

Precision Machined Self-Lubricating Carbon-Graphite Components

Seals | Bearings | Bushings | Vanes

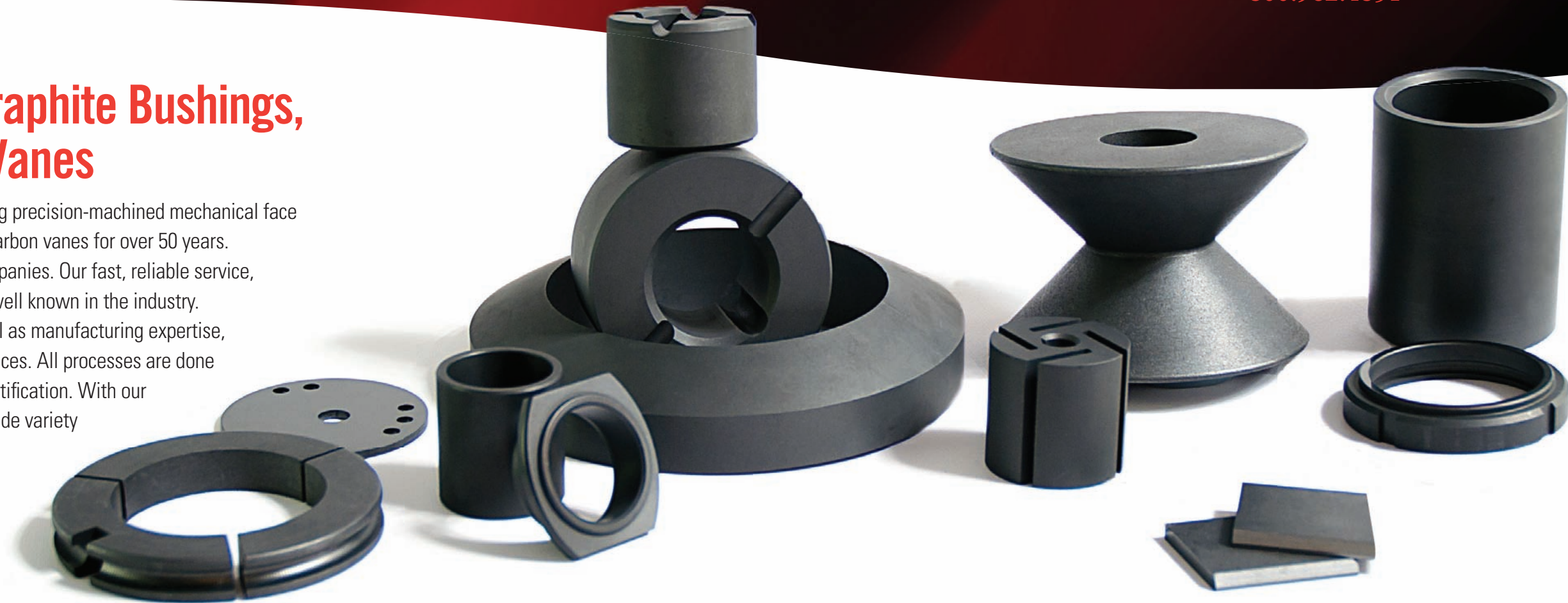


HIGH QUALITY WORKMANSHIP
FAST, RELIABLE SERVICE



High Quality Carbon Graphite Bushings, Bearings and Carbon Vanes

Helwig Carbon Products, Inc. has been manufacturing precision-machined mechanical face seals, carbon graphite bushings and bearings, and carbon vanes for over 50 years. We are one of the last American-owned carbon companies. Our fast, reliable service, high quality workmanship and on-time delivery are well known in the industry. Superior design and engineering capabilities, as well as manufacturing expertise, enable us to routinely hold the most exacting tolerances. All processes are done at one location and are backed by ISO 9001:2008 certification. With our CNC equipment we can accurately manufacture a wide variety of shapes and sizes and routinely hold tolerances of 0.0005" (0.013mm) and 2 HE light bands flatness for seal face surface finishes. We have a wide selection of grades and sizes in stock and have the ability to manufacture custom parts quickly.



Advantages of Carbon Graphite:

- Self lubricating
- Low coefficient of friction
- Resistance to chemicals, corrosion, and oxidation
- Excellent thermal conductivity
- Excellent mechanical strength
- Low coefficient of thermal expansion
- Excellent thermal shock capabilities
- Compatible with food & pharmaceuticals
- Low wear rate

Typical Applications:

- Chemical pumps
- Food processing pumps
- Process pumps in refineries
- Cryogenic applications
- Cold and hot water pumps
- Corrosive environments
- Temperatures above 400 degree F
- Compressors and vacuum pumps

Carbon Graphite Seals and Steam Joints

Carbon Graphite is the ideal seal material in every aspect. Self lapping and flexible enough to conform to the mating face, very hard, self lubricating and resistant to wear. It is also lubricated by almost any fluid, so the media being sealed will add additional lubrication. It is impervious and resistant to most chemicals.

- Dimensional stability under wide temperature variations
- Mates to a wide variety of materials

Applications include:

- Steam joints
- Seals for pumps agitators and mixers



Carbon Graphite Bearings & Bushings

Self lubricating carbon graphite bushings are ideal for applications where normal lubricants cannot be used. Carbon graphite is also lubricated by almost any fluid, so any media at the interface of the bearing and shaft will offer additional lubrication.

- Non galling and non seizing
- Low density
- High temperature resistance

Applications include:

- Areas where conventional lubricants could contaminate the product
- Locations inaccessible for lubrication
- Dusty environments where conventional bearings and lubricants would require protection



Carbon Vanes

Precision machined carbon vanes with tight geometric tolerances of up to +/- 0.0005" are maintained for greater perpendicularity and parallelism, resulting in optimal product efficiency. Specialized equipment enables part-to-part consistency throughout the production process. Custom part orders of fewer than 50 pieces can be shipped in 3 days or less.

Applications include:

- Automotive
- Aerospace
- Food processing
- Fuel production
- Packaging
- Printing
- Spray painting equipment



Other Mechanical Carbon Products

- Crucibles ▪ End plates ▪ Rotors ▪ Segmented shaft seals ▪ Thrust and dryer bearings ▪ Valve seats ▪ Vacuum rings ▪ Wear plates



Capabilities and Service

You can count on Helwig Carbon to be your reliable long-term supplier. As the leader in carbon-graphite component technology, Helwig Carbon Products Inc. is the brand industry trusts. Our products are American made since 1928 and manufactured to the highest quality standards resulting in reliable product performance. Helwig Carbon prides itself on the integrity of its production process. We are ISO 9001:2008 certified to bring you products of the highest quality with the tightest tolerances.

Capabilities Include

- Fast turnaround on custom parts
- In-house testing
- Research and development
- Average lead time 4 weeks or less
- Precision machining to tight tolerances

Markets Served

- Aerospace
- Air handling
- Chemical processing
- Food and beverage
- Packaging
- Petrochemical industries
- Power generation
- Printing
- Pulp and paper industry
- Pump manufacturers
- Refineries
- Waste water treatment

Service

- 95% on-time delivery
- Fast friendly service
- Local field service and support



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