



**Meyer Tool & Mfg., Inc.**  
 4601 W. Southwest Highway  
 Oak Lawn, IL 60453  
 708/425-9080 Fax 708/425-2612

**Purchase Order 008933-00**

**Vendor 000864**

**Duplicate Copy**

Purchase Order Status : CLOSED

To :

**PHPK Technologies Incorporated**  
 4601 Southwest Hwy.  
 Westerville OH 43081

Ship to :

**Meyer Tool & Mfg.**  
 4601 Southwest Hwy.  
 Oak Lawn IL 60453  
 USA

Phone (614) 436-9114

Fax (614) 436-5818

PO Date	Ship Via	FOB	Planner	Confirming to	Terms
07/02/2003	UPS	Shipping Point	JDA	Keith Braden	NET 30
Item	Part / Rev / Description / Details	Quantity	Promised Delivery	Unit Cost	Extended Cost
1	251161-1 Rev NS U/M EA PHPK Model#HCV-05-A-B5-SPECIAL per Drawing P-5874-A dated 5/13/03  Purchasing Category : JO 00918-0045 Refer to Proposal#:P-5874-A  PHPK to supply eight(8) cryogenic extended-check valves model# HCV-05-A-B5-SPECIAL. The cost of each valve is \$3,726.27/ea + \$12.50/ea approximate cost for packaging & shipping valves UPS ground = \$29,810.18/lot(valves) + 100.00/Lot(shipping cost) = \$29910.16/Total cost.8 weeks is approximate delivery.  Valves will utilize cast bodies and bonnet flanges.The castings are to be 304/304L SS,dual-rated.All castings are to be 100% radiograph and zygo inspected.In addition,each valve is to be mass spectrometer leak tested to 1 x 10-9 scc/sec helium with no leaks.All assemblies will be pressure tested to code requirements and functionally tested and adjusted prior to shipment.  All valve components will be totally interchangeable between valve models and flow characteristics without replacing valve bodies.Castings will be lost wax investment cast,ASTM A-743,grade CF3(304L)SS,100% radiograph and zygo inspected.Valve component materials of construction will be "true butt weld"with no closed-end cavities(such as socket weld which can not be easily cleaned).The weld connection between the body extension tube and valve body casting will be a butt weld connection.Seal disk material will be VESPEL.Valve barrel and bonnet bolts will be plated with a PHPK-specified patented nickel/teflon plating,which has been tested and approved for oxygen service.This plating does not chip or flake and provides a homogeneous surface to prevent galling.The valve design will provide a close-tolerance fit(approximately 0.003")between the barrel and the body extension tube,allowing operation in any orientation,even upside down(special barrel required),while ensuring bonnet seals remain warm when the valve is in cryogenic service.The bonnet seal will be a single Buna-N O-ring.Valves will have self-locking seat seals,which do not require staking or welding for assembly or maintenance.All valves will be servicable without braking vacuums.PHPK standard socket head cap screw bonnet bolts will be substituted with 1/4"-20hex head screws.The 12.10"long vacuum jacket will be welded to the bonnet.	8.00	09/02/2003	3,738.770	29,910.16
Our company values suppliers who consistently:				Total Items Price	29,910.16
> Furnish Quality Products				Sales Tax	0.00
> Deliver On Time				Fixed Cost	0.00
> Are Competitively Priced				<b>Total PO Price</b>	<b>\$ 29,910.16</b>
Please keep us informed if you have any problems that could adversely affect our production schedule.					

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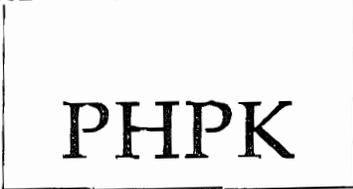
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00918-251161-1 P.O. 8 933



PHPK TECHNOLOGIES INCORPORATED

535 ENTERPRISE DRIVE, WESTERVILLE, OHIO 43081 • (614) 436-9114 FAX (614) 436-5816

PHPK W/O # 03-0793  
Packing List A22946

### CERTIFICATE OF CONFORMANCE

PHPK Technologies Incorporated certifies that the material and/or equipment listed below meets the requirements of Meyer Tool & Manufacturing Inc. purchase order number 008933-00 and applicable codes, drawings, specifications and standards.

ITEM	DESCRIPTION
(8 ea.) P/N HCV-05-A-B5-SPECIAL	Cryogenic extended-check valves S/N's 8101-8108

Quality Assurance Authorizing Signature

8-26-03

Date