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APPENDIX V
Document No. 70509/15
Issue 1

CORRECTIVE LENS SYSTEM FM12

INTRODUCTION

The FM12 respirator is supplied in 3 sizes, each of which is obtained with a single type of eyepiece. The eyepiece assembly is designed to accept eyesight correction in the form of a pair of monacles, if required.

Separate spectacles are not required or recommended.

This system enables the wearer to remove and replace the monacle assembly (lens + frame) for cleaning or when a prescription change is required.

The monacle frames have a molded mark on the wide arm to indicate whether the monacle is left or right handed. The markings are as follows:

“Y” – Left

“H” – Right

DESCRIPTION

A personal prescription lens fits into the plastic monacle. This is fitted to the eyepiece body, behind the eyepiece. There are two monacles per respirator. These can easily be fitted by using the method set out in the instruction booklet.

If eyesight correction is not required then the respirator can be used with no modifications.

INDIVIDUAL PRESCRIPTIONS

Individual prescriptions are in two categories:

1. Single Vision
2. Bifocal

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MANUFACTURER

The following guidelines detail all considerations extraneous to normal corrective lens production procedures.

1. Size, Shape and Configuration

Full details are contained in Drawing No. 700046/2/50 Issue A. A copy of this drawing is included.

2. Lens Shape

A template for cutting the lens to the required shape is produced in the conventional manner by the optician. This template is utilized in conjunction with an automatic edging machine, which all opticians should have access to. This machine cuts the shape of the lens and the profile of the outer edge automatically.

3. Lens Marking

Each lens should be marked e.g. BS2738 Part 1 in an unambiguous way to indicate Left of Right. The lens can then be fitted to the appropriate monacle frame which is marked, as detailed in the introduction.

FITTING

In order to fit the lens correctly the following must be observed:

1. The curvature of the lens must be away from the eye.

2. When addressed to the lens the monacle frame should be orientated so that the wide arm is towards the nose. The wide arm should also slant away from the eye.

With the lens orientated correctly, fit the profiled edge of the lens into the groove of the monacle. This can be done either when the monacle frame is cold or when warm according to preference.

3. To fit the monacle into the respirator, follow the instructions as laid down in the Instruction Booklet. This is carried out by the user upon receipt of the monacles.

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1. Single Vision

For all single vision lenses, assessment of individual prescriptions are identical to standard medical practices utilized by opticians with their standard equipment.

Normal measurements: Spherical, cylindrical and axis, are taken together with the individuals IPD (inter pupillary diameter).

For extreme prescriptions it is also necessary to measure the wearers vertical displacement. This is achieved by the subject donning his/her respirator (correct sizing, harness adjustment and donning procedures should have already been employed, as detailed in the Respirator Instruction Booklet). The height of the center of the subjects eye above or below an imaginary horizontal centerline through the center of the eyepiece (the datum line) is taken (see Fig 1). The measurement expressed in millimeters above or below the datum line must be recorded in addition to the normal measurements.

This will enable the optical center of the corrective lens to be correctly situated relative to the geometric center by the lens supplier.

2. Bifocal

For bifocal lenses the normal measurements as detailed in (1) apply. The vertical displacement measurement is essential.

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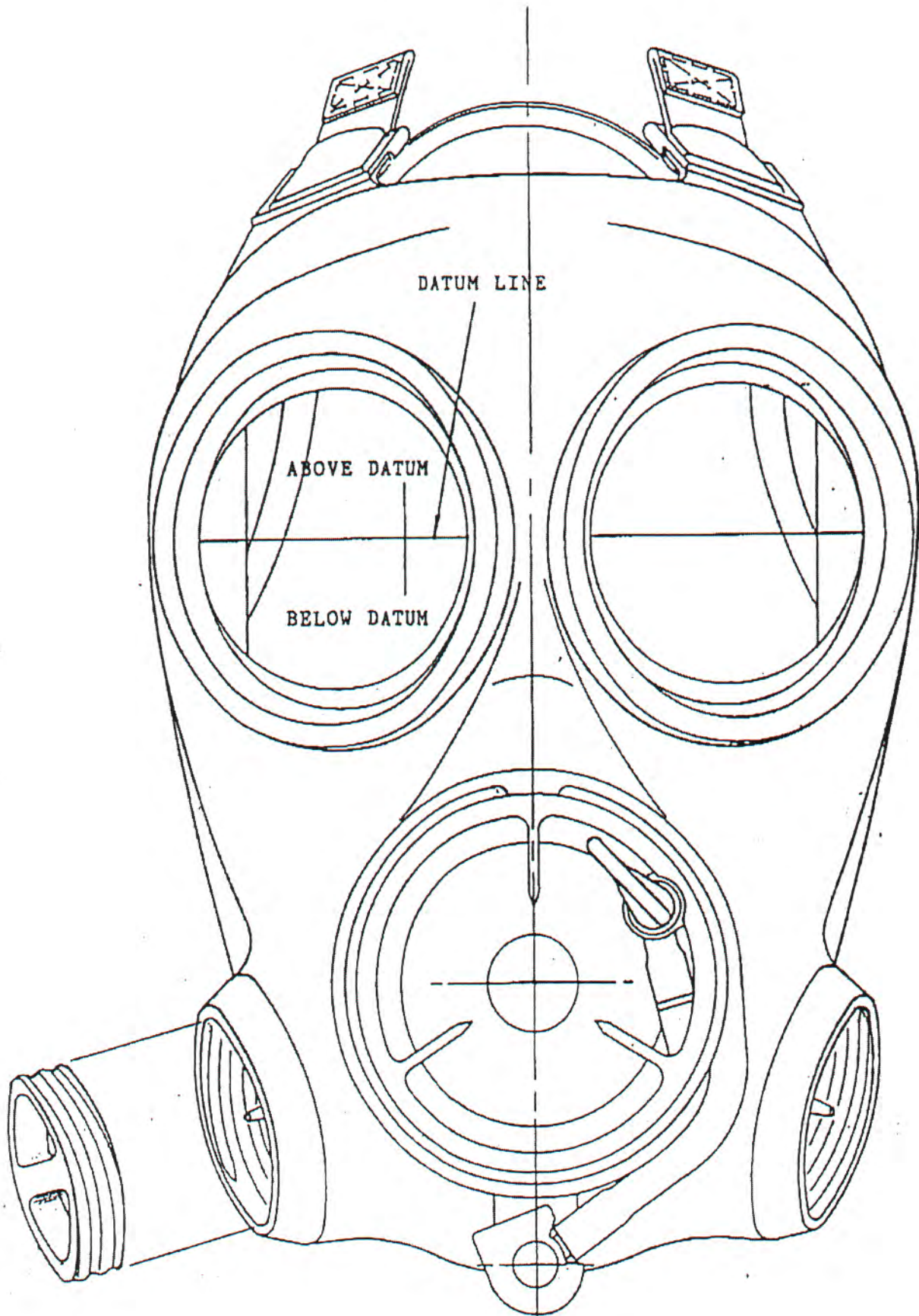


Fig. 1
Vertical Displacement

A.4 Setting of round lenses

The setting position of round lenses (except those of thermally-toughened glass) should be indicated by means of permanent marks placed next to the joint on the back lens surface as follows:

- (a) on the right lens, one mark on the joint line;
- (b) on the left lens, two marks placed symmetrically one either side of the joint line (see figure 3).

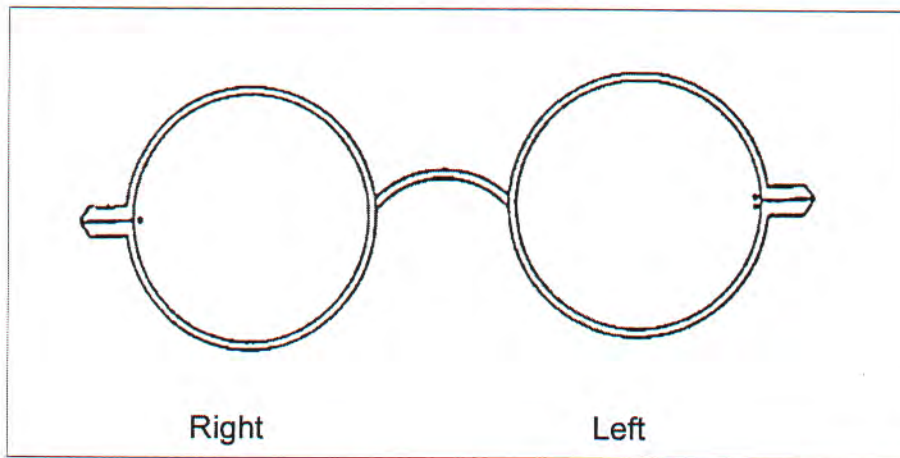


Figure 3. Front view of round lenses illustrating marks (exaggerated) on back surfaces denoting right and left



PROCEDURE FOR GLAZING FM12 MONOCLES

The following guidelines detail all considerations extraneous to normal corrective lens production procedures.

1. *Size, Shape and Configuration*

Full details are contained in Drawing No. 700046/2/56 Issue B. A copy of this drawing is included.

2. *Lens Shape*

A template for cutting the lens to the required shape is produced in the conventional manner by the optician. This template is utilized in conjunction with an automatic edging machine, which all opticians should have access to. This machine cuts the shape of the lens and the profile of the outer edge automatically.

3. *Lens Marking*

Each lens should be marked e.g. BS2738 Part 1 in an unambiguous way to indicate Left or Right. The lens can then be fitted to the appropriate monacle frame which is marked, as detailed in the introduction.

FITTING

In order to fit the lens correctly, the following must be observed:

1. The curvature of the lens must be away from the eye.
2. When addressed to the lens the monacle frame should be orientated so that the wide arm is towards the nose. The wide arm should also slant away from the eye.

With the lens orientated correctly, fit the profiled edge of the lens into the groove of the monacle. This can be done either when the monacle frame is cold or when warm according to preference.

3. To fit the monacle into the respirator follow the instructions as laid down in the Instruction Booklet. This is carried out by the user on receipt of the monacles.