



Alin Machining Co., Inc. d/b/a

Power Plant Services

ISO 9001 Certified

On-Site Machining Stationary Journal Machining (SJM)

Power Plant Services' (PPS) continues to grow our on-site machining business in order to better assist our Customers. We have added Stationary Journal Machining (SJM) to our expanding array of on-site machining options.

Previous catastrophic failures provide important lessons upon which to build more advanced and effective machining systems throughout the Power Generation industry.

PPS' on-site machining inventory has increased to include **Stationary Journal Machining (SJM)**. Here at PPS, we recognize that your time and budgets are valuable. Removing and shipping a rotor & components to a repair shop consumes a great deal of time and money. PPS offers effective techniques that are less time consuming and more cost effective.

SJM evolved from technology first developed in Europe in the early 1950s, though modern equipment bears little resemblance to the early models. SJM is a portable machining apparatus that enables accurate machining of shafts, journals, collector rings, and other components by rotating around the part. It can restore straight, round, or concentric conditions to within 0.0005 inches (0.5 mil) final machine tolerances from virtually any position. SJM consists of:

- (2) Two Outer Rings with riding pads that revolve around the shaft
- (1) One Tool Holder with a lead screw that machines across the shaft with a direct feed mechanism
- (1) One Electrical Variable Speed Motor attached to a gear box that drives pulleys connected to the outer rings
- (1) One ring with (4) four honing stones that enables surface finishes of 16 rms (root-mean-square) or better.

SJM attaches to stationary rotors and rotates around it, eliminating the time and cost associated with removal of the rotor and turning it on a lathe. This equipment and process has several advantages including: **1) absolutely no**

shaft rotation is required, thus eliminating the use of plant crane or rigging assistance; 2) valuable floor space is not tied up; and 3) reduces the length of time dedicated to outages.

The machine is easily packed into three small gang boxes weighing less than 500 lbs. each, which enables them to be air shipped to any location or transported in the bed of a small pickup truck. Once the equipment arrives on-site, the operators can set it up and begin machining within (4) four

hours. SJM takes only two qualified PPS personnel per shift to operate, our journeyman machinist operates the SJM in the same manner as any metal cutting machine.

Journal and bearing failures will happen; it is comforting to know that SJM can quickly and efficiently get you back online and running with minimum downtime.

PPS customers receive the same quality of work and craftsmanship on-site as they would receive at our repair shops. SJM is the latest addition to PPS' on-site portable machining portfolio, allowing us

the capabilities to perform a large portion of your required machining and welding needs on-site by our qualified Journeyman machinists.

Many situations where the use of our SJM machine would be required are on an **emergency basis**. PPS is able to respond and have people **on-site within 24 hours – contact us at any time: 24 hours / day, 7 days / week!**



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