



**CO₂ LASER
SERIES**

FIREFLY

Models | **FF64 · FF85 · FF148**

Turkish Engineering, Turkish Made
Domestic Manufacturing and Domestic Capital

VENOX

T E C H N O L O G Y

Venox Technology has been producing laser machine series, which it has produced with its local engineering knowledge and entirely local capital, with TUBITAK since 2018. It produces in its campus located in the Development Zone in TUBITAK.

Venox Technology successfully introduces the Turkish brand to the world with the patents it holds on all the laser machines it produces.

**WE OFFER
TECHNOLOGY
FROM TURKEY
TO THE WORLD**



**NEED MORE INFORMATION
ABOUT OUR ENTIRE MACHINE SERIES?**

GENERAL CATALOG



SKYFLY



BUTTERFLY



ABOUT US

Venox Teknoloji is one of the leading companies in its sector and was established for the design and production of high-tech technology products.

Our company, operating in the field of laser technologies, produces innovative solutions with its R&D systems.

As a company, we always prioritize customer satisfaction and have the latest technologies and test devices.

We aim to produce high-tech machines imported from abroad within the country, using local capital, local engineering, and local materials.

The projects we carry out in our R&D center are supported by the Eastern Marmara Development Agency (MARKA), KOSGEB, TUBITAK, the Ministry of Industry and Technology and the Ministry of Economy .

With our production line with “**Just in Time**” policy and our CE certified laser machine series with industrial working capability we offer successful solutions in many industrial areas and to SME companies that want to establish their own business.

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FIREFLY

INDUSTRIAL CO₂ LASER SYSTEMS

FIREFLY 64



FIREFLY 85



FIREFLY 148



FIREFLY 64

FIREFLY 85

FIREFLY 148

BUTTERFLY

Working Area

610x410 mm

810x510 mm

1410x810 mm

410x310 mm

Laser Power

40 / 60 / 80 W

40 / 60 / 80 / 100 / 120 W

40 / 60 / 80 / 100
120 / 150 / 250 / 400 W

35 W

Cooling System

Venox Engineering's Exclusive Smart Electronic Gas-Free Cooling System

Air-cooled

Max. Processing Speed

3 m /sn - 4G İvme

3 m /sn - 4G İvme

3 m /sn - 4G İvme

3 m /sn - 4G İvme

Laser Security

CDRH laser safety certificate, laser class 4, CE certified, open cover control switch, high-temperature protection

**Machine Dimensions
(W x H x D)**

690x460x500 mm

1300x1000x500 mm

1500x860x600 mm

720x605x330 mm

Weight

165 kg

225 kg

465 kg

48 kg

Power Consumption

AC 110-230V 50/60 Hz - 800 W

AC 110-230V 50/60 Hz - 1000 W

AC 110-230V 50/60 Hz - 1500 W

AC 110-230V 50/60 Hz - 600 W

Options

Rotary Pro, Feeder Master, FireCam, Screen Holder, High-Speed Motor, Custom Series Table, 1.5"-2"-2.5"-4" Lens Options.

Custom Series Table, 1.5"-2"-2.5"-4" Lens Options.

VENOXCAD SOFTWARE

BOOST YOUR POWER!

With its 100% Turkish user-friendly interface and management panel, VenoxCAD makes your work easier.

You can easily differentiate engraving, marking, and cutting areas with the coloring option in the VenoxCAD control panel. Assign different power and speed parameters to each material and achieve perfect results effortlessly. You can remotely control your device from the control panel, define or start new jobs.

VenoxCAD calculates the processing time for you and provides a simulation display before processing, making the preparation stage of the job comfortable. This allows you to calculate the quality of the job and make accurate pricing.

VenoxCAD, by providing intelligent prioritization from inside to outside to improve processing quality, prevents wastage in materials. Moreover, in serial production, VenoxCAD speeds up your jobs, allowing you to save both time and material. Furthermore, the full version of VenoxCAD comes free with your laser machine and is accompanied by on-site training as part of our service policy.



THE LIST OF MAIN MATERIALS YOU CAN DO MARKING AND CUTTING WITH THE **FIREFLY** SERIES

MATERIAL	MARKING	CUTTING
Wood	✓	✓
Acrylic	✓	✓
Plexiglass	✓	✓
Ceramic	✓	✗
Delrin	✓	✓
Material	✓	✓
Leather	✓	✓
Marble	✓	✗
Melamine	✓	✓
Paper	✓	✓
Cardboard	✓	✓
Rubber	✓	✓
Tree Veneer	✓	✓
Natural Stone	✓	✗
Faience	✓	✗
Cork	✓	✓
MDF	✓	✓
Mirror	✓	✗
Food	✓	✗
Stamp Rubber	✓	✓

MATERIAL	MARKING	CUTTING
ABS	✓	✓
PBT Polybutylene terephthalate	✓	✓
PC Polycarbonate	✓	✓
PE Polyethylene	✓	✓
PES Polyester	✓	✓
PET Polyethylene terephthalate	✓	✓
PI Polyimide	✓	✓
POM Polyoxymethylene	✓	✓
PP Polypropylene	✓	✓
PPS Polyphenylene sulfide	✓	✓
PS Polystyrene	✓	✓
PUR	✓	✓
PVC-free foam	✓	✓

MATERIAL	MARKING	CUTTING
Aluminum	⚠	✗
Anodized Aluminum	✓	✗
Gold	⚠	✗
Silver	⚠	✗
Copper	⚠	✗
Titanium	⚠	✗
Stainless Steel	⚠	✗
Sheet Metal	⚠	✗
Brass	⚠	✗
Painted Metals	✓	✗
Iron	⚠	✗
Zinc	⚠	✗
Nickel	⚠	✗

**THE MATERIALS LISTED HERE
HAVE BEEN SELECTED FROM
THE MOST FREQUENTLY ASKED MATERIALS**

**IF THE MATERIAL YOU WANT TO PROCESS IS NOT LISTED,
OR IF YOU WANT TO TEST YOUR MATERIAL,
PLEASE CONTACT OUR SALES REPRESENTATIVE.**

You can perform direct marking on anodized aluminum with the Firefly and Butterfly series. For other metals, you will need a marking solution. For detailed information about marking solutions, you can contact our sales team.



PVC, polycarbonate thicker than 1mm, HDPE plastic, PolyStyrene and PolyPropylene foam, fiberglass, and carbon fiber-coated products are not recommended for cutting with the Firefly or Butterfly series due to the toxic gases or highly flammable materials they emit during cutting.

IN SMALL BUSINESS AND INDUSTRIAL APPLICATIONS

HIGH PERFORMANCE AND CONSTANT EFFICIENCY



CUTTING WITHOUT BURNING



DETAILED ENGRAVING



PRECISE MARKING

STANDARD FEATURES

- > Software / VenoxCAD
- > Max. Speed / 1.5 m/sn
- > Durable Chassis / Stainless Steel
- > Product Feeding / Unlimited Space Opportunity
- > Ergonomic / Easy to Change Lenses
- > Material Height / Up to 200 mm



EVERY BUSINESS NEEDS

A statement of pride presented to the world from Turkey in the "middle class" laser category, produced by Venox Technology with Turkish engineering and domestic capital.

ISO 9001
BUREAU VERITAS
Certification



Firefly series offers its users the machine needs with world-class performance in a more economical way than equivalent machines, without compromising on safety and economy.

The Skyfly series provides high added value in end-user products with its expandable range of accessories. Additionally, with the ability for engineered contributions designed from scratch for industrial applications, it becomes your greatest ally in custom solutions.

In this way, you can expand your business more easily while having a machine that you can use for years without any problems.

It provides easy and reliable integration thanks to its Windows and Mac supported software.

ISO 14001
BUREAU VERITAS
Certification



Firefly series crowns unique Turkish engineering with state-of-the-art testing devices and its own patents.

The extremely compact Skyfly series uses only the highest quality mechanical components and electronic components are designed to extract the best work.

The Firefly series, which aims for high efficiency, has become the indispensable brand of hundreds of customers since 2018, with its technical service based on the "just in time" policy and its engineering that aims to prioritize customer satisfaction.

With its 3 different processing areas and very wide power options, the Skyfly series provides optimum results in all your work and allows you to avoid wasting time.

ISO 45001
BUREAU VERITAS
Certification



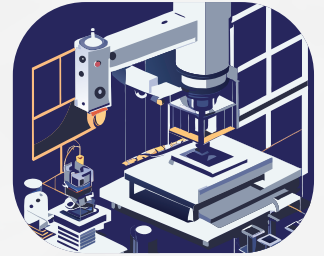
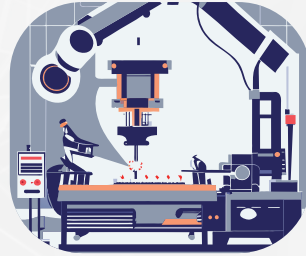
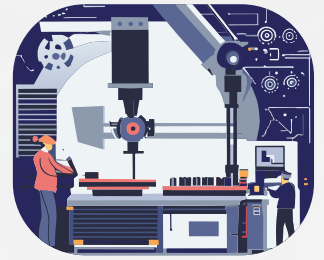
MAJOR SECTORS

- AVIATION
- HOBBY
- SPACE
- HEALTH
- AUTOMOTIVE
- TEXTILE
- METAL
- FOOD



MAIN MATERIALS

- WOOD
- GLASS
- PLASTIC
- PAPER
- LEATHER
- MARBLE
- PLEXIGLASS
- STAMP RUBBER



**IN MANY MORE BUSINESS LINES AND SECTORS
POSSIBILITY TO PROCESS HUNDREDS OF MATERIALS**

SOFTWARE

VENOXCAD

ASSISTANT IN MACHINE USE

VenoxCAD ensures perfect precision in the tasks you send to your machine, thanks to its full compatibility and successful programming. Even without computer knowledge, it serves all users from A to Z through its user interface.

Additionally, for users who want to send their jobs to the machine directly through **Adobe Illustrator** and **Corel Draw**, you can repeat these processes directly through Venox's special software.



ADVANTAGES



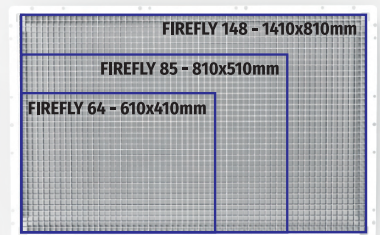
SAMPLE

Scan the QR code for the examples.



EASY TO CHANGE LENS

More precise cutting and marking with 1.5", 2", 2.5", 4" lens options



WORKING AREA IN 3 DIFFERENT SIZES

Usage possibility for all kinds of hobby and industrial tasks without any difference in the sector.

VENOX PRIVILEGE



TURNKEY PRICE



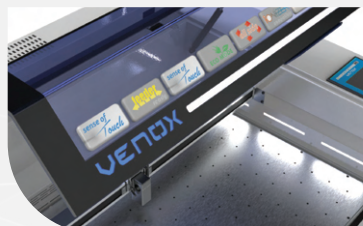
ON-SITE TECHNICAL SERVICE



AFTER-SALES SUPPORT



CONTINUOUS EDUCATION



COMPACT AND POWERFUL DESIGN

Design that can enhance the quality of your living space while completing your work at an optimum speed.



OPTIMAL PRECISION

High speed without compromising quality thanks to correct component selection and compatible electronic components

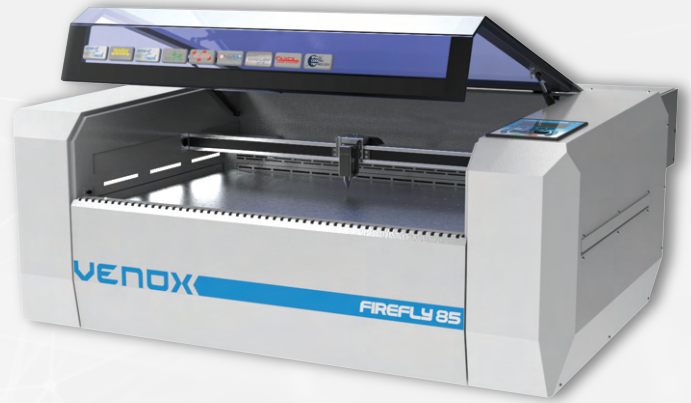
LIGHTBURN

BETTER SOFTWARE FOR LASER CUTTERS

Firefly Series supports Lightburn software.

FIREFLY

Models | **FF64 · FF85 · FF148**



You can access the detailed videos by scanning the QR codes with your smartphone.



QUICK LASER HEAD AND LENS CHANGING

Thanks to Firefly's patented laser head design, time is saved, and sustainable quality is ensured. With the "Quick Lens Change" feature on the head, you can change the lens in seconds for processing different materials, and continue your work without the need for any adjustments.



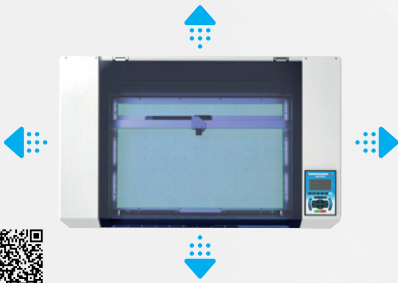
STAINLESS STEEL CASING

The internal and external metal components of the machine are entirely made of stainless steel. Thanks to the high-quality materials that ensure long-lasting and trouble-free use, the marking speeds remain high without compromising on quality even under demanding conditions.



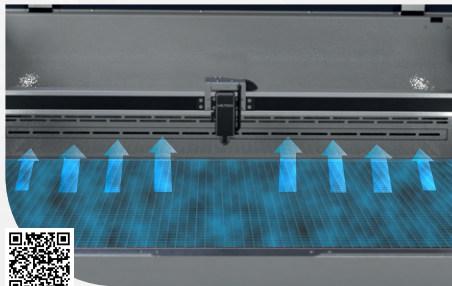
PRECISE AUTO FOCUS

Firefly's patented focus adjustment system ensures the automatic and precise adjustment of the laser focus from the point where the processing will take place. It can automatically adjust the required focus height for various applications.



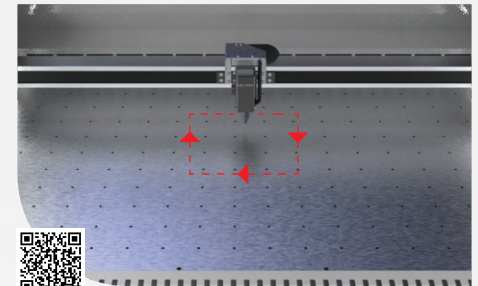
FREEDOM IN THE PROCESSING AREA

The special mechanical design of the Firefly series enables the processing of materials of unlimited length. With the covers that can be opened from four sides according to the usage needs, you can process larger parts in the working area without the need for a larger machine.



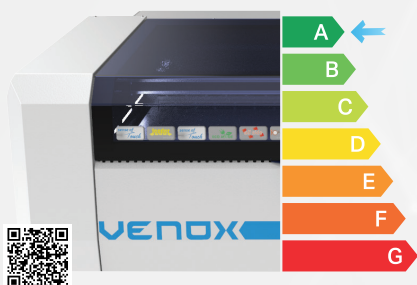
SMOKE-FREE AND DUST-FREE WORKING AREA

Thanks to the specially designed air channels in the Firefly's design, a smoke-free and dust-free working environment is provided in the processing area. The dust and smoke generated during processing are quickly evacuated through the air channels. This allows you to work in a clean environment.



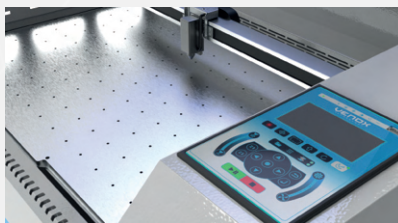
MARKING BEAM

The marking beam ensures the visibility of the invisible laser beam at the point where the process will take place. With this feature, you can see the instant position of the laser and the simulation of the processing area.



ENERGY SAVING

Thanks to the intelligent control system, Firefly keeps its systems in sleeping mode while you are not working, waiting for you. In sleeping mode, Firefly only consumes 5 watts of energy.



UNINTERRUPTED OPERATION

Firefly has the feature of instantly storing the operation it performs in case of a power outage in its memory. If there is a power outage for any reason, the machine resumes from where it left off when it is turned on.



ELECTRONIC GAS-FREE COOLING SYSTEM

Venox's patented gasless cooling system, one of the first solutions in the industry, offers an environmentally friendly, safe, and health-friendly usage. The smart electronic control system developed specifically for the device provides an instantaneous cooling response, optimizing the laser's operation. This enhances both the laser's lifespan and product quality.



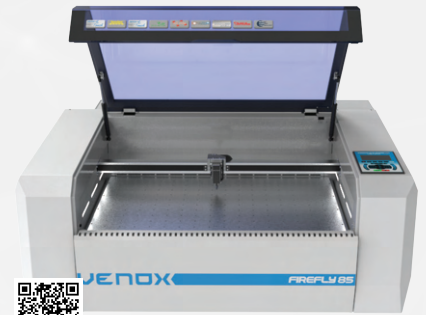
PAUSE AND RESUME MODE

When the user wants to closely examine the operation, the device enters pause mode simply by opening the top cover. After the control is complete and the cover is closed, the operation continues without the need for any user intervention.



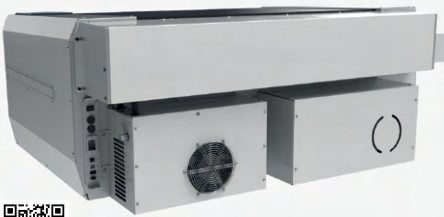
PANORAMIC VIEWING

The transparent top cover and LED illuminations allow the inside of the machine to be easily visible. This enables the user to safely view the operation from outside the device. The transparent top cover is designed to block laser and UV rays



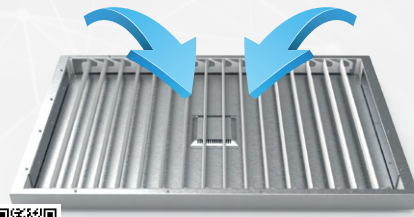
EASY ACCESS FLIP COVERS

To facilitate the loading of large-volume materials into the processing area, the top and front covers can be opened. This allows you to make the most of your loading space.



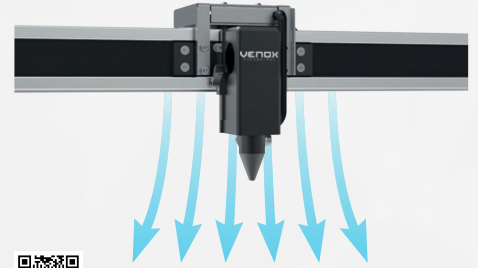
MODULAR SYSTEM

Firefly's modular system allows for the replacement of the laser tube, cooler, and filter compartments. When changing the laser power or using an internal filter is desired, the plug-and-play system enables you to quickly set up the most suitable configuration for your job.



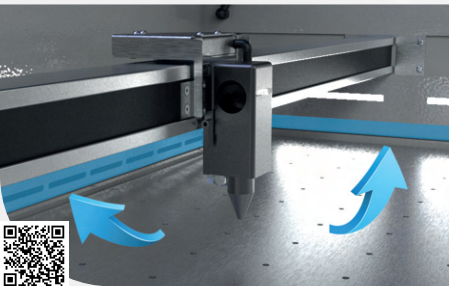
UNDER TABLE VENTILATION

The smoke and dust generated during cutting are expelled through the air channels located under the table. This ensures that both the cut product and your device remain clean.



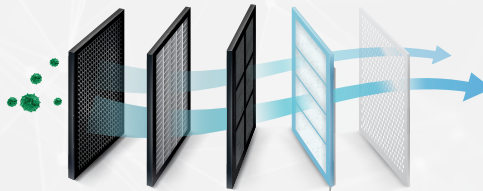
POINT AIR SUPPORT

For the process to be more ideal, it is necessary to provide air assistance to the point where is vaporized by laser. Thanks to the special design of the laser head, the compressed air support comes out from the same point as the laser. This prevents any flare-ups that may occur depending on the material structure, ensuring a higher quality product.



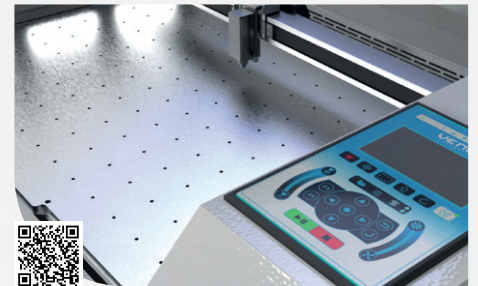
DUST ISOLATION SYSTEM

The optomechanical and electronic components of Firefly are isolated from the processing area. The special barrier system prevents the entry of dust and smoke into the internal components during operation. Protected mechanical and electronic parts ensure that you have a long-lasting machine.



FILTER FULL WARNING

The sensors inside the filter system notify you of the filter's contamination status. This alert reminds you when to clean or replace the filter.



FREE CENTERING

This feature allows the initiation of the process from any point on the table. You can place your material anywhere on the table to carry out the operation.



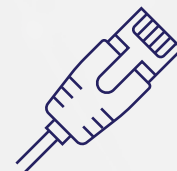
SIDE AND REAR DRAWERS

There are side and rear drawers to store your accessories and equipment. These drawers, where you can keep the tools you need, provide convenience during operations.



INTERNAL AIR PUMP

Firefly has an internal maintenance-free air pump system. This system enhances the quality of the operation.



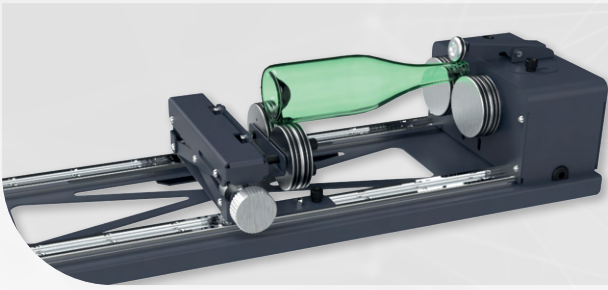
ETHERNET



USB FLASH

ETHERNET AND USB CONNECTION

Firefly can be connected to your system using Ethernet and USB. This feature also allows you to send jobs to the machine from multiple computers wirelessly.



ROTARY PRO

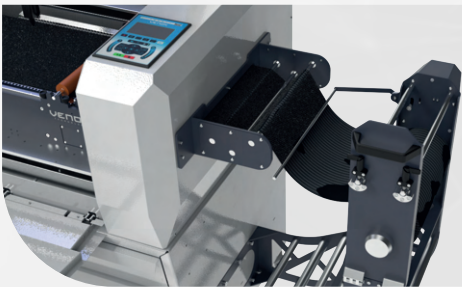
ROTARY PRO GLASS ROTATING ATTACHMENT

With the specially designed new axis-adjustable rotation attachment (Rotary PRO) for the Firefly series, you can expand your working area and increase your productivity. The separately adjustable axis allows you to set the height for conical and inclined plane materials, and you can easily process parts within the range of 0-300mm length and 0-150mm diameter.

Made entirely of high-quality stainless steel and aluminum, the attachment ensures a long lifespan, thanks to its concealed and externally isolated internal control system. The Rotary Pro's plug-and-play feature makes it compatible with all Firefly models.



ROTARY PRO
Scan the QR codes for more informations about Rotary Pro



FEEDER MASTER

FEEDER MASTER ROLL PULLING SYSTEM

With the optional Feeder Master system offered in the Firefly series, you can achieve high speeds in cutting rolled materials. This exclusive accessory from Venox Technology ensures that your tasks are done automatically.

The system, which can integrate with the FireCAM system, allows for flawless cuts and enables continuous cutting by placing your products with a width of up to 500mm in roll form.

You can perform automatic operations such as Kiss-Cut (half cut) and full cutting. The feature to separate scrap products from the main product helps you save time.



FEEDER MASTER
Scan the QR codes for more informations about Feeder Master



FIRECAM SYSTEM

FIRECAM (INTERNAL CAMERA SYSTEM)

With the optional new camera system offered in the Firefly series, you can enhance the capabilities of your device.

The cutting process after printing becomes more precise and easier with this system. The camera system optimizes the cutting pattern based on the position and scale of reference points on the print, allowing you to achieve accurate cutting without making any adjustments. With the FireCAM system, you can work on all types of prints and materials.



FIRECAM
Scan the QR codes for more informations about Firecam



LAZER OPTIONS

METAL OR CERAMIC LASER OPTIONS

In addition to the specially produced glass laser unit options for Firefly, now ceramic and metal laser unit options are also available. Thanks to the modular structure of Firefly, you can request suitable metal and ceramic laser unit options from the market. By incorporating a metal or ceramic laser unit, you will have a continuous, long-lasting laser source for your Firefly.

Advantages include up to 400 watts power option, high power balance, very long usable life, and a low laser diameter.



LAZER OPTIONS
Scan the QR codes for more informations about Laser Options



SCREEN HOLDER

COMPUTER AND SCREEN HOLDER ARM

With the optional computer and screen holder arm offered in Firefly 64, 85, and 148 models, you can conveniently track the process on a large screen and make necessary adjustments on the computer during production. This is particularly useful for users who do not want to connect their machines via Wi-Fi or prefer to use their computer in a compact manner near the machine.



SCREEN HOLDER

Scan the QR codes for more informations about Screen Holder



WASTE AIR FILTER

WASTE AIR FILTER

The Firefly models come standard with a snail fan. With the snail fan, any smoke and odor that may arise from the specified ventilation point can be easily expelled.

For environments without ventilation outlets or for use in enclosed spaces such as offices, Venox Technology offers a domestically engineered waste air filter for the Firefly series. This filter is designed to instantly absorb any odors and smoke that may emanate from the Firefly series, preventing them from being released into the working environment.



WASTE AIR FILTER

Scan the QR codes for more informations about Waste Air Filter

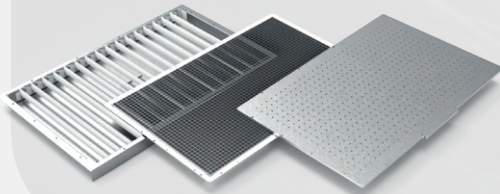


TABLE OPTION

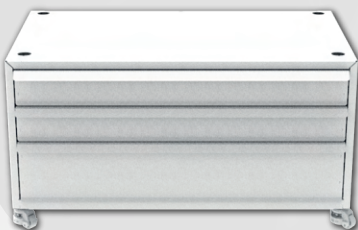
TABLE OPTION

In the Firefly models, you can choose the table according to the job you are going to perform. By easily attaching and detaching multiple tables, you can achieve better cutting and marking results for your products. For cutting tasks, you can use the standard square table, use the sword table that minimizes contact with the processed material and allows the cut materials to fall downward from the table, or use the table with pin inserts to secure thin materials either by vacuuming or by processing with minimal contact thanks to the pins.



TABLE OPTION

Scan the QR codes for more informations about Table Option



SERIES SPECIAL TABLE

SERIES SPECIAL TABLES WITH DRAWERS

The specially designed casing for the Firefly series enables you to perform fast and precise operations for many years. The drawers and custom design tables, specially designed for all Firefly series, provide integrity by allowing the legs of Firefly to enter the inside of the table. This minimizes vibrations at high speeds. Each drawer also maintains order in your work by keeping all the accessories and materials you will need during production compactly together with a carrying capacity of 10 kg.



SERIES SPECIAL TABLE

Scan the QR codes for more informations about Series Special Table



VENOX

T E C H N O L O G Y

DO YOU NEED MORE INFORMATIONS?

FIREFLY



SKYFLY



BUTTERFLY



Do you need detailed information about the features, photos and videos of the machines?

You can access the detailed informations by scanning the qr codes with your smartphone.

Head Office

**TÜBİTAK Gebze Yerleşkesi, Teknoloji Geliştirme Bölgesi,
Barış Mahallesi, Koşuyolu Caddesi, TEKGEB Binası, No:30
Gebze/Kocaeli/Turkey**

Phone +90 262 642 42 00

Email info@venox.com