Wash and dry hands at the sink.
“In washrooms using conventional taps, you’ll need to move to a separate hand drying area, dripping water on the floor as you go. It’s why we’ve developed a tap with our hand drying technology in it.”

James Dyson
Inventor
The problems with other hand dryers

Warm air dryers
Warm air dryers are slow. Which means they’re energy hungry, expensive to run and unhygienic. Dry times can take up to 43 seconds, so many users give up before their hands are dry – risking increased spread of bacteria.

Jet dryers
Other jet dryers might look like a Dyson Airblade™ hand dryer, but when it comes to performance, there’s no comparison. Thanks to weak motors, most other high speed hand dryers can’t generate the fast airflow needed to dry hands quickly. They can also lack the power required to draw the air through a HEPA filter. So most other high speed hand dryers aren’t just slower than Airblade™ technology, they’re less hygienic too.

Have you ever looked inside a drain tank?
Some hand dryers collect waste water using drain tanks. But these are unhygienic – providing the perfect breeding ground for bacteria. Drain tanks must be emptied and cleaned regularly – adding time and effort to the washroom maintenance process, and risking spillage of waste water during disposal.

Did you know?
In recent testing, Dyson microbiologists detected greater levels of bacteria in a drain tank than levels that can be found in the average household toilet.1

1 Sources: Dyson in-house testing, 2015; Scott et al., 2009; Medrano-Felix et al., 2010.

Did you know?
Public health specialists NSF state that to be certified as hygienic, a hand dryer must dry hands in 15 seconds or less.

The problems with paper towels

Dyson Airblade Tap hand dryer

Paper towels are expensive, have a high impact on the environment and cause extra washroom maintenance.

Blockages
Paper towels can clog waste water systems.

Overflowing bins
Soiled towels can end up on the floor of busy washrooms, creating a negative impression of hygiene standards.

Empty dispensers
Dispensers are often left empty leaving no way to dry hands.

Wasteful
Used paper towels are rarely recycled, so they end up in landfill or are incinerated.

Did you know?
Ensuring hands are dry is crucial for maintaining hygiene levels, as damp hands can spread up to 1,000 times more bacteria to the surfaces they touch.

Did you know?
Paper towels are expensive, have a high impact on the environment and cause extra washroom maintenance.
With Airblade™ technology in a tap, hands can be dried at the sink in 14 seconds. There’s no need to move to a separate drying area.

**How it works**
Both water and air are sensor operated, so there are no taps to turn or buttons to touch. Intelligent infrared sensors emit light to pinpoint hand positions. Computer circuitry coordinates the information and initiates the appropriate response of water or air without long delays.
Airblade™ technology works differently

The Dyson Airblade Tap hand dryer is powered by the Dyson digital motor V4 – one of the world’s smallest, fully-integrated 1400W motors. Its small size and power density are what have made our latest hand dryer technology possible.

Dyson digital motor V4

Conventional motors are bulky, slow and can be inefficient. They also rely on carbon brushes, which wear out over time. The Dyson digital motor V4 is different. It’s one of the world’s smallest fully-integrated 1400W motors and instead of old-fashioned carbon brushes, it uses digital pulse technology to spin up to three times faster than a conventional motor.

HEPA filter

Bacteria and viruses in washrooms can cause colds, flu, sickness and diarrhea. Dyson Airblade™ hand dryers have HEPA filters installed as standard, which capture 99.97% of particles the size of bacteria and viruses as small as 0.3 microns in the washroom air. So hands are dried with cleaner air, not dirty air.

Airblade™ technology

Every second, the Dyson digital motor V4 draws in up to 9.25 gallons of air through a HEPA filter and forces it through apertures just 0.8 mm wide. The result – 420 mph sheets of filtered air that scrape water from hands, drying them quickly and hygienically.
Inside the Dyson Airblade Tap hand dryer

**Airblade™ technology**
Air travelling at 420 mph exits laser-cut apertures measuring just 0.8 mm in width.

**Intelligent water and air infrared sensors**
Sensors auto-calibrate so that air and water are only activated when a hand is underneath.

**Removable end cap**
Designed for ease of service.

**Laser welding**
Fully-automated robotic precision cutting and welding allows high quality stainless steel tubing to be used in construction.

**Aerator**
The optional adaptor will reduce the flow from 1.06 gallons per minute to 0.5 gallons per minute. This helps to reduce water consumption and decrease your water bill.

**HEPA filter**
HEPA filter captures 99.97% of particles the size of bacteria and viruses as small as 0.3 microns from the washroom air.

**Dyson digital motor V4**
Spins at 92,000 rpm, generating enough power to draw up to 9.25 gallons of air per second through a HEPA filter.

**Mains water inlet**
Electronic, sensor-controlled water valve activates water flow when a hand is detected. This starts the water flow.

**Spring-mounted motor**
Motor is mounted using springs to reduce sound and vibration.

**Easy to service motor unit**
Designed for safe and quick replacement without the need for a technician.

**Dyson Airblade Tap hand dryer**

**Filtered air out**

**Dirty air in**

**HDFA filter**
HDFA filter captures 99.97% of particles the size of bacteria and viruses as small as 0.3 microns from the washroom air.
Only the Dyson Airblade Tap hand dryer has all of these benefits.

No water on the floor.
Costs less to run.
Most hygienic.
Better for the environment.
The fastest over sink hand dryer.
Saves space.
5 year limited warranty.
When using conventional drying methods, you move to a separate area to dry hands. Water is often dripped on the floor, which can create problems in the washroom. Floor tiles can become slippery, and washroom floors need cleaning more regularly.

Water on the floor

With the Dyson Airblade Tap hand dryer, water isn’t dripped on the floor because you don’t need to leave the sink with wet hands.

Water in the sink
Hygienic. And costs less to run.

With their slow dry times or lack of HEPA filtration, maintaining a hygienic washroom means avoiding other hand dryers. But as you can see, paper towels are an expensive alternative.

While paper towels can be just as hygienic as a Dyson Airblade™ hand dryer, their higher fixed running costs add up and up. And up.

Other hand drying methods cost more to run

Paper towels need constant restocking and disposal. Most other hand dryers are slow so they’re energy hungry.

The Dyson Airblade Tap hand dryer costs up to 69% less to run than other hand dryers, and up to 97% less than paper towels.

And of course there are no separate taps to buy.

Low running costs

$1,460 per year²

$157 per year²

$48 per year²

²For calculations visit www.dyson.com/calcs
Damp hands can spread up to 1,000 times more bacteria than dry hands. It’s why it’s important that hands are dried properly.

The most hygienic hand dryer

The Dyson Airblade Tap hand dryer uses a HEPA filter. 99.97% of particles the size of bacteria and viruses as small as 0.3 microns are captured. So hands are dried in 14 seconds using cleaner air, not dirty air.

Hygienically drying hands is as important as washing them

Bacteria and viruses deposited by hands onto surfaces can survive for several hours. When others touch these contaminated surfaces, they can be transferred. Damp hands can spread up to 1,000 times more bacteria than dry hands. It’s why it’s important that hands are dried properly.

These are the reasons why:

- Dyson digital motor V4
- HEPA filter
- 14 second dry time
- No drain tank
- No heating element
- Touch-free operation
# The environmental impact of paper towels

From cutting down trees, through chemical processes to disposal – using paper towels has a significant impact on the environment.

- **Felling trees**: Trees are a major source of pulp for virgin paper towel production.
- **Transportation**: Once trees are felled, they need to be transported from the forest to the mill.
- **Mix with water**: Lots of water and energy are needed to make paper.
- **Pulping and bleaching**: Chemicals are also used in the bleaching process.
- **Maintenance**: Paper towel dispensers need constant restocking.
- **Disposal**: Most used paper towels cannot be recycled. Used paper towels, packaging and bin liners end up in landfill or an incinerator.

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## High impact on the environment

The Dyson Airblade Tap hand dryer produces 74% less CO₂ per dry than some other hand dryers and 71% less than paper towels.  

<table>
<thead>
<tr>
<th>CO₂ per dry</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>13.9g</td>
<td>CO₂ per dry</td>
</tr>
<tr>
<td>15.6g</td>
<td>CO₂ per dry</td>
</tr>
<tr>
<td>8.0g</td>
<td>CO₂ per dry</td>
</tr>
</tbody>
</table>

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## Low impact on the environment

The Dyson Airblade Tap hand dryer has a lower environmental impact across measures including carbon emissions and energy consumption.

<table>
<thead>
<tr>
<th>CO₂ per dry</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.0g</td>
<td>CO₂ per dry</td>
</tr>
</tbody>
</table>

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*Calculated using PE International's GaBi software and method developed with Carbon Trust based on 5 years use and dry times measured using Dyson test method 769 based on NSF P335 with a measurement of 0.1g residual moisture.
Other hand dryers are too slow

Testing based on NSF Protocol P335 shows that most other hand dryers can be much slower than their manufacturer’s claim – with dry times based on drying hands without a HEPA filter. Many people give up when using a slow hand dryer. But damp hands can spread up to 1,000 times more bacteria than dry hands.

Dyson hand dryers are fast

Testing based on NSF Protocol P335 shows that the Dyson Airblade Tap hand dryer is fast. Every second, up to 9.25 gallons of air is forced through apertures measuring just 0.8 mm wide. The result – 420 mph sheets of air that scrape water from hands, drying them quickly and hygienically.

For a more detailed overview of NSF Protocol P335 please see the reference section at the end of the brochure.
Separate hand washing and drying areas need more space

Paper towel dispensers and hand dryers take up valuable wall and floor space in public washrooms.

The Dyson Airblade Tap hand dryer saves space

With no need for additional hand drying areas, there’s room for extra cubicles. Or the washroom can be made smaller.
5 year warranty. Unrivalled service.

Dyson Airblade™ hand dryers are engineered to last. They have been repeatedly tested for durability and resilience to physical abuse. They have also been exposed to real-life environments to ensure that they can withstand the pressures of high usage.

Warranty

Thanks to this rigorous testing regime, all factory parts on Dyson Airblade™ hand dryers are guaranteed against original defects in materials and workmanship for 5 years.

Aftersales support

If anything does go wrong with your machine, we provide repair and maintenance support through Dyson service engineers and self-service spare parts. Reducing downtime and disruption to your facilities.
The only hand dryer certified by the Carbon Trust

Everything we make or use has a carbon footprint. It represents the total amount of carbon dioxide and other greenhouse gases generated during its life.

Working with the Carbon Trust, Dyson has measured the carbon footprint of the Dyson Airblade™ hand dryer range.

Every single component
All components inside the Dyson Airblade™ hand dryer were assessed. Materials and manufacture contribute 8% of total emissions.

Waterways vs. highways
Constant paper towel restocking relies on road transport. Dyson Airblade™ hand dryers use energy-efficient ships – representing less than 1% of total emissions.

Less energy = less carbon
Airblade™ technology has fast dry times and no energy-hungry heating elements. So it uses up to 80% less energy than warm air dryers.

End of life
With a 5 year warranty, the Dyson Airblade™ hand dryer is built to last. Even so, many components are designed to be recyclable with negligible environmental impact.

*Calculated using PE International GaBi software and a method developed with Carbon Trust based on 5 years use and dry times measured using Dyson test method 769 based on NSF P335 with a measurement of 0.1g residual moisture.
Certified by HACCP international.
Safe for the food sector.

The Dyson Airblade Tap hand dryer has been certified for use in food preparation environments by HACCP International. The Dyson Airblade Tap hand dryer and the Dyson Airblade dB hand dryer are the only hand dryers globally certified for use in the food and beverage industry.
The only hand dryer certified hygienic

**NSF certified**

Dyson asked independent public health specialists NSF to define the criteria for a hygienic hand dryer. The result is NSF Protocol P335 – and Dyson Airblade™ hand dryers are the only hand dryers that meet every part of it.

**Air filtration**

Air used to dry hands must be HEPA-filtered.

**Unheated air**

Warming moist bacteria increases their reproduction rate. Heated air can also remove beneficial oils from the skin.

**Drying time**

Hands must be dried in under 15 seconds. NSF have defined dry as 0.1g of residual moisture. Damp hands can spread up to 1,000 times more bacteria.

**Touch-free operation**

The hand dryer must start and stop without user contact.

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When are dry hands dry? Here’s how they test it.

1. Take three male and female volunteers.
2. Fold paper towel once, place on digital scales and record weight.
3. Place both hands in water container up to level of wrist crease for five seconds. Rub hands in the water to remove trapped air and bubbles.
4. Remove hands from container and dry hands for five seconds.
5. Place hands under dryer 5 cm from outlet. Dry hands according to manufacturer’s instructions. If these instructions include rubbing then rub hands at a rate of two times per 5 seconds.
6. Once air begins to flow from dryer, begin to rub hands together ten times.
7. Continue drying process by rubbing palms together ten times.
8. Continue drying process by rolling hands twice.
9. Continue drying process by interlocking and unlocking hands twice.
10. Remove excess water from hands (between fingers and wrist) with paper towel until hands feel dry. Roll towel into a ball and place on scales within five seconds.
11. Repeat the test for all six volunteers and calculate the mean dry time of the six tests.

The machine will be considered ‘hygienic’ only if the unit can effectively dry hands to less than 0.1g of residual moisture within 15 seconds. Anything over 0.1g of moisture means the product will be deemed unhygienic.
Visit website for full downloadable technical specifications, sink recommendations and pre-installation guides.
www.dyson.com/docs

Motor bucket must be installed below the sink, upright or on its side.

Sink/worktop thickness
Max 2 1/4" Min 1/8"

All dimensions shown in inches (+/-3/16")

Dyson Airblade Tap technical overview.
AB09 technical overview.
AB10 technical overview.
AB11 technical overview.

Top dimensions
AB09 Height 6 1/4" Width 11 5/8" Depth 11 1/8"

Motor bucket dimensions
AB09 Height 10 5/16" Width 5 9/16" Depth 7 3/16"

Minimum clearance
2 1/8" clearance from floor.
Visit website for full downloadable technical specifications, sink recommendations and pre installation guides.
www.dyson.com/docs

**Top dimensions**
AB10 Height 12 11/16"  Width 11 5/8"  Depth 11 1/8"

**Motor bucket dimensions**
AB10 Height 10 5/16"  Width 5 15/16"  Depth 7 7/16"

**Minimum clearance**
2 6" clearance from floor.

Motor bucket must be installed below the sink, upright or on its side.

**Fixing locations**
(4)

**Water entry point**

Visit website for full downloadable technical specifications, sink recommendations and pre installation guides.
www.dyson.com/docs

**Top dimensions**
AB11 Length 12 11/16"  Width 11 5/8"

**Motor bucket dimensions**
AB11 Height 10 5/16"  Width 5 15/16"  Depth 7 7/16"

**Minimum clearance**
2 6" clearance from floor.

Motor bucket must be installed below the sink, upright or on its side.

**Fixing locations**
(4)

**Water entry point**

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www.dyson.com/docs

**Sink/worktop thickness**
Max 2 1/4" Min 1/8"

**Rear cable entry point**

**Fixing locations**
(4)
Pre installation
Points to consider before installation.

Environment
Indoors only.
Dry environment.
Below 6,361 feet.

Electrical supply
Dedicated 15 amp power supply per appliance.
Correct power available to the appliance (HV 200-253 V 1600 watt/LV 110-127 V 1400 watt). Isolated by switch fuse spur.

Water supply
Water pressure between 1-8 bar.
1x ½” BSP pipe feed required.
Water temperature controller required (thermostatic mixer/water heater).
Water isolation valve required for ease of install/service.

Location of motor bucket
AB09 / AB10 – Room under sink for motor to be mounted to surface (105/16” x 59/16” x 77/16”).
Allow for a minimum of 4” distance between the floor and the motor bucket.
AB11 – Metal enclosure (supplied with appliance) to be fitted behind wall (minimum depth 8”).
Sink compatibility

A wide range of sink styles have been tested and approved for use with the Dyson Airblade Tap hand dryer. Here is a small selection.

For the full list of compatible sinks visit www.dyson.com/docs

If a specific sink is not listed we can help with advice on the suitability.

Counter top sinks

Recessed

Pedestal mounted

Wall mounted

Under counter
Pre installation overview

Sink specification guidelines

Using a specially designed test method, Dyson engineers tested a wide range of sinks to assess their compatibility with the Dyson Airblade Tap hand dryer. For recommended sinks, please use our guide at www.dyson.com/docs.

Porcelain or brushed metal sinks are ideal.

Sinks with highly polished surfaces should be avoided e.g. reflective chrome.

Soap and locating the soap dispenser

For the best user experience, Dyson recommends the use of gel soaps.

The infrared sensing zone for air activation extends along each tap branch. In order to prevent accidental activation, it’s important to consider the user’s hand route to the soap dispenser.

Visit website for full downloadable pre installation guides for AB09, AB10 and AB11. www.dyson.com/docs

Sink dimensions

All internal measurements unless otherwise stated.

Front to back of sink minimum: 1325/32".

Front to back of sink minimum: 1113/16".

Maximum depth of sink for Long Neck Tap (AB10) only: 77/8" (external measurement of vessel/pedestal sink).

Minimum distance from tap centre to top of sink (AB11 only): 315/16". Front edge of sink (all types – pedestal, recessed, slab) to wall minimum: 15 5/32".

Do not place the downward facing water sensor of the tap over a reflective surface, such as the drainage hole.

Tap mounting

The tap stem (measured from the outside diameter) should be mounted 1/2” – 1 1/2” from the outside edge of the sink.

There should be a minimum of 11 5/16” between a tap centre and a side wall. When multiple taps are installed side-by-side, tap centres should be a minimum of 22 1/4” apart. This allows sufficient space for mounting the motor bucket, as well as sufficient shoulder room for users.

Do not place the downward facing water sensor of the tap over a reflective surface, such as the drainage hole (Fig. 4).

Visit website for full downloadable pre installation guides for AB09, AB10 and AB11. www.dyson.com/docs

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Sinks with highly polished surfaces should be avoided e.g. reflective chrome.
Water drainage

Due to high velocity air and water being in close proximity, there is a chance of some water and soap dispersion outside the sink dimensions. To alleviate this effect, we recommend following the below guidelines.

Base profile

Flat base profile will result in poor drainage leading to high levels of splashback.

Base to back and front wall transition

The base to back and front wall transition should also be considered. The back wall should be as close to 90°, and as sharp a radius as possible (Fig.7). Curved geometry is more likely to increase splashback, whereas sloping back and front wall transitions should be avoided (Fig.8 & 9).

Sink access guidelines

It is recommended that the guidelines below are followed to ensure there is sufficient access under the sink to allow for servicing and installation to take place (Fig.10).

---

Fig.5

Fig.6

Fig.7

Fig.8

Fig.9

Fig.10

---

X

Fig.5 To improve drainage, avoid sinks with a flat base with particular focus on the immediate area surrounding the drain hole, minimum 222/64" radius.

Fig.6 Minimum of 6° ramp angle from the edge of the drain hole of the sink will result in good drainage leading to reduced levels of splashback (minimum 222/64" radius).

Fig.7 Vertical and sharp transition.

Fig.8 Vertical and smooth transition.

Fig.9 Sloped transition.

Fig.10 15" minimum access below sink.
Plug hole

Plug holes with the most open aperture are recommended, whereas grill or perforated type plug holes should be avoided as they restrict the drainage of soapy water (lather). Do not use plugs in the plug holes in the sinks.

Mounting the motor bucket (AB09/AB10)
Ensure 4” minimum clearance from bottom of motor bucket to floor/wall.
The motor bucket cannot be mounted upside down or installed above the sink.
Only the following is advised (Fig.11).

Installing A811
The A811 Dyson Airblade Tap hand dryer is designed so that the motor unit is located behind a stud wall within a metal enclosure which is supplied with the Dyson Airblade Tap hand dryer (Fig.12). The vertical wall studs must be constructed so as to allow the metal enclosure to be fitted between them (Fig.13). One of the horizontal wall studs must be fitted a) so it holds the main weight of the metal duct and the unit, and b) so it is in the correct position for the tap stem.

For complete instructions, please refer to the printed installation guide supplied with the machine. It’s also available online at www.dyson.com/docs.
Water temperature control
If you are connecting a hot and cold water feed, you will need to install a thermostatic mixer (Fig 16, not supplied).

If you are connecting to cold only water feed, you will need to install a heater (Fig 17, not supplied).

![Figure 16](image1.png)

![Figure 17](image2.png)
Dyson Airblade Tap hand dryer

AB09 AB10 installation overview.
AB11 installation overview.

Installation overview
Visit website for full downloadable installation guide.
www.dyson.com/docs

What’s in the box

Additional items you will need for installation:

- Torx T15 screwdriver - long handle
- 17/16” Box spanner
- Mains power supply
- Water temperature control: Thermostatic mixer or heater
- Water pressure control if pressure is not between 1 and 8 bar

1. Assemble

2.
3
Decide motor location

4
Connect supplies
Electrics

If you are connecting a hot and cold water feed, you will need to install a thermostatic mixer.

If connecting to cold only water feed, you will need to install a heater.
Installation overview

5
Fix cover and motor

click

Installation overview

1
Install studwork and metal enclosure

What’s in the box

Additional items you will need for installation:
- Torx T15 screwdriver - long handle
- 17/16” Box spanner
- Mains power supply
- Water temperature control: Thermostatic mixer or heater
- Water pressure control if pressure is not between 1 and 8 bar
Installation overview

2. Install plasterboard

3. Install Dyson Airblade Tap hand dryer

4. Detach and install base of motor bucket in metal enclosure
If you are connecting a hot and cold water feed, you will need to install a thermostatic mixer.

If connecting to cold only water feed, you will need to install a heater.
Dyson Airblade Tap hand dryer cleaning guide

The Dyson Airblade Tap hand dryer should be cleaned daily.

Follow these three simple steps to ensure the machine performs to its best and remains hygienic:

1. Wipe sensors using a soft cloth and non-abrasive cleaner then place cleaning cap over sensors to prevent activation.

2. Clean all tap surfaces, sink, mirror and any walls or counter tops. When complete REMEMBER to remove cleaning cap.

3. REGULARLY clean air inlets on base of motor bucket (under sink). Ensure plug hole in sink is free from blockages so water can drain freely.

For a full version of the guide visit www.dyson.com/docs
Instructional communications

We have created specific washroom communications to enhance the user experience.

Dry your hands at the sink with the latest Airblade™ technology.

Place hands below to dry.
Wait for air to activate.

Place hands below to dry.
Wait for air to activate.

Place hands below to dry.
Wait for air to activate.

Place hands below to dry.
Wait for air to activate.

Instructional arm stickers
4 1/4" x 1"
The Dyson Airblade™ range

Sprayed nickel  White

Grey  White

AB-10  AB-11

AB-12  AB-13

Short  Long  Wall
Contact us for more information or to find out how to buy:
1-888-DYSON-AB
www.dyson.com

Architects can learn more through CE courses and our Lunch and Learn programs.