

## Micromanipulation System for ICSI

ICSI is the leading application in microinjection. The following products are required to perform ICSI in accordance with the microscope to be used.

### Micromanipulator and Mounting Adaptor

ICSI demands smooth and quick operation for aspiration of a sperm. Joystick type micromanipulators are commonly used to reproduce movement of the controller under a microscope. Coarse manipulators, separately required, are used to bring pipettes into focus in the field of view of the microscope.

#### ★Coarse-fine Integrated Sets

Designated microscopes: Leica/DMI3000B-6000B, Nikon/Eclipse Ti, Olympus/IX71, Carl Zeiss/Axio Observer

When you use the designated models of microscopes, the coarse-fine integrated sets are recommended. The sets also incorporate a dedicated mounting adaptor, thereby eliminating the problem of choosing and installing the mounting adaptor. The coarse-fine integrated design has reduced the size of the drive unit and enhanced stability.

EX: ■ [NAI-2L/N/O/Z \(Motorized Coarse types\)](#) ■ [NAI-3L/N/O/Z \(Manual Coarse Types\)](#)

#### ★Independent Coarse-Fine models

You can choose coarse manipulators and fine micromanipulators, according to your budget. A mounting adaptor is separately chosen in accordance with the microscope and combination of manipulators. (The mounting adaptor is sold separately.)

EX: ■ Coarse Manipulator: [MM-89](#), [MN-4](#) ■ Fine Micromanipulator: [MMO-202ND \(Hanging Joystick\)](#), [MO-202U \(Upright Joystick\)](#)

■ [Mounting Adaptor: Various types of adaptors are available.](#)

### Microinjector

The microinjector is an instrument for handling (aspirating/injecting) a sperm and oocyte.

■ For Injection [IM-9B](#): Oil filled type. Sensitive control is possible since controlled volume is small.

[IM-9C](#): Pneumatic injector can also be used for injection purposes in some procedures.

This type is not oil filled, thus maintenance is easy. Recently, pneumatic injectors have been increasingly used for injection purposes.

■ For Holding [IM-9C](#): Pneumatic type is easily maintained and recommended for holding oocytes.

#### <Bit of Knowledge>

Narishige oil injectors do not incorporate injector oil as an accessory. The choice of oil varies by user.

Please choose the appropriate oil in view of viscosity and accessibility.

Viscosity: **HIGH** ← Silicone Oil ... Mineral Oil ... Water → **LOW**

### Micropipette Puller, Microforge and Microgrinder

The instruments below are used for processing a glass capillary to a glass pipette. Glass pipettes are commercially available and often utilized for convenience. On the other hand, it is also possible for you to make glass pipettes on your own.

■ Micropipette Puller / [PC-10](#): This instrument is used to pull a glass capillary to a glass pipette with a small um diameter.

■ Microforge / [MF-900](#): This instrument is used to process a glass pipette tip.

The MF-900 provides functions for cutting and bending a pipette, firepolishing, and making a spike on a pipette tip.

■ Microgrinder / [EG-400](#): This instrument is used to bevel a pipette tip in order to enable easier penetration of a sample.

#### <Bit of Knowledge>

In addition to the micromanipulation products, you need to prepare a microscope, a warming plate for temperature control of a sample, and an anti-vibration table, to perform ICSI. These additional instruments are available from other companies.

If you have any questions or need further information, please contact us.

Narishige Group Website

URL: <http://narishige-group.com>