

CLAIMS

1. A catheter system, comprising:

a catheter assembly, comprising:

a catheter hub, comprising a distal end, a proximal end, a lumen extending through the distal end and the proximal end, and a stepped or tapered outer surface disposed between the distal end and the proximal end;

a catheter tube extending distally from the distal end of the catheter hub;

a push tab and a plurality of ribs extending outwardly from an upper portion of the catheter hub, wherein the plurality of ribs are shorter in height than the push tab and proximal to the push tab, wherein the push tab is distal to the stepped or tapered outer surface; and

a first wing and a second wing extending outwardly from the catheter hub, wherein multiple of the plurality of ribs are disposed between the first wing and the second wing; and

a needle assembly, wherein the needle assembly comprises a needle hub and an introducer needle extending distally from the needle hub and through the catheter tube, wherein the needle hub comprises a first grip and a second grip, wherein the first grip comprises a first face and the second grip comprises a second face opposite the first face, wherein the first face and the second face are positioned outwardly from a body of the needle hub wherein the first face and the second face are elliptical, wherein the first face is angled with respect to a longitudinal axis of the catheter system such that a proximal end of the first face is positioned upwardly with respect to a distal end of the first face, wherein the second face is angled with respect to the longitudinal axis of the catheter system such that a proximal end of the second face is positioned upwardly with respect to a distal end of the second face.

2. The catheter system of claim 1, wherein a diameter of the first face and a diameter of the second face increase in a proximal direction.
3. The catheter system of claim 1, wherein the first face and the second face are concave.
4. The catheter system of claim 1, wherein the first face and the second face comprise a plurality of protrusions.
5. The catheter system of claim 1, wherein a distal-most rib of the plurality of ribs is proximal to the stepped or tapered outer surface.
6. The catheter system of claim 1, wherein the push tab and at least one of the plurality of ribs are aligned with the first wing and the second wing.
7. A catheter system, comprising:

a catheter assembly, comprising:

a catheter hub, comprising a distal end, a proximal end, a lumen extending through the distal end and the proximal end, and a stepped or tapered outer surface disposed between the distal end and the proximal end;

a catheter tube extending distally from the distal end of the catheter hub; and

a push tab and a plurality of ribs extending outwardly from an upper portion of the catheter hub, wherein the plurality of ribs are shorter in height than the push tab and proximal to the push tab, wherein the push tab is proximal to the stepped or tapered outer surface; and

a needle assembly, wherein the needle assembly comprises a needle hub and an introducer needle extending distally from the needle hub and through the catheter tube, wherein the needle hub comprises a first elliptical face and a second elliptical face opposite the first elliptical face, wherein the first elliptical face and the second elliptical face are positioned outwardly from a body

of the needle hub, wherein a longitudinal axis of the first elliptical face is angled with respect to a longitudinal axis of the catheter system such that a proximal end of the first elliptical face is positioned upwardly with respect to a distal end of the first elliptical face, wherein a longitudinal axis of the second elliptical face is angled with respect to the longitudinal axis of the catheter system such that a proximal end of the second elliptical face is positioned upwardly with respect to a distal end of the second elliptical face, wherein the first elliptical face comprises a plurality of protrusions arranged along the longitudinal axis of the first elliptical face and angled with respect to the longitudinal axis of the catheter system, wherein the second elliptical face comprises another plurality of protrusions arranged along the longitudinal axis of the second elliptical face and angled with respect to the longitudinal axis of the catheter system.

8. The catheter system of claim 7, wherein the push tab is proximate the stepped or tapered outer surface.

9. The catheter system of claim 7, wherein the first elliptical face and the second elliptical face are spaced apart by a grip body, wherein the first elliptical face and the second elliptical face extend proximally beyond the grip body to form a notch.

10. A catheter system, comprising:

a catheter assembly, comprising:

a catheter hub, comprising a distal end, a proximal end, a lumen disposed between the distal end and the proximal end,

a catheter tube extending distally from the distal end of the catheter hub;

a push tab and a plurality of ribs extending outwardly from an upper portion of the catheter hub, wherein the plurality of ribs are shorter in height than the push tab and proximal to the push tab;

a first wing and a second wing extending outwardly from the catheter hub, wherein multiple of the plurality of ribs are disposed between the first wing and the second wing; and

a needle assembly, comprising a needle hub, an introducer needle extending distally from the needle hub and through the catheter tube, and a grip coupled to the needle hub, wherein the grip comprises a face disposed outwardly from the push tab and the plurality of ribs, wherein the face is a first face, wherein the grip further comprises a second face opposite the first face, wherein the first face and the second face are elliptical, wherein the first face is angled with respect to a longitudinal axis of the catheter system such that a proximal end of the first face is positioned upwardly with respect to a distal end of the first face, wherein the second face is angled with respect to the longitudinal axis of the catheter system such that a proximal end of the second face is positioned upwardly with respect to a distal end of the second face.

11. The catheter system of claim 10, wherein the catheter hub comprises a stepped or tapered outer surface, wherein the push tab is distal to and proximate the stepped or tapered outer surface.

12. The catheter system of claim 11, wherein a distal-most rib of the plurality of ribs is proximal to the stepped or tapered outer surface.

13. The catheter system of claim 10, wherein the catheter hub comprises a stepped or tapered outer surface, wherein the push tab is proximal to the stepped or tapered outer surface.

14. The catheter system of claim 10, wherein the first face and the second face are positioned outwardly from a body of the needle hub, wherein a diameter of the first face and a diameter of the second face increase in a proximal direction.

15. The catheter system of claim 14, wherein a longitudinal axis of the first face and a longitudinal axis of the second face are generally aligned with a longitudinal axis of the catheter system.

16. The catheter system of claim 10, wherein the push tab and at least one of the plurality of ribs are aligned with the first wing and the second wing.