
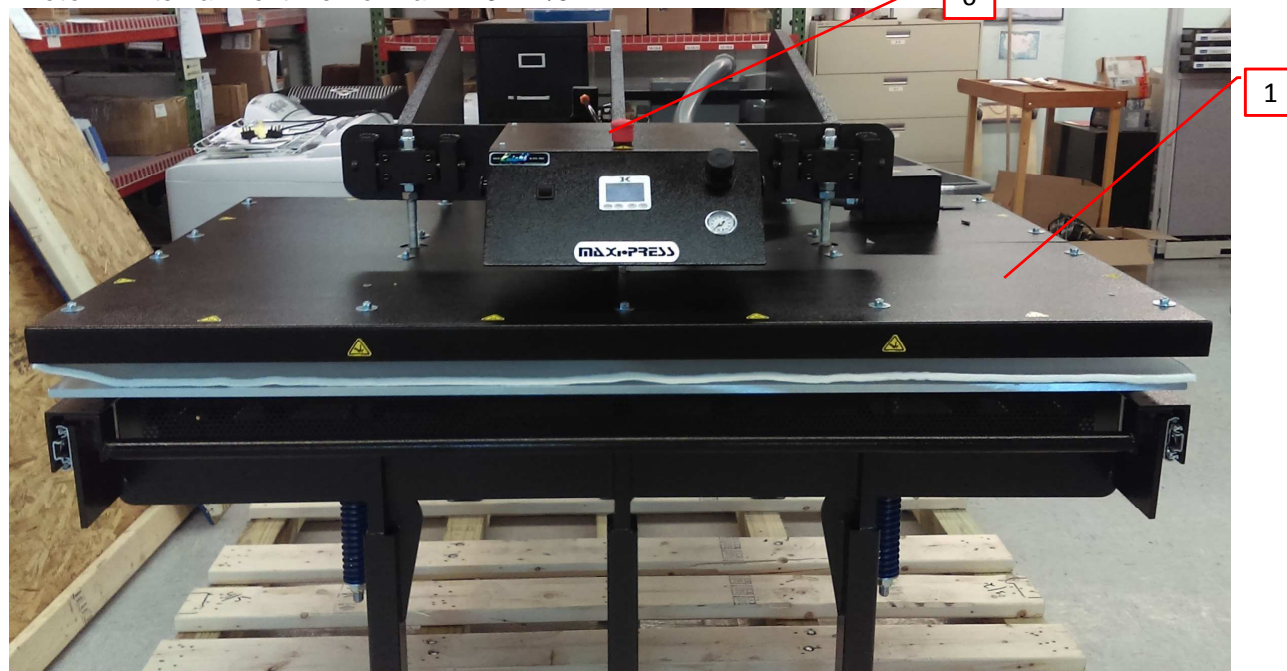


1.0 Reference and Address			
Report Number	102441660BOX-001	Original Issued: 16-Jun-2016	Revised: None
Standard(s)	UL 499 Issued: 2014/11/07 Ed: 14 Electric Heating Appliances  CSA C22.2#88 Issue:1958/09/01 (R2013) Industrial Heating Equipment (R2013)		
Applicant	Geo Knight & Co Inc	Manufacturer	<b>Geo Knight &amp; Co Inc.</b>
Address	52 Perkins St Brockton, MA 02302	Address	52 Perkins St Brockton, MA 02302
Country	USA	Country	USA
Contact	Mr. Aaron Knight	Contact	Mr. Aaron Knight
Phone	(800) 525-6866 Ext.121	Phone	(800) 525-6866 Ext.121
FAX	N/A	FAX	N/A
Email	aaron@heatpress.com	Email	aaron@heatpress.com

2.0 Product Description	
Product	Maxi Press
Brand name	 GEO Knight & CO, INC
Description	The Maxi Press is a heat transfer garment printer for indoor use only. Unit is permanently connected and powered by a 208-230VAC source
Models	Maxi-4464AP/3PH, Maxi-4466AP
Model Similarity	Both models have the same function however the Maxi-press-4464AP/3PH is three phase while the Maxi-4464AP is single phase.
Ratings	<b>Maxi-4464AP/3PH:</b> 208-230VAC, 60Hz, 45A <b>Max-4464AP:</b> 208-230VAC, 60Hz 86A
Other Ratings	NA

### 3.0 Product Photographs

**Photo 1** -External Front View of Maxi-4464AP/3PH

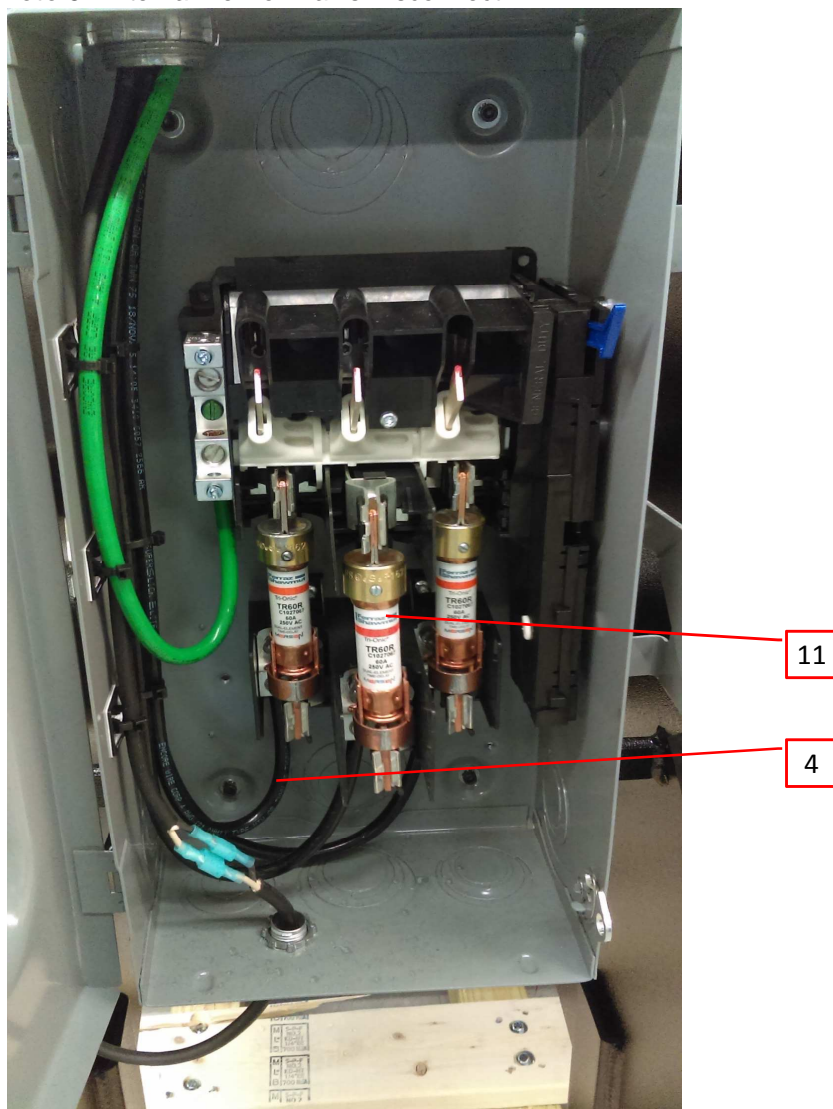


**Photo 2** - Rear View of Max-4464AP/3PH



### 3.0 Product Photographs

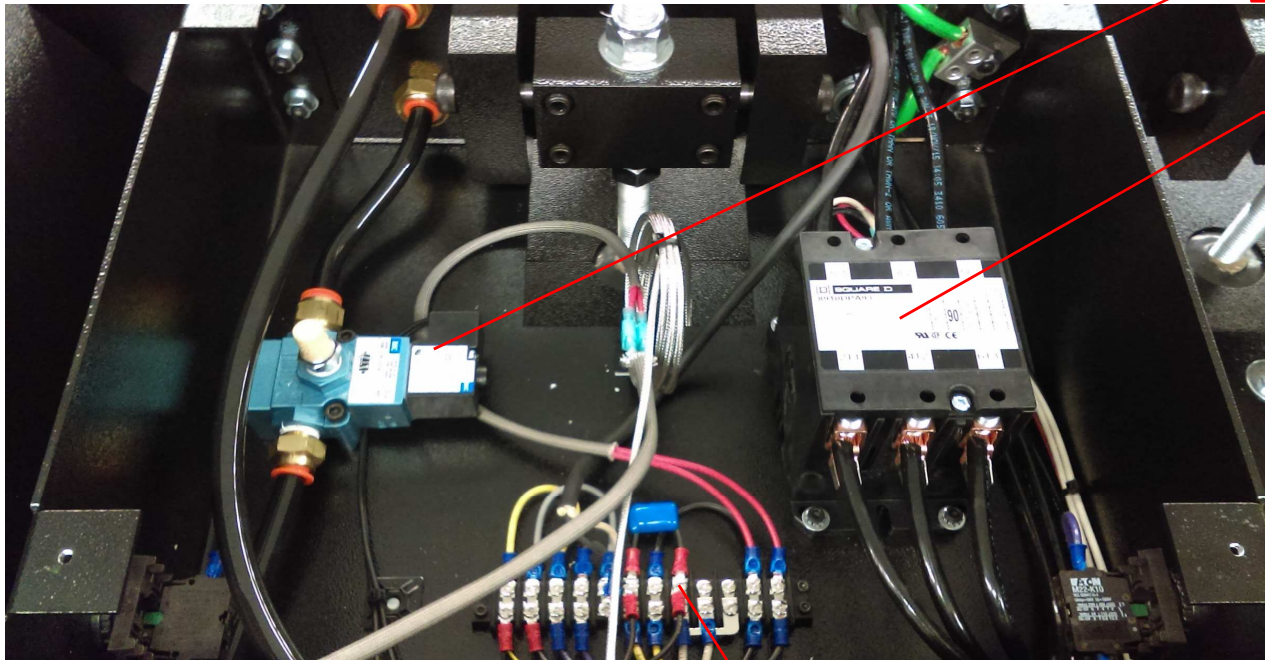
**Photo 3 - Internal view of Mains Disconnect**





### 3.0 Product Photographs

**Photo 4-** Internal View of Electrical box



**Photo 5-** Temperature control board



4.0 Critical Components						
Photo #	Item no. <sup>1</sup>	Name	Manufacturer/ trademark <sup>2</sup>	Type / model <sup>2</sup>	Technical data and securement means	Mark(s) of conformity <sup>3</sup>
1	1	Enclosure	Geo Knight & Co Inc	Geo Knight & Co Inc	10-guage steel, polyester powder coating.	NR
2	2	3 pole fused mains disconnect	Schneider Electric	D323N	240VAC, 3PST,100A	UL
4	3	Pressure Valve	Mac	100/200 series	150PSI -18 °C to 60 °C 17W max 24VDC	UL,CSA
3	4	Mains wiring	TGGT	TGGTD4N133-5256	600V, 250 °C, 4AWG	UL,CSA
1	5	Heater Plates (not shown)	Cogemicanite	505 series	Rated to 1000 °C	UL
1	6	Emergency stop button	Eaton	M22 series	85-264VAC	UL,CSA
1	7	Thermocouple (not shown)	A one Union CO..LTD	F4/0.32KXH-GAB-Blue	Max temp 200 °C	NR
5	8	Transformer	Triad Magnetics	VPS36-2200	Input Voltage: 230VAC/115VAC, 50/60Hz Output Voltage: 36V @ 2.2A, 18V @4.4A	UR,CSA
5	9	Relay	Song Chuan	832 series	30A 250VAC	UL,CSA
5	10	PCB	Various	Various	V-0 Material	UL
3	11	Fuse	Various	Various	250VAC 1/10 to 600A max	UL,CSA
4	12	Terminal Block	Cinch Connectivity Solutions	Series 141	250VAC 20A	UL,CSA
4	13	Contactor	Definite purpose control	DP42V14	2 pole connector 600VAC max 50A	UR,CSA
			Definite purpose control	DPA33V04	3 pole connector 600VAC max 120A	UR,CSA
NOTES:						
1) Not all item numbers are indicated (called out) in the photos, as their location is obvious.						
2) "Various" means any type, from any manufacturer that complies with the "Technical data and securement means" and meets the "Mark(s) of conformity" can be used.						
3) Indicates specific marks to be verified, which assures the agreed level of surveillance for the component. "NR" - indicates Unlisted and only visual examination is necessary. "See 5.0" indicates Unlisted components or assemblies to be evaluated periodically refer to section 5.0 for details.						

#### **5.0 Critical Unlisted CEC Components**

No Unlisted CEC components are used in this report.

6.0 Critical Features	
<u>Recognized Component</u> - A component part, which has been previously evaluated by an accredited certification body with restrictions and must be evaluated as part of the basic product considering the restrictions as specified by the Conditions of Acceptability.	
<u>Listed Component</u> - A component part, which has been previously Listed or Certified by an accredited Certification Organization with no restrictions and is used in the intended application within its ratings.	
<u>Unlisted Component</u> - A part that has not been previously evaluated to the appropriate designated component standard. It may also be a Listed or Recognized component that is being used outside of its evaluated Listing or component recognition.	
<u>Critical Features/Components</u> - An essential part, material, subassembly, system, software, or accessory of a product that has a direct bearing on the product's conformance to applicable requirements of the product standard.	
<u>Construction Details</u> - For specific construction details, reference should be made to the photographs and descriptions. All dimensions are approximate unless specified as exact or within a tolerance. In addition to the specific construction details described in this Report, the following general requirements also apply.	
1.	<u>Spacing</u> - In primary circuits, 1.5 mm minimum spacing are maintained through air and over surfaces of insulating material between current-carrying parts of opposite polarity and 3.0 mm minimum between such current-carrying parts and dead-metal parts or low voltage isolated circuits.
2.	<u>Mechanical Assembly</u> - Components such as switches, fuseholders, connectors, wiring terminals and display lamps are mounted and prevented from shifting or rotating by the use of lockwashers, starwashers, or other mounting format that prevents turning of the component.
3.	<u>Corrosion Protection</u> - All ferrous metal parts are protected against corrosion by painting, plating or the equivalent.
4.	<u>Accessibility of Live Parts</u> - All uninsulated live parts in primary circuitry are housed within a metal enclosure constructed with no openings other than those specifically described in Section 4.
5.	<u>Grounding</u> - All exposed dead-metal parts and all dead-metal parts within the enclosure that are exposed are connected to the grounding lead of the power supply cord.
6.	<u>Polarized Connection</u> - This product is provided with a polarized power supply connection.
7.	<u>Internal Wiring</u> - Internal wiring is routed away from sharp or moving parts. Internal wiring leads terminating in soldered connections are made mechanically secure prior to soldering. Recognized Component separable (quick disconnect) connectors of the positive detent type, closed loop connectors, or other types specifically described in the text of this report are also acceptable as internal wiring terminals. At points where internal wiring passes through metal walls or partitions, the wiring insulation is protected against abrasion or damage by plastic bushings or grommets. All mains wiring is minimum 18AWG, with a minimum rating of 300V, 105°C.
8.	<u>Schematics</u> - NA
9.	<u>Markings</u> - The product is marked manufacturer's name, brand name, model number, date of manufacturer, and electrical ratings.
10.	<u>Cautionary Markings</u> - Refer to Illustration 1
11.	<u>Installation, Operating and Safety Instructions</u> - Instructions for installation and use of this product are provided by the manufacturer.





## 7.0 Illustrations

Illustration 1 - Cautionary marks



8.0 Test Summary					
Evaluation Period	2/8/2016 - 3/14/2016			Project No.	G102441660
Sample Rec. Date	2/9/2016	Condition	Production	Sample ID.	BOX1602090909-001
Test Location	Boxborough, MA 01719 USA				
Test Procedure	Testing Lab				
Determination of the result includes consideration of measurement uncertainty from the test equipment and methods. The product was tested as indicated below with results in conformance to the relevant test criteria.					
The following tests were performed:					
Test Description	UL 499	CSA C22.2#88			
Spacing	27	4.17			
Power Input Test	33	6.2			
Normal Temperature	36	6.3			
Dielectric Votlage	38	6.3.1.3			
Abnormal operations	42	6.3.2			

8.1 Signatures			
A representative sample of the product covered by this report has been evaluated and found to comply with the applicable requirements of the standards indicated in Section 1.0.			
Completed by:	Joaquin Pellot	Reviewed by:	Pete Sedor
Title:	Associate Engineer	Title:	Engineering Team Leader
Signature:		Signature:	

### 9.0 Correlation Page For Multiple Listings

The following products, which are identical to those identified in this report except for model number and Listee name, are authorized to bear the ETL label under provisions of the Intertek Multiple Listing Program.

BASIC LISTEE	Geo Knight & Co Inc
Address	52 Perkins St Brockton, MA 02302
Country	USA
Product	Maxi Press

MULTIPLE LISTEE 1	None
Address	
Country	
Brand Name	
ASSOCIATED MANUFACTURER	
Address	
Country	
MULTIPLE LISTEE 1 MODELS	BASIC LISTEE MODELS

MULTIPLE LISTEE 2	None
Address	
Country	
Brand Name	
ASSOCIATED MANUFACTURER	
Address	
Country	
MULTIPLE LISTEE 2 MODELS	BASIC LISTEE MODELS

MULTIPLE LISTEE 3	None
Address	
Country	
Brand Name	
ASSOCIATED MANUFACTURER	
Address	
Country	
MULTIPLE LISTEE 3 MODELS	BASIC LISTEE MODELS

## 10.0 General Information

The Applicant and Manufacturer have agreed to produce, test and label ETL Listed products in accordance with the requirements of this Report. The Manufacturer has also agreed to notify Intertek and to request authorization prior to using alternate parts, components or materials.

### COMPONENTS

Components used shall be those itemized in this Intertek report covering the product, including any amendments and/or revisions.

### LISTING MARK

The ETL Listing mark applied to the products shall either be separable in form, such as labels purchased from Intertek, or on a product nameplate or other media only as specifically authorized by Intertek. Use of the mark is subject to the control of Intertek.

The mark must include the following four items:

- 1) applicable country identifiers "US" and/or "C" or "US", "C" and "EU"
- 2) the word "Listed" or "Classified" or "Recognized Component" (whichever is appropriate)
- 3) a control number issued by Intertek
- 4) a product descriptor that identifies the standards used for certification. Example:

**For US standards**, the words, "Conforms to" shall appear with the standard number along with the word, "Standard" or "Std." Example: "Conforms to ANSI/UL Std. XX."

**For Canadian standards**, the words "Certified to CAN/CSA Standard CXX No. XX." shall be used, or abbreviated, "Cert. to CAN/CSA Std. CXX No. XX."

Can be used together when both standards are used.

**Note: A facsimile must be submitted to Intertek, Attn: Follow-up Services for approval prior to use.**

The facsimile need not have a control number. A control number will be issued **after signed Certification Agreements** have been received by the Follow-up Services office, approval of the facsimile of your proposed Listing Mark, satisfactory completion of the Listing Report, and scheduling of a factory assessment in your facility.

### MANUFACTURING AND PRODUCTION TESTS

Manufacturing and Production Tests shall be performed as required in this Report.

### FOLLOW-UP SERVICE

Periodic unannounced audits of the manufacturing facility (and any locations authorized to apply the mark) shall be scheduled by Intertek. An audit report shall be issued after each visit. Special attention will be given to the following:

1. Conformance of the manufactured product to the descriptions in this Report.
2. Conformance of the use of the ETL mark with the requirements of this Report and the Certification Agreement.
3. Manufacturing changes.
4. Performance of specified Manufacturing and Production Tests.

In the event that the Intertek representative identifies non-conformance(s) to any provision of this Report, the Applicant shall take one or more of the following actions:

1. Correct the non-conformance.
2. Remove the ETL Mark from non-conforming product.
3. Contact the issuing product safety evaluation center for instructions.

#### **10.1 Evaluation of Unlisted Components**

Because Unlisted Components are uncontrolled, and they do not fall under a third party follow up program, Intertek may require these components to be tested and/or evaluated at least once annually, more often for certain components, as part of the independent certification process. The Unlisted Components in Section 5.0 require testing and/or evaluation as indicated.

**Note to Intertek Follow Up Inspector: The Component Evaluation Center, CEC, will notify you in writing when these components must be selected and sent to the CEC for re-evaluation**

Ship the samples to:

Intertek Testing Services NA Inc.

ETL Component Evaluation Center

45000 Helm Street, Suite 150

Plymouth Twp., MI 48170 USA

Attn: Component Evaluation Center

Sample Disposition: Due to the destructive nature of the testing, all samples will be discarded at the conclusion of testing unless, the manufacturer specifically requests the return of the samples. The request for return must accompany the initial component shipment.



## 11.0 Manufacturing and Production Tests

The manufacturer agrees to conduct the following Manufacturing and Production Tests as specified:

### Required Tests

Dielectric Voltage Withstand Test  
Grounding Continuity Test

## 11.1 Dielectric Voltage Withstand Test

### Method

One hundred percent of production of the products covered by this Report shall be subjected to a routine production line dielectric withstand test.

The test shall be conducted on products, which are fully assembled. Prior to applying the test potential, all switches, contactors, relays, etc., should be closed so that all primary circuits are energized by the test potential. If all primary circuits cannot be tested at one time, then separate applications of the test potential shall be made.

The test voltage specified below shall be applied between primary circuits and accessible dead-metal parts. The test voltage may be gradually increased to the specified value but must be maintained at the specified value for one second or one minute as required.

### Test Equipment

The test equipment shall incorporate a transformer with an essentially sinusoidal output, a means to indicate the applied test potential, and an audible and/or visual indicator of dielectric breakdown.

The test equipment shall incorporate a voltmeter in the output circuit to indicate directly the applied test potential if the rated output of the test equipment is less than 500VA.

If the rated output of the test equipment is 500VA or more, the applied test potential may be indicated by either:

- 1 - a voltmeter in the primary circuit;
- 2 - a selector switch marked to indicate the test potential; or
- 3 - a marking in a readily visible location to indicate the test potential for test equipment having a single test potential output.

In cases 2 and 3, the test equipment shall include a lamp or other visual means to indicate that the test potential is present at the test equipment output. All test equipment shall be maintained in current calibration.

## Products Requiring Dielectric Voltage Withstand Test:

### Product

All products covered by this Report.

### Test Voltage

1400VAC /  
2000VDC

### Test Time

2s

### **11.2 Grounding Continuity Test**

#### **Method**

Each product listed below shall be subjected to a test to determine that there is continuity between accessible dead-metal parts of the product and the grounding pin or blade of the attachment plug.

If all accessible dead metal is connected, only a single test need be performed. A visual or audible device (ohmmeter, buzzer, etc.) may be used to indicate grounding continuity.

#### **Products Requiring Grounding Continuity Test:**

All products covered by this Report.

## 12.0 Revision Summary

The following changes are in compliance with the declaration of Section 8.1:

[illegible]