WHAT IS CLAIMED IS:

1. A bioreactor vessel, comprising:

a bottom;

a peripheral sidewall, the bottom and the peripheral sidewall defining an interior space for receiving a flexible bioprocessing bag;

a recess in the bottom for receiving a base plate of the flexible bioprocessing bag; and

a locking mechanism configured to retain the base plate in the recess and to secure the base plate to the bottom of the bioreactor vessel; and wherein:

the locking mechanism includes a latch;

wherein the latch is moveable between an engagement position where the latch engages the base plate when the base plate is positioned in the recess in the bottom of the bioreactor vessel to retain the base plate in the recess, and a clearance position where the base plate can be withdrawn from the recess.

2. The bioreactor vessel of claim 1, wherein: the latch is spring-biased toward the engagement position.

3. The bioreactor vessel of claim 1 or 2, wherein: the locking mechanism includes a handle that is operable to move the latch from the engagement position to the clearance position.

4. The bioreactor vessel of claim 2 or 3, wherein: the latch includes an angled upper surface configured to translate a downward force from the base plate into a lateral force for moving the latch to the clearance position against the spring-bias during installation of the base plate in the recess.

5. The bioreactor vessel of any preceding claim, further comprising: a tongue extending into the recess opposite the locking mechanism, the tongue being configured to engage a slot in a rear area of the base plate.

6. The bioreactor vessel of any preceding claim, wherein: the locking mechanism includes at least one aperture adjacent to the recess and configured to receive at least one corresponding latch of the base plate.

7. The bioreactor vessel of claim 6, wherein: the at least one aperture is a pair of apertures.

8. The bioreactor vessel of any of the preceding claims, further comprising an indicator mechanism configured to indicate if the base plate of the flexible bioprocessing bag is properly positioned within the recess.

9. The bioreactor vessel of claim 8, wherein the indicator mechanism comprises:

a plunger located within the bottom, a top portion of the plunger configured to protrude into the recess; and

a rocker arm having a first end and a second end, the first end connected to the plunger.

10. The bioreactor vessel of claim 9, wherein:

the second end of the rocker arm comprises an indicator configured to move in response to movement of the plunger, and

movement of the indicator provides indication that the base plate is properly or improperly placed within the recess.

11. The bioreactor vessel of claim 9 or 10, further comprising a biasing mechanism located in a cutout thereof, such that prior to attachment of the base plate to the bottom of the bioreactor vessel, the plunger is in an extended position such that a top thereof protrudes into the recess.

12. The bioreactor vessel of any of claims 9 to 11, further comprising an indicator panel that is attached to, or a portion of, a housing.