WHAT IS CLAIMED IS:

1. A system, comprising:

a wellhead connector configured to be coupled to a subsea wellhead; and

a soft landing system disposed on a body of the wellhead connector, the soft landing system comprising:

one or more cylinder assemblies coupled to the body of the wellhead connector, each cylinder assembly comprising a barrel, a rod disposed within the barrel and extending in one direction from the barrel, and a pad disposed on an extended end of the rod, wherein the rod extends from the barrel in a direction perpendicular to a longitudinal axis of the wellhead connector; and

one or more valve assemblies coupled to the body of the wellhead connector, the one or more valve assemblies each fluidly coupled to the one or more cylinder assemblies.

2. The system of claim 1, wherein the one or more valve assemblies each comprise a poppet valve or a needle valve.

3. The system of claim 1, wherein the body of the wellhead connector comprises a guide funnel.

4. The system of claim 1, wherein the barrel of each cylinder assembly is located along a radially external surface of the body, and wherein the pad of each cylinder assembly is located along a radially inner surface of the body.

5. The system of claim 1, wherein the one or more cylinder assemblies are each equally spaced about a circumference of the body of the wellhead connector.

6. The system of claim 1, wherein the soft landing system comprises multiple cylinder assemblies fluidly coupled in parallel, and multiple valve assemblies fluidly coupled in series.

7. The system of claim 1, wherein each valve assembly comprises:

a control button configured to open a one-way valve upon depression of the control button; and

an indicator rod disposed proximate the control button, wherein the indicator rod is configured to interface with the control button to selectively depress the control button.

8. The system of claim 7, wherein each valve assembly further comprises:

a set key screw at a first end of the indicator rod, wherein the set key screw has a complementary shape to an end of the control button; and

a compression spring at a second end of the indicator rod, wherein the compressing spring attaches the indicator rod to the body of the wellhead connector.

9. The system of claim 7, wherein the indicator rod has a bent shape.

10. The system of claim 1, further comprising an accumulator fluidly coupled to the one or more valve assemblies.

11. The system of claim 1, further comprising the wellhead, wherein the wellhead connector is disposed around and attached to the wellhead via the soft landing system.

12. A method, comprising:

lowering a wellhead connector to a position at least partially over a subsea wellhead; and

engaging a soft landing system disposed on a body of the wellhead connector to couple the wellhead connector to the subsea wellhead, wherein the soft landing system comprises:

one or more cylinder assemblies coupled to the body of the wellhead connector, each cylinder assembly comprising a barrel, a rod disposed within the barrel and extending in one direction from the barrel, and a pad disposed on an

extended end of the rod, wherein the rod extends from the barrel in a direction perpendicular to a direction in which the wellhead connector is lowered with respect to the subsea wellhead; and

one or more valve assemblies coupled to the body of the wellhead connector, the one or more valve assemblies each fluidly coupled to the one or more cylinder assemblies.

13. The method of claim 12, wherein engaging the soft landing system comprises:

opening one-way valves in the one or more valve assemblies to provide fluid communication through the one or more valve assemblies to the one or more cylinder assemblies; and

actuating the one or more cylinder assemblies via the fluid communication such that the rod of each cylinder assembly extends until the pad engages the subsea wellhead.

14. The method of claim 13, wherein the soft landing system comprises multiple cylinder assemblies fluidly coupled in parallel and multiple valve assemblies fluidly coupled in series.

15. The method of claim 13, wherein opening the one or more valve assemblies comprises, for each valve assembly:

moving an indicator rod of the valve assembly upward relative to a control button of the valve in response to the wellhead connector being lowered to a predetermined location over the subsea wellhead; and

engaging the indicator rod with the control button to selectively depress the control button to open a flowpath through the valve.

16. The method of claim 13, further comprising providing fluid communication from an accumulator disposed on the wellhead connector to the one or more valve assemblies and the one or more cylinder assemblies.

17. The method of claim 12, further comprising maintaining the one or more valve assemblies open after actuating the one or more cylinder assemblies.

18. The method of claim 12, further comprising guiding the wellhead connector over the subsea wellhead via a guide funnel of the wellhead connector, wherein the guide funnel comprises the body of the wellhead connector.

19. The method of claim 12, further comprising disconnecting a downline cable from a subsea tree having the wellhead connector upon engaging the soft landing system.

20. A system, comprising:

a soft landing system configured to be disposed on a body of a wellhead connector, the soft landing system comprising:

one or more cylinder assemblies, each cylinder assembly comprising a barrel, a rod disposed within the barrel and extending in one direction from the barrel, and a pad disposed on an extended end of the rod; ~~and~~

one or more valve assemblies, each fluidly coupled to the one or more cylinder assemblies,

a control button configured to open a one-way valve in the one or more valve assemblies upon movement of the control button; and

an indicator rod disposed proximate the control button, wherein the indicator rod is configured to interface with the control button to selectively move the control button.