



APPLICATION

Automotive RTV Gasketing
-Engine oil pans

Objective

The customer needed an off-line automated station to apply a room temperature vulcanized (RTV) silicone gasket around the perimeter of dual sets of engine oil pans.

Dispensing Material

Automotive Sealant (RTV Silicone)

- Single-component material
- Room-temperature cured



Oil pans before RTV bead is applied

Sequence of Operations

1. Operator loads two oil pans on the left-side pair of fixtures and presses the CYCLE READY button.
2. System dispenses material onto the oil pans on the left-side.
3. While dispensing occurs on left-side pair, operator loads two more parts onto the right-side pair of fixtures and presses the CYCLE READY button.
4. When dispensing on the left side is complete, dispense guns automatically move to the right-side pair and begin dispensing.
5. Operator removes finished parts from left-side pair of fixtures for assembly on the production line and then repeats the above sequence.



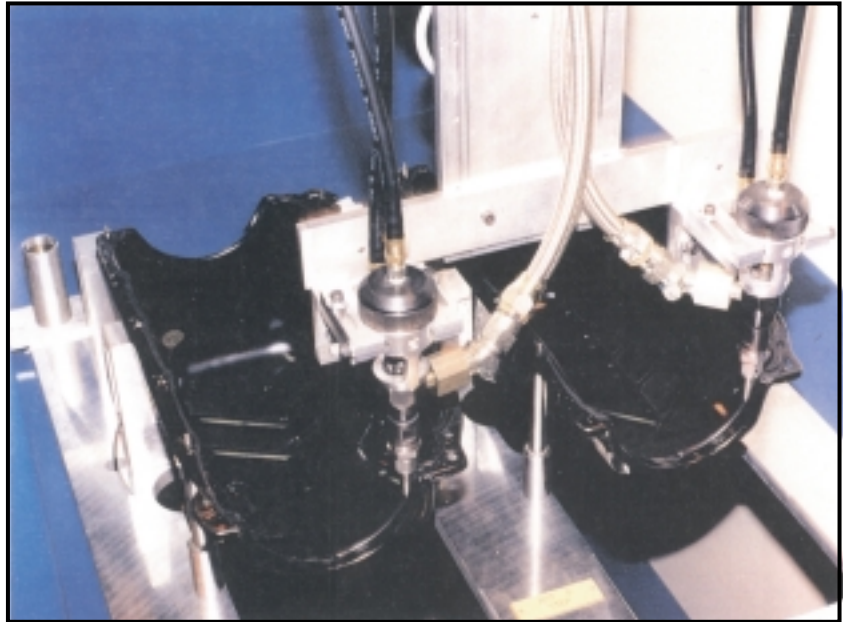
Robotics, Inc. B Series Program-A-Spenser™ dispense system with parts loaded on the right side of the system. Unloaded fixtures shown on left.

Key System Features

- Customized **B Series Program-A-Spenser™** 3-axis automated dispensing system with right and left work areas, each with dual part fixtures. Work envelope: 48" x 24" x 12" (x-y-z)
- Material delivery system: Dual patented one-part **Program-A-Flow™** continuous-output meter/mix system
- Part-present and load fault sensing
- Light curtains & operator safety guarding
- Dual gun dispensing and pneumatic control package
- Nozzle immersion (prevents material from curing in nozzles when dispense system is idle)
- Two 55-gallon material supply pumps with automatic crossover

Typical Applications

Other applications may have automatic part loading and unloading, have different configurations, use plural-component materials, or have other significant differences. The B Series Program-A-Spenser™ automated dispensing system is well suited for many applications involving larger parts such as those found in automotive powertrains and larger consumer product components. Some examples include valve cover gasketing, transmission assembly gasketing, and vacuum cleaner housing gasketing.



Oil pans in fixturing during the dispense cycle. The pans will be assembled while the bead is still wet, producing a formed-in-place (FIP) gasket.

Information

Robotics, Inc. has designed and built numerous dispensing applications for a variety of industries. For more information on this application or other products and services, contact a Robotics Inc. Sales Representative:



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Systems & Support

Robotics, Inc. has decades of experience designing and building automated dispensing systems. We provide complete system solutions, including start-up and installation assistance, training, field service support, and complete documentation. Depending on your specific project considerations, Robotics Inc. staff will design and build a system that is right for you.

Process Specifications*

Part	Engine oil pan Approx. dimensions: 18.1" x 8.7" x 7.1" (L x W x H)
Material	Automotive Sealant (RTV Silicone)
Bead Dimensions	45" Length; 0.25" dia.
Dispense Rate	181" per minute
Production Rate	240 parts per hour
Part Delivery	Off-line system, with manual part load/unload

* Values are based on customer's specific requirements and do not necessarily indicate optimum values. Call for further information regarding system capabilities and product specifications.

Since 1971, Robotics Inc. has designed, built, and supported automated dispensing around the world!

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