

PAD CONDITIONER COUPLING AND END EFFECTOR FOR A CHEMICAL  
MECHANICAL PLANARIZATION SYSTEM AND METHOD THEREFOR

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Abstract of the Disclosure

A pad conditioner coupling (58) holds an end effector (57) for abrading a polishing media surface. Pad conditioning planarizes the polishing media surface, removes particulates, and roughens the polishing media surface to promote the transport of polishing slurry. Pad conditioner coupling (58) comprises shoulder screws (50), polymer bearings (51), a static plate (52), a wave spring (54), and a floating plate (55). Wave spring (54) is placed between static plate (52) and floating plate (55). The shoulder screws (50) connect through the static plate (52) and fasten to the floating plate (55) to hold the wave spring (54) in a preloaded condition. The polymer bearings (51) prevent the shoulder screws (50) from contacting the static plate (52). Wave spring (54) allows the floating plate (55) to move in a non-parallel position to the static plate (52) for angular compensation in the pad conditioning process.

FIG. 3 accompanies this abstract.