

LASER CLEANING MACHINE FANUCI FUTURA



Technical Proposal

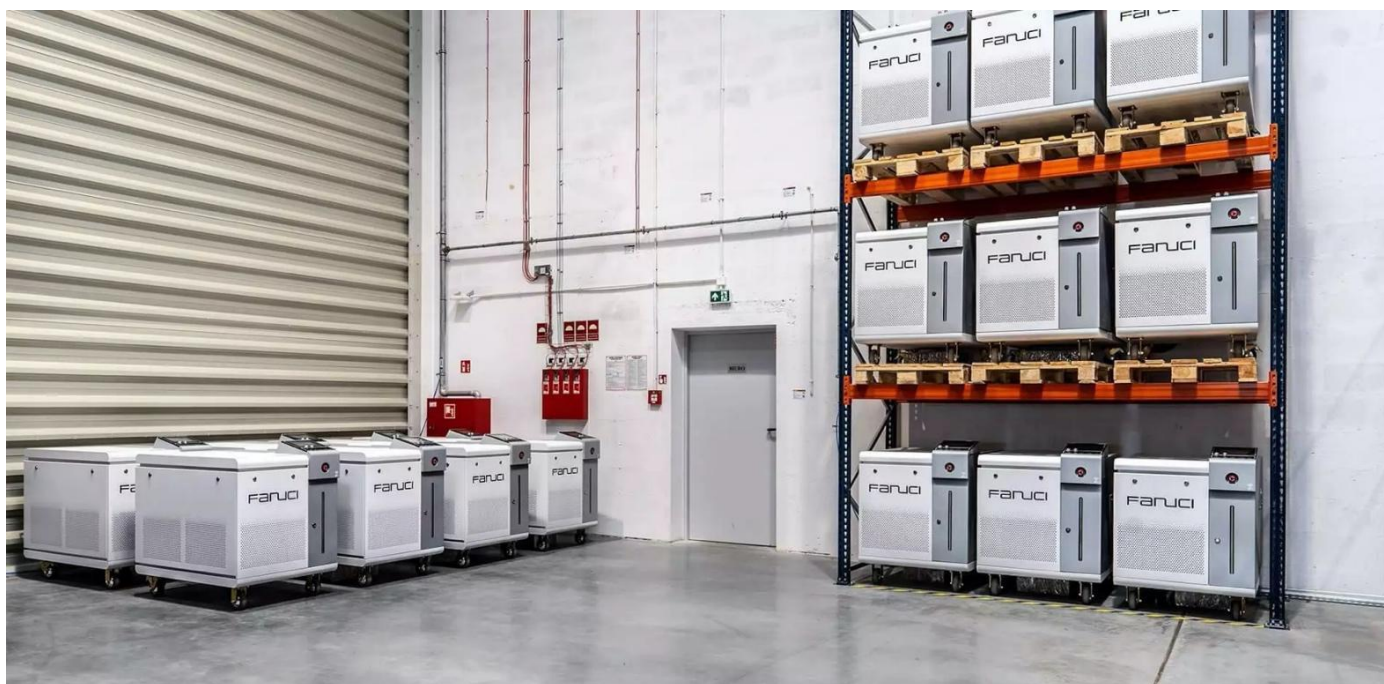
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The standard range of 4th generation cleaning machine

FANUCI FUTURA

FANUCI laser cleaning machines with a power range of 1000W, 1500W, 2000W are always available from stock.



Advanced laser cleaning technology available to everyone!

The laser cleaning process consists in fusing the contact area of the joined elements with the heat obtained as a result of applying a concentrated beam of light with a very high energy and density to the cleaned area. The single-module fiber supply provides the device with constant, stable power and perfect beam quality. The laser power range is adjustable depending on the production needs. This solution guarantees unrivaled flexibility of use and high reliability. Laser cleaning is a method particularly efficient in multi-series production.

The use of a mopa laser or a fiber laser for industrial cleaning has become widespread because this technology has become many times more efficient and easier to use compared to traditional cleaning methods previously used in production.

Compared to the generally accepted, traditional cleaning techniques, laser technology is a more flexible, economical and, above all, safer process, while maintaining the ergonomics of the costs incurred. Laser cleaning is versatile and can be safely used on delicate surfaces. Cleaning lasers combine materials of different types, thickness and shape. The obtained clean are invisible, aesthetic and fast, and no deformation of the material. No mechanical or post-process treatment is required after the end of the cleaning process.



Laser cleaners do not require constant, ongoing maintenance. Their design is small, which makes them easy to move between workstations. Currently, laser technology in cleaning is widely used in many industries, including in the automotive industry, astronautics, electronics, aviation, energy production, production of sanitary equipment, production and regeneration of matrices, food processing and the widely understood performance of external services, etc. The range of laser cleaning applications is constantly growing along with the advancing technology. The third generation of FANUCI laser devices has been expanded, among others with cleaning and laser cutting functions! The cleaners also have the WPQR TÜV Rheinland cleaning certificate!

➤ [Click on the link and see the presentation of the FANUCI laser cleaning machine on our website or link to Youtube!](#)

Why FANUCI laser cleaner is the best choice?

1. Components produced by the best producers

FANUCI laser cleaning machines are equipped only with the highest quality components that guarantee the reliability and stability of the laser cleaning process. The heart of the device is the single-module FANUCI Power ON

The proprietary PRO Wobble laser head with an electric lens control system (oscillation) is responsible for the highest precision of the cleaning process. The PRO LaserCLEAN control system is responsible for the stability of the entire process. The electricians Schneider, ABB, Weidmuller, Omron and the innovative cooling PRO Chiller Quang are responsible for the continuity of production.

2. Environment and health-friendly innovation

The laser cleaning technology is constantly developed, which improves work safety and reduces the number of potential hazards. The device could be equipped with the PRO CleanAIR filter system, which automatically removes fumes and dust, making the device friendly to the environment and the operator's workstation. At the same time, it affects the extended service life of the consumables used.

3. Top cleaning precision

The FANUCI cleaning laser is the first on the market to use the proprietary PRO Wobble head with a moving laser beam that enables the oscillation process. It is characterized above all by lightness, simple, intuitive operation, excellent quality of the obtained cleans, as well as high speed of work in the absence of post-process processing.

4. Excellent stability and durability

The laser cleaning technology ensures absolute process stability and quality, and guarantees the highest cleaning precision. It is currently the most popular, best and most durable cleaning solution available on the market. It perfectly replaces traditional cleaning methods, in particular in thin sheets of stainless steel, aluminum, carbon steel, galvanized steel and copper and many other materials, including highly reflective ones.

5. Guarantee of reliability for years

Due to the high quality and reliability of the manufactured devices, the FANUCI laser cleaner has the option of implementing a full 2-3 year warranty for the entire device.

Success measured by the result of completed investments!

We kindly encourage you to familiarize yourself with the global reference list of completed installations of FANUCI laser cleaning machines. Fanuci have over 30 sales and services globally and set up over 20 service stations. You may either find our Office information close to you on our website or contact our representatives directly.

FANUCI

TÜV Rheinland Polska Sp. z o.o.
Certification Body for Welding Manufacturers
Jednostka Certyfikująca w zakresie procesów spawalniczych



TÜVRheinland®
Precisely Right.

Welding Procedure Qualification Record (WPQR)

Protokół Kwalifikowania Technologii Spawania (WPQR)

Certificate No. / Certyfikat nr: **01 8610 PL/V-210310.00**



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Reliable components. When laser precision meets Germany finesse.

FANUCI laser welders are innovative and comprehensive devices consisting only of the best, reliable components produced by global giants. Below is a list of the basic components of the offered 3rd generation laser cleaning machine.

Components	Producer	Offer
Laser Source (Fiber)	fanuci	✓
Laser head	Fanuci PRO Wobble	✓
Control system	Fanuci PRO LaserCLEAN	✓
Filtroventilation	Fanuci PRO CleanAIR	Optional
Electricity	Schneider, ABB, Weidmuller, Omron	✓
Cooling	Fanuci PRO Chiller	✓

I. FANUCI Power ON laser source



FANUCI Power ON is currently one of the largest manufacturers of fiber laser sources in the world, it has produced and delivered tens of thousands of fountains, becoming one of the two most recognized and recognized companies that produce these types of solutions. The offered device uses the latest generation fiber source, protected against beam reflection. The latest model of the resonator achieves ultra-high power output, which translates into optimal performance and excellent weld quality.

Basic advantages of fiber optic technology:

- technology is constantly developed and improved
- low operating and maintenance costs
- high efficiency and stability of the machining process
- significant reduction of production costs
- possibility of cleaning highly reflective materials, e.g. aluminum, copper or brass
- possibility of cleaning steel in various grades and dimensions
- the estimated operating time of the fiber source is approximately 100,000 man-hours
- technology friendly and safe for the environment and the workplace

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II. Fanuci PRO Wobble laser head with a moving beam (oscillation) system

The second, extremely important component that determines the quality and speed of cleaning is the laser head. The FANUCI welder is equipped with a proprietary, modern head with an electric moving beam system, oscillation. It has a patented mechanism that drives the focusing lens, which allows it to automatically change its position, and thus the width of the beam. The head is cooled with water (not air!), Which allows it to work stably and without interruption. The device has a light, ergonomic design and lies securely in the operator's hands.

What does the PRO Wobble function give us?

- Faster speed and better cleaning quality

The head with a movable lens controlled automatically makes it possible to correct material imperfections. The variable size of the spot results in a much better formation of the weld, not available so far in the technology of manual laser cleaning on traditional cleaning heads available on the market

- High performance

The proprietary system allows you to weld 2-10 times faster than traditional methods available on the market, and even 2-4 times faster than competitive, standard laser welders. The FANUCI device can work continuously 24 / h

- The highest level of security

The head is equipped with protective lenses and a liquid cooling system, which guarantees optimal protection against overheating, which at the same time extends the life of the device. Fully closed, solid housing increases the safety of components, giving maximum resistance to mechanical damage

FANUCI PRO Wobble laser head



III. Control System Fanuci PRO LaserCLEAN



TECHNOLOGY

Laser cleaning system



Scanning frequency Hz

Scan width mm

Peak power W

Duty cycle %

Frequency Hz

Technology 1	Technology 2	Technology 3	Common technology
Technology 4	Technology 5	Technology 6	
Technology 7	Technology 8	Technology 9	

Return

Import

Save

The operation system combines high performance with intuitiveness and ease of use. The control is placed on a color touch screen that allows you to set all the necessary parameters depending on the user's needs. The system allows you to remember ready programs for given type of cleaning or materials in accordance with your own production profile. If necessary, you can turn off the Fancui Pro Wobble oscillation function from the control system and use a laser with a point or line sport. The system is operated in several languages: English, French, Korean, Japanese, Spanish, Russian, Sabra, Polish, Chinese and others depending on end user's demand and developed in advance.

IV. Dust Collection and Filtration System Fanuci PRO CleanAIR 4.0 GenX

The designed cleaning exhaust with a filter allows to reduce air pollution where it is generated. Purified air can return to the working space and thus you can limit the losses associated with the discharge of warm air outside the building(in the case of extractors without a filter). It is a solution that is perfect for cleaning and filtering dry air pollutants.



Laser welder FANUCI FUTURA– technical parameters

Item	Fanuci-1000W	Fanuci-1500W	Fanuci-2000W
Laser Power	1000W	1500W	2000W
Laser Wavelength	1070 NM	1070 NM	1070 NM
Fiber Length	10 m	10 m	10 m
Operation Model	continuous/modulated	continuous/modulated	continuous/modulated
Positioning	red laser dot	red laser dot	red laser dot
Air Pressure	5-15L/min	10-15L/min	10-15L/min
Voltage	220V	220V	380V
Power Consumption	5KW	7KW	9KW
Frequency	50/60 HZ	50/60 HZ	50/60 HZ
Currency	25A	40A	25A
Laser Head Weight	900g	900g	900g
Laser Head Operation Mode	Oscillation / Spot / Line	Oscillation / Spot / Line	Oscillation / Spot / Line
Focus Length	800mm	800mm	800mm
Cooling	Distilled Water		
Laser Control Method	laser enable + security lock + metal switch/safety clamp		

Laser Cleaner FANUCI FUTURA– Parameters Table

Fiber Laser Cleaning System

Power	surface	speed	Wobble range	cleaning thickness	cleaning area(m²/H)
1000	Floating rust	50mm/S	150mm	20um	10
1000	Painting	50mm/S	150mm	100um	4
1000	Rustiness	50mm/S	150mm	120um	2.5
1500	Floating rust	50mm/S	150mm	20um	15
1500	Painting	50mm/S	150mm	100um	6
1500	Rustiness	50mm/S	150mm	120um	4
2000	Floating rust	50mm/S	150mm	20um	20
2000	Painting	50mm/S	150mm	100um	8
2000	Rustiness	50mm/S	150mm	120um	5

Overall Dimension:

Length :		1 183 mm
Height :		1 042 mm
Width :		805 mm
Weight :		350 kg

Technical Supports



Service

Guarantee of quality and reliability of production. We insist to have our professional service engineers to provide local support. The engineers speak same language, share the same culture, which can provide the fastest and most efficient support to you. We do not use the services from any third parties.



FANUCI dealers also have their own, fully equipped warehouse of all necessary service and operating parts, which allows us to optimize the process of service activities to the absolute minimum. We make every effort to ensure that service requests are constantly monitored and implemented within no more than 48 hours from the moment of their receipt. All service requests are automatically checked and remotely diagnosed.

Showroom, guarantor of a reliable and trusted supplier.

We have opened a professional showroom with a warehouse of service and consumable parts. Our clients thus have the opportunity to test and check the devices available in our offer free of charge. **It is also possible to arrange a free presentation of devices directly at the customer's premises!**



Guarantee

The main, unchanging goal of our company is to successively build trust and increasing satisfaction of our customers. We are constantly looking for innovative solutions that allow our company to build and develop the image of a reliable and trusted supplier, who at every stage of cooperation is a guarantee of a safe investment as well as reliable and stable production. The device is covered a 24-month warranty period from the moment of commissioning, but no longer than 25 months from the date of delivery.

Service and warranty requirements: The working environment, operation and maintenance of the device in accordance with the recommendations of the technical documentation, Operation and Maintenance Manual and the warranty card.