

TensileTurn CNC - Industrial Upgrade Model - FAQs

What are the power and amperage requirements for TensileTurn CNC - Industrial Upgrade Model?

The system requires 220VAC power supply single phase and 20 amps.

The TensileTurn CNC – Industrial Upgrade Model tensile sample preparation machine has a voltage tolerance of 200-240V.

What type of receptacle would be recommended for the round tensile sample preparation machine?

TensileTurn CNC - Industrial Upgrade Model uses a Nema 5-20 plug in the main power line. You will simply need to plug a Nema 6-20 receptacle or you can hardwire to a disconnect.

Does TensileTurn CNC - Industrial Upgrade Model require air connection?

Yes. The standard unit uses 30 psi (2 atm) of air pressure at a consumption rate of 3 CFM (87 LPM). The OPTIONAL pneumatic chuck and 5C collet system require 90 psi (6 atm) of air pressure.

If your facility maintains a higher air pressure, it is ideal since the machine comes equipped with its own filter/regulator. The regulator will reduce the PSI to 90, eliminating the necessity for any additional valves beyond those provided with the machine.

Does the system require a water connection?

TensileTurn CNC – Industrial Upgrade Model comes standard with a coolant system. The coolant must be kept at a certain concentration range based on the coolant's manufacturer required specifications.

What are the space requirements (footprint) for TensileTurn CNC - Industrial Upgrade Model?

The system dimensions are 43" x 30" x 81.5" (1090mm x 762mm x 1816mm) and weight around 900 lbs. A clearance of at least 1.6ft (0.5 ft) between the machine and any surrounding machinery or walls is required to ensure easy access for maintenance or cleaning purposes.

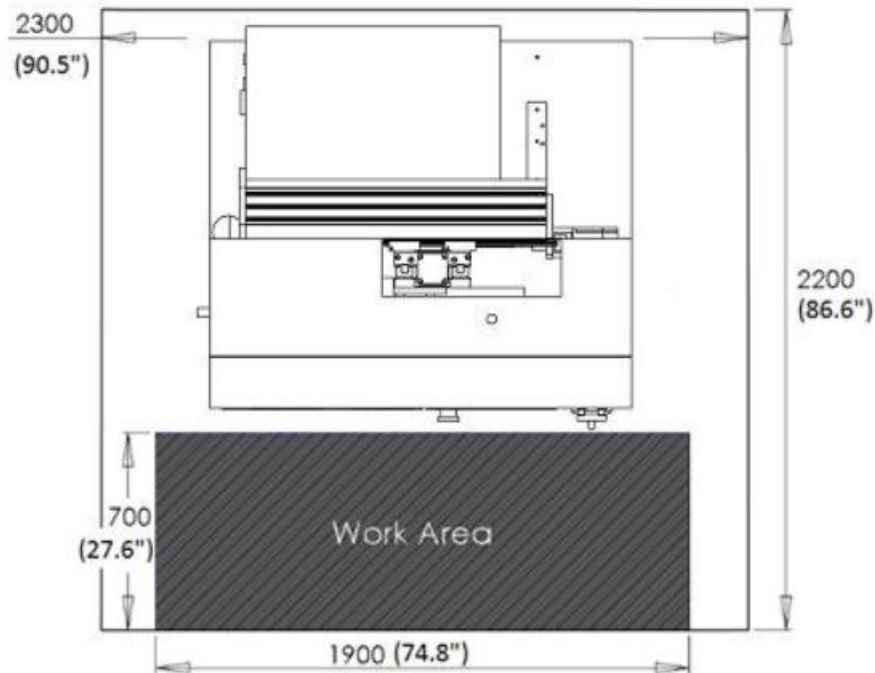


Fig. 4 Top view of working space, all dimensions in mm

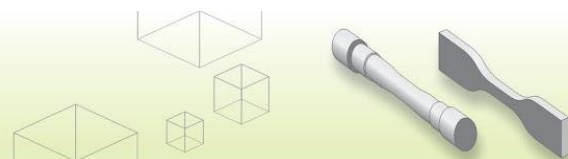
What is the suggested cooling fluid to be used with TensileTurn CNC - Industrial Upgrade Model?

The coolant oil should be a semisynthetic/water soluble oil. A fully synthetic cutting fluid is not recommended as they can be corrosive towards seals in the machine.

The TensileTurn CNC – Industrial Upgrade Model is equipped with an internal recirculating fluid chamber. It is recommended that it be changed every 6-12 months. Generally speaking, the spindle cooling fluid only needs to be changed once a year and the cutting fluid needs to be topped off when it gets low.

What is the suggested lubrication fluid to be used with the system?

TensileTurn CNC – Industrial Upgrade Model round specimen preparation machines require ISO 68 equivalent way lube. Some brand suggestions include Mobil, Shell, Irving, etc.



What are the maximum dimensions of the starting blanks that can be used in the TensileTurn CNC - Industrial Upgrade Model?

TensileTurn CNC – Industrial Upgrade Model can take various types of starting blanks:

Round Stock:

Up to 8” in length and 4” in diameter using the 3-Jaw Chuck.

Square Stock:

Up to 8” in length and 1” by 1” (WxD) using the 4-Jaw Chuck

Irregular Stock:

Up to 8” in length. Please review your specific requirements with your CNC consultant for most accurate Chuck recommendations.

What type of fixtures / holders is the system supplied with?

As part of your Turnkey Solution Package, the TensileTurn CNC – Industrial upgrade model will be supplied with all of the necessary fixtures and holders required to accurately and repeatably prepare your desired materials.

Prior to machine’s delivery, your CNC Consultant will re-confirm the types of materials you are looking to prepare to put together an accurate tooling package.

What are the common spare parts for TensileTurn CNC - Industrial Upgrade Model? Are these readily available?

The system has standard list of components, spare parts and recommended consumables. The components are subject to a short lead time and can be ordered at any time by contacting TensileMill CNC, Inc.

Most spare parts and consumables are available in-house or can be delivered within a few days/weeks. Contact us today or submit your request on-line.

What type of surface finishes can be expected with TensileTurn CNC - Industrial Upgrade Model?

The surface finish specifications are typical of a high-quality CNC turning center. In the great majority of cases, the results are 63 Ra or better. There are a number of factors to consider when evaluation a surface finish. In order to achieve ASTM E466, ASTM E606, EN 6072 and NADCAP industry standards, please see our [TensilePolish solution](#).

