

# QUICK 30 PRO



Originally, I was going to have Rotory or an outside pilot submit the review on the new Quick 30 Pro. However, I began to realize that possibly no one knows more about the Quick 30 Pro than myself.

First off, I have total respect for any company that undertakes the production and manufacturing of the many components it takes to make the whole product ready to go into the box. While I have known this for years, it's a totally different story when you decide to enter manufacturing yourself. It's an education, to say the least.

My partner, a Japanese hobby enthusiast; Mr. Tatsuya Iyobe is the president of a company called, "Quick of Japan". His background is one that has prepared him as a expert to manufacturer a radio controlled helicopter. While working for most of the famous Japanese helicopter companies, he acquired his knowledge and skills. Mr. Iyobe has been instrumental in many of the designs currently on the market today. Seeing a need in the Japanese market for crash parts, he bought his first CNC (computer numeric code) machine and began manufacturing main shafts, head

spindles, flybars, and other common crash parts. He was questioned by the Japanese distributors how he was able to deliver the parts in just a few days. Hence, the name Quick of Japan, for his quick deliveries of helicopter products.

However, he is most famous for manufacturing and designing after- market upgrades for Shuttle, Ergo, and other model helicopters. Over the last several years, Mr. Iyobe's business and production capabilities have grown. He now utilizes 20 of the finest, fastest CNC machines available in Japan.

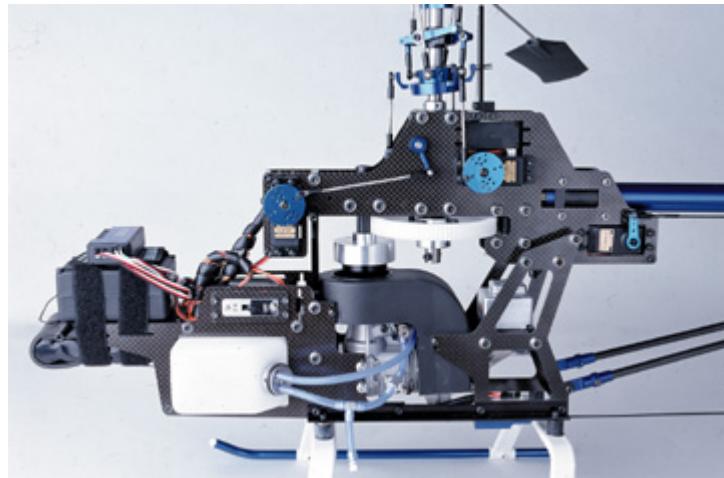
Mr. Iyobe and I (Hobbies & Helis), decided two years ago that we would jointly produce a high quality R/C helicopter at the lowest price possible. We believe that high quality and low prices are two ingredients that will make success in a very crowded arena.

The Quick 30 Pro as it is today, is not the original design concept. We incorporate a sliding collective tray that is similar to the mechanical performance of German products. The servo tray slides, as opposed to a rocking motion, to create the simultaneous reaction of the servos.

As we were preparing ourselves for our first production, there was the rebirth of the more than 20-year-old design called CCPM (collective cyclic pitch mechanics) or as it is currently known as EMS (electronic mixing system). Our decision was to go with the EMS. We felt that this is the future of R/C helicopters since the advent of digital servos. In fact, most of the radio manufacturers already have EMS mixing from the low-end 6 channels to the high-end 8, 9, and 10 channel systems.

Digital servos will soon be available in sport version for 30 class helicopters. We feel EMS is here to stay and that most non-EMS systems will become designs of the past. In fact, in Japan everything is EMS that is in current production, or new models for the upcoming season.

After many changes and modifications from the first EMS Quick 30, presently, all the CNC machined parts are anodized here in the States. In Japan anodizing is very expensive. U.S. anodizing produces a better job with the "bright dip" aluminum coloring process that gives the clear bright color. Once anodized, we press fit all the bearings with special locktite. We then heat the parts for 30 minutes to activate the locktite. The #609 Loctite we use is tested to the incredible level of 2300 pounds of pressure per square inch. The application will hold for a lifetime, unless temperatures reach above 125 F. What this means is; don't leave your heli in the back of your car, in the middle of the summer, with the windows shut tight. Actually, that's not too healthy for the canopy either.



Since our Quick 30 Pro is available in either metal or carbon frame kits, all parts had to conform to a proper fit with both versions. There were 5 or 6 changes we made in the final carbon frame-cutting program to address problems from the original frame design. Areas like lowering the fan shroud, to adding additional carbon material to what we felt were some potential problem areas. All the photos shown in this article are from our final production prototype.

The Quick Pro uses a 10 x 19 x 7 main shaft bearing that is traditionally used on 60 class machines. All bearings are installed in the bearing blocks to insure they hold, and not cause radio noise problems. We recommend adding a small amount of Locktite to the main shaft to prevent the shaft from slipping in the bearings.

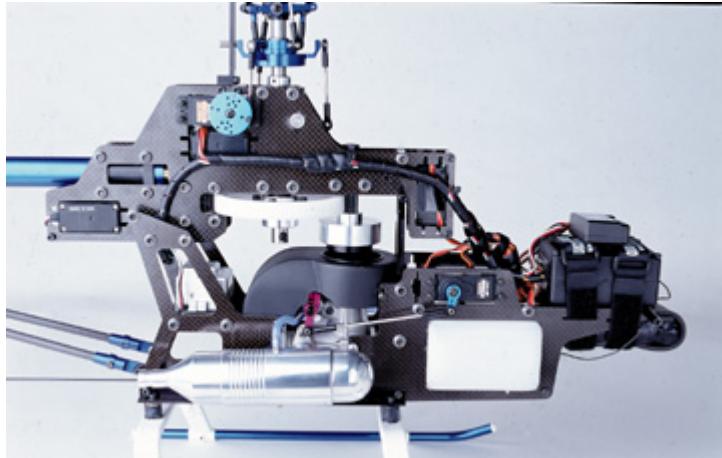
Of at least a 100 machines, that I have built in the past 14 years, I found that no two have the same tolerances. You can never get a true tight fit with plastic frames, since the material always expands and contracts at different levels. This causes poor ball bearing fit, thus creating slop and lost motion. The Quick 30 metal machine, (all aluminum parts) is constructed from 2000 series aluminum. This material is much denser and harder than 60-61 aluminum which is basically soft by nature. Don't get me wrong, 60-61 is still better than plastic. Actually, there are many parts in plastic helicopters that work as good as the metal parts. However, from the swashplate to the head, high quality ball bearing products rule in performance, durability, and flying characteristics.

In early spring, we will introduce the Quick 30 "Learner". This machine will have some non-critical molded parts to reduce the cost. This will allow those on limited budgets, the same thrill of learning to fly a R/C helicopter, while still maintaining high standards and high quality. Our thinking is: Some flyers who own the Pro version, who are endeavoring 3D flying, might want to substitute plastic parts to keep costs down while learning.

In designing our final version, from the swashplate to the head, we used every bit of modern technology available. We utilized double bearings, (2 x 5 x 2.5) into the machine's washout link instead of using the traditional plastic washout type link. We are using our standard CNC single bearing swashplate, washout base, and arms.

There are two bearings on each arm, with a pinned guide. Our new center-dampened head has a high tilt, fast response seesaw, creating very smooth and responsive flight characteristics. Our blade grips have 6mm individual spindles. We use a standard 30-size silicon skid stop, inserted over a cross member in the head block for dampening.

We used a larger skid stop method on our 60-size heads, which produced excellent results as well as low replacement cost.



Our tail assembly is very similar to the upgrade Shuttle option we have been making for years. We have lightened the tail rotor by not using the traditional heavy tail tube holders. Instead, we elected to pre-install in the boom, a machined tail side plate holder that is pressed fit with #609 Locktite. Replacement retail cost for the boom is \$10.99. It comes with a blue anodized finish which aids in good visual tracking. The tail pitch slider is our new dual ball bearing version, with a removable pitch arm. We used our machined pulley and output shaft, which we have been selling for years. The tail pitch lever is the same one used in our Shuttle upgrades. We will have the tail side plates available in carbon or metal, both at a very low replacement cost. The blade grips are 8% glass filled nylon with machined hub and dual ball bearings in each grip. We do have a CNC tail blade grip available, but felt this actually was a better choice for the 30.

In our prototype, we used an OS 32 for power. When we tightened down the motor mount and bearing blocks, we were dead center on the milled slots on the side frames. The gear mesh on the Quick 30 is as smooth as a TSK.

The Quick 30's canopy is all fiberglass as pictured. We will have several pre-painted canopies available as special offerings to early kit buyers at great discounts. We also have a "blow molded" canopy under development for our Quick Learner, or for those who are "3- D'ing it". It will take a good hit and maintain its shape.

The set-up for the EMS is very simple, actually easier than the single collective servo system. The Quick 30 Pro has ample room for all the electronics. I placed my receiver battery under the front plate, with the receiver and receiver box on the top. We machined two small slots in the front side frames, to allow our Velcro straps to slide through. This holds the battery and the receiver box, making for a very secure installation. Neat wiring also makes for a secure and visually pleasing installation.

Pictured is our HHI muffler, however I prefer using a two-piece helicopter or long tuned pipe myself. Our finished dry weight, with blades is 7.0 pounds (fuel capacity is 10 ounces). I had to check it several times because I did not believe it myself. I used a 5-cell battery pack, as well and additional items. This weight is actually better than our expectations. Our metal version will weigh-in at approximately 7.5 pounds or under, depending on the individual's building and finishing choices.

We are presently handling all online questions concerning our products, whether good

or bad. Our technical department will offer advise that will not only assist Quick flyers, but anyone who seeks information on model helicopters.

In conclusion, after 14 years in the R/C helicopter business, I still have a passion for the sport of R/C flying. Now with our new Quick 30 getting ready to ship, My interest in flying has been re-kindled.

We are presently working on a 46-size and a Sport 60. We hope to ship the 46 in March, and have a 60-size prototype flying at the Toledo, Ohio Show. Hopefully, the 60 will ship in early May.

The Quick 30 Pro, with 41 bearings, will sell for only \$424.95 in a metal version, and \$524.95 in a carbon fiber version. The Quick 30 Pro is available either direct or thru our network of hobby dealers.

