Diaphragm Chucks

These diaphragm chucks make use of the inherent resilience and spring action of steel to achieve chucking pressure on the job. Absence of sliding parts for clamping of the job, makes these chucks highly reliable and ensure a long trouble free life. To get a better grip, higher concentricity and minimum distortion, the number of jaws could be increased depending on the configuration of the component.

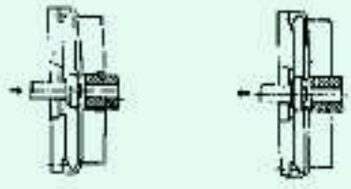
These chucks are mainly used for secondary operations like grinding, facing and boring where a high degree of concentricity is required.

They are offered in two versions:

- Self contained where the cylinder and the piston are an integral part of the chuck.
- Standard Where the chuck is in front of the spindle and the cylinder is mounted on the rear end of the machine spindle.

How a diaphragm works

Air is introduced through the spindle and adaptor plate by means of a ¼" pipe. When air pressure is applied, the piston moves forward by about 0.030" and this movement is transmitted to the diaphragm by a push sleeve. As the diaphragm is pushed, the jaws open out and the work piece is loaded. To grip the work piece, the air is turned off and the jaws move towards the relaxed position until they contact the work piece, which is located at the centre.



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