CERTIFICATE OF ACCREDITATION

ANSI National Accreditation Board

11617 Coldwater Road, Fort Wayne, IN 46845 USA

This is to certify that

Kon-Sult, Inc.

6 Birch Street
Hudson, NH 03051

has been assessed by ANAB and meets the requirements of international standard

ISO/IEC 17025:2017

and national standards

ANSI/NCSL Z540-1-1994 (R2002) and

while demonstrating technical competence in the field of

CALIBRATION

Refer to the accompanying Scope of Accreditation for information regarding the types of activities to which this accreditation applies

AC-1243
Certificate Number

ANAB Approval

Certificate Valid Through: 10/04/2020
Version No. 015 Issued: 10/29/2019

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).

ANSI National Accreditation Board

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017 AND ANSI/NCSL Z540-1-1994 (R2002)

Kon-Sult, Inc.
6 Birch Street
Hudson, NH 03051
June Kopka
603-882-7464

CALIBRATION

Valid to: **October 4, 2020** Certificate Number: **AC-1243**

Length – Dimensional Metrology

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-) [2]	Reference Standard, Method, and/or Equipment
Angle Blocks/Plates	Up to 90 Degrees	14 arc seconds	Electronic Amp and Sine Bar
1-2-3 Blocks Parallelism Squareness	Up to 3 in Up to 76 mm	20 µin 0.51 µm 61 µin 1.5 µm	Comparison to Gage Blocks Electonic Amp
2-4-6 Blocks Parallelism Squareness	Up to 6 in Up to 152 mm	27 µin 0.69 µm 89 µin 2.3 µm	Indi-Square
Angle Irons Parallelism Squareness	Up to 6 in Up to 152 mm	18 µin 0.5 µm 88 µin 2.2 µm	Electronic Amp Indi-Square
Parallels	Up to 12 in Up to 305 mm	36 µin 0.9 µm	Electronic Amp
Sine bars/Plates	5 in 127 mm 10 in 254 mm	24 µin 0.6 µm 35 µin 0.88 µm	Electronic Amp Gage Blocks
Vee Blocks Parallelism Squareness	Up to 5 in Up to 127 mm	31 µin 0.8 µm 77 µin 2 µm	Electronic Amp
Protractor	Up to 90 degrees	15 arc seconds	Angle Blocks

Length – Dimensional Metrology

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-) [2]	Reference Standard, Method, and/or Equipment
Gage Blocks	Up to 8 in	(2 + 2*L*) µin	Master Gage Blocks Electronic Comparator
Dial / Digital Indicators [1] Resolution 0.000 05 in 0.000 1 in 0.000 5 in 0.001 in	Up to 4 in	 53.2 µin 74 µin 292 µin 580 µin	Gage Blocks
Test Indicator [1]	Up to 0.1 in Up to 0.25 mm	70 µin 1.2 µm	Gage Blocks Surface plate
Bore gages Indicator Resolution 0.000 05 in 0.000 1 in 0.000 5 in 0.001 in	Up to 12 in	 56.8 µin 75.6 µin 292 µin 580 µin	Gage Blocks
Electronic amplifiers 5 µin resolution 0.1 µm resolution	Up to 0.05 in Up to 1.3 mm	6 µin 0.15 µm	Gage Blocks Surface plate
Linear Measuring Machines	Up to 40 in	(63 + 4*L*) µin	Gage Blocks Force Gauge
Bench Micrometer	Up to 11 in	35 µin	Gage Blocks Force Gauge
Micrometers [1]	Up to 40 in	(74 + 4.6*L*) µin	Gage Blocks
Depth Micrometers [1]	Up to 12 in	(61 + 2*L*) µin	Gage Blocks
Inside Micrometer	Up to 40 in	(48 + 2*L*) µin	Gage Blocks
Micrometer Head [1]	Up to 2 in Up to 50 mm	64 µin 1.6 µm	Gage Blocks
Height Master	Up to 40 in	(8 + 3*L*) µin	Gage Block, Amp
Height Gage	Up to 40 in	(8 + 3*L*) µin	Gage Blocks
Intrimike	Up to 6 in Up to 152 mm	71 µin 1.8 µm	Master Rings
Calipers / Verniers [1]	Up to 80 in	(289 + 14*L*) µin	Gage Blocks Micrometer Standards
Micrometer Standards	Up to 38 in	(34 + 5*L*) µin	Gage Blocks Linear measuring machines

Length – Dimensional Metrology

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-) [2]	Reference Standard, Method, and/or Equipment
Thread Plug Gages Major Diameter	Up to 6 in Up to 150 mm	42 µin 1.1 µm	Bench Micrometer Gage Blocks Thread Measuring Wires
Pitch Diameter	Up to 6 in Up to 150 mm	93 µin 2.4 µm	
Plain Plug Gages	Up to 2 in Up to 50 mm	14 µin 0.36 µm	Gage Blocks Electronic Comparator
Plain Ring Gages	Up to 6 in Up to 150 mm	32 µin 0.81 µm	Gage Blocks Internal/External Comparator
Thread Ring Gages	Up to 6 in Up to 150 mm	76 µin 1.93 µm	Set Thread Plug Gages
Pin Gages	Up to 1 in Up to 25 mm	87 µin 1.5 µm	Gage Blocks Micrometer
Squares	Up to 18 in	(20 + 2*L*) µin	Amp & Probe
Levels	Up to 18 in Up to 457 mm	64 µin 1.6 µm	Gage Blocks
Surface Plates [1]	Up to 7 x 12 feet	(14 + 2*D*) µin	Electronic Levels
Feeler Gages	0.001 in to 0.06 in	72 µin	Gage Blocks Micrometer

Mass and Mass Related

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Durometer Type A and Type D	Up to 100 Duro	0.62 Duro	Durocalibrator
Torque	(16 to 160) ozf·in (10 to 100) lbf·in (10 to 100) lbf·ft (100 to 1 000) lbf·ft	2.4 ozf·in 2.6 lbf·in 2.6 lbf·ft 4 lbf·ft	Transducers

Calibration and Measurement Capability (CMC) is expressed in terms of the measurement parameter, measurement range, expanded uncertainty of measurement and reference standard, method, and/or equipment. The expanded uncertainty of measurement is expressed as the standard uncertainty of the measurement multiplied by a coverage factor of 2 (k=2), corresponding to a confidence level of approximately 95%.

Notes:

1. On-site calibration service is available for this parameter, since on-site conditions are typically more variable than those in the laboratory, larger measurement uncertainties are expected on-site than what is reported on the accredited scope.
2. *L* is the numerical value of the nominal length of the device being measured in inches. *D* is the diagonal length in inches.
3. This scope is formatted as part of a single document including Certificate of Accreditation No. AC-1243.