

BCoFD Automatic and Combination Air Prime Systems

The automatic system monitors the discharge pressure near the pump impeller and automatically engages the main pump primer when conditions indicate a loss of prime. The automatic system evacuates air from the main pump housing.



A combination system includes an automatic system on the main pump and manual priming mechanisms on individual intakes. The primers on the individual intakes are located on the outboard side of the intake valve, so the intake may be primed prior to opening.

There are three conditions that must be met for the auto primer to engage:

1. The pump is in gear and the OK to PUMP light is illuminated
2. The auto primer control button is in "AUTO PRIME" position and the light is lit
3. The pump discharge pressure in the main pump body drops below 20psi

Any time these three conditions exist simultaneously the air primer on the main pump will engage. This includes initial pump priming tasks or incidental loss of prime during pumping operations due to an air slug, rapid opening of a discharge, or switching from tank water to another source.

The automatic primer can also be operated manually by pressing the control button downward to the "PRIME" position. This is a momentary switch that only engages the main pump primer while depressed. This is useful for periodic operational checkouts and operates whether the pump is engaged or not.

In a combination system the manual intake primers and automatic main pump primer all utilize a single primer body. The individual intake primers may be engaged simultaneously with the main pump primer if necessary.

