

**3D PRINTING AND DESIGN REFERENCE DOCUMENT**

|                        |                                 |
|------------------------|---------------------------------|
| <b>Document Title:</b> | Voron 2.4 350mmm Build Research |
| <b>Document No.:</b>   | 1764695602                      |
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**REVISION HISTORY**

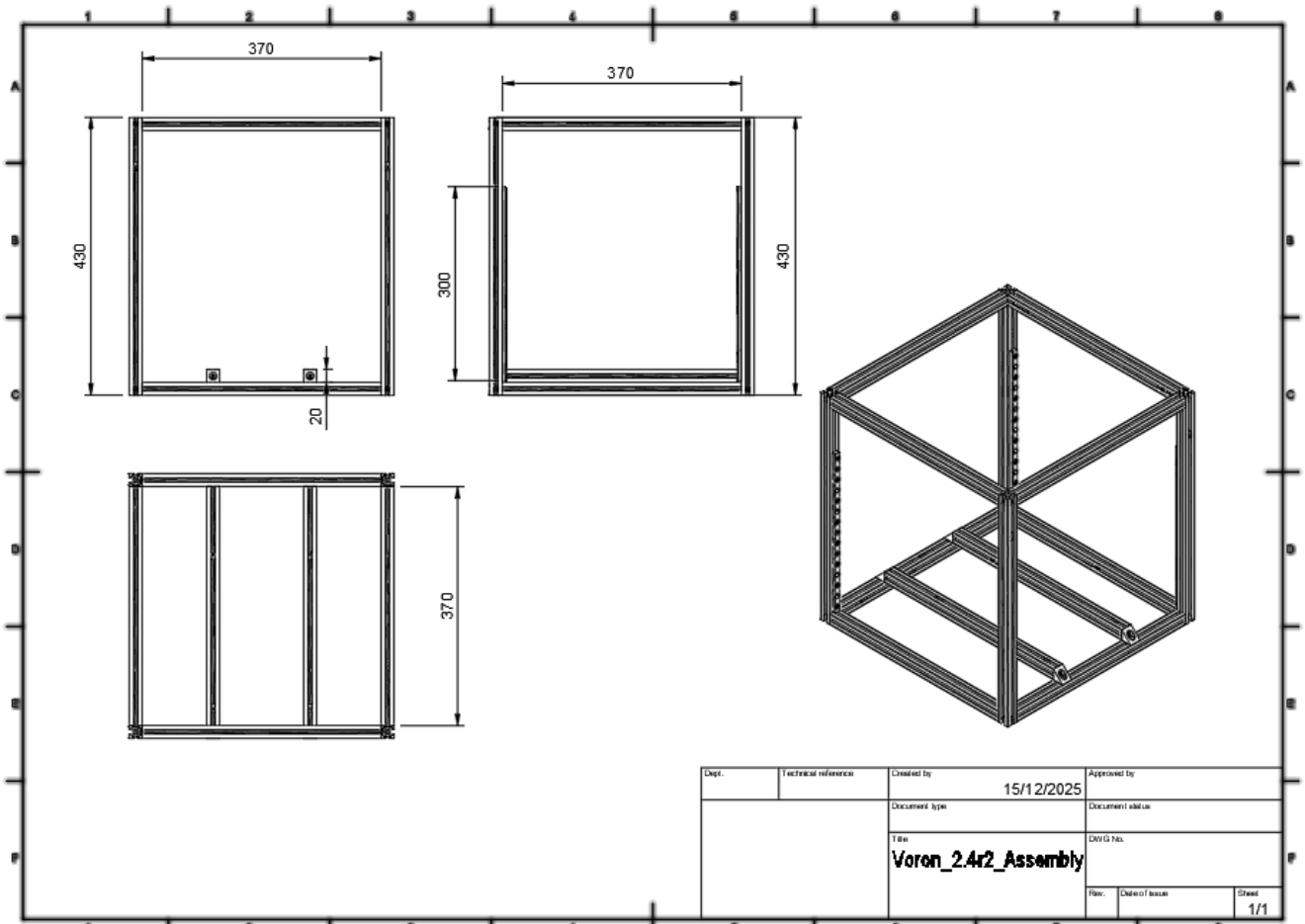
| <b>Revision</b> | <b>Details of Modification(s)</b> | <b>Reason for modification</b> | <b>Date</b>      | <b>By</b> |
|-----------------|-----------------------------------|--------------------------------|------------------|-----------|
| 0               | Draft release                     | Document description here      | 2025/12/02 17:13 | jattie    |

## Voron 2.4 Build

This section facilitates research of information for a building a Voron 2.4.<sup>1)</sup>

### Building the frame

The Voron publications default model is for a 246mm build plate and surprisingly not publishing scaled models and the 3D model is not parametric or scaling either.

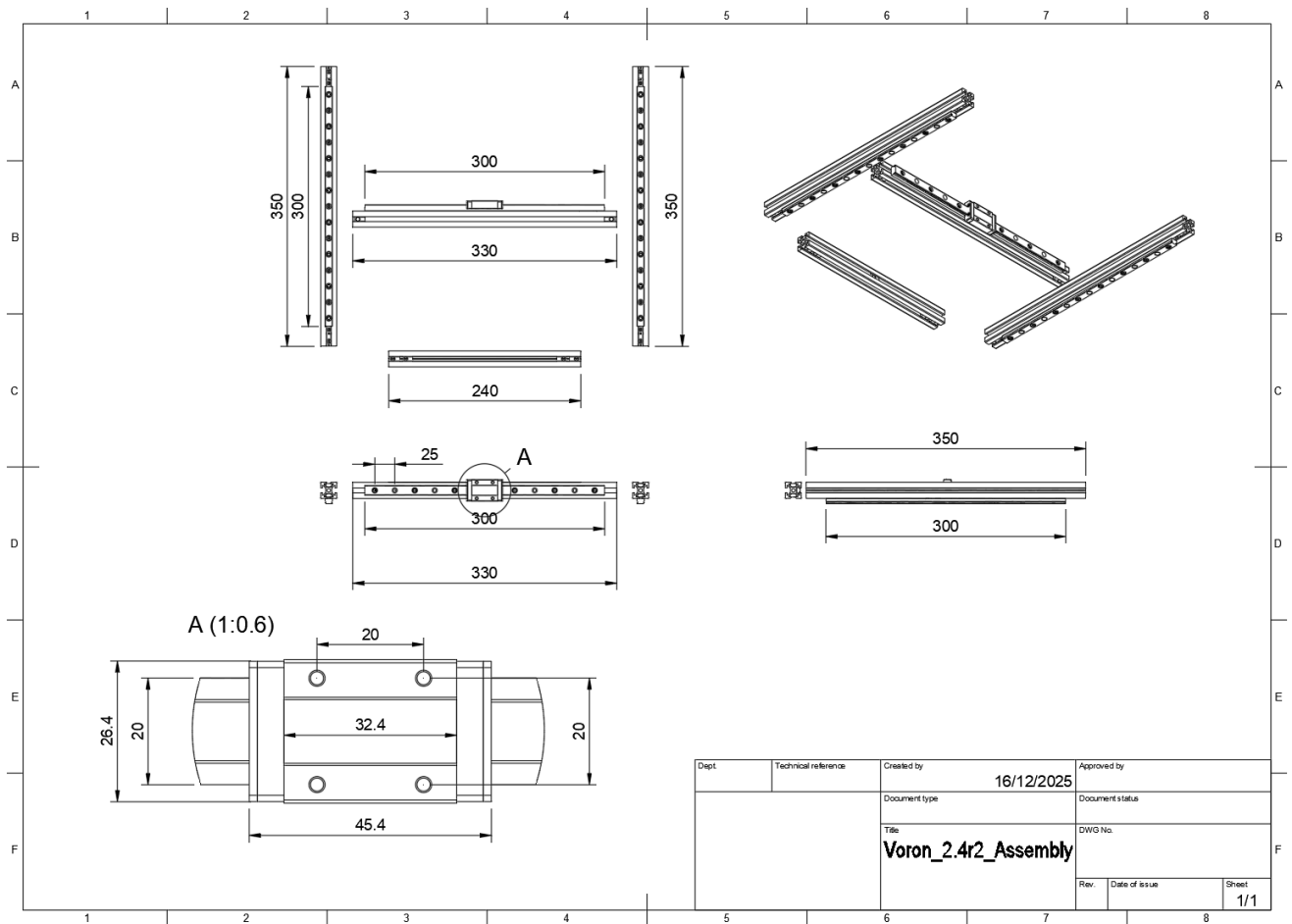


| Part                      | Dimension | Quantity |
|---------------------------|-----------|----------|
| 20 x 20 Aluminium Profile | 370mm     | 10       |
| 20 x 20 Aluminium Profile | 430mm     | 4        |
| Lineær Rails              | 9 x 300mm | 4        |

In order to Facilitate a 350mm build this needs to be scaled. This is not a problem when buying kits, however building from raw materials needs to dimensional details.

- 4 x 530 mm (drilled) → The vertical uprights. They set the printer's height and must be drilled for blind joints.
- 10 x 470 mm (tapped) → The horizontal frame members (top and bottom squares, plus gantry supports). These are tapped to accept fasteners.

## Building The Gantry



- 2 x 450 mm → The gantry extrusions that carry the XY motion system.
- 1 x 430 mm → The rear crossmember that supports the Z drives and belts.
- 1 x 340 mm → The front crossmember that supports the front idlers and closes the frame

|                              |                   |              |
|------------------------------|-------------------|--------------|
| 530                          | 4                 | 2,120        |
| 470                          | 10                | 4,700        |
| <b>SUBTOTAL</b>              |                   | <b>6,820</b> |
| 450                          | 2                 | 900          |
| 430                          | 1                 | 430          |
| 340                          | 1                 | 340          |
| <b>SUBTOTAL</b>              |                   | <b>1,670</b> |
| <b>TOTAL</b>                 |                   | <b>8,490</b> |
| <b>Material</b>              | <b>Unit Price</b> | <b>Total</b> |
| Flowmax 20 x 20 Profile x 3m | 34.42             | 3 €103.24    |

## West3D Voron V2.4 Self-Source Configurator

|  |         |
|--|---------|
| <b>Build Size: 350mm</b>                     | €131.13 |
| <b>Frame: Space Grey (W/ Angle Brackets)</b> | €13.11  |
| <b>Printed Parts: No Printed Parts</b>       |         |

|   |                            |
|---|----------------------------|
| <b>Fasteners: BDF Stainless Steel</b>                               |                            |
| <b>Motion: POWGE Motion Silver</b>                                  | €43.71                     |
| <b>Rails: Berserker Rails - Medium Preload</b>                      | €43.71                     |
| <b>Ready to Roll Add-on: No - I'll do that myself</b>               |                            |
| <b>XY Endstop: XY PCB</b>   |                            |
| <b>Z Endstop: Z PCB</b>   |                            |
| <b>Probe: CNC Tap Kit</b>   | €30.60                     |
| <b>SSR:</b>   | Panasonic AQA211VL 15A SSR |
| <b>Motors: LDO V2.4 Motor Kit</b>                                   | €26.23                     |
| <b>Controller Board: Manta M8P (With CB2)</b>                       | €52.45                     |
| <b>Display: BTT PiTFT 5" Touch Display</b>                          | €43.71                     |
| <b>Stepper Drivers: TMC2226</b>                                     | €8.74                      |
| <b>Power Supply:</b>  | LRS-200-24 (24v)           |
| <b>Extruder Components: Galileo 2 (G2E)</b>                         | €26.23                     |
| <b>Wiring Harness: V2.4 / Trident Wiring Harness</b>                |                            |
| <b>Cable Chains: Standard Cable Chains</b>                          |                            |
| <b>Bed Heater: West3D Performance Edge to Edge</b>                  | €13.11                     |
| <b>Aluminium Build Plate: Voron 2.4 MIC6 Build Plate</b>            |                            |
| <b>Flex Plate: Energetic Doubled Sided Smooth/Texture (350)</b>     | €13.11                     |
| <b>Build Plate Magnet: Standard</b>                                 |                            |
| <b>Toolhead: Stealthburner</b>                                      |                            |
| <b>Toolhead PCB: Nitehawk Stealthburner</b>                         | €24.48                     |
| <b>Hot End: Rapido PT1000 HF</b>                                    | €8.74                      |
| <b>Power Inlet / Rocker Switch: Tyco Filtered Inlet + ZF Rocker</b> |                            |
| <b>Fans: Premium Option (Delta Blower)</b>                          | €8.74                      |
| <b>Side + Door Panels (Acrylic or ACM): Smoked</b>                  | €4.37                      |
| <b>Back/Deck/Bottom Panels (ABS): Black</b>                         |                            |
| <b>Titanium Backers w/ Ti Screws: Standard</b>                      |                            |
| <b>Printed High-Temp HTN Nylon Ducts: Not Needed</b>                |                            |
| <b>Kinematics Kit: Yes - Titanium</b>                               | €52.45                     |

1)

<https://www.vorondesign.com/>

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Last update: **2026/01/01 18:23**

