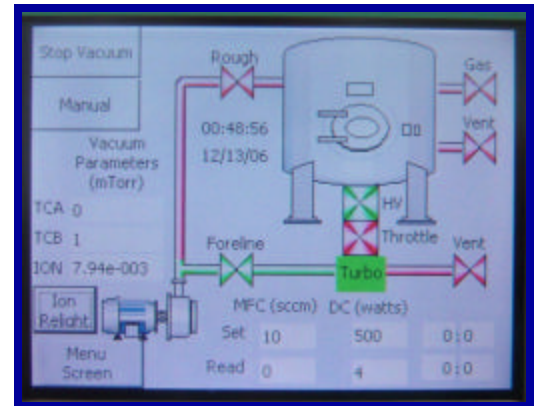


Hummer® BC-20 Series

ONE SYSTEM IN A FAMILY OF PLANAR MAGNETRON SPUTTERING SYSTEMS

THIN FILM DEPOSITION OF METALS AND INSULATORS



TOUCH-PANEL SYSTEM CONTROL

Vacuum and Process Control all in one.
Functions are clearly displayed

**QUARTZING
CV DOT MATRIX
FAILURE ANALYSIS
MATERIALS RESEARCH
MICROELECTRONICS RESEARCH
RENEWABLE ENERGY RESEARCH**

BC Systems are available in sizes;
16", 20", 24" and 30" D-style chambers

The **HUMMER BC-20** sputter coater combines a high degree of process control and flexibility with ease of operation.

THIN FILM RESEARCH - FAILURE ANALYSIS - PILOT PRODUCTION

HUMMER[®] BC-20

PLANAR MAGNETRON SOURCE

TARGET DIAMETER -
3" Standard,
Optional - 2" & 4" diameter
sources and Multiple sources
TARGET THICKNESS - 1/16 to
1/4" standard
TARGET MATERIALS - Metals
and / or insulators
SOURCE MOUNTING - Quick
coupling to chamber, shutters,
shields between sources as
necessary
POWER SUPPLY - 300 watts,
13.56 MHz. Standard
Optional - 600, 1000 watts RF
at 13.56 MHz.
1500 Watts Standard, Optional
- 2500 Watts DC, or various
combinations of supplies
COOLING WATER - .2 to 10
GPM required.
Optional - Recirculation sys-
tem
TARGET MOUNTING - Mechan-
ical clamp or magnetic keeper
depending upon requirement

STAGE FIXTURE

SIZE - 2", 3", 4", 6", 8", 12" or 16"
MOTION -360° rotation standard.
Optional - Variable angle of inci-
dence to sputter source
COOLING - Optional
REVERSE SPUTTER/ETCH - Optional
HEATED - Optional to 900° Celsius

OVERALL SYSTEM

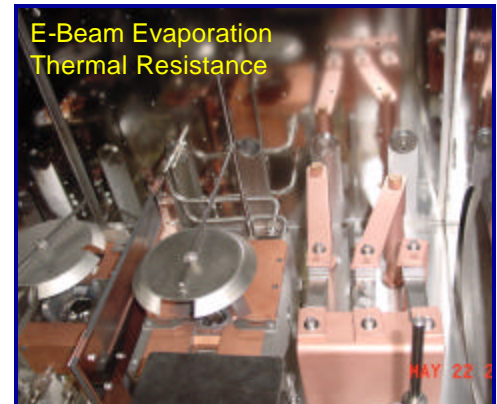
CHAMBER - 304 Stainless steel,
20" ID nominal, aluminum door,
4" Door view port, roughing,
High Vacuum pump and instru-
ment ports
CONTROL - Siemens S7-200
Series PLC control for each vac-
uum function and sputtering
source. Fully integrated with easy
"Touch-Panel" control pad for
diagnostic and setting system pa-
rameters
DESIGN - Floor mount cabinet
on casters with leveling pads
SAFETY INTERLOCKS - Water, door
and vacuum interlocks.
ELECTRICAL REQUIREMENTS -
40-75 AMP, 208-240 Volt,
50/60 HZ
SPUTTERING - Standard top down
sputtering. Optional - Sputter-up
or horizontal sputter
AUTOMATIC SEQUENCING -
Standard

IONIZATION SPECIES

GAS REQUIREMENTS - Argon
regulated from 5 to 20 PSI
OPERATING PRESSURE -
 2×10^{-3} to 5×10^{-2}
REACTIVE SPECIES - Optional

VACUUM SYSTEM

PUMPING - Roughing pump and
Turbo molecular pump - Standard
Optional - Cryo pump or Larger
pumps
VACUUM GAUGING - Convectron
gauges (2), Ion gauge (1).
Atmosphere to 1×10^{-8} TORR
VALVES - Electro-Pneumatic actuated
High Vacuum/Throttle valve be-
tween pump and chamber. Fore-line
and chamber roughing isolation
valves. Pneumatic air or nitrogen
(clean, dry) operating at 60-PSI.
GAS CONTROL - Mass Flow Controller
(1) 100 sccm. Optional - Gases (3)
maximum, for mixing and reactive
gas sputtering



SOURCE OPTIONS

Anatech USA offers alternatives for source configuration.
Contact our sales staff.

CALL ANATECH USA TODAY TO DISCUSS YOUR APPLICATION

1-800-390-4449

2947 WHIPPLE ROAD
UNION CITY, CA 94587

TEL: 510-401-5990 FAX: 510-732-6971

Anatech USA Web Site: www.anatechusa.com

E-Mail: info@anatechusa.com

HUMMER[®] BC-20

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30 Years - Serving Science & Industry

Round Planar Sources
BC-20 Chamber
Three (3)
3-Inch Round Sources



Linear Planar Sources
BC-16 Chamber
Two (2)
2-Inch x 10-Inch Linear Sources
And **One (1)**
2-Inch round source
(partially obstructed in photo view)

BOX COATER MAGNETRON SPUTTER SOURCES

Source configuration is available in Round or Linear planar magnetron designs.
Sources are "Flex-Mounted" for 0-30° angle of incidence adjustability.
Source shutter options include: Manually operated shutter assembly or
Pneumatically actuated.