

Stratasys Medical Modeling Solutions

If you're an academic medical center, hospital or medical device company, we've got a medical modeling solution for you. Check out our medical modeling options below to determine what printer will be the best fit for your medical applications.



J5 MediJet™

The economical, compact, all-in-one medical modeling printer.

Key value prop

Multi-material and multicolor capabilities allow you to create brilliantly vivid anatomical models and drilling and cutting guides* that are sterilizable and biocompatible, with a certified system — all on one platform.

Certifications

- 510k cleared for clinical diagnostic use with leading segmentation vendors
- Biocompatibility certification (documents available upon request)
 - ISO 10993-1:2018 for limited contact to tissue and bone contact and permanent contact to intact skin
 - ISO 18562-1:2017 for breathing gas pathways in healthcare applications
- Sterilization methods
 - Steam, Gamma and EtO for MED610 and MED615RGD
 - Steam and Gamma for Biocompatible Digital ABS Plus™ (MED531 and MED515+)
 - Steam, Gamma, and EtO for Rigid Transparent family
- ISO 13485 certified (material and hardware manufacturing sites)

Applications

- Pre-surgical planning models
- Training and education models
- Surgical guides and tooling*
- Medical device development models



* with approved 3rd party 510k cleared segmentation software



J850 Digital Anatomy™

Our most advanced medical modeling printer gives you the power to create biomechanically accurate anatomical models, as well as Radio-realistic.

If you're looking to create advanced medical models that not only look the same but also have close to the same biomechanical properties of native tissue and bone — this is the solution for you. Digital Anatomy Creator software enables you the control to calibrate tissue materials to your exact specifications. Slice by slice control of each print allows you to change combinations of materials so you can create ultra-realistic anatomies to match your needs.

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- Sterilization methods
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 - Steam and Gamma for Biocompatible Digital ABS Plus™ (MED531 and MED515+)
- ISO 13485 certified (material and hardware manufacturing sites)

All models can mimic close to the same biomechanical properties as native tissue and bone enabling you to cut, suture, drill and insert devices just as you would with human anatomy.

- Pre-surgical planning models
- Training and education models
- Medical device development model



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| | J5 MediJet™ | J850 Digital Anatomy™ |
|---------------------------|--|---|
| Model materials | <ul style="list-style-type: none"> • Biocompatible rigid transparent (MED610) • Biocompatible Opaque (MED615RGD™ IV) • Biocompatible Digital ABS Plus (MED531 and MED515+) • DraftWhite (MED857) • Rubberlike: Elastico Clear (FLX934) • Rigid Transparent: Vero Vivid family that includes VeroCyanV, VeroMagentaV, VeroYellowV, VeroBlackPlus™, VeroUltra™ClearS | <ul style="list-style-type: none"> • Digital Anatomy materials to mimic human tissue and replicate anatomies <ul style="list-style-type: none"> - TissueMatrix™: Ultra-soft material - GelMatrix™: A Gel-like support material for easy removal from blood vessel models, complex vascular structures and materials that require internal support - BoneMatrix™: High-strength material for bone and connective tissue - RadioMatrix™: Radiopaque 3D print material, gives you the power to create medical models that exhibit realistic features under xray and CT. • Rigid Opaque: Vero family including natural and color shades and VeroUltra™ opaque materials in black and white. • Rigid Transparent: Vero Vivid family that includes VeroCyanV, VeroMagentaV, VeroYellowV, VeroClear, VeroUltra™Clear • Rubberlike: Agilus30™ family • Biocompatible Clear (MED610) • Biocompatible Opaque (MED615RGD™ IV) • Biocompatible Digital ABS Plus (MED531 and MED515+) <p>For the full material list download Polyjet Medical Material Matrix</p> |
| Max materials | 5 | 7 |
| Support material | SUP710 WSS™ 150 | SUP705 (waterjet removal) SUP705B (APJ) SUP706B (soluble) GelMatrix (gel-like) |
| Software | GrabCAD Print™ | GrabCAD Print GrabCAD Print Digital Anatomy Digital Anatomy Creator |
| Maximum build size | 140 x 200 x 190 mm (5.51 x 7.87 x 7.48 in.) Up to 1,174 cm² | 490 x 390 x 200 mm (19.3 x 15.35 x 7.9 in.) |
| System size | 651 x 661 x 1511 mm (25.63 x 26.02 x 59.49 in.) | 1,400 x 1,260 x 1,100 mm (55.1 x 49.6 x 43.3 in.) Material Cabinet: 670 x 1,170 x 640 mm (26.4 x 46.1 x 25.2 in.) |
| Layer thickness | 18 microns (0.0007 in.) | Horizontal build layers range between 14 microns – 27 microns (.00055 in. – .001 in.) depending on the print mode. |
| Accuracy | Deviation from STL dimensions, for 1 Sigma (67%) of models printed with rigid materials, based on size: under 100 mm – ±150µ; above 100 mm – ±0.15% of part length.* Deviation from STL dimensions, for 2 Sigma (95%) of models printed with rigid materials, based on size: under 100 mm – ±180µ; above 100 mm – ±0.2% of part length.* | Vero Materials: Typical deviation from STL dimensions, for models printed with rigid materials, based on size: under 100 mm – ±100µ; above 100 mm – ±200µ or ± 0.06% of part length, whichever is greater. Digital Anatomy Materials: Not validated for accuracy, see technical documentation for design guidelines. |

* Measured when ambient temperature is 23 °C and relative humidity is 50%.

