Cold Mist technology is the best solution for efficiently raising the safety of solid fuel appliances up to 80% water consumption reduction.

**CMW-J (Cold Mist technology):**

KVI-J capture efficiency with full fire safety

- The Cold Mist provides highly efficient filtration
- It creates a Cold Water Mist curtain inside the exhaust plenum of the hood. The smoke generated by the cooking appliances is forced through it. Airborne particles and part of the smoke are then captured and conveyed to the drain. This is well known, and proven to be a very efficient method of removing FOG, Fats, Oils and Grease from the air stream.
- The Cold Mist acts as a spark arrester and air cooler.

To activate the Cold Mist only when it’s strictly required.

This responsible approach allows up to 80% savings in water consumption compared to conventional systems.

**Cold Mist On Demand:**

Halton’s patented IRIS™ sensors control in real time Josper’s oven door opening to activate the Cold Mist when it’s strictly required instead of a continuous mist. For Josper’s ovens, the water supply starts automatically when the chef opens the door and stops when it’s closed. Simple and brilliant.

Water is going to be one of the most precious resources. Any water-based solution has to be environmentally friendly. Therefore, Halton developed a smart technology that activates the Cold Mist only when it’s strictly required instead of a continuous mist. For Josper’s ovens, the water supply starts automatically when the chef opens the door and stops when the chef closes it. Simple and efficient.

**Table:**

<table>
<thead>
<tr>
<th>Type</th>
<th>Water saved per month (m³)</th>
<th>Operating cost per month (£)</th>
<th>Perceived per month (€)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
<td>150</td>
<td>300</td>
<td>345</td>
</tr>
<tr>
<td>Multiple</td>
<td>240</td>
<td>345</td>
<td>378</td>
</tr>
</tbody>
</table>

- The Cold Mist technology is a very efficient method of removing FOG (Fats, Oils and Grease) from the air stream.
- It features Cold Mist technology. The KVI-J benefits are then combined with the exclusive benefits of the Cold Mist.

**Volume Containment:**

- The Cold Mist technology provides highly efficient filtration
- It creates a Cold Water Mist curtain inside the exhaust plenum of the hood. The smoke generated by the cooking appliances is forced through it. Airborne particles and part of the smoke are then captured and conveyed to the drain. This is well known, and proven to be a very efficient method of removing FOG, Fats, Oils and Grease from the air stream.
- The Cold Mist acts as a spark arrester and air cooler.

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Jasper ovens: Very specific cooking appliance calls for very specific solution

Heavy duty cooking appliances, such as charcoal ovens and charbroilers have always been difficult to duel with. They are indeed characterized by high heat loads leading to high temperatures inside the exhaust ductwork. They also generate a large quantity of FOG (Fat, Oils and Grease) in addition to carbon-based particles, especially in the case of open flame and solid fuel cooking. Jasper ovens are no exceptions to this rule and also have the added problems with embers each time the oven door is opened.

The best Capture and Containment combined with the highest safety and emission control have been the goals of the partnership between Halton and Josper. The outcome is two specific ventilation solutions.

KVI-J: The lowest exhaust airflow rate for the best and fully tested Capture efficiency

This first solution is based on a KVI Capture Jet hood which reduces the exhaust airflow rates by up to 35 to 40% compared to traditional hoods whilst still removing the same heat load and pollutants. It has been fully tested in our R&D laboratory in real conditions to guarantee the best Capture and Containment efficiency, with the lowest exhaust airflow rate, and all this is possible:

- Whatever the oven configuration (with or without cupboards).
- Whatever the state of the oven firing or cooking, door closed or opened.

Want to see how a Josper oven can be used for live cooking in the middle of an exhibition hall?

This solution was combining Capture efficiency with the highest safety and emission control. This is just a glimpse of Halton’s High Performance Kitchen solutions.
Cold Mist technology is the best solution for efficiently raising the safety of solid fuel appliances up to par with standard cooking equipment.

This second solution is based on a simultaneous KVI-J Capture Jet™ hood. However, the exhaust plenum is different in that it features Cold Mist technology. The KVI-J benefits are then combined with the exclusive benefits of the Cold Mist.

- The Cold Mist provides highly efficient filtration. It creates a Cold water Mist inside the exhaust plenum of the hood. The smoke generated by the cooking appliances is forced through it. Airborne particles and part of the smoke are then captured and conveyed to the drain. This is well known, and proven to be a very efficient method of removing FOG (Fats, Oils and Grease) from the air stream.

- The Cold Mist acts as a spark arrestor and air cooler. If sparks enter the hood the Cold Mist takes the heat away through adiabatic and evaporative cooling and therefore greatly reduces the risk of the propagating in the ductwork. The temperature is at the same time reduced to an acceptable level. The fire risk is reduced to a minimum and “burning off” of the cooking grease is suppressed.

If sparks enter the hood the Cold Mist takes the heat away through adiabatic and evaporative cooling and therefore greatly reduces the risk of the propagating in the ductwork. The temperature is at the same time reduced to an acceptable level. The fire risk is reduced to a minimum and “burning off” of the cooking grease is suppressed.

**Cold Mist On Demand:**

Up to 80% water consumption reduction

Halton’s patented IRRIS™ sensors control in real time Jasper’s oven door opening to activate the Cold Mist On Demand, in other words only when it is strictly required.

Water is going to be one of the most precious resources. Any water-based product has to be environmentally friendly. Therefore, Halton developed a smart technology that activates the Cold Mist only when it’s strictly required instead of a continuous mist. For Jasper’s own, the water supply starts automatically when the chef opens the door and stops when he closes it. Simple and brilliant.

If sparks enter the hood the Cold Mist takes the heat away through adiabatic and evaporative cooling and therefore greatly reduces the risk of the propagating in the ductwork. The temperature is at the same time reduced to an acceptable level. The fire risk is reduced to a minimum and “burning off” of the cooking grease is suppressed.

- **Difference (Operating costs based on a £ of water drainage)**
  - 90-100 $ 137.6 86.9 50.6
  - 60-70 $ 107.8 62.6 35.2
  - 30-40 $ 78.0 46.5 22.9

**Operational cost per month**

- Water used per month (l)
- Operating cost per month
- Water saved per month

**Cold Mist On Demand: UK**

<table>
<thead>
<tr>
<th>Volume</th>
<th>Difference</th>
<th>Operational cost per month</th>
</tr>
</thead>
<tbody>
<tr>
<td>90-100</td>
<td>30-40</td>
<td>101.7</td>
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<td>60-70</td>
<td>30-40</td>
<td>71.9</td>
</tr>
<tr>
<td>30-40</td>
<td>30-40</td>
<td>42.1</td>
</tr>
</tbody>
</table>

**Gas (according program)**

**Water used per month:**

- 90-100 $ 137.6 86.9 50.6
- 60-70 $ 107.8 62.6 35.2
- 30-40 $ 78.0 46.5 22.9

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This solution was combining Capture and Containment efficiency with the highest safety and emission control. This is just a glimpse of Halton’s High Performance Kitchen solutions.

The best Capture and Containment combined with the highest safety and emission control have been the goals of the partnership Josper and Halton have built together. The outcome is two specific ventilation solutions.

The CMW-J hood, with integrated Mist On Demand technology, was combined with a Pollustop unit during the biggest foodservice exhibition in the Middle-East.

This High Performance Kitchen solution allowed live cooking demonstrations in the middle of the exhibition hall, without any connection to an exhaust ductwork.

This solution was combining Capture efficiency with the highest safety and emission control. This is just a glimpse of Halton’s High Performance Kitchen solutions.

Want to see how a Josper oven can be used for live cooking in the middle of an exhibition hall?
Jasper ovens: Very specific cooking appliance calls for very specific solution

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This solution was combining Capture and Containment efficiency, with a Pollustop unit during the biggest foodservice exhibitions in the MiddleEast.

Want to see how a Josper oven can be used for live cooking in the middle of an exhibition hall?

The CMW-J hood, with integrated Mist On Demand technology, was combined with a Pollustop unit during the biggest foodservice exhibitions in the MiddleEast. This High Performance Kitchen solution allowed live cooking demonstrations. In the middle of the exhibition hall, without any connection to an exhaust ductwork. This solution was combining Capture efficiency with the highest safety and emission control. This is just a glimpse of Halton’s High Performance Kitchen solutions.

Quick selection data

<table>
<thead>
<tr>
<th>Halton hood type</th>
<th>Dimensions</th>
<th>Mist On Demand</th>
<th>Exhaust rate with Pollustop</th>
<th>Exhaust rate without Pollustop</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>HJ25 (large)</td>
<td>L (mm) 960</td>
<td>H (mm) 1905</td>
<td>W (mm) 520</td>
<td>P 400</td>
<td>D 400</td>
</tr>
<tr>
<td>HJ38 (large)</td>
<td>L (mm) 960</td>
<td>H (mm) 1905</td>
<td>W (mm) 520</td>
<td>P 400</td>
<td>D 400</td>
</tr>
<tr>
<td>HJ45 (large)</td>
<td>L (mm) 960</td>
<td>H (mm) 1905</td>
<td>W (mm) 520</td>
<td>P 400</td>
<td>D 400</td>
</tr>
<tr>
<td>HJ50 (large)</td>
<td>L (mm) 960</td>
<td>H (mm) 1905</td>
<td>W (mm) 520</td>
<td>P 400</td>
<td>D 400</td>
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</tbody>
</table>

Selection table for KVI-J type Capture Jet hoods

<table>
<thead>
<tr>
<th>Halton hood type</th>
<th>Dimensions</th>
<th>LED lights</th>
<th>Mist On Demand</th>
<th>Exhaust rate with Pollustop</th>
<th>Exhaust rate without Pollustop</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>HJ25 (large)</td>
<td>L (mm) 960</td>
<td>H (mm) 1905</td>
<td>W (mm) 520</td>
<td>P 400</td>
<td>D 400</td>
<td></td>
</tr>
<tr>
<td>HJ38 (large)</td>
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<td>H (mm) 1905</td>
<td>W (mm) 520</td>
<td>P 400</td>
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<td></td>
</tr>
<tr>
<td>HJ45 (large)</td>
<td>L (mm) 960</td>
<td>H (mm) 1905</td>
<td>W (mm) 520</td>
<td>P 400</td>
<td>D 400</td>
<td></td>
</tr>
<tr>
<td>HJ50 (large)</td>
<td>L (mm) 960</td>
<td>H (mm) 1905</td>
<td>W (mm) 520</td>
<td>P 400</td>
<td>D 400</td>
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Selection table for CMW-J type Capture Jet hoods with Mist On Demand (MOD) technology

<table>
<thead>
<tr>
<th>Halton hood type</th>
<th>Dimensions</th>
<th>LED lights</th>
<th>Mist On Demand</th>
<th>Exhaust rate with Pollustop</th>
<th>Exhaust rate without Pollustop</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMW-J25 (large)</td>
<td>L (mm) 960</td>
<td>H (mm) 1905</td>
<td>W (mm) 520</td>
<td>P 400</td>
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<tr>
<td>CMW-J38 (large)</td>
<td>L (mm) 960</td>
<td>H (mm) 1905</td>
<td>W (mm) 520</td>
<td>P 400</td>
<td>D 400</td>
<td></td>
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<tr>
<td>CMW-J45 (large)</td>
<td>L (mm) 960</td>
<td>H (mm) 1905</td>
<td>W (mm) 520</td>
<td>P 400</td>
<td>D 400</td>
<td></td>
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<tr>
<td>CMW-J50 (large)</td>
<td>L (mm) 960</td>
<td>H (mm) 1905</td>
<td>W (mm) 520</td>
<td>P 400</td>
<td>D 400</td>
<td></td>
</tr>
</tbody>
</table>

Dimensions and installation principles

Capture and Containment of the heat load and emission occurred at door opening.

Enabling Wellbeing

Halton

Enabling Wellbeing

Jasper oven

Enabling Wellbeing

Watching this video...
Halton’s patented IRIS™ sensors control in real time Josper’s oven door opening to activate the Cold Mist On Demand: 80% water consumption reduction

This second solution is based on a similar-looking KVI-J Capture Jet™ hood. However, the exhaust plenum is different in that it is on par with standard cooking equipment. Cold Mist technology is the best solution for efficiently raising the safety of solid fuel appliances up to KVI-J capture efficiency with full fire safety.

- The Cold Mist provides highly efficient filtration:
- It creates a Cold Water Mist curtain inside the exhaust plenum of the hood. The smoke generated by the cooking appliances is forced through it. Airborne particles and part of the odours are then captured and conveyed to the drain. This is well known, and proves to be a very efficient method of removing FOG (Fats, Oils and Grease) from the air stream.
- The Cold Mist acts as a spark arrester and air cooler: If sparks enter the hood the Cold Mist takes the heat away through adiabatic and evaporative cooling and therefore greatly reduces the risk of the propagating in the ductwork. The temperature is at the same time reduced to an acceptable level. The fire risk is reduced to a minimum and “burning on” of the cooking grease is suppressed.
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- The Cold Mist On Demand is up to 80% water consumption reduction.

<table>
<thead>
<tr>
<th>Type</th>
<th>Water used per month (m3)</th>
<th>Operating cost per m3</th>
<th>Percentage per m3</th>
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</thead>
<tbody>
<tr>
<td>Standard with Cold Mist On Demand</td>
<td>720</td>
<td>45.9</td>
<td>0.06</td>
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<tr>
<td>Standard without Cold Mist On Demand</td>
<td>390</td>
<td>27.6</td>
<td>0.04</td>
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<tr>
<td>Difference</td>
<td>330</td>
<td>18.3</td>
<td>0.03</td>
</tr>
</tbody>
</table>

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