




**Process/Product Failure Modes and Effects Analysis
(FMEA)**

Process or Product Name:	ABC 123	 Alucast SC
Responsible:	Alucast Limited	 Customer SC

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Process Step/Part Number	Potential Failure Mode	Potential Failure Effects	S E V	Potential Causes	O C C	Current Controls	D E T	R P N	Actions Recommended	Resp.	Actions Taken	S E V	O C C	D E T	R P N
10. Goods Inwards Incoming Product from foundry															
10.01	Wrong product supplied	Non conforming product.	4	Material supplier order process error	2	Product supplied with route card	3	24	None						0
20. DMG 1 OP10															
20.01	47.4 ± 0.25 dimension to cast datum incorrect	Machining out of position to casting	6	Casting not loaded correctly	3	Casting orientated to machining using Renishaw probe	3	36	None						0
20.02	23.35 ± 0.25 dimension to cast datum incorrect	Machining out of position to casting	6	Casting not loaded correctly	3	Casting orientated to machining using Renishaw probe	3	36	None						0
20.03	22.74 ± 0.2 dimension to cast datum incorrect	Machining out of position to casting	6	Casting not loaded correctly	3	Casting orientated to machining using Renishaw probe	3	36	None						0
20.04	Mill face 62 ± 0.2 incorrect depth	Customer unable to assemble parts	6	Casting set up incorrectly	2	CMM Check 1st off beginning of shift	5	60	None						0
20.05 	Mill face 62 ± 0.2 face not flat (Tolerance not stated on drawing)	Castings leaking on test	6	Worn cutter	6	Cutters changed as they start to wear	3	108	CAR 4346 Frequency of cutter tip change to be quantified to prevent non conforming product	A. Powell					0
20.06	Drill Ø11.1 ± 0.5 oversize (8 Places)	Possible mismatch on assembly	6	Damaged drill, pick up on drill	3	Plain plug gauge 1 in 5	4	72	None						0
20.07	Drill Ø11.1 ± 0.5 Thro' undersize (8 Places)	Customer unable to assemble parts	6	Worn drill	3	Plain plug gauge 1 in 5	4	72	None						0
20.08	Drill Ø11.1 ± 0.5 Thro' not drilled (8 Places)	Customer unable to assemble parts	6	Broken drill missed operation	3	Plain plug gauge 1 in 5	4	72	None						0
20.09	Burrs on drilled holes (8 Places)	Health and safety, injury to operator	7	Burrs not removed	3	Holes chamfered after boring operation	3	63	None						0