The unique seating action begins with the initial contact between the metal valve disc and the Buna-N o-ring providing a low pressure seal. As pressure increases, the Buna-N seal is compressed which allows the disc to make contact with the metal portion of the valve seat. Excess area in the o-ring groove prevents over compression of the synthetic seal.

Seal Compression

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Seal Indentation

Contact between the seal and the disc is uniquely designed to eliminate indentation ridges found in designs that do not allow the disc to fully overlap the seal. Indentation ridges caused by valve designs with the disc smaller in diameter than the seal can result in valve leakage. The Val-Matic® design provides for complete overlap of the resilient seal.