The SQN provides flexibility mounting options and versatility in an economical package for square inline fans.

**DESIGNED FOR**
low pressure, low temperature, indoor supply, exhaust, return or transfer air applications

**PERFORMANCE RANGE**
50-30,600 CFM

**STATIC PRESSURES**
up to 5” wg

**AMCA**
SQN fans are certified to bear the AMCA seal. See page 15 for more information

**CHOOSE FROM**
three different wheel types: SQN, SQNHP, SQNXP

**OFFERED IN 18 SIZES**
ranging from 70 to 402

**VARI-FLOW®**
Cook’s offering of EC motors and compatible controls

**EXTRA BENEFITS**
- UL/cUL 705 Listing is standard on all SQN models
- Shortest depth of any available square inline fan
- Standard universal position mounting feet
- Multiple access doors for total serviceability of internal components
- G-90 Galvanized corrosion resistant construction

For more information, look at the Vari-Flow® Product Guide or contact Loren Cook Company at 417-869-6474.
SQN is selectable in standard, high pressure (HP) or extended pressure (XP). The curves chart below illustrates typical performance ranges.
The SQN-B (belt drive) standard construction features are shown below.

**SQN-B FEATURES**

**SQN-B OUTLET**
- Integral Outlet Duct Collar
- Access Doors (3)
- Belt Tunnel
- Aluminum Wheel
- Regreaseable Air Handling Quality Ball Bearings

**SQN-B INLET**
- Integral Inlet Duct Collar
- Access Doors (3)
- Lifting Lugs
- Galvanized Housing
- Adjustable Motor Plate
- Aluminum Inlet
The SQN-D (direct drive) standard construction features are shown below.

**SQN-D FEATURES**

- Integral Inlet & Outlet Duct Collars
- Enclosed Motor
- Field Wiring Compartment
- Lifting Lugs
- Access Doors (2)
- Galvanized Housing
- Aluminum Wheel

**SQN-D SIZES 70 - 165**
- Field Wiring Compartment
- Integral Inlet & Outlet Duct Collars
- Motor Enclosure Standard on Sizes 120-165
- Enclosed Motor Standard on Sizes 70-100

**SQN-D SIZES 180 - 365**
- Field Wiring Compartment
- Lifting Lugs
- Aluminum Wheel
- Galvanized Housing
- Access Doors (2)
- Integral Inlet & Outlet Duct Collars
The SQN-D VF apply Vari-Flow EC motors for added efficiency and controllability. Standard features are shown below.

**SQN-D VF Features**

- Integral Inlet & Outlet Duct Collars
- Field Wiring Compartment
- Access Doors (2)
- Galvanized Housing
- Aluminum Wheel
- Lifting Lugs
- Motor Enclosure
- Electronically Commutated Motor (EC)

**SQN-D VF Sizes 70 - 165**

**SQN-D VF Sizes 180 - 365**
Beyond the SQN Standard Construction Features, Cook offers accessories to fit your custom air movement requirements and/or preferences.

SQN ACCESSORIES

ARRANGEMENT 9

See Page 8 for descriptions
ACCESSORIES EXPLAINED

Beyond the SQN Standard Construction Features, Cook offers accessories to fit your custom air-movement requirements and/or preferences.

Belt Tensioner
- Maintains constant drive belt tension
- Reduces maintenance cost
- Increases belt life
- Available on sizes 120 - 402

Motor Cover
- Shields the motor and drive assembly from dirt and debris
- OSHA Belt Guard
- Indoor use only
- Factory installed

Belt Guard
- Provides protection for belts and drives
- Open back to inspect belts
- Factory installed

Flanged Inlet/Outlet
- For flange-type duct attachments.
- Allows fan removal without disturbing the surrounding ductwork

Inlet/Outlet Companion Flange
- Attached to the adjacent ductwork to provide an exact mate to the flanged connection on the fan
- Requires flanged inlet/outlet

Inlet/Outlet Safety Screens
- Protect personnel and prevent debris from entering the fan
- Factory installed

Filter Box
- Filters inlet air
- Removable access panel
- Slide-out washable filters
- Integral duct collars
- Optional MERV-rated filter available upon request

INSULATED HOUSING
- Acoustical lining
- Reduces noise

Flex Duct Connector
- Flexible connection between the fan and the attached ductwork
- Reinforced neoprene fabric and aluminum bands

Aluminum Construction
- All aluminum construction

Additional Accessories (Not Pictured)

Backdraft Damper
- Aluminum construction
- Shipped loose

Motorized Damper
- Standard or low leakage
- Low leakage meets class 1A leakage rating
- Aluminum or galvanized
- Shipped loose

External IVD
- External IVD provides precise air volume control while maintaining efficiency and stable operation at reduced fan loading
DISCHARGE OPTIONS

The single or dual side discharge configuration allows air to exit from any one of the sides not occupied by motor mount of the unit. This provides tremendous versatility in installation.

SIDE DISCHARGE

DESIGN BENEFITS

- Discharge cover shipped installed
- Flanges shipped loose

A single or dual side discharge SQN can reduce material cost and static pressure by effectively replacing an elbow or tee duct fitting.

- Unit flow can be increased up to 10% with minimal impact on horsepower.

- Discharge configurations are field installed to match the system needs.
DISCHARGE OPTIONS

The single or dual side discharge configuration allows air to exit from any one of the sides not occupied by motor mount of the unit. This provides tremendous versatility in installation.

TYPICAL SIDE DISCHARGE APPLICATIONS

Example 1
Bottom Access

Example 2
Bottom Access

Example 3
Side Access

Example 4
Bottom Access

Example 5
Side Access

Example 6
Side Access

Example 7
Side Access

Example 8
Side Access

Example 9
Side Access

Example 10

Example 11
Side Access

Example 12
Side Access
Cook offers six types of isolators to reduce vibration transmission from equipment to building structure.

**SQN ISOLATORS**

- **HOUSED SPRING**: Floor mounted
- **FREE STANDING SPRING**: Floor mounted
- **RUBBER-IN-SHEAR**: Ceiling mounted

- **RESTRAINED SPRING**: Floor mounted
- **SPRING**: Ceiling mounted
- **RUBBER-IN-SHEAR**: Floor mounted

See our Vibration Isolation Brochure for more information.
INSTALLATION & MOUNTING

The SQN is provided with universal mounting feet for installation in any horizontal or vertical position. These feet are shipped loose for field installation in the desired location.

HORIZONTAL INSTALLATION & MOUNTING

Lifting lugs are provided to assist in product installation.

VERTICAL INSTALLATION & MOUNTING

Horizontal and vertical mounting configurations are provided with a standard support for both ceiling and floor applications.

The mounting configurations and the motor position can be changed in the field.
The SQN is available with Lorenized™ coating. Standard coating is gray. It is also available in 12 other colors shown.

**LORENIZED COATING**

- Electrostatically applied, baked polyester powder coating
- Undergoes a five-stage environmentally friendly pretreatment/wash process before coating
- Baked and cured at 400°F; final coating thickness of 1.5–2.5 mil
- Coating is required to exceed 1,000 hour salt spray under ASTM B117 test method
- Offers strong chemical resistance, durable mechanical performance and tough protection from outdoor elements
OPTIONAL COATINGS

Each type of coating offers unique qualities, benefits and color availability.

**COOK EPOXY POWDER**
- Electrostatically applied, baked epoxy powder coating
- Final coating thickness is 2.5–3.5 mil
- For outdoor applications, an optional UV resistant topcoat is available to prevent coating deterioration

Available in **DARK GRAY**.

**COOK EASY-CLEAN POWDER**
- Electrostatically applied, baked modified epoxy silicone powder coating
- High temperature "non-stick" coating
- Final coating thickness is 1.0–2.0 mil

Available in **BLACK**.

**AIR DRY PHENOLIC**
- HERESITE® VR-514
  - Conventional spray applied phenolic resin coating
  - Final coating thickness is 2.0–4.0 mil
  - For outdoor applications, an optional UV resistant topcoat (Heresite® UC-5500) is required to prevent deterioration of the coating

Available in **BROWN**.

**COOK PHENOLIC EPOXY POWDER**
- Electrostatically applied, baked phenolic epoxy powder coating
- Final coating thickness is 1.5–4.0 mil
- For outdoor applications, an optional UV resistant topcoat is required to prevent coating deterioration

Available in **LIGHT GRAY** and **BROWN**.
AMCA Certified Ratings Seal
Loren Cook products that bear the AMCA Certified Ratings Seal are licensed by AMCA International. These products meet the AMCA Standard and are within the product scope of AMCA International.

Power Ventilator
The UL 705 Listing is the standard for electrical safety for permanently connected power ventilators. These models are constructed in accordance with UL 705, only when shipped with motors.

Seismically Qualified
The below SQN models have been shake table tested to exceed spectral response accelerations covering the most severe seismic conditions found within the United States.

- **Belt Drive**
  - Sizes 60–402
  - SQN | SQN-HP

- **Direct Drive**
  - Sizes 70–165
  - SQN | SQN-HP

For more information, see Seismic Certification Flyer.
OVERALL DIMENSIONS

Overall dimensions are in inches. For more detailed dimensions, see product submittals.

SQN-B

<table>
<thead>
<tr>
<th>Unit Size</th>
<th>60</th>
<th>70</th>
<th>80</th>
<th>100</th>
<th>120</th>
<th>135</th>
<th>150</th>
<th>165</th>
<th>180</th>
<th>195</th>
<th>210</th>
<th>225</th>
<th>245</th>
<th>270</th>
<th>300</th>
<th>330</th>
<th>365</th>
<th>402</th>
</tr>
</thead>
<tbody>
<tr>
<td>Height</td>
<td>26 1/2</td>
<td>26 1/2</td>
<td>26 1/2</td>
<td>30 11/16</td>
<td>33 1/4</td>
<td>35 3/4</td>
<td>40 1/16</td>
<td>42 3/8</td>
<td>44 15/16</td>
<td>46 1/4</td>
<td>48 3/4</td>
<td>53 1/4</td>
<td>56 15/16</td>
<td>61 1/4</td>
<td>65 11/16</td>
<td>67 1/4</td>
<td>72 3/8</td>
<td></td>
</tr>
<tr>
<td>Length</td>
<td>22</td>
<td>22</td>
<td>22</td>
<td>22</td>
<td>22 1/4</td>
<td>23 7/8</td>
<td>27</td>
<td>30</td>
<td>32 1/4</td>
<td>35</td>
<td>37 1/4</td>
<td>38</td>
<td>41 1/2</td>
<td>42</td>
<td>45 3/4</td>
<td>46</td>
<td>50 1/4</td>
<td></td>
</tr>
<tr>
<td>Width</td>
<td>14</td>
<td>14</td>
<td>14</td>
<td>14</td>
<td>18 7/16</td>
<td>20 3/4</td>
<td>23</td>
<td>25 5/16</td>
<td>27 3/8</td>
<td>29 15/16</td>
<td>31 1/4</td>
<td>33 1/2</td>
<td>36</td>
<td>39 11/16</td>
<td>44</td>
<td>48 7/16</td>
<td>50</td>
<td>55 7/8</td>
</tr>
</tbody>
</table>
**OVERALL DIMENSIONS**

Overall dimensions are in inches. For more detailed dimensions, see product submittals.

<table>
<thead>
<tr>
<th>Unit Size</th>
<th>70</th>
<th>90</th>
<th>100</th>
<th>120</th>
<th>135</th>
<th>150</th>
<th>165</th>
<th>180</th>
<th>195</th>
<th>210</th>
<th>225</th>
<th>245</th>
<th>270</th>
<th>300</th>
<th>330</th>
<th>365</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Height</strong></td>
<td>14</td>
<td>14</td>
<td>14</td>
<td>18</td>
<td>20</td>
<td>23</td>
<td>25</td>
<td>27</td>
<td>29</td>
<td>31</td>
<td>33</td>
<td>36</td>
<td>39</td>
<td>44</td>
<td>48</td>
<td>50</td>
</tr>
<tr>
<td><strong>Length</strong></td>
<td>14</td>
<td>17</td>
<td>22</td>
<td>22</td>
<td>22</td>
<td>23</td>
<td>27</td>
<td>30</td>
<td>32</td>
<td>35</td>
<td>37</td>
<td>40</td>
<td>45</td>
<td>50</td>
<td>55</td>
<td>60</td>
</tr>
<tr>
<td><strong>Width</strong></td>
<td>14</td>
<td>14</td>
<td>14</td>
<td>18</td>
<td>20</td>
<td>23</td>
<td>25</td>
<td>27</td>
<td>29</td>
<td>31</td>
<td>33</td>
<td>36</td>
<td>39</td>
<td>44</td>
<td>48</td>
<td>50</td>
</tr>
</tbody>
</table>