

WHEEL BLASTING GUIDELINES – COMMON ISSUES

ISSUE: Incorrect Blast Pattern Setting
EFFECTS ON MACHINE <ul style="list-style-type: none">➤ Blast cleaning time increased, production output decreased.➤ Unnecessary wear to blast chamber.➤ Greater abrasive usage caused by blast stream firing onto chamber wear plates causing unnecessary abrasive breakdown.
CAUSES <ul style="list-style-type: none">➤ Incorrect setting of impeller case – If the impeller case is misaligned by only 10%, this in turn will affect the blast stream efficiency by up to 25% and will result in the blast stream missing a large part of the work to be blaster and causing abrasive to be targeted at the blast chamber.➤ Worn impeller case – Replace when worn around aperture area (1/4" or 6mm)➤ Worn impeller – Replace when worn (1/8" or 3mm)➤ Worn blades – Replace when badly grooved or worn to approx. 50% of thickness.
NOTE <ul style="list-style-type: none">➤ Extreme wear rates to blast wheel blades can be caused from the retention of sand, scale, and fines within the abrasive mix.➤ As little as 1% mix of sand in the abrasive can cause the blade life to be reduced by as much as 50%

ISSUE: Low Blast Wheel Amp Efficiency
EFFECTS ON MACHINE <ul style="list-style-type: none">➤ Increased blast cleaning times.➤ Ineffective cleaning, causing re-work and increasing cost.
CAUSES <ul style="list-style-type: none">➤ Incorrect level of abrasive in machine hopper, due to:<ul style="list-style-type: none">- work component carry out- inadequate topping up of abrasive➤ Abrasive starvation due to blockages in feed pipes or separators.➤ Worn blast wheel feeds parts, i.e. blades, impeller, control cage.➤ Wear or damage to abrasive gate control assembly, causing the blast wheel to either starve or flood<ul style="list-style-type: none">- Incorrect belt slipping- Missing elevator buckets- Worn elevator discharge area- Worn or blocked separator- Worn spiral flights
NOTE <ul style="list-style-type: none">➤ With S330 steel shot operating mix containing over 700,000 pellets per pound, a drop of just one amp is a loss of over 20 million impacts per minute of operation.