Model CRS
The Holyoake CRS range of Radial Swirl Diffusers have been designed to provide high quality indoor air diffusion. The CRS comprises of radial deflection blades that produce a circular airflow pattern with a very strong ceiling effect. This diffuser is ideal for VAV applications because the ceiling effect is maintained for minimal through to very high flowrates.
Ideal for large rooms, call centres and waiting rooms.
The CRS is able to achieve high room air diffusion quality due to the strong induction swirl pattern it produces. Strong Induction draws room air up into the supply air flow path which results in mixing at high level reducing draughts and uneven temperature gradients.

Installation
Installation is simple due to the square lay-in type design. The diffuser can be placed into the t-rail system quickly and easily, and the supply duct attached. Alternatively the diffuser may be conventionally mounted or held using one of the Holyoake mounting systems. The supply air can be fed vertically onto the back of the diffuser or through a specifically designed side entry box.

Specifically Designed Swirl Inducing Side Entry Box

Construction
The CRS is constructed entirely from sheetmetal. It is a lightweight but robust diffuser that can be fitted easily into the ceiling space.

- Strong Ceiling Effect
- Radial Diffusion Pattern
- High Induction Swirl
- Easy lay-in Installation
- Attractive Appearance

Optional
CRSP - the CRS may be supplied with a perforated face plate to provided a less open appearance. See performance notes for the effect on the performance data.

Note: The CRS300 can be mounted in a 595 x 595 panel similar to the CMP Type 2 shown on Page D9.

Due to a policy of continuous development and improvement the right is reserved to supply products which may differ slightly from those illustrated and described in this publication.
### Model: CRS300 Ceiling Radial Swirl Diffuser

<table>
<thead>
<tr>
<th>Duct Size</th>
<th>Flowrate (l/s)</th>
<th>25</th>
<th>50</th>
<th>75</th>
<th>100</th>
<th>125</th>
<th>150</th>
<th>200</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Static Pressure (Pa)</td>
<td>2</td>
<td>6</td>
<td>12</td>
<td>23</td>
<td>40</td>
<td>55</td>
<td>95</td>
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<tr>
<td></td>
<td>Throw (m)</td>
<td>na-na-0.8</td>
<td>na-0.6-1.8</td>
<td>0.6-1.5-2.2</td>
<td>1.3-2.4-3.3</td>
<td>1.6-2.7-3.4</td>
<td>1.9-3.0-3.9</td>
<td>2.2-3.3-4.2</td>
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<tr>
<td>NC</td>
<td></td>
<td>-</td>
<td>-</td>
<td>32</td>
<td>37</td>
<td>42</td>
<td>47</td>
<td>54</td>
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</table>

### Model: CRS450 Ceiling Radial Swirl Diffuser

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<th>100</th>
<th>150</th>
<th>200</th>
<th>300</th>
<th>400</th>
<th>500</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Static Pressure (Pa)</td>
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<td>15</td>
<td>32</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Throw (m)</td>
<td>na-na-0.5</td>
<td>na-0.6-1.2</td>
<td>0.3-1.0-1.8</td>
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<td></td>
<td></td>
<td></td>
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</tbody>
</table>

### Notes on Performance Data
1. Performance data is based on a specifically designed side entry box.
2. Listed throw distances are to a terminal velocity (Vt) of 0.75 - 0.5 - 0.25m/s.
3. The NC values are based on a room absorption of 10dB re 10^-12 Watts.
4. "Duct Size' in tables above are plenum inlet sizes.

### Suggested Specifications

- **CRS**
- **CRSP**

Ceiling Swirl Diffusers shall be Holyoake Model CRS. Ceiling Radial Swirl Diffusers shall be designed with a radial, high induction, circular air flow pattern. Ceiling Swirl Diffusers shall maintain a COANDA effect at reduced volume and provide uniform temperature gradients throughout the occupied space. Diffusers shall be finished in powdercoat and fitted with accessories where indicated as manufactured by Holyoake.