

# Superior Helicopter

<http://www.superiorhelicopter.com/>

**Superior Helicopter LLC** is the premier owner/operator of a fleet of Kaman KMAX aerial lift helicopters. The company has grown from its roots in aerial timber harvesting to encompass all facets of commercial helicopter lift requirements.

Superior Helicopter specializes in aerial heavy lift operations for a variety of missions including timber harvest, environmental forest thinning, wildland firefighting, and construction lift work. The Kaman KMAX helicopter was designed from the ground up as a purpose-built, repetitive heavy lift aircraft. The leading edge design of the KMAX helicopter has proven to be an efficient, highly reliable and powerful workhorse for any helicopter lift requirement.

Superior Helicopter has earned an exemplary reputation worldwide for the quality of its wildland firefighting crews. Our ground crews and pilots are among the most experienced in the world, and each firefighting helicopter is backed up with fully equipped support vehicles outfitted with spares, tools, and satellite communication equipment. Superior crews fight fire around the clock and around the world, with current operations in both the United States and Australia .

## **Production Timber Harvesting in a safe, environmentally responsible manner**

Superior Helicopter began as a heli-logging outfit and enjoys an outstanding reputation as one of the premier helicopter harvest companies in north America . Superior employs a staff of highly experienced forest managers and can provide everything from loaders to ground crews to a well equipped fleet of log hauling trucks for support of our helicopter logging operations. Superior believes safety and efficiency are the keys to a productive operation.

## **Moving wood with the Aerial Truck**

The KMAX helicopter was originally chosen by Superior for timber harvesting for several unique reasons. - It is a rugged, reliable helicopter designed for repetitive heavylift operations all day, every day - It utilizes an intermeshing dual rotor system that eliminates the tail rotor. This system not only generates tremendous lift, it also greatly reduces downwash and noise levels, which makes it well suited for vertical forest thinning without environmental or residual canopy damage.

It is the safest aircraft to work beneath in the industry due to low downwash, great pilot visibility out both sides of the aircraft, and good deadlift capability (lifting turns straight up, instead of dragging for lift) - It is rated at 5000 lbs. lift capacity at 8000 ft. elevation.

## *Environmental Thinning - Without a Trace*

Superior's KMAX operation is uniquely suited to this application, because we have the forest professionals and the proper size helicopters to perform light thinning economically and without any canopy or stand damage. The quietness and low rotor wash signature of the KMAX is an environmentally responsible way to thin high density woodlands

## ***Construction Lift with the Aerial Truck***

### **An Uplifting Experience**

Superior KMAX helicopters shine in construction lift operations up to 6000 lbs. It was specifically designed for maximum lift and stability with multiple, repetitive cycles while still being economical to operate. Some specific advantages of the KMAX for construction lift: The KMAX is 30% quieter than any comparable lift helicopter and also generates less rotorwash. This makes operations for ground personnel beneath the helicopter much safer and more quiet, important considerations when working on rooftops or transmission towers and other high angle positions.

Unprecedented visibility for the pilot out both sides of the aircraft allow for precision placement of loads and increased safety. The KMAX has been called "an I-beam with an engine" for the reliability of the design. Superior is experienced at many different types of lift operations, including ski lift towers at high altitude, power pole placement, cell tower placement, pouring concrete, and other general construction projects. Superior has participated in international construction projects, including a recently completed hydroelectric project in northeastern Taiwan.

Remote Site Supply - Superior has found the KMAX to be ideally suited for re-supply of remote site camps and forward operations, such as mining exploration or oil field re-supply. The built-in reliability for all day flight operations is augmented by an aircraft that can lift 6000 lbs. and only burn 85 gallons/hour of fuel; an important factor for remote areas where fuel supply is a major logistical obstacle.

## ***Helicopter Specifications - Kaman K-1200***

The KMAX helicopter was designed by Kaman Aerospace to fill a need for a rugged, modern helicopter specifically targeted for repetitive heavy lift operations. It was designed for maximum lift with minimum fuel burn, and incorporates several unique features that separate it from other helicopter designs. It was certified for commercial operations by the FAA in 1994, after less than 3 years of development and testing, the fastest time for certification of any helicopter.

The design of the KMAX is based on Kaman's unique intermeshing rotor technology with **servo-flap** control. The aircraft has counter rotating main rotors and no tail rotor, which means all engine power goes directly to the main rotors for maximum lifting power.

The KMAX is environmentally friendly and safer to operate beneath, because it has the lowest noise signature and lowest rotor downwash of any medium-to-heavy lift helicopter. The KMAX has a lower noise signature than the MD600-900 NOTAR helicopters.

The aircraft's narrow profile gives the pilot an unprecedented view from both sides of the aircraft during vertical reference load operations. The Kmax weighs 5,100 pounds empty, but will lift 6,000 pounds! It burns 85 gals./hour during lift operations, the most efficient lift to fuel burn ratio available for this weight class.

The KMAX has the best autorotational characteristics of any helicopter made, and the pilot's seat is a high-energy absorbing unit supported by a reinforced structure. - The aircraft utilizes mechanical servo-flaps for rotor pitch control, eliminating the need for high maintenance hydraulic boost systems.

## SPECIFICATIONS

### Weights and Measurements

Max gross weight	12,000 lb	5443 kg
Cargo hook capacity	6,000 lb	2722 kg

### Lift Performance — ISA +15° C

Sea Level	6,000 lb	2727 kg
5,000 feet	5,663 lb	2574 kg
10,000 feet	5,163 lb	2347 kg
15,000 feet	4,313 lb	1960 kg

### Hover Performance — 4,000 feet, 35° C (95° F)

Hover IGE	12,000 lb	5443 kg
Hover OGE	11,600 lb	5262 kg

### Powerplant

Model	Honeywell T53-17A-1 gas turbine
Thermodynamic rating	1,800 shaft horsepower

### Maximum airspeed

Without external load	100 kt	185.2 kph
With external load	80 kt	148.2 kph

### Fuel System

Total fuel capacity	228.5 U.S. gal	865 liters
Avg fuel consumption	82 gal/hr	310.4 l/hr
Endurance	3 hr	3 hr



Superior Helicopter LLC was started in 1995 as an entity of Superior Lumber Company, and is a part of the Swanson Group. It began operations with one KMAX helicopter and has grown to be the largest fleet operator of KMAX helicopters with a support structure that includes over 100 dedicated personnel. The strength of Superior lies with the high quality of the people who strive for excellence in all aspects of the organization. Superior enjoys a staff with some of the most experienced professionals in the forest industry, from timber managers to wildland firefighting experts.

Superior has concentrated on utilizing one aircraft platform to its fullest extent. The advantages of this policy are many, including intimate knowledge of the airframe and powerplant, high levels of parts and inventory control, and the ability to employ some of the finest pilots, mechanics and support personnel available.



Superior is known for the excellence of its field operations, and has become a leader in the industry for its high quality maintenance and support staff. The company is committed to the belief that the best professional personnel and equipment combined with a rugged, state-of-the-art aircraft results in safe, high quality lift operations.

We stand ready to assist on projects worldwide. Please [contact us](#) with any questions.

**Superior Helicopter LLC**

2794 Foothill Blvd

Grants Pass, OR 97526-4157

Phone: 541-832-1167

Fax: 541-832-1184

Email: [info@superiorhelicopter.com](mailto:info@superiorhelicopter.com)











