mold open/close time and ejector motion even faster. The NEX-V Series can drastically improve the productivity of your molding operation.

### The Screw that Improves the Quality of Molten Resin and Yield Rate

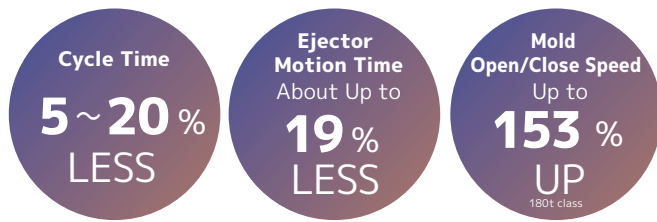
Poor plasticization will result in producing molding defects and slowing down productivity. The new standard screw used in NEX-V Series is designed to provide stable plasticization for injection molding. It suppresses variations in molten resin quality and metering.



▲Newly designed standard screw

### High-Speed Toggle Mechanism + High-Speed Ejector Motion

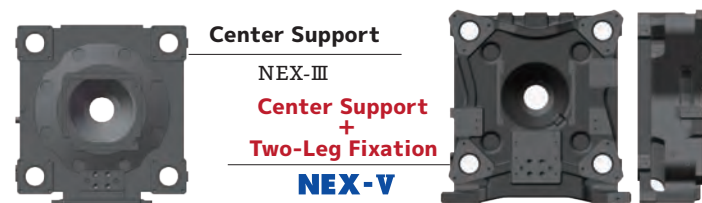
Newly designed toggle mechanism shortens mold open/close cycle time and achieves faster ejector motion.



[Compared to NEX-III]

### New Type Flat Clamp

Rigidity around the locating ring has been increased, and the contact pressure uniformity of the platen that receives pressure from the mold has been improved. For NEX140V and above, the mold mounting part and tie bar fixing part of the new Flat Clamp are structurally separated, having a twist-resistant two-leg fixation structure. For NEX110V and below, the updated shape of the clamp improved the contact pressure uniformity.

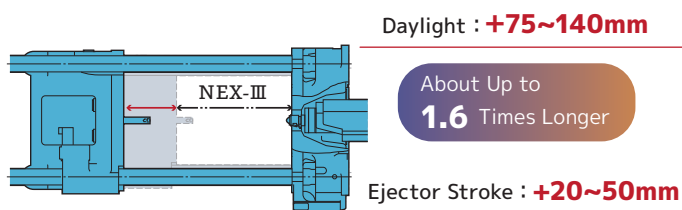


Space-Saving Design and Expanded Mountable Mold Range

## Larger Mold, Smaller Machine

The NEX-V Series offers one of the widest platen sizes in the industry while keeping its footprints to industry's smallest size. Extending the daylight has greatly increased the mold thickness range. It flexibly accommodates hot runner molds, molds for long-length products, and modern molds, which are becoming larger due to increasing needs for integral molding and molding of products with intricate shapes.

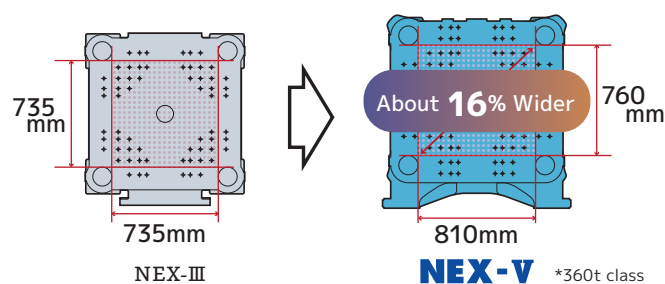
### Wide Daylight + Extended Ejector Stroke



### Mountable Mold Volume

Type	NEX-V (mm)			III : V
	Tie bar clearance	Die plate dimensions	Mold thickness	
30t	310	450	375	123%
50t	360	505	460	128%
80t	420	580	485	126%
110t	460	647	510	124%
140t	510	720	550	136%
180t	560	800	585	115%
220t	660	870	680	139%
280t	760	955	750	142%
360t	810	1080	790	129%

### Wide Platen



# NISSEI®

CATALOG L-2216

## Features

# NEX-V

**ELECTRIC TYPE HIGH-PERFORMANCE INJECTION MOLDING MACHINES**



## NEX-V Series

**NEX30V**

**NEX50V**

**NEX80V**

**NEX110V**

**NEX140V**

**NEX180V**

**NEX220V**

**NEX280V**

**NEX360V**

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Printed in Japan 10 AUG 2022-01-No.1N

# NEX-V

## New Injection Molding Machine that Can Function as a Hub in the Molding Factory

NISSEI's new IoT technology "N-Constellation" materializes the injection molding machine to function as a network hub to connect various auxiliary equipment. It allows real-time collection of operation data, remote monitoring, and remote maintenance as well as offering predictive maintenance feature in the future. The all-new NEX-V Series leads the future of injection molding machines.

### USER Friendly

- New IoT-Enabled Controller "TACT5"
- Universal Safety Standard "ISO20430" Compliant
- New Standard Screw that Improves Plasticization

### MOLD Friendly

- Improved Mold Open/Close Precision and Repeatability
- Clamping Force Reduction and Superb Mold Protection Feature
- Uniform Clamping Force Transmission

### ECO Friendly

- Energy Efficient
- Clean Performance
- Excellent Maintainability

### KEYPOINT

Injection Molding Machine that Supports Digital Transformation (DX)

New IoT-Enabled Controller **TACT5**

The Screw that Improves the Quality of Molten Resin and Yield Rate

New Standard Screw

New Screw Design for Stable Plasticization

Universal Safety Standard  
ISO20430 Compliant

Injection Molding Machine  
Designed to Ensure Safety and to  
Be User-Friendly for Everyone



### LINEUP

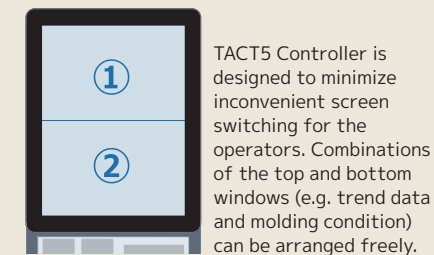
Clamping Unit Die Plate Dimensions (mm)	30	50	80	110	140	180	220	280	360
	450x450	505x505	580x580	647x647	720x720	800x800	920x870	1055x955	1130x1080
Injection Unit	2E	3E	5E	9E	12E	18E	25E	36E	50E
									71E
									100LE

### Evolving NISSEI IoT Technology

## Supporting Digital Transformation (DX) of Injection Molding Machines

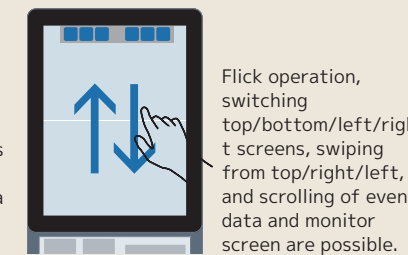
NEX-V Series can function as a hub, which connects other devices and equipment in a factory. By visualizing the operation status of each device and collaborating with other equipment and people, an efficient smart factory can be materialized. NEX-V Series machines are newly designed to make molding operation easy for both current NISSEI users and first-time users.

### Convenient Top-and-Bottom Window Structure



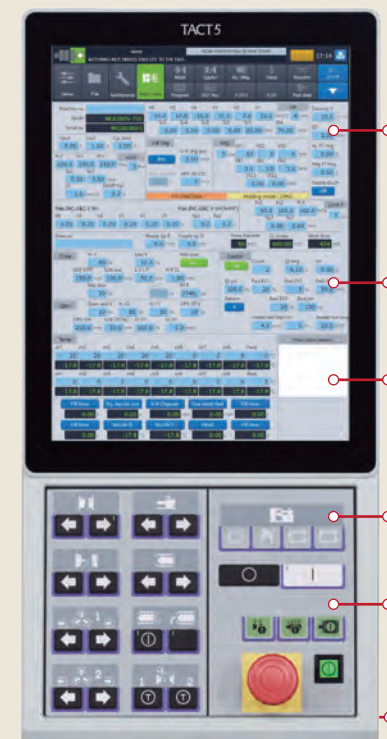
TACT5 Controller is designed to minimize inconvenient screen switching for the operators. Combinations of the top and bottom windows (e.g. trend data and molding condition) can be arranged freely.

### Easy Operation Like a Smartphone



Flick operation, switching top/bottom/left/right screens, swiping from top/right/left, and scrolling of event data and monitor screen are possible.

### New IoT-Enabled Controller TACT5



◀ Main Data Screen  
Main molding conditions are displayed on the screen.

○ Universal Design  
The interface has been updated. Layout and font sizes have been significantly improved, taking its visibility and user-friendliness to the next level.

○ Multi-Language Display  
Japanese, English, Chinese, Italian, Spanish, Thai, and Korean.

○ Light-Load Resistant Film Type Touch Panel  
It prevents misoperation and frustrations.

○ Molding Mode Switch  
Set-Up | Manual | Semi-Automatic | Automatic

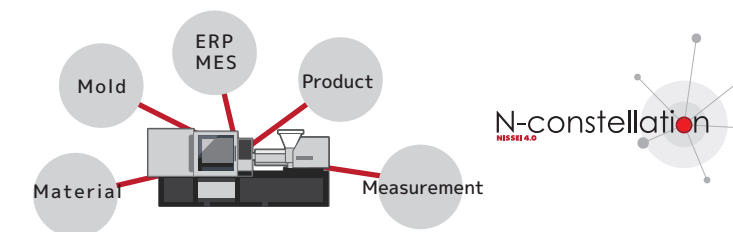
○ Flat Control Panel  
It is carried over from its predecessor to offer intuitive operation.

○ LAN & USB Connectors  
For connecting to a PC or USB memory to export and save data.

## To Be a Hub for the Molding Factory

### <Communicating with Auxiliary Equipment>

OPC-UA, which is a communication standard widely used throughout the world to network controllers, comes standard in NEX-V Series. The machine, various auxiliary equipment, and MES can be networked. Data collected in the molding machine can be displayed on TACT screen.



N-constellation



○ MES (Manufacturing Execution System)  
OPC40077

○ Hot Runner  
OPC40082.2

○ Mold Temperature Controller  
OPC40082.1

○ Take-Out Robot  
Original communication protocol

\*Communication capability varies depending on the auxiliary equipment maker. Contact us for more details.

## Visualizing the Molding Machine in a Remote Location

### <Remote Control & Remote Maintenance>

By connecting the molding machine to the network, TACT screen can be viewed or operated remotely from a PC and tablet. It can be utilized for checking and tracing production results remotely, troubleshooting, and remote maintenance.



\*Remote control requires a TeamViewer account (paid version), which must be prepared by the user.

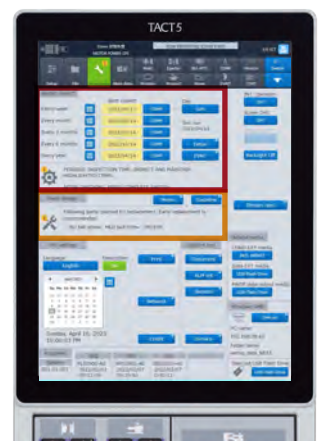
## No Machine Downtime

### <Parts Replacement Support Function (Parts Replacement Guideline Display Function)>

Based on the accumulated consumable parts replacement data, such as operation hours, numbers, and pressure, TACT5 alerts parts replacement time when each component reaches the guideline value. It also comes with the user-defined replacement management "Memo" function and notification "Alarm Set" function. These features can contribute to reducing downtime due to unpredicted failures.

### <Scheduled Maintenance Support Function (Scheduled Maintenance Date Display Function)>

Based on the startup date, a maintenance and inspection alert will be displayed when the configured dates arrives. A list of items to be inspected and maintained for the scheduled time can be displayed by touching the detail button.



### Parts Replacement Prediction Items

- Battery · Cooling fan
- Inverter
- NEW** · LCD panel · Touch panel
- Power-related parts
- CPU module · Ball screw
- Timing belt

### Fault Detection

- NEW** · Load cell & pressure sensor

### Fault Prediction

- NEW** · Toggle mechanism

\*More items to be added.