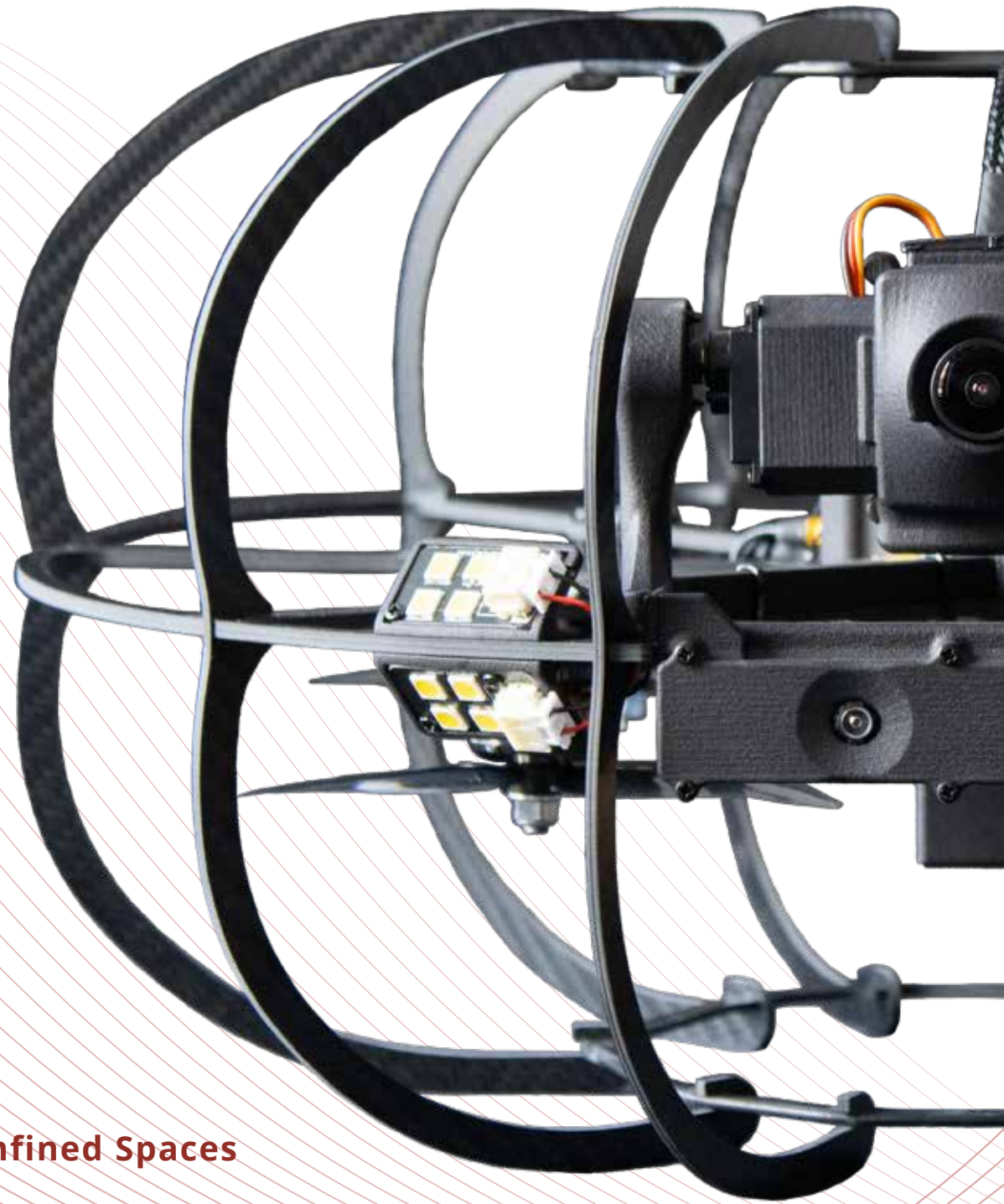


# M

# 2

# Stereo





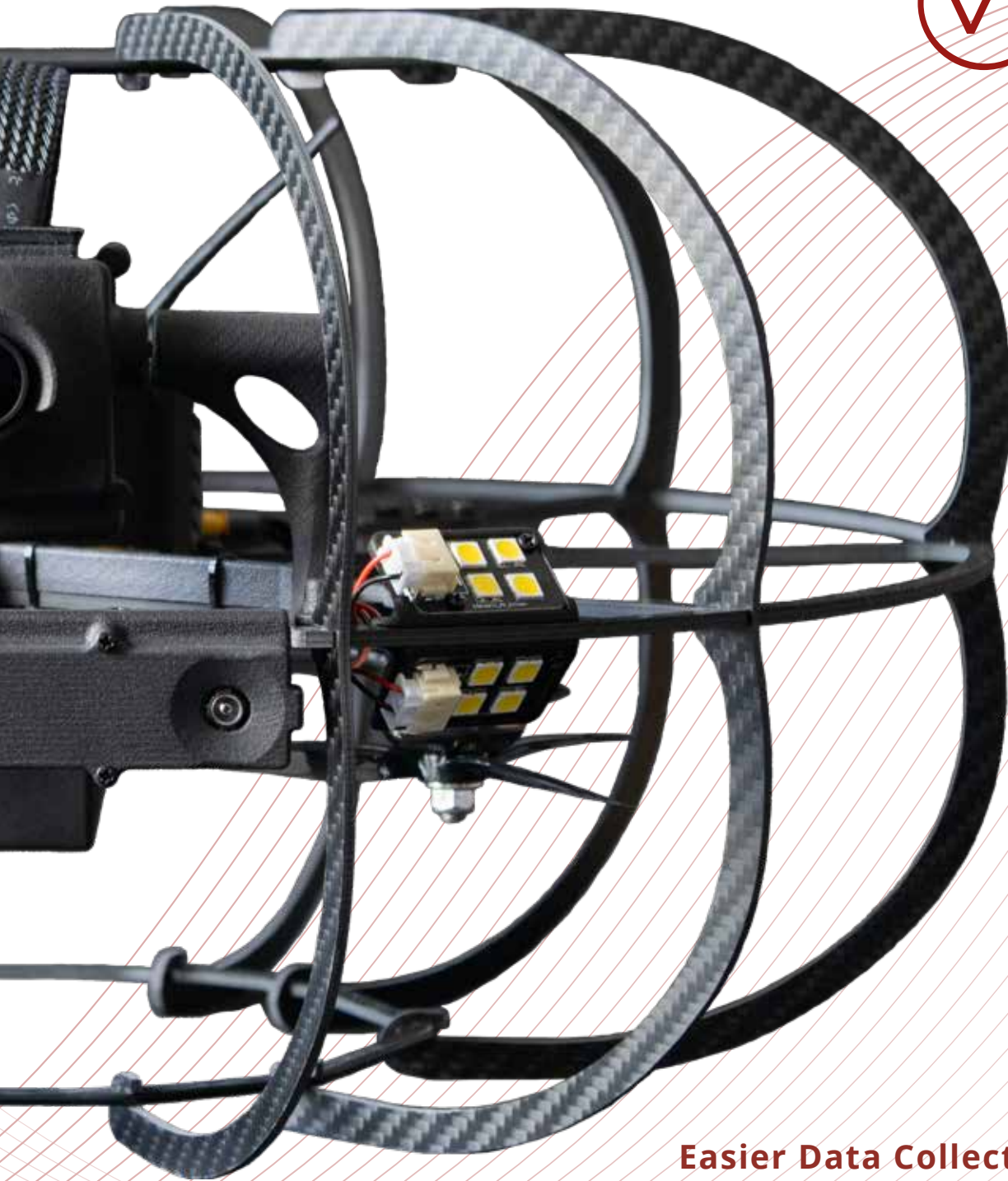
### **Agility in Confined Spaces**

- Small diameter (39 cm)
- Powerful lighting system (10k lumens)
- Improved vision through steam and dust
- Robust radio and video link

### **Without GPS, flying made easy**

- Stereoscopic camera Stabilization
- Odometry





### **Improved Flight Safety**

- Protective cage
- Collision-tolerant behaviour

### **Easier Data Collection**

- 4k Photo - Video
- Real-time 1080p video feed-back
- 180° rotating camera
- Access to flight logs

# A DRONE FOR CONFINED SPACES

## Potective Cage

Allows contact with walls without the risk of damage.

In confined environments, it is often not possible to avoid contact with walls. It is therefore important that the drone is able to touch surfaces or fixtures.



## Small Size

A drone with a small diameter is more maneuverable and better suited for flights in confined spaces. With a diameter of less than 40 cm, the Stereo2 is able to pass through most manholes.



## Optical stabilization

Optical stabilization is currently the only way to compensate for the lack of GPS signals in confined areas.

The Stereo2 can record its movements in real time and make this data available to the pilot and use it for 3D reconstruction.



## Lighting

Lack of light is a common problem in confined environments. However, light is crucial for the camera to record the environment efficiently

Broad, uniform and powerful lighting is therefore crucial for effective operation.



## Dust Resistance

Dust clogs up vents and causes equipment to overheat.



However, the Stereo2 has a passive ventilation system with wide-open slots, which enables quick cleaning with compressed air.

Thanks to the indirect lighting in dust protection mode, good visibility is guaranteed even in very dusty environments.

## HD Feedback

The higher the resolution of the video transmission, the better the pilot can cope with the difficult environments in which he is flying.





## 4K RECORDING

The aim of every inspection is to obtain the best possible data set. To this end, the Stereo2 is equipped with a 4K camera.

Its hard focus is factory-set to provide a sharp image that will not be disturbed by any deposits on the lens.

The ISO setting is automatic to simplify the pilot's work. To adjust the exposure at close range, it is sufficient to regulate the power of the integrated lighting accordingly.



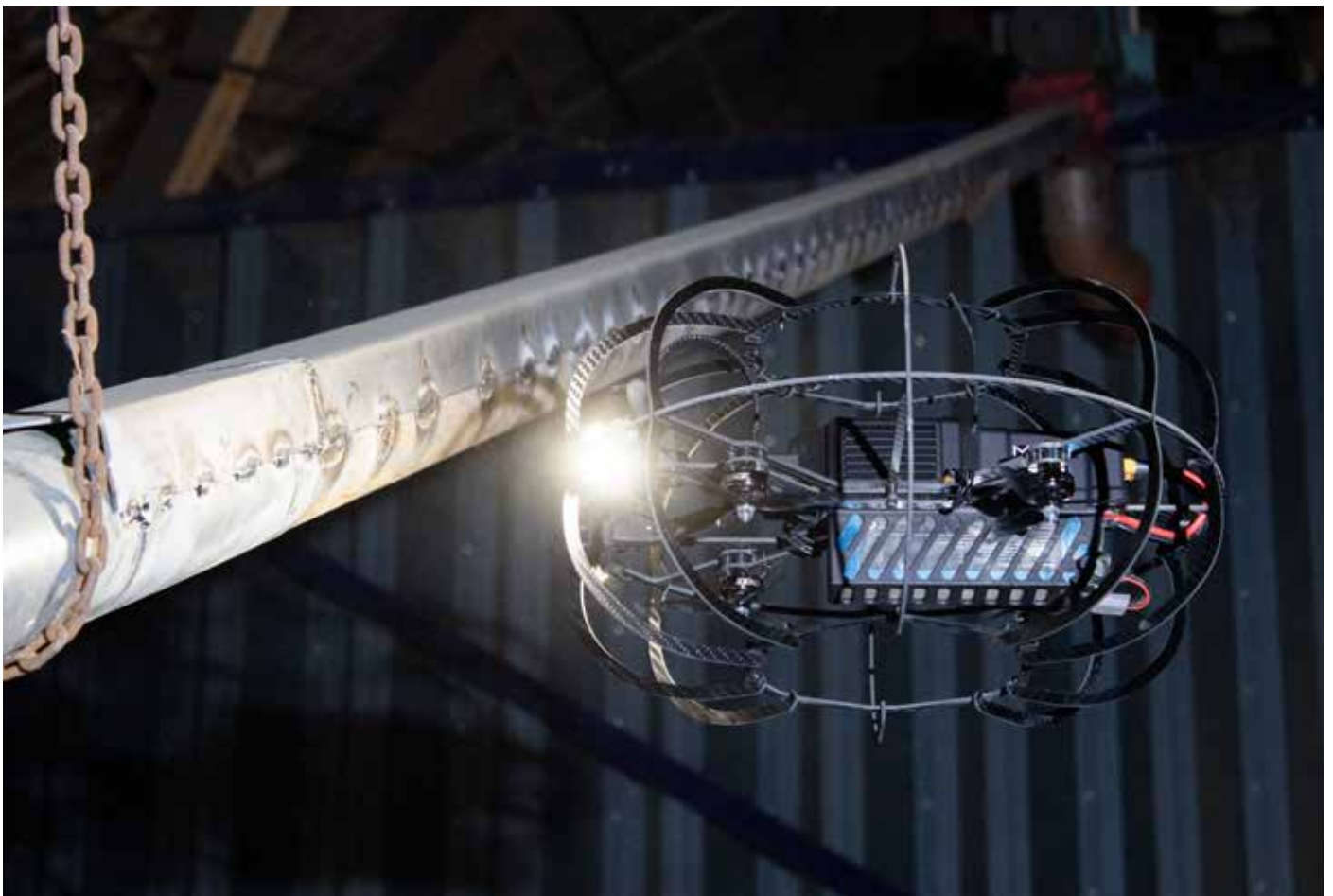
# 10000 LUMENS

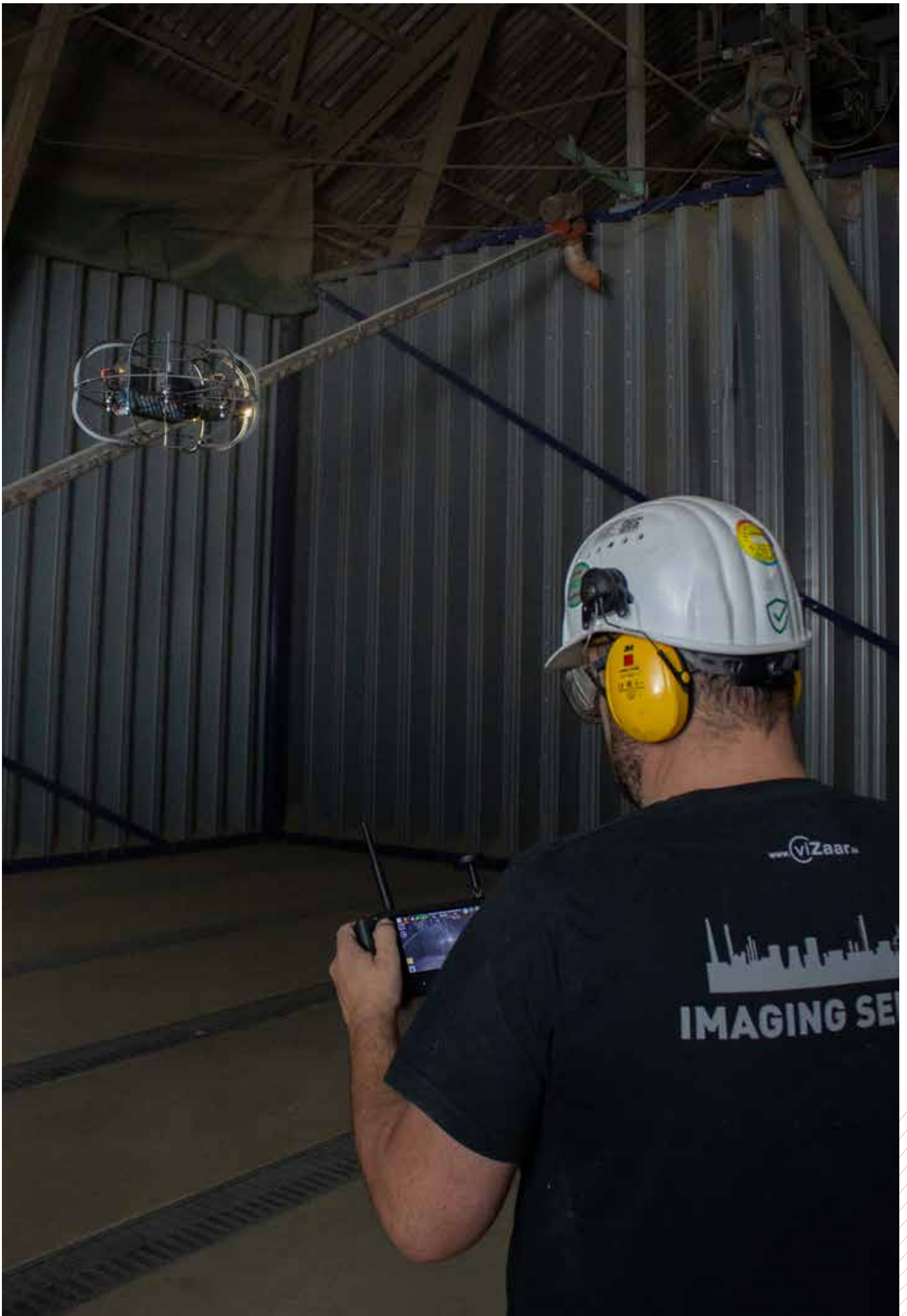
The Stereo2 is equipped with a lighting system that has been specially developed for inspections in confined areas.

The 4 LED panels can be adjusted using the remote control.

The lighting is projected at an angle of 180° in front of the drone.

For detailed close-ups, the strategically placed LED panels ensure that even the smallest surface irregularities are made visible through impressive lighting effects.







## DEALING WITH DUST

The Stereo2 masters even the most demanding industrial environments with high dust levels.

Its innovative indirect lighting system penetrates swirling clouds of dust and ensures that the pilot always has a clear view.

This means that inspections can be carried out precisely and efficiently even under adverse conditions

## PHOTOGRAMMETRY

A 3D model opens up new perspectives for inspections and makes it much easier to find defects. Instead of searching through hundreds of images or watching a long video, you can access the relevant information quickly and efficiently.

With software such as Agisoft Metashape or Pix4D, digital replicas can be created from the videos recorded by the Stereo2.

In addition, flight logs facilitate the work of the reconstruction software by assigning exact spatial positions to the samples. This precise data helps to significantly increase the accuracy and efficiency of your inspections.

# TECHNICAL SPECIFICATIONS

## DRONE

Configuration	Quadrocopter	Flight Modes	Assisted/Manual	
Engines	4 x 1950 kv Engines	Safety	Automatic Landing in case of radio failure	
Propellers	4 x 5 inches, threebladed propellers, pitch 3 inches	Operating frequencies	2400 bis 2483 MHz	
Battery Life	12 minutes	ECM	2.4 GHz 20 dBm (CE) 23 dBm (FCC)	
Empty Weight	900 g   1.98 lbs	Noise Level	80 dB (A)	
Take-off Weight	1400 g   3.08 lbs	Max. Speed	Slow	0.5 m/s
			Medium	1 m/s
			High	1.5 m/s
Max. Diameter	39 cm   15.35"	Max. Angle of Attack	15° Assisted/Manual	
Materials	Carbon, SLS	Stabilization Sensors	Stereoscopic camera	
Operating Temperatures	-20°C bis +40°C -4°F to +104°F	Protection Class	Splash and Dust Resistant	

## CAMERA

Sensor	4K, Sony IMX117 1/2.3" 12 MP	FOV	170° diagonal 140° horizontal	
Video Format	MP4	Lens	1,9 mm - hard focus	
Picture Format	JPG	ISO	Automatic Management	
Max. Video Recording Resolution	3840/2160 - 30 FPS (4K)	File Storage	Micro SD card (on board the drone) class 10 minimum	
Video Streaming Resolution	1920/1080 - 30 FPS (HD)	Supported SD Card	32 - 64 GB (suggested capacities)	
Picture Resolution	3840/2160 (4K)	Supported Format	FAT 32	

## LIGHTING SYSTEM

Total Power	10 000 Lumens			
Power per Panel	2500 Lumens			

## CAGE

<b>Materials</b>	Carbon, Rubber
<b>Resistance</b>	1,5 m/s on flat Surface
<b>Weight</b>	105 g
<b>Cage Replacement Time</b>	<1 Minute - kein Werkzeug erforderlich

## BATTERY

<b>Capacity</b>	5000 mAh
<b>Type</b>	LiPo
<b>Rated Voltage</b>	14.8V (4S)
<b>Energy</b>	74 Wh
<b>Charge Time</b>	1 hour (1C)
<b>Weight</b>	480 g   1.05 lbs
<b>Operating Temperature</b>	-20°C bis 40°C

## RADIO CONTROL

<b>Operating Frequencies</b>	2400 bis 2483 MHz	<b>Screen Dimensions</b>	5,46" screen, 16m million colours, Touchscreen
<b>Standard</b>	CE/SRR/FCC/MIC	<b>Weight</b>	520 g
<b>Optional Standard</b>	IN84 (CNPE - emissions < 50mW)	<b>Operational Temperature</b>	-20°C bis +40°C
<b>EMC</b>	2.4 GHz 20 dBm (CE) 23 dBm (FCC) 5.8 GHz 14 dBm	<b>Battery</b>	LiPo 4950 mAh USB charging
<b>Radio Link</b>	Duplex	<b>Reception Sensitivity</b>	-120 dBm
<b>Free Space Range</b>	12 km (CE) 20 km (FCC)	<b>Reception Mode</b>	Diverse
<b>Confined Space Range</b>	up to 400 m	<b>Antennas</b>	1 omnidirectional 1 directional
<b>Dimensions</b>	22/10.5/3.5 cm (without antennas)		

## TRANSPORT CASE

<b>Dimensions</b>	67/50/38 cm
<b>Weight</b>	16 kg (Basic Package)
<b>Conformity</b>	Complies with IATA regulations Size/weight compatible with checked baggage.





## CONTACT

**viZaar North**  
**Sales and Service Office**  
 25361 Krempe  
 Mobile: +49 171 5524094

**viZaar North Germany**  
**VT Service / Rental Service / Sales**  
 29339 Wathlingen  
 Mobile: +49 160 93777644

**viZaar NRW**  
**Sales and Service Office**  
 46348 Raesfeld  
 Mobile: +49 170 5703130

**viZaar industrial imaging AG**  
**VT Service / Rental Service / Sales /**  
**Training Center**  
 Lupusstraße 17  
 35789 Weilmünster / Germany  
 Fon: +49 6475 91129-0  
 Fax: +49 6475 91129-29  
[xtra@vizaar.de](mailto:xtra@vizaar.de)  
[www.vizaar-xtra.de](http://www.vizaar-xtra.de)

**viZaar industrial imaging AG**  
**Headquarter**  
 Hechinger Straße 152  
 72461 Albstadt / Germany  
 Fon: +49 (0) 74 32 / 98 37 5-5  
 Fax: +49 (0) 74 32 / 98 37 5-50  
 Freecall 0800 3600371  
 (within Germany)  
[info@vizaar.com](mailto:info@vizaar.com)  
[www.vizaar.de](http://www.vizaar.de)

**viZaar South**  
**Sales and Service Office**  
 88161 Lindenberg im Allgäu  
 Mobile: +49 172 6019 601

