CLAIMS

1. A fan assembly, comprising:

a fan, including:

a fan hub located at a fan central axis; and

a plurality of fan blades extending outwardly from the fan hub;

the fan hub having a fan hub opening at the fan central axis, the fan hub opening at least partially defined by a plurality of nodes extending radially inwardly toward the fan central axis from the fan hub; and

a fan drive installed in the fan hub opening via an interference fit between the plurality of nodes and an outer surface of the fan drive, thus centering the fan drive in the fan hub opening;

wherein a node of the plurality of nodes includes a pocket to increase a deformability of the node during installation of the fan to the fan drive, the pocket including:

a inner radial surface

an outer radial surface; and

a base surface extending between the inner radial surface and the outer radial surface; and

wherein the pokect is localized reduction in axial thickness of the node.

2. The fan assembly of claim 1, wherein the plurality of nodes are three or more nodes.

3. The fan assembly of claim 1, wherein each node of the plurality of nodes extends radially inwardly along a flange of the fan hub.

4. The fan assembly of claim 1, wherein the plurality of nodes define contact areas between the fan hub and the fan drive.

5. The fan assembly of claim 1, wherein the pocket is substantially oval-shaped.

6. The fan assembly of claim 1, further comprising a plurality of fasteners to axially and circumferentially retain the fan to the fan drive.

7. The fan assembly of claim 6, wherein each fastener of the plurality of fasteners is located to circumferentially align with a node of the plurality of nodes.

8. The fan assembly of claim 1, wherein a fan shroud is located at a blade tip of the plurality of fan blades.

9. The fan assembly of claim 1, wherein the fan drive comprises an electric motor.

10. A heating, ventilation, air conditioning and refrigeration (HVAC&R) system, comprising:

one or more heat exchangers; and

one or more fan assemblies to urge airflow across the one or more heat exchangers, a fan assembly of the one or more fan assemblies including:

a fan, including:

a fan hub located at a fan central axis; and

a plurality of fan blades extending outwardly from the fan hub;

the fan hub having a fan hub opening at the fan central axis, the fan hub opening at least partially defined by a plurality of nodes extending radially inwardly toward the fan central axis from the fan hub; and

a fan drive installed in the fan hub opening via an interference fit between the plurality of nodes and an outer surface of the fan drive, thus centering the fan drive in the fan hub opening;

wherein a node of the plurality of nodes includes a pocket to increase a deformability of the node during installation of the fan to the fan drive, the pocket including:

a inner radial surface

an outer radial surface; and

a base surface extending between the inner radial surface and the outer radial surface; and

wherein the pocket is a localized reduction in axial thickness of the node.

11. The HVAC&R system of claim 10, wherein the plurality of nodes are three or more nodes.

12. The HVAC&R system of claim 10, wherein each node of the plurality of nodes extends radially inwardly along a flange of the fan hub.

13. The HVAC&R system of claim 10, wherein the plurality of nodes define contact areas between the fan hub and the fan drive.

14. The HVAC&R system of claim 10, wherein the pocket is substantially oval-shaped.

15. The HVAC&R system of claim 10, further comprising a plurality of fasteners to axially and circumferentially retain the fan to the fan drive.

16. The HVAC&R system of claim 15, wherein each fastener of the plurality of fasteners is located to circumferentially align with a node of the plurality of nodes