

# nitrun

# THE NITRUM

- Lightest in class
- Most configurable
  - (32 frame-versions)
- User-driven Innovations ,
- Performance and Style

# THE NITRUM

Marketing Campaign: Performance and Style

### THE NITRUM: THERAPEUTICAL

### The benefits of configurability and adjustability

- The perfect chair for every user: no weight-
- penalty for light users
- Perfect positioning with 3 frame-angles an 3
- insets Positioning is crucial for propulsion-efficiency:
- weight balance and handrim-access have a tremendous effect on propulsion-torque Adjustability of CoG: -15% rear-wheel load (more
- passive CoG) will increase propulsion torque during acceleration by 17%

#### Why weight matters

Easier to propel: +1kg of weight will increase

- propulsion-torque by 2% Improved handling and maneuverability
- Transportability: weight can be the key to
- independence Lightweight requires high-level materials and
- will increase durability

# **THE NITRUM: FRAME-VERSIONS**

- 7020 Aluminium, ovalized for optimized weight-to-stiffness ratio
- **Open or Hybrid-frame- consider the following:** 
  - user-weight (125kg vs. 140kg)
  - chair weight (Hybrid: + 980g) •
  - usage (i.e. often used with handbike or add-on-devices) •
- Hybrid and Pro-versions to be launched with Part 2 transportation (open frame is easier to handle and stow •
- **Fixed-welded PRO-options** 
  - Optimised weight-to stiffness ratio (-300g with fixed-welded backrest)
  - Also available with folding backrest if necessary for transportation •
  - Also available with Freestyle backrest •
  - CoG is adjustable +/- 10mm ٠
  - Option for experienced users and dealers •







Sunrise

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# **THE NITRUM: FRAME-VERSIONS**

#### Do the math:

8 angle/inset-versions **x** open/hybrid-frame **x** adjustable/ fixed-welded = <u>32 frame versions</u> in 90 seat-width (up to 500mm)/ seat depthcombinations

- Frame angle is determined by:
  - positioning of feet
  - accommodation of lower legs
  - positioning of the pelvis
  - Mobility of joints and Spasticity
  - 100° frame will add 45 mm frame-length compared with a 92° frame
  - 88° frame will reduce 40mm frame-length compared with a 92° frame Will also affect:
  - Front-end stability
  - turning radius
  - Center of Gravity
- Frame length: add 20mm extra frame length for increased front-end stability
  <u>Will also affect</u>
  - Turning radius
  - Center of Gravity
- Inset: choose between 0mm, 10mm or 30mm per side
  - Position and stabilize lower legs
  - Has the potential to reduce spastics
  - Will decrease the front-frame width
  - <u>Consider</u> sufficient space for feet: seat-width -10mm- 2x inset

		M	ED	I C
Angle	0 ins	10 ins	30 ins	
100°	Х	Х	Х	
92°	х	х	х	
88°	v	_	v	

SUNRISE



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# **THE NITRUM: FRAME-VERSIONS**



- New caster-link Design
  - Unique, bold design
  - High strength: one-piece, hollow-forged aluminium
  - Re-inforced design of the caster mechanism
  - **Optimised caster-position** for every frameangle/inset/ caster-size improves handling and propulsion-efficiency
  - 6-way adjustment: angle , straight-run and <u>height</u> (=> no more floating casters)
- New backrest-brackets
  - Forged aluminium
  - Separates angle-adjustment and foldingmechanism
  - Easy to adjust
  - More stability, less play
  - Double-locking available (angle-adjustable)
  - 5 anodized colours available

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# THE NITRUM: BACKREST VERSIONS SUNRISE

**Bild** 

- Aluminium backrest
  - with release-bar (push-up to fold)
  - Height-adjustable in 25mm increments
  - Double-locking available as an option
- Aluminium backrest, twist-lock
  - With **Twist-Lock** handle (twist to fold)
  - "Double-shot" handle for improved "grip"
  - Height from 275mm-450mm, fixed height
  - Double-locking available as an option
- Lightweight aluminium backrest
  - with release-bar (push-up to fold)
  - Height from 250mm-450mm, fixed height
  - -200g weight
  - Crosstube available in "wide" and "close"
  - Double-locking availabe as an option
- Freestyle backrest
  - With J3 Carbon backrest-shell: optimised positioning, therapeutical adjustment
- Double-locking is now angle-adjustable: can be adjusted to lock with cushion on the chair



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## **THE NITRUM: TWIN-LED LIGHT**



- LED Light on the caster-links
  - Composite housing, water- and shockproof
  - 4 LED per side light-up the area around the caster-wheels
  - 3 Modes: high, low, blink
  - Control-Box incl. Li-Ion battery mounted to the calf-strap (detachable for charging), 4hrs runtime
  - Improved visibility and vision in the dark=> safety feature



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# THE NITRUM: SEAT UPHOLSTERY



- Seat upholstery (Standard)
- Tension adjustable
- Breathable fabric
- Block-and tackle tension-adjustment: easy to tension (double-force), stays tense

• **Strap-style (airflow)** seat-sling available as option

 Bolts for CoG adjustment are now accessible from the bottom for quick and easy CoG-adjustment

# THE NITRUM: COMPACT BRAKE



#### Compact brake EVO

- Reinforced bi-lateral housing: less play, improved durability
- Improved brake-force and handling
- Keeps locked when moving the wheel
- Weight-saving compared to predecessor: 60g
- Transfer-friendly design
- As well available as lightweight Compact (direct mount, 180 g weight-saving)





# **THE NITRUM: OPTIONS**



- Numerous options available
  - Flip-back and inwards-option for sideguards
  - Neoprene frame protection
  - Carbon axle-tube
  - Free-Style Back
  - Carbon-Composit Caster
  - Colour options incl. Floating dots
  - Ellipse and Carbolife handrims
  - Flip-back footboard
  - Divided Footboard
  - Handbike-Axle
  - Flip-up anti-tip (user operated)
  - Sports anti-tip
  - Transit-wheels
  - One-arm brake
  - Crash-test Option
  - WheelDrive-Bundling
  - Tubular armrest
  - JAY Bundling
  - Etc...

