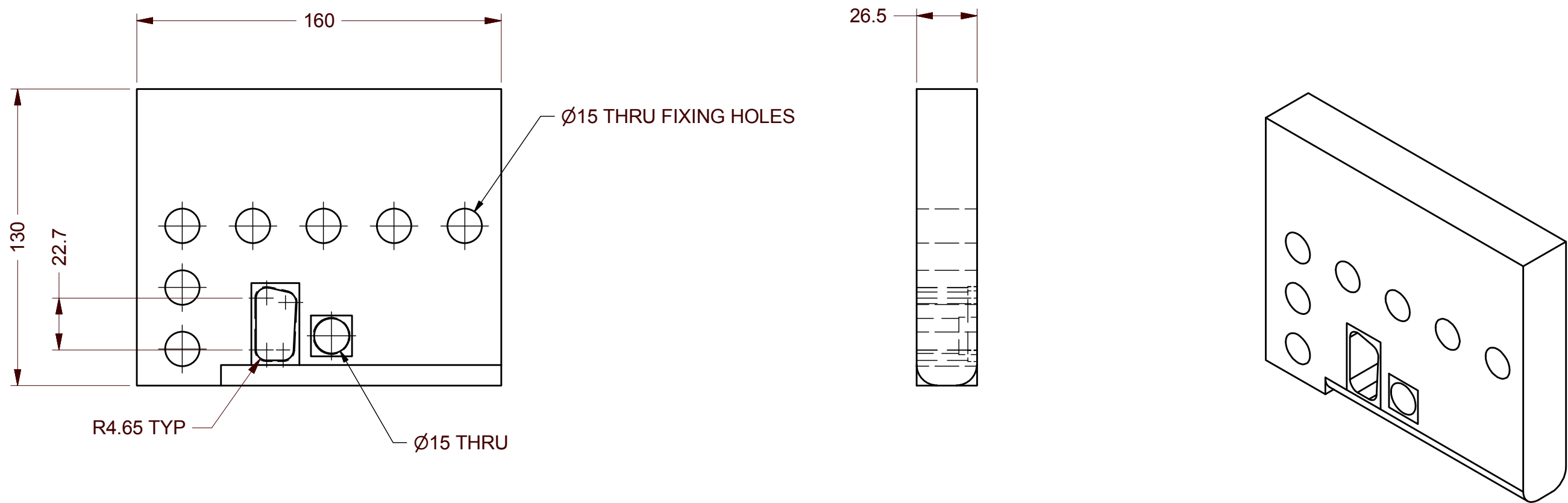



If in doubt ASK!



THE MATERIAL TO BE PIERCED IS 3MM THK ALUMINIUM WITH 340-400 Mpa ULTIMATE TENSILE. I'VE ASSUMED THE TOP FIGURE AND 75% OF IT FOR SHEAR ALTHOUGH I REALISE IT'S PROBABLY MORE LIKE 55-65% FOR ALUMINIUM. ANYWAY, ASSUMING 300 Mpa SHEAR STRENGTH 45000 N IS NEEDED ON EACH PIERCING OP (BIG HOLE PUNCH ONLY SHEARS 3 SIDES). AND I'M STAGGERING THE PUNCHES BY 4MM TO REDUCE LOADING OF THE PLATE. I'VE TRIED A SEPARATE DIE EMBEDDED IN THE MAIN PLATE BUT THIS REDUCES THE STRENGTH TOO MUCH AND THAT'S WHY I'VE OPTED FOR THIS LARGE, EXPENSIVE OPTION. THE APPLICATION IS ON ONE STAGE OF A 9 STAGE AUTOMATIC LINE PRODUCING BUMPERS FOR A PROJECT CODED X360 FOR JAGUAR SO REDUCING DOWN TIME IS OF PRIMARY IMPORTANCE RATHER THAN THE COST OF THE DIE.

DO NOT SCALE FROM DRAWING		WWW.TOTALMETALPRODUCTS.COM	CUSTOMER	X360 PIERCING RIG		TITLE DIE PLATE			No.	ISSUE 0
REMOVE ALL SHARP EDGES AND BURRS			BRIEF MATERIAL DESCRIPTION							
ALL DIMENSIONS IN MM UNLESS STATED OTHERWISE			BRIEF FINISH DESCRIPTION		CHECKED					
GENERAL TOLERANCES 0 ±0.2mm 0.0 ±0.1mm 0.00 ±0.05mm			Telephone 01600 719422	CHEM BLACK		APPROVED				
		Fax 01684 569887	SHEET No. 1 OF 1 SCALE DRAWN BY R.C.PARKES							