

Date evaluated

PACER - Centerless Wheel Evaluation

Evaluation #

Company

City

State

Personnel involved

Country

Machine and Coolant:

Make, model HP Spindle rpm Wheel sfm

Automatic or special features

Coolant mfg, spec., condition Tank size, filters

% Concentration Refractometer Spout shape, direction, velocity

Diamond type, sharp? Wheel face relieved at front or back?

Feedwheel and Workblade:

Manufacturer Approx. dia. Specification

Wheel angle (tilt) Dresser angle Work height above center Diamond setover

RPM Gear setting Wheels aligned parallel, or tighter in front or back?

Diamond type, sharp? Wheel face relieved at front or back?

Blade material Blade angle Top length Top width

Work:

Material Diameter Length Removal needed

Finish needed Finish at start Hardness

Wall (if a tube) Roughing, finishing (or both) pass Thru or infeed

Tolerance (+/-) of dia Other toler. End product

Performance Factors:	Comparison Wheel	Evaluation Wheel
Wheel manufacturer	<input type="text"/>	<input type="text"/>
Wheel size (approx dia x width x hole)	<input type="text"/>	<input type="text"/>
Wheel specification	<input type="text"/>	<input type="text"/>
Removal per pass (thousandths)	<input type="text"/>	<input type="text"/>
Thrufeed speed (ft per min)	<input type="text"/>	<input type="text"/>
Compensation freq and amount per comp	<input type="text"/>	<input type="text"/>
Redress frequency (if any)	<input type="text"/>	<input type="text"/>
Amperage total and at idle.	<input type="text"/>	<input type="text"/>
Finish (Ra) and appearance	<input type="text"/>	<input type="text"/>
Total: bars, length (ft) and compensation	<input type="text"/>	<input type="text"/>
Cu" per min removal rate, G ratio	<input type="text"/>	<input type="text"/>

Cu" per min removal rate = $3.14 \times \text{work dia} \times \text{removal per pass}/2 \times \text{thrufeed ft per min} \times 12'' \text{ per ft}$ G ratio is Grinding wheel wear ratio (cu" work removed / cu" wheel used)
G ratio = $(3.14 \times \text{work dia} \times \text{removal per pass}/2 \times \text{total feet} \times 12'' \text{ per ft}) / (3.14 \times \text{approx wheel dia} \times \text{total compensation} \times \text{wheel width})$

Comments: