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3D SYSTEMS
Additive Manufacturing Solutions

Figure 4® Standalone

Ultra-fast and affordable industrial 3D printer

Part of 3D Systems' scalable, fully integrated Figure 4 technology platform, Figure 4 Standalone is an affordable and versatile solution for low volume production, and same-day prototyping for fast design iteration and verification, offering speed, quality and accuracy with industrial-grade durability, service and support.

Figure 4® Standalone

Ultra-fast and affordable industrial 3D printer

AFFORDABILITY:
Industrial-grade durability at an affordable price

VERSATILITY:
Performance from a variety of materials

SPEED:
Fast throughput speed for accelerated "parts-in-hand" delivery

TOTAL COST OF OPERATIONS:
Cost efficient parts production

FAST TURNAROUND

Achieve same-day functional prototyping and low volume production for output volumes of up to 500 parts per month, with ultra-high speeds up to 100 mm/hour.

EASE OF USE

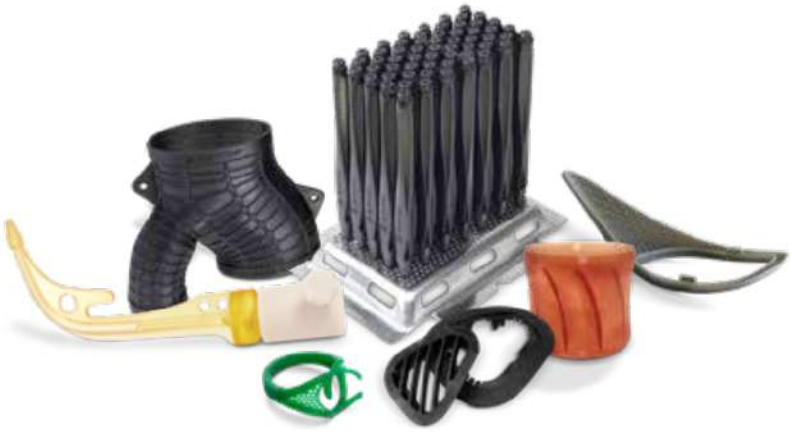
Figure 4 Standalone was designed for ease-of-use, and includes file preparation and print management with the powerful 3D Sprint® software, quick and easy material changes with a manual material feed, and a separate post-processing accessory available for curing.

CONSISTENT, HIGH QUALITY OUTPUT

Powered by non-contact membrane Figure 4 technology, Figure 4 Standalone offers quality and accuracy at six sigma repeatability, with exceptional surface finish and fine feature detail. With a compact and easy-to-use design, Figure 4 Standalone delivers industrial-grade durability, service, and support with an Advanced Service Exchange model and 3D Connect™ for proactive and preventative support.

WIDE RANGE OF APPLICATIONS

With Figure 4 Standalone versatility, you can use the same printer for rapid iteration, functional prototyping, design verification, end-use parts for low volume production and replacement parts, digital texturing applications, jewelry casting patterns, rapid tooling of molds, master patterns, jigs and fixtures.



Wide Range of Materials for Application Diversity

3D Systems' Material Design Center has over 30 years of proven R&D experience and process development expertise. The broad and expanding range of materials available for Figure 4 Standalone addresses a wide variety of applications needs, for functional prototyping, direct production of end-use parts, molding and casting.

RIGID MATERIALS

Figure 4 rigid materials produce durable plastic parts with the look and feel of cast or injection molded parts, with features that include fast print speeds, high elongation, exceptional impact strength, humidity/moisture resistance, long-term environmental stability and more.

ELASTOMERIC MATERIALS

Figure 4 elastomeric materials are ideal for the production of functional rubber-like parts with excellent shape recovery, high tear strength, great for compressive applications and material malleability.

HIGH TEMPERATURE MATERIAL

With heat deflection temperatures up to over 300° C with no additional thermal post-cure required, Figure 4 heat resistant material offers high rigidity and exceptional stability under extreme conditions.

SPECIALTY MATERIALS

Choose from Figure 4 specialty materials for sacrificial tooling, jewelry casting, medical applications requiring biocompatibity and/or sterilization, and more.

Accessories

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LC-3DPRINT BOX UV POST-CURING UNIT

The optional LC-3DPrint Box post-curing unit is available for UV-curing parts, required to obtain the final material properties, and is the recommended UV-curing unit for Figure 4 Standalone print materials. The LC-3DPrint Box is a revolutionary UV light box equipped with 12 UV light bulbs strategically placed inside to ensure a product is illuminated from all sides, which results in a quick and uniform curing cycle. This light-based UV curing process takes minutes versus hours with heat-based curing processes.

LC-3DMIXER FROM 3D SYSTEMS

The optional LC-3DMixer keeps your Figure 4 materials ready for use at any time at an optimum consistency. The LC-3DMixer is a roller/tilting stirring device for mixing 3D printing materials.

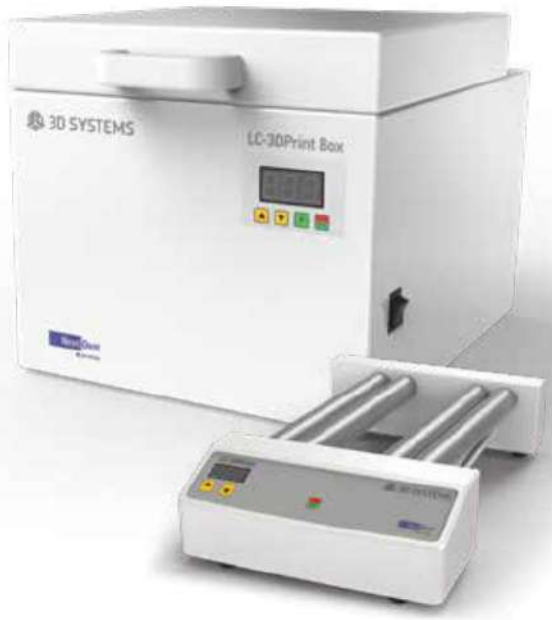

Figure 4® Standalone

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PRINTER HARDWARE

Build Volume (xyz)	124.8 x 70.2 x 196 mm (4.9 x 2.8 x 7.7 in)
Resolution	1920 x 1080 pixel
Pixel Pitch	65 microns (0.0025 in) (390.8 effective PPI)
Wavelength	405 nm
Operating Environment	
Temperature	18-28 °C (64-82 °F)
Humidity (RH)	20-80%
Electrical	100-240 VAC, 50/60 Hz, Single Phase, 4.0A
Dimensions (WxDxH)	
3D Printer crated	73.66 x 68.58 x 129.54 cm (29 x 27 x 51 in)
Pedestal crated	82.55 x 79.375 x 55.245 cm (32.5 x 31.25 x 21.75 in)
3D Printer uncrated	42.6 x 48.9 x 97.1 cm (16.7 x 19.25 x 38.22 in)
3D Printer + Pedestal uncrated	68.1 x 70.4 x 135.6 cm (26.8 x 27.71 x 53.38 in)
Weight	
3D Printer crated	59 kg (130 lbs)
Pedestal crated	26.3 kg (58 lbs)
3D Printer uncrated	34.5 kg (76 lbs)
3D Printer + Pedestal uncrated	54.4 kg (120 lbs)
Certifications	FCC, CE, EMC

ACCESSORIES

Post-Processing	Includes part finishing tools accessory kit; Requires optional 3D Systems LC-3DPrint Box UV post-curing unit or other UV-curing unit
LC-3DPrint Box	Load capacity (WxDxH): 260 x 260 x 195 mm Dimensions (WxDxH): 41 x 44 x 38 cm Full light spectrum: 300-550 nm Controlled temperature for optimal curing Weight (uncrated): 22 kg Electrical: 110V/230V, 50/60 Hz, 2.6A/1.3A
LC-3DMixer (for mixing materials, purchase separately)	Dimensions (WxDxH): 410 x 270 x 100 mm Weight (uncrated): 4 kg Electrical: 100-240 V, 50/60 Hz

MATERIALS

Build Materials	See material selector guide and individual material datasheets for specifications on available materials.
Material Packaging	1kg bottles for manual pour

SOFTWARE AND NETWORK

3D Sprint® Software	Easy build job set-up, submission and job queue management; Automatic part placement and build optimization tools; Part nesting capability; part editing tools; Automatic support generation; Job statistics
3D Connect™ Software Capable	3D Connect Service provides a secure cloud-based connection to 3D Systems service teams for proactive and preventative support.
Connectivity	10/100/1000 Ethernet Interface
Client Hardware Recommendation	• 3 GHz multiple core processor (2 GHz Intel® or AMD® processor mini) with 8 GB RAM or more (4 GB mini) • OpenGL 3.2 and GLSL 1.50 support (OpenGL 2.1 and GLSL 1.20 mini), 1 GB video RAM or more, 1280 x 1024 (1280 x 960 mini) screen resolution or higher • SSD or 10,000 RPM hard disk drive (minimum requirement of 7 GB of available hard-disk space, additional 3 GB free disk space for cache) • Google Chrome or Internet Explorer 11 (Internet Explorer 9 mini) • Other: 3 button mouse with scroll, keyboard, Microsoft .NET Framework 4.6.1 installed with application
Client Operating System	Windows® 7 and newer (64-bit OS)
Input File Formats Supported	STL, CTL, OBJ, PLY, ZPR, ZBD, AMF, WRL, 3DS, FBX, IGES, IGS, STEP, STP and X_T

NOTE: Not all products and materials are available in all countries – please consult your local sales representative for availability.

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Figure 4® Material Properties and Applications Guide

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		SUITABILITY FOR PART GEOMETRIES (% PRINTABILITY POTENTIAL)*								MECHANICAL PROPERTIES			
		 Fine Details and Features	 Thin Wall Parts	 Fitted Part Assemblies	 Medium Cover Parts	 Large Cover Parts	 Non-Uniform Wall Thickness Parts	 Large Cross Sectional Area Parts	 Jigs and Fixtures	Tensile Modulus MPA	Elongation @ Break %	Impact Strength (Notched) J/M	HDT @ 0.455 MPA °C
PROTOTYPING AND DESIGN VERIFICATION	TOUGH-GRY 10	75	85	45	75	85	35	15	25	2180	25	29	59
	TOUGH-GRY 15	75	85	75	75	85	35	15	25	2120	35	32	59
	TOUGH-BLK 20	95	90	85	85	90	75	35	65	1780	36	27	55
	FLEX-BLK 10	85	85	55	75	85	75	15	35	1400	104	55	52
	FLEX-BLK 20	90	90	90	90	95	95	55	85	1150	76	91	41
PRODUCTION	PRO-BLK 10	95	95	95	95	95	95	65	95	2320	12	24	70
	Rigid White	95	95	95	95	95	95	95	95	2100	20	21	65
	Rigid Gray	95	95	95	95	95	95	95	95	2400	30	21	72
	Tough 65C Black	90	95	90	95	95	95	95	95	1700	35	31	70
	Tough 60C White	90	95	90	95	95	95	95	95	1500	23	34	65
	High Temp 150C Black	95	95	95	95	95	95	95	95	2600	4	10	>150
	HITEMP 300-AMB	95	95	90	95	95	95	65	95	4100	2.3	10	300
	MED-AMB 10	95	95	90	95	85	95	65	90	2765	4	18	119
	MED-WHT 10	95	95	90	95	85	95	65	90	3090	3	17	102
	RUBBER-65A BLK	50	50	65	90	85	85	65	65	23	126	8.5**	65***
	EGGSHELL-AMB 10		98	95		95				2765	5	15	89
APPLICATION SPECIFIC	RUBBER-BLK 10	80	80	85	95	85	90	65	90	540	80	76**	97***
	ELAST-BLK 10	75	75	60	90	85	85	40	65	3.6	83	11**	65***

* Top 8 types of part geometries based on years of additive experience. Each part was printed with the suite of Figure 4 materials and assigned a % of parts in that category that the material was well suited for producing.

** Tear Strength Type-C kN/m

*** Shore A Hardness

RATING SYSTEM

- = VERY HIGH
- = HIGH
- = MEDIUM
- = LOW

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		PERFORMANCE							
		Long Term Indoor Environmentally Stable	Long Term Outdoor Environmentally Stable	Differential Shrink	Bottom Surface	Warp	1st Article Success	Supports	NOTES
PROTOTYPING AND DESIGN VERIFICATION	TOUGH-GRY 10			●●●	●●●	●●●	●●●	●●●●	• Fast printing prototyping material • Good surface quality for prototyping • Light gray material good for contrast and definition
	TOUGH-GRY 15			●●●	●●●	●●●	●●●	●●●●	• Midline mechanical properties for prototyping including modulus, elongation, and notch impact • Good surface quality for prototyping
	TOUGH-BLK 20	●●●●●	●●●●●	●●●●	●●●●●	●●●●	●●●●●	●●●●●	• Long-term stable material for UV and humidity • Better accuracy from low differential shrink & bottom surface quality • No settling in resin tray
	FLEX-BLK 10			●●●●●	●●●	●●●●	●●●	●●●	• Long term stable material for UV and humidity • Better accuracy from low differential shrink and bottom surface quality • Easier to clean
	FLEX-BLK 20	●●●●●	●●●●●	●●●●●	●●●●●	●●●●	●●●●●	●●●●●	• Faster printing FLEX material good for prototyping
PRODUCTION	PRO-BLK 10	●●●●●	●●●●	●●●●●	●●●●●	●●●●	●●●●●	●●●●●	• Best Figure 4 Material performance for 1st article success • Long term stable material for UV and humidity • Better accuracy from low differential shrink & bottom surface quality
	Rigid White	●●●●●	●●●●●	●●●●	●●●●	●●●●	●●●●	●●●●●	• Biocompatible, capable of meeting ISO 10993-5 and -10 standards for cytotoxicity, sensitization and irritation • Long term stable material for UV and humidity
	Rigid Gray	●●●●●	●●●●●	●●●●●	●●●●	●●●●●	●●●●	●●●●●	• Long term stable material for UV and humidity • Better accuracy from low differential shrink and bottom surface quality
	Tough 65C Black	●●●●●	●●●●●	●●●●●	●●●●	●●●●●	●●●●	●●●●●	• Long term stable material for UV and humidity • Better accuracy from low differential shrink and bottom surface quality
	Tough 60C White	●●●●●	●●●●●	●●●●●	●●●●	●●●●●	●●●●	●●●●●	• Biocompatible, capable of meeting ISO 10993-5 and -10 standards for cytotoxicity, sensitization and irritation • Long term stable material for UV and humidity
	High Temp 150C Black	●●●●●	●●●●●	●●●●●	●●●●	●●●●●	●●●●	●●●●●	• UL 94 V0 @ 2mm, 3mm and FST 2mm, 3mm capable • Long term stable material for UV and humidity
	HI TEMP 300-AMB			●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	• Very high HDT at both low and high pressure (>300 °C) • Better accuracy from low differential shrink & bottom surface quality

Note: Not all products and materials are available in all countries – please consult your local sales representative for availability

RATING SYSTEM { ●●●●● = HIGH ●●●● = MEDIUM ●●● = LOW

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		PERFORMANCE							
		Long Term Indoor Environmentally Stable	Long Term Outdoor Environmentally Stable	Differential Shrink	Bottom Surface	Warp	1st Article Success	Supports	NOTES
PRODUCTION	MED-AMB 10	●●●●●	●●●●	●●●●●	●●●●●	●●●●	●●●●●	●●●●●	• Biocompatible, capable of meeting ISO 10993-5 & -10 standards for cytotoxicity, sensitization and irritation • Better accuracy from low differential shrink & bottom surface quality
	MED-WHT 10	●●●●●	●●●●	●●●●●	●●●●●	●●●●	●●●●●	●●●●●	• Biocompatible, capable of meeting ISO 10993-5 & -10 standards for cytotoxicity, sensitization and irritation • Better accuracy from low differential shrink & bottom surface quality
	RUBBER-65A BLK	●●●●●	●●●●●	●●●●●	●●●●	●●●●●	●●●●	●●●●	• Long term stable material for UV and humidity • Biocompatible, capable of meeting ISO 10993-5 and -10 standards for cytotoxicity, sensitization, and irritation
	EGGSHELL-AMB 10			●●●●●	●●●●●	●●●●●	●●●●	●●●●●	• Easily breaks away from the injected material once cured • Material is compatible with many platinum and tin silicones
APPLICATION SPECIFIC	RUBBER-BLK 10	●●●●●	●●●●●	●●●●●	●●●●	●●●●●	●●●●●	●●●	• High tear strength makes a very tough malleable material • Long term stable material for UV and humidity • Better accuracy from low differential shrink & bottom surface quality
	ELAST-BLK 10			●●●●●	●●●●	●●●●●	●●●	●●●	• Low tear strength combined with low tensile modulus makes parts easy to tear

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