



Helicopter AK 1-3 Dealer

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Design Bureau "Airocopter"

Buisiness proposal



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01

About the product



AK1-3

A two-seater light helicopter with superior flying characteristics

Over 100 boards sold
in 21 countries



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Is successfully used to

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About the product



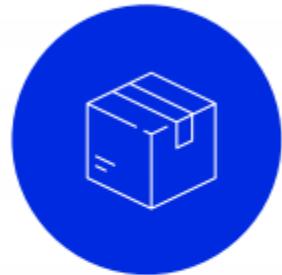
Private flights



Traning



Monitiring



Transportation



Guide tours



Agricultural

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02

Main features

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About the product



Flight range

350 km

The maximum flight time is

2.6 hours

The maximum speed is

180 km/h

The maximum climb speed is

8.5 m/s

The cruising speed is

160 km/h

Fuel

A95

The maximum payload of

252 kg



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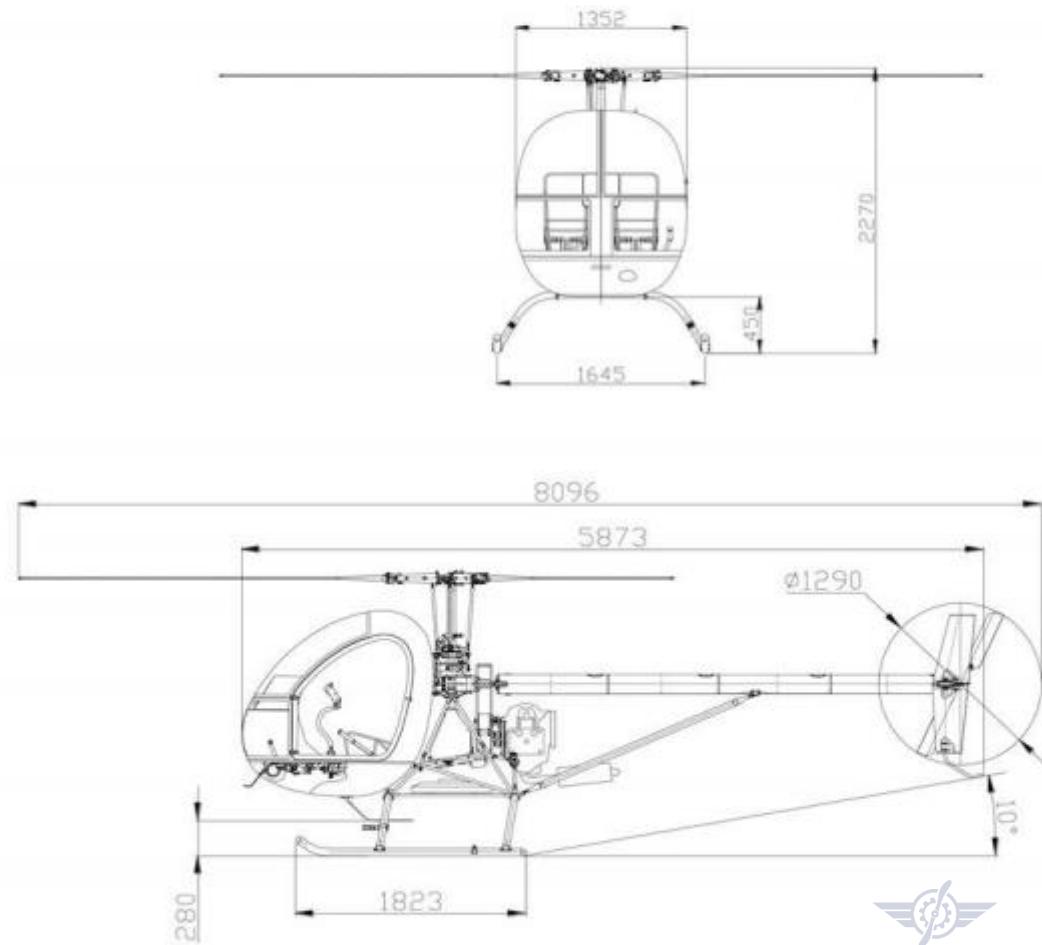
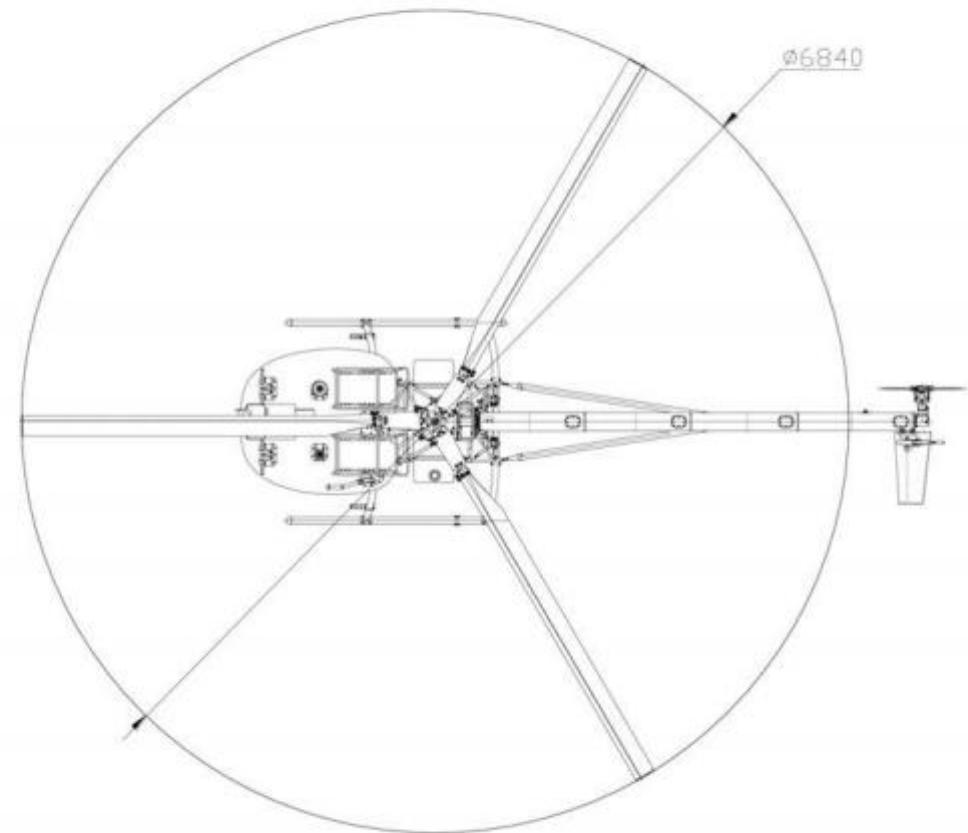
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Overall drawing

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About the product



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A photo of the helicopter

About the product



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A photo of the helicopter

About the product



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A photo of the helicopter

About the product



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A photo of the helicopter

About the product



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A photo of the helicopter

About the product



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A photo of the helicopter

About the product



02

Main advantages

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Reliable

Main advantages

AK1-3 has a TP-0008 certificate type

dated 30.06.2006

AK1-3 has passed the full test cycle and is allowed for private and commercial flights in Ukraine and other countries where this certificate is recognized as valid

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01

Reliable

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Main advantages

Production corresponds aviation standards

Aircraft production certificate dated 09.23.2016

The production process of parts and assemblies is fully described, regulated and approved by the aviation services



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02

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Reliable

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Main advantages

4-level production quality control system

- 1 Input control.
- 2 Operational control.
- 3 Control of finished parts and assembly units.
- 4 Control of the finished product.



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Reliable

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Main advantages



**Tried
and true**

Have been successfully operated
in 21 countries - from Africa to the
Far North.



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Earth Resonance Protection

The bearing system uses a "hinge-free" rotor hub. The role of the hinges is performed by elastic torsion bars. This minimizes the risk of Earth Resonance.



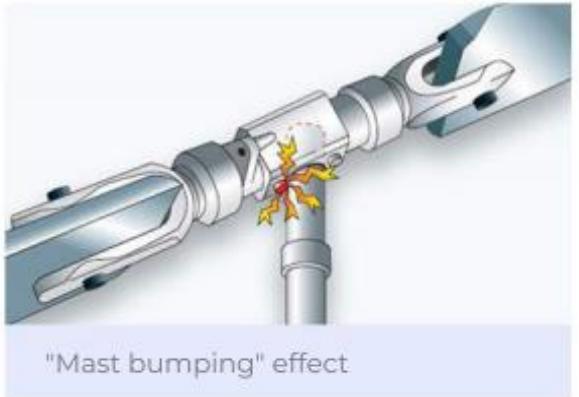
Torsion plates

* Earth resonance refers to the self-excited oscillations of a helicopter on the ground with increasing amplitude, which can lead to the destruction of the helicopter



"Mast bumping" protection*

Using a three-blade propeller eliminates the risk of a "mastbumping" effect compared to helicopters with a two-blade propeller

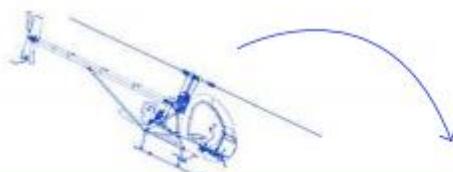


* Mast bumping is an emergency situation as a result of which the rotor hits the stops on the shaft. This often leads to the destruction of the shaft with the detachment of the propeller from the helicopter and inevitable disaster



Protection from nosing during landing*

The length of the runners is designed so that it is possible to carry out landing with slippage and a minimum risk of nosing



* Nosing is the emergency tipping of a helicopter to the front



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Safe

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Main advantages

High-tensile composite blades

AK1-3 uses high-tensile composite blades of our own production

26 layers of composite provide a high level of strength of the blade when it encounters small obstacles in the air (bird, tree branches, hail, etc.)

26
layers



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03 Manoeuvrable and sustainable

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Main advantages

Efficient three-blade propeller

Significantly improves maneuverability compared to double-bladed helicopters



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03 Manoeuvrable and sustainable

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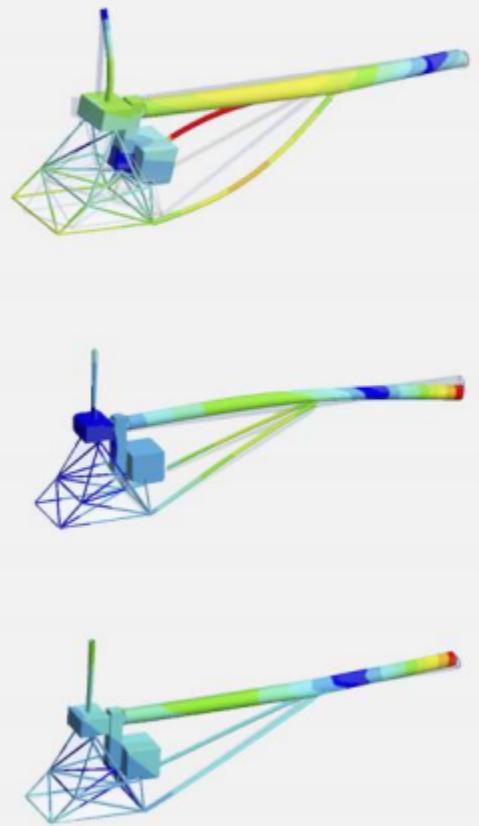
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Main advantages

Low vibration level

A low level of vibration is achieved by the perfect balance and layout design.



Digital model for calculating helicopter's functioning in response to vibrations



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03 Manoeuvrable and sustainable

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Main advantages

Sufficient power reserve

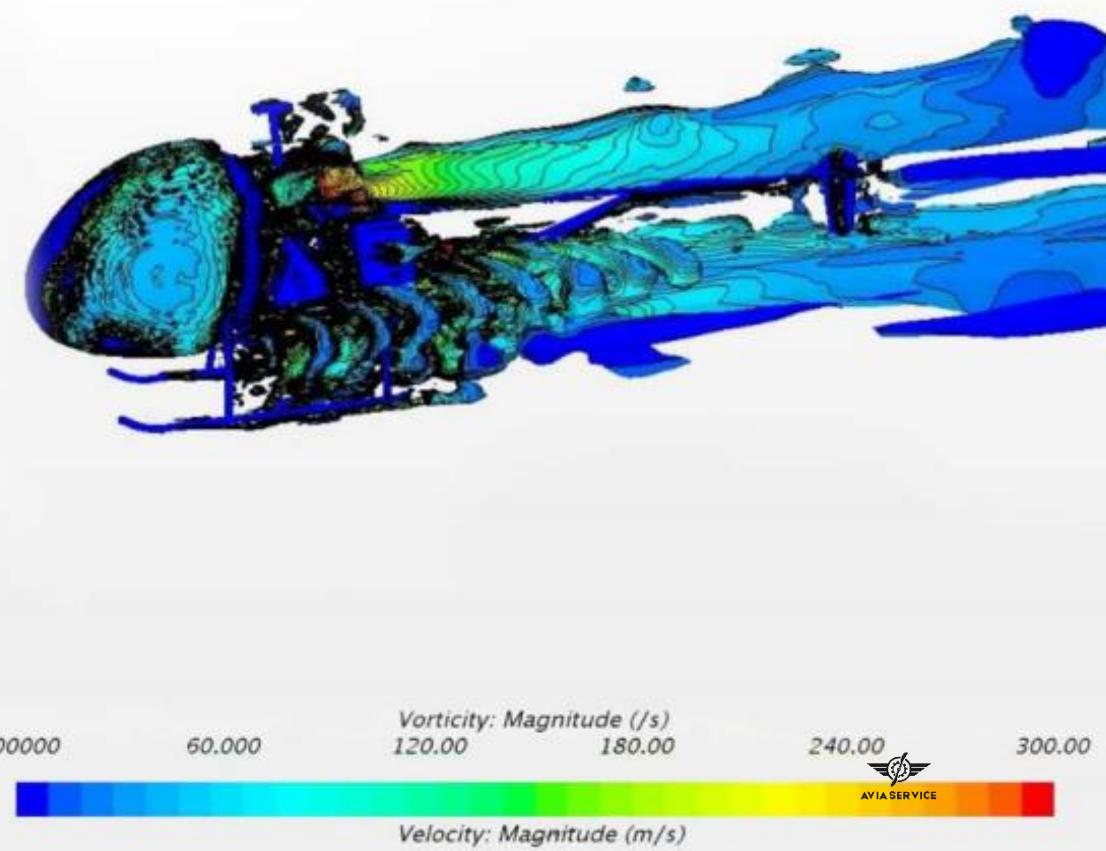
An effective main rotor and an engine with a sufficient power reserve allow a helicopter with a maximum take-off weight (in a 2-seater version with full fueling) to climb at a speed of 9-12 m/s.



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Enhanced level of sustainability

During a cruise flight, you can release the control stick and the helicopter will maintain its course.



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Cost-effective

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Main advantages

Flies on automobile gasoline

Automobile gasoline costs almost 4 times cheaper than aviation



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Cost-effective

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Main advantages

Low cost of maintenance

Maintenance is 50-70% cheaper than most other helicopters of this class



The low cost of a flight hour

AK1-3 does not require large costs for the operation and maintenance of airworthiness.

For 2000 flight hours, the average cost per hour will be only \$60. This is almost 3 times cheaper than most double-seater helicopters, including Robinson22.



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Is convenient in usage

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Main advantages

Independence from airfields and aviation fuel

The usage of automobile fuel makes possible to operate the AK1-3 without reference to airfields and gas stations with aviation fuel. Due to this, the flight range is practically unlimited



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Is convenient in usage

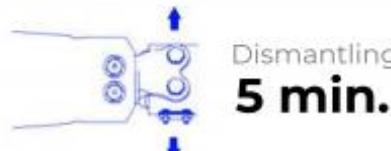
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Main advantages

Possibility to dismantle and install blades without balancing

Installation of the blades takes 7 minutes,
and dismantling 5 minutes. After installing
the rotor blades, you can immediately start
flying, without additional balancing



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Is convenient in usage

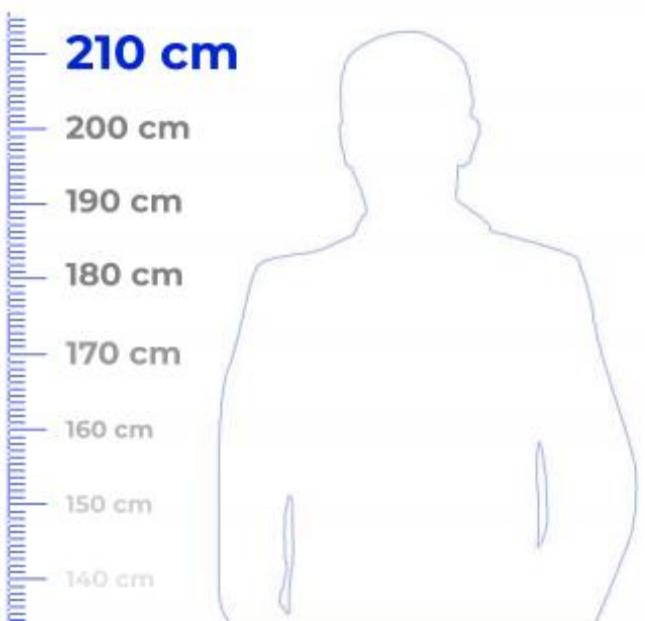
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Main advantages

Wide-view ergonomic cabine

It allows comfortably fit people with height up to 2 m 10 cm



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Availability of all documentation for operation and maintenance

The operator receives a complete set of operational documentation necessary to perform all forms of maintenance.



5 documents



994 pages

1. Flight operation manual.
2. Maintenance regulations.
3. Manual for technical operation.
4. Technological maps of maintenance..
5. Catalog of parts and assembly units



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Convinient to maintain

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Main advantages

Constant availability of spare parts and tools in stock

To perform helicopter maintenance work, the company can provide shipment of spare parts in a time of 10 to 15 working days



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Convinient to maintain

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Main advantages

Easy to maintain

The design of the helicopter is designed so that during operation it is easy to maintain components and assemblies



Adapted to hot climate

Tests of the modified version of the AK1-3 helicopter for hot climates were performed out in September 2018 under the following conditions:

- 1 Location: Africa
- 2 Air temperature: + 48 °C.
- 3 Maximum take-off weight:
2 people, full tank of fuel
- 4 The most loaded flight mode:
 - Helicopter warming up in the open sun from 09:00 to 13:00
 - Hovering mode of the helicopter performed at a height of 5-10 meters and a maximum duration (actually within 30 minutes)



Can be operated in cold weather

According to the certificate, the minimum operating temperature is -18 °C.

In fact, it flies freely up to -35 °C*
(the helicopter is successfully operated on the territory of the Khanty-Mansiysk Autonomous Okrug of the Russian Federation).

*To ensure safety, the operation of the AK1-3 should be performed in accordance with the requirements described in the operational documentation



Successfully used by flight schools in 3 countries

The most extreme operating mode of the aircraft is its usage in training mode, as students yet have not mastered the skill of piloting

And AK1-3 successfully copes with this challenge in all flight schools where it is operated



03

Fitment and prices

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01

The base cost of the helicopter

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Fitment and prices

The cost of the helicopter
in a "base" fitment

175 000 USD

Production time for AKI-3 is from 6 to 9
months from the date of conclusion of the
contract and prepayment

The price is valid on 01/08/19



01

Assembled helicopter

In this case, you get a fully assembled helicopter that has passed ground and flight tests.

For ease of transportation, only the blades and tail boom are removed.



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02

Kit-set

The helicopter is supplied disassembled at 51% in the form of an assembly kit. The owner will need to assemble the helicopter by himself.

Along with the kit-set, you will find illustrated instructions for assembling the helicopter, using which you can assemble by yourself or with the help of specialists.



You can choose one of three delivery methods



Land transportation services



Delivery by sea



Aerial delivery

The cost of delivery

The cost depends on the distance, the method of delivery and the number of delivered helicopters.

For example, the cost of a helicopter delivering a car from Ukraine to France is 2750 USD.

A preliminary calculation of the cost is carried out at the stage of contract approval.

You can choose one of three delivery methods

1. The delivery is arranged by the Aerocopter with the help of proven logistics companies.
2. Aerocopter arranges delivery with the help of a logistics company recommended by the customer.
3. The customer independently arranges the delivery.

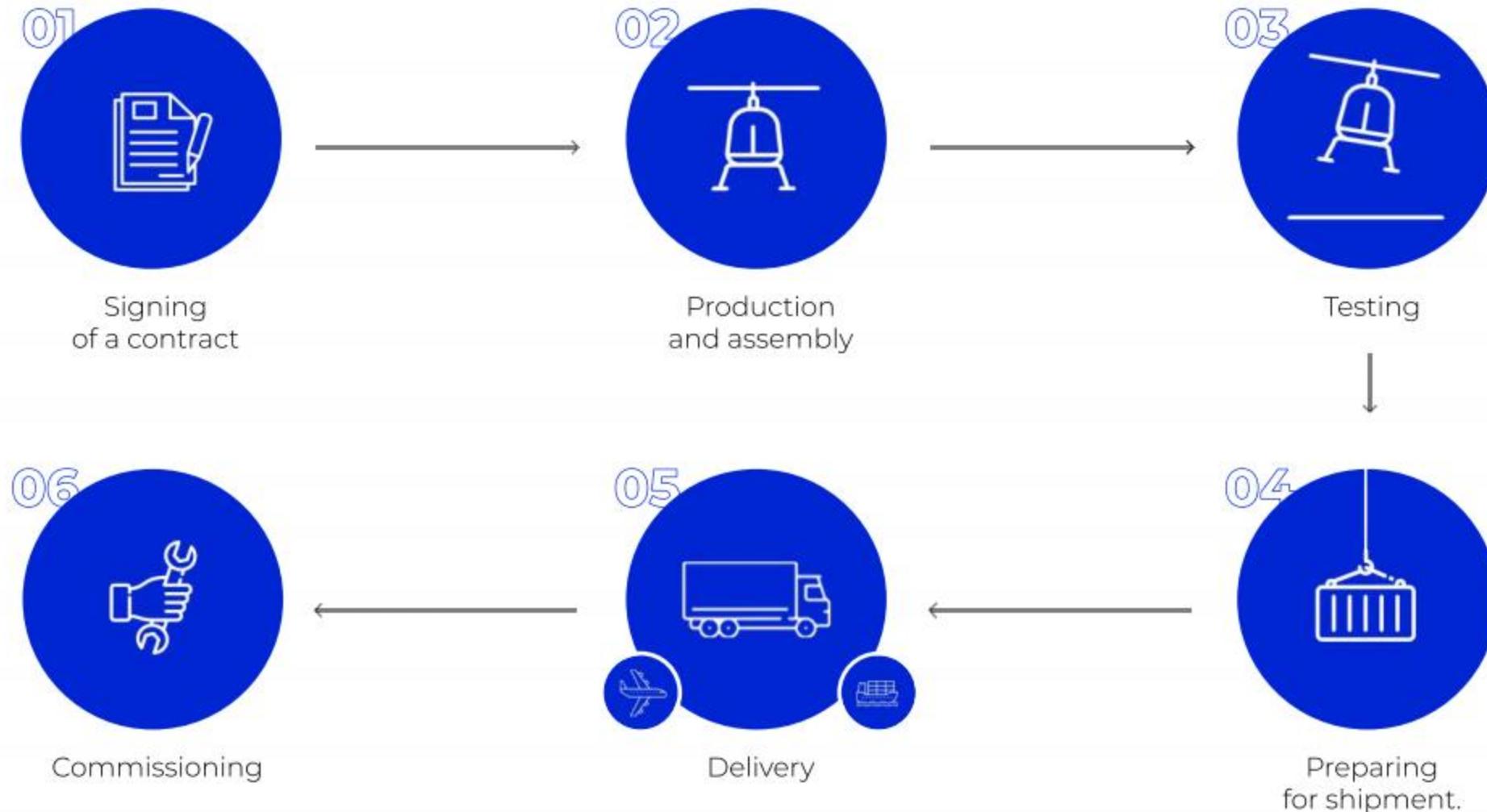
04+

Steps of the acquisition

Overall consistency

In case of delivery in the form of "assembled helicopter"

Steps of the acquisition



01

Alignment of the complection of the helicopter

We send you a commercial offer where you can specify the needed complection.

02

Contract negotiations

We send you a contract for alignment, you familiarize yourself with it and give confirmation of consent or offer to make changes.

03

Signing of a contract

After the contract is agreed by both parties, we exchange signed copies of the contract



01

Prepayment

The amount of prepayment is 50% of the total price of the order.

After receiving the prepayment, we start the production of your order.

02

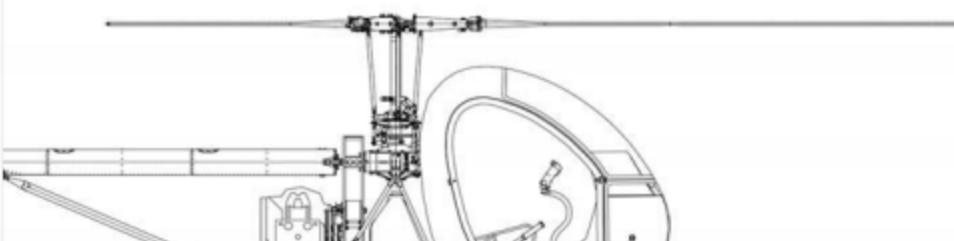
Production and assembly

At this stage, the plant produces all the necessary parts and components for the helicopter. Then assembles them.

03

Photo report of preparedness

After completing the order, we send the customer a photo report demonstrating the made product. And the customer makes a second payment in the amount of 25% of the total price of the order.



01



Ground tests

At this stage, we perform the workability testing of all helicopter systems during 36 hours.

02



Flight tests

Here tests are carried out in accordance with the flight test program approved by the aviation service. The test duration is 4 hours.

03



Photo report of tests

In the process of testing, we carry out photo-registration of key stages.

After completion - we send you a photo report.



01

Preparing the helicopter for shipment.

At this stage, we carry out a control check of the helicopter for compliance with the specification, disassemble it, pack it in shipping containers and prepare shipping documentation.

02

Photo report of the shipment readiness

As soon as the helicopter is ready for shipment - we send you a notification of readiness and a photo report of the prepared for shipment helicopter.

03

Final payment

At this stage, you pay the remaining amount according to the contract and we start the shipment process.



AK1-3

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Delivery

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Steps of the acquisition

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Helicopter shipping

After the final payment of the order, we start the process of customs clearance, arrange shipment and send you all the necessary information and documentation to receive the order.

02

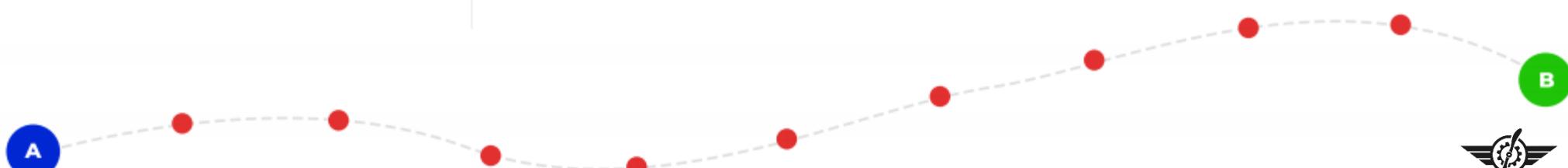
Delivery tracking

After the shipment of the order, we carry out additional control of the delivery process, until it is accepted by the customer.

03

Customer accepts a helicopter

At this stage, you take over the goods in your country and do customs clearance in accordance with the laws of your state.



01

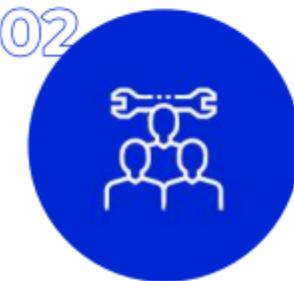


Self-commissioning

In this way, you independently arrange the process of the helicopter commissioning. The aerocopter, for its part, provides detailed illustrated technological maps (TMs) for the helicopter commissioning:

- 1.TK1. "Helicopter assembly after transportation"
- 2.TK2. "Control flight."

02



Commissioning by manufacturer

To implement this method, an additional agreement on commissioning must be signed.

After paying for this service, a group of specialists goes to the customer and within 2-3 working days makes the assembly and commissioning of the helicopter.

The customer, for its part, needs to provide an assembly room and a place for a control flight.

05

Further action

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01

Still have quedtions?

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03

Further action

Still have quedtions?

Give us a call or write to us!

We will be happy to answer
al yourl questions.

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E-mail: 1@avia.msk.ru



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Ready to order a helicopter?

Further action

Ready to order a helicopter?

Let us know this and we will send you a contract template for negotiation



Helicopter AK 1-3 Dealer

Contact us:

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