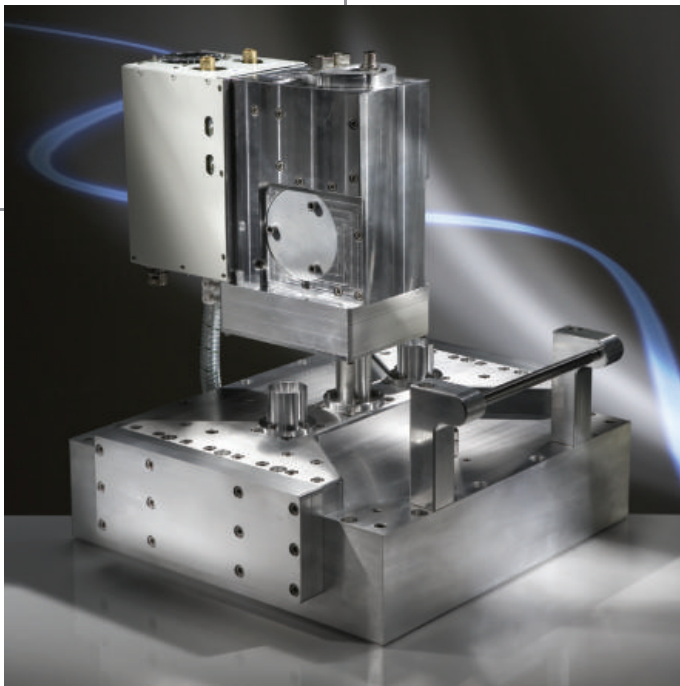


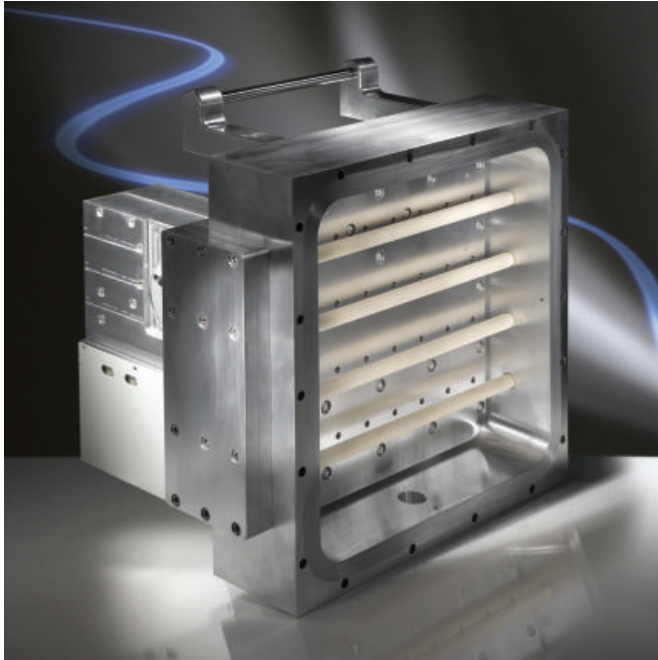
**Industrial Microwave +
Plasma Systems**



Plasma Systems
MA-Series



- Modular plasma system
- Plasma array
- Scalable plasma source
- Large area system
- Compact design
- Integrated gas shower
- Integrated microwave power system
- High plasma density



Plasma Systems **MA-Series**

KEY FEATURES:

- Low pressure microwave plasma source
- Scalable design
- Compact design
- Large area applications
- High plasma density
- High efficiency
- Low damage
- Easy adaption to customized systems

PLASMA SYSTEM SPECIFICATIONS

PLASMA:

HF-FREQUENCY :	2,45 Ghz 915 Mhz 5,8 GHz
HF-INPUT POWER :	typical 2 kW / m @ 100 Pa
PROCESS PRESSURE :	typical 10 Pa - 100 Pa
PLASMA DENSITY :	up to 10^{12} / cm ³ @ 2,45 GHZ
ELECTRON TEMPERATURE :	~ 2 eV
HOMOGENEITY :	better than 5%
APPLICATIONS :	Cleaning, etching, ashing Deposition Sterilization Pretreatment
TYPICAL GASES :	ArO ₂ , N ₂ H ₂ , NH ₃ , SiH ₄ , HMDSO

OPTIONS:

- Gas supply
- Pumping unit
- Pressure gauge
- Plasma monitoring
- Vacuum components
- Complete customized systems
- Magnetic confinement

MECHANICAL:

DIMENSIONS :	Customer specific
MATERIAL:	Chamber: aluminum Gas shower: aluminum Plasma Source: quartz, Al ₂ O ₃
COOLING :	Water / air combined
CONNECTORS :	MICROWAVE: Coaxial connector WATER : Swagelok AIR: Swagelok GAS: Swagelok

MUEGGE GMBH

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