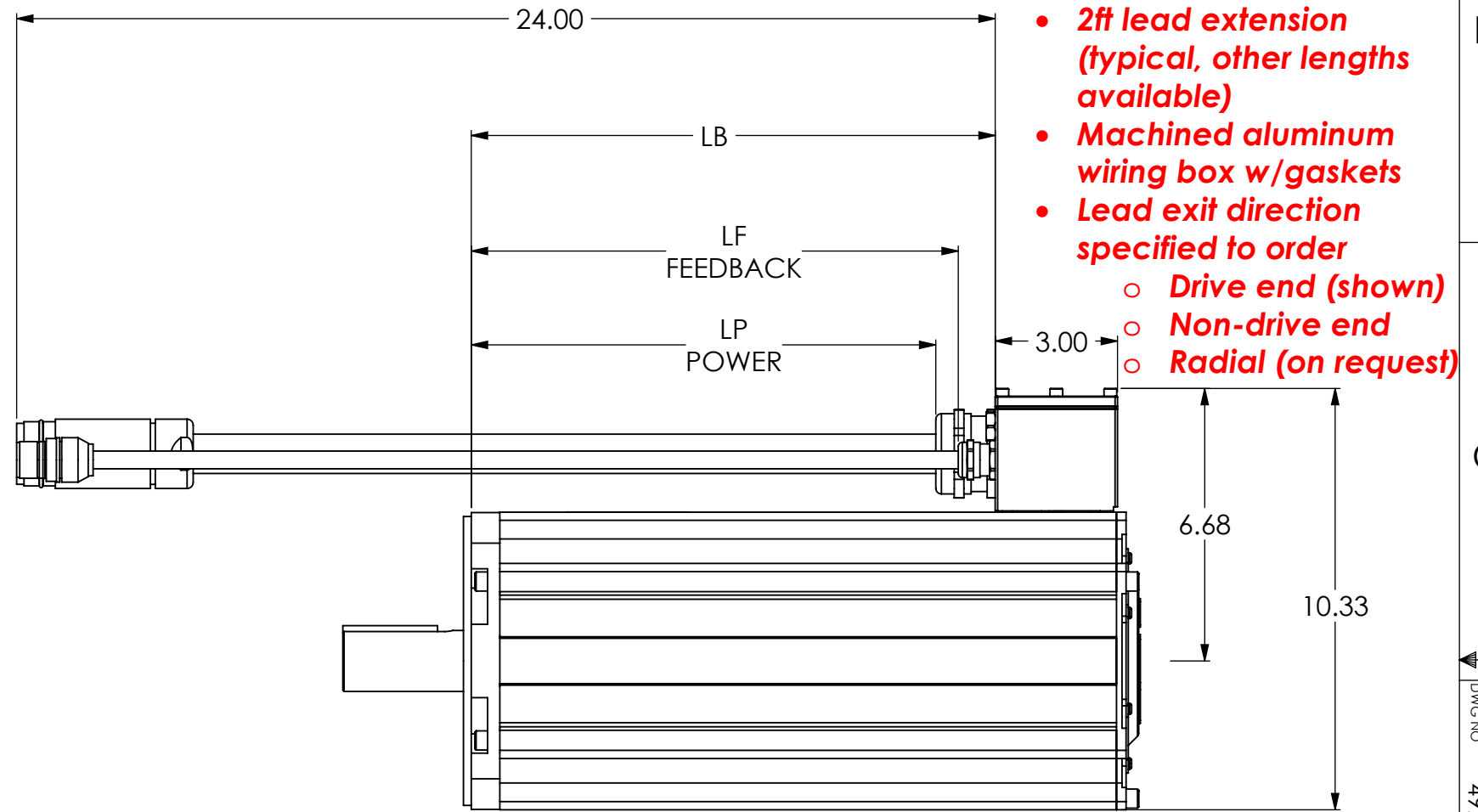
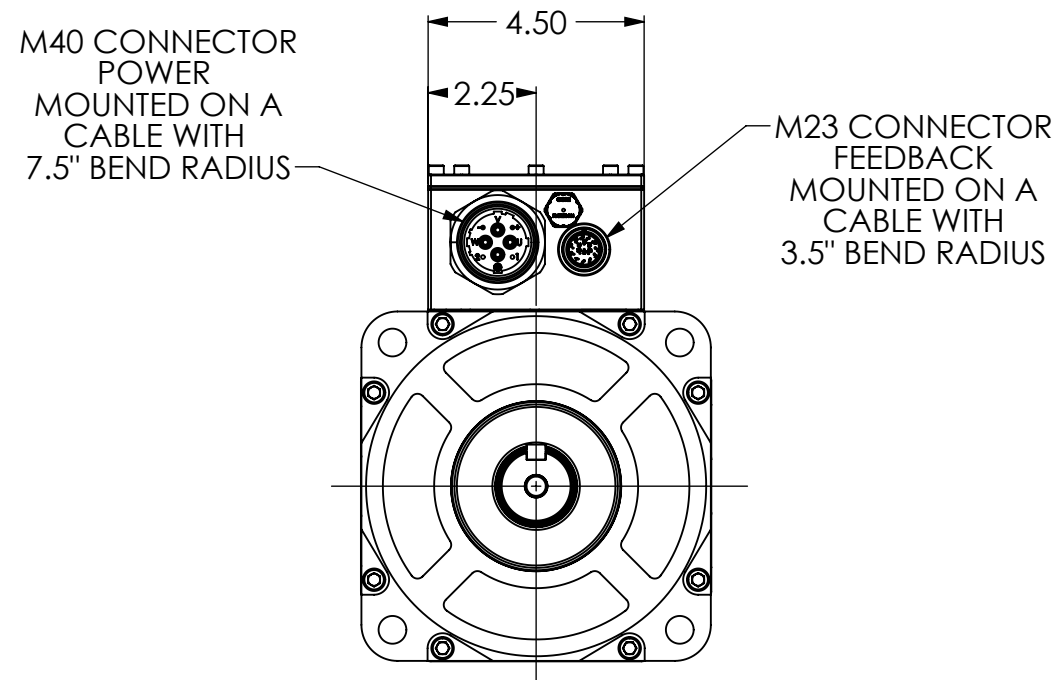


# MP-SERIES MODIFICATIONS BY ELWOOD: EXTERNALS

REVISION			
REV	DESCRIPTION	DATE	APPROVED
A	PRODUCTION RELEASE	7/24/20	JCM

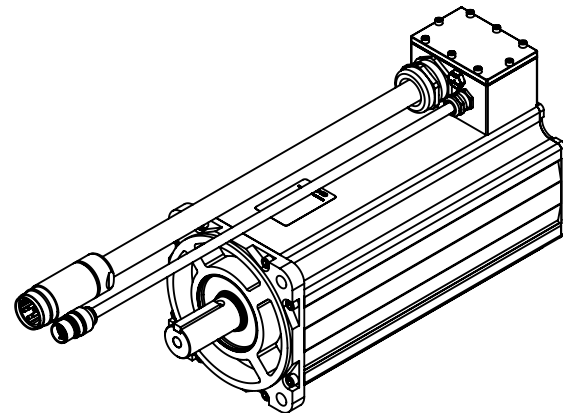
- SpeedTec connectors matching original design
  - Mate with standard cables
  - Flying leads available optionally
- Continuous Flex cables to dampen vibration at connectors
- Stainless steel breather vent to normalize pressure gradient between internal and atmosphere
- Shaft seal kit recommend for wet/wash-down/oily applications (available factory installed, optionally)



- 2ft lead extension (typical, other lengths available)
- Machined aluminum wiring box w/gaskets
- Lead exit direction specified to order
  - Drive end (shown)
  - Non-drive end
  - Radial (on request)

## ELWOOD - TECHNOLOGY PARTNER PRODUCTS:

<https://locator.rockwellautomation.com/Technology/CompanyDetails/317fa07c-e6ca-2d39-293d-7327050516a0>



MOTOR CATALOG NO.	DIMENSION (INCH)		
	LB	LF	LP
MPL-B680D-M/SJ72AA-BC	9.35	8.44	7.89
MPL-B680F-M/SJ72AA-BC			
MPL-B680H-M/SJ72AA-BC			
MPL-B680D-M/SJ74AA-BC	12.85	11.94	11.39
MPL-B680F-M/SJ74AA-BC			
MPL-B680H-M/SJ74AA-BC			

FIRST USED 999-001-2121 MPL-B680F-MJ72AA-BC	TOLERANCE UNLESS OTHERWISE SPECIFIED	DRAWN JCM 7/24/20	MFG. APPROVED	Elwood Corporation - Motors Group 2701 N. Green Bay Rd Racine, WI, U.S.A	
MATERIAL	FRACTIONS 1/32 (.794 mm) .XX ±.01 (.254 mm) .XXX ±.005 (.127 mm) .XXXX ±.0005 (.0127 mm)	CHECKED	OTHER APPROVED	TITLE OUTLINE DRAWING MPL-B680X-M/SJ7XAA WITH CABLE MOUNTED CONNECTORS & SHAFT SEAL	
FINAL FINISH	ANGLES ±1 DEGREE	ENG. APPROVED	RELEASED 997-002-9825	SIZE B	SOLIDWORKS CAD
NOTE: UNLESS OTHERWISE SPECIFIED. 1. REMOVE ALL BURRS AND SHARP EDGES. 2. CHAMFER FIRST THD. ALL TAPPED HOLES. 3. 4.	SURFACE FINISH OR BETTER 125 ✓	"THIS DOCUMENT AND ALL INFORMATION CONTAINED OR IMPLIED HERIN IS THE PROPERTY OF ELWOOD CORP. IT SHALL NOT BE DUPLICATED OR COMMUNICATED TO OTHERS NOR USED FOR PURPOSES OTHER THAN THOSE FOR WHICH IT WAS SPECIFICALLY FURNISHED."		DWG NO 497-248-B680-BC	
				SCALE NONE	EDN 072742 SHEET 1 OF 1

DWG NO 497-248-B680-BC SH 1



Pricing: MP & VPL Motor Modifications (Pigtail Leads and Wiring) for High Shock/Vibration  
 January 1, 2020 (pricing good through 31 Dec. 2020) | jh (updated Feb 27, 2020)

Motors (new or used) are assumed to be sent to Elwood in working condition and packed to prevent damage in shipping. Repairs required due to damage from prior use or shipping will be quoted above and beyond standard pricing.

Work to be completed:

EVALUATE: Incoming inspection and test

ADD: 2ft long pigtail (continuous flex) cables, axial exit, SpeedTec (except M58)

ADD: Cable junction box with strain-relieving cable glands

ADD: Strain-relieving insulation/tubing to conductors internal to the motor

ADD: In-line spliced connections (soldered or brazed where possible) internal to the motor.

ADD: Solder individual conductors from encoder header to harness, add strain relieving (Except VPL)

ADD: IP68 vent and gaskets at wiring box/cover and endbell/wiring box joints.

TEST: Align feedback, program, closed-loop test

Warranty: 1 year – parts and workmanship on the parts added and the work conducted by Elwood's operators. Further, Elwood will conduct evaluation (both warranty and non-warranty) and coordinate repairs between Elwood and Rockwell Automation on any of the Rockwell Automation motors included in this program.

Factory Assigned Option (lead exit to drive end): AA  
 Factory Assigned Option w/ new encoder (lead exit to drive end): AE  
 Factory Assigned Option (lead exit to non-drive end): AF  
 Factory Assigned Option w/ new encoder (lead exit to non-drive end): AG

ie: MPL-B540K-MJ72AA-AA  
 MPL-B540K-MJ72AA-AE  
 MPL-B540K-MJ72AA-AF  
 MPL-B540K-MJ72AA-AG

		Upgrade New Motors					
		MPL-A/B15xxx, MPL-A/B2xxx, MPL-A/B3xxx, MPL-A/B4xxx, MPL-A4530F, MPL-A4530K, MPL-A4540C, MPL-A4540F, MPL-B45xxx, MPL-B540x, MPL-B560x, MPM-A/B115xx, MPM-A1302F, MPM-B130xx, MPM-B1651C, MPM-B1652C, MPM-B1651F, MPM-B1653C, All VPL (except VPL-B1654D)	MPL-A4560F, MPM-A1304F	MPL-A520K, MPL-B580F, MPL-B580J, MPL-B640F, MPM-A1652F, MPM-B1651M, MPM-B1652E, MPM-B1653E, MPM-B2152C, MPM-B2153B, VPL-B1654D	MPL-A540K, MPL-A560F, MPL-B660F, MPL-B680D, MPL-B680F, MPL-B680H, MPL-B860D, MPL-B880C, MPL-B960B, MPL-B980B, MPM-A1652F, MPM-A1653F, MPM-A215xx, MPM-B1653F, MPM-B2152F, MPM-B2152M, MPM-B2153E, MPM-B2153F, MPM-B2154B, MPM-B2154E, MPM-B2154F	MPL-B880D, MPL-B960C, MPL-B960D, MPL-B980C, MPL-B980D	MPL-B980E
Power Conductors & Connector Size		14AWG/M23	12AWG/M23	10AWG/M40	6AWG/M40	4AWG/M58	2AWG/M58
<b>Labor:</b>							
Connector Removal		x	x	x	x	x	x
RTV Encoder Header		0	0	0	0	0	0
Remove Brake		0	0	0	0	0	0
Main Bearing Update		0	0	0	0	0	0
Solder individual conductors to encoder header		x	x	x	x	x	x
Install Leads/Update Wiring		x	x	x	x	x	x
Testing		x	x	x	x	x	x
<b>Parts:</b>							
Drive Bearing:		0	0	0	0	0	0
Rear Bearing:		0	0	0	0	0	0
O-Rings:		0	0	0	0	0	0
Aluminum Plate/Wiring Box		x	x	x	x	x	x
Power Pig Tail:		x	x	x	x	x	x
Feedback Pig Tail:		x	x	x	x	x	x
Feedback Harness:		x	x	x	x	x	x
Strain Relief, Power:		x	x	x	x	x	x
Strain Relief, Feedback:		x	x	x	x	x	x
Hardware, tubing, splices:		x	x	x	x	x	x
Gasket and/or RTV Seal:		x	x	x	x	x	x



**ELWOOD** HIGH PERFORMANCE **MOTORS**  
SERVOS STEPPERS

MODIFIED BY: ELWOOD MOTORS

PART NO.: **999-001-0858**

MOD: AA

SERIAL NO.: 42883900

DATE CODE: 3715

JOB NO.: 26110

FAC: HE

**INVERTER DUTY AC SERVO MOTOR**

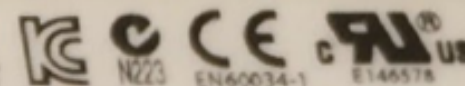
PH: 800-558-9489

[www.elwood.com/motors](http://www.elwood.com/motors)



**Kinetix**

INVERTER DUTY AC SERVO MOTOR  
MP-Series MPL 480V AC Rotary Servo Motor



CAT MPL-B980D-MJ74AA

SER A

MAT NO PN-38443

460 V RMS L-L, 3 PHASE

2000 RPM MAX

FREQ: 0-133 Hz

18.6/25 kW/HP

TIME RATING: CONTINUOUS

Wt. 116.5/256 kg/lb

CONT. STALL TORQ.: 158.2/1400 Nm/LB.IN.

79

AMPS 0 - PEAK CONT.

Ke: 285 V 0 - PEAK L-L/kRPM

RES: 0.103 OHMS L - L, 25 C.

INSUL. CLASS: 180(H)

AMBIENT: 40 C

PWM SOURCE: VOLTAGE

BRAKE: 153/1350 Nm/LB.IN., 24VDC, 4.27 ADC

IP 50 (IP66 WITH SEAL)

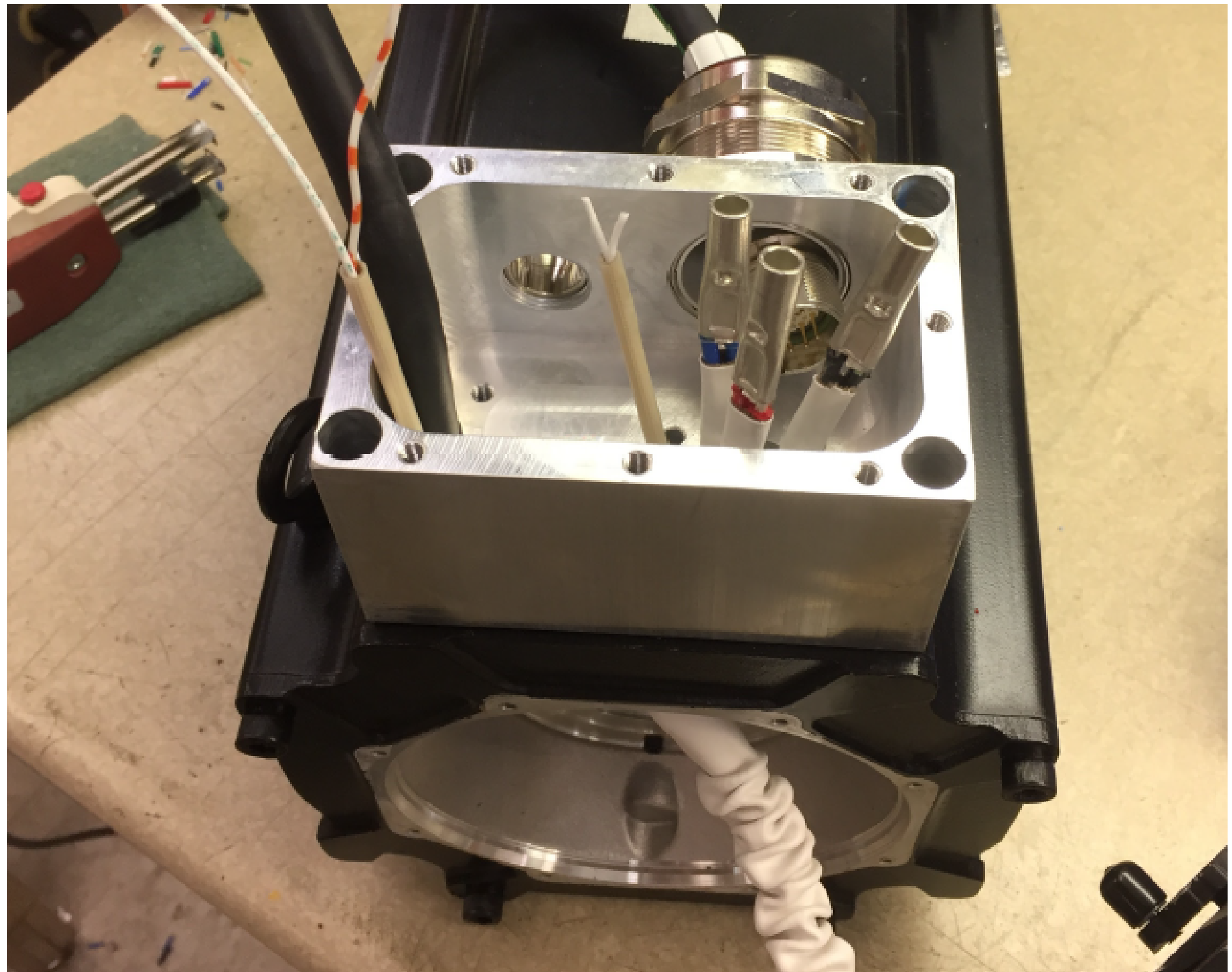
PRODUCT OF MEXICO

PLANT 1150 DATE 2015/08/03

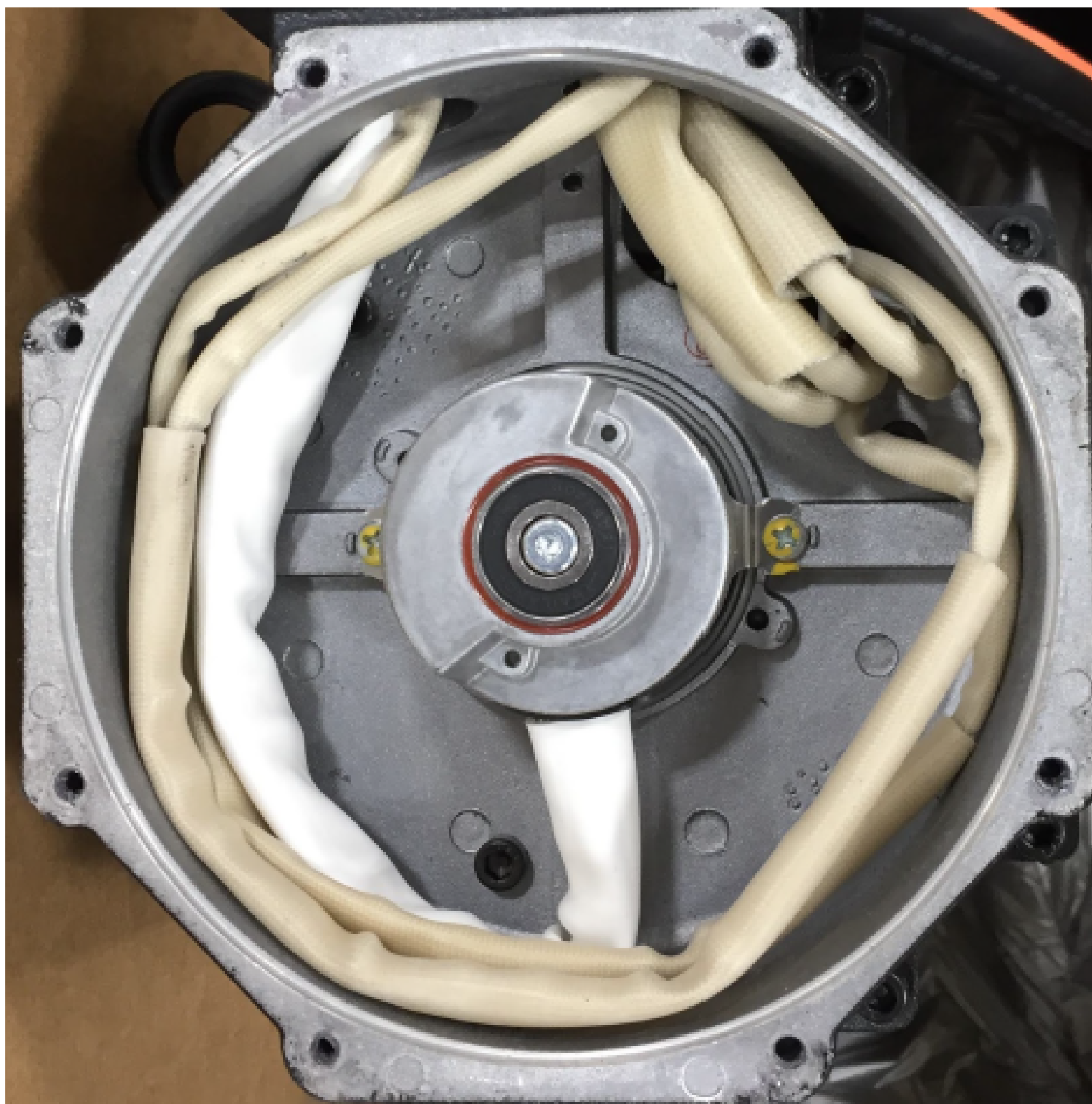


42883900















## **MP-Series Motor Modifications: Warranty Evaluation and Repair Process Flow**

October 18, 2017 | jh

### **OVERVIEW**

This document describes (generally) the process flow for warranty evaluation and repair work on MP-Series motors that have been modified by Elwood High Performance Motors. As part of warranty evaluation, Elwood routinely conducts a review to determine the cause of failure, considers corrective action, and provides information on findings to the customer. As part of the review process, additional information on conditions surrounding the failure including a technical contact at the installation sight are requested prior to return authorization.

### **WARRANTY PERIOD**

The warranty period for new motors and the modifications performed by Elwood High Performance Motors is one (1) year from the date of shipment from Elwood following the modification process.

The warranty period for repair work is one (1) year from the date of shipment following the service. Warranty coverage on repair work is limited to the parts and workmanship included in the service provided.

While MP motors include specifications for shock and vibration (refer to Rockwell Automation publication KNX-TD001A-EN-P for specific details), Elwood's modifications DO NOT include specific shock and vibration specifications. However after a review of application details provided, Elwood extends a one (1) year warranty on the parts and workmanship involved in the modification process. Elwood may issue limitations on this warranty for components affected by conditions of the application but not included in the modification process. When possible, Elwood will make recommendations for tactics to address the conditions or components listed in any expressed limitations.

Elwood and Rockwell Automation agree that Elwood will evaluate and perform warranty evaluation and repairs on the MP-Series motors modified by Elwood.

Rockwell Automation at its own discretion may conduct additional evaluation of components or motors submitted for warranty evaluation either internally or through suppliers.

### **PROCESS FLOW**

The following charts describe the decisions involved in determining warranty coverage on MP-Series motors that have been modified by Elwood. Elwood evaluates the materials and workmanship in the modification process as well as the base MP-Series motors on behalf of Rockwell Automation. Elwood performs warranty repair work of modifications or base MP-Series motors. In some cases, Rockwell Automation may replace the base with a new motor if faults are un-repairable.

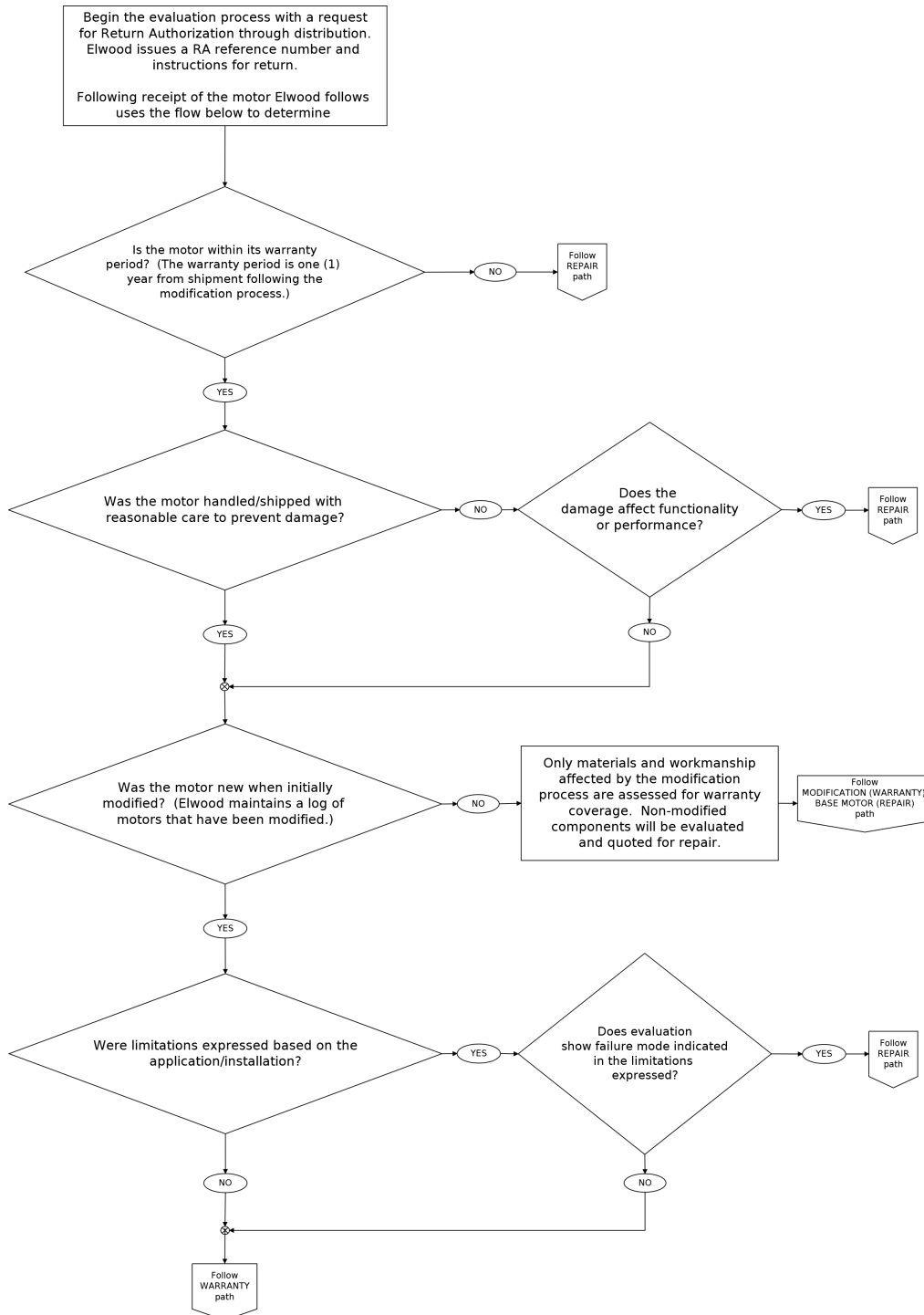
The WARRANTY / REPAIR DECISION FLOW chart describes the process for determining the status of a motor as covered under warranty, not covered under warranty, or a combination of the two. The decision reached in this flow connects to one of three paths described on the following charts: the REPAIR PATH, the MODIFICATION – WARRANTY / BASE MOTOR – REPAIR PATH, or the WARRANTY PATH.



## MP-Series Motor Modifications: Warranty Evaluation and Repair Process Flow

October 18, 2017 | jh

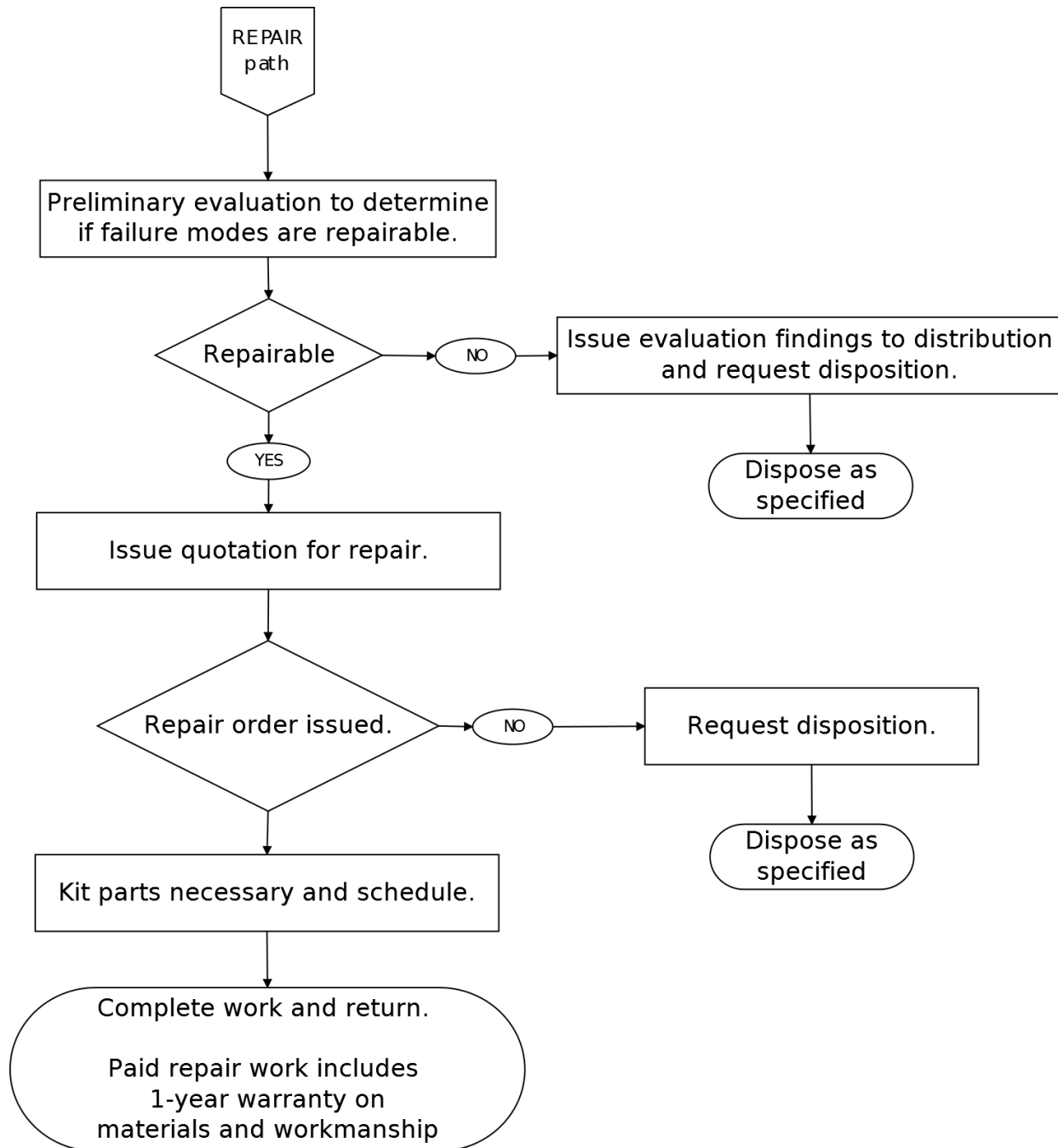
### WARRANTY / REPAIR DECISION FLOW



**MP-Series Motor Modifications:**  
 Warranty Evaluation and Repair Process Flow

October 18, 2017 | jh

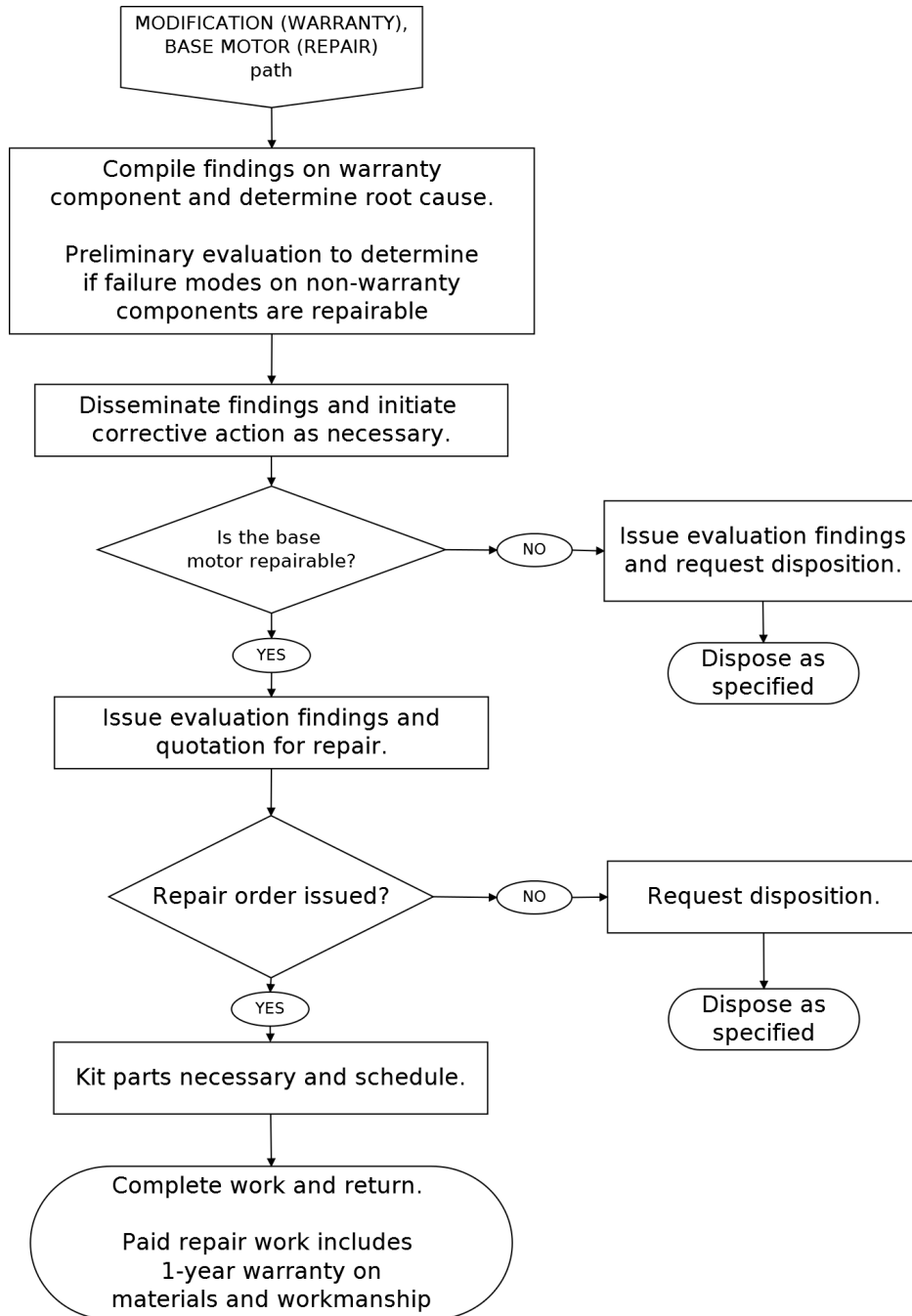
**REPAIR PATH**



**MP-Series Motor Modifications:  
 Warranty Evaluation and Repair Process Flow**

October 18, 2017 | jh

**MODIFICATION – WARRANTY / BASE MOTOR – REPAIR PATH**





**MP-Series Motor Modifications:**  
Warranty Evaluation and Repair Process Flow

October 18, 2017 | jh

**WARRANTY PATH**

