

Rheodyne Tech Tip 5: How to Select the Right Rotor Seal

The standard rotor seal in many Rheodyne® manual valves is made from a Vespel® blend. This polyimide has low wear and high chemical resistance. Vespel tolerates a pH range of 0 to 10. Solutions more basic than pH 10 dissolve Vespel, which damages the rotor seal. If you use any solutions above pH 10, Rheodyne recommends a PEEK-blend rotor seal. PEEK offers a high-chemical resistance and versatility and will tolerate the entire pH range from 0 to 14. Tefzel®-blend rotor seals may be appropriate for some applications. See Rheodyne [rotor seals](#).

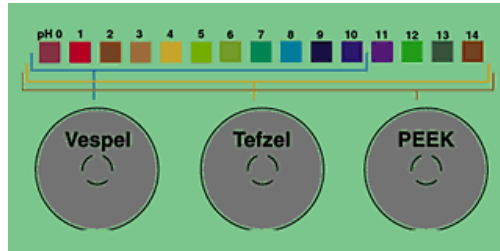


Figure 1. pH range of various rotor seal materials. pH colors are for illustration only.

Genuine Rheodyne rotor seals are matchless in performance and product life. For a quarter of a century, they have exceeded the needs and expectations of chromatographers. Our rotor seals are products of rigid manufacturing and quality assurance procedures before they are incorporated into our valves or shipped to our customers. Only genuine Rheodyne parts ensure the continued precision performance of Rheodyne valves. Our engineers develop exacting product specifications and designs, including the factory-installed rotor seal ring, which optimizes rotor seal efficiency. Rheodyne rotor seals must pass our tougher-than-real-world standards of performance. Rheodyne rotor seals are made from proprietary-blended polymers, formulated specifically for resistance to repetitive chemical and physical stresses of the entire 0 to 14 pH range. Tested under actual laboratory conditions, Rheodyne rotor seals fully meet the demanding requirements of day-to-day manual instrument use as well as the operating conditions found in today's automated laboratories.

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