CLAIMS

What is claimed is:

1. An apparatus comprising:

a body that is configured for complementary engagement with a pipetting head of a liquid handling system such that movement of the pipetting head effects a corresponding movement of the apparatus; and

a base that is coupled to the body, the base comprising at least one engagement feature that is configured to mechanically engage a surface of a labware item to releasably couple the lab ware item to the apparatus,

wherein each engagement feature of the at least one engagement feature is configured to engage either a first engagement feature positioned along a first outer surface of the labware item, or a second engagement feature positioned along a second outer surface of the labware item.

2. The apparatus of claim 1, wherein the body and the base are integrally formed as a monolithic structure.

3. The apparatus of claim 1, wherein the base is secured to the body by at least one fastener.

4. The apparatus of claim 1, wherein the at least one engagement feature comprises a plurality of engagement features.

5. The apparatus of claim 4, wherein the plurality of engagement features are spaced along a transverse axis that is perpendicular to a vertical axis.

6. The apparatus of claim 5, wherein the plurality of engagement features comprise first and second plungers that are respectively biased to extend outwardly relative to first and second engagement axes that are perpendicular to the transverse axis.

7. The apparatus of claim 5, wherein the plurality of engagement features comprise first and second posts.

8. The apparatus of claim 5, wherein the plurality of engagement features comprise first and second latch elements.

9. The apparatus of claim 5, wherein the base comprises at least one leg, wherein each leg of the at least one leg comprises a respective engagement feature of the at least one engagement

feature, wherein each respective engagement feature of the apparatus is configured to receive or engage a portion of a corresponding engagement feature of the labware item, and wherein the base further comprises at least one projection, wherein each projection of the at least one projection of the base is spaced from and aligned with a respective leg of the at least one leg of the base to permit receipt of a portion of the labware item between each said projection and said aligned leg of the base.

10. The apparatus of claim 1, wherein the body defines a plurality of openings that are configured to receive a portion of a corresponding pipette structure of the pipetting head, wherein the at least one engagement feature of the base is configured to mechanically engage a surface of a labware item to releasably couple the lab ware item to the apparatus in response to translation of the apparatus relative to the labware item, and wherein following engagement between the at least one engagement feature and the labware item, the at least one engagement feature is configured to release the labware item upon further translation of the apparatus while movement of the labware item is restricted.

11. A system comprising:

the apparatus of any one of claims 1-10; and

a labware item having at least one engagement feature that is complementary to and configured to releasably mechanically engage a corresponding engagement feature of the at least one engagement feature of the apparatus,

wherein the labware item has opposing first and second outer surfaces, wherein the at least one engagement feature of the labware item comprises at least one first engagement feature positioned along the first outer surface and at least one second engagement feature positioned along the second outer surface.

12. The system of claim 11, wherein the at least one engagement feature of the labware item comprises a plurality of engagement features spaced relative to a transverse axis that is perpendicular to a vertical axis.

13. The system of claim 11, wherein the at least one engagement feature of the labware item comprises at least one recess defined in a surface of the labware item.

14. The system of claim 11, wherein the at least one engagement feature of the apparatus comprises at least one latch element, and wherein the at least one engagement feature of the

labware item comprises a surface that is configured to contact a corresponding latch element of the at least one latch element.

15. The system of claim 11, wherein the labware item has at least one release feature that is configured to releasably engage a corresponding engagement feature of the at least one engagement feature of the apparatus in response to translation of the apparatus relative to the labware item while movement of the labware item is restricted, thereby permitting release of the labware item from engagement with the apparatus.

16. The system of claim 15, wherein the at least one release feature of the labware item comprises at least one groove defined within a surface of the labware item, wherein each groove of the at least one groove is spaced from a respective engagement feature of the at least one engagement feature of the labware item.

17. The system of claim 11, wherein the base of the apparatus comprises at least one leg, wherein each leg of the at least one leg comprises a respective engagement feature of the at least one engagement feature of the apparatus, wherein each respective engagement feature of the apparatus is configured to receive a portion of a corresponding first engagement feature of the labware item, and

wherein the base further comprises at least one projection, wherein each projection of the at least one projection defines an engagement surface that is configured to engage a corresponding second engagement feature of the labware item, wherein each projection of the at least one projection of the base is spaced from and aligned with a respective leg of the at least one leg of the base to permit receipt of a portion of the labware item between each said projection and said aligned leg of the base.

18. A method comprising:

using the at least one pipetting head of the liquid handling system of claim 1 to engage the apparatus of the system of any one of claims 11-17;

using the pipetting head to position the apparatus relative to the labware item such that at least one engagement feature of the apparatus releasably engages a corresponding engagement feature of the at least one engagement feature of the labware item; and

with the apparatus releasably engaging the labware item, using the pipetting head to selectively move the apparatus and the labware item,

wherein the labware item has opposing first and second outer surfaces, wherein the at least one engagement feature of the labware item comprises at least one first engagement feature positioned along the first outer surface and at least one second engagement feature positioned along the second outer surface.

19. The method of claim 18, wherein the pipetting head translates relative to a translation axis to engage the apparatus, and wherein the at least one engagement feature of the labware item comprises a plurality of engagement features spaced relative to a transverse axis that is perpendicular to the translation axis.

20. The method of claim 18, wherein the at least one engagement feature of the labware item comprises at least one recess defined in a surface of the labware item.

21. The method of claim 20, wherein the at least one engagement feature of the apparatus comprises at least one plunger, each plunger having a head, the head of each plunger having a shape that is complementary to a shape of a corresponding recess of the at least one recess of the labware item.

22. The method of claim 20, wherein the at least one engagement feature of the apparatus comprises at least one post, and wherein each recess of the at least one recess comprises a slot that receives a portion of a corresponding post.

23. The system of claim 18, wherein the at least one engagement feature of the apparatus comprises at least one latch element, and wherein the at least one engagement feature of the labware item comprises a surface that contacts a corresponding latch element of the at least one latch element.

24. The method of claim 18, further comprising:

using the pipetting head to position the labware item within a receptacle that restricts movement of the labware item; and

with the labware item positioned within the receptacle, using the pipetting head to translate the apparatus relative to the labware item, wherein the labware item has at least one release feature that releasably engages a corresponding engagement feature of the at least one engagement feature of the apparatus in response to translation of the apparatus relative to the labware item to thereby release the labware item from engagement with the apparatus.

25. The method of claim 24, wherein the at least one release feature of the labware item comprises at least one groove defined within a surface of the labware item, wherein each groove of the at least one groove is spaced from a respective engagement feature of the at least one engagement feature of the labware item.

26. The method of claim 18, wherein the labware item is an in-channel filter device.