

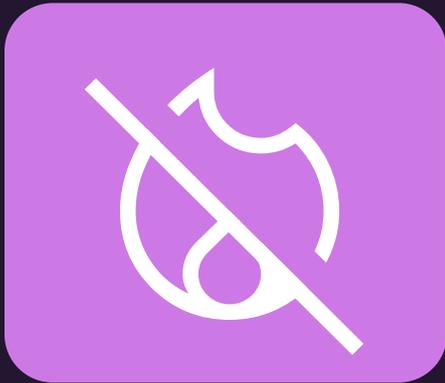
# elephant duct



The **Natural** Selection

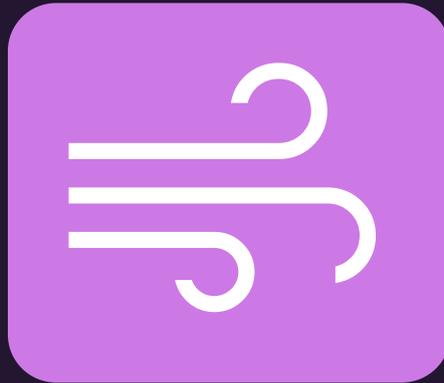
# The Elephant Duct **origin** story

For too long, HVAC systems have been held back by a choice between two extremes: flimsy flexible ducting that sags and tears, or rigid systems that are time-consuming to install. Our semi-rigid design bridges that gap. Elephant Duct is a new species of ventilation, bringing superior thermal insulation, superb fire safety, and unmatched quality. We're serious about creating healthier, safer spaces for everyone.



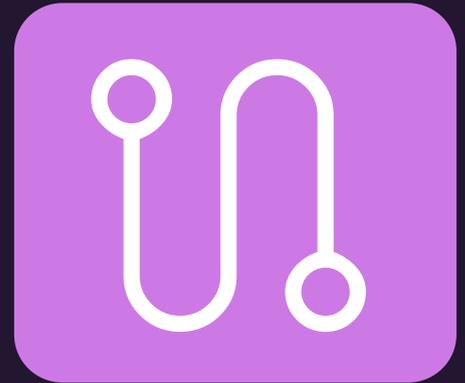
## Fire Resistant

Our fire resistant ducting doesn't break down in the event of a fire; it slows the spread of fire and produces minimal smoke. Choose peace of mind over cheap, flammable materials.



## Efficient

The key to superior airflow. By eliminating the ridges and snags found in other ducting, we maintain a consistent laminar flow to prevent pressure drops and improve energy efficiency.



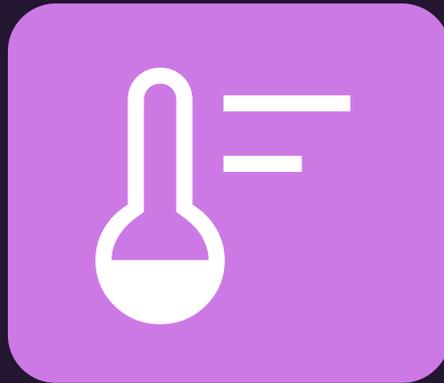
## Flexible

Fast-track your installation. Tight or irregular spaces are no challenge for our semi-rigid ducting. During installation and cleaning it can flex and bend at will, reducing time spent on site.



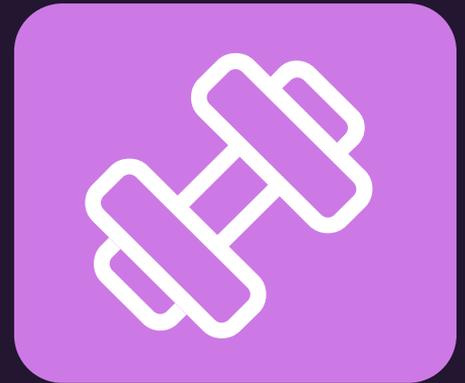
## Hygienic

Transform your ventilation system into a proactive health defence. Elephant Duct is easy to clean and coated in an antimicrobial layer which prevents bacteria, viruses, or fungi from taking root.



## Insulated

High-performance insulation reduces heat loss and keeps condensation low. Deliver a superior indoor environment. We offer 3 different levels of insulation to suit any building type and use case.



## Robust

Semi-rigid is the best of both worlds. Manoeuvrable and durable, it's less prone to rips and punctures. The semi-rigid structure holds its shape without sagging, so it stays exactly where you put it.

# Elephants hate fire — so our ducting is built to resist it.



## A stronger defence for modern buildings

Maintain performance under heat stress. By strengthening fire resistance along the entire ventilation path, we offer more robust protection than other semi-rigid ducting brands which are rated class E "High contribution to fire". Our enhanced fire rating facilitates compliance in high risk buildings.

## Best-scoring smoke safety

Meet the standard set by BS 13501-1 2019, to give building owners and specifiers an extra degree of confidence. When a building catches alight, it's more often the smoke than the flames that kill. Our ducts achieve the highest performance category for low smoke production, reducing the risk to health.

## Reduce the rate of fire spreading

When ducts are fitted at high-level, flaming droplets pose a serious threat to occupants trying to escape a fire. There are 3 classifications within EN 13501-1; d0, d1 or d2. Elephant duct meets the most stringent requirement - d0, as it does not emit flaming droplets.

When lives are on the line, don't gamble with "good enough".

In the event of a fire outbreak, the last thing you should be worried about is whether the ducting inside your walls and ceilings is accelerating the spread of fire. Elephant Duct is designed not to significantly contribute to fire, produce less smoke than other brands and to reduce the risk from fire by not emitting flaming droplets.

## Euroclass fire ratings:

- 4mm: B-s1, d0
- 8mm: B-s1, d0
- 25mm: B-s2, d0

## Elephant Duct fire rating (Euroclass)

**B**

Limited contribution to fire — materials can ignite, but they burn slowly and do not significantly fuel a fire.

**s1**

Low smoke production

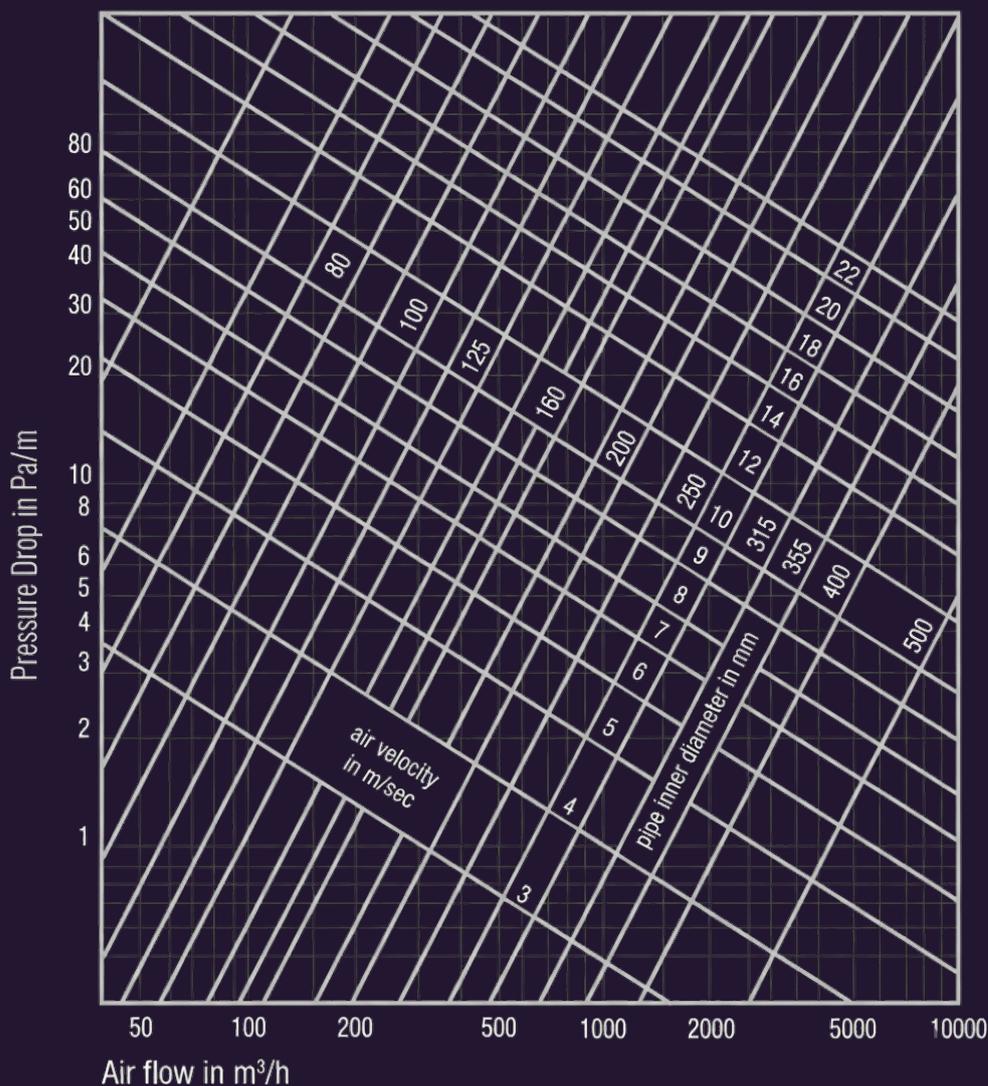
**s2**

Moderate smoke production

**d0**

No flaming droplets will fall from this material which could spread fire.

# A smooth trunk offers the best airflow.



HVAC systems promise low energy consumption and quiet performance but are often let down by their ductwork; leaks, collapses and tight bends disrupt airflow and lead to pressure loss.

Our semi-rigid ducting is built to retain a constant cross-section no matter the configuration, minimizing turbulence, and maintaining design flow rates.

**Operating temperatures**  
-20°C to +90°C standard  
Up to 115°C for up to 2 minutes

**Maximum velocity**  
Up to roughly 20m/s

**Maximum pressure**  
2000-10000Pa (dependent on diameter)

# Sometimes you don't need an **entire herd** — you just need the right **elephant** for the job.

STD Size	4mm	8mm	25mm	Internal Diameter (mm)	External Diameter (mm)	Bending radius (mm)	Weight (g/m)
50	✓	✓	×	51	66	35	96
75	✓	✓	×	63	78	42	115
90	✓	✓	✓	76	91	53	140
100	✓	✓	✓	102	117	70	200
110	✓	✓	✓	110	125	80	220
125	✓	✓	✓	127	142	92	254
150	✓	✓	✓	152	167	105	308
200	✓	✓	✓	203	218	140	492
250	✓	✓	✓	253	269	175	600
300	✓	×	×	305	315	210	750
315	✓	×	×	318	333	225	850

The low pressure drop is ensured by the smooth internal surface, no matter the configuration.



# A trunk **flexible** enough to navigate the tightest spaces.



Style	Weight	Installation	Durability
Flexible	Light	Fast	Flimsy
Semi-rigid	Light	Fastest	Robust
Rigid	Heavy	Slow	Robust

## Effortless installations

Engineered to bend at just 1.2–1.8 times its nominal diameter, Elephant Duct adapts readily to awkward routes and tight spaces. Installers can shape it by hand, fine-tune alignment on the spot, and reduce the number of joints and accessories required.

## Undisturbed airflow

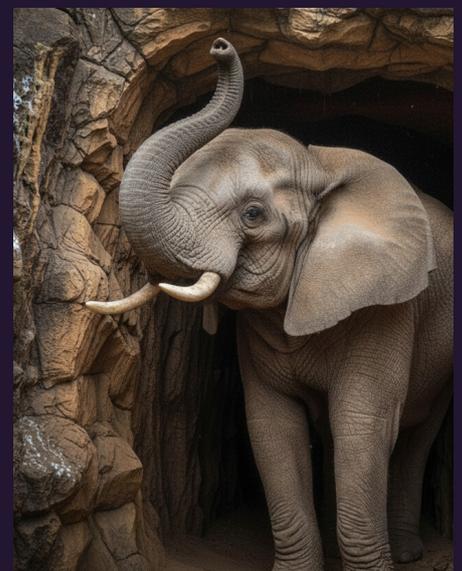
The inner wall stays smooth even when the duct is pulled into a sharp curve, helping to limit turbulence and pressure loss. This supports compliant airflow rates under Approved Document F, improves overall system efficiency in line with Part L, and reduces fan energy consumption.

## Always strong

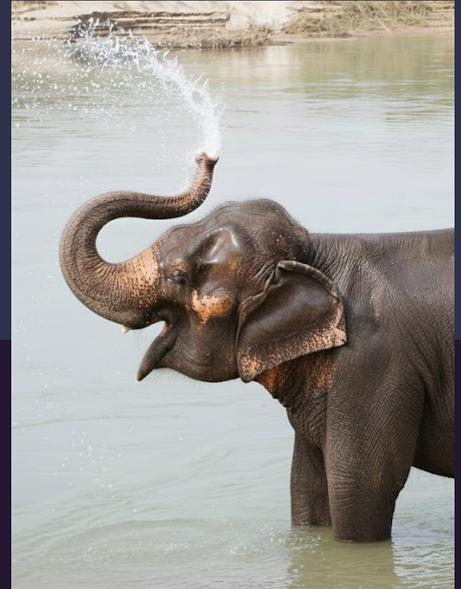
The semi-rigid metal helix provides strength while allowing flexibility. It keeps its shape without sagging, requires fewer supports, and delivers a tidy, professional appearance.

The reality is that site constraints seldom match drawings, making flexibility a necessity. Fitting rigid ductwork ahead of other conflicting services is not always possible.

Elephant Duct navigates these hurdles, allowing you to fast-track your installation at any point with a semi-rigid metal helix-supported duct that offers the best of both worlds. It's easy to bend around tight corners and slide through tight spaces, making it easier and quicker to work with and adjust. It's lightweight and durable all in one easy-to-install package.



# We don't let hygiene become an elephant-sized problem.



## Easy to clean

The smooth polyolefin resin surface found in all our ducts makes duct cleaning a breeze. With reduced microorganism build-up paired with a smooth interior surface, performing ductwork cleaning with a drill-mounted soft rotary brush as easy as it can get. The semi-rigid nature of the ducts makes it possible to clean long lengths of duct with industry standard ductwork cleaning systems.

Elephant duct is designed to have minimal ridging internally which prevents the typical high levels of dust accumulation found when using traditional lightweight flexible duct. Additionally, Elephant Duct's insulation does not allow condensation to form on the interior surface, reducing the ability for dust to build up within an excessively humid space.

## Protect your people

Our ducting comes with a long-lasting addivated antimicrobial polyolefin resin film inside each piece of ductwork which inhibits the growth of bacteria, fungi, and other microorganisms — effectively reducing the levels of organic pollutants in the air and providing protection against disease.

Building managers, employers, and lawmakers are increasingly concerned about the invisible threats lurking in poorly maintained ventilation that lead to sick building syndrome and absenteeism.

We provide a long-lasting antimicrobial polyolefin resin film pre-installed inside every piece. This barrier inhibits the growth of microorganisms at the source, effectively reducing organic pollutants and ensuring the air remains safe to breathe. We help people stay compliant and fulfill their duty of care.



# An elephant doesn't sweat — neither do our ducts.



Lagging metal ductwork systems onsite post-installation is an expensive and time consuming process required to stop condensation forming on their surfaces.

All our ducts come pre-equipped with an insulative layer (4mm, 8mm, 25mm) that keeps your thermal energy right where it's meant to be, improving efficiency and reducing condensation buildup, delivering a controlled, dry, and reliable system.

## Improve energy efficiency

With built-in insulation engineered to minimize heat transfer, our ducts prevent energy waste in systems like VRF and chilled water fan coil units by maintaining treated air temperatures.

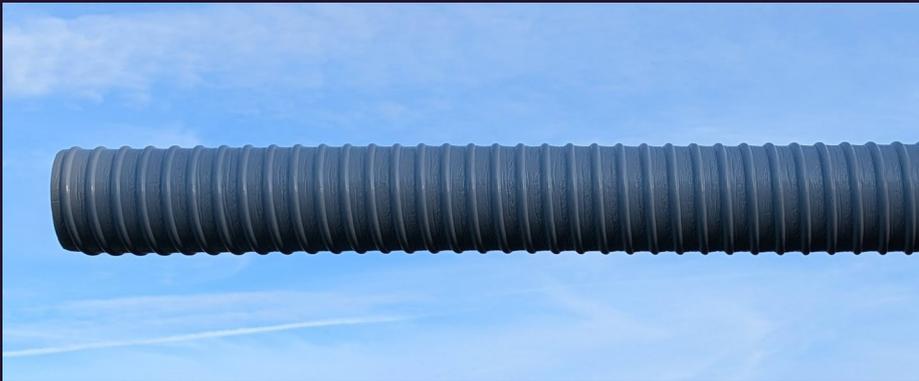
## Reduced condensation

Our 4mm and 8mm ducting uses closed-cell polyethylene foam for a slim, flexible profile with maximum insulative properties. Our 25mm variant includes an extra layer of insulation in order to meet the regulatory requirements of Part F. Our ducts reduce condensation build-up and 'sweating' that can lead to microbial growth or silent structural decay over time. By choosing Elephant Duct today you save yourself a headache in the future.

	Thermal resistance at 20°C	Applications	Thermal conductivity coefficient (W/mK)			
			0°C	10°C	30°C	60°C
<b>4mm</b>	R = 0.12m <sup>2</sup> K/W	For standard ventilation systems, chilled water FCUs	0.032	0.033	0.035	0.038
<b>8mm</b>	R = 0.24m <sup>2</sup> K/W	For VRF, high humidity environments	0.032	0.033	0.035	0.038
<b>25mm</b>	R = 0.66m <sup>2</sup> K/W	For lofts, unheated void spaces	0.039	0.042	0.046	0.054

4mm		8mm		25mm	
Option 1 Duct Ø 102	Flow rate = 15°C Room = 34°C Room RH = 70%	Option 1 Duct Ø 102	Flow rate = 10°C Room = 45°C Room RH = 70%	Option 1 Duct Ø 102	Flow rate = 5°C Room = 45°C Room RH = 90%
Option 2 Duct Ø 102	Flow rate = 10°C Room = 28°C Room RH = 70%	Option 2 Duct Ø 102	Flow rate = 5°C Room = 30°C Room RH = 80%	Option 2 Duct Ø 102	Flow rate = 0°C Room = 40°C Room RH = 90%

# An elephant never forgets... its shape.



Style	Sagging	Supports required	Ability to bend
Flexible	Likely	Many	Yes
Elephant Duct	Unlikely	Not many	Yes
Rigid	Unlikely	Many	No

## Reduced rate of failure

Our ducts stand their ground — they don't grow tired over time. The semi-rigid design ensures the airflow is never interrupted by sagging which can lead to pooling moisture.

## Save time & labour

Installing our ducting is significantly faster than installing lagged rigid ducting, thanks to its built-in insulation and ease of movement.

## Construction

Our puncture-resistant ducts consist of polymer films wrapped around a thick steel wire helix. Whether you need straight runs, 30 degree bends, 180 degree bends or anything in between, our ducts will flex to follow the route the site dictates.

For ages, the HVAC industry has been stuck with two flawed options: cheap, flexible ducting that sags and gives up on you at the first hurdle, or metal ducting which can be incredibly time-consuming to install, and cleaning can be even trickier.

Our strong semi-rigid design ensures the ductwork stays right where you put it — no sagging or pressure drops.

With a strong semi-rigid design, our ducts require fewer supports and can stretch longer distances without a connector. With our ducting, not only does cleaning become quicker and easier, but the chance of failure reduces too.



Wave goodbye to sagging!



**10 year  
warranty!**

**Get in touch today**

**[elephantduct.com](http://elephantduct.com)**  
**[nelly@elephantduct.com](mailto:nelly@elephantduct.com)**