



*Mobility
scooter parking &
fire safety*

**Parking of mobility scooters poses a
major risk in residential buildings**

Whitepaper Mobility scooter parking & fire safety



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Mobility scooters clearly have a positive impact on their users' lives. A precondition, however, is that they are used correctly. Unfortunately, that is where things often go wrong, and not in the most obvious way.



The biggest danger posed by mobility scooters has nothing to do with driving them. In fact, mobility scooters pose the greatest risk when they are charged in residential buildings.

Lack of clarity about what is permitted

Dozens of these vehicles go up in smoke every year in the Netherlands. Given the expected spectacular growth in the number of these vehicles, this problem will only get worse; not least because there is great uncertainty among many building owners, housing associations and architects about what is and is not allowed.

In short, it is a serious problem that is growing every day. We would therefore like to inform you about potential solutions that already exist and what steps you can take to ensure a safe future for mobility scooter users and their direct environments.



600.000 mobility scooters by 2030

First some figures to illustrate the scale of the problem. Studies by the Road Safety Research Foundation (SWOV) show that the number of mobility scooters is undergoing 'explosive growth'.

While there were around 150,000 mobility scooters registered in the Netherlands in 2006, seven years later there were 250,000. The Netherlands now has almost 400,000 mobility scooters. Conservative estimates suggest that by 2030, there will be some 600,000 mobility scooters driving around the country. *(Source: Quingo).*

Or, more specifically, they will be parked. In fact, most of the vehicles are near the owners' homes on a daily basis. It is precisely in these apparently safe parking spaces that danger lurks.

Five foam mattresses

In the first place, the danger lies in the battery. This is because overheating can occur when charging, which can cause fire. Flammable gases can also accumulate during charging, with the same result. Things can also go wrong due to faulty chargers or unsuitable charging points *(source: Brandweer.nl, mobility scooters brochure).*



The second danger is hidden in the design. Mobility scooters are made largely of plastic, foam rubber and electronics, together accounting for 600 to 1000 Megajoules of calorific value. To put that into perspective: it's about as much as four or five foam mattresses. *(Source: Haaglanden Safety Region).*

You can probably imagine the consequences in the case of fire.

Video: Fire in the corridor.

Watch the video 'Fire in the corridor' - the consequences of a mobility scooter fire, from Rotterdam-Rijnmond Safety Region

WATCH THE VIDEO



Where do you park a mobility scooter?

But that is not the whole picture of the dangers posed by mobility scooters. With the huge growth in the number of mobility scooters, parking is now possibly an even bigger problem than the technical hazards. After all, where is a suitable place for them?

Since mobility scooter owners depend on their vehicles for mobility - even in the residential building itself - the best option for them is to keep them as close as possible. However, a user's home is usually not suitable to accommodate a mobility scooter. Storage in the shared storage space or shed, for example, is also not desirable for people with a physical disability: they then face a walk, possibly a long one, between their home and the storage space.

An alternative - dedicated mobility scooter spaces - is still only sparsely available, so most vehicles end up on walkways or in other communal traffic areas, such as stairwells or corridors.

Mobility scooter in the Building Environment Decree

This development is a concern to building owners and owners' associations, and one that fire departments are watching with dismay, because it is precisely these areas that act as escape routes in case of fire or other emergencies.



▲ Aan de Platteelhof in Ede heeft zondagavond rond 22:05 uur brand gewoed bij zorgcentrum Bethanië. Meerdere brandweer wagens rukte uit. © WH Fotografie

Brandweer rukt uit voor scootmobiel die brand vat in woonzorgcentrum Bethanië in Ede

Aan de Platteelhof in Ede heeft zaterdagavond na 22.00 uur een brand gewoed bij woonzorgcentrum Bethanië. Meerdere brandweers rukt daar deze avond aanwezig. Naar alle waarschijnlijkheid heeft een scootmobiel vlam gevat en hebben meerdere personen rook in

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Drie maanden na brand kan Marie-Henriette (79) nog altijd niet terug naar haar huis: "Ik mis mijn normale leven zó hard"



Marie-Henriette Gyles (79) met haar dochter Lisa in haar noodflatje in Balderhof Brasschaat. Een kerstboomje brengt toch een beetje gezelligheid in de lege noodflat. — © JKA

SCHOTEN - Ruim drie maanden na de kleine brand in het complex met assistentiewoningen, kunnen de meer dan vijftig bejaarde bewoners nog altijd niet terugkeren naar het Schuttershof. Onder hen Marie-Henriette Gyles (79). "Het opnieuw bewoonbaar maken van onze flatjes duurt wel erg lang. Op 15 april word ik 80. Hopelijk kan ik die verjaardag wél opnieuw in m'n vertrouwde omgeving vieren", aldus de weduwe.

Firefighting operations can also be severely hampered by parked mobility scooters. Precisely because of their importance as escape routes, the Building Environmental Decree (BBL) is extremely clear about what is allowed in traffic areas. Objects, like mobility scooters, that burn easily or pose a fire risk are not permitted without additional measures.

The fire department has therefore provided a practical guide. The most important points in a nutshell:



Guideline

Dutch fire service

-
- › Storage of mobility scooters only permitted on one side of the traffic route;
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- › Over the entire length of the walkway, a minimum width of 120 centimetres must remain free;
-
- › Storage is prohibited in the stairwell, within 1.5 metres of the exits to the stairwell and the fire lift;
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- › Storage in hallways or other enclosed parts of the escape routes is in principle prohibited and only allowed if there is equivalent safety. This also applies to enclosed spaces directly adjacent to homes;
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- › Mobility scooters may be stored in a designated area which is fireproof and separated from the traffic route.
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There is no room for compromise here... but a residential building is usually not designed for that purpose. The safe storage of mobility scooters therefore remains a considerable challenge for building managers, housing associations and architects. Because although the responsibility for fire safety lies primarily with the building owner and users, architects play a particularly important role in ensuring fire safety.

Fortunately, there are ways out for all concerned.

Solutions

Hoefnagels Fire Safety

If traffic areas are not designed for a free passage of at least 1.2 meters wide alongside the mobility scooter, you could consider building special fire-safe areas, for example. If this communal storage area is separated from other areas within the building with at least 60 minutes of fire resistance, then mobility scooters may be parked there. Important aspects here:

- › The number of storage places in relation to the number of homes;
- › The accessibility for the fire service and residents;
- › The size;
- › The safety offered by protective products;
- › The number and type of charging points, the power supply.

If these aspects are properly taken into account, separate rooms like these are one of the safest solutions, according to Haaglanden Safety Region. “The mobility scooters have their own place, so they can no longer block the escape route. The separate space makes sure the escape routes themselves remain free of this fire risk and the ignition source. The fire-resistant and smoke-resistant separation then ensures that escape routes and rescue routes are not directly threatened by fire.”



(source: Haaglanden Safety Region, Fire-safe storage of mobility scooters in residential buildings)

Implemented solutions

From storage room to mobility scooter garage

One solution from Hoefnagels Fire Safety with maximum fire safety is, for example, to close off parking and charging areas with fire-resistant roller screens. We have done this (on behalf of Krijnen Bouw) in several residential buildings for senior citizens, for example.

By converting the storage area (present in every corridor in the building), a fire-safe mobility scooter “garage” has been created.

By equipping these areas with a fire-resistant roller screen (Firescreen® Radiation) and charging poles, the residents of the block of flats are protected in case of fire. And they still get to keep their vehicles within easy reach. Besides being safe, this is also a convenient and low-impact measure: because the roller screen is always open, the area has an open structure. The homely atmosphere of the residence thus remains intact.

This solution has now also proven itself. See the situation in the photo above right. A fire broke out in the technical compartment between the rear wheels of the mobility scooter. The fire-resistant roller screen came down and prevented fire and smoke from spreading in the stairwell.

Residential building 1



© Central and West Brabant Fire Department

Residential building 2



What is the best solution in your situation?

Are you familiar with the challenges of fire-safe solutions for mobility scooters? Our advisers would be happy to discuss them with you.

We are happy to offer ourselves as a advisory partner. We are active across the full breadth of structural fire safety. Our experts advise and liaise with municipal authorities and, if required, assess solutions on their equivalence.

We also develop, manufacture and install fire protection systems. The overall solution also includes inspection, service and maintenance of products installed by ourselves or third parties.

Please feel free to contact us.

ASK YOUR QUESTION



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