



LAPPING MACHINES

EQUIPMENT LIST

6BK	12" and 16" Table
6BP	20" Table
6BA	26" Table
6BD	36" Table
6BX	48" Table
6DN	60" Table
6BT	84" Table
6BZ	96" Table
6BL	CMP Polisher
M72	Wafer Mounting Station
6S-R4	Double Surface Polisher
6EE	Double Surface Polisher

LAPPING MACHINES

Lapping machines are traditionally listed by the diameter of the lapping table, although the inside diameter of the individual conditioning rings and the number of rings per machine (work stations) should also be considered when choosing a lapping machine. Strasbaugh builds lapping machines with table diameters from 12" (305 mm) to 96" (2,439 mm). These machines are used for lapping or polishing what seems to be an endless variety of products and materials, from cast iron engine components to silicon wafers; from stainless steel molds to flying heads for computers; from fiber optics to carbide impact drill bits; from telecommunications couplings to ceramic pump seals.

Lapping machines are extremely versatile. The type of material to be lapped dictates the type of lapping table and abrasive to be used. A variety of tables and rings are available, including cast iron, stainless steel, ceramic (aluminum oxide), copper, tin, tin/lead, aluminum, brass, glass and granite.

Optional equipment includes soft start motor control, variable speed drive, powered ring drive for superior flatness control, abrasive feed system, air assist down pressure system, clean environment enclosure, internally water cooled lapping table and recirculating slurry system.



LAPPING MACHINE PROCESS SPECIFICATIONS QUESTIONNAIRE

1. What is the size (diameter) of the lapping plate that you require?
2. What materials do you expect to lap on this machine?
3. What is the hardness (Mhos scale) of the parts to be lapped?
4. What is the major dimension of the face of the part(s) you will lap?
5. Are the parts symmetrical?
6. How much material must be removed?
7. What lapping compound will you use?
 - a. paste?
 - b. powder?
 - c. slurry?
 1. drip feed?
 2. recirculating system?
8. How much do the individual parts weigh?
9. What voltage, phase, hertz and amperage is available?
10. Should the machine be protected against any extremes in:
 - a. temperature
 - b. humidity
 - c. salt spray
 - d. etc.
11. Are any health and safety requirements specified beyond those basic and generic to OSHA? If so, please specify.
12. Are any special packing and/or packaging requirements specified such as:
 - a. ocean freight
 - b. rough handling
 - c. double walled crating
 - d. clean room preparation
 - e. etc.
13. Will any caustic or acidic compounds be used on this machine?
14. Do you require:
 - a. an environmental enclosure over the machine?
 - b. a duct for connection to an exhaust system?
 - c. audio alarms?
 - d. visual alarms?
15. What is the final flatness requirement (in light bands or inches per inch) for the parts being lapped?
16. What is the final surface quality (surface roughness) requirement stated in one or more of the following terms:
 - a. Ra (μ in.)
 - b. Ra (μ m)
 - c. RMS (μ in.)
 - d. RT (μ m)
 - e. N values
 - f. Swiss stds.
17. What is the specification for the lap itself?
 - a. lapping plate material?
 1. Meehanite grade cast iron
 2. cast aluminum alloy
 3. ceramic
 4. tin
 5. tin/lead
 6. copper
 7. hardened steel (specify Rockwell hardness required)
 - b. groove pattern required?
 1. no grooves
 2. checkerboard squares
 - a. size of each square
 - b. space between squares (serrated width)
 - c. depth of serrations
 3. radial grooves (serrations)
 - a. serration width
 - b. depth of serrations
 - c. number of serrations (from center to edge is considered one serration, therefore, standard laps with radial serrated patterns have eight serrations; additional serrations are extra charge)
 4. concentric circles
 - a. serration width
 - b. serration depth
 - c. space between serrations
 5. spiral pattern
 - a. clockwise or counterclockwise
 - b. serration width
 - c. serration depth
 - d. space between serrations

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