



3M™ Versaflo™ S-655 Premium Hood

Powered & Supplied Air Respiratory Protection systems



3M

Protection

The new S-655 Premium hood promotes pride of ownership, breaking down emotional barriers increasing acceptance and utilisation of this type of equipment through a series of key innovations.



Control

The innovative head harness design allows users to dynamically control airflow around the hood, to optimise their working environment.

These hoods now meet the highest EU and US respiratory standards for products of this type.

Four patent applications pending.



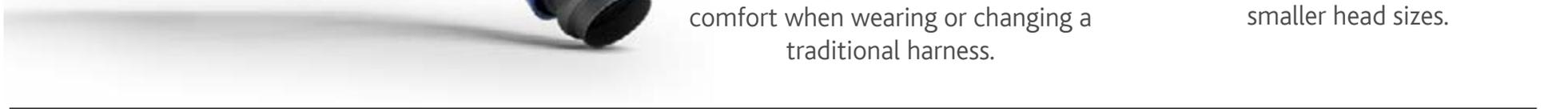
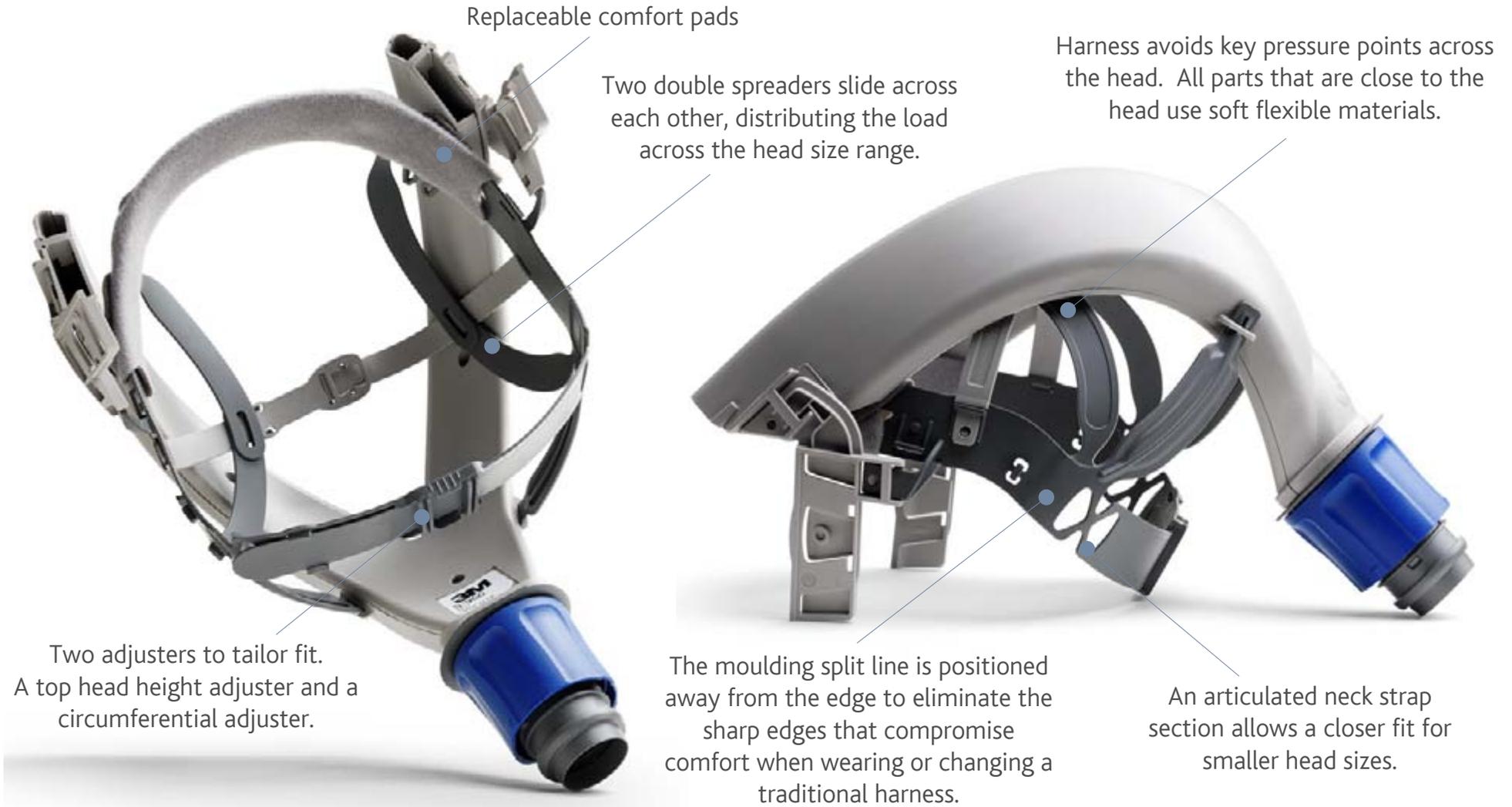
Comfort

The new lightweight head cradle is designed to spread load across the head. This allows the user to work comfortably for longer.

The new fabric pattern provides a more contoured appearance that is closer fitting to the head than previous designs.

Innovation

New head cradle



Innovation

Innovative air flow

This is the first product of this type to have customisable air flow that is dynamically controlled by rotating the external collar, whilst the user is still in the hazardous environment.



Rotate the Collar to adjust the balance of the airflow.

The air is focussed in the breathing zone.

Once the top vent is opened, air is distributed around the head for comfort.

Innovation

Fabric design

The new hood has an innovative tailored construction with 3 panels that eliminate the peak that is inherent with 2 panel designs.

The duct allows the fabric form to be tailored more tightly, without interfering with the airflow through the hood.

A hanging loop on the top of the hood is provided for storing the equipment.





Functionality

Improving comfort and appearance increases the user acceptance and pride in equipment, increasing usage and prolonging activity periods.

The new equipment adheres to tough global standards. Including the stringent American standard OSHA 29 CFR 1910.134, which has an assigned protection factor of 1000.

The visor is rated for low energy impact and splash to EN166:2002. Which is the same classification for impact resistance as safety spectacles.

Ergonomics

The hood is designed to fit 95% of the global workforce.

It provides 100% field of view, measured to EN12941:1999.

The form of the hood has been developed to be worn with prescriptive eyewear. The visor angle reduces reflections and glare.

The angle of the external air flow adjustment collar is carefully positioned to allow users to adjust air flow easily whilst wearing the equipment in their working environment.

Weight is minimised by carefully controlling wall thickness around the Y duct and optimising the strap geometry, reducing head loading and prolonging usage periods.



Self explanatory quality

The method to make adjustments to the harness are straightforward and intuitive.

The position and attachment method for the breathing hose is clear.

Air flow adjustment is self-evident, as the user can quickly feel the impact of the adjustment they make. There is no need to add complex measurements, readouts or indicators.

Whilst wearing the equipment you sense the airflow inside the visor, this reassures you that you are being protected.

The visor attachment tabs are self-evident to secure the fabric headcover. These two attachment points permit significantly faster user assembly of the hood. The hood is automatically sealed at the rear when the hose is connected.

The fabric pattern of the hood covers your head and upper torso, giving you the reassurance that you have respiratory protection and protection from your local working environment.



Formal quality



The form and construction of the product is honest, simple and efficient. The dominant Y-duct is robust and lightweight. Its form reinforces the user's perception of protection as well communicating airflow and direction. The head cradle's structure has enabled a single variant to comfortably fit 95% of users. The replaceable fabric headcover is efficient offering good protection while minimising material use. It is flat packed for transport but has a form in use that is tailored and considered.

Durability and Ecological compatibility

The removable headcover reduces waste compared to other hoods with fixed head cradles. (One patent application pending)

The robust materials used on the harness were selected to prolong product life reducing waste.

The replacement headcovers are supplied completely flat packed in new compact packaging, minimising transportation volume and reducing packaging waste.

Large mouldings are protected from contamination inside the hoods so they can be reused.

Clips and adjustments have all been designed, computer analysed and physically tested to withstand the multiple activations they will see during this lifespan.

Softer fabrics have been designed to be maintained and replaced.

Products in this segment have long product life cycles, often available in excess of 10 years.



Product periphery

This equipment forms part of the Powered Air Purifying Respirator system, in conjunction with:

Air delivery unit – draws air from surrounding environment and filters it, so it is safe to breathe

Hose – supplies air from the unit to the hood

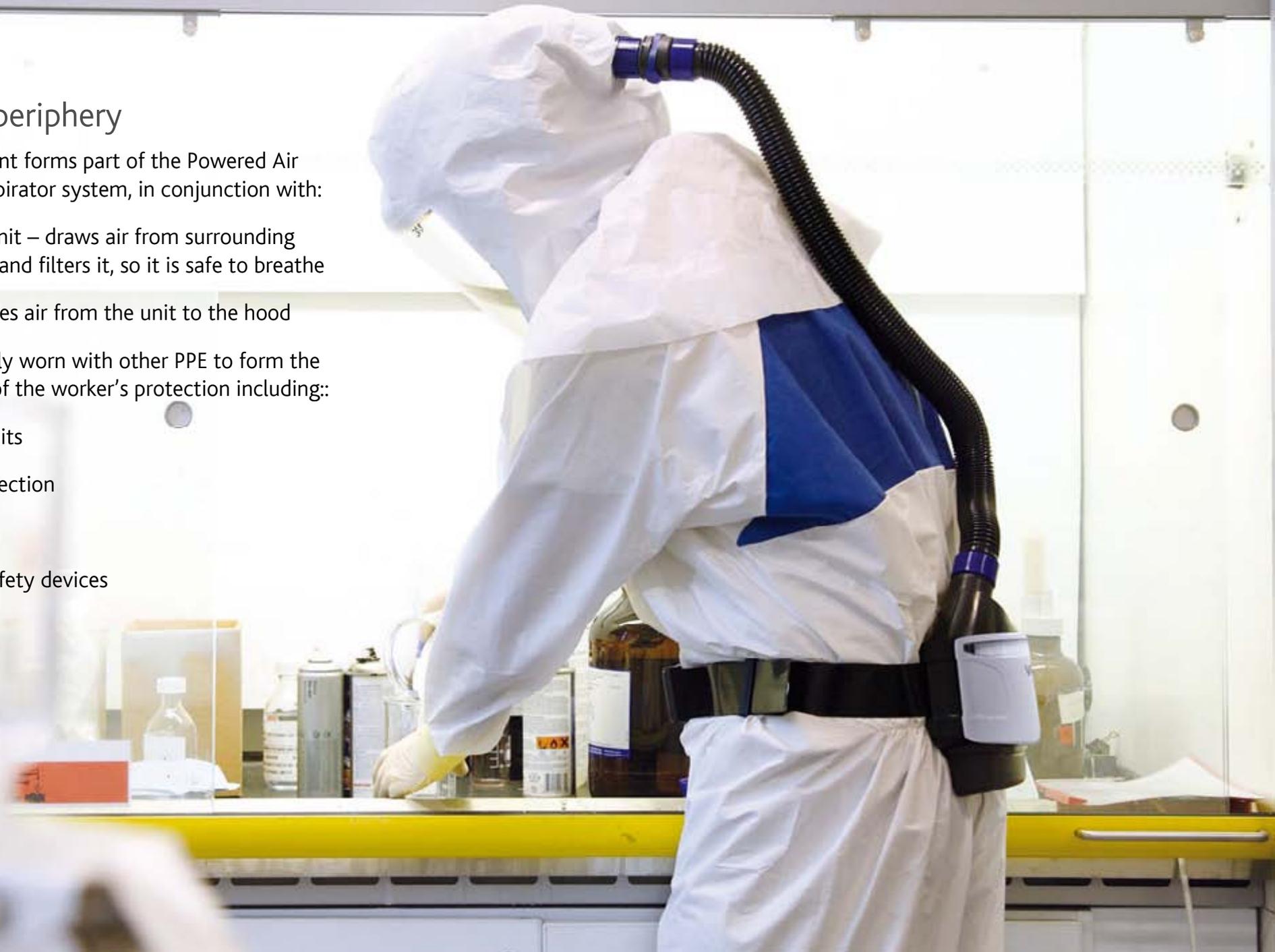
It is commonly worn with other PPE to form the cornerstone of the worker's protection including:

Protective suits

Hearing protection

Gloves

Peripheral safety devices



Symbolic and Emotional content

Our philosophy was to design an innovative hood system that removed emotional and functional barriers to use, increasing user acceptance through confidence and trust.

Our empathy with the different user's context needs and values led to new levels of usability, aesthetic consideration and simplicity that helped the user work easier, safer, less self consciously and in more comfort.

The goal was to deliver a system that the user considered as an enabler rather than a barrier to their work, in turn increasing value for all stakeholders.



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