

# Edwards nXDS10i Scroll Pump

## Major Components Sheet

Corresponding Datasheet: N/A | Date Revised: 7/22/2013



### Features

- Pump Design:** Dry Scroll Pump
- Pumping Speed – 60Hz (50Hz):** 6.7cfm (11.4 m<sup>3</sup>/hr)
- Ultimate Pressure - torr (mbar):** 5 x 10<sup>-3</sup> (7 x 10<sup>-3</sup>)
- Inlet Flange:** KF25
- Exhaust Flange:** KF25
- Dimensions LxWxH - in. (mm):** 17 x 10.4 x 11.3 (476 x 333 x 397)
- Weight - lbs (kg):** 57 (25.8)
- Noise db(A):** 52

### Functionality

Dry Scroll pumps create vacuum by using two open spiral scrolls that are nested together. One scroll is fixed while the other “orbits” about the center of the fixed scroll. The moving scroll does not rotate, but, moves in the small circular motion at its center point. As the moving scroll orbits crescent-shaped gas volumes are formed. The orbiting scroll causes the trapped volume of gas to decrease and compressing the gas until it reaches a minimum volume and maximum pressure at the spirals’ center, where the gas is exhaust. In this orbital position, the inlet is again connected to the large open volume. The ultimate vacuum of most scroll pumps is ~ 10<sup>-3</sup> Torr. Scroll pumps pumping speeds range from 1 - 50 cfm for normal commercial pumps. Scroll pumps are used in clean, dry processes and as dry backing pumps for high vacuum pumps.

#### Benefits

- Oil Free
- Compact Design
- Low Noise / Vibration Level
- Ease of Maintenance

- **Recommended Applications:** Thermal, Sputtering, E-Beam
- **Recommended Maintenance:** Yearly tip scroll replacements
- **Installation Considerations:** Maximum foreline length recommendation of 10’ (3M); this pump will be located outside of the frame
- **Non-Compatibility:** These pumps are not suitable for liquids, dust-laden gases, or corrosive gases.

