



6 Step Method

3M™ Eyewear Fit System

Step 4 ▶ Worker Education

Verify the wearer has been trained on the proper use, maintenance and limitations of safety eyewear. The worker should wear their safety eyewear in the manner it was designed to be worn during all required functions and tasks. Also ensure the worker is trained on site specific procedures such as cleaning and storage of eyewear. Consult the User Instructions supplied by the manufacturer of the eyewear for use information.

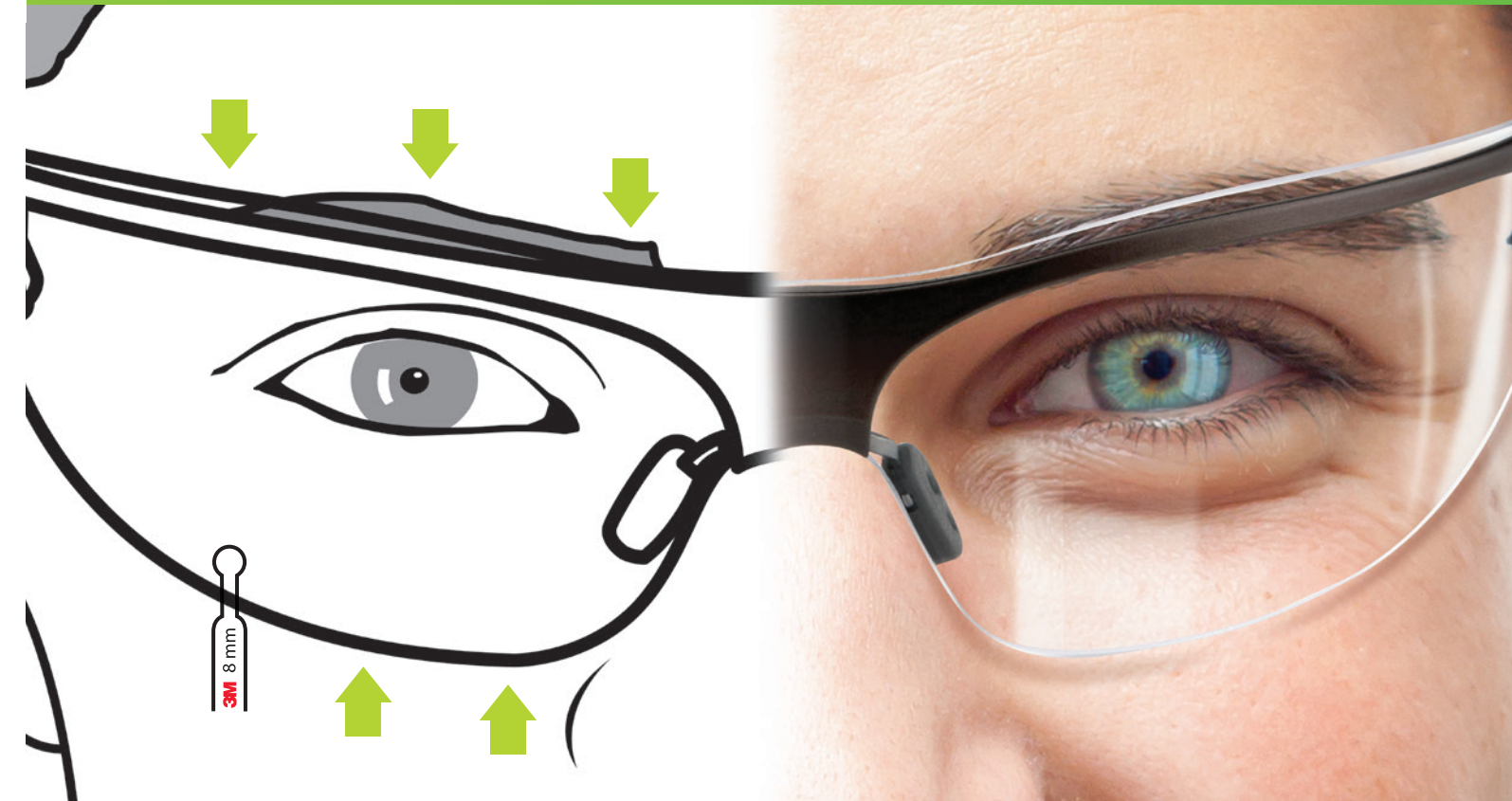
Step 5 ▶ Ergonomic Re-check

Verify the eyewear is still comfortable from Step 2, if unacceptable discomfort is noted by the wearer and the eyewear has adjustable features, then have the wearer try adjusting for a more comfortable fit. If a more comfortable adjustment setting cannot be achieved it is suggested the wearer select another style of eyewear and repeat the fit evaluation.

If adjustments are made or another style of eyewear is selected, repeat the fit evaluation.

Step 6 ▶ Record Results

Record the model number and other applicable information for the selected style in the space provided in the Fit Evaluation Form. Retain fit records in compliance with applicable regulations, standards and company policies.



✔ Things to remember

- ▶ There are no regulatory requirements regarding the fitting of eyewear, so this process has been created to help you maintain best practice.
- ▶ When other PPE such as a disposable respirator will be worn in addition to safety eyewear, ensure both types of PPE fit properly when used in combination.
- ▶ 3M recommends eyewear fit testing prior to initial use of a new eyewear model and periodically thereafter.
- ▶ The Coverage and Gap gauge tools may be wiped down as needed with soap and water or an eyewear cleaning wipe and dried with a soft cloth.

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3M™ Eyewear Fit System

The fitting solution

The Importance of Fit

Simply wearing safety eyewear may not be enough to prevent eye injuries. Every face shape is different and eyewear injuries can occur when safety eyewear doesn't fit properly on an individual.

Unlike respiratory protection where face fit testing is mandatory, there are no regulatory requirements regarding the fitting of eyewear. Current standards suggest careful consideration should be given to eyewear fit, e.g. BS 7029:1999. There is no specific guidance however on how to evaluate eyewear fit on an individual.

The 3M™ Eyewear Fit System, is a unique approach to evaluating the fit of safety eyewear on an individual.

The Eyewear Fit System – A 6 Step Method

The 3M™ Eyewear Fit System is a 6 step evaluation method designed to help compare different styles or models of eyewear on an individual in order to select the best fitting model(s) for the users face shape and size.

Supplies required for the evaluation

- ▶ A selection of safety eyewear appropriate for the job hazards and tasks
- ▶ Fit evaluation forms and pen or pencil
- ▶ 2 Coverage and Gap gauge tools

Step 1 ▶ Select a Style of Eyewear

Instruct the wearer to try on the available eyewear models and select a style from those pre-determined by the work site to be appropriate for the hazards and tasks.

It is suggested that only clear or lightly tinted lenses that allow a clear view of the wearer's pupil be used for fitting.

If the chosen style has adjustable features the wearer should adjust for best wearing comfort and perceived fit before proceeding with the fit evaluation.



Step 2 ▶ Ergonomic Check

Check the comfort of the selected eyewear model prior to assessing fit.

Verify the following:

- ▶ Temple tips should not pinch in the area around the wearer's ear
- ▶ Pressure on the head from the temples or side arms should be acceptable (not too loose or too tight)
- ▶ Nose piece shouldn't pinch or slide
- ▶ If the nose pads are adjustable, check fit and adjust as needed, the full surface of the nose piece or nose-pads should touch the wearer's nose
- ▶ The weight of the eyewear should be comfortable on the face

If unacceptable discomfort is noted by the wearer and the eyewear has adjustable features, then have the wearer try adjusting for a more comfortable fit.

If a more comfortable adjustment cannot be achieved or the eyewear is not adjustable it is suggested the wearer select another style.



Step 3 ▶ Assessment

View

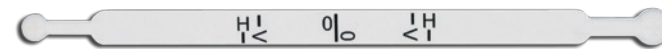
Verify the wearer can see in all directions of eye rotation without major obstruction to the field of view that would interfere with visibility to perform work tasks. If the selected pair limits the field of view, the wearer should select another style or model and start a new fit evaluation.

Security

Ask the wearer to do gentle head and body movements including shaking the head, turning the head from side to side, and moving the head up and down. Verify that the eyewear stays in place on the wearer's head and the frame does not fall off with head movement. If a secure fit cannot be obtained, select another style or model and start a new fit evaluation.

Coverage

Check how well the safety eyewear covers the soft tissue area around the eyes. Use the ruler on one of the Coverage and Gap gauges to check the brow to cheek bone and lateral coverage of the eyewear.

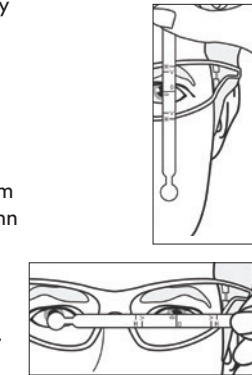


Evaluating the Distance

1. Hold the ruler vertically and instruct the wearer to look straight ahead and keep their face relaxed.
 2. Centre the "0" line in the middle of the wearer's pupil. Now evaluate the distance from the centre of the pupil to the upper and lower edge of the eyewear.
 3. This distance should meet or exceed the lines on the gauge marked with a "V" (Figure 1).
 4. Include the frame in the evaluation.
 5. Record the result on the Fit Evaluation Form under the "vertical measurement" column.
- Repeat with the other eye.

1. Rotate the gauge to the horizontal position and again centre the "0" line approximately in the middle of the wearer's pupil
 2. The distance as shown in (Figure 2) should meet or exceed the lines on the gauge marked with an "H"
 3. Include the frame in the evaluation
 4. Record the result on the Fit Evaluation Form under the "horizontal measurement" column
- Repeat with the other eye.

If the selected pair of eyewear doesn't meet or exceed the coverage area vertically and horizontally the wearer should select another style and start a new fit evaluation.



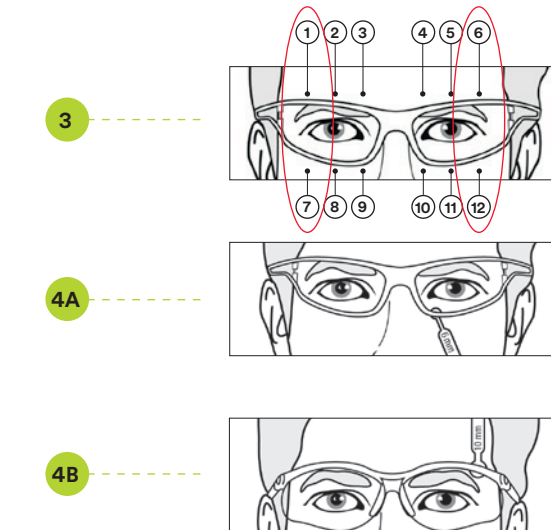
Gaps

For spectacles, the smaller the gap between the eyewear and the face, the less likely it is that debris and projectiles will pass through to the soft tissues of the eye. Use the spheres on the Coverage and Gap gauge to check for excessive gaps between the eyewear and the face. Review the check points in Figure 3. Pay close attention to the location of positions 1 and 6 on the top of the eyewear and 7 and 12 on the bottom of the eyewear.



- ▶ Starting with the gauge with sphere sizes of 10mm and 12mm, hold the gauge vertically.
- ▶ Gently probe the gap clearance around the perimeter of the eyewear, checking the top and the bottom of the frame as well as the nose bridge area in the locations marked in Figure 3.
- ▶ For each location, mark one gap measurement value on the Fit Evaluation Form by checking the appropriate box.
- ▶ The gap measurement is the sphere size that best matches the space between the face and the eyewear at the check points. Starting with the 12mm sphere, if the middle of the 12mm sphere is able to pass between the eyewear and the face, check the "12mm" box on the Fit Evaluation Form. If the 12mm sphere does not fit into the gap, try the other sphere sizes, working down from largest to smallest.
- ▶ Continue this process checking all 12 locations.

Figures 4A and 4B show examples of two different gap sizes. Figure 4A illustrates an example of a 6mm gap while Figure 4B shows a 10mm gap.



A gap size of less than 6 or 8mm is preferred. If there are a number of gaps of 10mm or 12mm, it is recommended to evaluate another style or model of eyewear.