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PRINT SPECIFICATION

PARAMETER	VALUE	REASON
Machine	Bambu Lab H2C	Vortek hotend, enclosed chamber
Nozzle	0.4 mm hardened steel	CF filament destroys brass in hours
Material	PAHT-CF	dimensional stability, low creep, dark
Nozzle temp	290 °C	—
Bed temp	100 °C	—
Chamber	ON, 55 °C	PA warps badly without it
Layer height	0.16 mm	surface finish on the 45° seat
Walls	5	load path is the wall, not the infill
Infill	60 % gyroid	stiffness without print time
Supports	Tree, 45° threshold	the 45° seat overhangs
Orientation	Seat face UP, stalk DOWN	seat accuracy beats stalk finish
Drying	PRE-DRY 12 h @ 80 °C	PA absorbs water; wet PA prints porous
Annealing	2 h @ 90 °C, slow cool	relieves print stress before service

ADDITIVE NOTES

1.

PA IS HYGROSCOPIC. A HOLDER PRINTED FROM WET FILAMENT WILL BE POROUS AND WILL CREEP UNDER THE SECONDARY'S WEIGHT OVER A SEASON. DRY IT.

2.

PRINT A SPARE IN THE SAME JOB. THE 45° SEAT IS THE MOST LIKELY REWORK.

3.

DO NOT PRINT IN PLA OR PETG. THE DEW HEATER RUNS AT 40–50 °C AND PLA CREEPS.

4.

SECONDARY IS BONDED WITH 3 DABS OF SILICONE, NOT CLAMPED. SILICONE ALLOWS DIFFERENTIAL EXPANSION; A RIGID BOND WILL WARP THE FLAT.

5.

MASS SAVING VS MACHINED ALUMINIUM: 0.32 kg — THIS IS WHAT RETURNED THE ASSEMBLY TO THE 10.0 kg MOUNT BUDGET.

REVISION HISTORY

REV	DESCRIPTION	DATE
A	First issue for manufacture	2026-08-16

FLOWMATIC · ASTROGRAPH PROGRAMME

200 mm f/4 NEWTONIAN ASTROGRAPH · CANBERRA ACT 35.28°S

ADDITIVE MANUFACTURE — SECONDARY HOLDER

DRAWING NUMBER	REVISION	SHEET
FM-AST-P04	A	4 OF 6
SCALE	MATERIAL	MASS
NTS	PAHT-CF (PA6 + CARBON FIBRE)	0.15 kg
PROJECTION	FINISH	UNITS
FIRST ANGLE (ISO 128)	AS PRINTED, ANNEALED	MILLIMETRES
GENERAL TOL ISO 2768-mK UNLESS STATED · DO NOT SCALE		
DRAWN NaXief's Claude · CHECKED SELF-CHECK + VISUAL JUDGE, SEE SHEET 6 QA GATES		
DATE 2026-08-16 · STATUS ISSUED FOR MANUFACTURE		

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