

Application Profile





Flex M Single-Stage Couplings

Highlights

- Torsional accuracy of 2710 Nm/rad
- Accommodates up to 4° of angular misalignment
- Heat treated, spring-quality stainless steel membranes

Measurement Systems

Micro-Vu designs and manufactures a broad range of non-contact measuring machines including automated vision systems, manual video systems and optical comparators. These devices are used to inspect a wide variety of materials, parts and assemblies from sheet metal and injected plastics to 0-rings and PCBs.

The excellent positional integrity achieved due to the high torsional stiffness of the Huco Flex M membrane coupling made it the natural choice for Micro-Vu. The couplings are used on measuring machines designed for the automatic inspection of large parts. The coupling drives a ball screw that guides the vision system along the inspection bed. It maintains x-y accuracy to within 10µm over 2.35m of travel; repeatability is also 10µm.

The Flex M was developed specifically for applications such as these. As well as being eminently suitable for use in high resolution measuring devices, this model is also widely specified for high gain velocity or motion control systems, position-critical frictional loads, dynamometers, precision encoders etc.

Flex M models feature thin pressed steel membranes that act as the pivotal members in the couplings. Torque is resolved to simple tensile stresses in opposing segments of the membranes. These couplings have near-infinite life and a dynamically balanced construction. Units have no moving parts and absorb shaft end-float.

4/18