

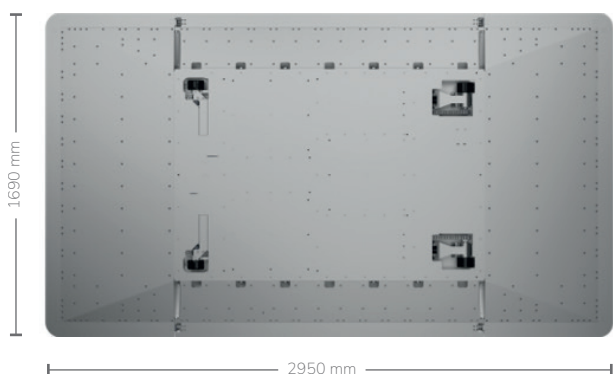
UFOpro® TARGET CARRIER



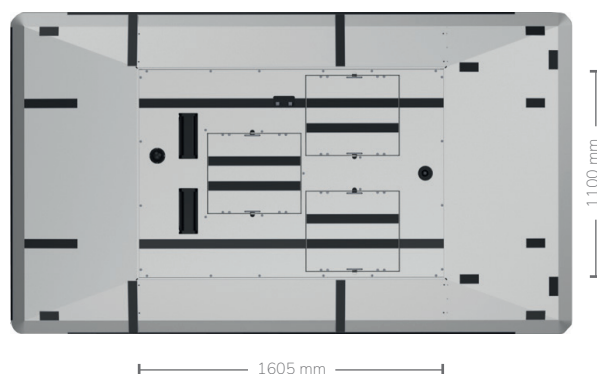
KEY FEATURES

- **Low overrun height of 98 mm** – to be overrun/over-braked by a vehicle without damaging the vehicle or the target carrier
- **Quick and simple access to all internal components** with a **single central cover plate** which can be easily removed with just a few screws
- **Hot swappable batteries** to continuously run high speed tests (i.e. Euro NCAP lane support system tests) with zero downtime for recharge; this feature also enables replacement batteries to be charged while other battery sets are active, allowing us to extend battery life and ease of transportation by UN38.3 certification
- **Removable ramps** simplify transportation and storage by reducing the overall size and weight of the target carrier, which can be easily transported with any standard minivan-sized vehicle
- **100% splash water protection system** allows for testing in adverse weather conditions (e.g. muddy, wet, salty) and minimizes maintenance effort and cost
- **Designed to enable fast wheel changes**
- **Screw-less, welded ramp system** for reduced Radar Cross Section (RCS)
- **Stable 4-wheel chassis** for minimized rolling of the target in dynamic lateral motions (e.g. wind suction/slipstream during overtaking)
- **Designated official tool by Euro NCAP laboratories** (e.g. ADAC, AstaZero, CSI, Thatcham)
- **Global Vehicle Target (GVT) and UFO Target Carrier** have been **confirmed by Euro NCAP/NHTSA/IIHS** workshops as being in accordance with required standards
- **Several standard safety functions** ensure safety of operators; optional add-ons such as **proving ground warning lights and monitoring systems** can be integrated into the UFO product family

BOTTOM VIEW



TOP VIEW



Scan to see the UFOpro®
target carrier in action.



UFOpro[®] TARGET CARRIER

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The UFOpro[®] is the default version of the UFO; with its low overrun height of 98 mm and hot swappable batteries, it is designed for Euro NCAP ADAS testing. The UFOpro[®] is available with an optional ABS system, as well as a Heavy Duty version with reinforced ramps and batteries, allowing it to be overrun by commercial vehicles up to 40 tonnes. An additional set of batteries can be purchased separately.

UFOpro BLACKSERIES TARGET CARRIER

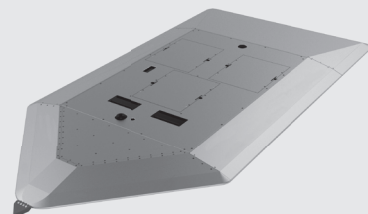
With a maximum speed of 100 km/h including a GVT target, the UFOpro BlackSeries¹ is a step up from the UFOpro. It has an increased gear ratio as well as a specific control algorithm for high speeds. Like all UFOs, the UFOpro BlackSeries is available with an optional ABS system. Both the UFOpro BlackSeries and the UFOpro[®] share a similar mechanical design, so that a UFOpro can easily be upgraded to an UFOpro BlackSeries.

Arrow Ramps

Can be swapped with standard front ramp for side impact testing of cars.



See the Arrow Ramps in action.

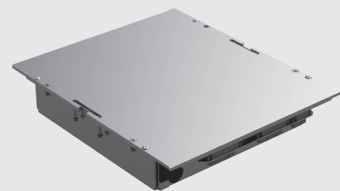


Additional Lithium Power Pack

Extra power pack allows ongoing testing without downtime for charging batteries.



See the fast and easy battery swap.

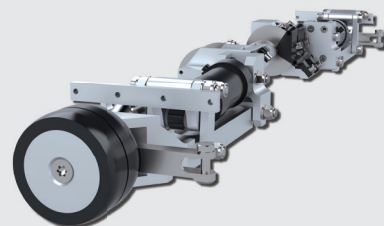


Anti-Lock Braking System (ABS)

The UFO platform's ABS extends tire life, saving time and money in addition to reducing waste

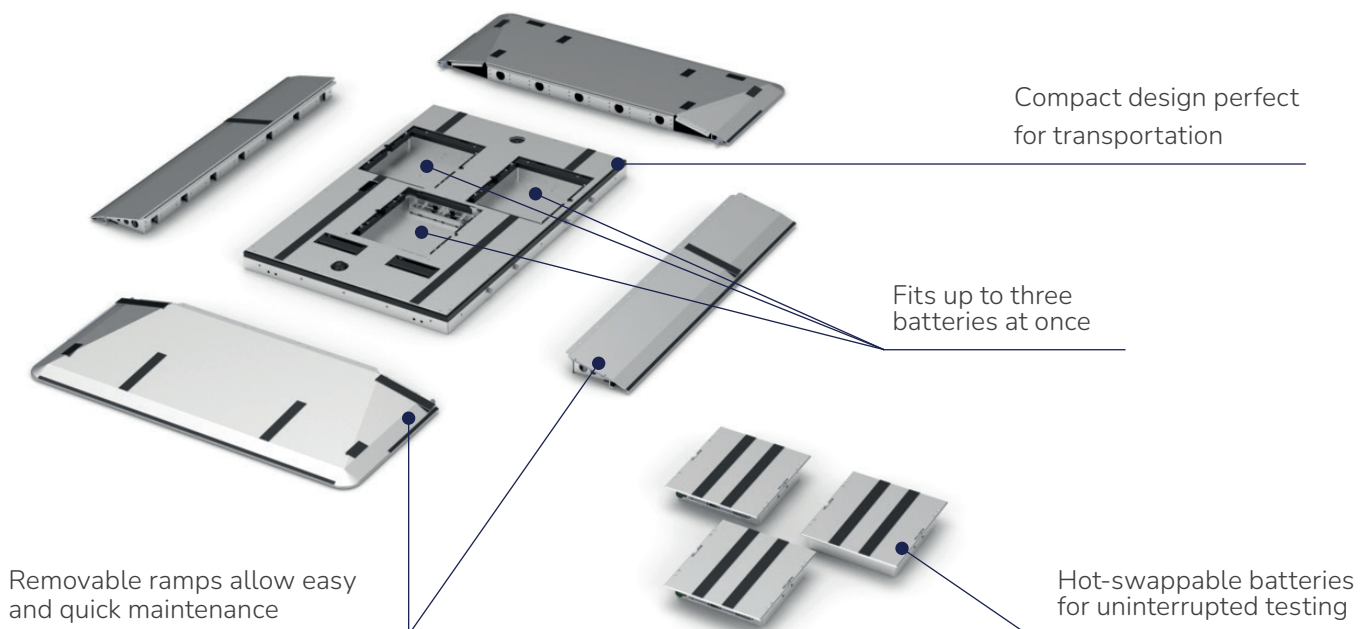


See the ABS in action.



UFOpro[®] TARGET CARRIER

DESIGN OVERVIEW



SPECIFICATIONS

DIMENSIONS	Transportation Size	1605 x 1100 mm
	Test Ready Size	2950 x 1690 mm
	Chassis Height	98 mm
	Test Ready Weight	244 kg (Standard) / 264 kg (<i>BlackSeries</i>)
	Payload	125 kg
	Overrun Capacity (per wheel)	1500 kg (Standard) / 3600 kg (Heavy-Duty)
	Clearance	15 mm
DYNAMICS	Maximum Speed Forward	80 km/h (Standard) / 100 km/h (<i>BlackSeries</i>)
	Maximum Speed Backward	20 km/h
	Maximum Longitudinal Acceleration	1.8 m/s ² (Standard) / 1.4 m/s ² (<i>BlackSeries</i>)
	Maximum Longitudinal Deceleration	6 m/s ²
	Maximum Lateral Acceleration	1.5 m/s ²
	Minimum Turning radius	6 m

UFOpro[®] TARGET CARRIER



SPECIFICATIONS

ENERGY	Batteries Included	2 (Standard) / 3 (BlackSeries)
	Chargers Included	2 (Standard) / 3 (BlackSeries)
	Battery Technology	Lithium Iron Phosphate (LiFePO4)
	Battery Capacity	2048 Wh (Standard) / 3072 Wh (BlackSeries)
	Voltage	51.2
	Battery Slots	3
	Battery Swapping Time	2 minutes (hot swappable)
	Battery Set Charging Time	90 minutes
ACCURACY	Battery Life Time (common NCAP Testing)	Full testing day (up to 60-80 NCAP scenarios)

ACCURACY	Speed Control Accuracy	0.2 km/h
	Speed Measurement Accuracy	0.05 km/h
	Side Control Accuracy	50 mm
	Yaw Rate	+/- 1 deg/s
	Accuracy	in line with ISO 19206-7
	GNSS Unit Oxford	OEM3000v3
	GNSS Unit SBG	-

AREA OF APPLICATION	Radar Cross-section	in line with ISO 19206-3
	Drive-over Capacity	Passenger vehicles Commercial vehicles Heavy Duty vehicles
	Targets (main use)	Passenger Vehicle 3D Target REF. F & G

CONDITIONS	Operation Temperature Range	-10° C to 50°C
	IP Rating	IP66
	Relative Humidity Range	0%-95%, not condensing
	Recommended Storage Temperature	5° C to 25° C

The UFOpro[®] supports the following scenarios

- Automatic Emergency Brake - Car-to-Car (AEB-C2C)
- Forward Collision Warning - Car-to-Car (FCW-C2C)
- Emergency Lane Keeping (ELK) (oncoming-overtaking)
- Automatic Emergency Steering (AES)
- Emergency Steering Support (ESS)
- Rear Automatic Braking
- Blind Spot Detection
- Blind Spot Intervention
- Intersection Safety Assist
- Opposing Traffic Safety Assist
- Traffic Jam Assist

....and many more scenarios thanks to the flexibility of our Trajectory Generator Software.