

Invention relates to machine building and it is intended for working by turning nonrigid components of "disk" type, which include flat rotors of electrical machines, electric measuring instruments, clutches etc. Device for noncontact basing of nonrigid disks in the area of turning contains a housing in the form of faceplate, which plays a part of stator, annular toothed magnetic circuits with phase coils, holders of magnetic circuits in the form of sectors with pockets on the surfaces turned to the workpiece. On the periphery of butt end of faceplate, concentrically with respect to the magnetic circuits, is arranged an annular groove for L-shaped cores with phase coils, its pole pieces are turned to external generatrix of the workable disk. The radial planes of arrangement of the pole pieces of magnetic circuits and L-shaped cores are combined, and the cavities of the pockets of holders, which are placed between radial rows of pole pieces with coils, connected by channels with vacuum pump. The compensation for composite forces of cutting, which act on component, is accomplished by extra forces, which are created by coils with L-shaped cores located along the periphery of faceplate, and provides for precise centering of disk.