AXTRA3D

CASE STUDY

1 DAY - 30 SERVICE BUREAUS

USING AXTRA3D's Hi-Speed SLA with LUMIA.X1

5 FUNCTIONAL MATERIALS

30 SERVICE BUREAUS

150 PRINTED PARTS

1 PRINTER LUMIA.X1

1DAY

Service Bureau Sample Kit

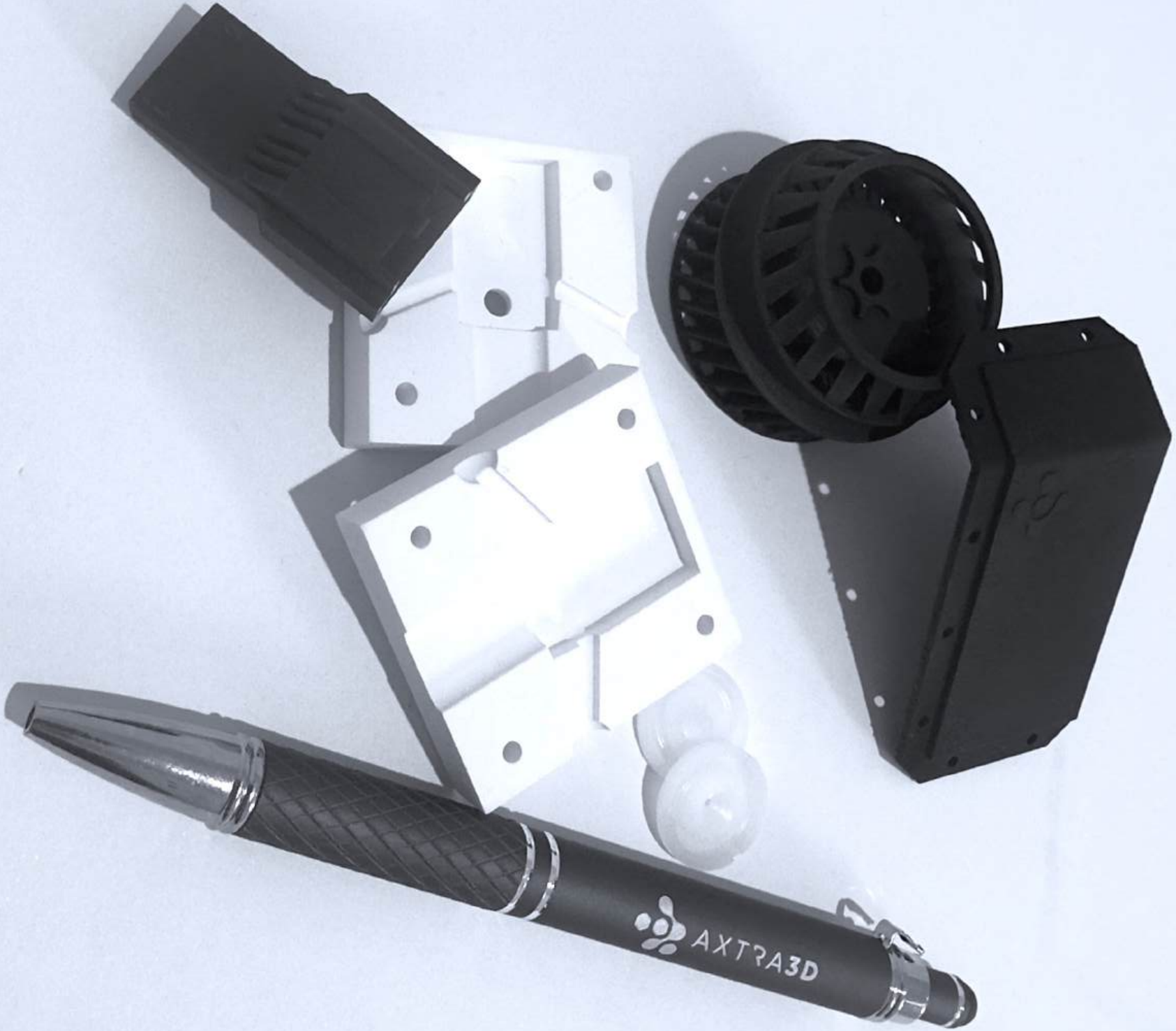
In a single day, using just one Lumia.X1 printer, Axtra3D produced 150 parts for 30 different customers. This achievement underscores not only the printer's throughput but its unique ability to meet diverse demands efficiently a game-changer for service bureaus.

The Lumia.X1's Hybrid PhotoSynthesis (HPS) technology allowed us to take full advantage of the 19.6-inch Z height, using the entire build volume to produce large, complex parts alongside multiple smaller components in parallel. Every part met the high standards of precision, surface quality, and material performance that our customers expect. Where other machines might need multiple setups or extended print times to achieve similar output, the Lumia X1 achieved it in one single, high-capacity run.

Each part in this collection was printed in one of five functional materials, selected specifically to represent a range of real-world applications that service bureaus handle regularly from intricate detailing in prototypes to durable, end-use components. These parts came off the printer with minimal post-processing required, an added advantage that reduces turnaround time and streamlines workflow.

For service bureaus, this level of flexibility and reliability is invaluable. The Lumia.X1 adapts to meet varied customer needs, handling rapid shifts between materials and designs with ease. It delivers a level of productivity that combines speed with quality, allowing service bureaus to provide high-precision parts on tight timelines without sacrificing surface finish or dimensional accuracy. The ability to produce 150 parts, for 30 customers, in just one day, with one printer, speaks directly to the Lumia.X1's role as a solution that redefines productivity and efficiency in high-demand production environments.

With Axtra3D, this isn't just a demonstration it's proof of how the Lumia.X1 can streamline your operations, maximize output, and raise the standard for quality and consistency in 3D printing.


AXTRA3D

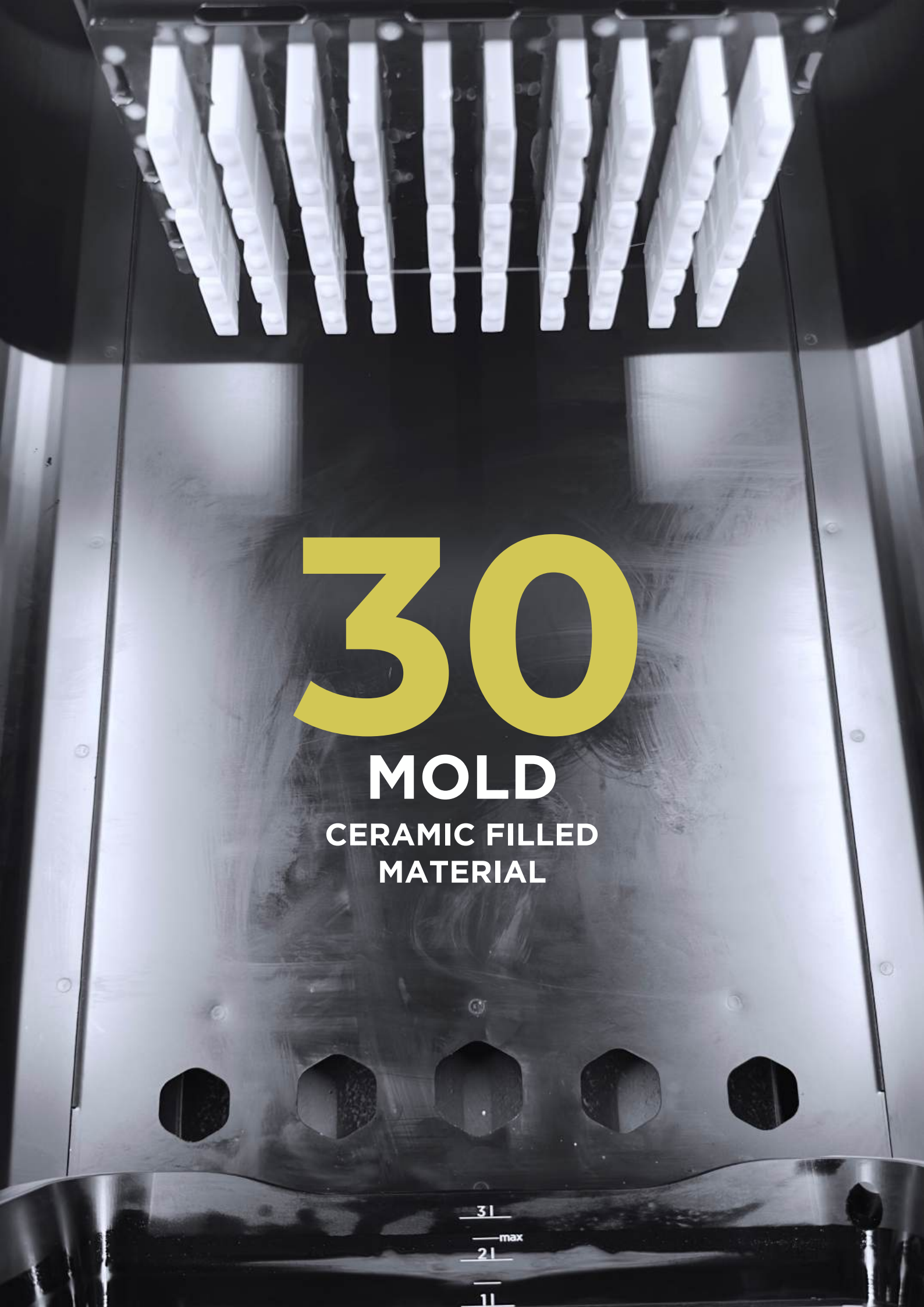
1 PRINTER LUMIA.X1

Hybrid PhotoSynthesis™ (HPS) and TruLayer™

The Lumia X1 employs Hybrid PhotoSynthesis (HPS), a simultaneous laser and DLP imaging technique to image both large flat areas and intricate details. This combination eradicates the tradeoffs between accuracy, feature resolution, throughput, and surface finish, allowing users to achieve maximum potential in every print.

At the same time, TruLayer technology enables quick detachment and seamless transition between print layers, working in tandem with HPS to deliver a 2X-20X improvement in print throughput compared to traditional SLA-only, DLP-only, and LCD-only technologies.

Axtra3D has two business models: AxtraSolutions™ provides customers with fully tuned, comprehensive solutions, while AxtraOpenAccess™ caters to customers' need to experiment with new materials and applications.



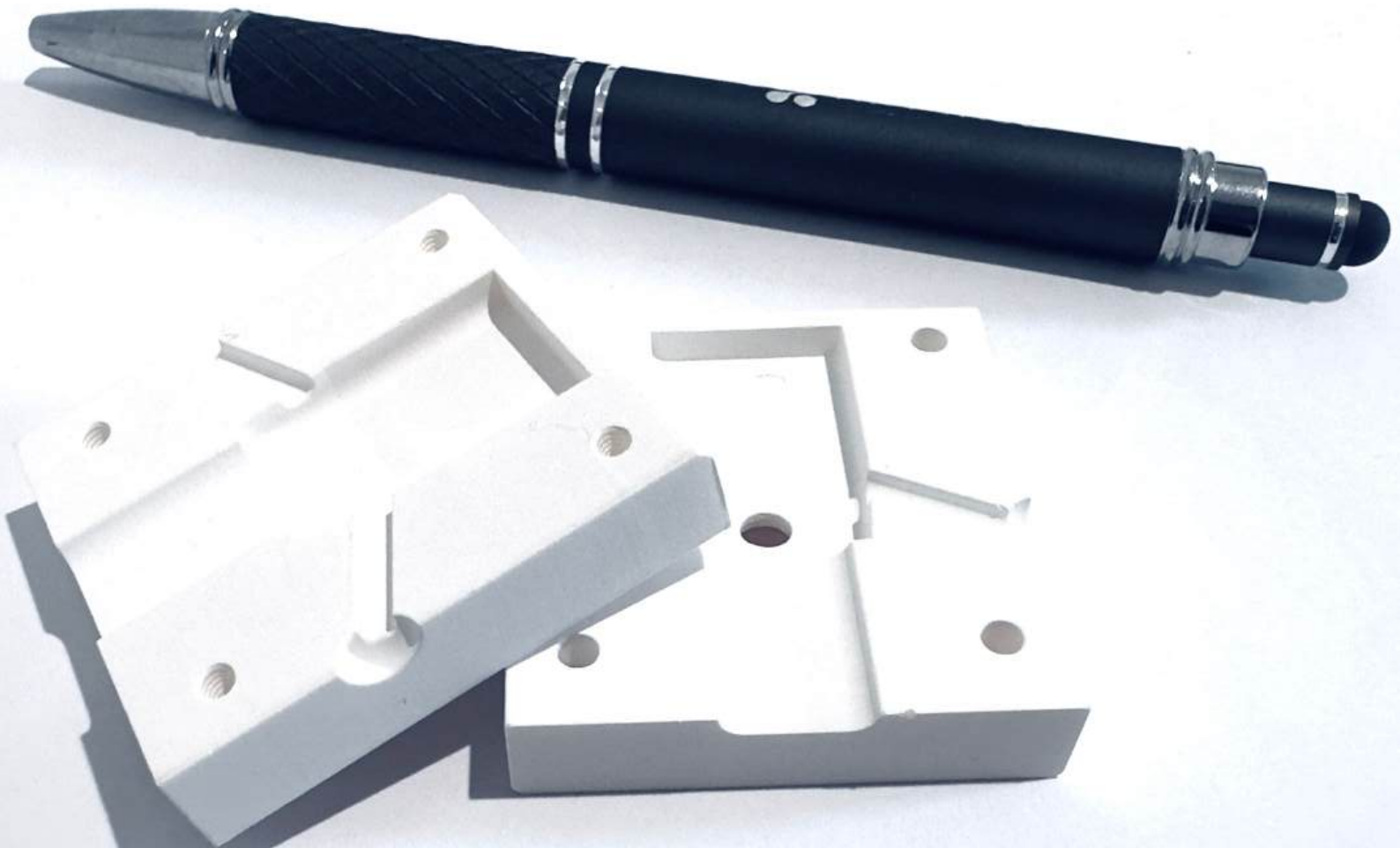
30

MOLD

CERAMIC FILLED MATERIAL

CERAMIC MOLD

Number of Parts per Platform: **30**
Layer Thickness: **100**um
Build Time per Platform: **197**mins
Build Time per Part: **6.6**min
Weight per Part: **21.8**grams
Material Cost per Part: **3.82**$
Material: **Ceramic Filled - Forward.AM Ultracur3D RG 3280**




30
IMPELLER
HIGH ELONGATION
43%
3 l
max
2 l

IMPELLER

Number of Parts per Platform: **15**
Layer Thickness: **100**um
Build Time per Platform: **118**mins
Build Time per Part: **7.8**mins
Weight per Part: **11.6**grams
Material Cost per Part: **2.30**$
Material: **High Elongation - Loctite 3D 3843**

30 ELECTRICAL CONNECTORS

FLAME RETARDANT - V0

ELECTRICAL CONNECTORS

Number of Parts per Platform: **30**
Layer Thickness: **100**um
Build Time per Platform: **88**mins
Build Time per Part: **2.9**mins
Weight per Part: **3.8**grams
Material Cost per Part: **1.14**$
Material: **Flame Retardant V0 — ARKEMA N3D-FR512**

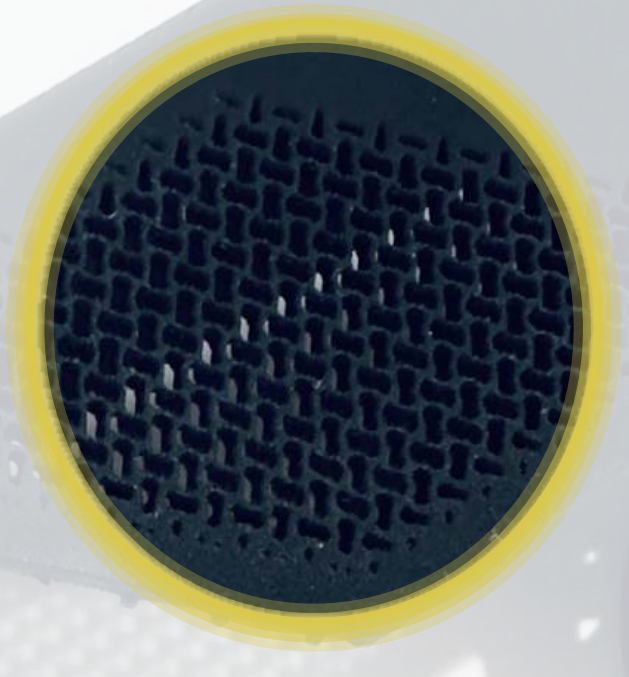
30

HOUSING

ESD

AEROSPACE HOUSING

Number of Parts per Platform: **8**
Layer Thickness: **100**um
Build Time per Platform: **135**mins
Build Time per Part: **16.9**mins
Weight per Part: **13.2**grams
Material Cost per Part: **4.69**$
Material: **ESD - Loctite 3D IND3380**



Micro NET

Generated by HPS Laser Source

Micro Support's Junction Point

Generated by HPS Laser Source

30

GASKEST

TRUE SILICONE 50shA

SILICONE GASKETS

Number of Parts per Platform: **30**
Layer Thickness: **100**um
Build Time per Platform: **49**mins
Build Time per Part: **1.6**mins
Weight per Part: **0.5**grams
Material Cost per Part: **0.22**$
Material: **True Silicone - SpectroPlast Trusil-X50 for Axtra3D**

AxtraSolutions™ Service Bureaus

Hi-Speed SLA provides best of SLA and DLP
Expansive Materials Ecosystem
Experimentation flexibility
Material Changeover < 10min
SLA quality parts without initial vat fill
70% capacity utilization by current service bureaus
Direct access to Axtra Academy
Access to use 3rd party software
Existing SLA, DLP equipment is sufficient

HOW WE MEET YOUR NEEDS

AxtraSolutions™ Service Bureaus

AXTRA VALUE PROPOSITION

PRINT THROUGHPUT WITH ACCURACY	**Hi-SPEED SLA Best of SLA & DLP**
VARIETY OF MATERIALS	**Industry Wide Materials Ecosystem**
EXPERIMENT WITH NEW MATERIALS	**Open Access Program For Experimenting**
FAST CHANGEOVER	**10 minutes Material changeover**
LOWER INITIAL INVESTMENT	**No VAT Fill Like SLA**
RELIABILITY	**70%+ Capacity Utilization by Current Bureaus**
PROMPT SERVICE	**Axtra Academy Regular Touch Points**
FLEXIBILITY TO USE EXISTING SOFTWARE	**Can use 3rd Party Build Preparation Software**
POST PROCESSING SIMPLIFIED	**Existing SKA & DLP Equipment is Sufficient**

Lumia.X1 Cost per Day	247,00 USD
Technician Cost per Day	560,00 USD
Consumables Costs per Day	52,00 USD
Business Days	220

	Number of Printed Parts (#)	Weight per Part (grams)	Resin Cost per kg ($/kg)	Resin Cost per Part ($)	Resin Cost per Platform ($)	Revenue per Part ($)	Revenue per Platform ($)	Gross Proceed per Platform ($)	Printing Time (mins)
Ceramic Mold (3280)	30	21,8	175,00 USD	3,82 USD	114,45 USD	19,08 USD	572,25 USD	457,80 USD	197
Impeller (3843)	30	11,6	198,00 USD	2,30 USD	68,90 USD	11,48 USD	344,52 USD	275,62 USD	118
Housing (ESD 3380)	30	13,2	355,00 USD	4,69 USD	140,58 USD	23,43 USD	702,90 USD	562,32 USD	135
Connector (FR-Arkema)	30	3,8	300,00 USD	1,14 USD	34,20 USD	5,70 USD	171,00 USD	136,80 USD	88
Gasket (Trusil-X50 for Axtra3D)	30	0,5	430,00 USD	0,22 USD	6,45 USD	1,08 USD	32,25 USD	25,80 USD	49

TOTAL PARTS (#)	**150**
TOTAL PRINTING TIME (mins)	**1110**
TOTAL PRINTING TIME (h/m)	**18h30mins**
TOTAL REVENUE ($)	**1.822,92 USD**
TOTAL RESIN COSTS ($)	**364,58 USD**
TOTAL COST PER DAY ($)	**859,00 USD**
TOTAL MARGIN PER DAY ($)	**599,34 USD**
ROI (days)	**209**