A close-up photograph of the Megaruptor 2 machine. The machine is dark grey with a large, dark, rectangular sample chamber on top. The Diagenode logo is visible on the top edge of the chamber. Below the chamber, there is a white plastic component with several ports and a white cable connected to it.

Diagenode

Megaruptor[®] 2

Simple, Automated, Reproducible
Diagenode Shearing Machine

Dear customer,

Thank you for choosing our device and for your confidence in Diagenode.

We have designed this device using our highest level of knowledge in shearing so that it exceeds your expectations. This device will serve your research needs for many years and will provide the best experience with long DNA molecules preparation.

INTENDED USE

The Megaruptor® 2 is intended for laboratory use. It is not suitable for clinical use. Use of the Megaruptor® 2 in any manner other than as directed herein could cause harm to persons and may void the warranty. Diagenode will not be responsible for injury or damage resulting from improper use of the Megaruptor® 2.

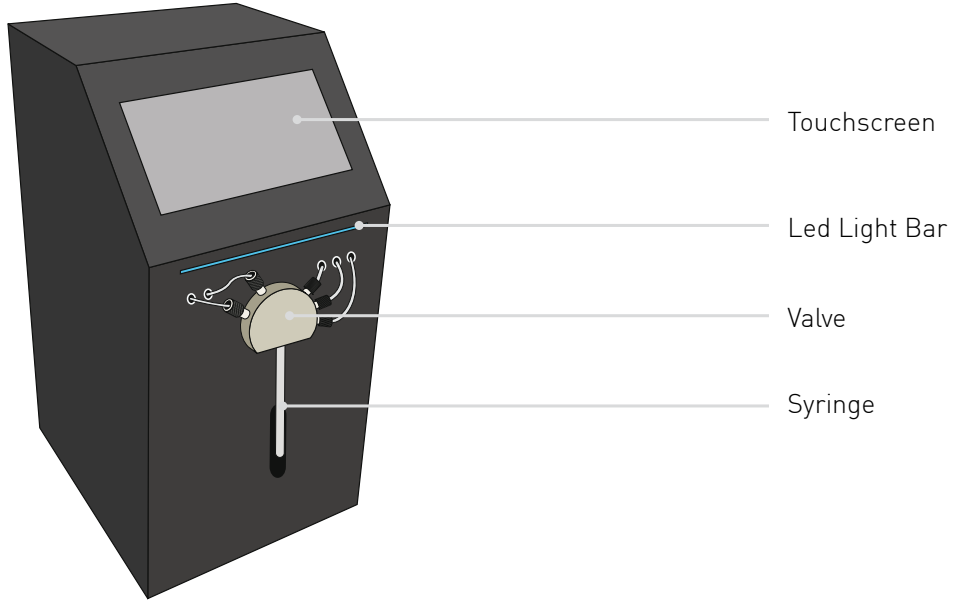
WARNING

Carefully read the following instructions before using your Megaruptor® 2 to avoid the risk of personal injury and damage.

- Do not use the Megaruptor® 2 for anything other than its intended use.
- After removing the packaging, make sure that the Megaruptor® 2 is intact.
- Do not allow the Megaruptor® 2 to be used by untrained individuals.
- Clean the Megaruptor® 2 carefully and regularly with soft tissue and water.
- Do not use any accessories not recommended by Diagenode.
- Do not use the Megaruptor® 2 if it is showing any sign of breakdown or malfunction.
- Do not attempt to dismantle or repair.

TECHNICAL SPECIFICATIONS

Power Supply	24V, 3A (internal)
Transformer Voltage Range: 90-264 VAC	Internal
Unit Dimensions	200 (W) x 230 (D) x 395 (H) mm
Fragment Length Range Achievable	3 kb - 75 kb
Sample Volumes Accepted	Minimum: 50 μ l. Maximum 400 μ l (depending on fragment length; see "Processing Samples" chapter) Recommended: 200 μ l.
Sample Concentration	0-50ng/ μ l
Time per Sample	10-20 min (depending on target size); includes sample processing and system washing
Total Weight	8,2 kg
User Interface	Touch screen with Megaruptor® software



DESCRIPTION

INTERFACE



Shearing : Running a shearing experiment (follow instructions)



Time : Display the current time and date



Wash : Sequence for washing the instrument



Settings : Visualize and change the parameters of the Megaruptor® 2



Info : General information about your Megaruptor® 2



Initialization : Initialize the pump and set the syringe to its "0" position

LED LIGHT BAR

The LED light bar allows the tracking of the processing of your samples.

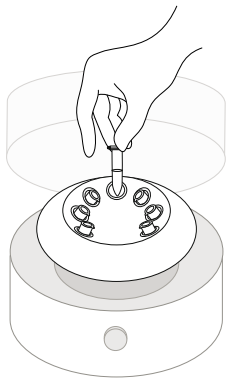
The **green light** indicating the progression.

The **red light** indicates an error.

The **blue light** means the system is waiting for the operator.

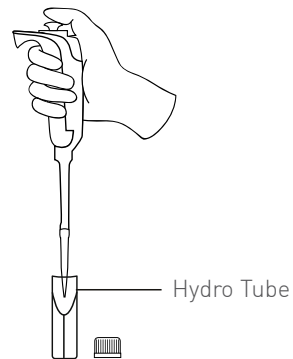
The **pink light** flashes when the pump is initializing.

1 **Centrifuge** to remove impurities



Suspended particles can be removed by centrifugation at room temperature for 15 min. at 16,000 x g

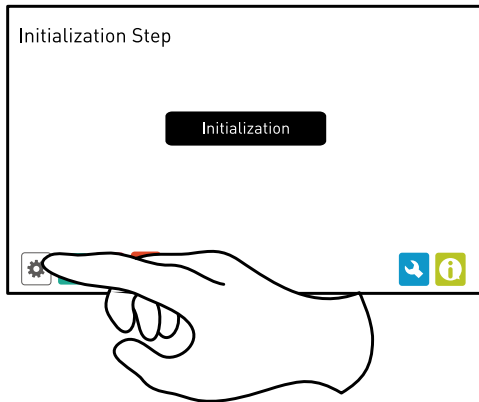
2 **Sample** preparation (between 50-400 μ l)



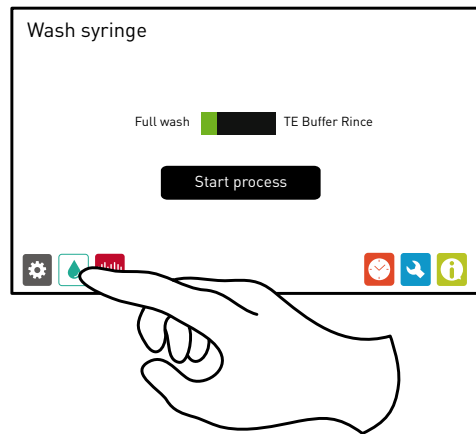
DNA solution in the 0-50 μ g/ml range

INSTRUCTIONS

- 3** Start the device and initialize the pump

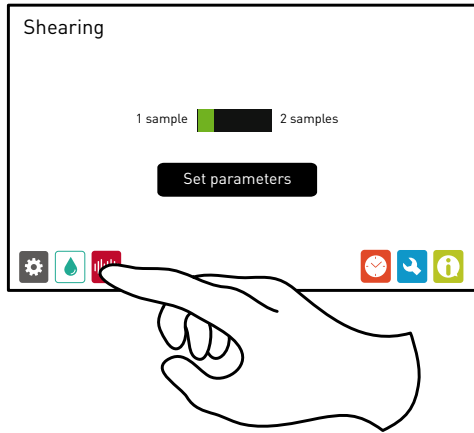


- 4** Wash the system before the first sample is sheared



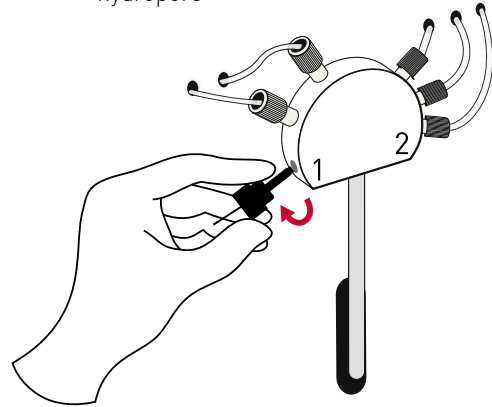
5

Select number of samples and **set** parameters



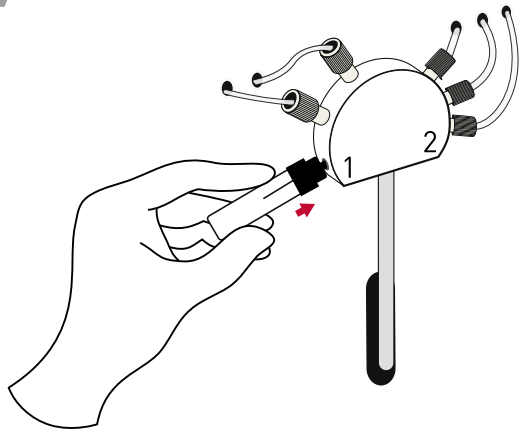
6

Securely fix the hypopore at position 1 and, if two samples selected, 2 before you preload the hypopore

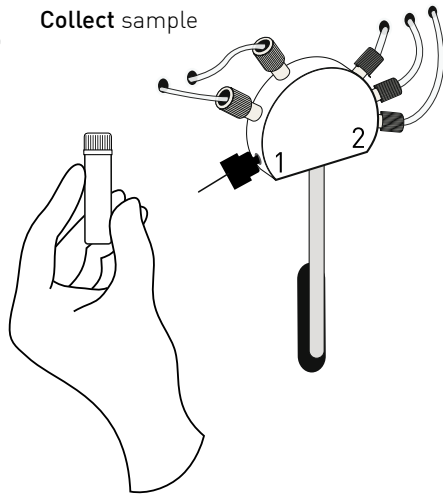


INSTRUCTIONS

7 Plug the sample and **start** the fragmentation



8 Collect sample



CLEANING

While the pump is in regular use, additional maintenance steps are typically unnecessary. The syringe wash that is performed after each sample should sufficiently flush the fluid paths to keep them clean and clear. However, steps can be taken to optimize the performance and lifetime of the pump and syringe. (Read the full manual)

SAFETY APPROVAL

Megaruptor® 2 has been assessed and **certified under the CE standards.**

ENVIRONMENTAL PROTECTION

Packaging materials contain recyclable materials and the Megaruptor® 2 has been manufactured using high quality materials that can be recycled.

WARRANTY

Diagenode guarantees all products from any manufacturing defects as we rigorously test all products to meet strict quality standards. Diagenode warrants that all standard components of its instruments will be free of defects in materials and workmanship, unless the original quotation or accompanying documentation states a different warranty period. All warranty periods begin on the date of delivery and apply only to the first purchaser of the product. If a manufacturing defect arises and a valid claim is received within the warranty period, Diagenode, at its discretion, will repair or replace the product in accordance with the warranty terms and conditions stated herein. In case of repair or replacement of a product under warranty, Diagenode will cover the expenses to return the repaired or replacement product.

This warranty covers only manufacturing defects and does not cover any damage caused by misuse, lack of compliance to recommendations stated in the manual, neglect, accidents, abrasion, or exposure to extreme temperatures, chemical solvents, or acids. Improper or incorrectly performed maintenance or repairs will void the warranty.



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