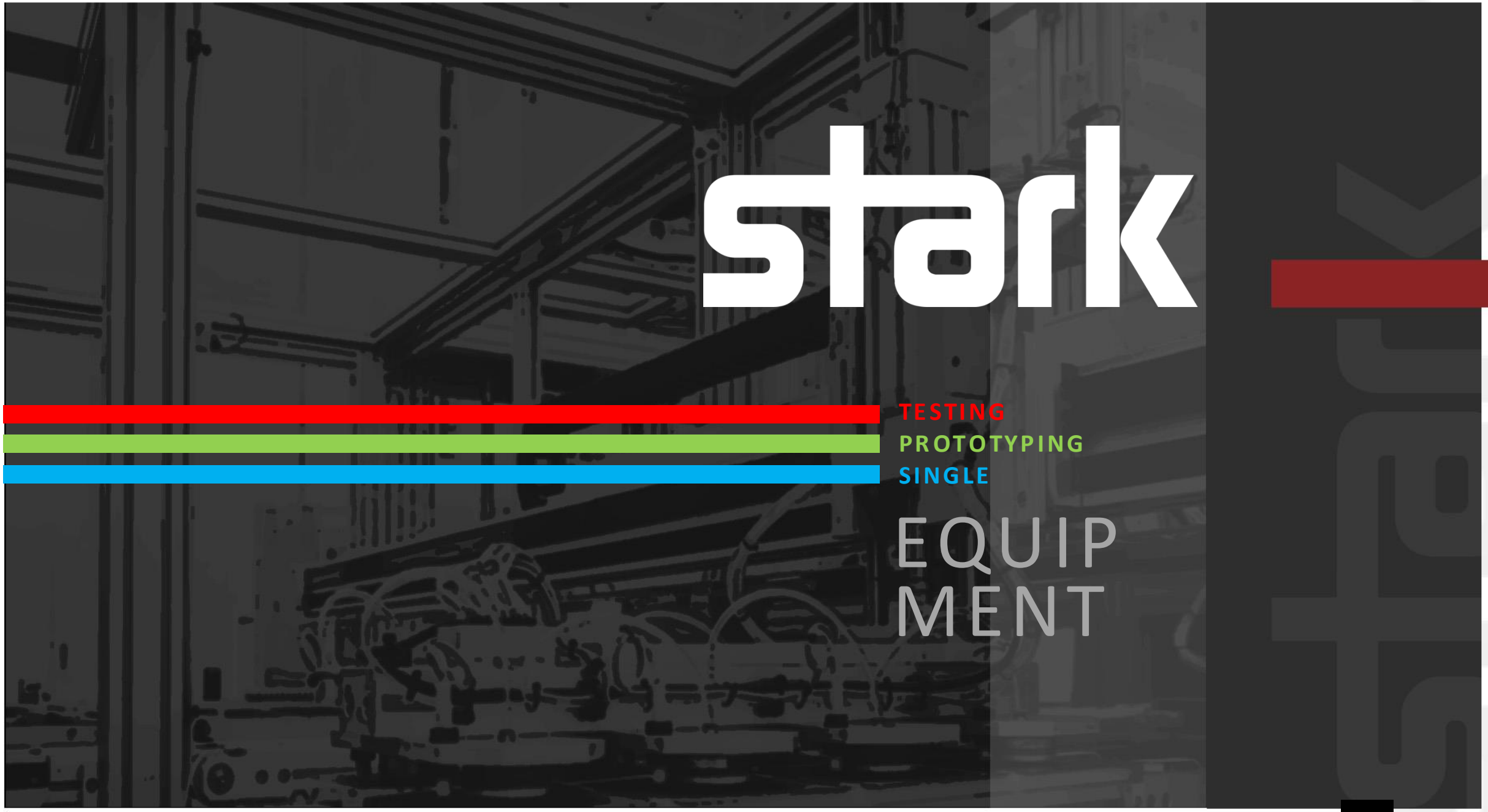
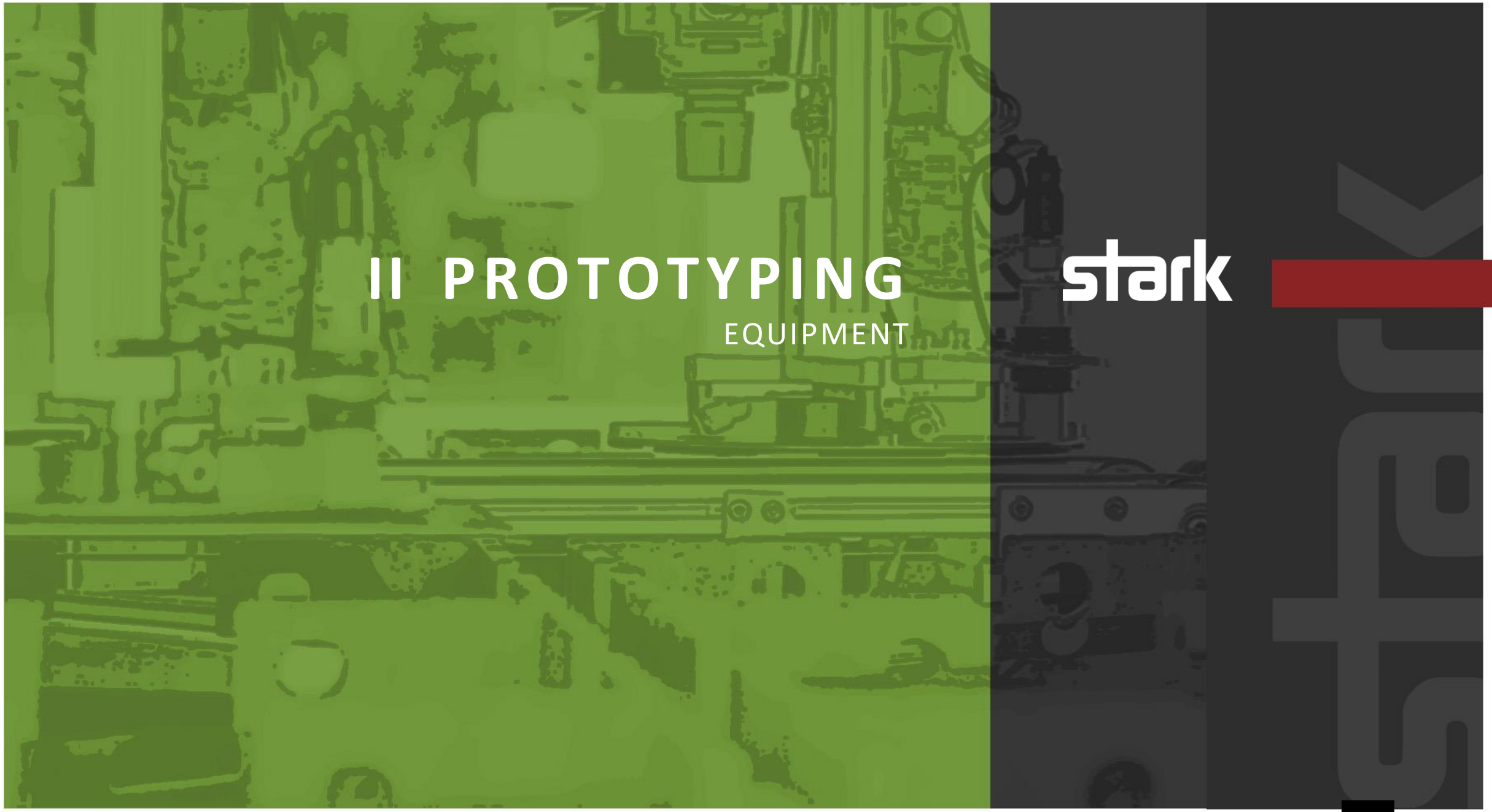
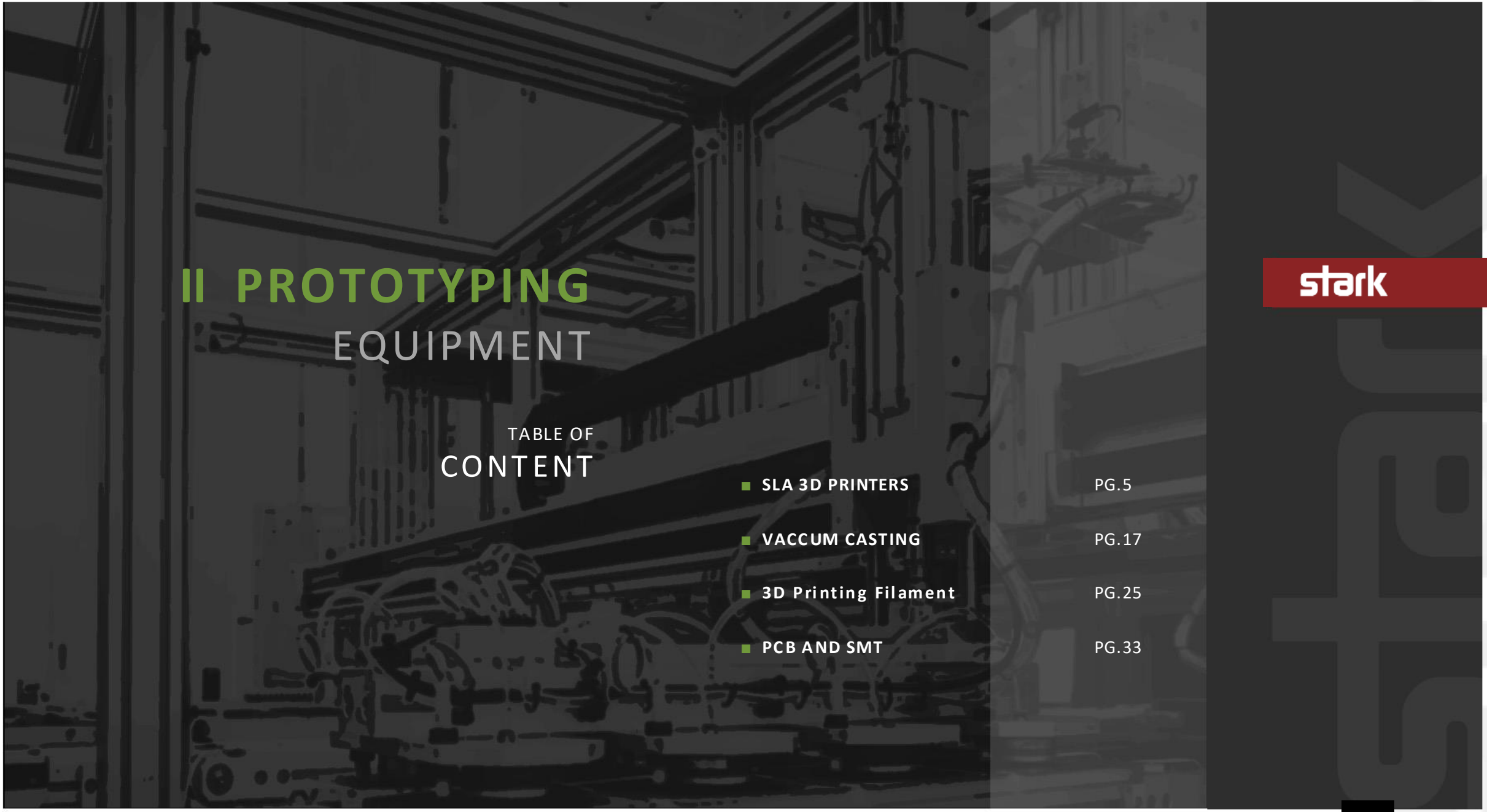

stark
TESTING
PROTOTYPING
SINGLE
EQUIP
MENT



II PROTOTYPING

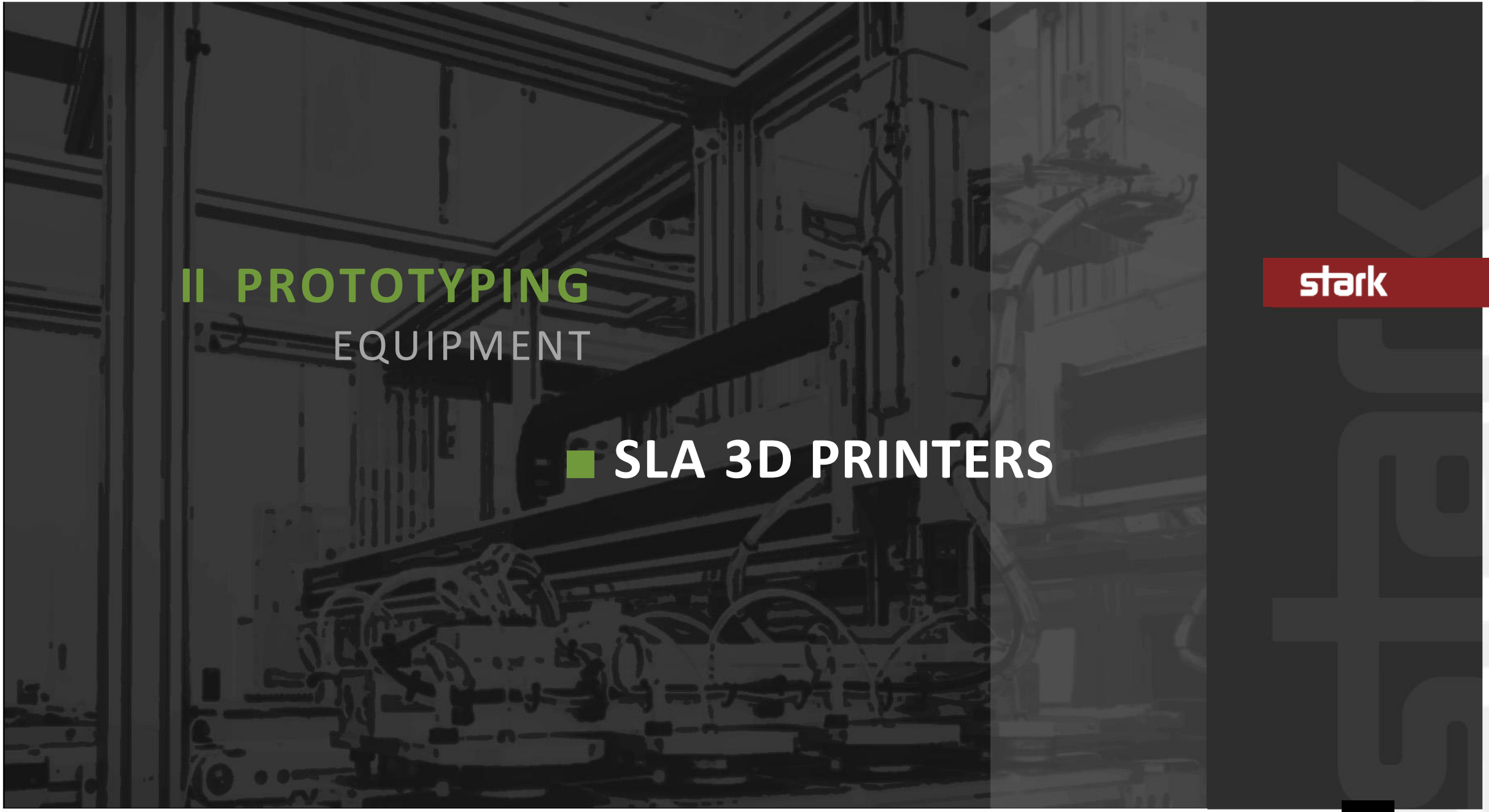
EQUIPMENT



II PROTOTYPING
EQUIPMENT

TABLE OF
CONTENT

- SLA 3D PRINTERS PG.5
- VACCUM CASTING PG.17
- 3D Printing Filament PG.25
- PCB AND SMT PG.33



II PROTOTYPING
EQUIPMENT

- SLA 3D PRINTERS

SLA 3D PRINTER

FEATURES

- Stereo lithography Appearance (SLA) is a member of the vat photopolymerization family of processes for additive manufacturing
- In Stereo lithography Appearance (SLA), UV lasers are used as the light source to selectively cure a polymer resin.
- Best Value Ever in SLA History

SLA 3D PRINTER

Stark Pro Series

Stark Pro 600	
Technology	Stereolithography (SLA)
Build Volume	600 x 600 x 500 mm (23.6 x 23.6 x 19.7 in)
Precision	L<100 mm: ±0.1 mm, L≥100 mm: ±0.1% x L
Layer Thickness	0.05 - 0.25 mm
Material	355 nm Photosensitive Resin
Typical Scanning Speed	8-15 m/s
Temperature Range	22–26 °C (72–79 °F)
Relative Humidity	< 40% Non-condensing
Resin Vat	Manually Replacing
Rated Power	4.2 kVA
Machine Size (W x D x H)	1550 × 1600 × 2115 mm
Machine Weight	1490 kg

A New Dimension in SLA 3D Printing

Architecture Parts

Foot Skeleton

Ttransparent Cup

Casting Part

Eagle Model

SLA 3D PRINTER

Stark Pro Series

Stark Pro 800	
Technology	Stereolithography (SLA)
Build Volume	800 x 800 x 550 mm (31.5 x 31.5 x 21.7 in)
Precision	L<100 mm: ±0.15 mm, L≥100 mm: ±0.2% x L
Layer Thickness	0.07 - 0.25 mm
Material	355 nm Photosensitive Resin
Typical Scanning Speed	6-12 m/s
Temperature Range	22–26 °C (72–79 °F)
Relative Humidity	< 40% Non-condensing
Resin Vat	Manually Replacing
Rated Power	3KVA
Machine Size (W x D x H)	1750 × 1600 × 2110 mm
Machine Weight	1440 kg

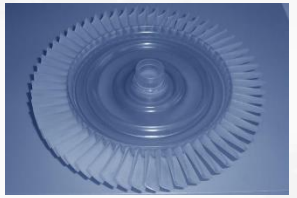
Industrial SLA 3D Printer

Pprecision manufacturing parts

Culture and creative parts

Industrial Parts

Automative Parts



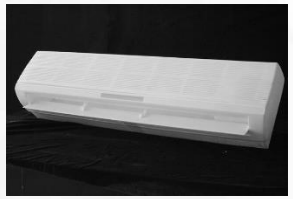
SLA 3D PRINTER

Stark Pro Series

Stark Pro 1400	
Technology	Stereolithography (SLA)
Build Volume	1400 x 700 x 500 mm (55.1 x 27.6 x 19.7 in)
Precision	L<100 mm: ±0.2 mm, L≥100 mm: ±0.2% x L
Layer Thickness	0.1 - 0.25 mm
Material	355 nm Photosensitive Resin
Typical Scanning Speed	6-10 m/s
Temperature Range	22–26 °C (72–79 °F)
Relative Humidity	< 40% Non-condensing
Resin Vat	Fixed
Rated Power	3.9 kVA
Machine Size (W x D x H)	1885 × 1835 × 2100 mm
Machine Weight	1907 kg

Large-format SLA 3D Printer

Air Condition Parts



Washing machine parts

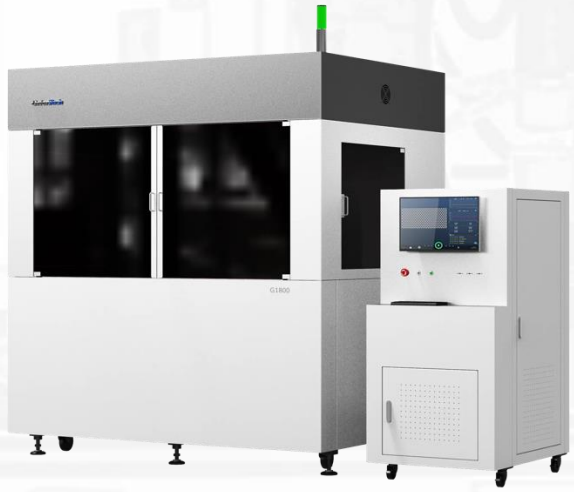
Industrial Parts

Electronic Iron Parts

SLA 3D PRINTER

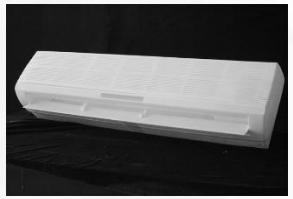
Stark Pro Series

Stark Pro 1800	
Technology	Stereolithography (SLA)
Build Volume	1800 x 900 x 600 mm (70.9 x 35.4 x 23.6 in)
Precision	L<100 mm: ±0.2 mm, L≥100 mm: ±0.2% x L
Layer Thickness	0.1 - 0.25 mm
Material	355 nm Photosensitive Resin
Typical Scanning Speed	8-15 m/s
Temperature Range	22–26 °C (72–79 °F)
Relative Humidity	< 40% Non-condensing
Resin Vat	Fixed
Rated Power	4.7 kVA
Machine Size (W x D x H)	2305 × 1630 × 2465 mm
Machine Weight	2080 kg



Large-format Industrial 3D Printer

Air Condition Parts



Washing machine parts

Industrial Parts

Electronic Iron Parts

SLA 3D PRINTER

Stark Pro Series

Stark Pro 2100	
Technology	Stereolithography (SLA)
Build Volume	2100 x 700 x 800 mm (82.7 x 27.6 x 31.5 in)
Precision	L<100 mm: ±0.2 mm, L≥100 mm: ±0.2% x L
Layer Thickness	0.1 - 0.25 mm
Material	355 nm Photosensitive Resin
Typical Scanning Speed	8-15 m/s
Temperature Range	22–26 °C (72–79 °F)
Relative Humidity	< 40% Non-condensing
Resin Vat	Fixed
Rated Power	5.4 kVA
Machine Size (W x D x H)	2630 × 1945 × 2765 mm
Machine Weight	2520 kg

Large SLA 3D Printer

Aeronautical parts

automotive parts

Outdoor Designs

Glass

SLA 3D PRINTER P Series

Stark P 250	
Technology	Stereolithography (SLA)
Build Volume	250 x 250 x 250 mm (9.8 x 9.8 x 9.8 in)
Precision	L<25.4 mm: ±0.025 mm, L≥25.4 mm: ±0.1% x L
Layer Thickness	0.05 - 0.25 mm
Material	355 nm Photosensitive Resin
Typical Scanning Speed	6-10 m/s
Temperature Range	22–26 °C (72–79 °F)
Relative Humidity	< 40% Non-condensing
Resin Vat	Manually Replacing
Rated Power	2.4 kVA
Machine Size (W x D x H)	1090 × 1000 × 1850 mm
Machine Weight	726 kg

Industrial SLA 3D Printer

stark

Wing

Geometry parts

Medical Model

Engineering Parts

SLA 3D PRINTER P Series

Stark P 450	
Technology	Stereolithography (SLA)
Build Volume	450 x 450 x 400 mm (17.7 x 17.7 x 15.7 in)
Precision	L<100 mm: ±0.1 mm, L≥100 mm: ±0.1% x L
Layer Thickness	0.05 - 0.25 mm
Material	355 nm Photosensitive Resin
Typical Scanning Speed	6-10 m/s
Temperature Range	22–26 °C (72–79 °F)
Relative Humidity	< 40% Non-condensing
Resin Vat	Manually Replacing
Rated Power	3 kVA
Machine Size (W x D x H)	1310 × 1290 × 2135 mm
Machine Weight	945 kg

Large SLA 3D Printer

stark

Glass parts

architecture parts

Decoration Parts

Creative Prototyping

SLA 3D PRINTER L Series

Stark L 800	
Technology	Stereolithography (SLA)
Build Volume	800 x 800 x 550 mm (31.5 x 31.5 x 21.7 in)
Precision	L<100 mm: ±0.1 mm, L≥100 mm: ±0.1% x L
Layer Thickness	0.05 - 0.25 mm
Material	355 nm Resin Material
Typical Scanning Speed	8-15 m/s
Temperature Range	22–26 °C (72–79 °F)
Relative Humidity	< 40% Non-condensing
Resin Vat	Manually Replacing / Fixed
Rated Power	2.8 kVA
Machine Size (W x D x H)	1555 × 1445 × 2215 mm
Machine Weight	1050 kg

Industrial SLA 3D Printer

Industrial parts

Decoration parts

Automotive lamp

Automotive Parts

SLA 3D PRINTER L Series

Stark L 600	
Technology	Stereolithography (SLA)
Build Volume	600 x 600 x 400 mm (23.6 x 23.6 x 15.7 in)
Precision	L<100 mm: ±0.1 mm, L≥100 mm: ±0.1% x L
Layer Thickness	0.05 - 0.25 mm
Material	355 nm Resin Material
Typical Scanning Speed	8-15 m/s
Temperature Range	22–26 °C (72–79 °F)
Relative Humidity	< 40% Non-condensing
Resin Vat	Manually Replacing / Fixed
Rated Power	2.6 kVA
Machine Size (W x D x H)	1375 × 1295 × 1930 mm
Machine Weight	850 kg

Industrial SLA 3D Printer

AUTO parts

Casting parts

Medical Protector

Transparent parts

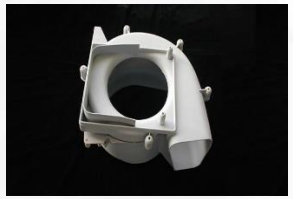
SLA 3D PRINTER L Series

Stark L 600-2	
Technology	Stereolithography (SLA)
Build Volume	600 x 600 x 400 mm (23.6 x 23.6 x 15.7 in)
Precision	L<100 mm: ±0.15 mm, L≥100 mm: ±0.2% x L
Layer Thickness	0.05 - 0.25 mm
Material	355 nm Resin Material
Typical Scanning Speed	8-15 m/s
Temperature Range	22–26 °C (72–79 °F)
Relative Humidity	< 40% Non-condensing
Resin Vat	Fixed
Rated Power	2.6 kVA
Machine Size (W x D x H)	880 × 1280 × 1895 mm
Machine Weight	760 kg

Industrial SLA 3D Printer

stark

Automotive Parts



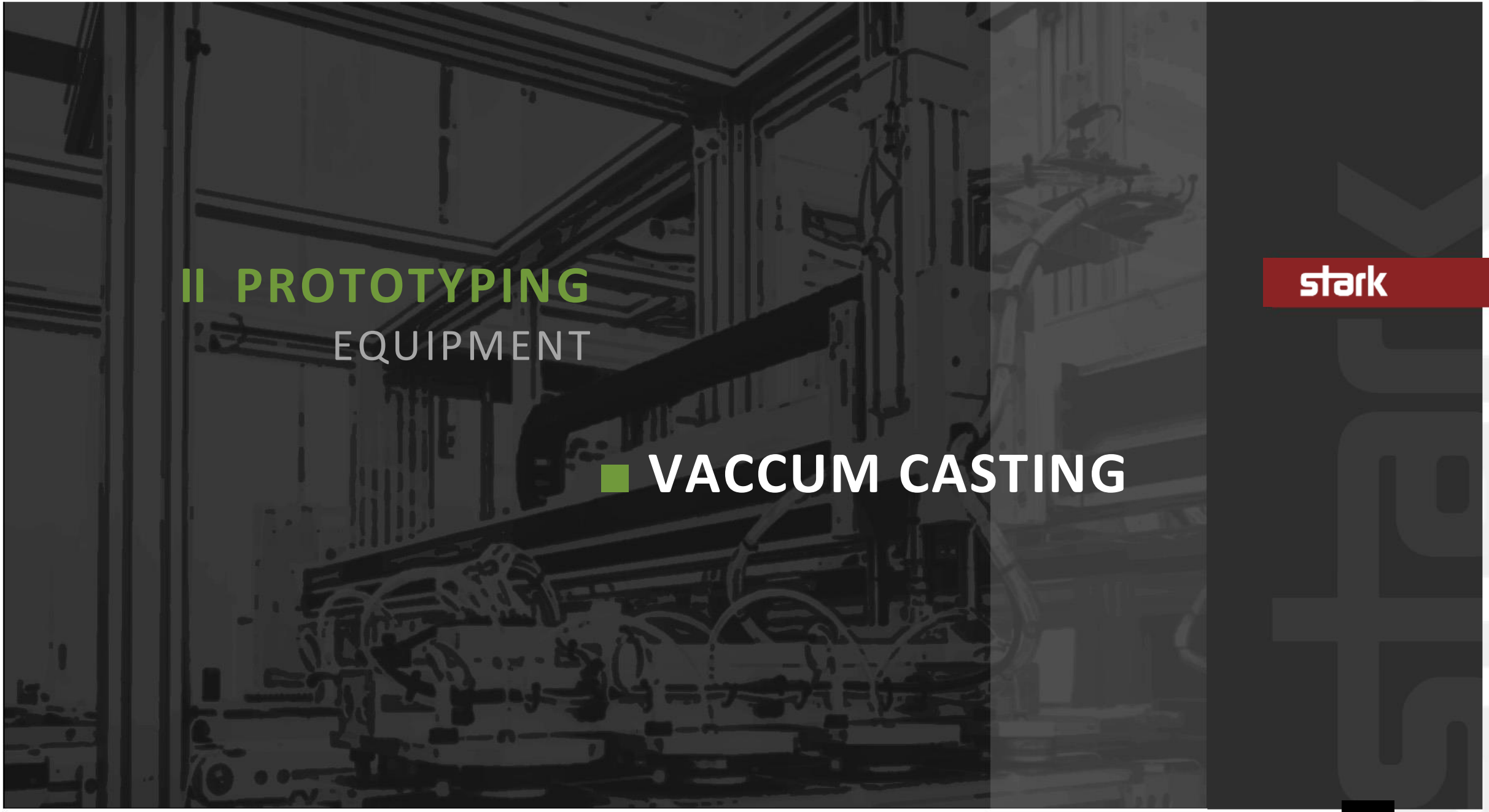
Bottles prototyping

Hand Skeleton

Engineering Parts

SLA 3D PRINTER L Series

	Stark L 100	Stark L 300	Stark L 450
Technology	Stereolithography (SLA)	Stereolithography (SLA)	Stereolithography (SLA)
Build Volume	100 x 100 x 100 mm (3.9 x 3.9 x 3.9 in)	300 x 300 x 200 mm (11.8 x 11.8 x 7.9 in)	450 x 450 x 350 mm (17.7 x 17.7 x 13.8 in)
Precision	L<100 mm: ±0.1 mm, L≥100 mm: ±0.1% x L	L<100 mm: ±0.1 mm, L≥100 mm: ±0.1% x L	L<100 mm: ±0.1 mm, L≥100 mm: ±0.1% x L
Layer Thickness	0.05 - 0.25 mm	0.05 - 0.25 mm	0.05 - 0.25 mm
Material	355 nm Resin Material	355 nm Resin Material	Resin of 355 nm Material
Typical Scanning Speed	6-10 m/	6-10 m/s	8-15 m/s
Temperature Range	22–26 °C (72–79 °F)	22–26 °C (72–79 °F)	22–26 °C (72–79 °F)
Relative Humidity	< 40% Non-condensing	< 40% Non-condensing	< 40% Non-condensing
Resin Vat	Manually Replacing	Manually Replacing	Manually Replacing
Rated Power	1.8 kVA	2.6 kVA	2.6 kVA
Machine Size (W x D x H)	905 × 855 × 1630 mm	1155 × 1055 × 1915 mm	1225 × 1155 × 1975 mm
Machine Weight	597 kg	850 kg	790 kg



II PROTOTYPING
EQUIPMENT

- VACCUM CASTING

VACCUM CASTING MACHINE

VACUUM CHAMBER

When requiring multiples and parts in other colors and materials, the Vacuum Casting Process can help enormously to produce any number of parts, in any color and in any type of material

FEATURES

- Wide range of products
- Different control options
- Metal housing with powder-coated finish
- usable as a vacuum chamber
- Automatic control model
- Economical control mode
- Optional Differential Pressure

VACCUM CASTING MACHINE

VACUUM CHAMBER ST400

ST 400 M:

- an economically affordable and effective start-up model
- manual control facility
- manual fully integrated
- Ideal for training and development purposes

OPTIONAL:

- Pedestal underframe.

ST 400 A:

- economically affordable production model for small casting mould sizes
- removable casting system and thus employable as just a vacuum chamber (not as 'AD')
- 'PLC' control facility
- graphic display
- ideal for prototypes and small series.

OPTIONAL:

- Pedestal underframe.
- wax cup,
- turntable

THE ST 400 VACUUM CHAMBER DIFFERENTIAL PRESSURE MODEL:

- The ST 400 Manual and Automatic Models also have a differentiated pressure
- version with integrated differential pressure board.
- The differential pressure versions are available in ST 400 MD and ST 400 AF versions
- und are especially suitable for viscous working materials.

VACCUM CASTING

VACUUM CHAMBER ST 400

Technical Specifications

ST 400	
Dimensions (H x W x D) in mm	
Mould interior space volume:	360x400x460
Chamber internal volume:	700x400x460
External dimensions:	1100x790x530
Exhaust ventilation time:.	90 secs
Input aerating time:	20 secs
Vacuum chamber ultimate pressure:	0,5 mbar
Pump capacity:	25 m^3/h
ST 400 M:	
Casting volume:	600m
Elec. rating / capacity:	230 V / 50 Hz
Control facility:	manual
ST 400 A:	
Casting volume:	600ml or 1000ml
Elec. rating / capacity:	400 V / 50 Hz
Control facility	: 'PLC', graphic display, automation mode, parameter , programming with (20 programs).
ST 400 MD/AD:	
Differential pressure facility	

VACCUM CASTING MACHINE

VACUUM CHAMBER ST 1000

ST 1000 M:

- an economically affordable and effective start-up model
- control via operating buttons
- removable casting module
- ideal for training and development.

ST 1000 A:

- 'PLC' control facility
- display and control panel via touchscreen with recording function (the production process is recorded once and can then be saved, stored and repeated

Features:

- casting volume capacities: 600 ml, 1000 ml and 2000 ml
- removable casting module
- metal housing with powder-coated finish
- entire interior chamber without the module
- is usable as a vacuum chamber

Optional:

- pedestal underframe
- differential pressure facility
- wax cup
- wax module
- attachable extra chamber
- electrical lifting gear
- turntable

OPTIONAL DIFFERENTIAL PRESSURE:

- The ST 1000 Basic and Automatic Models are also available in differentiated pressure versions with integrated differential pressure boards.
- The differential pressure versions are especially suitable for viscous working materials.

VACCUM CASTING

VACUUM CHAMBER ST 1000

TECHNICAL SPECIFICATIONS

ST 1000	
Dimensions (H x W x D) in mm	
Mould interior space volume:	500x600x670
Chamber internal volume:	1000x600x670
External dimensions:	1300x1100x750
Exhaust ventilation time:.	90 secs
Input aerating time:	20 secs
Vacuum chamber ultimate pressure:	0,5 mbar
Pump capacity:	40 m^3/h
Elec. rating / capacity:	400 V / 50 Hz
Overall elec. Connection rating:	3 KVA approx
Maximum:	16 A
Elec. current supply:	3-phase N. PE
ST 1000 M:	
Control facility:	manual
ST 1000 A:	
Control facility:	'PLC', graphic display, automation mode, parameter programming with 20 programs.
ST 1000 MD/AD:	
Differential pressure facility	

VACCUM CASTING MACHINE

VACUUM CHAMBER ST 1500

Optional:

- Pedestal underframe
- differential-pressure version
- wax cup
- wax module
- attachable extra chamber
- electrical lifting gear
- turntable

ST 1500:

- Production equipment, Touchscreen display
- The casting system can be mounted on lifting gear
- casting volume capacities: 600 ml, 1000 ml and 2000 ml
- removable casting module
- metal housing with powder-coated finish
- bright interior illumination
- entire interior chamber without the module is usable as a vacuum chamber

DIFFERENTIAL PRESSURE:

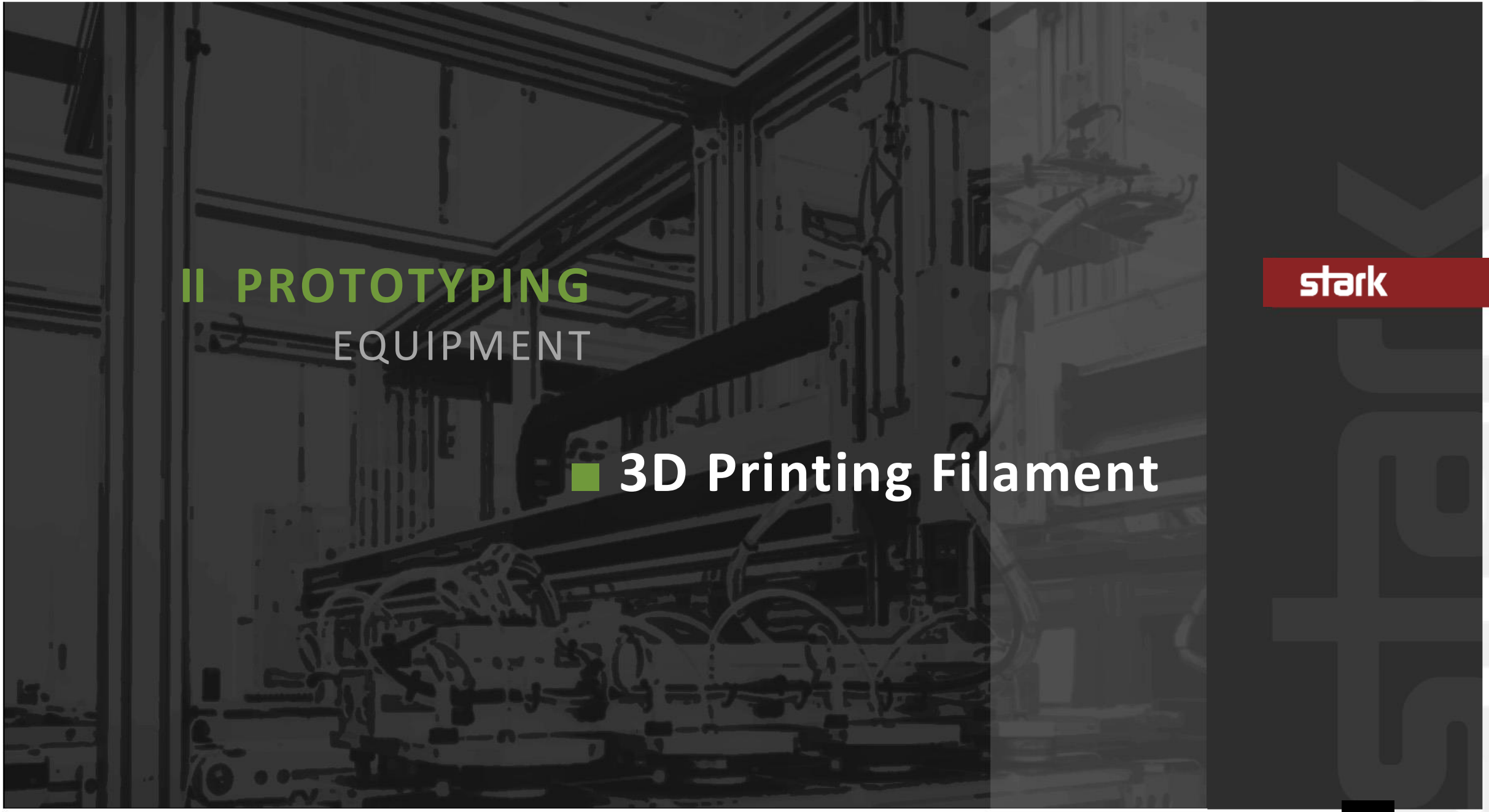
- This Model is also available in a differential-pressure version with integrated differential pressure board. The differential-pressure version is supplied without lifting gear.
- The differential pressure versions are especially suitable for viscous working materials.

VACCUM CASTING

VACUUM CHAMBER ST 1500

TECHNICAL SPECIFICATIONS

ST 1500	
Dimensions (H x W x D) in mm	
Mould interior space volume:	700x1000x800
Chamber internal volume:	1200x1000x800
External dimensions:	1500x1500x900
Exhaust ventilation time:.	240 secs.
Input aerating time:	20 secs
Vacuum chamber ultimate pressure:	0,5 mbar
Pump capacity:	100 m^3/h
Elec. rating / capacity:	400 V / 50 Hz
Overall elec. Connection rating:	3 KVA approx
Maximum:	16 A
Elec. current supply:	3-phase N. PE
ST 1500 AD:	
Differential pressure facility	



II PROTOTYPING
EQUIPMENT

- 3D Printing Filament

SHREDDER

STRONG GRANULATORS

FEATURES

- Blade are made of reliable material, SKD1 1, through special manufacture process and heat treatment, the blades become more durable.
- Special claw and paddle blade designs can crush any hard or soft material extremely easier.
- Adjustable blade can be sharpened up while blunt and reused
- The separation design of the crushing chamber and material bin allow the mesh screen to discharge and clean easily.
- It has a unique cooling water cycle system, which transfers the heat produced to outside area, can prevent granulated material from lumping efficiently.
- Small type is equipped with castor for easy moving, while heavy type equipped with adjustable level pads to keep stability when working.
- The whole machine is made of stainless steel.
- Heavy burden type bearing with oil-sealed device and sound proof ply can keep the unit from shocking and noise and prevent the material from pollution.
- Equipped with protective device for motor and chained power-off system to ensure safe operation, and also equipped with protective device for the safe cleaning.

SHREDDER

STRONG GRANULATORS

TECHNICAL SPECIFICATIONS						
Model	ST SHRED-4	ST SHRED-10	ST SHRED-15	ST SHRED-20	ST SHRED-30	ST SHRED-40
Motor Power: kw	3	7.5	11	15	22	30
Rotating speed: rpm	650	650	650	530	530	530
Material of blades:	SDK-11	SDK-11	SDK-11	SDK-11	SDK-11	SDK-11
Quantity of Rotating Blades:	3X1 / 3x5	3x2 / 3x6	3x2 / 3x7	3x2 / 3x8	3x2 / 3x10	3x2 / 3x11
Quantity of Fixed Blades:	2x1	2x2	2x2	2x2	2x2	2x2
Cutting chamber: mm	315x180	360x262	420X280	480X360	600X360	660X420
Max. Output: kg/hr	70-150	100-200	150-300	170 -350	200-450	250-500
Regrind Conveyor	optional	optional	optional	optional	optional	optional
Cooling Device	-	-	yes	yes	yes	yes
Full-receiver alarm device	Optional	optional	optional	optional	optional	optional
Feed hopper with magnet	Optional	optional	optional	optional	optional	optional
Dust separator	Optional	optional	optional	optional	optional	optional
Weight: kg	395	540	950	1090	1580	1650
Screen size: mm	8	8	8	10	10	10
Dimensions: mm	980x742x1260	1100x788x1442	1325><910><1550	1560x960x1828	560><1025><1828	1700l<1200x1920

EXTRUDER

PLASTIC EXTRUSION MACHINE

HIGHLIGHTS

The Filament Maker is a compact solution that allows for experimentation and development of new 3D-printing materials. It's an essential tool for educational institutions, technical departments, and research labs looking to push the boundaries of 3D printing technology

Features

- **High-Temperature Capacity:** Reaches up to 450°C, accommodating a broad range of materials for diverse 3D printing applications
- **Wide range of material :** it is suitable for processing materials like PEEK / PETG / PEKK, as well as all the low temp. materials such as PLA / ABS / PET / PETG / TPU / TPE, etc.
- **Precision Diameter Control:** Delivers filament diameters from 0.5 to 3.0 mm with a tight tolerance of 0.05 mm, ensuring consistent print quality.
- **Durable Extruder Screw:** Features a swappable, nitride-hardened steel screw for long-term performance and the ability to create complex material blends.
- **Multi-Zone Heating:** The advanced heating system with up to 4 zones allows for precise material processing.
- **Material Mixing Option:** An optional section for mixing materials enables the creation of custom filaments with unique properties
- **Flexible Start Modes**: Offers automatic and manual start options for extrusion, catering to different user preferences.

Filament Extruder

PLASTIC EXTRUSION MACHINE

ST Filament Maker C Series

The Filament Maker c Series targets material mixing and experimentation , allowing innovators to develop custom filament from a wide variety of polymers and additives. With a mixing screw, this delivers quality material compounding.

Purpose: For mixing, compounding & experimentation

Screw: Mixing screw

Supported Materials:
350 series: Supports PLA, ABS, PS, PC, PETG, TPU, TPE, PPS, PVA, and various PAs.
450 series: Includes all 350 materials plus PEEK, PEKK, PAEK, PEI, PSU, PES.

ST Filament Maker P Series

The Filament Maker P Series enables mass production of 3D printing filament with improved speeds and diameter accuracy. A high-flow extruder screw allows the filament to be produced at high speeds while maintaining diameter precision.

Purpose: For high-quality mass production

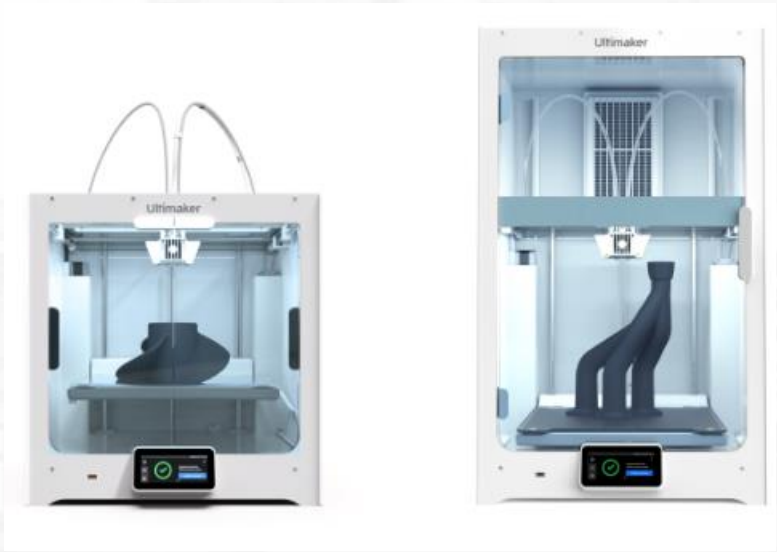
Screw: High-flow screw

Supported Materials:
350 series: Supports PLA, ABS, PS, PC, PETG, TPU, TPE, PPS, PVA, and various PAs.
450 series: Includes all 350 materials plus PEEK, PEKK, PAEK, PEI, PSU, PES.

Filament Extruder

TECHNICAL SPECIFICATIONS		
Heating System	Temperature max. Band heater Heating zones Independent controls	350 series max temperature of 350 °C 450 series max temperature of 450 °C Ceramic 4 Yes
Output	RPM range Filament diameter range Optical sensor accuracy Nozzle extruder	2 - 15 RPM 0.5 - 3 mm (0.02 - 0.12 inches) 43 microns (1.69 mils) Diameter 4 mm (0.16 inches) - Replaceable
Extruder System	Screw/Barrel alloy Hardening treatment Compression Extruder design Material mixing zone	High chromium and molybdenum steel alloy Nitrided 3 stage Swappable Composer series ONLY
Energy	Consumption average Consumption max. Voltage Frequency	300 - 400 W 1300 W 110 - 230 V 50 - 60 Hz
Capacity	Hopper volume Spool holder Spool size	2 liters 1 Diameter 240 mm (9.4 inches) Width 120 mm (4.7 inches
Size & Weight	Dimensions Weight	506 x 216 x 448 mm 19.2 x 8.5 x 17.6 inches Extruder (Without box) 24.5 kg (54 lbs) Extruder + box 27 kg (59.5 lbs)
Connection	Firmware updates Extrusion data analysis Connectivity	Regular updates DevoVision application USB

Filament 3D Printer



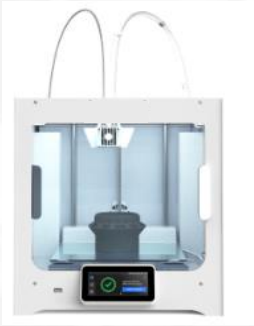
DESCRIPTION

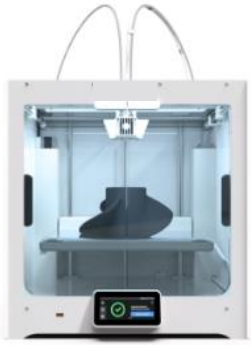
Your perfect tool to explore new 3D printing applications. Our printer combines ease of use with versatility, making it possible for you to pick, click, and print from up to 280 materials to meet a wide range of requirements. The possibilities for innovation are endless. And with the 3d Filament Printer , they're limited only by your own imagination.

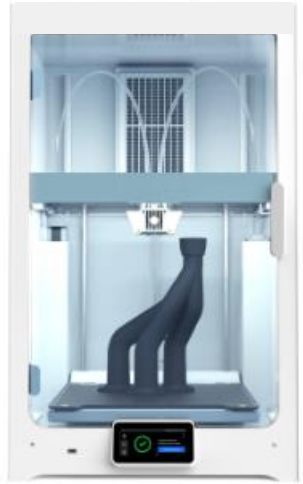
FEATURES

- **Free enterprise software tools:**
  Upgrade to a powerful suite of online software tools that help you to do more with the 3D printer. Stay in control. Gain more flexibility. Streamline your production
- **Up to 280 materials (2.85 mm):**
  Any 2.85 mm filament works with the printer hardware, and an expanding selection of materials with print profiles from the Marketplace guarantee print success every time.
- **Future-proof with regular updates:**
  Your printers will get better with age. New 3D printing workflow improvements are already planned via regular software and firmware updates for years to come.

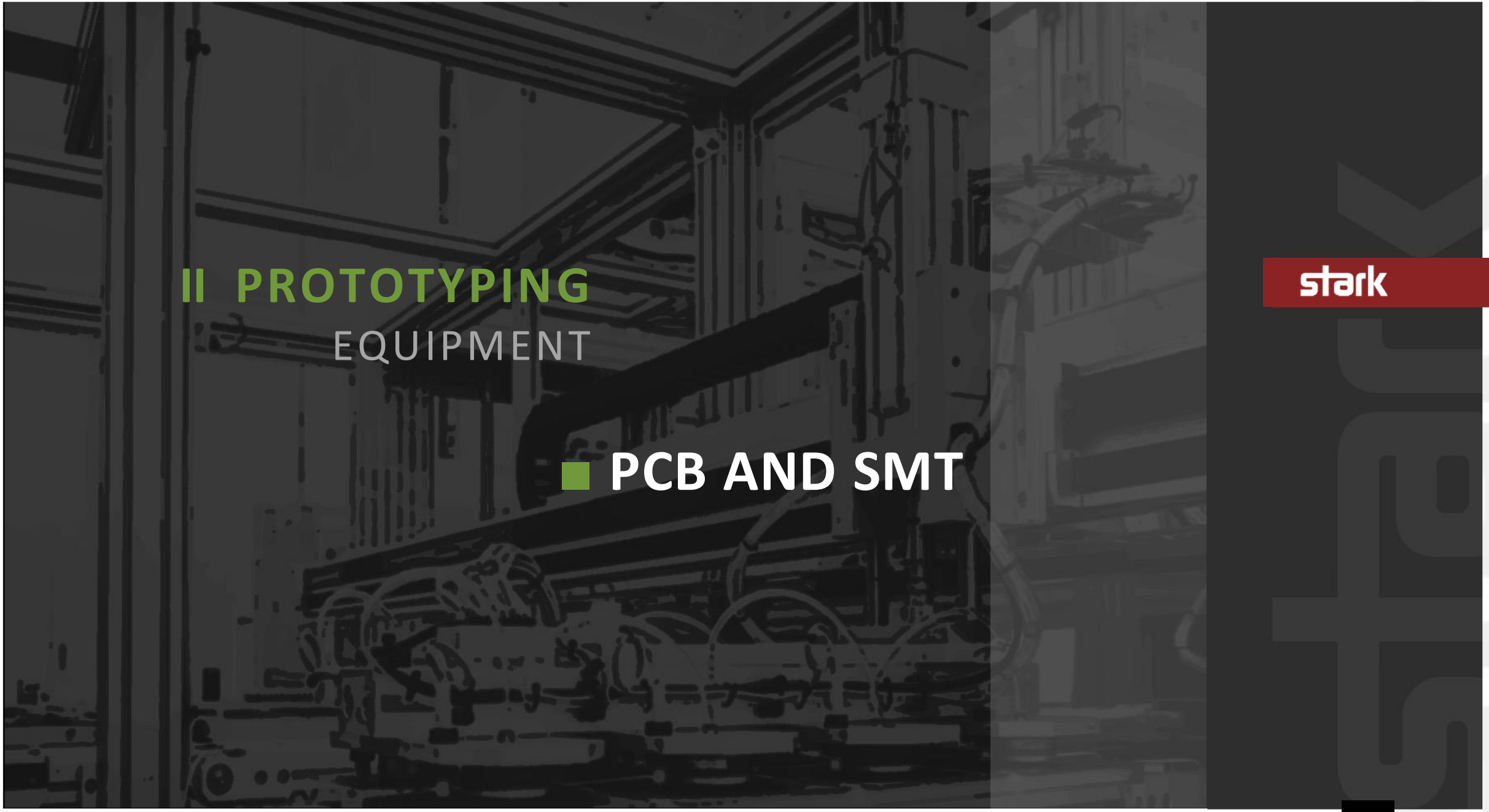
Filament 3D Printer







	Stark S3	Stark S5	Stark S7
Build volume (XYZ)	230 x 190 x 200 mm	330 x 240 x 300 mm	330 x 240 x 300 mm
Build chamber	Partly enclosed , Passively heated	Partly enclosed, Passively heated	Fully enclosed , Passively heated
Build plate	Glass	Glass	Flexible steel
Extrusion	Bowden dual extrusion	Bowden dual extrusion	Bowden dual extrusion
Print cores & nozzles	Swappable print cores Optional composite & métal	Swappable print cores Optional composite & métal	Swappable print cores Optional composite
Compatible materials	190+	280+	280+
Spool holder	NFC-enabled for 2 spools	NFC-enabled for 2 spools	NFC-enabled for 2 spools
Air filtration	-	Optional Air Manager	Integrated Air Manager
Layer resolution	0.25 mm nozzle: 150 - 60 micron 0.4 mm nozzle: 200 - 20 micron 0.6 mm nozzle: 300 - 20 micron 0.8 mm nozzle: 600 - 20 micron	25 mm nozzle: 150 - 60 micron 0.4 mm nozzle: 200 - 20 micron 0.6 mm nozzle: 300 - 20 micron 0.8 mm nozzle: 600 - 20 micron	0.25 mm nozzle: 150 - 60 micron 0.4 mm nozzle: 200 - 20 micron 0.6 mm nozzle: 300 - 20 micron 0.8 mm nozzle: 600 - 20 micron
Nozzle diameters	0.25 mm, 0.4 mm, 0.6 mm, 0.8 mm	0.25 mm, 0.4 mm, 0.6 mm, 0.8 mm	0.25 mm, 0.4 mm, 0.6 mm, 0.8 mm



II PROTOTYPING
EQUIPMENT

- **PCB AND SMT**

Stark CNC 350

PCB AND SMT LINE

CNC PRINTED CIRCUIT BOARD (PCB) PROTOTYPING MACHINE

DESCRIPTION

For PCBs prototyping and small series processing by drilling and milling Equipment suitable for analogue- digital- RF- and microwave applications as well as for aluminum and plastic
front panel engraving plastic Film cutting and engraving contour-routing blind slot engraving assembled PCBs depanelizing with precise depth-control function.

OVERVIEW

- High speed spindle made in Germany max. 80000 rpm adjustable
- Standstand data processing software CircuitCAM 7
- Standing machine hood
- Vacuum cleaner
- Industrial control PC and display
- Granite basement with bridge structure
- Depth limit function with contact coaxial limiter
- X/Y-axis high precision Servo motor drive
- With W-axis for depth control
- Camera supported automatic fiducial recognition
- Automatic stop function upon opening door
- Automatic Tool exchange 20 positions with camera supported calibration

PCB AND SMT LINE

CNC PRINTED CIRCUIT BOARD (PCB) PROTOTYPING MACHINE

TECHNICAL DATA

- Minimum track size: 0.075mm / 0.1mm (3mil/4mil)
- Minimum hole diameter: 0.15mm (6mil)
- Working area: 305mm x 230mm
- Resolution for motion and control system: 0.5µm
- Accuracy of repeatability: ≤ ±2µm
- Positioning accuracy: ≤ ±10µm
- Drilling speed: 150 strokes/min
- Traveling speed: 250mm/s

OPERATING ENVIRONMENT

- Electricity: 220VAC/50Hz
- Main power: 1.6kW
- Weight: 200kg
- Machine Hood dimensions (L/W/H): 850mm×900mm×1450mm
- Machine Hood dimensions with PC Monitor and door open (L/W/H): 900mm×1400mm×1450mm

PCB AND SMT LINE

LASER PCB PROTOTYPING MACHINE

Stark Laser U2

MULTIFUNCTIONAL MICROFABRICATION EQUIPMENT

Stark Laser U2 is compact and easy to install. X, Y and Z motion systems are ingeniously mounted on granite components. Linear motors are used as power, taking into account both accuracy and stability.

FEATURES

- Precise control of laser parameters , CAD data driven Laser, flexible production, good at prototyping and mass production
- High quality ceramics cutting, perfect for processing special materials, LTCC hole drilling, high quality ceramics cutting
- High quality, high precision, multifunctional, high performance high quality, high precision, suit for a variety of applications and materials
- High precision drive system, high configuration based on classic structure, natural granite base, high precision drive system, stable and reliable
- Integration of exclusive software , the exclusive DCT software as a performance amplifier ensured smooth and easily data processing and equipment control

PCB AND SMT LINE

LASER PCB PROTOTYPING MACHINE

TECHNICAL DATA

- Laser wavelength: 355nm
- Repetitive accuracy: ≤±2µm
- Scan field X/Y resolution: 1µm
- X/Y resolution: ≤0.5µm
- Working area: 350mm x 300mm
- Data acceptance: Gerber, HPGL, Sieb & Meier, Excellon, ODB++, DXF
- Platform structure: Granite table, cross structure
- Dimension (W x H x D): 1,000mm x 850mm x 1,430mm
- Weight: Approx. 750kg

OPERATING AMBIENT

- Power requirements: 380VAC/50Hz, 3kW
- Ambient temperature: 22°C±2°C

CONFIGURATION & OPTIONS

- Data processing software: CircuitCAM 7
- Machine operating software: Dream Creator 3
- Automatic feeding: Optional
- Laser height measurement: Optional
- Camera automatic positioning: Included
- Exhaust unit: 210m3/hr, 220V, 1.5kW
- Workpiece fixture: Vacuum table, customizable fixture

PCB AND SMT LINE

PCB SURFACE CLEANING MACHINE

DESCRIPTION

Professional brushing machines at reasonable prices are possible. This series have height adjustable brushes, adjustable oscillation and transport speed as well as fully wipe and dry zones. Suitable for all cleaning steps in PCB or printing industry.

FEATURES

- High quality brush roll, PCB Industrial special roller, long life, good brushing effect
- Professional inverter drive unit, high speed, low noise
- Controllable brush width, brush height and pressure adjustable, uniform and controllable brush width
- Optional water circulation base, water circulation base as option available, it can be used without water-wastewater system

PCB AND SMT LINE

PCB SURFACE CLEANING MACHINE

TECHNICAL SPECIFICATIONS		
Model	ST SCM 300	ST SCM 300B
Board thickness	0.2~4mm	0.2~4mm
Max. Board width	300mm	300mm
Conveyor speed	0.2~2m/min	0.2~2m/min
Oscillation stroke	10mm	10mm
Oscillation frequency	0~120/min	0~120/min
Brushing roller outside diameter	Φ91mm	Φ91mm
Brushing speed	1,400rpm	1,400rpm
Dryer temperature	Max.100°C	Max.100°C
Water circulation base	No	yes
Power supply	220V/50Hz	220V/50Hz
Power consumption	2.2kW	2.2kW
Dimension(W x H x D)	760mm x 560mm x 440mm	760mm x 560mm x 440mm
Weight	45kg	45kg

PCB AND SMT LINE

DRY FILM LAMINATION MACHINE

ST D F L 400

DESCRIPTION

The series laminator is used for the lamination of photosensitive film and solder mask on PCB or other substrates. Pressure and speed can be adjusted according to different materials. It is a tabletop equipment specially designed for thermal pressing and laminating in PCB industry. The equipment can accurately control the pressing temperature, and equipped with a film roller to gather the protective film.

FEATURES

- Suitable for wide application, suitable for processing hard board, flexible board, ceramic substrate, silicon wafer, quartz glass, etc
- Suit for varieties of film, photosensitive film, solder resist film, polyimide film
- Adjustable pressure regulator, the upper and down pressure roller equipped with pressure regulator, ensure bubble-free, wrinkle free lamination
- Easy loading and unloading, easy loading and unloading with stepless speed adjustment

TECHNICAL DATA

Lamination width	Max. 400mm
Board thickness	0.2 ~ 3mm
Lamination speed	0.2 ~ 1.2m/min
Temperature range	20 ~ 200°C
Power supply	220VAC/50Hz, 0.7kW
Dimension (W x H x D)	790mm x 590mm x 550mm
Weight	35kg

PCB AND SMT LINE

UV EXPOSURE UNIT

ST UV 3040

DESCRIPTION

The unit is a professional unit. Composed of 12 UV tubes (6 on the top 6 on the bottom) a vacuum pump an electronical timer with digital display a drawer including a graphic window and a mylar the whole mounted on ball-bearing slides. The drawer conception permits to save space. All those elements mean optimal performance of the machine. Can be used as a single sided version.

FEATURES

- Safety contact if opening
- High precision
- Drawer system (can be slot in TECHLAB module)
- Electronic timer with digital display
- Working area: 300 x 400 mm
- Pressure by vacuum (pump included)
- Professional model
- Ergonomic and very easy to use

PCB AND SMT LINE

UV EXPOSURE UNIT

TECHNICAL DATA

- Working area: 300 x 400 mm
- Pressure: Vacuum
- Application: Single or double side
- U.V. Source: 12 x 1 5 W
- Power: 250 W
- Timer: Electronic
- Dimensions: 570 x 600 x 210 mm
- Electrical supply: 230 V - 50/60 Hz
- Weight: 34 Kg

OPTIONS & ACCESSORIES

Product kit for exposure unit

- FR4 presensitized 2F 16/10 35 µm 200 x 300 mm AB20
- Plastic tray economy series AR23
- AR19 black direct engraving pen
- Positive developer bag for 1 liter AR45
- Latex gloves medium size bag of 100 AR219

Maintenance kit for exposure unit

- Screen cleaner spray 250 ml V800041
- Package of 50 rags multi-purpose lint-free F42117
- Replacement Mylar for Exposure unit DP20

Spare part (option) :

- Spare Mylar for UV exposure units

PCB AND SMT LINE

WET PROCESS PCB ETCHING MACHINE

DESCRIPTION

Fast & easy developing/etching/striping equipment, according to different chemical solutions, divided into series. They can be used in PCB precision etching lines, high resolution developing, dry film stripping, surface micro etching, brown, etc. series are suit for Flex PCBs, rigid PCBs, Flex-rigid PCBs, SMT stencil etching, and shell processing.

FEATURES

- Vertical drive spray technology:
Thanks to the innovative vertical spray technology series are able to make high quality fine line to 50 µm

- Intelligent transmission times setting:
Four modes, easy to use, no need to chemical analysis, suitable for non- continuous production.

- Processing many kinds of materials:
Non-contact fixture, also suitable for flexible material.

- Environmental friendly and high safety:
No need water-wastewater system, Curtain design for protection.

PCB AND SMT LINE

WET PROCESS PCB ETCHING MACHINE

TECHNICAL SPECIFICATIONS			
Model	ST ETCH 400	ST ETCH 600	ST ETCH 300
Max. Board size	300 x 400mm	600 x 600mm	305 x 230mm
Capacity	220VAC/50Hz	20PNL/h	20PNL/h
Max. board transfer speed	28mm/s	28mm/s	-
Power consumption	Vertical cyclic chain	Vertical cyclic chain	Vertical reciprocating oscillation
Nozzle arrangement /number	Front and back each side 4 nozzle groups	Front and back each side 10 nozzle groups	Front and back each side 6 nozzle groups
Spray pressure	Front and back 2kg/cm²	Front and back 2kg/cm²	230kg
Temperature range	20-60℃	20-55℃	20-60℃
Heating power	1,000W	3,000W	1,000W
Function module	Etching/developing /striping/ micro etching, washing	Etching/developing /striping/ micro etching, washing	Etching/developing/striping/ micro etching, washing /OSP/dry
Power supply	220VAC/50Hz	380VAC/50Hz	220VAC/50Hz
Power Consumption	2.5 kW	7.5 kW	5.2 kW
Dimension	1,700 x 650 x 1,350mm	1,800 x 700 x 1,450mm	1,340 x 710 x 1,000mm
Weight	140kg	430kg	230kg

PCB AND SMT LINE

MULTILAYER PRESS MACHINE

DESCRIPTION

A high performance multilayer press series was designed for PCB labs to enable quick prototyping of multilayer PCBs according to industry standards. This was designed for high precision, varieties of multi-layer PCB. MP multilayer press is also suit for high frequency substrate with high pressure temperature, LCP and other materials, also suitable for thermoplastic, thermosetting materials such as welding resistance film, graphite, etc. it is a perfect solution for single or small batch production in the laboratory.

FEATURES

- wide adaptability and high flexibility, high temperature, high pressure, wide adaptability
- High adjustable system, precise temperature control, stable pressure, high sensitivity and adjustable system
- Efficient and easy to use, fast heating, good insulation, compact, efficient and easy to use
- Precise time matching, accurately match Temperature, pressure and time, essential equipment for multilayer PCBs
- High performance and quality, high performance and quality with reasonable price, first choice for thermal press processing

PCB AND SMT LINE

MULTILAYER PRESS MACHINE

TECHNICAL SPECIFICATIONS

TECHNICAL SPECIFICATIONS		
Model	ST MPM 300D	ST MPM 300D
Max. wiring area:	285mm x 205mm	305 mm x 230mm
Board size:	305mm x 230mm	355 mm x 280mm
Pressure:	300N/cm2	300N/cm2
Max. Temperature:	250°C	250°C
Max. layer at one time:	2	6
Max. layer:	8	8
Pressing time:	Approx.90min.	Approx.90min.
Automatic hydraulic device:	Standard	Standard
Situable substrate materials:	FR4、PTFE、LCP、 Graphite etc.	FR4、PTFE、LCP、 Graphite etc.
Power requirement:	220V/50Hz, 3kW	220V/50Hz, 3kW
Dimension (W x H x D):	550 x 550 x 700mm	600 x 600 x 1,330mm
Weight:	180kg	450kg

PCB AND SMT LINE

THROUGH-HOLE PLATING EQUIPMENT

DESCRIPTION

Hole metallization equipment, use carbon film hole metallization process, through the most simple and reliable steps such as oil removal, washing, black hole, copper plating to achieve PCB reliable interlayer conduction.

FEATURES

- Ensure more uniform plating, Arc anode ensure more uniform plating
- Revertive impulse power supply, Revertive impulse avoid “dog bones” effect
- Design makes operation easily, Humanistic design makes operation easily
- Equipped with cycle filtration, speed regulation benefit better plating quality
- Tank for OSP process, Equipped with OSP tank for OSP process

PCB AND SMT LINE

THROUGH-HOLE PLATING EQUIPMENT

TECHNICAL SPECIFICATIONS				
Model	ST THP300-B	ST THP 300- / THP 300-P	ST THP400 / THP 400D	ST THP 600D
Max. board size	230mm x 305mm	230mm x 305mm	400mm x 300mm	600mm x 600mm
Min. aperture	0.3mm	0.2 / 0.15mm	0.2mm	0.2mm
Activaton liquid	Carbon black colloids	Carbon black colloids	Carbon black colloids	Carbon black colloids
Electric power type	DC	DC/ Revertive impulse current	DC	DC
Cathode swing	None	Yes, adjustable speed	Yes, fix speed	Yes, fix speed
Anode form	Arc	Arc	Plate	Plate
Air agitation	None	Yes	Yes	Yes
Circle filtration	None	Yes	Yes	Yes
Water washing	Yes	Yes	Yes	Yes
Number of plating tank	1	1	1 / 2	4
Power supply	220VAC/50Hz	220VAC/50Hz	220VAC/50Hz	220VAC/50Hz
Power consume	1kW	1.6kW	2kW / 2.2kW	5kW
Dimension (W x H x D)	1,000mm x 600mm×470mm	1,000mm x 600mm x 470mm	1,738mm x 826mm x 1,170mm	2,000mm x 1,100mm x 1,300mm
Weight	32kg	36kg	250 / 280kg	900kg

PCB AND SMT LINE

SELECTIVE SOLDERING MACHINE

ST SSM-i1

FEATURES

- Small footprint only W990mm x D1308mm.
- Max board L350mm x W260mm.
- English Windows 10 interface.
- 3 servo motors and servo drivers for motion.
- Drop jet fluxer made in German.
- Solder pot system with capacity 15kgs.
- Wave height calibration system.
- Bottom IR preheating zone.
- “on-time” liver camera to show soldering process.
- Pre-maintenance count down function.

GENERAL

- Operating power/Max power: 4KW/6.5KW
- PCB dimension: 50x50---350x260mm
- Machine dimension: W990mm X D1308mm X H1714MM
- Net weight: 400KG
- Power supply: 1PH 220V 50HZ
- Air supply: 3-5 bars
- Exhausting required: 200M3/h

PCB AND SMT LINE

SELECTIVE SOLDERING MACHINE

SOLDER MANAGEMENT

- Standard Solder Station: 1
- Solder Pot Capacity: 15 kgs
- Heat-Up Time: About 40mins
- Solder Pot heater: 380 °C
- Solder Pot heater: 1.2kw

SOLDER NOZZLES

- MiniWaveNozzles:Ø2to8mm Nozzles delivered standard: Ø3-4-5-6-8
- Customized nozzle: Available
- Nozzle Material: Proprietary Alloy

(N2) INERTION MANAGEMENT

- N2 heater: Standard Equipped
- N2 Temp PID Control Range: 0 - 300°C
- N2 Consumption per Nozzle: 1.5m3/H
- Required N2 Purity: >99.99%

FLUX MANAGEMENT

- Spray Flux Nozzle: Standard equipped with drop jet nozzle made in Germany
- Flux Capacity: 1L
- Flux Tank: Constant pressure tank

PREHEAT

- IR heater: 2kw

CONTROLLING SYSTEM

- Industrial PC: Yes
- ypical Program Time: 10 Minutes
- Program method: Draw path in scanned
- picture of board Controlling system: PC

PCB AND SMT LINE

AUTOMATIC DISPENSER MACHINE

ST ADM-Dot

DESCRIPTION

Desktop dispensing for automating the deposition of solder pastes (classes 4, 5 and 6), thin glues and fine grease both in the laboratory and in industry, the main advantage of this machine is that it allows very precise deposition of quantities of fluids, while improving the productivity of this operation

MAIN CHARACTERISTICS:

- Dispensing type: time/pressure
- Automatic lozenges recognition
- Very ergonomic and easy to implement
- Standard working stroke 320 x 310 x 60 mm
- Immediate Learning
- Compatible with all file types HPGL ISO EXCELLON GERBER GCODE DXF ...
- Driver software GALAAD 3 (with free updates) - KYNON
- Integrated electronic control case
- Z-axis mobile probe as series
- Safety: mechanical clamping and software clamping
- Protective cover and low-voltage lighting as series

ADVANTAGES

- It is an automatic dispenser for precise applications of different viscosities.
- Easy installation and programming via learning box or file import
- Faster card cycles and processing
- Easy integration into any manufacturing process
- Reduces production material and possession costs
- Robust and reliable structure
- Reduced space requirement

PCB AND SMT LINE

AUTOMATIC DISPENSER MACHINE

TECHNICAL SPECIFICATIONS (ROBOT)

interpolation	3 axis - 3D
Standard working stroke	320 x 310 x 60 mm
Reproducibility	+ or - 0.005 mm (0.2 mil)
Moving speed	100 mm/s maxi
Linear guide	Screw and ball socket (pitch 5 mm)
Motor X. Y. Z	3 stepper motor set at 1/16 pitch (3200 steps / rd)
Frequency	Up to 200 KHz
Table	Grooved aluminum for quick placement
Positioning tool sensor	Included
Power supply	230 V - 50 Hz - 8 A
Net weight	76 Kg
External dim L x l x H	880 x 700 x 590 mm
Safety cover	Included
Lighting	Included
Delivered with	Logiciel GALAAD 3 (Mises à jour gratuites)
Security	- KYNON Mechanical clamping and clamping by software

Discharge pressure setting	Electro/pneumatic method
Pneumatic control circuit	Air pulse stabilizing circuit (PAT.)
Dispense pressure setting	5.0 - 700.0kPa
Discharge time setting	0.010 - 9.999sec. (0.001sec. step)
Discharge time control circuit	C-MOS IC control digital circuit
Vacuum pressure setting	0 --20.0kPa
Display section	LED digital display
Input and output signal	Input : With or without contact point Output : Without contact point
Supply air pressure	Up to 0.8 MPa (Discharge pressure +0.1 MPa or more)
Power supply, Power consumption	AC100 - 240V 50/60 Hz, 17W
Exterior dimensions, weight	W188 X D196 X H76mm, 3,4 kg
Vacuum adjustment mechanism for drip prevention	Yes (micrometer specifications)
Stopwatch function	Yes
Shot switch	Yes

PCB AND SMT LINE

SMT STENCIL LASER CUTTING MACHINE

ST SLC Laser M3

DESCRIPTION

It is a professional equipment for SMT stencil with very high cutting quality. It is simple, easy to set up, low purchase cost and fast capital recovery, which is very suitable for SMT assembly- and PCB-factory to produce stencil. It is also suitable for professional stencil service manufacturers, and other electronic outsourcing service providers for update their equipment and expand production capacity.

FEATURES

- Stable and reliable operation, Solid and ingenious design provides stable and reliable results, high speeds and high quality
- World-class software , Unrivaled software provides best in class data processing with functions newly upgraded to a higher level
- Top-class optical device, Outstanding laser source. On demand processing - an ideal tool for producing first-class products
- Easy to use and operate, Easy operation. Wonderful user experience is a pleasure to use
- Reliable after-sales service, Reliable after-sales service Worldwide. Technical support and training provided

PCB AND SMT LINE

SMT STENCIL LASER CUTTING MACHINE

TECHNICAL DATA

- Max.working area: 800mm x 600mm
- Repetitive accuracy: ≤±2μm
- X/Y resolution: ≤0.1μm
- Laser wavelength: 1,070nm
- X/Y movement system: Linear motor
- Average laser power: ≥100W
- Cutting thickness: 20μm~300μm
- Platform structure: Granite base, fixed gantry structure
- Dimension(W x H x D): 1,480mm x 1,585mm x 1,713mm
- Weight: Approx. 2,300kg

CONFIGURATION & OPTIONS

- Data processing software: CircuitCAM 7 Pro
- Machine operating software: DreamCreaTor 3
- Automatic feeding: Optional
- Camera automatic positioning: Included
- Exhaust unit: Included

OPERATING AMBIENT

- Power requirements: 3 x 380V+N+PE,50Hz,3.0kW
- Ambient temperature: 22°C±2°C

PCB AND SMT LINE

PCB STENCIL PRINTERS

DESCRIPTION

Semi-automatic inline screen printer for application of solder paste on the PCB pads of various sizes

FEATURES

- The ·PLC control, touch screen;
- Automatic height adjustment of squeegees relative to the stencil;
- Pressure adjustment squeegee;
- Squeegee speed adjustment;
- Safe start of the printing process using two buttons;
- PCB positioning using reference holes or PCB edges;
- Printing modes: single pass, double pass;
- Starting the printing process: semi-automatic, automatic;
- Function of measuring and counting printing time;
- Emergency stop function in case of errors in the printing process

PCB AND SMT LINE

PCB STENCIL PRINTERS

TECHNICAL SPECIFICATIONS				
Model	ST SPSA 5088	ST SPSA 5088 C	ST SPSA 5088 L	SPSA 5088 XC
Max stencil frame dimensions :	600x320 mm	800x320 mm	1400x320 mm	950x736 mm
Max PCB dimensions	400x320 mm	600x320 mm	1200x320 mm	600x500 mm
Printing table dimensions	500x320 mm	700x320 mm	1250x320 mm	700x600 mm
PCB thickness	0,2 - 2 mm	0,2 - 2 mm	0,2 - 2 mm	0,2 - 2 mm
Print table adjustment range	± 10 mm (forward / backward, left / right)	± 10 mm (forward / backward, left / right)	± 10 mm (forward / backward, left / right)	± 10 mm (forward / backward, left / right)
Printing accuracy/repeatability	± 0.02 mm	± 0.02 mm	± 0.02 mm	± 0.02 mm
Printing speed	0 - 100 mm/sec	0 - 100 mm/sec	0 - 100 mm/sec	0 - 100 mm/sec
PCB positioning system	manual	manual	manual	manual
Power supply	1 phase, 220 V, 50/60 Hz, 100 W	1 phase, 220 V, 50/60 Hz, 100 W	1 phase, 220 V, 50/60 Hz, 100 W	1 phase, 220 V, 50/60 Hz, 100 W
Pneumatic pressure	4 - 7 Bar	4 - 7 Bar	4 - 7 Bar	4 - 7 Bar
Machine dimensions	900x1100x1680 mm	900x1100x1680 mm	1800x900x1680 mm	900x1100x1680 mm

PCB AND SMT LINE

MANUAL STENCIL PRINTERS

ST SPM P1000

DESCRIPTION

Manual desktop inline screen printer for applying solder paste to the pads of printed circuit boards.

FEATURES

- Application of solder paste or glue on single- and double-sided printed circuit boards
- Printing table is made of stainless steel
- The positioning of the printed circuit boards is performed on the mounting pins
- Fast adjustment of the table along the X, Y axes and height by means of convenient handles
- Reliable stencil fastening with 4 screws

TECHNICAL SPECIFICATIONS

Workbench Size :	300 x 400mm
Max. Printing Size	250 x 400mm
Max. Mesh Frame Size	370 x 470 mm
Printing Speed	Manually Controlled
Printed Component Height	0 - 80mm
Workbench Vertical / Horizontal Adjustment	10mm
Printing Platform Heigh	190mm
Repead Precision	±0.01mm
Positioning Method	Shape or reference hole
Dimensions	540 x 380 x 390mm
Weight	20Kg

PCB AND SMT LINE

Automatic SMT Pick and Place

ST SMT PP A4

DESCRIPTION

An automatic SMD report station, Compact it can accommodate 46 feeders as well as 6 placement and positioning cameras. The placement accuracy is 0.01 mm for a placement capacity of 7000 components per hour (max), Quick to set up and easy to handle

FEATURES

- The machine is delivered with a HD camera to recognize SMD components
- 2 placement heads
- Installation capacity of 6000 components per hour (max)
- The A2 can place BGAs with a pitch ≥ 0.8 mm
- Works under Windows® environment
- Use high quality and durable nozzles
- Intuitive software
- Simplicity and ease of use

PCB AND SMT LINE

Automatic SMT Pick and Place

TECHNICAL SPECIFICATIONS

Feeder No	46 (8 mm)
Mounting nozzles	4
Max. mounting speed	7000 CPH
Average mounting speed	4000 - 5000 CPH
Positioning accuracy	0.01 mm
Modes	Manual, semi-automatic, automatic
Cameras	1 Mark recognition camera, 4 high speed recognition cameras, and 1 high-precision recognition came
Driving motor	Panasonic Servo-motor
Max circuit board area	480 x 300 mm
Z axis maximum range	20 mm
Mounted components	0402 to 45 x 45 mm, LED, QFP, BGA, step outputs ≥ 0,3 mm
Max component Height (Z)	5,5 mm, upgrade to 10 mm on request
Belt type feeder	Tape feeders 8/12/16/24/32 mm, vibratory feeders
Monitors	15"
Power	600 W
Dimensions	1180 x 1080 x 880 mm

PCB AND SMT LINE

Convection reflow oven

ST CRO FT05AP

DESCRIPTION

Forced convection reflow oven for prototypes and small series.

The reflow oven is a new generation of professional oven.

It was created to work with the new high temperature alloys.

For a best precision, the heat is distributed by forced convection.

MAIN CHARACTERISTICS:

- Complete view of the card through a large window
- Compact model but offering a reflow working area of 350 x 400 mm
- Display on LCD screen of the different advice
- Internal or external probe can be used as a reference regulation of the reflow profile
- Memorization of 10 programs as standard
- Compatible for high temperature alloys, above all lead free
- Heat through forced convection.
- Temperature control by microprocessor.
- Very easy programming for a simple use
- Fully secured oven.

PCB AND SMT LINE

Convection reflow oven

TECHNICAL SPECIFICATIONS

Working area :	350 x 400 mm
Heating levels without software :	2
Heating levels with software :	Up to 10
Heating elements	4 x 1 KW
Temperature control	By microprocessor
Max. working temperature	Up to 300°C
Thermic stabilisation time	About 5 minutes
Heat treatment	70 hours max.
Noise level	Bellow 50 dBA
Filtration unit	INCLUDED
Thermocouples included as standard	3
Power supply	230 V - 50/60 Hz
Dimensions	730 x 640 x 380 mm (oven) 307 x 307 x 410 mm (filtration)

PCB AND SMT LINE

AUTOMATED OPTICAL INSPECTION MACHINE

STARK AOI

DESCRIPTION

Our flagship inspection system, the system offers all the capabilities of machines more than twice the cost. A full inline camera-based system with the ability to inspect almost any component. The system combines excellent mechanical stability with the latest in 64bit software to give one of the most truly unique inspection solutions found anywhere in today's global market.

The system includes full 1D and 2D barcode reading as standard to offer a fully traceable solution that can be combined with the user-friendly Prey rework suite. The Falcon combines excellent mechanical stability with the latest in 64bit software compatible with Windows 11 to give one of the most truly unique inspection solutions found anywhere in today's global market..

Features and Upgrades

- New RGBW lighting unit provides uniform lighting over an increased field of view and improves detection of shallower joints.
- Optional 12 Megapixel camera to allow either increased optical resolution or a larger field of view at the current resolution to increase inspection speed (available Spring 2021, will be fully retrofittable).
- All systems have 3 fiducial correction allowing for stretch, shrunk and skewed PCBs.
- Unique Analysis button that allows the software to work with you and train component fluctuations.

PCB AND SMT LINE

AUTOMATED OPTICAL INSPECTION MACHINE

TECHNICAL SPECIFICATIONS

- Camera: Top 5M Pixels Camera
- Camera Resolution : Standard : 15um Optional 10um
- Lighting: 4 Colour Lighting Ring (RGBW)
- X / Y Movement: AC Servo Motor Ball Screw and Linear Rail
- PC Configuration: P4 Intel Dual Core 2.5GHz CPU 6G DDR3 Memory 1TB HDD and CD-Rom
- Power Supply: 1P 220V 50/60Hz 10A
- Machine Dimensions: Length: 1013mm x Depth: 1200mm x Height: 1810mm
- Machine Weight: 795 Kg
- Operating System: Windows 10
- Programming: CAD File Loading Manual Teaching
- Statistic Data Function: SPC Software
- Minimum PCB Size: 50mm x 50mm
- Maximum PCB Size: 510mm x 560mm
- Maximum PCB Thickness: <6.0mm
- Clearance: Top / Bottom: 40/40mm
- Clamping Edge: >3.0mm
- Component Inspection Tests: Missing Reversed Shi□ Damaged Skew Tombstone
- Solder Inspection Tests: No Solder Insufficient/Extra Solder Bridge
- Smallest Component Inspection: Chip: 0201 (15um Lens) Chip: 01005 (10um Lens)
- Barcode Reader: 1D or 2D Barcode Reading Via Camera

PCB AND SMT LINE

ST WTL 400

Laboratory Water Treatment Equipment

DESCRIPTION

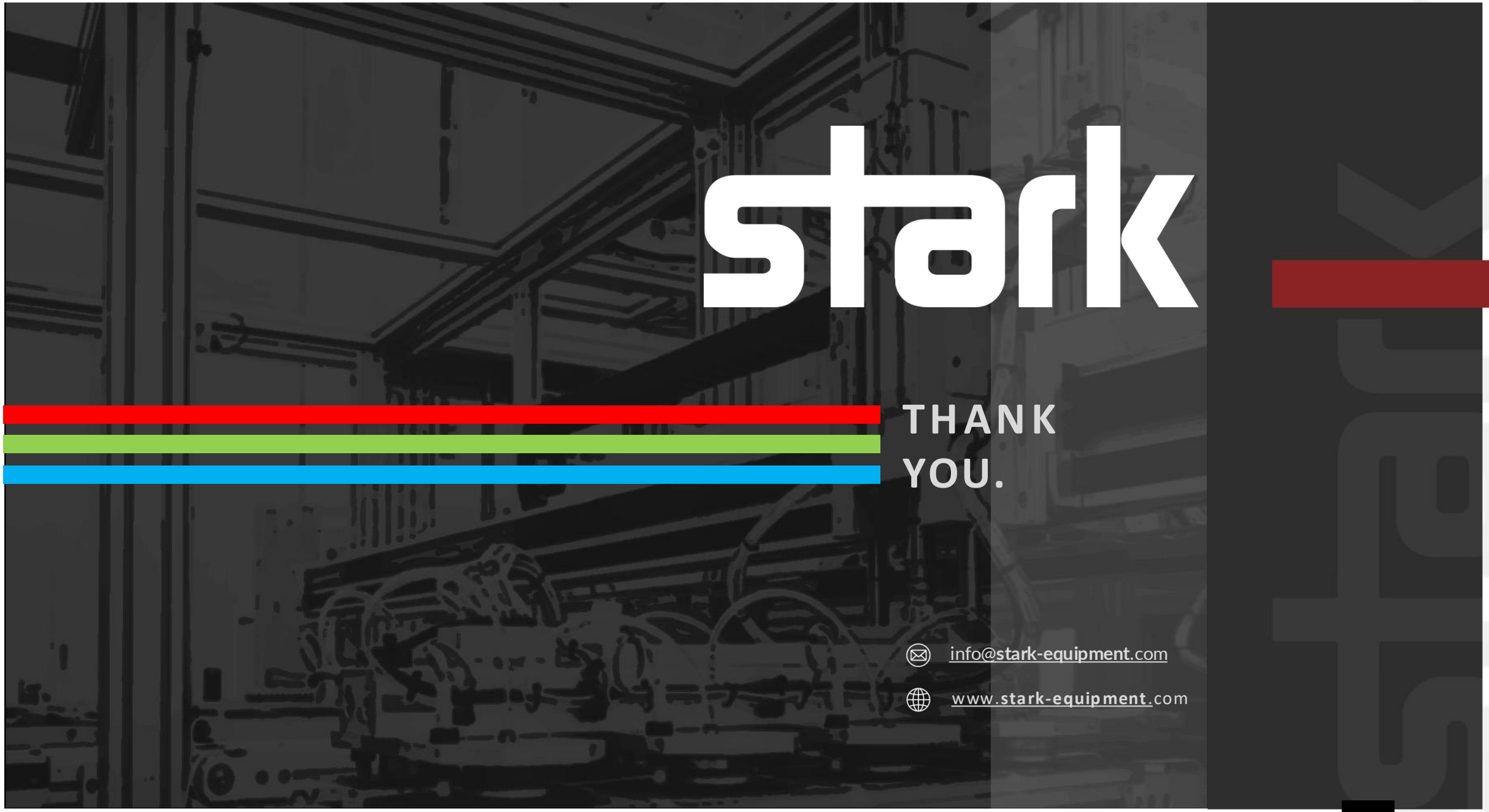
Laboratory treatment equipment, used for wastewater treatment in the process of PCB production. It is currently the only laboratory PCB special wastewater treatment equipment in China and has been national patented. The equipment can be used together with Developing/Etching/striping equipment, plate brushing machine and other Devices. It can also be used as an independent equipment for unified treatment of laboratory wastewater and recycle into clean water for laboratory use.

FEATURES

- National first level standard: SGS certificated, reach the first-class national discharges standard
- Three-layer filtering system: Three-layer filtering system ensure the water quality after treatment
- Standard spray washing module: Equipped with spray washing module for circuit board washing

TECHNICAL SPECIFICATIONS

Water treatment unit	Water pump, honeycomb filter, activated carbon filter, ion exchange resin filter
Acid base neutralization function	Optional
Spray tank	Included
Water treatment capacity	≥20L/h
Power supply	220VAC/50Hz
Power consumption	0.2kW
Dimension (W x H x D)	900mm x 600mm x 1,240mm
Weight	77kg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