

**3M** Science.  
Applied to Life.

# You're good to go with ready2\_grind.

**Automate your weld grinding operation from the expert teams of KUKA and 3M.**

We've put it all together so you'll be up and running before you know it. With the KUKA ready2\_grind system, you get a KUKA KR60 robot, 3M components and abrasives, critical hardware and software, and the assistance and support of experienced 3M and KUKA system integrators. This preconfigured system is designed to reduce complexity and time associated with automating your weld grinding operation.

In cooperation with  
**KUKA**



Are you ready2\_grind?  
**Good. Let's go.**

# The power of Collaboration.

Say goodbye to the guesswork of automating your weld removal process. KUKA ready2\_grind combines the precision performance of a KUKA robot with 3M Abrasives and process expertise to provide a preconfigured system that delivers consistent grinding for the repeatable results you need.

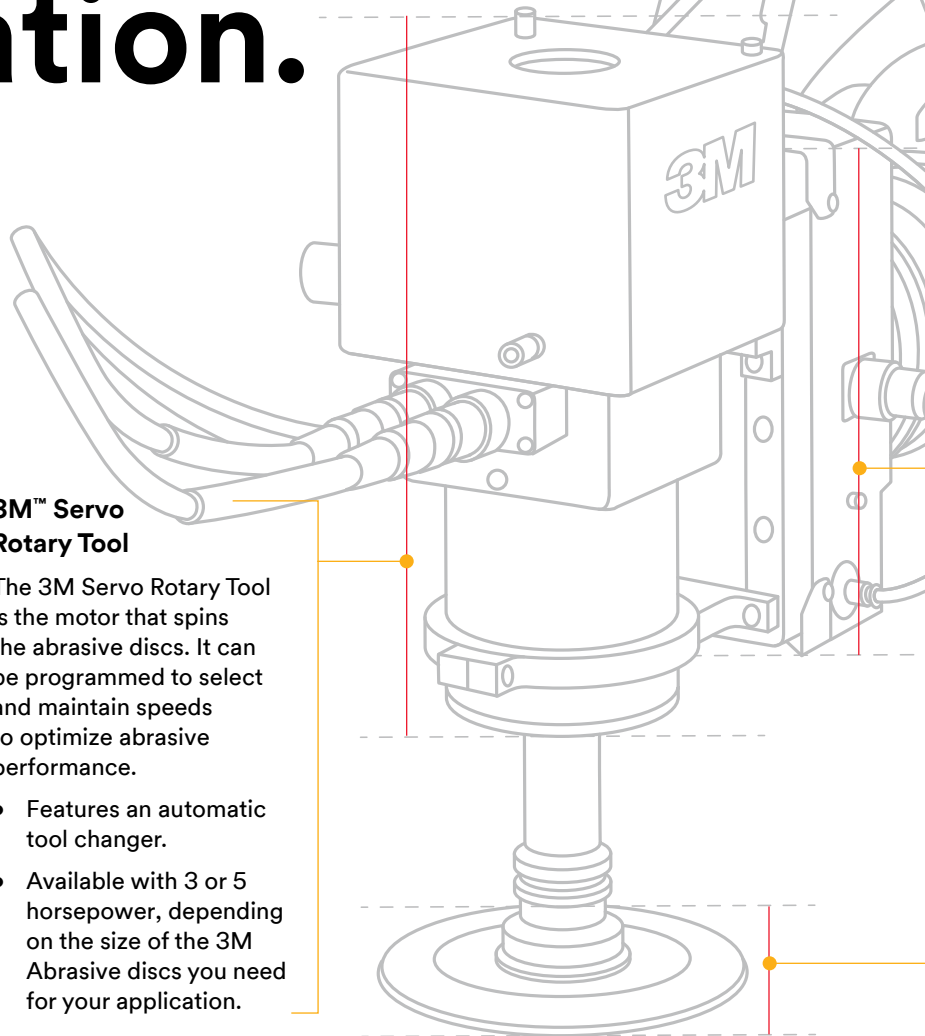


**KUKA**  
ready2\_grind system

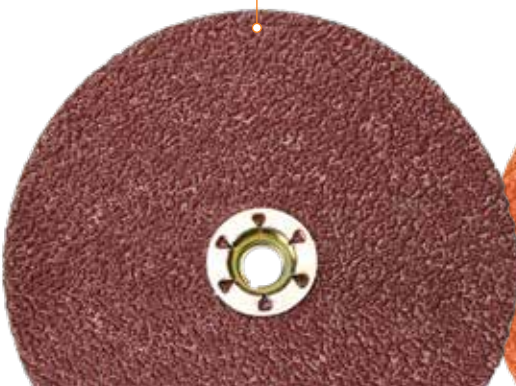
## 3M™ Servo Rotary Tool

The 3M Servo Rotary Tool is the motor that spins the abrasive discs. It can be programmed to select and maintain speeds to optimize abrasive performance.

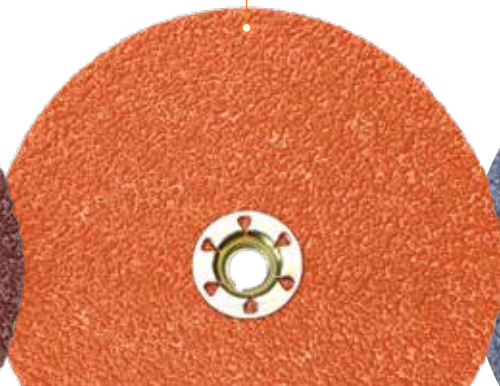
- Features an automatic tool changer.
- Available with 3 or 5 horsepower, depending on the size of the 3M Abrasive discs you need for your application.



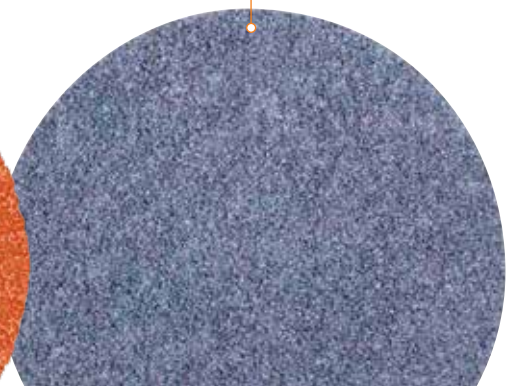
3M™ Cubitron™ II  
Fibre Disc 982C



3M™ Cubitron™ II  
Fibre Disc 987C



Scotch-Brite™ Disc Light  
Blending & Grinding Disc



# contents

## KUKA KR 60 Robot

The KUKA KR 60's robust design enables it to operate reliably and accurately over long periods of time, making it the perfect fit for ready2\_grind. With high stiffness to compensate for process forces, the dynamic, 6-axis robot comes with hardware features:

- Robot dress kit
- Robot control panel
- EtherCat I/O module with cables
- Tool changing sensors

## 3M™ Active Compliant Force Tool

This component gives the KUKA ready2\_grind its “human touch.” It attaches to the robot's arm and provides active compliance to allow the Servo Rotary Tool and abrasive to maintain contact with the workpiece surface at a specific force or pressure.

## 3M™ Abrasive Starter Kits

Robotic grinding relies on consistent, long-lasting abrasive performance to meet your finish requirements—exactly what 3M™ Cubitron™ II and Scotch-Brite™ Abrasives are known for. These starter kits are designed for use on carbon or stainless steel. Available in 4.5 in. and 7 in. diameters.

### Carbon Steel Kits include:

- 3M™ Cubitron™ II Fibre Disc 982C, grades 36+, 60+ and 80+ – for weld removal
- Scotch-Brite™ Light Grinding and Blending Discs - Heavy Duty and Super Duty
- Associated back-up pads and hubs

### Stainless Steel Kits include:

- 3M™ Cubitron™ II 987C, grades 36+, 60+ and 80+ – for weld removal
- Scotch-Brite™ Light Blending and Grinding Discs - Heavy Duty and Super Duty
- Associated back-up pads and hubs



## KUKA ready2\_grind hardware package includes:

- ▶ KUKA KR 60 robot
- ▶ Integrated 3M force control unit and rotary tool
- ▶ Preconfigured controller
- ▶ Intuitive user interface for easy programming
- ▶ 3M™ Abrasive Starter Kit - 4 options, for carbon or stainless steel



## Service includes:

- ▶ Two days of 3M application engineering support for customer and system integrator to provide proof-of-concept and abrasive process recommendations
- ▶ Access to the 3M Customer Abrasives Methods Center-Robotics Lab, where 3M Application Engineers will help you optimize your automated grinding process.
- ▶ On-call service provided by the KUKA worldwide field team backed by 3M application engineers



### Industries:

- ▶ Automotive
- ▶ Metal Fabrication
- ▶ Aerospace



### Applications:

- ▶ Weld Grinding
- ▶ Blending



### Part examples:

- ▶ Metal Enclosures or Tanks
- ▶ Metal Racks and Furniture
- ▶ Car Parts with Visible Weld Joints

# 3M™ Abrasive and Force Control Kits

Choose the kit that suits your operation.

Part Number	Description	Max RPM	Abrasive Size
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## Carbon Steel Kits

<b>06526</b>	<b>3M™ Abrasives and Force Control Kit, 13300 RPM - for Carbon Steel</b>	<b>13,300</b>	<b>4.5"</b>
	includes:		
06530	3M™ Active Compliant Tool		
06531	3M™ Servo Rotary Tool - 3 HP		
	3M™ Abrasive Starter Kit, 4.5" for Carbon Steel		
<b>06528</b>	<b>3M™ Abrasives and Force Control Kit, 6000 RPM - for Carbon Steel</b>	<b>6,000</b>	<b>7"</b>
	includes:		
06530	3M™ Active Compliant Tool		
06532	3M™ Servo Rotary Tool - 5 HP		
	3M™ Abrasive Starter Kit, 7" for Carbon Steel		

## Stainless Steel Kits

<b>06527</b>	<b>3M™ Abrasives and Force Control Kit, 13300 RPM - for Stainless Steel</b>	<b>13,300</b>	<b>4.5"</b>
	includes:		
06530	3M™ Active Compliant Tool		
06531	3M™ Servo Rotary Tool - 3 HP		
	3M™ Abrasive Starter Kit, 4.5" for Stainless Steel		
<b>06529</b>	<b>3M™ Abrasives and Force Control Kit, 6000 RPM - for Stainless Steel</b>	<b>6,000</b>	<b>7"</b>
	includes:		
06530	3M™ Active Compliant Tool		
06532	3M™ Servo Rotary Tool - 5 HP		
	3M™ Abrasive Starter Kit, 7" for Stainless Steel		

All kits contain required cables, holders, etc.

**To order production quantities of 3M Abrasives, contact your local 3M Authorized Distributor.**

**For more information on the KUKA ready2\_grind system, contact KUKA at 1-800-459-6691 or visit [Kuka.com](http://Kuka.com).**

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