



# Dental 3D Printing Defined Defined The Digital Workflow That Works For You

A2 Dental 08 8331 2257 Unit 1, 233-235 Greenhill Rd. DULWICH SA 5065 admin@a2dental.com.au



# What is SprintRay

Founded at USC by two Ph.D researchers dedicated to improving access to innovation in additive manufacturing. Exclusively serving the dental market, where we believe 3D printing can make the biggest impact by improving access and the patient experience.

# Why SprintRay

Seamless end-to-end dental-specific 3D printing ecosystem

Deep connections with educational institutions & healthcare providers

Improving quality of care and profitability for clinicians and patients

# **Global Brand Ambassador**

SprintRay × Usain Bolt



# **Forbes**

"SprintRay Poised For Digital Dentistry Future"

- TJ McCue, Contributor at Forbes



"From my first day up and running with my new SprintRay Pro, the printer has been excellent!"

-Michael Scherer, DMD, MS



"Delivered 40 aligners for 3 patients today. Scanned all these patients this morning, Pro has been fantastic so far."

- Rooz Khosravi, DMD, PhD



"Digital dental technology can be intimidating, but this machine is extremely easy to use."

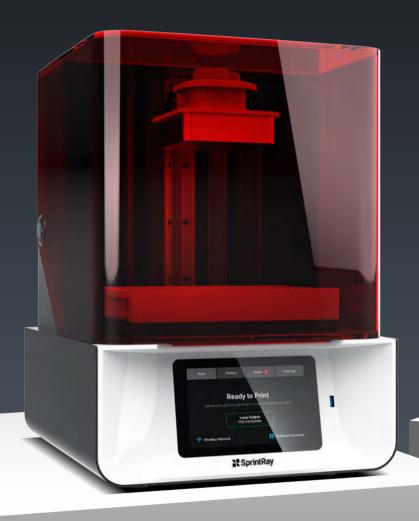
- Wally Renne, DMD

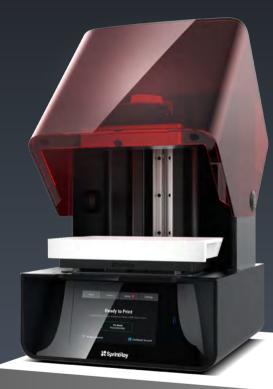




# Pro 3D Pr inters

In-office Dental Manufacturing has Arrived





### Fast

Rapidly respond to changing patient needs with flexible in-office manufacturing.

### Accurate

Print confidently with repeatable, accurate results backed by university research.

### Easy

Spend more time with patients with easy-to-use software and hardware.



### SprintRay Pro 3D Printer

# The Gold Standard for In-office Dental Manufacturing





### Intensity, Meet Accuracy

The custom projector in SprintRay Pro delivers high-intensity light evenly across the build surface for perfect, accurate prints every time.

Bespoke 405nm LED projector



### Always Cutting-edge

SprintRay Pro features advanced onboard electronics, enabling over-the-air updates that improve the printing experience. Free over-the-air updates bring meaningful improvements.

Free over the air updates



### Industrial Throughput

Enough throughput to handle the largest jobs. SprintRay Pro features a large build plate and rapid print speeds to meet the needs of even the most demanding offices.

Up to 3 inches per hour print speed











### Open Certified Materials

Our unique resin ecosystem allows you to leverage the industry's greatest innovations, whether they come from us or one of our materials partners.

Over 50 resins to choose from

# Pro 95 Production Workhorse

Accurate production and high throughput for all manner of dental appliances.



SprintRay Pro 95 is the perfect 3D printer for dental offices that want to deliver on the promises of in-office production. Featuring unmatched throughput, high accuracy, and a high flexibility, Pro95 is the right choice for most dental practices. Incredible accuracy, repeatability, and user-friendliness means you can always deliver an outstanding patient experience.



**Surgical Guides** 



Study and Waxup Models



Models for Aligner Production



Indirect Bonding Trays



Digital Dentures and Try-ins



Occlusal Guards

# Pro 55 Precision Yield

Incredible precision makes this unit ideal for all manner of restorative applications.



A 55-micron XY pixel size and Pixel Toning brings industry-leading accuracy to Pro 55, making it perfect for jobs that require razor-thin margins such as temporary and definitive crowns, hybrid dentures, and more. Pro 55 is the ideal printer for clinics or labs that specialize in restorative applications, reducing treatment cost and delivery times while improving your workflow.









Hybrid Dentures Temporary and Definitive Crowns

# **Technical Specifications**

Model	SprintRay Pro 55	SprintRay Pro 95
Maximum Build Size (L x W x H)	105×59×190mm	182×102×200mm
Resolution	55μm	95μm
Layer Thickness	0.05-0.1mm	0.05-0.1mm
Printing Speed	10-15 s/Layer	10-15 s/Layer
Support Generating	Automatic/Manual	Automatic/Manual
Format	STL/OBJ	STL/OBJ
Size (length x Width x height)	380×415×525mm	380×415×525mm
Weight	20kg	20kg
Voltage	AC100~240V	AC100~240V
Slice Software	RayWare	RayWare
Warranty	One Year Warranty	One Year Warranty

# **ProCure**

Better parts in less time.



### Rapid & Thorough Curing

With a 90 watt LED array, sensor-controlled convection heating, and omni-directional reflective surfaces, the Pro Cure maximizes cross-linking and the mechanical properties of your prints with best-in-class speed.

### **Unmatched Convenience**

A 3.5" touch-screen programmed with a range of 1-touch settings. Compatibility with most dental 3D printing resins. 30 arch capacity. SprintRay's Pro Cure takes the work (and the guesswork) out of post-processing.

### Easy to Own and Maintain

The Pro Cure USB interface allows you to easily add new curing profiles as materials are released. Along with user-replaceable LEDs and solid aluminum panel construction, the Pro Cure is dependable and convenient.

# Post-processing made simple.

Increasing the efficiency of your workflow leads to better outcomes. Pro Cure optimizes the post-curing step for clinicians to offer the best output in the shortest time, all at the touch of a button.

### 30 Full Arches

480 in <sup>3</sup> capacity

# **Dynamic Heating**

Sensor-controlled Chamber

### **Uniform Exposure**

90 Watt LED arrays 365nm + 405nm



### **Technical Parameter**

Curing Envelope (L x W x H)	152×280×177mm
Light Source	405nm LED arrays
Dimensions (L x W x H)	280×280×280mm
Weight	9kg
Maximum LED Power	90W
Connectivity	Wireless connections or Wired via USB
Power Requirements	AC100-240V



# ProCure 2

THE MOST ADVANCED POST-CURING SYSTEM

### **FAST**

Cure many parts in 2 minutes with custom UVA light engine

### **POWERFUL**

25x more light power intensity than other curing products

### **SIMPLE**

User-friendly and ergonomic, designed for the needs of dentistry



# State of the Art

ProCure 2 is fast. Fast enough to enable true chairside workflows with SprintRay 3D printing. And thanks to its custom light engine, it delivers heat instantaneously, no warmup required.

Welcome to chairside.

### Leading by Design

Engineered from scratch to meet our rigorous chairside requirements, the custom UVA light engine is the heart of ProCure 2. Its unique wishbone design delivers 360-degrees of curing coverage.





### More Powerful

Thanks to its custom wishbone curing engine, ProCure 2 can completely post-cure 3D printed dental parts in just a few minutes using both light and heat for optimal mechanical properties.



### **Active Thermodynamics**

Outstanding engineering makes sure that ProCure 2 is always at the right temperature. Active and passive thermodynamics work in perfect harmony to keep the exterior cool to the touch.



### **Instant Heating**

Because ProCure 2 delivers concentrated 385nm light, it generates heat locally on each part. This eliminates the need for ambient heating, greatly reducing overall cure times.



### **Chamber Scanning**

The light engine in ProCure 2 gently scans across the curing chamber to make sure that every part receives an even, thorough post-curing.

### **Technical Specifications**

The Product Name	ProCure 2
Installation Dimensions	410.5mm×333.5mm×313mm
Curing Chamber Size	233mm×220mm×75mm
The Light Intensity	200mW/cm²
Touch Screen	5 inch color touch screen
The Light Source	385nm LED
Maximum Power	200W
Electrical Source	100-240VAC,50HZ or 60HZ
Weight	19KG
Packing Size	510mm×510mm×495mm

# Pro Wash/Dry

Multistage Automated Washing System
Designed and Engineered for Dental Professionals



### **Fast**

Mechanical jetting washes your parts in just 10 minutes.

### Easy

Simple touchscreen controls deliver a superior wash experience.

### Clean

Automatic pumps make sure you never have to touch alcohol.

# Automated 2-Stage Wash & Dry

### Mechanical Jetting PATENTED

Using a high-speed motor that spins at over 10,000 RPM, Mechanical Jetting is a patented system that rapidly delivers agitated alcohol to 3D printed parts with only 500mL of solvent.

### 10-minute Wash Cycle

Thanks to the efficiencies gained through Mechanical Jetting, SprintRay Pro Wash/Dry can complete a full, two-stage wash cycle in just ten minutes.

### Set it and Forget it

Place the SprintRay build platform or included wash basket in the wash cradle and press 'Start.' Pro Wash/Dry automatically performs a two-stage wash and dry.





# Easy Solvent Management

### Science Removes the Guesswork

Precalibrated hydrometers sink in clean IPA and float when it's dirty. Since you always know when it's time to replace IPA, your parts will always come out clean.

### **Efficiency to Write Home About**

Pro Wash/Dry can operate with a half-liter of alcohol and recycle from one chamber to another with a single touch.

### Quick-connect IPA Draining

Snap the hose into place, creating a water-tight seal to drain IPA in a way that is clean, efficient, and safe.



In-house production of 3D printed denture teeth reduces patient visits and chair time. SprintRay OnX features a clinically advanced formula that requires minimal resin prep and effortless finishing -- up to 7x faster time to teeth than the leading competitor.

SRI-0202027

SRI-0202026

SRI-0202021 SKU Number

SKU Number

SKU Number

OnX is available in Bleach, A1, and B1.

### **KEY BENEFITS**

- First fully radiopaque restorative 3D printed resin
- · High condensed ceramic content
- Exceptionally aesthetic and easy to characterize











### FLEXURAL STRENGTH

Higher flexural strength ensures that the model doesn't break during normal use.

SprintRay OnX 147 MPa

Competitor 125/136 MPa

### **FLEXURAL MODULUS**

Higher flexural modulus prevents distortion, which can impact accuracy.

SprintRay OnX 7986 MPa

Competitor 3360 MPa

### **IMPACT STRENGTH**

High impact strength reduces the change of breakage under load.

SprintRay OnX 28 J/m

Competitor 20 J/m



compliant, biocompatible resin. Plus, improved printing speeds further reduce time to surgery, improving flexibility and offering a superior patient experience.

By taking advantage of SprintRay Cloud Design and the Pro-Line of 3D printers, you can fabricate surgical guides of all kinds varying from single unit guadrants to full-arch multi-unit implant guides.

### **KEY BENEFITS**

- Fastest-ever SprintRay Surgical Guide resin
- Clear and aesthetic appearance after autoclaving
- Improved flexural modulus and strength

### FLEXURAL STRENGTH

Higher flexural strength ensures that the model doesn't break during normal use.

SRI-0205011 SKU Number

SprintRay Surgical Guide 3 105 MPa SprintRay Surgical Guide 2 88 MPa

### **FLEXURAL MODULUS**

Higher flexural modulus prevents distortion, which can impact accuracy.

SprintRay Surgical Guide 3 2579 MPa 2418 MPa SprintRay Surgical Guide 2

### VISCOSITY

Lower viscosity values indicate that the resin is easier to mix.

SprintRay Surgical Guide 3 343 Centipoise 700 Centipose



### **SprintRay**

# NightGuard Flex

Clinically formulated for maximum speed, patient comfort, and durability.

NightGuard Flex was formulated from the ground-up to create the fastest, most comfortable 3D printed occlusal guard in dentistry. This biocompatible\* material features high impact strength and flexure at body temperature, your patients will love the comfort and longevity. Achieve superior fit and finish with a guard that is easy to polish and clean. Plus, NightGuard Flex is flavorless, ensuring smooth delivery.

Designed to work in tandem with SprintRay Cloud Design and Pro 3D printing systems, NightGuard Flex creates efficiencies across your workflow so you can focus on protecting more smiles. Faster printing speeds and improved dimensional stability while printing mean you save time and resin by using fewer supports.

With NightGuard Flex, SprintRay is delivering on the frictionless occlusal guard workflow - from scan, to design, to printing and placement, protecting more smiles and delighting more patients.



SRI-0202015 SKU Number

### **KEY BENEFITS**

- √ Simple chairside experience with heat-set delivery
- More than 2X faster print speeds vs competitive products
- ✓ Comfortable, easy to clean, and flavorless
- √ High impact strength and flexibility
- Designed for patient comfort



### **IMPACT STRENGTH**

High impact strength reduces the chance of breakage under load.



### **FULL-ARCH PRINT TIME**

Print speeds measured on SprintRay Pro95 at 170 $\mu$ m layer thickness vs competitor resin.



92 Minutes

### **SprintRay**

# NightGuard Firm

The industry's strongest, most aesthetic 3D printed occlusal guards.

Outstanding longevity, strength, and aesthetics come to 3D printed occlusal guards with SprintRay NightGuard Firm. This biocompatible material is easy to keep clean, resists wear, and is easy to polish. Designed for SprintRay clinicians, it helps create efficiencies across your workflow from design to print to placement.

Featuring class-leading strength, NightGuard Firm is a high strength formulation, meaning it can take dropping, biting, and grinding in stride. Plus it prints fast - 20% faster than hard splint materials from other brands, empowering same- and next-day workflows that will delight your patients.

With NightGuard Firm and the SprintRay 3D printing ecosystem, you can rapidly produce beautiful occlusal guards to protect more smiles.



SRI-0202016 SKU Number

### **KEY BENEFITS**

- ✓ Outstanding wear resistance
- ✓ Great aesthetics with blue tint
- Up to 20% faster than competitive materials
- ✓ Industry leading strength
- √ No chemical flavor



### FLEXURAL STRENGTH

Higher flexural modulus prevents the models from distorting, which can impact accuracy



### **FLEXURAL MODULUS**

Higher flexural strength ensures that the model doesn't break during normal use.

SPRINTRAY NIGHTGUARD FIRM		2452 MPa
COMPETITOR RESIN	1510 MPa	



A reduced odor improves the quality of life for 3D printing models for an overall experience that your practice staff will love. Plus, Die & Model 2 resins are easier to separate from thermoforming materials, saving time and labor for more efficient in-office fabrication workflows. With rapid, repeatable results that are easier than ever to use, Die & Model 2 Tan is helping to bring dental 3D printing into dental practices everywhere.

### SRI-0202010 SKU Number

### **KEY BENEFITS**

- ✓ Improved flexural modulus and strength
- √ Up to 10% faster print speeds
- Print up to eight full arch models in just 15 minutes\*
- High-contrast color for maximum visibility of small details
- Easy to separate from thermoforming materials

### FLEXURAL STRENGTH

Higher flexural strength ensures that the model doesn't break during normal use.



### FLEXURAL MODULUS

Higher flexural modulus prevents the model from distorting, which can impact accuracy.



 $<sup>^{\</sup>ast}$  When printed on SprintRay Pro with Ludicrous Speed.



A reduced odor improves the quality of life for 3D printing models for an overall experience that your practice staff will love. Die & Model 2 Gray features an improved color tone, making it easier than ever to use digital technology to perform advanced restorative dentistry. With rapid, repeatable results that are easier than ever to use, Die & Model 2 Gray is helping to bring dental 3D printing into dental practices everywhere.

### SRI-0202011 SKU Number

### **KEY BENEFITS**

- √ Improved flexural modulus and strength
- √ Up to 10% faster print speeds
- ✓ Print up to eight full arch models in just 15 minutes\*
- High-contrast color for maximum visibility of small details
- Easy to separate from thermoforming materials

### \* When printed on SprintRay Pro with Ludicrous Speed.

### FLEXURAL STRENGTH

Higher flexural strength ensures that the model doesn't break during normal use.



### FLEXURAL MODULUS

Higher flexural modulus prevents the model from distorting, which can impact accuracy.

Die and Model 2 Gray		2650 MPa
Die and Model Gray	1700 MPa	



SRI-0202014

SKU Number

### **KEY BENEFITS**

- √ Wow patients with same-visit mockups and waxups
- ✓ 20% faster; print full-arch models in just 18 minutes
- ✓ Pure white color, even after post-curing

### **PRODUCTION TIME**

Higher speed means faster model production, allowing for same-day waxup and diagnostic models.

Study Model White2

17 Minutes

DIE & MODEL 2 GRAY

24 Minutes







SRI-0202028 SKU Number

### **KEY BENEFITS**

- ✓ Excellent Tear Resistance
- √ Flexible & easy to trim
- ✓ Biocompatible, FDA-compliant





# SprintRay IDB 2

Bond a full arch of braces in just a few minutes

SprintRay Indirect Bonding 2 resin features exemplary tear resistance and translucence, making it perfect for rapid bracket placement. Improved mechanical properties allow orthodontists to design thinner trays with greater accuracy, making the indirect bonding process rapid and cost-effective.



SRI-0202012 SKU Number

### **KEY BENEFITS**

- High tear resistance, flexibility, and translucence
- Improved formula for accurate placement
- Biocompatible, FDA-compliant material

### PRODUCTION TIME

A higher elongation value means that the material can flex and stretch before it loses its shape or tears. High elongation is critical for indirect bonding appliances.

SPRINTRAY IDB 2	40%
FORMLABS IBT	29%

# **SprintRay**

# SprintRay Try-In

Rapidly print monolithic try-in dentures

Digital dentures can reduce the number of appointments required for denture placement. SprintRay's biocompatible try-in material can be rapidly printed to check bite registration and occlusion of dentures. This material can be printed monolithic or as a baseplate combined with individual tooth setup for maximum flexibility.



SRI-0202003 SKU Number

### **KEY BENEFITS**

- ✓ Biocompatible FDA-compliant material
- √ Allows rapid, cost-effective iteration of try-in denture
- Can be characterized and worn as short-term temporary

# **SprintRay**

# SprintRay Castable 2

Cast crowns, bridges, and frameworks of all kinds

SprintRay's Castable Resin 2 allows you to rapidly print models for use in investment casting. This material is easy to work with and leaves behind no residue after the burnout process.



SRI-0202004 SKU Number

### **KEY BENEFITS**

- Easy to work with and outstandingly accurate
- ✓ Suitable for casting copings, substructures, crowns, and more
- ✓ Burns clean with no residue left after burnout

### Frictionless Workflow

### User-friendly, cutting-edge solutions.

SprintRay products are built to work together, creating opportunities for collaboration, innovation, and outstanding clinical results. From design to print to post-processing,

SprintRay products help you maximize the efficiency of your clinic.

### **User-friendly Software**

Dashboard 2.0 and RayWare simplify the process of printing and designing appliances. They're easy to use and fully integrated with SprintRay printers.





### High Performance 3D Printing

Rapidly print all kinds of dental appliances for treatment with SprintRay Pro. Advanced software and hardware makes 3D printing a breeze.

### **Powerful Post Processing**

Pro Wash/Dry and Pro Cure make a dynamic pair for the final step of your workflow. Get the best out of your parts with SprintRay post processing.





### **Industry-leading Materials**

SprintRay resins offer fantastic value for money. For maximum flexibility, we also certify top industry brands to work with our printers.