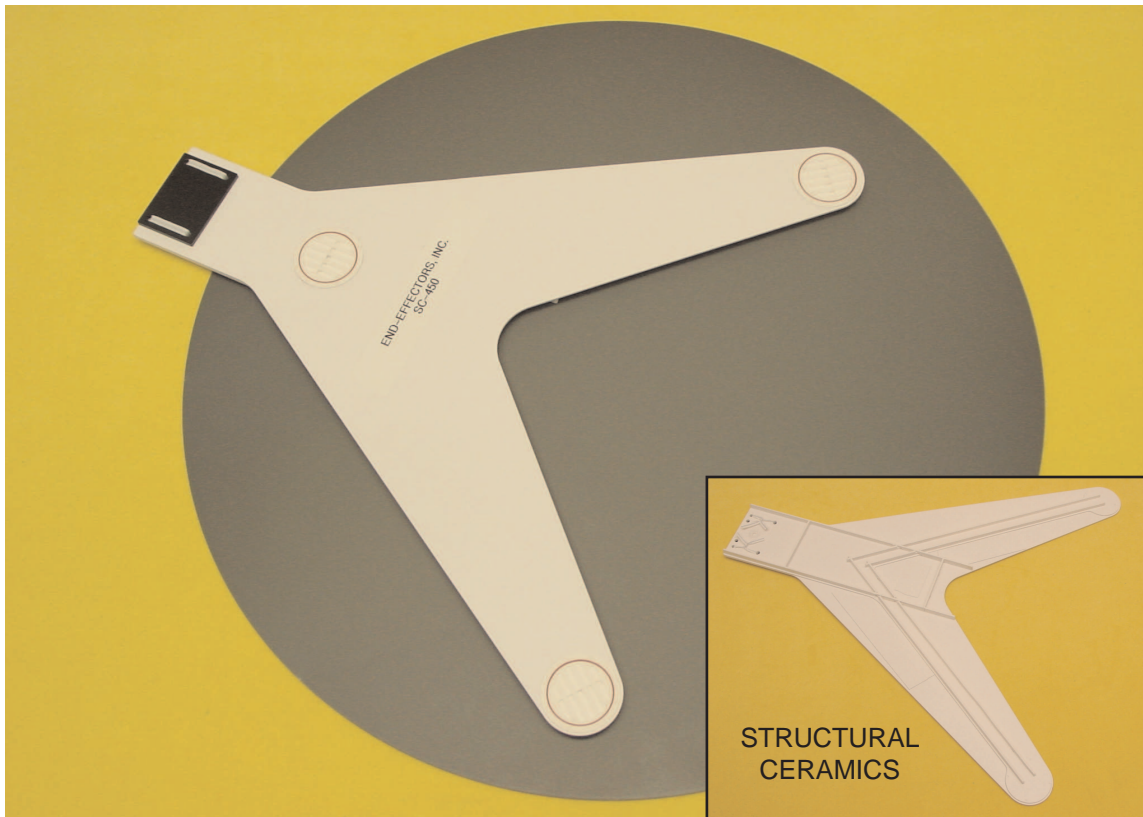


450mm END-EFFECTOR



SC-31

450 MM END-EFFECTOR

FEATURES

- Structural Ceramics Design
- Minimum Weight
- Maximum Rigidity
- 5G Vacuum Clamp
- Selectable Contact Material
- 7G Edge Grip/Bernoulli
- Universal Mounting Pattern

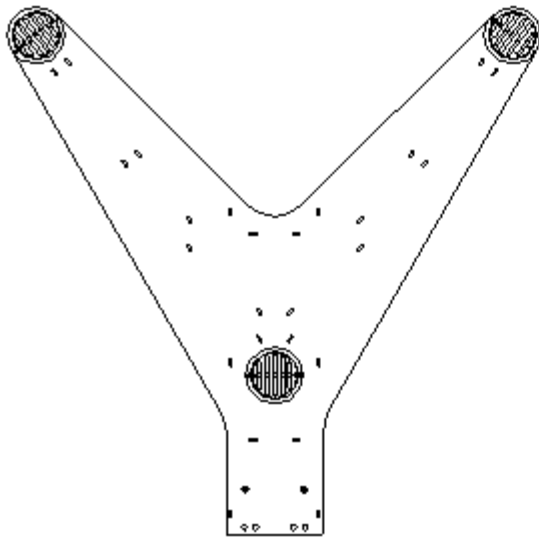
Safe handling of 450 mm wafers is achieved by using our SC-450 end-effector. The vacuum clamping configuration provides a 5G grip which assures the user his wafer is secure. The SC-31 can operate at both ambient and high temperature to 600°C on a continuous basis. Both ceramic and silicone contact materials are available for the vacuum gripping configuration. Any material can be used for wafer contact while ceramic and silicone are standard options. The SC-31 is also available in an edge grip configuration when coupled with our Bernoulli non-contact clamps. This configuration will grip the wafer via our patented Talon Edge Grip and support the wafer via Bernoulli clamps in a non-contact clamping configuration. The edge grip configuration is a FAIL SAFE configuration which will not drop the wafer during a power outage. This end-effector is extremely rigid and light weight because of the use of structural ceramics design principals.

EEI END-EFFECTORS, INC.

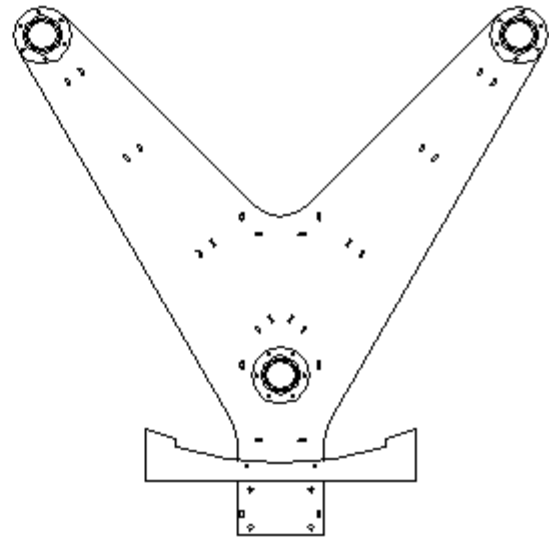
1230 Coleman Avenue, Santa Clara, California 95050-4338
408/727-0100 FAX 408/727-2100 www.fjaind.com.

July 2011
Comp 2 MyDocFlyers 2010
450mm End-Effector

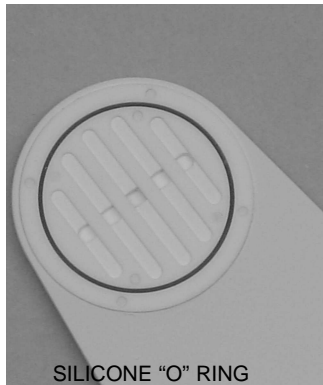
Giving Robotics a Hand®



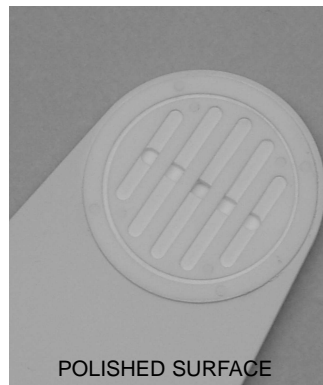
VACUUM CLAMP
CONFIGURATION
PROVIDES A 5G CLAMP



BERNOULLI CLAMP
CONFIGURATION AND
TALON® EDGE GRIPPING
PROVIDE A FAIL SAFE 8G CONFIGURATION

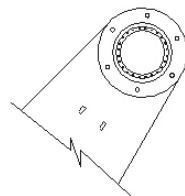


SILICONE "O" RING

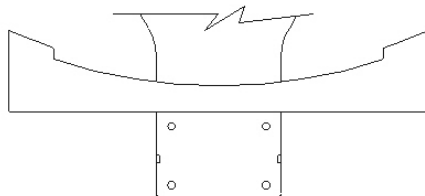


POLISHED SURFACE

Vacuum clamps supplied in two configurations. The ambient configuration uses a silicone "O" ring which provides 5G clamping and the high temperature configuration which eliminates the "O" ring and supplies polished vacuum clamping surfaces. The standard configuration uses 96.0% Al_2O_3 while 99.6% Al_2O_3 contact material is optional.



BERNOULLI CLAMP



TALON® EDGE GRIP CLAMP

Bernoulli clamping will hold the wafer at a 10 mil space above the end-effector surface while the Talon® edge grip clamp secures the wafer in a FAIL SAFE mode. This configuration requires 45 psi of factory air and will edge grip using 1 mm of wafer edge space. Clamping force is a minimum of 8Gs