

68-19 BL-1A Bench Lathe (Project 02-26) (3/03)



The BL-1A is a compact, multi-purpose bench lathe for grinding, buffing, and polishing both metal and acrylic dental materials. Reported features of the BL-1A include a 1/6-horsepower motor with a 5/16" shaft, permanently lubricated ball bearings, and a sealed dust-proof motor housing. The unit's motor is attached to a 6" x 5" cast iron base with four holes for mounting to the benchtop. The base is equipped with a lighted power on/off indicator and variable-speed dial, which controls the motor from 1800 to 7000 rpm. The bench lathe purportedly can be used with 1" to 4" diameter buffing wheels and accommodates grinding wheels up to 2" in diameter. The BL-1A accessories include TM5 (left hand) & TM6

(right hand) tapered spindle mandrels, WM-5 (right hand) wheel mandrel, CHA-5 (right hand) collet holder with 1/4" and 3/32" collets, screwdriver, allen wrench and collet wrench. The bench lathe has a 6' power cord, weighs 7 1/2 pounds, and is available in 110 or 220 voltages.

Manufacturer:

The Freedom Electric Company
16 Stony Hill Road
Bethel, CT 06801
(203) 792-8622
(203) 796-7861 Fax
www.freedom.com

Suggested Retail Price:

\$219.00 - Bench Lathe (item # BL-1A) includes:
-TM5, TM6, and WM-6 mandrels.
-CHA-5 collet holder mandrel and collet wrenches.

Government Price:

Same as retail.

ADVANTAGES:

- + Functions reliably for most laboratory tasks.
- + Has variable speeds that polish metals and acrylics well.
- + Small and lightweight.
- + Motor brush replacement is easily accomplished.
- + Contains a comprehensive instruction manual.
- + Meets all electrical safety standards.

DISADVANTAGES:

- Necessary to secure to benchtop for optimum use. (For update, see below)
- Absence of quick-release chuck requires the use of wrench for bur changes.

SUMMARY AND CONCLUSIONS:

The BL-1A Bench Lathe has advantages and disadvantages compared to traditional bench lathes. Clearly, its main advantages are its small size, lightness in weight, and variable speeds. It performed all grinding, buffing, and polishing tasks with the collet holder and mandrels provided. Evaluators found its 1/6-horsepower motor to provide sufficient power and the variable-speed feature to be very effective for polishing procedures. One disadvantage is that the lathe must be secured to the benchtop to prevent movement when performing tasks that demand heavier pressure. Therefore, its portability is an advantage only for tasks that require light-to-medium pressure. In addition, the lack of a quick-release chuck and the requirement for the lathe to come to a complete stop makes bur changing more time-consuming. In general, the BL-1A was found to be best suited for tasks that require few or no bur changes. For most effective use, the lathe should be secured to the benchtop. Five out of the six evaluators recommended its purchase. The **BL-1A Bench Lathe** is rated **Acceptable** for use by the federal dental services.