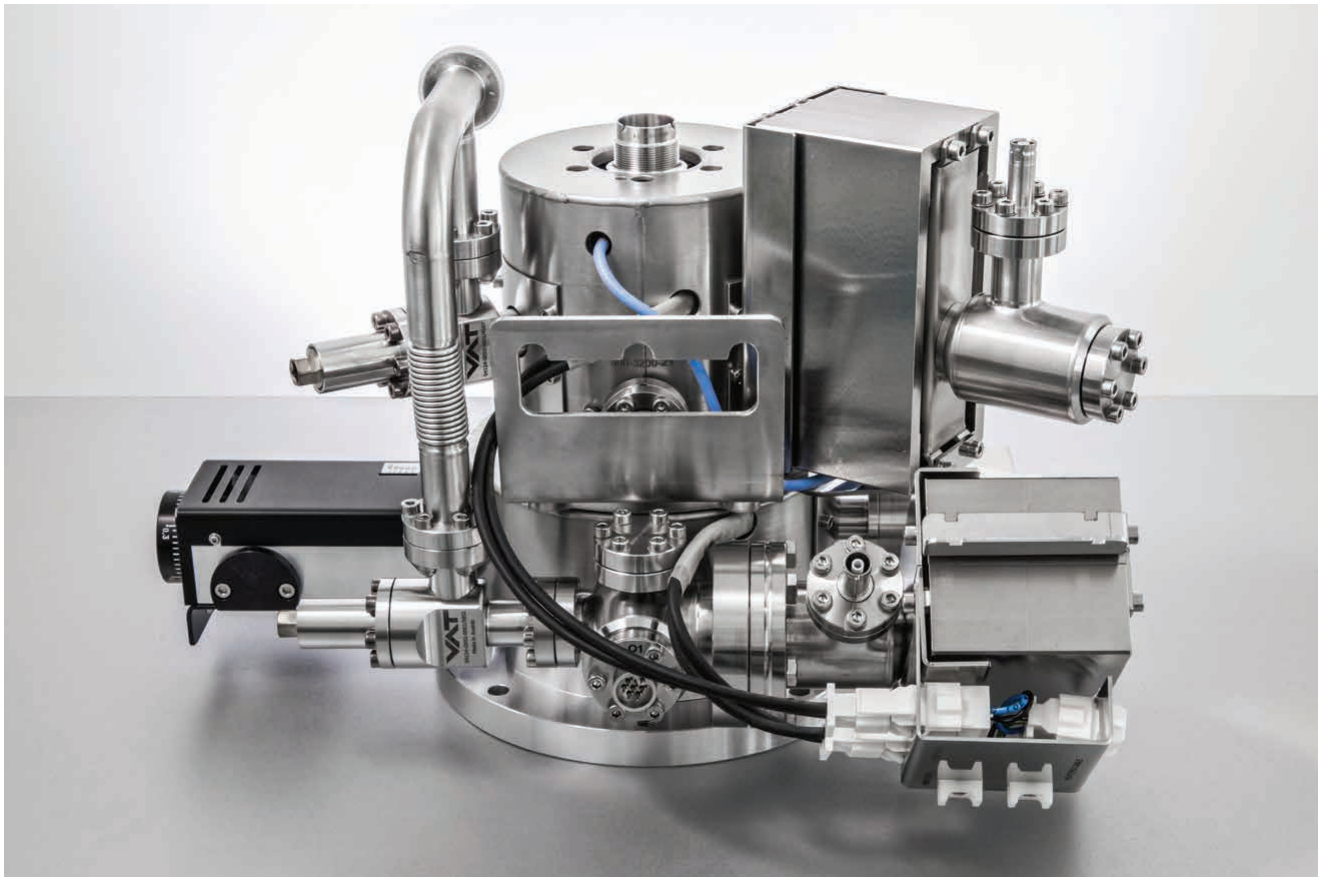


DIGUN

Schottky Electron Gun
Cornerstone of Your Electron Microscope



INTRODUCING THE DIGUN



Key Features

- Beam energy up to 10 keV/30 keV
- High brightness source – Schottky cathode (TFE)
- Magnetic immersion lens
- Electrostatic multipole (beam deflection & astigmatism correction)
- Switching between low current (high resolution) and high current (low resolution) mode
- Movable aperture stage (customized multiple hole strip aperture)
- Gate valve

Operation Variability

- Variable beam energy: 2–10 keV (DIGUN)/2–30 keV (DIGUN 30)
- Divergent, collimated or convergent beam (crossover mode)
- Beam current adjustable in the range of tens of pA up to hundreds of nA (optionally up to units of μA)

FOR INDUSTRY AND SCIENCE



Universal Application & Custom Solutions

- Inspection and analytical electron microscopes
- Lithographs and other devices
- Customized DI columns
- Other DI electron optics solutions

Simple Installation & Operation

- Fast and simple gun installation or replacement
- Minimized downtime (no gun venting, pump-down and bakeout)
- Remote control

Accessories

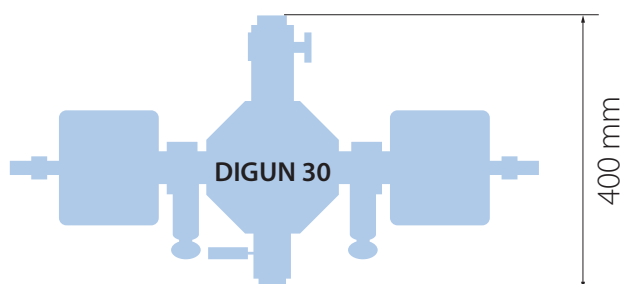
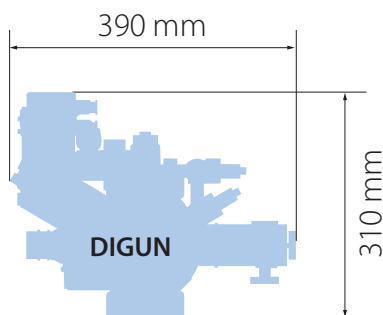
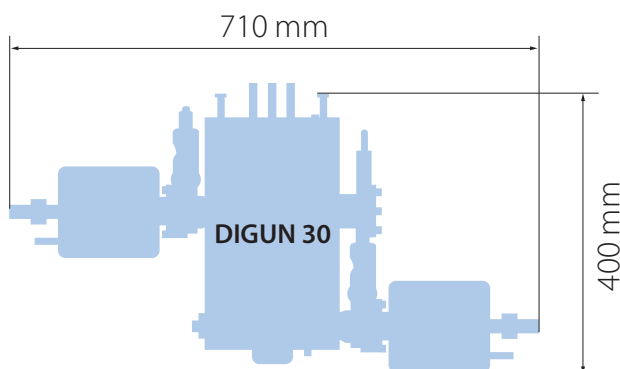
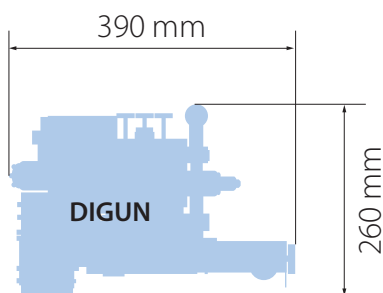
- Control electronics including ion pump supplies
- DI control software including API
- Customized set of cables
- Other accessories

SPECIFICATIONS AND CONTACTS

CATHODE MODULE DATA	
Cathode Vendor	DENKA
Cathode Type	Schottky (TFE)
Tip Radius	$1.00 \pm 0.10 \mu\text{m}$
Heating Current	$2.20 \div 2.40 \text{ A}$
Suppressor Bias	$-300 \div -1000 \text{ V}$
Extraction Voltage	$4.50 \div 5.50 \text{ kV}$
Angular Intensity	$0.25 \div 0.35 \text{ mA/sr}$
APERTURES	
Beam limiting aperture	$100 \mu\text{m}$
Strip aperture holes	$15 \div 150 \mu\text{m}$
Aperture hole diameters can be modified upon customer request.	

DIMENSIONS AND WEIGHT		
GUN	DIGUN	DIGUN 30
Weight	19 kg	80 kg
Dimensions (w×d×h)	390×310×260 max	710×400×400
Digitalization	12-bits	16-bits
CONTROL ELECTRONICS		
Weight	25 kg	100 kg
Size definition	6U + 1U 19" rack	3U + 6U + 1U 19" rack
COLUMN VACUUM REQUIREMENTS		
1×10^{-6} mbar or better		

Installation Layout



Designed, Developed & Manufactured by:



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