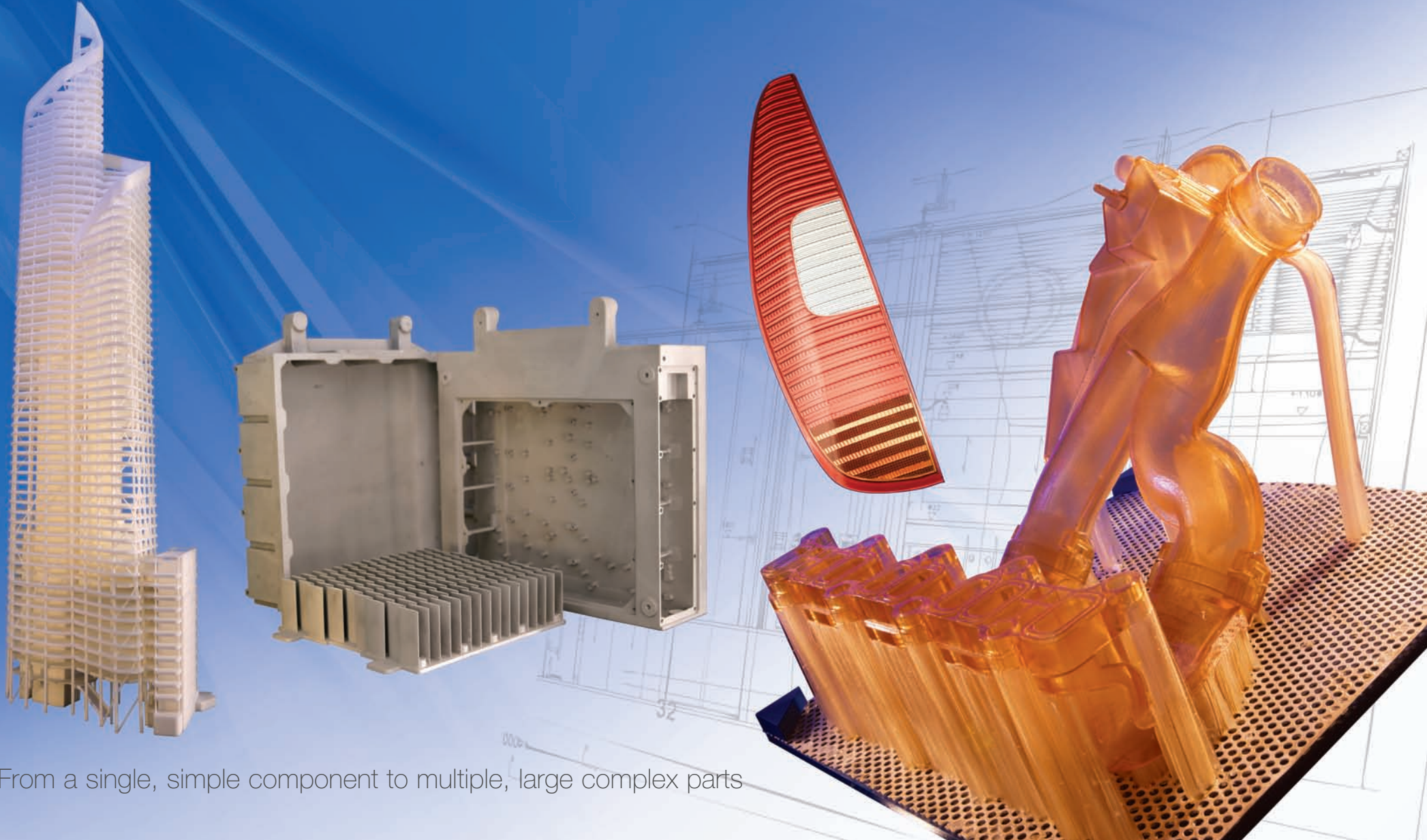




Rapid Prototyping Solutions



From a single, simple component to multiple, large complex parts

Count on the world's largest prototyping company

Whatever the scope of your next prototyping project – from a single, simple component to multiple, large and complex parts – ARRK is here to help.

ARRK PDG's Rapid Prototyping (RP) division, based in San Diego, provides a complete rapid prototyping service, delivering high-quality solutions direct to your door... on time and on budget.

Behind our world-class service is over 60 years industry experience and the very best and latest in materials, machining and assembly technologies.

Our team of project advisers and coordinators consists of engineers and designers. All have extensive, first-hand experience of meeting clients' exacting requirements in the most demanding of timescales. The team is involved at every stage – from project costing to final delivery – ensuring a speedy, seamless service with a single point of contact.

Providing a personalized service from start to finish

At ARRK we're proud to support clients around the world from a wide range of industries including the automotive, consumer products, aerospace, architectural, medical and

telecommunications markets. All our clients – from individuals to large organizations – are important to us, and we pride ourselves on providing the same high standard of customer service for every project.

ARRK offers a comprehensive range of RP services to help manufacturers and designers develop and evaluate new products quickly, economically and with less risk. You'll receive professional advice about the process that best suits your needs, whether that's a prototype to test form, fit and function, or as a starting point for any of our downstream processes.

CAD Verification

Our CAD experts offer end-to-end support. Their technical knowledge and practical experience across a wide range of CAD software enables ARRK to take and validate most file formats.

Stereolithography – (SLA)

Our stereolithography service is fast and flexible, and offers a choice of finishes. With 8 machines at our San Diego facility alone, typically we are able to deliver parts within two to three days of receiving your CAD data.

High volume and particularly complex projects may take a little longer. Finishes range from ABS simulants, flexible, watershed resins right through to clear or white resins.

Hand Finishing and Paint Service

For clients looking for a premium finish, ARRK offers a skilled finishing and painting service. This ensures components are finished to exact dimensions and requirements.

Selective Laser Sintering – (SLS)

ARRK's SLS service delivers tough, durable prototype parts in as little as two to three days. Using Duraform polymide or glass-filled nylon, SLS is particularly suited to functional testing in rigorous environments. What's more, the latest EX materials combine durability with exceptional flexibility. As you would expect from the world's largest prototyping company, we continually evaluate new materials, adding them to our service if appropriate.



for the total solution to your next project

Vacuum Casting

Need a number of parts in different materials?

Using an SLA master to create a silicone mold we're able to reproduce exact copies of your part in a choice of over 20 polyurethane materials. This specialist process, known as vacuum casting, ensures consistent quality whether you need a small quantity or several hundred castings.

For a full list of our SLA, SLS or polyurethane resins please visit our website.

Aluminium and Zinc Castings

ARRK's in-house foundry facility means we are able to combine time-saving RP techniques with traditional, time-service craftsmanship to produce precision aluminium or zinc components quickly.

Our RPM process is ideal if you're looking for low volumes or small production runs to die cast quality. From an SLA master we can produce castings in a fraction of the time normally associated with metal castings. Using a range of aluminium or zinc alloys we can produce components to a minimum wall thickness of 1mm for most geometries. Components up to 400 x 400 x 250mm can be produced, depending on the weight of the castings.

CNC Machining

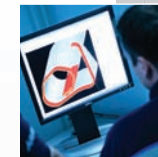
Using 3 and 5 axis CNC machines, we're also able to provide precision components machined from solid in almost any material. Additionally, we can post machine our foundry-produced aluminium or zinc components.

Additional ARRK Services:

- Z Corp models – for simple, quick, visual models in color
- Reaction Injection Molding Castings (known as RIM) – ideal for prototype or low-volume production moldings, with virtually no size restriction
- Block Modelling – please see our separate Block Modelling Service brochure for details
- PremCast – high-spec, premium-quality polyurethane casting – please see our separate PremCast brochure for details
- Silicon Keyrats – compression cast in a range of silicon

To find out more about the full range of services available from ARRK PDG's prototyping division please visit our website at: www.arkk.com

Count on ARRK to guide you through the ever-evolving world of prototype solutions and product development.



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Welcome to ARRK



Other services from ARRK include:



ARRK

ARRK Product Development Group

For further information about the range of rapid prototyping solutions available, please contact us at either of our locations below:

ARRK Product Development Group

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San Diego, CA 92121
Tel: 1-800-735-2775
Fax: (858) 410-3729
Email: contactus@arrk.com

ARRK Product Development Group

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Novi MI, 48375
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Calle 9057-1 Sur Cd. Industrial Otay,
Tijuana B.C., Mexico
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For the latest news on ARRK's range of Product Development services, please visit our website at: www.arrk.com