

Empulse

F35

Launch Presentation



Empulse

Pull Device

Power Add On (Joystick)

Wheel Add On (residual power support)

Push Assist

Caregiver Assist

Pull Devices

Add On Bikes



SUNRISE PULL-DEVICE PORTFOLIO

14-20"

6-12"



SUNRISE
MEDICAL
Street Jet
16"



SUNRISE
MEDICAL
Attitude Power
16"



SUNRISE
MEDICAL
F55 14"



SUNRISE
MEDICAL
Street Jet
12"



F35 6,5"
F55 8,5"

Urban

Outdoor

Offroad

F35 DESIGN SCOPE

Develop a new product that **combines the benefits of a power assist bike** that is

Ultra-lightweight

Super-compact & Easy to transport

High-End Performance

Allowing riders to use it independently, in all every-day environments



LIGHTWEIGHT & TRANSPORTABLE



Vs. Active manual wheelchairs

F35	Quickie QS5X	Quickie Argon 2	Quickie Nitrum
7.5Kg	7.3Kg (8.5Kg Avg)	7Kg (8.2Kg Avg)	4.9Kg (6.5Kg Avg)



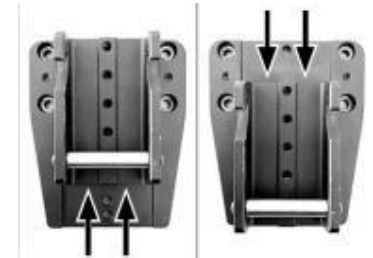
Vs. other Power Assist Bikes

F35	F55	StreetJet	Triride SL
7.5Kg	11Kg	12.9Kg	8.8Kg



GOOD TO KNOW

- NOT the same docking as F55
 - Just the Clamps on the chair are equal (compatibility)
 - The whole lift mechanism has been redesigned (patent pending)
 - Optimal angle of F35 is 80 degrees – adjusted via docking bracket screws one hole = 2.5 degrees adjustment
- 10&15Kp/h do have slightly more power in reverse gear than 6kp/h max (~5kph vs 4kph)
 - (all versions do have the same power forwards)
- Modularity and Dealer benefits
 - Easy handling and repair:
 - The F35 has one main SKU
 - Just the coupling mechanism is individualized to fit the wheelchair (width, frame shapes and diameters)
 - Multiple used parts
 - Charger → same as StreetJet, R20 & Attitude Power
 - Clamps → same as F55 (allows to have one wheelchair for both products)









- A second subframe available for an affordable price allows to attach the F35 to different wheelchairs
- Removable battery fuse is a 30A mini fuse which is widely available & cheap



- To change the speed up or down a new display must be ordered and mounted to the handlebar

Pull Device Comparison	 F35	 F55 8.5	 SJ 12	 F55 14	 SJ 16	 Attitude P
Wheel Size <i>* Will be discontinued</i>	6,5"	8,5"*	12"	14"	16"	16"
Usage	Indoor/ Urban	Indoor/ Urban	Allround	Outdoor	Outdoor/ Offroad	Outdoor/ Offroad
Max User Weight (kg)	110	110	120	110	120	100
Max Range (km) <i>*coming with VaVe</i>	~15	~25 (8Ah)	~50 (14Ah) ~26 (8Ah)	~25-30 (8Ah) ~50 (14Ah)*	~50 (14Ah) ~26 (8Ah)	~50 (13,4Ah) ~30 (9Ah)
Speeds (kph)	6,10,15	6,10,15,20	6,10,15,20	6,10,15,20	6,10,15,20	6,10,15
Total Weight (kg)	From 9	From 12,9	From 15	From 13	From 15,3	From 15,3
Docking	1) Quick docking 2) Sub frame docking	Sub frame docking	One touch clamp docking	Sub frame docking	One touch clamp docking	4 point docking
Features	Quick docking / Integrated Design	Multiple versions (SA & FF) / Individualisation	Stand/ double disc brake/ Tetra Option/ Anodized parts	Multiple versions/ Individualisation	Stand/ double disc brake/ Tetra Option/ Anodized parts	Rigid/Stable connection to chair/ 2 pos. Stem option / frame colour options
Flight Friendly	Yes - full device (std)	Yes – removable battery (std)	Yes (w/ additional 8Ah battery)	Yes – removable battery (std)	Yes (w/ additional 8Ah battery)	No

<p>Pull Device Comparison</p>	 <p>F35</p>	 <p>F55 8.5</p>	 <p>SJ 12</p>	 <p>F55 14</p>	 <p>SJ 16</p>	 <p>Attitude P</p>
<p>Compatibility <i>*CA's in progress</i> <i>**round tube 32mm in progress</i> <i>*** (Sunrise & competitors—see OF/compat. guide)</i></p>	<p>FF,SA Clamps: oval, Xenon SA, round tubes, round tubes 32**</p>	<p>FF,SA Clamps: oval, Xenon SA, round tubes, Progeo, Ki, Kuschall**</p>	<p>FF Clamps: round tube 19-24, round tube 25-35, oval tube</p>	<p>FF,SA Clamps: oval, Xenon SA, round tubes, Progeo, Ki, Kuschall**</p>	<p>FF Clamps: round tube 19-24, round tube 25-35, oval tube</p>	<p>FF Clamps: Multiple chair options***</p>
<p>Advantages</p>	<p>Lightest weight / cleanest aesthetic, quickest docking, transportable & flight friendly</p>	<p>Light weight w/ removable battery – Subframe folds up for transport – SA version</p>	<p>Easy to dock – 3 steps; no clamps remain on chair; stable driving experience with spring stabilizers; premium parts + kickstand</p>	<p>Light weight w/ removable battery – Subframe folds up for transport – SA version</p>	<p>Easy to dock – 3 steps; no clamps remain on chair; stable driving experience with spring stabilizers; premium parts + kickstand</p>	<p>Extremely stable/rigid docking connection – great for offroad: premium parts + kickstand</p>
<p>Disadvantages</p>	<p>Lower range - smaller wheel - max 15kph</p>	<p>Clamps on chair – No tetra - No bigger battery option for increased range</p>	<p>No SA - Not as easy to transport</p>	<p>Clamps on chair – No tetra</p>	<p>No SA - Not as easy to transport</p>	<p>Bulkier – harder to transport – pins on chair – max 15kph – no flight battery</p>
<p>When to choose</p>	<p>- Wants lightest & quickest docking for urban (indoor & outdoor usage) -> most versatile small wheel device & by far easiest to transport</p>	<p>- Wants lighter weight PA compatible w/ SA chair - Wants smaller PD w/ removable flight battery - Wants StVZO or 20kph</p>	<p>- Wants an allround pull device w/ nothing on chair - Wants 20kph - Wants multiple battery options - Wants Tetra functionality</p>	<p>- Wants bigger wheel for mostly outdoor usage (perfect to combine w/ F35 – same clamps) - Wants StVZO or 20kph or SA</p>	<p>- Wants bigger wheel and 20kph for outside/offroad usage - Wants Tetra functionality</p>	<p>- Wants most stable connection - Wants specific colours/ or owns other attitudes (manual/hybrid)- Wants grip throttle</p>