



The actuator test bench meets the test requirements of various conventional linear actuators of the C919 aircraft, including the main landing gear retractable actuator, the main landing gear lower lock actuator, the main landing gear door actuator, and the nose landing gear. Retractable actuator, front landing gear lower lock actuator, front landing gear door actuator, ground spoiler

actuator, etc. The test functions include the test run of the actuator, the measurement of the length and stroke of the actuator, the pressure resistance test, the external leakage test, the internal leakage test, the dynamic friction, the detection of the movement speed of the piston rod, the low pressure test, the lap resistance test, etc.

The test bench adopts a platform design. Users can customize the test process according to the test requirements and characteristics of different actuators. The hardware and software design of the measurement and control system supports manual and automatic modes. Users can perform manual tests through the knobs and switches on the panel. It can also perform system parameter configuration and automatic testing through the computer, and automatically issue a printed test report.

Basic indicators:

- Hydraulic circuit: actuator cylinder test circuit, actuator cylinder loading circuit, ultra high pressure circuit and low pressure circuit;
- Rated input pressure : (3000 ± 20) psi;
- Maximum working pressure: 6500psi;
- Maximum working flow: 85L/min;
- Flow measurement: 0.002-2L/min; 0.1 150 l/min;
- Working medium: phosphate ester based hydraulic oil, SAE AS1241, Class *iv*, Level 1;
- Filtration accuracy: 2 μ ;
- Oil temperature: 70°F~120°F (21°C~49°C);
- Pollution level: applicable to SAE AS4059 Level 5;
- The continuous working time of the device is not less than 24 hours, and the overall average trouble-free time is not less than 10000 hours.