discarding them

Use of sweatbands helps prevent eye irritation, aids visibility, and eliminates work interruptions for face mopping

Sweatbands are usually made of a soft, light, highly absorbent cellulose sponge An elastic band holds the sweatband in place on the wearer's forehead so that it does not interfere with glasses or goggles Evaporation from the exposed surface produces a cooling effect which adds to comfort

Face protection

Face shields are available in a wide variety of types to protect the face and neck from flying particles, sprays of hazardous liquids, splashes of molten metal, and from hot solutions—see Fig 38-3a and -3d and Fig 38-15 In addition, they may be used to provide antiglare protection where required As a general rule, they should be worn over suitable basic eye protection

Three basic styles of face shields include headgear without crown protectors, with crown protectors, and with crown and chin protectors Each of the three is available with one of these replaceable window styles

Clean transparent,

Tinted transparent,

Wire screen,

Combination of plastic and screen, and

Fiber window with a filter plate mounting

The materials used in face shields should combine mechanical strength, light weight, nonirritation to skin, and capability of withstanding frequent disinfectings Metals should be noncorrosive and plastics of the slow-burning type Only optical grade (clear or tinted) plastic, which is free from flaws or distortions, should be used for the windows And plastic windows should not be used in welding operations unless they conform to the standards of transmittance of absorptive lenses, filter lenses, and plates

The metallic bindings on some plastic face shields help prevent the plastic from splitting and cracking However, a slight bend in the binding will introduce an optical fault in the shield, making it unusable

On some jobs, such as the pouring of low melting metals, protection against radiation is not necessary, but it is desirable to protect the head and face against splashes of metal

A face shield similar to an arc welder's face shield, but made of wire screen (which provides much better ventilation than a solid shield), can be used *Federal Standard Stock Catalog* GGG-H-171 *Specifications* require a screen of 28-, 30-, or 36-mesh with wire 0 012 to 0 017 in in diameter

This shield is commonly used without a window because the plain wire will not fog under high temperature and high humidity A metallized plastic shield that reflects a substantial percentage of heat has been developed for use where there is exposure to radiant heat

Acid hoods and chemical goggles

Head and face protection from splashes of acids, alkalis, or other hazardous liquids or chemicals may be provided in a variety of ways, depending upon the hazard Good protection is given by a hood made of chemical-resistant material with a glass or plastic window (Fig 38-16) In all cases, there should be a secure joint between the window and the hood materials

Hoods are extremely hot to wear, and can be obtained with air lines for the wearer's comfort When a hood is so supplied, the wearer should have a harness or belt like that on an air line respirator (see Fig 38-28) for support of the hose A device based on a vortex principle has been developed to provide temperature-conditioned air (See Fig 38-33)

If protection is necessary only from limited direct splashes, the wearer can don a face shield made of a material unaffected by the liquid or a flexible fitting chemical goggle with baffled ventilation if the eyes are not exposed to irritating vapor

For severe exposures a face shield should be worn in connection with the flexible fitting chemical goggles

Face shields should be shaped to cover the whole face They should be supported from a headband or harness, so they can be tipped back and clear the face easily Any shield should be easily removed in case it becomes wet with corrosive liquid

If goggles worn under the shield are of the nonventilated type for protection against vapor as well as against splashing, a nonfogging material should be provided