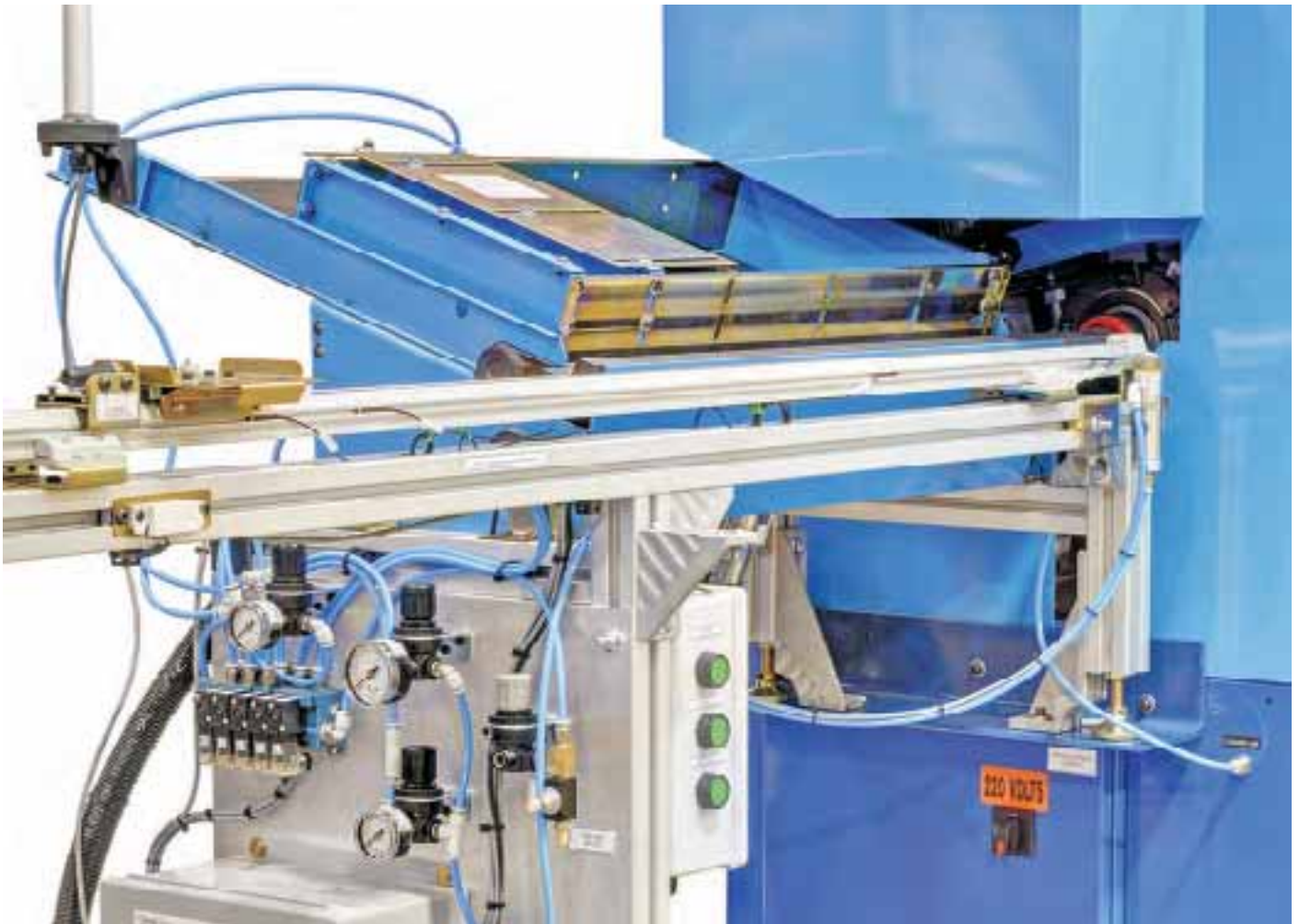


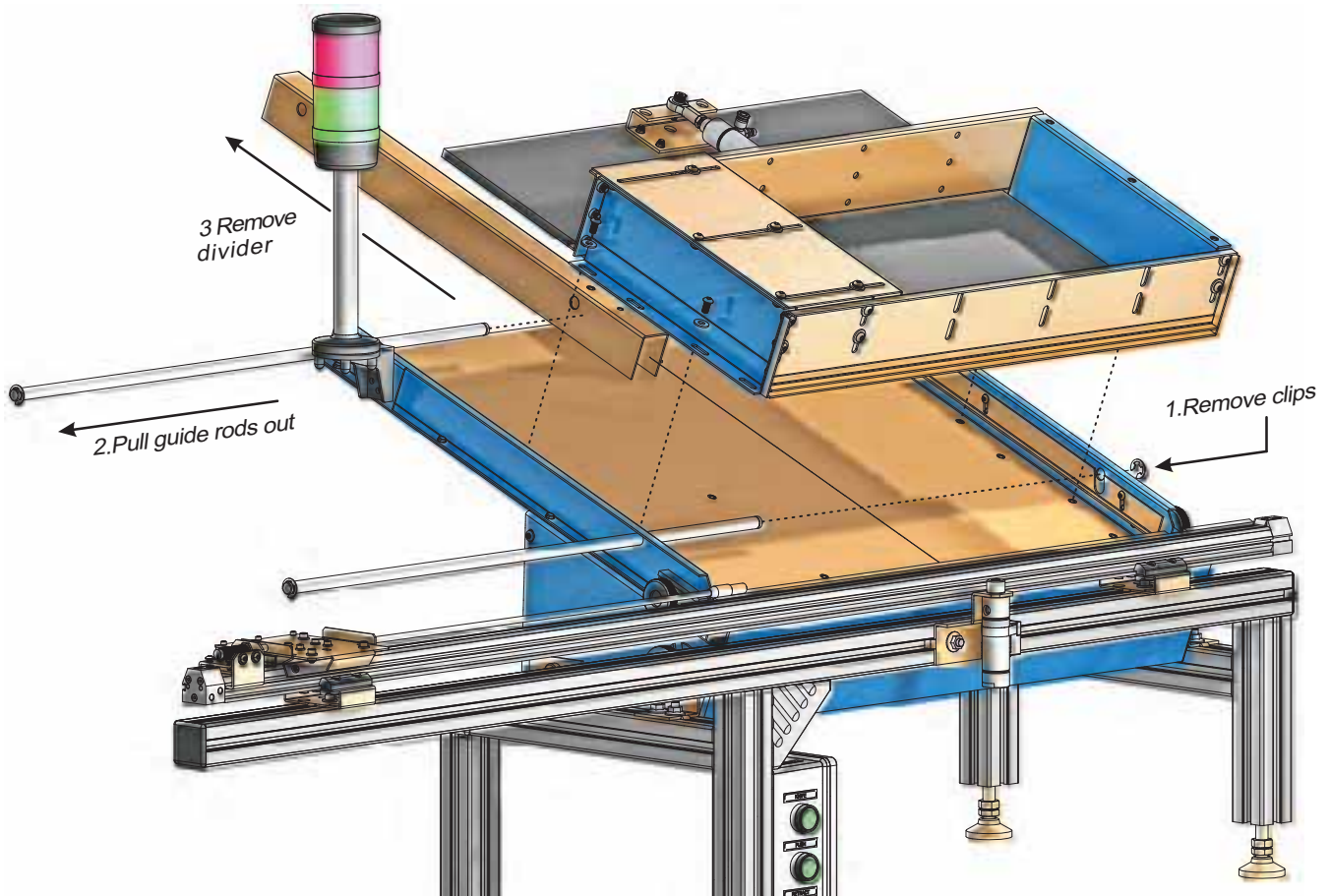
ZipLoader Parts Hopper Option (kit installation & description)



Hopper Installation, Mechanical

Remove Guide Rods & Center Divider from Zip Loader tray assembly. Rods are held with snap rings at each end. Note: two 3/16" brass balls will fall out from between each lock screw on Center Divider and Guide Rod and roll to bottom of tray. These were installed to prevent marring the Guide Rods.

Pem nuts in the Zip Loader tray accommodate 10-32 screws through the slots in the Hopper sides. The tray has Pem nuts for 15 and 24-inch hoppers. For the 24-inch hopper use the second and fourth sets of slots and Pem nuts from the knife (24-inch shown). For the 15-inch hopper, use the first and third sets.

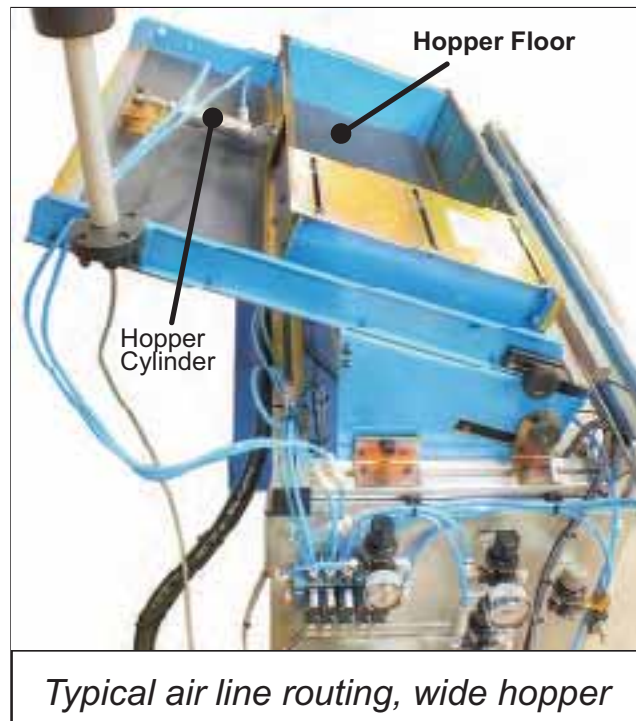


Hopper Installation, Pneumatic

NOTE: Hopper floor now moves forward as knife moves up to prevent double-feeds with very small part diameters. If your application requires old-style movement, swap air-lines at hopper cylinder.

Cut the air hoses that go from Knife solenoid air valve (Solenoid "0") to knife cylinder, and install the push-in union tees as shown in the picture below left.

The air hose from fitting B (rear) on Knife air valve routes to the rear fitting on the hopper floor cylinder; the air hose from fitting A (front) on Knife air valve goes to the front fitting on the



hopper floor cylinder. Hopper floor should move forward as knife moves up.

The flow controls on the hopper have been set at the factory. Generally they are set to move the floor quickly back to agitate the parts, then move the floor slowly forward as the part is being lifted by the knife (escaped) to the vee.

The Knife Pressure regulator adjusts Hopper Floor pressure as well. Older ZipLoaders do not have this regulator. This regulator is limits the force of the knife, which could damage the lip of the front gate if it is set too close to the knife when running very small diameter parts.

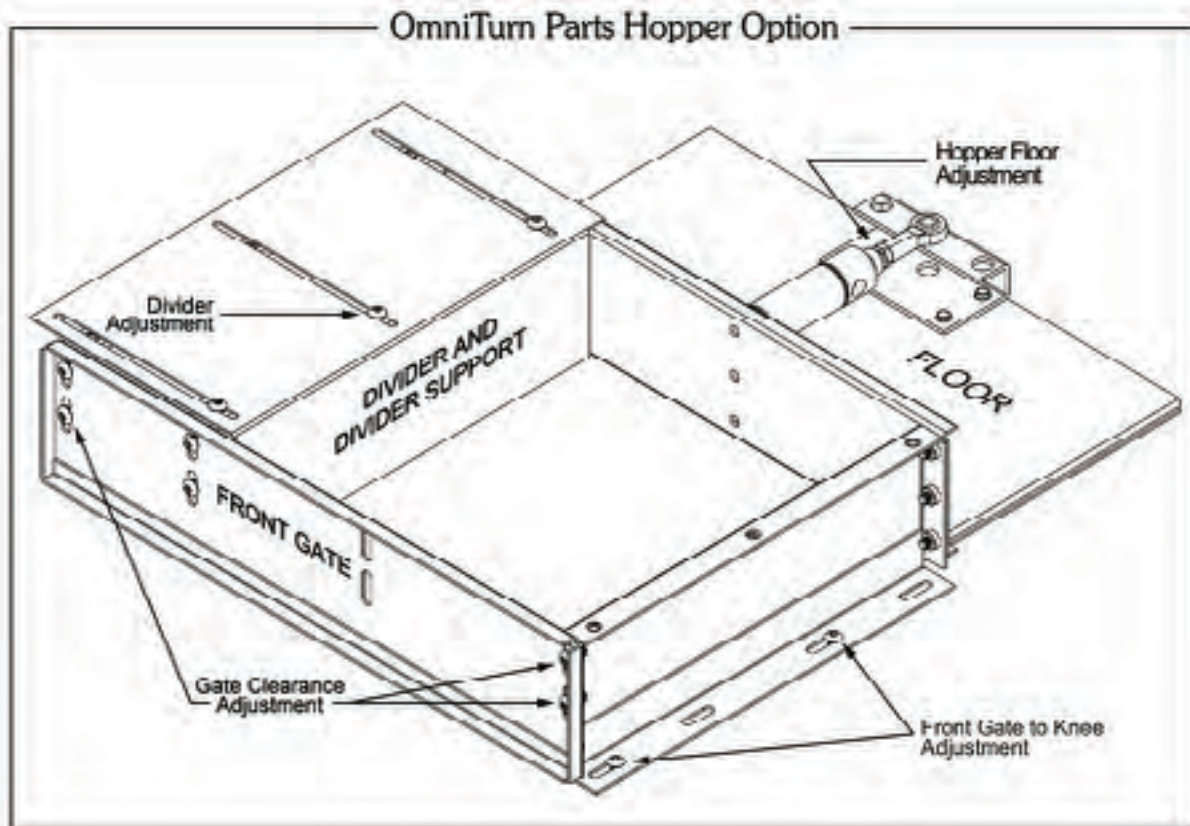
Operational Description

The parts hopper is designed to be used with the Omniturn Zip Loader to increase the number of parts that can be loaded with the ZipLoader. The hopper allows small diameter parts (1/8" - 1/2") to be loaded in quantity in a 3-1/2"h x 11-3/4" x 24-1/8"w box, the quantity depending on the diameter of the part. The length of the part can be from approximately 2 inches, to 24 inches. The parts are then presented to the top of the knife in the ZipLoader, and loaded into the rear of the spindle for machining. The hopper can be mounted to any ZipLoader.

ADJUSTING THE HOPPER

The hopper has four basic adjustments that need to be set for a given part diameter and length. Overall view is shown below. Detailed illustration is shown on following page. The are as follows::

1. Divider and Divider Support
2. Gate to Tray Clearance
3. Front Gate to Knee



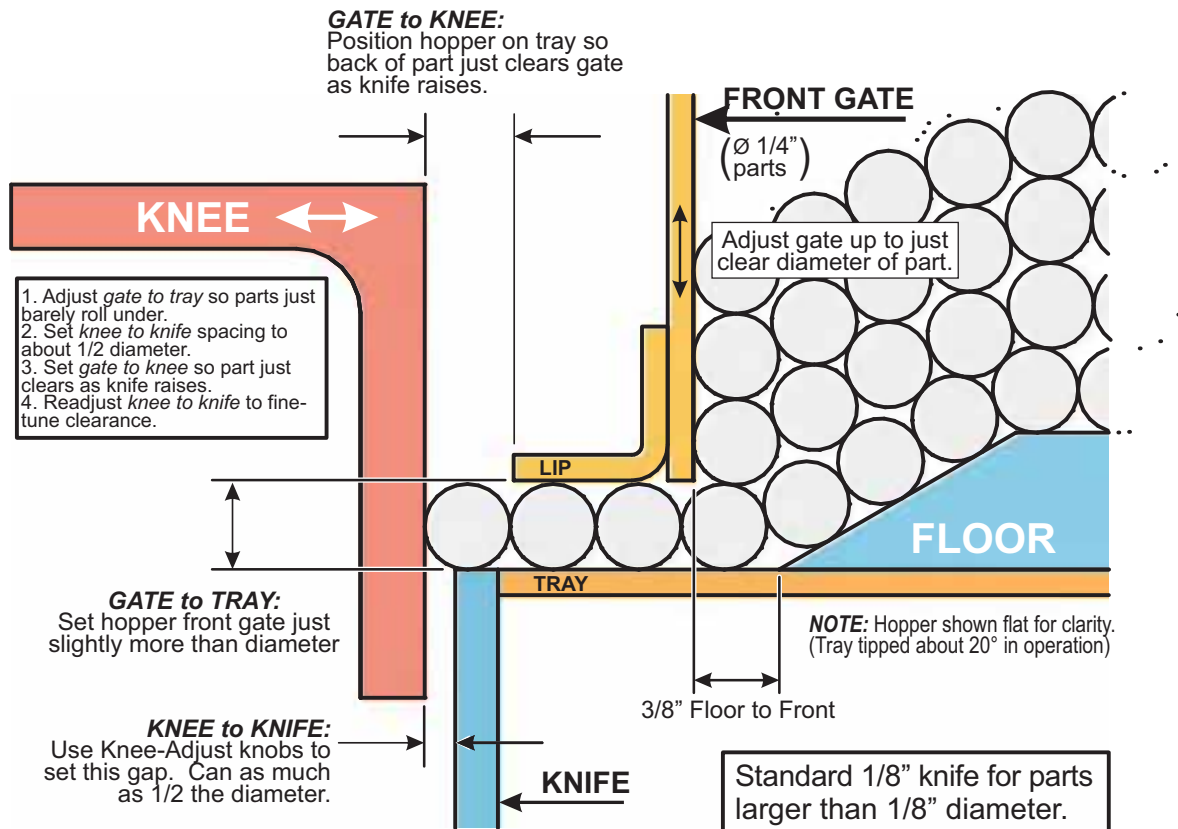
Operational Description, continued

DIVIDER and DIVIDER SUPPORT ADJUSTMENT

An adjustable divider is provided to allow for the various lengths of parts the hopper will accommodate. The divider rests on a removable support. Move the Divider Support as required to position the Divider for a range of parts. Remove the Divider Support and used the left side-rail to support the Divider for the longest parts.

GATE to TRAY CLEARANCE ADJUSTMENT

The front gate of the hopper is slotted to allow up and down adjustment. This should be adjusted to allow clearance for the diameter of the selected part to be loaded, to clear between the bottom of the gate and the ZipLoader tray. A slightly larger diameter than the part, for example an allen wrench, can be used as a gauge to space between the bottom of the front gate of the hopper and the ZipLoader tray. Be sure to space each side of the gate equally before tightening the fasteners. The objective with this adjustment is to allow one part to roll freely under the gate and onto the knife with no restriction, but not so loose as to allow two parts to jam and interfere with the flow.



NOTE: If your ZipLoader has 1/16" knife, see ZipLoader Setup & Operations document for small diameter part settings

Operational Description, conclusion

FRONT GATE TO ZIPLOADER 'KNEE' ADJUSTMENT

The hopper side plates are slotted to adjust the distance between the front of the Front Gate and the 'knee' of the ZipLoader. The distance from the front edge of the Front Gate to the 'knee' of the ZipLoader should be just enough to allow one part to be lifted by the knife.

First adjust the knee-to-knife distance as required for the diameter of your parts by loosening the black knurled knobs on either side and sliding the 'knee' assembly back and forth.

With the OmniTurn powered up and the ZipLoader in Manual mode, move the hopper toward the 'knee' until one part can be escaped by the knife. The idea is not to allow more than one part to pass under the bottom edge of the Front Gate and rest against the 'knee'.

HOPPER FLOOR ADJUSTMENT

The bottom floor of the hopper slides in and out with each activation of the ZipLoader knife. This is activated by a pneumatic cylinder on the rear of the hopper. The front edge of the floor nearest the adjustable gate is angled, and agitates the parts nearest the gate, preventing the "gothic bridge phenomenon" stack-up of parts causing a bottleneck which will develop at the intersection of the gate and the ZipLoader tray as the parts stack up. Some experimentation in manual mode of the ZipLoader may be necessary to find the optimum spacing to allow between the backside of the gate and the most forward position of the sliding plate. This can be adjusted by turning the adjustable rod on the cylinder, which is locked with jam-nut.