

From: "Scott Dowdy" <scottd@empiremagnetics.com>
Subject: RE: Vacuum motors Quote# 070712A-SD
Date: July 12, 2007 11:28:28 AM MDT
To: "Tony Forest" <tforest@athena.physics.isu.edu>
Cc: "Denise Pavlat" <sales@empiremagnetics.com>
 1 Attachment, 4.7 KB

Tony,
 If you are looking only for controlled speed our VX-R88 servo motor is available without modification.

If you need precision stepping control your speed will be limited to about 218 RPM at the required torque.

Heat dissipation from the target will be a major issue as convection cooling is not useful in an evacuated chamber. Conduction is the most effective method for cooling machinery in a vacuum. You will need enough surface area to dissipate both the heat of the motor and the target.

Both of the above motors will include a temperature sensor which should be wired to a thermal control in such a way as to cause electrical shutdown if the motor should reach the safe operating temperature limit.

Pricing on these units is as follows:

Environment	Vacuum, lab grade extra clean (VX)		May 29th, 2007	
Group	Motor - Stepper		Lot charge	First unit
Motor	Stepper Motor (U43)		\$ 45.00	\$ 9,146.00
Gearbox	Planetary Gears (42P:5.5)		\$ 95.00	\$ 3,922.00
Resolver	- none -		\$ 0.00	\$ 0.00
RTD	RTD (RTD)		\$ 65.00	\$ 185.00
Brake	- none -		\$ 0.00	\$ 0.00
Cable	- none -		\$ 0.00	\$ 0.00
Shaft	- none -		\$ 0.00	\$ 0.00
Subtotal			\$ 205.00	\$ 13,253.00
Model	VX-U43-42P:5.5-RTD			
First Unit Price			\$ 13,458.00	
<i>Quantity</i>	2 - 4	5 - 9	10 - 24	
<i>Price</i>	\$ 13,253.00	\$ 11,927.70	\$ 10,734.93	

Environment	Vacuum, lab grade extra clean (VX)		May 29th, 2007	
Group	Motor - Brushless		Lot charge	First unit
Motor	Brushless Motor (R88)		\$ 500.00	\$ 13,145.00
Gearbox	- none -		\$ 0.00	\$ 0.00
Brake	- none -		\$ 0.00	\$ 0.00
Cable	- none -		\$ 0.00	\$ 0.00
Subtotal			\$ 500.00	\$ 13,145.00
Model	VX-R88			
First Unit Price			\$ 13,645.00	
<i>Quantity</i>	2 - 4	5 - 9	10 - 24	
<i>Price</i>	\$ 13,145.00	\$ 11,830.50	\$ 10,647.45	

Please specify your desired shipping method when ordering.

On stepper motors, please specify series or parallel wiring in purchase order.

FOB Rohnert Park, Ca. Shipping address: 5830 Commerce Blvd. Rohnert Park, Ca. 94928

Terms: Standard terms invoice payable upon presentation. (A.K.A. cash terms.) We accept: check in advance of shipment, MasterCard, Visa and American Express credit cards.

For custom units, progress payments or deposits may be specified in the quote or proposals. When deposits or progress payments are specified, the delivery dates are keyed to the receipt of payments, NOT to the dates of order placement.

Expiration: This quote is valid for 30 days.

Limited Warranty: Warranty is for the period of time stated in the quotation. If not specified, the warranty period is 90 days from the date of factory shipment. Warranty is expressly limited to the repair or replacement of supplied items at Empire Magnetics, Inc. factory or at the works of its subcontractors. Incidental costs associated with failure, malfunction, delivery delays or non-delivery of equipment or services are expressly excluded from warranty coverage. Repair or replacement decisions will be made solely at the discretion of Empire Magnetics management. Such work will be limited to activities at Empire's factory, its vendors or subcontractors. Incidental costs as the result of product defects, failure or malfunction are specifically not covered by the terms of the warranty and may not be deemed to be implied in the contract unless specifically agreed to in writing by Empire Magnetics, Inc.

Deviations: This quotation was prepared with the information available at the time of the quotation. Should we discover or be advised during subsequent discussion of changes that will affect production costs, we reserve the right to withdraw or revise this quote.

Exclusivity: The information contained in this quote is and remains the exclusive property of Empire Magnetics, Inc. including all copyrights, designs, patents and trademark rights. The person, persons or corporations receiving this information, by accepting this document agrees they will treat the information as confidential and will not disclose, transmit or pass the same to others without the express written consent of Empire Magnetics, Inc.

Specific rejection of added terms: Empire Magnetics Inc. rejects and excludes terms and conditions added by customers that are not part of this written proposal or document. Submission of a quotation, or acceptance of an order on the part of Empire Magnetics Inc. does not constitute acceptance of customer terms and conditions. The fact that a company submits a printed form, with legal text to Empire Magnetics inc. does not imply acceptance, or is it binding upon Empire Magnetics Inc, unless a duly authorized representative of the corporation signs the document. Terms and conditions such as governmental regulation compliance, when they are added after product pricing has been established will be the basis of new pricing for contractual purposes.

Thank you for your business,

Scott Dowdy, Applications Engineer

The logo for Empire Magnetics Inc. features the company name in a blue, sans-serif font. The word "Empire" is in a lighter blue, while "Magnetics Inc." is in a darker blue. The letters are slightly shadowed, giving the logo a three-dimensional appearance.

Empire Magnetics Inc.

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