



Temelsan®

KN 100 HBA PLC FLASH BUTT WELDING MACHINE

Standard Features

- 20x0,90mm - 100x1,60mm width Bi-Metal band CT band welding capacity (please look at las page for more specific information)
- Pyrometer annealing control unit
- Manual adjusting up to 500 bar pressure of clamping system
- Manual adjusting up to 400 bar pressure of upsetting system
- From 8mm up to 16mm manual adjustable jaw gap regulation
- Hydro-Pneumatic clamping system

- PLC controlled 7" Touch Screen HMI
- 99 Program memories for fully range of band saw blade dimensions
- Spark Protection Cover
- High pressure air cleaning system (Air blow off)
- Air tank and pistol



Optional Features...

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Optional Features...

HBA/C PLC - PLC CONTROL UNIT FOR HBA AND HBC TYPE WELDING MACHINES

The customizable operating system options available for Temelsan welding machines. Our systems provide flexibility to meet your specific needs, allowing you to select the operating system of the PLC and servo components based on your location and preferences.

Operating System Options:

We offer three distinct operating system configurations, each tailored to deliver exceptional performance and efficiency:

HBA/C PLC – OMR - This option has Omron PLC unit and Omron brand servo motors in the system. All other switching equipment of electric are Eaton, Siemens or WeidMüller.

HBA/C PLC – AB - This option has Allen Bradley PLC unit and Allen Bradley brand servo motors in the system. All other switching equipment of electric are Eaton, Siemens or WeidMüller.

HBA/C PLC – SM - This option has Siemens PLC unit, Siemens brand servo motors and Siemens HMI in the system. All other switching equipment of electric are also Siemens.

What you will get with PLC option,

Regardless of the configuration you select, each system is equipped with the following advanced functionalities:

- Adjusting of parallel clamping automatically driven by program selection.
- Automatic clamping pressure adjustment via Festo automatic air regulators based on receipt.
- Automatic upsetting pressure adjustment via Festo automatic air regulators based on receipt.
- Automatic jaw gap adjustment on welding and annealing positions by receipt.
- Automatic parallel clamping adjustment for different blade sizes.
- Servo motorized operational cam drive and jaw gap adjustment.
- Planetary gearbox system for both motors.
- Storage capacity for up to 400 logs.
- User-friendly programming via USB.
- No need for test welds after size changes, ensuring seamless transitions.



HBA DBS – DE-BURRING UNIT FOR HBA TYPE WELDERS

Here we highlight an essential aspect of ensuring the performance and longevity of your components when using HBA-type Temelsan welding machines: the integration of a de-burring unit.



As you may know, welding processes often leave behind burrs on workpieces—unwanted imperfections that not only detract from the aesthetic appeal of the finished parts but also compromise their functionality, safety, and reliability. Addressing these imperfections effectively is critical to maintaining the high-quality standards expected in your operations.

The inclusion of a de-burring unit offers a reliable and efficient solution to remove these unwanted burrs. Below, We have outlined key insights about burr formation and the importance of de-burring:

Why Do Burrs Need to Be Removed?

Burrs, if left untreated, can significantly affect the quality and performance of finished welding. After machining or welding, de-urring ensures that these imperfections are eliminated, resulting in smooth, dependable blade welding.



The Critical Role of De-burring:

Burrs can lead to several challenges, including:

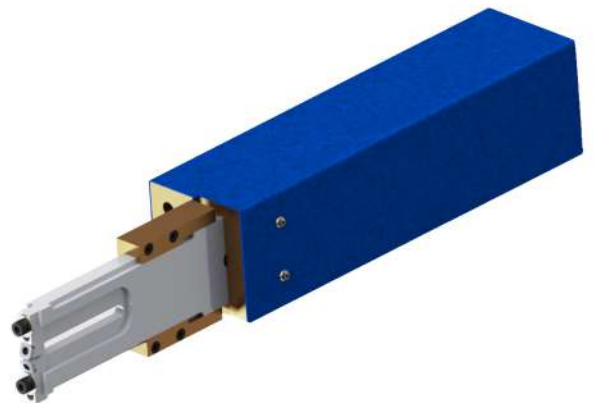
- Reduced operational efficiency and lifespan of components.
- Higher risks of static discharge, which can jeopardize safety.
- Decreased fracture resistance, leading to potential structural failures.
- Challenges in achieving uniform annealing temperatures.
- Increased difficulty in grinding or further processing post-welding.

By effectively removing burrs, you can achieve:

- Enhanced operational time and performance.
- Consistent, standardized quality across all components.
- Improved efficiency in subsequent processes, such as annealing and grinding.

Why Choose a De-burring Unit for HBA-Type Machines?

Specifically designed for applications, the de-burring unit seamlessly integrates into your workflow, ensuring that each blade or workpiece meets the highest quality standards. This process not only enhances the end product but also optimizes your overall production efficiency.





HBA/C MSS – MOTORIZED STOPPER SYSTEM FOR HBA AND HBC TYPE WELDING MACHINES

Motorized Stopper System, a cutting-edge option designed to elevate the automation and precision of your machinery.

The Motorized Stopper System is a feature that can be implemented once the PLC option is selected. It eliminates the last manual adjustment point on the machine, ensuring that all settings are managed entirely through automation. While it is possible to integrate this system into existing machines, it is worth noting that the process can be lengthy and challenging. However, the system is compatible with all machines equipped with the PLC option.

Functionally, the Motorized Stopper System adjusts automatically according to the recipe selected from the list, aligning with the tooth dimensions of the band saw blade. Once the recipe is loaded, the system positions itself precisely as required, ready to operate seamlessly. This advanced system is applicable to both HBA and HBC machine types. It can be utilized on the tooth side or adjusted for use as a back side stopper without requiring any additional mechanical modifications.

One of the standout features of the Motorized Stopper System is its intelligent design to ensure safety and efficiency. When the machine is initiated for welding, the stopper system automatically retracts from the teeth, preventing any potential damage to carbide-tipped band saw blades. This ensures 100% safe welding operations without compromising the integrity of the blade.

By integrating the Motorized Stopper System into your machinery, you can achieve unparalleled automation, precision, and safety, making it an essential upgrade for those seeking to optimize their operations.





HBA/C – VPN - VPN REMOTE CONTROL SYSTEM FOR BUTT WELDERS

Industrial Remote Access Device, a comprehensive Industrial IoT (IIoT) solution designed to revolutionize the way you monitor, manage, and maintain your industrial systems. This device is specifically engineered for seamless integration with various industrial equipment such as PLCs, Operator Panels, Drives, Robots, and other automation systems. Leveraging multiple access protocols—including Ethernet, IP, MODBUS (Serial and Tcp), USB, RS232, and RS485—it enables simultaneous connectivity to a wide range of devices through diverse communication standards.

With our VPN Connect feature, you can securely access your industrial machines anytime and from anywhere. The device supports WAN, LAN, Wireless AP, and Wireless Client inputs, ensuring uninterrupted connectivity. To enhance security, all access interfaces are protected by Two-Factor Authentication (2FA) using the reliable Google Authenticator infrastructure.

The system package includes the VPN module, connection ports, Ethernet cables, and software upgrade options, making it a ready-to-use solution for your industrial needs. One of the most significant advantages of this technology is its ability to diagnose and resolve machine issues remotely via the internet. This eliminates the need for additional equipment or software, saving both time and resources.

Moreover, this option allows us to provide 24/7 online servicing upon request. Whether it's troubleshooting, software upgrades, or system diagnostics, our team is just a click away, ensuring your operations run smoothly without unnecessary delays. We are confident that our Industrial Remote Access Device will enhance your operational efficiency and provide a robust, secure, and user-friendly platform for managing your industrial systems remotely.

HBA – X - POWER LOWER JAWS (ELECTRODES) FOR HBA TYPE WELDERS

Our X-Power electrodes are engineered for superior durability and extended lifespan compared to standard electrodes. With their longer life, you can minimize service interruptions, saving both time and money. Additionally, these electrodes consume less power, resulting in significantly reduced electricity costs while maintaining optimal performance.

You will spend less power. Definitely reducing electricity consumption.



BARCODE READER

The barcode reader system is a game-changer for ease of operation. Customers can program and operate the machine using their own stock codes, eliminating the need for manual searches through long program lists. This feature not only saves time but also ensures error-free program selection, enhancing operational accuracy and efficiency. .

LIQUID COOLING UNIT

Our liquid cooling unit is an external machine specifically designed to maintain the optimal jaw temperature during serial welding operations. By ensuring constant temperature levels, this unit minimizes the need for frequent re-adjustments of welding current values, making it ideal for high-frequency welding tasks. This feature significantly improves workflow consistency and reduces downtime.



WOODEN PACK

As a standard, Temelsan machines are packaged on Euro pallets. However, we highly recommend opting for wooden crates to provide additional protection against external factors during transportation. Products delivered in wooden crates should be inspected upon receipt to ensure there is no damage to the crate, guaranteeing the integrity of the product inside.





DIFFERENT VOLTAGE APPLICATION

Our Temelsan Bandsaw Blade Welding Machines are designed to operate with a standard 380V AC power source. For customers with different power requirements, we offer customization options at an additional cost. We can adapt the machine to work seamlessly with any three-phase voltage source, ensuring flexibility for diverse operational needs.

KN 100 HBA - SPECIFICATIONS...

ADDITIONAL INFORMATION AND APPLICATIONS

	Min. Size Inch	Max. Size Inch	Min. Size mm	Max. Size mm
Bi-Metal Bandsaw Blades	3/4x0.035	4x0.063	20x0.90	100x1.60
Tungsten- Carbide Bandsaw Blades	3/4x0.035	4x0.063	20x0.90	100x1.60
Wood Bandsaw Blades	1x0.027	4 3/4x0.050	25x0.70	120x1.30
Stainless Steel Bandsaw Blades	3/4x0.022	2 3/8x0.025	20x0.50	60x0.80
Band Knives	1x0.022	4 3/4x0.042	25x0,50	120x1.10
Stainless Steel Bands	0.25	in2	160.00	mm2
Mild Steel Bands	0.40	in2	260.00	mm2

APPLICABLE POWER SOURES

600V	3 PHASE	50 - 60 Hz
480V	3 PHASE	50 - 60 Hz
400V	3 PHASE	50 Hz
220V	3 PHASE	50 - 60 Hz

DIMENSIONS OF MACHINE

LENGTH	DEPTH	HEIGHT	WEIGHT
1100 mm	1200 mm	1900 mm	950 Kg

ADVISED EQUIPMENTS FOR KN 67/100/120 HBA TYPE WELDERS



MAK 01 HP - 100 / SHEAR CUTTER

The Hydrau-Pneumatic high performance shear cutter, capacity 6-100 mm band width. Horizontal oriented by pedal use, ready to use movable or fixed own tabled

TAS 1001 SL-HP 3 IN 1 / SLIDING GRINDING MACHINES

The Linear guided Grinding Machine for side grinds 20-100 mm band width, cup wheel, pneumatic vises, power box with on/off switch, emergency off switch, machine fixed on column with a proper working level, back grinder positioned below the side grinder with start by pedal and automatic move to front by pneumatic push. Tooth gullet grinder, pneumatic hand grinder with several thin grind discs.



CAP 80 PLASTIC STRIP CAPPING MACHINES

The Teeth protection plastic strip capping machine, 240V AC capacity 27-80mm band width. Can cap all kinds of bandsaw blades which are called carbon, wood, bi-metal.