

5-YEAR WARRANTY ON THE FRAME

HydroFlex

Our Flexible Rehabilitation Chair

Assessment & Prescription Guide

CareFlex



Standard Features At A Glance

The HydroFlex is made for recovery and rehabilitation; it offers high levels of adaptability for those with complex needs. This highly flexible chair combines an articulating back, Tilt-in-Space, Back Angle Recline and integral pressure management.

Since its launch, the HydroFlex has proven to be a functional, practical seating solution, sharing the same principles of simplicity, comfort and quality with all CareFlex chairs. The HydroFlex was developed as a rehabilitation product and has been used successfully in stroke care, with individuals with spinal and head injuries, and for those with complex neurological impairments.

CLIENT GROUPS

- Semi-ambulant and non-ambulant
- Cerebral palsy
- Stroke
- EMI associated conditions
- Motor neurone disease
- Multiple sclerosis
- Brain & spinal cord injury
- Muscle weakness or paralysis
- Poor sitting balance and head control
- Increased thoracic kyphosis

ENVIRONMENTS

- Domestic and home care
- Specialist wards and units (stroke rehabilitation, brain & spinal injury, ITU)
- Nursing and residential homes

ADJUSTMENT CONTROL OPTIONS

- Manual
- Pro-Control (Leg Rest and Tilt-in-Space functions only)
- Fully Motorised

FEATURES

- Articulating back with adjustable wings
- Flat back support with CareFlex WaterCell Technology®
- Contoured back support option
- Elevating, channel leg rest
- Angle adjustable, fold down footplate
- Four fully braked castors
- Vapour permeable upholstery to all contact areas
- Adjustable seat depth
- Back Angle Recline
- Tilt-in-Space
- Motorised options available
- Colour choice



Transfer Arms



Articulating Back and Adjustable Wings



Elevating Channel Legrest and Adjustable Footplate

Optional Accessories

OPTIONS

- Transfer Arms
- Lateral Supports
- Range of Head Supports
- Range of Positioning Aids
- Range of Footplate Supports
- Pommel
- Tray
- Tailored Seating Solutions



Technical Data

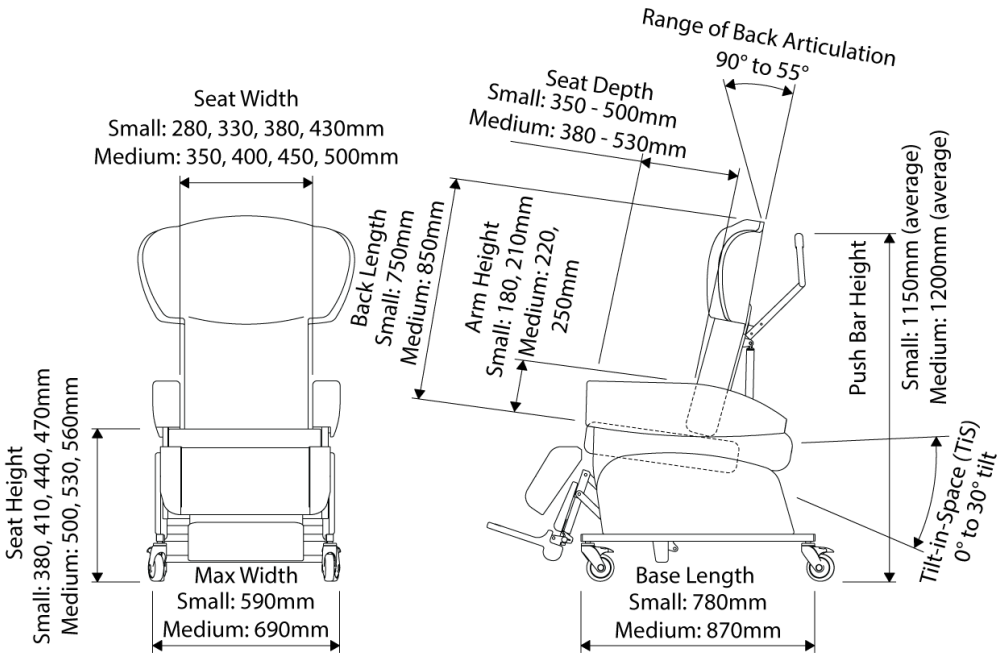
BASIC DIMENSIONS		MEASUREMENTS & RANGES
A	Seat Height	Small: 380/410/440/470mm Medium: 500/530/560mm
B	Seat Width	Small: 280/330/380/430mm Medium: 350/400/450/500mm
C	Max Width	Small: 590mm Medium: 690mm
D	Seat Depth	Small: 350 - 500mm Medium: 380 - 530mm
E	Back Length	Small: 750mm Medium: 850mm
F	Armrest Height	Small: 180/210mm Medium: 220/250mm
G	Push Bar Height	Small: 1150mm (average) Medium: 1120mm (average)
H	Tilt-in-Space	Horizontal - 30° tilt
I	Back Angle Recline	95° - 125°
J	Leg Rest Angle	80° - 170°
K	Seat to Footplate Height	Small: 340 - 400mm Medium: 410 - 490mm
L	Base Length	Small: 780mm Medium: 870mm
M	Full Chair Length	Small: 1630mm Medium: 1790mm
N	Recline Clearance	Small: 580mm Medium: 590mm
	Back Articulation	90° - 55°

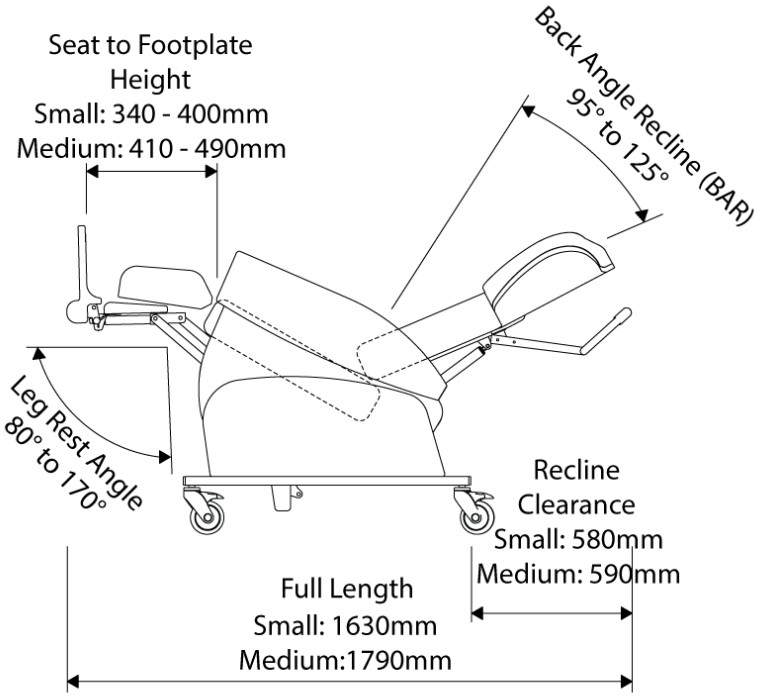
WEIGHTS	KILOGRAMS
Chair Weight - Manual (Standard Specification)	Small - 70kg Medium - 75kg
Maximum User Weight	Small - 100kg Medium - 150kg

Refer to Technical Diagram for Letters and Asterisks

(All measurements ±10mm / 5°)

Technical Data

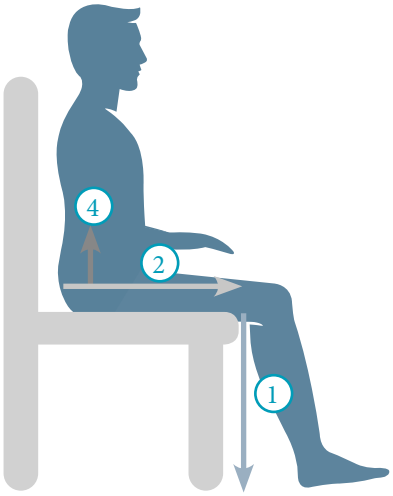






Chair Set-Up





Every chair must be set up to fit its user, supporting posture appropriately and ensuring maximum contact with the support surface to distribute weight evenly whilst maintaining comfort and independence. Chair set-up influences positioning, which can consequently impact the risk of secondary complications, including postural deterioration, pressure injury and reduced quality of life.

Please refer to the Clinical Justification & Case Studies document for detailed information on assessment, prescription and clinical reasoning.

It is critical that the seating prescription and subsequent set-up are based on the individual's body shape and size determined during the seating assessment; if it is not, then it can cause more harm than good.

Taking Measurements

Ensure optimum sitting position before measuring. These are guidelines only as they will be affected by the client's size and shape and the functions and accessories prescribed.

1) Seat height – popliteal fossa to footrest/floor
2) Seat depth – back of the pelvis to the back of the knee minus approx. one inch (both left and right measured)
3) Seat width – hip width/two widest points plus up to 0.5 inch each side
4) Armrest height – seat to elbow (both left and right measured)
Back angle - dependent on hip range of movement
Leg rest angle - dependent on knee range of movement

CHAIR DIMENSION	ADJUSTMENT RANGE	MEASUREMENT/SELECTION
Seat Depth	Small: 350 - 500mm Medium: 380 - 530mm	
Seat Height	Small: 380/410/440/470mm Medium: 500/530/560mm	
Seat Width	Small: 280/330/380/430mm Medium: 350/400/450/500mm	
Seat to Footplate Height	Small: 340 - 400mm Medium: 410 - 490mm	
Armrest Height	Small: 180/210mm Medium: 220/250mm	

Pressure Care

Posture and pressure are inextricably linked; body posture and positioning have a direct influence on the pressure going through specific body sites.[1] The body can only withstand high interface pressures for a short period of time, and when the loading of tissues is unequal and/or pressure isn't regularly redistributed; pressure ulcers can occur.[2] There are also a number of contributing or confounding factors, including pressure, shear forces, friction and moisture, associated with pressure ulcers.

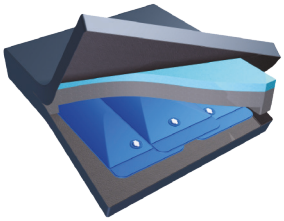
Everyone is potentially at risk of developing a pressure injury.[3] The impact of a pressure injury is profound, with individuals being affected physically, psychologically, socially, emotionally, spiritually, and financially.[4] Appropriate management or, better still, prevention can not only improve an individual's outcomes and quality of life, but it can also reduce the costs of health and social care services benefiting the wider community. A key intervention is pressure redistribution; regular repositioning is critical for those deemed at risk of developing a pressure injury as it is believed to be one of the most effective methods for preventing skin damage.[1]

Specialist seating systems aim to reduce the risk of pressure injuries by distributing the user's body weight evenly throughout the chair over the maximum surface area with posture supported as aligned and symmetrical as possible. The opportunity to sit out can offer a much-needed change of position to encourage blood flow and redistribute pressure.

Professional guidance from a Tissue Viability Nurse or District Nurse may be indicated.

The HydroFlex offers WaterCell Technology as standard, which provides a reliable and dynamic pressure care solution for people at medium to high risk of pressure injury. It enables the individual to achieve a stable and functional posture without compromising on pressure care and comfort. The water cells work by allowing the seat cushion to contour naturally and effectively around the body. The HydroFlex also features vapour permeable fabric as standard to all contact areas – seat, back, leg rest and armrest.

The Tilt-in-Space function can be utilised to redistribute pressure by changing the tilt angle of the chair on a regular basis and can be used in combination with Back Angle Recline.

CUSHION TYPE	DESCRIPTION	IMAGE
CareFlex Watercell Technology (Standard)	Our WaterCell Technology provides a reliable and dynamic pressure care solution for people at medium to high risk of pressure injury.	

Postural Support

When an individual's ability to achieve good posture is affected, either through age, illness, injury, disease or disability, it can significantly impact their health and well-being. Specialist seating aims to allow individuals who might otherwise have difficulty achieving their optimum sitting posture to sit out comfortably, interact with their environment, participate in activities of daily living and enhance physiological function.

Postural care is the use of any technique to minimise postural abnormality[5] and is evidently linked to an individual's ability to achieve their seating objectives. Lack of postural care and prolonged abnormal sitting postures can cause tension in the body and increase the risk of significant secondary complications, such as exacerbated pain and postural deterioration.[6] Proper positioning has demonstrated that it can decrease fatigue whilst helping to alleviate chronic discomfort and maximise function.[7] As the body structure is supported and the segments work together efficiently, the user will experience improved comfort, stability, functional movement, and energy conservation.



Postural Support

Tilt-in-Space (TiS)*

- Tilt-in-Space can promote pelvic stability and assist with positioning by encouraging the pelvis to remain at the back of the chair.
- Tilt-in-Space can be a key function in order to achieve energy conservation by allowing periods of rest, without affecting the critical angles for sitting.
- Tilt-in-Space can be used to reposition an individual against the forces of gravity in different degrees of tilt to redistribute pressure and ultimately reduce the risk of pressure injury.



Back Angle Recline (BAR)*

- Back angle recline adjusts the angle between the chair and seat back promoting comfort, relaxation and energy management for the user.
- Back Angle Recline can accommodate reduced range of movement at the hips, alleviating pain associated with the lower limbs, and reducing abdominal pressure.
- It can also play a key role in pressure redistribution when used in combination with Tilt-in-Space.



Adjustable Lateral Support

- Adaptable thoracic control with independent height and width adjustment is achievable with external lateral support.
- Various pad size and shape options for simple or complex spinal profiles are available.
- This support may be indicated for individuals who require firmer trunk control to achieve an optimum upright midline position.



Articulating Head

- The articulating head section allows for specific profiling of the back of the chair to accommodate more complex head positions and an increased thoracic kyphosis.
- Combined with tailored adjustment of the wings a stable and safe head position can be achieved ensuring maximum comfort for the user.



Postural Support

Independently Elevating Channelled Leg Rest

- The leg rest will provide effective lower limb positioning whilst promoting alignment and stability with channelled support.
- The leg rest can raise the feet above hip level, which can help to improve circulation and reduce swelling.
- The angle of leg rest elevation tolerated by an individual is dependent on their hamstrings muscles and knee joint range of movement; inappropriate elevation of the lower limbs can cause pain, a posterior pelvic tilt, and sliding down the chair increasing shear and friction forces.



Angle Adjustable Fold-Down Footplate

- Insufficient foot support can negatively impact on postural stability and pressure risk; individuals naturally seek support through the feet to obtain the proprioceptive feedback required.
- The HydroFlex's angle adjustable footplate can accommodate fixed angles of plantar flexion at the ankle or correct foot posture to a more neutral position for comfort and pressure distribution.
- Single-side release of the footplate angle control mechanism simplifies operation; lowering the footplate, adjusting the angle and stowing the footplate can all be carried out from one side of the chair.
- A detachable footplate pad is available that can provide greater comfort.
- An extended footplate is also available that can promote thorough sensory feedback.



Transfer Arms (option)

- Fully removable arms will facilitate users' lateral transfers from both sides.
- This is will promote independence and encourage activity.
- The ability to remove the arms can also assist with sling application and removal for improved positioning.

* Tilt-in-Space and Back Angle Recline should always be prescribed responsibly, ensuring that they are safe and appropriate for the user following a comprehensive assessment of posture and risk, with advice sought from the multi-disciplinary team where indicated. In some cases, these functions will be contra-indicated, and they could also increase shear and friction forces.

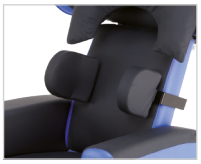
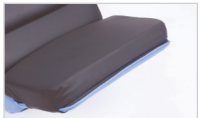
Seating Checklist

FUNCTION	ADJUSTMENT RANGE	MEASUREMENT / ANGLE / SELECTION
Back Angle Recline (BAR)	90° - 55°	
Tilt-in-Space (TiS)	0° - 30°	
Leg Rest Angle	80° - 170°	
Footplate Angle	85° / 90° / 110° / 125°	
Lateral Width (If Applicable)	150mm Adjustment Range*	
Lateral Height (If Applicable)	140mm Adjustment Range*	
Adjustment Control Option	Manual / Pro-Control (Leg Rest & Tilt-in-Space only) / Fully Motorised / AutoTilt	

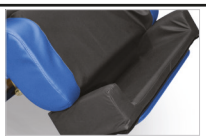
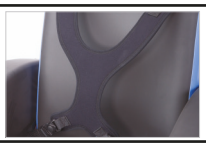
*A Tailored Solution is availble for 100mm extended lateral arms providing an additional 50mm in either lateral direction.



Most Common Options & Accessories

NAME	DESCRIPTION	IMAGE	SELECTION
Flat Back	• Offers pressure care and long-term comfort with integrated WaterCell Technology.		☐
Contoured Back	• Provides gentle lateral feedback and support for the trunk by centralising the posture to midline with contoured pads.		☐
Pommel	• A new fully padded pommel. • Provides both lateral and swivel tool-free adjustments to support deformities such as windsweeping.		☐
Lateral Supports	• External and removable trunk control with independent height and width adjustment. • May be indicated for individuals who require firmer postural support to achieve an optimum midline position.		☐ Narrow ☐ Wide ☐ S = Small Pad M = Medium Pad
Kidney Shaped Lateral Supports	• Adaptable trunk control with independent height and width adjustment. • Shaped for comfort and effective support to midline.		☐
Soft Pillow	• A comfortable square pillow that can support the head if an individual presents with weakness or fatigue.		☐
Soft Profiled Headrest	• A contoured pillow to support shoulders, neck and head. • Encourages head alignment for interaction and optimum physiological function.		☐
In-line Headrest	• Memory Foam lining providing full cranial support with cut-away sides for unobstructed sight and hearing.		☐
Foam Headrest	• Available in shallow, medium and deep, providing basic lateral head control.		☐ ☐ ☐ Shallow Med. Deep
Neck Headrest	• Has a deep profile to give greater lateral control.		☐
Tray	• A plastic tray with low profiled edges. • Supports the upper limbs and offers a platform for engagement in activities or occupation.		☐
Detachable Footplate Pad	• To provide greater comfort or for shorter leg length.		☐
Footplate Lozenge	• To provide greater comfort or for shorter leg length.		☐

Optional Accessories

NAME	DESCRIPTION	IMAGE	SELECTION
Soft Pillow Footplate Pad	• A soft pillow that can be easily fixed to the footplate to provide greater comfort and support for individuals with fixed foot deformities.		☐ Shallow ☐ Deep
Channel Footplate Pad	• Easily fixed to the footplate to provide greater comfort whilst encouraging a midline position at the feet.		☐
Basic Pelvic Belt*	• A simple webbing belt ideal for use during portering.		☐
Padded Pelvic Belt*	• Intervention for anterior pelvic stabilisation. • Safety belt when portering clients.		☐
4-Point Padded Pelvic Belt*	• Centre pull adjustment and comfort pads to reduce pressure on the front of the pelvis. • Secondary straps that pull down over the thighs at right angles to the seat base to maximise pelvic stability and reduce the risk of sacral sitting.		☐
Groin Harness*	• Positioning aid that provides maximum pelvic control. • Prevents the user from sliding forward in the seat.		☐
Dynamic Chest Harness*	• Provides anterior support and comfort whilst not restricting active positioning and function. • Lower straps have multi-direction buckles that swivel to avoid twisting and provide comfort.		☐
Sternum Harness*	• Provides greater upper trunk stability but allows for user movement.		☐

*All belts and harnesses must be prescribed, implemented, and monitored responsibly following a comprehensive risk assessment. Please see the Device safety information alert for further information: www.gov.uk/drug-device-alerts/all-posture-or-safety-belts-fitted-to-supportive-seating-wheelchairs-hoists-and-bathroom-equipment-risk-of-serious-injury-or-death

Clinical Notes

References

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4. Langemo DK (2005) Quality of Life and Pressure Ulcers: What is the Impact? Wounds 17(1)
5. Farley R, Clark J, Davidson C, Evans G, MacLennan K, Michael S, Morrow M, Thorpe S (2003) What is the evidence for the effectiveness of postural management? International Journal of Therapy and Rehabilitation 10(10):449-455
6. Royal College of Physicians (2016) National clinical guideline for stroke Available from: https://www.strokeaudit.org/Guideline/Full-Guideline.aspx
7. Cook AM, Hussey SM (2002) Assistive Technologies Principles and Practice St Louis: Mosby

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