

NOVA Vulcan Combination Spindle

The new NOVA Vulcan is equipped with a new type of spindle which is capable of holding both Morse Taper #3 (MT3) tools and ER32 Spindle collets.

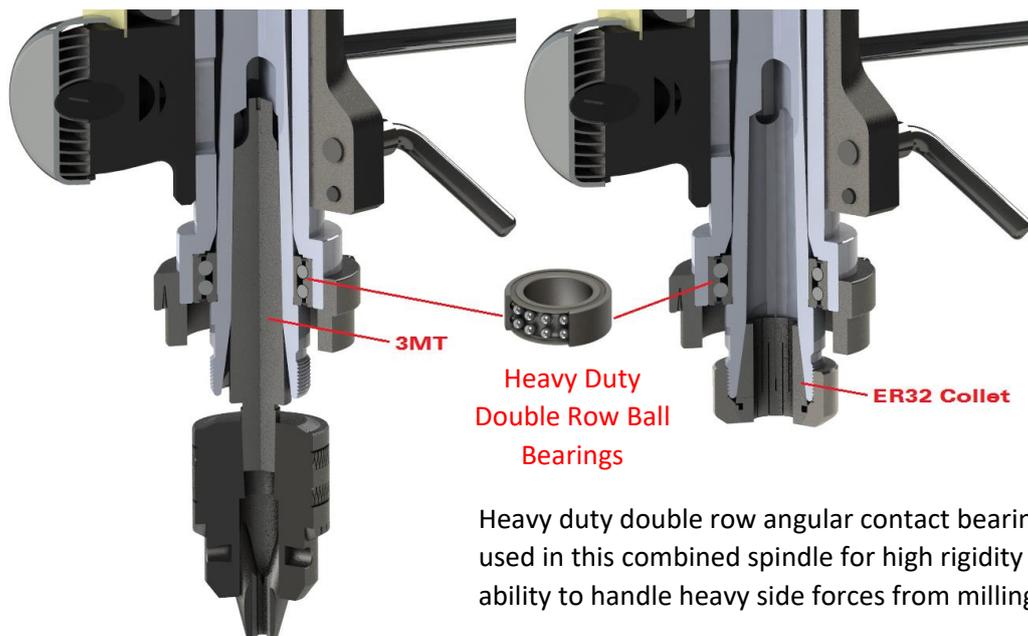
This allows the NOVA Vulcan to use both usual drill chucks and milling tools.

Morse Taper #3 (MT3 or 3MT)

A Morse Taper is the most popular method to hold a cutting tool in a machine. Most drill presses use a smaller Morse Taper #2 but the NOVA Vulcan Spindle is able to hold a much bigger Morse Taper #3. This

ER32 Collet

The most widely used collet system in the world. ER32 collet is able to hold tools which has a diameter between 2mm~20mm (0.0787" ~ 0.787") therefore it can be used with both metric and imperial sized tool.



Heavy duty double row angular contact bearings are used in this combined spindle for high rigidity and the ability to handle heavy side forces from milling

Note:

Morse Taper #3 (MT3) can easily be converted into Morse Taper #2 (MT2) by using an adaptor so all your usual 2MT tools can be used on the Voyager. Some tools require extra length adaptor.



MT2 to MT3 sleeve adapter

Why use the ER32 Collet?

Morse taper is a very reliable method to secure cutting tools into the machine as long as it is used to plunge straight into the material. However, Morse Taper is very weak against a side force (e.g. during milling) and it has a risk of falling out of the machine during operation.

ER32 collet is able to take this side force, safely securing the cutting tool in the machine even during milling operations. This makes the NOVA Vulcan a suitable machine to use in both metal and woodworking applications.

ER32 Spindle Collet



ER32 collet hold the cutting tool by using 2 main parts; collet and collet ring. The collet ring squeezes the collet ring which then squeezes the cutting tool therefore holding the tool in place.

ER32 Collet Ring

ER32 Collet



End mill bit held by ER32 collet

Morse Taper #3



1inch drill bit with MT3 mounted directly into the spindle

A cutting tool with Morse taper #3 can be mounted into the machine directly without a need of an adapter.



Drill chuck with Morse Taper #3

