Reliable optical outcomes and a low rate of post-operative complications

Rayner’s Anti-Vaulting Haptic (AVH) Technology® provides proven rotational and centriational stability, and excellent fixation in the capsular bag¹

- Superb centration
  - Maximum offset of only 1mm 3 months after surgery²
- Excellent rotational and torsional stability²

Optimal visual quality in all lighting conditions

Aspheric optic technology reduces spherical aberration.³,⁴

- Excellent contrast sensitivity and retained depth of field from aberration-neutral aspheric optic³,⁴
- Available in two optic sizes; 5.75mm or 6.25mm

Only 3 degrees difference between planned toric IOL axis and post-operative outcomes at 3 months

Adapted from Reference 2.
Peace of mind with low rates of posterior capsular opacification (PCO)

Rayner’s 360° Amon-Apple Enhanced Square Edge creates a physical barrier to prevent epithelial cell migration.

<table>
<thead>
<tr>
<th>ND:YAG Capsulotomy Rates</th>
<th>Mean Time to ND:YAG Capsulotomy</th>
</tr>
</thead>
<tbody>
<tr>
<td>At 12 months</td>
<td>0.6%</td>
</tr>
<tr>
<td>At 24 months</td>
<td>1.7%</td>
</tr>
</tbody>
</table>

Study of 3,461 patients receiving Rayner C-flex 570C IOLs over a 24 month period, Nd:YAG capsulotomy rates were extremely low and comparable with hydrophobic acrylic lenses with square-edge optics.

An IOL free from vacuoles and glistenings

- Single piece IOLs created from Rayacryl®
- Compressible material for delivery through a small incision
- Excellent handling characteristics with controlled unfolding within the capsular bag
- Low silicone oil adherence
- Excellent uveal biocompatibility
- Hydrophilic acrylic material with low inflammatory response
- Low refractive index (1.46) linked to low incidence of glare and external reflections
Patients deserve optimal visual quality and functional visual acuity in all light conditions

**C-flex® Aspheric and Superflex® Aspheric IOLs with aberration-neutral technology:**

- Offer improved contrast sensitivity compared with spherical IOLs\(^3,4\)
- Provide better low light level visual acuity than spherical IOLs\(^18\)
- Can offer more depth of field than aberration-negative IOLs by retention of the patient’s natural level of corneal spherical aberration\(^6\)
- Are less susceptible to the effects of decentration than aberration-negative IOLs\(^12\)

**Spherical IOL**

Power **increases** from centre to edge.

**Aberration-neutral aspheric IOL**

Prolate anterior surface means **uniform** power from centre to edge. Aberration-neutral optic retains natural residual positive SA of the cornea.

**Disadvantages**

- × Adds to corneal positive spherical aberration (SA)
- × Degrades image quality and contrast sensitivity

**Advantages**

- ✓ High quality vision in all lighting conditions
- ✓ Good contrast sensitivity
- ✓ More depth of field than an aberration-negative aspheric IOL
- ✓ Optimal results for ALL patients; not just for the “average” cornea
Why is it important to retain depth of field?

Patients prefer a lens that retains depth of field

- Retention of some positive SA can provide a level of pseudo-accommodation, offering preferable visual outcomes
  - In a clinical trial of 80 patients where an aberration-neutral lens was implanted in one eye and an aberration-negative lens was implanted in the other eye:

<table>
<thead>
<tr>
<th>MODEL NAME</th>
<th>MODEL NUMBER</th>
<th>POWER RANGE</th>
<th>INCREMENTS</th>
<th>ADDITION</th>
<th>OPTIC DIAMETER</th>
<th>OVERALL LENGTH</th>
<th>ESTIMATED SRK-T A-CONSTANT** (NON-CONTACT BIOMETRY)</th>
</tr>
</thead>
<tbody>
<tr>
<td>C-flex Aspheric</td>
<td>970C</td>
<td>+8.0 to +29.5 D</td>
<td>0.5 D</td>
<td></td>
<td>5.75mm</td>
<td>12.00mm</td>
<td>118.6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>+30.0 to +34.0 D</td>
<td>1.0 D</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>920H</td>
<td>-10.0 to -1.0 D</td>
<td>0.5 D</td>
<td></td>
<td>6.25mm</td>
<td>12.50mm</td>
<td>118.6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>+1.0 to +22.0 D</td>
<td>0.5 D</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C-flex</td>
<td>570C</td>
<td>+8.0 to +29.5 D</td>
<td>0.5 D</td>
<td></td>
<td>5.75mm</td>
<td>12.00mm</td>
<td>118.6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>+30.0 to +34.0 D</td>
<td>1.0 D</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Superflex</td>
<td>620H</td>
<td>-10.0 to +25.0 D</td>
<td>0.5 D</td>
<td></td>
<td>6.25mm</td>
<td>12.50mm</td>
<td>118.6</td>
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<tr>
<td></td>
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<td>plano</td>
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</tr>
</tbody>
</table>

** The A-constant indicated for all Rayner lenses are estimates and are for guidance only. Surgeons must always expect to personalise their own A-constants based on initial patient outcomes, with further personalisation as the number of eyes increases. We strongly recommend that surgeons consult the ULIB website for the most up to date and accurate starting point estimate.

C-flex and Superflex are also available in a spherical version. Please contact your Rayner sales specialist or local distributor for further information.

* Of those patients who expressed a preference
How many of your cataract patients would benefit from a T-flex Aspheric Toric IOL?

Prevalence of pre-operative corneal astigmatism in a cross-sectional study of 746 patients (1230 eyes):13

- Over 40% presented with >1.0 D of astigmatism
- More than 20% presented with >1.5 D of astigmatism

Why leave your post-operative patients with residual astigmatism?

T-flex Aspheric is available in an extensive range of sphere and cylinder powers, allowing you to accurately correct more of your patients, even those with significant, corneal astigmatism.

T-flex Aspheric Power Ranges

<table>
<thead>
<tr>
<th>MODEL NAME</th>
<th>MODEL NUMBER</th>
<th>POWER RANGE</th>
<th>INCREMENTS</th>
<th>ADDITION</th>
<th>OPTIC DIAMETER</th>
<th>OVERALL LENGTH</th>
<th>ESTIMATED SRK-T A-CONSTANT* (NON-CONTACT BIOMETRY)</th>
</tr>
</thead>
<tbody>
<tr>
<td>T-flex Aspheric</td>
<td>573T/623T</td>
<td>Standard Power Range</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Spheres +6.0 to +30.0 D (spherical equivalent)</td>
<td>0.5 D</td>
<td></td>
<td>5.75mm/6.25mm</td>
<td>12.00mm/12.50mm</td>
<td>118.9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cylinders +1.0 to +6.0 D</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>573T/623T</td>
<td>Made to Order Power Range</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Spheres -10.0 to +35.0 D (subject to spherical equivalent)</td>
<td>0.5 D</td>
<td></td>
<td>5.75mm/6.25mm</td>
<td>12.00mm/12.50mm</td>
<td>118.9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cylinders +1.0 to +11.0 D</td>
<td></td>
<td></td>
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Proven rotational stability\(^2\) with predictable, sustainable and accurate visual results

Designed with AVH Technology\(^{\circledR}\) for excellent fixation within the capsular bag:\(^1\)
- Progressively taking up the forces generated within the contracting capsular bag
- Maintaining excellent centration with rotational, torsional and directional stability

In a prospective study of 27 eyes in 22 consecutive patients with >1.5 D regular corneal astigmatism, at 3 months post-operatively, variations from intended axis were:\(^2\)

<table>
<thead>
<tr>
<th>Stability achieved through advanced haptic design</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Diagram" /> <img src="image2.png" alt="Diagram" /> <img src="image3.png" alt="Diagram" /></td>
</tr>
</tbody>
</table>

Outer haptics engage the inner haptics

Haptic tips gently meet the IOL optic and are effectively locked into position

Raytrace\(^{\circledR}\) - Online Specialist IOL Calculator

Accurate and predictable results in a fast and convenient interface

- **Easy to use** straightforward step-by-step data entry
- **Fast and accurate** results with calculations performed instantly
- **Convenient and predictable** outcomes with estimated post-operative refraction and SIA accounted for
- **Flexible** calculator tool that can be used for T-flex Aspheric, M-flex, M-flex T and Sulcoflex IOLs

Visit: [www.rayner.com/raytrace](http://www.rayner.com/raytrace)
How would your patients benefit from our multifocal IOLs?

6 months after binocular implantation of M-flex +3.0 D:

% patients with functional vision without the need for spectacles\textsuperscript{14}

<table>
<thead>
<tr>
<th>Vision Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distance vision</td>
<td>90%</td>
</tr>
<tr>
<td>Intermediate vision</td>
<td>80%</td>
</tr>
<tr>
<td>Near vision</td>
<td>70%</td>
</tr>
</tbody>
</table>

At 12 month follow up NO patients reported dysphotopic phenomena

M-flex Multifocal IOLs offer your presbyopic patients the chance of spectacle independence for distance, intermediate and near activities\textsuperscript{14}

Select the correct multifocal option to match your patient’s lifestyle:

- M-flex +3.0 D add for patients that predominantly participate in intermediate and distance activities
  i.e. intermediate activities such as computer work or seeing a vehicle dashboard
- M-flex +4.0 D add for patients that predominantly participate in near and distance activities
  i.e. near activities such as reading or applying make-up

Intermediate visual acuity improved post-surgery without compromising distance or near vision\textsuperscript{15}

![Graph showing visual acuity improvement](image)

Adapted from reference 15.

90\% for distance vision
80\% for intermediate vision
70\% for near vision
98\% of patients were subjectively satisfied with outcomes
Wouldn’t your presbyopic, astigmatic patients also like the opportunity to live without glasses?

With M-flex T Multifocal Toric IOLs, patients with astigmatism need no longer be excluded from the lifestyle advantages of multifocality.

M-flex T offers all the benefits of the M-flex and effectively corrects corneal astigmatism with a large range of cylinder power options (1 to 6 Dioptres).

Multi-zone refractive optic technology

Aberration-neutral aspheric optic

360° Amon-Apple Enhanced Square Edge design reduces PCO

AVH Technology for excellent centration

### M-flex and M-flex T Power Ranges

<table>
<thead>
<tr>
<th>MODEL NAME</th>
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<th>POWER RANGE</th>
<th>INCREMENTS</th>
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<tbody>
<tr>
<td>M-flex 630F</td>
<td>+14.0 to +25.0 D</td>
<td>0.5 D</td>
<td>+3.0 D add far dominant</td>
<td>6.25mm</td>
<td>12.50mm</td>
<td>118.6</td>
<td></td>
</tr>
<tr>
<td>M-flex 630F</td>
<td>+10.0 to +25.0 D</td>
<td>0.5 D</td>
<td>+4.0 D add far dominant</td>
<td>6.25mm</td>
<td>12.50mm</td>
<td>118.6</td>
<td></td>
</tr>
<tr>
<td>M-flex 580F</td>
<td>+25.5 to +30.0 D</td>
<td>0.5 D</td>
<td>+3.0 D add far dominant</td>
<td>5.75mm</td>
<td>12.00mm</td>
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<td>M-flex 580F</td>
<td>+25.5 to +30.0 D</td>
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<td>+4.0 D add far dominant</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>M-flex T</th>
<th>Spherical Equivalent</th>
<th>0.5 D</th>
<th>+3.0 D or +4.0 D add far dominant</th>
<th>5.75mm/6.25mm</th>
<th>12.00mm/12.50mm</th>
<th>118.6</th>
</tr>
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<tbody>
<tr>
<td>Cylinders</td>
<td>+1.0 D, +2.0 D +3.0 D, +4.0 D</td>
<td></td>
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<td>Cylinders</td>
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Rayner System Pack

The Rayner System Pack conveniently packages together a Single Use Soft-Tipped Injector with each IOL across the range

- Streamlined ordering process
- Reduced chances of mistakes in the operating room
- Validated injector for use with all Rayner IOLs
- Single-use injector – for increased patient safety

Single Use Soft-Tipped Injector

- Single handed technique that leaves one hand free for IOL manipulation
- Continuous smooth action for good control and predictable IOL deployment
- Ergonomically optimised hand grip enhances control and confidence
- Exclusively designed and manufactured by Rayner for optimised delivery across the full range of IOL models

To watch videos of experts loading the injectors, posters and more, visit www.rayner.com
References:
For optimal visual quality and reliable outcomes choose Rayner IOLs

**C-flex® Aspheric and Superflex® Aspheric, aberration-neutral, monofocal IOLs for optimal visual quality in all lighting conditions**

- Improved contrast sensitivity compared with conventional lenses\(^3,4\)
- Retain more depth of field than aberration-negative IOLs\(^6\)
- Less susceptible to the effects of de-centration than aberration-negative IOLs\(^1,2\)

**T-flex® Aspheric Toric IOLs for reliable outcomes with peace of mind**

- Proven rotational stability\(^2\) with predictable, sustainable and accurate visual results
  - 3.1° mean variation at 3 months post-operatively\(^2\)

**M flex® Multifocal and M flex® T Multifocal Toric IOLs to improve your patients’ quality of life**

- M-flex® Multifocal IOLs offer your presbyopic patients spectacle independence for distant, intermediate and near activities\(^1,4\)
  - M-flex® T Multifocal Toric IOLs extend multifocal option to astigmatic patients