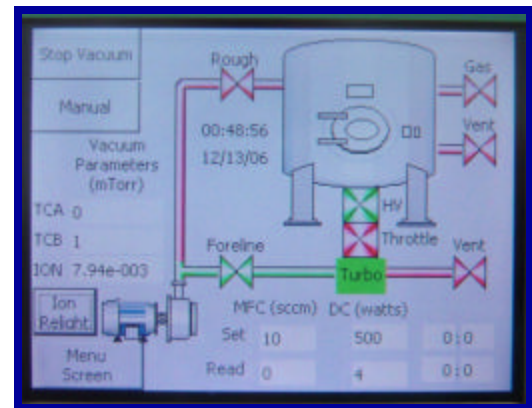


## Hummer® BC-20 Series

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 SUPPORT**

# HUMMER<sup>®</sup> 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

### SOURCE OPTIONS

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

## OVERALL SYSTEM

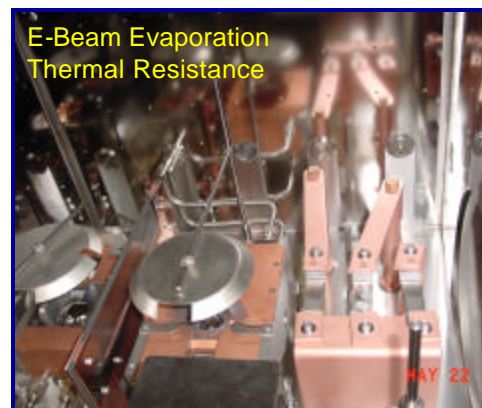
**CHAMBER** - 304 Stainless steel,  
20" ID nominal, aluminum door,  
4" Door view port, roughing,  
High Vacuum pump and instru-  
ment ports  
**CONTROL** - Siemens S7-200  
Series PLC control for each vac-  
uum function and sputtering  
source. Fully integrated with easy  
"Touch-Panel" control pad 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** -  
 $2 \times 10^{-3}$  to  $5 \times 10^{-2}$   
**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  $1 \times 10^{-8}$  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



**CALL ANATECH USA TODAY TO DISCUSS YOUR APPLICATION**

**1-800-390-4449**

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UNION CITY, CA 94587

TEL: 510-401-5990 FAX: 510-401-5994

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