3D Manufacture

3D Scanners
3D Printers
Ultrasonic Cleaners
Curing Units
Printing Material
Printing Accessories

3D Manufacture

3D Printing Guide

MONO (SMART003)
Single Impression

DUO (SMART001)
Binaural Impressions
(85-90 secs)

FREE STAGE (SMART014)
Binaural Impressions
(60-70 secs)

The scanner is needed to scan the physical impression.
You can scan a binaural pair of impressions within 85-95 seconds.

CYFEX Modelling Software
Open the scanned impression in the modelling software (Cyfex software recommended) to transform the impression into the actual mould/shell/cast you require, using simple pre-set templates, converted within a few minutes.

Luxaprint Material

Recommend material is Detax Luxaprint. Materials available are shell, mould, flex or cast material.

Open the modelled impression in the Asiga software (provided) and place the moulds within the build platform (auto placement). Then send the print through to the printer. Average print time is around 2 hours but can be increased/decreased depending on the settings you choose. You can print approx. 3 moulds at a time with the Pico 2™ and 30 with the PRO 2™. Stacking option is also available allowing you to print 10 moulds on the Pico 2™ and 150 on the PRO 2™ at a time. Materials available are shell, mould or cast material.

ASIGA MAX UV

Effica® E1
Once printed remove the built parts and place in the ultrasonic cleaner filled with Isopropanol for 3 minutes to clean the excess, vent holes etc.

Oven
Place in the oven for 30 minutes at 40 degrees. This removes any sticky residue and hardens the part.

Flash Unit
Place in the flash unit to ensure any uncured material is fully cured. Approximately 5-10 minutes with the Asiga flash unit provided with the printer. G171 flash unit used with Nitrogen is recommended and can be purchased separately.

Lacquer Shell AC (PRO154A)
Laquer using Detax Shell AC. Cure the laquer under UV light for approx. 4 minutes.

Mono Scan (Shop Scanner)

Shop Solution For Ear Impressions

Simple and precise: generation of 3D data of models of the ear impression.
Mono Scan is the ideal in-store solution for audiology.

smart optics

Special Order

FTP Module
SMART004
Allow the direct upload of the scan files to a FTP Server of your choice.

- Individual: Own OEM casing can be selected (in the case of a volume purchase)
- Productive: Precise fit and rapid scanning
- Compact: Appealing design and construction
- Intuitive: Simple installation and operation
- Comfortable: Removable model holder for comfortable positioning
- High quality: Optimum materials for reliable application.
- Practical: Open file formats for processing with any CAD software that provides STL processing, etc.

Scanning time (binaural)	60 seconds
Number of castings per scanning procedure	1
Output data format	STL, ASCII, MSH
Technology	Structured-light scanner with durable high-performance LED
Resolution of scan data	Adjustable

Interface	USB
Connection voltage and power	100 – 240 V AC 50 / 60 Hz, max. 30 W
Dimensions	300 x 367 x 145mm (W x L x H)
Weight	7.5kg
Warranty	24 months

SMART003	Mono Scan (Shop Scanner)
SMART004	FTP Module
SMART005	Warranty + 12 Months

Duo Scan (Desktop Scanner)

smart optics

3D-Scanner For Ear Impressions

Generate precise 3D data of impressions in the easiest possible way.

FTP Module
SMART004
Allow the direct upload of the scan files to a FTP Server of your choice.

Special Order

- Precise and fast for outstanding fit and increased productivity
- Simultaneous scanning of two impressions saves time
- Compact structure and attractive design enable use in any environment
- Easy installation
- Removable object holders enable easy-to-use and flexible positioning of the castings
- High-quality, durable components mean reliable, maintenance-free use
- Easy, intuitive operation ensures minimal induction period
- Open file formats STL, ASCII and MSH provide an easy connection with CAD software or industrial solutions
- Save shipping costs and shipping time through electronic transmission of ear impression scans (e-mail, FTP, etc.)
- Unique price/performance ratio

Scanning time (binaural)	85 to 95 seconds		Interface	USB
Number of castings per scanning procedure	2		Connection voltage and power	100 – 240 V AC 50 / 60 Hz, max. 30 W
Output data format	STL, ASCII, MSH		Dimensions	300 x 340 x 135mm (W x L x H)
Technology	Structured-light scanner with durable high-performance LED		Weight	8kg
			Warranty	24 months
Resolution of scan data	Adjustable			

SMART001	Duo Scan (Desktop Scanner)
SMART004	FTP Module
SMART005	Warranty + 12 Months

Free Stage Scanner

For the quality-conscious audiologist

The ideal solution for trend-oriented shops. The system-independent scanner for digitising ear canal impressions with its slim design is easy to set up at any workstation and turns it into an eye-catcher.

The contemporary design of the 3D scanner combines an elegant look with a robust construction. The smooth surfaces as well as the wide opening allow easy access. The scanner's ergonomic shape, obtained by deliberately not using a cover for the housing, simplifies the workflow and provides the operator with the opportunity to impress the customer with the entire scanning process.

The innovative touch sensor enables the user to start the scanning process directly at the scanner, saving you valuable time. The consistently high quality of materials used in smart optics products is always most important.

- 32 seconds scan time for two models of ear impression
- < 14μm accuracy in combination with the 3D calibration object aural scan
- Noah system interface available

smart optics

New Product

Special Order

FTP Module
SMART004
Allow the direct upload of the scan files to a FTP Server of your choice.

Scanning time (binaural)	32 seconds
Number of castings per scanning procedure	2
Output data format	STL, ASCII, MSH
Technology	Structured-light scanner with durable high-performance LED
Resolution of scan data	Adjustable

Interface	USB
Connection voltage and power	100 – 240 V AC 50 / 60 Hz, max. 30 W
Dimensions	186 × 292 × 348mm (W x L x H)
Weight	6.5kg
Warranty	36 months

SMART014	Free Stage Scanner
SMART004	FTP Module
SMART005	Warranty + 12 Months

Cyfex Secret Ear Designer

Cyfex

Secret Ear Designer is the high-performance earmold modeling software for the digital manufacture of ear protection, earmolds and in-ear-monitoring systems.

The application facilitates a comfortable, intuitive and time-saving analysis for users and distinguishes itself through a high degree of automation. With only one license, BTE as well as ITE earmolds can be modeled.

Digital technology offers you higher quality and thus less and uncomplicated remakes. Thanks to high performance, you can obtain higher output with the same number of employees. In addition, you have the advantage of being able to develop your own products and have a tool at your disposal to create your own construction data.

- **All earmold styles**

  With just one Secret Ear Designer license you can design IdO and HdO earmolds, as well as ear protection and in-ear-monitors, including molds for soft earmolds.

- **Intuitive interface**

  Thanks to easier handling, employees are in a position to model earmolds that they have designed independently and in detail after a few hours of training.

- **Time savings**

  On the basis of easily adjustable product templates the required modeling steps can be reduced to an absolute minimum.

- **ERP connectivity**

  Two-way transfer of parameters between order management system and Secret Ear Designer by means of ERP-Link.

- **Compatibility with output media**

  The application is compatible with all 3D printing technologies available on the market as well as with milling centers for subtractive production.

- **Flexible shape design**

  For maximum independence and creative freedom, construction elements can be autonomously imported and/or designed.
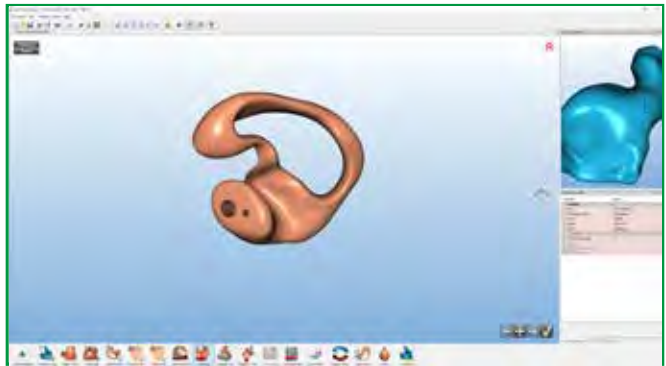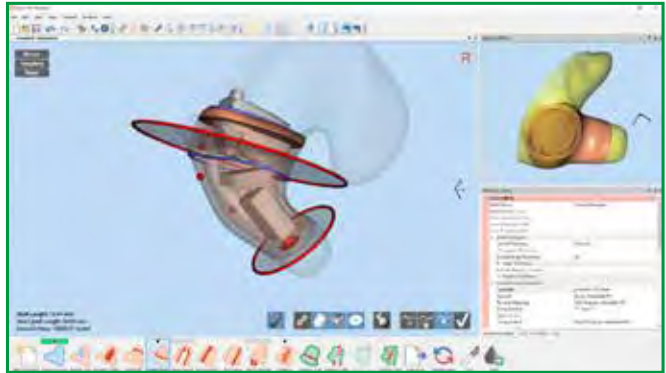
CYF0001	Cyfex Software – 1 Year – 2500 Decryptions
CYF0002	Cyfex Software – 1 Year – 5000 Decryptions
CYF0003	Cyfex Software – 1 Year – Unlimited Decryptions

ASIGA Max UV 3D Printer

ASIGA

- Touch screen display
- 3D printer for audiology production
- Smart positioning system
- Open material system making the Max™ versatile and adaptive
- Single point calibration and efficient material change-over in under 60 seconds
- Wifi & Ethernet connectivity for seamless workspace integration
- UV LED light source 385 nm
- Supplied with ASIGA flash, calibration kit, PlasCLEAR material pack and ASIGA Composer software.

Build Size:	119 x 67 x 75mm		Software:	ASIGA Composer (included)
Pixel Size:	62 µm		Network Compatibility:	Wifi & Ethernet
Z Control:	1 µm		System Size:	26 × 38 × 37cm
Light Source:	385 nm UV LED		System Weight:	16.5kg
Material System:	Open		Packaged Size:	41 × 50 × 48cm
File Inputs:	STL, SLC & Stomp		Power:	12 VDC 10A

ASIGA0215 ASIGA Max UV

3D Manufacture

Pico Flash

ASIGA

Compact post-curing device for use with Freeform Pico/Plus systems.

ASIGA0100 Pico Flash

Max Build Tray

ASIGA

Pack of 1.

ASIGA0216 Max Build Tray 1 ltr
ASIGA0217 Max Build Tray 5 ltr

PRO RFID Build Tray

ASIGA

Pack of 1.

ASIGA0120 PRO RFID Build Tray

Pico RFID Build Tray

ASIGA

Pack of 2.

ASIGA0110 Pico RFID Build Tray

Pico PLAS Printing Material

500ml material pack for ASIGA Pico 3D printers.

- PlasPINK is a high resolution flesh-coloured photopolymer suitable for a wide range of applications.
- Plas Material is a high resolution photopolymer suitable for a wide range of applications; PlasPINK & PlasGRAY.
- SuperCAST v3™ - now with the added benefit of faster print speeds and enhanced detail definition. Developed specifically for jewellery and dental applications.
- FusionGRAY is a high temperature material resistant to temperatures up to 160°C and is suitable for vulcanized rubber moulds & industrial product applications.

ASIGA PICO2

PlasPINK **PlasGRAY** **PlasCAST**
SuperCAST **FusionGRAY**

ASIGA0204 500ml PlasPINK
ASIGA0203 500ml PlasGRAY
ASIGA0205 500ml PlasCAST
ASIGA0206 500ml SuperCast V3
ASIGA0207 500ml FusionGRAY

PRO PLAS Printing Material

1000ml material pack for ASIGA PRO 3D printers.

- FusionGRAY is a high temperature material resistant to temperatures up to 160°C and is suitable for vulcanized rubber moulds & industrial product applications.
- Plas Material is a high resolution photopolymer suitable for a wide range of applications; PlasCLEAR, PlasPINK, PlasGRAY & PlasWHITE.
- SuperCAST v3™ - now with the added benefit of faster print speeds and enhanced detail definition. Developed specifically for jewellery and dental applications.

ASIGA PRO

FusionGRAY **PlasCLEAR** **PlasGRAY**
PlasPINK **PlasWHITE** **SuperCAST**

ASIGA0208 1000ml FusionGRAY
ASIGA0209 1000ml PlasCLEAR
ASIGA0210 1000ml PlasGRAY
ASIGA0211 1000ml PlasPINK
ASIGA0212 1000ml PlasWHITE
ASIGA0213 1000ml SuperCast V3

Freeprint® Cast

DETAX

1kg green transparent.

PRO151D-1000 Freeprint® Cast

Luxaprint® Cast

DETAX

1kg green transparent.

PRO152K-1000 Luxaprint® Cast

Luxaprint® Flex

DETAX

UV curing premium resin (wavelength 385nm) for generative manufacturing of soft, massive earmoulds.

PRO152M-1000 3D Flex UV Resin 1kg
PRO152N-100 3D Flex UV Lacquer 100ml

Luxaprint® Shellac

DETAX

UV Curing. For surface sealing of hard earmoulds.

PRO154A-100 Shellac 100ml **Special Delivery**
PRO154A-300 Shellac 300ml **Special Delivery**

Cast Separator

DETAX

500ml colourless.

PRO153A-500 Cast Separator **Special Delivery**

Freeprint® Shell

DETAX

Light curing resin (wavelength 405 nm) for the production of hard ITE shells. Extra low viscose formula; reduced loss of material, easier cleaning and faster processing. Non-brittle, fracture resistance, short light exposure time and biocompatible.

PRO151E-500 Black 500g
PRO151E-1000 Black 1kg
PRO151C-500 Beige 500g
PRO151C-1000 Beige 1kg

Freeprint® Mould

DETAX

Light curing resin (wavelength 405 nm) for the production of earmoulds & hearing protection. Low viscose for reduced loss of material, easier cleaning and faster finishing. Non-brittle, fracture resistance, high transparency and biocompatible.

PRO151A-500 Clear 500g
PRO151A-1000 Clear 1kg
PRO151B-500 Rose 500g
PRO151B-1000 Rose 1kg

Luxaprint® 3D Mould

DETAX

UV premium resin, for the manufacture of hard earmoulds and hearing protection (light spectrum UV 378-388 nm) and biocompatible.

PRO152J-500 Blue 500g
PRO152J-1000 Blue 1kg
PRO152F-500 Clear 500g
PRO152F-1000 Clear 1kg
PRO152H-500 Red 500g
PRO152H-1000 Red 1kg
PRO152G-500 Rose 500g
PRO152G-1000 Rose 1kg

Luxaprint® 3D Shell

DETAX

UV premium resin, for generating manufacturing of hard ITE shells (light spectrum UV 378-388 nm). and biocompatible.

PRO152E-500 Beige 500g
PRO152E-1000 Beige 1kg
PRO152D-500 Blue 500g
PRO152D-1000 Blue 1kg
PRO152A-500 Clear 500g
PRO152A-1000 Clear 1kg
PRO152C-500 Red 500g
PRO152C-1000 Red 1kg
PRO152B-500 Rose 500g
PRO152B-1000 Rose 1kg

Scraper For Asiga Printer

ASIGA

To aid in the removal of 3D prints from the printer bed.

ASIGA0130 Scraper For Asiga Printer

Detax Softwear® 2.0

DETAX

Permanently elastic earmould silicone for indirect fabrication of soft BTE moulds & protectors, particularly for 3D cast technique. Bubble-free filling of the cast forms, low extrusion strength, excellent flow properties.

Effortless removal of the silicone blank due to reduced surface tension, does not stick to the cast form. Maximum detail reproduction, tear & tensile strength with high elastic recovery. Long-term wearing comfort due to soft flexible fitting, skin-friendly & biocompatible. Working time approx. 2:30 min, final hardness: approx. 60 Shore A.

ACC136-S60A	Clear Transparent
ACC136-S60B	Rose Transparent
ACC136-S60C	Red Opaque
ACC136-S60D	Blue Opaque
ACC136-S60E	Green Opaque
ACC136-S60F	Yellow Florescent
ACC136-S60G	Pink Florescent
ACC136-S60H	Colourmix

Detax Bioflex Shock

DETAX

Permanently elastic earmould silicone for indirect fabrication of hearing and splash water protection. For use in conventional or generative manufacturing (e.g. 3D cast technique).

Good flow properties, precise detail reproduction, tear resistant, easy processing. High wearing comfort due to soft-flexible fitting. Skin-friendly & biocompatible. A-silicone, light bodied, working time approx. 2:30 min, final hardness: approx. 40 Shore A. Colours: electric blue, poison green, shocking pink.

Shocking Pink   Poison Green   Electric Blue

ACC136-S67	Bioflex Shock Set

Effica E1 Professional Ultrasonic Cleaner

EFFICA™

Ultrasonic Cleaning System

Redesigned draining system results in 65% faster draining. Convenient and easy to access.

New instrument basket design for greater ultrasonic energy flow. Raised bottom allows for ultrasonic waves to properly form beneath instruments for a quieter, more thorough cleaning. Allows for hands-free draining.

Unique hinged cover design. Cover fully encloses beakers during use. Full line of accessories available for greater versatility.

Output Frequency Range/Rate	45 KHz +- 2KHz / 3Hz
Overall Dimensions Centimeters L x W x H	37.5 x 26.7 x 26.7cm
Shipping Weightkgs (Approx.)	5.5
Tank Capacity Liters	4.0
Tank Internal Dimensions Centimeters L x W x D	28.6 x 14 x 8.9cm

ACC235D   Ultrasonic   Cleaning   System
PROD30   Isopropyl Alcohol 2.5 ltr   **Special   Delivery**
ACC235C   Ultrasonic Cleaning Fluid 5 ltr

Ultrasonic Cleaner III

Special Order

The Ultrasonic Cleaner III is a ultrasonic cleaner featuring a large 2 litre tank, 70 watts of ultrasonic power, 60 watts of heating power, enough to heat the chamber up to 80°C. The Ultrasonic Cleaner III features high build quality, robust design and easy to use operations, making it the ideal ultrasonic cleaner for use in lab environments.

Capacity	Tank Size	Ultrasonic Power	Heating Power	Frequency	Timer Settings	Heater Settings
2.0 litres	150 x 135 x 100mm	70w	60w	40kHz	1 - 30 minutes	20 - 80°C

ACC235E   Ultrasonic Cleaner III
PROD30   Isopropyl Alcohol 2.5 ltr **Special Delivery**
ACC235C   Ultrasonic Cleaning Fluid 5 ltr

Otoflash G171 UV Flash Unit
With Protective Gas Input

The Otoflash is a light polymerization chamber for the hardening/curing of light curing resins.

Two photoflash lamps at the bottom of the curing chamber operate in a work mode with a frequency of 10 flashes per second.

The photo-flash lamps produce a very intensive light radiation in a spectrum from 300 up to 700 nm. Because of this intensive light radiation, a better hardening of the materials is possible, resulting in materials with good physical values and reduced content of residual monomer versus using other lamp types with a different light emitting spectrum.

Operating Voltage:	100, 115, 230 volt AC, Selectable		Flash Rate:	10 flashes per second
Nominal Frequency:	50/60Hz		Digital Time:	Adjustable from 1 up to 9999 flashes
Power Input:	About 250W		Life Time:	300-500 hours operating time
Radiated/Flashed Lamp Power:	About 200W (100 X/Lamp)			(10.8 - 18 Mio flashes)
Light Power:	Ca. 1/3 of lamp power ≈ 66W		Curing Chamber	120 x 120 x 50mm
Spectral Distribution:	300-700 nm, max 400-500		Outer Dimensions:	310 x 310 x 140mm
Light Power in Interesting Spectrum:	Ca 1/3 of lamp power ≈ 11W		Weight:	6kg

ACC464A   Otoflash G171 UV Flash Unit With Protective Gas Input
ACC464B   Plexi-glass Containers For Otoflash - With UVB-Blocker
ACC464C   Plexi-glass Containers For Otoflash - Without UVB-Blocker

Labnet Mini Incubator

Labnet's Mini Incubator is compact and economically priced, yet offers features not typically found in a basic incubator. The housing is all metal, as is the door frame. A plexiglass window in the door offers full visibility to the interior. One shelf is included, and can be adjusted to three different levels.

Features:
- Temp. range: ambient +5°C to 60°C
- Wrap around heating elements
- Corrosion resistant chamber
- Door with large viewing area
- Access hole in top for thermometer
- Supplied with 1 shelf (3 positions)
- External dimensions: 285W x 280D x 335Hmm
- Internal dimensions: 230W x 200D x 200Hmm. (9 litre)

ACC472B   Labnet Mini Incubator
ACC472A   Non-Toxic Thermometer