

ISO/IEC 17025:2017 Section 6.6 Externally Provided Products and Services



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November 30, 2023



”Externally Provided Products & Services”

- This webinar is being recorded
- All PJLA webinar recordings and slides are available for download from the Past Webinars section of our website
 - <https://www.pjlabs.com/training/pjla-webinars>
- All attendees are muted. However, feel free to utilize the questions tab and they will be answered at the end of the session.



ISO/IEC 17025:2017 Section 6.6 Externally Provided Products and Services

This section combines the concepts of purchasing and subcontracting into one section.



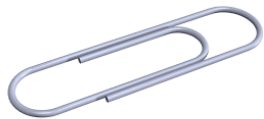
ISO/IEC 17025:2017 Section 6.6 Externally Provided Products and Services

Other than fulfilling the requirements of this section, the importance of selecting the right potential vendor should be of utmost importance. You are selecting a partner in your business, and you will trust them to work with you in a professional and profitable manner. It is important that you select a company that can meet your **requirements** now in the future;



ISO/IEC 17025:2017 Section 6.6 Externally Provided Products and Services

6.6.1 The laboratory shall ensure that only suitable externally provided products and services **that affect laboratory activities** are used, when such products and services:



ISO/IEC 17025:2017 Section 6.6 Externally Provided Products and Services

6.6.1 – The laboratory shall ensure that only suitable externally provided products and services **that affect laboratory activities** are used, when such products and services:

- a) are intended for incorporation into the laboratory's own activities;
- b) are provided, in part or in full, directly to the customer by the laboratory, as received from the external provider; - subcontracting
- c) are used to support the operation of the laboratory



ISO/IEC 17025:2017 Section 6.6 Externally Provided Products and Services

Review Request Tenders and Contracts

7.1.1 The laboratory shall have a procedure for the review of requests, tenders and contracts. The procedure shall ensure that:

c) where external providers are used, the requirements of 6.6 are applied and the laboratory advises the customer of the specific laboratory activities to be performed by the external provider **and gains the customer's approval;**

NOTE 1 It is recognized that externally provided laboratory activities can occur when: — the laboratory has the resources and competence to perform the activities, however, for unforeseen reasons is unable to undertake these in part or full;

— the laboratory does not have the resources or competence to perform the activities



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NOTE Products can include, for example, measurement standards and equipment, auxiliary equipment, consumable materials and reference materials. Services can include, for example, calibration services, sampling services, testing services, facility and equipment maintenance services, proficiency testing services and assessment and auditing services

Support Functions



ISO/IEC 17025:2017 Section 6.6 Externally Provided Products and Services

6.6.2 The laboratory shall **have a procedure and retain records** for:

- a) defining, reviewing and approving the laboratory's requirements for externally provided products and services;
- b) defining the criteria for evaluation, selection, monitoring of performance and **re-evaluation** of the external providers;



ISO/IEC 17025:2017 Section 6.6 Externally Provided Products and Services

6.6.2 The laboratory shall **have a procedure and retain records** for:

c) ensuring that externally provided products and services conform to the laboratory's established requirements, or when applicable, to the relevant requirements of this document, before they are used or directly provided to the customer;

d) taking any actions arising from evaluations, monitoring of performance and re-evaluations of the external providers

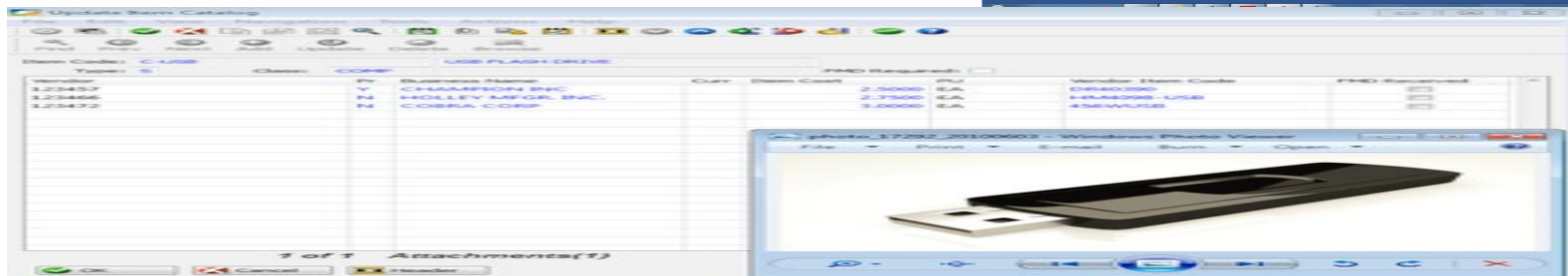


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An approved vendors or supplier list can be utilized however the criteria used to approve the supplier would need to be captured.

Labs has flexibility on creating a record that the requirements are being met;

7	Excellence	Exceeds company's and customers' expectations, demonstrates extra effort
5	Good	Meets the company's expectations
3	Acceptable	Meets company's minimum requirements
1	Poor	Does not meet company's and customers' minimum acceptable level
2,4,6,8,9		Annectent grades



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Criteria for defining evaluation, selection, monitoring of performance and re-evaluation of the external providers may include:

- Accreditation to ISO.IEC 17025
- ISO/IEC 17011
- ISO/IEC 17043
- ISO 9001
- On time delivery
- Supplier Audits
- Testimonials and references these are valuable if you can check that the vendor is reliable and as they claim to be
- Years in business - need to know that the organization is established and ready to service your requirements
- Accuracy requirements and capabilities: Scope of Accreditation “Range and CMC’s



Ranges and CMC's for Calibration Laboratories

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Mass, Force, and Weighing Devices

MEASURED INSTRUMENT, QUANTITY OR GAUGE	RANGE OR NOMINAL DEVICE SIZE AS APPROPRIATE	CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (\pm)	CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED
Balances ⁰	1 g to 10 kg	260 mg	NIST Handbook 105-1 (Class F) Test Weights P23-00

Mechanical

MEASURED INSTRUMENT, QUANTITY OR GAUGE	RANGE OR NOMINAL DEVICE SIZE AS APPROPRIATE	CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (\pm)	CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED
Pressure ^{FO}	5 psig to 300 psig	0.33 psi	Fluke 702 with module 700PO7, P25-00
	100 psi to 10 000 psi	0.82 % of reading	Deadweight Pressure System (Mansfield & Green T-100) P25-00
Torque Wrench ^{FO}	5 lbf•in to 25 lbf•in	1.3 lbf•in	Mark-10 TT02, P24-00
	20 lbf•in to 100 lbf•in	1.8 lbf•in	Mark-10 TT03, P24-00
	100 lbf•in to 200 lbf•in	3.9 lbf•in	CDI 10002-I-DTT P24-00
	200 lbf•in to 600 lbf•in	5 lbf•in	
	600 lbf•in to 1 000 lbf•in	6 lbf•in	
	60 lbf•ft to 300 lbf•ft	2 lbf•ft	CDI 6004-F-DTT P24-00
	300 lbf•ft to 600 lbf•ft	3.6 lbf•ft	



Accreditation or Certification is not a one-time thing ‘monitoring’

*Dimensional, Electrical, Mechanical, Time & Frequency,
Thermodynamic, Mass, Force, and Weighing Calibration
(As detailed in the supplement)*

Accreditation claims for such testing and/or calibration services shall only be made from addresses referenced within this certificate. This Accreditation is granted subject to the system rules governing the Accreditation referred to above, and the Organization hereby covenants with the Accreditation body's duty to observe and comply with the said rules.

For PJLA:

	<i>Initial Accreditation Date:</i> November 23, 2013	<i>Issue Date:</i> May 01, 2020	<i>Expiration Date:</i> June 30, 2022
Tracy Szerszen President/Operations Manager	<i>Accreditation No.:</i> 74269	<i>Certificate No.:</i> L20-278	

Perry Johnson Laboratory
Accreditation, Inc. (PJLA)
755 W. Big Beaver, Suite 1325
Troy, Michigan 48084

The validity of this certificate is maintained through ongoing assessments based on a continuous accreditation cycle. The validity of this certificate should be confirmed through the PJLA website: www.pjilabs.com

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  *Certificate of Accreditation: Supplement*



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6.6.3 The laboratory shall **communicate its** requirements to external providers for:

- a) the products and services to be provided;
- b) the acceptance criteria;
- c) competence, including any required qualification of personnel;
- d) activities that the laboratory, or its customer, intends to perform at the external provider's premises; *-onsite*



ISO/IEC 17025:2017 Section 6.6 Externally Provided Products and Services

The laboratory shall communicate gives flexibility and does not require purchasing documents



Your Company Your Street, Your Town, Your County, Postcode Your Telephone Number, Your Fax Number Your Email Address, Your Website Address		PURCHASE ORDER No.	
Order Date:			
Required Date:			
Ordered By:			
Account Number:			
Invoice to:		Deliver to (if different):	
QTY	DESCRIPTION	PRICE	
		TOTAL £	

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Assure enough detail is conveyed to your supplier and examine upon receipt to assure you got what should have been clearly specified.

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Certificate of Accuracy

Client: Manny Moe and Jack Scale and Balance Company Report number 14356
 200 Anywhere Street
 Richmond, VA 12543
 Unit Calibrated: 12 piece precision mass weight set
 Manufacturer Troemner
 Serial Number 54321
 Date Calibrated: 11-21-18 Date Calibration Due: 11-21-19

The mass standards submitted was tested using standard methods employed by Ace Calibration Company and found to meet both specification and tolerances as specified in ASTM E617 for Class 1 mass standards.

The calibration was performed with standards traceable to NIST. The results of the calibration relate only to the items specified above. This report may not be reproduced except in full without the written approval of Ace Calibration Company.

Approved by: 
 Joe Smith

Class1 on 1KX4 exp 7.30.22.2mg to 200g.pdf - Adobe Acrobat Reader DC (32-bit)

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2 / 2 105%

AS FOUND DATA (AS FOUND ONLY SHOWN WHEN DIFFERENT THAN AS LETTY)

Nominal Value	Unique ID	True Mass	True Mass Corr. (mg)	Conv. Mass	Conv. Mass Corr. (mg)	(k=2) Unc. (± mg)	MPE (± mg)	MPE Pass	Assumed Density (g/cm ³)	Assumed Material	Const. Type	Balance Used	Reference Standard Set Used	Air Density (mg/cm ³)	Clean Level
2 mg 1KX4		2.00493	0.00493	2.00493	0.00493	0.00069	0.010	Y	7.95	SS	I	503Q	L565Q	1.1578	A
5 mg 1KX4		5.00152	0.00152	5.00152	0.00152	0.00084	0.010	Y	7.95	SS	I	503Q	L565Q	1.1578	A
10 mg 1KX4		10.0050	0.0050	10.0050	0.0050	0.0012	0.010	Y	7.95	SS	I	503Q	L565Q	1.1574	A
20 mg 1KX4		20.00366	0.00366	20.00364	0.00364	0.00087	0.010	Y	7.95	SS	I	503Q	L565Q	1.1574	A
30 mg 1KX4		30.0050	0.0050	30.0049	0.0049	0.0012	0.010	Y	7.95	SS	I	503Q	L565Q	1.1573	A
50 mg 1KX4		50.0005	0.0005	50.0005	0.0005	0.0011	0.010	Y	7.95	SS	I	503Q	L565Q	1.1572	A
100 mg 1KX4		100.0040	0.0040	100.0040	0.0040	0.0014	0.010	Y	7.95	SS	I	503Q	L565Q	1.1572	A
200 mg 1KX4		200.0025	0.0025	200.0023	0.0023	0.0014	0.010	Y	7.95	SS	I	503Q	L565Q	1.1570	A
500 mg 1KX4		499.9990	-0.0040	499.9966	-0.0044	0.0014	0.010	Y	7.95	SS	I	503Q	L565Q	1.1571	A
1 g 1KX4		0.999999	-0.0001	0.999990	-0.0010	0.0002	0.034	Y	7.95	SS	I	690Q	L565Q	1.1570	A
2 g 1KX4		1.999975	-0.0025	1.999956	-0.0044	0.0005	0.034	Y	7.95	SS	II	690Q	L565Q	1.1570	A
3 g 1KX4		3.000012	0.0012	3.000018	0.0183	0.0030	0.034	Y	7.95	SS	II	690Q	L565Q	1.1568	A
5 g 1KX4		5.0000170	0.0170	5.0000122	0.0122	0.0048	0.034	Y	7.95	SS	II	690Q	L565Q	1.1574	A
10 g 1KX4		9.999966	-0.0034	9.999872	-0.0128	0.0059	0.060	Y	7.95	SS	II	1668Q	L565Q	1.1569	A
20 g 1KX4		19.999987	-0.0123	19.999889	-0.0311	0.0055	0.074	Y	7.95	SS	II	1668Q	L565Q	1.1569	A
30 g 1KX4		30.0000410	0.0410	30.0000127	0.0127	0.0073	0.074	Y	7.95	SS	II	1668Q	L565Q	1.1569	A
50 g 1KX4		49.999954	-0.046	49.999907	-0.093	0.011	0.12	Y	7.95	SS	II	1668Q	L565Q	1.1570	A
100 g 1KX4		100.000234	0.234	100.000139	0.139	0.020	0.25	Y	7.95	SS	II	1668Q	L565Q	1.1577	A
200 g 1KX4		200.000268	0.268	200.000080	0.080	0.044	0.50	Y	7.95	SS	II	690Q	L565Q	1.1528	A

AS FOUND DATA

Nominal Value	Unique ID	True Mass	True Mass Corr. (mg)	Conv. Mass	Conv. Mass Corr. (mg)	(k=2) Unc. (± mg)	MPE (± mg)	MPE Pass	Assumed Density (g/cm ³)	Assumed Material	Const. Type	Balance Used	Reference Standard Set Used	Air Density (mg/cm ³)	Clean Level
500 mg 1KX4		500.0802	0.0802	500.0798	0.0798	0.0014	0.010	N	7.95	SS	I	503Q	L565Q	1.1571	A
5 g 1KX4		4.9999457	-0.0543	4.9999410	-0.0590	0.0048	0.034	N	7.95	SS	II	690Q	L565Q	1.1571	A
100 g 1KX4		99.999771	-0.229	99.999677	-0.323	0.020	0.25	N	7.95	SS	II	1668Q	L565Q	1.1568	A



Thank You



This time is allocated for questions. You should have a space provided for submitting questions.

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If a question is not answered, please submit directly to webinar@pjlabs.com



Save the Date

ISO/IEC 17025:2017 Overview Course

Course Dates:

February 6-7, 2024

This ISO/IEC 17025:2017 Overview Course will be taught as a LIVE virtual course by Technical Program Manager, Matthew Sica.

<https://www.pjlab.com/training/17025-overview-course>

The Course Includes:

- A full overview of the standard requirements
- Simple & user-friendly implementation techniques
- Case studies & exercises focusing on common laboratory findings and troublesome areas

Certificates will be provided to all attendees at the end of the course!

