

Quality criteria for tungsten carbide welded-on layers on rotors

Area	Detail	Criteria	Comment
General	Tolerances	Tolerances for layer thicknesses Size 150 - 250: + 0,3 Size 320 - 400: + 0,3 Size 480 - 630: + 0,4 Size > 630: + 0,4	The given tolerances must be met at any location.
	Cracks	Single hair cracks are accepted. Intersecting cracks (mosaic) or gaping cracks are NOT accepted.	 
	Pores	Pore diameter: $\leq 0,5$ mm Quantity of pores: ≤ 1 pore per 1 cm ²	
Side plate	Sharp outer edges after grinding	Edges must be completely machined	
	Sharp inner edges after grinding	The unmachined area on the edges must be ≤ 1 mm wide	
Transition between side plate and blade	Protected / not protected areas	The a-measure on the drawing must be covered by the protection layer.	Uncovered areas after meeting the requirement on the left are accepted.
Blade	Edges after grinding	$\leq R1$	
	Overhangs of the welding	Overhangs are not necessary for the wear protection but also not harmful. Solutions without overhangs are preferred because of less material use.	
Chamber	Welding beads	Welding beads in the chambers are not accepted.	