

Part Name: Piston Housing		Part No: 2			Drawing No: 2	
Revision No: 1		Date: 19/10/2019			Planner: Mohique Gajdhar	
Material: Aluminium		Stock Size: 50x50x50			Comments:	
Operation No	Description	Machine	Speed(rpm)	Feed(mm/min)	Time(min)	Risk Assessment
201	FACE the surfaces smooth to the dimensions of 50,50,50 mm	Mill with carbide cutter	360	144	10	<ul style="list-style-type: none"> Loose articles of clothing getting caught in the moving machine. Projectiles such as swarf causing injury or entering the eye. Injury as a result of incorrect lifting technique.
						Remove loose clothing and tie back long hair. Wear safety goggles at all times. Ensure care is taken when handling sharp objects. Get assistance while lifting heavy objects and lift using proper lifting technique. [1]
202	Inspect surfaces and the dimensions	Calliper, square	-	-	2	-
203	Deburr the edges	Bastard File	-	-	2	<ul style="list-style-type: none"> Sharp edges can cause cuts.
						Handle the machine pieces carefully.
204	Mark and punch locations for central hole	Vernier Height Gauge, hole punch	-	-	5	-

205	Drill 31 mm through hole at the centre for the piston	Drill press	500[2]	-	5	<ul style="list-style-type: none"> Loose article of clothing getting caught in the spindle Projectiles such as swarf entering the eye. Cuts from sharp objects.
						Remove loose clothing and tie back long hair. Wear safety goggles at all times. Ensure care is taken when handling sharp objects. Ensure drill bits are correctly secured in the chuck.
206	Inspect the dimensions	Calliper, square	-	-	2	-
207	Drill eight 4.2 mm through holes on the top and bottom surfaces	Drill press	500[2]	-	10	<ul style="list-style-type: none"> Loose article of clothing getting caught in the spindle Projectiles such as swarf entering the eye. Cuts from sharp objects.
						Remove loose clothing and tie back long hair. Wear safety goggles at all times. Ensure care is taken when handling sharp objects. Ensure drill bits are correctly secured in the chuck.

208	Tap eight M5 holes in the 4.2 mm holes on the top and bottom surfaces with 20mm depth	Drill press	200[2]	-	15	<ul style="list-style-type: none"> Loose article of clothing getting caught in the spindle Projectiles such as swarf entering the eye. Cuts from sharp objects
						Remove loose clothing and tie back long hair. Wear safety goggles at all times. Ensure care is taken when handling sharp objects. Ensure drill bits are correctly secured in the chuck.
209	Deburr the edges	Bastard File	-	-	2	<ul style="list-style-type: none"> Sharp edges can cause cuts.
						Handle the machine pieces carefully
210	Inspect the part	Calliper, Square	-	-	2	-

References:

[1] TAFE NSW Engineering Skills Centre Ultimo, Student Background Notes for the Use of Hand and Power Tools, Sydney: TAFE NSW, 2010.

[2] TAFE NSW Engineering Skills Centre Ultimo, Student Background Notes for Basic Machining Operations, Sydney: TAFE NSW, 2010.