

Bokros Carbomedics On-X Bileaflet Valve

The Bokros Carbomedics On-X Bileaflet Valve was developed by Dr. Jack Bokros, PhD, a nuclear engineer who in 1965 in collaboration with Dr. Vincent Gott is responsible for applying pyrolytic carbon to artificial heart valves.

This material quickly became the 'gold standard for heart valves due to its biocompatibility, its strength and durability. It remains today as the most accepted material for mechanical valves.

This specific valve is a demonstration valve with parallel pivots. It lacks a pyrolytic carbon donut and instead has a small plastic one. The On-X model was introduced in 1996.

Bokros was very involved with St. Jude Medical in the development of the first all-carbon bileaflet valve.

He is also the founder of Carbomedics Incorporated and On-X Life Technologies.

In the 1990s, his company was responsible for fabricating pyrolyte for more than 2 million valves, worldwide. More than 500,000 Carbomedics valves have been implanted because of their highly biocompatible, pure carbon surface.

In an interview the donor Manny Villafañá talks about the Bokros Carbomedics On-X Bileaflet Valve; the manufacturers were making an inexpensive valve for the Chinese market. It “was originally called a PRC Valve...it stands for the People’s Republic of China...It was made in Texas for China...

But then it sold worldwide and became a big competitor of St. Jude...”