

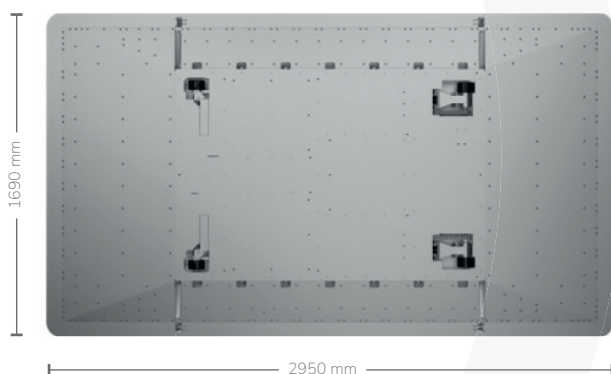
# UFOpro® TARGET CARRIER



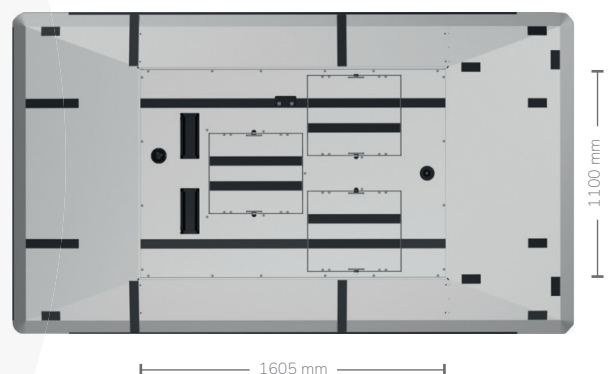
## KEY FEATURES

- **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

## UFOpro® TARGET CARRIER

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

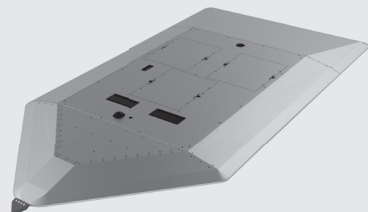
With a maximum speed of 100 km/h including a GVT target, the UFOpro BlackSeries<sup>1</sup> is a step up from the UFOpro. It has an increased gear ratio as well as a specific control algorithm for high speeds. Like all UFOs, the UFOpro BlackSeries is available with an optional ABS system. Both the UFOpro 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.*

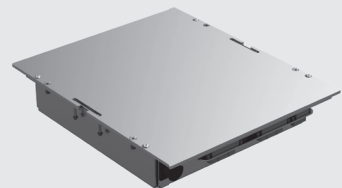


### Additional Lithium Power Pack

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



*See the fast and easy battery swap.*

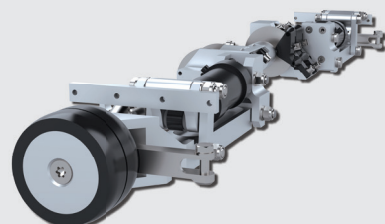


### Anti-Lock Braking System (ABS)

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



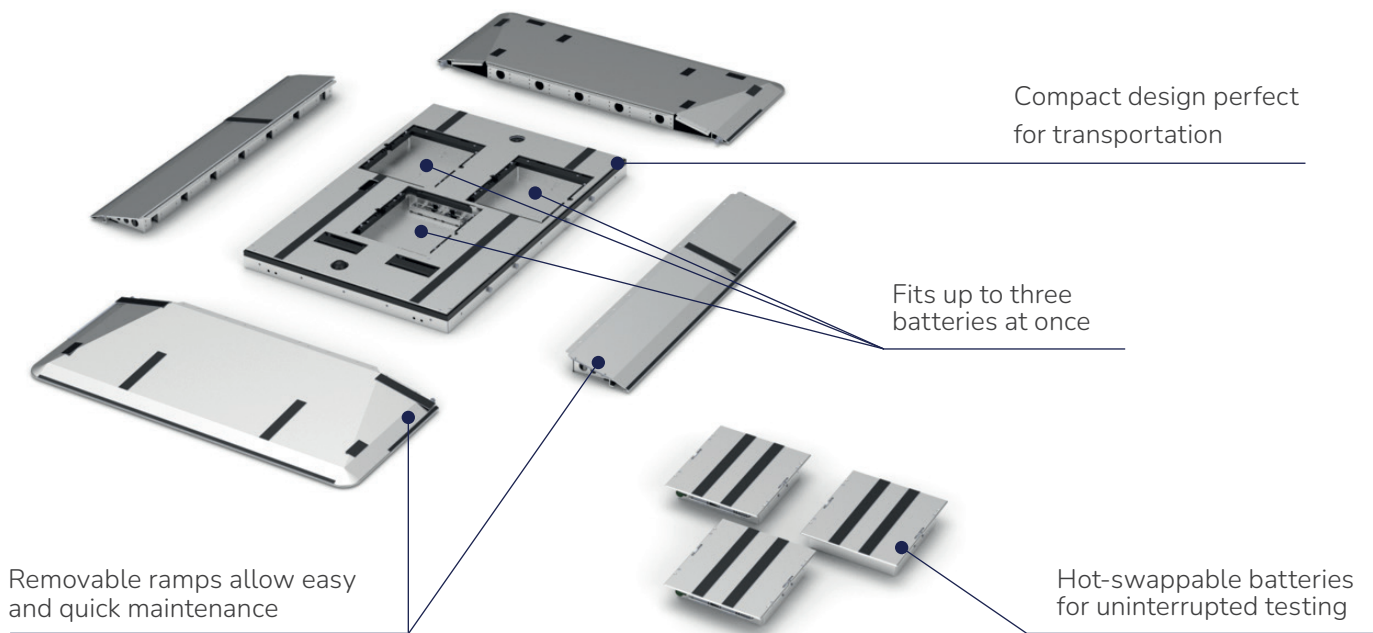
*See the ABS in action.*



<sup>1</sup> The designated hereinafter referred to as UFOpro BlackSeries, is describing UFOpro BlackSeries target carrier

# UFOpro<sup>®</sup> TARGET CARRIER

## DESIGN OVERVIEW

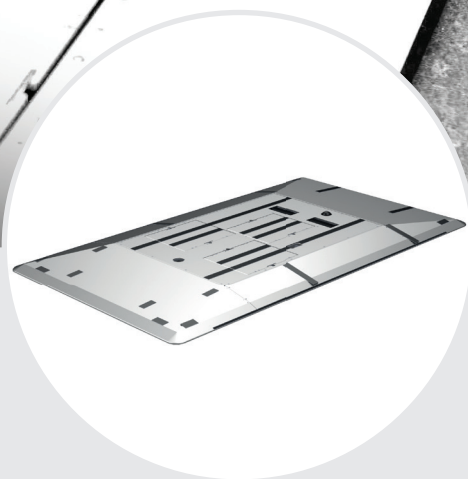


## SPECIFICATIONS

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	45 tons (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 <sup>2</sup> (Standard) / 1.4 m/s <sup>2</sup> ( <i>BlackSeries</i> )
	Maximum Longitudinal Deceleration	6 m/s <sup>2</sup>
	Maximum Lateral Acceleration	1.5 m/s <sup>2</sup>
	Minimum Turning radius	6 m at 5 km/h



# UFOpro<sup>®</sup> 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<sup>®</sup> 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.