

# Agilent IDP Scroll Pumps

## How does the scroll mechanism work?

Agilent IDP pumps generate vacuum using a simple dual-scroll mechanism in which one nested scroll orbits within the other, creating moving zones of captured gas. After the gas enters the scroll set at the perimeter, it is displaced and compressed toward the center hub, where it is exhausted.



Gas enters scroll set



Gas is displaced



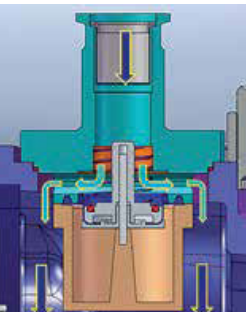
Gas is compressed toward center hub



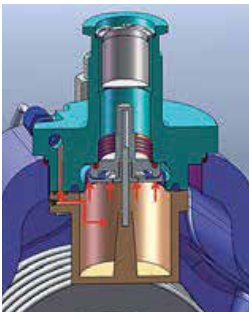
Gas is exhausted at center hub

## Fail-safe integral isolation valve prevents accidental contamination

This optional valve protects against backwards migration and sudden venting. It is installed inside the module, adding no extra height to the pump inlet.



Vacuum in pump, inlet valve opens



Pump vents, inlet valve closes

## How quiet is the Agilent IDP-7 scroll pump?

Noise	dBA
Chainsaw / thunder clap	120
Car horn (1 m) / live rock music	110
Lawn mower / airplane take off (1 km)	100
Motorcycle (8 m away)	90
Freight train (25 m) / food blender	80
Cars on freeway / vacuum cleaner	70
Air conditioner (30 m) / office noise	60
Agilent IDP-7 scroll pump	52
Conversation at home	50
Public library	40

Every additional 10 dBA represents a doubling of noise.

## Service your pump in less than 15 minutes



Our single-sided scroll design means that you only need to remove the fixed scroll when changing the tip seals. This procedure can be accomplished in about 15 minutes using only two basic tools. Even with this simple design, Agilent IDP scroll pumps achieve a low ultimate pressure of 10 mTorr.

Watch our live video to see how easy it is to replace the tip seals:  
[www.agilent.com/chem/idp3](http://www.agilent.com/chem/idp3)