



Custom Gaging Solutions

Gaging Parameters

GAGING SYSTEM:

- Electronic

OPERATION:

- Automatic

NUMBER OF CHECKS:

- 4 in manual
- 6 in Automatic

CLASSIFICATION:

- Accept/Reject

SORTING:

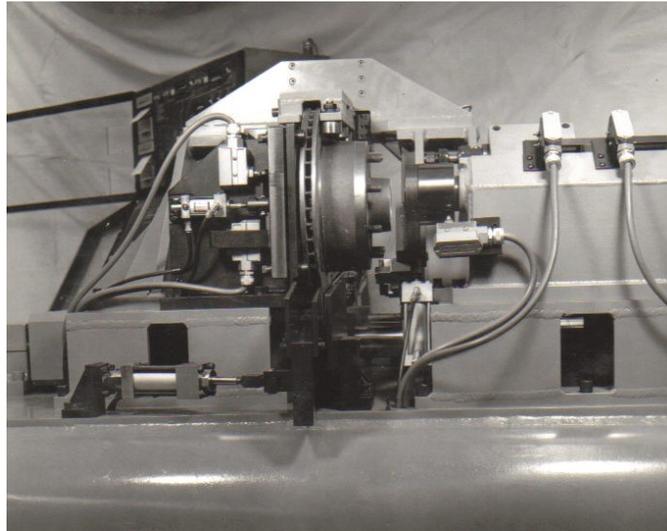
- Accept/Reject

FEATURES:

Automated rotor thickness variation and TIR

CONTROL:

Brake Drums & Rotors



Automating the measurement of integral bearing brake rotors is a challenge for most because the part does not include bearings. Edmunds Gages engineers devised a simplistic device to replicate the bearing and rotate the rotor on its bearing axis to determine the maximum variation and T.I.R. of the braking surfaces. Accepting parts within the customer's conveying system, at a rate of 180 parts per hour, the gage dynamically measures and sorts good from bad parts before exiting the gage. As a post process gage, spindle dedicated compensation data is fed back to the part-producing machine for thickness compensation before the next part is processed. Using Edmunds CAG^{QCM} gaging amplifier, all the data relative to Cpk Cp and Cr is available at the touch of a button for real time process analysis.





The latest manufacturing methods include flexible machining cell with robotic automation. The static gage at left accepts either a brake drum or a rotor within the same gage for the pilot bore and drum bore sizing, with feedback to the part-producing machine. The gage includes interchangeable tooling for various sized drums or rotors and can be changed in minutes with a limited number of tools. The upper section of the fixture is used for rotors, when presented with a 3-jaw griper on the pilot bore. The lower section of the gage is used for drum bores, and both sections are often used in combination for the drum bore and the pilot bore of larger sized brake drums. A CAG^{QCM} gaging amplifier stores the part dedicated set-up information along with individual tool offsets that are used with the multitude of parts within the same cell.

