

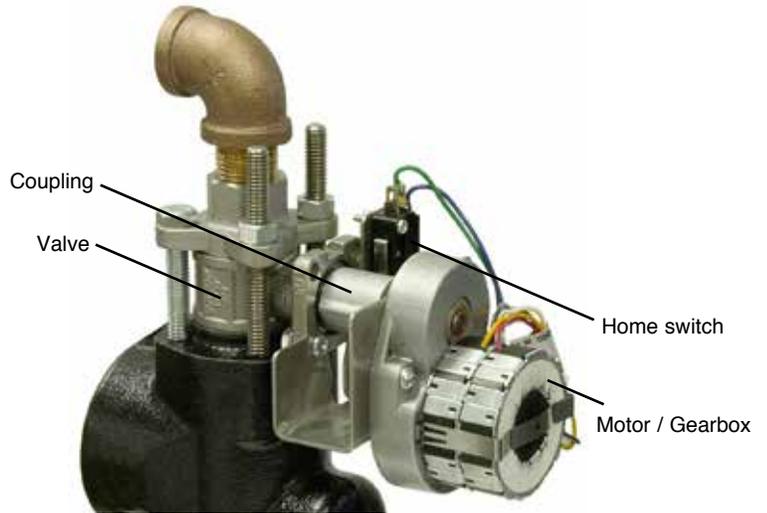
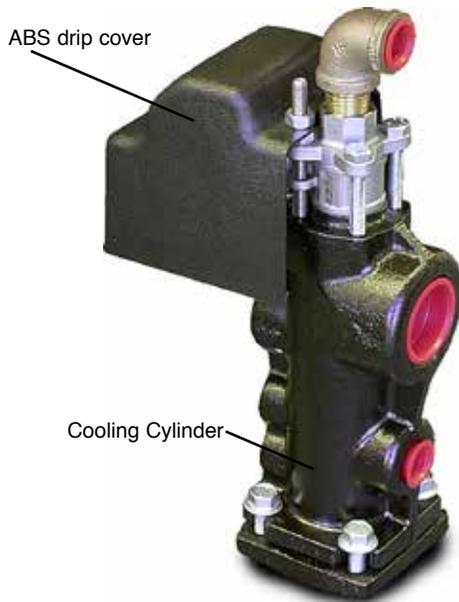


TEMPERATURE CONTROLLERS... PORTABLE CHILLERS... CENTRAL CHILLERS... PUMP TANK STATIONS... TOWER SYSTEMS...

**SUBJECT: NEW AVT COOLING VALVE FOR SENTRA TEMPERATURE CONTROLLERS**

#1-A-248 7/21/2005

An improved 3rd generation AVT™ (Advanced Valve Technology) modulating valve is installed on Sentra temperature controller units manufactured starting in March 2002. This document describes the design changes and their inherent benefits.



This chart compares the AVT valve introduced in 2002 that replaces the AVT valve introduced in 1996.

'02 AVT VALVE	IMPROVEMENT / BENEFIT	'96 AVT VALVE
Valve body is stainless steel.	Longer life, less prone to contamination damage.	Valve body is brass.
Designed for modulation.	Longer life.	Modified for modulating valve duty.
Utilizes O-ring for stem seal.	Longer life. The O-ring is replaceable in the new valve at a cost of about \$5. The '96 valve has a packing nut that must be tightened periodically to stop leaks. Tightening the packing nut increases the torque required to turn the valve adding to stress on the drive system. Field rebuilding of the '96 valve is not recommended. Valve and coupling replacement cost for the '96 valve is approximately \$65.	Utilizes packing and packing nut for stem seal.
Square drive stem.	Allows for the use of one piece coupling that provides better control.	Threaded drive stem.
Valve has mounting flange directly mount for easy alignment	Provides more rigid mounting, eliminates alignment concerns (uneven stem wear), provides longer life and better control.	Valve body has no mounting flange... this requires the motor to be mounted separately on the casting making alignment critical.
Mounting flange and square drive stem allow a one piece extruded coupling with NO set screws	No chance of set screws loosening causing sloppy control.	Mounting geometry requires a two piece coupling with 4 set screws.
High temp ABS drip cover.	Sleek, high tech look.	Aluminum drip cover.

