Hyrel Specifications

Motion Control:
- Precision Ball Screw in Z-axis
- Precision Linear Bearing System in X, Y, and Z Axes

Positional Resolution:
- Less than 5 microns in the X and Y Axes
- Less than 1 micron in the Z-axis (layer thickness)

Positional Accuracy:
- +/- 50 microns in the X and Y Axes over 200x200mm area
- +/- 20 microns in the Z-axis over 200mm height

Embedded PC with Multitouch Screen
- Separate ISO+ MHz 32-bit ARM processor
- Integrated Dual CAN-bus architecture
- Integrated Web-Cam for build-area monitoring

Power: 600 W minimum
- Voltage: 115 / 230 V
- Current: 16 / 8 A
- Frequency: 60 / 50 Hz

All Metal Construction with
- Precision Linear Bearings and Ball Screws

Current Bundles, January 2015:

Enclosed SYSTEM with two heads*: $3995.00 (Base System list price: $4000.00 with no heads)
Unenclosed ENGINE with two heads*: $2695.00 (Base Engine list price: $2495.00 with no heads)

*Only MKI-250°C and EMO-25°C Standard extruders are included in discounted bundles.

Cold Flow: The EMO-25 prints in Biologicals, Clays including PMC, Plasticine, Plah-Doh, Porcelain, RTV Silicone, Sugru (Rubber), Sculpey... etc.
- EMO-25: Emulsifiable extruder with one 25cc tube and one set of 1.0, 1.5, 2.0mm tips, $225.00
- EMO-25 Pro: Emulsifiable extruder with two 25cc tubes and two sets of 1.0, 1.5, 2.0mm tips, $300.00

Warm Flow: The VDL-25 prints in Waxes and similar materials at up to 100°C. The KRA-15 prints in Polyurethane and materials at up to 150°C.
- VDL-25: Heated emulsifiable extruder (up to 100°C) with one 25cc tube and one set of 1.0, 1.5, 2.0mm tips, $500.00
- VDL-25 Pro: Heated emulsifiable extruder (up to 100°C) with two 25cc tubes and two sets of 1.0, 1.5, 2.0mm tips, $600.00
- KRA-15: Heated emulsifiable extruder (up to 150°C) with one 15cc stainless steel tube and one set of 1.0, 1.5, 2.0mm tips, $550.00
- KRA-15 Pro: Heated emulsifiable extruder (up to 150°C) with two 15cc stainless steel tubes and two sets of 1.0, 1.5, 2.0mm tips, $600.00

Hot Flow: The MKI-250 prints in ABS, HIPS, LayWoo-d3, PET, PLA, PP, PVA, NinjaFlex, Nylon, T-Glaze... nearly any 1.75mm filament at up to 250°C.
- MKI-250: 1.75mm Filament extruder (up to 250°C) with one 0.5mm nozzle, $250.00
- MKI-350: 1.75mm Filament extruder (up to 350°C) with one 0.5mm nozzle, $350.00

Note: Blank nozzles and 0.35mm nozzles for the MKI extruders are also available.

Crosslink On Demand: The COD-25 prints in materials (like PEG) at room temp. (the VCO-25 at up to 100°C) with photoinitiated crosslinking.*
- COD-25: Emulsifiable extruder with photoinitiated crosslinking, $350.00
- VCO-25: Heated emulsifiable extruder (up to 100°C) with photoinitiated crosslinking, $625.00

Note: COD and VCO Prices are for wavelengths of 365nm, 405nm or 450nm, as specified by the customer. Other wavelengths, including 280nm, are available as special orders - inquire for pricing.

Additional Tools: May take up one tool position on a printer.
- Inspector: Digital Microscope, images via USB, $125.00
- Quiet Storm: Additional cooling fan, $125.00
- Luer Tip Kit: 50cc Syringe, EMO/VDL/KRA/COD/VCO Luer adapter, and four (various sized) Luer tips, $200.00
- SDK: Print Head Software Developer’s Kit, with full RealTime Kernel Source Code in C and full Controller Board, $500.00

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Note: Blank nozzles for the EMO, VDL, KRA, COD and VCO extruders are also available.