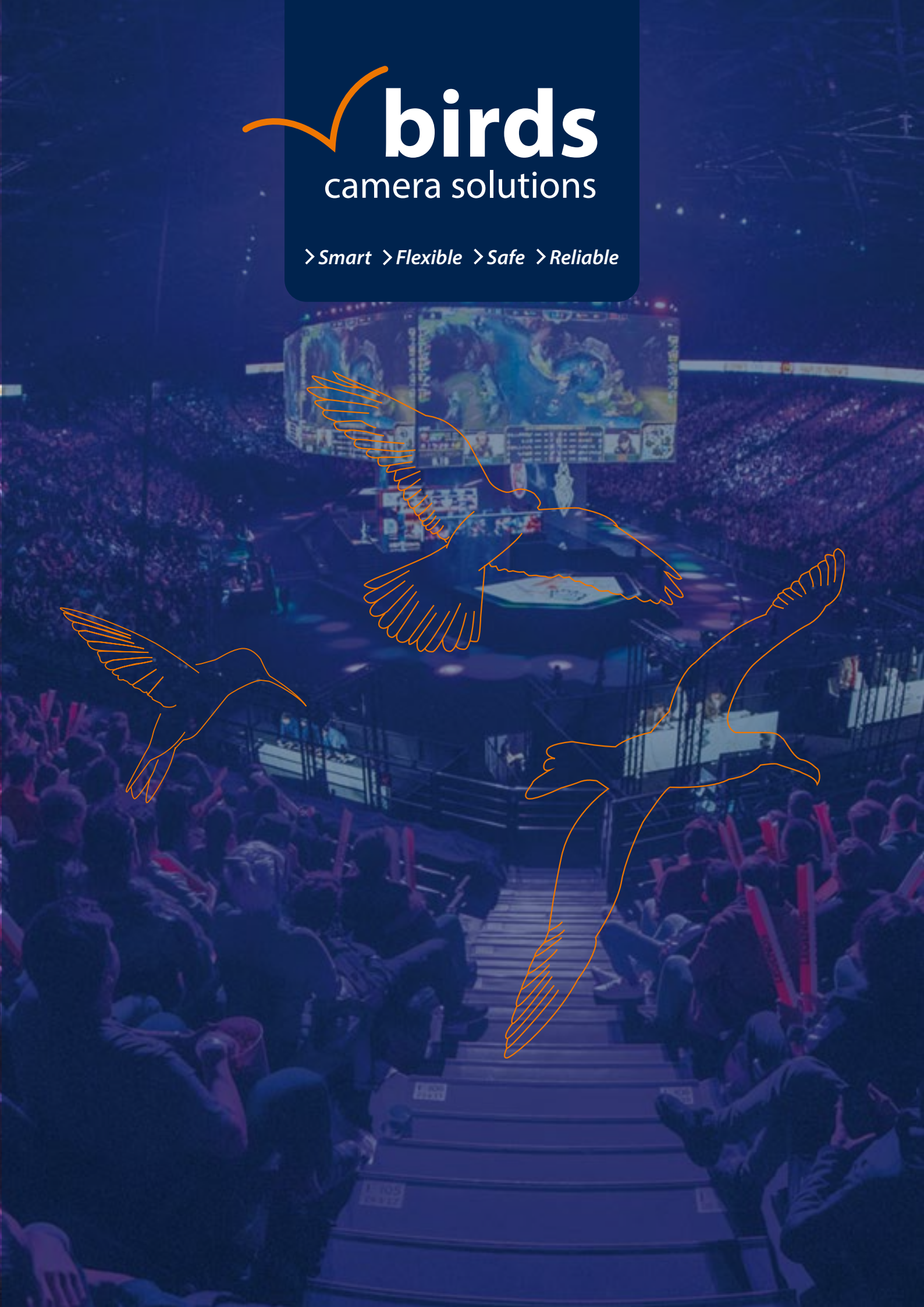
birds

camera solutions

Smart *Flexible* *Safe* *Reliable*



Birds Camera Solutions GmbH

Birds Camera Solutions systems are designed to cover all kinds of venues, including corporate facilities, conference halls, houses of worship, studios, arenas, stadia, sports venues and multi-purpose venues.

We offer camera systems for purchase (only fixed installations) or on a rental basis to production companies, venue owners, production studios and sports leagues. Along with the cameras themselves we can offer comprehensive team support before, during and after the event, including rigging, assistance from our experienced engineers and pilots, and de-rigging. If needed we can also easily integrate external engineers, operators and riggers into our teams. With several different systems in stock, it is possible to fulfil the requirements of multiple productions simultaneously.

birds
camera solutions

Products from Birds Camera Solutions are used by broadcasters and sports associations around the world to deliver consistently superb images from national and international events.

All systems have been proven to comply with the DGUV 17/18 (former BGV-C1) German safety standard as well as all other major national safety requirements. Establishing working zone borders and keeping the dolly within these is an integral feature of the system software.

All systems from Birds Camera Solutions can be integrated with all major Augmented Reality systems to provide accurate tracking data of camera position, orientation and lens parameters.

	Colibri-80	Falcon-100	Albatross-250XL
Dolly weight	4.5 – 8 kg	< 20 kg	< 20 kg
Battery needed	power supply integrated in ropes	+ (6 – 8 hours runtime)	+ (6 – 8 hours runtime)
Action area	80 x 80 m	100 x 100 m	250 x 250 m
Augmented Reality integration	✔	✔	✔
Winch power consumption	1.5 kW	3.5 – 4.5 kW	up to 10 kW
Winch power supply	230 V / 16 A	CEE 32 A	CEE 32 A
Maximum speed	3 m/s	4.5 m/s	10 m/s
Control system power supply	optional	UPS buffered Operator Console	UPS buffered Operator Console
System safety	Safety key	Fingerprint reader	Safety switch

Our Systems

Colibri-80

Colibri-80 is the smallest system in our portfolio. The dolly has been designed to be ultra-low in weight, with power supply via two cables meaning that it requires no on-board batteries. Weighing only 4.5 kg and with no issue regarding cable-sag, the system's innovative design means it can be deployed in small studios and venues with low ceilings. Colibri-80 covers 80 x 80 m, while zoom and all other camera functions can be controlled using the provided software.

Falcon-100

Falcon-100 is designed for use in TV studios as well as small and medium-sized sports venues such as basketball halls and ice hockey rinks. The winches of the system may be easily positioned in venues with limited space and still provide sufficient pulling force for the working height of the camera to be maximised. Falcon-100 covers an action area of 100 x 100 m and may be equipped with all common 2/3" box cameras.

Albatross-250XL

Albatross-250XL is the largest system in our portfolio. It is designed for use in large venues and sports productions, and it can cover areas up to 250 x 250 m. Like the other systems it employs four real-time controlled automatic winches and a sophisticated motion control system that allows for 3D operation and very rapid movement (up to 10 m/s in all axes). The system can be equipped with all common 2/3" box cameras.

Photo credit front page: League of Legends

A selection of our productions

2018

- Biathlon World Cup, Ruhpolding, ZDF, Germany
- New Year's Eve Show at Brandenburg Gate Berlin, ZDF, Germany
- Biathlon World Cup, Schalke Stadium, Germany
- Show production "Sportsman of the Year" with ZDF, Germany
- Champions League FC Bayern – Real Madrid, ZDF, Germany
- Football match Germany-Brazil, ZDF, Germany
- German Bundesliga Football

2020

- Biathlon World Cup, Ruhpolding, BR, Germany
- Teller-Tausch, SWR, Germany
- German Bundesliga Football
- DFB Pokal, Bundesliga Germany
- Roger Federer, Match in Africa, South Africa
- Carneval Cologne, WDR, Gürzenich
- Deutscher Filmpreis, ARD, Germany

2019

- Biathlon World Cup, Ruhpolding, BR, Germany
- New Year's Eve Show at Brandenburg Gate Berlin, ZDF, Germany
- Biathlon World Cup 2019, Schalke Stadium, Germany
- German Bundesliga Football
- DFB Pokal, Bundesliga Germany
- League of Legends World Championship Final, Paris
- Sommernacht Classical Music, ZDF, Munich
- CHIO, WDR, Aachen
- Audi Cup, TVN Group, Munich
- Austrian Football League, Sky AT, Salzburg
- ATP, Mutua Open, Madrid
- DVD Recording Performance Markus Krebs, RTL
- EM-Qualification, Football National Netherlands – Germany, RTL, Amsterdam
- Rugby Super League Final, Sky UK, Manchester Old Trafford
- Catch!, with Luke Mockridge, SAT.1

2022

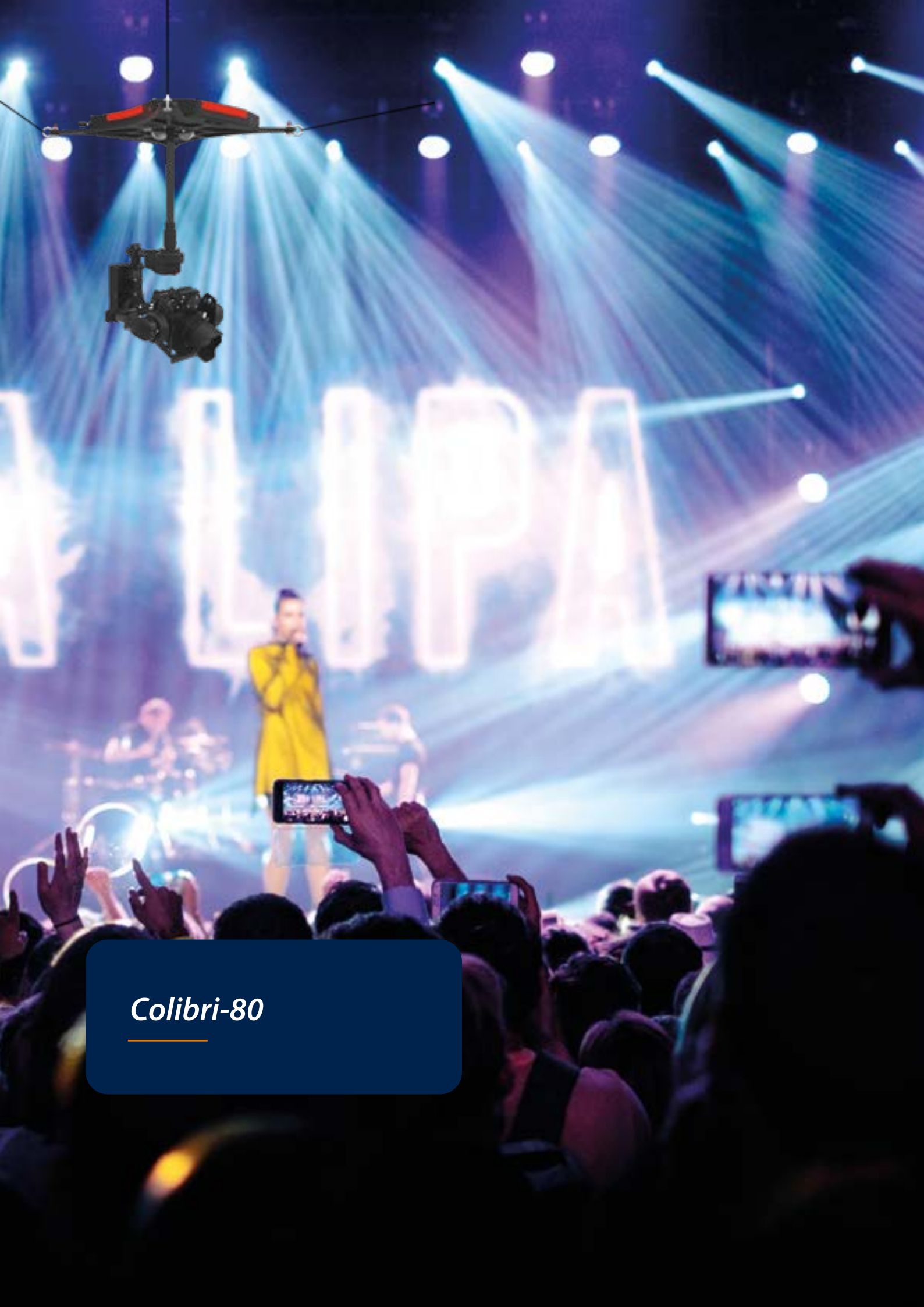
- Football, diverse DFB-Pokal and Bundesliga Productions, Sportcast
- Biathlon, Welt Cup, Oberhof, mdr/ARD
- Biathlon, Welt Cup, Ruhpolding, ZDF
- UEFA Champions Leage diverse matches, prime video & ServusTV
- Conferences, „Alter Plenarsaal", Bonn

2021

- Rugby, British & Irish Lions Tour, South Afrika, Supersport
- Football, diverse DFB-Pokal and Bundesliga Productions, Sportcast
- Biathlon, Welt Cup, Oberhof, ZDF
- Show, „Die leckerste Idee Deutschlands", RTL
- Horse races, Aintree & Cheltenham, Sky UK
- CHIO Aachen, WDR
- Handball, Final4, Cologne, EHF
- UEFA Champions League diverse matches, prime video & ServusTV
- Conferences, „Alter Plenarsaal", Bonn
- Show, „Sommerspiel", RTL, Leipzig
- ATP Tennis, Vienna, ServusTV

2023 – 2025

- ATP World Tour Masters 1000



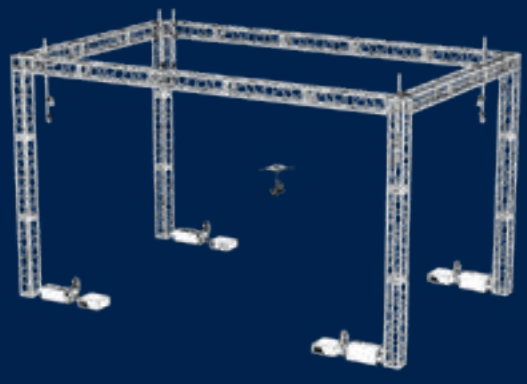
Colibri-80

Colibri-80

Colibri-80 offers the best of both worlds. The dolly's low weight and lightweight winches make it suitable for use in the most compact studio environments. With only 4.5 kg dolly weight and power supply via two cables there is virtually no issue with cable sag.

We offer the Colibri-80 systems with an 80 x 80 m action area. The lightweight winches can be rigged directly to a truss, enabling total suspension of the system with no interference on the ground. Colibri-80 is suitable for permanent installation or for temporary deployment on an individual production basis.

The system incorporates a bullet-proof hardware control and software GUI, enabling unlimited motion presets. All camera/dolly data, signals and power supply run through the ropes (2 ropes with implemented fibre cables, 2 ropes with implemented power cables). The dolly can be equipped with broadcast and COTS cameras, allowing access to all camera functions (zoom, etc).



Ground standing truss setup

Free hanging truss setup

Colibri-80 System Components

3-Axis Stabilized Gimbal

- Gimbal-Top: 40 cm x 40 cm
- Height: 52 cm
- Weight: 3.7 kg (+ camera, lens, zoom mount 1 kg)
- Motion in all 3 axes
- Built in Dual SDI to Dual/ Single Fiber Optic converter
- 48 V DC power supply, communication and 4K signal transferred via winches
- No battery required
- Integration for Sony full-frame 4K camera or Blackmagic Design Micro Studio 4K camera
- Olympus M. Zuiko Digital ED 7-14mm f/2.8 PRO Lens

Winches

- 80 x 80 m action area (motor included)
- Length: 99 cm
- Width: 53 cm
- Height: 40 cm
- Weight: 80 kg
- Maximum speed of 3 m/s
- Winch power: 1.5 kW
- Can be rigged to truss directly
- Winches are sealed
- Hollow winch drum with built-in motor and gear for reduced weight
- Built-in driver box for shorter setup time and reduced weight

Dynamic Pulleys

- Dynamic pulleys enable flexible winch positioning

Remote RCP, Camera Console, Pilot Console, GUI

- Smart GUI enables manual control and programmable motion presets; touchscreen supported
- Remote RCP offers access to all Gimbal, winch and camera functions
- Pan, tilt, roll, focus and zoom. Adjustable speed, ramp (expo) and direction
- Backup custom user profiles
- Working area limitations for safe operation
- Emergency stop button + safety key
- Safety limits, including minimum operating height limit
- Safety – DGUV17/18 (prev. BGV-C1)

HBO BOXING

6
5

Falcon-100

Falcon-100 System Components

3-Axis Stabilized Head

- Measurements: 150 x 45 x 53 cm
- Weight: < 20 kg
- Unlimited pan
- Integrated fiber converter
- Integrated camera power supply
- Compatible cameras:
  - HD: Sony HDC-P1, Grass Valley LDX Compact and similar
  - UHD: Sony HDC P50, Grass Valley LDX C86N, Panasonic AK-UB300 and similar
  - Cinema: Alexa Mini, RED, Sony PMW-F55 etc
- Compatible lenses: Canon and Fujinon ENG lenses
- Battery runtime: 4-6 hours

Winches

- Compact size: 100 x 38 x 58 cm without electric cabinets, horizontal and vertical positioning possible
- Weight: 130 kg
- Winch power: 4 kW
- Cable capacity: 130 m
- Action area: 100 x 100 m
- Maximum speed 4.5 m/s
- Catenary rope with more than 12 times safety margin relative to the working loads
- Double brakes with automatic engagement in case of power loss
- Internal safety monitoring system in each system
- Emergency stop time no more than 50 ms
- Single cable exit point simplifies winch placement

Remote RCP, Camera Console, Pilot Console, GUI

- Constantly enabled safety borders (including non-square)
- Constant system state monitoring
- Fingerprint protection to prevent unauthorised access
- Two people are required for operation: a pilot moving the dolly in space and an operator controlling the camera head and the lens
- Motion-tracking capabilities
- Safety – DGUV17/18 (prev. BGV-C1)

Albatross-250XL

Albatross-250XL System Components

3-Axis Stabilized Head

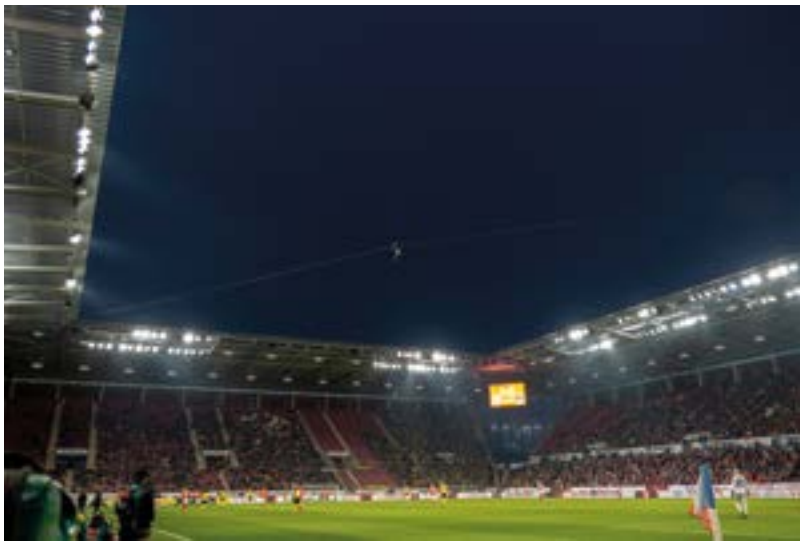
- Measurements: 41 x 32 x 45 cm
- Weight: < 20 kg
- Safety factor of more than 12
- Compatible cameras:
  - HD: Sony HDC-P1, Grass Valley LDX Compact and similar
  - UHD: Sony HDC P50, Grass Valley LDX C86N, Sony HDC P43, Panasonic AK-UB300 and similar
  - Cinema: Alexa Mini, RED, Sony PMW-F55 etc
- Compatible lenses: Canon and Fujinon ENG lenses
- Battery runtime: 6-8 hours

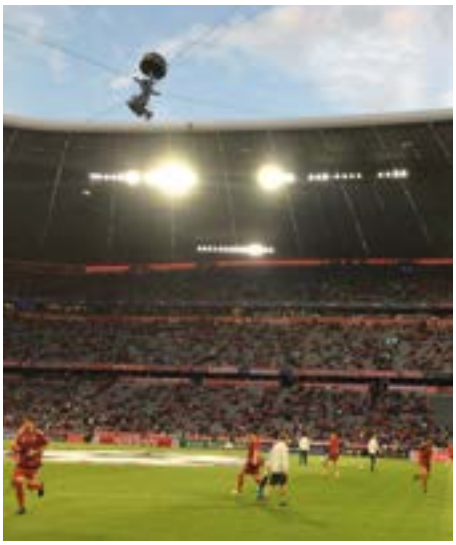
Winches

- Measurements: 120 x 80 x 80 cm
- Weight: 300 kg
- Winch power: 3–7,5 kW
- Action area 250 x 250 m
- Maximum speed up to 10 m/s
- Cable capacity: 400 m
- Catenary rope with more than 12 times safety margin relative to the working loads
- Double brakes with automatic engagement in case of power loss
- Internal safety monitoring system in each system
- Emergency stop time no more than 50 ms

Remote RCP, Camera Console, Pilot Console, GUI

- Constantly enabled safety borders (including non-square)
- Constant system state monitoring
- Two people are required for operation: a pilot moving the dolly in space and an operator controlling the camera head and the lens
- Motion-tracking capabilities
- Safety – DGUV17/18 (prev. BGV-C1)





sportler

birds
camera solutions

Birds Camera Solutions GmbH
Alfred-Nobel-Straße 5 / 55411 Bingen am Rhein / Germany
Phone: +49 (0) 6721 4008 0 / Fax +49 (0) 6721 4008 27
info@birds-cam.de / **www.birds-cam.de**

05/2022