



Two new VacTorr® Direct Drive Vacuum Pumps

Efficiency: 60% or better at one micron

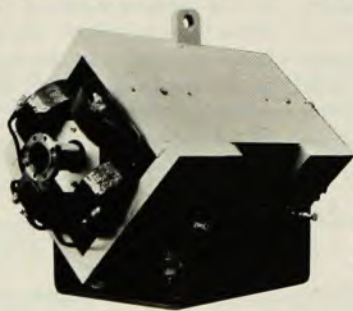
Powerful pumping mechanism in a lightweight, compact package—no belts, pulleys or other external moving parts. For example, Model DD-50 will deliver up to twice the capacity of similar size belt driven pumps. The DD-100, which weighs just 45 pounds, pumps 65 liters/min. at 1 micron Hg—outstanding efficiency for a pump of this capacity.

Concept of maximum capacity and compact design, plus quick pump-down and quiet operation make VacTorr two stage mechanical direct drives the versatile "go anywhere" vacuum pump. Ideal for use or storage anywhere in the laboratory—on benches, under counters, on shelving or in cabinets.

Ask your local GCA/Precision Scientific Dealer or write us. GCA/Precision Scientific, 3737 W. Cortland St., Chicago, IL 60647. Sales offices in principal cities.

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Ion Beam Transfer Magnets



**MODEL 3514
2" QUADRUPOLE
DOUBLET**

(shown with optional
vacuum chamber and cradle)

Effective Pole Length	—	8.03 inches
Effective Separation	—	7.97 inches
Gradient (max)	—	4.4 kgauss/inch
Power (max per singlet)	—	13.0 Volt, 46 Amp
UNIT PRICE	—	\$2750
DELIVERY	—	Normally Ex Stock

Another high performance magnet from ANAC's comprehensive range of standard beam line elements —

**Quadrupoles
Switchers
Analyzers
Beam Steers**

Call or write for complete technical specifications and prices:

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AD-10

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we hear that

Physics for his work in quantum field theory and critical phenomena in statistical mechanics. He was recently elected to the National Academy of Sciences and the American Academy of Arts and Sciences.

Rivlin cited for work in mechanics

Ronald S. Rivlin has been awarded the Premio Modesto Panetti for 1975 by the Academy of Sciences of Turin, Italy. This award honors distinguished work in mechanics and commemorates an eminent Italian mathematician who worked in this field.

Rivlin is Centennial University Professor and director of the Center for the Application of Mathematics at Lehigh University, Bethlehem, Pennsylvania. He received his ScD degree in mathematics from Cambridge University, and spent several years doing research at the British Rubber Producers Research Association in the United Kingdom. Before joining the Lehigh faculty in 1967, Rivlin was professor of applied mathematics at Brown University. He is national president of the Society of Rheology and secretary-treasurer of the Committee of Scientific Society Presidents.

Albert I. Schindler honored by Navy

Albert I. Schindler, acting associate director of research for materials and general sciences at the Naval Research Laboratory, is the recipient of the Navy Award for Distinguished Achievement in Science. This prize is the highest special Secretary of the Navy award for scientific achievement.

Schindler was cited for his "pioneering achievements in elucidating the extremely complex phenomena of transition metal magnetism and related physical properties." As head of the metals physics branch of NRL, Schindler conducted and directed research on the physical properties of metallic alloys. He has written or joined in writing over 90 papers in solid-state physics on topics ranging from galvanomagnetic effects in alloys to irradiation effects in magnetic materials.

John S. Waugh wins Irving Langmuir Award

The 1976 Irving Langmuir Award in Chemical Physics will be presented to John S. Waugh, Arthur Amos Noyes Professor of Chemistry at the Massa-