



Enabling Your Ideas

Technical Document

PCNC 1100 Deluxe Stand Installation

Product Identification: PCNC 1100 Deluxe Machine Stand with Coolant Kit (PN 30297)

Purpose: This document details the assembly and installation of the PCNC 1100 mill stand. This document includes seven sections including: (1) *Receiving Stand*; (2) *Attaching Feet*; (3) *Installing Manual Oiler* (4) *Attaching Chip Pans*; (5) *Attaching Backsplash Guards*; (6) *Installing Coolant System*; and (7) *Installing Table Guard Kit*.



IMPORTANT! PCNC 1100 mills with serial numbers 001-2097 require a PCNC 1100 Stud Kit (PN 35468).

Required Tools:

- Multi-Purpose Grease
- Phillips Screwdriver
- Adjustable Wrench
- Carpenter's Level
- Flat-blade Screwdriver
- Metric Hex Wrench Set
- PTFE (plumber's) Tape

Deluxe Machine Stand with Coolant Kit	Qty.	PN	(continued...)		
Stand	1	—	Right Table Guard Plate	1	—
Left Chip Pan	1	—	Table Guard Connecting Plate	1	—
Right Chip Pan	1	—	Polycarbonate Table Guard	1	—
Coolant Tank	1	—	M5 x 12 mm Screw	4	—
Stainless Steel Wear Guard	1	—	M5 x 8 mm Pan Head Screw	2	—
M6 x 10 mm Screw	37	—	Adjusting Rod	1	—
M6 Nut	6	—	M6 Flat Washer	2	—
M12 Nut	4	—	Left Backsplash Guard	1	—
M12 Threaded Stud	4	32648	Right Backsplash Guard	1	—
M12 Flat Washer	8	—	Coolant Pump	1	32746
M12 Lock Washer	4	—	Butyl Tape	1	34428
Spacer	4	35259	Chrome Armored Hose	1	30725
Feet	4	32092	1/4" Coolant Hose	1	32833
M5 x 20 mm Screw	4	—	Coolant Hose Adapter	1	32832
M6 x 12 mm Fixing Screw	1	—	Coolant Hose Mount Bracket	1	31105
Left Table Guard Plate	1	—	M12 x 50 mm Screw	4	—

NOTE: If any of these items are missing, contact Tormach Customer Service for a replacement at (608) 849-8381.

Receiving Stand

WARNING! Transport and Lift Hazard: The transport, lifting, and moving of stand should be done by qualified professionals. Failure to do so may result in machine damage, serious injury, or death.

WARNING! Sharp Objects: Wear gloves when uncrating mill. Failure to do so may result in serious injury.

1. The PCNC 1100 deluxe stand is delivered in two wooden shipping crates banded together with steel bands. Unpack smaller crate and set aside components.
2. Remove sides from larger crate; set aside Table Guard Kit and Coolant Tank. Smaller components are located within Coolant Tank.
3. Carefully tip Stand on its side; unbolt pallet.

Attaching Feet

NOTE: Attach Feet to Stand after pallet is removed and while Stand is still on its side (see **Figure 1**).

1. Apply multi-purpose grease to the locations indicated in **Figure 2** and join them together.
2. Insert *M12 Threaded Stud* into each foot and slide on *Spacers* (see **Figure 2**).
3. Attach feet to Stand using assembly shown in **Figure 2**.
4. Carefully return Stand so it rests on feet and position at installation location.

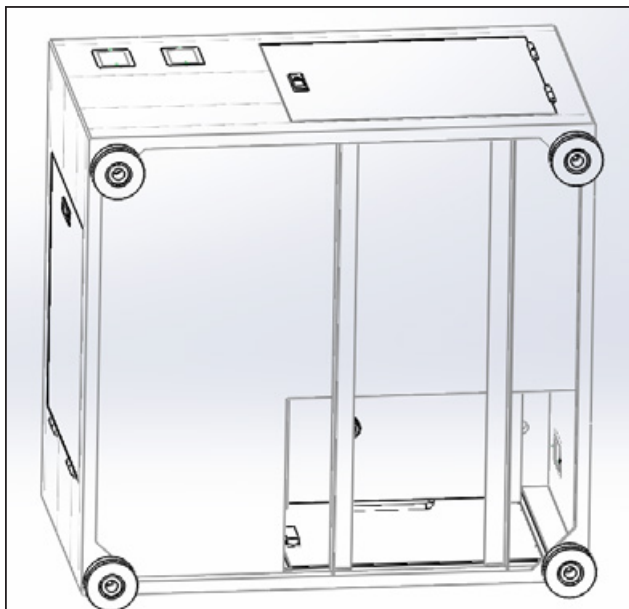


Figure 1

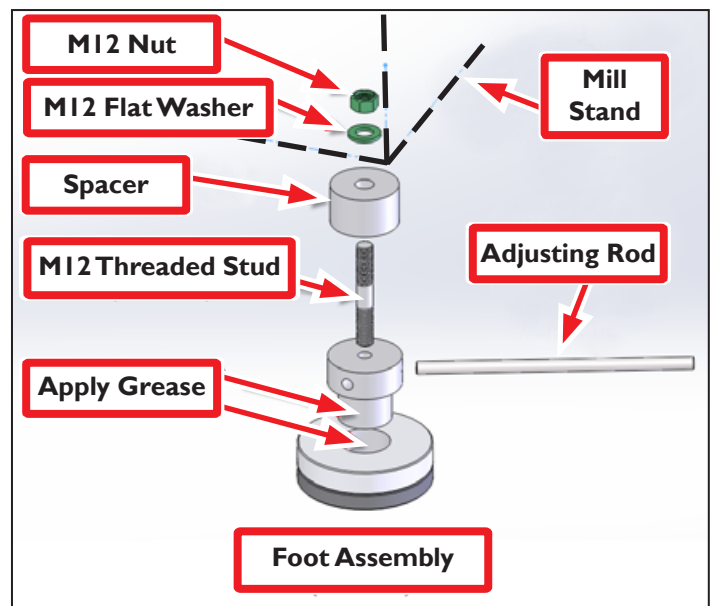


Figure 2

5. If Stand is in its final location, level Stand using a carpenter's level. Adjustments to *Feet* are made using *Adjusting Rod* to increase or decrease height on each corner (see **Figure 2**).
6. Deburr and grease four mill mounting pads to prevent rust (see **Figure 3**).

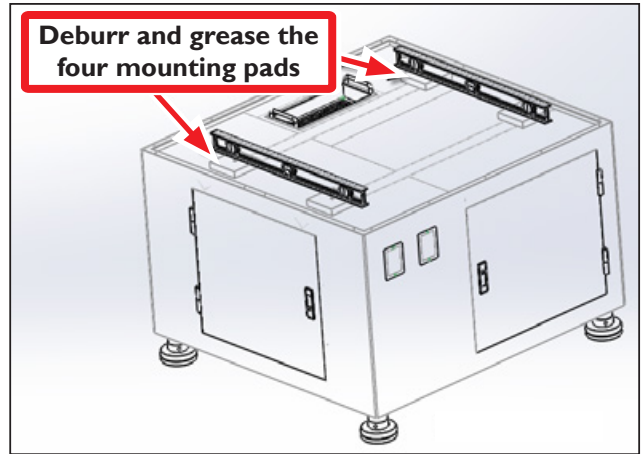


Figure 3



WARNING! Transport and Lift Hazard: The transport, lifting, and moving of mill should be done by qualified professionals. Failure to do so may result in machine damage, serious injury, or death.



WARNING! Crush Hazard: Keep hands and body parts clear when lowering mill onto Stand. Failure to do so could result in serious injury or death.

For further information on mill install, refer to mill operator manual chapter 3, *Installation*.

Installing Manual Oiler

1. Route oil line (pre-installed at back of mill near Y-Axis motor) down back of stand and along left side as shown in **Figure 4**.
2. Mount manual oiler and tubing clips using pre-drilled holes (see **Figure 4**); connect oil line.
3. Fill manual oiler reservoir with ISO VG68 Machine Oil (PN 31386).
4. Retract and release plunger until oil is pushed through system. After that pull plunger:
 - Each time mill is powered on
 - Every four hours of operation



Figure 4

Attaching Chip Pans

NOTE: If using the optional Automatic Tool Changer (PN 32279) and/or Power Drawbar (PN 31706), installation is easier at this stage due to access issues that arise once the chip pans are installed.

1. Position chip pans near stand and test fit. *Left Chip Pan* and *Right Chip Pan* are different.
2. Seal joints between stand and chip pans with *Butyl Tape* as indicated in **Figure 5** prior to installing *Left Chip Pan* and *Right Chip Pan*. It is best to apply *Butyl Tape* and install one chip pan at a time.
3. Use 11 *M6 x 10 mm Screws* to attach *Right Chip Pan* to stand.
4. Use 10 *M6 x 10 mm Screws* to attach *Left Chip Pan* to stand.
5. Add a strip of *Butyl Tape* where chip pans meet in front. Use two *M6 x 10 mm Screws* and two *M6 Nuts* to join together chip pans.
6. After chip pans are installed, use two *M6 x 10 mm Screws*, two *M6 Flat Washers*, and two *M6 Nuts* to attach *Stainless Steel Wear Guard* across front (see **Figure 6**).

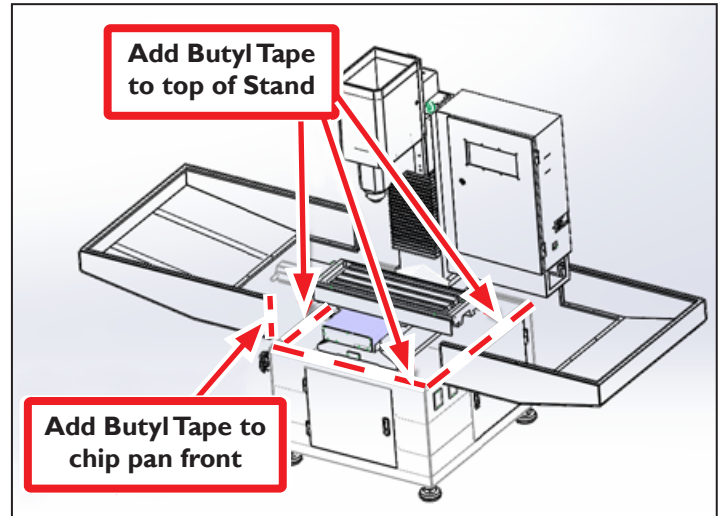


Figure 5

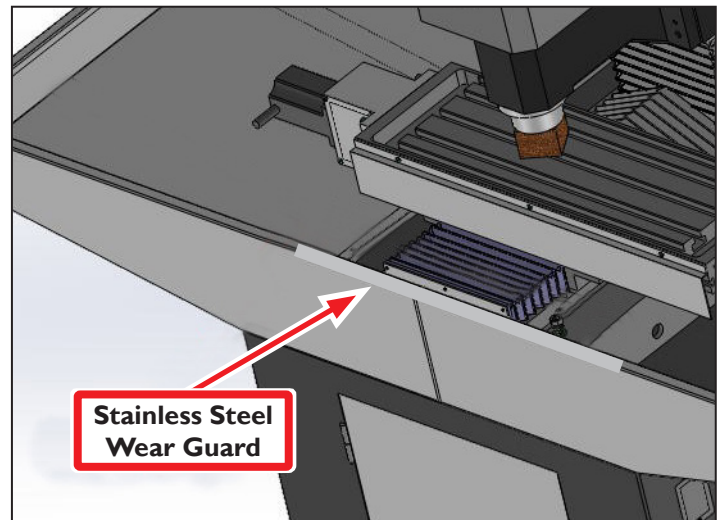


Figure 6

Attaching Backsplash Guards

1. Position backsplash guards near stand and test fit; *Left Backsplash Guard* and *Right Backsplash Guard* are different (see **Figure 7**).
2. Use five *M6 x 10 mm Screws* to attach *Right Backsplash Guard* to *Right Chip Tray*.
3. Repeat step 2 for *Left Backsplash Guard*.
4. Use two *M6 x 10 mm Screws* and two *M6 Nuts* to connect two backsplash guards at rear joint.

NOTE: Do not use *Butyl Tape* for the joint between the backsplash guards or between the backsplash guards and chip pans.

NOTE: If any holes on the backsplash guards do not line up, loosen surrounding screws as needed. Once all screws are started, tighten to approximately 3 ft-lbs of torque.

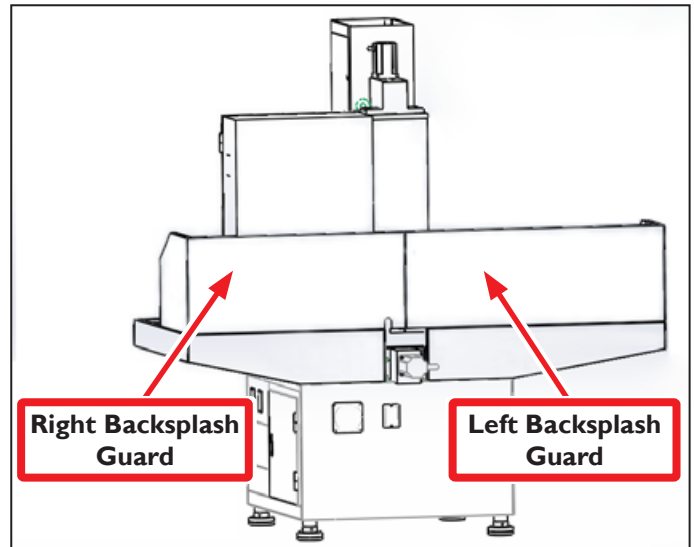


Figure 7

Installing Coolant System

1. Remove all parts from inside *Coolant Tank* (see **Figure 8**).
2. Using four *M5 x 12 mm Screws*, mount *Coolant Pump* to *Coolant Tank* (see **Figure 8**).

NOTE: *Coolant Pump* is 115 VAC only.

NOTE: Wrap *Elbow Adapter* threads and *Coolant Hose Adapter* with thread seal tape (*PTFE Tape*).

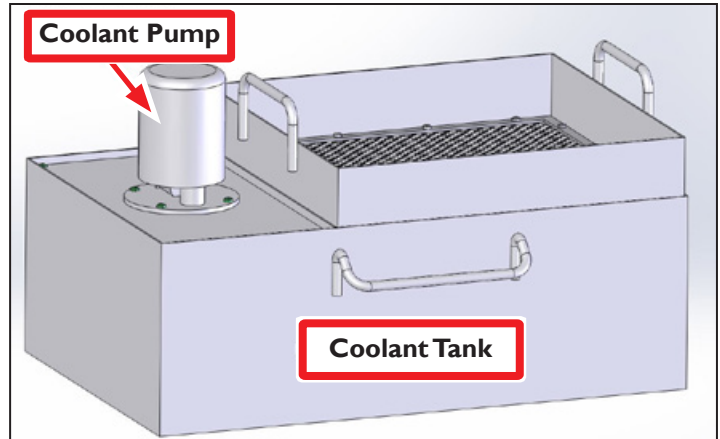


Figure 8

3. Insert *Nylon Washer* into both ends of *Chrome Armored Hose* (see **Figure 9**).

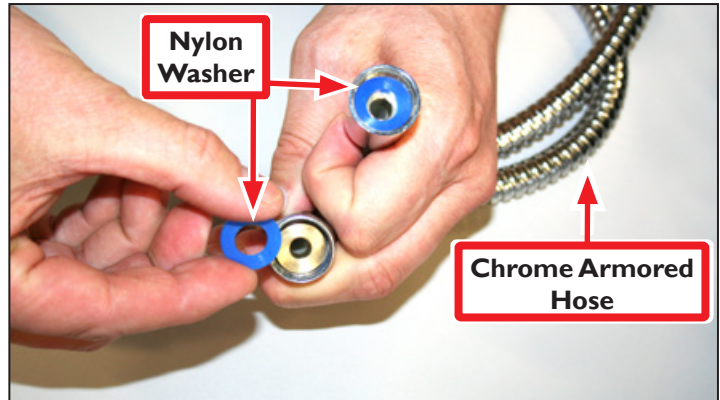


Figure 9

4. Insert *Chrome Armored Hose* through hole in *Stand*; connect to *Elbow Adapter* on *Coolant Pump* (see **Figure 10** and **Figure 11**).

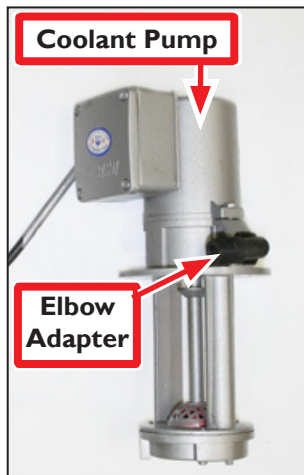


Figure 10

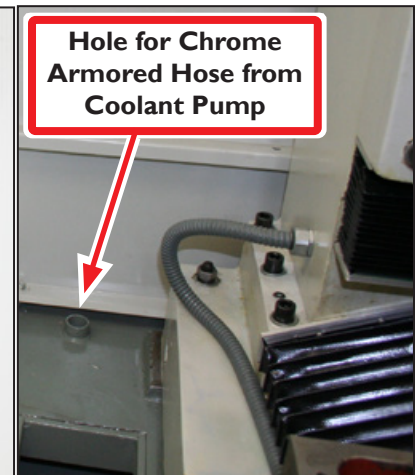


Figure 11

5. Connect 1/4" Coolant Hose to Coolant Hose Adapter; insert into Coolant Hose Mount Bracket (see Figure 12).
6. Connect Chrome Armored Hose to Coolant Hose Adapter.
7. Using two M5 x 8 mm Pan Head Screws, attach Coolant Hose Mount Bracket to mill head.
8. Using one M6 x 12 mm Fixing Screw, attach Coolant Hose Mount Bracket to Coolant Hose Adapter (see Figure 12).

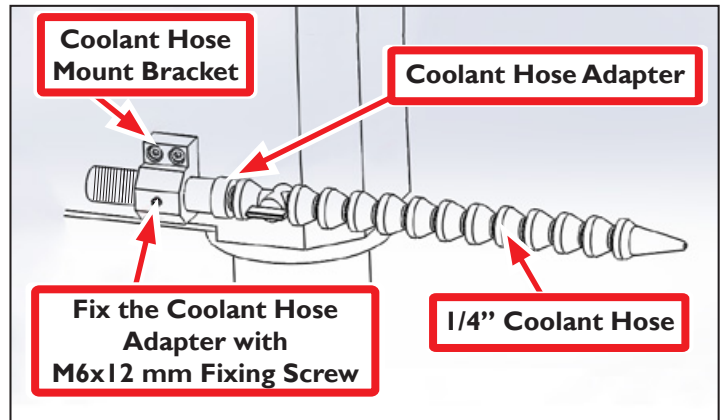


Figure 12

9. Connect Coolant Pump's 3-prong plug into outlet shown in Figure 13.

NOTE: Power Connection Panel is located on bottom of electrical cabinet.

Power Connection Panel

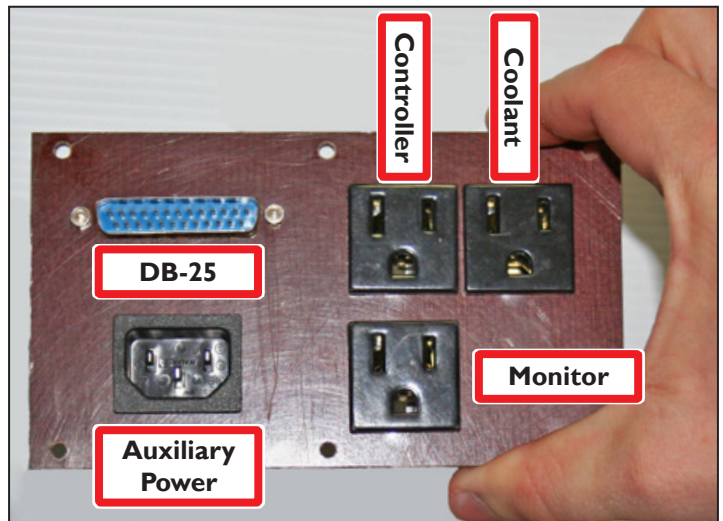


Figure 13

Installing Table Guard Kit

1. Remove four set screws from the four corners of top of mill table and set aside.
2. Insert *Left Table Guard Plate* and *Right Table Guard Plate* inside *Table Guard Connecting Plate*; fasten with four *M5 x 20 mm Screws* as shown in **Figure 14**.
3. Slide *Polycarbonate Table Guard* into slots on guard plates (see **Figure 14**).

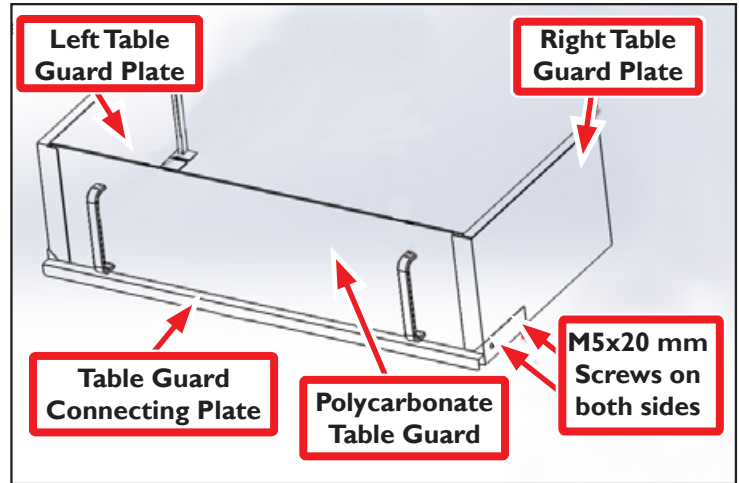


Figure 14

4. Using four socket head cap screws, attach *Table Guard Kit* assembly onto mill table (see **Figure 15**) and fasten at locations indicated in step 1.

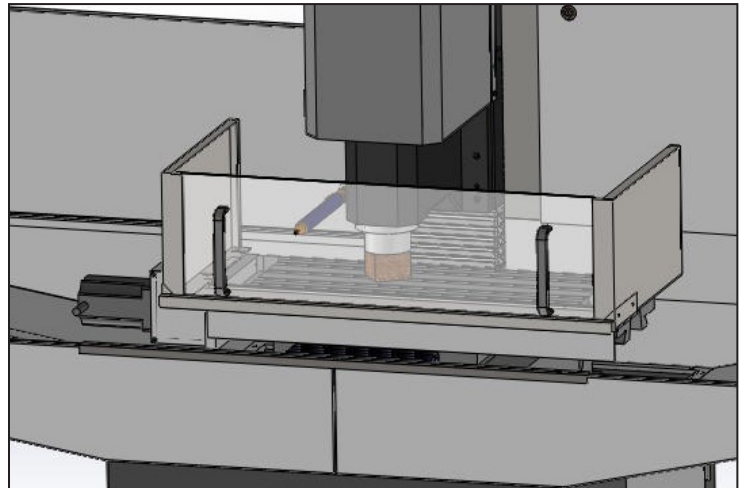


Figure 15