

Playground Safety Inspection Tool Kit Instruction Manual

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1. Package Contents

The inspection kit includes the following items:



1. Head Probe
2. Torso Probe
3. Fish Probe (Partially Bounded Opening Template)
4. Test rods (15.7 mm, 7.9 mm, 5 mm)
5. Protrusion Test Gauges/1mm gauge (5 pieces)
6. Diameter & Radius Gauge
7. Slide Chute Inspection Gauges (2-5 Years & 5-12 Years)
8. Shoulder Bag (Available in Black or White, shipped randomly)



2. Torso Probe + Head Probe (Ref. Standard Section 6.1)



(Torso Probe)



(Head Probe)



(Figure 1)

Usage Timing and Methods: When using the **Torso Probe** to inspect openings on playground equipment, pay attention to the direction of the handhold (see Figure 1).

•**Physical Passage:** If the probe can pass through an opening, it indicates a child's body can also pass through.

•**Safety Risk:** Special attention should be given to openings at higher elevations (e.g., openings around standing platforms). If the Torso Probe can pass through but the **Head Probe** cannot, there is a risk of **head or neck entrapment** (potentially leaving a child suspended in mid-air).

Test Results:

•Pass:

- 1.The Torso Probe cannot pass through the opening.
- 2.The opening allows both the Torso Probe and the Head Probe to pass through.

•**Fail:** The Torso Probe passes through, but the Head Probe does not. This opening fails the test (see Figure 2)



(Figure 2)

3. Fish Probe (Ref. Standard Section 6.1)

Inserting the 'A' portion of the test template into the opening following the centerline of the opening.

Upon inserting the 'A' portion of the test template into the opening, and if there is simultaneous contact between the two corners of the 'A' portion of the test template and the sides making up the boundary of the opening, the opening is considered to PASS the test.

Fail - There is simultaneous contact between the two sides of the 'A' portion of the template and the sides making up the boundary of the opening. The opening should be tested further using the 'B' portion of the template.

Pass - The bottom of the 'A' template is resting on the lower boundary of the opening and there is not simultaneous contact between the two sides of the template and the sides making up the boundary of the opening. Part 'B' test is not required.



Fish Probe

Fail - The size of the components forming the opening allows the 'B' portion of the template to pass into the opening to depth greater than 0.75 in (19.1 mm).

Pass - The size of the components forming the opening does not allow the 'B' portion of the template to fit within the boundaries of the opening.

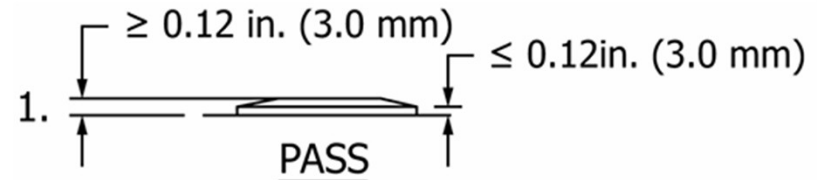
FIG. A1.7 Exemption for a Thick Surface Condition Using the "B" Portion of the Test Template

4. Protrusion Test Gauge Set (Ref. Standard Section 6.2)

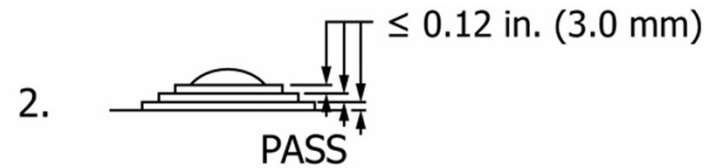


Usage Timing and Methods: Any protrusion on composite playground equipment that exceeds regulatory length may cause **clothing/string entanglement** or serious **puncture and impact injuries**.

4-1 Entanglement Test Gauge: Approximately 3mm thick. Used to test for potential snagging of clothes or drawstrings (refer to Figure 1, a-h)



Fits within one of the (3) projection gauges. Projects upwards from a horizontal plane - perpendicular projection is $\leq 0.12 \text{ in (3.0 mm)}$, curved upper surface does not project perpendicular to the plane of the initial surface.

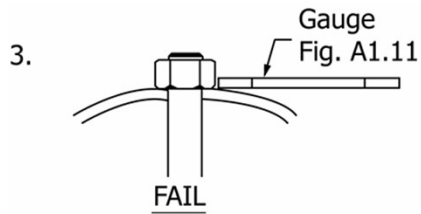


Fits within one of the (3) projection gauges. Each of three surfaces project upwards from a horizontal plane $\leq 0.12 \text{ in (3.0 mm)}$ - O.K. Rivet head has the same characteristics as in 1, therefore it passes the entanglement test for projections from a horizontal plane.

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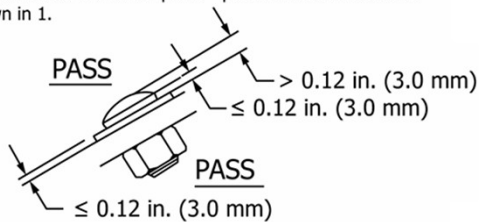


4. Protrusion Test Gauge Set (Ref. Standard Section 6.2)

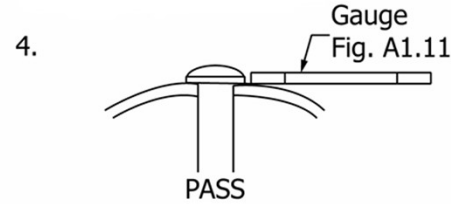


Fits within one of the (3) projection gauges. Passes bolt end projection test - ≤ 2 threads exposed. Fails entanglement test - projection upwards from a horizontal plane perpendicular to plane of initial surface > 0.12 in. (3.0 mm).

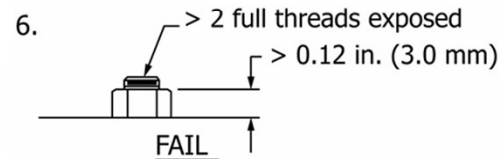
5. Fits within one of the (3) projection gauges. Projects upwards above a horizontal plane - passes for same reasons as shown in 1.



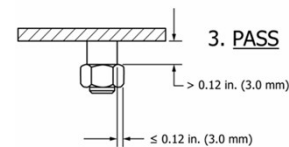
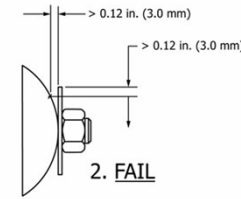
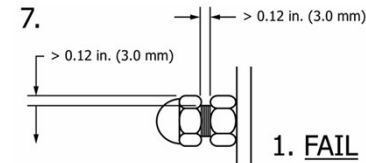
Passes bolt end projection test - ≤ 2 threads exposed. Projects downward below horizontal plane - not subject to entanglement requirement of projecting above a horizontal plane.



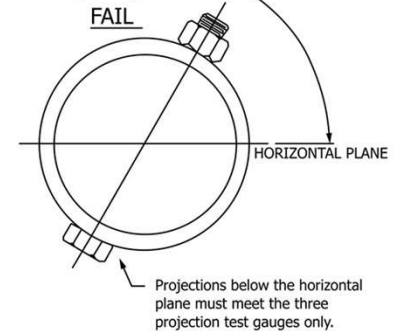
Fits within one of the (3) projection gauges. Passes entanglement test - projection from a horizontal plane - for same reasons shown in 1.



Fits within one of the (3) projection gauges. Fails (2) entanglement tests - Projects upwards from a horizontal plane perpendicular to plane of initial surface > 0.12 in (3.0 mm) and fails exposed bolt end projection > 2 full threads.



8. Projections above a horizontal plane must pass the three gauge test plus have no projections greater than 0.12 in (3.0 mm).



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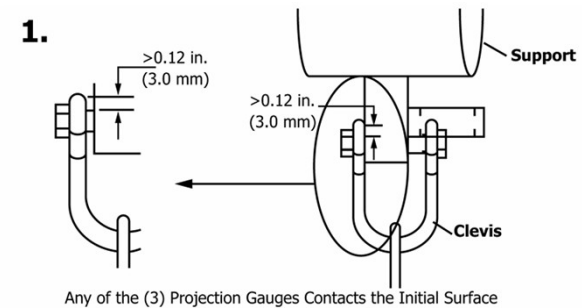


4. Protrusion Test Gauge Set (Ref. Standard Section 6.2)

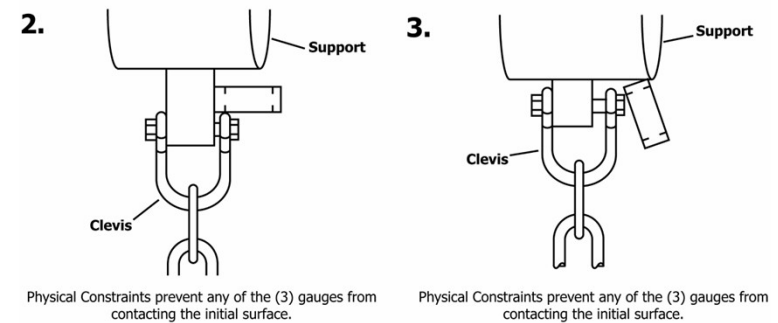
4-2 Protrusion Gauges: Use the three gauges in sequence (Small - Medium - Large).

Fail: Any protrusion that extends beyond the face of the test gauge is considered a failure.

Examples of Failure: Puncture risks, protrusions the size of an eye socket, or larger protrusions



Fail



Pass

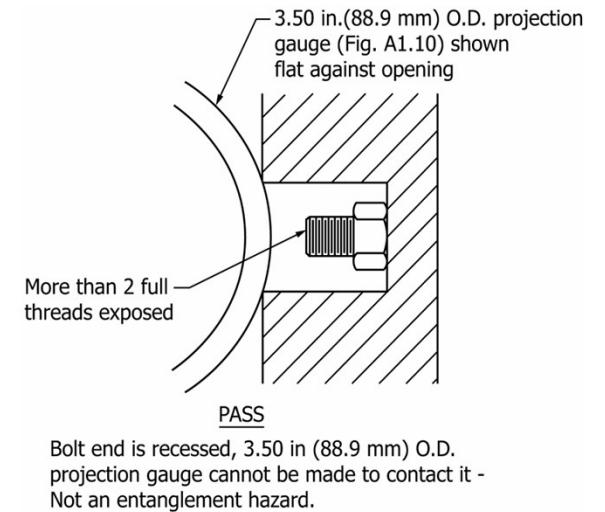
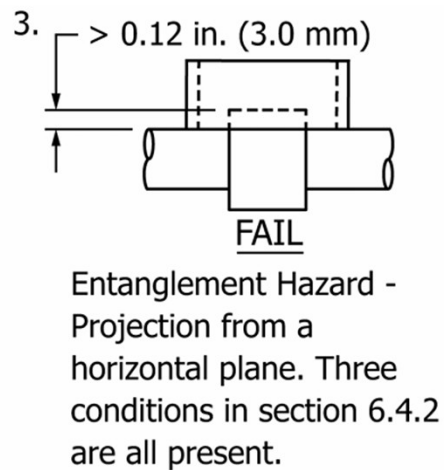
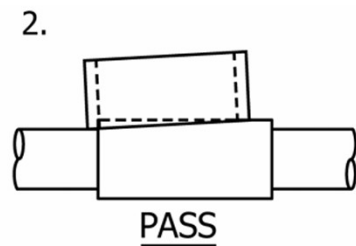
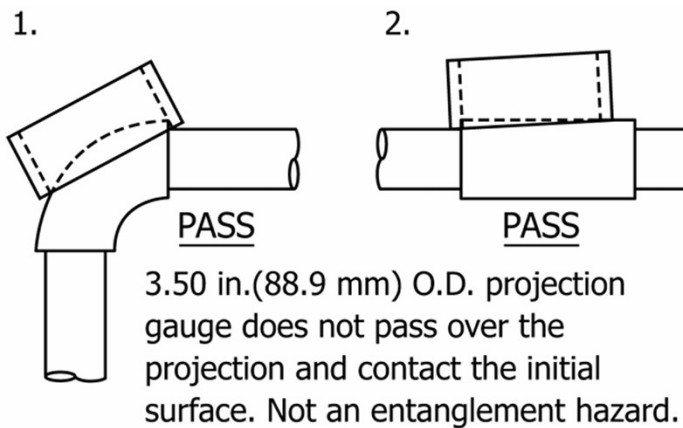
Pass

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4. Protrusion Test Gauge Set (Ref. Standard Section 6.2)



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4. Protrusion Test Gauge Set (Ref. Standard Section 6.2)

1. Checking Loops for 0.04 in. (1.0 mm) gap



FAIL

Upper Loop gap
>0.04 in. (1.0 mm)



FAIL

Lower Loop gap
>0.04 in. (1.0 mm)



PASS

Both Loops gap
≤0.04 in. (1.0 mm)

4. Both loops closed. Lower loop projection O.K.
Upper loop O.K.
Checking lower loop alignment



FAIL

Lower loop
overlaps body



PASS

Lower loop
aligns with body

2. Both loops closed
Checking lower loop projection



FAIL

End of lower loop extends
beyond boundary of upper loop.



FAIL



PASS

End of lower loop
inside boundary of
upper loop.

3. Both loops closed. Lower loop projection O.K.
Checking upper loop



FAIL

Upper Loop extends
beyond body



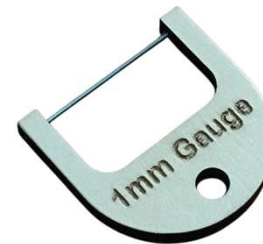
PASS

Upper loop aligns
with body



PASS

Upper loop
overlaps body



5. Diameter Gauges + Radius Gauges (Ref. Standard Sections 6.2.3, 7.2.6.4, 8.2, & 8.4)

Usage Timing and Methods:

•**Handrails (Stairs/Platforms):** Diameters must be between **24mm and 39mm** to ensure comfort and balance.

•**24mm Opening:** Should **NOT** be able to fit over the handrail (Figure 1).

•**39mm Opening:** **SHOULD** be able to fit over the handrail (Figure 2).

•**Sliding Poles:** Diameter must be **less than 48mm** to allow a child's hand to wrap around and support their weight.

•**48mm Opening:** **SHOULD** fit over the pole (Figure 3).

•**Flexible Handholds (Ropes/Cables/Chains):** Diameters must be between **16mm and 39mm**.

•**16mm Opening:** Should **NOT** fit over the cable (Figure 4).

•**Upper Body Equipment (Pull-up bars/Horizontal ladders/Swing seats):** Edges and corners must have a radius of at least **6.4mm** for comfort.

•**R6.4 Radius Gauge:** Should **NOT** be able to fit into the gauge opening



Figure 1



Figure 2



Figure 3

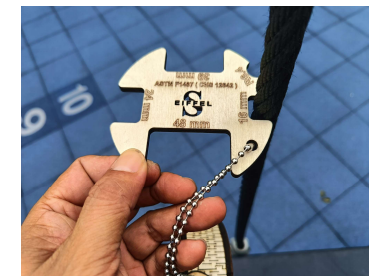


Figure 4

6. Slide Chute Inspection Gauge Set (Ref. Standard Section 8.5)

Usage Timing and Methods:

Select the correct gauge based on the age group indicated on the playground signage: **2-6 Years** (Preschool), **5-12 Years** (Elementary), or **2-12 Years** (Parks—use the 5-12 years gauge).

- Width and Sidewall Height (Figure 1):** The gauge board should fit completely into the chute. The sidewalls of the slide must be higher than the **102mm** mark indicated on the gauge to prevent children from falling out.
- Exit/Transition Curve Radius (R760) (Figure 2):** The radius at the slide's transition must be greater than **760mm** to prevent spinal injuries.

- Pass:** The center point of the gauge touches the slide while gaps appear at the front and back.
- Fail:** The front and back of the gauge touch the slide while a gap appears at the center (indicating the radius is too small)



Figure 1



Figure 2

7. Test rods (Ref. Standard Section 6.5, 8.8.1.5 and 8.9.2.1)

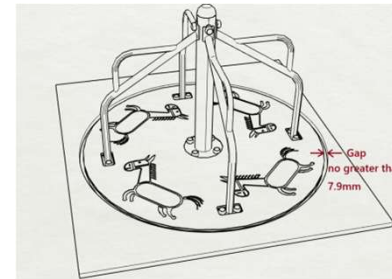
6.5 Crush and Shear Points—There shall be no crush or shear points caused by junctures of two components moving relative to one another, or at an opening present at the junction of a stationary support and a rigid supporting member for a swinging element (that is, pendulum see saw, glide rides, and so forth) while the swinging elements are within their normal swinging angles. A crush or shear point is any point that entraps at one or more positions a 0.62 in. (**15.7 mm**) diameter rod.

8.8.1.5 Platforms Flush to the Protective Surfacing—There shall be no gap greater than 0.312 in. (**7.9 mm**) measured in any direction between the platform and protective surfacing.

8.9.2.1 A crush, shear, entrapment, or catch point is any point that will admit a 3/16 in. (**5 mm**) diameter neoprene rod at one or more positions, either between rollers or adjacent stationary segments.



15.7 mm rod



7.9 mm rod



5 mm rod



Specifications & Technical Support

- Dimensions:** Compliant with National Standard **CNS 12642** (North American **ASTM F1487**).
- Material:** Imported lightweight, high-strength Basswood.
- Total Weight:** Approximately 450 grams for the full set

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Contact us



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