

Application Highlight: Two-Spindle Simultaneous Bore & Face Grinding

The two-spindle "Slide Bar" versions of the SNI 1SN-2XC and 2SN-2XC Grinders allow for simultaneous bore and face grinding...a true production advantage for the customer.

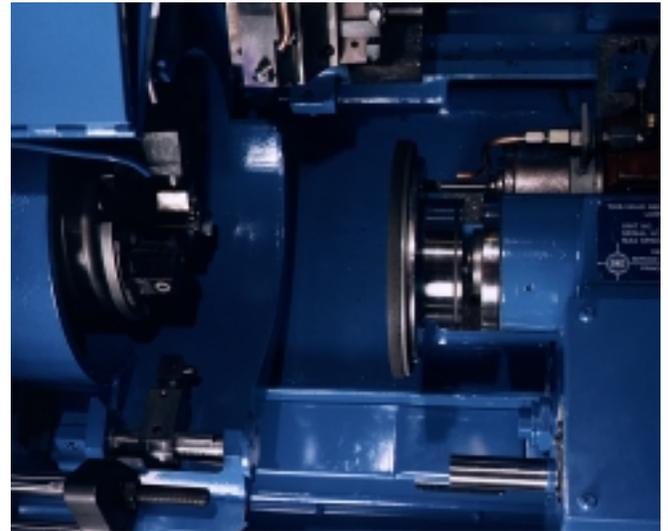
SNI recently shipped a pair of 1SN-2XC Grinders, as well as a rotary surface grinder, for a powdered-metal spur gear application (pictured here to the left). The customer required the bore and both faces of the gear to be ground, and had every intention of purchasing two bore grinders, and two rotaries (one for each face). By combining the bore grinding with the grinding of the front face, the need for a fourth machine was eliminated.

A functional description of the Slide Bar process is provided below.

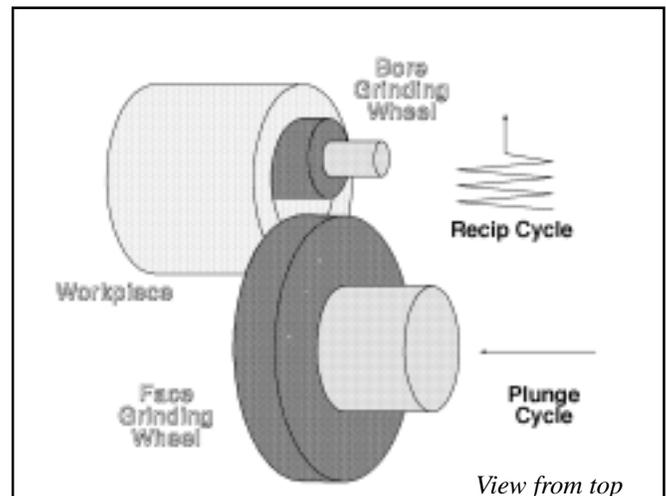
Service Network can provide two-spindle solutions 1SN-2XC and 2SN-2XC for a variety of applications. Options include the Slide Bar configuration for simultaneous grinding, or sequential programming of two grinding spindles.



Model 1SN-2XC Chucker revealing latest version of 1SN full-enclosure guarding package.



Slide Bar Arrangement on a 1SN-2XC. Photograph shows proximity of independent facing and bore grinding wheels, and position of each single-point dressing diamond. The fore-most device (lower left) is the servo-motor-controlled face feeding stop.



Slide Bar Principle

The automatic slide bar facing attachment allows the facing wheel to remain in grinding position while a reciprocating grind is performed on the bore. The facing spindle is mounted on anti-friction slide bars, and is driven by an independent wheelhead drive motor. As the table reciprocates for the rough bore grind, the facing wheel is held stationary in the face grinding position by spring pressure against a CNC-controlled face feeding stop. During the finish bore grind, the facing wheel is held away from the workpiece by an automatic retracted setting of the face feeding stop.