

HARNESSEFLEX CUSTOMER CASE STUDY

Harnessflex® Specialist Conduit Systems provide environmental-critical cable protection for Dennis Eagle refuse collection vehicles



Dennis Eagle is a world-renowned designer and manufacturer of refuse collection vehicles (RCVs). It is the only UK manufacturer to make chassis, bodies and bin-lifts.

Dennis Eagle has set up an extensive network of dealerships and its highly acclaimed vehicles are widely seen as setting new standards in the industry.



Equipped with
VFP
Vibration Friendly
Profile (VFP) Harnessflex®
conduit systems.

In 2020, Dennis Eagle was the first original equipment manufacturer (OEM) to launch an all-electric, zero-emissions RCV, the eCollect.

The Requirement

Dennis Eagle first approached the **Harnessflex®** product specialists more than 20 years ago, looking for cable and connector protection for the wiring in their RCVs.

They needed a solution that could cope with the demanding operations and environments their vehicles encounter.





RCV vehicles must remain operational and available to work at all times to avoid not only disruption to this vital service but also causing distress to other road users and to householders.

RCVs work long cycles, moving through congested areas and carrying heavy loads.

The constant start-stop nature of their work can put significant strain on cabling. They must also operate in the most extreme weather conditions.

What's more, these vehicles must remain operational and available to work at all times to avoid not only disruption to this vital service but also causing distress to other road users and to householders.

To achieve this, cables must be protected to minimise both breakdowns and the costly shortening of a vehicle's lifecycle.



Protecting Heavy loads

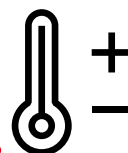


Harnessflex® conduit systems are designed to provide

10-150%

Greater life expectancy in dynamic or vibrating applications.

UV 
& heat stabilisation
for protection in extreme
weather conditions.





Using Harnessflex® systems, Dennis Eagle protects vulnerable connectors from malfunction and failure, reduces downtime and service disruption and maintains high levels of reliability and productivity for their vehicles.



Essential cabling kept dry

One of the great features about Harnessflex® products is that they are re-usable.

Protecting cables from water splashing from roads and jet washing.



The **Harnessflex® Heavy Duty Series** offers safe and secure cable protection for TE HDSCS and Aptiv CTCS XP Type B & E connectors, helping to maintain continuous vehicle operation even in the toughest conditions.

The Solution

Dennis Eagle worked closely with the ABB Research & Development team to create a cable protection system to suit their needs. They helped us pioneer the **Harnessflex®** sealed systems and hinged back shell technology which is still used globally by vehicle manufacturers and harness makers today.

The degree of exposure and risk to the cables depends on where the harness is positioned. Consequently, **Harnessflex®** cable protection systems provide a full range of solutions offering flexible, lightweight protection while maintaining strong mechanical properties. This versatile range allows both OEMs and harness makers to choose the most suitable cable protection for their vehicles.

The main role of the sealed systems technology is to keep cabling dry by stopping water splashing in from the roads or from jet washing. It also provides a robust shell to protect the cables inside.



Harnessflex® specialist conduit systems offers complete solutions for the routing and protection of electrical wiring in heavy duty vehicles. Harnessflex® technology is designed and tested to protect against damage by mechanical abrasion, liquid ingress and corrosion salts. Using a Harnessflex® conduit system helps ensure that vulnerable connectors are not exposed to the elements, impact of foreign bodies or jet washing, all of which can cause vehicle malfunction and failure.



Harnessflex® specialist conduit systems offers a wide range of solutions - from our standard general purpose range (black) to our specialist solutions for extreme temperatures (Harnessflex® X-Temp™) and electric vehicles (Harnessflex® EVO™).

 **5YR***
Extended warranty
on all HFX products

* As all Harnessflex® products are intensively tested under the most extreme conditions, we stand behind the durability of the systems we provide. That's why as standard, we offer a **5 year extended warranty** on all Harnessflex® products that are installed as part of a complete, fully integrated Harnessflex® system.

What's New?

Having been the chosen conduit systems supplier for Dennis Eagle for more than 20 years, our collaboration continues. Dennis Eagle is a worldwide pioneer in electric RCVs which are quickly spreading through towns and cities across the UK. The **eCollect** is both quiet and environmentally-friendly – producing much less noise and zero-emissions to support both local air quality and global climate change.

Of course, electric vehicles contain much more critical wiring and require even more cable protection to ensure they remain operational and efficient throughout their lifetime. With this in mind, Harnessflex® has developed the **EVO™** (Electric Vehicle Orange) conduit systems for Dennis Eagle's eCollects.

This system is specifically designed to protect essential wiring in electric vehicles. It features the signature **Harnessflex®** Vibration Friendly Profile (VFP) to protect against both abrasion and UV degradation and has heat stabilisation as standard.

“Dennis Eagle have been using Harnessflex® for the past 10+ years. We try to use their products wherever possible on our harness designs. Over this period we have never had any supply issues with their products. We have been working with Harnessflex® to create new products and introduce them into our vehicles' variants when available.”

Neil Peters - Electrical Design Engineer
at Dennis Eagle Warwick.

Fitted with our system, the multiple-award-winning **eCollect** is proving to be a huge success and is revolutionising the way waste and recycling materials are collected across the UK.

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