

## The Next-generation Pneumatic Injector IM-11-2

Conventional pneumatic injectors are not as responsive as oil injectors. This fact has created a stereotypical image of pneumatic injectors as injectors for holding.

IM-11-2 is a pneumatic injector of the next-generation. Enhanced responsiveness that Narishige's ingenuity and dedicated techniques have achieved allows aspiration and injection in comparable precision to oil injectors and in an easy manner.

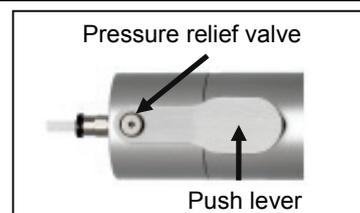
This new injector brings a certain distinctive advantage of pneumatic injector that is adjustable responsiveness even with a sample remaining in a pipette. This Web News focuses on functions and features of IM-11-2.



IM-11-2

### One-touch Pressure Relief

IM-11-2 is outfitted with a one-touch pressure relief valve which can release and seal internal pressure by fingertip operation. The new valve not only improves reliability of the function but also enhances durability and user friendliness compared to the conventional screw-fix type valve (CI-3). By using this function, interfacial surface of pipette fluids and effective volume of the internal syringe can be adjusted easily.



### Adjustable Responsiveness

A great advantage of pneumatic injector is that pressure being created in the pipette tip can be adjusted by changing effective volume of syringe inside the injector. The pressure relief valve with the enhanced usability allows responsiveness of injector easily to your familiar responsiveness. Even with a pipette holding a sample inside, the pressure relief valve can be let open to allow adjustment of responsiveness by rotating forward and backward the control knob. \*

\* When the pressure relief valve is pressed to function, fluid can run into a pipette by capillary action. This action is stopped by applying positive pressure.

<p><b>Front positioning of coarse control knob: The syringe has a small volume.</b> → the response becomes rapid.</p> <p><b>Image of rotating the coarse control knob when the room inside of syringe is small.</b></p> <p>Pressure change : Large Response : Rapid</p>	<p><b>Rear positioning of coarse control knob: The syringe has a large volume.</b> → the response becomes slow.</p> <p><b>Image of rotating the coarse control knob when the room inside of syringe is large.</b></p> <p>Pressure change : Small Response : Slow</p>
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### Wide Movement Range and Pressure Changeability\*<sup>1</sup>

IM-11-2 employs a coarse-fine control knob and a long syringe\*<sup>2</sup> which allows wide movement range, whereby pressure changeability per rotation of knob is as large as 25 times\*<sup>3</sup>. Combining the two features allow wide range of pressure changeability.

\*<sup>1</sup> In commercially available microinjection purpose pneumatic injector. The data was surveyed by in-house testing.

\*<sup>2</sup> Maximum 40mm ( Coarse approx.30mm, Fine approx.17mm )

\*<sup>3</sup> 5 times difference in the tip 5mm area and the end 5mm area in coarse knob operation. 5 times difference in the coarse knob operation and the fine knob operation per rotation of knob. The date was surveyed by in-house testing.

IM-11-2 is a pneumatic injector. Unlike oil injectors, pneumatic injectors are easy to maintain and eliminate possible troubles related to injector oil.



※ There is a variation model of IM-11-2 which is IM-12. This model does not have a fine knob but has a compact body emphasizing quick responsiveness. IM-12 is intended for sale in Japan.

※ For clinical use in the USA, please contact us.

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