

# *Automotive Brake Parts Test Machine*

## *Leak & Flow Testing*

TQC have recently developed an innovative system for the automatic testing of high specification brake parts.

The operator manually loads a part into the machine and connects the test line to do it.

Firstly, an air flow test is performed to check for blockage. If successful, the part is automatically shrouded in a close fitting test chamber and 3 successive leak tests are performed using a Nolek type S9 differential leak test instrument as follows -

1. Intermediate pressure leak test (including piston movement check)
2. Low pressure leak test— 0.5bar
3. High pressure leak test— upto 160 bar.

Good parts are pass stamped on completion.

Two stations allow the leak tests to be carried out on one station while the flow test is carried out on the other and vice versa.

To allow testing of different sizes and types of parts, interchangeable tooling is supplied.



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Automation & Test Solutions

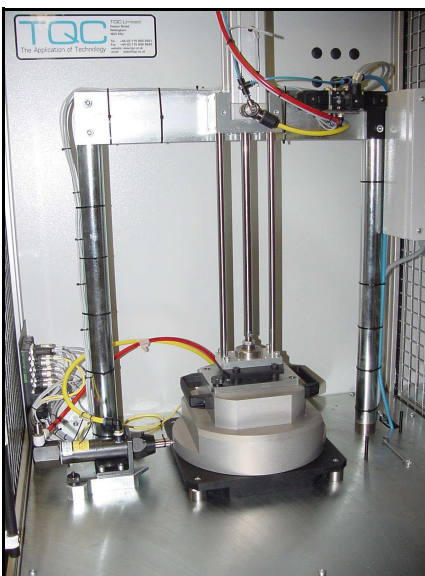
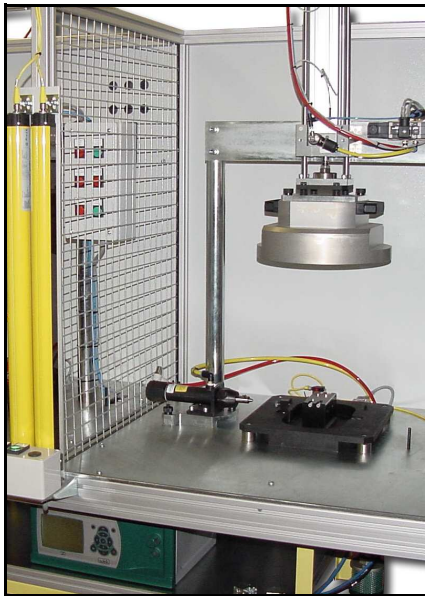
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# Automotive Brake Parts Test Machine

## Leak & Flow Testing

The unit incorporates:

- Standard aluminium extrusion bench framework
- Universal fixture areas
- Light guard access to each station
- Fully automatic sealing fixture
- PLC control system
- Built in Nolek S9 leak test instrument
- Standard operator interface panel
- Suitable for medium to high volume applications



### Leak Test Description

All the leak tests check for zero brake fluid leakage at various service pressure conditions.

1st leak test is performed at 2 bar  
2nd leak test is performed at 0.5 bar  
3rd leak test is selectable between 35 bar and 160 bar.

Nominal throughput is approximately 1 part per minute on a 2-station machine.

This bespoke test system is based around the standard TQC series 40 range of equipment so if you have any leak or flow testing requirements a cost effective solution can be developed using standard equipment and bespoke elements as required.

If you are currently considering any type of test application contact TQC to discuss your requirements



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