



# 3M™ Dressing Spindles and Service

Core elements for building a complete  
high-performance grinding system.

# Kick productivity into high gear.

Give your shop a competitive edge. With 3M™ Spindles for Rotary Dressing Systems, power, precision and reliability are all in a day's work.

3M develops and supplies precision rotary dressing systems for all types of grinding machines. Dressing system quality has a determining influence on the efficiency and economy of the overall grinding process. For this reason, dressing systems require high-quality components in terms of both stiffness and precision. 3M™ Dressing Systems meet the highest requirements, whether for standard versions or custom built solutions.

To help ensure the highest efficiency and economy during the grinding process, 3M dressing system components are engineered for outstanding strength and stability, giving you an even and accurate grind every time. Because precision is crucial to the final product, 3M engineered components will help create the highest quality finish possible.



## Inline Cantilever Spindles

Inline cantilever spindles are compact dresser models specifically designed to meet the challenging needs of centerless, external cylindrical, internal cylindrical and gear grinding applications.

Engineered to maximize both dynamic and static stiffness, 3M Cantilever Spindles offer an unbeatable level of accuracy and quality of the finished product.

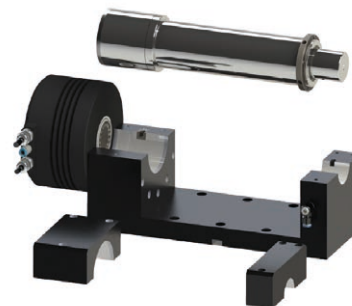
- Precision profile dressing with up to 200mm outside diameter disc
- Plunge dress applications up to 75mm wide
- Replaces single point dressing and allows for dressing of Vitrified CBN
- Perfect solution for dressing of metal, resin, or vitrified diamond
- Superior run-out characteristics and sub-micron part tolerances
- Dry air purge, non-contact sealing for improved thermal stability and higher RPM range.

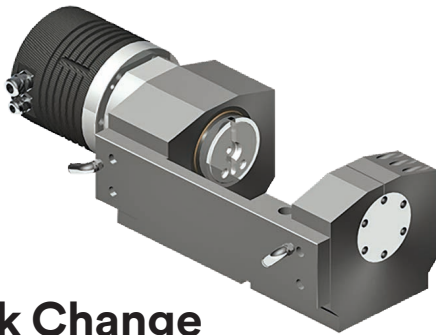


## Outboard Support Spindles

Outboard spindles are robust dresser models designed to meet the demands of large centerless, cylindrical, surface and creep-feed grinding applications. These models are equipped to handle the high forces and inertial masses associated with wide or deep form plunge dressing.

- Plunge dress applications up to 400mm
- General profile dressing with multiple diamond discs

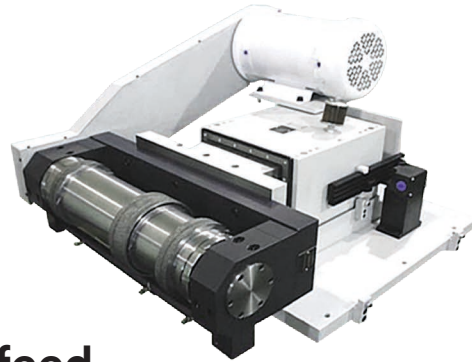
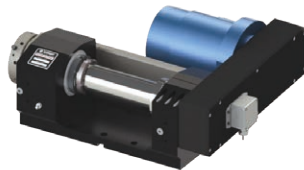




## Quick Change Spindle Arbors

Quick change spindle arbors are special outboard dressers designed to address larger grinding applications with frequent change over or high part mix. These dressers feature a retractable spindle assembly allowing efficient arbor removal.

- Rapid arbor removal in less than 30 seconds
- Accuracy and repeatability across multiple arbors
- Hands free arbor clamping for operator ease and safety
- Available in both manual or hydraulic arbor release versions
- Plunge applications up to 255mm wide



## Infeed Dresser Systems

3M Infeed Dresser Systems are designed for larger, heavy duty grinding applications that require attention to stiffness for accuracy.

The strength and stability of 3M infeed dresser systems help ensure that grinding surfaces are accurate and effective in producing a flawless finished product.

- Hardened tool steel rectangular ram for exceptional wear and stiffness
- Centrally mounted ball screw to prevent skew and yaw effects
- Totally sealed, oil bath way box for lubrication
- Adjustments for precise preload settings
- Harmonic drive gear reduction for precision positioning
- Various spindle mounting options available

## Dressing Spindle Repair Services

Our expertise in dressing systems also extends to the repairs and rebuild of all makes and models of dressing equipment. For over 30 years our repair services have provided high precision, increased diamond roll life and improved part quality to our customers. Spindle rebuilds are an economic alternative to replacing existing, aging, or unused dressing equipment.



- Complete mechanical rebuilds
- Component refurbishing
- Chrome and regrind services for arbors and shafts
- Motor replacement and rewind services
- Balancing and vibration analysis
- Refurbished size and run-out tolerances that meet or exceed OEM





At 3M, we're committed to helping you make every job your very best. From grinding wheels to dressing rollers and spindles, we offer a complete grinding system with the precision you need to perform at a high level. And with over 30 years of experience servicing precision grinding equipment, we know what it takes to keep you working with maximum consistency and efficiency.

For additional information on Rotary Dressing Systems or Dressing Application Assistance, contact 3M Engineering.

Phone: 1-610-495-2850



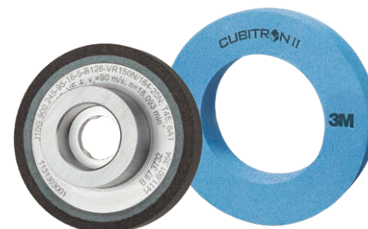
### Dressing Rollers

Diamond profile and diamond form dressing rollers shape grinding wheels quickly and with extreme accuracy.



### Dressing Spindles

Inline cantilever and outboard support spindles are designed to meet the demands of a wide variety of grinding applications with a high level of accuracy and quality.



### Grinding Wheels

Vitrified wheels feature a ceramic bond designed to be more free cutting than metal bond wheels. Thermally stable and suitable for in-process dressing, they are ideal for form grinding applications on automatic equipment. 3M also offers electroplated wheels, which are typically not trued or dressed.

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