

Each NSS **“Rebuilt & Guaranteed”** circuit breaker has a quality control inspection procedure establishing signed check points at each stage. The check points are:

- **Initial test and inspection** - tests include Megger, mechanical and electrical operation of breaker (if possible), and thorough visual inspection
- **Disassembly** - each unit is broken down into minor subassemblies that allow for the most efficient component refurbishment
- **Component restoration** - includes repainting with special hardener for more durable finish. All mechanism and current carrying parts are degreased, inspected, and polished. Electrical insulators are cleaned and baked @175°F for a minimum of 72 hrs. to remove moisture.
- **Re-assembly** - includes adjustment to the original manufacturer’s published guidelines. Re-lubricate with Mobil 28 lubricant
- **Testing** - includes Megger, contact resistance measurement, high current injection and electrical operation.
- **Final inspection** – includes **30 points** of visual inspection performed by the technician and a supervisor

### Test evaluation criteria

- 1000V Megger – minimum 100 megohms (low voltage only)
- 11 or 31 KVDC Hipot – less than 20 microamps (medium voltage only)
- Contact resistance (Ductor) – maximum deviation of 20% on comparative readings
- High current injection – manufacturer’s specified tolerances (low voltage only)
- Electrical operations – minimum 5 consecutive operations without malfunction

A **“Remanufactured”** circuit breaker includes the following additional steps:

- Complete disassembly to the individual components
- Painted components are sandblasted to bare metal with primer and 2 coats of finish paint
- Mechanism/frame components are blasted bare and zinc plated
- Current carrying parts are blasted bare and silver plated
- All standard hardware replaced with new grade 5 fasteners
- All wiring replaced with new EXAR
- Replace all labels

### Notes:

- Any of the **“Remanufactured”** steps can be added to a standard **“Rebuilt & Guaranteed”** for additional cost
- Additional testing can be performed such as Power Factor, circuit breaker timing, or other customer requests at additional cost.