



## CALIBRATION CERTIFICATE No. 117355

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**Client**

Custom Contract Manufacturing Services Inc.      Purchase Order no. 1304-005  
151 Parr Blvd. Bolton  
Bolton, ON L7E 2Z8

Conducted onsite at location **above** on **May 20, 2025**

under the following conditions: Ambient temperature was 19 +/- 1 degree Celsius and relative humidity of 35% +/-5.  
Temperature of Reference Standards were 19 +/-1 degree Celsius.

**Device Under Test (DUT):**      Clamping Force System  
PowerFist/Mastercraft, model N/A, 058-9643-0, serial #2022083494/AA146335, Identification no. 0001

**Sensor Under Test:**              Vise grip  
Gold Grip, model N/A, serial no.0001, Identification no. 0001

We hereby certify that the calibration results are the data shown in the attached sheet/sheets.

DIRECTION	TORQUE APPLIED	FORCE PRODUCED	TOLERANCE
COMPRESSION	20 ft-lbf to 120 ft-lbf	1620 lbf to 7450 lbf	+/- 5% of Reading

Condition Left: *As Indicated in Data*

Condition Found: *As Indicated in Data*

Recommended calibration due date: *May 20, 2026*

**General Statement:**

- 1) VACS Ltd. is accredited in accordance with recognized International Standard ISO/IEC ISO/IEC 17025:2017 and ANSI/NCSL Z540-1-1994 (R2002). The reference standards used for this verification have been calibrated per recognized standards and are traceable to SI units through NRC, NIST or NMI, unless otherwise noted.
- 2) Any statement of compliance is made without taking measurement uncertainty into account and is based on DUT performance against required tolerance only. The customer must ensure equipment calibrated meets the intended use.
- 3) Calibration results relate to items identified on this certificate

Measurements performed by,  
Ajai T Baby, Calibration Engineer

Report Approved by:

Report Reviewed by Quality Personnel

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Recommended Due Date: May 20, 2026

**Client:** Custom Contract Manufacturing Services Inc.

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**Sensor Under Test:** Vise grip

Gold Grip, Model N/A, Serial no.0001, Identification no. 0001

**Measurement Display:** Applied Torque to Clamping Force, 1 ft-lbf to lbf graduations, 1/1 resolution

## CALIBRATION PROCEDURE

001-ASTM-E4-24 "Standard Practices for Force Verification of Testing Machines" sections: A, B and C

## MEASUREMENT RESULTS:

AS FOUND = LEFT AS

REF. STD. NO.	TORQUE WRENCH SERIAL NO:	Unit :lbf							
		TORQUE SETTING (FT-LB)	Ref. Std. #1 READING (LBF)	Ref. Std. #2 READING (LBF)	Ref. Std. #3 READING (LBF)	Ref. Std. Average (LBF)	DUT Repeatability (LBF)	DUT Repeatability (%RDG)	DUT SENSITIVITY (lbf/ft-lbf)
WM28	2022083494	20	1643	1588	1635	1622	55	3.0%	81
		40	2896	2865	2845	2869	51	1.5%	72
		60	3969	4120	4172	4087	203	4.2%	68
	AA146335	80	5837	5855	6002	5898	165	2.5%	74
		100	7088	7050	6997	7045	91	1.1%	70
		120	7452	7480	7420	7451	60	0.7%	62

**CONFORMANCE TO A TOLERANCE OF:** 1% error, unless stated above.

For measurement results associated with the conformance to a tolerance, the uncertainty in the measurement system did not exceed 25% (4:1 test uncertainty ratio) of the acceptable tolerance for each characteristic calibrated, unless otherwise noted.

**Calibration Standards Used:**

WM28, HBM 12 klbLoad Cell, s/n 747329A, cal 05/03/2023 to 5/31/2025 by VACS Ltd., Cert. no. 108725, UNC 0.25% of rdg