

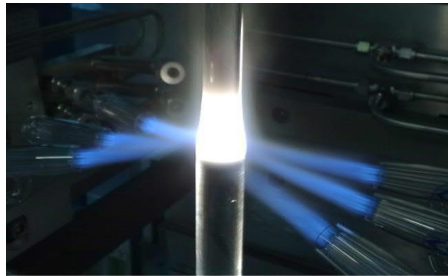
BIMESPRO VGL vertical glass-working lathe

Introduction & Application

VGL vertical glass working lathe is used for jacketing preforms in vertical position, or for stretching preforms, rods, and silica tubes. Jacketing and other operations in vertical position have specific advantages over horizontal jacketing when very precise core concentricity is required. Vertical glass working is recommended in jacketing of polarization maintaining fiber preforms, as well as in fabrication of other optical fiber preforms.

Description

VGL vertical jacketing lathe frame is made of welded steel profiles, to provide a sturdy, vibration-free base. Lathe bed is fixed to this frame in exact vertical position. The bed has two movable headstocks, top and bottom. Sturdy carriage is installed on high precision linear guides. Both headstocks and the carriage are driven by AC brushless servo motors, with drives connected to control system by EtherCAT interface.

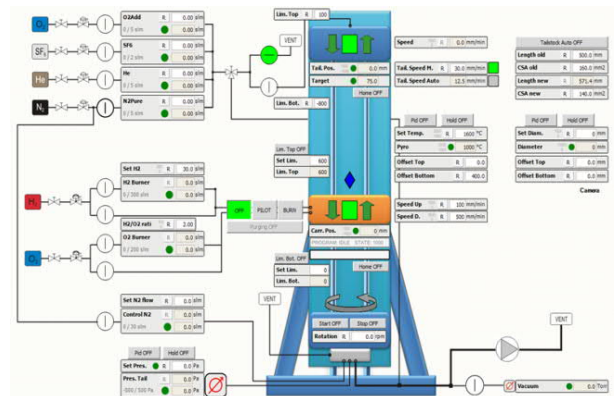


Position of each headstock and carriage is detected by absolute linear position sensors. Headstocks are equipped with a suitable scroll chuck, for heavy preforms a pneumatically operated model is used. Lathe can be equipped with a circular metal burner, quasi-circular quartz tip burner or Bimes pro MIF preform furnace.

One of the headstocks is equipped by a rotary seal while the other is equipped by a version of MCVD soot box (without soot remover) and precise tube inner pressure control (option). Pyrometer or IR scanner is added for preform or tube temperature control, and CCD camera-based vision system can be installed for PID tube diameter control or precise stretching of tubes and rods. Both headstocks are protected by heatshields and carriage is equipped with large exhaust ducts, to remove hot gases in axial direction, to prevent overheating.

Control system

VGL is operated by OptiFACT Windows-based control system and software, used over the whole platform of Bimes pro equipment. Please ask for details from our specialists.



Specifications

Parameter	Value
Total lathe length	4016 mm
Bed length	2900 mm
Distance between chuck tips	1600 mm
Chuck axis above bed	340 mm
Preform diameter	15 - 80 mm standard

Burner H2/O2 flow	300/150 slm
Vacuum pump	Included
Preform gases (standard)	O ₂ , N ₂ , SF ₆ , He
Temperature control	IR Pyrometer, IR scanner as option
Diameter control	camera vision system as option

For more information and quotes please write to sales@bimespro.com or info@bimespro.com