# dyson airblade

The fastest to dry hands hygienically with HEPA filtered air.





# Why do we put up with products that don't work properly?

In 1907, paper towels were introduced to washrooms. The electric hand dryer made its first appearance in 1948. But both have changed little since – they can still be expensive, unhygienic and harmful to the environment.

At Dyson, our engineers didn't think that was good enough. So in 2006, they put a century of poor performing hand drying methods to rest – with the invention of Airblade™ technology.

Dyson Airblade<sup>™</sup> hand dryers

# 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 jet 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 jet 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.



05 **06** 

# 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."

# 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.

<sup>\*</sup>Sources: Dyson in-house testing, 2015; Scott et al., 2009; Medrano-Felix et al., 2010.

# Dyson Airblade<sup>™</sup> hand dryers work differently

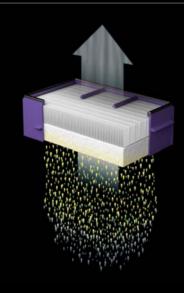
Dyson digital motor V4

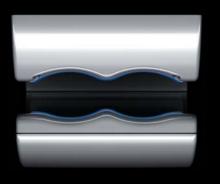
+ HEPA filter

+ Airblade<sup>™</sup> technology

The fastest to dry hands hygienically with HEPA filtered air







# 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 both compact and powerful, 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, diarrhoea or worse. Dyson Airblade hand dryers have HEPA filters installed as standard, which capture 99.9% of particles the size of bacteria from the washroom air. So hands are dried with cleaner air, not dirty air.

### Airblade<sup>™</sup> technology

Every second, the Dyson digital motor V4 draws in up to 35 litres of air through a HEPA filter, and forces it through apertures up to 0.8 mm wide. The result – 690 km/h sheets of filtered air that scrape water from hands, drying them quickly and hygienically.

No other hand dryer has this technology

# Airblade<sup>™</sup> technology has evolved

Dyson Airblade<sup>™</sup> hand dryers are powered by the Dyson digital motor V4. Its small size and power density are what have made our hand dryer technology possible.

It means you'll now find a quiet, handsunder dryer, a hands-in machine that works in just 10 seconds, and even one that dries hands at the sink.

# $\hbox{\tt dyson airblade V}$

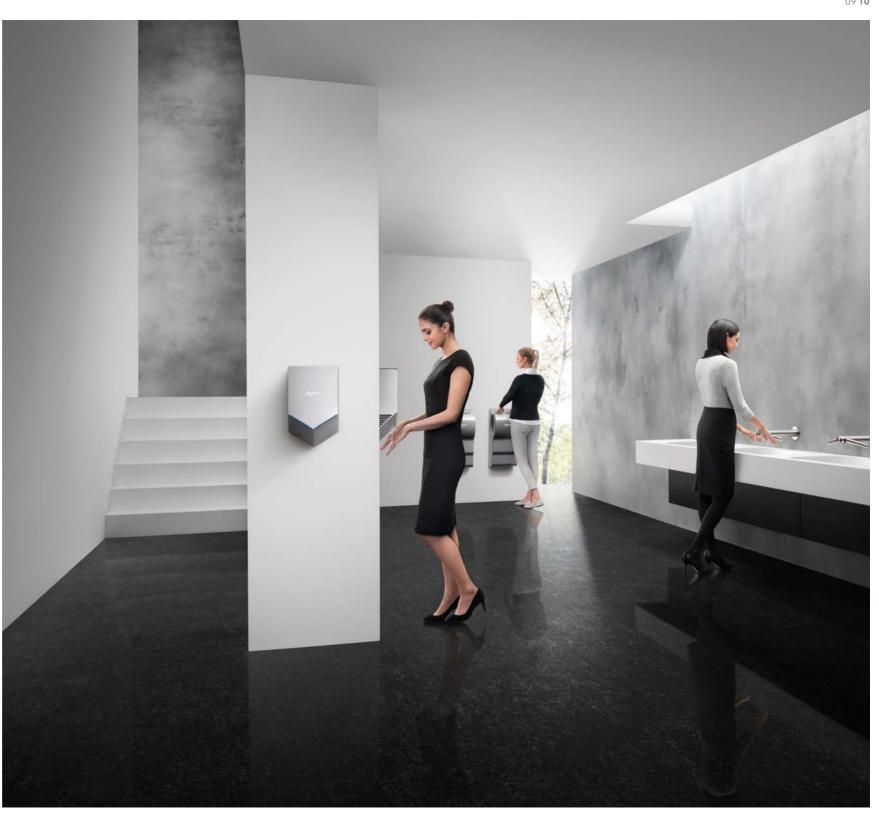
The most hygienic hand dryer is now 35% quieter.<sup>1</sup>

# dyson airblade dB

The fastest, most hygienic hand dryer.

# dyson airblade tap

Airblade<sup>™</sup> hand drying technology in a tap.



<sup>&</sup>lt;sup>1</sup> Loudness reduction compared to the original Dyson Airblade V hand dryer

# Only Dyson Airblade<sup>™</sup> hand dryers have all these benefits.

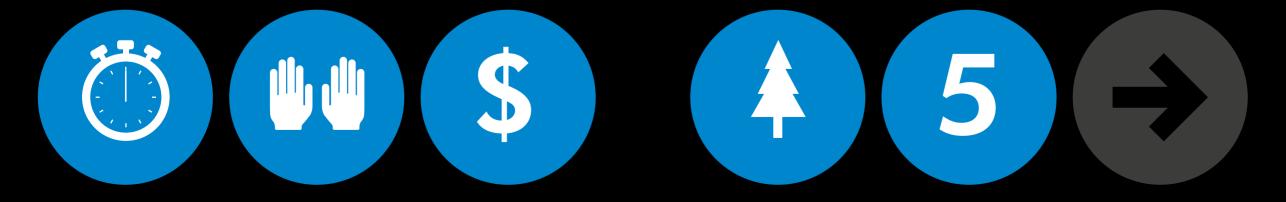
10-12 second dry time.

Most hygienic.

Costs less to run.

Better for the environment.

5 year guarantee.



# Other hand dryers are too slow

Testing based on NSF Protocol P335 shows that most other hand dryers are much slower than their manufacturers 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.





43 sec

**22** sec

No HEPA filter as standard



# Dyson hand dryers are fast

Testing based on NSF Protocol P335 shows that Dyson Airblade™ hand dryers are fast. Every second, up to 35 litres of air is forced through apertures up to 0.8 mm wide. The result – 690 km/h sheets of air that scrape water from hands, drying them quickly and hygienically.







10 sec

12 sec

12 sec

HEPA filter as standard

HEPA filter as standard

HEPA filter as standard

# **NSF Protocol P335**

For a more detailed overview of NSF Protocol P335 please see the reference section at the end of the brochure.

# Airblade<sup>™</sup> technology is fast and the most hygienic

These are the reasons why:

Dyson digital motor V4

**HEPA** filter

10-12 second dry time

No drain tank

Antibacterial additive

No heating element

**Touch-free operation** 



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.

# The most hygienic hand dryer

Dyson Airblade hand dryers use HEPA filters. 99.9% of particles the size of bacteria are captured from the washroom air. So hands are dried in 12 seconds or less using cleaner air, not dirty air. Both the Dyson Airblade V hand dryer and the Dyson Airblade dB hand dryer contain an antibacterial additive which can help prevent the growth of bacteria.

#### No drain tank

When you dry your hands with a Dyson Airblade V hand dryer or Dyson Airblade dB hand dryer, waste water is designed to drip onto the floor where it evaporates – so bacteria dry out and perish. But some hand dryers use drain tanks to collect waste water – providing the perfect breeding ground for bacteria. That's unhygienic.



Dyson Airblade<sup>™</sup> hand dryers 17 18

# Proven as hygienic

# **Bradford University**

### **Conclusions:**

Using a Dyson Airblade™ hand dryer reduces bacteria on washed hands by up to 40%.

# Study background:

Conducted by the Bradford University Infection Group, the study's findings have been peer-reviewed by the academic community and published in the Journal of Applied Microbiology.

# What they studied:

Bacteria removal by the Dyson Airblade<sup>™</sup> hand dryer.

# Campden BRI

# Conclusions:

Using a Dyson Airblade<sup>™</sup> hand dryer has no significant impact on bacteria levels in washroom air compared to paper towels.

# Study background:

Conducted by independent food and drink research organisation Campden BRI, whose clients include hygieneconscious global food businesses such as Cadbury, Pepsico, Danone, Coca-Cola, Heinz and Nestlé.

# What they studied:

Bacteria counts in washroom air following use of Dyson Airblade hand dryers and paper towels.

# **University of Florida**

### Conclusions:

The surface of a Dyson Airblade™ hand dryer is no more contaminated than any other high-touch area in the washroom.

# Study background:

Conducted by an epidemiologist from the Division of Infectious Diseases at the University of Florida's College of Medicine.

# What they studied:

**Bacterial contamination from Dyson** Airblade<sup>™</sup> hand dryers and other hand drying methods on high-touch areas in public washrooms – including paper towel dispensers, toilets, door knobs, toilet cubicle handles, flush controls, counter tops etc.

Funding into further independent studies will continue.











Dyson Airblade<sup>™</sup> hand dryers

# The only hand dryers globally certified as hygienic by both NSF and HACCP International.

# Certified by HACCP International. Safe for the food sector.

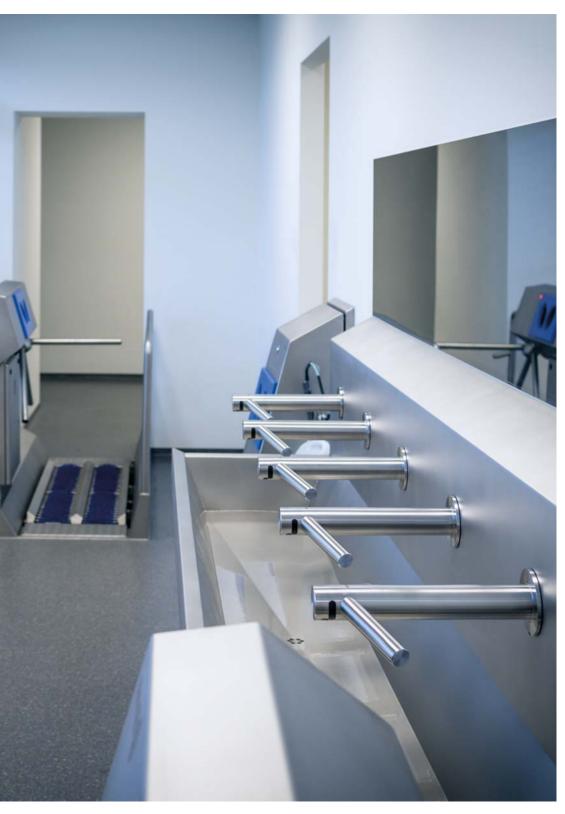
The Dyson Airblade dB hand dryer and the Dyson Airblade Tap hand dryer have been certified for use in food preparation environments by HACCP International.



# Certified by NSF International.

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.







# Other hand drying methods are expensive to run

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





\$1,460

**\$97** per year<sup>2</sup>

Low running costs

Dyson Airblade<sup>™</sup> hand dryers cost up to 68% less to run than other hand dryers, and up to 98% less than paper towels.⁴







\$40

 $per\; year^2$ 

\$31 per year<sup>2</sup> \$48 per year<sup>2</sup>



# Higher impact on the environment

Dyson Airblade<sup>™</sup> hand dryers produce up to 79% less CO<sub>2</sub> than some other hand dryers and up to 76% less than paper towels.<sup>3</sup>









15.6g

**8.0g**CO2 per dry<sup>3</sup>

# Low impact on the environment

Dyson Airblade<sup>™</sup> hand dryers have a lower environmental impact across measures including carbon emissions and energy consumption.<sup>3</sup>







**3.3g** CO<sub>2</sub> per dry<sup>3</sup>

2.4g
CO2 per dry3

4.0g
CO<sub>2</sub> per dry<sup>3</sup>



<sup>&</sup>lt;sup>3</sup> In collaboration with Carbon Trust, Dyson has produced a method to measure the environmental impact of electrical appliances and paper towels. The carbon calculations were produced using GaBi software provided by PE International, based on product use over 5 years and using the US as a representative country of use. Dry times for products were evaluated using DTM 769.

Dyson Airblade<sup>™</sup> hand dryers

# 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 guarantee, the Dyson Airblade hand dryer is built to last. Even so, many components are designed to be recyclable with negligible environmental impact.





# 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. They have to be disposed of. Used paper towels, packaging and bin liners end up in landfill or an incinerator.



# 5 year guarantee. Unrivalled service.

### Test. Test. Test.

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.

#### Guarantee

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

But 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.

# Dyson Airblade dB hand dryer

5 year parts, 1 year labour.

# Dyson Airblade V hand dryer

5 years parts, easy self-service.

# Dyson Airblade Tap hand dryer

5 year parts and labour.









# dyson airblade V

The most hygienic hand dryer is now 35% quieter.

### 35% guieter

With reprogrammed digital motor technology and precision air apertures, loudness testing shows that the new Dyson Airblade V hand dryer is now 35% quieter than its predecessor.

#### More room. Less hassle.

With a slim, compact profile that protrudes just 10 cm from the wall, the Dyson Airblade V hand dryer takes up less space in the washroom. While its easy-mount backplate allows for easy, self-service installation, maintenance and replacement.

For full product details visit www.dyson.com



# Certified by Quiet Mark

The Noise Abatement Society tested and approved the decibel levels and sound quality of the Dyson Airblade V hand dryer – awarding it the Quiet Mark. The Quiet Mark has been developed in response to public health concerns over the psycho-physiological effects of excessive or invasive sound produced by appliances.

#### The View From the Shard

"The Dyson Airblade V hand dryers have a modern and sleek design that fits the general design of 'The View From the Shard' very well. Guests have told us they like the power and speed of the machines. We are very proud to be amongst the first to have these hand dryers."

# Sandy Clark

Operations Director.



# dyson airblade dB

The fastest, most hygienic hand dryer.

# Fast drying

The original Dyson Airblade dB hand dryer produces sheets of air travelling at 690 km/h. They scrape water from the front and back of hands simultaneously, drying hands in just 10 seconds.

# Safe for the food sector

The Dyson Airblade dB hand dryer has been approved for use in food preparation environments by HACCP International.

For full product details visit www.dyson.com



### **Gloucester Services**

"Although we had a wide range of hand dryers to choose from, our sister station has had its Dyson Airblade" hand dryers for over 5 years and they still only have positive things to say."

**Joshua Jackson,** Facilities Manager.



# dyson airblade tap

Airblade<sup>™</sup> hand drying technology in a tap. Wash and dry hands at the sink.

### No waste water on the floor

With Airblade<sup>™</sup> technology in a tap, hands can be dried at the sink in just 12 seconds. There's no need for users to move to a separate drying area, so no water is dripped on the floor.

# Free up your washroom

Other hand drying methods take up valuable wall and floor space. With the Dyson Airblade Tap hand dryer, there's room for extra toilet cubicles and other facilities.

For full product details visit www.dyson.com



# Coca-Cola London Eye

"As an iconic global landmark, The London Eye needs to meet high expectations of quality – and that extends to our washrooms.

Installing the Dyson Airblade Tap hand dryer has allowed us to achieve this."

Davey Barrett, Show Services Manager.



# The range



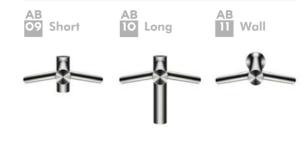












# The fastest, most hygienic hand dryer.

10 second dry time.

HEPA filter captures 99.9% of particles the size of bacteria.

Tested and certified by NSF.

Certified for use in food environments by HACCP International.

Costs just \$40 to run per year.<sup>2</sup>

Small carbon footprint.

Tough and durable.

Touch-free operation.

Contains antibacterial additive.

# The most hygienic hand dryer is now 35% quieter.<sup>1</sup>

Certified by Quiet Mark.

HEPA filters capture 99.9% of particles the size of bacteria.

Tested and certified by NSF.

12 second dry time.

Costs just \$31 to run per year.<sup>2</sup>

Small carbon footprint.

Slim profile – just 10 centimetres deep, no recessing required.

Touch-free operation.

Contains antibacterial additive.

# Airblade<sup>™</sup> hand drying technology in a tap.

Wash and dry hands at the sink.

No water dripped on the floor.

12 second dry time.

HEPA filter captures 99.9% of particles the size of bacteria.

Tested and certified by NSF.

Certified for use in food environments by HACCP International.

Costs just \$48 to run per year.<sup>2</sup>

Small carbon footprint.

Saves space.

<sup>&</sup>lt;sup>1</sup> Loudness reduction compared to the original Dyson Airblade V hand dryer.

<sup>&</sup>lt;sup>2</sup> For calculations visit dyson.com/calcs

# A different approach

It all began with James Dyson himself, who wondered if a vacuum cleaner really needed that bag. Later, Dyson engineers discovered hand dryers could dry hands without heat.

And fans didn't have to use blades to cool you down.

At Dyson, we've been challenging the conventions of existing technology for over 20 years. Our engineers use this approach every day – helping us invent new machines that simply work better. And we're only just getting started.



Reference
NSF Protocol P335 criteria.
Dyson Airblade™ hand
dryer specifications.

Dyson Airblade<sup>™</sup> hand dryers 39 40

# 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.

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



2



Fold paper towel once. place on digital scales and record weight.

Place both hands in water crease for five seconds. Rub hands in the water to remove Remove hands from container for five seconds.

5



Place hands under dryer 5cm from outlet. Dry hands according to manufacturer's instructions. If these instructions include rubbing then rub hands at a rate

of two times per five seconds.



Once air begins to flow from dryer start to rub and dry hands. Commence drying process by rubbing palms together twice.



Continue drying process

Continue drying process by by rolling hands twice. interlocking and unlocking hands twice.

12

9



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.

10



Re-weigh the towel and record the weight. 11



Repeat the test for all six volunteers and calculate the mean dry time of the six tests.

within 15 seconds.

The machine will be considered 'hygienic' only if the unit can effectively dry hands to less than 0.1g of residual moisture

Anything over 0.1g of moisture means the product will be deemed unhygienic.

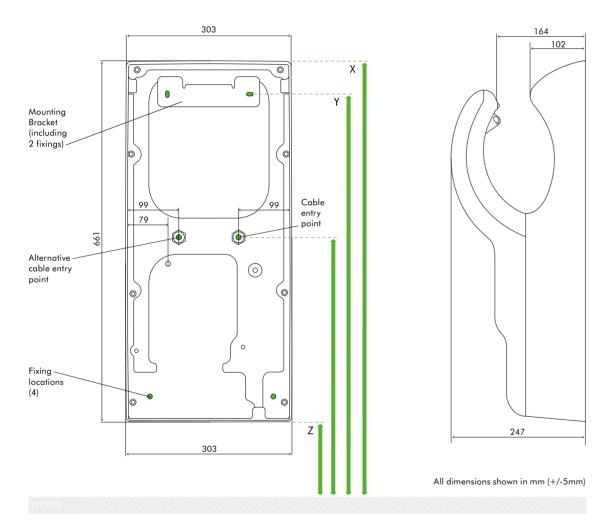
TESTED. CERTIFIED. HYGIENIC

# dyson airblade dB



Visit the website for full downloadable technical specifications. www.dyson.com/docs

REAR ELEVATION SIDE ELEVATION



Recommended installation heights from floor		
Male	X 1050mm Y 990mm Z 390mm	
Female	X 975mm Y 915mm Z 315mm	
Child or disabled	X 875mm Y 815mm Z 215mm	

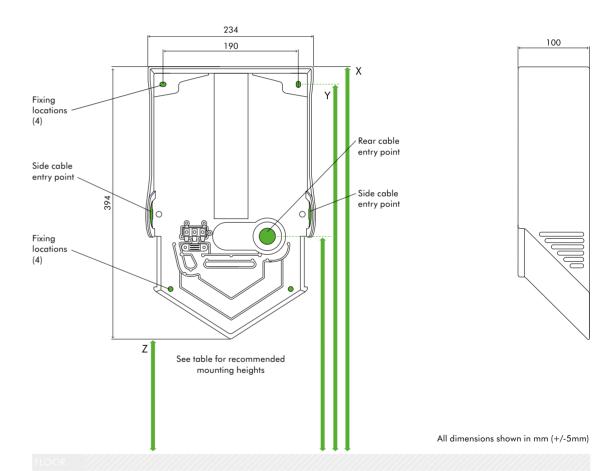
Height 661mn	Width 303mm Depth	247mm.		
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# dyson airblade V



Visit the website for full downloadable technical specifications. www.dyson.com/docs

REAR ELEVATION SIDE ELEVATION



Recommended installation heights from floor	
Male	X 1324mm Y 1300mm Z 930mm
Female	X 1289mm Y 1265mm Z 895mm
Child or disabled	X 1074mm Y 1050mm Z 680mm

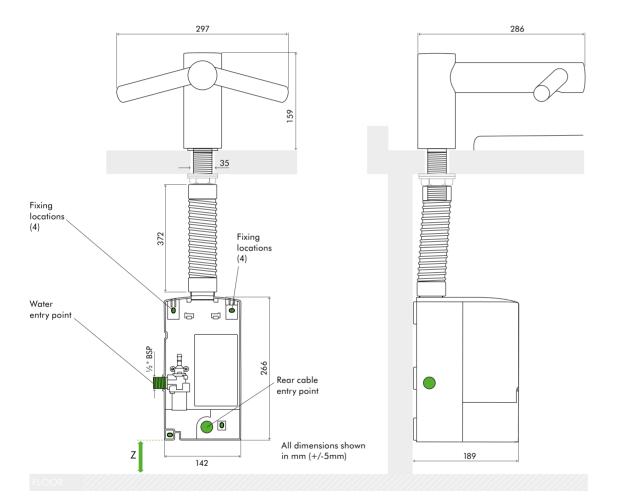
Machine dime	ensions		
Height 394mm	Width 234mm	Depth 100mm.	

# dyson airblade tap



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

REAR ELEVATION SIDE ELEVATION



_		
Tap	dim	ensions

AB09 Height 159mm Width 297mm Depth 286mm

#### Motor bucket dimensions

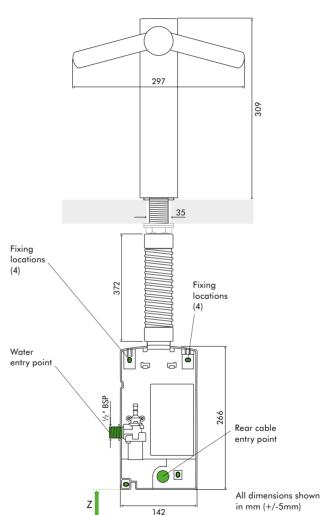
AB09 Height 266mm Width 142mm Depth 189mm

# Minimum clearance

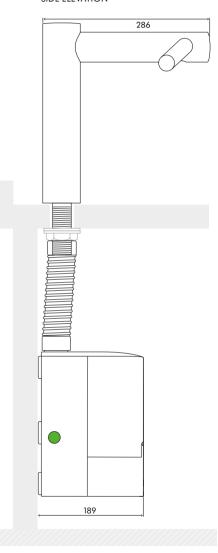
Z 100mm clearance from floor.



### REAR ELEVATION



#### SIDE ELEVATION



Tap dimensions

AB10 Height 309mm Width 297mm Depth 286mm

#### Motor bucket dimensions

AB10 Height 266mm Width 142mm Depth 189mm

Minimum clearance

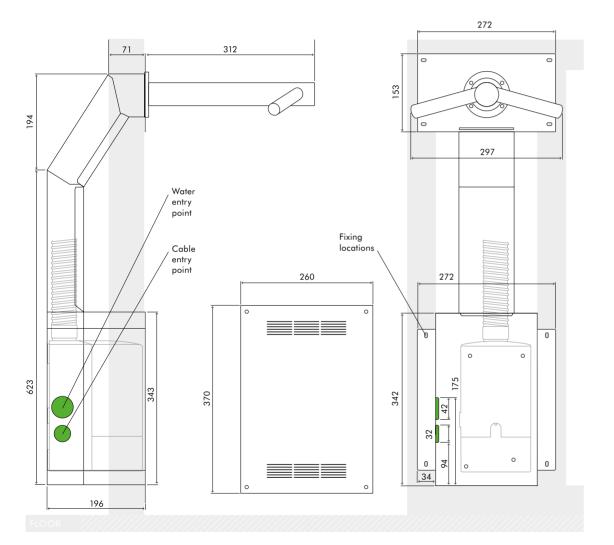
Z 100mm clearance from floor.

# dyson airblade tap



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

SIDE ELEVATION REAR ELEVATION



	Tap	dime	ension
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AB11 Length 312mm Width 297mm

#### Motor bucket dimensions

AB11 Height 266mm Width 142mm Depth 189mm

To try the Dyson Airblade™ hand dryers or for more information, please call: www.dyson.com

# dyson airblade









The Carbon label is a trademark of the Carbon Trust. The NSF logo is the registered trademark of NSF International. HACCP International non-food certification mark is the registered trademark of HACCP International. HACCP International one certified by son products based on their recommended installation and operating conditions. Quiet Mark is a registered trademark of the Noise Abatement Society.