Claims

1. A mandrel for holding an ophthalmic lens member blank during machining, the mandrel comprising:

a front surface for receiving an ophthalmic lens member blank to be machined;

a rear surface opposite the front surface; and

one or more through-holes extending between the front and rear surfaces;

such that, in use, wax applied to the rear surface contacts an ophthalmic lens member blank received on the front surface via said one or more through-holes;

wherein the mandrel comprises a stem for mounting the mandrel on a machine tool and a flange extending radially from the stem, the flange comprising the front surface, the rear surface and the one or more through-holes.

2. A mandrel according to claim 1, wherein the front surface comprises a central optic zone and an annular peripheral zone, and said one or more through-holes are located in the peripheral zone.

3. A mandrel according to claim 2, wherein the front surface of the mandrel is convex, concave or flat in the optic zone.

4. A mandrel according to any previous claim, the mandrel having a longitudinal axis, and comprising a plurality of through-holes spaced apart circumferentially about the longitudinal axis.

5. A mandrel according to claim 4, wherein the through-holes are equidistantly spaced about the longitudinal axis.

6. A mandrel according to any previous claim, wherein the front surface comprises a front-recess, shaped to receive the ophthalmic lens member blank, for example in a location fit.

7. A mandrel according to any previous claim, wherein the rear surface comprises a rear-recess, for example an annular recess.

8. A mandrel according to claim 6 or claim 7, wherein each through-hole has a first opening on the front surface and a second opening on the rear surface, and optionally wherein the first opening is located in the front-recess and/or the second opening is located in the rear-recess.

9. A mandrel according to claim 8, wherein the front surface comprises a raised annular region defining the front-recess, and an annular reservoir located radially outside the raised region, the reservoir being connected to the front-recess by one or more drainage channels such that excess wax in the front-recess can flow to the reservoir via the drainage channels.

10. A mandrel according to any previous claim, wherein the through-holes have a longitudinal axis, and the through-holes are circular, kidney-shaped and/or arcuate, for example an arc of constant radius with respect to the centre of the front surface, when viewed in cross-section perpendicular to their longitudinal axis.

11. A mandrel according to any previous claim, wherein the lens member blank is a contact lens member blank, for example a contact lens member blank for a soft contact lens, such as a hydrogel contact lens or a silicone hydrogel contact lens or a rigid gas permeable contact lens.

12. A kit of parts comprising a mandrel according to any previous claim, the mandrel having a socket in the front surface for receiving an adaptor: and one or more of the following:

an adaptor comprising a convex end portion, the adaptor being configured to be received in the socket such that the convex end portion defines a portion of the front surface of the mandrel;

an adaptor comprising a concave end portion, the adaptor being configured to be received in the socket such that the concave end portion defines a portion of the front surface of the mandrel;

an adaptor comprising a flat end portion, the adaptor being configured to be received in the socket such that the flat end portion defines a portion of the front surface of the mandrel.

13. A method of mounting an ophthalmic lens member blank, for example a contact lens member blank, on a mandrel, the mandrel comprising a front surface, a rear surface and one or more through-holes extending between the front and rear surfaces, wherein the mandrel comprises a stem for mounting the mandrel on a machine tool and a flange extending radially from the stem, the flange comprising the front surface, the rear surface and the one or more through-holes, the method comprising:

the ophthalmic lens member blank being held against the front surface of the mandrel, and while the ophthalmic lens member blank is held against the front surface of the mandrel, applying wax to the rear surface of the mandrel and the wax flowing through said one or more through-holes to contact the rear surface of the ophthalmic lens member blank at the through-holes.

14. A method according to claim 13, wherein the ophthalmic lens member blank is received in a front-recess formed in the front surface of the mandrel in a location fit and the wax is dispensed into a rear-recess formed in the rear surface of the mandrel, and said one or more through-holes extend between the front-recess and the rear-recess.

15. A method of machining an ophthalmic lens member blank, the method comprising mounting the ophthalmic lens member blank on a mandrel according to the method of any of claims 13 or 14, releasing the hold and the lens member blank being retained on the mandrel by the wax; and then machining a front surface of the ophthalmic lens member blank while the lens member blank is retained on the mandrel.

16. A method according to claim 15, comprising:

while holding a first ophthalmic lens member blank against the front surface, applying wax to the rear surface of the mandrel and the wax flowing through said one or more through-holes to contact the rear surface of the first ophthalmic lens member blank at the through-holes, and then,

while the first ophthalmic lens member blank is retained on the mandrel by the wax:

mounting one or more optical components on the first ophthalmic lens member blank and;

affixing a second ophthalmic lens member blank to the first ophthalmic lens member blank such that the optical components are located between the first and second ophthalmic lens member blanks, and then

machining the front surface of the second lens member blank.