TEMELSAN SALES TEAM

WHY SHOULD YOU CHOOSE TEMELSAN?

- **MECHANIC**
- **ELEKTRIC**
- **ELEKTRONIC**
- **AUTOMATION**
- **PRODUCTIVITY**
- **AFTER SALES SERVICES**
- **SPARE PARTS AVAIBILITY**

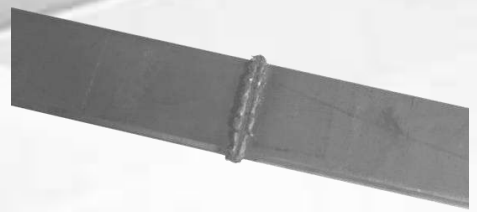
General Information

Bandsaw Blade Welding Machine

At Temelsan, we offer several features that distinguish us from our competitors. I would like to highlight these unique aspects,

First and foremost, our machines are specifically designed for welding band saw blades rather than being generic solutions. We continuously innovate and develop our products to ensure we provide the most accurate solutions in this field.

Unlike our competitors, band saw welding machines account for 65% of our production capacity, while vertical band saw machine manufacturing constitutes the remaining 35%. This focus allows us to respond quickly and effectively to our customers, regardless of financial considerations, as we are committed to shaping the future of our industry.



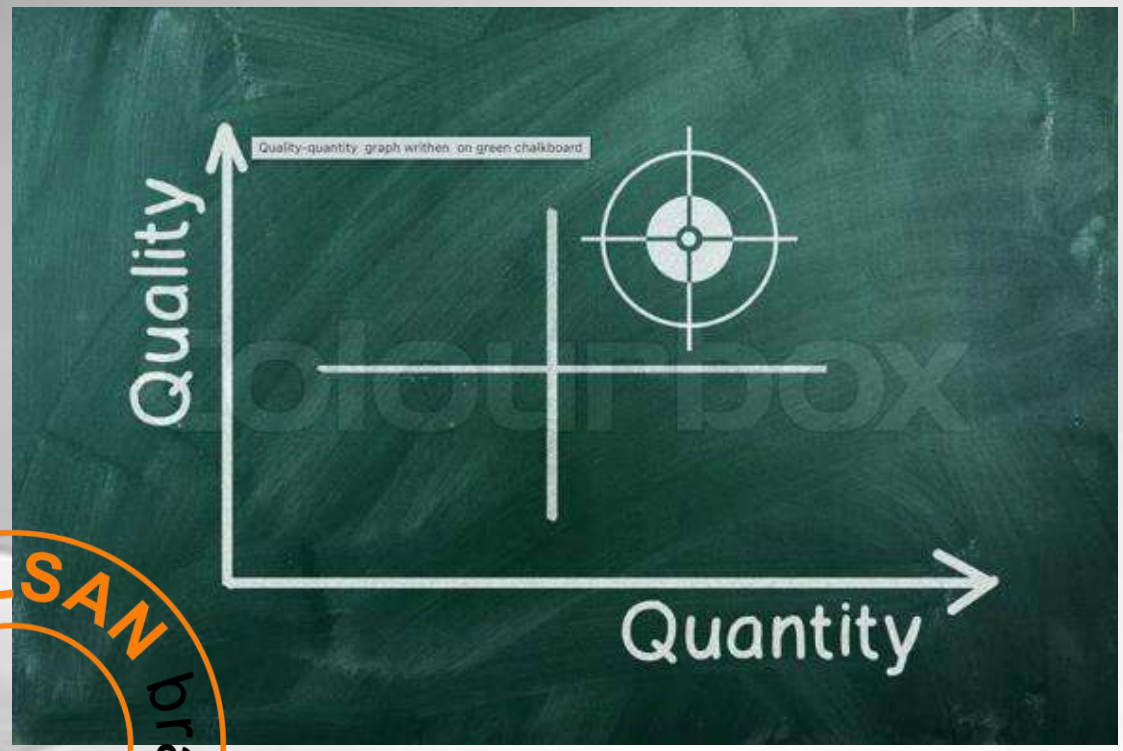
Through interviews and information exchanges with band saw manufacturers, both horizontal and vertical, globally, we strive to enhance our machines and provide better products to our valued customers.

General Information

Our goal is ambitious 1=1000!

We aim to deliver a seamless system and service to our customers. To achieve this, we actively seek ways to integrate automation systems into our machinery, adopting continuous development as a guiding principle

Now, let us to outline the differences between Temelsan and equivalent or competing companies.



the TEMELSAN brand

PHYSICAL ADJUSTMENTS - AUTOMATION

Program / parameter selection

As you know, many adjustments need to be made manually in welding machines available on the market. These are, respectively, saw width selection, welding current, jaw gap adjustment, saw clamping pressure adjustment, side pressure adjustment, jaw parallel clamping adjustment and stopers adjustment.

Temelsan's main goal is to provide its customers with a system and service that works without any problems. In this direction, it continues to look for ways to adapt machines with automation systems to the sector and adopts continuous development as a principle.

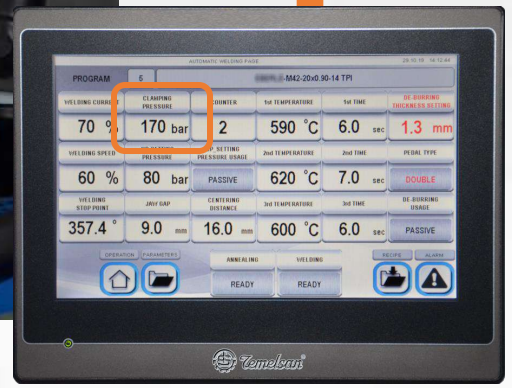
In our new generation products, operators can reach the recipe related to the saw or band they want to weld with just a few clicks and carry out faster and more precise operations.

PHYSICAL ADJUSTMENTS - MECHANICAL

Physical Setting of Parameters – Clamping Pressure

As it is known, the clamping pressure (Bandsaw blade clamping pressure) and side pressure are adjusted completely manually in equivalent and competitor companies machines and since the clamping pressure values are low, leaks occur in the clamping jaws during welding due to the wide band saw surface not being completely flat (it is slightly curved). Although some solutions have been offered as options to minimize this, it has been clearly seen that they are not sufficient. Temelsan, being aware of this situation, has developed ourselves mechanically to provide the clamping pressure suitable for each saw (min 120 bar max 500 bar) and we have completely eliminated this problem.

We have also improved the relationship between operators and product quality by integrating our automated solutions with our extensive industry experience, allowing for precise adjustments in accordance with the set values.

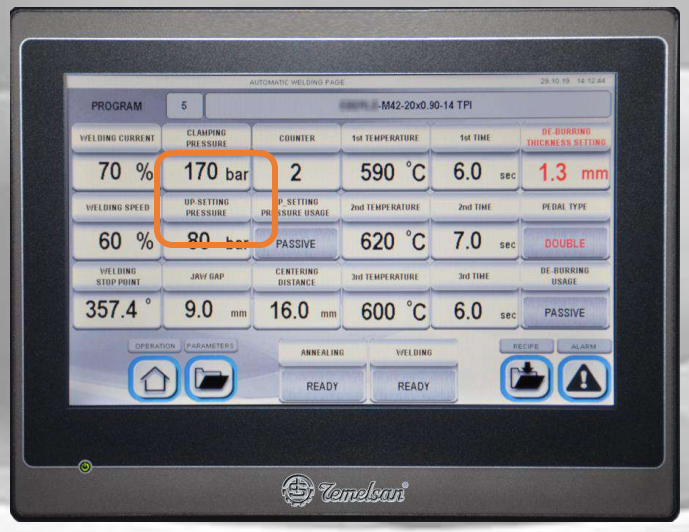


PHYSICAL ADJUSTMENTS - MECHANICAL

Physical Setting of Parameters – Usetting Pressure

As is known, one of the most effective parameters in butt welding is the side pressure value. Side pressure is the value that physically allows the bandsaws to interlock after the melting process.

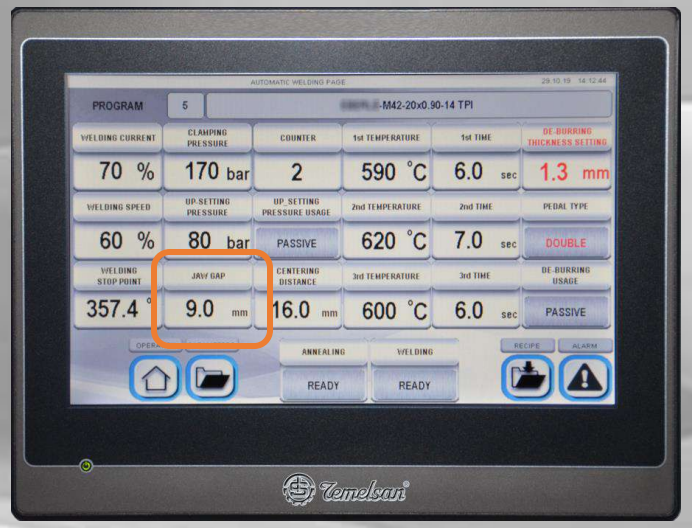
Setting this value outside of 5% sensitivity negatively affects the welding quality. In Temelsan machines, this setting comes automatically with the recipe selection, which frees you, the users, from one more risk in terms of quality.

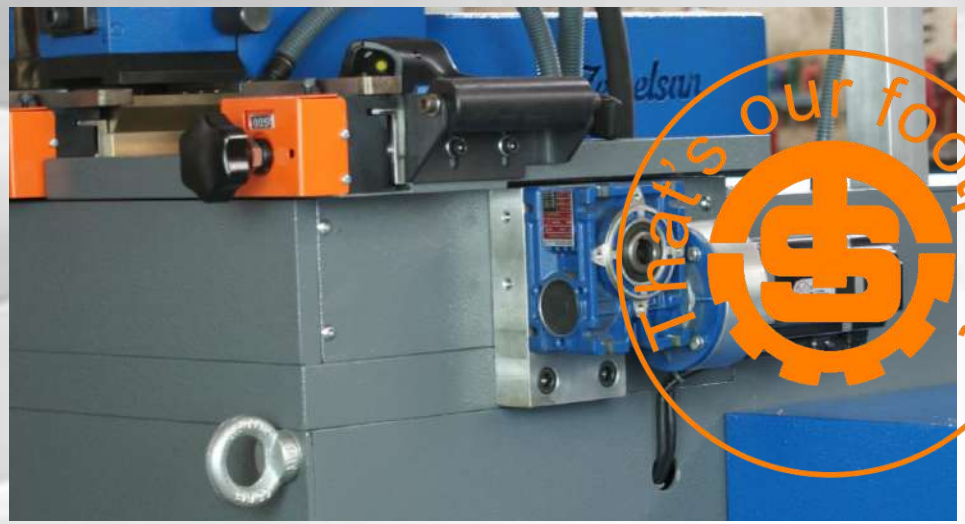


PHYSICAL ADJUSTMENTS - MECHANICAL

Physical Setting of Parameters – Jaw Gap Value

The jaw gap value in the welding ready position is also an important parameter for welding and since it is a factor that affects all the physical properties of the weld, from its appearance to its quality, a fully automation-controlled servo motors are used to eliminate the problems related to adjusting this value in saw width changes and the resulting quality problems. By taking the control of this parameter from the operator with the help of a gearbox, Temelsan has maximized the product quality.





PHYSICAL ADJUSTMENTS - ELEKTRIC

Physical Setting of Parameters – Welding Current

Many welding machines currently available on the market require manual adjustments, such as saw width selection, welding current, jaw gap adjustment, clamping pressure adjustment, side pressure adjustment, and support adjustments.

Notably, many equivalent companies still rely on outdated welding electronic cards, resulting in ongoing issues. At Temelsan, we have perfected our electronic welding card design through recent innovations. Instead of the outdated step switch method, which processes specific percentage values (for example, 1st Stage 55%, 6th Stage 100%), our machines allow for precise power settings—such as 72%—with just a few clicks on a touchscreen. These settings can be saved in a recipe for each different saw.

Since the welding speed is also set via the recipe, no physical adjustment is required.

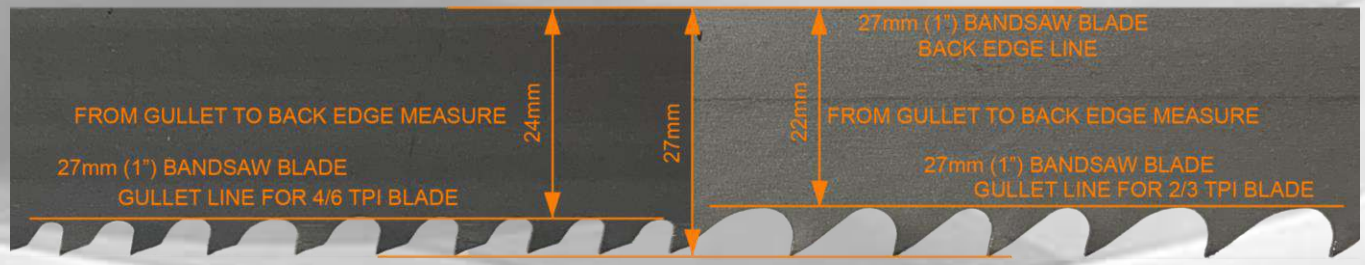
PHYSICAL ADJUSTMENTS - ELEKTRONIC

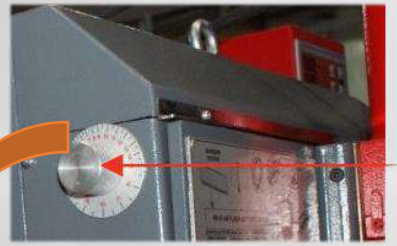
Physical Setting of Parameters – Welding Stop Point

You might wonder, “Why is a different program needed for each tooth type?” The answer is that saw widths are measured from the top of the tooth to the back, and each tooth type has varying heights. This variation results in different welding cross-section values, necessitating a different recipe for each tooth type.

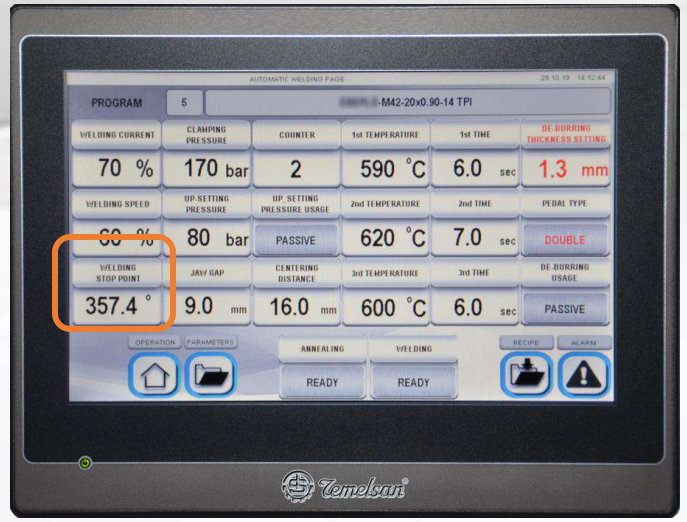
If we continue with these parameters, the welding stop point is still adjusted manually under the name of "burr switch" in some equivalent products. In this regard, Temelsan has completely eliminated the quality problems caused by the operator forgetting to set this value or setting it incorrectly.

We are committed to providing the highest quality and efficiency in our products, ensuring that your welding processes are smooth and reliable.





Flash (Burr)
Adjustment Knob



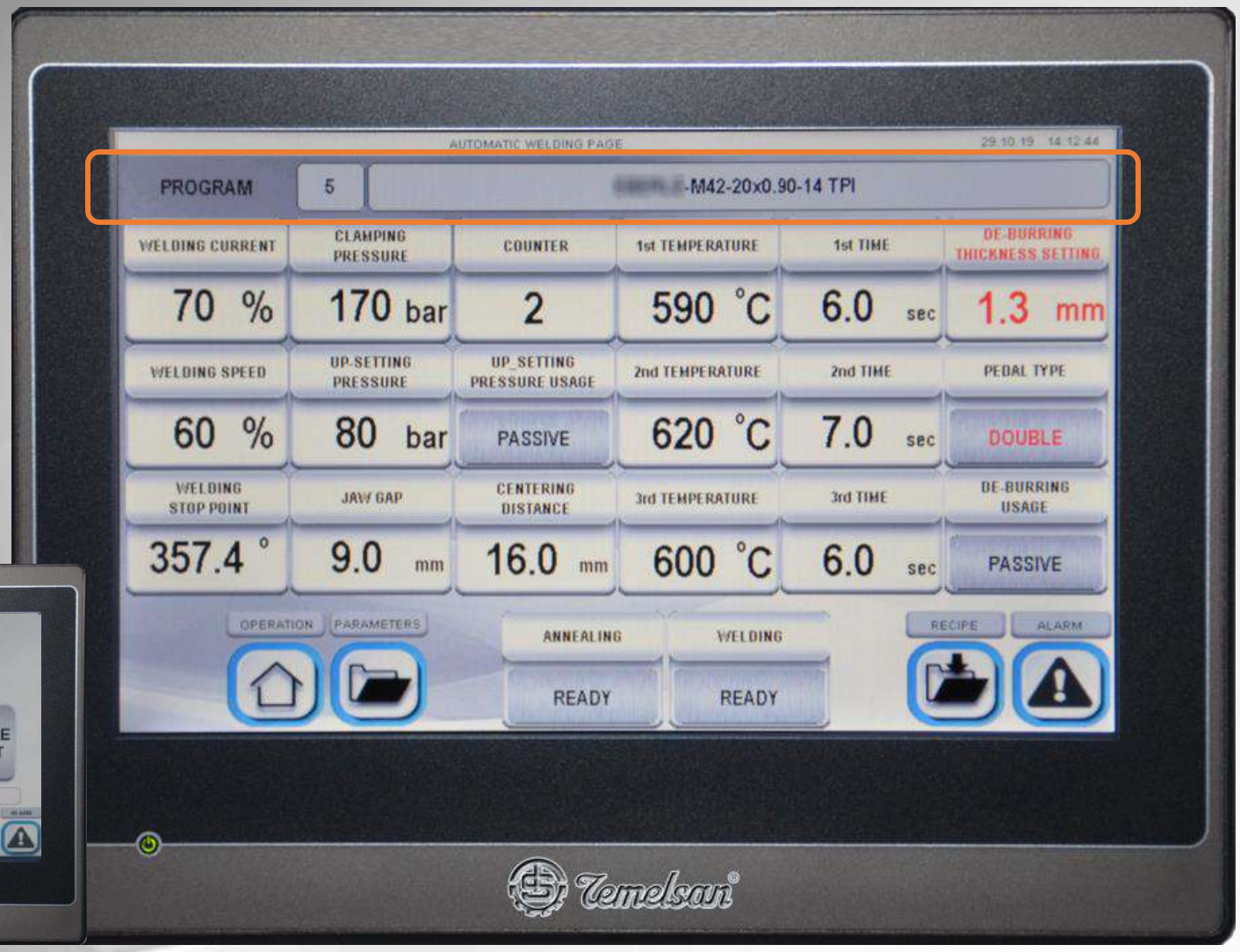
PHYSICAL ADJUSTMENTS – ELEKTRONIC

Physical Setting of Parameters – Recipe data

Think about having a machine capable of processing 400 different recipes, each with unique parameters. This feature ensures 100% accuracy for welding each tooth type

A recipe includes all the welding and tempering parameters essential for welding a band saw. As I mentioned earlier, it is possible to set and save different parameters for each tooth type. The recipe includes:

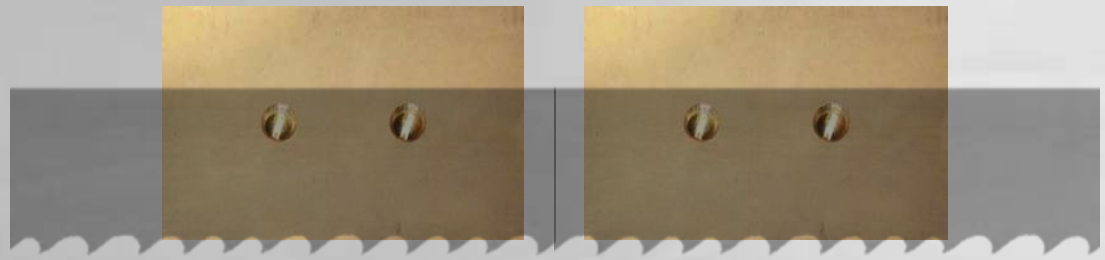
- Welding current value
- Welding speed value
- Welding stop point value
- Jaw gap value
- Clamping pressure value
- Upsetting pressure value

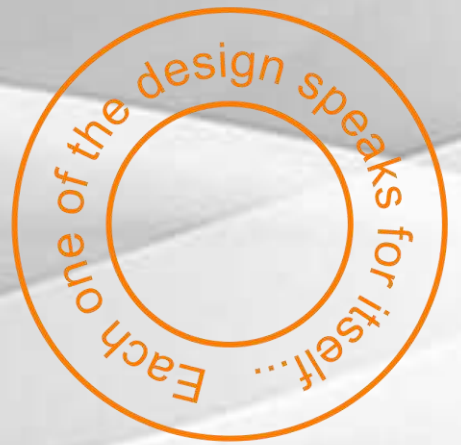


PHYSICAL ADJUSTMENTS - MECHANICAL

Physical Adjustment of Parameters – Camber Adjustment

As it is known, another factor that ensures the cutting quality of the saw after welding is the shape and amount of camber applied. The motorized stopper system, which is the latest innovation made by Temelsan to prevent damage to the equipment in the saw clamping system (jaw, pad, electrode) and to weld the saw with a correct camber, has received full marks from the users after sales in the last year and made us feel once again that we were on a path.

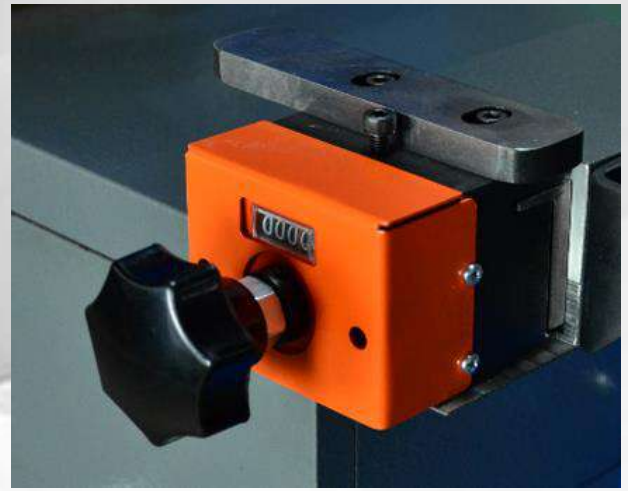


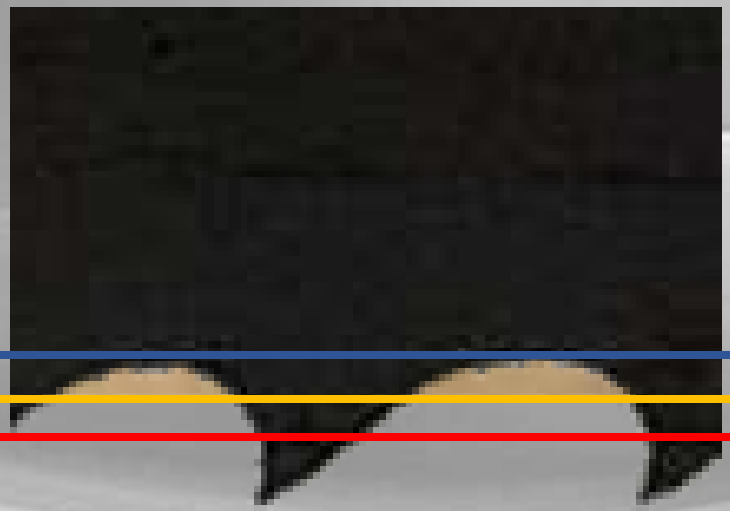


PHYSICAL ADJUSTMENTS - MECHANICAL

Physical Adjustment of Parameters – Camber Adjustment

As mentioned before, since the tooth height varies for each tooth type, the distance between the clamping jaws of the band saw also varies. Adjustment of this distance with 100% accuracy with the motorized stoppers is provided by a parameter value added to the recipe of that saw. Although this feature is among the options, in our opinion it is a crucial point for an accurate source. In cases where this option is not preferred, the stop with a numbering system comes as standard equipment in HBA type welding machines, but the dependence on the operator continues

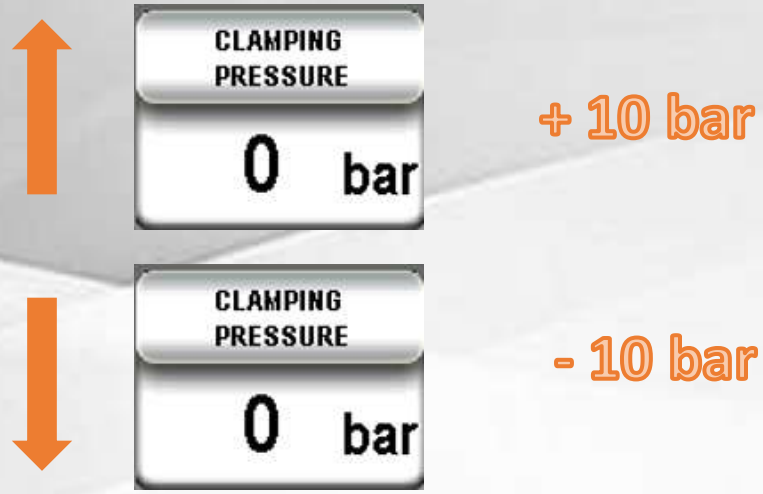




PHYSICAL ADJUSTMENTS - MECHANICAL

Physical Setting of Parameters – Parallel Tightening

Correctly positioning the band saw, that is, fixing it with the correct rest position, also ensures parallel tightening. We can proudly say that one of the most accurate systems made by Temelsan is to completely eliminate the parallel tightening adjustment of band saws after width changes with the help of the bolts on the front. This setting has been completely eliminated in all Temelsan brand machines with PLC option. With the selection of the recipe, each saw fixed with a stop at the right point is automatically tightened 100% parallel.



AUTOMATION

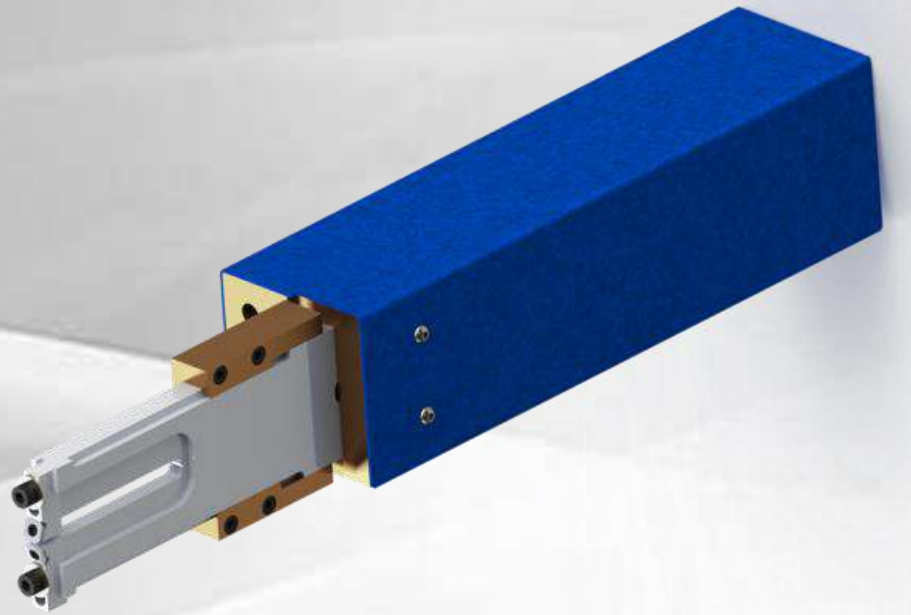
Get Rid of Operator Initiatives

To summarize the issue, Temelsan has controlled all welding parameters through automation instead of manual adjustment, in order to reduce the liability on the operator and keep the welding quality at an uninterrupted level with the logic of 1 = 1000, and has confirmed its success in real terms with the after-sales surveys

PHYSICAL SETTINGS - PRODUCTIVITY

Bandsaw Blade Tempering – Deburring

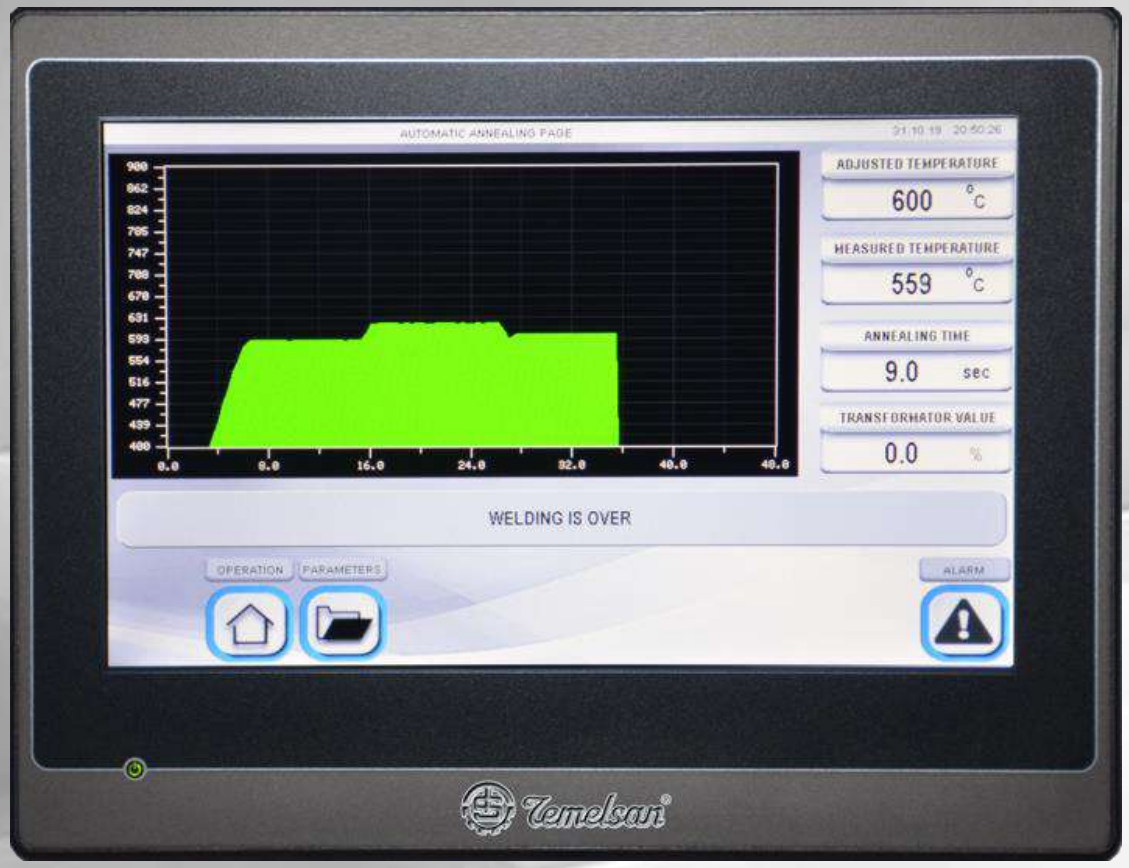
With Deburring unit feature in Temelsan HBA type machines, it provides homogeneous distribution of temper polish with more accurate reaper sults. The main element that enables this equipment to operate with maximum efficiency is that the band saw's teeth face outward. Thanks to this feature, it ensures that the diamond cutting bits have a completely fixed rigid structure instead of a spring-loaded structure as in the designs of equivalent companies. This naturally ensures that the minimum amount of burr remains on the welding line after the burr is removed and the heat spreads homogeneously and faster.



PHYSICAL SETTINGS - PRODUCTIVITY

Bandsaw Blade Tempering – Annealing

In general, in Temelsan machines, the tempering process is done in three basic steps and the heat increase rates are automatically controlled by automation. By making a separate calculation for each saw width and thickness value, correct acceleration and heat control are provided to prevent the saw from scorching or incomplete hardening process



UNIQUE SYSTEM

PHYSICAL SETTINGS - PRODUCTIVITY

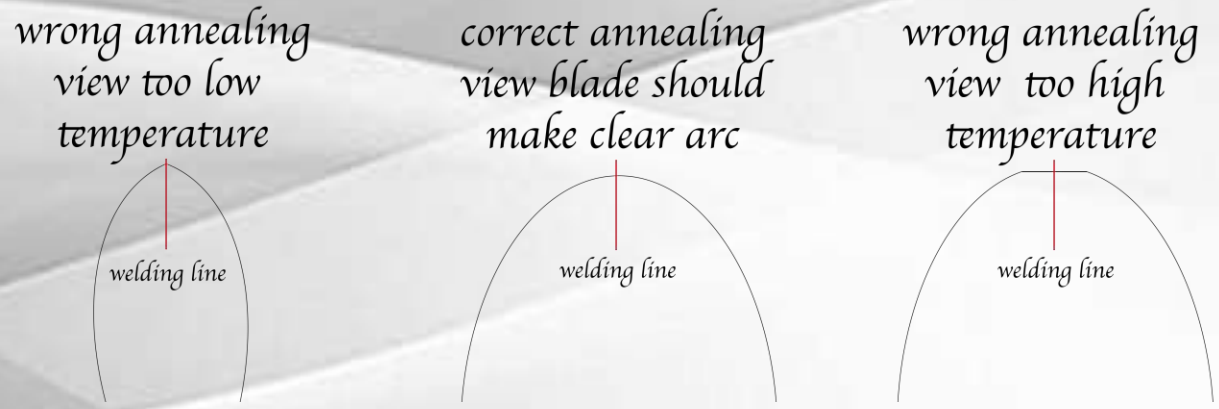
Bandsaw Blade Tempering – Annealing

Contrary to the strategies of equivalent companies, Temelsan has spent intense efforts on temper control in order to ensure that the tempering process is carried out as closely as possible to the original chemical properties of the saw and has achieved the correct result

Temelsan knows the importance of applying temper polish correctly for the long life of the band saw and the flatness and smoothness of the cutting surface, and continues its work in this direction. For example, the cooling times after tempering after welding on equivalent or competitor company machines are longer than the cooling time of the saw made with the Temelsan machine. In addition, it is clear that in equivalent products, hanging or storing the tempered saw for cooling purposes causes deformations in the welding area, and many manufacturers and users complain about this situation. On the other hand, we would like to emphasize that a band saw that is welded and tempered on Temelsan machines does not have such problems.

Kötü Kaynak
Yanlış meneviş

Doğru kaynak
Doğru meneviş

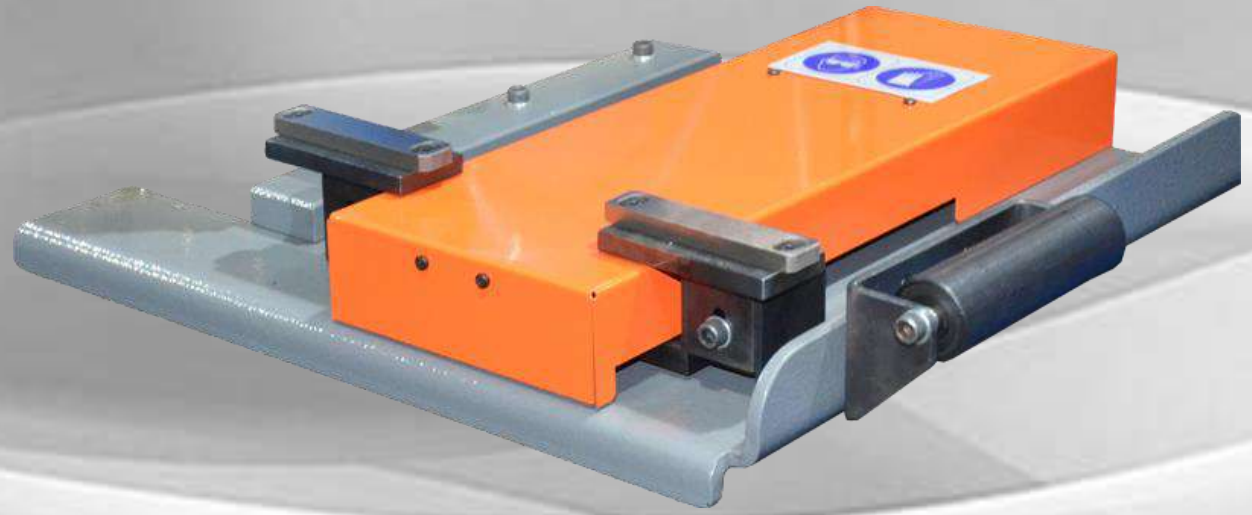


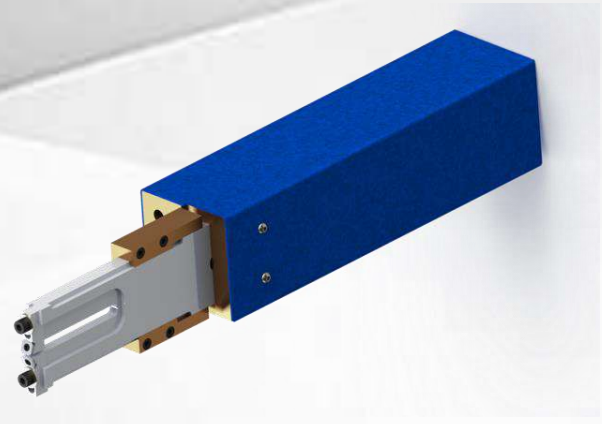
PHYSICAL SETTINGS - PRODUCTIVITY

Bandsaw Blade Tempering – Annealing

If we need to make a suggestion regarding options:

- For manufacturing companies, considering that these companies generally have many welding machines and do not attach much importance to the thread type, although they weld with one machine for each width, purchasing all the options of the product would be a much more correct step towards the result for them. Saving time is also at the forefront with the special stop distance for each tooth type and of course the Deburring unit feature.
- For dealer companies, these companies generally weld more than one width of saw with a single welding machine. For these companies, if we compare the Deburring unit option with the motorized stopper system, it would be more logical for them to purchase a motorized stopper system. Because the grinding time instead of burr removal will be slightly longer, but a higher quality product will be served.





AFTER SALES SERVICES

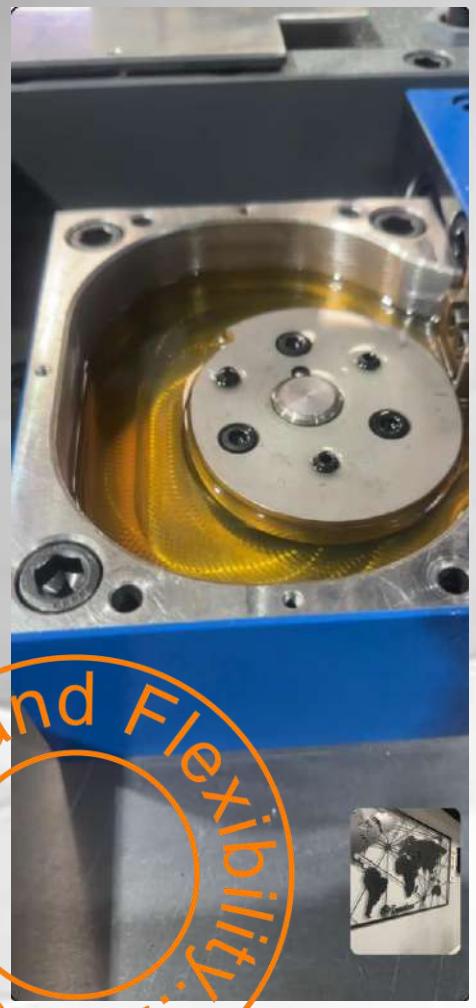
Online and Physical Service Support

We provide 24/7 online service for our products.

You can reach Temelsan Service Team (TST) whenever you need to help you. The first step is to have a video call with our customers to check and find the problem in the machine. The second step is to define the service method.

Mostly, customers abroad can replace some parts by themselves with online help in the video call. This is a faster way to solve the problems in our machines.

In case you have an electrical or electronic problem in some devices, you can be sure that we can connect to your machine to solve the problem online again.



Strength and Flexibility...

AFTER SALES SERVICES

Unlimited Stock of Spare Parts

As Temelsan, we continue to provide the highest level of service support to our customers in the same way as providing spare parts.

Our intercontinental sales figures, which we have achieved by providing international shipment of requested spare parts within three business days after approval, are an indicator of the services we provide.

Compared to equivalent or competitor companies, we continue to work with all our strength so that our customers can return to work as soon as possible, instead of prolonging the process.

Strength and Flexibility...

WE WISH YOU GOOD WORK AND HOPE YOU WILL CHOOSE US…

TEMELSAN SALES TEAM