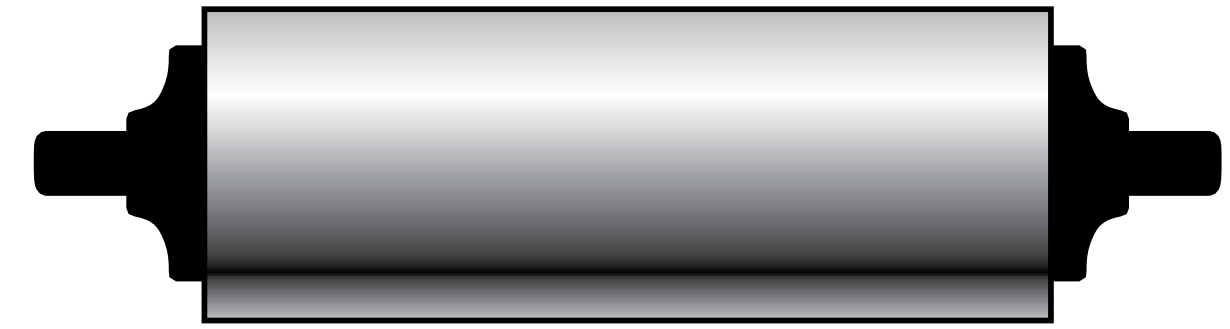


**YOUR ROLL
GRINDING AND
SERVICES PROVIDER
SHOULD BE A
TRUSTED ADVISOR**

PRECISION



ROLL GRINDERS

Over 50 years of value-added service

**WEBINAR
SERIES**

precisionrollgrinders.com

WHAT DOES BEING A TRUSTED ADVISOR MEAN?

CUSTOMER SERVICE IS NOT A DEPARTMENT.
IT'S AN ATTITUDE.

TRUSTED ADVISOR MEANS YOU ENSURE OUTCOMES FOR YOUR CUSTOMERS AND YOU MANAGE ACTIONS FOR THEIR SUCCESS.

It means that you have:

the training

the knowledge

to be a *subject matter expert*

to be trusted to advise your clients well.

... and provide real economic value \$\$

ASK AN

EXPERT



TRUSTED ADVISOR = SUBJECT MATTER EXPERTISE

SUBJECT MATTER EXPERTISE COMES FROM:

SPECIALIZATION

not 'general'
equipment knowledge,
specific roll knowledge.

Specialist

PRACTICAL APPLICATION

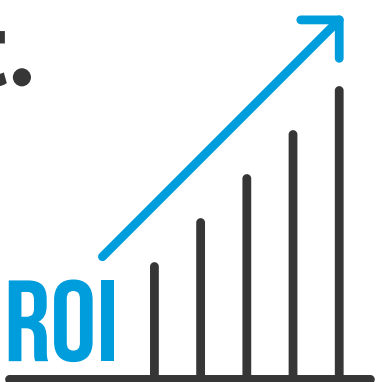
someone that has
been there, done that.

*"How many years have
you been doing this?"*

VALUE-DRIVEN

at the end of the
day, the customer
has to make \$\$

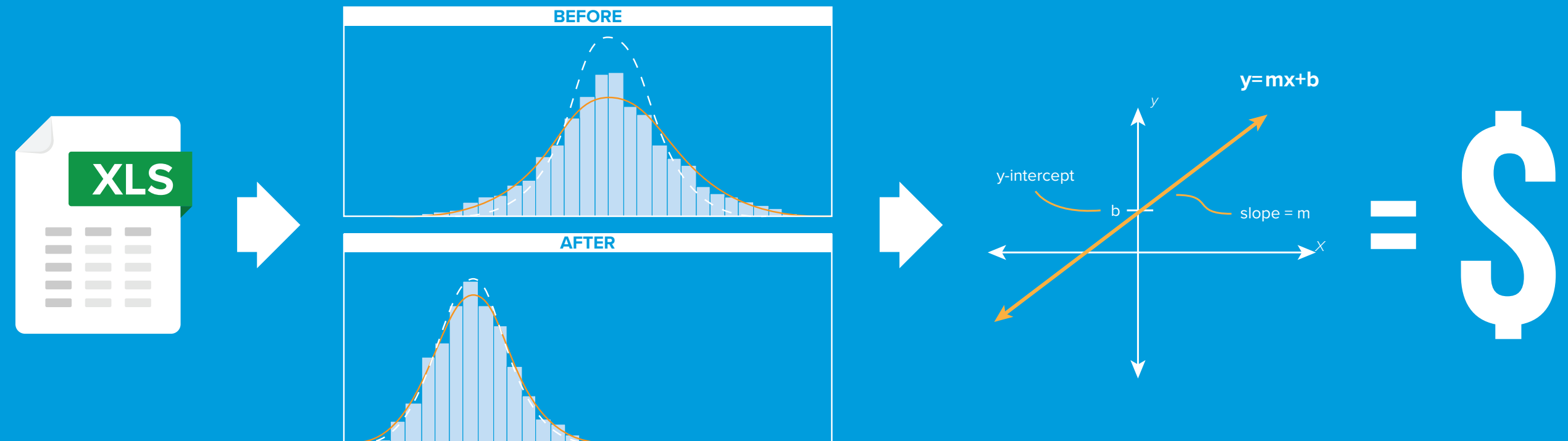
This is an investment.
It shouldn't just be a
maintenance cost.



VALUE DRIVEN IS A PROMISE TO PROVIDE REAL VALUE

PROCESS VARIATION
IMPROVEMENT,
ROLL LIFE = \$

- Joint Design of Experiment to reduce variation, improve roll life, improve quality, increase production ...
- Data analysis on current process
- Implement plan for variation improvement
- Data analysis on improved process – predictive equation



PRECISION ROLLS: WHAT MATTERS = \$\$

PRE-GRINDS AND GRINDS FOR PROPER TOLERANCES AND SHAPE

- Reducing Variation

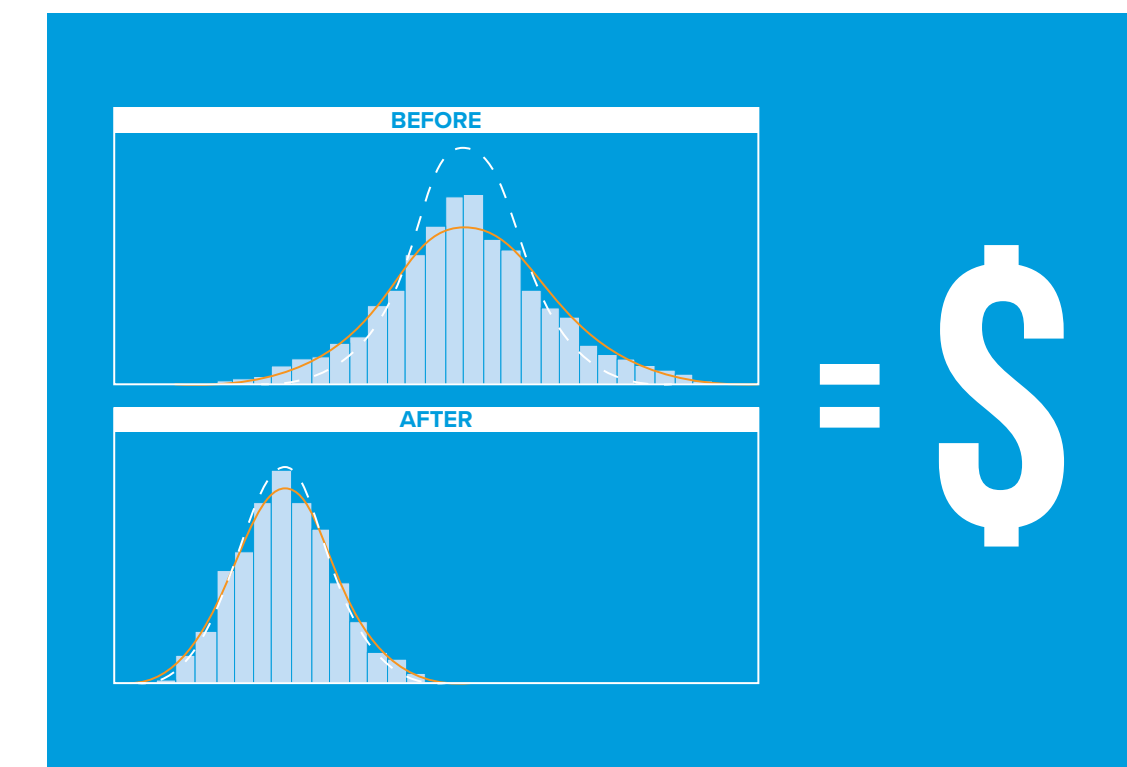


MAINTAINING THE SURFACE AND OPTICAL PROPERTIES YOU NEED TO PRODUCE HIGH-QUALITY PRODUCT

- World-Class Product Quality



VALUE-DRIVEN RESULTS THROUGH MATERIAL SAVINGS, PRODUCT QUALITY AND ROLL LIFE

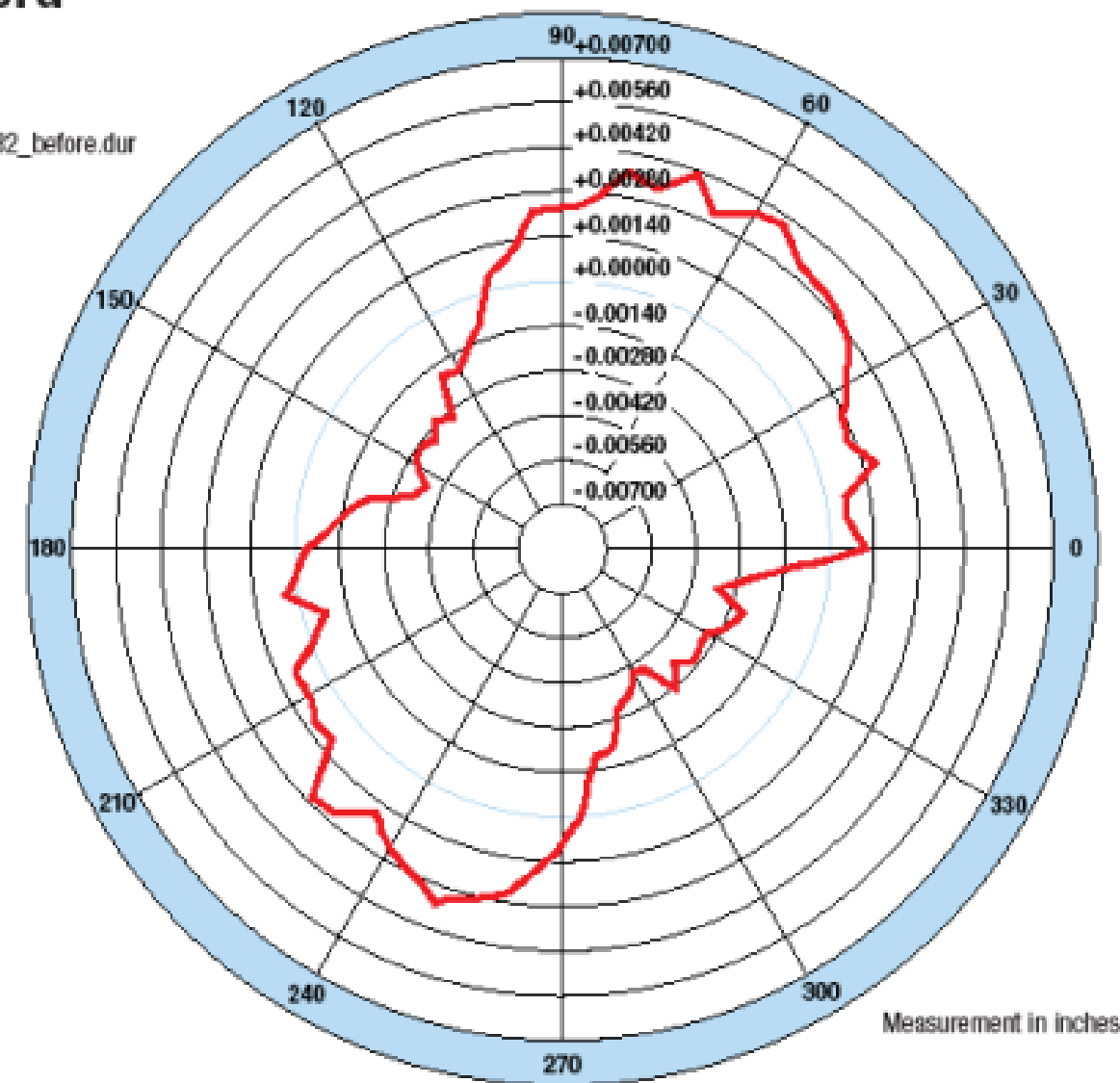


REDUCING VARIATION – ROLL ROUNDNESS MATTERS

IMPROPERLY GROUND

Measurement Record

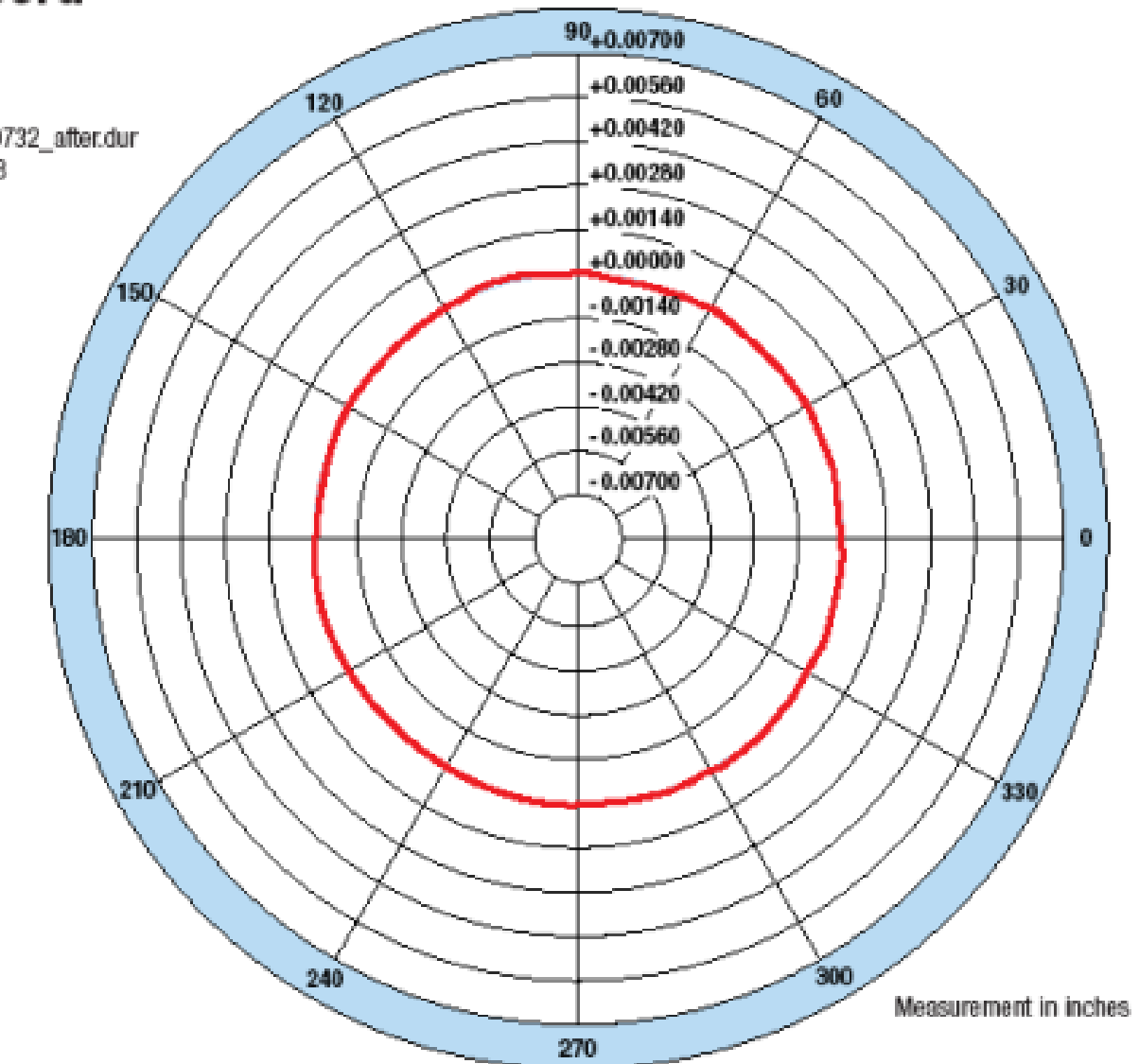
Customer: Confidential
Customer Roll Number: competition/q00732_before.dur
Roundness: 0.00682
Measure Time: 18-10-05, 21:07
Probe Mode: T1+T2
Curve Zero Point: 77.0000 inch
Measurement Position: 263.5000 inch
Roundness: 0.00682



PRECISION GROUND

Measurement Record

Customer: Confidential
Customer Roll Number: competition/q00732_after.dur
Roundness: 0.00021
Measure Time: 19-10-05, 09:13
Probe Mode: T1+T2
Curve Zero Point: 77.0000 inch
Measurement Position: 263.5000 inch
Roundness: 0.00021



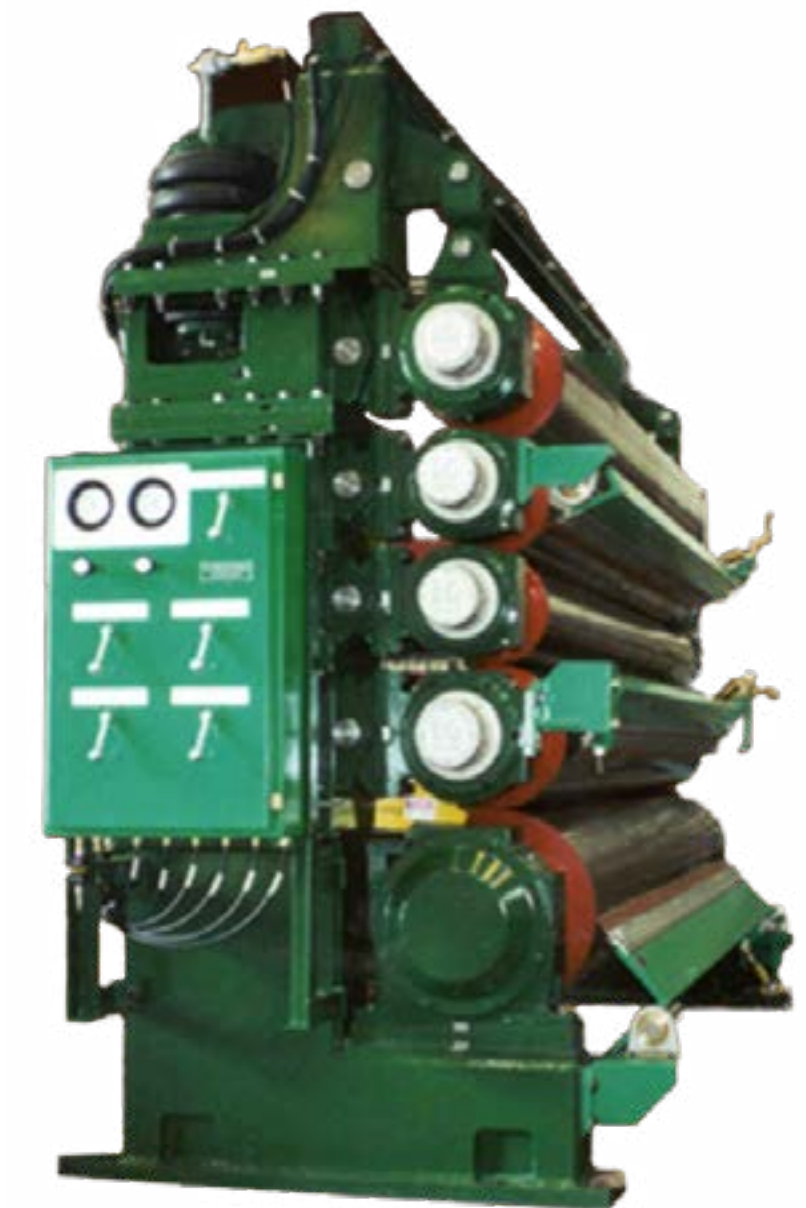
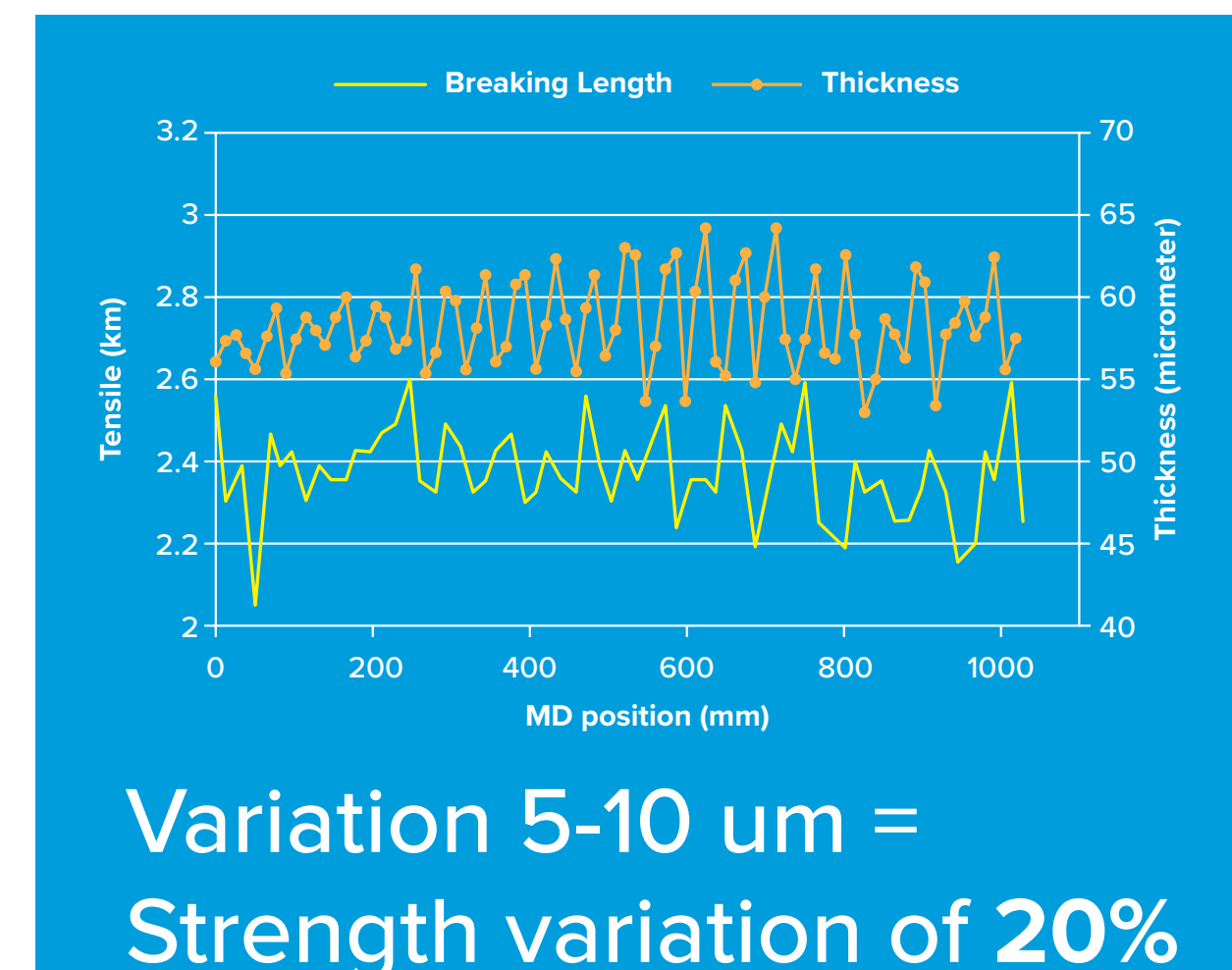
REDUCING VARIATION – ROLL ROUNDNESS MATTERS

ROLL ROUNDNESS PERFORMANCE = LOWER PROCESS VARIABILITY

- Machine direction variation or barring



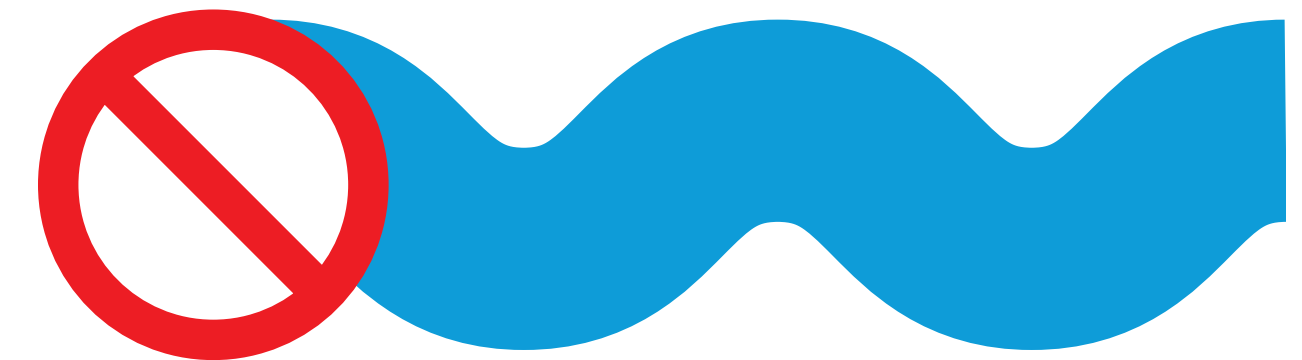
- This causes strength variation



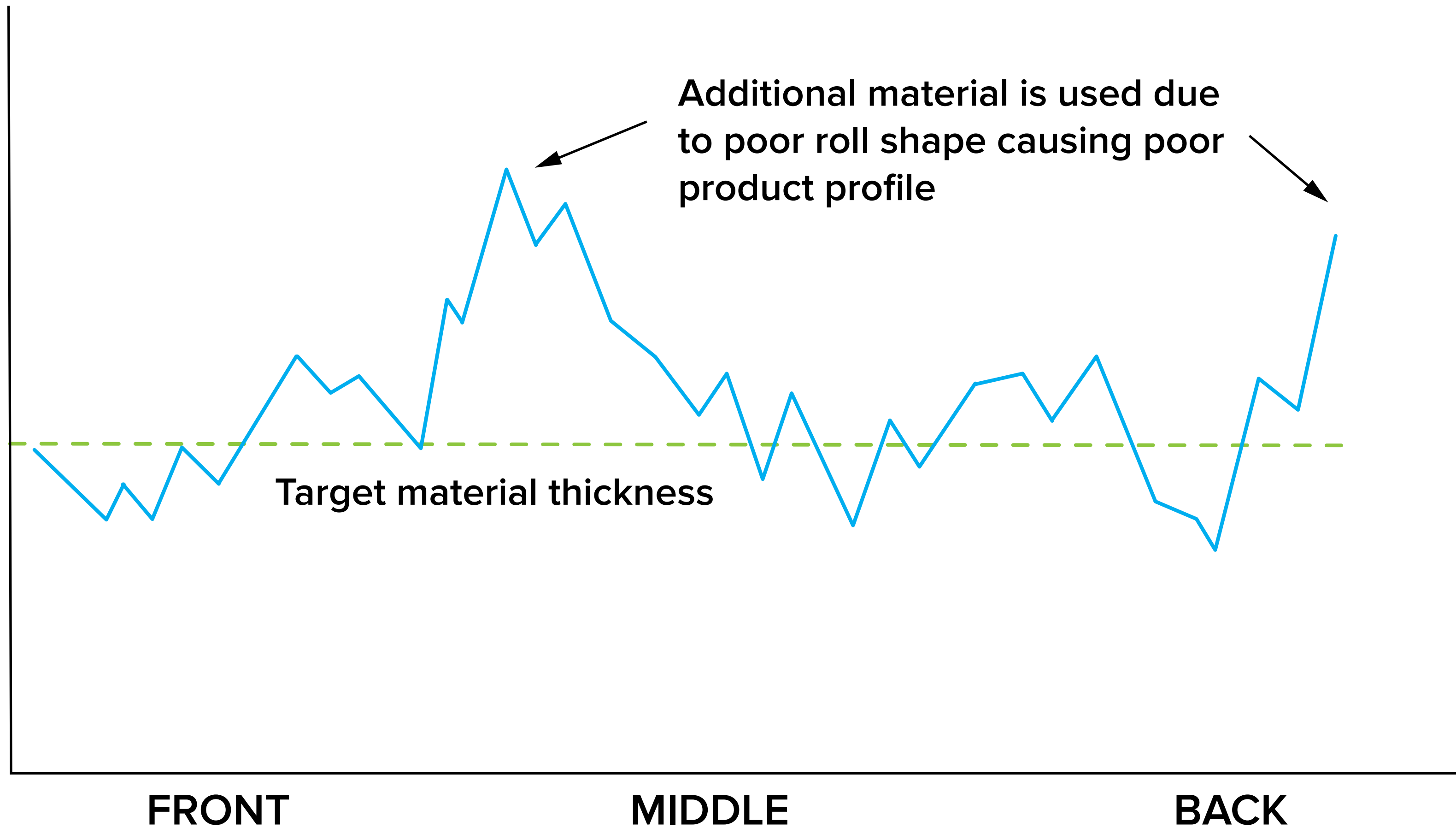
REDUCING VARIATION – ROLL SHAPE MATTERS

UNIFORM MATERIAL THICKNESS

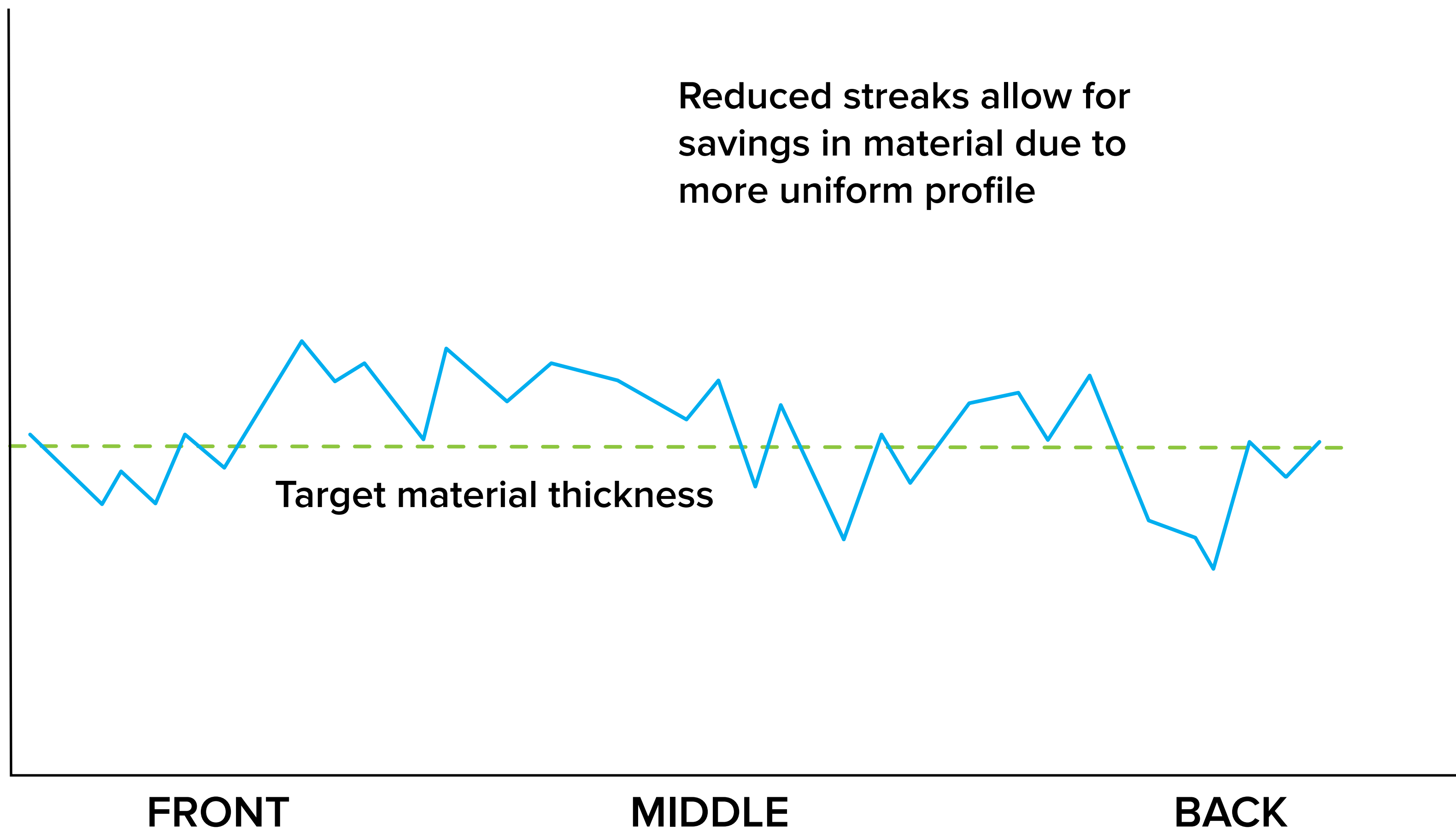
- Reduced material usage due to a thick or “wavy” sheet
- Reduced defects due to localized thinning in the material profile
- Improved end-product construction
 - Reduce defects caused by a deviation in the material thickness
 - Improved construction productivity with a more uniform material thickness



POOR ROLL SHAPE = LOST MATERIAL



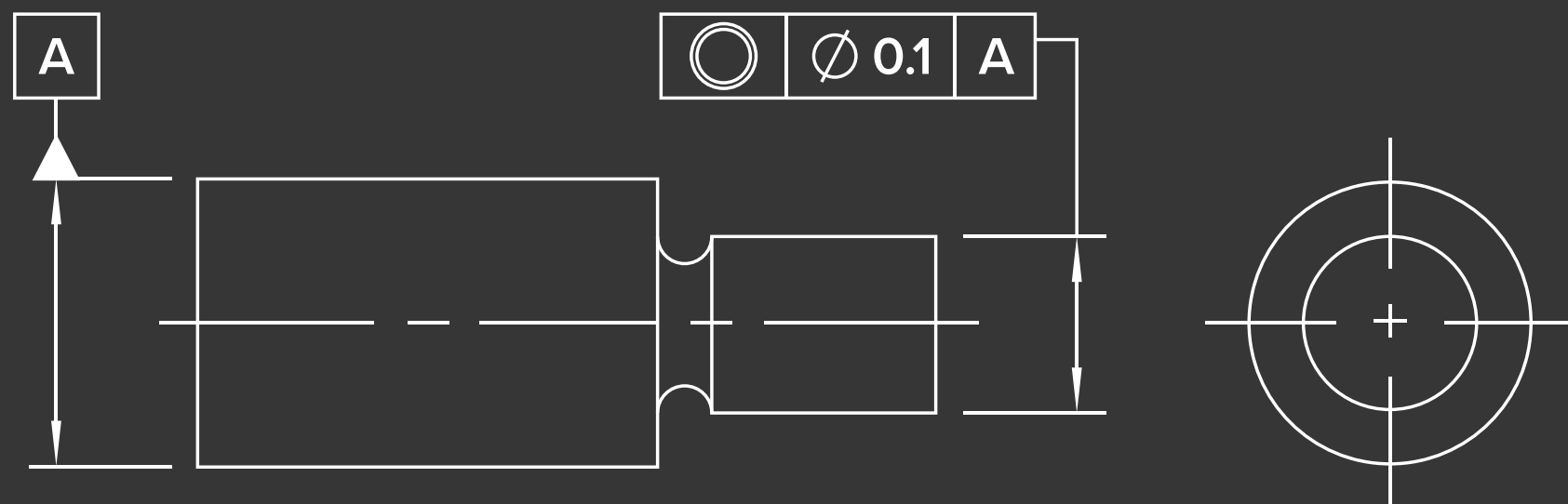
GOOD ROLL SHAPE = MATERIAL SAVINGS



REDUCING VARIATION – ROLL CONCENTRICITY MATTERS

CONCENTRICITY

Concentricity is a tolerance that controls the central axis of the referenced feature, to datum axis.



Concentricity must be attained to ensure roundness and shape.

Poor concentricity leads to material losses and shorter roll life.

Often overlooked.

SURFACE FINISH MATTERS

OUR TYPICAL TOLERANCE IS 5 UM.

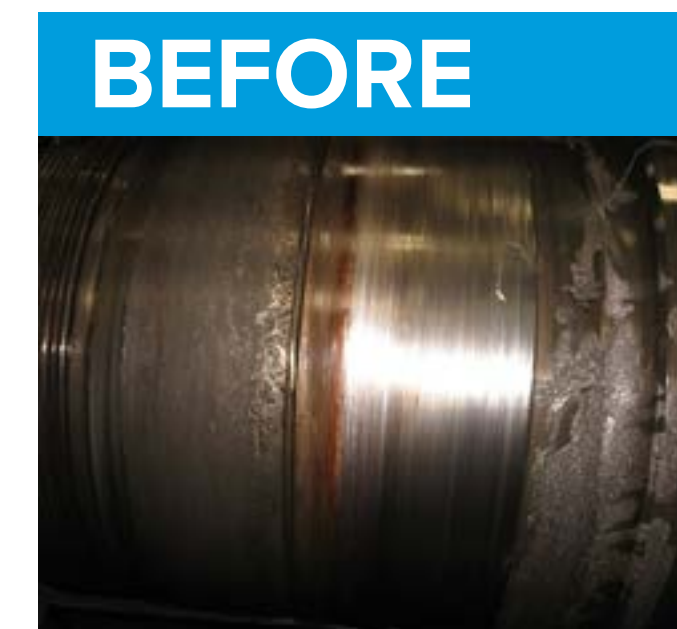
10% OF OUR WORK HAS TOLERANCES LESS THAN 2.5 UM.

	Diameter	Face Length	Tolerances	Finish
Battery	400	420	2 um	0.05
Battery	320	280	2 um	0.05
Battery	445	305	1 um	0.025
DOD	880	990	1 um	0.1
Coating	365	610	1.3 um	0.15
Coating	305	460	1 um	0.15
DOD	320	280	2 um	0.05
Plastics	610	1730	1.5 um	0.15
Plastics	610	1820	1 um	0.05
Plastics	610	1830	2 um	0.1
Plastics	720	2690	2 um	0.02

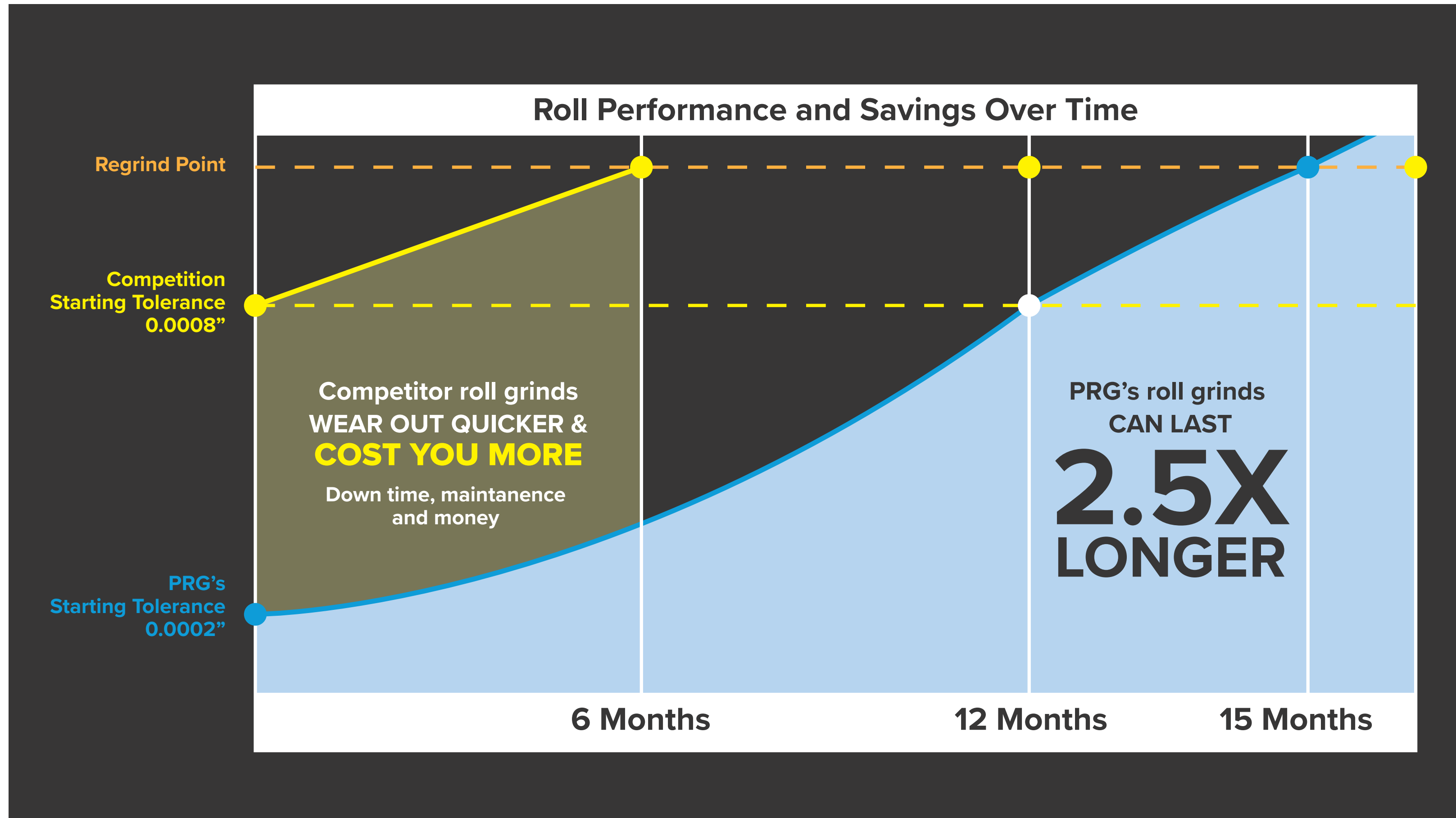
ROLL LIFE AND START-UP – MECHANICAL EXCELLENCE

PRECISION MAINTENANCE IS MORE THAN JUST PRECISION GRINDING

- Thorough inspection of bearings and housings
- Proper assembly of bearings and housings
- Replacing worn or damage bearings and bushings
- Journal repair and replacement
- On-time start-up and profitable production

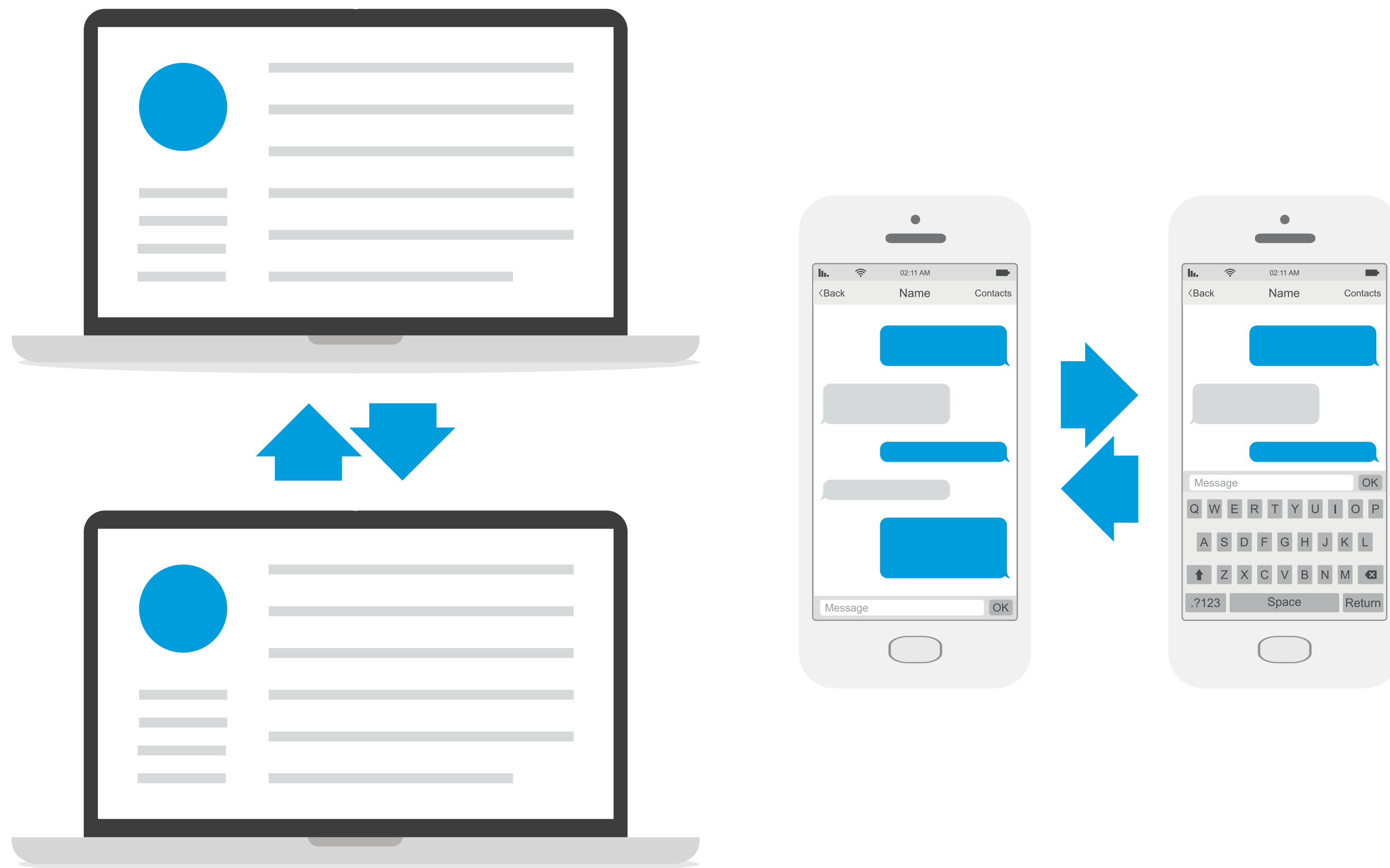


ROLL LIFE AND START-UP



**ROLLS THAT
START CLOSER
TO PERFECTLY
ROUND START
UP FASTER &
RUN LONGER!**

TRUSTED ADVISOR IN A “VIRTUAL” WORLD



WHAT ARE “VIRTUAL VALUE-ADDED” SERVICES?

PARTNERING WITH YOUR ROLL SERVICE PROVIDER TO IMPROVE YOUR PROCESS ➡ REDUCING VARIATION

- Data analysis, sampling and testing
- Statistical validation of real benefits (\$\$)
- Virtual troubleshooting (pics/video)

Send us your data, samples, pics, video



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COST OF IMPROPERLY GROUND ROLLS

**SHOW
ME THE
MONEY**

DESCRIPTION	VARIABLE	AMOUNT
PRG Grind Cost	\$20,000.00	
PRG Roll Life (months)	14.00	
Competitor's Grind Cost	\$10,000.00	
Competitor's Roll Life (months)	6.00	
Annual Savings due to Extended Roll Life		\$2,857.14
Production Hours Lost due to Improperly Ground Roll	2.00	
Lost Revenue Per Hour	\$3,500.00	
Total Lost Revenue due to Improperly Ground Roll		\$7,000.00
Scrap While Running Improperly Ground Roll (pounds)	50.00	
Cost per pound	\$50.00	
Total Scrap Cost due to Improperly Ground Roll		\$2,500.00
Revenue Per Hour at Normal Production Speed	\$3,500.00	
Percent Production Lost due to Degraded Speed	0.10	
Hours Run at Degraded Speed	24.00	
Revenue Lost Due to Degraded Speed		\$8,400.00
TOTAL COST OF IMPROPERLY GROUND ROLL		\$17,900.00

This total cost calculator tool will allow you to project the operational cost of an improperly ground roll and potential savings with an investment in PRG grinding services.

[CLICK HERE](#) to access your own fully functional calculator as a Microsoft Excel file. Simply insert your values within the green cells and your projected savings will be automatically calculated.

CONTACT US

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(770) 830-6323

LEWISPORT, KENTUCKY

(270) 295-4990

TEXARKANA, ARKANSAS

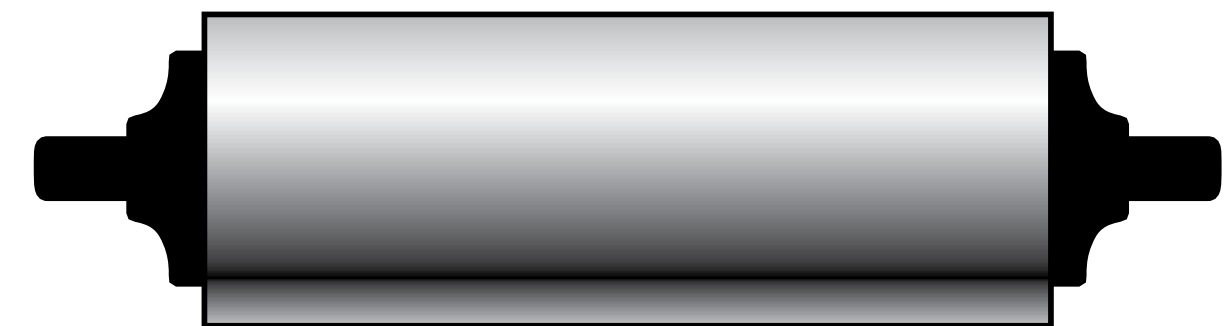
(870) 216-4000



**THANK YOU FOR
YOUR TIME.**

QUESTIONS?

PRECISION



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precisionrollgrinders.com