



Essentium HSE™ 180 3D Printing Platform Specifications

TECHNOLOGY	High speed extrusion
PRINT HEAD	Single head
BUILD VOLUME	690 x 500 x 650 mm
MACHINE ACCURACY	XY < 30µm Z < 5µm
HOZZLE™ HEATED NOZZLE DIAMETERS	0.4 and 0.8 mm
HOZZLE HEATED NOZZLE TEMPERATURE	Up to 550°C
FILAMENT DIAMETER	1.75 mm
NETWORK COMMUNICATION	10/100 base T connection; Ethernet protocol (optional)
ELECTRICAL REQUIREMENTS	4 KVA, 220/240V 20A; Single Phase 50/60 Hz
PRINTER DIMENSIONS	1590 x 1250 x 2490 mm
NET WEIGHT	900 kg
KEY FEATURES	3G acceleration, all linear servo motors – no belts or pulleys

Speed. Strength. Scale.

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HSE 180 Series Product Line

CAPABILITIES	HSE 180-LT	HSE 180-ST	HSE 180-HT
Full Speed	✓	✓	✓
Enclosed Chamber	✓	✓	✓
Sealed Chamber		✓	✓
Scrubber-Ready Chamber		✓	✓
Nozzle Temperature	380°C	450°C	550°C
Bed Temperature	120°C	Up to 200°C	Up to 200°C
Part Temperature	40°C	130°C	Up to 180°C
Multi-modal Heating		✓	✓
Drying System	In-canister Desiccant	Active Dryair Manifold	Active Dryair Manifold
High-Temp Upgrade		✓	

HSE 180 Certified Materials

In addition to offering an open ecosystem for customers to use any materials, Essentium provides slicing profiles for popular materials enabling reduced print setup time. Below are the HSE-certified materials.

MATERIAL PORTFOLIO	HSE 180-LT	HSE 180-ST	HSE 180-HT
GENERAL PURPOSE			
ESSENTIUM PLA XTR	✓	✓	✓
ESSENTIUM PCTG	✓	✓	✓
ESSENTIUM PA		✓	✓
ESSENTIUM ABS			✓
FLEXIBLE			
ESSENTIUM TPU 74D	✓	✓	✓
HIGH TEMPERATURE			
ESSENTIUM HTN		✓	✓
ESSENTIUM 9085			✓
FIBER REINFORCED			
ESSENTIUM PA-CF	✓	✓	✓
ESSENTIUM PET-CF		✓	✓
ESSENTIUM PP-CF	✓	✓	✓
ESSENTIUM HTN-CF25		✓	✓
ESD SAFE			
ESSENTIUM PCTG-Z	✓	✓	✓
ESSENTIUM HTN-Z		✓	✓
ESSENTIUM TPU 74D-Z	✓	✓	✓