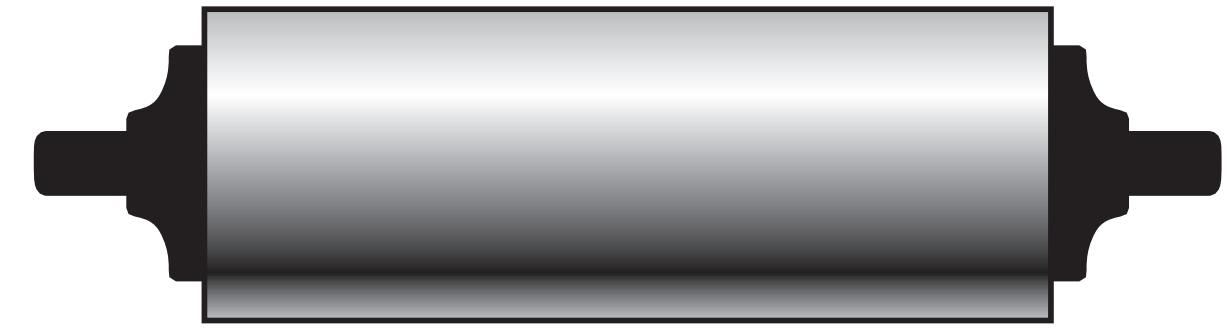


# CAPACITIES AND CAPABILITIES IN ALLENTOWN

**PRECISION**



**ROLL GRINDERS**

*Over 50 years of value-added service*

**WEBINAR  
SERIES**

[precisionrollgrinders.com](http://precisionrollgrinders.com)

# SPEAKER INTRODUCTION

## JONAH CASELLA

- **Technical Planner (2 yrs)**
- **Allentown, PA**
- **Undergraduate Lehigh University/  
currently attending Vanderbilt University**
- **Fun fact: performed in the 2014 Rose Parade**

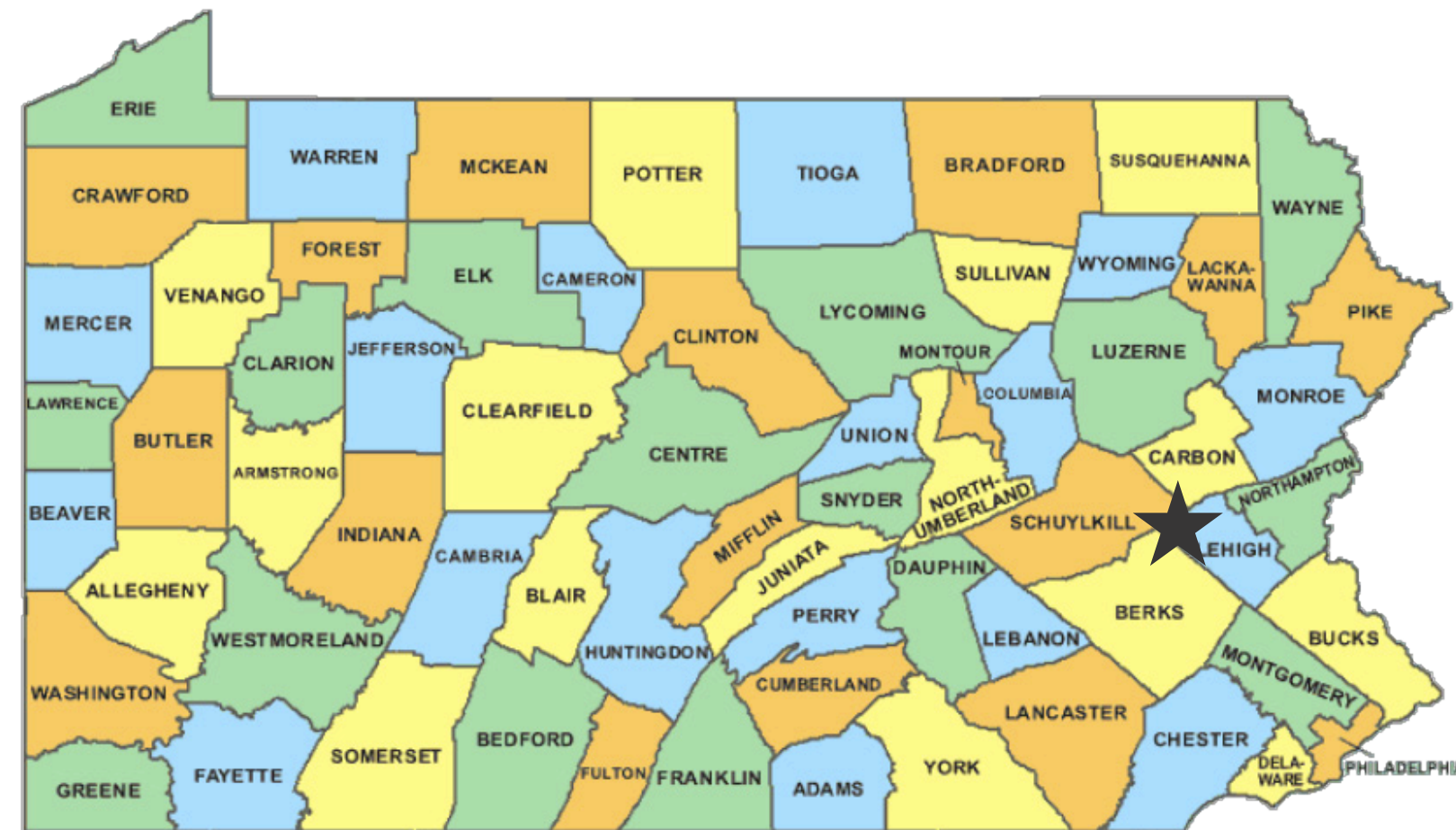




# ABOUT OUR FACILITY



**Allentown, PA 6356**  
**Chapmans Road**  
**Allentown, PA 18106**  
**Tel: (610) 395-6966**



**Conveniently located in the**  
**Lehigh Valley, an hour from**  
**Philadelphia and an hour and**  
**a half from New York City**



**Dedicated Trucking Service**  
**for Local Pickup/deliveries**



# CAPABILITIES

## ROLL TYPES

Our team can service and grind rolls produced from the wide variety of materials listed below.

- Brass
- Carbide Coated
- Ceramic
- Chilled Cast Iron
- Chrome
- Composite
- Copper
- Engraved
- Forged Steel
- Granite
- Polyurethane
- Rubber
- Stainless Steel
- Steel



ENGRAVED



RUBBER



CHILLED CAST IRON



# BEARINGS AND HOUSINGS

## FOR EVERY BEARING AND HOUSING SET WE:

- Perform in-house disassembly
- Inspect
- Clean
- Reassemble
- Conduct bearing inspections with bearing manufacturer representative
- Purchase/install new bearings

**BEFORE**



**AFTER**





# ROLL TESTING

## DYNAMIC BALANCING

- Allows us to fine-tune adjustments to units
- G-0.4 to G-6.3

## STATIC/DYNAMIC LEAK TEST

- Able to determine if seals need to be replaced
- Results based on amount of leakage at seal area

### PRG's Dynamic Balancing

Rotor Mass Limitations Weight range for rotors in their own bearings, mounted directly on the dynamometer:	400 - 160,000 lbs.
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Rotor weight x speed ( $Wn^2$ ) for H80 Dynamometer not to exceed:	8880 x 106 lb/min <sup>2</sup>
---	--------------------------------

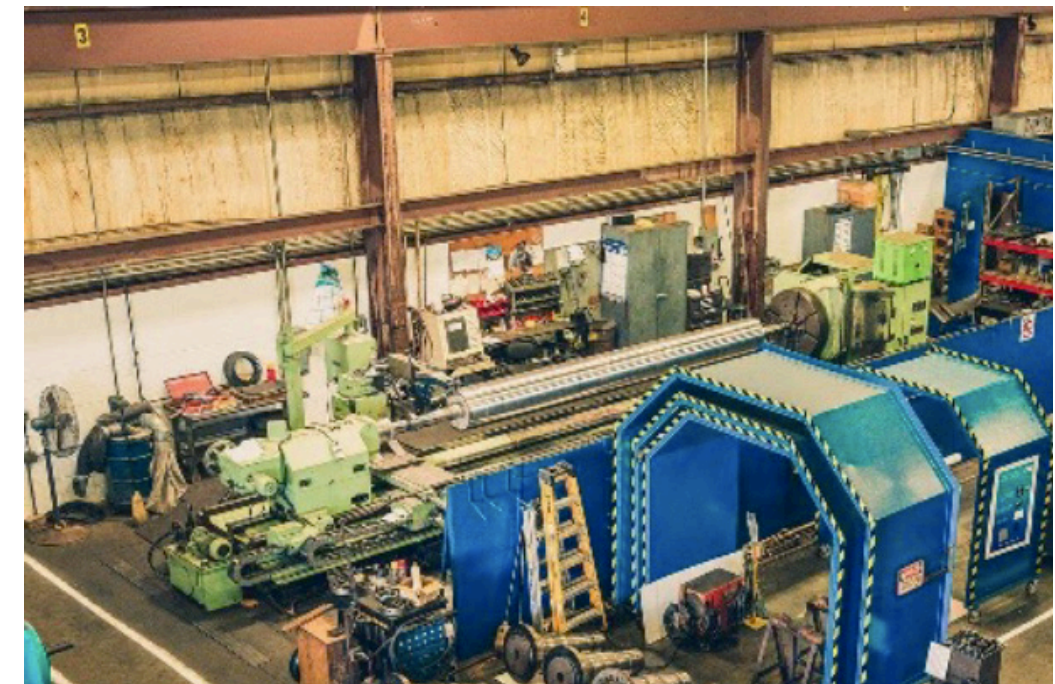
Rotor polar moment of inertia x speed ( $Wk^2n^2$ ) not to exceed:	20,000 x 106 lb-ft <sup>2</sup> /min <sup>2</sup>
---	---

The ( $Wk^2$ ) $n^2$ value is based on a 75 hp DC motor. Instrumentation speed range:	120 - 3300 rpm
--	----------------

Maximum permissible roller speed:	6000 rpm
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Rotor Dimensions: Max. distance between support bearing centerlines: Min. distance between support bearing centerlines:	555 inches 16 inches
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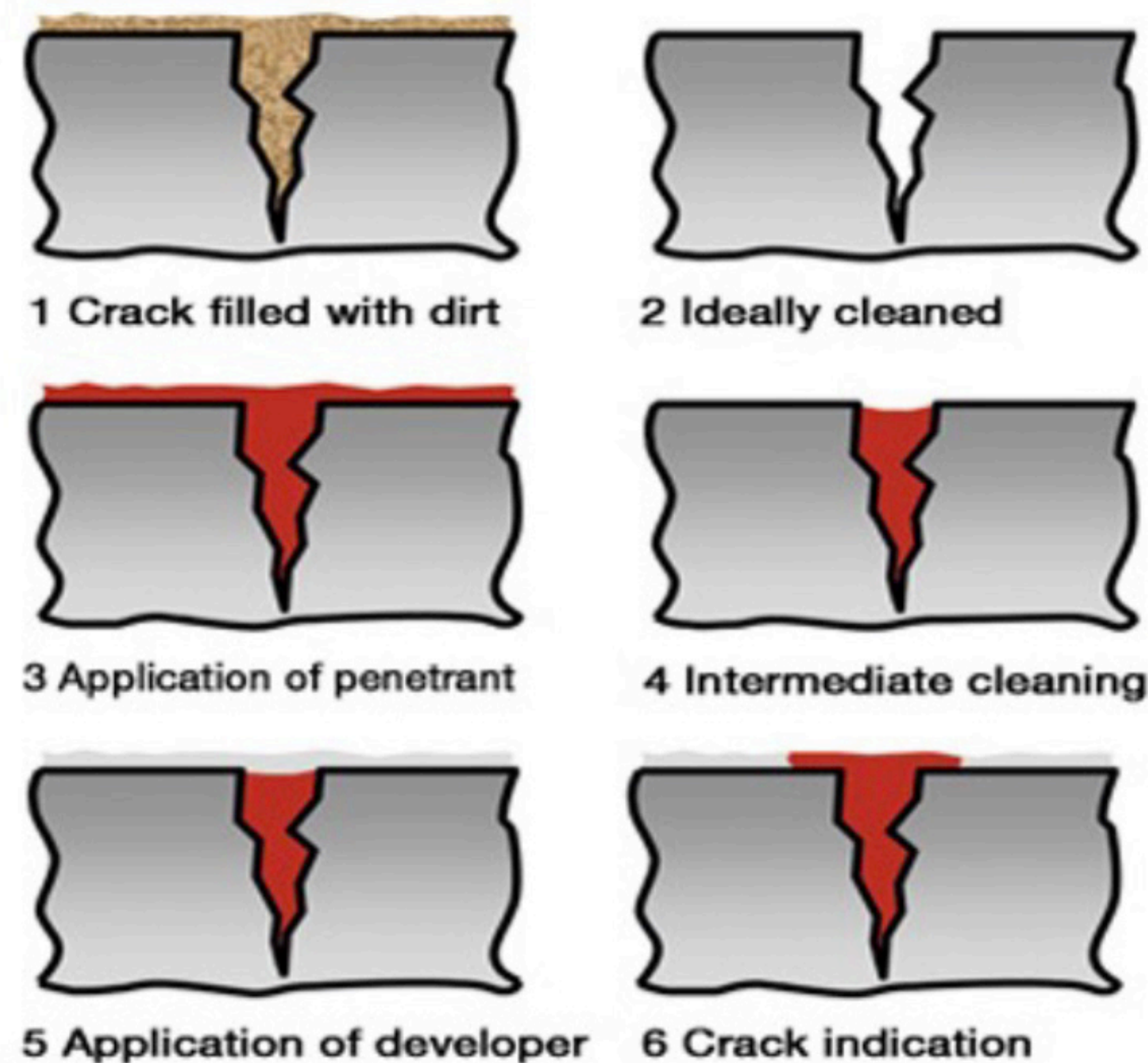
Drive to Workpiece Balancing speed over a 10" driven diameter based on 1750 rpm base speed; infinitely variable up to a maximum of: Maximum surface speed:	835/1455/3060 rpm 8000 ft/min
--	----------------------------------





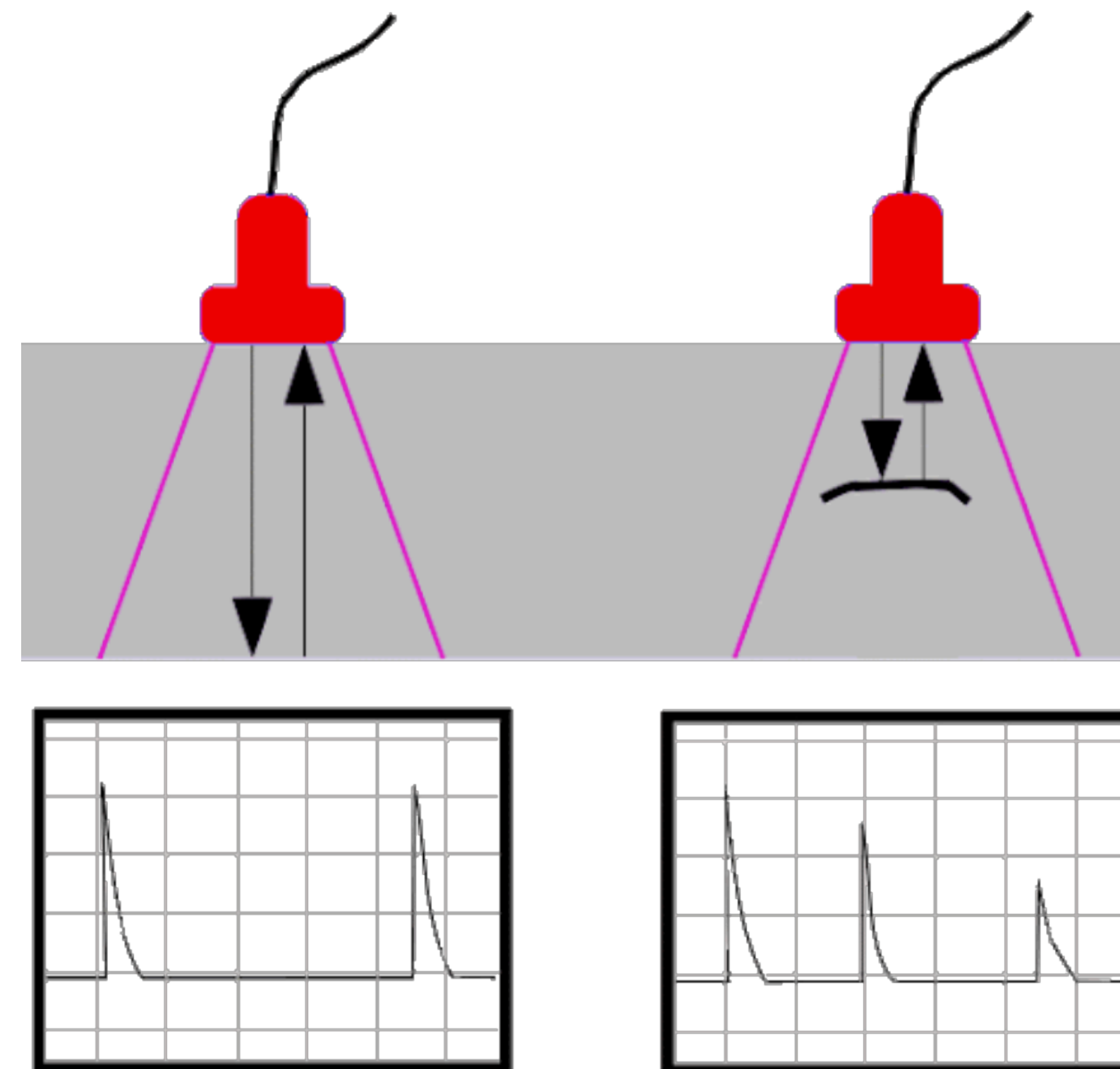
# TESTING FOR CRACKS

- Nondestructive testing (NDT)



MEASURES PRESENCE OF CRACKS

- Ultrasonic testing



SURFACE-PENETRATING TEST TO MEASURE CRACK DEPTH

# CHOCOLATE REFINER WORK

## CHOCOLATE REFINER REBUILD

- Chocolate refiner field service
- Trained mechanic travels to facility to service refiners on site
- Shell swap
- Temperature sensor programming
- Grind chocolate refiner rolls





# PHYSICAL CAPABILITIES

## OUR PHYSICAL CAPABILITIES AT A GLANCE

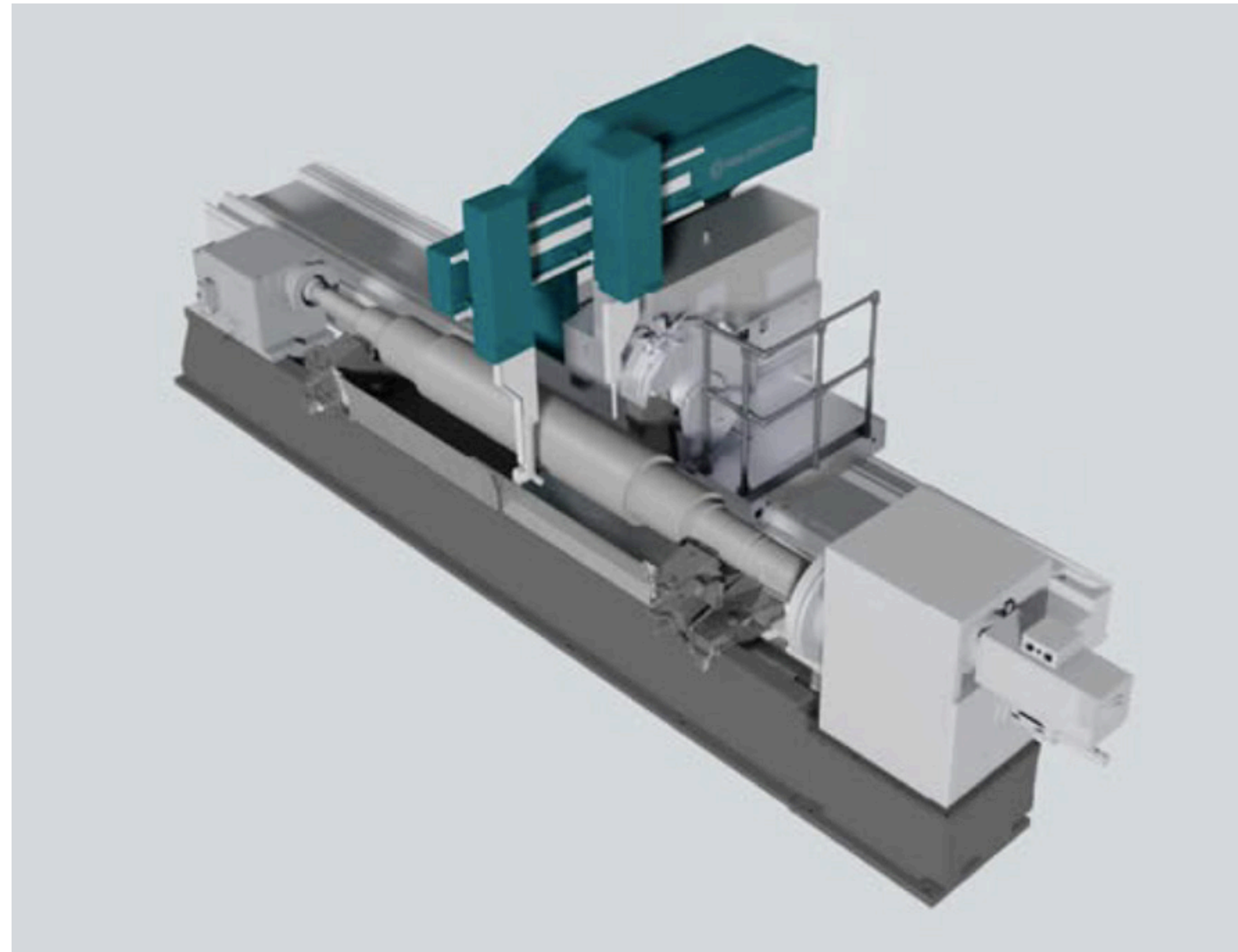
GRINDING CAPACITY		
Diameter	2" to 168"	50 mm to 3,600 mm
Length	up to 600"	up to 15,240 mm
Weight	up to 240,000 lbs	up to 109,091 kg

CNC LATHE CAPACITY		
Diameter	66" over carriage 78.7" over ways	1,680 mm over carriage 2,000 mm over ways
Length	up to 840"	up to 21,336 mm
Weight	up to 200,000 lbs	up to 90,910 kg



# PHYSICAL CAPABILITIES (CONT'D.)

- Equipped with Waldrich-Siegen Grinders
- Widely recognized as the finest in the world
- With our grinding technology, a 120-ton roll or a 60-ft. ship propeller shaft can be ground
- Tolerances as fine as 20 millionths of an inch (0.000020")





# CONTACT US

ADJUSTING TO OUR NEW 'VIRTUAL' PARTNERSHIP

**ALLENTOWN, PENNSYLVANIA**  
**(610) 395-6966**

**CARROLLTON, GEORGIA**  
**(770) 830-6323**

**LEWISPORT, KENTUCKY**  
**(270) 295-4990**

**TEXARKANA, ARKANSAS**  
**(870) 216-4000**





# THANK YOU FOR YOUR TIME.

# QUESTIONS?

**PRECISION**



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