

# NACHI-FUJIKOSHI's industrial robots are making innovations in manufacturing throughout the world.

NACHI-FUJIKOSHI leveraged know-how from their hydraulic and machine tool divisions to become the first Japanese manufacturer of industrial robots in 1968.

Since then, NACHI-FUJIKOSHI has been introducing products built on its technological excellence and innovative strength to accurately respond to market demands. Currently NACHI-FUJIKOSHI has many partnerships with Automotive and General industries.

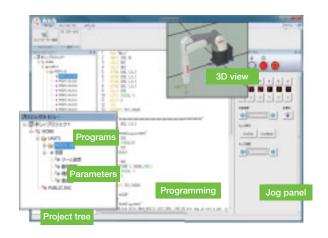
Through these partnerships and the delivery of world class products NACHI-FUJIKOSHI has earned a high level of respect among these industries around the world. From high-speed, high precision operations to lifting heavy loads used in a full range of assembly work and welding solutions. NACHI-FUJIKOSHI's robots are innovating production facilities with their incredible speed. We will continue to evolve with customers to meet the challenge of the world's automation needs.

# SUPPORT SOFTWARE

A number of software features are available that make the robot easier to use by having readily available access to the robot system.

## Programming tool PC-based Teaching Tool

- Software for robot setting, programming and debugging.
- User can manage setting and program files based on the project.
- Exclusive editor for robot language
- User can easily manage and input signal, position and parameter.
- User can control the robot without teach pendant.



## **User task functions**

· Possible to program processes in parallel with robot operations

## Application example

- Time consuming calculations and robot operations are processed in parallel to reduce cycle times
- Various statuses are shown on the screen on the teach pendant

# Graphic User Interface Flex-GUI

- · Customizable teach pendant screen menu.
- · Works as a system operation console which can control peripheral devices.



# Offline programming tools Robot simulator

· Excellent for initial studies for installing robots Can be used as an operation instruction tool

## FD on Desk Regular (option)

- Offline programming
- Working envelope & layout considerations
- Cycle time simulation
- PLC programming editing

## FD on Desk Pro (option)

- Create programs from CAD
- Multiple control units supported



\*The MZ series now has FD on Desk Light (CFD controller only) as standard equipment. (Functions are the same as FD on Desk Regular)

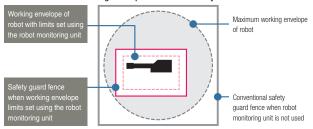
## Robot Monitoring Unit RMU

- Safety control unit monitors robot conditions (position and speed)
- Possible to reduce costs and space

Facilities are safer because the positions and speeds of robots are monitored

- →Limit working envelope of robot
- →Minimize size of safety fences

## Working envelope of robot and safety fence



# Supports a variety of fieldbuses

- DeviceNet (master and slave)
- EtherNet/IP (master and slave)
- EtherCAT (slave)
- CC-Link (master and slave)
- PROFIBUS (master and slave)
- PROFINET (slave)

DeviceNet and EtherNet/IP are registered trademarks of ODVA (Open DeviceNet Vender Association, Inc.). EtherCAT is trademarks of Beckhoff Automation GmbH.

CC-Link is a registered trademark of CC-Link Association (CC-Link Partner Association: CLPA). PROFIBUS and PROFINET are registered trademarks of PROFIBUS & PROFINET International.

# ENGINEERING NETWORK SERVICE

## **Robot systems**

## **System products**

NACHI's system engineering team puts its wealth of experience to work for you, providing system solutions that are easy to use along with high-cost performance.

## Peripheral devices for the robot

NACHI provides proven highly-reliable robot application devices.

## Offline program system

Robot operations can be simulated before installation to check performance. Creating an operation program beforehand allows the robot to be directly installed in the assembly line.



Offline programming

## Post-installation service

## From setup through startup

NACHI's skilled technicians provide support during the installation process, from setup to connection, teaching, movement, and supervision, until the line is fully operational.

## Quick response to emergency calls

NACHI's specialized technicians are "on-call" to immediately respond to customer emergencies.

## **Reliable support from remote locations**

Robots can be operated remotely when placed online, allowing specialized service professionals to provide accurate support to worldwide locations.

## The right parts when you need them

Our service locations always have important maintenance parts in stock. We can deliver the parts you need quickly.

## **Periodic inspections**

As a trusted and reliable partner, NACHI performs periodic inspections to extend the life of your robot.

## **Overhauls**

NACHI provides a selection of services suited to the conditions of your robot and performs overhauls to ensure that your robot is always in the best condition. NACHI can also provide temporary replacement robots to keep your line operating during repairs.





Overhauls

## **Training**

## **Robot training course**

NACHI provides a curriculum to train operators about robot operations, daily inspections, basic maintenance, and safety regulations.



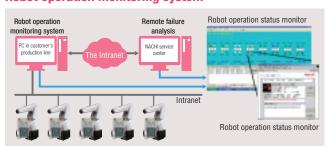




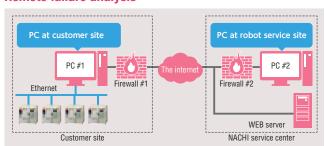
# Centralized robot monitoring system (AX controller only)

The centralized robot monitoring system offers monitoring of multiple robots connected by a network. The system supports preventative maintenance by collecting statistical data, operation history, and maintenance support data to keep the robots operating smoothly.

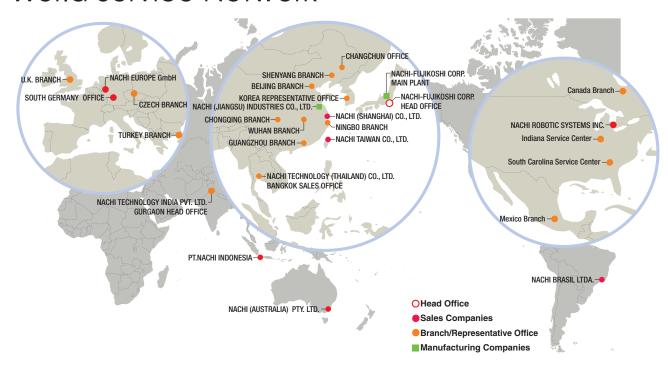
## **Robot operation monitoring system**



## Remote failure analysis



# World Service Network



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## **Safety precautions**

- Before using any robot, review all documentation including operating instructions and other attached documents. Familiarize yourself with the contents in order to ensure proper robot operation.
- When a robot is to be used for an application where robot operation may directly threaten the life or cause physical harm to personnel, a careful examination of its intended use is required. Contact a NACHI-FUJIKOSHI sales representative to provide details of the intended use. Obtain proper training prior to operating robot.
- Photos used in this document show the robots without safety fences, equipment, and devices that are required to comply with the applicable laws and regulations for ensuring safety. These photos are only provided to illustrate what is being described.
- The external appearances, specifications, etc. of the products portrayed in this catalog are subject to change without notice due to improvements in performance.

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