

## VARIAN, HS-20 SPECIFICATIONS:

### **Technical Specifications**

Pumping Speed, Operating Range	10,000 l/s air, 12,500 l/s He and H <sub>2</sub> 17,500 l/s Air
Pumping Speed, AVS 4.1 (1963)	
Maximum Throughput	12.5 T-l/s (16.7 mbar l/s) in operating range, 18 T-l/s (23 mbar-l/s) @ 0.01 torr
Operating Range	1.3 x 10 <sup>-3</sup> to 5 x 10 <sup>-8</sup> torr (1.7 x 10 <sup>-3</sup> to 6.5 x 10 <sup>-8</sup> mbar)
Maximum Forepressure	No Load: 0.65 torr (0.85 mbar) Full Load: 0.55 torr (0.72 mbar)
Recommended Backing Pump	ε100 cfm (170 m <sup>3</sup> /hr)
Backstreaming Rate, Standard Cold Cap	<1.5 x 10 <sup>-3</sup> mg/cm <sub>2</sub> /min
Warmup Time	45 minutes
Cooldown Time	85 minutes
Fluid Charge	5 quarts (4.7 liters)
Electrical Requirements	3 ph, 50/60 Hz, 240/415/480 VAC
Pump Power	12,000 watts
Cooling Water Requirements	1.5 gpm (300 l/hr) at 60-80°F (15-26°C)
Water Connections	1/4 in. FPT Tee
Recommended Fluid	DC-704