

Q50R Carbon

INTRODUCTION

- Design background and process
- Design scope
- Q50 R Carbon product overview
- Clinical Application
- Competitors
- Launch



Q50R/carbon

Design Background and Process

INTRODUCTION



DESIGN PROCESS

Market Overview

- Crowded marketplace
- Multiple competitors
- Similar customer need
- Little differentiation



Market Overview – What do existing products offer?



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Design Scope

DESIGN SCOPE



QUICKIE Q50 R / Q50 R Carbon

Lightweight for lifting [sub-15kg]

Easy folding for storage and transportation

Improved outdoor (off pavement) performance

Longer battery range

High quality – built and tested to last

Premium margin opportunity

DESIGN SCOPE

QUICKIE Q50 R / Q50 R Carbon



DESIGN SCOPE

QUICKIE Q50 R / Q50 R Carbon – Design Conflicts

Long Battery Range



Vs

Increased Weight



DESIGN SCOPE

QUICKIE Q50 R / Q50 R Carbon – Design Conflicts

Standard materials



Vs

Ultra Lightweight Materials



DESIGN SCOPE

QUICKIE Q50 R / Q50 R Carbon – 2 Products Required

High performance & quality

Heavier lifting weight



Ultra Lightweight (sub-15kg)

Reduced outdoor performance

Premium Margin opportunity



DESIGN SCOPE

QUICKIE Q50 R / Q50 R Carbon – 2 Products Required



Q50R



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DESIGN SCOPE



QUICKIE Q50 R / Q50 R Carbon – 2 Products Required

35kg transport weight

50 km range

Powerful motors & large wheels for urban outdoor performance

Q50R

14.5kg transport weight

12 or 24 km range

Smaller wheels for pavement and indoor use

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DESIGN SCOPE



QUICKIE Q50 R

Premium Quality Folding Powerchair



- Best outdoor performance
- Longest battery range
- Easy folding for storage and assisted transportation

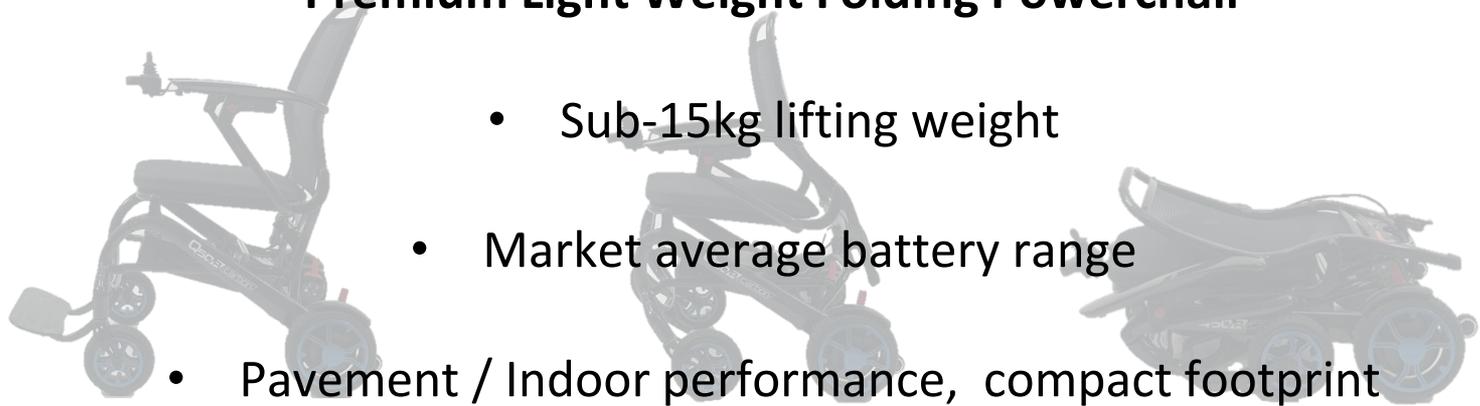
Q50 R

DESIGN SCOPE



QUICKIE Q50 R Carbon

Premium Light Weight Folding Powerchair



- Sub-15kg lifting weight
- Market average battery range
- Pavement / Indoor performance, compact footprint

Q50R/carbon

Q50R/carbon

Product Overview



Q50 R Carbon



Transport Weight – 14.5kg

- **One of the lightest weight folding powerchair on the market:**
 - Carbon frame
 - Magnesium wheels & motors
 - Aircraft grade upholstery
- **Q50 R Carbon Weight:**
 - Transport weight (exc. Battery) 14.5kg
 - With battery & accessories 15.9kg



Q50 R Carbon

Transport Weight – 14.5kg

- **Transport strap included as standard to easily lifting into the vehicle**
- **Removable battery while Q50 R Carbon stands to further reduce lifting weight**
- **Compact design for easier lifting & storing**



Q50 R Carbon



Premium Quality Material

- Carbon material minimises weight & maximise comfort
- Carbon materials natural flex:
 - Improves client comfort while driving over uneven terrain without the need of suspension (reducing weight)
 - Improves traction as frame flex allows the drive wheels to maintain contact with the ground over cambers



Q50 R Carbon



Simple & Intuitive Folding

1. Flip up clip at the back of the chair
2. Folding up footplate
3. Push backrest to fold down chair

Intuitive and simple folding vs. other folding



Q50 R Carbon



Simple & Intuitive Folding

Folds straight to the floor

Ideal for transport / hoisting

Two person lifting

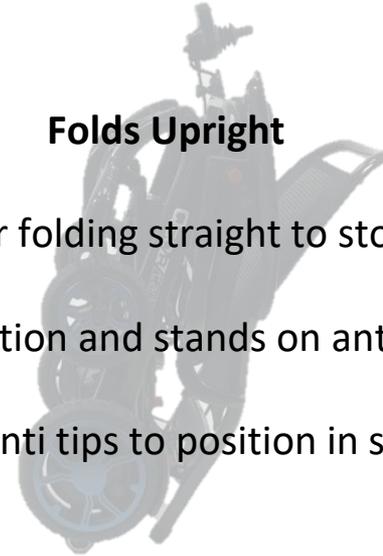


Folds Upright

Ideal for folding straight to storage

One motion and stands on anti tips

Rolls on anti tips to position in storage



Q50 R Carbon

Simple & Intuitive Folding

- To unfold simply pull up on the backrest frame and push downward on the seat pan



Q50 R Carbon

Storage – Home

- Compact package once folded for home storage vs. scooters
- Cupboard, Porch, under the stairs or outside store
- Easy to transport on the anti-tips



Q50 R Carbon

Storage – Sheltered Accommodation

- **Limited space for storage**
- **Needs to be simple for multiple carer environment**
- **Can flip up and store in a room**



Q50 R Carbon

Storage – Holidays and Cruises

- Limited space for storage
- IATA Approved (10Ah Lithium Ion battery)
- High quality and assurance when aboard
- Can cope with the unknown terrain



Q50 R Carbon

Compact for Indoors

- **Compact footprint makes the Q50 R Carbon ideal for shops and home environment**
 - Width – 570 mm
 - Length – 923 mm
 - Turning Radius (inc. centre mount footplate) – 800 mm



Q50 R Carbon

Outdoor Performance - Range

- **Single battery standard – 12km Range**
- **Optional second battery with on chair storage – Increase range by additional 12 km**
- **10Ah lithium Ion battery**



Q50 R Carbon



Outdoor Performance - Range



Q50 R Carbon



Outdoor Performance - Traction

- Improved client positioning for greater outdoor traction – Client seats over rear wheels to reduce sliding over cambers and downhill vs. alternative models
- High power 250w brushless magnesium cast motors for good outdoor performance:
 - Overcome obstacles & bumps in the pavement
- Magnesium solid 210mm rear wheels & 165mm castors



Q50 R Carbon



Easy to Push

- Easy to disengage motors with attendant foot
- Low resistance motors:
 - Easy to push in more compact environments by an attendant



Q50 R Carbon



Motor Technology

- The first brushless DC (BLDC) motor in Sunrise power products
- The sound of the motor is different to our regular Q-Series brushed motors
- BLDC motors used with the new PG nVR2 BLDC controller
- Benefit of brushless motors is low maintenance – no brushes to replace, and provide high performance, with efficiency and responsiveness



Q50 R Carbon



Travel

- **10Ah lithium Ion battery – IATA approved for aircraft transportation in the aircraft hold**
- **IATA travel requirements:**
 - ✓ **30% discharge the battery (one RED LED on display)**
 - ✓ **Pack in original box for airport check in – full details in OM**
- **NOTE: IATA regulations are complex, and finally also depend on the carrier and even pilot – client must check before travel!**



Q50 R Carbon

Storage

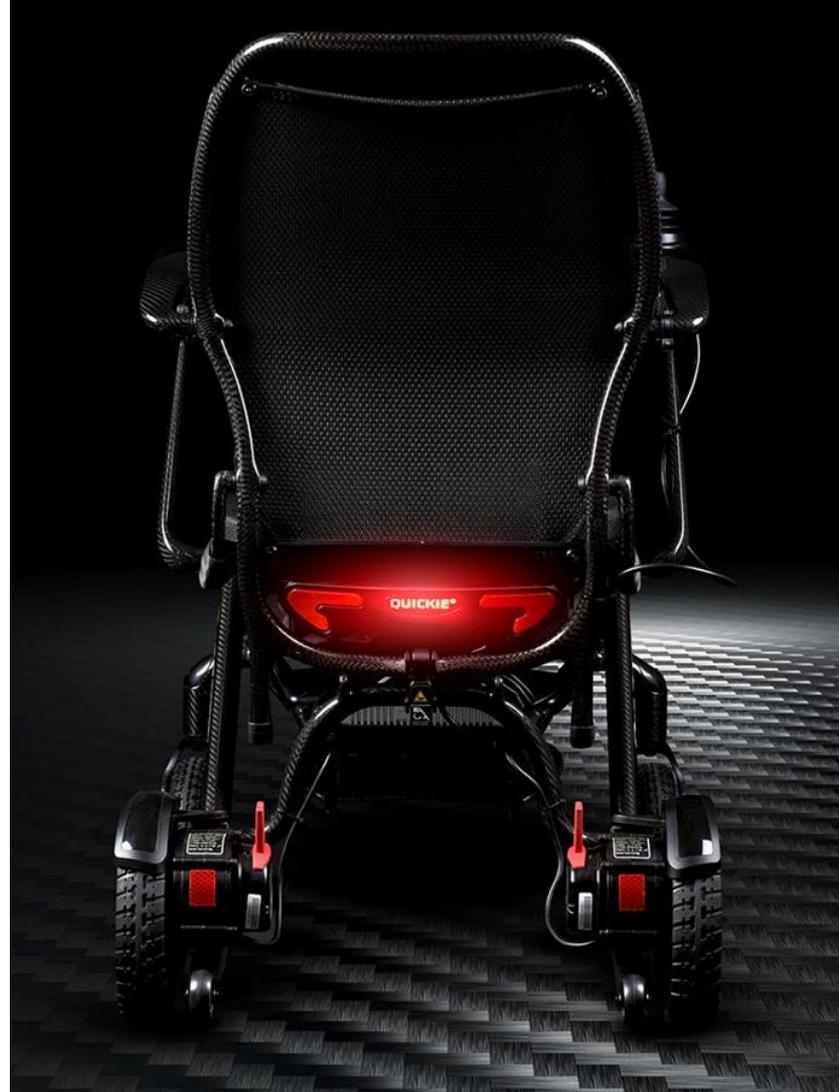
- Under the seat storage bag for shopping
- Cupholder inc. standard



Q50 R Carbon

Safety

- Daytime running light
- Be seen during day or night with super-bright 'QUICKIE' running light
- Activating whenever the Q50 R Carbon is in motion, to increase visibility and awareness for others



Q50 R Carbon

Seat width & depth

- Fixed seat width – 39cm up to 44cm
- No side guards allow for wider clients to fit comfortably
- Fixed seat depth – 42cm



Q50 R Carbon

Features

- Flip up footplate
- Flip up armrests




QUICKIE™

Q50 R Carbon



Features

Available on orderform

Clip on colour trims

- Red, Blue, Yellow, Purple, Green
- Set 4-pcs per chair
- Castor trim is split for easy fitment
- Additional spare battery pack
- ✓ Upsell opportunity
- Additional battery charger



Drive Wheel



Castor

Q50 R Carbon



Features - Battery

- Q50 R Carbon battery can be charged on the chair or off the chair
- **NOTE: The Q50 R Carbon battery and charger are NOT compatible with the Q50 R**



Q50 R Carbon



Maximum User Weight

- 136kg max user weight
- **Highest non HD folding powerchair:**
 - Pride i-Go Lite - 135kg
 - Drive Airfold - 120kg



Q50 R Carbon



Upholstery & Accessories

- Standard 30mm thick foam cushion
- Breathable and comfortable, backrest upholstery
- Lapbelt



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Clinical Application

Q50 R Carbon



Clinical Application

- Designed for part-time use
- Users who walk short distances with a walking aid but struggle with long distances
- Manual wheelchair users who want a second chair to go longer distances on outings, when travelling
- Basic seating, so best for users who
 - Have moderately good to very good sitting balance – fixed backrest design
 - Have low to moderate skin risk - Seating can accept only up to 5 cm thick cushion with flexible cushion base
 - Have a relatively typical adult body size
 - Safe to sit in a 'standard' seat of 44 cm width and 42 cm depth whilst wheelchair is being used.
 - Are able to reach footplates
 - Do not have an extremely forward centre of mass in their body which causes them to have heavy loading of the front castor wheels. Examples are users with very heavy lower limbs (such as those with severe oedema) or large soft tissue deposits over the abdomen which extend far forward
 - The extremely lightweight design means there is not a seat COG adjustment to move back from the front castor wheels

Q50 R Carbon



Clinical Application

Basic seating, so best for users who

- Do not need lateral (side) trunk or pelvic support to sit safely in a chair. Chair does not allow mounting of alternative backrests, although it does have some integrated support through the integral backrest contouring.
- Alternative cushions with a flexible foam base and 5 cm or less of height *can* be used with the chair for comfort, vibration reduction and improved pressure care (e.g. JAY, HH Climazone 5cm, or JAY Xtreme Active)

Compact RWD base, familiar manoeuvrability to basic power chair, scooter, manual wheelchair users as these also have primary drive wheels in rear and steering or castor wheels in front

- General 'swing' of the chair when turning left or right
- Turning into doorways and other narrow passages
- Reversing manoeuvres
- Driving performance on uphill and downhill slopes

Compact RWD base fits into tight indoor environments, may be a good option to manage fatigue for part time use by manual wheelchair users or those who walk short distances

Q50 R Carbon



Clinical Application

RWD style base feels stable to the user as the user's centre of mass is between the front and rear wheels, therefore does not have the sensation of 'pitching' which can occur on MWD bases.

Lightweight frame is particularly beneficial for clients who do not have an adapted vehicle and need power that can fit into a standard car boot, could be lifted by a carer. Light weight is particularly suitable where carers themselves find lifting other lightweight powered options difficult due to their own fitness issues such as age, general strength or musculoskeletal issues of their own.

nVR2 brushless controller has integrated speed control on the joystick and allows programming of several parameters to improve driving performance such as speed, acceleration/deceleration, sleep timer and reverse driving alarm. This allows settings to be optimised for driving performance for users with moderate upper limb weakness, fatigue, limitations in range of movement or are new to powered wheelchair use.

Summary

One of the lightest folding powerchair on the market

- 14.5kg lifting weight for transport
- Carbon fibre frame – light, comfortable and stylish
- Simple & intuitive folding, with running safety 'QUICKIE' light
 - Dual battery option delivering up to 24km range
 - Good traction and stability via client positioning