

# Nissei America



**Fordham Plastics** 

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CATALOG 04124





Headquarters in Nagano, Japan

Nissei Industrial Plastics, founded in 1947, is a world leader of injection molding technology. From Nissei's early beginnings through the present day, Nissei has manufactured and delivered more than 140,000 machines to over 80 countries.

Nissei America, with corporate offices and machine assembly in San Antonio, Texas, provides sales and support to plastics manufacturers in the USA and locations in northern Mexico. Nissei's Southeast Territory is headquartered in Marietta, GA, just north of Atlanta. Nissei Atlanta provides service, training and processing support to plastics manufacturers in NC, SC, GA, AL, MS, TN and VA.

Nissei manufactures a wide range of high-precision servo driven hydraulic and all servo electric injection molding machines for diverse applications. The Nissei platform spans from 7 to 1439 US tons.



Nissei America Headquarters — San Antonio, Texas

## **Horizontal Injection Molding Machines**





**FNX-III Series** 89 TO 503 U.S. TON

Hybrid Servo



PNX-III Series 45 & 72 U.S. TON





**FVX-III Series** 618 TO 1439 U.S. TON





**NEX-V Series** 33 TO 397 U.S. TON





**NEX-V Series** 33 TO 397 U.S. TON





**NEX-III Series** 16.5 & 507 U.S. TON

**All-Electric Servo** 

## **Vertical Injection Molding Machines**





**STX Series** 11 & 22 U.S. TON





**TNX-RIII Series** 59 TO 165 U.S. TON



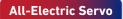


**TWX-RIII Series** 242 & 330 U.S. TON





**TH-EIII** 22 TO 77 U.S. TON



## Micro Molding Machines





Two Stage Injection NEX-30IV-1EN1 33 U.S. TON All-Ele





NPX7 Advance (Compact) 7.7 U.S. TON







**DCX-III Series** 

Hybrid Servo

121~813 TON 2-COLOR/MATERIAL



**DCE-III Series** 140~250 TON 2-COLOR/MATERIAL

All-Electric Servo



**N-PLAjet Series** PLA INJECTION MOLDING SYSTEM

All-Electric Servo

All-Electric Servo



NEX220III-50ETN

All-Electric Servo

HIGH CYCLE THIN-WALL MULTI-MATERIAL MOLDING



NEX180III-5ELMN with IU5A LSR INJECTION MOLDING MACHINE



IU5A PORTABLE ADD-ON INJECTION UNIT







## **Advantages**

#### **Molding stability**

Linearity materialized in all ranges; from ultra-low to high speed and low to high pressure

#### Response

High-response injection similar to that of electric machine

#### Injection holding pressure performance

Long-sustained and high injection holding pressure possible by switching to low-flow rate mode

#### Wide-ranging injection velocity

High-flow rate mode for high-velocity injection Low-flow rate mode for stable low velocity & low-pressure control **Low-cost** Reduction in initial cost and lifetime cost

#### **Energy-savings**

Cooling water amount reduced relieves cooling device costs Better energy efficiency than conventional pump drive

#### Maintainability

Proven track record of its durability of the mechanical components and excellent maintainability

## Low-noise

Electric machine level of low-noise operation

Easy molding condition setting Easy-to-use direct pressure type clamping mechanism

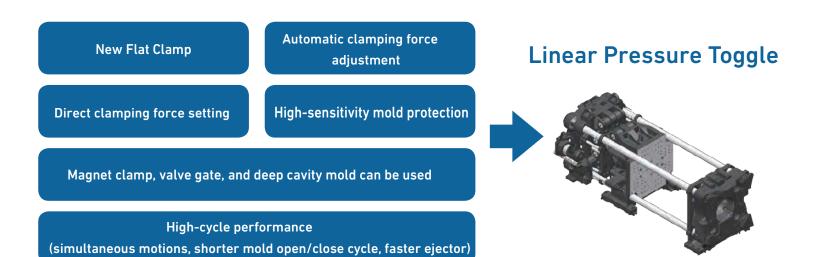
High-sensitivity mold protection

Durable &Low Maintenance

Low cost



Linear Pressure Toggle: a Mechanism that Utilizes the Advantages of the Toggle Mechanism and Possesses the Characteristics Similar to the Straight-Hydraulic Clamping System



## NEX Type Injection Unit and New Plasticization Device Provides for Improved Plasticization Stability

Low inertia servomotor, NISSEI's original injection unit, and its control materialize higher speed/response/pressure injection and optimization of barrel temperature control. The NEX type injection unit expands the moldable range and makes high-precision injection and metering possible. For 2EG~12EG injection units, newly-designed and improved plasticization devices are equipped to reduce molding defectsby subdividing and optimizing the barrel temperature control zones.

- Reduction of Heat-Up Time and Energy Consumption
  Improving Molding Stability
  Shortening Plasticization Time
- High-Speed, High-Response, and High-Pressure Injection

### **Highly Precise Injection Unit**





#### High-Performance & User-Friendly



#### **Traceability Support**

Search for event and monitor data in specified date is possible.

#### SET-UP Mode/SET-UP Screen

Settings related to startup, such as mounting mold and purging, are consolidated on one page. When SET-UP mode is selected, it automatically switches the screen to the SET-UP mode to eliminate troublesome screen switching during setup.

#### **Enriched Maintenance Functions**

TACT IV can notify when recommended scheduled maintenance and consumable parts replacement time arrive, and its related notes can be entered.

#### Shutdown Sequence

A variety of finishing states after completing production is available. Operating power state and shutdown sequence for each actuator can be freely selected.

#### **Descriptions of Errors**

It displays error message and solution.

#### **Descriptions of Adjusters**

It displays easy-to-understand definitions of the technical terms used for the adjusters.

#### **Enriched Programming Function**

Simple interface programs with auxiliary devices can freely be created on the screen. The program can be saved together with the molding data (ladder programming function). Various error input and signal output functions can be assigned to the four of input/output terminals (simple programming function).

#### Screen Lock and Adjuster Masking Functions

Adjusters that need to be password protected can be arbitrarily selected.

## PQ Manager

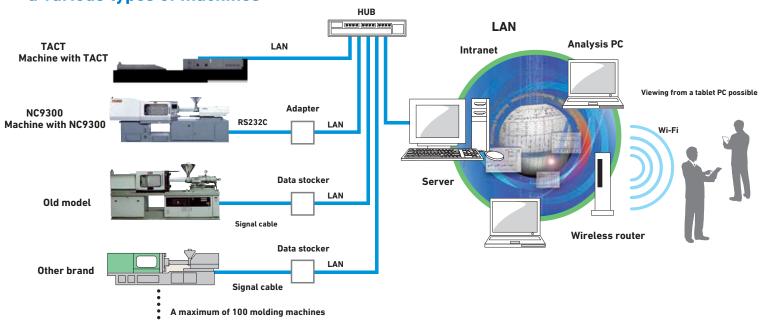


PQ Manager is a highly effective control system with many different applications ranging from quality analysis of a single machine to production information management for up to 100 injection molding machines with remote capability.

- A cluster management system with quality analysis and production management capabilities can be built by connecting injection molding machines to the computers via LAN.
- Centralized monitoring of older NISSEI models and other brands is possible (this applies to production control functions only).
- Simultaneous waveform collection from multiple machines is possible.
- Collected monitor data, molding condition, and operation history data of each machine can be utilized as evidence (traceability data) for quality assurance.

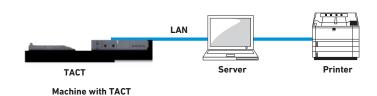
- Since molding condition during mass production and operation data can be post-analyzed relatively, it can be utilized as a tool to analyze the cause of molding defect and machine stalling, improving productivity.
- Real-time production progress can be grasped remotely by the email transmission function.
- Viewing from a tablet is possible.
- Display language can be switched (Japanese, English, Chinese, Spanish, Korean, and Thai)

## Example of a group control system that manages a various types of machines



#### **Example of a one-to-one connection between PC and molding machine.**

A quality analysis system can be built by simply connecting a machine with TACT controller and notebook PC via one Ethernet Cable. Costly measuring devices are not needed.



## **Training & Development**





#### **Training & Development**

Nissei America, Inc. established NISSEI SCHOOL in 1987. During the last thirty years of its operation, over 6,000 people have completed this training course.

NISSEI SCHOOL utilizes the latest model machines with a modern microprocessor-based controllers in the class. We are confident that through the lecture and hands-on training, participants will become proficient in operating the injection molding machines as well as producing better quality products. Those who graduated from NISSEI school are playing an active role in the industry. Four locations (Los Angeles, Chicago, New Jersey, and Texas) are available in the United States.

#### **Course Descriptions**

#### First Day's Agenda

- Nissei company profile
- The molding machine: general descriptions
- Exploring the actual machine
- Manual operation procedures, including mold setup
- Procedure for automatic operation

#### Second Day's Agenda

- Details of the electronic controller
- Optimizing the molding conditions
- Controlling the injection process
- Statistical quality control
- Starting the machine and molding operation

#### Third Day's Agenda

- Hydraulic components and circuits
- Electrical diagrams
- Diagnostic functions and troubleshooting
- Maintenance and inspection
- Presentation of Completion Certificates

## **Training Locations**

For current class schedule:



Texas 3730 Global Way San Antonio, TX 78235

Phone: 732-271-4885

#### New Jersey

1085 Cranbury South River Rd. Jamesburg, NJ 08831 Phone: 732-271-4885

#### Chicago

721 Landmeier Road Elk Grove Village, IL 60007 Phone: 847-228-5000

#### Los Angeles

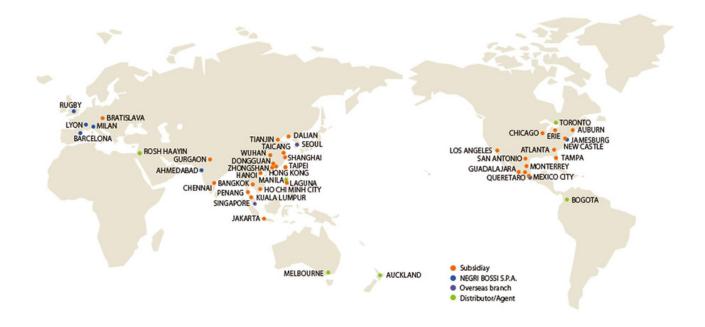
623 S State College Blvd. #10A Fullerton, CA 92831 Phone: 714-693-3000



## **Nissei USA Tech Centers & Satellite Offices**



## Nissei Global Network



Fordham Plastics Equipment Corporation, established in 1999, markets high quality equipment to the Plastics Industry. Fordham Plastics' mission is to provide solutions which help plastics processors manufacture quality products at lower overall costs. We know from you, our customers, to compete and succeed in the global plastics industry today, you require superior technology, excellent support and extensive product and process training.

