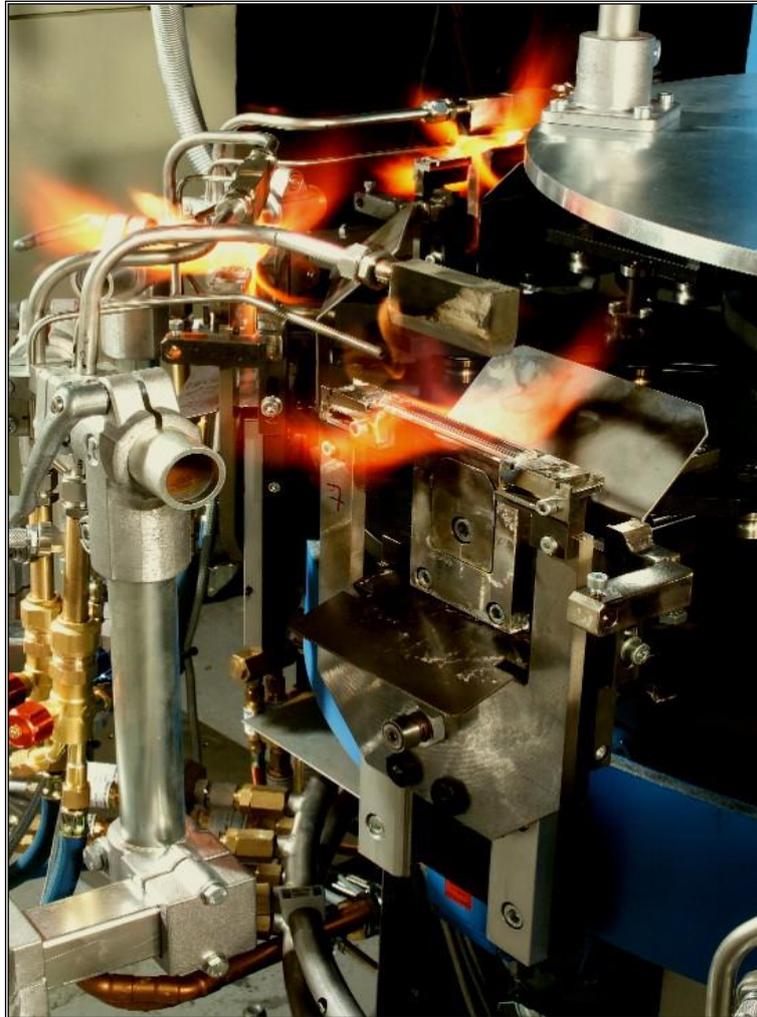


Machines to make Handles



Detail: Handle Bending Machine HBA 08

GLAMACO has developed a series of machines for the manufacture of glass handles, using the company's 50 years of experience in glass technology and machine construction. GLAMACO machines are used by glass manufacturers all over the world, where they are appreciated for their reliability, performance, high productivity and cost-effective operation.

Special machines for handle-ware:

- Automatic Bar Breaking Machine, type SBA 400
- Handle Bending Machine, type HBA 08
- Handle Welding Machine, type HAMA

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Automatic Bar Breaking Machine, type SBA 400



SBA 400

Technical description:

The automatic Bar Breaking Machine of type SBA 400 is used to break glass bar stock (round bars or oval cross-section) to pre-determined lengths. The glass bars are placed on transport rollers of the work table by hand. Further operations are fully automatic, i.e. transport of the raw bars to the stop according to the desired breaking lengths, as well as breaking and transport of the broken bar pieces. The glass bars are marked by a cutting wheel.

Features of the automatic Bar Breaking Machine type SBA 400 are:

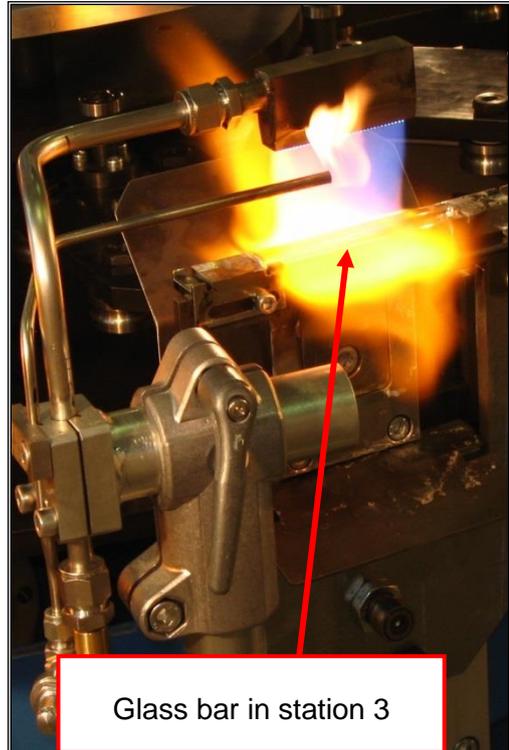
- Automatic bar feed
- Vertically adjustable cutting tool
- Adjustable feeding speed of marking wheel
- Adjustable pressure of the holding clamp
- Automatic bar end detection

Glass bar dimensions	(mm)	5.5 ... 12
Round stock		
Oval cross section		min. 10 x 5max. 20 x 8
Breaking length	(mm)	50 ... 160
Length of raw bars	(mm)	max. 2,000
Holding capacity of working table (breadth)	(mm)	400
Output – depending on article dimensions	(pcs / min)	max. 60
(e.g. section 20 x 8 mm , bar length 80 mm)	(pcs / min)	6

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Automatic Handle Bending Machine, type HBA 08



HBA 08

HBA process

Technical description:

This machine is used to form handles from glass bar stock of a specified length and varying cross-sections. The automatic Handle Bending Machine of type HBA 08 is a step-controlled 8-station machine. The glass bars are placed into a magazine (station 1) by hand or by means of a conveyor, before being transported from the rotary table of the machine to station 2. In the fully automatic bending process the glass bars are heated and formed by gravity. The handles are given their final geometry in an after-forming process.

Reference diameter of the stations	(mm)	1,200
Output	(max. pcs. / min)	6
Utilities		
	Compressed air (MPa)	0.6
	Natural gas (MPa)	0.15
	Oxygen (MPa)	0.30
Machine dimensions	(L x B x H , mm)	1,900 x 1,900 x 1,680

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Handle Welding Machine, type HAMA



HAMA 4

Technical description:

The Handle Welding Machine of type HAMA is used to weld handles (bent from glass bars) onto hollow glass articles. The machine consists of 1 to 4 stations working independently and arranged in series. Each station can be operated alone, giving a high degree of production flexibility. The stations are mounted in a standard frame. The feeding and delivery ends are equipped with a movable protective window which is closed during operation. The feeding of glass articles and handles into the machine as well as the removal of finished products is carried out by hand.

Number of stations		1 ... 4
Article dimensions	(Height max. , mm)	300
Span diameter	(max. , mm)	170
Utilities		
	Compressed air (MPa)	0.6
	Natural gas (MPa)	0.15
	Oxygen (MPa)	0.30
Machine output	(max. items / min)	8

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