

**N NARGESA®**

# HOT FORGING PRESS

## PV21

**NEW**



**years**

**manufacturing industrial machinery**



**AENOR**

R&D&I  
MANAGEMENT

UNE 166002

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*Business days.*

## SOME OF OUR CUSTOMERS

Our customer's endorsement is our best business card



## CERTIFICATES AND ACCREDITATIONS

Some of the certificates that support our processes and benefit our customers



**INNOVATIVE SME**

Valid until May 31st 2026



**CONCESSION  
OF AUTHORIZED  
EXPORTER  
AUTHORIZATION**

**ESEAOR23000312**

# NEW GENERATION OF PV21 HOT FORGING PRESSES

In collaboration with some of the best blacksmiths in Spain, France and the United States, the Prada Nargesa engineers have designed a forging press with all sorts of features.



Easier to handle



More accurate



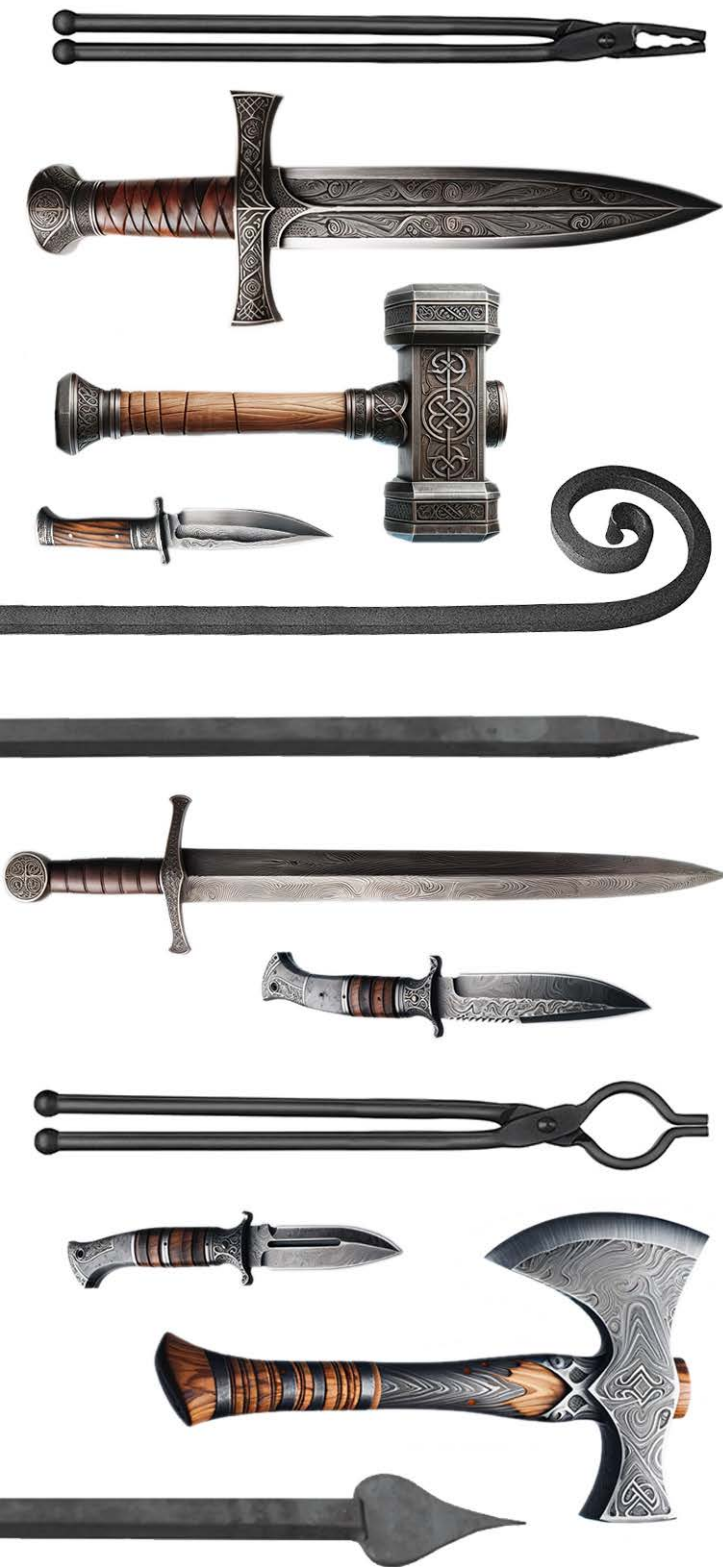
More safer



More silent

... and with many more features that make it the best choice among all the presses currently available on the market as **more than 90% of the others unfortunately do not even comply with EC regulations.**

# TECHNICAL FEATURES



## Operating power

21 metric tons / 23 US tons

## Stroke

296 mm / 11,65"

## Useful table surface

250 mm x 260 mm / 10" x 10,2"

## Repetitiveness

0,03 mm / 0,001"

## Operating speed

13 mm/s

## Reverse speed

75 mm/s

## Blows per minute

22 blows per minute over a 15 mm stroke

## Operating height

1020 mm / 40"

## Power

2,2 kW / 3 CV

## Voltage

230/440 V three-phase 50/60 Hz

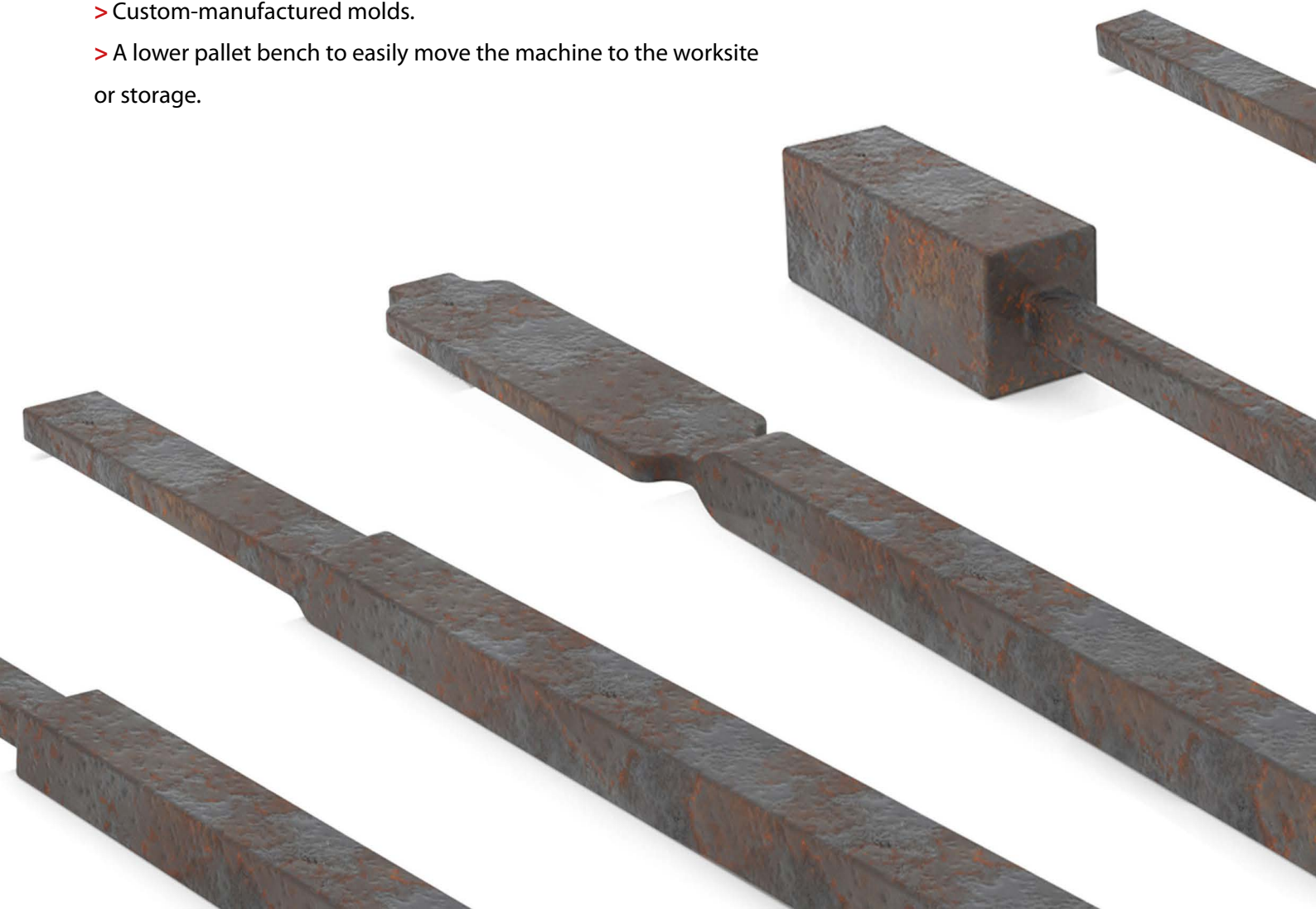
220 v *single-phase voltage OPTIONAL*

## Intensity

9/5 A

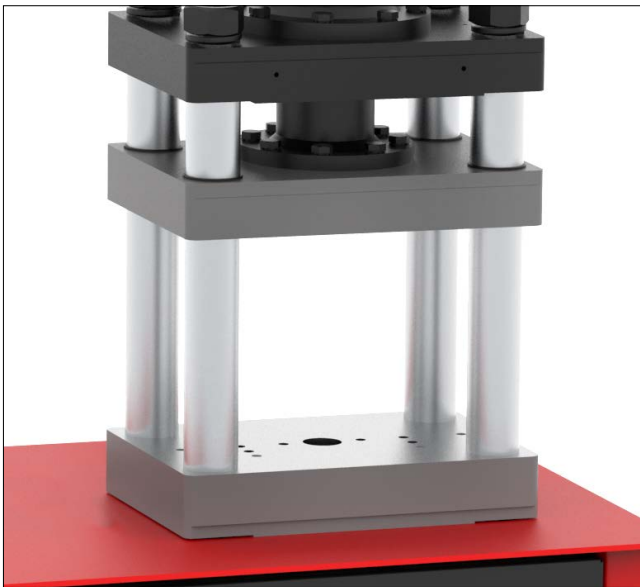
*\* All our products are manufactured in our facilities in Spain. The hydraulic and electrical components are all standard from the best leading European trademarks, with technical assistance all over the world: Rexroth, Bosch, Roquet, Schneider Electric, LG, Telemecanique, Pizzato...*

- > Means of operation: Vertical drop for absolute control and the utmost precision.
- > Table guided with four 55 mm chrome-plated columns with nothing that alters the results.
- > Built-in pressure gauge.
- > Quick start-up: The machine is shipped fully assembled. It just needs to be connected to the grid.
- > Manual and automatic operation, to increase productivity to the max.
- > Top and bottom limit switches, to eliminate all unnecessary movement.
- > Near-zero noise level
- > Near-zero maintenance.
- > Mobile safety pedal.
- > Height and orientation adjustable protection on the front and back.
- > Electric engine protection.
- > Emergency stop.
- > CE marking.
- > Standard mold: 130 mm x 80 mm
- > Can work with two side molds simultaneously.
- > Mold switch time: 45 seconds.
- > Self-centering molds which can rotate 90° for parts of all sizes.
- > Molds manufactured and tempered in 1.2344 steel / AFNOR: Z40CDV5 / DIN: X40CrMoV5-1 / UNE: F5318 / AISI: SAE H13 / SKD61 / 45Cr5MoSiV1 to withstand major effort and high temperatures.
- > Great variety of tooling and exchangeable molds.
- > Custom-manufactured molds.
- > A lower pallet bench to easily move the machine to the worksite or storage.





## BEFORE PURCHASING A HOT FORGING PRESS, A FEW BASIC DETAILS ARE NEEDED BEFORE MAKING A FINAL DECISION



### **Machined table, guided by 4 columns with a hole in the middle**

The press table is machined, which ensures it's perfectly parallel unlike most presses on the market which are guided by beams or lateral iron structures that don't guarantee parallelism or accuracy during the drop.

The PV21 press is guided with four 55 mm chrome-plated columns to ensure nothing alters the sides.

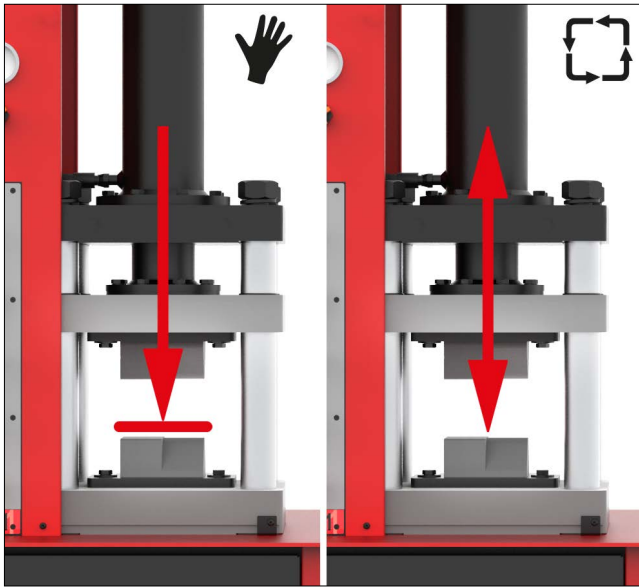
The 40 mm or 1.57" hole in the middle makes it easier to hot punch, we only need to attach the Base with hole in the middle supplied as standard. There is a box on the inside to collect any material fragments that may come off during the process.



### **Vertical drop**

Many presses operate upwards, forcing operators to move their arms up and down while guiding the piece. This makes the process even more difficult and is by no means necessary for good work. On the contrary, the PV21 forging press drops vertically, always keeping the piece secure on the bottom table which facilitates and speeds up the hot forging work.





## Manual and automatic operation

When in manual mode, the press only drops when the pedal is pressed down. It remains in a fixed position as soon as the operator's foot is lifted. This means of operation is particularly useful when doing very delicate work or to center a custom mold.

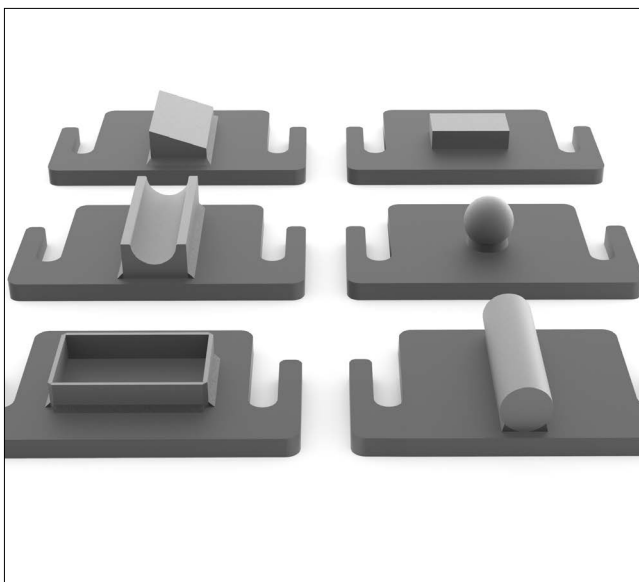
With automatic operation, the machine drops to the lower limit switch or until the operator's foot comes off the pedal. Then, it automatically moves up to the top limit switch. If the pedal is pressed down, the press drops and rises repetitively to each limit switch, which can be adjusted to delimit the movement to the minimum necessary for each specific job. This boosts productivity.



## Top and bottom limit switches

Many modern presses are activated with a side lever with no limit switches, which means operators always have their hand busy. This makes it quite difficult to make two similar pieces.

To overcome this problem, the PV21 press features 2 adjustable limit switches on one side. The bottom limit switch allows you to adjust the top position, leaving the opening just right for more productive work. The top limit switch controls the final press position, making all the work much easier. With repetitiveness less than 0.03 mm or 0.0001", the PV21 is the most accurate and precise forging press in the world and is ideal for producing Damask knives and swords.



## Easy custom mold production

There are no limits to the types of jobs that need to be done meaning you often have to customize molds to save time and money. Prada Nargesa supplies the machine with two additional sets of self-centering plates to weld or screw on any type of custom mold.



### Safety and ce marking

The PV21 has a safety pedal with a fold-down tongue which prevents the machine from being accidentally started. The machine is also equipped with front and back adjustable protective devices that lower the possibility of getting hit with fragments without losing visibility at any time. Plus, the emergency stop button, which is fully accessible throughout the work, and other complementary safety mechanisms make the PV21 forging press more than compliant with all EC machinery manufacturing standards.

Unfortunately, many of the presses on the market nowadays are not compliant with the regulations in various countries. The safety of our operators and all people must be a top priority for everyone.



### Versatility

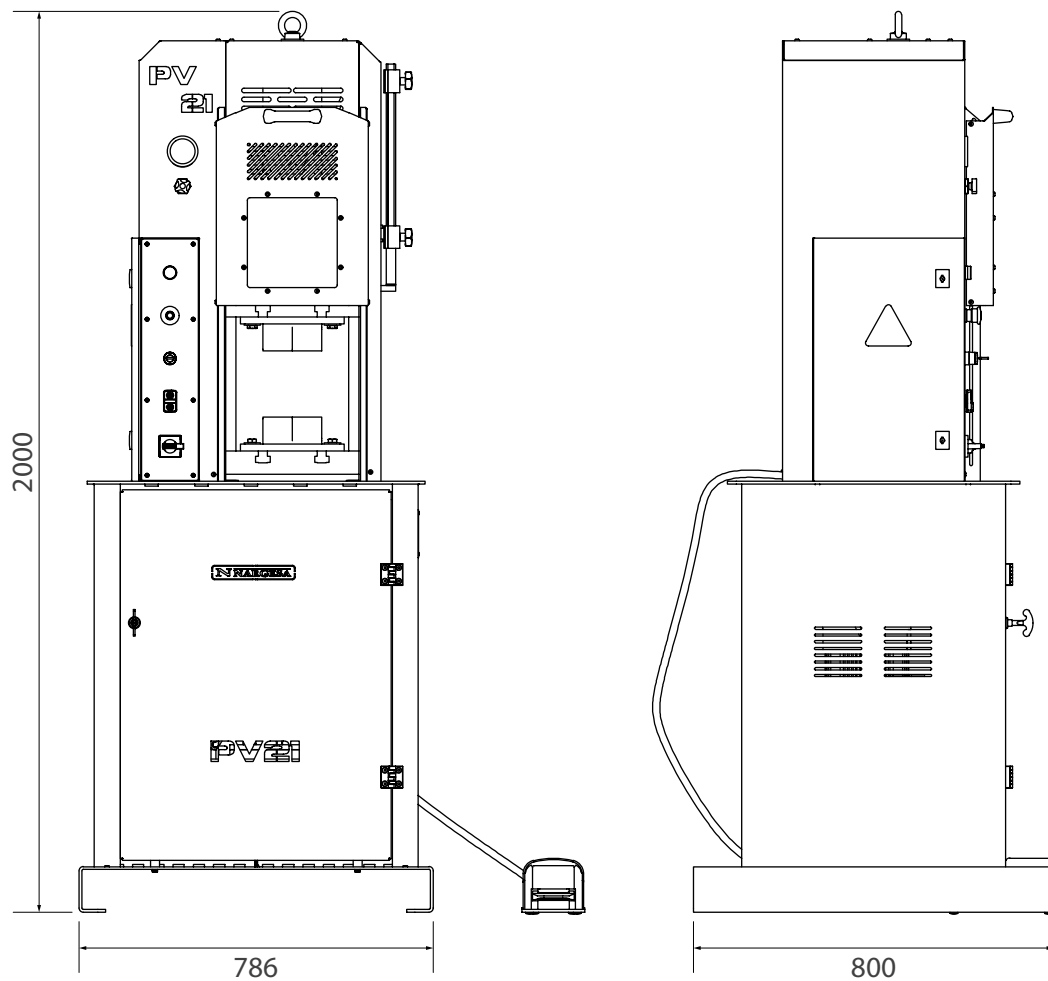
The large work table and 250 mm x 296 mm, or 10" x 10.2" opening make it so operators can work with two molds next to each other at the same time. This is particularly useful for producing knives, swords and forged items like hammers, pliers, etc.

All molds are self-centering for easier error-free positioning. It takes no more than 60 seconds to switch any of them.

All the tooling can be fixed horizontally or vertically. The Front-assembly base, supplied with the machine, makes it possible to use the same mold, rotating it 90°, which is highly useful when forging swords or large-sized items.



# OUTSIDE DIMENSIONS



## PACKAGING CHARACTERISTICS

**Tariff Code:** 84621990

- The PV21 machine is sent completely assembled.
- An iron pallet and 3-layer cardboard box suitable for seafreight.
- Optional: NIMF15 wooden container.

### PV21

Width	800 mm
Depth	820 mm
Height	2040 mm
Volume	1,34 m <sup>3</sup>
Net Weight	500 Kg
Gross Weight	530 Kg

# STANDARD ACCESSORIES SUPPLIED WITH THE MACHINE

All Nargesa presses are equipped with the press tooling consisting of a set of standard 20 mold and four sets of bases.

## Press mold 20



REF: 140-18-01-00020

> Molds with two work areas to stretch and flatten material. Highly versatile.

> Molds manufactured and tempered in 1.2344 steel / AFNOR: Z40CDV5 / DIN: X40CrMoV5-1 / UNE: F5318 / AISI: SAE H13 / SKD61 / 45Cr5MoSiV1 to withstand major effort and high temperatures. This material maintains its mechanical properties at high temperatures.

*Standard tooling*



Mold dimensions	Weight of the set
130x80x67mm	6,60kg

## Single base PV21



REF: 140-18-01-00001

> Two bases to be able to weld or screw any mold manufactured by the customer, as per the work needs.

Bases made of F-111 steel.

*Standard tooling*

Mold dimensions	Weight of the set
230x135x15mm	6,10kg

## Base with hole in the middle PV21



**REF:** 140-18-01-00004

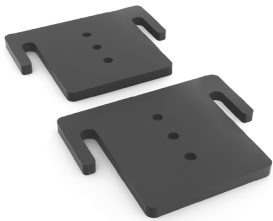
> Two bases to be able to weld or screw any mold manufactured by the customer, as per the work needs. These bases were designed for hot punching. Bases made of F-111 steel.

**Standard tooling**



Mold dimensions	Weight of the set
230x135x15mm	6,00kg

## Front-assembly base PV21



**REF:** 140-18-01-00005

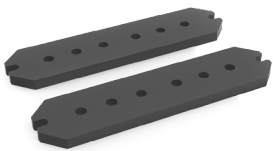
> Two bases to be able to screw any of the molds we manufacture together, perpendicular to their original position.

Bases made of F-111 steel.

**Standard tooling**

Mold dimensions	Weight of the set
230x185x15mm	7,60kg

## Double Base PV21

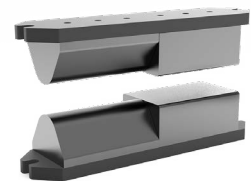


**REF:** 140-18-01-00006

> Two bases to be able to screw any of the molds we manufacture together, one next to the other.

Bases made of F-111 steel.

**Standard tooling**



Mold dimensions	Weight of the set
325x80x15mm	5,60kg

# OPTIONAL TOOLING

## Press mold 21



**REF:** 140-18-01-00021

- > Pyramid-shaped molds to form the material and stretch it faster.
- > Molds manufactured and tempered in 1.2344 steel / AFNOR: Z40CDV5 / DIN: X40CrMoV5-1 / UNE: F5318 / AISI: SAE H13 / SKD61 / 45Cr5MoSiV1 to withstand major effort and high temperatures. This material maintains its mechanical properties at high temperatures.



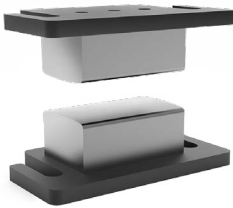
**Mold dimensions**

130x80x67mm

**Weight of the set**

6,10kg

## Press mold 22



**REF:** 140-18-01-00022

- > Molds with a rounded surface to stretch material without excessive deformation.
- > Molds manufactured and tempered in 1.2344 steel / AFNOR: Z40CDV5 / DIN: X40CrMoV5-1 / UNE: F5318 / AISI: SAE H13 / SKD61 / 45Cr5MoSiV1 to withstand major effort and high temperatures. This material maintains its mechanical properties at high temperatures.



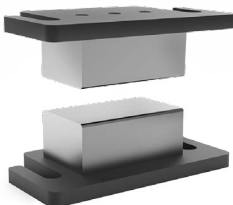
**Mold dimensions**

130x80x67mm

**Weight of the set**

7,20kg

## Press mold 23



**REF:** 140-18-01-00023

- > Flat molds to flatten material with small radius edges, to create steps.
- > Molds manufactured and tempered in 1.2344 steel / AFNOR: Z40CDV5 / DIN: X40CrMoV5-1 / UNE: F5318 / AISI: SAE H13 / SKD61 / 45Cr5MoSiV1 to withstand major effort and high temperatures. This material maintains its mechanical properties at high temperatures.



**Mold dimensions**

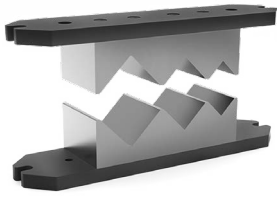
130x80x67mm

**Weight of the set**

7,30kg

## Press mold 24

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**REF:** 140-18-01-00024

> Dies with three V-shaped slots (2", 1" 1/2 and 1") for pressing steel. Specially designed to avoid changing tools by unifying three sizes in the same tool. Ideal for manufacturing parts with Damascus steel.

> Molds manufactured and tempered in 1.2344 steel / AFNOR: Z40CDV5 / DIN: X40CrMoV5-1 / UNE: F5318 / AISI: SAE H13 / SKD61 / 45Cr5MoSiV1 to withstand major effort and high temperatures. This material maintains its mechanical properties at high temperatures.



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Mold dimensions	Weight of the set
325x80x67mm	14,5 Kg

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# OUR RANGE OF MACHINERY



IRON WORKERS



SECTION BENDING  
MACHINES



NON-MANDREL PIPE  
BENDER



HORIZONTAL PRESS  
BRAKES



TWISTING/SCROLL  
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HYDRAULIC PRESS  
BRAKES



HYDRAULIC SHEAR  
MACHINES



GAS FORGES



IRON EMBOSsing  
MACHINES



END WROUGHT IRON  
MACHINES



BROACHING MACHINES



POWER HAMMERS



BLACKSMITH FORGING  
PRESS



## WARRANTY

Nargesa machines have 3 years warranty provided that the customer registers it in our website. Otherwise it would be only one year warranty. This one encloses any manufacturing default all along these 3 years for components. Any misuse is excluded from this condition. Labor, back and forth shipping and any eventual repair, are not included in this warranty.

Partner companies



Airpharm

## SHIPMENT EVERYWHERE

Nargesa will arrange transport up to final destination, whenever the customers asks for so. There is also the possibility for the customer to arrange the shipment himself with his own agency.

## TECHNICAL ASSISTANCE

All our customers have access to technical support quickly and efficiently.

90% of incidences are solved out on the phone, mail, Skype or videoconferencing in less than 24hours. In case of needing presencial technical assistance, we may as well send a technician to the customer's facilities.

Follow us on

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This information might undergo changes