

Tools Required:

(Cutting tools)

- a) Table Saw (We use a Dewalt table saw with 5/8" arbor)with
- b))non-ferrous metal cutting blade (we used an Oshlun SBNF-100100 10-Inch 100 Tooth TCG Saw Blade with 5/8-Inch Arbor for Aluminum and Non Ferrous Metals).
- c) A 1/2 saw sled (custom built)

(Measuring tools)

- d) Measuring tape
- e) Vernier calipers
- f) Scribe
- g) Hammer
- h) Hand punch
- i) Ruler

(Drilling tools)

- j) Drill press
- k) #3 starter drill
- l) #29 drill bit
- m)#8-32 tap
- n) #25 drill bit or 5/32 drill bit
- o) 10-24 tap
- p) #36 drill bit
- q) 6-32 tap
- r) Size Q drill bit
- s) 1/8-27 tap
- t) Vise to hold part while drilling
- u) #2 Philips screw
- v) Allan keys

Parts list per cooling block:

- 1) (QTY 1) 22mm x25mm x42mm aluminum block
- 2) (QTY 1) 6-32 x 1-1/4"lg pan-head Philips screw
- 3) (QTY 1) 8-32 x 1/8" set screw 18-8SS
- 4) (QTY 2) 10-24 x 1/4 set screw 18-8SS
- 5) (QTY 2) 1/8 MNPT to 4mm press fit tube connector (McMaster carr 7610N112_Universal-Thread Push-to-Connect Tube Fitting 1/8-27 mnpt to 4mm OD tube)
- 6) Loctite 246 medium strength high temperature thread locker (applied to all screws)
- 7) 1/16" thick alumina oxide tape (see McMaster carr 87575K84)

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UNLESS OTHERWISE SPECIFIED:		NAME	DATE	PROJECT: KPUPROJ0205 Water cooling for Raise3D PRo2 printer TITLE: <p style="text-align: center; font-size: 1.2em;">PARTS LIST</p>	
DIMENSIONS ARE IN mm TOLERANCES: 0.3mm FRACTIONAL ± ANGULAR: MACH ± BEND ± TWO PLACE DECIMAL ±0.3 THREE PLACE DECIMAL ±		DRAWN	MC		2022/04/01
		CHECKED			
		ENG APPR.			
		MFG APPR.			
		Q.A.			
INTERPRET GEOMETRIC TOLERANCING PER:		COMMENTS:			
MATERIAL: Aluminium or Copper					
FINISH					
APPLICATION		DO NOT SCALE DRAWING			

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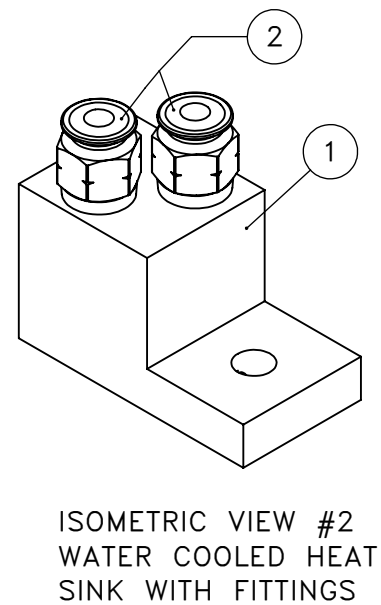
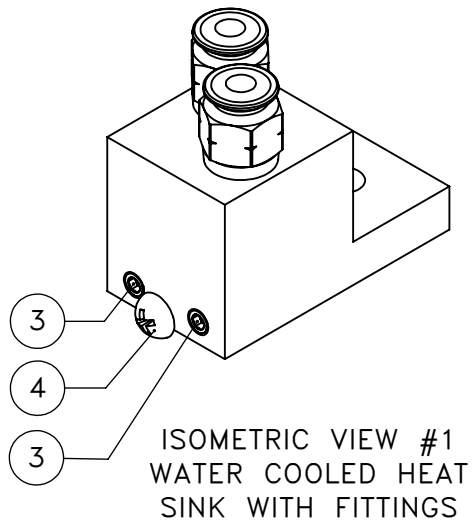
SIZE	DWG. NO.	REV
A	KPUPROJ0205_01_A	02
SCALE: 1:1	WEIGHT:	SHEET 2 OF 3

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ITEM NO.	DESCRIPTION	QTY.
1	HEATSINK MAIN BODY (COPPER OR ALUMINUM)	1
2	1/8-27 MNPT TO 4mm OD Universal-Thread Push-to-Connect Tube Fitting	2
3	10-24 x 1/8" LG 18-8 Stainless Steel Cup-Point Set Screw	3
4	6-32 x 1-1/4" PAN HEAD PHILLIPS SCREW HEAD	1

NOTES:
 A) APPLY LOCTITE 246 (HIGH TEMPERATURE MEDIUM STRENGTH THREADLOCKER) TO ALL THREADED FITTINGS, SCREWS, AND SETSCREWS PRIOR TO INSERTION. LET STAND 24HOURS PRIOR TO LEAK TESTING.

B) IF LEAK TEST FAILS ONLY AT THREADS, RETRY AGAIN WITH LOCTITE 246.

C) IF LEAK TEST FAILS A 2ND TIME AT THREADS, THEN TRY APPLYING HIGH TEMPERATURE RTV SILICONE AROUND THREADS OF FAILED FITTING AND RETRY

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APPLICATION

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 TWO PLACE DECIMAL ±0.3
 THREE PLACE DECIMAL ±

INTERPRET GEOMETRIC TOLERANCING PER:
 MATERIAL: Aluminium or Copper

FINISH

DO NOT SCALE DRAWING

	NAME	DATE
DRAWN	MC	2022/04/01
CHECKED		
ENG APPR.		
MFG APPR.		
Q.A.		
COMMENTS:		

PROJECT: KPUPROJ0205 Water cooling for Raise3D Pro2 printer

TITLE:
 ASSEMBLY DRAWING OF
 HEAT-SINK AND THREADED
 FITTINGS

SIZE	DWG. NO.	REV
A	KPUPROJ0205_01_A	02
SCALE: 1:1	WEIGHT:	SHEET 3 OF 3

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