

This is a top view.

The lapping disc is motor driven at slow speed, varispeed is best. The positioner bearings are suspended above the disc so as not to touch it. The lapping ring rests on the lapping disc and during rotation it rides against the positioner bearings. The rotation of the lapping disc drives the lapping ring and the two lap each other to extreme flatness. The lapping ring must pass over the center of a solid lapping disc, or if there is a hole in the center it must pass over the hole so there is no portion of the lapping disc that the ring never touches.

The work piece is placed on the lapping disc inside the lapping ring and the ring will rotate the work piece. In the case of non-round workpieces, a ring with a square hole can be fitted to the work piece to aid in rotation.

With diamond grit you can get nice first surface mirrors. I used a machine like this when making molds for watch crystals where optical clarity was critical.

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