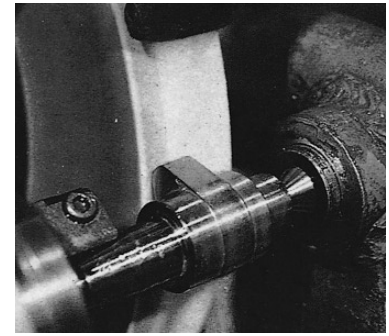


Cam grinding demands free cutting wheels with good form holding abilities together with the ability to maintain tight surface finish tolerances. Both vitrified and resinoid bonded wheels are used, depending on the material used and surface finish required.



Mark all orders "Cam Grinding Wheels".

Production cam grinding is found in the automotive, aircraft, truck, shipbuilding, locomotive and farm equipment engine industry. Two types of installations are found: 1) Dual cycle machines which rough and finish with one wheel specification: special high speed vitrified wheels are normally used: 2) Two separate machine—one for roughing and one for finishing standard vitrified wheels are used for roughing and resinoid wheels are used for finishing. Cam regrinding is found in engine rebuilding shops throughout the country. The amount of material which must be removed is less than in original manufacture, but the same critical shape tolerances apply.

Typical Machines Used

D	T	H	Max. Speed	Operating Machine
20" (510)	0.71" (18)	8" (203.2)	45m/s	KONDO
24" (610)	0.71" (18)	12" (304.8)	45m/s	TOYODA
28" (710)	0.71" (18)	12" (304.8)	60m/s	NIPPEI
36" (915)		12" (304.8)	45m/s	Landis (Multi-Wheel)
42" (1065)				
18" (455)		12.050" (306.07)	Rough 60m/s Finish 33m/s	Landis (Dual Cycle)
24" (610)				
24" (610)		12" (304.8)		Landis
24" (610)		18" (457.2)		
24" (610)	7/8" (22)	18" (457.2)	33m/s	Norton
24" (610)	1" (25)			
24" (610)	1-1/8" (28)			
24" (610)		18" (457.2)	50m/s	Warner and Swasey
24" (610)		12.050" (306.07)	60m/s	
25" (635)		16.050" (407.67)	50m/s	
24" (610)				

When testing specifications, do not attempt to judge the wheel on lobe shape generated, as this is usually a function of the master cam. The master itself may have to be altered, particularly if changing from vitrified to organic wheels or vice-versa. The wheel itself should be judged on the stock removal rate, G-ratio, lobe-to-lobe size control, freeness of cut, etc.

* CBN wheels should be considered for production grinding of steel auto and diesel truck cam shaft lobes providing the machine has or can be equipped with CBN truing and dressing devices.

Recommendations Production Grinding:

Application	Specification
Automotive (cast alloys and forgings) roughing finishing roughing and finishing (hand machine) finishing bearings dual cycle (rough and finish with same wheel on same machine)	FA60-MV 10A80-IV PSA70-NV FA70-MV FA60-NV
Automotive (hardened steel) roughing finishing dual cycle (rough and finish with same wheel on same machine)	PSA80-LV PSA90-MV PSA90-MV
Cast iron roughing finishing dual cycle Chilled iron roughing finishing Diesel and truck hardened forged shafts roughing (100% burn free) finishing dual cycle (rough and finish) with same wheel on same machine) roughing bearings finishing bearing	FA54-LV FA80-LV FA60-MV FA54-LV FA70-MV PSA46-JV PSA90-KV PSA90-KV PSA54-LV FA70-LV

Regrinding:

Application	Specification
Cast iron Chilled iron Spheroidal graphite iron Steel roughing finishing Steel (hardened)	FA54-LV FA54-LV FA60-MV PSA46-LV PSA80-LV PSA60-JV

As most cam grinding machines are custom built to the part being ground, it is impossible to properly specify a wheel without certain information. Before ordering any cam wheel, be sure to accurately obtain.

The machine model and serial number.

The actual spindle speed, roughing and finishing.

The current specification in use.

For further information contact your **KINIK** representative.