

# A Review: The Teknatool Titan Chuck

by Lyn J. Mangiameli

Table I. Comparison of Chucks.

Chuck	Teknatool Titan	Teknatool SuperNova	Axminster Precision	Oneway Stronghold	Vicmark 120
Diameter	5.0	3.875	4	4.5	5.5
Weight	~8.6	~6.3		~8.0	8.6
Key	Ball Head Hex	Notched Swivel	Square	Notched	Hex

Though the four jaw scroll chuck has been available to woodturners for only around fifteen years, many have never come to know (or already have forgotten) that it was Teknatool, in the form of their Nova chuck, that was the first to offer this style of chuck for woodturning. Since its introduction, the four jawed scroll chuck has come to be perceived by most turners as an essential means of workholding, and several manufacturers have come onto the scene with their own offerings. One of the first alternatives came from Oneway, who very closely modelled their first chuck (right down to the jaw hole size and spacing) on the original Nova, and another was Axminster who lightly modified a machinist's chuck for woodturning. This latter chuck, named the Axminster Precision chuck, posed the first major break from the original Teknatool design by being much larger in size, heavier in weight, and using a one handed key to actuate the jaws, instead of the dual Tommy Bar levers of the Teknatool Nova and original Oneway chucks. Before long, Oneway introduced the Stronghold, that followed the lead of the Axminster in offering a heavy, key operated chuck.

Teknatool countered these new developments by coming out with the SuperNova, a key operated chuck of their own, but unlike the Axminster and Stronghold, one that remained moderate in size, weight and price. Since then a plethora of scroll chucks have been introduced, including both large and small, lever bar and key operated chucks from Vicmark, a small version of the Stronghold in the Oneway Talon, and a variety of smaller chucks from Axminster (e.g. the Artisan). What has been missing, up until now, is a large, heavyweight, uncompromising chuck from Teknatool. See Table I.

Recently Teknatool filled that gap in its line by bringing forth their Titan chuck. There is no question that the Titan is a large, heavy, high capacity chuck, that also falls at the upper end of the price range. When the Titan and SuperNova sit side by side, the Titan feels and appears much larger in comparison, than the numbers alone would suggest.

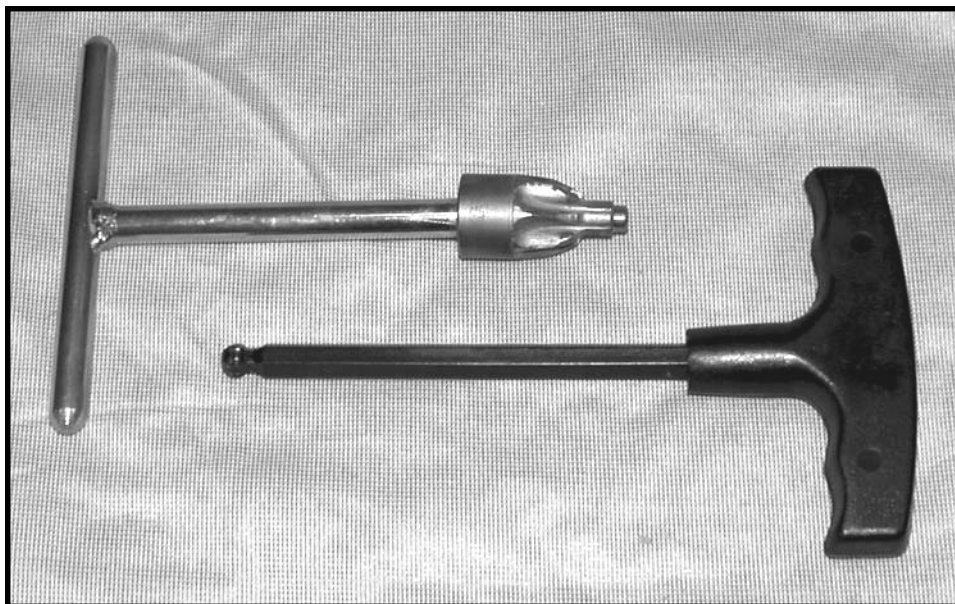
The Titan chuck differs in several ways, besides scale, from the SuperNova. Though using the same spindle thread inserts of its predecessors, the insert now comes with a set screw in the hex collar to allow locking the chuck into a spindle groove, such as appears on the DVR, Oneway and many other lathe spindles of recent manufacture. The Titan has a closed back that greatly reduces dust and chips from contacting the internal gears, although this configuration does make it more difficult to clean the chuck when



Comparison of SuperNova Chucks to the New Titan (upper right hand corner). The Titan and SuperNova on top are both equipped with Powergrip jaws. Note how much larger the Titan looks.



The SuperNova and Titan are shown from the headstock mounting end of the chuck. Note the sealed back on the Titan.



This view shows the SuperNova handle and the Titan handle. The ball end of the Titan handle still gives one a bit of an angle if needed, however, it is much easier to insert into the chuck than the SuperNova handle.

the inevitable buildup of internal dust does occur.

One of the greater differences, in both convenience and design, is that the Titan has substituted a ball head T handled hex wrench, for the notched pivoting shaft wrench of the SuperNova. The SuperNova key has always been one of the major weak points in the SuperNova design, being awkward and troublesome to properly locate and engage with the internal gearing. In contrast, the Titan key fits easily and precisely into a corresponding hex socket, with a ball head that allows for insertion and use with the handle set at modest angle tangent to the body. This is a real convenience, and with the addition of the ball end, is even nicer than the straight sided Vicmark key handle which I have always liked. The T handle itself is sturdy and quite comfortable to grasp and use.

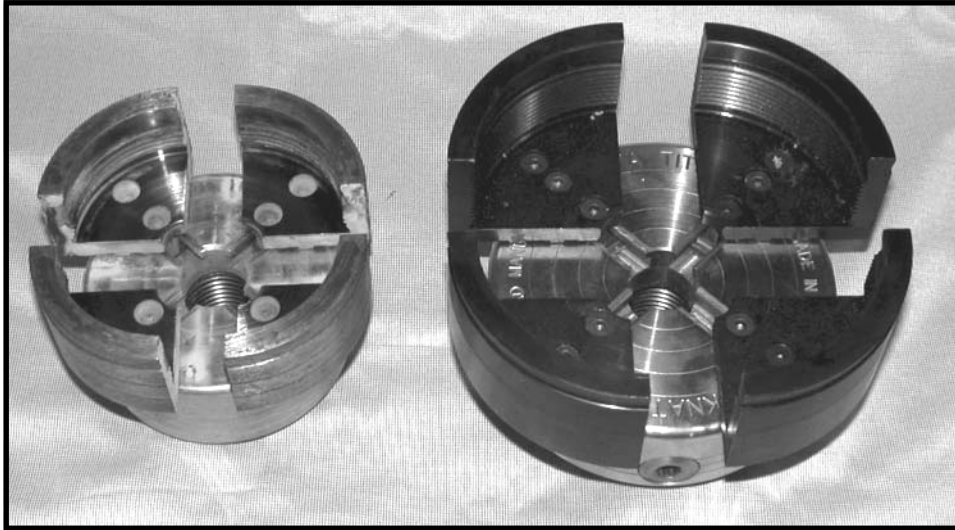
The Titan jaw slides cover a broader expansion range than the SuperNova, but the more visible difference is that they are tapped for three screws per jaw section, as opposed to the more customary two screws found on the SuperNova and others. This third screw is designed for a new series of very large jaw sets that Teknatool will be providing for the Titan. One of which I shall describe shortly. But before describing the new jaw sets, I want to note that one of the nice things about the new Titan is that it will accept all the jaw sets that long have been available for both the Nova and SuperNova series. I find this commendable, and frankly wonder why most other manufacturers haven't tried harder to make more of their jaws sets interchange between their various chucks. By allowing the existing Nova/SuperNova jaw sets to fit on the Titan, the Titan arrives on the scene with one of the greatest range of jaws sets available to it. The new large jaw sets will only increase its range and capabilities.

The first of the new large jaw sets is a scaled up version of Teknatool's Powergrip jaws. The original Powergrip jaws have always been one of my favorite jaw sets, being large, sturdy and capable of a very strong grip. The new Titan version simply dwarfs the original. Not only is the set larger in diameter, but it is also much deeper. They come drilled for three screws, and have an additional locking groove established to prevent them from being fitted to the smaller two screw chuck jaws, which

[Continued on Next Page.]



This view shows the Titan Chuck with the handle inserted at a angle to show that you do not have to be straight on to insert the handle and you can angle away a bit if necessary.



Here the SuperNova and the Titan (right) are compared with the jaws open. Both chucks are equipped with Powergrip Jaws. However, the Titan jaws are larger and are equipped with three mounting screws.

they would overpower. Closed, they are five inches in diameter, and can open to over 6 inches (all this relative to expansion mode). These truly are massive jaws (roughly equivalent to the Stronghold #4 jaws, but deeper), and can provide an impressive grip, particularly in contraction mode.

I have found my Titan to be unusually smooth in operation, far smoother than my well used SuperNovas, and a little better than my Oneway Talon. I did run into a problem when I initially installed the Titan Powergrip jaws, immediately after which I encountered binding for the first time. Carefully reinstalling the jaws with the jaw slides fully closed, and not tightening the jaw screws forcefully, resulted in a return to smoother operation. I just love the new ball end T handle, and desperately hope Teknatool can find a way to allow us to retrofit existing SuperNovas with this style of actuation key. The ball end allows the hex key to slide right into place, even if the shaft is mildly off center or not well aligned with the hex socket. Yes, the key still operates counter clockwise, though this will seem familiar to Nova/SuperNova users, and many Vicmark users as well.

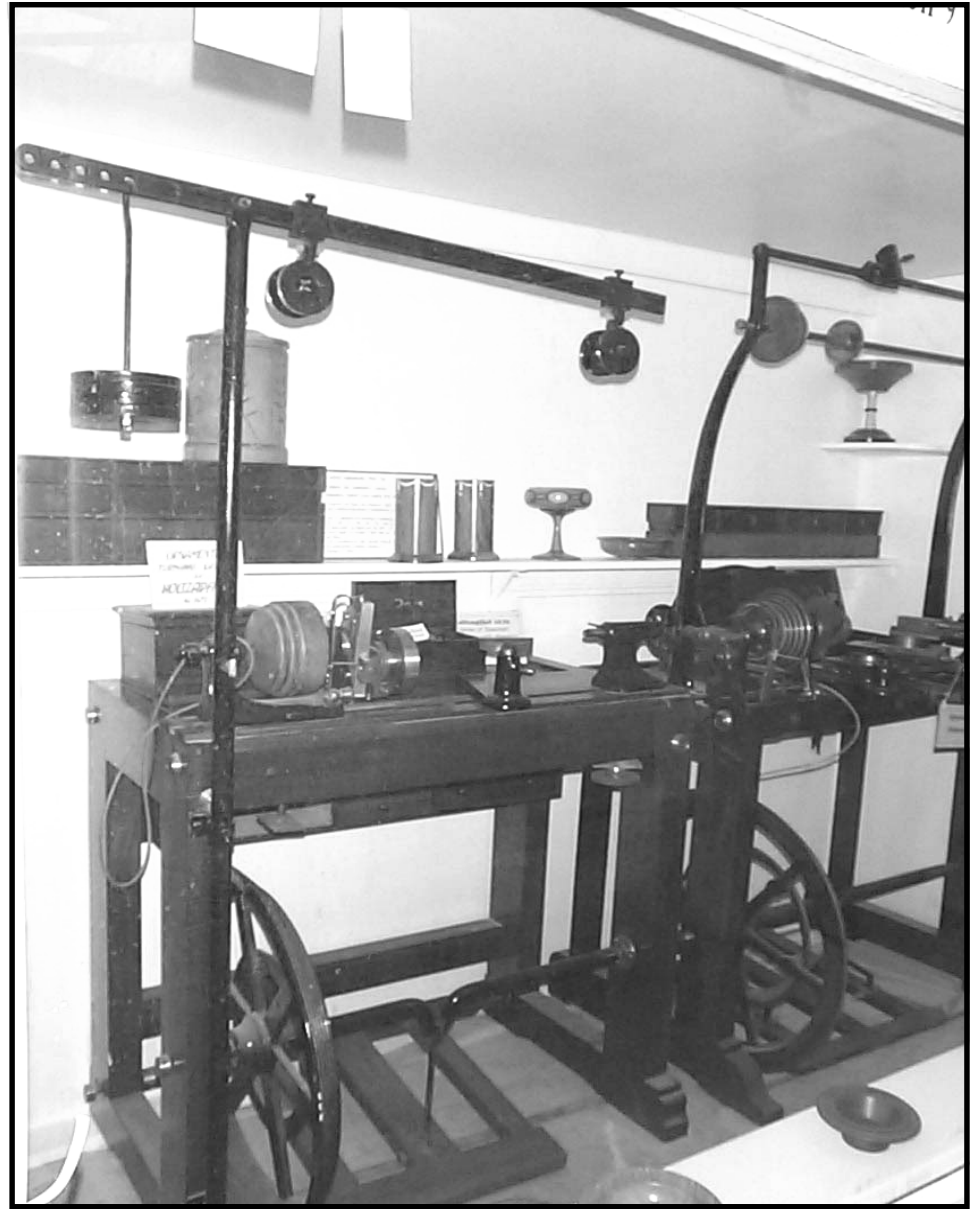
The Titan chuck and jaws allow for an exceptionally powerful and secure grip. The combination proves excellent for holding large bowl blanks during coring, or to hold long blocks of wood for vases and hollow forms. Many who have always preferred a

faceplate for such things (such as myself), may for the first time find themselves being won over to the convenience of a scroll chuck, without worrying about loss in holding power. The large diameter of the jaws can also come in handy for items like platters, which lend themselves to a large diameter mounting area. For most other things, the Titan version of the Powergrip jaws are going to be way too large; for these instances you can instead mount some of the standard series of Teknatool jaws, such as 45mm spigot or even #2 jaws.

Frankly, most with small and medium sized lathes (say up to 14 inch swing), will be unlikely to use the full capabilities of the Titan chuck. Nor will many find the Titan to be a good choice for their only chuck, as the 5 inch diameter of the Titan can interfere with access to the headstock side of small scale and miniature turnings. But if you have a larger lathe (say 18 inch swing and greater), and particularly if you do larger work, the size, cost, and weight of the Titan are apt to be found very acceptable in exchange for its secure and wide ranging grip, and smooth operation. Particularly if you already have one or more Teknatool chucks, the Titan is an excellent and cost efficient way to greatly expand your capabilities for larger work, or more specialized work like coring.

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## Ashburton Continued from Page 5



More Ornamental Lathes in the Lynn museum.

ist. Only two were made and delivered to original owners in New Zealand. We bought Lynn's book "My first 70 Years of Woodworking," which I will review in a future issue.

John Millechamp then took us to visit his two sons, who lived west against the mountain foothills. David was home and had a beautiful garden. John had a thriving nursery here until he retired. His son raises lilies for the New Zealand market. His other son, Steven, was not home,

but we saw his herd of deer. John then took us to his home and showed us his shop. He gave Mildred some more New Zealand woods for her wood collection: swamp matai, celery pine, curly southland beech, black manuka and rata.


We felt good, our plans for Ashburton had been fulfilled. We were ready for our next stop where I was scheduled to demonstrate to the Christchurch Woodturners Association on April 3, 2003.



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