



The Hand Dryer Buying Guide: How to Buy the Best Hand Dryer

There are hundreds of different hand dryers on the market, and it is easy to make an expensive mistake.

Use this straightforward guide to identify the dryer which best fits your requirements, at a price you can afford.

Contents



Introduction

How to use this guide to find the best hand dryer at the best price.



Factors to Consider

- Purchase Price
- Running costs
- Noise Levels
- Performance
- Hands-in /-under
- Warranty



Quick Recommendations

Don't want to get into the detail? Pick from our recommendations for various types of situations.



Introduction

We spend a great deal of our time talking about hand dryers. The result (apart from the fact that we don't get asked to many parties) is that we are very good at identifying the right hand dryer for each of our customers. In the process, we frequently save them a large amount of money.

To help even more people make the best choice, we have put some of our knowledge into this guide in what we hope is an easy to follow form which allows you to quickly narrow down your choice without spending hours wading through comparisons of different dryers, different websites and different opinions.

Because we are independent of any hand dryer manufacturer (but supply dryers from more than 15 different brands) any bias we have has come from our experience of both positive and negative feedback over the years. This has allowed us to separate the value from the hype, and the usefulness from the marketing-speak.

The following 3 chapters of this guide are meant to give you as much or as little information as you feel you need to make the right decision:

If you have decided that your life will not be enhanced by knowing any more about hand dryers than is absolutely necessary, jump straight to the last section – Quick recommendations, identify yourself against one of the different types of environment and choose from the recommendations given.

If your main decision criteria mostly centre on price, performance or prestige - read the first chapter to see a shortlist of recommendations.

And if you would like to understand some more about the main factors to consider, and how important they really are, then have a read through the chapter on 'Factors to Consider'.

If you still can't find what you need, then call one of our friendly experts on 01934 253600 and we'll point you in the right direction.

Factors to consider



Price – the most important factor?

In most purchasing decisions, price will be one of, if not *the* most important factor. So it is important to make sure you have some realistic reference points and expectations regarding exactly what you should be expecting to pay to get the hand dryer you need.

Whilst we do supply 100% of the brands available in the UK, we do offer over 150 different models from over 15 manufacturers, so this does represent a pretty good view of what is available.

To help you understand this, we have divided up the price range into 4 areas below, describing in each one what kind of dryers, and their features, you can expect for that price (all prices are ex-VAT, excluding delivery etc.).

And in case you haven't already noticed, you will find that 'hands-in' dryers are considerably more expensive, starting at around £300 and going up to over £700.

Ultra-budget. Up to £50.

A hand dryer in this range will be made in the Far East and brought into this country in large numbers. The warranty will be the legal minimum of 1 year. It will have a drying time of around 20 – 30 seconds, which is long enough for many people to get fed up and walk out the washroom with wet hands.

It will certainly save money compared with the purchase of paper towels, but it is unlikely to boost the image of your washroom.

Budget. £100 - £150

Recently, there have been some newcomers into this section of the market, and the overall quality level has been improving. Most of the dryers in this range will have a reasonable warranty, should be fairly reliable and will do a good job of drying your hands.

This includes most of the dryers from Handy Dryers such as the Kangarillo and the Dillo (don't blame us for the names) and the Bluedry range.

Mid-range £150 - £350

For any hand dryer in this range, you should be expecting a good warranty, a 10 second drying time, a dryer which is going to look pretty good in your washroom and last at least 4 or 5 years.

The Biodrier Biolite, and the Warner Howard Airforce are both good hand dryers in this category – both dryers which offer an excellent combination of quality, excellent warranty, short drying time and economical operation.

However the real stand out dryer in this range is the JETBOX Eco. A 5 year replacement warranty, great performance figures and perhaps most importantly, an adjustable control over motor power and heat. This is extremely important to many people, as it allows not just a winter and summer setting, for comfort, but also allows it to be turned down if it is too loud. Most dryers that allow some sort of control over these settings only allow them to be switched on or off.

High-end £350+

Hand dryers in this range are top quality machines which will add to the image of your washroom. Obviously, the Dyson dryers are in this category, and they are extremely popular, especially in high-usage environments. But they are certainly not alone – the Biodrier Business2 and Executive are both excellent hands-in units, and the Mitsubishi range – both the SMART (hands-under) and the SLIM (Hands-in) are highly recommended dryers which perform as well or better than almost everything else in almost every category.



Hand Dryer Running Costs – Are they significant?

When you're buying a new hand dryer, the cost of running it may be the last thing on your mind, but it may turn out to be significant.

All hand dryer manufacturers make a big deal out of how energy efficient their products are, and they usually compare the running costs against the cost of buying paper towels, or the electricity costs of one of the old fashioned hand dryers from the 1990s which use over 2kw and take an age to dry your hands.

These comparisons are always going to be favourable, because paper towels are hugely expensive compared to hand dryers (if you are in any doubt whatsoever about this, 5 minutes of research will clear this up) and the old generation of hand dryers were hugely inefficient compared to anything modern.

However, it is important to get the running costs into proportion.

To help with this, our hand dryer datasheets contains a figure which represents the costs of drying 200 pairs of hands, per day, for a year. If you are looking at half that, then just halve this cost and so on, but 200 per day is probably a good average.

There are a number of things you can easily see from the following table, such as...

- There is a huge variation between different dryers
- If your usage is light (i.e. less than 100 dries per day) these running costs are fairly insignificant
- In a high use environment, they can be VERY significant, potentially doubling the cost of ownership over a 5 year period.
- It is not always the most expensive dryers which have the lowest running costs, so by understanding the full running costs you can avoid costly mistakes.

One issue to be aware of when considering the electricity consumption of hand dryers is whether they are using very little energy because they are not generating any heat. This is important because some modern dryers do exactly this, and

as a result, in a cold washroom in the middle of winter, people find the dryer unpleasant to use. So we would recommend choosing a dryer which has the *option* of turning off the heating element, rather than one with no element at all.

The Annual Running cost figure is incorporated into our search tool at <http://electricaldealsdirect.co.uk> to allow you to restrict your search to reduce your cost of ownership

Hand Dryer Make/Model	Annual running cost
Excel XLerator	£17
Mitsubishi Jet Towel SMART (Min Power)	£18
Biodrier Biolite	£20
Warner Howard Airforce	£29
Biodrier Business2	£31
Dyson AB14	£35
Dyson AB08	£35
Kangarillo	£40
Airdri Quad	£64



Hand Dryer Noise – a necessary evil?

Perhaps the most common complaint received from customers of new hand dryers is the level of noise they generate.

We have heard of situations where hand dryers have had to be replaced in corporate washrooms because they are next to conference rooms and the noise is disruptive to meetings. We have heard of shopping centres which have removed over 30 units of particular dryer after receiving scores of complaints about the noise level of the hand dryers. And we have heard of many situations where nurseries and primary schools have stopped using hand dryers because the children are frightened of the noise – instead they have reverted to the use of paper towels, even though they know they will be facing huge bills for unblocking sinks and drains on a regular basis.

The problem exists because modern hand dryers typically blast air off the hands with high powered jets of air, rather than evaporate the water away with the heat of the air. In fact, most of the heat in hand dryers is for comfort rather than effectiveness.

A lot of customers therefore assume that in order to reduce the noise, they must move to a lower powered and less effective hand dryer. Fortunately, this is not true, because there are several dryers which are deliberately designed to reduce the noise levels, but it takes a little 'insider knowledge' to properly interpret the numbers given out by the manufacturers.

Firstly, it is important to understand that there is no industry standard way to measure the noise levels. Most manufacturers give a noise rating measured in decibels 'at a distance of 1m' (*although Mitsubishi insist on only releasing figures at 2m!).

Hand Dryer Make / Model	Decibels @ 1m
XLerator	85
Dyson AB08	84
Dyson AB14	81
Kangarillo2 Eco	79
Warner Howard Airforce	78
Biodrier Business2	78
Biodrier Biolite	76
Airdri Quad	71
Mitsubishi Jet Towel SMART	62*

But that still won't produce either a figure good enough for direct comparison or even a realistic noise level. This is because the acoustics of the washroom have an impact on the noise level, as does whether you actually have your hands in the way of the air stream. On top of this, some companies (Mitsubishi again!) measure the noise level in an 'anechoic chamber' – this is a chamber which removes all

extraneous noise and so will give the lowest possible result. And to add to the confusion, despite what seem like

misleading tricks, Mitsubishi actually produce very quiet dryers!

So what we are saying is that if you think noise might be an issue, do take the decibel level into consideration, but only use it as a guide: a 'normal' modern hand dryer ought to be in the range 55 – 78 – louder than that could cause a problem. If at all possible, try a hand dryer out in situ before committing to a major purchase (either by getting a trial unit or by trying one in an existing installation).

The decibel level is part of the search tool at <http://electricaldealsdirect.co.uk>, but in the table on the left you can see a selection of dryers and their associated published decibel levels.



Hand Dryer Performance – how important is it for you?

This might sound like a daft question, but the fact is that in some environments, hand dryer performance is crucial, but in other situations is almost completely unimportant.

For example, if you are running a sports arena or theatre, and there is intense usage of the washroom facilities in a very short period of time (breaks, half-times, and immediately before starting) then having hand dryers which cannot cope with the throughput can mean annoyed and unhappy customers.

And in lower throughput situations like a top-class restaurant, having dryers which take an age to dry a customer's hands can mean your attempts to deliver a high-class experience worthy of high prices can be ruined.

On the other hand, if you are a contractor in a rush – your customer has not given any thought to the quality required of the hand dryers and is only focused on price, then this area is not of great concern.

So there are 2 aspects of performance which are important to consider:

- **Will the dryer actually work?**

In other words – will people take the time to dry their hands properly or will they give up and – in the famous words of James Dyson – ‘walk away wiping their hands on their jeans’.

For the most part, this comes down to the drying time, although there are a couple of other things to consider.

For the drying time, the good news is that all manufacturers publish a drying time for their products. The bad news is that there is no standard way of measuring drying times, and so many of the official times are more wishful thinking than carefully measured outcomes.

In fact, we know of at least 3 manufacturers who have done extensive studies to prove that all their competitors have exaggerated drying times to make their products appear better – and of course each of them (according to their own studies) are the only ones who produce honest numbers.

So, we would certainly recommend comparing drying times, but differences of a couple of seconds can generally be ignored.

It turns out that since drying your hands is one of the more boring things you can spend your time doing (hence the obsession with making it as quick as possible), any way to make it slightly more interesting should always be welcomed. For this reason, we strongly approve of those dryers which have things such as a countdown timer on the top of the dryer, or lights which shine on your hands – they generally have no real function except to keep your interest and so make the time pass more quickly, but people do like them, and as a result we value them highly.

- **Will I get queues at the hand dryer?**

Knowing a ‘throughput’ number is important so you can avoid queues and buy the right number of dryers for your washroom to cope with the likely throughput at peak times.



Unfortunately no dryer manufacturer gives this type of figure, so part of our hand dryer datasheets we have defined a measure (“Maximum Throughput: Peak 10 minutes”).

This is calculated from the manufacturer’s drying time, divided

into 10 minutes but also allowing for a ‘changeover time’ as one person moves out of the way and the next person steps forward to dry their hands. We have also made this available as a search criterion in our Product Advisor search tool.



“Hands-In” or “Hands-Under” Dryers – which is right for you?

It was the Dyson Airblade which brought the concept of a different way of drying your hands to the attention of the world (although it was actually Mitsubishi who originally came up with the idea). Since then, many manufacturers have come up with their own version of a hands-in dryer, and Dyson and Mitsubishi have continued to evolve their own models.

So there is now a huge range of these dryers to choose from, and the price of an entry-level hands-in dryer is now around £300 (ex-VAT) – but despite their popularity, are they the automatic choice if your budget will stretch to one?

To answer this you need to check your requirements against 3 main factors:

- Space and type of users

Fairly obviously, a hands-in dryer takes up a lot more wall space than a hands-under model, and it is positioned lower on the wall. In washrooms where space is at a premium it may be that this factor alone rules out the use of a hands-in dryer.

Not so straightforward is that consideration should be given to the *type* of user. Able-bodied adults should have no problems using either type of dryer, but children or those with disabilities may struggle.

For example, there are different recommended heights for hands-under dryers used by children, so if there is only one dryer in the washroom and a lot of children will be using it, it may be difficult to position it at the right height for everyone.

Hands-under dryers usually only have one recommended height, and wheelchair users may find it easy to use if they can approach it from the side. Because they are ‘blade dryers’, there is no need to rub hands together to dry them, and this is often easier for those with limited mobility in their hands. Children often find it difficult to put their hands into these dryers though, and so they tend to put their hands in from the side. Mitsubishi, in the

new Jet Towel Slim have added new sensors to take account of this.

Of course, if you are in an adult-only environment such as a night-club, or if you have completely separate facilities for disabled users then these considerations are irrelevant.

- Hygiene (drip tray, mess on the walls)

Modern hand dryers do not evaporate the water from your hands through heat, they mostly blast it from your hands using very high speed blasts of air. This means that some of this water will end up on the walls or floor of your washroom. Most of the time, this is not a major problem, as it will either evaporate or get cleared up during your normal washroom cleaning, but particularly in high-usage situations, it can cause a problem.

All hands-in hand dryers except the Dyson Airblade have a drip-tray fitted, which catch any drips of water, so this problem goes away completely. With dryers like the Mitsubishi Jet towel, the drip tray is completely anti-bacterial.

- Price

Although the entry-level price has fallen in recent years as new manufacturers have entered the market, a hands-in dryer is still substantially more expensive than a hands-under dryer, so considering you can get a high-performance hands-under dryer for £200 - £250 that may make up your mind for you.



Warranties – are they all the same?

It's easy to forget about warranties when choosing a hand dryer, and there's often a tendency to assume they are all likely to be similar, regardless of manufacturer.

However, this is definitely not the case, and there are certain manufacturers who have deliberately specified their warranty so that it gives them quite a significant competitive advantage over others.

There is also a tendency to only look at the length of the warranty period, rather than check exactly what is covered. Hand dryer warranties can range from 12 months up to 5 years, and can contain different levels of cover – and sometimes this level of cover changes within the warranty period itself.

Generally, you will find that the more expensive the hand dryer, the more extensive is the warranty, but you will also find that there are notable exceptions to this rule – both in a good way and a bad way – so it is definitely something to factor into your decision.

Wording	Meaning
Parts only	The manufacturer will diagnose the problem and either give you the replacement spare parts or fit them and charge you for the labour costs.
Parts & Labour	The manufacturer will fix/replace the dryer at no cost to you other than uninstalling, shipping the dryer back to them and then re-installing.
Full on-site warranty	The manufacturer will visit your site, and fix the problem. No cost to you whatsoever.

There is one manufacturer worthy of note in this regard: Biodrier offer a 5 year warranty on all their dryers, the first 3 of which are on-site, so if anything goes wrong (other than motor brushes) in that period, they will turn up at your premises and fix the problem. Considering this applies to

dryers which can cost less than £200 says something very important about the reliability of their dryers – because if their dryers were in any way unreliable, they would be out of business due to the repair costs. So, the warranty on a dryer can often say as much about the confidence you should have in the reliability level than anything else.

So let's look at the 2 extremes, and then we'll give a list of the warranties offered by some of the most popular dryer manufacturers. Firstly, the minimum warranty allowed under UK law is 12 months. What this means is that if the hand dryer breaks down within 12 months of the purchase date (which may not be the same as the installation date) then the manufacturer has an obligation to get it working again.

However, you may still be liable for removing it from the wall and sending it back to the manufacturer and then re-installing it after repair, as well as the inconvenience of not having a hand dryer for however long that takes.

So if your hand dryer only has this basic level of warranty and it breaks down, you may be better off just buying another.

From the table above, you can see what each type of warranty actually gives you, and the table below lists the warranties offered by each of the major manufacturers:

Manufacturer	Total	Made up of...	
Biodrier	5 years	3 years onsite	2 years parts & labour
Dyson	5 years	1 year Parts & labour	4 years parts only
Warner Howard	3 Years	3 years onsite	
Mitsubishi	3 years	3 years parts & labour	
Handy Dryers	2 years	1 year parts & labour	1 year parts only
JETBOX (Eco)	5 years	5 year Replacement	



Quick recommendations

Need to make a quick decision? If you fall into one of the categories below, just take our recommendation.

Pub / Restaurant

Very effective with a good warranty, good dry time and built from sturdy steel, the JETBOX Eco.

Small café

If you need excellent value, cheap to run and don't want to worry about what happens if it breaks down, we recommend the Biodrier Biolite (white or silver).

Nursery School / Primary school

Children are scared of loud hand dryers. We'd recommend the Biobot from Biodrier, with its colourful splashback.

Junior School

Good value (a lot of schools rent hand dryers, but we would advise against this unless absolutely necessary!) and designed for schools, we recommend the Warner Howard UD 5500E.

Secondary School

Efficient and rugged, pretty much vandal-proof, we'd suggest the JETBOX Eco, but the Armadillo hand dryer from Handy dryers would also be a good choice.

On a tight budget?

There is only so far you can go before you get something which is worse than nothing. We'd recommend the JETBOX Junior for a no-nonsense, cheap hand dryer which does the job.

Low usage

The Armadillo from Handy Dryers is a quality dryer which won't break the bank.

Shopping Centre

High usage, fast, reliable and effective. We would recommend either the Dyson HU02, or the Mitsubishi Jet-Towel SMART for a hands-under or the Dyson AB14 or the Mitsubishi Jet-Towel SLIM for a hands-in.

Sports Stadium

High usage in short periods of time, and must be effective to stop queues forming and clogging up the washroom. We strongly recommend the Dyson HU02 and the Mitsubishi Jet-Towel SMART.