

## When to recommend a large scooter

There are three things that are relevant when choosing a scooter to recommend to a client. These same requirements are also apply to electric wheelchairs.

1. The payload

The weight of the client, and anything else carried by the client must be considered when choosing the right scooter. Scooters are rated for carrying capacity by the manufacturer and relate primarily to the ability of the motor and electronics to perform under load. While the seat post and chassis are considerations, most scooters (apart from lightweight portables) are able to handle considerably more than their stated capacity.

2. The gradient

The angle of any hills and slopes is an important consideration. The steeper the hill the larger the scooter will be required. Scooters and powerchairs with a four pole motor and larger capacity electronics are more suitable for hilly areas. Electronic controllers are rated in amps. The larger scooters typically have a 160 amp electronic controller. Small portable scooters usually have a 50-60 amp controller. So steep hills require a large scooter, even with a 70 – 80 kg client.

3. The formula

Even when a large scooter is recommended for a client, the relationship between gradient and capacity is conditional. The steeper the gradient the lower the carrying capacity. We have developed a formula that shows the relationship between gradient and carrying capacity (see FAQs). This formula can be applied to all scooter sizes.

If a client uses the scooter beyond the capacity to carry a particular payload up a known gradient, it is likely that either the fuses will trip and stop the scooter from continuing, or there will be undue pressure on the scooter causing the wiring to overheat and / or cause damage to the electronics.

So, when your client requires a large scooter, remember to determine what route they will be taking, what gradients are involved, and what are the overall weight requirements.