

# R\*evolution®

## Remote Plasma Source for Process On Wafer



The innovative R\*evolution® Remote Plasma Source combines field-proven, low-field toroidal plasma technology with an actively cooled plasma chamber made of high purity quartz, significantly reducing oxygen, hydrogen and nitrogen atomic gas loss through wall recombination.

Self-contained and compact, R\*evolution delivers up to 10 slm of oxygen radicals from a 6kW power supply with true power accuracy of <1% resulting in a high density, extremely clean radical source for photoresist strip and an optimal clean rate greater than 12 microns/min<sup>-1</sup>. R\*evolution can be used for other surface preparation applications.

Equipped with EtherCAT® communication protocols, R\*evolution streams intelligent data sets to the tool or fab database to monitor or modify operating parameters, keeping process tools running at peak efficiency and supporting diagnostics for Automated Process Control (APC) and Fault Detection and Classification (FDC) applications.

### Product Features

- Integrated, self-contained unit designed for on-chamber installation
- High density radical species delivery
- Up to 6 kW of plasma power with accurate power reproducibility
- Advanced degree of power control of <1%
- Fast, reliable plasma ignition in process gas
- Short pulse capable in seconds



### Key Benefits

- Compact size makes on-chamber integration and installation easy
- Optimal productivity for oxygen based applications through toroidal plasma source promotes high concentrations of radicals at the wafer surface
- Excellent process repeatability unit to unit supports chamber to chamber matching

# Specifications & Ordering Information

## Gas Supply

Ignition Window Pressure	1.0 to 4.0 Torr, Gas: In Process Gas
Process Gas	O <sub>2</sub> , N <sub>2</sub> , Max Total Gas Flow: 10 slm

## Operating Pressure Process

0.5 to 4.0 Torr

## Duty Cycle

100%

## Interlocks

Internal thermal switch and internal water flow switch to protect against insufficient cooling

## Wetted Materials

6061-T6 Aluminum, Kalrez® Fluorosilicone, SiO<sub>2</sub>, 316L SS

## Control Interface

Analog, EtherCAT

## Utilities

Power	208 VAC, 50/60 Hz, 30A, 3 phase
Cooling Water	1.75 gpm, Max: 30°C, Idle 0.5 gpm

## Physical

81 lb. (38.6 Kg) 15.7"L x 13.7"W x 12.25"H (399mm x 348mm x 311mm nominal)

## Compliance

CE, SEMI F47, SEMI S2 (includes S8, S10, S14 assessments), UL 61010-1, CAN/CSA-61010-1

## Ordering Code: AX7696MKS-01

R\*evolution® Remote Plasma Source, 10 slm Oxygen Flow

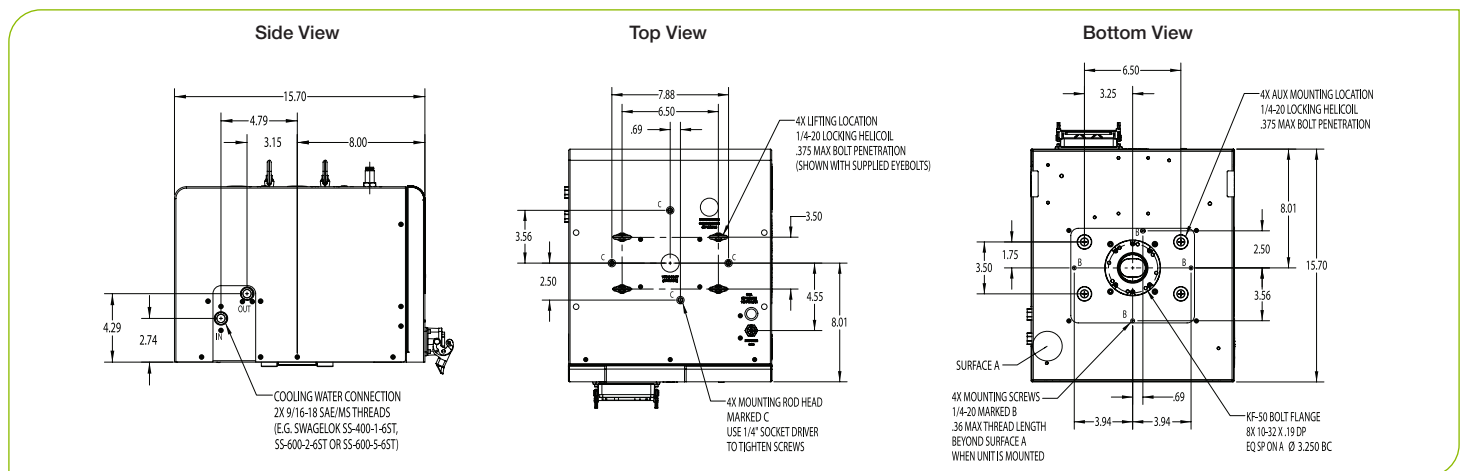
## Code

REV5

## Configuration

AX7696MKS-01

Contact your local account representative for pricing, availability, and applications guidance.



## Dimensional Drawing

Note: Unless otherwise specified, dimensions are nominal values in inches.



www.MKSINST.com

+1-978-645-5500 | +1-800-227-8766

R\*evolution\_04/20

©2020 MKS Instruments, Inc.

Specifications are subject to change without notice.

MKS products provided subject to the US Export Regulations. Export, re-export, diversion or transfer contrary to US law (and local country law) is prohibited.

mksinst™ is a trademark and R\*evolution® is a registered trademark of MKS Instruments, Inc. Kalrez® is a registered trademark of E. I. Du Pont de Nemours and Company. EtherCAT™ is a registered trademark and patented technology, licensed by Beckhoff Automation GmbH, Germany.