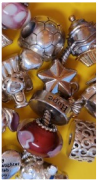
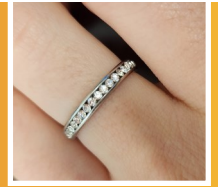
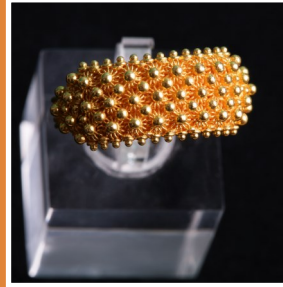
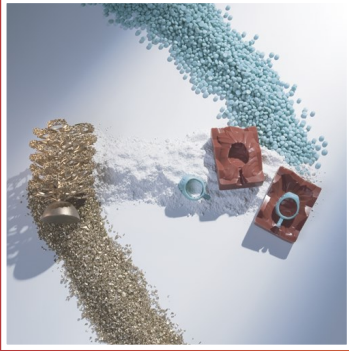


RANSOM & RANDOLPH

Jewelry Product Catalog



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Investing with Innovation™

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Founded in Toledo, Ohio in 1872, Ransom & Randolph (R&R) quickly grew to become a leader in the investment casting industry. By 1900, R&R was already manufacturing and supplying dental products to over 37 countries worldwide. R&R was a renowned leader in the lost wax casting of metals industry by 1910. This leadership role led to the expansion of lost-wax casting into industrial applications in the 1940s and into the forefront of ceramic shell casting technology in the 1960s.

R&R has made several vital advancements in the jewelry casting industry such as launching Ultra-Vest® universal investment, which to this day is globally recognized as a leading premium jewelry investment; Astro-Vest® investment, which was the first water-based high temperature investment; and Plasticast® investment, which is a critical component in the success of print-to-cast investment technology.

Since joining Ransom & Randolph in 2000, I have been privileged to see the continued growth of R&R in the global jewelry market by not only nearly doubling our distribution partners to over 50 worldwide, but also through several vital acquisitions, such as the former Kerr Satin Cast line of investments as well as Vulcan® ovens and Neycraft® casting units. Additional growth was fueled by our technical team, which is second to none with Development and Application Engineers ready to assist customers throughout the world with our advanced laboratory capabilities

As stated in the introduction of R&R's 1911 Catalog, "Those who know us best are fully satisfied in our ability and willingness to serve them well." 150 years later, you can still be assured that R&R will provide excellent customer service and remarkable technical expertise as we strive to serve the jewelry industry well.

Sincerely,



Daniel Nixon
President
Ransom & Randolph, LLC



Dan Nixon (President) sits between two groundbreaking R&R innovations: Standard Investment Compound (left), developed and sold in 1911 for jewelry manufacturing, and the Elgin (right), introduced in 1904 as the first vacuum casting appliance.



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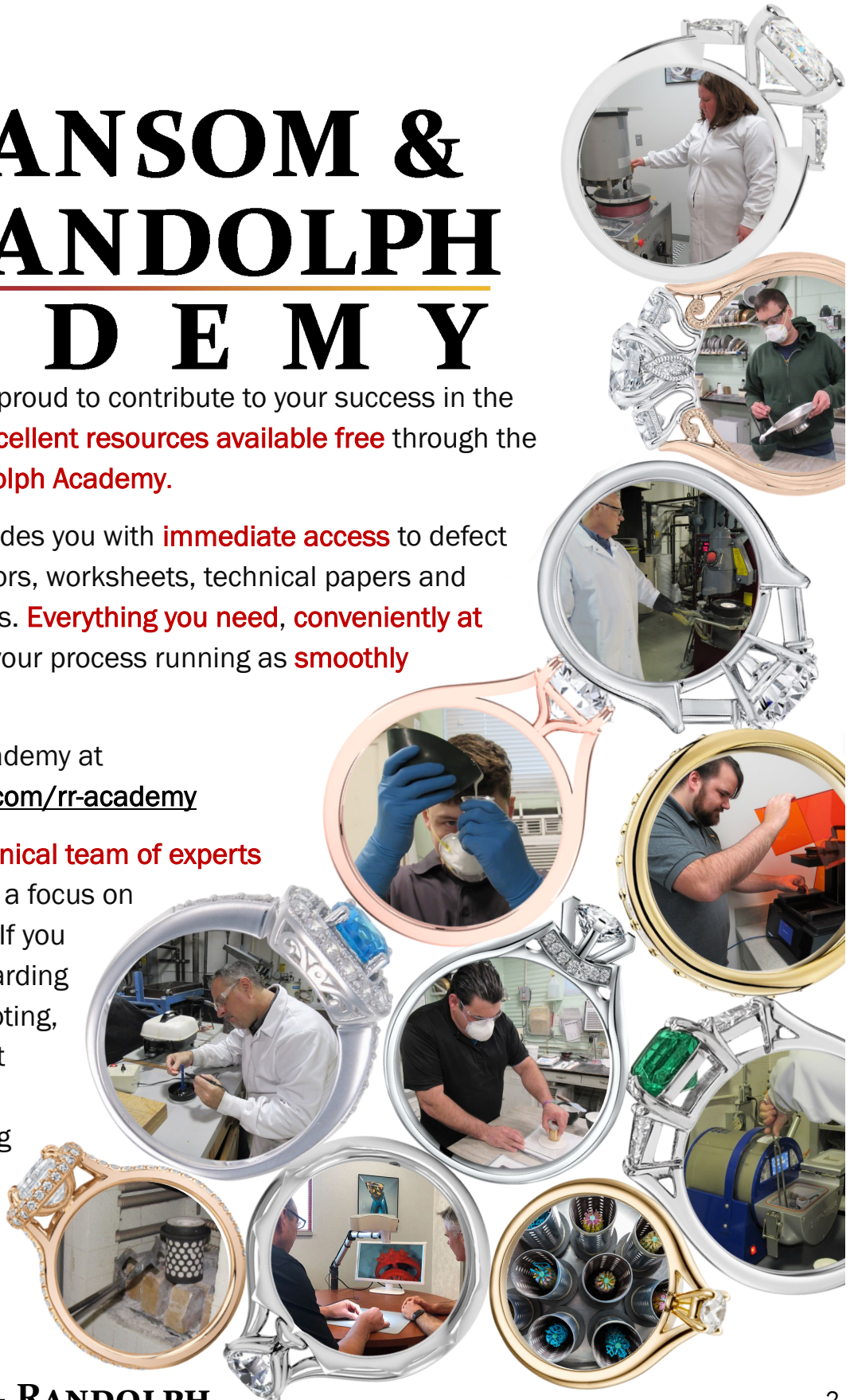
RANSOM & RANDOLPH ACADEMY

Ransom & Randolph is proud to contribute to your success in the casting industry with **excellent resources available free** through the online **Ransom & Randolph Academy**.

The R&R Academy provides you with **immediate access** to defect analysis, FAQs, calculators, worksheets, technical papers and other valuable resources. **Everything you need, conveniently at your fingertips** to keep your process running as **smoothly as possible**.

Visit the online R&R Academy at www.ransom-randolph.com/rr-academy

Additionally, R&R's **technical team of experts** support customers with a focus on **constant improvement**. If you have any questions regarding application, troubleshooting, feedback, or tips, do not hesitate to **contact our technical team** by calling 800-800-7496 (US) or by emailing technical@ransom-randolph.com.



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HARNESS THE POWER OF BANDUST™ TECHNOLOGY

Patented BANDUST™ technology *significantly reduces respirable quartz and cristobalite exposure when paired with our original investment formulations.* Through a unique manufacturing process exclusive to R&R, we bind these typically respirable particles to the dry investment powder formulas you know and trust!

BANDUST technology significantly reduces total respirable dust – *up to 97% versus standard R&R jewelry investments and as much as 99% when compared to other jewelry investments* based on third-party industrial hygienist air sampling test results. The industrial hygienist reported *no measurable respirable dust from BANDUST technology flasks during quench.*

Casters also noted the added benefit of improved housekeeping overall. Casting quality is maintained with *excellent final casting results and no process changes* are required during the investing stage.

Breathe easy– we’ve got you covered.

In identical testing conditions, conventional investment materials (left) release noticeably more fine dust than BANDUST technology treated jewelry investments (right).



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RANSOM & RANDOLPH INVESTMENTS



Ultra-Vest® universal investment

Universal for casting any low temperature alloys. Commonly referred to as the most process forgiving product available for casting with easy quench and easy cleanup, reducing your risk of losing valuable metal, maximizing your profit.

Also available with BANDUST™ Technology.

<i>USA</i>	
44 lb box.....	468263
100 lb pail.....	68217
<i>International</i>	
22.7 kg box.....	68263
45.4 kg pail.....	68217



Ultra-Vest® MAXX™ investment

Ideal for casting white gold. Provides maximum thermal stability for high metal melt, burnout, and casting temperatures to help eliminate potential environmental defects.

Also available with BANDUST™ Technology.

<i>USA</i>	
44 lb box.....	469103
100 lb pail.....	69110
<i>International</i>	
22.7 kg box.....	69103
22.7 kg sewn bag.....	69112
45.4 kg pail.....	69110



Plasticast® investment

Ideal for casting plastic, resin, & rapid prototype patterns. Easily removed in water, this investment provides jewelry casters with a mold material that meets the high demands of pattern materials while maintaining mold surface and dimensional integrity.

Also available with BANDUST™ Technology.

<i>USA</i>	
44 lb box.....	40121
100 lb pail.....	0110
<i>International</i>	
22.7 kg box.....	0121
22.7 kg sewn bag.....	0105
45.4 kg pail.....	0110



Solitaire investment

Ideal for casting with stones in place. Provides casters with superior stone protection, higher burnout temperature capacity, a cleaner dewax, and fewer surface defects than other investment materials.

<i>USA</i>	
44 lb box.....	468267
<i>International</i>	
22.7 kg box.....	68267



Advantage™ investment

Ideal for casting brass, bronze, & silver. An economical investment that reduces watermarking defects for dependable casting results and maximum profits.

Also available with BANDUST™ Technology.

<i>USA</i>	
44 lb box.....	468270
100 lb pail.....	68272
<i>International</i>	
22.7 kg box.....	68270
45.4 kg pail.....	68272



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FORMER KERR™ INVESTMENTS



SC-20 investment

Ideal for casting gold & silver.
One of the world's most trusted jewelry investment, SC-20 investment is recognized by the global jewelry casting industry as the benchmark for casting the highest quality metals.

 Also available with BANDUST™ Technology.

<i>USA</i>	
44 lb box.....	431008
100 lb pail.....	31004
<i>International</i>	
22.7 kg box.....	31008
22.7 kg sewn bag.....	31000
45.4 kg pail.....	31004



SC-X investment

Ideal for casting white gold.
Contains a high percentage of cristobalite, giving it the ability to withstand rapid and high temperature burnouts without cracking, providing a smooth lustrous surface quality with high details.

 Also available with BANDUST™ Technology.

<i>USA</i>	
44 lb box.....	431308
100 lb pail.....	31304
<i>International</i>	
22.7 kg box.....	31308
22.7 kg sewn bag.....	31300
45.4 kg pail.....	31304



SC-RP investment

Ideal for casting plastic, resin, & rapid prototype patterns.
Specifically formulated to cast rapid prototypes, this investment allows high expansion and extra strength to compliment the needs of pattern materials.

<i>International</i>	
22.7 kg box.....	31409
22.7 kg sewn bag.....	31408



SC-D investment

Ideal for casting with stones in place.
Contains proven pre-mixed additives that protect stones from heat and provides ideal thermal expansion for wax setting in diamonds, color stones, colored synthetics, and cubic zirconia.

<i>USA</i>	
44 lb box.....	431048
100 lb pail.....	31044
<i>International</i>	
22.7 kg box.....	31048
22.7 kg sewn bag.....	31048
45.4 kg pail.....	31040



KC2000 investment

Ideal for casting gold & silver.
A forging and dependable jewelry investment casting powder that is highly consistent and easily breaks out for large volume production.

<i>USA</i>	
44 lb box.....	431208
100 lb pail.....	31204
<i>International</i>	
22.7 kg box.....	31208
22.7 kg sewn bag.....	31200
45.4 kg pail.....	31204



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EUROPEAN MANUFACTURED INVESTMENTS



Aurum investment

Ideal for casting gold.
Has proven quality and consistent results with a smoother surface than other investments, resulting in less finishing, therefore saving time.

22.7 kg sewn bag.....475000



Argentum investment

Ideal for casting brass, bronze, & silver.
Known for reducing the chance of excess metal defects in order to create more time for production rather than reproduction.

22.7 kg sewn bag.....475550



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HIGH TEMPERATURE INVESTMENTS



Astro-Vest® investment

Ideal for casting stainless steel & platinum.
A fan favorite due to its consistency of creating fin-free castings with meticulous reproduction of detail.

<i>USA</i>	
44 lb box.....	468481
<i>International</i>	
20 kg box.....	468481



Plasticast® PT investment & binder

Ideal for casting platinum as well as plastic, resin, & rapid prototype patterns.
A water-based, two-part system that maintains mold surface and dimensional integrity while eliminating the acid-based binder hazard associated with common two-part platinum investments.

<i>USA</i>	
44 lb investment & binder kit.....	64810
<i>International</i>	
20 kg investment & binder kit.....	64810



SC-PT investment

Ideal for casting platinum.
Designed for casting platinum-based alloys with only water in lieu of special liquids or binders by centrifugal technique.

<i>USA</i>	
100 lb pail.....	31600
<i>International</i>	
36 kg pail.....	31600



Platinum investment & binder

Ideal for casting platinum.
Unlike other acid-based binders, Platinum binder will not settle out, resulting in smoother, more consistent results from mix to mix than other two-part platinum products

<i>USA</i>	
44 lb investment & 900 ml binder kit....	68253



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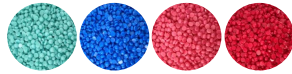
WAXES & RUBBERS



AquaSphere™ wax

A general-purpose injection wax designed specifically for the reproduction of thin sections with exceptionally consistent results. Has the strength and flexibility needed to easily remove product from the mold.

Available in aqua, blue, light pink, & pink.



USA & International

Aqua 22.7 kg carton.....	40100
Blue 22.7 kg carton.....	40400
Light Pink 22.7 kg carton.....	40500
Pink 22.7 kg carton.....	40300



RTV2 silicone rubbers

This two-part rubber combination is available in two formulas that provide excellent durability and stability over time. RTV2 silicone rubbers provide zero shrinkage, mixes with ease, and increases production speed.

Available in HT33 (red or translucent) and HT45 (translucent) formulas and colors.

All RTV2 silicone rubber kits are available both to the USA and internationally.

	HT33	HT33	HT45
	Red	Translucent	Translucent
1 kg base & 1 kg catalyst kit.....	23721.....	2379.....	23790
5 kg base & 5 kg catalyst kit.....	24101.....	24100.....	24100
25 kg base & 25 kg catalyst kit.....	TBD.....	TBD.....	TBD
400 kg base & 400 kg catalyst kit.....	TBD.....	TBD.....	TBD



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EQUIPMENT

Burnout Furnaces

Vulcan® burnout furnaces

A burnout furnace that features a high performance hybrid muffle, a heavy gauge steel cabinet finished with a durable baked enamel coating, and a durable stainless steel front panel. This burnout furnace provides faster heating and cooling than full firebrick as well as a longer life and more durability than fiber construction.

Each Vulcan comes with a 1-Year Limited Warranty.

All Vulcan burnout furnaces are available to the USA and internationally.

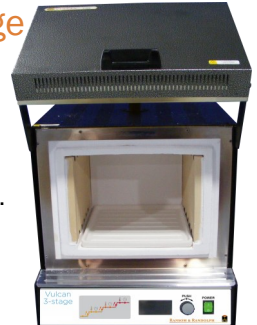
Single-Stage

Features a single-stage digital controller.



Three-Stage

Available in two standard muffle sizes and featuring a three-series digital controller.



S-550 100-120V.....	5355730002	3-130 200-240V.....	5355740001
S-550 200-240V.....	5355730001	3-130 100-120V.....	5355740002
		3-550 200-240V.....	5355740003
		3-550 100-120V.....	5355740004

Vulcan® burnout furnace spare parts

We know eventually equipment breaks due to wear and tear. Fortunately, we have Vulcan spare parts available. No need to purchase a whole new unit. Save yourself some time and money by having a few on hand just in case of a breakdown during a project.

All Vulcan burnout furnaces parts are available to the USA and internationally.

Clutch & Coupling Assembly	9491056	Service Board 3-Stage.....	DENT3STAGE	Switch, Door.....	9493338
Encoder.....	SRM-02844	Service Board Single-Stage.....	DENTA	Thermocouple.....	TC-005
Exhaust Port Plug, 1" Kit.....	9491093A	Service Muffle 550 120V.....	9493471	Tongs, MFG.....	9491010A
Insulation, Door-130.....	9493325	Service Muffle 550 230V.....	9493423	Tray: Bottom Model 130.....	9353053
Insulation, Door-550.....	9493365	Service Muffle Assy 130 120V.....	9493422	Tray: Bottom Model 550.....	9353057
Membrane Switch 3-130.....	FP-02899	Service Muffle Assy 130 230V.....	9493420	Vulcan 120 Volt Power Cord.....	FP-02842
Membrane Switch 3-550.....	FP-02881	Shelf: Free Standing Model 550.....	9493327	Vulcan 240 Volt Power Cord.....	FP-02839
Motor; Spring.....	9356001	Switch.....	1835.3118	Vulcan 240 Volt Power Cord Euro.....	FP-02841
Rubber Foot.....	9390616				

Centrifugal Casting Machines



Neycraft™ centrifugal casting machine

Used to melt and cast metal into the replica investment cavity by centrifugal force. Designed with a number of unique operating features:

- Built-in protective safety shield
- Easy winding/locking and release mechanism
- Instant balance with counterbalance weight
- Universal flask carriage to accommodate flasks up to 4" x 4"
- Two-way mounting base for quick setup and storage

USA & International

Centrifugal casting machine.....9491045

Neycraft™ centrifugal casting machine spare parts

We know eventually equipment breaks due to wear and tear. Fortunately, we have Neycraft spare parts available. No need to purchase a whole new unit. Save yourself some time and money by having a few on hand just in case of a breakdown during a project.

All Neycraft™ centrifugal casting machine parts are available both to the USA and internationally.

Counterbalance Weight.....	9491066	Crucible Former 2.0 Diameter.....	9357118
----------------------------	---------	-----------------------------------	---------



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R&R: INVESTING IN JEWELRY

Founded by John R. B. Ransom (1872), Thaddeus R. Randolph joins as partner (1876)

1872 - 1876



R&R introduces the first vacuum casting appliance, the Elgin (later nicknamed the Pig because of its shape)

1904

R&R publishes the *Authoritative Manual of Lost Wax Casting*

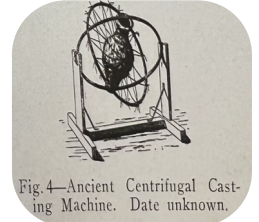


Fig. 4—Ancient Centrifugal Casting Machine. Date unknown.

1919



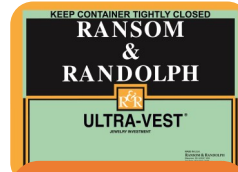
Standard Investment Compound is developed and sold for jewelry casting

1911

R&R creates an Industrial Division, leveraging jewelry and dental casting techniques to produce industrial precision castings



1940s



Ultra-Vest® investment debuts as R&R's first universal jewelry investment

1964

1965



Astro-Vest® investment is introduced as the first high temperature jewelry investment casting both stainless steel and platinum

R&R acquires the PreVest™ line of jewelry, dental, and industrial investments



2000

The first investment designed specifically for printed resin patterns is released under the name "Plasticast® investment"

2002



R&R acquires the rights to BANDUST™ Technology from Elephant Dental B.V., reducing up to 99% of respirable silica in jewelry investments

2012



R&R introduces Plasticast® PT & binder as the first high temperature investment system designed specifically for printed resin patterns

2017

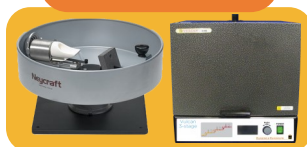
R&R acquires the rights to the former Kerr gold casting investment line



2019

R&R acquires the rights to all Vulcan® and Neycraft™ equipment from Dentsply Ney

2020



2022



R&R celebrates its 150th anniversary!

Proudly serving the investment casting industry for over 150 years



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Issue Date: December 7, 2022

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