



# TECH BULLETIN

**016**  
03/80

*Published regarding engineering changes and improvements*

**SUBJECT: Bac-cup Assembly for Models 290, 323, 333, 430, 623**

The 3FR, 4FR, 5FR and 10FR-623 pumps have an optional piston cup assembly called the Bac-cup. For intermittent duty at high pressure and used with the standard chromed cylinders, this is an economical optional cup alternative. A reinforced PTFE back-up ring is used as a compliment to the standard piston cup. This teflon ring serves two functions.

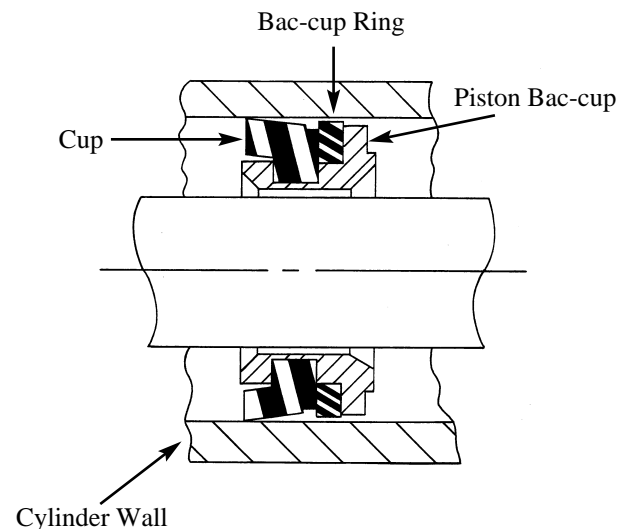
1. The diameter of the ring is larger than the diameter of the piston. When a cup wears in a standard piston cup assembly, the metal portion (the piston) is forced against the cylinder wall and scores the cylinder. With the Bac-cup design, the PTFE ring prevents immediate contact of the metal portion of the piston and the cylinder wall and helps reduce scoring.
2. To handle the stresses of higher temperatures or higher pressures, the special material blends of the V-Hot Cup or Machined Piston Assembly are harder. The softer elastomer of the standard cup cannot withstand the higher temperatures or pressures because it does not have adequate support. The added back-up ring in the Bac-cup assembly provides this support.

In the Bac-cup assembly, the diameter of the PTFE ring can be fitted closer to the diameter of the cylinder without the concern of damaging the cylinder wall. The closer fit provides better support for the cup and provides longer life to applications up to 1500 PSI. NOTE: For temperatures above 140°F and continuous duty operation, the Machined Piston Assembly or the V-Hot Cup is recommended.

The Bac-cup assembly is available in the 18 mm, 20 mm, and 22 mm for the following models:

ITEM	MODELS			
	*290 20 mm	623 20 mm	333 18 mm	323 22 mm
Standard Cup	43172	43172	43717	43789
Piston	30543	30543	43784	43787
Bac-cup Ring	30544	30544	43719	43788
Kit	30023	30822	30841	30858

\*290 pump is standard with Bac-cup assembly. All other models are optional.



**CAT PUMPS**  
Technical Services Department

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