M22: *Corded Window Coverings*

Supplemental Guidance Photographs

Preface

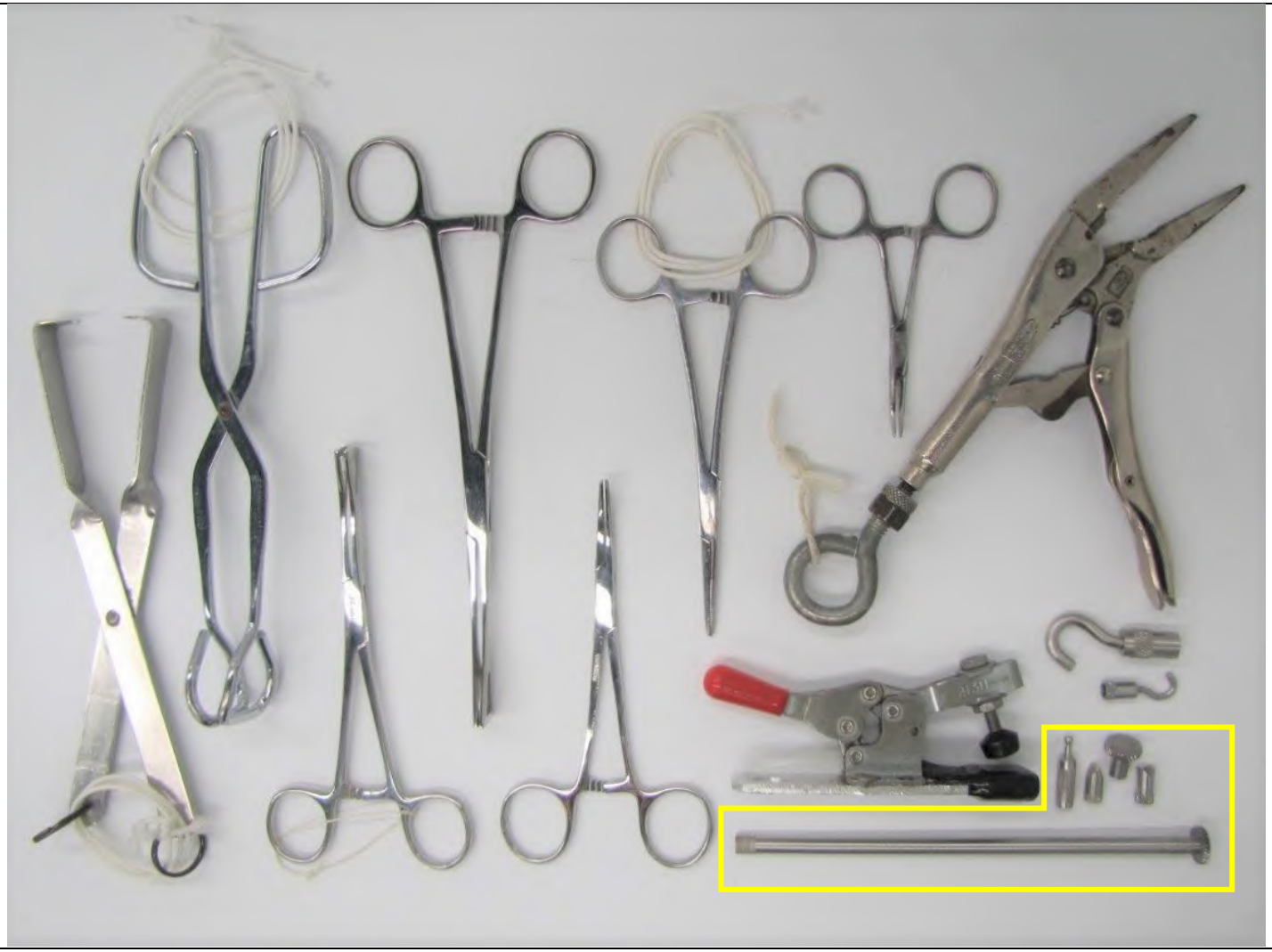
This document presents photographic examples to visually assist in the understanding of how to perform certain aspects of Test Method M22: *Corded Window Coverings*. The information contained in this document does not constitute an assessment of compliance to the Regulations with respect to any products that are depicted; this document simply illustrates how to conduct various steps of Test Method M22. The examples presented in this document are intended to supplement the responses Health Canada had provided to participating stakeholders in June 2020 in a document entitled "Corded Window Coverings – Questions and Answers Regarding Test Method M22: *Corded Window Coverings* in support of the *Corded Window Covering Regulations*."

This document is not a comprehensive guide for method M22, nor is it intended to substitute for, supersede or limit the requirements of the *Canada Consumer Product Safety Act* (CCPSA) and the Corded Window Coverings Regulations. In case of any discrepancy between the information in this document and the legislation and its regulations, the legislation or regulations will prevail. Health Canada also reserves the right to update the guidance that is provided in this document based on changes in the legislation, regulations, policy or other factors as they develop.

Regulated parties are responsible for ensuring that their products are compliant with the CCPSA and its Regulations. Health Canada's Product Safety Laboratory (PSL) test methods are not mandatory test methods. It is the regulated parties' responsibility to ensure that their products are assessed according to the requirements of the CCPSA and its Regulations. PSL test methods are made available to assist industry in understanding how Health Canada assesses products for compliance with mandatory regulatory requirements. Only test methods or test parameters that are prescribed within the CCPSA or its Regulations are mandatory methods that must be used by regulated parties. Test Method M22 for corded window coverings is not set out in the CCPSA or the Corded Window Coverings Regulations. As such, a regulated party may identify different test procedures and/or equipment than outlined in Test Method M22, and is responsible for ensuring those procedures and equipment are suitable for the specified requirements.

Contents

EXHIBIT 1: Force gauge attachments, grasping tools and clamping tools [s. 4.2, 4.5, 4.7, 4.8 of Test Method M22]

1.1	

Example ‘pull’ attachments shown include two prong hooks; tongs; Pennington clamps; forceps; vice grips; a toggle clamp; and, hook force gauge attachments. The ‘pull’ attachments may be used to test labels, reachable cords or potentially small parts. The yellow boxed in region of the photograph shows example force gauge ‘push’ attachments, which include spherical, flat, chisel and notch tips, as well as extension rod. These ‘push’ attachments may be used to test potentially small parts. Alternate ‘pull’ and ‘push’ attachments are permitted.

EXHIBIT 2: Pull on product label [s. 4.2 of Test Method M22]

2.1	
	An example label was applied to a demonstration product to show the action of raising the corner of the label using a knife. The use of a fingernail is also permitted.

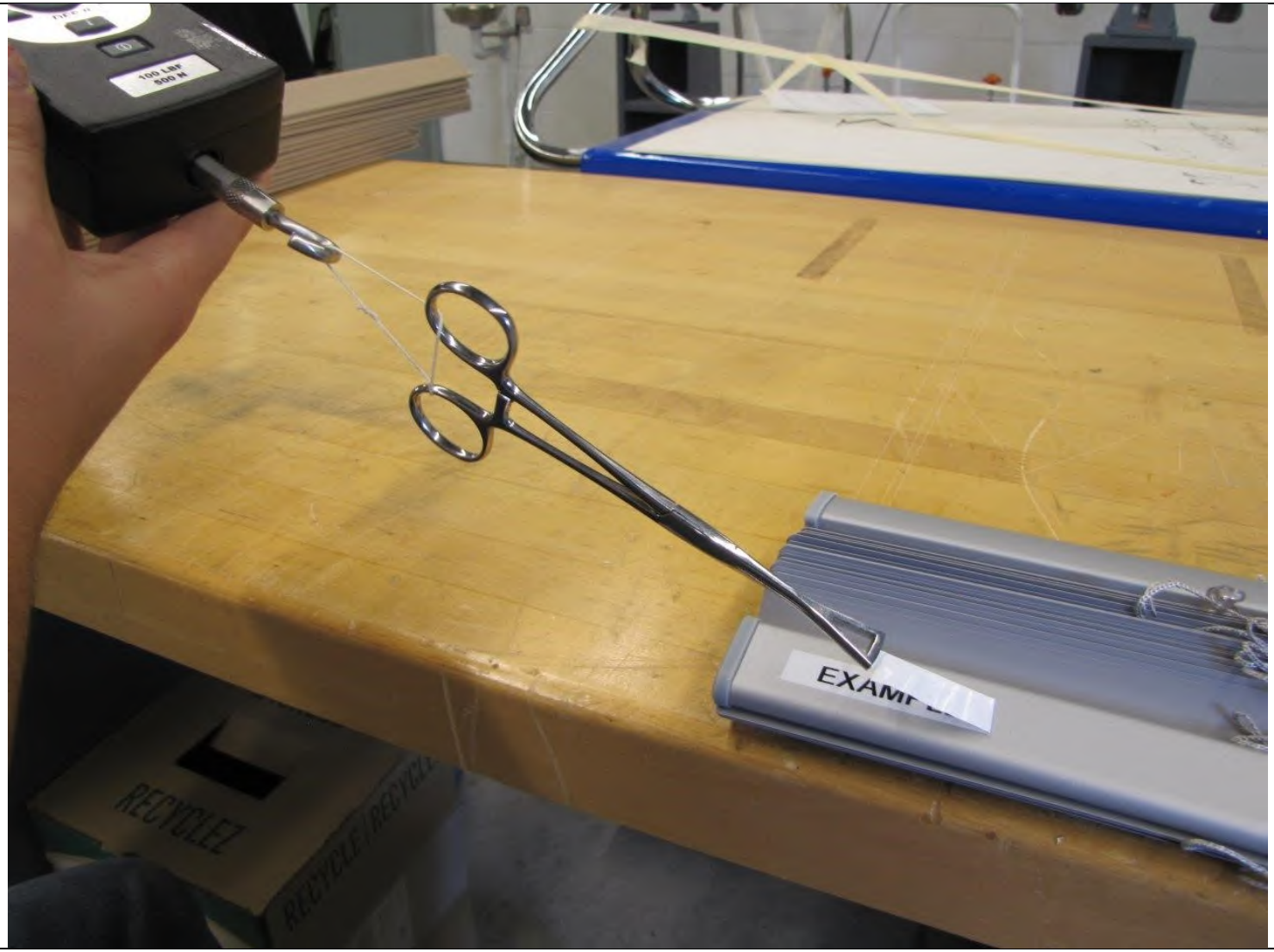
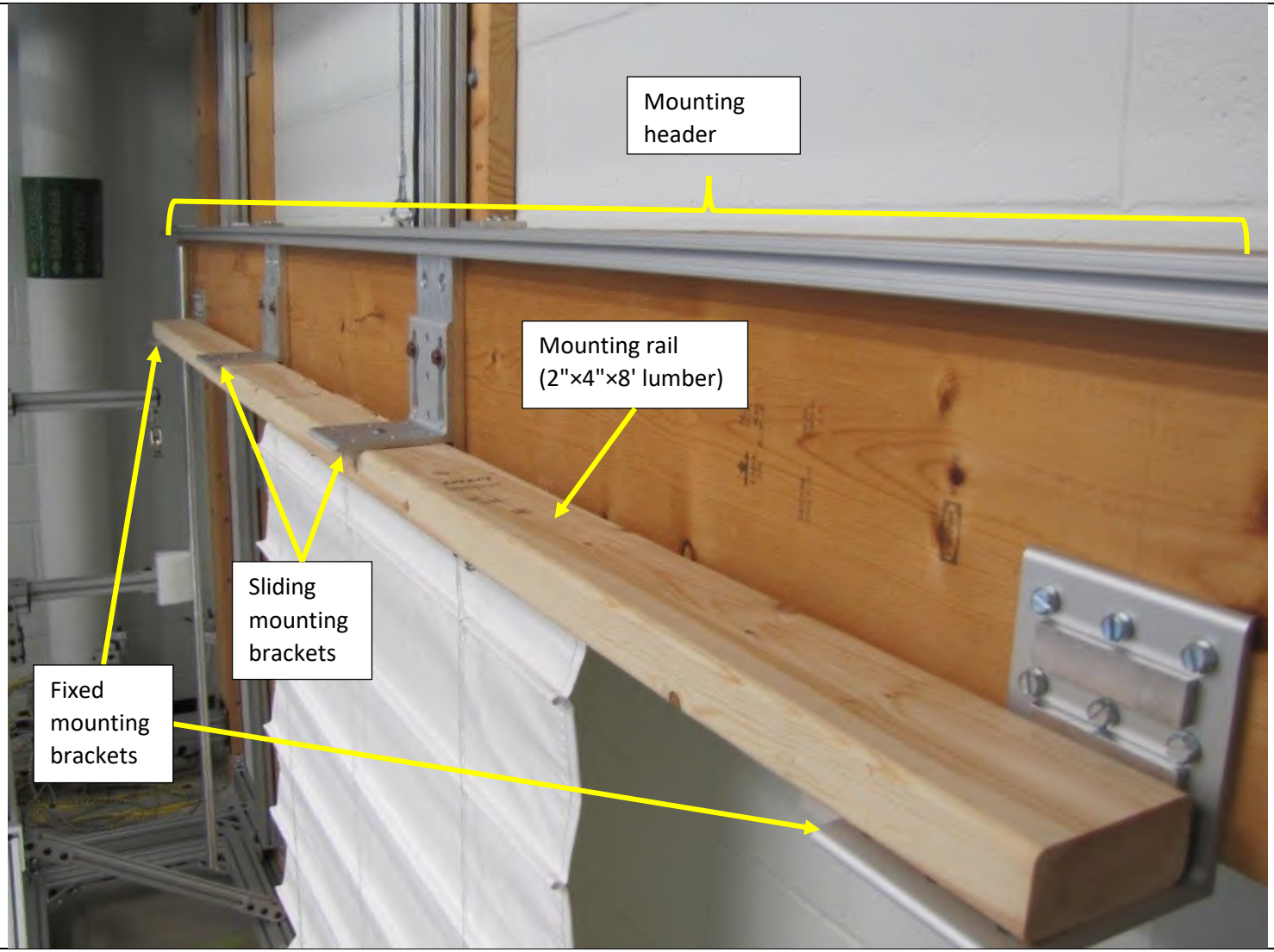
2.2	
A force gauge with a Pennington clamp attachment is used to grasp the edge of the label and is pulled to test for label permanency.	

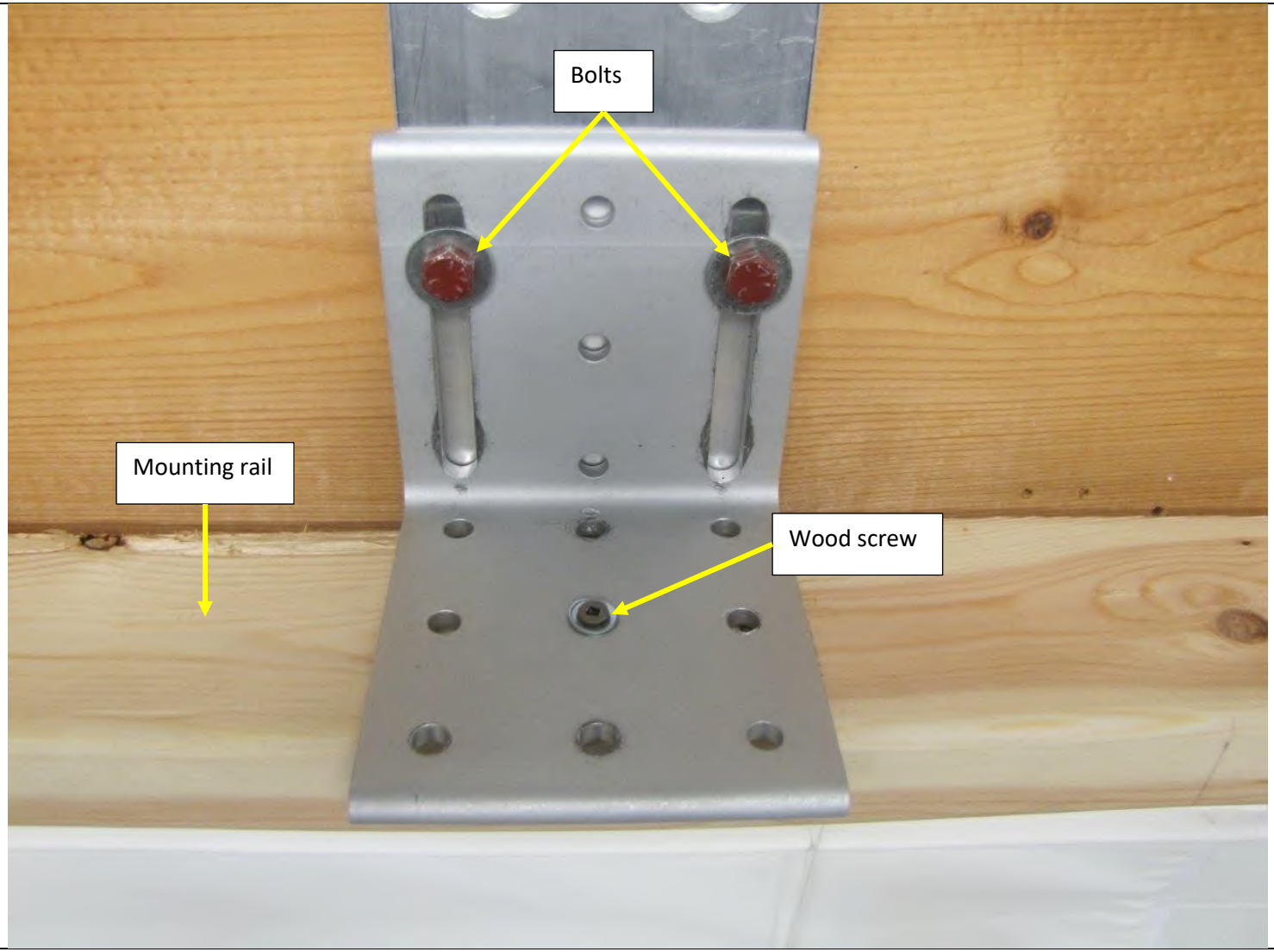
EXHIBIT 3: General product installation into the test frame [s. 4.4 of Test Method M22]

3.1



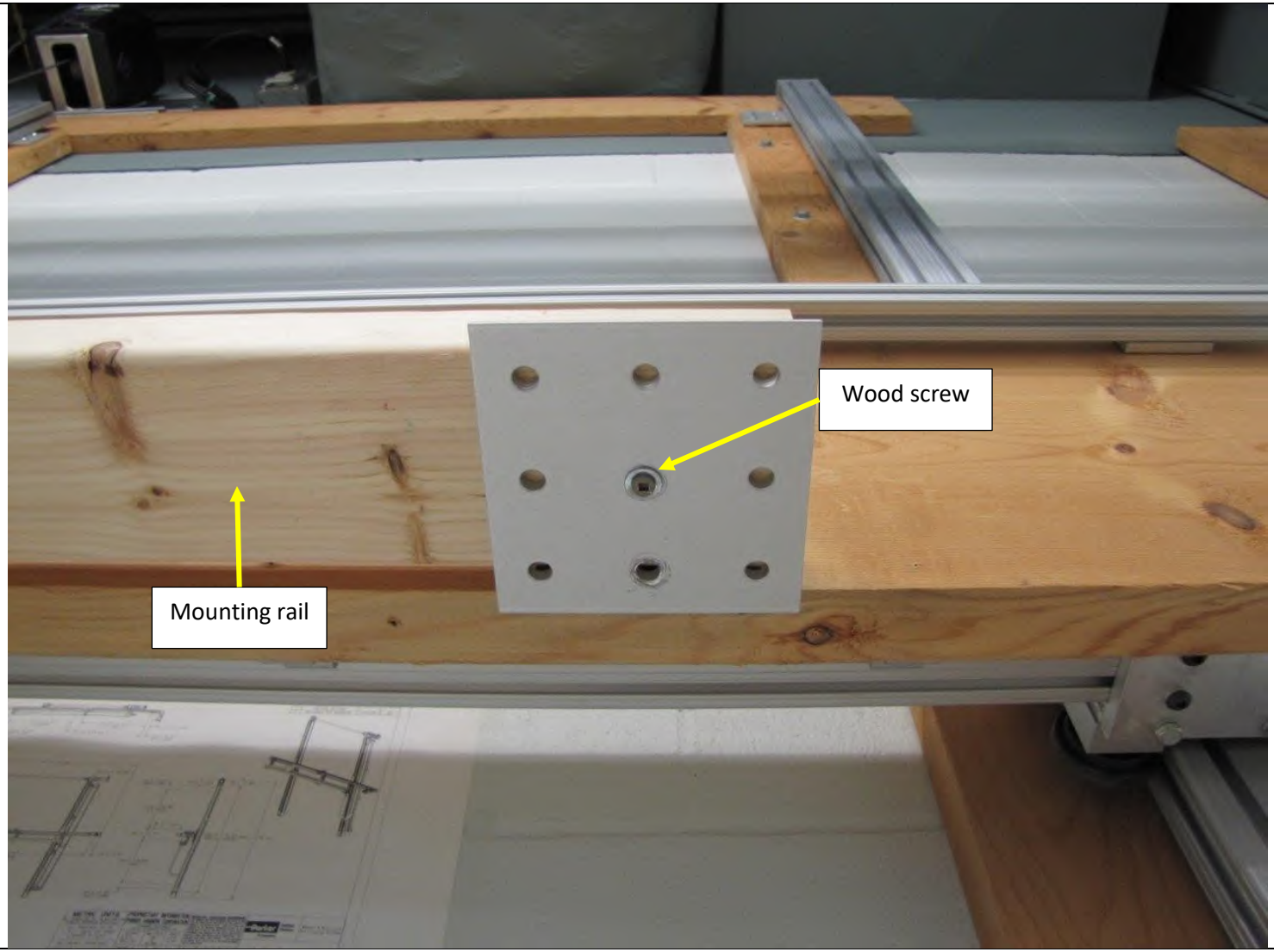
This image shows the general mounting configuration of corded window covering products at Health Canada's laboratory. The mounting header is the component that allows for the overall product to be moved up and down. The header is equipped with brackets for the installation of the mounting rail lumber into a bracketing system that is comprised of fixed brackets and sliding brackets. Alternate means of mounting the product are permitted.

3.2



Example sliding mounting bracket (top/front perspective). The bracket contains two channels made to slide the bracket up or down. When the desired adjustment position is achieved, the bracket can be fixed in place by tightening two bolts. The mounting rail may also be further secured through any of the holes in the bracket using a wood screw or similar.

3.3

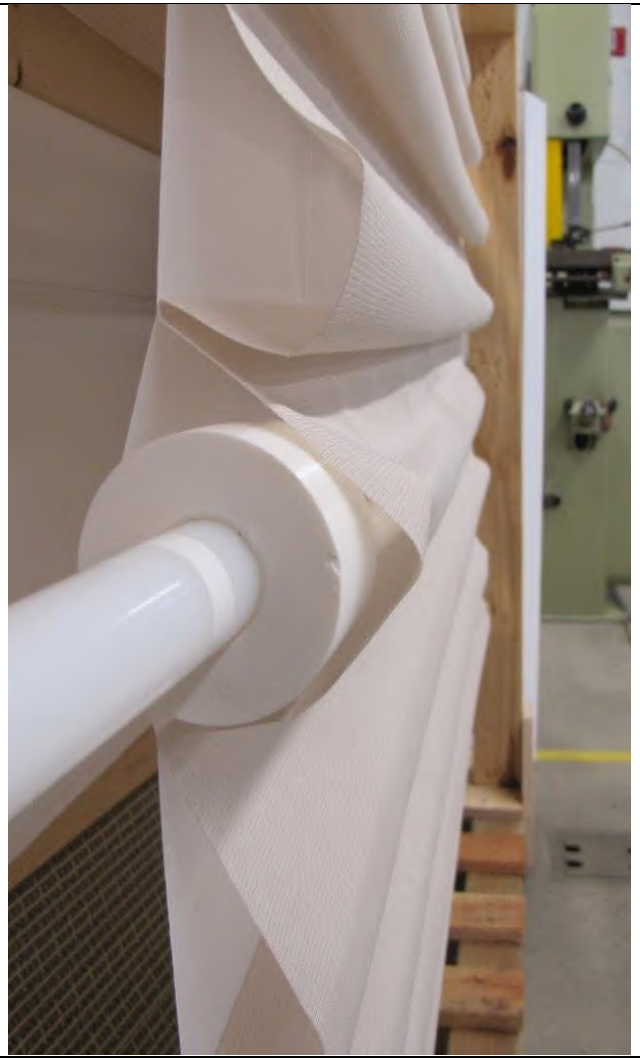


Example fixed bracket (bottom/front perspective). When this bracket is in use, the mounting rail rests on top of the protruding portion of the bracket and is fixed in place with a wood screw or similar.

EXHIBIT 4: Reachability screening [s. 4.5, 4.6, 4.7 of Test Method M22]

4.1	

Example of the child reachability probe contacting an internal cord passing through a ladder. This cord is located on the backside of a roman shade style of window covering.

4.2	 
Attempts are made to insert each reachability probe into openings containing an internal cord. The example in the left hand image shows the adult reachability probe entering a transverse channel of a Roman-style shade. The right hand image was taken with a light behind the window covering to show the shadow of the child reachability probe contacting an internal cord in one of the channels.	

4.3

This is an alternate perspective of the window covering shown in 4.2. This photo was taken from the opposite side of the window covering in the transverse direction, pointing toward the location of the reachability assessment. In this image, the adult reachability probe is contacting the same internal cord shown in 4.2.

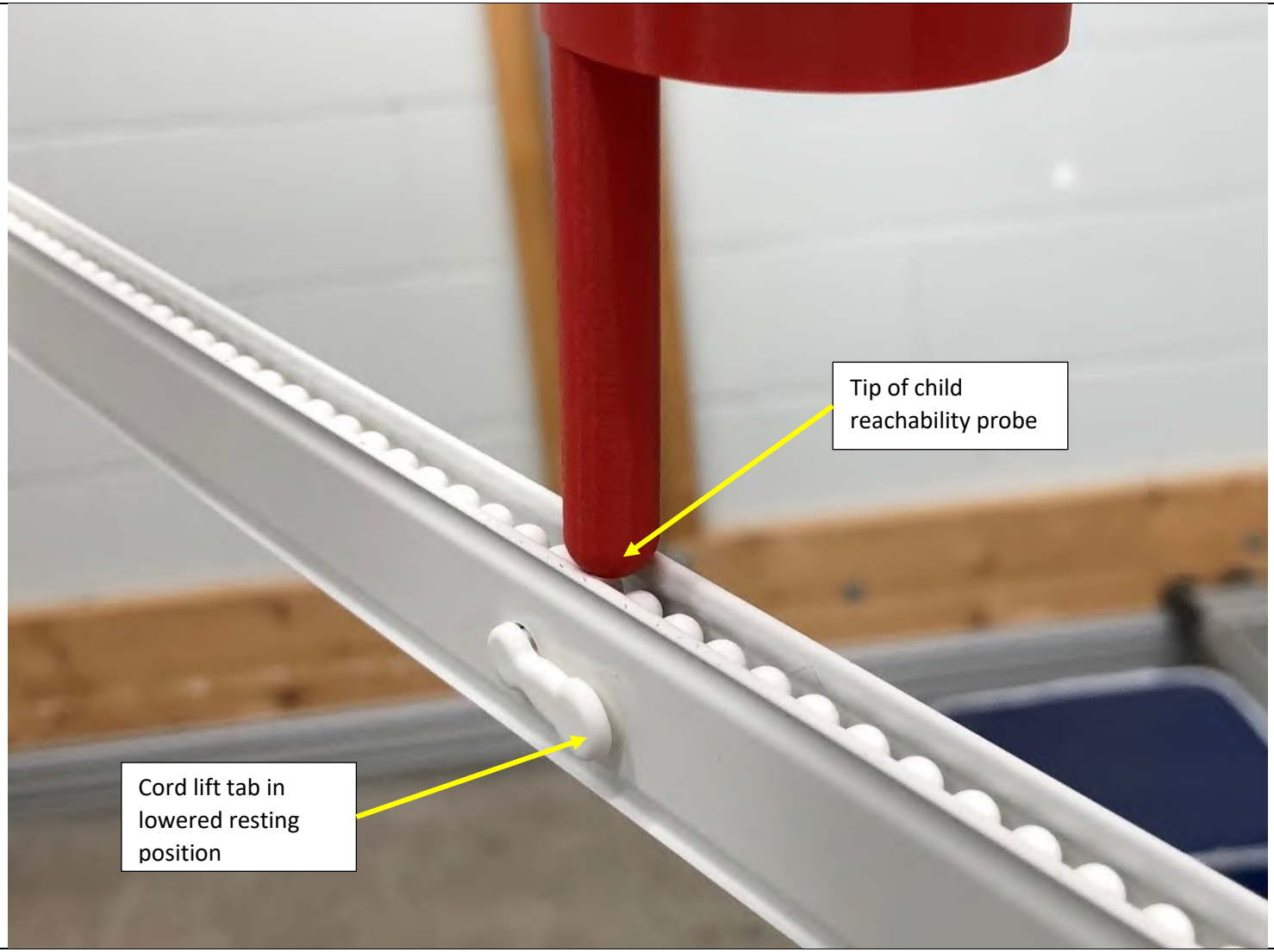
4.4

The adult reachability probe is inserted into the transverse channel of an example cellular blind. The light projected onto the back of the window covering shows the position of the tip of the reachability probe in relation to the internal cord. Based on the prescribed usage of the reachability probe, if the internal cord cannot be contacted, it is not considered reachable.

4.5	
Example of the child reachability probe attempting to contact a retractable cord attached to an operating wand. In this example, the retractable cord is fully concealed within the product headrail while in a resting position. In general, if the child and/or adult reachability probes are unable to contact a cord while the product is in a resting configuration, the cord would not be considered reachable.	

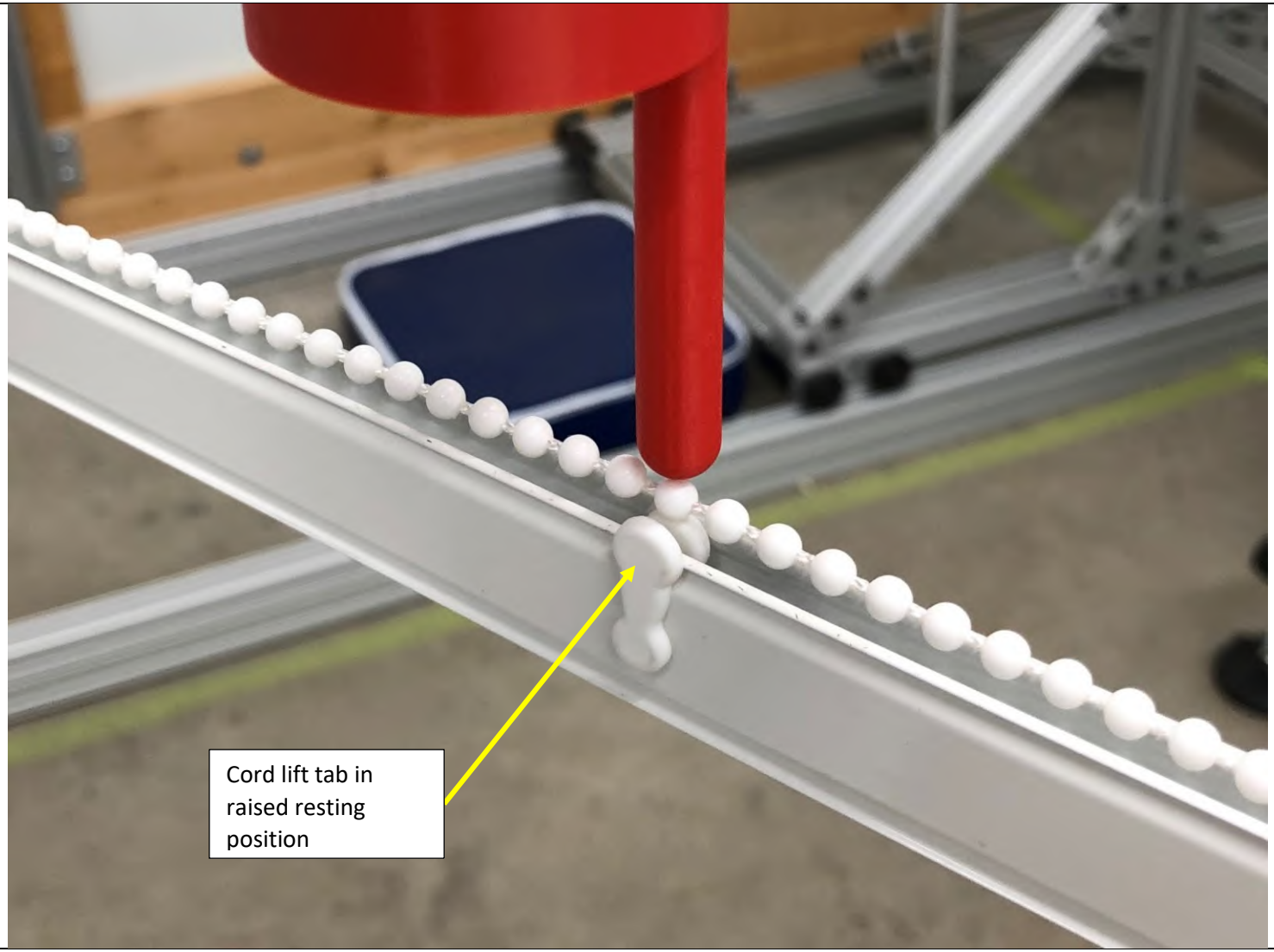
4.6	
The analyst has applied a downward pull to expose the retractable cord mentioned in 4.5. The loading of a free-hanging wand that does not meet the definition of 'cord' is not permissible by the test method. However, if the position shown was found to be a 'resting configuration' of the product, then the exposed cord would be subject to testing if found to be reachable.	

4.7



The child reachability probe is used to assess a cord that is found recessed within a cord housing / operating bar. If the tips of the child and adult reachability probes are unable to contact the cord as shown here, it would be considered unreachable in this particular resting configuration.

4.8



Following the example in 4.7, the same example product shown has an alternate ‘resting configuration’ whereby the cord can be pushed out from the cord housing / operating bar. If the child and/or adult reachability probes are able to contact a cord in any resting configuration, the cord would be considered reachable.

EXHIBIT 5: Reachability screening requiring light manipulation [s. 4.5, 4.6, 4.7 of Test Method M22]

5.1	   
This panel of images shows the side perspective of a Roman-style shade that consists of large cellular channels containing inner cords. When the window covering is at rest, the channels have a 'drooping' quality and shape that easily changes with light manipulation, as demonstrated in the above photographs. Exposing the true size of the opening with light manipulation allows for a more accurate assessment of reachable cords. Excessive handling such as stretching, folding, bending, or otherwise distorting the corded window covering in a forceful manner in order to reach a cord would not be considered normal manipulation.	

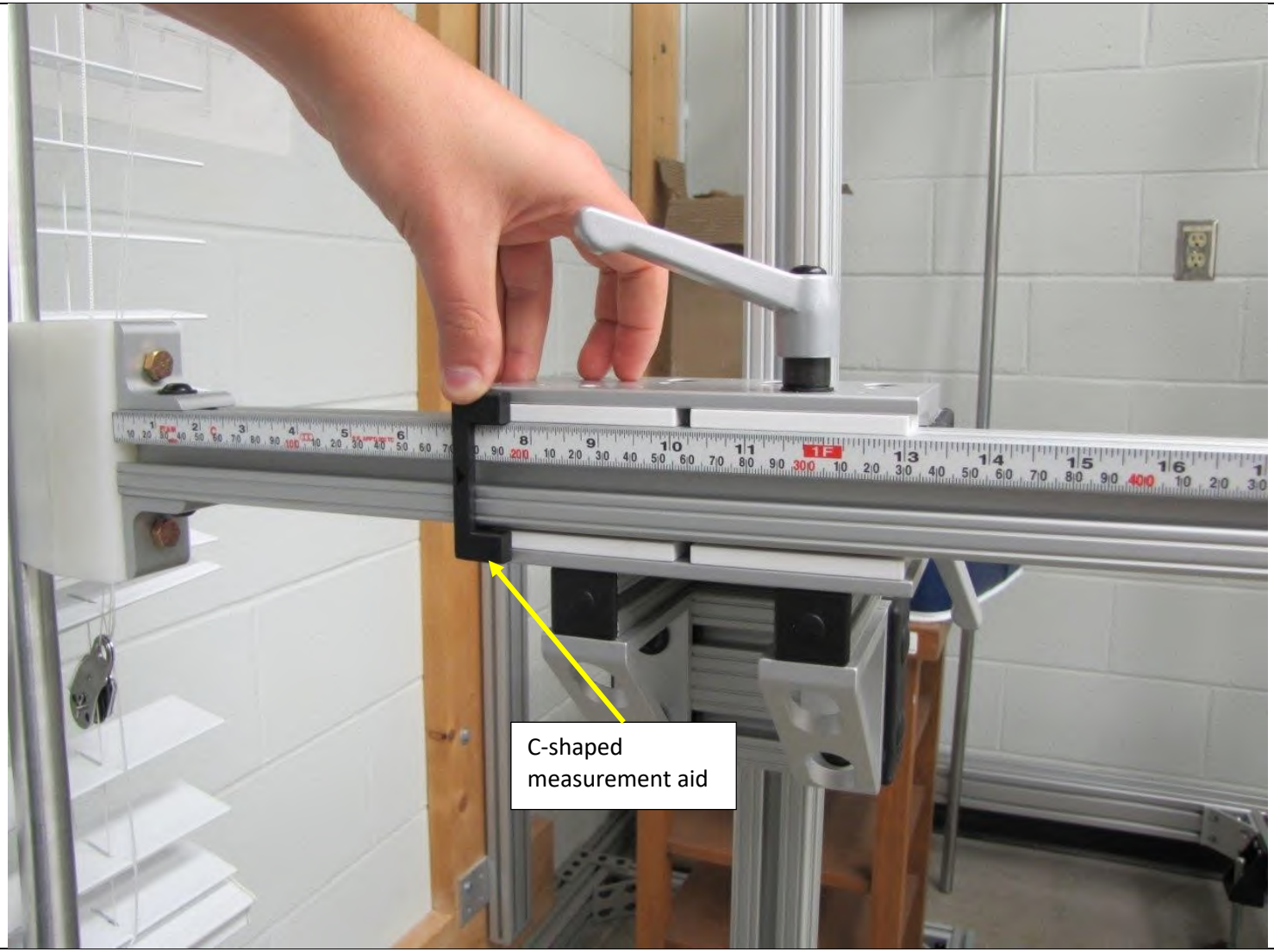
EXHIBIT 6: Positioning of the restraining bar [s. 4.6 of Test Method M22]

6.1

An example position of the restraining bar in relation to the front face of a Venetian blind. The restraining bar is adjusted in the horizontal direction prior to loading as shown in the left hand image. An alternate perspective of the testing configuration is shown in the right hand image.

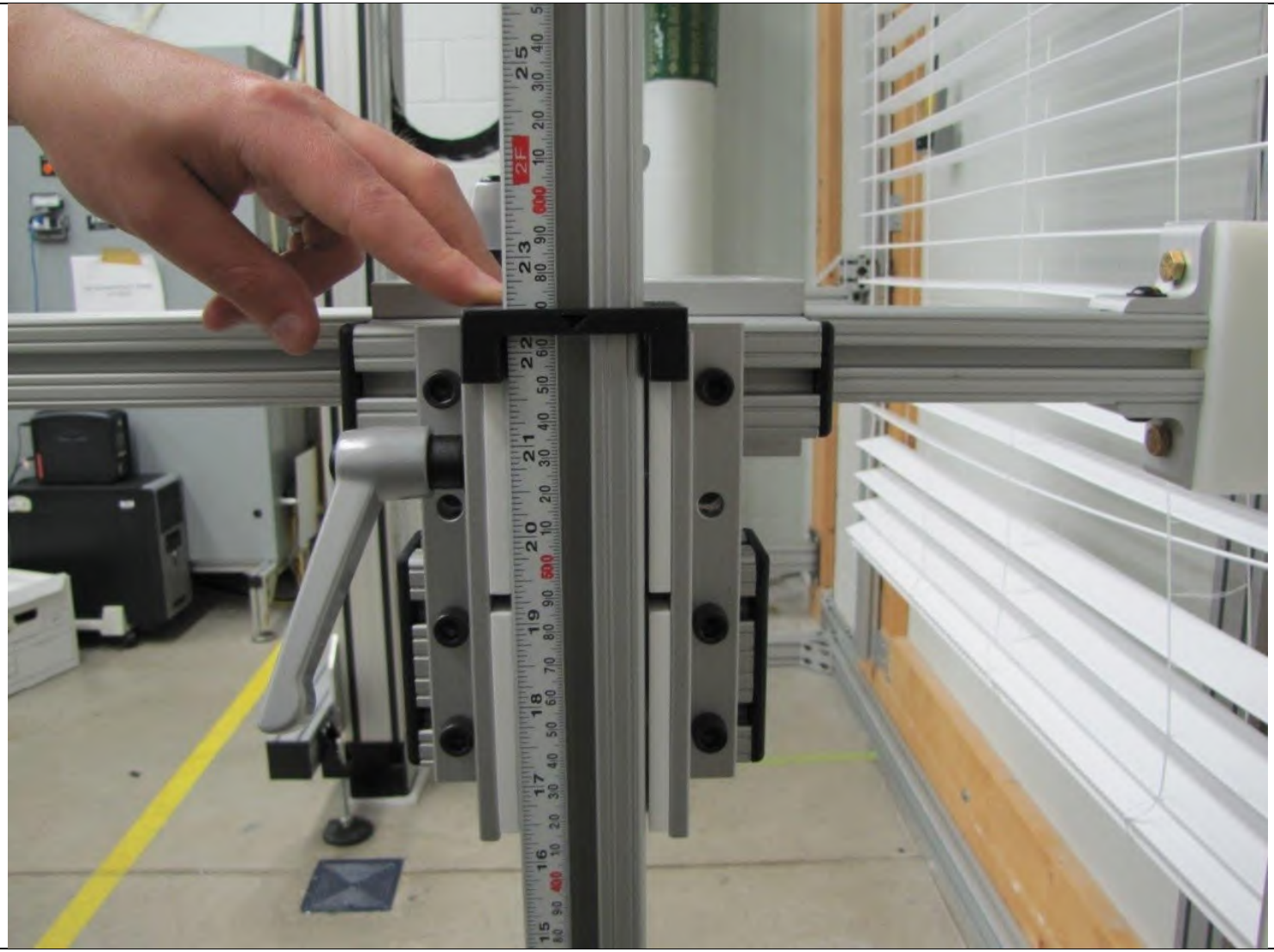
EXHIBIT 7: Recording coordinates of the test frame [s. 4.6 of Test Method M22]

7.1



Example measurement of the y-axis coordinate of the restraining arm assembly. A similar adjustment and measurement is taken for the pulley arm assembly. In this image, a C-shaped measurement aid is used to help resolve the y-coordinate of the restraining arm assembly.

7.2

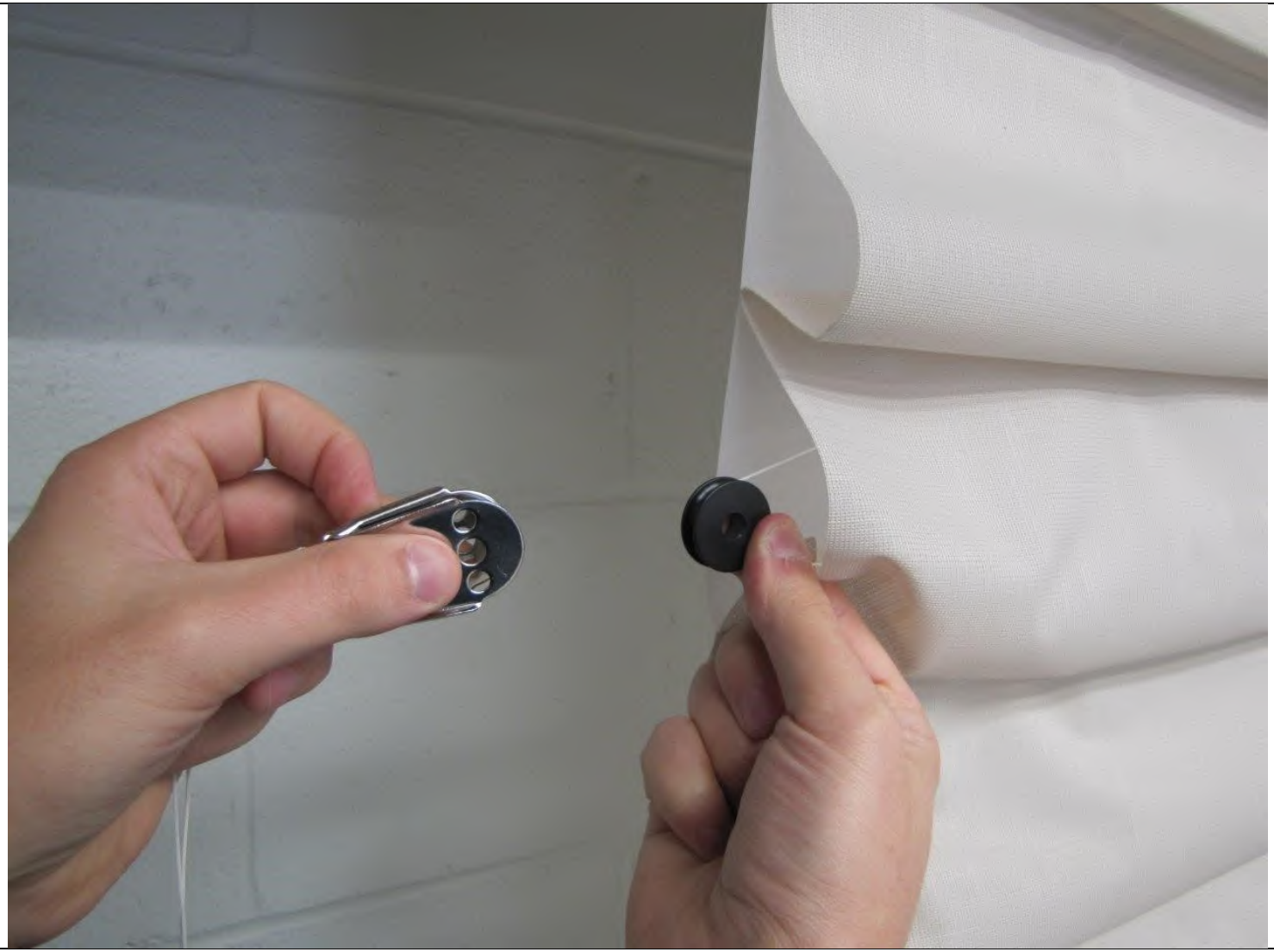


Example measurement of the z-axis coordinate of the restraining arm assembly. A similar measurement is taken for the pulley arm assembly.

7.3

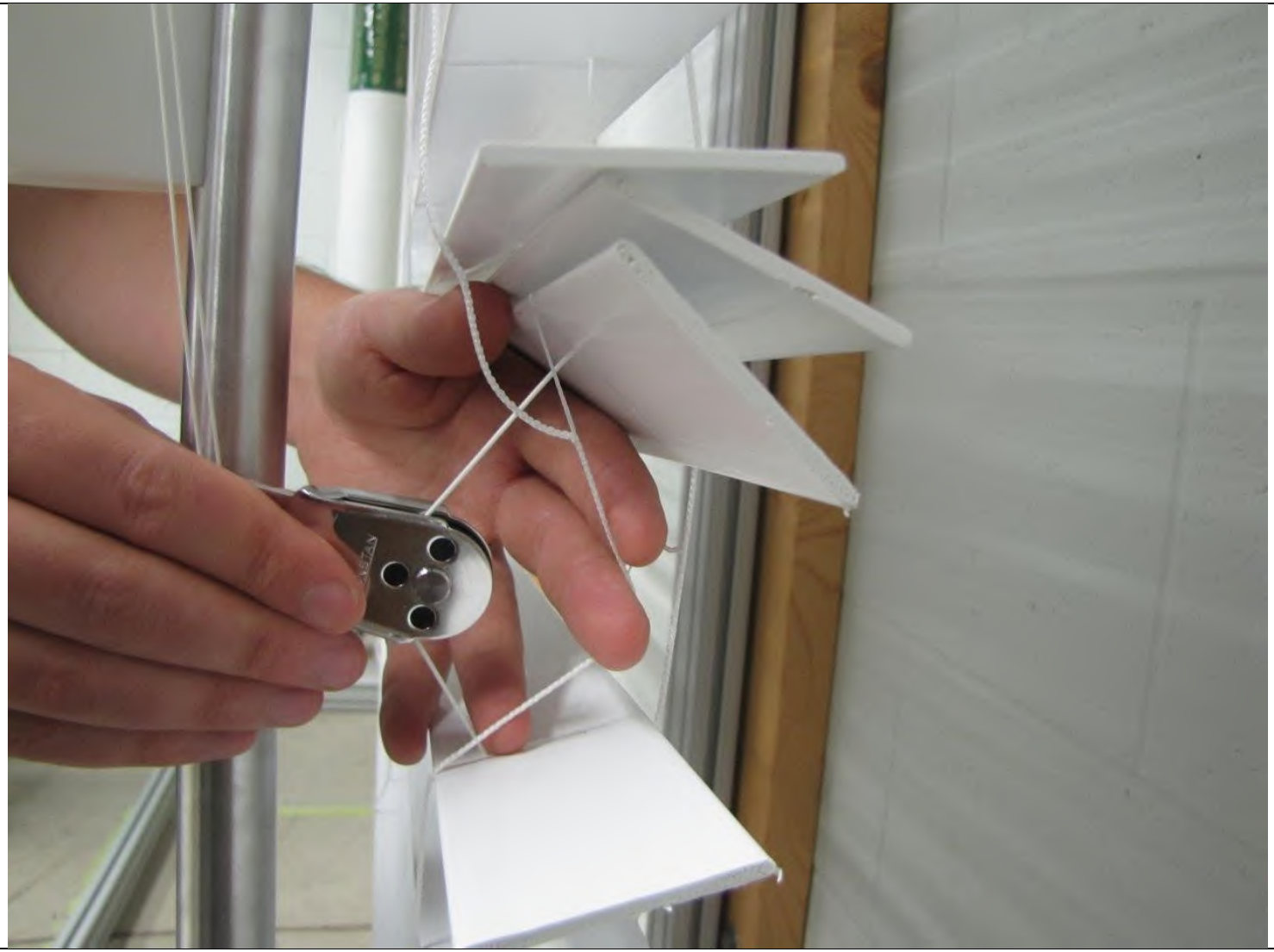
Example measurement of the x-position of the test frame. The cart portion of the test frame is equipped with its own measurement aid.

EXHIBIT 8: Installation of cord grasping pulley [s. 4.6 of Test Method M22]

8.1	
	Example installation of the cord grasping pulley wheel to the reachable cord prior to loading a reachable inner cord. In this example, the reachable inner cord was exposed to facilitate installation of the pulley.

8.2

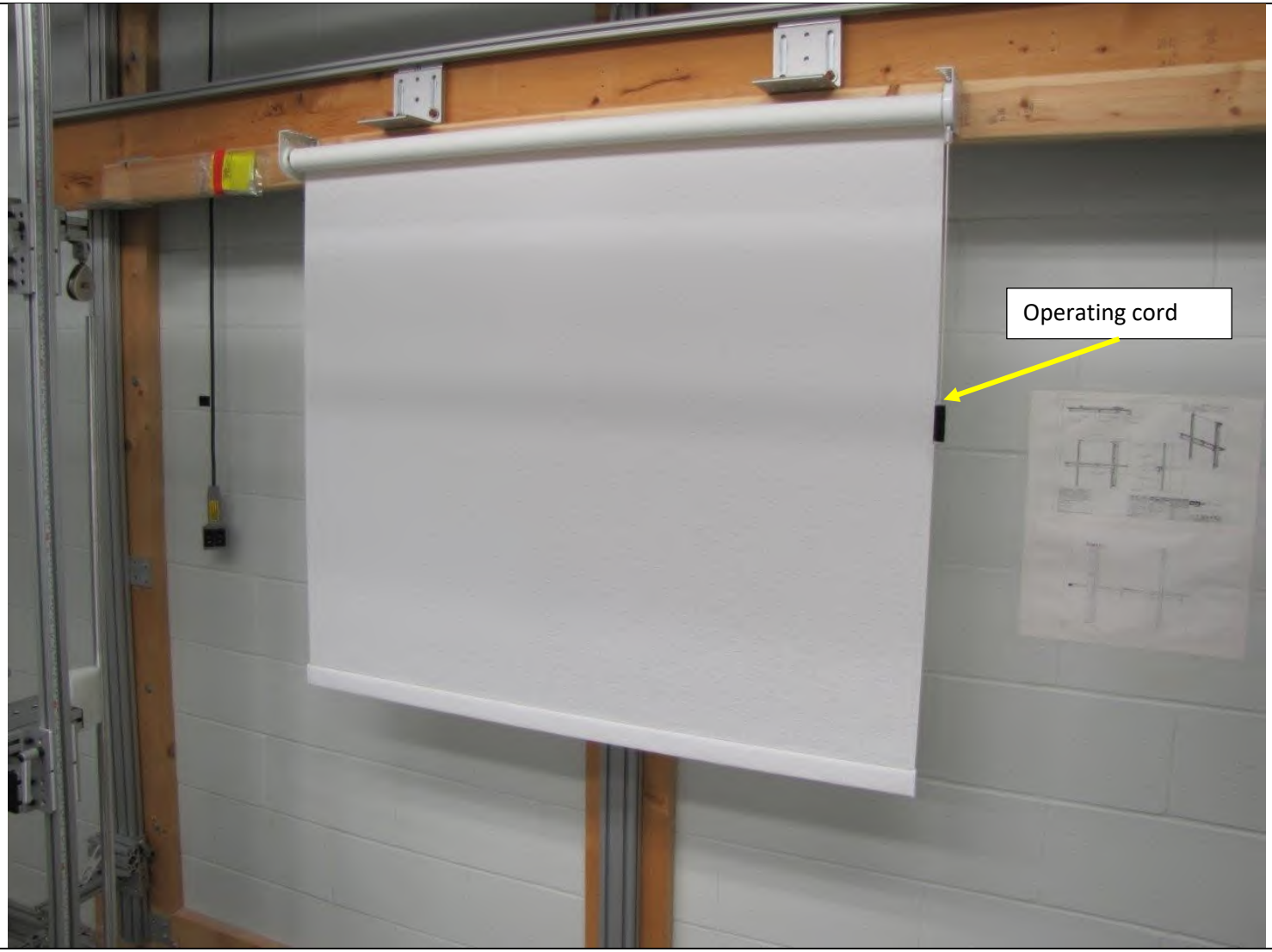
Following the installation shown in 8.1, the tether is passed through the sideways-oriented front pulley of the test frame.

8.3	

Example of the cord grasping pulley installed to the reachable cord on a Venetian blind. In order to install the cord grasping pulley, the reachable inner cord is extracted from the product using light manipulation.

EXHIBIT 9: Case example of one reachable cord – loading and length assessment [s. 4.5 of Test Method M22]

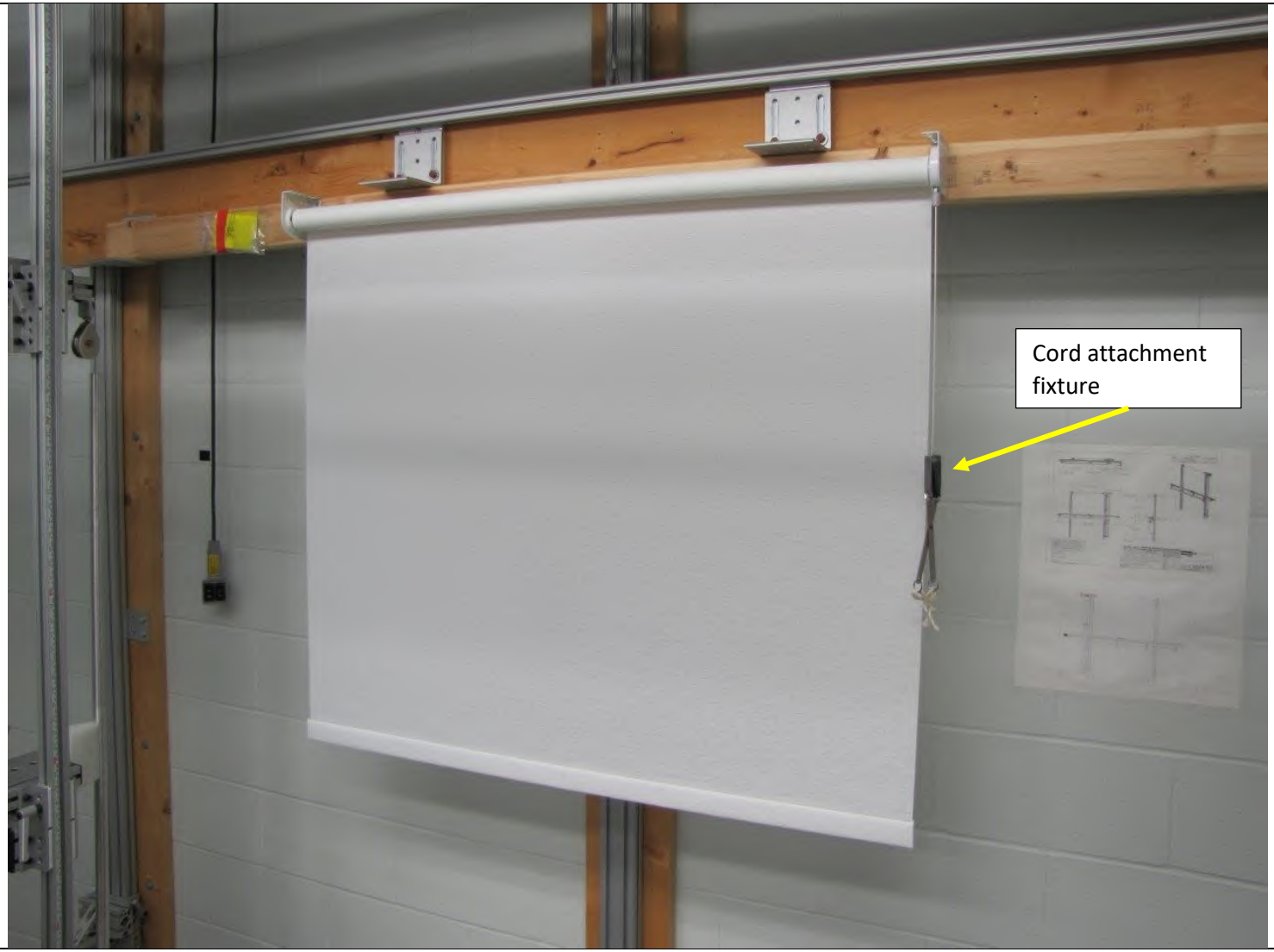
9.1



Example roller shade with one reachable cord, shown toward the right hand side of the image. The series of images that follow will show the main steps for testing such a cord. For illustrative purposes, we will continue with this example as though that the cord under test is both reachable and less than 22 cm in length prior to any application of force.

9.2

The analyst is measuring the extension of a shade in relation to a fixed component (*i.e.*, the bottom of the left hand headrail bracket). This measurement communicates part of the initial product configuration prior to testing.

9.3	
The analyst affixes a suitable ‘pull’ attachment clamp (shown in 1.1) to the reachable cord in preparation for loading.	

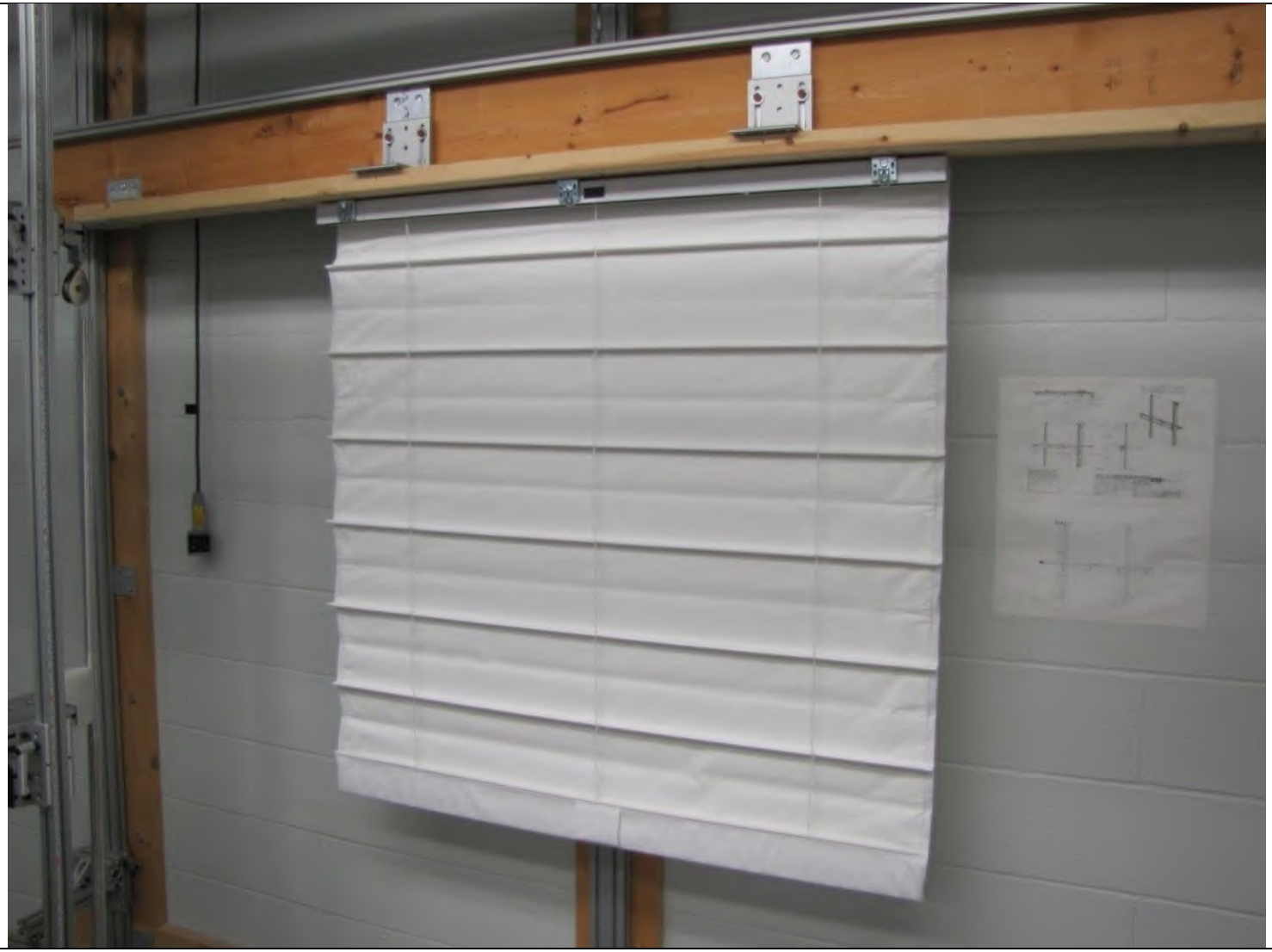
9.4	
	The analyst is shown to be applying the test weight to the clamp via an s-hook.

9.5	
A look at the free hanging test weight applied to the cord attachment fixture.	

9.6	
A closer look at the free hanging test weight applied to the cord attachment fixture. The weight of all fixtures are taken into account prior to load application.	

9.7	
The analyst uses the cord length gauge to assess if the cord length is greater than 22 cm during load application.	

EXHIBIT 10: Case example of reachable cord in a completely bounded opening (CBO) – loading, perimeter and length assessment [s. 4.6 of Test Method M22]

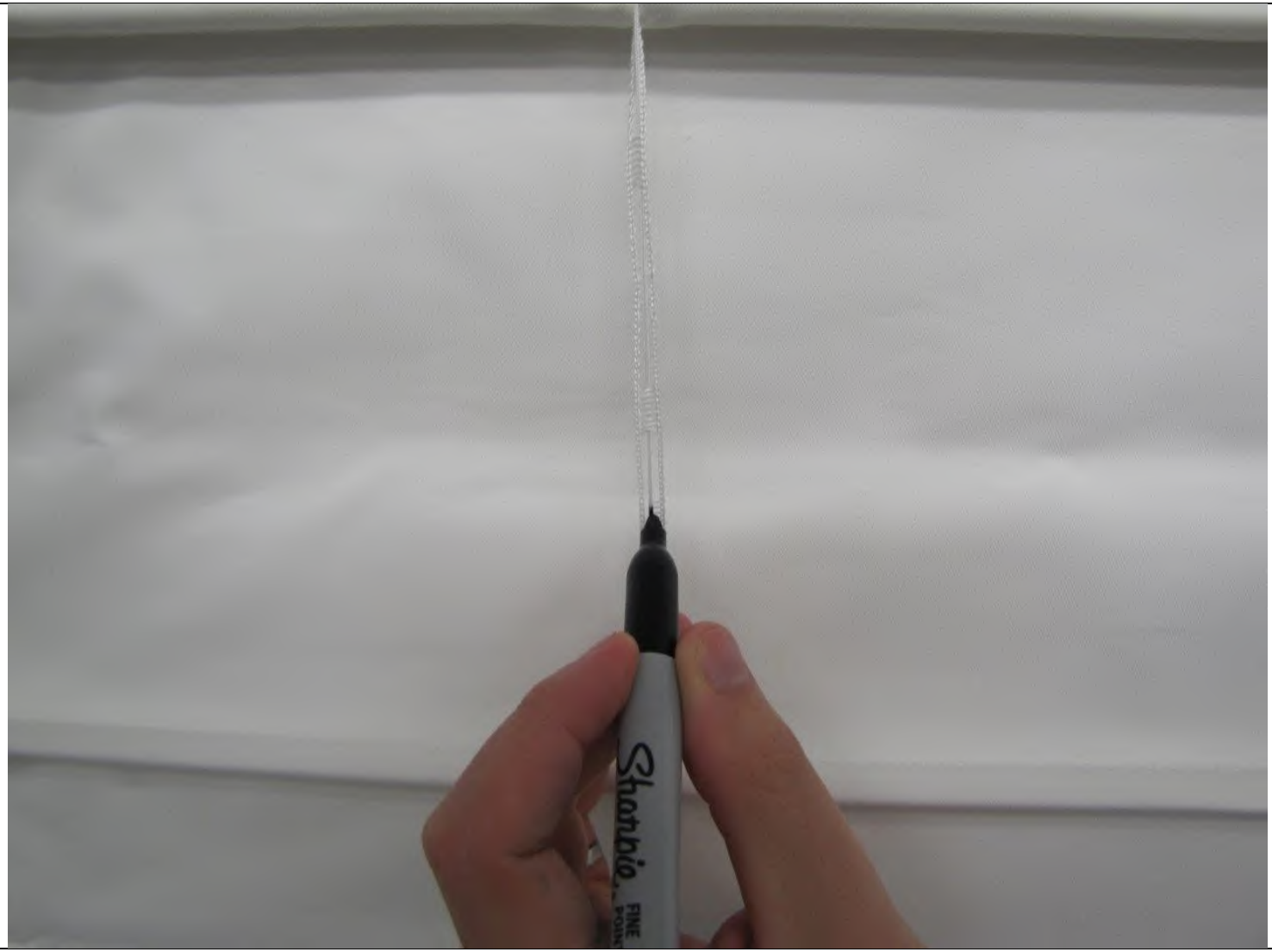
10.1	

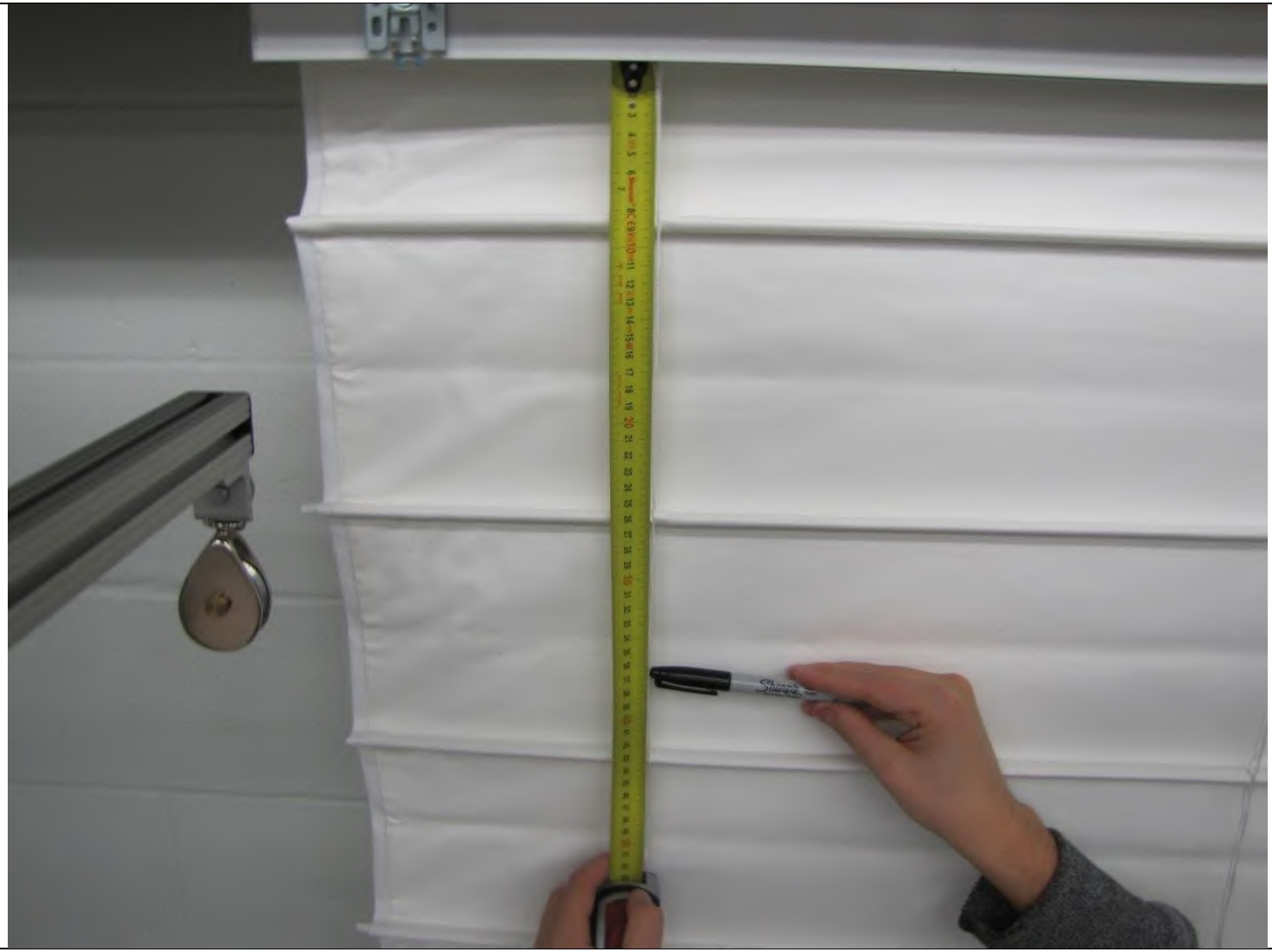
Example Roman shade mounted with its backside facing the laboratory. In this series of photographs, the analyst will assess an example inner cord for illustrative purposes.

10.2




The analyst is shown to be performing a qualitative screening of various CBOs identified on an example product. This screening gives the analyst a sense of where to start testing, and in what direction(s) to pull. In the bottom left photograph, the analyst makes use of the restraining bar component of the test frame to keep the product from twisting.

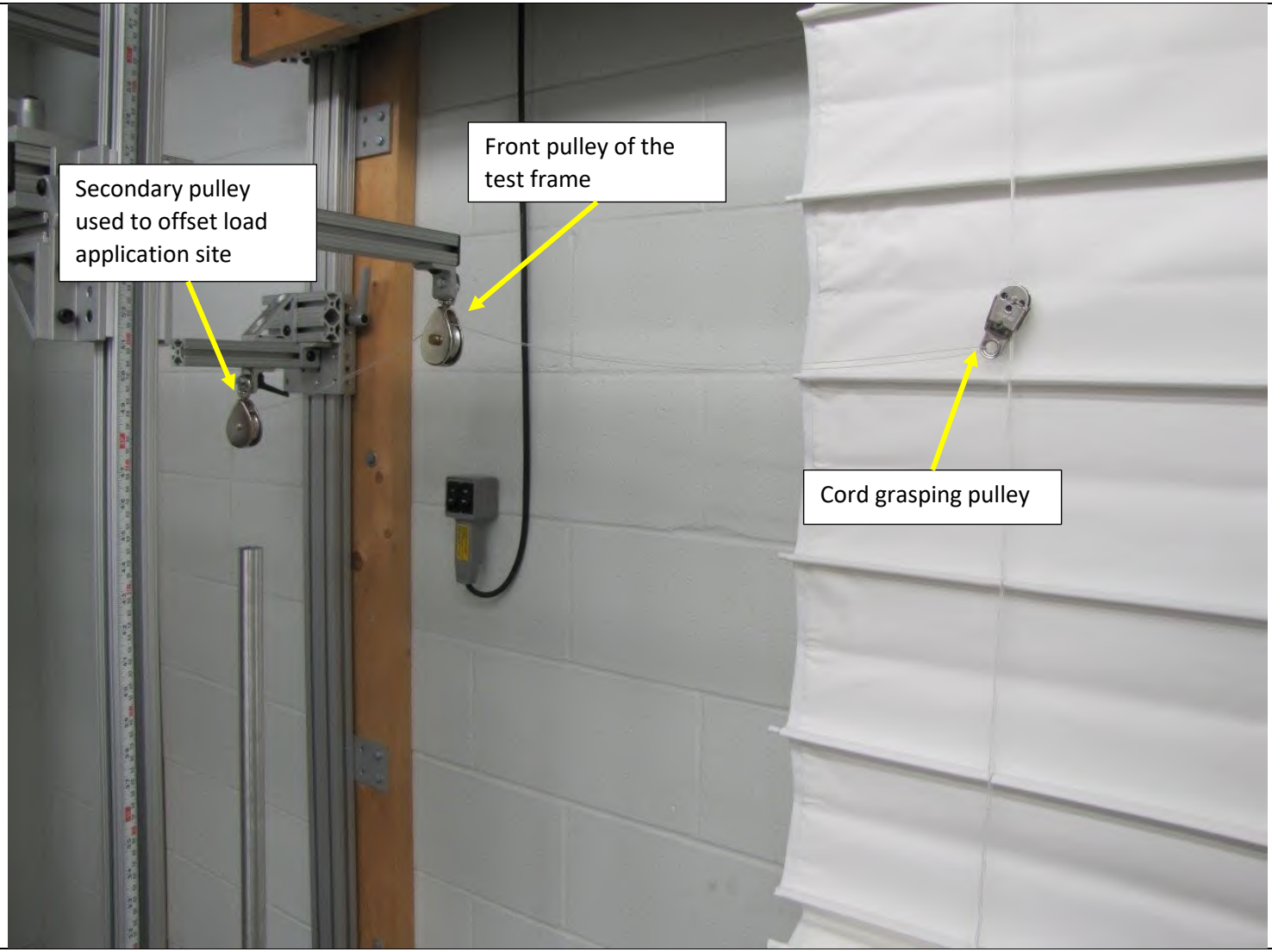
10.3	
After selecting a pull location based on the screening, the analyst marks the location where they will install the cord grasping pulley.	

10.4	
The analyst measures the vertical distance between a fixed point of reference (in this case, the bottom of the headrail) and the location that was marked in 10.3.	

10.5

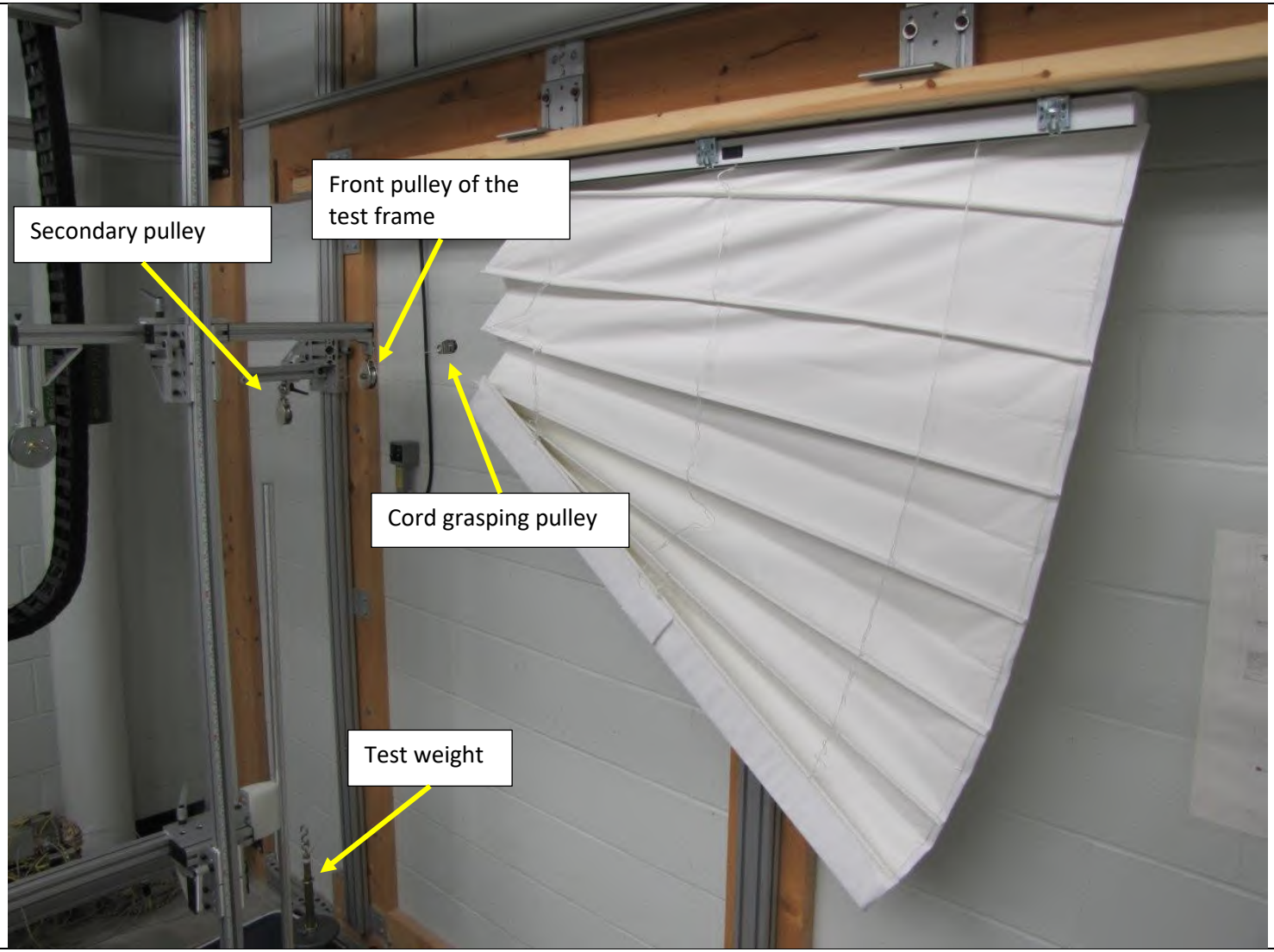
The cord grasping pulley installed on a reachable inner cord in the region identified by the analyst in 10.4.

10.6



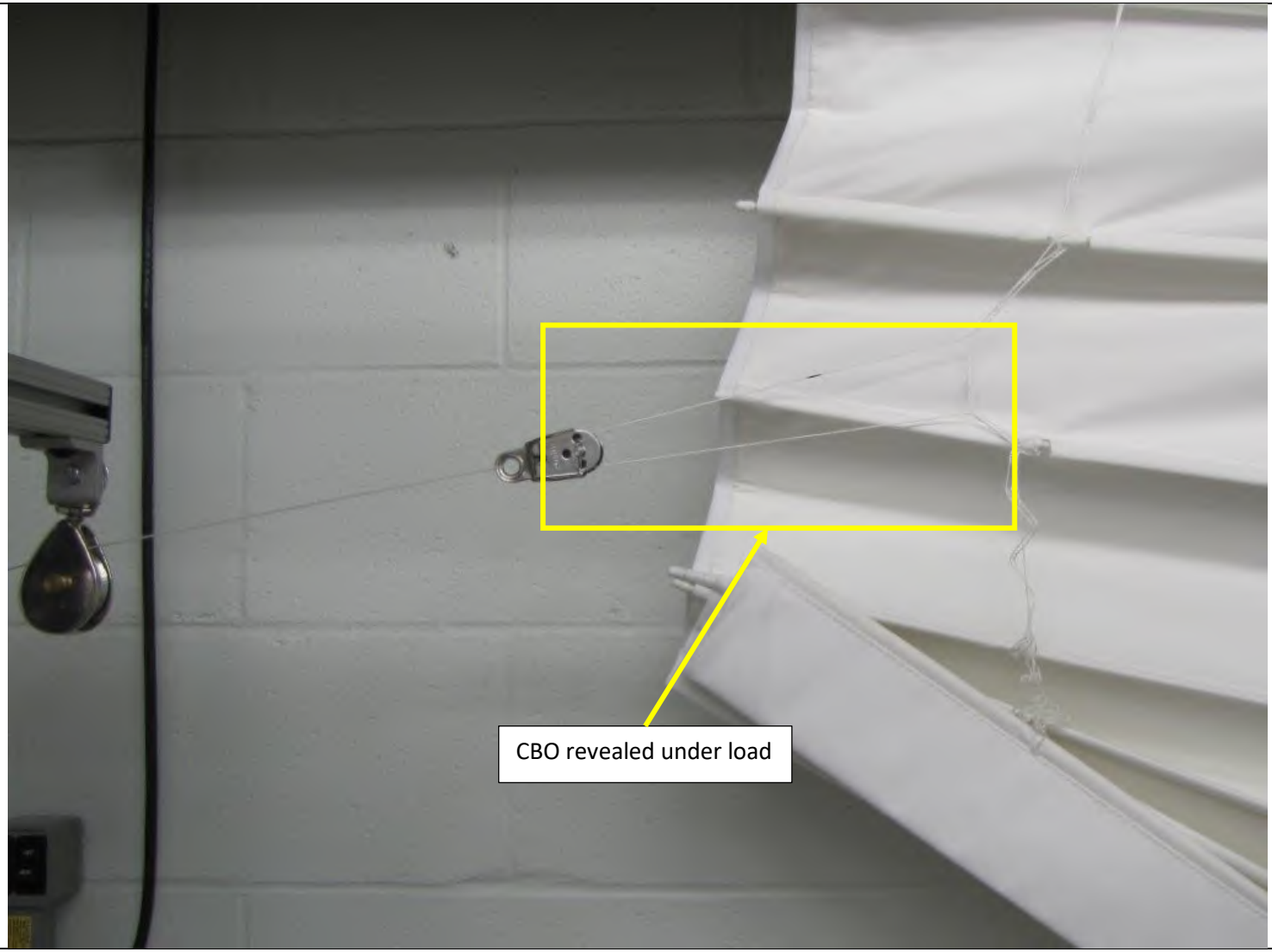
A closer look at the cord grasping pulley installed on a reachable inner cord. In this example, the test frame is configured for a sideways pull. An alternate secondary pulley is used for the purposes of offsetting the load application site. This secondary pulley is a non-critical piece of equipment, and is used for convenience purposes only.

10.7



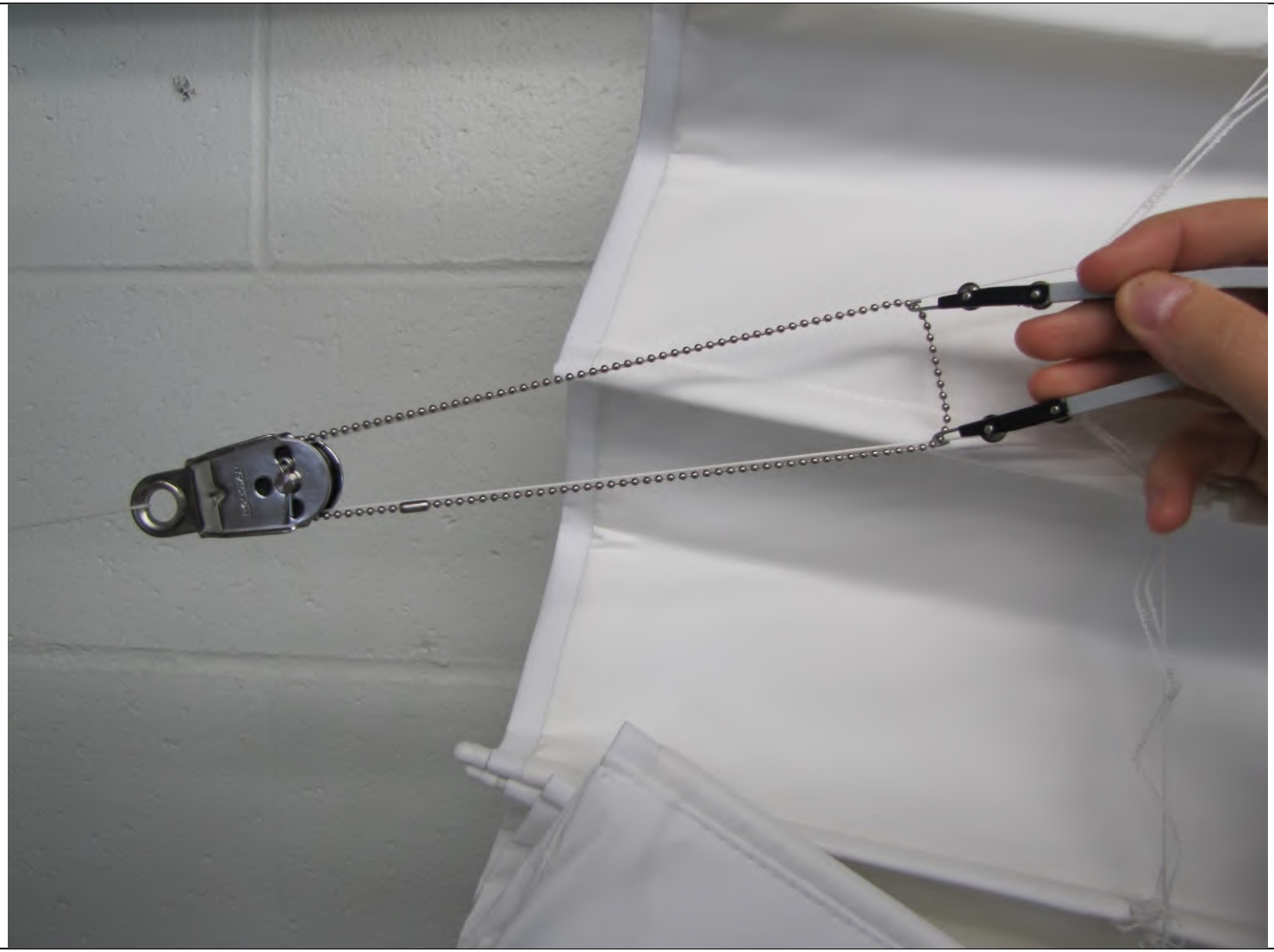
An example product under test with the free hanging test weight applied to the cord attachment fixture.

10.8



A closer look at the CBO that is more clearly revealed as a result of the sideways load application.

10.9



The analyst uses the perimeter gauge to assess if the CBO is greater than 44 cm in perimeter.

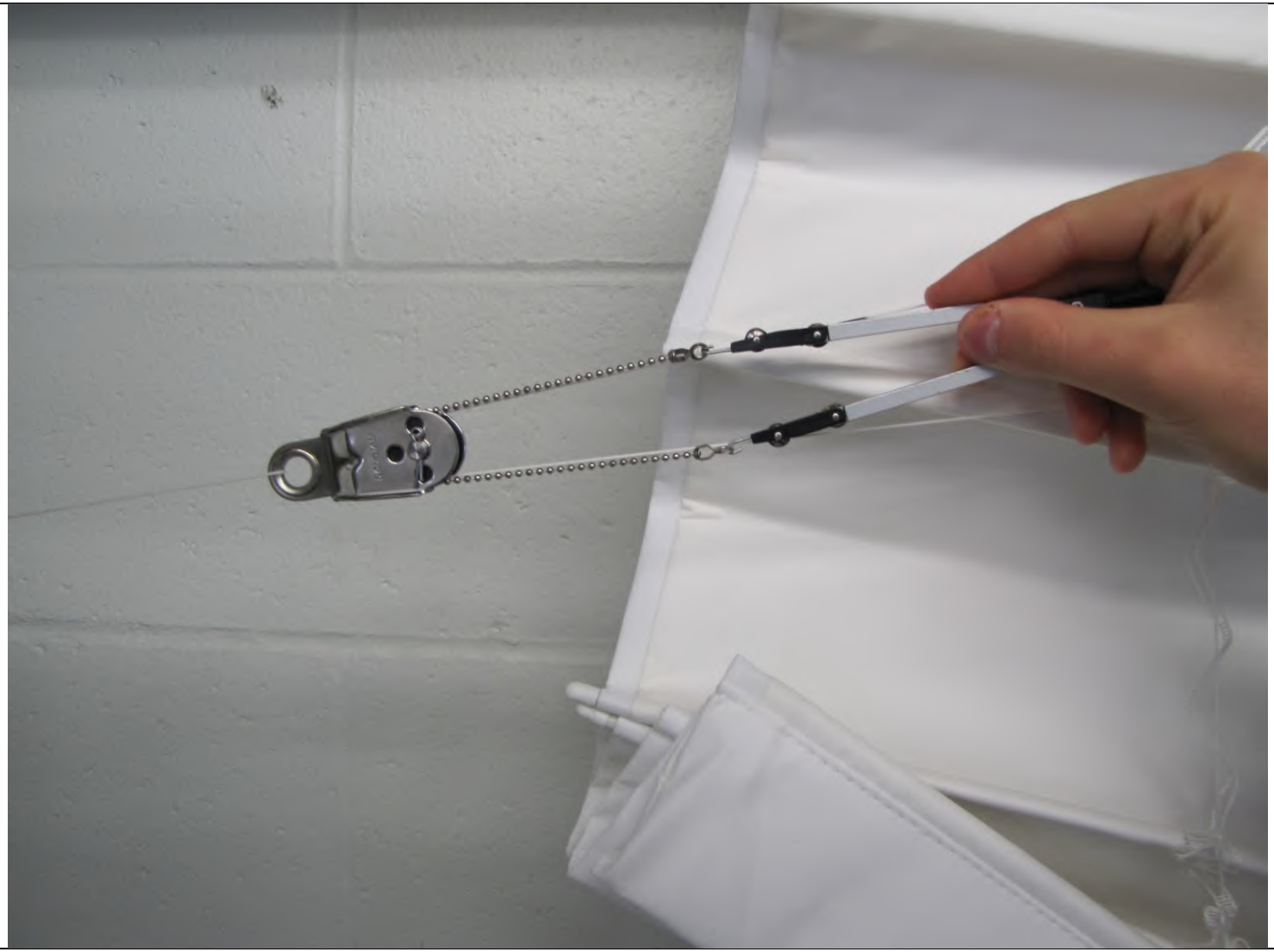
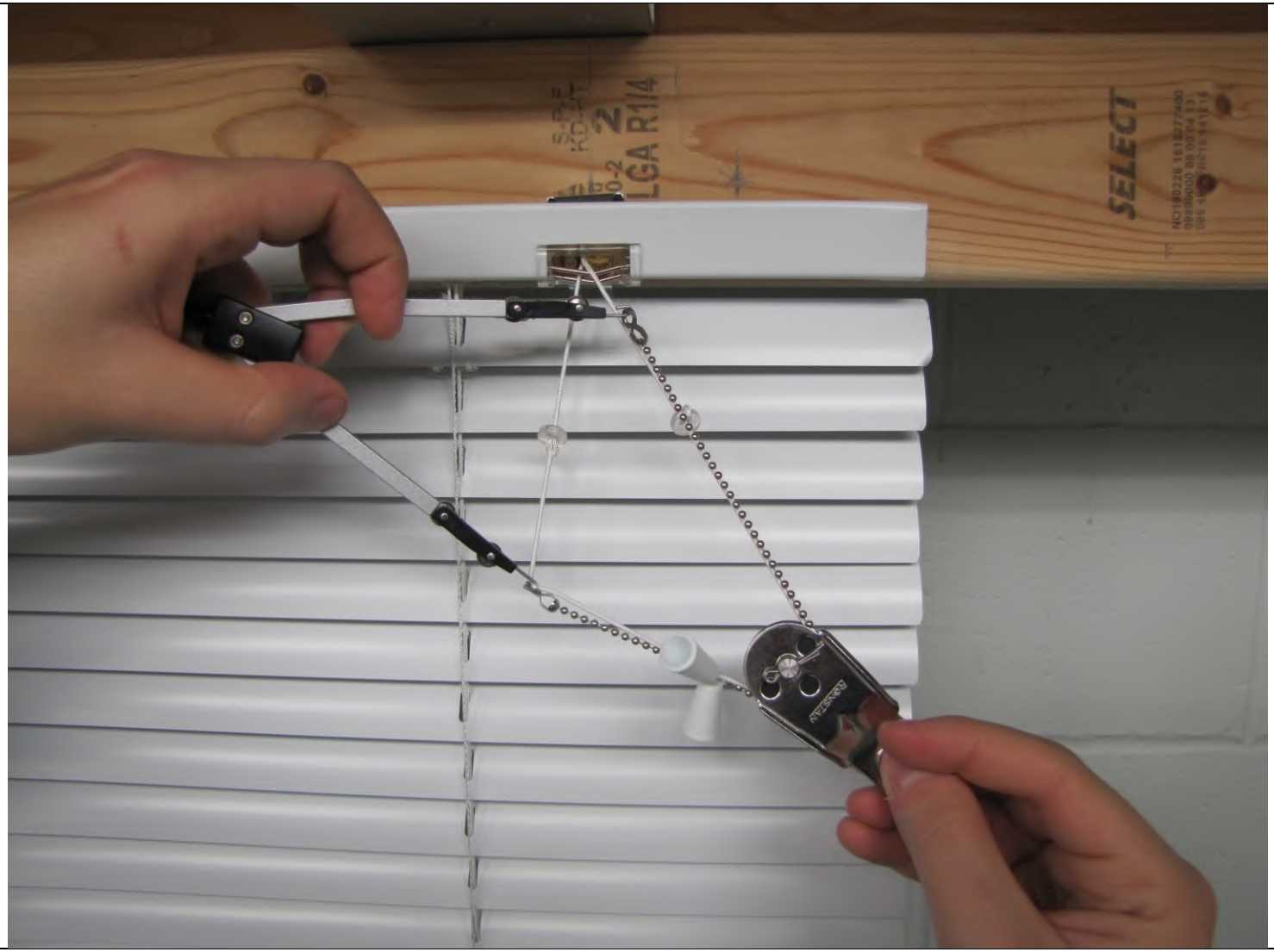
10.10	
The analyst then uses the cord length gauge to assess if there is more than 22 cm of cord within the CBO.	

EXHIBIT 11: Case example of two reachable cords – loading and length assessment [s. 4.7 of Test Method M22]

11.1	
This example shows a product that has two separate reachable cords with one free end. The analyst uses the cord length gauge to assess if there is more than 22 cm of cord. In this product configuration, each cord is less than 22 cm in length prior to loading.	

11.2	
An example of two cords with one free end connected end-to-end. Alternate connection patterns are permitted.	

11.3	
	With the two reachable cords connected end-to-end, the analyst is able to assess the length of cord in the newly formed CBO using the cord length gauge. In this example, the cord grasping pulley and a hooked tool are used for visual clarity, but are not required for testing.

11.4	 
	If two connected cords do not produce a length of cord greater than 22 cm, the analyst applies the test weight to one of the cords (as shown in the left hand image). The loaded cord is then clamped in place to prevent retraction (as shown in the right hand image) and the test weight is removed. As previously shown in 11.3, these two cords produce a length of cord greater than 22 cm when connected end-to-end with no load application. The above load application is being shown for demonstrative purposes only.

11.5	 
	With the first cord clamped in place, the test weight is gradually applied to the second cord (as shown in the left hand image). In this example, the length of reachable cord is limited by the test weight coming into contact with the floor. Although the test frame is adjustable, there are still physical limitations. In this example, the height limitation of the test frame is of no consequence, since it is apparent that the amount of cord exposed by the load application is greater than 22 cm.

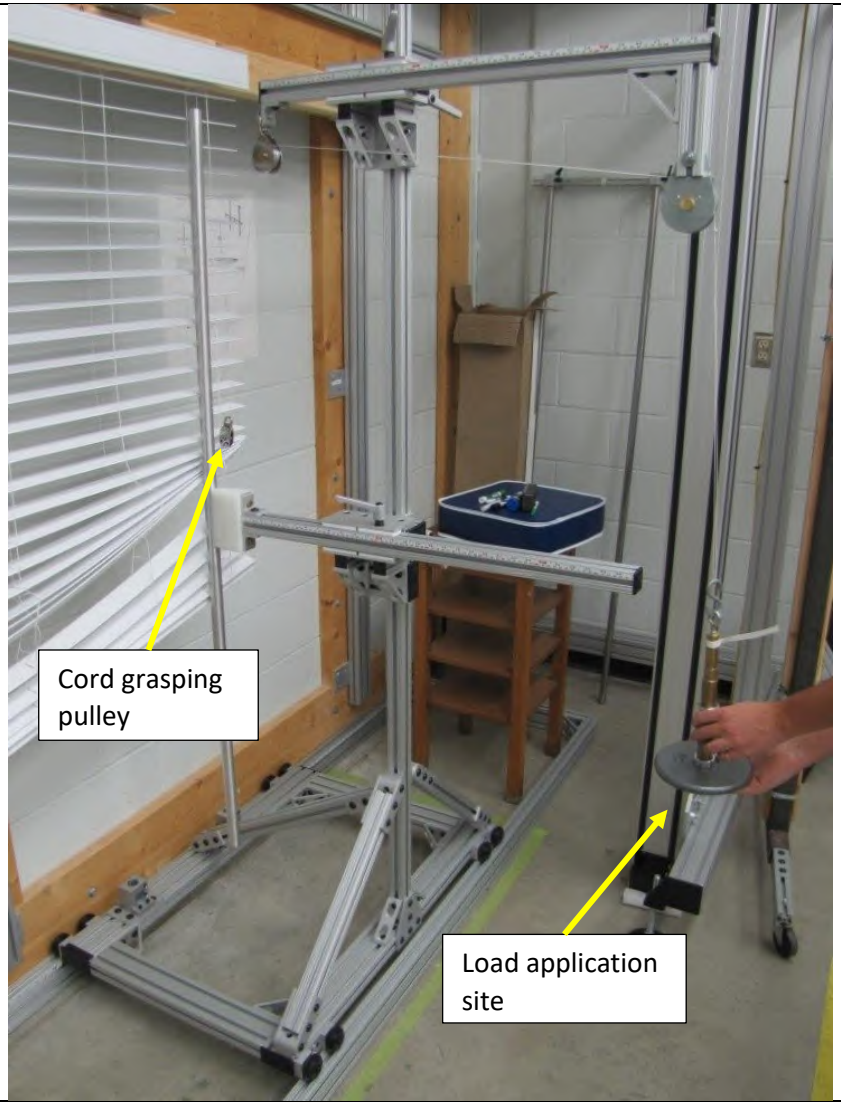
11.6	
The second cord is clamped in place to prevent retraction. The test weight is then removed from the second cord.	

11.7

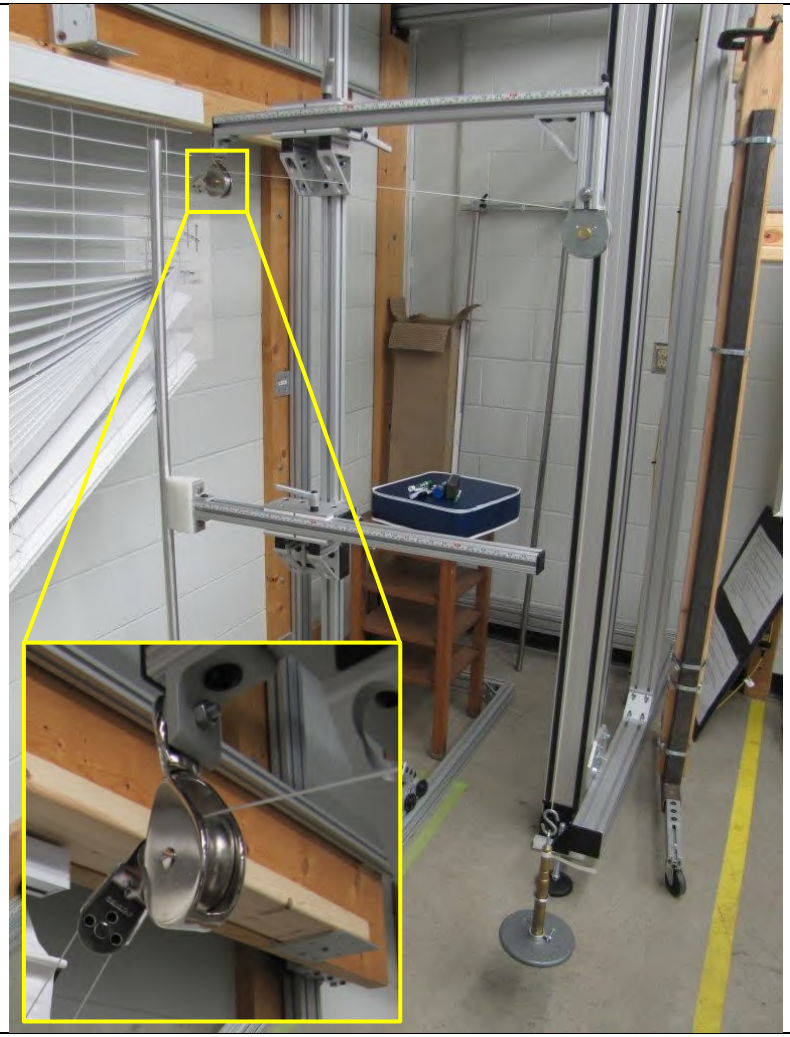
With the two reachable cords clamped, the analyst connects the cords end-to-end to form a CBO. The cord length gauge is superimposed over the cord portion of the CBO. If the cord portion of the CBO is greater than that of the cord length gauge, the CBO contains more than 22 cm of cord.

EXHIBIT 12: Other examples of reachable cord in a completely bounded opening – loading, perimeter and length assessment [s. 4.6 of Test Method M22]

12.1



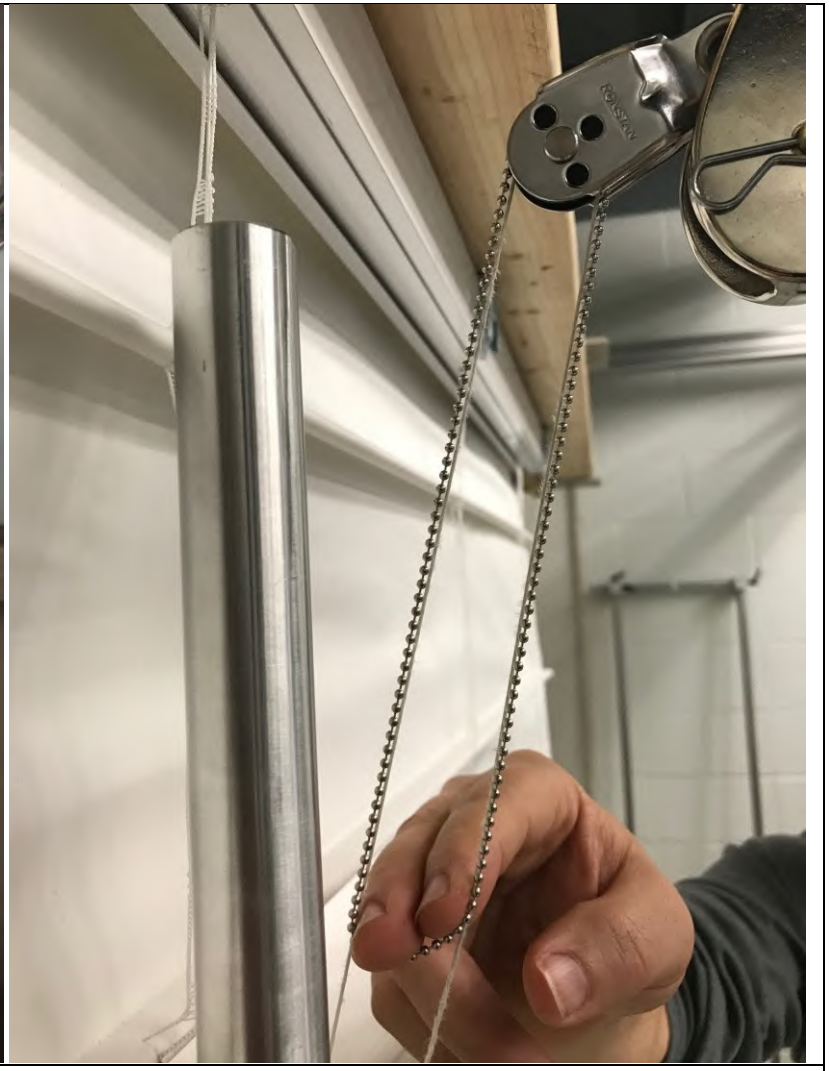
Loading of a reachable cord of a Venetian blind. The cord grasping pulley is installed on an inner cord that is reachable. A tether connects the cord grasping pulley to the test weight at the load application site via the front and rear pulleys of the test frame.

12.2	
Load fully applied to a reachable cord of a Venetian blind. Notice that a tether length was selected such that the test weight does not contact the floor during full load application. Although the extraction of reachable cord is limited by the cord grasping pulley entering into the front pulley of the test frame, a sufficiently sized CBO has become exposed by the load application to complete the cord length and perimeter gauge assessments. To maximize the amount of reachable cord extracted, the analyst may select varying lengths of tether, and may also adjust the height of the mounting rail, as well as the coordinates of the pulley arm and restraining bar. Images depicted in Exhibit 7 demonstrate how to record the coordinates of the test frame for each test or adjustment.	

12.3	
Load fully applied to a reachable inner cord of a Roman shade. The window covering was mounted using an under-mount configuration and with the rear of the window covering facing the laboratory to facilitate testing of the cords.	

12.4	
Load fully applied to a reachable inner cord of a bamboo Roman shade. The window covering was mounted using an under-mount configuration and with the rear of the window covering facing the laboratory to facilitate testing of the cords.	

EXHIBIT 13: Other examples of perimeter and cord length gauge use [s. 4.5, 4.6, 4.7 of Test Method M22]

13.1	 
	An inner cord is extracted from a Venetian blind. The analyst uses the perimeter gauge to confirm whether the CBO is greater than 44 cm in perimeter. In the left hand image, the analyst uses a tool to position the perimeter gauge; however, the analyst may simply use their hand (as shown in the right hand image).

13.2	
Following 13.1, the analyst uses the cord length gauge to confirm whether there is more than 22 cm of cord within the CBO.	

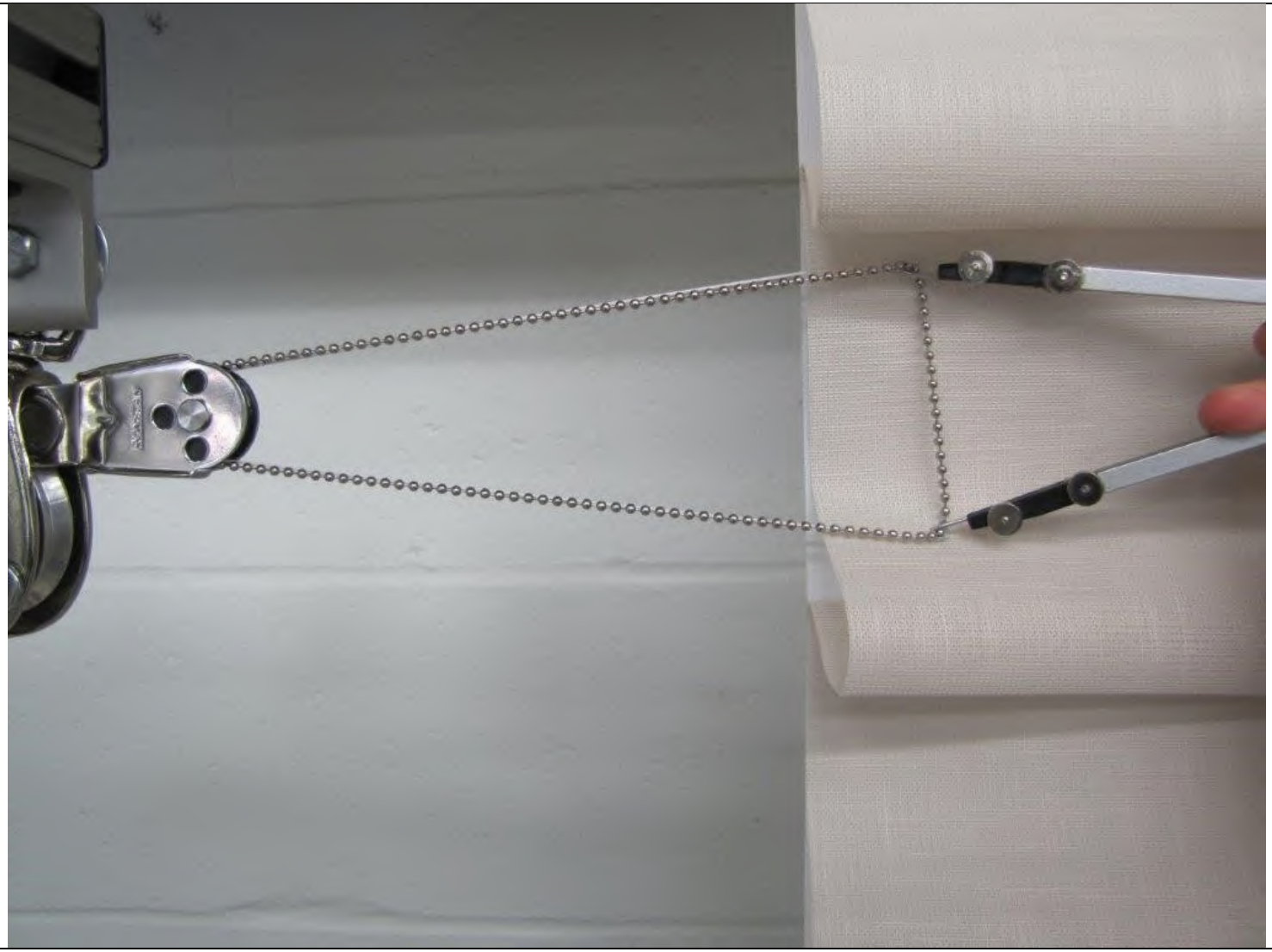
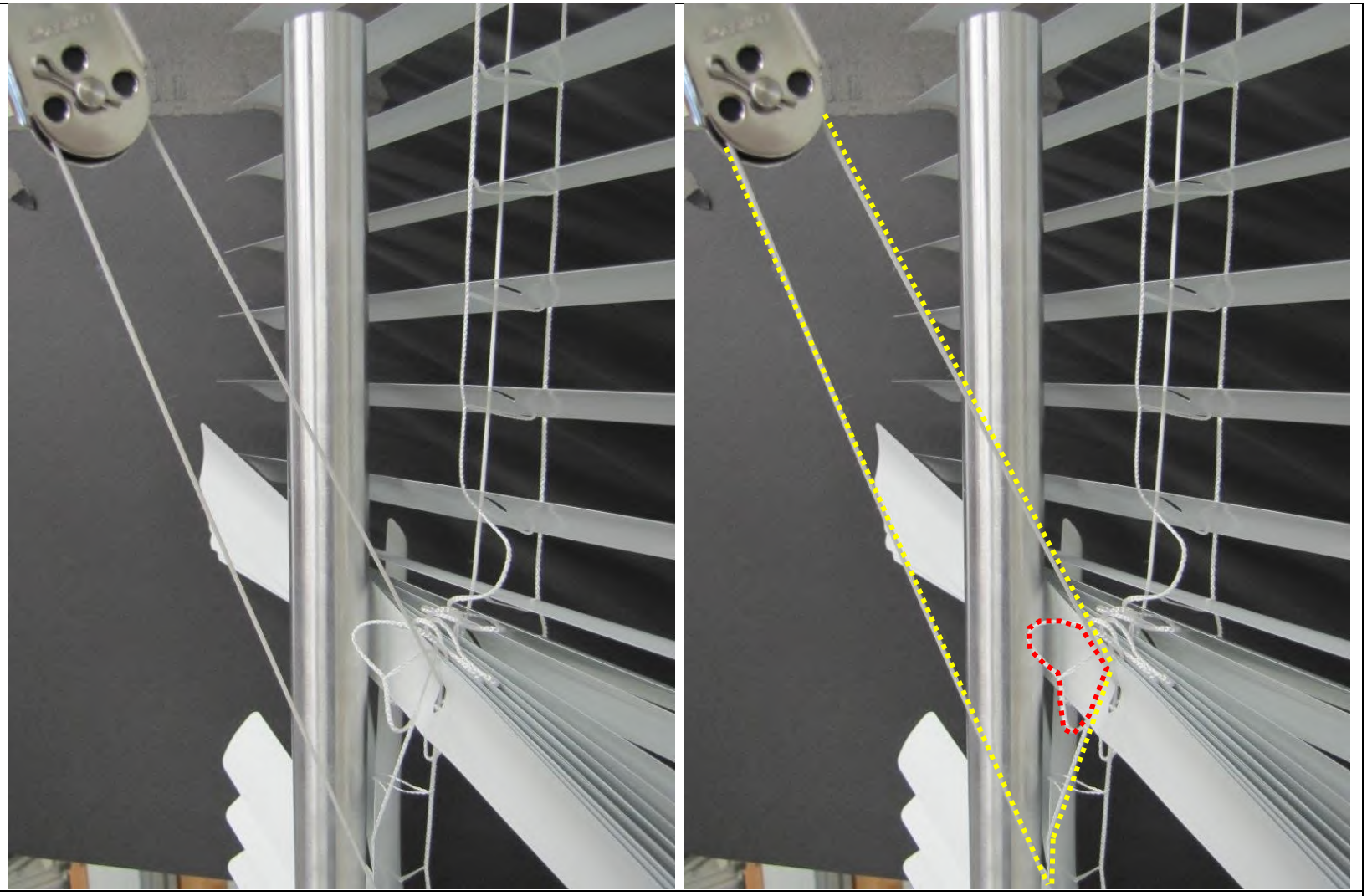
13.3	
Example CBO whose perimeter appears to be smaller than that of the perimeter gauge. The front of the shade has a drooping quality that may be subjected to light manipulation; however, the back of the shade (which is taut) is structural to the CBO and may not be manipulated.	

EXHIBIT 14: Use of cord length and perimeter gauges requiring light manipulation [s. 4.5, 4.6, 4.7 of Test Method M22]

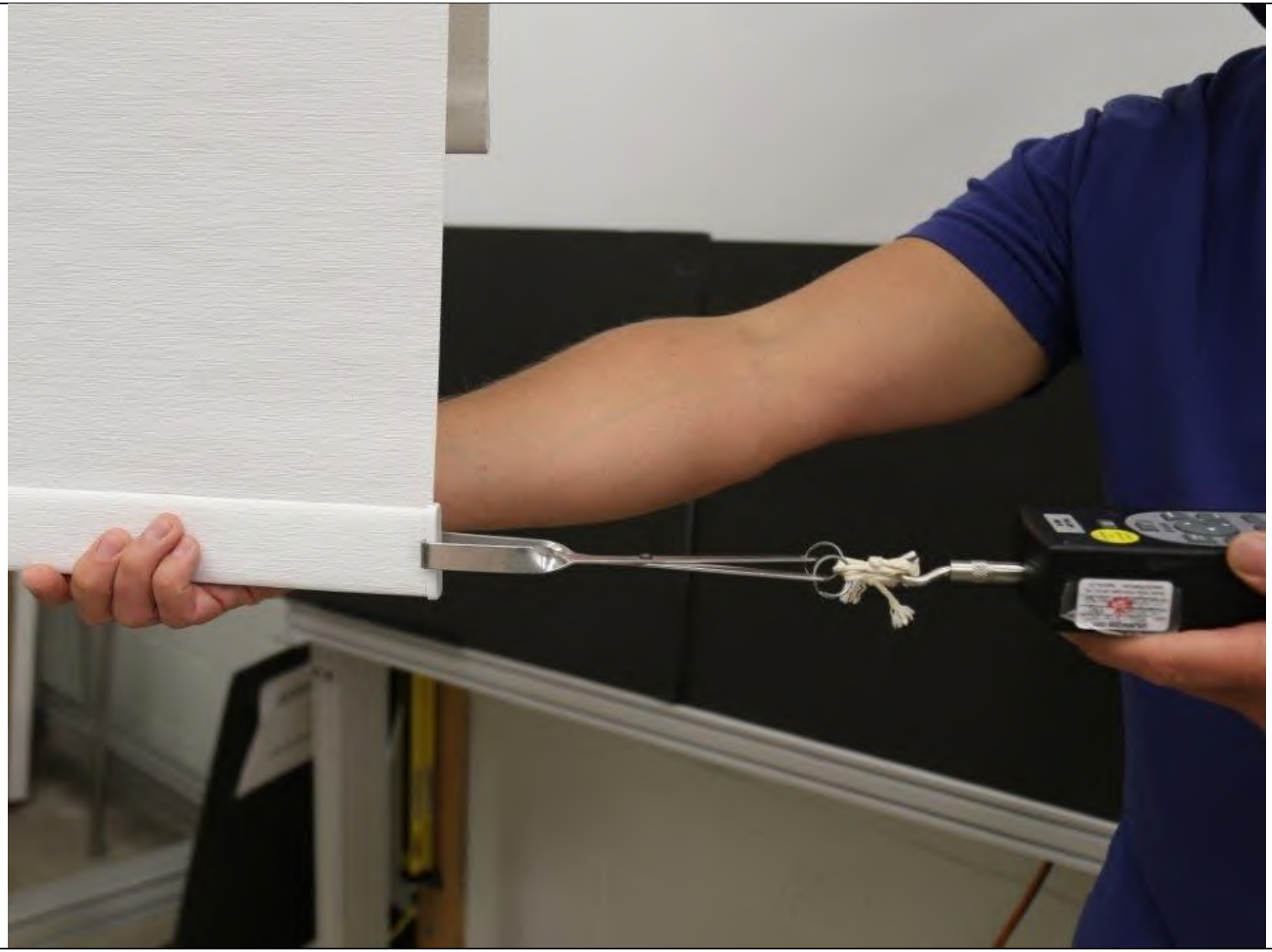
14.1



An example pull on a reachable inner cord of a Venetian blind. The left hand and right hand images are identical; however, the image on the right shows a yellow dotted line representing the true CBO. The red dotted line shows a loose segment of ladder that is found within the CBO, but does not make up part of its structure. In this case, the analyst should not trace the perimeter gauge around the red dotted portion of ladder. The analyst can lightly manipulate the ladder portion of the CBO out of the way to assess the true perimeter of the CBO structure, as shown in 14.2.

14.2	
Analyst's light manipulation of the loose segment of ladder found within the CBO of 14.1. The CBO is then assessed using the perimeter gauge.	

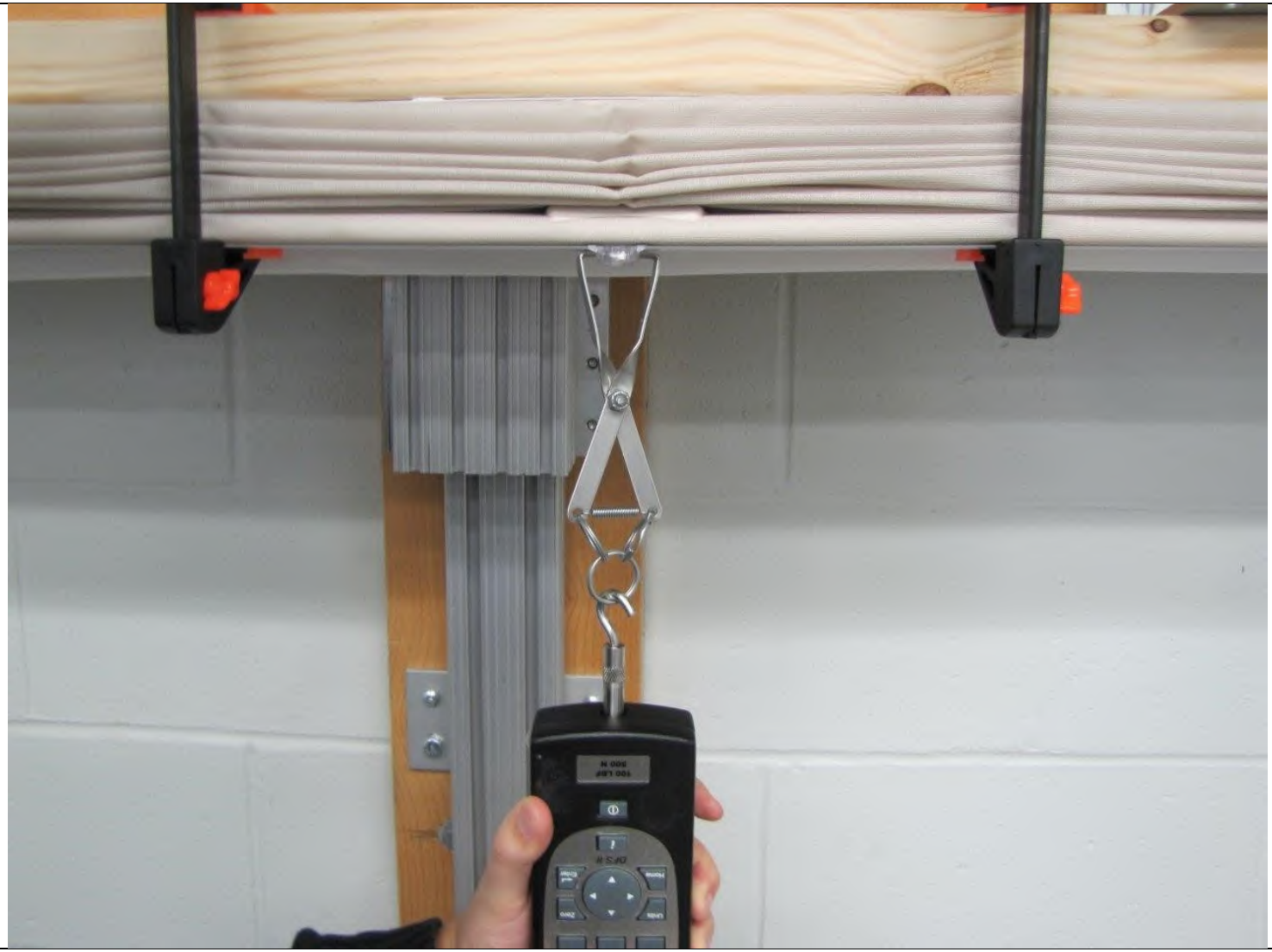
EXHIBIT 15: Push/pull on a potentially small part [s. 4.8 of Test Method M22]

15.1	
	Example 90 N pull test on an end cap of a mounted product where the bottom rail is stabilized. Means of securing portions of the product under test are permitted, and the analyst may further stabilize the product if necessary.

15.2	
In addition to 15.1, the same component may be tested with a 90 N push, where the bottom rail is stabilized. Means of securing portions of the product under test are permitted, and the analyst may further stabilize the product if necessary.	

15.3	
	Example potential small part on the bottom rail of a product where the 90 N push / pull test could be applied.

15.4



Example 90 N pull on a potential small part found on the bottom rail of the product (same part as shown in 15.3). The part is grasped using a two-pronged hook. For testing purposes, the bottom rail is secured to the mounting rail using two F-clamps.