TECHNICAL SPECIFICATION

RT233-2014

SUPPLY AND DELIVERY OF WHEELCHAIRS, SEATING SYSTEMS, POSITIONERS AND COMMODES TO THE STATE FOR THE PERIOD 1 SEPTEMBER 2014 TO 31 AUGUST 2017

RT 233-2014: SUPPLY AND DELIVERY OF WHEELCHAIRS, SEATING SYSTEMS, POSITIONERS AND COMMODES TO THE STATE FOR THE PERIOD 1 SEPTEMBER 2014 TO 31 AUGUST 2017

CATEGORY 1: WHEELCHAIRS

Table references:

B Seat width measured from outside of one seat rail to outside of opposite seat rail

C Seat length measured from front of back post to front of seat upholstery. (Allow + 1 cm)

D Front seat height (Allow + 1 cm, but left = right, no variance tolerance allowed) Measured from floor to front end of seat rail at point where upholstery ends.

G Height of back post bend measure from top of seat rail to bend in back post. (Allow + 1 cm)

H Arm rest height (Allow ± 1 cm)

I Wheelbase (Allow ± 1 cm)

J Footrest height adjustment range (Allow ± 1 cm)

K Maximum footrest protrusion

L Arm pad length (Allow ± 1 cm)

N Range of tipping lever projection

O Angle of bend of back post = 8 - 10 degrees

P Seat tilt: 5 degree minimum and 8 degree maximum (Approx minimum of 3.5 cm and maximum of 5.7 cm front and rear seat height differential on 40 cm seat length)

Q Angle of footrest hanger to seat = 75 degrees

R Seat sag (maximum)

S Back sag

T Push rim clearance (Allow ± 0.5 cm)

U Overall length (Maximum, with footrest set fully extended, allowing 5 cm clearance from the ground.)

V Back upholstery height (measured from top of seat rail to top of back rest upholstery)

		30cm Child's W/ch	Standard Back	Tall Back	Short back	Low slung	Low Slung shortback	Semi Recliner	Attendant Propelled
B	**Seat Width**	As per item spec	As per item spec	As per item spec	As per item spec	As per item spec	As per item spec	As per item spec	As per item spec
C	**Seat Length (Allow +1cm)**	33cm	41cm	41cm	41cm	41cm	41cm	41cm	41cm
D	**Front seat height (Allow +/-1cm)**	51cm	51cm	51cm	51cm	46cm	46cm	51cm	51cm
G	**Height of back post bend (Allow +/-1cm)**	15cm	23cm	33cm	none	23cm	none	none	23cm
H	**Armrest height (Allow +/-1cm)**								
	Desk and full arms	Not applicable	24cm	24cm	24cm	24cm	24cm	24cm	24cm
	Sport Arms	NA	20cm	20cm	20cm	20cm	20cm	20cm	20cm
	Height Adjustable	16-32cm	16-32cm	16-32cm	16-32cm	16-32cm	16-32cm	16-32cm	NA
I	**Wheelbase (Allow +/-1cm)**	37cm	44cm	44cm	44cm	44cm	44cm	50cm	44cm
J	**Footrest Adjustment (Allow +/-1cm)**								
	Long	NA	35-50cm	35-50cm	35-50cm	35-45cm	35-45cm	35-50cm	35-50cm
	Medium	NA	30-40cm	30-40cm	30-40cm	30-40cm	30-40cm	30-40cm	30-40cm
	Short	NA	25-30cm	25-30cm	25-30cm	25-30cm	25-30cm	25-30cm	25-30cm
	90degree	17cm-25cm	17cm-25cm	17cm-25cm	17cm-25cm	17cm-25cm	17cm-25cm	17cm-25cm	17cm-25cm
K	**Maximum footrest protrusion**	12cm	40cm	40cm	40cm	40cm	40cm	40cm	40cm
L	**Armpad length (Allow +/-1cm)**								
	Desk	27cm	27cm	27cm	27cm	27cm	27cm	27cm	27cm
	Full	37cm	37cm	37cm	37cm	37cm	37cm	37cm	37cm
	Sport	19cm	19cm	19cm	19cm	19cm	19cm	19cm	19cm
N	**Tipping lever projection**	16cm	17cm	17cm	17cm	17cm	17cm	12cm	18cm
O	**Bend in back post**	8-10degrees	8-10degrees	8-10degrees	0degrees	8-10degrees	8-10degrees	0degrees	8-10degrees
P	**Seat tilt**	5-8degrees	5-8degrees	5-8degrees	5-8degrees	5-8degrees	5-8degrees	5-8degrees	5-8degrees
Q	**Footrest angle to seat**	90degrees	75degrees	75degrees	75degrees	75degrees	75degrees	75degrees	75degrees

R	**Seat Sag (Maximum)**	2cm	2cm	2cm	2cm	2cm	2cm	2cm	2cm
S	**Back sag**	1cm	1cm	1cm	1cm	1cm	1cm	1cm	1cm
T	**Pushrim clearance (+/-5mm)**	2cm	2cm	2cm	2cm	2cm	2cm	2cm	2cm
U	**Overall length (Maximum, with footrest set fully extended, allowing 5cm clearance from the ground)**	78cm	114cm	114cm	114cm	110cm	110cm	120cm	114cm
V	**Back upholstery height**	32cm	42cm	52cm	32cm	42cm	32cm	55cm	42cm
	Head rest extension height	NA	NA	NA	NA	NA	NA	25cm	NA

1.1 Indoor / low-active basic folding chairs

All items under 1.1 and all customising options listed under 1.1.C will be awarded as a series

Detailed specification description of category: Indoor / low-active basic folding chairs

1.1.1 Basic folding frame, standard back height

Size range:

- 51 cm (20") wide
- 46 cm (18") wide
- 41 cm (16") wide
- 38 cm (15") wide
- 36 cm (14") wide
- 30 cm (12") wide with 40 cm seat frame length
- 30 cm (12") wide with 30 cm seat frame length
- 25cm (10”) wide with 30 cm seat frame length

1.1.2 Basic folding frame, tall back height

Size range:

- 51 cm (20") wide
- 46 cm (18") wide
- 41 cm (16") wide
- 38 cm (15") wide
- 36 cm (14") wide
- 30 cm (12") wide with 40 cm seat frame length
- 30 cm (12") wide with 30 cm seat frame length

1.1.3 Basic folding frame, short back height

Size range:

- 51 cm (20") wide
- 46 cm (18") wide
- 41 cm (16") wide
- 38 cm (15") wide
- 36 cm (14") wide
- 30 cm (12") wide with 40 cm seat frame length

1.1.4 Basic folding frame, standard back height attendant-propelled, non-institutional use

Size range:

- 51 cm (20") wide
- 46 cm (18") wide
- 41 cm (16") wide
- 38 cm (15") wide
- 36 cm (14") wide
- 30 cm (12") wide with 40 cm seat frame length

Backrest / Seat configuration:

- Seat tilt: 5 degree minimum and 8 degree maximum (Approx. minimum of 3.5 cm and maximum of 5.7 cm front and rear seat height differential on 40 cm seat length)
- Back to seat angle not to exceed 90 degrees
- 8 - 10 degree bend in back post, except for short back and low slung short back categories
- Back height: see under each sub-category
- Seat length:
- Standard = 40 (allow + 1 cm) long on all chairs with 40 cm seat frame.
- Exception: 30 cm (allow + 1 cm) long on 30 cm (12") wide with 30 cm seat frame length
- Shorter length may be specified by end user.

Upholstery:

- Back upholstery: Nylon (600 D) or vinyl: Exception: Reinforced on all 20” or reinforced 18” and 16” chairs. Reinforcement by means of a single nylon strip, at least 4 cm wide stitched to outside of back upholstery.
- Seat upholstery: Nylon (600 D) or vinyl (40 cm long or any shorter length as specified).
- All back and seat upholstery to be reinforced with an inner PVC minimum spec of 500 g/m2. The inner coated PVC to have a minimum tensile strength of 200 kg/50mm WMD and 160kg/50mm AMD and a minimum tear strength of 25kg both WMD and AMD. (Reinforced chairs as specified will therefore have a second, outer layer of PVC for additional reinforcement. Reinforcement by means of strips not acceptable.)

Armrests:

- Removable sport, full or desk with plastic skirt guard. Exception: Height adjustable full or desk with metal skirt guard only on 30 cm (12") wide with 30 cm seat frame length
- Arm rest sockets to be on side of seat rail only.
- Shape of arm rests may in no way impede the fitting of commercial rigid adjustable back systems onto back posts.

Castors and forks:

- 8x2" (20 x 5 cm) castors with plastic hub, outer shore hardness of 65 – 70 and inner shore hardness of 33 – 70, with the inner value not exceeding the outer value. Exception: 20” chair: 8x2" (20 x 5 cm) castors with aluminium hub, and outer shore hardness of 65 – 70 and inner shore hardness of 33 – 70, with the inner value not exceeding the outer value. Alternative, 8x2” (20 x 5 cm) rubber castors.
- 8x1” (20 x 2.5 cm) castors with plastic hub to be available as an option on request.
- Forks to be minimum 4 mm thick mild steel forks. Stem to be fastened to the fork with a thread and nut system to allow for re-fastening.

Rear wheels and axles:

- 24" x 1 3/8 mag (standard) or spoke (optional) wheel with one part semi-solid tyre as specified by end user. Exception, 12” chair with 30 cm seat rail length to use 22” x 1 3/8 mag (standard) or spoke (optional) wheel complete with semi-solid one-piece tyre
- Axle 12 mm thick

Footrest hangers:

- Extra-short (15 cm), short (20 cm), long (25 cm) or fully detachable 90 degree hangers with angle adjustable footplates as specified by end user.

Foot rest:

- Footplate to be plastic, aluminium or mild steel; Height adjustable

Leg strap:

- Nylon strap (4 to 5 cm wide) with Velcro. The leg strap should have Velcro fitted to its full length to allow maximum adjustability.

Frame:

- Basic, non-adjustable folding frame
- Finish: Epoxy coated

Guarantee:

- Frame and crossbars guaranteed for a minimum of 3 years during appropriate use as stated per category

Weight:

- Not to exceed 23 kg (complete). With rubber castors, allow +1 kg.
- Not to exceed 16kg for 10" wheelchair. With rubber castors allow +1 kg

Repair / tool kit:

- 4 rear wheel: bearings
- 4 castor: axle bearings
- 4 castor stem bearings
- 4 seat guides (where applicable)
- Adjustment tool

General requirement:

- Supplier must be able to provide chair with all of abovementioned options for back and seat upholstery, armrests, rear wheels, footrest hangers, and footrests. The end user will specify the desired option at the time of ordering. The different options available within each specification description must be fully interchangeable and available at the same price. Where the end user does not specify options the chair will be issued as in the option given first for the categories with more than one option.
- The successful tenderer must be able to supply all of the various models and sizes of items 1.1as per the tender document.
- No part or component may be changed / deviate from the specifications set out in this document.

Standards

- Durability of chair must be in accordance with SANS 1060:2003 specifications for the rolled bed and seat sag differential tests. Exception: Weight of test dummy to be 120 kg. This is the minimum required user weight specification.
- The following chair to be submitted for testing:
  - 18" chair with tall back
- Dimensions of chair for width, seat length and back rest height must adhere to the specifications set out in this tender:
- Frame to be zinc phosphate rust protected prior to epoxy powder coating.
- Back rest metal tubing wall thickness to be 1.6 mm.
- X-bars to be constructed of tubing with a minimum of 25 mm diameter and 2 mm wall thickness.
- Forks to be a minimum of 4 mm thick wall.
- Forks to be attached to the castor stem by means of a thread and bolt system to allow for re-fastening of the stem.
- Upholstery used = 600 D Nylon

- All back and seat upholstery to be reinforced with inner PVC with a minimum specification of 500 g/m2. (Re-enforced chairs as specified will therefore have a second, outer layer of PVC for additional reinforcement)
- Mag wheels to be glass filled nylon.
- Bearing spacer to be used in all bearing applications, i.e. rear wheel, front castor and castor stem.
- Random testing will be done on the 2” (5 cm) wide castors with plastic and aluminium hubs to verify shore hardness. These tests will result in destruction of the castor.

To submit for tender assessment:

- **7 chairs**
  - Standard back height: 20” (51 cm), 12” (30 cm) with 40 cm seat frame length, 12” (30 cm) 30 cm seat frame length and 10” (25cm)
  - Tall back: 16” (41 cm)
  - Short back: 14” (36 cm)
  - Attendant propelled (non-institutional use): 18” (46 cm)
  - Ensure a variety of foot rest length and type, type of arm rest, vinyl and nylon upholstery and mag or spoke rear wheels.
- **Provide samples of side frame and cross bar to demonstrate (samples must be cut through):**
  - Side frame to demonstrate back rest to be 1.6 mm wall thickness.
  - X-bars to be a minimum of 25 mm diameter and 2 mm wall.
- **Submit copies of the following certificates to stipulate compliance with:**
  - Durability testing certificate in accordance with standards outlined above with 120 kg test dummy for the 3 chairs stipulated.
  - Frame material - mild steel to be of a minimum yield of 375 MPA and a minimum tensile strength of 400 MPA.
  - Upholstery used = 600D Nylon
  - Upholstery reinforced with an inner PVC minimum spec of 500 g/m2

1.1. C Customising options for indoor / low active basic folding frame chairs

1.1. C.1 One arm drive unit

To be fitted onto the rear axle of the frame and allows for propulsion of the wheelchair with either left or right hand only. The mounting frame or block should allow for positioning of the rear wheel axle to be in front of the original axle position. The connecting unit between the rear wheels should be a solid bar and have a quick release action to allow removal before folding the chair. The concertina type connecting bar will not be accepted.
This option must fit onto items 1.1.1 – 1.1.4

1.1. C.2 Anti-tip levers

Removable, length adjustable extensions that fit onto the tipping levers of the side frame to prevent backwards tipping of wheelchair; Quick release mechanism; Must be able to be mounted with anti-tip castor facing either down or up.
This option must fit onto items 1.1.1 – 1.1.4

1.1. C.3 Amputation extension

Removable extension brackets that can be fitted onto side frames and tipping levers to allow the rear wheels to be mounted 5 + 1 cm back from original setting.
This option must fit onto items 1.1.1 – 1.1.4

1.1. C.4 45 cm seat extension

45 cm seat, with seat frame extension kit and full length extended seat upholstery (short strip of upholstery not allowed) to lengthen original seat frames and seat. Upholstery screws to be provided.
This option must fit onto items 1.1.1 – 1.1.4 and should be available in each size

1.1. C.5 47.5 seat extension

47.5 cm seat, with seat frame extension kit and full length extended seat upholstery (short strip of upholstery not allowed) to lengthen original seat frames and seat. Upholstery screws to be provided.
This option must fit onto items 1.1.1 – 1.1.4 and should be available in each size

1.1. C.6 Height adjustable desk arms

Height adjustable desk arms, removable, complete with mild steel skirt guard to fit basic folding frame manual pushchair. Length 40 cm, height adjustment range 160 – 320 mm. (Range is measured from seat)
This option must fit onto items 1.1.1 – 1.1.4

1.1. C.7 Height adjustable full arms

Height adjustable desk arms, removable, complete with mild steel skirt guard to fit basic folding frame manual pushchair. Length 40 cm, height adjustment range 160 – 320 mm. (Range is measured from seat)
This option must fit onto items 1.1.1 – 1.1.4

1.1. C.8 Nylon skirt guard

Nylon skirt guards (15 cm high x 25 cm long) to be fitted onto seat and back of chair to protect clothes from dirt on wheels when no armrests are used.
This option must fit onto items 1.1.1 – 1.1.4

1.1. C.9 Bolt on foot rest

Small footplate (15 x 13 cm) without hanger, with attachment to be fitted directly onto front post of side frame of chair. Height adjustable.
This option must fit onto items 1.1.1 – 1.1.4

1.1. C.10 Elevating footrest hanger

Angle of footrest hanger to be adjustable between 0 degrees and 70 degrees of knee flexion; Height adjustable calf support; Fitted with adult, narrow or juvenile footplates as specified by end user.
This option must fit onto items 1.1.1 – 1.1.3

1.1. C.11 Rear wheels

1.1. C.11.1 24 x 1 3/8 spoke wheel

24 x 1 3/8 rear wheel rim with spokes, mild steel, complete with semi-solid one-piece tyre
This option must fit onto items 1.1.1 – 1.1.4, excluding 12” chairs with 30cm seat frame length

1.1. C.11.2 24 x 1¾ spoke wheel

24 x 1¾ rear wheel rim with spokes, mild steel, complete with semi-solid one-piece tyre
This option must fit onto items 1.1.1 – 1.1.4, excluding 12” chairs with 30cm seat frame length

1.1. C.11.3 22 x 1 3/8 spoke wheel

22 x 1 3/8 rear wheel rim with spokes, mild steel, complete with semi-solid one-piece tyre
This option must fit onto items 1.1.1 – 1.1.3, to fit only 12” chairs with 30cm seat frame length

1.1. C.12 Front castors

1.1. C.12.1 20 x 5 cm (8 x 2”) castor with Aluminium hub

8x2" (20 x 5 cm) castors with plastic hub, outer shore hardness of 65 – 70 and inner shore hardness of 33 – 70, with the inner value not exceeding the outer value. This option must fit onto items 1.1.1 – 1.1.4

1.1. C.12.2 20 x 2.5 cm (8 x 1”) castor with plastic hub

20 x 2.5 cm (8 x 1”) castor with plastic hub and rubber tyre. This option must fit onto items 1.1.1 – 1.1.4.

1.1. C.12.3 20 x 5 cm (8 x 2”) castor with plastic hub

8x2" (20 x 5 cm) castors with plastic hub, outer shore hardness of 65 – 70 and inner shore hardness of 33 – 70, with the inner value not exceeding the outer value. This option must fit onto items 1.1.1 – 1.1.4

1.1. C.13 Quick-release axle for rear wheel

This option must fit onto items 1.1.1 – 1.1.4

1.1. C.14 Universal head rest mounting bar

Universal bar that attaches in a horizontal position onto the back post/handles of the wheelchair to be fitted with a removable head rest.
Mounting to the chair: Quick release mechanism to allow folding of chair. Secure attachment to ensure safety when used as push handle.
Mount for head rest: Adjustable mount to allow 4cm +- 1cm offset left and right from central position. Should be adjustable
This option must fit onto items 1.1.1 – 1.1.4

1.2 Basic folding frame, standard back height, low slung seat

All items under 1.2 and all customising options listed under 1.2.C will be awarded as a series

Size range:

- 51 cm (20") wide
- 46 cm (18") wide
- 41 cm (16") wide
- 38 cm (15") wide
- 36 cm (14") wide
- 30 cm (12") wide with 40 cm seat frame length

Backrest / Seat configuration:

- Seat tilt: 5 degree minimum and 8 degree maximum (Approx. minimum of 3.5 cm and maximum of 5.7 cm front and rear seat height differential on 40 cm seat length)
- Back to seat angle not to exceed 90 degrees
- 8 - 10 degree bend in back post, except for short back and low slung short back categories
- Back height: see under each sub-category
- Seat length:
- Standard = 40 (allow + 1 cm) long on all chairs with 40 cm seat frame.
- Exception: 30 cm (allow + 1 cm) long on 30 cm (12") wide with 30 cm seat frame length
- Shorter length may be specified by end user.

Upholstery:

- Back upholstery: Nylon (600 D) or vinyl: Exception: Reinforced on all 20” or reinforced 18” and 16” chairs. Reinforcement by means of a single nylon strip, at least 4 cm wide stitched to outside of back upholstery.
- Seat upholstery: Nylon (600 D) or vinyl (40 cm long or any shorter length as specified).
- All back and seat upholstery to be reinforced with an inner PVC minimum spec of 500 g/m2. The inner coated PVC to have a minimum tensile strength of 200 kg/50mm WMD and 160kg/50mm AMD and a minimum tear strength of 25kg both WMD and AMD. (Reinforced chairs as specified will therefore have a second, outer layer of PVC for additional reinforcement. Reinforcement by means of strips not acceptable.)

Armrests:

- Removable sport, full or desk with plastic skirt guard. Exception: Height adjustable full or desk with metal skirt guard only on 30 cm (12") wide with 30 cm seat frame length
- Arm rest sockets to be on side of seat rail only.
- Shape of arm rests may in no way impede the fitting of commercial rigid adjustable back systems onto back posts.

Castors and forks:

- 8x2" (20 x 5 cm) castors with plastic hub, outer shore hardness of 65 – 70 and inner shore hardness of 33 – 70, with the inner value not exceeding the outer value. Exception: 20” chair: 8x2" (20 x 5 cm) castors with aluminium hub, and outer shore

hardness of 65 – 70 and inner shore hardness of 33 – 70, with the inner value not exceeding the outer value. Alternative, 8x2” (20 x 5 cm) rubber castors.

- 8x1” (20 x 2.5 cm) castors with plastic hub to be available as an option on request.
- Forks to be minimum 4 mm thick mild steel forks. Stem to be fastened to the fork with a thread and nut system to allow for re-fastening.

Rear wheels and axles:

- 24" x 1 3/8 mag (standard) or spoke (optional) wheel with one part semi-solid tyre as specified by end user. Exception, 12” chair with 30 cm seat rail length to use 22” x 1 3/8 mag (standard) or spoke (optional) wheel complete with semi-solid one-piece tyre
- Axle 12 mm thick

Footrest hangers:

- Extra-short (15 cm), short (20 cm), long (25 cm) or fully detachable 90 degree hangers with angle adjustable footplates as specified by end user.

Foot rest:

- Footplate to be plastic, aluminium or mild steel; Height adjustable

Leg strap:

- Nylon strap (4 to 5 cm wide) with Velcro. The leg strap should have Velcro fitted to its full length to allow maximum adjustability.

Frame:

- Basic, non-adjustable folding frame
- Finish: Epoxy coated

Guarantee:

- Frame and crossbars guaranteed for a minimum of 3 years during appropriate use as stated per category

Weight:

- Not to exceed 23 kg (complete). With rubber castors, allow +1 kg.

Repair / tool kit:

- 4 rear wheel: bearings
- 4 castor: axle bearings
- 4 castor stem bearings
- 4 seat guides (where applicable)
- Adjustment tool

General requirement:

- Supplier must be able to provide chair with all of abovementioned options for back and seat upholstery, armrests, rear wheels, footrest hangers, and footrests. The end user will specify the desired option at the time of ordering. The different options available within each specification description must be fully interchangeable and available at the same price. Where the end user does not specify options the chair will be issued as in the option given first for the categories with more than one option.
- The successful tenderer must be able to supply all of the various models and sizes of items 1.2 as per the tender document.
- No part or component may be changed / deviate from the specifications set out in this document.

Standards

- Durability of chair must be in accordance with SANS 1060:2003 specifications for the rolled bed and seat sag differential tests. Exception: Weight of test dummy to be 120 kg. This is the minimum required user weight specification.
- The following chair to be submitted for testing:
  - 18” chair with slow lung seat
- Dimensions of chair for width, seat length and back rest height must adhere to the specifications set out in this tender:
- Frame to be zinc phosphate rust protected prior to epoxy powder coating.
- Back rest metal tubing wall thickness to be 1.6 mm.
- X-bars to be constructed of tubing with a minimum of 25 mm diameter and 2 mm wall thickness.
- Forks to be a minimum of 4 mm thick wall.
- Forks to be attached to the castor stem by means of a thread and bolt system to allow for re-fastening of the stem.
- Upholstery used = 600 D Nylon
- All back and seat upholstery to be reinforced with an inner PVC with a minimum specification of 500 g/m2. (Re-inforced chairs as specified will therefore have a second, outer layer of PVC for additional reinforcement)
- Mag wheels to be glass filled nylon.
- Bearing spacer to be used in all bearing applications, i.e. rear wheel, front castor and castor stem.
- Random testing will be done on the 2” (5 cm) wide castors with plastic and aluminium hubs to verify shore hardness. These tests will result in destruction of the castor.

To submit for tender assessment:

- 1 chairs
  - Low slung: 16” (41 cm)
  - Ensure a variety of foot rest length and type, type of arm rest, vinyl and nylon upholstery and mag or spoke rear wheels.
- Provide samples of side frame and cross bar to demonstrate (samples must be cut through):
  - Side frame to demonstrate back rest to be 1.6 mm wall thickness.
  - X-bars to be a minimum of 25 mm diameter and 2 mm wall.
- Submit copies of the following certificates to stipulate compliance with:
  - Durability testing certificate in accordance with standards outlined above with 120 kg test dummy for the 3 chairs stipulated.
  - Frame material - mild steel to be of a minimum yield of 375 MPA and a minimum tensile strength of 400 MPA.
  - Upholstery used = 600D Nylon
  - Upholstery reinforced with an inner PVC minimum spec of 500 g/m2

1.2. C **Customising options for indoor / low active basic folding frame chairs, Low slung seat**

1.2. C.1 **One arm drive unit**

To be fitted onto the rear axle of the frame and allows for propulsion of the wheelchair with either left or right hand only. The mounting frame or block should allow for positioning of the rear wheel axle to be in front of the original axle position. The connecting unit between the rear wheels should be a solid bar and have a quick release action to allow removal before folding the chair. The concertina type connecting bar will not be accepted. Must fit onto items 1.2.1

1.2. C.2 **Anti-tip levers**

Removable, length adjustable extensions that fit onto the tipping levers of the side frame to prevent backwards tipping of wheelchair; Quick release mechanism; Must be able to be mounted with anti-tip castor facing either down or up. Must fit onto items 1.2

1.2. C.3 **Amputation extension**

Removable extension brackets that can be fitted onto side frames and tipping levers to allow the rear wheels to be mounted 5 + 1 cm back from original setting. Must fit onto items 1.2

1.2. C.4 **45 cm seat extension**

45 cm seat, with seat frame extension kit and full length extended seat upholstery (short strip of upholstery not allowed) to lengthen original seat frames and seat. Upholstery screws to be provided. Must fit onto items 1.2 and should be available in each size

1.2. C.5 **47.5 seat extension**

47.5 cm seat, with seat frame extension kit and full length extended seat upholstery (short strip of upholstery not allowed) to lengthen original seat frames and seat. Upholstery screws to be provided. Must fit onto items 1.2 and should be available in each size

1.2. C.6 **Height adjustable desk arms**

Height adjustable desk arms, removable, complete with mild steel skirt guard to fit basic folding frame manual pushchair. Length 40 cm, height adjustment range 160 – 320 mm. (Range is measured from seat)
This option must fit onto items 1.2

1.2. C.7 **Height adjustable full arms**

Height adjustable desk arms, removable, complete with mild steel skirt guard to fit basic folding frame manual pushchair. Length 40 cm, height adjustment range 160 – 320 mm. (Range is measured from seat)
This option must fit onto items 1.2

1.2. C.8 **Nylon skirt guard**

Nylon skirt guards (15 cm high x 25 cm long), to be fitted onto seat and back of chair to protect clothes from dirt on wheels when no armrests are used. This option must fit onto items 1.2

1.2. C.9 Bolt on foot rest

Small footplate (15 x 13 cm) without hanger, with attachment to be fitted directly onto front post of side frame of chair. Height adjustable. Must fit onto items 1.2

1.2. C.10 Rear wheels

1.2. C.10.1 24 x 1 3/8 spoke wheel

24 x 1 3/8 rear wheel rim with spokes, mild steel, complete with semi-solid one-piece tyre. Must fit onto items 1.2, excluding 12” chairs with 30cm seat.

1.2. C.10.2 24 x 1¾ spoke wheel

24 x 1¾ rear wheel rim with spokes, mild steel, complete with semi-solid one-piece tyre. Must fit onto items 1.2, excluding 12” chairs with 30cm seat.

1.2. C.11 Front castors

1.2. C.11.1 20 x 5 cm (8 x 2”) castor with Aluminium hub

8x2" (20 x 5 cm) castors with plastic hub, outer shore hardness of 65 – 70 and inner shore hardness of 33 – 70, with the inner value not exceeding the outer value. This option must fit onto items 2.1

1.2. C.11.2 20 x 2.5 cm (8 x 1”) castor with plastic hub

20 x 2.5 cm (8 x 1”) castor with plastic hub and rubber tyre. Must fit onto items 1.2.

1.1. C.11.3 20 x 5 cm (8 x 2”) castor with plastic hub

8x2" (20 x 5 cm) castors with plastic hub, outer shore hardness of 65 – 70 and inner shore hardness of 33 – 70, with the inner value not exceeding the outer value. This option must fit onto items 1.2

1.2. C.12 Quick-release axle for rear wheel

This option must fit onto items 1.2

1.2. C.13 Universal head rest mounting bar

Universal bar that attaches in a horizontal position onto the back post/ handles of the wheelchair to be fitted with a removable head rest.
Mounting to the chair: Quick release mechanism to allow folding of chair. Secure attachment to ensure safety when used as push handle.
Mount for head rest: Adjustable mount to allow 4cm +- 1cm offset left and right from central position. Must be adjustable and must fit on 1.2

1.3 Basic folding frame, semi-recliner

All items under 1.3 and all customising options listed under 1.3.C will be awarded as a series

Size range:

- 51 cm (20") wide
- 46 cm (18") wide
- 41 cm (16") wide
- 36cm (14”) wide

Backrest / Seat configuration:

- Seat tilt: 5 degree minimum and 8 degree maximum (Approx. minimum of 3.5 cm and maximum of 5.7 cm front and rear seat height differential on 40 cm seat length)
- Back to seat angle not to exceed 90 degrees
- 8 - 10 degree bend in back post, except for short back and low slung short back categories
- Back height: see under each sub-category
- Seat length:
- Standard = 40 (allow + 1 cm) long on all chairs with 40 cm seat frame.
- Exception: 30 cm (allow + 1 cm) long on 30 cm (12") wide with 30 cm seat frame length
- Shorter length may be specified by end user.

Upholstery:

- Back upholstery: Nylon (600 D) or vinyl: Exception: Reinforced on all 20” or reinforced 18” and 16” chairs. Reinforcement by means of a single nylon strip, at least 4 cm wide stitched to outside of back upholstery.
- Seat upholstery: Nylon (600 D) or vinyl (40 cm long or any shorter length as specified).
- All back and seat upholstery to be reinforced with an inner PVC minimum spec of 500 g/m2. The inner coated PVC to have a minimum tensile strength of 200 kg/50mm WMD and 160kg/50mm AMD and a minimum tear strength of 25kg both WMD and AMD. (Reinforced chairs as specified will therefore have a second, outer layer of PVC for additional reinforcement. Reinforcement by means of strips not acceptable.).

Armrests:

- Removable sport, full or desk with plastic skirt guard. Exception: Height adjustable full or desk with metal skirt guard only on 30 cm (12") wide with 30 cm seat frame length
- Arm rest sockets to be on side of seat rail only.
- Shape of arm rests may in no way impede the fitting of commercial rigid adjustable back systems onto back posts.

Castors and forks:

- 8x2" (20 x 5 cm) castors with plastic hub, outer shore hardness of 65 – 70 and inner shore hardness of 33 – 70, with the inner value not exceeding the outer value. Exception: 20” chair: 8x2" (20 x 5 cm) castors with aluminium hub, and outer shore hardness of 65 – 70 and inner shore hardness of 33 – 70, with the inner value not exceeding the outer value. Alternative, 8x2” (20 x 5 cm) rubber castors.
- 8x1” (20 x 2.5 cm) castors with plastic hub to be available as an option on request.
- Forks to be minimum 4 mm thick mild steel forks. Stem to be fastened to the fork with a thread and nut system to allow for re-fastening.

Rear wheels and axles:

- 24" x 1 3/8 mag (standard) or spoke (optional) wheel with one part semi-solid tyre as specified by end user. Exception, 12” chair with 30 cm seat rail length to use 22” x 1 3/8 mag (standard) or spoke (optional) wheel complete with semi-solid one-piece tyre
- Axle 12 mm thick

Footrest hangers:

- Extra-short (15 cm), short (20 cm), long (25 cm) or fully detachable 90 degree hangers with angle adjustable footplates as specified by end user.

Foot rest:

- Footplate to be plastic, aluminium or mild steel; Height adjustable

Leg strap:

- Nylon strap (4 to 5 cm wide) with Velcro. The leg strap should have Velcro fitted to its full length to allow maximum adjustability.

Frame:

- Basic, non-adjustable folding frame
- Finish: Epoxy coated

Guarantee:

- Frame and crossbars guaranteed for a minimum of 3 years during appropriate use as stated per category

Weight:

- Not to exceed 23 kg (complete). With rubber castors, allow +1 kg.

Repair / tool kit:

- 4 rear wheel: bearings
- 4 castor: axle bearings
- 4 castor stem bearings
- 4 seat guides (where applicable)
- Adjustment tool

General requirement:

- Supplier must be able to provide chair with all of abovementioned options for back and seat upholstery, armrests, rear wheels, footrest hangers, and footrests. The end user will specify the desired option at the time of ordering. The different options available within each specification description must be fully interchangeable and available at the same price. Where the end user does not specify options the chair will be issued as in the option given first for the categories with more than one option.
- The successful tenderer must be able to supply all of the various models and sizes of items 1.3 as per the tender document.
- No part or component may be changed / deviate from the specifications set out in this document.

Standards

- Durability of chair must be in accordance with SANS 1060:2003 specifications for the rolled bed and seat sag differential tests. Exception: Weight of test dummy to be 120 kg. This is the minimum required user weight specification.
- The following chair to be submitted for testing:
  - 18” Semi recliner chair
- Dimensions of chair for width, seat length and back rest height must adhere to the specifications set out in this tender:
- Frame to be zinc phosphate rust protected prior to epoxy powder coating.

- Back rest metal tubing wall thickness to be 1.6 mm.
- X-bars to be constructed of tubing with a minimum of 25 mm diameter and 2 mm wall thickness.
- Forks to be a minimum of 4 mm thick wall.
- Forks to be attached to the castor stem by means of a thread and bolt system to allow for re-fastening of the stem.
- Upholstery used = 600 D Nylon
- All back and seat upholstery to be reinforced with inner PVC with a minimum specification of 500 g/m2. (Re-enforced chairs as specified will therefore have a second, outer layer of PVC for additional reinforcement)
- Mag wheels to be glass filled nylon.
- Bearing spacer to be used in all bearing applications, i.e. rear wheel, front castor and castor stem.
- Random testing will be done on the 2” (5 cm) wide castors with plastic and aluminium hubs to verify shore hardness. These tests will result in destruction of the castor.

To submit for tender assessment:

- 1 chairs
  - Semi Recliner : 16” (41 cm)
  - Ensure a variety of foot rest length and type, type of arm rest, vinyl and nylon upholstery and mag or spoke rear wheels.
- Provide samples of side frame and cross bar to demonstrate (samples must be cut through):
  - Side frame to demonstrate back rest to be 1.6 mm wall thickness.
  - X-bars to be a minimum of 25 mm diameter and 2 mm wall.
- Submit copies of the following certificates to stipulate compliance with:
  - Durability testing certificate in accordance with standards outlined above with 120 kg test dummy for the 3 chairs stipulated.
  - Frame material - mild steel to be of a minimum yield of 375 MPA and a minimum tensile strength of 400 MPA.
  - Upholstery used = 600D Nylon
  - Upholstery reinforced with an inner PVC minimum spec of 500 g/m2

1.3. C CUSTOMISING OPTIONS FOR INDOOR / LOW ACTIVE BASIC FOLDING FRAME CHAIRS, SEMI-RECLINER WHEELCHAIRS

1.3. C.1 Anti-tip levers

Removable, length adjustable extensions that fit onto the tipping levers of the side frame to prevent backwards tipping of wheelchair; Quick release mechanism; Must be able to be mounted with anti-tip castor facing either down or up.
This option must fit onto items 1.3

1.3. C.2 45 cm seat extension

45 cm seat, with seat frame extension kit and full length extended seat upholstery (short strip of upholstery not allowed) to lengthen original seat frames and seat. Upholstery screws to be provided.
This option must fit onto items 1.3 and should be available in each size

1.3. C.3 47.5cm seat extension

47.5 cm seat, with seat frame extension kit and full length extended seat upholstery (short strip of upholstery not allowed) to lengthen original seat frames and seat. Upholstery screws to be provided.
This option must fit onto items 1.3 and should be available in each size

1.3. C.4 Height adjustable desk arms

Height adjustable desk arms, removable, complete with mild steel skirt guard to fit basic folding frame manual pushchair. Length 40 cm, height adjustment range 160 – 320 mm. (Range is measured from seat)
This option must fit onto items 1.3

1.3. C.5 Height adjustable full arms

Height adjustable desk arms, removable, complete with mild steel skirt guard to fit basic folding frame manual pushchair. Length 40 cm, height adjustment range 160 – 320 mm. (Range is measured from seat)
This option must fit onto items 1.3

1.3. C.6 Nylon skirt guard

Nylon skirt guards (15 cm high x 25 cm long) that can be fitted onto seat and back of chair to protect clothes from dirt on wheels when no armrests are used.
This option must fit onto items 1.3

1.3. C.7 Bolt on foot rest

Small footplate (15 x 13 cm) without hanger, with attachment to be fitted directly onto front post of side frame of chair. Height adjustable.
This option must fit onto items 1.3

1.3. C.8 Elevating footrest hanger

Angle of footrest hanger to be adjustable between 0 degrees and 70 degrees of knee flexion; Height adjustable calf support; Fitted with adult, narrow or juvenile footplates as specified by end user.
This option must fit onto items 1.3

1.3. C.9 Rear wheels

1.3. C.9.1 24 x 1 3/8 spoke wheel

24 x 1 3/8 rear wheel rim with spokes, mild steel, complete with semi-solid one-piece tyre
This option must fit onto items 1.3

1.3. C.9.2 24 x 1¾ spoke wheel

24 x 1¾ rear wheel rim with spokes, mild steel, complete with semi-solid one-piece tyre. This option must fit onto items 1.3

1.3. C.10 Front castors

1.3. C.10.1 20 x 5 cm (8 x 2”) castor with Aluminium hub

8x2" (20 x 5 cm) castors with plastic hub, outer shore hardness of 65 – 70 and inner shore hardness of 33 – 70, with the inner value not exceeding the outer value. This option must fit onto items 1.3

1.3. C.10.2 20 x 2.5 cm (8 x 1”) castor with plastic hub

20 x 2.5 cm (8 x 1”) castor with plastic hub and rubber tyre. This option must fit onto items 1.3

1.3. C.10.3 20 x 5 cm (8 x 2”) castor with plastic hub

8x2" (20 x 5 cm) castors with plastic hub, outer shore hardness of 65 – 70 and inner shore hardness of 33 – 70, with the inner value not exceeding the outer value. This option must fit onto items 1.3

1.3. C.11 Quick-release axle for rear wheel

This option must fit onto items 1.3

1.3. C.12 Universal head rest mounting bar

Universal bar that attaches in a horizontal position onto the back post/handles of the wheelchair to be fitted with a removable head rest.
Mounting to the chair: Quick release mechanism to allow folding of chair. Secure attachment to ensure safety when used as push handle.
Mount for head rest: Adjustable mount to allow 4cm +- 1cm offset left and right from central position. Should be adjustable
This option must fit on 1.3

1.4 Bariatric folding chairs

All items under 1.4 as well as all customising options listed under 1.4.C will be awarded as a series

Size range:

- 51cm (20”)
- 56cm (22”)
- 61cm (24”)

Backrest / Seat configuration:

- Seat tilt: 5 degree minimum and 8 degree maximum (Approx. minimum of 3.5 cm and maximum of 5.7 cm front and rear seat height differential on 40 cm seat length)
- Back to seat angle not to exceed 90 degrees
- 8 - 10 degree bend in back post
- Back height: adjustable 40 cm – 50 cm (allow + 1 cm)
- Seat length:
- Standard = 45 cm (allow + 1 cm) long.
- Shorter length may be specified by end user.

Upholstery:

- Back upholstery: Nylon (600 D) or vinyl: Reinforcement by means of a single nylon strip, at least 4 cm wide stitched to outside of back upholstery.
- Seat upholstery: Nylon (600 D) or vinyl (45 cm long or any shorter length as specified). Reinforced chairs as specified will therefore have a second, outer layer of PVC for additional reinforcement. Reinforcement by means of strips not acceptable.
- All back and seat upholstery to be reinforced with an inner PVC minimum spec of 500 g/m2. The inner coated PVC to have a minimum tensile strength of 200 kg/50mm WMD and 160kg/50mm AMD and a minimum tear strength of 25kg both WMD and AMD.

Armrests:

- Removable full or desk with aluminium or mild steel skirt guard.
- Arm rest sockets to be on side of seat rail only.
- Shape of arm rests may in no way impede the fitting of commercial rigid adjustable back systems onto back posts.

Castors and forks:

- 8x2" (20 x 5 cm) castors with aluminium hub, outer shore hardness of 65 – 70 and inner shore hardness of 33 – 70, with the inner value not exceeding the outer value. Alternative, 8x2” (20 x 5 cm) rubber castors.
- 8x1” (20 x 2.5 cm) castors with aluminium hub to be available as an option on request.
- Forks to be minimum 4 mm thick mild steel forks. Stem to be fastened to the fork with a thread and nut system to allow for re-fastening.

Rear wheels and axles:

- 24" x 1 3/8 mag (standard) or spoke (optional) wheel with one part semi-solid tyre as specified by end user.
- Axle 12 mm thick

Footrest hangers:

- Extra-short (15 cm), short (20 cm) or long (25 cm) fully detachable hangers as specified by end user.

Foot rest:

- Footplate to be plastic, aluminium or mild steel; Height adjustable

Leg strap:

- Nylon strap (4 to 5 cm wide) with Velcro. The leg strap should have Velcro fitted to its full length to allow maximum adjustability.

Frame:

- Double cross bar
- Stabiliser bar to limit flexion / distortion of the frame
- Finish: Epoxy coated

Guarantee:

- Frame and crossbars guaranteed for a minimum of 3 years during appropriate use as stated per category

Weight:

- Not to exceed 25 kg (complete). With rubber castors, allow +1 kg.

Tool kit:

- Adjustment tool

General requirement:

- Supplier must be able to provide chair with all of abovementioned options for back and seat upholstery, armrests, rear wheels, footrest hangers, and footrests. The end user will specify the desired option at the time of ordering. The different options available within each specification description must be fully interchangeable and available at the same price. Where the end user does not specify options the chair will be issued as in the option given first for the categories with more than one option.
- The successful tenderer must be able to supply all of the various models and sizes of items 4.1. As per the tender document.
- No part or component may be changed / deviate from the specifications set out in this document.

Standards

- Durability of chair must be in accordance with SANS 1060:2003 specifications for the roller bed and seat sag differential tests. Exception: Weight of test dummy to be 200 kg. This is the minimum required user weight specification.
- The following chairs to be submitted for testing:
    - 24” chair
- Dimensions of chair for width, seat length and back rest height must adhere to the specifications set out in this tender:
- Frame to be zinc phosphate rust protected prior to epoxy powder coating.
- Back rest metal tubing wall thickness to be at least 1.6 mm.
- X-bars to be constructed of tubing with a minimum of 25 mm diameter and 2 mm wall thickness.
- Forks to be a minimum of 4 mm thick wall.
- Forks to be attached to the castor stem by means of a thread and bolt system to allow for re-fastening of the stem.
- Upholstery used = 600 D Nylon

- All back and seat upholstery to be reinforced with inner PVC with a minimum specification of 500 g/m2. (Re-enforced chairs as specified will therefore have a second, outer layer of PVC for additional reinforcement)
- Mag wheels to be glass filled nylon.
- Bearing spacer to be used in all bearing applications, i.e. rear wheel, front castor and castor stem.
- Random testing will be done on the 2” (5 cm) wide castors with plastic and aluminium hubs to verify shore hardness. These tests will result in destruction of the castor.

To submit for tender assessment:

- 1 chair
  - 24” (61 cm)
- Submit copies of the following certificates to stipulate compliance with:
  - Durability testing certificate in accordance with standards outlined above with 200 kg test dummy for the chair stipulated.
  - Frame material - mild steel to be of a minimum yield of 375 MPA and a minimum tensile strength of 400 MPA.
  - Upholstery used = 600D Nylon
  - Upholstery reinforced with an inner PVC minimum spec of 500 g/m2

1.4. C Customising options for bariatric chairs

1.4. C.1 Anti-tip levers

Removable, length adjustable extensions that fit onto the tipping levers of the side frame to prevent backwards tipping of wheelchair; Quick release mechanism; Must be able to be mounted with anti-tip castor facing either down or up.

1.4. C.2 47.5 cm seat extension

47.5 cm seat, with seat frame extension kit and full length extended seat upholstery (short strip of upholstery not allowed) to lengthen original seat frames and seat. Upholstery screws to be provided.

1.4. C.3 Height adjustable desk arms

Height adjustable desk arms, removable, complete with mild steel skirt guard to fit basic folding frame manual pushchair. Height adjustable range 160 – 320 mm measured from seat.

1.4. C.4 Height adjustable full arms

Height adjustable desk arms, removable, complete with mild steel skirt guard to fit basic folding frame manual pushchair. Height adjustable range 160 – 320 mm measured from seat.

1.4. C.5 Elevating footrest hanger

Angle of footrest hanger to be adjustable between 0 degrees and 70 degrees of knee flexion; Height adjustable calf support; Fitted with adult, narrow or juvenile footplates as specified by end user.

1.4. C.6 Rear wheels

1.4. C.6.1 24 x 1 3/8” spoke wheel

24 x 1 3/8” rear wheel rim with spokes, mild steel, complete with semi-solid one-piece tyre.

1.4. C.6.3 24 x 1¾” spoke wheel

24 x 1¾ rear wheel rim with spokes, mild steel, complete with semi-solid one piece tyre.

1.4. C.7 Front castors

1.4. C.7.1 20 x 5 cm (8 x 2”) castor with Aluminium hub

8x2" (20 x 5 cm) castors with plastic hub, outer shore hardness of 65 – 70 and inner shore hardness of 33 – 70, with the inner value not exceeding the outer value.

1.4. C.7.2 20 x 2.5 cm (8 x 1”) castor with aluminium hub

20 x 2.5 cm (8 x 1”) castor with aluminium hub and rubber tyre.

1.5 Urban active chairs

1.5.1 Adjustable folding frame urban active chair

All items under 1.5.1 and 1.5.1.C will be awarded as a series

Detailed specification description of category: Adjustable folding frame urban active wheelchairs

Size range:

- 51 cm (20") wide with 43 + 1 cm seat frame length
- 46 cm (18") wide with 43 + 1 cm seat frame length
- 41 cm (16") wide with 43 + 1 cm seat frame length
- 38 cm (15") wide with 43 + 1 cm seat frame length
- 36 cm (14") wide with 43 + 1 cm seat frame length
- 30 cm (12") wide with 43 + 1 cm seat frame length
- 30 cm (12") wide with 33 + 1 cm seat frame length
- 25 cm (10") wide with 33 + 1 cm seat frame length

Backrest / Seat configuration:

- Seat tilt: Adjustable, secondary to centre of gravity adjustment of chair
- Back to seat angle not to exceed 90 degrees
- Angle in back post to be 8 - 10 degree
- Back height: Adjustable 35 cm – 45 cm, 40 cm – 50 cm and 45 cm – 55 cm. The back range of the 2 smallest sizes is 35 – 45 cm only and has the 8 – 10 degree bend in the back post.
- Seat length:
- Standard = 40 + 1 cm long as std, with option to be fitted with 44 + 1 cm seat on 43 cm seat rail.
- For the 12” with 33 cm seat rail, the standard = 30 + 1 cm long as std, with option to be fitted with 33 + 1 cm seat.
- For the 10“with 33 cm seat rail, the standard = 25 + 1 cm long as std. Shorter length may be specified by end user.

Centre of gravity adjustability:

- Adjustable by adjusting rear wheel position horizontally and vertical (at least 3 settings each way)
- Adjustable by adjusting rear wheel - at least 3 settings for vertical and horizontal
- The adjustment range of the front castor should ensure that the castor stem remains perpendicular to the ground at all times within the available tilt in space range.

Upholstery:

- Back upholstery: Tension adjustable back upholstery. 3-piece tension adjustable with major components and quality as specified under tension adjustable backrests in this tender.
- Seat upholstery: Nylon (600 D) (40 cm long or any shorter length as specified). All seat upholstery to be reinforced with an inner PVC minimum spec of 500 g/m2

Armrests:

- Flip back, removable sport, full or desk with plastic skirt guard
- Shape of arm rests may in no way impede the fitting of commercial rigid adjustable back systems onto back posts.

Castors and forks:

- 8x1" (20 x 2,5 cm) or 8x2" (5 x 20 cm) castors as specified by end user
- 8x2" (20 x 5 cm) castors with plastic hub, outer shore hardness of 65 – 70 and inner shore hardness of 33 – 70, with the inner value not exceeding the outer value.
- Matching adjustments of the front castor to equal any adjustments done to the rear wheel position.
- Forks to be minimum 4 mm thick mild steel forks. Stem to be fastened to the fork with a thread and nut system to allow for re-fastening.

Rear wheels and axles:

- 24" x 1 3/8 mag wheel with one part semi-solid tyre. Exception: 22” x 1 3/8 wheel on 30 cm (12") wide with 33 + 1 cm seat frame length and 25 cm (10") wide with 33 + 1 cm seat frame length
- Quick release axles
- Vertical and horizontal adjustments of rear wheel (at least 3 settings each way)
- Axle 12 mm thick

Footrest hangers:

- Extra-short (15 cm), short (20 cm), long (25 cm) or fully detachable 90 degree hangers with angle adjustable footplates as specified by end user.

Foot rest:

- Footplate to be plastic, aluminium or mild steel; Height adjustable

Leg strap:

- Nylon strap (4 - 5 cm wide) with Velcro. The leg strap should have Velcro fitted to its full length to allow maximum adjustability.

Guarantee:

- Frame and crossbars guaranteed for a minimum of 3 years during appropriate use as stated per category

Frame:

- Adjustable, folding frame
- Aluminium / mild steel
- 30 cm (12") wide with 33 + 1 cm seat frame length and 25 cm (10") wide with 33 + 1 cm seat frame length have shorter wheelbase and overall length as the other sizes in this range

Weight:

- Not to exceed 14 kg (complete), excluding rear wheels

Repair kit:

- 4 Rear wheel: bearings
- 4 Castors: axle bearings
- 4 castor stem bearings
- 4 seat guides (where applicable)
- Adjustment tool

General requirement:

- Supplier must be able to provide chair with all of abovementioned options for back and seat upholstery, armrests, rear wheels, footrest hangers, and footrests. The end user will specify the desired option at the time of ordering. The different options available within each specification description must be fully interchangeable and available at the same price. Where the end user does not specify options the chair will be issued as in the option given first for the categories with more than one option.

- No part or component may be changed / deviate from the specifications set out in this document.

Standards

- Durability of chair must be in accordance with SANS 1060:2003 specifications for the rolled bed and seat sag differential tests.
- The following chairs to be submitted for testing:
  - 18” chair to be submitted for testing at 100 kg.
- Dimensions of chair for width, seat length and back rest height must adhere to the specifications set out in this tender:
- Bearing spacer to be used in all bearing applications, i.e. rear wheel, front castor and castor stem.
- Random testing will be done on the 2” (5 cm) wide castors with plastic and aluminium hubs to verify shore hardness. These tests will result in destruction of the castor.

To submit for tender assessment:

- 1 chair
  - 18” (46 cm)
- Submit copies of the following certificates to stipulate compliance with:
  - Durability testing certificate in accordance with standards outlined above with 100 kg test dummy for the 1 wheelchair stipulated.
  - Frame material - mild steel to be of a minimum yield of 375 MPA and a minimum tensile strength of 400 MPA.
  - Upholstery used = 600D Nylon
  - Upholstery reinforced with an inner PVC minimum specification of 500 g/m2

1.5.1. C CUSTOMISING OPTIONS FOR ADJUSTABLE FOLDING FRAME URBAN ACTIVE CHAIRS

1.5.1. C.1 One arm drive unit

A unit that can be fitted onto the rear axle of the frame and allows for propulsion of the wheelchair with either left or right hand only. The mounting frame or block should allow for positioning of the rear wheel axle to be in front of the original axle position. The connecting unit between the rear wheels should be a solid bar and have a quick release action to allow removal before folding the chair. The concertina type connecting bar will not be accepted.
This option must fit onto items 1.5.1

1.5.1. C.2 Anti-tip levers

Removable, length adjustable extensions that fit onto the tipping levers of the side frame to prevent backwards tipping of wheelchair; Quick release mechanism; Must be able to be mounted with anti-tip castor facing either down or up.
This option must fit onto items 1.5.1

1.5.1. C.3 43 cm seat extended seat upholstery

43 cm seat full length extended seat upholstery (short strip of upholstery not allowed) to lengthen original seat frames and seat. Upholstery screws to be provided.
This option must fit onto items 1.5.1

1.5.1. C.4 45 cm seat extension

45 cm seat full length extended seat upholstery (short strip of upholstery not allowed) to lengthen original seat frames and seat. Upholstery screws to be provided.
This option must fit onto items 1.5.1 and should be available in each size

1.5.1. C.5 47.5 cm seat extension

47.5 cm seat, with seat frame extension kit and full length extended seat upholstery (short strip of upholstery not allowed) to lengthen original seat frames and seat. Upholstery screws to be provided.
This option must fit onto items 1.5.1 and should be available in each size

1.5.1. C.6 Height adjustable desk arms

Height adjustable desk arms, removable, complete with mild steel skirt guard to fit basic folding frame manual pushchair. Length 40 cm, height adjustable range 160 – 320 mm measured from seat.
This option must fit onto items 1.5.1

1.5.1. C.7 Height adjustable full arms

Height adjustable desk arms, removable, complete with mild steel skirt guard to fit basic folding frame manual pushchair. Length 40 cm, height adjustable range 160 – 320 mm measured from seat.
This option must fit onto items 1.5.1

1.5.1. C.8 Nylon skirt guard

Nylon skirt guards (15 cm high x 25 cm long) that can be fitted onto seat and back of chair to protect clothes from dirt on wheels when no armrests are used.
This option must fit onto items 1.5.1

1.5.1. C.9 Bolt on foot rest

Small footplate (15 x 13 cm) without hanger, with attachment to be fitted directly onto front post of side frame of chair. Height adjustable.
This option must fit onto items 1.5.1

1.5.1. C.10 Elevating footrest hanger

Angle of footrest hanger to be adjustable between 0 degrees and 70 degrees of knee flexion; Height adjustable calf support; Fitted with adult, narrow or juvenile footplates as specified by end user.
This option must fit onto items 1.5.1

1.5.1. C.11 Rear wheels

1.5.1. C.11.1 Spoke wheel: 24 x 1 3/8”

24 x 1 3/8” rear wheel rim with spokes, mild steel, complete with semi-solid one-piece tyre
This option must fit onto items 1.5.1

1.5.1. C.11.2 Spoke wheel: 24 x 1¾”

24 x 1¾ rear wheel rim with spokes, mild steel, complete with semi-solid one-piece tyre.
This option must fit onto items 1.5.1

1.5.1. C.11 Front castors

1.5.1. C.12.1 Castor with Aluminium hub: 20 x 5 cm (8 x 2”)

8x2" (20 x 5 cm) castors with plastic hub, outer shore hardness of 65 – 70 and inner shore hardness of 33 – 70, with the inner value not exceeding the outer value. This option must fit onto items 1.5.1

1.5.1. C.11.2 Castor with plastic hub: 20 x 2.5 cm (8 x 1”)

20 x 2.5 cm (8 x 1”) castor with plastic hub and rubber tyre. This option must fit onto items 1.5.1

1.5.1. C.11.3 Castor with plastic hub: 20 x 5 cm (8 x 2”)

8x2" (20 x 5 cm) castors with plastic hub, outer shore hardness of 65 – 70 and inner shore hardness of 33 – 70, with the inner value not exceeding the outer value. This option must fit onto items 1.5.1

1.5. C.12 Universal head rest mounting bar

Universal bar that attaches in a horizontal position onto the back post/handles of the wheelchair to be fitted with a removable head rest.

Mounting to the chair: Quick release mechanism to allow folding of chair.

Secure attachment to ensure safety when used as push handle. Mount for head rest: Adjustable mount to allow 4cm +- 1cm offset left and right from central position. Should be adjustable. This option must fit on 1.5.1

1.5.2 Adjustable rigid frame wheelchairs, 4-wheeler urban active chair.

All items under 1.5.2 and 1.5.2C will be awarded as a series

A Wheelbase (Allow ± 1 cm)

B Overall length (Maximum, with footrest set fully extended, allowing 5 cm clearance from the ground.)

C Back upholstery height (measured from top of seat rail to top of back rest upholstery)

D Seat width measured from outside of one seat rail to outside of opposite seat rail

E Seat length measured from front of back post to front of seat upholstery. (Allow + 1 cm)

		30 cm with 30 cm seat rail	All other sizes
A	Wheelbase (with rear wheel in neutral position) (Allow ± 1 cm)	Standard frame is 33 ± 1 cm Long frame is 38 ± 1 cm	Standard frame wheelbase is 38 ± 1 cm Long frame is 43 ± 1 cm
C	Back upholstery height (measured from top of seat rail to top of back rest upholstery)	Low: 28 – 38 ± 1 cm Std back = 33 -43 ± 1 cm	Low: 28 – 38 ± 1 cm Std back = 33 -43 ± 1 cm
E	Seat length measured from front of back post to front of seat upholstery. (Allow + 1 cm)	Std frame: 30 + 1 cm Long frame: 40 + 1 cm	Std frame: 40 + 1 cm Long frame: 43 + 1 cm

Detailed specification description of category: Adjustable rigid frame wheelchairs, 4 wheeler urban active wheelchairs with standard or long frame

Size range:

1.5.2.1 Adjustable rigid frame, standard frame length

- 45 cm (17.7") wide
- 42.5 cm (16.7") wide
- 40 cm (15.7") wide
- 37.5 cm (14.7") wide
- 35 cm (13.8") wide
- 30 cm (11.8") wide with 40 cm seat frame length
- 30 cm (11.8") wide with 30 cm seat frame length
- 25 cm (10”) wide with 30 cm seat frame length but 25 cm seat

1.5.2.2 Adjustable rigid frame, long frame length

- 45 cm (17.7") wide
- 42.5 cm (16.7") wide
- 40 cm (15.7") wide
- 37.5 cm (14.7") wide
- 35 cm (13.8") wide
- 30 cm (11.8") wide with 40 cm seat frame length

Backrest / Seat configuration:

- Back to seat angle adjustable and not to exceed 85 - 100 degree range
- Seat angle adjustable, must be able to adjust to level (horizontal) position
- No bend in back post
- Back height: Low back = 28 – 38 + 1 cm, standard back = 33 -43 + 1 cm
- Push handles attached to back posts
- Seat length:
- 40 + 1 cm long on all chairs with standard frame.
- 43 + 1 cm on all chairs with long frame.
- Exception: 30 + 1 cm long on 30 cm (11.8") wide with 30 cm seat frame length and 25 + 1 cm on 25 cm (10”) wide with 30 cm seat frame length.
- Shorter length may be specified by end user.

Centre of gravity adjustability:

- Seat tilt -5% - +10%
- Adjustability of COG by changing both seat angle and either seat-back system horizontal and vertical position or changing wheel position both vertically and horizontally.
- Minimum of 5 horizontal settings, 1 negative, 1 neutral and 3 forward. (Seat or rear wheel). If infinitely adjustable, should have minimum adjustment range of 3 cm

Upholstery:

- Back upholstery: Tension adjustable back upholstery. 3-piece tension adjustable with major components and quality as specified under tension adjustable backrests in this tender.
- Seat upholstery: 40 + 1 cm long on all chairs with standard frame. 43 + 1 cm on all chairs with long frame. Shorter length may be specified by end user. Exception: 30 + 1 cm long on 30 cm (11.8") wide with 30 cm seat frame length or any shorter length as specified. Fabric to be Nylon (600 D). All seat upholstery to be reinforced with an inner PVC minimum spec of 500 g/m2.

Skirt guards:

- Skirt guards: Plastic to cover wheel area protruding above seat
- No arm rests

Castors and forks:

- Castors: 6 x 1" (15 x 2.5 cm)
- Stem to be fastened to the fork with a thread and nut system to allow for re-fastening.

Rear wheels and axles:

- 24" x 1 3/8 mag wheel with one part semi-solid tyre. Exception, 11.8” chair with 30 cm seat rail length and 25 cm (10") wide wheelchair to use 22” x 1 3/8 mag (standard) or spoke (optional) wheel complete with semi-solid one-piece tyre
- Quick release axles
- 12mm or 12.7 mm axle

Footrest hangers:

- Integral part of frame.

Foot rest:

- Non- flip-up, height adjustable with flat weight-bearing surface. On 11.8” and 10” chair, the footplate to be on 15 cm elevations.

Leg strap:

- Nylon strap (4 - 5 cm wide) with Velcro. The leg strap should have Velcro fitted to its full length to allow maximum adjustability.

Frame:

- Adjustable rigid frame
- Mild steel or aluminium
- Long frame is 5 cm longer than standard frame on all sizes except 30 cm with 30 cm seat rail, where difference is between 4 and 5 cm. The wheelbase is measured with castor fork pointing back to rear wheel from centre of castor to centre of rear wheel along the horizontal plane (as per diagram for basic folding frame chairs). Standard frame wheelbase is 38 + 1 cm. Long frame is 43 + 1 cm. For the 30 cm chair with 30 cm seat rail, the standard frame is 33 + 1 cm
- 30 cm (12") wide with 33 + 1 cm seat frame length and 25 cm (10") wide with 33 + 1 cm seat frame length have shorter wheelbase and overall length as the other sizes in this range

Guarantee:

- Frame guaranteed for a minimum of 3 years during appropriate use as stated per category

Weight:

- Not to exceed 16 kg (complete)
- 11.8” size not to exceed 14 kg complete

Tool kit:

- All adjustment tools
- 3 tension adjustable filler straps to allow for adjustment of back height

General requirement:

- Supplier must be able to provide chair with all of abovementioned options for back and seat upholstery, armrests, rear wheels, footrest hangers, and footrests. The end user will specify the desired option at the time of ordering. The different options available within each specification description must be fully interchangeable and available at the same price. Where the end user does not specify options the chair will be issued as in the option given first for the categories with more than one option.
- No part or component may be changed / deviate from the specifications set out in this document.

Standards

- Durability of chair must be in accordance with SANS 1060:2003 specifications for the rolled bed and seat sag differential tests.
- **The following chair to be submitted for testing:**
  - 45 cm (17.7”) chair to be tested at 100 kg.
- Dimensions of chair for width, seat length and back rest height must adhere to the specifications set out in this tender:
- Bearing spacer to be used in all bearing applications, i.e. rear wheel, front castor and castor stem.

To submit for tender assessment:

- 2 chairs
  - Two 44 cm (15.7”) chair with standard height back rest, one with standard and one with long frame
- Submit copies of the following certificates to stipulate compliance with:
  - Durability testing certificate in accordance with standards outlined above with 100 kg test dummy for the one wheelchair stated above.
  - Frame material - mild steel to be of a minimum yield of 375 MPA and a minimum tensile strength of 400 MPA.
  - Seat upholstery used = 600 D Nylon
  - Seat upholstery reinforced with an inner PVC minimum spec of 500 g/m2

1.5.2. C Customising options for adjustable rigid frame urban active chairs

1.5.2. C.1 43 cm extended seat length

43 cm extended seat upholstery, with seat frames and screws complete. The extended seat is a complete unit and a short strip of extended upholstery is not allowed.
This option must fit onto items 1.5.2.1 should be available in each size

1.5.2. C.2 45 cm extended seat length

45 cm extended seat upholstery, with seat frames and screws complete. The extended seat is a complete unit and a short strip of extended upholstery is not allowed.
This option must fit onto items 1.5.2.2 and should be available in each size

1.5.2. C.3 Short footplate hanger inserts

Special insert to increase the range of the standard footplate height in all chairs in 1.5.2.1 and 1.5.2.2.

1.5.2. C.4 Extended push handles

Extended T-handle style push handles with mounting mechanism to mount onto rear axle. Quick-lease mechanism to remove handles from chair and mounting mechanism.

1.6 Hybrid active chairs

A Wheelbase (Allow ± 1 cm)

B Overall length (Maximum, with footrest set fully extended, allowing 5 cm clearance from the ground.)

C Back upholstery height (measured from top of seat rail to top of back rest upholstery)

D Seat width measured from outside of one seat rail to outside of opposite seat rail

E Seat length measured from front of back post to front of seat upholstery. (Allow + 1 cm)

		30 cm with 30 cm seat rail	**All other sizes**
A	Wheelbase (Allow ± 1 cm)	Short wheelbase (active position): 59 ± 1 cm Long wheelbase (least active / safe): 67 ± 1 cm	Short wheelbase (active position): 68 ± 1 cm Long wheelbase (least active / safe): 76 ± 1 cm
C	Back upholstery height (measured from top of seat rail to top of back rest upholstery)	Low: 28 – 38 ± 1 cm Std back = 33 -43 ± 1 cm	Low: 28 – 38 ± 1 cm Std back = 33 -43 ± 1 cm
E	Seat length measured from front of back post to front of seat upholstery. (Allow + 1 cm)	30 + 1 cm	40 + 1 cm

1.6.1. Adjustable, 3-wheeler hybrid

All items under 1.6.1 and 1.6.1.C will be awarded as a series

Detailed specification description of category: Adjustable, 3-wheeler hybrid active wheelchairs

Size range:

- 45 cm (17.7") wide
- 42 cm (16.5") wide
- 40 cm (15.7") wide
- 38 cm (14.9") wide
- 36 cm (14.2") wide
- 34 cm (13.4”) wide
- 30 cm (11.8") wide with 40 cm seat frame length
- 30 cm (11.8") wide with 30cm seat frame length
- 25 cm (10”) wide with 25 cm seat frame length

Backrest / Seat configuration:

- Seat tilt: Adjustable
- Back to seat angle not to exceed 70 - 98 degrees
- No bend in back post
- Back height: Low back = 28 – 38 + 1 cm, standard back = 33 -43 + 1 cm
- Push handles attached to back posts
- Seat length:
  - Standard = 40 + 1 cm long on all chairs with 40 cm seat frame.
- Exception: 30 + 1 cm long on 30 cm (11.8") wide with 30 cm seat frame length and 25 + 1 cm long on 25 cm (10”) wide with 25 cm seat frame length
- Shorter length may be specified by end user.

Centre of gravity adjustability:

- Adjustability of COG by positioning rear wheel and tilting seat angle

Upholstery:

- Back upholstery: Tension adjustable back upholstery. 3-piece tension adjustable with major components and quality as specified under tension adjustable backrests in this tender.
- Seat length: Standard = 40 + 1 cm long on all chairs with 40 cm seat frame. Shorter length may be specified by end user. Exception: 30 + 1 cm long on 30 cm (11.8") wide with 30 cm seat frame length and 25 cm on 25 cm (10”) wide or any shorter length as specified. Fabric to be Nylon (600 D). All seat upholstery to be reinforced with an inner PVC minimum spec of 500 g/m2.

Skirt guards:

- Skirt guards: Plastic to cover wheel area protruding above seat
- No arm rests

Front Castors and forks:

- 8x2" (20 x 5 cm) castors with plastic hub, outer shore hardness of 65 – 70 and inner shore hardness of 33 – 70, with the inner value not exceeding the outer value. Alternative 8x2” (20 x 5 cm) rubber castors.

- Forks to be minimum 4 mm thick mild steel forks. Stem to be fastened to the fork with a thread and nut system to allow for re-fastening.

Rear wheels and axles:

- 24" x 1 3/8 mag wheel with one part semi-solid tyre. Exception, 12” chair with 30 cm seat rail length and 25 + 1 cm long on 25 cm (10”) wide with 25 cm seat frame length to use 22” x 1 3/8 mag (standard) or spoke (optional) wheel complete with semi-solid one-piece tyre.
- Quick release axles
- 2 degrees camber
- At least 3 vertical and 4 horizontal adjustments on rear wheel axle position
- Axle 12.7 mm thick

Footrest hangers:

- Integral part of frame.

Foot rest:

- Solid, flip-up, height adjustable.

Heel strap:

- Nylon heel strap (4 - 5 cm wide).

Guarantee:

- Frame and crossbars guaranteed for a minimum of 3 years during appropriate use as stated per category

Weight:

- Not to exceed 16 kg (complete). With rubber castor, allow +0.5kg.
- 12” not to exceed 14 kg

Tool kit:

- All adjustment tools
- 3 tension adjustable filler straps to allow for adjustment of back height

General requirement:

- Supplier must be able to provide chair with all of abovementioned options as specified. The end user will specify the desired option at the time of ordering. The different options available within each specification description must be fully interchangeable and available at the same price. Where the end user does not specify options the chair will be issued as in the option given first for the categories with more than one option.
- No part or component may be changed / deviate from the specifications set out in this document.

Frame:

- Adjustable three wheeler
- Rigid; mild steel or aluminium
- The wheelbase is measured with castor fork pointing back to rear wheel from centre of castor to centre of rear wheel along the horizontal plane (as per diagram for basic folding frame chairs). Short wheelbase (active position) is 68 + 1 cm. Long

wheelbase (least active / safe) is 76 + 1 cm. For the 30 cm chair with 30 cm seat rail, the range is 59 + 1 cm to 67 + 1 cm.

- Bearing spacer to be used in all bearing applications, i.e. rear wheel, front castor and castor stem.

Standard

- Durability of chair must be in accordance with SANS 1060:2003 specifications for the rolled bed and seat sag differential tests.
- The following chair must be submitted for testing:
  - 17.7” chair with 100 kg instead of 80 kg.
- Frame standard, no special reinforcements.
- Dimensions of chair for width, seat length and back rest height must adhere to the specifications set out in this tender:
- Random testing will be done on the 2” (5 cm) wide castors with plastic hubs to verify shore hardness. These tests will result in destruction of the castor.

To submit for tender assessment:

- 1 chair
  - 14.2” (36 cm)
- Submit copies of the following certificates to stipulate compliance with:
  - Durability testing certificate in accordance with standards outlined above with 100 kg test dummy for the 3 chairs stipulated.
  - Frame material - mild steel to be of a minimum yield of 375 MPA and a minimum tensile strength of 400 MPA.
  - Seat upholstery used = 600 D Nylon
  - Seat upholstery reinforced with an inner PVC minimum spec of 500 g/m2.

1.6.1. C CUSTOMISING OPTIONS FOR ADJUSTABLE 3-WHEELER HYBRID ACTIVE CHAIRS

1.6.1. C.1 43 cm extended seat length

43 cm extended seat upholstery, with seat frames and screws complete. The extended seat is a complete unit and a short strip extension of upholstery is not allowed. This option must fit onto items 1.6.1 and should be available in each size

1.6.1. C.2 45 cm extended seat length

45 cm extended seat upholstery, with seat frames and screws complete. The extended seat is a complete unit and a short strip extension of upholstery is not allowed.
This option must fit onto items 1.6.1 and should be available in each size

1.6.1. C.3 Extended push handles

Extended T-handle style push handles with mounting mechanism to mount onto rear axle. Quick-lease mechanism to remove handles from chair and mounting mechanism.

1.6.2 Adjustable folding frame, hybrid with long wheel base

(All items under 1.6.2 and 1.6.2.C will be awarded as a series)

Detailed specification description of category: Adjustable folding frame urban active wheelchairs

Size range:
- 51 cm (20”)
- 46 cm (18”)
- 41 cm (16”)
- 36 cm (14”)

Backrest / Seat configuration:
- Seat tilt: 8 degrees (Approximately 8 cm front and rear seat height differential on 40 cm seat length)
- Back to seat angle not to exceed 90 degrees
- No bend in back post
- Back height: 35 – 45 cm range adjustable
- Seat length:
  - Standard = 40 + 1 cm long on all chairs with 40 cm seat frame.
  - Shorter length may be specified by end user.

Centre of gravity adjustability:
- Adjustable by adjusting rear wheel position horizontally at least 5 positions

Upholstery:
- Back upholstery: Tension adjustable back upholstery. 3-piece tension adjustable with major components and quality as specified under tension adjustable backrests in this tender.
- Seat upholstery: Nylon (600 D) (40 cm long or any shorter length as specified). All seat upholstery to be reinforced with an inner PVC minimum spec of 500 g/m2.

Skirt guards:
- To be fitted with skirt guards

Castors and forks:
- 10 cm x 10 cm complete rubber unit
- Fitted with 37 x 12 mm bearings
- Stem to be fastened to the fork with a thread and nut system to allow for re-fastening.

Rear wheels and axles:
- 24 x 1 ¾ “mag or spoke wheel with one part semi-solid tyre or pneumatic
- Minimum of 6 rear wheel positions – safe, neutral and active
- Axle 12 mm thick

Footrest hangers:
- Footrest hanger fitted to frame / removable with tools.

Foot rest:
- Mild steel; Height adjustable, flip-up

Leg strap:
- Nylon strap (4 cm wide) with Velcro. The leg strap should have Velcro fitted to its full length to allow maximum adjustability.

Guarantee:

- Frame and crossbars guaranteed for a minimum of 3 years during appropriate use as stated per category

Frame:

- Folding frame
- Mild steel

Weight:

- Not to exceed 23 (complete)

Tool kit:

- 4 Rear wheel: bearings
- All adjustment tools
- 3 tension adjustable filler straps to allow for adjustment of back height

General requirement:

- Supplier must be able to provide chair with all of abovementioned options for back and seat upholstery, armrests, rear wheels, footrest hangers, and footrests. The end user will specify the desired option at the time of ordering. The different options available within each specification description must be fully interchangeable and available at the same price. Where the end user does not specify options the chair will be issued as in the option given first for the categories with more than one option.
- No part or component may be changed / deviate from the specifications set out in this document.

Standards

- Durability of chair must be in accordance with SANS 1060:2003 specifications for the rolled bed and seat sag differential tests.
- The following chair must be submitted for testing
    - 17.4” chair to be submitted for testing at 100 kg.
- Dimensions of chair for width, seat length and back rest height must adhere to the specifications set out in this tender:
- Bearing spacer to be used in all bearing applications, i.e. rear wheel, front castor and castor stem.

To submit for tender assessment:

- 1 chair
    - 16” (41 cm)
- Submit copies of the following certificates to stipulate compliance with:
    - Durability testing certificate in accordance with standards outlined above with 120 kg of the specified 1 wheelchair tested
    - Frame material - mild steel to be of a minimum yield of 375 MPA and a minimum tensile strength of 400 MPA.
    - Seat upholstery used = 600 D Nylon
    - Seat upholstery reinforced with an inner PVC minimum spec of 500 g/m2

1.6.2. C CUSTOMISING OPTIONS FOR ADJUSTABLE FOLDING FRAME HYBRID ACTIVE CHAIRS WITH LONG WHEELBASE

1.6.2. C.1 43 cm extended seat length

43 cm extended seat upholstery, with seat frames and screws complete. The extended seat is a complete unit and a short strip extension of upholstery is not allowed.
This option must fit onto items 1.6.2 and should be available in each size

1.6.2. C.2 45 cm extended seat length

45 cm extended seat upholstery, with seat frames and screws complete. The extended seat is a complete unit and a short strip extension of upholstery is not allowed.
This option must fit onto items 1.6.2 and should be available in each size

1.7 Rural active chairs

All items under 1.7.1 will be awarded as a series

1.7.1 Adjustable 3-wheeler

Detailed specification description of category: Adjustable, 3-wheeler rural active wheelchairs

Size range:

- 48 cm (18.9") wide
- 44 cm (17.3") wide
- 40 cm (15.7") wide
- 36 cm (14.2") wide

Backrest / Seat configuration:

- Back rest angle adjustable: settings 86, 90 and 94 degrees (Backrest angle relative to seat angle of 10 degrees from ground)
- No bend in back post
- Back height: Height adjustable backrest: to measure from solid seat Low back 38 cm, Tall back 47 cm
- Push handles attached to back posts
- Seat tilt: 10 degrees
- Seat length: To be specified by end user.
  48 cm (18.9") wide x 40, 44, 48 or 50 cm long
  44 cm (17.3") wide x 40, 44, 48 or 50 cm long
  40 cm (15.7") wide x 36, 40, 44, 48 or 50 cm long
  36 cm (14.2") wide x 36, 40, 44, 48 or 50 cm long

Centre of gravity adjustability:

- Adjustability of COG by positioning rear wheel in 2 positions within a 6, 5 cm range, i.e. safe / active.

Cushion:

- Pressure relief cushion contoured polyurethane foam with pre-ischial shelf. Cover fabric, waterproof, terry cloth cotton covered, 2-way stretch, breathable, anti-microbial shield (AEGIF) treatment, machine washable and can be dried in tumble drier and water resistant/ fire retardant nylon upholstery.

Upholstery:

- Back rest: Solid aluminium shell with shallow lateral walls, padded with open-cell, medium density foam of density 40 kg/m3, angular/height adjustment and adjustable sacral pad.
- Backrest cover removable either a combination of heavy duty lycra (220 g/m2 and yield 3.4m/kg) and 600D nylon or 200D nylon.
- Seat: solid plywood or polyethylene (6/8/10 mm thick appropriate to size) 36 cm – 48 cm - cut and setup to clients specifications.

Arm rests:

- Removable arm rests

Castors and forks:

- One rubber castor, size of 22 x 6 cm

Rear wheels and axles:

- 26 x 1 3/8" spoke wheel with one part semi-solid tyre
- Quick release axles
- 2 degrees camber

Footrest hangers:

- Integral part of frame.

Foot rest:

- Solid non slip height adjustable. Height adjustable range of 14 cm
- Leg position and foot angle adjustment

Leg strap:

- Heel, calf and toe straps

Frame:

- Rigid 3 wheeler. Minimum overall length with rear wheel in active position 120 + 2 cm
- Backrest - fold down
- The wheelbase is measured with castor fork pointing back to rear wheel from centre of castor to centre of rear wheel along the horizontal plane (as per diagram for basic folding frame chairs). Short wheelbase (active position) is 75 + 2 cm. Long wheelbase (least active / safe) is 81 + 2 cm.
- Frame material – aluminium to be grade 6061 T4 with minimum tensile strength of 150 MPA and minimum yield of 115 MPA. Mild steel with minimum yield of 215 MPA and tensile strength of 340 MPA.

Guarantee:

- Frame guaranteed for a minimum of 3 years during appropriate use as stated per category

Weight:

- Not to exceed 25 kg, complete

Tool kit:

- Adjustment tools

General requirement:

- In the specifications where more than 1 option is provided: Supplier must be able to provide chair with all of options as specified. The end user will specify the desired option at the time of ordering. The different options stated within each specification description must be fully interchangeable and available at the same price. Where the end user does not specify options the chair will be issued as in the option listed first.
- No part or component may be changed / deviate from the specifications set out in this document.

Standards

- Durability of chair must be in accordance with SANS 1060:2003 specifications for the rolled bed tests.
- The following chair must be submitted for testing:
  - 44 cm (17.3”) chair with 100 kg test dummy.
- Dimensions of chair for width, seat length and back rest height must adhere to the specifications set out in this tender:

To submit for tender assessment:

- 1 chair
  - 17.3” (44 cm)
- Submit copies of the following certificates to stipulate compliance with:
  - Durability testing certificate in accordance with standards outlined above with 100 kg test dummy for the chair stipulated.
  - Frame material – aluminium to be grade 6061 T4 with minimum tensile strength of 150 MPA and minimum yield of 115 MPA. Mild steel with minimum yield of 215 MPA and tensile strength of 340 MPA.
  - Back upholstery either a combination of heavy duty lycra (220 g/m^2 and yield 3.4m/kg) and 600D nylon or 200D nylon
  - Cushion cover upholstery anti-microbial shield (AEGIF) treatment,

1.8 Adjustable posture support chairs

1.8.1 Adjustable posture support chairs, self-propelling, with solid seat and detachable back system

(All items under 1.8.1 and 1.8.1.C will be awarded as a series)

1.8.1.1 Adjustable posture support chairs, self-propelling, with tension adjustable back with rigid, height adjustable full length laterals

Detailed specification description of category: Adjustable posture support chairs, self-propelling, with modular detachable Backrest / Seat system

Size range

- 8” Seat 200 mm wide x 175-250 mm adjustable depth
- 10” Seat 250 mm wide x 250-350 mm adjustable depth
- 12” short Seat 300 mm wide x 250-320 mm adjustable depth
- 12” standard Seat 300 mm wide x 300-400 mm adjustable depth
- 14” short Seat 350 mm wide x 250-350 mm adjustable depth
- 14” standard Seat 350 mm wide x 350-450 mm adjustable depth
- 16” standard Seat 400 mm wide x 350-450 mm adjustable depth
- 18” standard Seat 450 mm wide x 350-450 mm adjustable depth

Seat and frame configuration:

- If the chair is modular the seat system (combined seat and backrest with optional accessories such as headrest) will be separate from the base frame
- The chair or the base frame to be rigid or folding
- Infinite adjustable seat system tilt between 0 and minimum 30 degrees by means of a quick release mechanical or hydraulic option.
- The design should allow for COG adjustment either as a specific wheel/seat adjustment or by means of a mechanism which will always result in COG being safely within base of support.
- The design of the COG adjustment should allow for appropriate access to the rear wheel.

Seat module:

- The seat to back angle to be adjustable between 90° and 140°. Adjustment to be infinitely adjustable or have minimum 5 settings.
- The design should always allow the foot rests to be in line with the front of the seat after adjustment of seat depth
- Seat base must provide rigid support.
- The seat will have a length adjustable pelvic strap at 60°-90° angle over hips
- Width of pelvic strap for 12” and smaller-30mm
- Width of pelvic strap for 14” and bigger-.50mm
- 12” short and smaller sizes should allow for age appropriate hip abduction

Back post / Push handle requirements

- Top of Push handles must be a minimum 93.5cm from ground to top of push handles with 10cm height adjustability.
- Push handle may in no way restrict self-propelling, affect posture or set-up of back support system.

Armrests

- Armrests supplied as standard for chairs larger than 12” wide but can be removed as an option.
- Must be height adjustable with a minimum range of 100mm with 15mm increments (or infinitely adjustable) with the lowest height being 150mm from the top the seat.
- Must be adjustable forward/back and must allow for support directly below the elbows

Footrest:

- Height adjustable hanger with minimum 150 mm range (100mm on 12” chair and smaller) to allow for variations in user profile and seat length adjustments
- Must flip-up / fold up or must be detachable (not required on chairs smaller than 12”)
- Adequate rigidity and must have a non-slip surface

Tray-table:

- Lap tray to be supplied as standard for chairs smaller than 12” wide.
- Lap tray Optional device for chairs over 12”.
- Fitting for tray table to be provided on frame as standard.
- See specifications below under options.

Head support:

- Standard accessory
- Adjustable forward/back and up/down with a range of at least 100mm and 200mm respectively.

Front castors and forks:

- Front castor wheel diameter range: 100 mm and 200 mm (+2mm)
- Front castor wheel width range: 25 mm and 80 mm
- End user to specify castor width and diameter
- Stem to be fastened to the fork with thread and nut system to allow for re-fastening and adjusting.

Rear wheels and axles:

- Size 12” standard chair and larger: Minimum 24” x 1 3/8 diameter with one part semi-solid tyre
- Size 12” short chair and smaller: Minimum 20” x 1 3/8 diameter with one part semi-solid tyre or foam insert
- Optional pneumatic tyre
- To be fitted with quick-release axle

Anti-tip wheels

- Must be removable
- Should allow for adjustability to match the level of independence and balance of the user. Range of adjustability to allow for stability in static position and to adjust for the required degree of stability in propulsion and if applicable, when front castors are raised for obstacle clearance.

Guarantee:

- Frame guaranteed for a minimum of 3 years during appropriate use as stated per category.

Weight:

- Not to exceed 18 kg (complete, but without back system, tray table or head extension)
- 12” and under not to exceed 14 kg (complete, but without back system, tray table, or head support/extension)

Repair / tool kit:

- All tools required to adjust frame and back rest systems, as well as foot rest system will be supplied with the chair

General requirement:

- In the specifications where more than 1 option is provided: Supplier must be able to provide chair with all of options as specified. The end user will specify the desired option at the time of ordering. The different options stated within each specification description must be fully interchangeable and available at the same price. Where the end user does not specify options the chair will be issued as in the option listed first.
- No part or component may be changed / deviate from the specifications set out in this document.

Back system: Tension adjustable with rigid, height adjustable, full length laterals

- See specifications as for item 2.3.2. Size range up to 20” only.

Standards

- Durability of chair frame with standard TAB must be in accordance with SANS 1060:2003 specifications for the roller bed test.
- For the series, adjustable posture support chairs, self-propelling, the following chair must be submitted for testing:
    - Only one 18” (45 cm) chair with standard tension adjustable backrest t with 100 kg test dummy.
- Dimensions of chair for width, seat length and back rest height must adhere to the specifications set out in this tender.

To submit for tender assessment:

- 1 chairs
    - 16” (41 cm) with tension adjustable back with rigid, height adjustable full length laterals
- Submit copies of the following certificates to stipulate compliance with:
    - Durability testing certificate in accordance with standards outlined above with 100 kg test dummy for the chair stipulated.
    - Frame material - Material suppliers must comply with the relevant SAE standards. Cold Rolled tube suppliers must comply with SAE1010 standards or equivalent.
    - Densities as specified for both high density compressed (reconstituted flexible PU) foam and high density foam.
    - Upholstery for back rest covers, seat and other cushions as specified.

1.8.1.2 Adjustable posture support chairs, self-propelling, with adjustable modular back

Size range:

- Same as for chair in item 1.8.1.1 above. Size range from 12” to 18” only.

Back system: Adjustable modular back

- See specifications for item 2.3.4. Size range from 12” to 18” only.

Standards

- Durability of chair frame with standard TAB must be in accordance with SANS 1060:2003 specifications for the roller bed test.
- For the series, adjustable posture support chairs, self-propelling, the following must be submitted for testing:
  - Only one 18” (45 cm) chair with standard tension adjustable backrest to be submitted for testing with 100 kg test dummy.
- Dimensions of chair for width, seat length and back rest height must adhere to the specifications set out in this tender.

To submit for tender assessment:

- 1 chair
  - 14” (35 cm) with modular adjustable back
- Submit copies of the following certificates to stipulate compliance with:
  - Durability testing certificate in accordance with standards outlined above with 100 kg test dummy for the chair stipulated.
  - Frame material - Material suppliers must comply with the relevant SAE standards. Cold Rolled tube suppliers must comply with SAE1010 standards.
  - Foam for cushions as specified.
  - Upholstery for back rest covers, seat and other cushions as specified.

1.8.1. C CUSTOMISING OPTIONS FOR ALL CATEGORIES OF POSTURE CHAIR, SELF-PROPELLING

1.8.1. C.1 One arm drive unit

To be fitted onto the rear axle of the frame and allows for propulsion of the wheelchair with either left or right hand only. The connecting unit between the rear wheels should be a solid bar and have a quick release action to allow removal before folding the chair. The concertina type connecting bar will not be accepted. This option must fit onto items 1.8.1.1 – 2

1.8.1. C.2 Tray table

Size range: To fit posture support chairs in the above category

Description:
Easily removable, multi-purpose tray and provides stable surface. When attached, the surface extensions should provide support for the elbows but be sufficiently narrow not to inhibit self-propelling
When attached, the curve around the body should be cut in such a way to prevent a large opening between the body and the tray where the elbows, forearms or hands can slip through.

Thickness: Between 0.6 and 1.5cm

Material: Wood / plastic with washable vinyl top

Quality: Smooth, washable, splinter free surface

1.8.1. C.3 Tray table – padded

Size range: To fit posture chair in the above category

Description:
Easily removable multipurpose tray, that provide stable dynamic, non- slip surface. When attached, the extensions should provide full resting support for the elbows. When attached, the curve around the body should be cut to prevent a large opening between the body and the tray where the elbows, forearms or hands can slip through.

Thickness: Between 3.0 cm and 4.0 cm

Material:
Wood or plastic inner, 2.5cm high density compressed (reconstituted flexible PU) foam with washable stretch vinyl top – fully upholstered

1.8.1. C.3a Tray table –See through surface

Size range: To fit posture chair in the above category

Description:
Easily removable multi-purpose tray, when attached, the extensions should provide full resting support for the elbows. When attached, the curve around the body should be cut to prevent a large opening between the body and the tray where the elbows, forearms or hands can slip through.

Material: 0.8cm-1.5cm see through polycarbonate or acrylic type sheet

Quality: Smooth, washable, non-breakable, transparent

1.8.1. C.4 Head support, adjustable, basic occipital support only

- Minimum 2 sizes, small and standard
- Easily removable
- Height and depth adjustable
- Kidney shaped head support flexible and rake adjustable
- Moulded and padded
- Washable

1.8.1. C.5 Head support, adjustable, occipital and side support

- Minimum 2 sizes, small and standard
- Easily removable
- Height and depth adjustable
- Flexible and rake adjustable
- Moulded and padded
- Washable

1.8.1. C.6a Back system only, with tension adjustable back with rigid, height adjustable full length laterals (see item 1.8.1.1 for specifications)

1.8.1. C.6b Back system only, adjustable modular back height (see item 1.8.1.2 for specifications)

1.8.1. C.7 Frame only, manual self-propelling with front castors diameter and width specified by end user

1.8.1. C.8 Mobile (wheeled) compact ward base for seating system from range 1.8.1

- Incorporating wheels and/or castors on the four corners. Castors should be lockable or a minimum of 2 wheels will be supplied with locks or brakes.
- COG adjustable to safely accommodate recline and tilt options

1.8.1. C.9 Motorised Base Frame, with electronic hand control system only, for use with removable posture support seat system. Front wheel or rear wheel drive system for use with removable posture support system from range 1.8.1

Size options:

To fit chairs:

- 8” Seat 200 mm wide x 175-250 mm adjustable depth
- 10” Seat 250 mm wide x 250-350 mm adjustable depth
- 12” short Seat 300 mm wide x 250-320 mm adjustable depth
- 12” standard Seat 300 mm wide x 300-400 mm adjustable depth
- 14” short Seat 350 mm wide x 250-350 mm adjustable depth
- 14” standard Seat 350 mm wide x 350-450 mm adjustable depth
- 16” standard Seat 400 mm wide x 350-450 mm adjustable depth
- 18” standard Seat 450 mm wide x 350-450 mm adjustable depth

Frame:
- Accommodate COG adjustment
- Anti-tip levers
- Frame material - Material suppliers must comply with the relevant SAE standards. Cold Rolled tube suppliers must comply with SAE1010 standards or equivalent.
- Finish: Epoxy coated

Castor and forks:
- 8” x 2” (200 x 50mm) castor with plastic hub.
- Cast Aluminium fork, with top 10mm and sides tapering to 4mm.
- Forks to be attached to the castor stem by means of bolt system to allow for re-fastening of the stem.

Drive wheels and axles:
- Minimum 12” x 2”diameter tyres with deep treads.
- Can be changed manually from drive to free wheel through Dog clutch or Gear box release mechanism

Tray table –See through type- Supplied standard with the powerbase

Size range:
- To fit posture chair in the above category

Description:
- Easily removable multi-purpose tray
- When attached, the extensions should provide full resting support for the elbows.
- When attached, the curve around the body should be cut to prevent a large opening between the body and the tray where the elbows, forearms or hands can slip through.

Material: 0.8cm-1.5cm see through polycarbonate or acrylic type sheet

Quality: Smooth, washable, non-breakable, transparent

Controller:
- Electronic sensitivity – programmable speed and sensitivity control system
- Position adjustable vertical and horizontal
- Left or right hand control as specified by end user

Batteries
- 2 x 12 volt sealed lead acid batteries
- 2 x 36 Ah batteries

Motors

- DC motors 24 volt, 240- 320 peak Watt,
- Deep cycle 38 Amp hour sealed batteries and dedicated charger

Speed

- Average speed 6+ km/h

Range

- Average range 13 – 16 km

Guarantee:

- Frame for a minimum of 3 years during appropriate use as stated per category
- Electronics and motors guaranteed for a minimum of 1 year from issue during appropriate use as stated per category

Repair/ tool kit:

- 4 Rear wheel: bearings
- 4 Castors axle bearings
- 4 castor stem bearings
- Adjustment tools

1.8.2 Adjustable posture support chairs, self-propelling, with modular detachable seating system (buggy type)

(All items under 1.8.2 and 1.8.2.C will be awarded as a series)

Detailed specification description of category: Adjustable posture support chairs, self-propelling, with modular detachable seating system

Chair: Same as for chair in item 1.8.1.1 above.

Size Range:
The sizes below are maximum internal usable measurements of seat system and exclude postural seating supports but include the seat cushion.

- Seat width 170 - 230mm, depth 180 - 280mm, height 280 – 390mm
- Seat width 170 – 270mm, depth 230 – 340mm, height 350 – 450mm
- Seat width 220 – 280mm, depth 290 – 380mm, height 360 – 460mm

Seat System:
- Removable modular adjustable seating system
- Seating system to be removable/attachable without tools
- Aluminium, wood or plastic
- Trunk support: Minimum length 100mm for smallest size / 180mm for largest size. Trunk support independently adjustable vertically and horizontally. Padded with a minimum of 6mm non porous/ sealed cell foam.
- Lined/padded with minimum of 6mm non porous/ sealed cell foam
- Removable washable waterproof covers.
- Tilt in space up to 35 degrees
- Recline - Seat to back angle adjustable in range 90 to 140 degrees.
- Pelvic strap length adjustable, padded and at a 60-90 degree angle at the hips
- Width of pelvic straps for 12” and smaller-30mm
- Width of straps for 14” and bigger-50mm
- Seating systems allows for adaptation, build-up and customisation
- Set of modular positioning support wedges / inserts
- Seat cushion with / without abduction block as specified by end user: Top layer high density foam 2.5 - 5 cm thick; 36/20with hardness factor 18 – 21.6; Density 32.1-40 kg/m3). Base layer 2.5 cm high density compressed (reconstituted flexible PU) foam 1300; Hardness factor 52-63; Density 130 +10% kg/m3).
- (SANS 642 – 1976). Waterproof 2-way stretch, breathable cover with anti-microbial shield (AEGIF) treatment
- Seat length adjustable as specified
- Back height adjustable as specified
- Back support to accommodate thoracic spine or designed in such a way to accommodate user without causing any restriction / interference with self-propelling / posture.

Seat and frame configuration:

- The chair will be modular. The seat system (combined seat and backrest with optional accessories such as headrest) will be separate from the base frame
- The base frame to be rigid or folding
- Infinite adjustable seat system tilt between 0 and minimum 30 degrees
- Push handles minimum 93.5 cm from ground with 10cm height adjustability. For smaller sizes – adult should comfortably reach push handle. Push handle may in no way restrict self-propelling / affect posture / set-up of back support system.
- The design should allow for COG adjustment either as a specific wheel/seat adjustment or by means of a mechanism which will always result in COG being safely within base of support.

Front castors and forks:

- Seat width over 300mm: Front castor wheel diameter range: 100 mm and 200 mm (+2mm)
- Seat width under 300mm: Front castor wheel width range: 25 mm and 80 mm
- End user to specify castor with and diameter
- Stem to be fastened to the fork with thread and nut system to allow for re-fastening and adjusting.

Rear wheels and axles:

- Size 12” standard chair and larger: Minimum 24” x 1 3/8 diameter with one part semi-solid tyre
- Size 12” short chair and smaller: Minimum 20” x 1 3/8 diameter with one part semi-solid tyre or foam insert
- Optional pneumatic tyre
- To be fitted with quick-release axle

Anti-tip wheels

- Must be removable
- Should allow for adjustability to match the level of independence and balance of the user. Range of adjustability to allow for stability in static position and to adjust for the required degree of stability in propulsion and if applicable, when front castors are raised for obstacle clearance.

Footrest:

- Height adjustable hanger with minimum 150 mm range (100mm on 12” chair and smaller) to allow for variations in user profile and seat length adjustments
- Must flip-up / fold up or must be detachable
- Should allow for age appropriate hip abduction
- Will be constructed of rigid moisture and corrosion resistant material and must have a non-slip surface (e g. Rubber).

Lap Tray:

- Removable
- Height adjustable
- Basic, not padded. Vinyl covered
- To support elbows

Standards

- Durability of chair frame with standard TAB must be in accordance with SANS 1060:2003 specifications for the roller bed test.
- The following chair must be submitted for testing
  - Only 18” (45 cm) chair with standard tension adjustable backrest with 100 kg test dummy.
- Dimensions of chair for width, seat length and back rest height must adhere to the specifications set out in this tender.

To submit for tender assessment:

- 1 chair
  - 14” (35 cm) with modular adjustable back
- Submit copies of the following certificates to stipulate compliance with:
  - Durability testing certificate in accordance with standards outlined above with 100 kg test dummy for the chair stipulated.
  - Frame material - Material suppliers must comply with the relevant SAE standards. Cold Rolled tube suppliers must comply with SAE1010 standards.
  - Foam for cushions as specified.
  - Upholstery for back rest covers, seat and other cushions as specified.

1.8.2. C CUSTOMISING OPTIONS FOR ADJUSTABLE POSTURE SUPPORT CHAIRS, SELF-PROPELLING, WITH MODULAR DETACHABLE SEATING SYSTEM

1.8.2. C.1 Tray Table Basic

Size Range: To fit posture chair in the above category
Description:

- Easily removable multipurpose tray
- Provides stable non-slip surface
- When attached, the surface should provide adequate full resting support for the elbows
- When attached, the curves around the body should be cut in such a way as to prevent a large opening between the body and the tray where the elbow, forearms or hands can slip through.

Thickness: Between 0.6 and 1.5cm
Material: Wood, plastic with washable vinyl top
Quality: Smooth, washable, splinter free surface

1.8.2. C.2 Tray Table Padded

Size Range: To fit posture chair in the above category
Description:

- Easily removable multipurpose tray
- Provides stable, dynamic, non-slip surface
- When attached, the surface should provide full resting support for the elbows
- When attached, the curves around the body should be cut in such a way as to prevent a large opening between the body and the tray where the elbow, forearms or hands can slip through.

Thickness: Between 2.0cm and 3.0cm

Material:

- Wood or plastic inner, 2.5mm high density compressed (reconstituted flexible PU)foam with washable stretch vinyl top – fully upholstered

1.8.2. C.3 Head support, adjustable, basic occipital support only

- Minimum 2 sizes, small and standard
- Easily removable
- Height and depth adjustable
- Kidney shaped head support flexible and rake adjustable
- Moulded and padded
- Washable

1.8.2. C.4 Head support, adjustable, occipital and side support

- Minimum 2 sizes, small and standard
- Easily removable
- Height and depth adjustable
- Flexible and rake adjustable
- Moulded and padded
- Washable

1.8.2. C.5 Chest Strap

- Poly-cotton webbing, 100mm
- Two separate sections, adjustable, with 2 x 50mm D-ring (chromium plated, galvanised steel) male and female Velcro Loop Velcro immediately adjacent to hook Velcro
- Padding) attached to D-ring section, , extending beyond the D-ring and width of strap

1.8.2. C.6 Mobile (wheeled) compact base for seating system from range 1.8.2

- Incorporating wheels and/or castors on the four corners. Castors should be lockable or a minimum of 2 wheels will be supplied with locks or brakes.
- COG adjustable to safely accommodate recline and tilt options

1.8.2. C.7 Motorised base frame only - Front wheel or rear wheel drive with electronic hand control system for use with removable posture support system from range 1.8.2

Size options:

To fit chairs:

- Seat width 170 - 230mm, depth 180 - 280mm, height 280 – 390mm
- Seat width 170 – 270mm, depth 230 – 340mm, height 350 – 450mm
- Seat width 220 – 280mm, depth 290 – 380mm, height 360 – 460mm

Frame:

- Accommodate COG adjustment
- Anti-tip levers
- Frame material - mild steel to be of a minimum yield of 375 MPA and a minimum tensile strength of 400 MPA.
- Finish: Epoxy coated

Castor and forks:
- 8” x 2” (200 x 50mm) castor with plastic hub.
- Cast Aluminium fork, with top 10mm and sides tapering to 4mm.
- Forks to be attached to the castor stem by means of bolt system to allow for re-fastening of the stem.

Drive wheels and axles:
- Minimum 12”x2” diameter tyres with deep treads.
- Can be changed manually from drive to free wheel through Dog clutch or Gear box release mechanism

Tray table –See through type- Supplied standard with the powerbase

Size range:
- To fit posture chair in the above category

Description:
- Easily removable multi-purpose tray
- When attached, the extensions should provide full resting support for the elbows.
- When attached, the curve around the body should be cut to prevent a large opening between the body and the tray where the elbows, forearms or hands can slip through.

Material: 0.8cm-1.5cm see through polycarbonate or acrylic type sheet

Quality: Smooth, washable, non-breakable, transparent

Controller:
- Electronic sensitivity – programmable speed and sensitivity control system
- Position adjustable vertical and horizontal
- Left or right hand control as specified by end user

Batteries
- 2 x 12 volt sealed lead acid batteries
- Deep cycle 38 Amp hour sealed batteries and dedicated charger

Motors
- DC motors 24 volt, 240- 320 peak Watt,
- Gear ratio 1:32

Speed: Average speed 6+ km/h

Range
- Average range 13 – 16 km

Guarantee:

- Frame for a minimum of 3 years during appropriate use as stated per category
- Electronics and motors guaranteed for a minimum of 1 year from issue during appropriate use as stated per category

Repair/ tool kit:

- 4 Rear wheel: bearings
- 4 Castors axle bearings
- 4 castor stem bearings
- Adjustment tools

1.8.3 Adjustable posture support chairs, attendant propelled

(All items under 1.8.3 and 1.8.3.C will be awarded as a series)

1.8.3.1 Adjustable posture support chairs, attendant propelled with tension adjustable back with rigid, height adjustable full length laterals

Detailed specification description of category: Adjustable posture support chairs, attendant propelled, with modular detachable Backrest / Seat system

Size range

- 30 cm (12”) standard, Seat 300 mm wide x 300-400 mm deep
- 36 cm (14”) short, Seat 360 mm wide x 300-400 mm deep
- 36 cm (14”) standard, Seat 360 mm wide x 400-500 mm deep
- 41 cm (16”) standard, Seat 400 mm wide x 400-500 mm deep
- 46 cm (18”) standard, Seat 460 mm wide x 400-500 mm deep
- 51 cm (20”) standard, Seat 510 mm wide x 400-500 mm deep

Seat and frame configuration:

- If the chair is modular the seat system (combined seat and backrest with optional accessories such as headrest) will be separate from the base frame
- The base frame to be rigid or folding
- Infinite adjustable seat system tilt between 0 and minimum 35 degrees by means of a quick release mechanical or hydraulic option
- The design should allow for COG adjustment either as a specific wheel/seat adjustment or by means of a mechanism which will always result in COG being safely within base of support.

Seat module:

- The seat to back angle will be adjustable between 90° and 140
- The design should always allow the foot rests to be in line with the front of the seat after adjustment of seat depth
- Seat base must provide rigid support.
- The seat will have a length adjustable pelvic strap at 60-90 degree angle over hips.
- Width of pelvic strap for 12” and smaller-30mm
- Width of pelvic trap for 14” and bigger -50mm

Back post / Push handle requirements

- Top of Push handles must be a minimum 93.5cm from the ground to top of push handles with a 10cm height adjustability
- Push handle must be height adjustable by 10 cm
- Push handle may in no way restrict or affect posture or set-up of back support system.

Footrest rest:

- Height adjustable hanger with range of 100mm, flip-up footrests, detachable (tool for height and rake adjustment supplied).
- Will be constructed of rigid moisture and corrosion resistant material and must have a non-slip surface (e g. Rubber).

Tray-table:

- Standard device
- Removable.
- See specifications below under options.

Head support

- Provided with an adjustable basic occipital support / complex occipital support head support as specified by end user. If not specified, an adjustable basic occipital head support will be provided.

Head support, adjustable, basic occipital support only

- Minimum 2 sizes, small and standard
- Easily removable
- Height and depth adjustable
- Kidney shaped head support flexible and rake adjustable
- Moulded and padded
- Washable

Head support, adjustable, occipital and side support

- Minimum 2 sizes, small and standard
- Easily removable
- Height and depth adjustable
- Flexible and rake adjustable
- Moulded and padded
- Washable

Front castors and forks:

- Front castors 20 x 5 cm
- Stem to be fastened to the fork with thread and nut system to allow for re-fastening and adjusting.

Rear wheel:

- 24” x 1 3/8 Diameter with one part semi-solid tyre.

Guarantee:

- Frame guaranteed for a minimum of 3 years during appropriate use as stated per category.

Weight:

- Not to exceed 20 kg (complete, but without back system, tray table or head extension)

Repair / tool kit:

- All tools required to adjust frame and back rest systems, as well as foot rest system

General requirement:

- In the specifications where more than 1 option is provided: Supplier must be able to provide chair with all of options as specified. The end user will specify the desired option at the time of ordering. The different options stated within each specification description must be fully interchangeable and available at the same price. Where the end user does not specify options the chair will be issued as in the option listed first.
- No part or component may be changed / deviate from the specifications set out in this document.

Back system: Tension adjustable with rigid, height adjustable full length laterals

- See specifications for item 2.3.2. Only standard and tall options.

Standards

- Durability of chair frame with standard TAB must be in accordance with SANS 1060:2003 specifications for the roller bed test.
- The following chair must be submitted for testing:
  - Only one 18” (45 cm) chair with standard tension adjustable backrest with 100 kg test dummy.
- Dimensions of chair for width, seat length and back rest height must adhere to the specifications set out in this tender.

To submit for tender assessment:

- 1 chair
  - 16” (41 cm) with tension adjustable back with rigid, full length laterals
- Submit copies of the following certificates to stipulate compliance with:
  - Durability testing certificate in accordance with standards outlined above with 100 kg test dummy for the chair stipulated.
  - Frame material - Material suppliers must comply with the relevant SAE standards. Cold Rolled tube suppliers must comply with SAE1010 standards.
  - Densities as specified for both high density compressed (reconstituted flexible PU) foam and high density foam.
  - Upholstery for back rest covers, seat and other cushions as specified.

1.8.3.2 Adjustable posture support chairs, attendant propelled with rigid adjustable back

Chair:

Same size range as 1.8.3.1

Back system: Rigid adjustable back

- See specifications for item 2.3.3. Only tall and extra tall options.

Standards

- Durability of chair frame with standard TAB must be in accordance with SANS 1060:2003 specifications for the roller bed test.
- The following chair must be submitted for testing:
  - Only one 18” (45 cm) chair with standard tension adjustable backrest to be submitted for testing with 100 kg test dummy.
- Dimensions of chair for width, seat length and back rest height must adhere to the specifications set out in this tender.

To submit for tender assessment:

- 1 chair
  - 14” (36 cm) with rigid adjustable back
- Submit copies of the following certificates to stipulate compliance with:
  - Durability testing certificate in accordance with standards outlined above with 100 kg test dummy for the chair stipulated.
  - Frame material - Material suppliers must comply with the relevant SAE standards. Cold Rolled tube suppliers must comply with SAE1010 standards.
  - Densities as specified for both high density compressed (reconstituted flexible PU) foam and high density foam.
  - Upholstery for back rest covers, seat and other cushions as specified.

1.8.3.3 Adjustable posture support chairs, attendant propelled with adjustable modular back

Chair:

Same size range as 1.8.3.1

Back system: Adjustable modular back

- See specifications for item 2.3.4. Only up to size 18”.

Standards

- Durability of chair frame with standard TAB must be in accordance with SANS 1060:2003 specifications for the roller bed test.
- The following chair must be submitted for testing:
  - Only one 18” (45 cm) chair with standard tension adjustable backrest to be submitted for testing with 100 kg test dummy.
- Dimensions of chair for width, seat length and back rest height must adhere to the specifications set out in this tender:

To submit for tender assessment:

- 1 chair
  - 14” (36 cm) with modular adjustable back
  - Submit copies of the following certificates to stipulate compliance with:
  - Durability testing certificate in accordance with standards outlined above with 100 kg test dummy for the chair stipulated.
  - Frame material - Material suppliers must comply with the relevant SAE standards. Cold Rolled tube suppliers must comply with SAE1010 standards.
  - Densities as specified for both high density compressed (reconstituted flexible PU) foam and high density foam.
  - Upholstery for back rest covers, seat and other cushions as specified.

1.8.3. C CUSTOMISING OPTIONS FOR ADJUSTABLE POSTURE SUPPORT CHAIRS, ATTENDANT PROPELLED

1.8.3. C.1a Tray table - Basic

Size range: To fit posture chair in the above category.

Description:

Easily removable multi- purpose tray Provides stable non- slip surface When attached, the surface extensions should provide adequate full resting support for the elbows When attached, the curve around the body should be cut in such a way to prevent a large opening between the body and the tray where the elbows, forearms or hands can slip through.

Thickness: Between 0.6 and 1.5cm

Material: Wood, plastic with washable vinyl top

Quality: Smooth, washable, splinter free surface

1.8.3. C.1b Tray table – padded

Size range: To fit posture chair in the above category.

Description:

- Easily removable multi-purpose tray
- Provide stable, dynamic, non- slip surface
- When attached, the extensions should provide full resting support for the elbows.
- When attached, the curve around the body should be cut to prevent a large opening between the body and the tray where the elbows, forearms or hands can slip through.

Thickness: Between 2.0 cm and 3.0 cm

Material:

- Wood or plastic inner, 2.5cm high density compressed (reconstituted flexible PU) foam with washable stretch vinyl top – fully upholstered

1.8.3. C.1c Tray table –See through type- Supplied standard with the powerbase

Size range: To fit posture chair in the above category

Description:

- Easily removable multi-purpose tray
- When attached, the extensions should provide full resting support for the elbows.
- When attached, the curve around the body should be cut to prevent a large opening between the body and the tray where the elbows, forearms or hands can slip through.

Material: 0.8cm-1.5cm see through polycarbonate or acrylic type sheet

Quality: Smooth, washable, non-breakable, transparent

1.8.3. C.2 Head support, adjustable, basic occipital support only

- Easily removable
- Height and depth adjustable
- Kidney shaped head support flexible and rake adjustable
- Padded and covered in heavy gauge, removable, washable fabric

1.8.3. C.3 Head support, adjustable occipital and side support

- Easily removable
- Height and depth adjustable
- 4 point, hand shaped head support, flexible and rake adjustable
- Moulded and padded SVA

1.8.3. C.4 Chest strap, padded

- Poly-cotton webbing, 100mm
- Two separate sections, adjustable, with 2 x 50mm D-ring (chromium plated, galvanised steel) male and female Velcro Loop Velcro immediately adjacent to hook Velcro
- Padding) attached to D-ring section, , extending beyond the D-ring and width of strap

1.8.3. C.5 Thigh strap, padded

- Poly-cotton webbing, 50 mm wide.
- One section
- Length adjustable.
- 2 x 50 mm D-ring steel, epoxy coated to be attached to the seat mould
- Adjustable webbing sections with female Velcro to be 200 mm long. Hook Velcro 300 mm long on both ends, with loop Velcro 300 mm long immediately adjacent to hook Velcro. Padding (SVA 45) attached to contact areas of webbing.

1.8.3. C.6a Back system only, tension adjustable back with rigid, height adjustable full length laterals

1.8.3. C.6b Back system only, rigid adjustable back with laterals

1.8.3. C.6c Back system only, adjustable modular back height

1.8.3. C.7 Manual Frame only

1.8.3. C.8 Motorised base frame only - Front Wheel drive with electronic hand control system for use with removable posture support seat system

Size range: To accommodate support seating system from size 12” to 18”
Frame:

- Accommodate COG adjustment
- Anti-tip levers
- Frame material - mild steel to be of a minimum yield of 375 MPA and a minimum tensile strength of 400 MPA.
- Finish: Epoxy coated
-

Castor and forks:

- 8” x 2” (200 x 50mm) castor with plastic hub.
- Cast Aluminium fork, with top 10mm and sides tapering to 4mm
- Forks to be attached to the castor stem by means of bolt system to allow for re-fastening of the stem.

Front drive wheels and axles:

- 40 x 10 cm (16" x 4") tyres with deep treads.
- Can be changed manually from drive to free wheel through Dog clutch or Gear box release mechanism

Tray table –See through type- Supplied standard with the powerbase
Size range:

- To fit posture chair in the above category

Description:

- Easily removable multi-purpose tray
- When attached, the extensions should provide full resting support for the elbows.
- When attached, the curve around the body should be cut to prevent a large opening between the body and the tray where the elbows, forearms or hands can slip through.

Material:

- 0.8cm-1.5cm see through polycarbonate or acrylic type sheet

Quality:

- Smooth, washable, non-breakable, transparent

Controller:

- Electronic sensitivity – programmable speed and sensitivity control system
- Position adjustable vertical and horizontal position
- Left or right hand control as specified by end user

Batteries

- 2 x 12 volt sealed lead acid batteries
- 2 x Deep cycle 38 Amp hour sealed batteries and dedicated charger

Motors

- DC motors 24 volt, 240- 320 peak Watt,
- Gear ratio 1:32

Speed: Average speed 6+ km/h
Range: Average range 13 – 16 km
Guarantee:

- Frame for a minimum of 3 years during appropriate use as stated per category

- Electronics and motors guaranteed for a minimum of 1 year from issue during appropriate use as stated per category

Repair / tool kit:

- 4 Rear wheel: bearings
- 4 Castors axle bearings
- 4 castor stem bearings
- Adjustment tools

1.8.3. C.9 Motorised base frame only - Front Wheel drive with electronic chin control system, for use with removable posture support seat system

Size range:

- To accommodate support seating system from size 12” to 18”

Frame:

- accommodate COG adjustment
- Anti tip levers
- Frame material - mild steel to be of a minimum yield of 375 MPA and a minimum tensile strength of 400 MPA.
- Finish: Epoxy coated

Castor and forks:

- 8” x 2” (200 x 50mm) castor with plastic hub.
- Cast Aluminium fork, with top 10mm and sides tapering to 4mm.
- Forks to be attached to the castor stem by means of bolt system to allow for re-fastening of the stem.

Rear wheels and axles:

- Minimum 12”x2” diameter tyres with deep treads.
- Can be changed manually from drive to free wheel through Dog clutch or Gear box release mechanism

Tray table –See through type- Supplied standard with the powerbase

Size range:

- To fit posture chair in the above category

Description:

- Easily removable multi-purpose tray
- When attached, the extensions should provide full resting support for the elbows.
- When attached, the curve around the body should be cut to prevent a large opening between the body and the tray where the elbows, forearms or hands can slip through.

Material:

- 0.8cm-1.5cm see through polycarbonate or acrylic type sheet

Quality:

- Smooth, washable, non-breakable, transparent

Controller:

- Electronic sensitivity – programmable speed and sensitivity control system
- Position adjustable vertical and horizontal
- Left or right hand control as specified by end user

Batteries

- 2 x 12 volt sealed lead acid batteries
- 2 x Deep cycle 38 Amp hour sealed batteries and dedicated charger

Motors

- DC motors 24 volt, 240- 320 peak Watt,
- Gear ratio 1:32

Speed

- Average speed 6+ km/h

Range

- Average range 13 – 16 km

Guarantee:

- Frame for a minimum of 3 years during appropriate use as stated per category
- Electronics and motors guaranteed for a minimum of 1 year from issue during appropriate use as stated per category

Repair / tool kit:

- 4 Rear wheel: bearings
- 4 Castors axle bearings
- 4 castor stem bearings
- Adjustment tools

1.9 Motorised chairs

(All items under 1.9and 1.9.C will be awarded as a series)

1.9.1 Motorised chairs, folding frame, standard back height with hand control.

1.9.2 Motorised chairs, folding frame, tall back height with hand control.

1.9.3 Motorised chairs, adjustable folding frame, with adjustable tilt in space with hand control.

Detailed specification description of category 1.9.1 and 19.2: Basic folding frame, standard and tall back height motorised chairs

Size range:

- 51 cm (20") wide
- 46 cm (18") wide
- 41 cm (16") wide
- 38 cm (15") wide
- 36 cm (14") wide
- 34 cm (13") wide with 40 cm seat frame length
- 34 cm (13") wide with 30 cm seat frame length

Backrest / Seat configuration:

- Seat tilt: 5 degree minimum and 8 degree maximum (Approx minimum of 3.5 cm and maximum of 5.7 cm front and rear seat height differential on 40 cm seat length)
- Back to seat angle not to exceed 90 degrees
- 8 - 10 degree bend in back post
- Standard back height: 42.5 ± 2.5 or max 45 cm on all. Exception: 30 cm (12") wide with 30 cm seat frame length which is 32.5 ± 2.5 or max 35
- Tall back height: 52.5 ± 2.5 or max 55 cm on all. Exception: 30 cm (12") wide with 30 cm seat frame length which is 42.5 ± 2.5 or max 45
- Seat length: standard = 40 + 1 cm long on all chairs with 40 cm seat frame. Shorter length may be specified by end user. Exception: 30 cm + 1 cm long on 30 cm (12") wide with 30 cm seat frame length

Upholstery:

- Back upholstery: Tension adjustable back upholstery. 3-piece tension adjustable as specified under tension adjustable backrests in this tender.
- Seat upholstery: Nylon (600 D) or vinyl (40 cm long or any shorter length as specified). All back and seat upholstery to be reinforced with an inner PVC minimum spec of 500 g/m^2. . (Re-inforced chairs as specified will therefore have a second, outer layer of PVC for additional reinforcement. Reinforcement by means of strips not acceptable.)

Armrests:

- Removable height adjustable desk mild steel skirt guard
- Arm rest sockets to be on side of seat rail only.
- Shape of arm rests may in no way impede the fitting of commercial rigid adjustable back systems onto back posts.

Castors and forks:

- 8x2" (20 x 5 cm) castors with aluminium hub, and outer shore hardness of 65 – 70 and inner shore hardness of 33 – 70, with the inner value not exceeding the outer value. Alternative 8x2” (20 x 5 cm) rubber castors.

- Forks to be minimum 4 mm thick mild steel forks. Stem to be fastened to the fork with a thread and nut system to allow for re-fastening.

Rear wheels and axles:

- 31 x 5 cm (12" x 2") Semi solid tyres with deep treads. Can be changed manually from drive to free wheel through Dog clutch or Gear box release mechanism

Footrest hangers:

- Extra-short (15 cm), short (20 cm), long (25 cm) or fully detachable 90 degree hangers with angle adjustable footplates as specified by end user.

Foot rest:

- Plastic, aluminium or mild steel; Height adjustable

Leg strap:

- Nylon strap (4 – 5 cm wide) with Velcro. The leg strap should have Velcro fitted to its full length to allow maximum adjustability.

Controller:

- Adjustable vertical and horizontal position
- Chin, left or right hand control as specified by end user (the chin control in this instance will be a hand controller positioned at the chin)

Battery tray:

- Removable

Batteries

- 2 x 12 volt sealed lead acid batteries
- 2 x 36 Ah batteries
- Motor strength 2 x 280 – 350 W
- Charger included

Brakes

- Full automatic magnetic safety brakes

Speed

- Average speed 6+ km/h

Range

- Average range 13 – 16 km

Grade climbing

- 12 degrees

Guarantee:

- Frame and crossbars guaranteed for a minimum of 3 years during appropriate use as stated per category
- Electronics and motors guaranteed for a minimum of 1 year during appropriate use as stated per category

Weight:

- Not to exceed 70 kg (complete). Allow +1 kg with rubber castors.

Repair / tool kit:

- 4 Rear wheel: bearings
- 4 Castors: axle bearings

- 4 castor stem bearings
- 4 seat guides (where applicable)
- Adjustment tools

General requirement:

- Supplier must be able to provide chair with all of abovementioned options for back and seat upholstery, armrests, rear wheels, footrest hangers, and footrests. The end user will specify the desired option at the time of ordering. The different options available within each specification description must be fully interchangeable and available at the same price. Where the end user does not specify options the chair will be issued as in the option given first for the categories with more than one option.
- No part or component may be changed / deviate from the specifications set out in this document.

Frame:

- Basic, non-adjustable folding frame
- Anti-tip levers
- Frame material - mild steel to be of a minimum yield of 375 MPA and a minimum tensile strength of 400 MPA.
- Frame to be zinc phosphate rust protected prior to powder coating
- Finish: Epoxy coated
- Back rest metal tubing wall thickness to be 1.6 mm.
- X-bars to be constructed of tubing with a minimum of 25 mm diameter and 2 mm wall thickness.

Standards

- Durability of chair must be in accordance with SANS 1060:2003 specifications for the rolled bed and seat sag differential tests. Exception: Weight of test dummy to be 120 kg instead of 80 kg.
- The following chairs to be submitted for testing:
  - 18” chair standard back rest. Chair to be tested as manual wheelchair.
- Dimensions of chair for width, seat length and back rest height must adhere to the specifications set out in this tender:
- Frame to be zinc phosphate rust protected prior to powder coating.
- Back rest tubes to be 1.6 mm wall thickness.
- X-bars to be a minimum of 25 mm diameter and 2 mm wall thickness.
- Forks to be a minimum of 4 mm thick wall.
- Upholstery to be reinforced with an inner PVC minimum spec of 500 g/m2.
- Bearing spacer to be used in all bearing applications, i.e. rear wheel, front castor and castor stem.
- Random testing will be done on the 2” (5 cm) wide castors with plastic and aluminium hubs to verify shore hardness. These tests will result in destruction of the castor.

To submit for tender assessment:

- 4 chairs
  - Tall back: 18” (46 cm)
- Samples cut through to demonstrate:
  - Side frame to demonstrate back rest to be 1.6 mm wall thickness.
  - X-bars to be a minimum of 25 mm diameter and 2 mm wall.

- Submit copies of the following certificates to stipulate compliance with:
  - Durability testing certificate in accordance with standards outlined above with 120 kg test dummy for the chair stipulated.
  - Frame material - mild steel to be of a minimum yield of 375 MPA and a minimum tensile strength of 400 MPA.
  - Back upholstery: Tension adjustable back upholstery. 3-piece tension adjustable as specified under tension adjustable backrests in this tender.
  - Seat upholstery 600D Nylon.
  - Upholstery reinforced with an inner PVC minimum spec of 500 g/m2

1.9.3 Motorised chairs, Adjustable folding frame with adjustable tilt in space and adjustable backrest height

Detailed specification description of category: Motorised chairs, Adjustable folding frame with adjustable tilt in space and adjustable backrest height

Size range:

- 51 cm (20") wide with 43 + 1 cm seat frame length
- 46 cm (18") wide with 43 + 1 cm seat frame length
- 41 cm (16") wide with 43 + 1 cm seat frame length
- 38 cm (15") wide with 43 + 1 cm seat frame length
- 36 cm (14") wide with 43 + 1 cm seat frame length
- 30 cm (12") wide with 43 + 1 cm seat frame length
- 30 cm (12") wide with 33 + 1 cm seat frame length
- 25 cm (10") wide with 33 + 1 cm seat frame length

Backrest / Seat configuration:

- Seat tilt: Adjustable, secondary to centre of gravity adjustment of chair
- Back to seat angle not to exceed 90 degrees
- Angle in back post to be 8 - 10 degree
- Back height: Adjustable 35 cm – 45 cm, 40 cm – 50 cm and 45 cm – 55 cm. The back range of the 2 smallest sizes is 35 – 45 cm only and has the 8 – 10 degree bend in the back post.
- Seat length:
  - Standard = 40 + 1 cm long as std, with option to be fitted with 44 + 1 cm seat on 43 cm seat rail.
  - For the 12” with 33 cm seat rail, the standard = 30 + 1 cm long as std, with option to be fitted with 33 + 1 cm seat.
  - For the 10“with 33 cm seat rail, the standard = 25 + 1 cm long as std. Shorter length may be specified by end user.

Centre of gravity adjustability:

- Adjustable by adjusting rear wheel position horizontally and vertical (at least 3 settings each way)
- Adjustable by adjusting rear wheel - at least 3 settings for vertical and horizontal
- The adjustment range of the front castor should ensure that the castor stem remains perpendicular to the ground at all times within the available tilt in space range.

Upholstery:

- Back upholstery: Tension adjustable back upholstery. 3-piece tension adjustable with major components and quality as specified under tension adjustable backrests in this tender.
- Seat upholstery: Nylon (600 D) (40 cm long or any shorter length as specified). All seat upholstery to be reinforced with an inner PVC minimum spec of 500 g/m2

Armrests:

- Flip back, removable sport, full or desk with plastic skirt guard
- Shape of arm rests may in no way impede the fitting of commercial rigid adjustable back systems onto back posts.

Castors and forks:

- 8x1" (20 x 2.5 cm) or 8x2" (5 x 20 cm) castors as specified by end user
- 8x2" (20 x 5 cm) castors with plastic hub, outer shore hardness of 65 – 70 and inner shore hardness of 33 – 70, with the inner value not exceeding the outer value.
- Matching adjustments of the front castor to equal any adjustments done to the rear wheel position.
- Forks to be minimum 4 mm thick mild steel forks. Stem to be fastened to the fork with a thread and nut system to allow for re-fastening.

Rear wheels and axles:

- 31 x 5 cm (12" x 2") Semi solid tyres with deep treads. Can be changed manually from drive to free wheel through Dog clutch or Gear box release mechanism
- Vertical and horizontal adjustments of rear wheel (at least 3 settings each way)

Footrest hangers:

- Extra-short (15 cm), short (20 cm), long (25 cm) or fully detachable 90 degree hangers with angle adjustable footplates as specified by end user.

Foot rest:

- Footplate to be plastic, aluminium or mild steel; Height adjustable

Leg strap:

- Nylon strap (4 - 5 cm wide) with Velcro. The leg strap should have Velcro fitted to its full length to allow maximum adjustability.

Controller:

- Adjustable vertical and horizontal position
- Chin, left or right hand control as specified by end user (the chin control in this instance will be a hand controller positioned at the chin)

Battery tray:

- Removable

Batteries

- 2 x 12 volt sealed lead acid batteries
- 2 x 36 Ah batteries
- Motor strength 2 x 280 – 350 W
- Charger included

Brakes

- Full automatic magnetic safety brakes

Speed

- Average speed 6+ km/h

Range

- Average range 13 – 16 km

Grade climbing

- 12 degrees

Guarantee:

- Frame and crossbars guaranteed for a minimum of 3 years during appropriate use as stated per category
- Electronics and motors guaranteed for a minimum of 1 year during appropriate us

Frame:

- Adjustable, folding frame
- Aluminium / mild steel
- 30 cm (12") wide with 33 + 1 cm seat frame length and 25 cm (10") wide with 33 + 1cm seat frame length have shorter wheelbase and overall length as the other sizes in this range

Weight:

- Not to exceed 70 kg (complete), Allow +1kg with rubber castors

Repair kit:

- 4 Rear wheel: bearings
- 4 Castors: axle bearings
- 4 castor stem bearings
- 4 seat guides (where applicable)
- Adjustment tool

General requirement:

- Supplier must be able to provide chair with all of abovementioned options for back and seat upholstery, armrests, rear wheels, footrest hangers, and footrests. The end user will specify the desired option at the time of ordering. The different options available within each specification description must be fully interchangeable and available at the same price. Where the end user does not specify options the chair will be issued as in the option given first for the categories with more than one option.
- No part or component may be changed / deviate from the specifications set out in this document.

Standards

- Durability of chair must be in accordance with SANS 1060:2003 specifications for the rolled bed and seat sag differential tests. 18” chair to be submitted for testing at 100 kg.
- Dimensions of chair for width, seat length and back rest height must adhere to the specifications set out in this tender:
- Bearing spacer to be used in all bearing applications, i.e. rear wheel, front castor and castor stem.
- Random testing will be done on the 2” (5 cm) wide castors with plastic and aluminium hubs to verify shore hardness. These tests will result in destruction of the castor.

To submit for tender assessment:

- 1 chair
  - 18” (46 cm)
- Submit copies of the following certificates to stipulate compliance with:
  - Durability testing certificate in accordance with standards outlined above with 100 kg test dummy for the 1 wheelchair stipulated.
  - Frame material - mild steel to be of a minimum yield of 375 MPA and a minimum tensile strength of 400 MPA.
- Upholstery used = 600D Nylon
- Upholstery reinforced with an inner PVC minimum specification of 500 g/m2

1.9. C. Customizing Options for motorised chairs

1.9. C.1 Dedicated chin controller:

Dedicated chin controller. On chin mount with adjustable vertical and horizontal position.

This option must fit onto items 1.9

1.9. C.2 45 cm seat extension

45 cm seat, with seat frame extension kit and full length extended seat upholstery (short strip of upholstery not allowed) to lengthen original seat frames and seat. Upholstery screws to be provided.
This option must fit onto items 1.7 and should be available in each size, except for the 30 cm (12") wide with 30 cm seat frame length.
This option must fit onto items 1.9 and available in each size

1.9. C.3 47.5 cm seat extension

47.5 cm seat, with seat frame extension kit and full length extended seat upholstery (short strip of upholstery not allowed) to lengthen original seat frames and seat. Upholstery screws to be provided.
This option must fit onto items 1.7 and should be available in each size, except for the 30 cm (12") wide with 30 cm seat frame length.
This option must fit onto items 1.9 and available in each size

1.9. C.4 Bolt on footrest

Small footplate (15 x 13 cm) without hanger, with attachment to be fitted directly onto side frame of chair. Height adjustable.
This option must fit onto items 1.9

1.9. C.5 Elevating footrest hanger

Angle of footrest hanger to be adjustable between 0 degrees and 70 degrees of flexion; Height adjustable calf support; Fitted with adult, narrow or juvenile footplates as specified by end user.
This option must fit onto items 1.9

1.9. C.6 Head support, adjustable, basic occipital support only

- Easily removable
- Height and depth adjustable
- Kidney shaped head support flexible and rake adjustable
- Padded and covered in heavy gauge, removable, washable fabric. This option must fit onto item 1.9

1.9.3. C.7 Head support, complex adjustable (hand shaped)

- Easily removable

- Height and depth adjustable
- 4 point, hand shaped head support, flexible and rake adjustable
- Moulded and padded SVA

1.9.3. C.8 Chest strap, padded

- Poly-cotton webbing, 100mm
- Two separate sections, adjustable, with 2 x 50mm D-ring (chromium plated, galvanised steel) male and female VelcroLoop Velcro immediately adjacent to hook Velcro
- Padding) attached to D-ring section, , extending beyond the D-ring and width of strap

1.9.3. C.9 Thigh strap, padded

- Poly-cotton webbing, 50 mm wide.
- One section
- Length adjustable.
- 2 x 50 mm D-ring steel, epoxy coated to be attached to the seat mould
- Adjustable webbing sections with female Velcro to be 200 mm long. Hook Velcro 300 mm long on both ends, with loop Velcro 300 mm long immediately adjacent to hook Velcro. Padding (SVA 45) attached to contact areas of webbing.

1.9.3. C.10a Back system only, tension adjustable back with rigid, height adjustable full length laterals

1.9.3. C.10b Back system only, rigid adjustable back with laterals

1.9.3. C.10c Back system only, adjustable modular back height

1.9.3. C.11 Manual Frame only

1.9.3. C.8 Motorised base frame only - Front Wheel drive with electronic hand control system for use with removable posture support seat system

Size range:

- To accommodate support seating system from size 12” to 18”

Frame:

- Accommodate COG adjustment
- Anti-tip levers
- Frame material - mild steel to be of a minimum yield of 375 MPA and a minimum tensile strength of 400 MPA.
- Finish: Epoxy coated

Castor and forks:

- 8” x 2” (200 x 50mm) castor with plastic hub.
- Cast Aluminium fork, with top 10mm and sides tapering to 4mm

- Forks to be attached to the castor stem by means of bolt system to allow for re-fastening of the stem.

Front drive wheels and axles:

- 40 x 10 cm (16" x 4") tyres with deep treads.
- Can be changed manually from drive to free wheel through Dog clutch or Gear box release mechanism

Tray table –See through type- Supplied standard with the powerbase

Size range:

- To fit posture chair in the above category

Description:

- Easily removable multi-purpose tray
- When attached, the extensions should provide full resting support for the elbows.
- When attached, the curve around the body should be cut to prevent a large opening between the body and the tray where the elbows, forearms or hands can slip through.

Material: 0.8cm-1.5cm see through polycarbonate or acrylic type sheet

Quality: Smooth, washable, non-breakable, transparent

Controller:

- Electronic sensitivity – programmable speed and sensitivity control system
- Position adjustable vertical and horizontal position
- Left or right hand control as specified by end user

Batteries

- 2 x 12 volt sealed lead acid batteries
- 2 x Deep cycle 38 Amp hour sealed batteries and dedicated charger

Motors

- DC motors 24 volt, 240- 320 peak Watt,
- Gear ratio 1:32

Speed

- Average speed 6+ km/h

Range

- Average range 13 – 16 km

Guarantee:

- Frame for a minimum of 3 years during appropriate use as stated per category
- Electronics and motors guaranteed for a minimum of 1 year from issue during appropriate use as stated per category

Repair / tool kit:

- 4 Rear wheel: bearings
- 4 Castors axle bearings
- 4 castor stem bearings
- Adjustment tools

1.9.3. C.9 Motorised base frame only - Front Wheel drive with electronic chin control system, for use with removable posture support seat system

Size range: To accommodate support seating system from size 12” to 18”

Frame:
- accommodate COG adjustment
- Anti-tip levers
- Frame material - mild steel to be of a minimum yield of 375 MPA and a minimum tensile strength of 400 MPA.
- Finish: Epoxy coated

Castor and forks:
- 8” x 2”(200 x 50mm) castor with plastic hub.
- Cast Aluminium fork, with top 10mm and sides tapering to 4mm.
- Forks to be attached to the castor stem by means of bolt system to allow for re-fastening of the stem.

Front wheels and axles:
- 40 x 10 cm (16" x 4") tyres with deep treads.
- Can be changed manually from drive to free wheel through Dog clutch or Gear box release mechanism

Tray table: See through type- Supplied standard with the powerbase

Size range: To fit posture chair in the above category

Description:
- Easily removable multi-purpose tray. When attached, the extensions should provide full resting support for the elbows. When attached, the curve around the body should be cut to prevent a large opening between the body and the tray where the elbows, forearms or hands can slip through.

Material: 0.8cm-1.5cm see through polycarbonate or acrylic type sheet

Quality: Smooth, washable, non-breakable, transparent

Controller:
- Electronic sensitivity – programmable speed and sensitivity control system
- Position adjustable vertical and horizontal
- Left or right hand control as specified by end user

Batteries
- 2 x 12 volt sealed lead acid batteries
- 2 x Deep cycle 38 Amp hour sealed batteries and dedicated charger

Motors DC motors 24 volt, 240- 320 peak Watt, Gear ratio 1:32

Speed: Average speed 6+ km/h

Range: Average range 13 – 16 km

Guarantee:
- Frame for a minimum of 3 years during appropriate use as stated per category

- Electronics and motors guaranteed for a minimum of 1 year from issue during appropriate use as stated per category

Repair / tool kit:

- 4 Rear wheel: bearings
- 4 Castors axle bearings
- 4 castor stem bearings
- Adjustment tools

1.10 Motorised chairs
Heavy duty rigid frame

(All items under 1.10 and 1.10.C will be awarded as a series)

Detailed specification description of category: Motorised chairs, Heavy duty rigid frame

Size range:

- 51 cm (20") standard, Seat 510 mm wide x 400-550 mm deep
- 46 cm (18") standard, Seat 460 mm wide x 400-550 mm deep
- 41 cm (16") standard, Seat 410 mm wide x 400-550 mm deep
- 36 cm (14") standard, Seat 360 mm wide x 400-550 mm deep

Backrest / Seat configuration:

- Seat system tilt (back and seat unit combined): Manual, adjustable tilt in space
- Seat system tilt in space infinitely adjustable between 0 and minimum 20 degrees
- Centre of gravity settings a range of 4x2 adjustments (8 total settings)
  - Seat back angle at pelvis not to exceed 90 degrees
- Adjustable seat height range from 45cm – 50 cm, measured at rear of seat at 0 degree tilt.
  - Backrest height, measured from rear of seat, 45 cm- 65 cm adjustable range. Push handle may in no way affect posture / set-up of back support system.
- Minimum 10 degree bend in back post to accommodate thoracic spine or designed in such a way to accommodate the back system at the required degree of recline without causing any restriction / interference with posture.
- Seat length adjustable forward by a minimum of 150 mm from minimum length
- Strap: Pelvic, angle at 45 degrees over hips

Upholstery:

- Back upholstery: Tension adjustable back upholstery. 3-piece tension adjustable with major components and quality as specified under tension adjustable backrests in this tender.

Seat upholstery:

- Seat base material to be moisture and corrosion resistant and must provide rigid support.
- Length adjustable as specified under size range above.

Armrests:

- Removable full or desk with mild steel skirt guard
- Shape of arm rests may in no way impede the fitting of commercial rigid adjustable back systems onto back posts

Castors and forks

- 9x3" (23 x 7.5 cm) or 8x2" (20 x 5 cm) castors with aluminium hub, and outer shore hardness of 65-70 and inner shore hardness of 33-70, with the inner value not exceeding the outer value. Castors as specified by end user
- Matching adjustments of the front castor to equal any adjustments done to the rear wheel position.

- Forks to be minimum 4 mm thick mild steel forks. Castor stem need to be between 15-17mm. Stem to be fastened to the fork with a thread and nut system to allow for re-fastening.

Rear wheels and axles:

- 11”-14.5”diameter x 3.5” width, solid or pneumatic tyres. Can be changed manually from drive to free wheel through Dog clutch or Gear box release mechanism

Anti-tip levers:

- Removable or flip up and adjustable in length
- 10 cm x 3.5 cm (4”x 1.4”)

Footrest hangers:

- Extra-short (15 cm), short (20 cm), long (25 cm) or fully detachable 90 degree hangers with angle adjustable footplates as specified by end user.

Foot rest:

- Footplate to be plastic, aluminium or mild steel; Height adjustable

Leg strap:

- Nylon strap (4 - 5 cm wide) with Velcro. The leg strap should have Velcro fitted to its full length to allow maximum adjustability.

Controller:

- Adjustable vertical and horizontal position
- Chin, left or right hand control as specified by end user

Battery tray:

- Removable

Batteries

- 2 x 12 volt sealed lead acid batteries
- Minimum capacity 2 x 48 Ah batteries
- Minimum Motor strength 2 x 450 – 700 W
- Minimum amperage 50+ Amp
- Charger included 6 Amp

Brakes

- Full automatic magnetic safety brakes

Speed

- Average speed 6+ km/h

Range

- Average range 20+ km

Grade climbing

- 15 degrees

Guarantee:

- Frame and crossbars guaranteed for a minimum of 3 years during appropriate use as stated per category
- Electronics and motors guaranteed for a minimum of 1 year during appropriate us

Frame:

- Rigid frame
- Seat system tilt in space infinitely adjustable between 0 and minimum 20 degrees. (seat system to tilt as unit)
- Tilt and recline mechanisms may not interfere with the fitting of postural support systems
- Aluminium / mild steel

- Wheelbase is measured with castor fork pointing back to rear wheel from centre of castor to centre of rear wheel along the horizontal plane. 460mm

Weight:

- With battery: not to exceed 120 kg
- Without battery: not to exceed 90 kg

Repair kit:

- Adjustment tool

General requirement:

- Supplier must be able to provide chair with all of abovementioned options for armrests, front castors, footrest hangers, and footrests. The end user will specify the desired option at the time of ordering. The different options available within each specification description must be fully interchangeable and available at the same price. Where the end user does not specify options the chair will be issued as in the option given first for the categories with more than one option.
- No part or component may be changed / deviate from the specifications set out in this document.

Standards

- Dimensions of chair for width, seat length and back rest height must adhere to the specifications set out in this tender:
- Bearing spacer to be used in all bearing applications, i.e. rear wheel, front castor and castor stem.

To submit for tender assessment:

- 1 chair
  - 18” (46 cm)
- Submit copies of the following certificates to stipulate compliance with:
  Frame material - mild steel to be of a minimum yield of 375 MPA and a minimum tensile strength of 400 MPA.
  Upholstery used = 600D Nylon
  Upholstery reinforced with an inner PVC minimum specification of 500 g/m2

1.10. C Options

1.10. C1. Dedicated chin controller:
Dedicated chin controller. On chin mount with adjustable vertical and horizontal position.
This option must fit onto items 1.10

1.10. C.2 45 cm seat extension
45 cm seat, with seat frame extension kit and full length extended seat upholstery (short strip of upholstery not allowed) to lengthen original seat frames and seat. Upholstery screws to be provided.
This option must fit onto items 1.7 and should be available in each size, except for the 30 cm (12") wide with 30 cm seat frame length

1.10. C.3 47.5 cm seat extension
47.5 cm seat, with seat frame extension kit and full length extended seat upholstery (short strip of upholstery not allowed) to lengthen original seat frames and seat. Upholstery screws to be provided.
This option must fit onto items 1.7 and should be available in each size, except for the 30 cm (12") wide with 30 cm seat frame length

1.10. C.4 Bolt on footrest
Small footplate (15 x 13 cm) without hanger, with attachment to be fitted directly onto side frame of chair. Height adjustable.
This option must fit onto items 1.10

1.10. C.5 Elevating footrest hanger
Angle of footrest hanger to be adjustable between 0 degrees and 70 degrees of flexion; Height adjustable calf support; Fitted with adult, narrow or juvenile footplates as specified by end user.
This option must fit onto items 1.10

1.10. C.6 Head support, adjustable, basic occipital support only
- Easily removable
- Height and depth adjustable
- Kidney shaped head support flexible and rake adjustable
- Padded and covered in heavy gauge, removable, washable fabric

This option must fit onto item 1.10

1.10. C.7 Electric tilt with range from 0 – 30degree
This option must fit onto item 1.10

1.11 Buggies

1.11.1 Transporter

Detailed specification description of category: Transporter buggy: Folding umbrella type

Size range:

- One size: Seat width:12”,14”,15”
- Approximately 40 cm

Backrest / Seat configuration:

- Canvas sling type
- Back height: Approximately 54 cm
- Seat depth: Approximately 29 cm

Castors and forks:

- Minimum 5"

Rear wheels:

- Minimum 5"

Brakes:

- Fitted to rear wheels

Footrests:

- Height adjustable, detachable

Size folded:

- Maximum 120 cm x 48cm x 55cm

Mass:

- Not to exceed 8 kg

Frame:

- Folding, aluminium

Standards

- Dimensions of chair for width, seat length and back rest height must adhere to the specifications set out in this tender:
- Bearing spacer to be used in all bearing applications, i.e. rear wheel, front castor and castor stem.

To submit for tender assessment:

- 14” chair

1.11.2 Modular seating buggies

1.11.2.1 Modular, rigid buck, foam adjustable posture support buggy with rigid frame

All items under 1.11.2.1 and 1.11.2.1C will be awarded as a series

Detailed specification description of category: Modular seating buggy

Size range:
The sizes below are maximum internal usable measurements of seat mould and exclude postural seating supports but include seat cushion.

- Seat width 27 cm, depth 24 cm, height 40 cm
- Seat width 29 cm, depth 30 cm, height 40 cm
- Seat width 32 cm, depth 36 cm, height 49 cm
- Seat width 32 cm, depth 45 cm, height 54 cm
- Seat width 39 cm, depth 49 cm, height 55 cm
  All heights increase when optional head extension is utilised.

Seat system:

- Removable fibreglass seating system, padded with 12 mm high density foam, 1 seat system cover, removable, heavy duty denim twill, machine washable and can be dried in tumble drier
- Seat back angle not to exceed 98 degrees
- Tilt in space adjustable up to 30 degrees
- Pelvic strap length adjustable (both origins and middle), padded. Widths of straps are size appropriate(12” and smaller= 30mm,14” and larger 50mm)
- Modular seating support inserts covered with removable, heavy duty denim twill, machine washable and can be dried in tumble drier. High density (26/20) with hardness factor 18.0 – 21.6 and density range 24.1 – 27.
- Seating cushion cover to be waterproof fabric, terry cloth cotton covered, 2-way stretch, breathable, anti-microbial shield (AEGIF) treated
- Seat cushion with / without abduction block as specified by end user: Top layer high density foam 5 cm thick; 36/20 with hardness factor 18 – 21.6; Density 32.1-40 kg/m^3). Base layer 2.5 cm high density compressed (reconstituted flexible PU) foam 1300; Hardness factor 52-63; Density 130$\pm$10% kg/m3). (SANS 642 – 1976). Waterproof, terry cloth cotton covered, 2-way stretch, breathable, anti-microbial shield (AEGIF) treatment

Seating support:

- 1 x 50 mm back support (exception: baby buggy nil 50 mm back supports)
- 2 x 25 mm back support
- 1 x seat cushion with / without abduction block as specified by end user
- 1 x head support cushion
- 2 x trunk side supports
- 1 seat system cover, removable and washable

Lap tray:

- Removable
- Basic, not padded. Vinyl covered.
- To support elbows

Castors and forks:

- 8” x 2” (200 x 50 mm) castors with plastic hub.
- Cast Aluminium fork, with top 10 mm and sides tapering to 4 mm.
- Forks to be attached to the castor stem by means of a thread and bolt system to allow for re-fastening of the stem.

Rear wheels and axles:

- Minimum 200 mm x 80 mm

Footrests:

- Height adjustable, detachable
- Solid with lateral and side supports

Frame:

- Mild steel, epoxy coated
- Size folded: Maximum 60cm x 45cm x 50cm

Weight:

- Not to exceed 25 kg for largest size.

Standards

- Durability of chair must be in accordance with SANS 1060:2003 specifications for the roller bed test. One large chair to be submitted for testing with 60 kg dummy.
- Dimensions of chair for width, seat length and back rest height must adhere to the specifications set out in this tender:

To submit for tender assessment:

- 2 chairs
    - baby (extra-small)
    - Medium
- Submit copies of the following certificates to stipulate compliance with:
    - Durability testing certificate in accordance with standards outlined above with 30 kg test dummy for the chair stipulated.
    - Frame material - mild steel to be of a minimum yield of 375 MPA and a minimum tensile strength of 390 MPA.
    - Densities as specified for both high density compressed (reconstituted flexible PU) foam and high density foam.
    - Upholstery for back rest covers, seat and other cushions as specified.

1.11.2.1. C Customising options for modular, rigid buck, foam adjustable posture support buggy with rigid frame

1.11.2.1. C1 **Tray table basic**

Size range:
- To fit posture chair in the above category

Description:
- Easily removable multi-purpose tray
- Provides stable non- slip surface
- When attached, the surface extensions should provide adequate full resting support for the elbows
- When attached, the curve around the body should be cut in such a way as to prevent a large opening between the body and the tray where the elbows, forearms or hands can slip through.

Thickness: Between 0.6 and 1.5cm
Material: Wood, plastic with washable vinyl top
Quality: Smooth, washable, splinter free surface

1.11.2.1. C.2 **Tray table padded**

Size range: To fit posture chair in the above category
Description:
- Easily removable multi-purpose tray
- Provides stable, dynamic , non- slip surface
- When attached, the extensions should provide full resting support for the elbows.
- When attached, the curve around the body should be cut to prevent a large opening between the body and the tray where the elbows, forearms or hands can slip through.

Thickness: Between 2.0 cm and 3.0 cm
Material:
- Wood or plastic inner, 2.5cm high density compressed (reconstituted flexible PU) foam with washable stretch vinyl top – fully upholstered

1.11.2.2. C.3 **Head support, adjustable, basic occipital support only**
- Easily removable
- Height and depth adjustable
- Kidney shaped head support flexible and rake adjustable
- Padded and covered in heavy gauge, removable, washable fabric

1.11.2.2. C.4 **Head support, adjustable, basic occipital and side support**
- Easily removable
- Height and depth adjustable
- 4 point, hand shaped head support, flexible and rake adjustable
- Moulded and padded SVA

1.11.2.1. C.5 **Chest strap**
- Poly-cotton webbing, 100mm

- Two separate sections, adjustable, with 2 x 50mm D-ring (chromium plated, galvanised steel) male and female Velcro Loop Velcro immediately adjacent to hook Velcro
- Padding) attached to D-ring section, , extending beyond the D-ring and width of strap

1.11.2.1. C.6 Thigh strap

- Poly-cotton webbing,
- One section
- Length adjustable.
- 2 x 50 mm D-ring steel, epoxy coated to be attached to the seat mould
- Adjustable webbing sections with female Velcro to be 200 mm long. Hook Velcro 300 mm long on both ends, with loop Velcro 300 mm long immediately adjacent to hook Velcro. Padding attached to contact areas of webbing.

1.11.2.1. C.7 Pelvic straps, adjustable

- Poly-cotton webbing, 50 mm wide.
- Two separate sections, one non-adjustable, other section adjustable.
- Non-adjustable section fitted with 50 mm D-ring (chromium plated, galvanised steel) and other with male and female Velcro.
- Size specific – to fit seating systems above
- Hook Velcro on one end, with loop Velcro immediately adjacent to hook Velcro. Padding attached to D-ring section, 60 mm wide, 500 mm long of which half extending beyond the D-ring.

1.11.2.1. C.8 Foot box raisers

- To clip onto the existing footrest of the above seating system
- Raise the back and side height by approx. 10cm, preventing the feet kicking out of the footrest area
- Provide firm scuff resistant padding on back and side surfaces

1.11.2.1. C.9 Indoor / School base unit only for removable seat

- 4 brake castors
- 4 legs – height and tilt adjustable
- Seat clips on and off of school frame for easy transfer to self-propelling base
- Distance of castor feet must match or exceed the footprint of the appropriate size of push frame of seat

1.11.2.2 Modular, rigid adjustable posture support buggy with folding frame

All items under 1.11.2.2 and 1.11.2.2.C will be awarded as a series

Positioning Buggy (with recline option)

Size Range:

- Back height 310 – 410 Seat width 180 Seat lengths 170 – 260. Trunk side support height range 170 – 280. Trunk side support width range 160 – 210

- Back height 280 – 380 Seat width 230 Seat lengths 240 – 320. Trunk side support height range 210 – 280. Trunk side support width range 180 – 240

- Back height 370 – 440 Seat width 250 Seat lengths 290 – 360. Trunk side support height range 230 – 330. Trunk side support width range 180 – 240

- Back height 400 – 500 Seat width 300 Seat lengths 370 – 470. Trunk side support height range 280 – 350. Trunk side support width range 230 – 290

Seat System:

- Removable modular adjustable seating system
- Aluminium, wood or plastic ,padded /lined
- Trunk side support minimum length 100mm for smallest size / 180mm for largest size
- Trunk side support independently adjustable vertically and horizontally.
- Padded with a minimum of 6mm non porous/ sealed cell foam.
- Lined/padded with minimum of 6mm non porous/ sealed cell foam
- Pelvic side support lined/padding of minimum 20mm
- Removable washable waterproof covers.
- Covers to accommodate customisation of back supports
- Tilt in space up to 30degrees
- Recline - Seat to back angle adjustable in range 90 to 120 degrees.
- Pelvic strap length adjustable, padded.
- Seating systems allows for adaptation, build-up and customisation
- Seat cushion with / without abduction block as specified by end user: Top layer high density foam 2.5 - 5 cm thick; 36/20 with hardness factor 18 – 21.6; Density - 32.1-40kg/m3). Base layer 2.5 cm high density compressed (reconstituted flexible PU) foam 1300; Hardness factor 52-63; Density130+10% kg/m3). (SANS 642 – 1976). Waterproof 2-way stretch, breathable cover with anti-microbial shield (AEGIF) treatment
- Head extension – height and depth adjustable , offering minimum occipital side head support
- Footrest height and depth adjustable in relation to seat length

Lap Tray:

- Removable
- Height adjustable
- Basic, not padded.
- Wide and long enough to support elbows

Footrests:

- Height and depth adjustable
-
- Solid with side supports/ foot straps

Frame:

- Folding frame
- Mild Steel, epoxy coated
- Size folded

Castor and forks:

- 8” x 2” (200 x 50mm) castor wheel width between 400mm and 80mm with plastic hub.
- Cast Aluminium fork, with top 10mm and sides tapering to 4mm.
- Forks to be attached to the castor stem minimum 12mm thick bolt system to allow for re-fastening of the stem.

Rear Wheels

- Minimum 200mm x 80mm pneumatic or solid
- Range from 8”x3” to 24”x1 3/8

Weight:

- Not to exceed 25kg.

Standards

- Durability of chair must be in accordance with SANS 1060:2003 specifications for the roller bed test. One large chair to be submitted for testing with 60 kg dummy.
- Dimensions of chair for width, seat length and back rest height must adhere to the specifications set out in this tender:

To submit for tender assessment:

- 2 chairs
    - small
    - medium

- Submit copies of the following certificates to stipulate compliance with:
    - Durability testing certificate in accordance with standards outlined above with 30 kg test dummy for the chair stipulated.
    - Frame material - mild steel to be of a minimum yield of 375 MPA and a minimum tensile strength of 390 MPA.
    - Densities as specified for both high density compressed (reconstituted flexible PU) foam and high density foam.
    - Upholstery for seat and other covers as specified.

1.11.2.2. C **Customising options for Modular, rigid adjustable posture support buggy with folding frame**

1.11.2.2. C.1 **Tray Table Basic**

Size Range:

- To fit posture chairs in the above category

Description:

- Easily removable multipurpose tray
- Provides stable non-slip surface
- When attached, the surface should provide adequate full resting support for the elbows
- When attached, the curves around the body should be cut in such a way as to prevent a large opening between the body and the tray where the elbow, forearms or hands can slip through.

Thickness: Between 0.6 and 1.5cm

Material: Wood, plastic with washable vinyl top

Quality: Smooth, washable, splinter free surface

1.11.2.2. C.2 **Tray Table Padded**

Size Range:

- To fit posture chair in the above category

Description:

- Easily removable multi-purpose tray
- Provides stable, dynamic, non-slip surface
- When attached, the surface should provide full resting support for the elbows
- When attached, the curves around the body should be cut in such a way as to prevent a large opening between the body and the tray where the elbow, forearms or hands can slip through.

Thickness: Between 2.0cm and 3.0cm

Material: Wood or plastic inner, 2.5mm high density compressed (reconstituted flexible PU) foam with washable stretch vinyl top – fully upholstered

1.11.2.2. C.3 **Head support, adjustable, basic occipital support only**

- Minimum 2 sizes, small and standard
- Easily removable
- Height and depth adjustable
- Kidney shaped head support flexible and rake adjustable
- Moulded and padded
- Washable

1.11.2. C.4 **Head support, adjustable, complex occipital and side support**

- Minimum 2 sizes, small and standard
- Easily removable
- Height and depth adjustable
- Flexible and rake adjustable
- Moulded and padded
- Washable

1.11.2.2. C.5 **Chest Strap**

- Poly-cotton webbing, 100mm
- Two separate sections, adjustable, with 2 x 50mm D-ring (chromium plated, galvanised steel) male and female Velcro Loop Velcro immediately adjacent to hook Velcro
- Padding) attached to D-ring section, , extending beyond the D-ring T

1.11.2.2. C.6 **Indoor/School base unit only, for removable seat system**

- 4 brake castors
- Frame must be height and tilt adjustable
- Seat clips on and off of school frame for easy transfer to self-propelling base
- Distance of castor feet must match or exceed the footprint of the appropriate size of push frame of seat

1.11.2.2. C.7 **Motorised Base Frame, Front wheel drive with electronic hand control system, for use with removable posture support seat system under item 1.11.2.2**

Size range:

To fit:

- Back height 310 – 410 Seat width 180 Seat lengths 170 – 260. Trunk side support height range 170 – 280 Trunk side support width range 160 – 210

- Back height 280 – 380 Seat width 230 Seat lengths 240 – 320. Trunk side support height range 210 – 280 Trunk side support width range 180 – 240

- Back height 370 – 440 Seat width 250 Seat lengths 290 – 360. Trunk side support height range 230 – 330 Trunk side support width range 180 – 240

- Back height 400 – 500 Seat width 300 Seat lengths 370 – 470. Trunk side support height range 280 – 350 Trunk side support width range 230 – 290

Frame:

- accommodate COG adjustment
- Anti-tip levers
- Frame material - mild steel to be of a minimum yield of 375 MPA and a minimum tensile strength of 400 MPA.
- Finish: Epoxy coated

Castor and forks:

- 8” x 2” (200 x 50mm) castor with plastic hub.
- Cast Aluminium fork, with top 10mm and sides tapering to 4mm.
- Forks to be attached to the castor stem by means of bolt system to allow for re-fastening of the stem.

Front wheels and axles:

- 40 x 10 cm (16" x 4") tyres with deep treads.
- Can be changed manually from drive to free wheel through Dog clutch or Gear box release mechanism

Tray table –See through type- Supplied standard with the powerbase

Size range:

- To fit posture chair in the above category

Description:

- Easily removable multi-purpose tray
- When attached, the extensions should provide full resting support for the elbows.
- When attached, the curve around the body should be cut to prevent a large opening between the body and the tray where the elbows, forearms or hands can slip through.

Material: 0.8cm-1.5cm see through polycarbonate or acrylic type sheet

Quality: Smooth, washable, non-breakable, transparent

Controller:

- Electronic sensitivity – programmable speed and sensitivity control system
- Position adjustable vertical and horizontal
- Left or right hand control as specified by end user

Batteries

- 2 x 12 volt sealed lead acid batteries
- 2 x Deep cycle 38 Amp hour sealed batteries and dedicated charger

Motors

- DC motors 24 volt, 240- 320 peak Watt,
- Gear ratio 1:32

Speed: Average speed 6+ km/h

Range: Average range 13 – 16 km

Guarantee:

- Frame for a minimum of 3 years during appropriate use as stated per category
- Electronics and motors guaranteed for a minimum of 1 year from issue during appropriate use as stated per category

Repair / tool kit:

- 4 Rear wheel: bearings
- 4 Castors axle bearings
- 4 castor stem bearings
- Adjustment tools

1.12 Porter chairs (institutional use)

Detailed specification description of category: Porter chairs for institutional use with drip stand holder

Size:

51 cm (20”) wide

Backrest / Seat configuration:

- Seat tilt: 5 degree
- Back – seat angle to be 90 degrees
- Seat: Solid, padded
- Back height: 42.5+2.5 or max 45cm
- Seat length: 40 + 1 cm

Upholstery:

- Back upholstery: Vinyl
- Seat upholstery: Vinyl solid padded seat (40 cm long)

Armrests:

- Removable desk type with mild steel skirt guard

Castors and forks:

- 8x2" (20 x 5 cm) castors with plastic hub, outer shore hardness of 65 – 70 and inner shore hardness of 33 – 70, with the inner value not exceeding the outer value.
- Forks to be minimum 4 mm thick mild steel forks. Stem to be fastened to the fork with a thread and nut system to allow for re-fastening.

Rear wheel:

- 12" x 2.5" (30 cm x 6.5 cm) solid tyres
- Footrest hangers:

Footrest hangers:

- Long (25 cm) or short (20 cm); Fully detachable

Footrests:

- Aluminium; Height adjustable

Foot strap:

- Nylon strap (4 - 6 cm wide) with Velcro

Frame:

- Non-folding

Guarantee

- Frame and crossbars guaranteed for a minimum of 3 years during appropriate use as stated per category

Tool kit:

- Adjustment tool

General requirement:

- Supplier must be able to provide chair with all of abovementioned options for back and seat upholstery, armrests, rear wheels, footrest hangers, and footrests. The

end user will specify the desired option at the time of ordering. The different options available within each specification description must be fully interchangeable and available at the same price. Where the end user does not specify options the chair will be issued as in the option given first for the categories with more than one option.

- No part or component may be changed / deviate from the specifications set out in this document.

Standards

- Durability of chair must be in accordance with SANS 1060:2003 specifications for the roller bed and seat sag differential tests. Exception: Weight of test dummy to be 120 kg instead of 80 kg.
- The following chairs to be submitted for testing:
  - 18” chair (porter chair institutional use) standard back rest
- Dimensions of chair for width, seat length and back rest height must adhere to the specifications set out in this tender:
- Frame to be zinc phosphate rust protected prior to powder coating.
- Back rest and frame tubes to be 1.6 mm wall thickness.
- X-bars to be a minimum of 25 mm diameter and 2 mm wall thickness.
- Forks to be a minimum of 4 mm thick wall.
- 37 mm castor stem bearings
- Connection bar between push handles
- Connection bar joining frame at approximate level of castors
- Random testing will be done on the 2” (5 cm) wide castors with plastic and aluminium hubs to verify shore hardness. These tests will result in destruction of the castor.

To submit for tender assessment:

- 1 chair
  - 20” (51 cm)
- Samples cut through to demonstrate:
  - Side frame to demonstrate back rest to be 1.6 mm wall thickness.
  - X-bars to be a minimum of 25 mm diameter and 2 mm wall.
- Submit copies of the following certificates to stipulate compliance with:
  - Durability testing certificate in accordance with standards outlined above with 120 kg test dummy for the chair stipulated.
  - Frame material - mild steel to be of a minimum yield of 375 MPA and a minimum tensile strength of 400 MPA.
  - Back upholstery reinforced with an inner PVC minimum spec of 500 g/m2

CATEGORY 2: BASE SEATING SYSTEMS

2.1 Pelvic straps for all wheelchairs (excluding posture chairs and buggies)

(All items under 2.1 will be awarded as a series)

2.1.1 Pelvic straps, basic adjustable, with D-ring fitting

Poly-cotton webbing, black or other dark colour, 50 mm wide. Two separate sections, one non-adjustable, other section adjustable. Non-adjustable section fitted with 50 mm D-ring (chromium plated, galvanised steel) and other with male and female Velcro. Non-adjustable section to be 600 mm long. Adjustable section with Velcro to be 800 mm long. Hook Velcro 300 mm long on one end, with loop Velcro 300 mm long immediately adjacent to hook Velcro. 200 mm of belt not covered in Velcro.

2.1.2 Pelvic straps, basic adjustable, with D-ring fitting

Poly-cotton webbing, black or other dark colour, 30 mm wide. Two separate sections, one non-adjustable, other section adjustable. Non-adjustable section fitted with 38 mm D-ring (chromium plated, galvanised steel) and other with male and female Velcro. Non-adjustable section to be 500 mm long. Adjustable section with Velcro to be 560 mm long. Hook Velcro 80 mm long on one end, with loop Velcro 80 mm long immediately adjacent to hook Velcro. 400 mm of belt not covered in Velcro.

2.1.3 Pelvic straps, basic adjustable, with male-female plastic buckle system

Poly-cotton webbing, black or other dark colour, 50 mm wide. Two separate sections, one non-adjustable, other section adjustable. Non-adjustable section fitted with female end of buckle. Non-adjustable section to be 600 mm long. Adjustable section to be fitted with male buckle and to be 800 mm long.

2.1.4 Pelvic straps, padded adjustable

Poly-cotton webbing, black or other dark colour, 50 mm wide. Two separate sections, one non-adjustable, other section adjustable. Non-adjustable section fitted with 50 mm D-ring (chromium plated, galvanised steel) and other with male and female Velcro. Non-adjustable section to be 600 mm long. Adjustable section with Velcro to be 80 mm long. Hook Velcro 300 mm long on one end, with loop Velcro 300 mm long immediately adjacent to hook Velcro. 200 mm of belt not covered in Velcro. Padding (SVA 45) attached to D-ring section, 60 mm wide, 500 mm long of which half extending beyond the D-ring. The padded section to be covered with sleeve to prevent damage / tearing of the SVA 45 pad.

2.2 Seat cushions

2.2.1 Basic foam

2.2.1.1 Contoured based, basic foam

All items under 2.2.1.1 will be awarded as a series

2.2.1.1.1 Thick pressure care foam cushion with contoured base

Detailed specification description of category: Thick pressure care

Size range:

- 61 cm wide; 43 cm long; 9 cm high
- 56 cm wide; 43 cm long; 9cm high
- 51 cm wide; 43 cm long; 9cm high
- 46 cm wide; 43 cm long; 9cm high
- 41 cm wide; 43 cm long; 9 cm high
- 38 cm wide; 43 cm long; 9cm high
- 36 cm wide; 43 cm long; 9cm high
- 30 cm wide; 43 cm long; 9cm high

Variance allowed on overall measurement for cushions: +1cm

The entire size range will remain one series.

Description:

- Wheelchair basic foam pressure relieving cushion. Bevelled contoured base to match sling seat of wheelchair. Sitting surface, contoured with pre-ischial shelf as described. Must have trochanteric loading pads to create a well.
- The depth of the well for 14” (36cm) - 24” (61cm) should be 30mm, for 12”(30cm) should be 25mm.The width of the well = 50% of the width of the cushion and the length of the well =the width of the well up to maximum 200mm.
- Top: 5 cm thick high-density foam following contour of base through full length of cushion; only the front half of the cushion to be glued.
- Type, size and direction of cushion use printed on bottom of base.

Material:

Top layer:

For sizes: 30cm - 46cm
High-density foam 36/20; Hardness factor 18 – 21.6; Density range 32.1-40kg/m^3

For sizes: 51cm -61cm
High-density foam 40/24; Hardness factor 21.6-25.2; Density range 36.1-40kg/m^3

Base layer:

High density compressed (reconstituted flexible PU) foam 1300; Hardness factor –52-63; Density 130$\pm$10% kg/m3 (SANS 642 - 1976)

To submit for tender assessment:

- 4 cushions
  - 41 cm wide; 43 cm long; 9 cm high
  - 36 cm wide; 43 cm long; 9 cm high
  - 30 cm wide; 43 cm long; 9 cm high
  - 30 cm wide; 33 cm long; 9 cm high
- Submit copies of the following certificates to stipulate compliance with:
  - Densities as specified for both high density compressed (reconstituted flexible PU) foam and high density foam.

2.2.1.1.2 Wedged based, thick pressure care foam cushion with contoured base

Detailed specification description of category: Wedged based, thick pressure care

Size range:

- 61 cm wide; 43 cm long; 7,5 cm high at rear, 11 cm in front
- 56 cm wide; 43 cm long; 7,5 cm high at rear, 11 cm in front
- 51 cm wide; 43 cm long; 7,5 cm high at rear, 11 cm in front
- 46 cm wide; 43 cm long; 7,5 cm high at rear, 11 cm in front
- 41 cm wide; 43 cm long; 7,5 cm high at rear, 11 cm in front
- 38 cm wide; 43 cm long; 7,5 cm high at rear, 11 cm in front
- 36 cm wide; 43 cm long; 7,5 cm high at rear, 11 cm in front
- 30 cm wide; 43 cm long; 7,5 cm high at rear, 11 cm in front

Variance allowed on overall measurement for cushions: +1 cm

The entire size range will remain one series.

Description:

- Wheelchair basic foam pressure relieving cushion. Bevelled contoured base to match sling seat of wheelchair. Sitting surface, contoured with pre-ischial shelf as described. Must have trochanteric loading pads to create a well.
- The depth of the well for 14” (36cm) - 24” (61cm) should be 30mm, 12” (30cm) should be 25mm. The width of the well = 50% of the width of the cushion and the length of the well =the width of the well up to maximum 200mm.
- 2 cm wedge in front of pre-ischial shelf extending to the front of the cushion
- Top: 5 cm thick high-density foam following contour of base through full length of cushion; only the front half of the cushion to be glued.
- Type, size and direction of cushion use printed on bottom of base.

Material:

Top layer:

For sizes: 30cm -48cm
High-density foam 36/20; Hardness factor 18 – 21.6; Density range 32.1-40kg/m^3

For sizes: 51cm -61cm
High-density foam 40/24; Hardness factor 21.6-25.2; Density range 36.1-40kg/m^3

Base layer:
High density compressed (reconstituted flexible PU) foam 1300; Hardness factor 52-63; Density 130$\pm$10% kg/m3 (SANS 642 - 1976)

To submit for tender assessment:

- 4 cushions
  - 41 cm wide; 43 cm long; 7,5 cm high at rear, 11 cm in front
  - 36 cm wide; 43 cm long; 7,5 cm high at rear, 11 cm in front
  - 30 cm wide; 43 cm long; 7,5 cm high at rear, 11 cm in front
  - 30 cm wide; 33 cm long; 7,5 cm high at rear, 11 cm in front
- Submit copies of the following certificates to stipulate compliance with:
  - Densities as specified for both high density compressed (reconstituted flexible PU) foam and high density foam.

2.2.1.1.3 Thin foam, basic positioner foam cushion with contoured base

Detailed specification description of category: Thin foam, basic positioner

Size range:

- 51 cm wide; 43 cm long; 7 cm high
- 46 cm wide; 43 cm long; 7 cm high
- 41 cm wide; 43 cm long; 7 cm high
- 38 cm wide; 43 cm long; 7 cm high
- 36 cm wide; 43 cm long; 7 cm high
- 30 cm wide; 43 cm long; 7 cm high
- 30 cm wide; 33 cm long; 7 cm high
- 25 cm wide; 28 cm long; 7 cm high

Variance allowed on overall measurement for cushions: +1cm

The entire size range will remain one series.

Description:

- Bevelled contoured base to match sling seat of wheelchair. Sitting surface, contoured with pre-ischial shelf as described.
- The depth of the pre ischial shelf for 14” (36cm) - 24” (61cm) should be 30mm minimum, for 12” (30cm) should be 25mm minimum, and for 10” (25cm) should be 20mm minimum. The distance of the shelf from the rear of the cushion =50% of the width of the cushion up to max of 200mm.
- Top: 3cm thick high-density foam following contour of base through full length of cushion ;only the front half of the cushion to be glued
- Type, size and direction of cushion use printed on bottom of base.

Material:

Top layer:

For sizes: 30cm - 46cm
High-density foam 36/20; Hardness factor 18 – 21.6; Density range 32.1-40kg/m^3

For sizes: 51cm
High-density foam 40/24; Hardness factor 21.6-25.2; Density range 36.1-40kg/m^3

Base layer:

High density compressed (reconstituted flexible PU) foam 1300; Hardness factor 52-63; Density 130$\pm$10% kg/m3 (SANS 642 - 1976)

To submit for tender assessment:

- 4 cushions
  - 41 cm wide; 43 cm long; 7cm high
  - 36 cm wide; 43 cm long; 7cm high
  - 30 cm wide; 43 cm long; 7cm high
  - 30 cm wide; 33 cm long; 7cm high
- Submit copies of the following certificates to stipulate compliance with:
  - Densities as specified for both high density compressed (reconstituted flexible PU) foam and high density foam.

2.2.1.1.4 Wedged based, thin foam, positioner foam cushion with contoured base

Detailed specification description of category: Wedged based, thin foam, positioner

Size range:

- 51 cm wide; 43 cm long; 4,5 cm high at rear, 9 cm in front
- 46 cm wide; 43 cm long; 4,5 cm high at rear, 9 cm in front
- 41 cm wide; 43 cm long; 4,5 cm high at rear, 9 cm in front
- 38 cm wide; 43 cm long; 4,5 cm high at rear, 9 cm in front
- 36 cm wide; 43 cm long; 4,5 cm high at rear, 9 cm in front
- 30 cm wide; 43 cm long; 4,5 cm high at rear, 9 cm in front
- 30 cm wide; 33 cm long; 4,5 cm high at rear, 9 cm in front
- 25 cm wide; 28 cm long; 4,5 cm high at rear, 9 cm in front

Variance allowed on overall measurement for cushions: width: +1cm

The entire size range will remain one series.

Description:

- Bevelled contoured base to match sling seat of wheelchair. Sitting surface, contoured with pre-ischial shelf as described.
- The depth of the pre ischial shelf for 14” (36cm) - 24” (61cm) should be 30mm minimum, 12” (30cm) should be 25mm minimum, and 10” (25cm) should be 20mm minimum. The distance of the shelf from the rear =50% of the width of the cushion up to max of 200mm.
- 2 cm wedge in front of pre-ischial shelf extending to the front of the cushion
- Top: 3cm thick high-density foam following contour of base through full length of cushion; only the front half of the cushion to be glued.
- Type, size and direction of cushion use printed on bottom of base.

Material:

Top layer:

For sizes: 30cm-46cm
High-density foam 36/20; Hardness factor 18 – 21.6; Density range 32.1-40kg/m^3

For sizes: 51cm-58cm
High-density foam 40/24; Hardness factor 21.6-25.2; Density range 36.1-40kg/m^3

Base layer:

High density compressed (reconstituted flexible PU) foam 1300; Hardness factor 52-63; Density 130$\pm$10% kg/m3 (SANS 642 - 1976)

To submit for tender assessment:

- 4 cushions
  - 41 cm wide; 43 cm long; 4,5 cm high at rear, 9 cm in front
  - 36 cm wide; 43 cm long; 4,5 cm high at rear, 9 cm in front
  - 30 cm wide; 43 cm long; 4,5 cm high at rear, 9 cm in front
  - 30 cm wide; 33 cm long; 4,5 cm high at rear, 9 cm in front
- Submit copies of the following certificates to stipulate compliance with:
  - Densities as specified for both high density compressed (reconstituted flexible PU) foam and high density foam.

2.2 Seat cushions

2.2.1 Basic foam

2.2.1.1 A Contoured based, basic foam, extended
All items under 2.2.1.1.A will be awarded as a series

2.2.1.1 A1 Thick pressure care foam cushion with contoured base, extended
Detailed specification description of category: Thick pressure care, extended
Size range:

- 61 cm wide; 50 cm long; 9 cm high
- 56 cm wide; 50 cm long; 9 cm high
- 51 cm wide; 50 cm long; 9 cm high
- 46 cm wide; 50 cm long; 9 cm high
- 41 cm wide; 50 cm long; 9 cm high
- 38 cm wide; 50 cm long; 9 cm high
- 36 cm wide; 50 cm long; 9 cm high
- 30 cm wide; 50 cm long; 9 cm high

Variance allowed on overall measurement for cushions: width: +1 cm
The entire size range will remain one series.

Description:

- Wheelchair basic foam pressure relieving cushion. Bevelled contoured base to match sling seat of wheelchair. Sitting surface, contoured with pre-ischial shelf as described. Must have trochanteric loading pads to create a well.
- The depth of the well for 14” (36cm) - 24” (61cm) should be 30mm, for 12”(30cm) should be 25mm.The width of the well = 50% of the width of the cushion and the length of the well =the width of the well up to maximum 200mm
- Top: 5 cm thick high-density foam following contour of base through full length of cushion; only the front half of the cushion to be glued.
- Type, size and direction of cushion use printed on bottom of base.

Material:
Top layer:

For sizes: 30cm-46cm
High-density foam 36/20; Hardness factor 18 – 21.6; Density range 32.1-40kg/m^3

For sizes: 51cm-61cm
High-density foam 40/24; Hardness factor 21.6-25.2; Density range 36.1-40kg/m^3
Base layer:
High density compressed (reconstituted flexible PU) foam 1300; Hardness factor 52-63
Density 130+10% kg/m3 (SANS 642 - 1976)
To submit for tender assessment:

- 2 cushions

○ 41 cm wide; 50 cm long; 11.5 cm high
○ 36 cm wide; 50 cm long; 9 cm high

- Submit copies of the following certificates to stipulate compliance with:

○ Densities as specified for both high density compressed (reconstituted flexible PU) foam and high density foam.

2.2.1.1 A2 Wedged based, thick pressure care foam cushion with contoured base, extended

Detailed specification description of category: Wedged based, thick pressure care, extended

Size range:

- 61 cm wide; 50 cm long; 7.5 cm high at rear, 11 cm in front
- 56 cm wide; 50 cm long; 7.5 cm high at rear, 11 cm in front
- 51 cm wide; 50 cm long; 7.5 cm high at rear, 11 cm in front
- 46 cm wide; 50 cm long; 7.5 cm high at rear, 11 cm in front
- 41 cm wide; 50 cm long; 7.5 cm high at rear, 11 cm in front
- 38 cm wide; 50 cm long; 7.5 cm high at rear, 11cm in front
- 36 cm wide; 50 cm long; 7.5 cm high at rear, 11 cm in front
- 30 cm wide; 50 cm long; 7.5 cm high at rear, 11 cm in front

Variance allowed on overall measurement for cushions: width: +1 cm
The entire size range will remain one series.

Description:

- Wheelchair basic foam pressure relieving cushion. Bevelled contoured base to match sling seat of wheelchair. Sitting surface, contoured with pre-ischial shelf as described. Must have trochanteric loading pads to create a well.
- The depth of the well for 14” (36cm) - 24” (61cm) should be 30mm, 12” (30cm) should be 25mm. The width of the well = 50% of the width of the cushion and the length of the well =the width of the well up to maximum 200mm.
- Top: 5 cm thick high-density foam following contour of base; only the front half of the cushion to be glued.
- Type, size and direction of cushion use printed on bottom of base.

Material:
Top layer:
For sizes: 30cm-46cm
High-density foam 36/20; Hardness factor 18 – 21.6; Density range 32.1-40kg/m3

For sizes: 51cm-61cm
High-density foam 40/24; Hardness factor 21.6-25.2; Density range 36.1-40kg/m3

Base layer:
High density compressed (reconstituted flexible PU) foam 1300; Hardness factor 52-63
Density 130+10% kg/m3 (SANS 642 - 1976)

To submit for tender assessment:

- 2 cushions
  - 41 cm wide; 50 cm long; 7.5 cm high at rear, 11cm in front
  - 36 cm wide; 50 cm long; 7.5 cm high at rear, 11cm in front
- Submit copies of the following certificates to stipulate compliance with:
  - Densities as specified for both high density compressed (reconstituted flexible PU) foam and high density foam.

2.2.1.1 A3 Thin foam, basic positioner foam cushion with contoured base, extended

Detailed specification description of category: Thin foam, basic positioner, extended

Size range:
61 cm wide; 50 cm long; 7 cm high
56 cm wide; 50 cm long; 7 cm high
51 cm wide; 50 cm long; 7 cm high
46 cm wide; 50 cm long; 7 cm high
41 cm wide; 50 cm long; 7 cm high
38 cm wide; 50 cm long; 7 cm high
36 cm wide; 50 cm long; 7 cm high
30 cm wide; 50 cm long; 7 cm high

Variance allowed on overall measurement for cushions: width: +1 cm
The entire size range will remain one series.

Description:

- Bevelled contoured base to match sling seat of wheelchair. Sitting surface, contoured with pre-ischial shelf as described.
- The depth of the pre ischial shelf for 14” (36cm) - 24” (61cm) should be 30mm minimum, 12” (30cm) should be 25mm minimum, and 10” (25cm) should be 20mm minimum. The distance of the shelf =50% of the width of the cushion up to max of 200mm.
- Top: 3cm thick high-density foam following contour of base through full length of cushion ;only the front half of the cushion to be glued
- Type, size and direction of cushion use printed on bottom of base.

Material:
Top layer:
For Sizes: 30cm -46cm
High-density foam 36/20; Hardness factor 18 – 21.6; Density range 32.1-40kg/m^3

For sizes: 51cm-61cm
High-density foam 40/24; Hardness factor 21.6-25.2; Density range 36.1-40kg/m^3

Base layer:
High density compressed (reconstituted flexible PU) foam 1300; Hardness factor 52-63; Density 130+10% kg/m3 (SANS 642 - 1976)

To submit for tender assessment:
2 cushions
41 cm wide; 50 cm long; 7 cm high
36 cm wide; 50 cm long; 7 cm high
Submit copies of the following certificates to stipulate compliance with:
Densities as specified for both high density compressed (reconstituted flexible PU) foam and high density foam.

2.2.1.1 A4 Wedged based, thin foam, positioner foam cushion with contoured base, extended

Detailed specification description of category: Wedged based, thin foam, Positioned, extended

Size range:

- 51 cm wide; 50 cm long; 4.5 cm high at rear, 9 cm in front
- 46 cm wide; 50 cm long; 4.5 cm high at rear, 9 cm in front
- 41 cm wide; 50 cm long; 4.5 cm high at rear, 9 cm in front
- 38 cm wide; 50 cm long; 4.5 cm high at rear, 9 cm in front
- 36 cm wide; 50 cm long; 4.5 cm high at rear, 9 cm in front
- 30 cm wide; 50 cm long; 4.5 cm high at rear, 9 cm in front

Variance allowed on overall measurement for cushions: width: +1 cm
The entire size range will remain one series.

Description:

- Bevelled contoured base to match sling seat of wheelchair. Sitting surface, contoured with pre-ischial shelf as described.
- The depth of the pre ischial shelf for 14” (36cm) - 24” (61cm) should be 30mm minimum, 12” (30cm) should be 25mm minimum, and 10” (25cm) should be 20mm minimum. The distance of the shelf =50% of the width of the cushion up to max of 200mm.
- 2 cm wedge in front of pre-ischial shelf extending to the front of the cushion
- Top: 3cm thick high-density foam following contour of base through full length of cushion; only the front half of the cushion to be glued.
- Type, size and direction of cushion use printed on bottom of base

Material:
Top layer:
For sizes: 30cm -46cm
High-density foam 30/20; Hardness factor 18 – 21.6; Density range 27.1 - 32kg/m3
For sizes: 51cm
High-density foam 40/24; Hardness factor 21.6-25.2; Density range 36.1-40kg/m^3
Base layer:
High density compressed (reconstituted flexible PU) foam 1300; Hardness factor 52-63; Density 130+10% kg/m3 (SANS 642 - 1976)

To submit for tender assessment:

- 2 cushions
  - 41 cm wide; 50 cm long; 4,5 cm high at rear, 9 cm in front
  - 36 cm wide; 50 cm long; 4,5 cm high at rear, 9 cm in front
- Submit copies of the following certificates to stipulate compliance with:
  - Densities as specified for both high density compressed (reconstituted flexible PU) foam and high density foam.

2 2.1.2 Straight base (non-contoured), Basic Foam

(All items under 2.2.1.2 will be awarded as a series)

2 2.1.2.1 Straight base (non-contoured), thick pressure care, no abduction block

Size Range:

- 8” standard: 20 cm wide x 25 cm long
- 9” standard: 22.5 cm wide x 25 cm long
- 10” standard: 25 cm wide x 35 cm long
- 11” standard: 27.5 cm wide x 40 cm long
- 12” short: 30 cm wide x 35 cm long
- 12” standard: 30 cm wide x 40 cm long
- 14” short: 36 cm wide x 40 cm long
- 14” standard: 36 cm wide x 50 cm long
- 16” standard: 40 cm wide x 50 cm long
- 18” standard: 45 cm wide x 50 cm long
- 20” standard: 51 cm wide x 50 cm long

Size Range:

2.2.1.2.2 Straight base (non-contoured), basic foam, abduction block

- 8” standard: 20 cm wide x 25 cm deep with extra-small abduction block
- 9” standard: 22.5 cm wide x 25 cm deep with extra-small abduction block
- 10” standard: 25 cm wide x 35 cm deep with extra-small abduction block
- 11” standard: 27.5 cm wide x 40 cm deep with extra-small abduction block
- 12” short: 30 cm wide x 35 cm deep with small abduction block
- 12” standard: 30 cm wide x 40 cm deep with small abduction block
- 14” short: 35 cm wide x 40 cm deep with small abduction block
- 14” standard: 36 cm wide x 50 cm deep with small abduction block
- 16” standard: 41 cm wide x 50 cm deep with large abduction block
- 18” standard: 46 cm wide x 50 cm deep with large abduction block
- 20” standard: 51 cm wide x 50 cm long with large abduction block

Variance allowed on overall measurement for cushions: width: +1 cm

The entire size range will remain one series.

Description:

- Wheelchair basic foam pressure relieving cushion. Flat base to match solid wheelchair seat
- Sitting surface, contoured with pre-ischial shelf as described. Must have trochanteric loading pads to create a well.
- The depth of the well for 14” (36cm) - 24” (61cm) should be 30mm, for 12”(30cm) should be 25mm.The width of the well = 50% of the width of the cushion and the length of the well =the width of the well up to maximum 200mm
- Base layer: Minimum thickness 40mm for sizes 14”-20” and minimum thickness 30mm for 12” and minimum 25mm for 10” and smaller.
- The thickness of the top layer for 14” (36cm) -20” (51cm) should be 50mm minimum and for 8” (20cm) -12” (30cm) should be 30mm.; only the front half of the cushion to be glued.

- The pommel should extend beyond the end of the cushion to reach the front of the user's knees. The height to front of the cushion to the end of the users knees .the height of the pommel=the full thickness of the cushion from the base and includes average height of users thigh in the front. The length of the pommel should not be more than the distal third of the femur.
- Type, size and direction of cushion use printed on bottom of base.

Material:

Top layer:

For sizes to fit: 8"-18"

High-density foam 36/20; Hardness factor 18 – 21.6; Density range 32.1-40kg/m^3

For sizes: 20"

High-density foam 40/24; Hardness factor 21.6-25.2; Density range 36.1-40kg/m^3

Base layer:

High density compressed (reconstituted flexible PU) foam 1300 Hardness factor 52-63; Density 130$\pm$10% kg/m3 (SANS 642 - 1976)

To submit for tender assessment:

- 3 cushions
  - 12" short: 30 cm wide x 35 cm deep
  - 14" standard: 35 cm wide x 40 cm deep
  - 18" standard: 45 cm wide x 50 cm deep
- Submit copies of the following certificates to stipulate compliance with:
  - Densities as specified for both high density compressed (reconstituted flexible PU) foam and high density foam.

2 2.1.2.3 Straight base (non-contoured), positioner, no abduction block

- 8" standard: 20 cm wide x 25 cm long
- 9" standard: 22.5 cm wide x 25 cm long
- 10" standard: 25 cm wide x 35 cm long
- 11" standard: 27.5 cm wide x 40 cm long
- 12" short: 30 cm wide x 35 cm long
- 12" standard: 30 cm wide x 40 cm long
- 14" short: 36 cm wide x 40 cm long
- 14" standard: 36 cm wide x 50 cm long
- 16" standard: 40 cm wide x 50 cm long
- 18" standard: 45 cm wide x 50 cm long
- 20" standard: 51 cm wide x 50 cm long

2.2.1.2.4 Straight base (non-contoured), positioner, abduction block

- 8” standard: 20 cm wide x 25 cm deep with extra-small abduction block
- 9” standard: 22.5 cm wide x 25 cm deep with extra-small abduction block
- 10” standard: 25 cm wide x 35 cm deep with extra-small abduction block
- 11” standard: 27.5 cm wide x 40 cm deep with extra-small abduction block
- 12” short: 30 cm wide x 35 cm deep with small abduction block
- 12” standard: 30 cm wide x 40 cm deep with small abduction block
- 14” short: 35 cm wide x 40 cm deep with small abduction block
- 14” standard: 36 cm wide x 50 cm deep with small abduction block
- 16” standard: 41 cm wide x 50 cm deep with large abduction block
- 18” standard: 46 cm wide x 50 cm deep with large abduction block
- 20” standard: 51 cm wide x 50 cm long with large abduction block

Variance allowed on overall measurement for cushions: width: +1 cm

The entire size range will remain one series.

Description:

- Wheelchair basic foam positioner cushion. Flat base to match solid wheelchair seat
- Sitting surface, contoured with pre-ischial shelf as described.
- The depth of the well for 14” (36cm) - 24” (61cm) should be 30mm, for 12”(30cm) should be 25mm. the distance from the rear of the cushion to the shelf=50% of the width of the cushion up to maximum 200mm
- Base layer: Minimum thickness 40mm for sizes 14”-20” and minimum thickness 30mm for 12” and minimum 25mm for 10” and smaller.
- The thickness of the top layer for 14” (36cm) -20” (51cm) should be 30mm minimum and for 8” (20cm) -12” (30cm) should be 12mm.; only the front half of the cushion to be glued.
- The pommel should extend beyond the end of the cushion to reach the front of the user’s knees. The height to front of the cushion to the end of the users knees .the height of the pommel=the full thickness of the cushion from the base and includes average height of users thigh in the front. The length of the pommel should not be more than the distal third of the femur.
- Type, size and direction of cushion use printed on bottom of base.

Material:

Top layer:

For sizes to fit: 8”-18”

High-density foam 36/20; Hardness factor 18 – 21.6; Density range 32.1-40kg/m^3

For sizes: 20”

High-density foam 40/24; Hardness factor 21.6-25.2; Density range 36.1-40kg/m^3

Base layer:

High density compressed (reconstituted flexible PU) foam 1300 Hardness factor 52-63; Density 130$\pm$10% kg/m3 (SANS 642 - 1976)

To submit for tender assessment:

- 3 cushions
    - 12” short: 30 cm wide x 35 cm deep
    - 14” standard: 35 cm wide x 40 cm deep
    - 18” standard: 45 cm wide x 50 cm deep

- Submit copies of the following certificates to stipulate compliance with:
  - Densities as specified for both high density compressed (reconstituted flexible PU) foam and high density foam.

2.2.1.3 Compressed foam wedge

Detailed specification description of category: Compressed foam wedge

The entire size range will be awarded as a series.

Range:

- 45 cm wide; 45 cm long; 1 cm high at rear, 3 cm high in front
- 45 cm wide; 45 cm long; 1 cm high at rear, 5 cm high in front

Variance allowed on overall measurement for cushions: width: -1 cm (minus 1 cm); length: ±1 cm; thickness: ±0.5 cm

Description:

- Compressed foam wedge to be used to customise wheelchair cushions (Non contoured base)

Material:

- High density compressed (reconstituted flexible PU) foam 1300; Hardness factor –52-63; Density 130+10% kg/m3 (SANS 642 - 1976)

To submit for tender assessment:

- 1 sample
- Submit copies of the following certificates to stipulate compliance with:
  - Densities as specified for both high density compressed (reconstituted flexible PU) foam and high density foam.

2.2.1.4 Compressed foam sheet

Detailed specification description of category: Compressed foam sheet

The entire size range will be awarded as a series.

Range:

- 1,220 mm x 1,80 mm x 50 mm
- 1,220 mm x 1,80 mm x 30
- 1,220 mm x 1,80 mm x 20
- 1,220 mm x 1,80 mm x 10

Variance allowed on overall measurement for foam sheets: width: -1 cm (minus 1 cm); length: ±1 cm; thickness: ±0.5 cm

Description:

- Compressed foam sheet

Material:

- High density compressed (reconstituted flexible PU) foam 1300; Hardness factor 52-63; Density 130+10% kg/m3 (SABS 642 - 1976)

To submit for tender assessment:

- 1 sheet of 50 mm thick
- Submit copies of the following certificates to stipulate compliance with:
  - Densities as specified for both high density compressed (reconstituted flexible PU) foam and high density foam.

2.2.1.5. High density foam sheet

Detailed specification description of category: High density foam sheet

The entire size range will be awarded as a series.

Range:

- 2000mm X 2300mm x 6 mm
- 2000mm X 2300mm x 12 mm
- 2000mm X 2300mm x 25 mm
- 2000mm X 2300mm x 50 mm
- 2000mm X 2300mm x100 mm
- 2000mm X 2300mm x150 mm

Variance allowed on overall measurement for foam sheets: width: -1 cm (minus 1 cm); length: ±1 cm; thickness: ±0.5 cm

Description:

- High density foam sheet

Material:

- High-density foam 36/20; Hardness factor 18 – 21.6; Density range 32.1-40kg/m^3

To submit for tender assessment:

- 1 sheet of 50 mm thick
- Submit copies of the following certificates to stipulate compliance with:
  - High-density foam 36/20; Hardness factor 18 – 21.6; Density range 32.1-40 kg/m^3

2.2.3 Cushion covers

2.2.3.1 Cushion cover, basic stretchable

(All items under 2.2.3.1 will be awarded as a series)

2.2.3.1.1 Detailed specification description of category: Cushion cover, basic stretchable to fit standard wheelchair cushion

Size range:

- 24” (61 cm) wide x 43 cm long x 12 cm high
- 22” (56 cm) wide x 43 cm long x 12 cm high
- 20" (51 cm) wide x 43 cm long x 12 cm high
- 18" (46 cm) wide x 43 cm long x 12 cm high
- 16" (41 cm) wide x 43 cm long x 12 cm high
- 15” (38 cm) wide x 43 cm long x 12 cm high
- 14" (36 cm) wide x 43 cm long x 12 cm high
- 12" (30 cm) wide x 43 cm long x 12 cm high
- 12" (30 cm) wide x 33 cm long x 12 cm high
- 10” (25 cm) wide x 28 cm long x 12 cm high

2.2.3.1.2 Detailed specification description of category: Cushion cover, basic stretchable to fit straight base (non-contoured), thick pressure care, no abduction block for chairs with rigid seats and posture support chairs

- 8” standard: 20 cm wide x 25 cm deep x 12 cm high
- 9” standard: 22.5 cm wide x 25 cm deep x 12 cm high
- 10” standard:25 cm wide x 35 cm deep x 12 cm high
- 11” standard: 27.5 cm wide x 40 cm deep x 12 cm high
- 12” short: 30 cm wide x 35 cm deep x 12 cm high
- 12” standard: 30 cm wide x 40 cm deep x 12 cm high
- 14” short: 35 cm wide x 40 cm deep x 12 cm high
- 14” standard: 36 cm wide x 50 cm deep x 12 cm high
- 16” standard: 40 cm wide x 50 cm deep x 12 cm high
- 18” standard: 45 cm wide x 50 cm deep x 12 cm high
- 20” standard: 51 cm wide x 50 cm long x 12 cm high

Fabric:

- Heavy duty nylon (300 g/m^2), colour fast, 2-way stretch, breathable, and machine washable. Colour black.

Cover:

- Pull over, elastic band, with size lable

Standards

- Submit copies of the following certificates:
  - Heavy duty nylon (300 g/m2)

To submit for tender assessment:

- 2 cushion covers
  - 41 cm wide; 43 cm long; 12 cm high
  - 30 cm wide; 33 cm long; 12 cm high

2.2.3.2 Cushion cover, waterproof, stretchable

(All items under 2.2.3.2 will be awarded as a series)

2.2.3.2.1 Detailed specification description of category: Cushion cover, waterproof, stretchable

Size range:

- 24” (61 cm) wide x 43 cm long x 12 cm high
- 22” (56 cm) wide x 43 cm long x 12 cm high
- 20" (51 cm) wide x 43 cm long x 12 cm high
- 18" (46 cm) wide x 43 cm long x 12 cm high
- 16" (41 cm) wide x 43 cm long x 12 cm high
- 14" (36 cm) wide x 43 cm long x 12 cm high
- 12" (30 cm) wide x 43 cm long x 12 cm high
- 12" (30 cm) wide x 33 cm long x 12 cm high
- 10” (25 cm) wide x 28 cm long x 12 cm high

2.2.3.2.2 Detailed specification description of category: Cushion cover, waterproof stretchable to fit straight base (non-contoured), thick pressure care, no abduction block for chairs with rigid seats and posture support chairs

- 8” standard: 20 cm wide x 25 cm deep x 12 cm high
- 9” standard: 22.5 cm wide x 25 cm deep x 12 cm high
- 10” standard: 25 cm wide x 35 cm deep x 12 cm high
- 11” standard: 27.5 cm wide x 40 cm deep x 12 cm high
- 12” short: 30 cm wide x 35 cm deep x 12 cm high
- 12” standard: 30 cm wide x 40 cm deep x 12 cm high
- 14” short: 35 cm wide x 40 cm deep x 12 cm high
- 14” standard: 35 cm wide x 50 cm deep x 12 cm high
- 16” standard: 40 cm wide x 50 cm deep x 12 cm high
- 18” standard: 45 cm wide x 50 cm deep x 12 cm high
- 20” standard: 51 cm wide x 50 cm long x 12 cm high

2.2.3.2.3 Detailed specification description of category: Cushion cover, waterproof stretchable to fit straight base (non-contoured), thick pressure care, with abduction block for chairs with rigid seats and posture support chairs

- 8” standard: 20 cm wide x 25 cm deep with extra-small abduction block
- 9” standard: 22.5 cm wide x 25 cm deep with extra-small abduction block
- 10” standard: 25 cm wide x 35 cm deep with extra-small abduction block
- 11” standard: 27.5 cm wide x 40 cm deep with extra-small abduction block
- 12” short: 30 cm wide x 35 cm deep with small abduction block
- 12” standard: 30 cm wide x 40 cm deep with small abduction block
- 14” short: 35 cm wide x 40 cm deep with small abduction block
- 14” standard: 35 cm wide x 50 cm deep with small abduction block
- 16” standard: 40 cm wide x 50 cm deep with large abduction block
- 18” standard: 45 cm wide x 50 cm deep with large abduction block
- 20” standard: 51 cm wide x 50 cm long with large abduction block

Fabric:

- Fabric, waterproof, terry cloth cotton covered, 2-way stretch, breathable, anti-microbial shield (AEGIF) treatment, machine washable and can be dried in tumble drier.
- Colour: Black or navy or other dark colour only.

Cover:

- Pull over, elastic band, with size label

To submit for tender assessment:

- 2 cushion covers
    - 41 cm wide; 43 cm long; 12 cm high
    - 30 cm wide; 33 cm long; 12 cm high
- Submit copies of the following certificates to stipulate compliance with:
    - Proof of anti-microbial shield (AEGIF) treatment

2.2.4 Cushion cover fabric

The cushion fabric will be awarded as a series.

2.2.4.1 Cushion cover fabric, basic stretchable

Detailed specification description of category: Cushion cover fabric, basic stretchable

- Fabric, heavy-duty nylon (300 g/m^2), colour fast, 2-way stretch, breathable, and machine washable, tube at least 55 cm wide, Colour black. Order per meter.

To submit for tender assessment:

- 1 metre sample, full width cloth

Standards

- Submit copies of the following certificates:
  - Heavy duty nylon (300 g/m2)

2.2.4.2 Cushion cover fabric, waterproof, stretchable

Detailed specification description of category: Cushion cover fabric, basic stretchable

- Fabric, waterproof, terry cloth cotton covered, 2-way stretch, breathable, anti-microbial shield (AEGIF) treatment, machine washable and can be dried in tumble drier, 150 cm wide. Colour: Black or navy. Order per meter.

To submit for tender assessment:

- 1 metre sample, full width cloth
- Submit copies of the following certificates to stipulate compliance with:
  - Proof of anti-microbial shield (AEGIF) treatment

Standards

- Submit copies of the following certificates:
- Proof of anti-microbial shield (AEGIF) treatment

2.2.5 Seat cushions

The entire size range will be awarded as a series.

Fluid filled cushions with contoured base and rear fluid pad

Detailed specification description of category: Fluid filled cushions with contoured base and rear fluid pad

Size range:

- 51 cm (20") wide, 49 cm long, no thicker than 8 cm
- 46 cm (18") wide, 43 cm long, no thicker than 8 cm
- 46 cm (18") wide, 49 cm long, no thicker than 8 cm
- 41 cm (16") wide, 43 cm long, no thicker than 8 cm
- 41 cm (16") wide, 49 cm long, no thicker than 8 cm
- 36 cm (14") wide, 43 cm long, no thicker than 8 cm
- 36 cm (14") wide, 49 cm long, no thicker than 8 cm
- 30 cm (12”) wide, 43 cm long, no thicker than 8 cm

Variance allowed on overall measurement for cushions: width: -1 cm (minus 1 cm); length: ±1 cm; thickness: ±0.5 cm

Description:

- Wheelchair contoured fluid filled medium to high risk pressure relieving cushion.
- Type, size and direction of cushion use printed on covers

Base layer:

- Bottom of base flat. To be supplied with solid seat insert or sling filler for use on sling seats.
- Sitting surface of base to be contoured with ischial well and trochanteric loading pads. Ischial well to be at least 4 + 1 cm high and front edge straight or slightly curved. Fluid pad in ischial well. Flat area under thighs with central raise between thighs of 1.25 cm – 2.5 cm high.
- Removable side inserts to position legs. These may integrate with the base cover or be applied directly to the base

Fluid pad:

- Fluid pad minimum 3 sections, namely one each for left and right ischial tuberosities and one under the coccyx. Adequate volume to completely fill ischial well when fitted correctly.
- Removable. Secure attachment by means of minimum 5 Velcro strips
- Design and attachment to minimise risk to bottom out by allowing for adequate volume of pad, volume of fluid, viscosity of fluid and attachment parameters. Fluid pad at least 25 % wider than underlying base when pad is laid down flat.

Covers:

- Separate removable base cover. Separate removable external cover. External cover to allow moulding with fluid pad without interfering with pressure relieving properties

Material:

Base layer:

- Injection moulded high resiliency urethane foam base. Solid seat insert wood / marine ply / similar solid lightweight material no thicker than 8 mm. Alternative, moulded sling filler similar material as base of high density chip foam sling filler (reconstituted flexible PU) foam 1300; Hardness factor 52-63 Density 130+10% kg/m3 (SANS 642 - 1976).

Fluid pad:

- Viscous fluid. Able to move away from pressure and mould to pressure area
- Viscous fluid of a non-evaporating, non-toxic nature. Fluid may not contain any irritants. Viscosity similar to petroleum jelly. Fluid should not be able to be compressed and volume may not change with temperature. Viscosity may not change properties under repeated sheer. Must remain fluid even in temperatures to 0 degrees Celsius.

Covers:

- Separate removable base cover waterproof. Separate removable external cover. External cover to allow moulding with fluid pad without interfering with pressure relieving properties. Top cover machine washable.

Weight of cushion

- Maximum weight 5 kg for 20”

User weight capacity

- To accommodate users weighing up to 150 kg

Guarantee

- Minimum 2 year guarantee against defective manufacturing

To submit for tender assessment:

- 1 fluid filled cushion
- Size 41 cm (16") wide, 43 cm long, complete with covers and leg positioner inserts and solid seat insert or sling filler

2.2.6 Seat cushions

Air filled cushions with flexible base

The entire size range will be awarded as a series.

Size range:

- 51 cm (20”) wide, 46 cm long, no higher than 10 cm
- 51 cm (20”) wide, 41 cm long, no higher than 10 cm
- 46 cm (18”) wide, 46 cm long, no higher than 10 cm
- 46 cm (18”) wide, 41 cm long, no higher than 10 cm
- 41 cm (16”) wide, 46 cm long, no higher than 10 cm
- 41 cm (16”) wide, 41 cm long, no higher than 10 cm
- 38 cm (15”) wide, 46 cm long, no higher than 10 cm
- 36 cm (14”) wide, 41 cm long, no higher than 10 cm

Variance allowed on overall measurement for cushions: width: -1 cm (minus 1 cm); length: ±1 cm; thickness: ±0.5 cm

Description:

- Air -filled high risk pressure relieving cushion.
- Air contained in multiple interlinked compartments, 10 cm in height
- Able to regulate the volume of air in compartments to prevent bottoming out.
- Dedicated dual purpose in- and outlet valve
- Multiple compartments arranged in 4 functional units which can be sealed off from each other to allow for customising of air pressures in each of the 4 compartments
- Dedicated air lock to control flow between the four compartments

Base layer:

- Thin rubber, flexible, base integrated with air-filled interface layer.

Covers:

- Separate stretchable, removable cover. Cover machine washable.
- Non-slip bottom of cover with Velcro strips to attach cushion to chair
- Type, size and direction of cushion use printed on covers

Accessories:

- Dedicated pump
- Repair kit

Weight of cushion:

- 1,7 kg

Guarantee:

- Minimum 2 year guarantee against defective manufacturing

To submit for tender assessment:

- 1 Air- filled cushion
- Size 41 cm (16") wide, 41 cm long, complete with cover

2.3 Back systems

2.3.1 Tension adjustable

(All items under 2.3.1 will be awarded as a series)

2.3.1.1 Tension adjustable back, standard

2.3.1.2 Tension adjustable back, short

2.3.1.3 Tension adjustable back, tall

Detailed specification description for category: Tension adjustable backrest to fit both basic and adjustable folding frame wheelchairs

Size range:

Size (width)	Standard back height	Tall back height	Short back height
61 cm (24”)	47.5 cm	51 cm	-
56 cm (22”)	47.5 cm	51cm	-
51 cm (20")	45 cm	55 cm	35 cm
46 cm (18") (cover range 43 cm (17”) to 46 cm (18"))	45 cm	55 cm	35 cm
41 cm (16") (cover range 38 cm (15") to 41 cm (16"))	45 cm	55 cm	35 cm
36 cm (14")	45 cm	55 cm	35 cm
30 cm (12") wide with 40 cm seat frame length	45 cm	55 cm	35 cm
30 cm (12") wide with 30 cm seat frame length	35 cm	45 cm	N/A

Components:

- 3-piece tension adjustable backrest.
- 2x side panels with full length tubes for fitting to chair by either using screw-in type fixing (basic folding chairs with seat guide) or slipping tube over back rest (adjustable folding frame chairs). No pre-made screw holes are to be provided in the tubes. One panel to be fitted with straps the other with metal buckles.
- Panels: full length ±1 cm from top and bottom: Loop Velcro strip 4 cm wide placed 5 cm from edge. On panel fitted with straps, a second 4 cm loop Velcro strap immediately adjacent to inside of first Velcro strip, thus providing 8 cm wide Velcro loop section.
- A separate cover is provided. The front panel is padded. Front panel of cover to be clear of stitching, except for 7cm from edges. Front part of cover to be open from inside (pocket).

Material:

- Nylon; Black; 600D Nylon for panels and tubes of tension adjustable panels; and appropriate nylon for cover; Tubes reinforced with PVC; Cover front padded with 12 mm thick high density foam (30/20 with hardness 18.0 - 21.6; Density 27.1 – 32 kg/m^3 or 26/20 with hardness 18.0 - 21.6; Density 24.1 – 27 kg/m^3 or other suitable foam).

Straps:

- Maximum 2,5 cm wide straps no wider than 2 cm apart; Velcro fastenings; Must be able to conform to body contours when adjusted
- Minimum of 10 evenly spaced for standard length, 8 for short length and 12 straps for tall back

To submit for tender assessment:

- 6 backs
  - 36 cm (14") – one of each standard, tall or short
  - 30 cm (12") wide with 40cm seat frame length – one of each standard, tall or short
- Submit copies of the following certificates to stipulate compliance with:
  - Quality of the nylon of the inner panels and tubes
  - Quality of the foam

2.3.2 Tension adjustable backrest with rigid, height adjustable full length laterals

(All items under 2.3.2 and 2.3.2 C will be awarded as a series)

2.3.2.1 Tension adjustable back with rigid, height adjustable full length laterals, short

2.3.2.2 Tension adjustable back with rigid, height adjustable full length laterals, standard

2.3.2.3 Tension adjustable back with rigid, height adjustable full length laterals, tall

Detailed specification description for category: Tension adjustable backrest with rigid, height adjustable full length laterals to fit both basic and adjustable folding frame manual and power wheelchairs

Size range:

Size (width)	Short back height	Standard back height	Tall back height	Lateral depth
51 cm (20") (cover range 48 cm (19”) to 51 cm (20"))	30 cm	42 cm	50 cm	20 cm
46 cm (18") (cover range 43 cm (17”) to 46 cm (18"))	30 cm	42 cm	50 cm	20 cm
41 cm (16") (cover range 38 cm (15") to 41 cm (16"))	30 cm	42 cm	50 cm	15 cm
36 cm (14")	30 cm	42 cm	50 cm	15 cm
30 cm (12") 40cm seat length	30 cm	42 cm	50 cm	15 cm
30 cm (12") 30 cm seat length	Nil	30 cm	42 cm	10 cm

Components and description:

- Include attachments to fit back system to chair. If attachment not size adjustable (universal bracket), to be supplied with additional brackets or sleeve / filler to allow fitting onto narrower inner section of height adjustable back posts with range 19-22 mm. This implies that 2 sets of each size should be provided in case if brackets which are not size adjustable.
- Design of bracket to allow fitting below bend in back post or push handle with no interference during removal and placement.
- Quick-release mechanism allows for back to detach from chair for transport

- 3-piece tension adjustable backrest.
- 2x side panels with height adjustable full length rigid lateral supports. One panel to be fitted with straps the other with metal buckles.
- Trunk side supports should be lightweight, easy to bend and mould and height adjustable. Allows for contouring to fit body shape

Material:

- Separate covers are removable, washable heavy duty lycra (220 g/m^2 and yield 3.4m/kg) with Velcro attachments

Straps:

- Maximum 25 mm wide straps close and evenly spaced and not further apart than 20 mm with steel sliders and Velcro fastenings; Must be able to conform to body contours when adjusted; Straps allow for minimum of 100 mm adjustment

To submit for tender assessment:

- 3 backs
    - 36 cm (14") – one of each: short, standard, tall
- Submit copies of the following certificates to stipulate compliance with:
    - Quality of the nylon

2.3.2. C CUSTOMISING OPTIONS

2.3.2. C.1 Set of fitting brackets for 19mm back post

2.3.2. C.2 Set of fitting brackets for 22mm back post

2.3.3 Rigid adjustable back

(All items under 2.3.3 and 2.3.3.C will be awarded as a series)

2.3.3.1 Rigid adjustable back, mid thoracic height

2.3.3.2 Rigid adjustable back, upper thoracic height

2.3.3.3 Rigid adjustable back, shoulder height

Size range (+ 1 cm)

Mid thoracic: To fit to mid thoracic height on patient					
Size of back (measured from outside to outside of trunk side supports)	**Adjustability to fit range of trunk size**	**Back height**	**Height and depth of trunk side support**		
Fits chair of same size			**Height of side support**	**Depth: Standard**	**Depth: Deep**
Kids					
10”	175-225mm (7”-9”)	240mm	160mm	150mm	
12”	225-275mm (9’-11”)	240mm	160mm	150mm	-
Adults					
12”	225-275mm (9”-11”)	300mm	210	150	
14”	275mm (11”-13”)	340mm	260	150	200
16”	325-375mm (13’-15”)	340mm	260	150	200
18”	375-425mm (16’-18”)	340mm	260	150	200
20”	425-475mm (18’-20”)	340mm	260	150	200

Upper thoracic: To fit upper thoracic height on patient					
Size of back (measured from outside to outside of trunk side supports)	**Adjustability to fit range of trunk size**	**Back height**	**Height and depth of trunk side support**		
Fits chair of same size			**Height of side support**	**Depth: Standard**	**Depth: Deep**
Kids					
8”	125mm-175mm (5”-7”)	240mm	160mm	150mm	
10”	175mm-225mm (7”-9”)	300mm	210mm	150mm	
12”	225mm-275mm (9’-11”)	300mm	210mm	150mm	
Adults					
12”	225mm-275mm (9’-11”)	440mm	300mm	150mm	200mm
14”	275mm (11”-13”)	440mm	300mm	150mm	200mm
16”	325-375mm (13’-15”)	440mm	300mm	150mm	200mm
18”	375-425mm (16’-18”)	440mm	300mm	150mm	200mm
20”	425-475mm (18’-20”)	440mm	300mm	150mm	200mm

Shoulder height: To fit shoulder height on patient					
Size of back (measured from outside to outside of trunk side supports)	**Adjustability to fit range of trunk size**	**Back height**	**Height and depth of trunk side support**		
Fits chair of same size			**Height of side support**	**Depth: Standard**	**Depth: Deep**
Kids					
8”	12.5-17.5cm (5”-7”)	300mm	210mm		150mm
10”	17.5-22.5cm (7”-9”)	340mm	260mm		150mm
12”	22.5-27.5cm (9’-11”)	340mm	260mm		150mm
Adults					
12”	22.5-27.5cm (9”-11”)	440mm	300mm	150mm	200mm
14”	27.5cm (11”-13”)	600mm	390mm	150mm	200mm
16”	32.5-37.5cm (13’-15”)	600mm	390mm	150mm	200mm
18”	37.5-42.5cm (16’-18”)	600mm	390mm	150mm	200mm
20”	42.5-47.5cm (18’-20”)	600mm	390mm	150mm	200mm

Components and description:

- Include attachments to fit back system to chair. If attachment not size adjustable (universal bracket), to be supplied with sleeve / filler to allow fitting onto narrower inner section of height adjustable back posts with range 19 –22mm.
- Quick-release mechanism allows for back to detach from chair for transport
- Back system fitting on back posts to be height adjustable and recline.
- Angle adjustable setting - maximum 15 degrees recline
- Trunk side supports to allow width adjustment as per specified range
- Maximum thickness of trunk side supports = 15mm
- Should allow build up and modifications to customize fit
- Separate covers are removable, washable appropriate stretch fabric

To submit for tender assessment:

- 3 backs
    - 36 cm (14") – one of each mid thoracic, upper thoracic and shoulder height

<u>Customizing Options</u>

Set of fitting brackets for a second chair

2.3.3. C.1 Set of fitting brackets for 19mm back post

2.3.3. C.2 Set of fitting brackets for 22mm back post

2.3.4 Rigid adjustable back

(All items under 2.3.4 and 2.3.4.C will be awarded as a series)

2.3.4.1 Rigid adjustable back, mid thoracic height with removable trunk side supports

2.3.4.2 Rigid adjustable back, upper thoracic height with removable trunk side supports

2.3.4.3 Rigid adjustable back, shoulder height with removable trunk side supports

Mid thoracic: To fit to mid thoracic height on patient									
Size of back (measured from outside to outside of trunk side supports)	**Adjustability to fit range of trunk size**	**Back height**			**Height and depth of trunk side support**				
				Height of side support	**Depth of lateral**		**Height of side support**	**Depth of lateral**	
Fits chair of same size		**Std**	**Tall**		**Standard**	**Deep**		**Standard**	**Deep**
12”	225-275mm (9”-11”)	340mm	380mm	100mm	100mm	150mm	150mm	100mm	150mm
14”	275mm(11”-13”)	340mm	380mm	100mm	100mm	150mm	150mm	100mm	150mm
16”	325-375mm (13’-15”)	340mm	380mm	100mm	100mm	150mm	150mm	100mm	150mm
18”	375-425mm (16’-18”)	340mm	380mm	100mm	100mm	150mm	150mm	100mm	150mm
20”	425-475mm (18’-20”)	340mm	380mm	100mm	100mm	150mm	150mm	100mm	150mm

Upper thoracic: To fit upper thoracic height on patient									
Size of back (measured from outside to outside of trunk side supports)	**Adjustability to fit range of trunk size**	**Back height**			**Height and depth of trunk side support**				
				Height of side support	**Depth of lateral**		**Height of side support**	**Depth of lateral**	
Fits chair of same size		**Std**	**Tall**		**Standard**	**Deep**		**Standard**	**Deep**
12”	225-275mm (9”-11”)	460mm	500mm	100mm	100mm	150mm	150mm	100mm	150mm
14”	275mm(11”-13”)	460mm	500mm	100mm	100mm	150mm	150mm	100mm	150mm
16”	325-375mm (13’-15”)	460mm	500mm	100mm	100mm	150mm	150mm	100mm	150mm
18”	375-425mm (16’-18”)	460mm	500mm	100mm	100mm	150mm	150mm	100mm	150mm
20”	425-475mm (18’-20”)	460mm	500mm	100mm	100mm	150mm	150mm	100mm	150mm

Shoulder height: To fit shoulder height on patient									
Size of back (measured from outside to outside of trunk side supports)	**Adjustability to fit range of trunk size**	**Back height**			**Height and depth of trunk side support**				
				Height of side support	**Depth of lateral**		**Height of side support**	**Depth of lateral**	
Fits chair of same size		**Std**	**Tall**		**Standard**	**Deep**		**Standard**	**Deep**
12”	225-275mm (9”-11”)	570mm	610mm	100mm	100mm	150mm	150mm	100mm	150mm
14”	275mm(11”-13”)	570mm	610mm	100mm	100mm	150mm	150mm	100mm	150mm
16”	325-375mm (13’-15”)	570mm	610mm	100mm	100mm	150mm	150mm	100mm	150mm
18”	375-425mm (16’-18”)	570mm	610mm	100mm	100mm	150mm	150mm	100mm	150mm
20”	425-475mm (18’-20”)	570mm	610mm	100mm	100mm	150mm	150mm	100mm	150mm

Components and description:

- Include attachments to fit back system to chair. If attachment not size adjustable (universal bracket), to be supplied with sleeve / filler to allow fitting onto narrower inner section of height adjustable back posts with range 19 –25 mm.
- Quick-release mechanism allows for back to detach from chair for transport
- Lightweight rigid adjustable back support with removable / swing-away / flip-upable trunk side support
- Back system fitting on back posts to be height adjustable and recline.
- Angle adjustable setting - maximum 15 degrees recline
- Trunk side supports to allow width adjustment as per specified range
- Maximum thickness of trunk side supports = 15mm
- Should allow build up and modifications to customize fit
- Separate covers are removable, washable appropriate stretch fabric

To submit for tender assessment:

- 3 backs
    - 36 cm (14") – one of each mid thoracic, upper thoracic and shoulder height

2.3.4. C Customizing Options

Set of fitting brackets for a second chair

2.3.3. C.1 Set of fitting brackets for 19mm back post

2.3.3. C.2 Set of fitting brackets for 22mm back post

2.3.5 Adjustable modular back (updated specs)

All items under 2.3.5 and 2.3.5.C will be awarded as a series

2.3.5.1 Rigid modular back, standard height

2.3.5.2 Rigid modular back, tall height

Size range:

Size (width)	Standard back height	Tall back height	Lateral depth
46 cm (18") (cover range 43 cm (17") to 46 cm (18"))	43 – 53 cm	50 – 60 cm	Standard = 15 cm Deep = 18 cm straight or curved
41 cm (16") (cover range 38 cm (15") to 41 cm (16"))	43 – 53 cm	50 – 60 cm	Standard = 15 cm Deep = 18 cm straight or curved
36 cm (14")	43 – 53 cm	50 – 60 cm	Standard = 10 cm Deep = 15 cm straight or curved
30 cm (12") 40cm seat length	43 – 53 cm	50 – 60 cm	Standard = 10 cm Deep = 15 cm straight or curved
30 cm (12") 30 cm seat length	35 – 43 cm	43 – 53 cm	Standard = 10 cm Deep = 15 cm straight or curved

If no specification received with order, device will be issued with standard length supports with no curve.

Components and description:

- Adjustable in width, height and recline.
- Independent lumbar-sacral support adjustable in height and angle.
- Independent thoracic support adjustable in height.
- Independent lateral supports adjustable in height and width.
- Attachments to fit back system to range of wheelchair back posts with range 19 – 25.4mm.

Material:

- Back support sections: high density polyethylene (HDPE) moulded with sealed cell foam supports, which can be customized.
- Lateral support: high density polyethylene (HDPE) moulded plastic with sealed cell foam supports which can be build up and customised – available in standard or optional long to accommodate extra body depth.
- Covers made from washable heavy duty Lycra (220 g/m2 and yield 3.4m/kg) with Velcro attachments
- Frame: Mild steel passivated or stainless steel.
- Back system detachable for transport.

To submit for tender assessment:

- 2 backs
    - 36 cm (14") – one of each standard, tall
- Submit copies of the following certificates to stipulate compliance with:
    - Quality of the Lycra

2.3.5. C CUSTOMISING OPTIONS

2.3.4. C.1 Head support, basic adjustable

- Minimum 2 sizes, small and standard
- Easily removable
- Height and depth adjustable
- Kidney shaped head support flexible and rake adjustable
- Padded and covered in heavy gauge, removable, washable fabric

2.3.4. C.2 Head support, complex adjustable

- Minimum 2 sizes, small and standard
- Easily removable
- Height and depth adjustable
- 4 point, hand shaped head support, flexible and rake adjustable
- Moulded and padded SVA

2.3.5. C.3 Set of fitting brackets for a second chair

2.3.4. C.4 Set of fitting brackets for 19mm back post

2.3.4. C.5 Set of fitting brackets for 22mm back post

2.4 Tray tables, basic

All items under 2.4 will be awarded as a series

Detailed specification description for category: Table to fit both basic and adjustable folding frame wheelchairs

Size range:

- To fit wheelchair 51 cm (20") wide (Total dimensions = 60+3 cm x 60+3 cm)
- To fit wheelchair 46 cm (18") wide (Total dimensions = 55±3 cm x 55±3 cm)
- To fit wheelchair 41 cm (16") wide (Total dimensions = 50±3 cm x 50±3 cm)
- To fit wheelchair 36 cm (14") wide (Total dimensions = 47±3 cm x 47±3 cm)
- To fit wheelchair 30 cm (12") wide with 40 cm seat frame length (Total dimensions = 39±3 cm x 47±3 cm)
- To fit wheelchair 30 cm (12") wide with 30 cm seat frame length (Total dimensions = 39±3 cm x 39±3 cm)
- To fit wheelchair 25 cm (10") wide with 30 cm seat frame length (Total dimensions = 31±3 cm x 39±3 cm)

Description:

- When attached, the extensions around the body should be long enough to reach to the back posts. This will ensure that the elbows are fully supported whilst in the upright sitting position.
- When attached, the curve around the body should be such to prevent openings between the body and the tray where the elbows, forearms or hands can slip into.

Thickness:

- Between 0.9 and 1.5 cm

Material:

- Wood or plastic

Quality:

- Smooth, washable, splinter free surface

Attachment:

- To attach with Velcro straps around the armrest of wheelchair
- If the tray has a Velcroed section for attachment, the Velcro should be of soft (loop) type

To submit for tender assessment:

- 3 trays
  - To fit wheelchair 46 cm (18") wide (Total dimensions = 55+3 cm x 55+3 cm)
  - To fit wheelchair 30 cm (12") wide with 40 cm seat frame length (Total dimensions = 39+3 cm x 47+3 cm)
  - To fit wheelchair 30 cm (12") wide with 30 cm seat frame length (Total dimensions = 39+3 cm x 39+3 cm)

CATEGORY 3: POSITIONERS

3.1 Sidelyers

(All items under 3.1 will be awarded as a series)

Detailed specification description of category: Positioner - sidelyers

Type:

- Side positioner consisting of fully adjustable body support
- To support body in alternate side lying position while stabilizing head, trunk and pelvis. Legs to be accommodated in opposing flexor and extending postures.
- Provide mattress with back support angles at 90 degrees to lying surface.

Size range: (Tolerance ± 5 cm)

- Extra small 100 cm long x 60 cm wide, Back height 35 cm (Back height measured from top of lying support)
- Small 120 long cm x 60 wide cm, Back height 35 cm (Back height measured from top of lying support)
- Medium 150 long cm x 60 wide cm, Back height 45 cm (Back height measured from top of lying support)
- Large 180 long cm x 70 wide cm, Back height 50 cm (Back height measured from top of lying support)

Frame:

- Aluminium folding with webbing and Velcro attachments

Foam supports:

- High density foam (26/20) Density range 24.1 – 27 Kg/m^3 and harness factor 18.0 – 21.6, except head support cushion high density foam (30/9) with density range 27,1 – 32 kg/m^3 and hardness factor 7.2 – 10.8.
- Removable washable cotton twill
- Lying surfaces covered with waterproof stretch terry cloth cotton covers , 2-way stretch, breathable, anti-microbial shield (AEGIF) treated,
- both fabrics machine washable and can be dried in tumble drier,
- Fabric with Velcro for adjustments
- 1 x integrated back and base support
- 2 x leg supports (base and small positioning block)
- 1 x head support with waterproof cover

To submit for tender assessment:

- 1 medium

- Submit copies of the following certificates to stipulate compliance with:
  - Quality of foam used

3.2 Prone wedges

(All items under 3.2 will be awarded as a series)

Detailed specification description of category: Positioner – prone wedges

Type:

- Prone wedge with pelvic support and abduction pommel
- To support body in prone lying while stabilizing the pelvis. Legs to be accommodated in abduction.

Size range: (Tolerance ± 1 cm)

- Extra Small: length 50 cm x width 60 cm x 10 cm front height x 4 cm back height
- Small: length 70 cm x width 60 cm x 15 cm front height x 6 cm back height
- Medium: length 90 cm x width 60 cm x 20 cm front height x 8 cm back height
- Large: length 110 cm x width 70 cm x 25 cm front height x 10 cm back height

Abduction blocks:

- 3 cm front x 8 cm back x 16 cm long x 15 cm high
- 6 cm front x 11 cm x 16 cm long x 15 cm high
- 7 cm front x 13 cm x 16 cm long x 15 cm high
- 7.5 cm front x 15 cm x 20 cm long x 15 cm high

Pelvic stabilisation:

- Pelvic strap 10 cm wide webbing strap with Velcro attachments for extra small, small and medium
- Pelvic strap 15 cm wide webbing strap with Velcro attachments for large
- Sand bag: 1.5 kg, 2 kg, 2.5 kg and 3 kg divided into three sections in relation to wedge size.

Foam supports:

- Prone wedge and abduction block: high density compressed (reconstituted flexible PU) foam 960; Hardness factor 38 - 60; Density 96±10% kg/m3 . (SANS 642 – 1976).

Cover:

- Vinyl with zip or hand-closed

To submit for tender assessment:

- 1 medium
- Submit copies of the following certificates to stipulate compliance with:
    - Quality of foam used

3.3 Standing frames

3.3.1 Positioner – Upright standing frame

All items under 3.3.1 will be awarded as a series

Detailed specification description of category: Positioner – Upright standing frame

Type:

- Adjustable upright standing support
- Full trunk support
- Upright posture support .Lower limb, pelvis, trunk and head support
- Allow age appropriate abduction of hips
- Allow age appropriate hip and knee extension (this means a degree of flexion for certain ages)

Size range (variance ± 5 cm):

- Extra small: Heel to Head 65cm-100cm ;Hip width maximum 30cm
- Small: Heel to head 85cm-120cm ;Hip width maximum 30cm
- Medium: Heel to head 100cm-135cm;Hip width maximum 35cm
- Large: Heel to head 135cm-160cm;Hip width maximum 40cm

Pelvic support

- Pelvic support adjustable, height and tension

Knee support:

- To provide support under patella (patella should be free). Support height adjustable and adequately padded.

Foot support

Forward and backward adjustability and age appropriate abduction and lateral rotation

Trunk side supports:

- Design of standing frame should provide adequate trunk side support.

Lap tray/ worktable:

- Removable, height and forward adjustable

To submit for tender assessment:

- 1 small standing frame

3.3.2 Positioner – Prone standing frame, Adjustable forward tilt to prone 30 degrees

All items under 3.3.2 will be awarded as a series

Detailed specification description of category: Positioner standing frame (prone stander), Adjustable forward tilt to prone 30 degrees

Type:

- Adjustable prone standing support
- Adjustable forward tilt to prone minimum 30 degrees
- Upright posture support .Lower limb, pelvis, trunk
- Allow age appropriate abduction of hips
- Allow age appropriate hip and knee extension (this means a degree of flexion for certain ages)

Size range (variance ± 5 cm):

- Extra small: Heel to Head 65cm-100cm ;Hip width maximum 30cm
- Small: Heel to head 85cm-120cm ;Hip width maximum 30cm
- Medium: Heel to head 100cm-135cm;Hip width maximum 35cm
- Large: Heel to head 135cm-160cm;Hip width maximum 40cm

Tilt: Variable (mechanical /Pneumatic/hydraulic) and can be set at minimum 30 degrees

Pelvic support: Pelvic support, adjustable, height and tension

Knee support:

- To provide support under patella (patella should be free). Support height adjustable and adequately padded.

Foot support

- Forward and backward adjustability and age appropriate abduction and lateral rotation

Trunk side supports:

- Design of standing frame should provide adequate trunk side support.

Lap tray/ worktable: Removable, height and forward adjustable

To submit for tender assessment: 1 small standing frame

CATEGORY 4: COMMODES AND POSTURE SUPPORT SEAT SYSTEMS

4.1 Commode

Detailed specification description of category: Commode

4.1.1 Commode, basic

Frame:

Folding frame, Mild steel, Galvanised, Epoxy coated; Constructed in a such a way that it can be reversed over a standard toilet bowl

Size: Width 46 cm, Depth 40 cm

Seat: Moulded polyurethane seat; Removable bucket system

Backrest: Full length back support; Height 40 cm

Armrests: Removable

Footrests: Removable

Castors: 4 x Lockable, Minimum 5 cm diameter

4.1.2 Aluminium toilet and shower commode (wheelchair type)

Frame:

Folding frame, aluminium frame, Epoxy coated; Constructed in a such a way that it can be reversed over a standard toilet bowl

Size: Width 46 cm, Depth 40 cm

Seat: Moulded polyurethane toilet seat shaped; Removable bucket system

Backrest: Full back length back support; Height 40 cm, back posts removable

Armrests: Removable

Footrests: Removable

Rear wheels and axles: Quick-release, 24x 1 3/8 wheels

Castors: Standard 8 x 1” or 8 x 2”

4.2 Posture support seat systems

For use in transporting child in vehicle

All items under 4.2 will be awarded as a series

Detailed specifications for Posture support seat system for use in transporting child in vehicle

Size range of seat system:
The sizes below are maximum usable measurements of complete seating back supports and cushions. Variances of 2 cm allowed

- Seat width 30 cm, depth 31 cm, height 50 cm
- Seat width 35 cm, depth 36 cm, height 60 cm
- Seat width 40 cm, depth 41 cm, height 70 cm
- Seat width 40 cm, depth 45 cm, height 80 cm

General requirements:

- The seating system must be used in conjunction with a standard vehicle seat belt system. The design therefore must be such that it allows for safe and secure use of standard vehicle seat belt system.
- System will be removable from vehicle by way of a strapping attachment system

Seat support frame specifications:

- Seat and back unit will be 2 separate units which can be set up independently of each other to fit the user's individual specifications
- Rigid outer made from fiberglass or similar strength material such as Polyethylene board
- Both seat and back units should have rigid outer
- Design must allow for supported tilt in space of 20 degrees while maintaining 90 degree hip flexion

Back unit:

- Foam contour moulded back support (see specifications under seat system foam)
- Contoured lateral trunk and pelvic supports to ensure maximum postural support, but not restrict upper limb function and movement
- Thoracic and pelvic posterior support moulded to allow for postural support in neutral alignment
- Integrated chest strap – see postural support straps

Head:

- Head support unit
- Position adjustable
- Moulded to allow for lateral head support
- Lateral head support should not restrict vision

Seat unit:

- Contoured sitting surface with build in pre-ischial, adduction and abduction support (see specifications under seat system foam).
- High density foam pressure relieving cushion.
- Integrated pelvic strap – see postural support straps

Postural support straps
Chest strap
- 10 cm wide adjustable non-stretch strap
- Release system should be made inaccessible to user by means of a protective sleeve

Lap belt Support
- 5 cm wide adjustable non-stretch strap
- Release system should be made inaccessible to user by means of a protective sleeve

Seat system foam:

At least 2 layers

Top layer for postural support and pressure relief:
- High-density foam 30/20; Hardness factor 18 – 21.6; Density range 27.1 - 32 kg/m3

Base layer:
- High density chip foam (reconstituted flexible PU) foam sc 960; Hardness factor 38 - 60; Density 96+10% kg/m3 (SANS 642 - 1976)

Seat and back support Upholstery
- Covers to be removable and washable
- Breathable 3 ply laminate with porous PU coating membrane
- Face and lining 100% Polyethaline ES , Weight minimum of 136g/m2
- Fluid-proof impermeable barrier against viruses and bacteria
- 100% resistant to microbial penetration anti-microbial shield (AEGIF) treated

Attachment system to secure seat to vehicle
- Attachment system should separately secure the back and seat units to the vehicle seat and prevent sliding or movement in any direction

To submit for tender assessment:
- 1 posture support system
- Seat width 40 cm, depth 41 cm, height 70 cm
- Submit copies of the following certificates to stipulate compliance with:
    - Densities as specified for both high density compressed (reconstituted flexible PU) foam and high density foam.
    - Microbial fabric certificate