

LOCTITE*Adhesives for more
reliable assemblies***APPLICATION CASE HISTORY****No. 126**

New 10-Liter Containers Provide Zero Sealant Waste

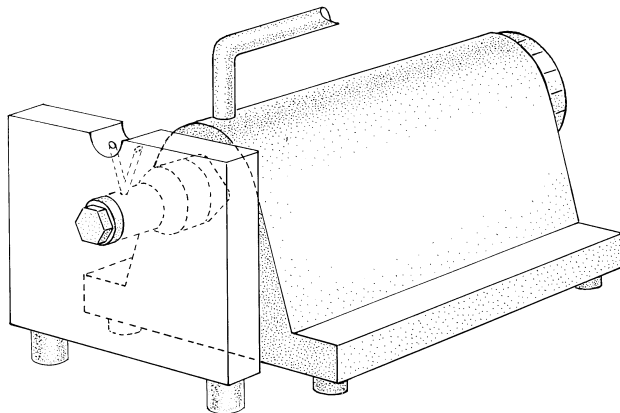
Loctite Innovations Give A.O. Smith More Efficient System

A.O. Smith Water Products Co., of McBee, SC uses Loctite Corporation's standard Marco II sealant-dispensing equipment with a heavy-duty foot pedal to seal fittings for its line of water heaters.

Operators dispensed the sealant from one-liter bottles into the Marco II system. Typically, these systems come equipped with a dispense tip on the end, allowing the operator to apply the sealant through the needle to the part.

This system works well with low-viscosity adhesives that can flow easily around a part. But high-viscosity materials, like the Loctite 565 anaerobic pipe sealant that A.O. Smith uses, requires skillful part rotation to achieve uniform coverage.

To improve the efficiency of the system, A.O. Smith turned to Loctite to modify the system. By adding a square plastic block, about 6" x 6" in size, with a half moon cut in the top, the block supports the pipe fitting being worked on. *(See drawing below)*



Half moon in square plastic block was added to standard Marco II sealant-dispensing system to support pipe fitting (not shown). The system's dispense tip (shown), which is encased in the plastic block, incorporates a distribution port that forces the sealant to flow smoothly around the pipe fitting.

The operator hits the foot pedal, dispensing the sealant through a distribution port that forces the sealant to flow around the pipe fitting as it is turned by the operator.

Even though smooth-flow dispensing was achieved, still another problem existed. The process required A.O. Smith to change one-liter bottles often, using as many as 150 a month. What's more, in order to minimize waste, sealant left in the bottles needed to be scraped out.

Through a series of test runs, Loctite qualified a new 10-liter tapered pail concept, complete with plastic liner, as the answer for A.O. Smith.

Loctite connected a pressure pot system to the 10-liter pail, which is filled with Loctite 565 anaerobic pipe sealant. The pressure pot is equipped with a feed line that forces the sealant from the pail into the Marco II system. When the pail is empty, the plastic liner is removed. One end of the liner is snipped off to squeeze any remaining sealant into another 10-liter pail.

"We've cut down on waste. We have none," notes Al Perry, Quality-Control Manager for A.O. Smith. "Before the change, we failed to capture between 10-15% of the sealant."

A.O. Smith uses only ANSI-61 approved sealants on all its fittings. Loctite had submitted the 565 sealant for approval to NSF International specifically for A.O. Smith.

The NSF-approved material has enabled A.O. Smith to expand its market opportunities. Loctite 565 sealant is used on pipe fittings for thermostats, temperature and pressure relief valves, anodes, pipe nipples and other fittings where applicable.

Loctite Americas

U.S.A.
Loctite Corporation
1001 Trout Brook Crossing
Rocky Hill, Connecticut 06067
860-571-5100
Telefax: 860-571-5465

CANADA
Loctite Canada Inc.
2225 Meadowpine Blvd.
Mississauga, Ontario L5N 7P2
800-263-5043 (within Canada)
905-814-6511
Telefax: 905-814-5391

MEXICO
Loctite Company de México, S.A. de C.V.
Calzada de la Viga s/n, Fracc. Los Laureles
Loc. Tulpetlac, C.P. 55090
Ecatepec de Morelos, Edo. de México.
01-800-8499-412
Telefax: 011-525-787-9404