

R&R

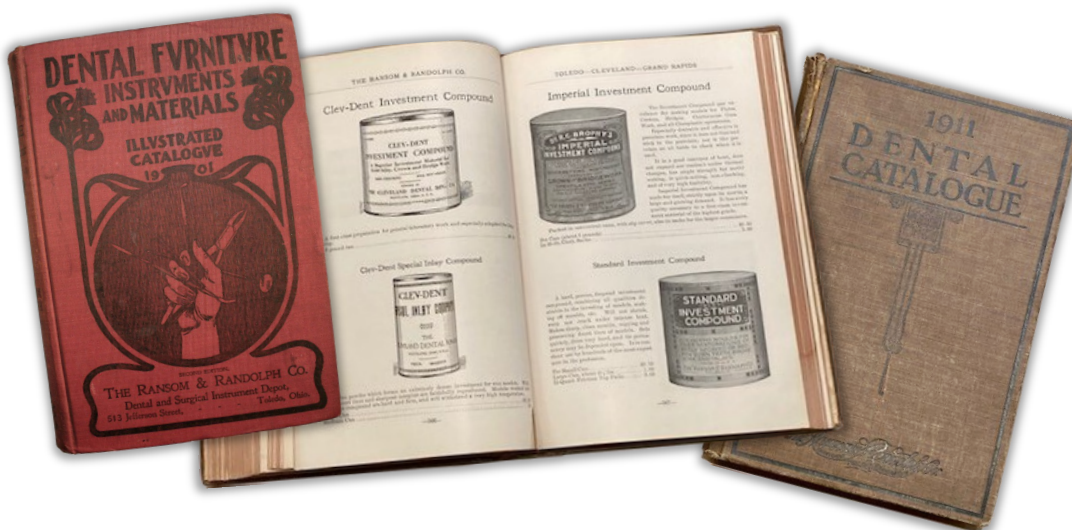
Dental Laboratory Catalog

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Founded in Toledo, Ohio in 1872, Ransom & Randolph (R&R) was one of the first dental manufacturers to publish a comprehensive catalog and quickly became a worldwide leader in the dental industry, merging with Dentsply International in 1964. In 2020, R&R set its sights as an independent business to proudly offer traditional lab products worldwide once again under the R&R brand. In this time of change our approach is simple: offer the products our customers need today. We trust that with every purchase, you will experience our vast years of knowledge, quality and service.

Sincerely,

Daniel Nixon
President, Ransom & Randolph, LLC



1901 catalog photo credit: www.walkaboutbooks.net

Laboratory Simulation

From our position as the global leader in dental investment technology over 100 years ago to our leadership in adapting this technology into the industries of jewelry, automotive, medical, and aerospace, R&R remains the leader in technical capabilities for lost wax casting. Our research department maintains a multi-million dollar equipped laboratory that is one of the largest, most advanced in investment casting.



Thermal Expansion Dilatometer
Measures the thermal expansion in dimensional changes associated with temperature change



Modulus of Rupture Unit
Measures compressive strength at various points of pressure



Permeability Unit
Measures airflow through materials



Differential Scanning Calorimetry Unit
Measures heat flows associated with phase changes



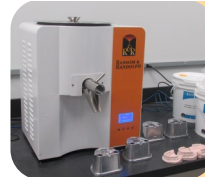
Thermogravimetric Analysis
Measures weight changes associated with temperature change

Production Simulation

Our team of engineers maintain full product simulation capabilities to assist customers in troubleshooting their processes, whether in the casting of partial dentures frames, gold jewelry, medical implants, or critical aerospace components.



Resin Pattern Printing
3D prints designs with fine detail and excellent burnout capabilities for simulating test parts



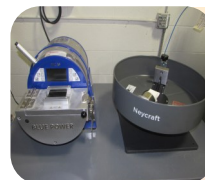
Neycraft™ Multizone™ Duplicating Unit
Melts and pours up to 3 gallons of duplicating material for ease of replication of master models as well as testing for hydrocolloid, gypsum, and investment compatibility



Vacuum & Model Making
Mixing silicone, duplicating materials, stones, and investments in a vacuum seal



Burnout Furnaces
Our Vulcan® burnout furnace, Nabertherm™ burnout furnace, and Hones™ gas furnace processes gypsum-based, phosphate, and ethyl silicate based investments in a variety of environments at high temperatures to burn out any wax left in a mold



Casting Machines
Our Neycraft™ centrifugal caster, over-pressure tilt unit, and pressure-over-vacuum casting unit simulate casting processes used in the global market

Technical Support Contact

Technical@Ransom-Randolph.com
800.800.7496 (US Toll Free)

Have a question regarding application, troubleshooting, feedback, tips, or need advice?

Ask the experts by contacting our Technical Team for support.

We are happy to help you!



PLACE AN ORDER OR REQUEST A QUOTE



Buy Online

Visit Shop.Ransom-Randolph.com

Authorized Distributors

For a list of authorized distributors near you, visit Ransom-Randolph.com/Distributors or contact your region's R&R Customer Service Team.

R&R's Sales Team

Contact your R&R Regional Sales Manager/Engineer to see how R&R's dental lab products can meet the needs of your individual dental lab.



Contact:

Find your R&R Regional Sales Manager/Engineer at Ransom-Randolph.com/RR-Team

Contact Customer Service

R&R takes great pride in providing customers with a pleasant procurement experience. From initial order placement through delivery, R&R's customer service team takes responsibility for accurate and efficient processing of your material needs. As a result, R&R's customer service team is unmatched in the industry.

USA Office Customer Service Team



Serving the Following Regions:

North America, South America, Africa, Asia



Address:

3535 Briarfield Boulevard
Maumee, Ohio 43537



Phone:

800.800.7496 (US Toll Free)
+1 419.865.9497



Email:

CustomerService@Ransom-Randolph.com



Hours of Operation:

Monday-Friday, 8:00am-4:30pm EST

European Office Customer Service Team



Serving the Following Regions:

Europe (including the EU and the UK)



Address:

Leipziger Straße 40
04571 Rötha Germany



Phone:

+49 342 06373999



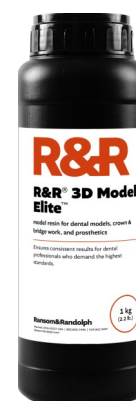
Email:

EUCustomerService@Ransom-Randolph.com



Hours of Operation:

Monday-Friday, 8:30am-4:30pm CET



Model Resins



- BEIGE
- GRAY

R&R® 3D Model Elite™ resin

The ultimate solution for dental labs that demand the highest level of precision and accuracy. Features a fast cure profile, reducing post-processing time. Compatible with thermoforming processes and designed for daily-use or intricate applications like crown & bridge work, partials, and prosthetics.

Designed for seamless compatibility with a wide range of 3D printers and curing units from trusted manufacturers including Asiga, Ackuretta, Shining 3D, Phrozen, Anycubic, and more.

- 1 kg (2.2 lb.)
- Beige57061
 - Gray57085



- BEIGE
- GRAY

R&R® 3D Model Standard™ resin

An economical and versatile solution for dental labs requiring high accuracy across a range of model applications. Designed for large build plates to support efficient, high-volume production. Compatible with thermoforming processes and ideal for producing orthodontic models, prosthetics, partials, and daily-use dental models as well as orthodontic applications, including dental aligners and retainers.

Features seamless compatibility with a wide range of 3D printers and curing units from trusted manufacturers including Asiga, Ackuretta, Shining 3D, Phrozen, Anycubic, and more.

- 1 kg (2.2 lb.)
- Beige57146
 - Gray57153

Castable Resins



- PURPLE

P2C™ Dental Cast resin

A high-strength, dimensionally stable, and ash-free castable 3D printing resin, formulated for clean burnout and accurate metal casting. Its advanced composition prevents deformation after printing, ensuring precise, detailed restorations.

Features seamless compatibility with a wide range of 3D printers and curing units from trusted manufacturers including Asiga, Ackuretta, Shining 3D, Phrozen, Anycubic, and more.

- 1 kg (2.2 lb.)
- Purple.....57528



Tuff-Stone™ Resin type IV die stone

A high-strength, resin-reinforced stone with controlled expansion, precise detail reproduction, and excellent chip resistance. Ideal for dies, denture models, opposing models, and crown & bridge bases.

44 lb. (20 kg)

- Golden Brown....402335



FiberStone™ Resin type IV die stone

Features advanced reinforcing fibers which inhibit crack formation and expansion, reducing breakage and chipping during model manipulation and cutting. Reduces the number of pins required during the model building, requiring fewer pours.

Patented.

25 lb. (11.3 kg)

- Golden Brown....402332

44 lb. (20 kg)

- Golden Brown....402330

Die Stones



BLUE

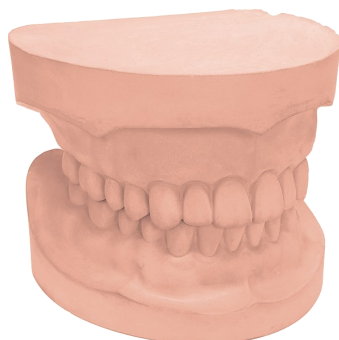
GREEN

IVORY

**Glastone® 3000
type V die stone**

Engineered for optimal expansion, delivering a high-strength, velvety-smooth, glaze-like finish. Produces ultra-hard dies and casts. Optimum expansion properties enhances fit when used for crown & bridge dies and models. Excellent for use with non-precious alloys.

- 25 lb. (11.3 kg)
- Green990800
 - Ivory990820
- 44 lb. (20 kg) box
- Blue4990850
 - Green4990840
 - Ivory4990860



PEACH

TAN

**Glastone®
type IV die stone**

A premium quality stone for super-hard casts, dies and cast partial frameworks. With its low-expansion, it is ideal for the fabrication of models and dies.

- 25 lb. (11.3 kg)
- Peach99058
 - Tan99055
- 44 lb. (20 kg) box
- Peach499056



BLUE

PINK

WHITE

**Master Model™
type IV die stone**

A high-strength, low-expansion stone with excellent stacking properties for precise detail reproduction. Ideal for models and dies.

- 44 lb. (20 kg)
- Blue42155
 - Pink42157
 - White42156



GOLDEN BROWN

**Tuff-Stone™
type IV die stone**

A high-strength, gypsum-based stone with controlled expansion, precise detail reproduction, and excellent chip resistance. Ideal for dies, denture models, opposing models, and crown & bridge bases.

- 44 lb. (20 kg)
- Golden Brown42330

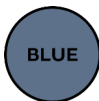
Model Stones



**Uni-Rock™
type III model stone**

An extra-smooth, low-expansion stone for precise model fabrication. Ideal for all types of models.

- 44 lb. (20 kg)
- Buff402125



**LabStone®
type III model stone**

A versatile all-purpose stone suitable for any application where plaster or stone is required. Ideal for fabricating models and flasking acrylic dentures.

Available in regular and fast-setting formulas.

- 25 lb. (11.3 kg)
- Blue99200
 - Buff99203
- 44 lb. (20 kg)
- Blue499201
 - Blue, Fast Set.....400199
 - Buff499204

Base Stones



**Castone®
type III base stone**

A high-quality, high-strength base stone ideal for dental casts, investing, and articulator mounting.

- 25 lb. (11.3 kg)
- Cream99043
 - White99047
- 44 lb. (20 kg)
- Cream499044
 - White499046

Orthodontics



**OrthoStone
type III orthodontic stone**

A hard, pure white dental stone with excellent detail reproduction. Ideal for orthodontic working models

- 25 lb. (11.3 kg)
 - White99206
- 44 lb. (20 kg)
 - White499207



**Ortho Plaster
type II orthodontic plaster**

A pure white, fine plaster with a smooth finish. Formulated for orthodontic study models.

- 25 lb. (11.3 kg)
 - White99216
- 44 lb. (20 kg)
 - White499217

Plaster



**Model Plaster
type II modeling plaster**

A fine, pure white plaster for hard, dense models, flasking, articulating casts, and general lab use.

- 20 lb. (9.1 kg)
 - White99031



**Plaster
type II modeling plaster**

A high-quality, dental-grade plaster offering excellent value.. Ideal for general model work and articulation. Available in regular and fast-setting formulas.

- 44 lb. (20 kg)
 - White 400211
 - White, Fast 400214

Typical Material Properties*

	Type	Color	Water to Powder Ratio (ml:g)	Set Time (minutes)	Set Expansion (%)	Minimum Compressive Strength at 1 Hour (psi)	Minimum Dry Compressive Strength (psi)
Glastone 3000 die stone	V	Blue, green, ivory	21:100	10-13	0.16-0.3	7000	16000
FiberStone resin die stone	IV	Golden brown	19:100	10-13	≤ 0.13	6000	14000
Master Model die stone	IV	Blue, pink, white	24:100	8.5-10.5	≤ 0.15	5000	10000
Tuff-Stone die stone	IV	Golden brown	19:100	10-13	≤ 0.13	8000	19000
Tuff-Stone resin die stone	IV	Golden brown	19:100	10-13	≤ 0.13	6000	12000
Glastone die stone	IV	Peach, tan	22:100	7.5-9.5	≤ 0.15	3000	9000-15000
Castone base stone	III	Cream, white	30:100	8-10	≤ 0.2	3000	8000
LabStone model stone	III	Regular: Blue, buff	30:100	Regular: 8-10	≤ 0.2	3000	8000
		Fast Set: Blue		Fast Set: 5-7			
OrthoStone dental stone	III	White	27:100	9-11	≤ 0.2	3000	10,500
Uni-Rock model stone	III	Buff	30:100	8.5-10.5	≤ 0.14	3000	8,500
Model Plaster	II	White	47:100	7-9	0.06-0.3	1300	3000
Ortho Plaster	II	White	37:100	12-14	0.06-0.3	1300	6500
Plaster	II	White	47:100	Regular: 6-8	≤ 0.25	1600	3500
				Fast Set: 4-6			

*These results are based on the testing methods, frequency and procedures of Ransom & Randolph or its approved suppliers. The data referenced herein are only for general guidance and do not constitute a firm specification.

Reversible Hydrocolloids

BLUE



TRANS/
BEIGE

Uniflex™ duplicating material

Formerly known as Polyflex® duplicating material

A premium, all-purpose, user-friendly, fully reversible duplicating hydrocolloid. Ideal for producing refractory and dental stone models, as well as molds for the fabrication of partial and full dentures utilizing the fluid resin pouring technique. Can be used with stones, ethyl silicate investments, and phosphate investments.

Available with or without dye.

- 2 gal (7.5 L)
- Transparent/Beige...021955
 - Blue021655

TRANS/
TAN



Perflex® duplicating material

A premium, fully reversible duplicating hydrocolloid designed exclusively for producing ethyl silicate refractory models as well as molds for the fabrication of partial and full dentures using the fluid resin pouring technique. Can only be used with ethyl silicate investments.

- 2 gal (7.5 L)
- Transparent/Tan021055

AQUA
BLUE



Multiflex™ duplicating material

An economical, all-purpose, user-friendly, fully reversible duplicating hydrocolloid. Ideal for producing refractory and dental stone models, as well as molds for the fabrication of partial and full dentures utilizing the fluid resin pouring technique. Can be used with stones, ethyl silicate investments, and phosphate investments.

- 2 gal (7.5 L)
- Aqua Blue03165

PINK



Instaflex™ Concentrate duplicating material

An economical, all-purpose, fully reversible concentrated duplicating hydrocolloid. Just add water to make 3 gallons. Ideal for producing refractory and dental stone models, as well as molds for the fabrication of partial and full dentures utilizing the fluid resin pouring technique. Can be used with stones, ethyl silicate investments, and phosphate investments.

- 1 gal (3.8 L)*
- Pink021985
- *Makes 3 gal (11.3 L).
Just add water.

Silicone Rubber



Lab-Flex™ 16 silicone rubber

An addition PVS-based duplicating material ideal for model duplication in the dental laboratory with an easy base to catalyst mixing ratio of 1:1. No vacuum required for mixing. Copies details precisely, has long term dimensional stability, and is resistant to contact with various types of resins, investments, and gypsums.

Base Color: Purple / Catalyst Color: White

- 800 g base + 800 g catalyst
- 1600 g kit.....05000

Lab Putties



Lab-Flex™ 75 dental putty

A PVS-based 75 Shore A impression material with an easy base to catalyst mixing ratio of 1:1. Offers excellent consistency and workability and is ideal for scanning with CAD/CAM systems.

Base Color: Light Blue / Catalyst Color: White

- 800 g base + 800 g catalyst
- 1600 g kit.....04000



Lab-Flex™ 85 dental putty

A PVS-based 85 Shore A impression material with an easy base to catalyst mixing ratio of 1:1. Rigid setting and characterized by an excellent balance between elasticity and final hardness.

Base Color: Green / Catalyst Color: White

- 11 lb. base + 11 lb. catalyst
(5 kg base + 5 kg catalyst)
- 22 lb. (10 kg) kit.....



Lab-Flex™ 85 Touch dental putty

A PVS-based 85 Shore A impression material with an easy base to catalyst mixing ratio of 1:1. Rigid setting and characterized by an excellent balance between elasticity and final hardness.

Base Color: Dark Blue / Catalyst Color: White

- 11 lb. base + 11 lb. catalyst
(5 kg base + 5 kg catalyst)
- 22 lb. (10 kg) kit.....

Baseplate Wax



TruWax™ baseplate wax

A high quality baseplate wax that carves easily at room temperature and boils-out cleanly.

- 5 lb. (2.3 kg)
 - Pink.....08200



NeoWax® baseplate wax

An all-purpose, high-grade wax that is tough, pliable, and boils out cleanly.

- 5 lb. (2.3 kg)
 - Pink.....08000

Boxing Wax



R&R® Boxing Wax

A flexible, tacky wax ideal for boxing impressions.

- 5 lb. (2.3 kg)
 - Red.....08100

Bite Rim Wax



R&R® Bite Rim Wax

Preformed wax sticks ideal for establishing vertical dimension and arranging artificial denture teeth.

- 5 lb. (2.3 kg)
 - Red.....*Coming Soon!*

Pre-Formed Patterns

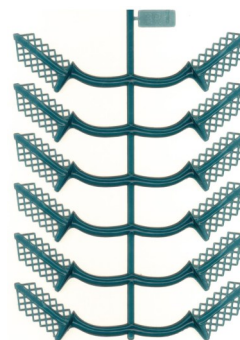


Flex-Form™ resin patterns

A proprietary blend of plastic and wax made in a pre-made shape that provides excellent burnout capabilities for optimal castings.

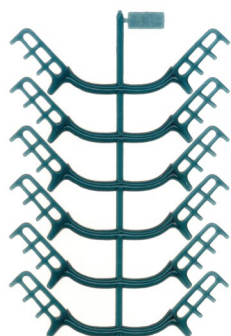
The variety of shapes make Flex-Form resin patterns ideal for any dental lab.

Tip: To increase the adhesion between the Flex-Form resin patterns and model, use Flex-Tack™ solution.



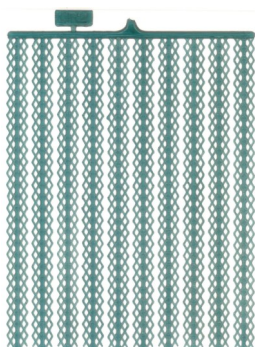
**BR1
Lingual Bar
with Mesh**

Ideal for mandibular RPD wax-ups.
Set of 8 sheetsBR1



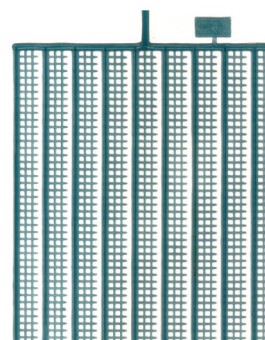
**BR2
Lingual Bar
with Open
Grid**

Ideal for mandibular RPD wax-ups.
Set of 8 sheetsBR2



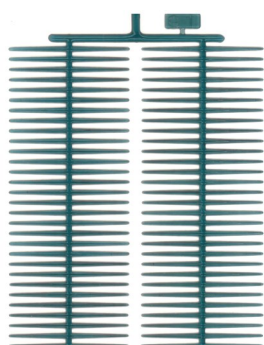
**CR2
Diamond
Mesh with
Strengthening
Bar**

Provides embedded reinforcement to strengthen upper or lower dentures, implant dentures, or edentulous with minimal space.
Set of 8 sheets.....CR2



**CR3
Finish
Line with
Retention
Mesh**

Ideal for modelling upper-jaw frames.
Set of 8 sheets CR3



**G1
Straight
Clasp**

Versatile to meet your requirements. Can be adapted to all teeth as Akers or Roach clasps.
Set of 8 sheets G1



**G2A
Straight
Clasp**

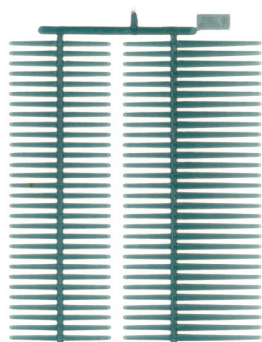
Versatile to meet your requirements. Can be adapted to all teeth as Akers or Roach clasps.
Set of 8 sheets G2A



**G2B
Straight
Clasp**

Versatile to meet your requirements. Can be adapted to all teeth as Akers or Roach clasps.
Set of 8 sheets.....G2B

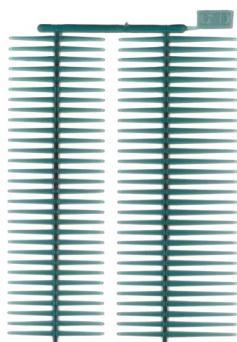
Pre-Formed Patterns



G2C
Straight
Clasp

Versatile to meet your requirements. Can be adapted to all teeth as Akers or Roach clasps.

Set of 8 sheets G2C



G2D
Straight
Clasp

Versatile to meet your requirements. Can be adapted to all teeth as Akers or Roach clasps.

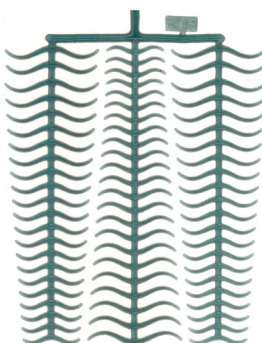
Set of 8 sheets..... G2D



G3
Akers
Clasp

Ideal for most bi-cuspids.

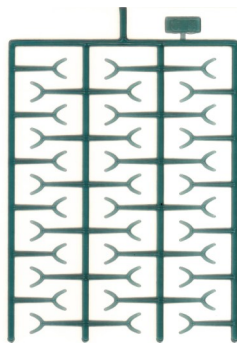
Set of 8 sheetsG3



G4S
Akers
Clasp

Features both bi-cuspid and molar clasp lengths on the same sheet.

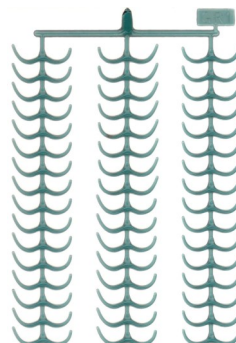
Set of 8 sheets G4S



G5
Roach
Clasp

Generally used for cuspids and bi-cuspids. Can easily be modified to clasp molars.

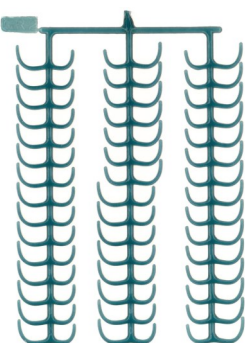
Set of 8 sheets.....G5



GR1
Clasp

Ideal for bi-cupids and molars. The longer clasp is for retentive undercut while the shorter is for bracing the side of the tooth.

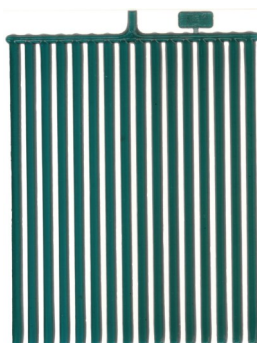
Set of 8 sheets GR1



GR2
Clasp

Ideal for bi-cupids and molars. The longer clasp is for retentive undercut while the shorter is for bracing the side of the tooth.

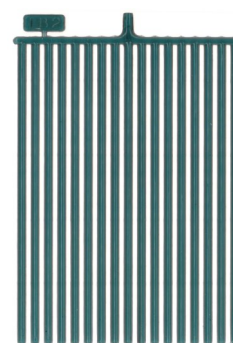
Set of 8 sheets GR2



IB1
Straight
Lingual
Bar

Features a half-teardrop profile, making it ideal for the manual arch.

Set of 8 sheetsIB1

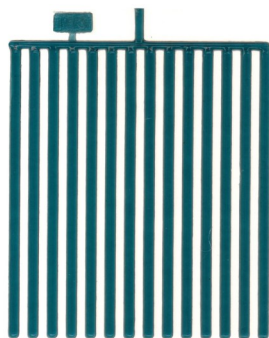


IB2
Straight
Lingual
Bar

Features a half-teardrop profile, making it ideal for the manual arch.

Set of 8 sheets..... IB2

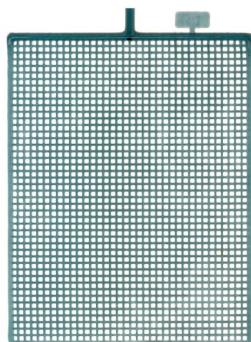
Pre-Formed Patterns



IB3
Straight
Lingual
Bar

Features a half-teardrop profile, making it ideal for the manual arch.

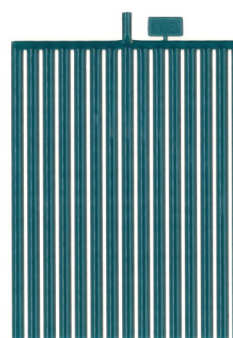
Set of 8 sheetsIB3



RT1
Mesh

Preformed mesh that adapts easily to edentulous areas.

Set of 8 sheets..... RT1



SB
Palatal Bar

Features a half-round profile, making it ideal for maxillary palatal bar frameworks.

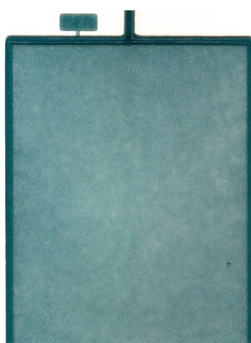
Set of 8 sheets SB



22GA
Stipple

Generally used for maxillary frameworks. Can be used for lower lingual aprons.

Set of 8 sheets22GA



24GA
Stipple

Generally used for maxillary frameworks. Can be used for lower lingual aprons.

Set of 8 sheets..... 24GA

Pattern Adhesives



Flex-Tack™
solution

An adhesive liquid formulated to increase adhesion between patterns and models. The 2 ounce jar includes a built-in brush for precise and easy application.

2 fl oz (4 count)068750
32 fl oz (0.95 L)06700



Biovest® investment & Universal Expansion liquid

A high expanding, extra strength investment ideal for casting printed patterns or traditional wax patterns using the flash-fire method. Provides smooth castings with a short working time. Ideal for casting precious and nonprecious, high temperature alloys for crown & bridge, partial denture frames, and pressing ceramics.

Use with Universal Expansion Liquid for optimal performance.

Biovest investment

- 100 g (80 count)...26421
- 400 g (30 count)...26416
- 25 lb. (11.3 kg)....264151

Universal Expansion Liquid

- 32 oz (0.95 L).....26410



Multi-Vest® investment & Universal Expansion liquid

A phosphate-bonded investment ideal for casting using traditional methods. Provides smooth castings with a short working time while reducing the risk of flashing. Ideal for casting precious and nonprecious, high temperature alloys for crown & bridge and partial denture frames.

Use with Universal Expansion Liquid for optimal performance.

Multi-Vest investment

- 400 g (30 count)...14292
- 33 lb. (15 kg).....99010

Universal Expansion Liquid

- 32 oz (0.95 L).....26410



Oxyplus™ investment & liquid

An investment and liquid combination that provides easy removal. Ideal for casting low expanding printed patterns or traditional wax patterns. Provides smooth castings with a short working time. Ideal for casting precious and nonprecious, high temperature alloys for partial denture frames.

Oxyplus investment

- 40 lb. (18.2 kg)....400043

Oxyplus liquid

- 1 gal (3.8 L) 400047



Aquamex™ Water Mix oxyphosphate investment

An oxyphosphate investment that uses water as a binder. Delivers smooth castings with a short working time. Ideal for casting precious and nonprecious, high temperature alloys for partial denture frames.

- 40 lb. (18.2 kg) 400010



Formula 1[®] investment

Formerly a Whip Mix product

A universal phosphate investment for all alloys and pressable ceramics. Designed with a wide expansion range to achieve optimal fit using either flash fire or ramped burnout technique.

Use with Special Liquid Concentrate PLUS for optimal performance.

Formula 1 investment

- 60 g (50 count).....38151
- 60 g (150 count)...38170
- 100 g (50 count)...38152
- 100 g (100 count)...38171
- 2.5 kg (4 count).....38173

Special Liquid Concentrate PLUS

- 33.8 oz (1 L).....38127
- 11.5 oz (340 mL)...38122



Hi-Temp investment

Formerly a Whip Mix product

Ensures a smooth surface finish, flows effortlessly to capture fine details and sharp margins, and provides exceptional strength to protect the mold during casting. Ideal for casting non-precious and palladium alloys.

Use with Special Liquid Concentrate for optimal performance.

Hi-Temp investment

- 60 g (144 count)...00663
- 100 g (144 count)...00671
- 33 lb. (15 kg).....330215

Special Liquid Concentrate

- 33.8 oz (1 L).....02194
- 11.5 oz (340 mL)...02135
- 1 gal (3.8 L).....02240



ResinVest[™] investment

Formerly a Whip Mix product

A fiber-reinforced investment for all alloys and pressable ceramics. Designed for casting or pressing resin and wax patterns with enhanced resistance to cracking and finning.

Use with Special Liquid Concentrate PLUS for optimal performance.

Resin-Vest investment

- 33 lb. (15 kg).....330201

Special Liquid Concentrate PLUS

- 33.8 oz (1 L).....38127
- 11.5 oz (340 mL)...38122



FastFire 15 investment & FastFire Liquid

Formerly a Whip Mix product

A fine-grained phosphate investment that produces accurate, smooth castings using either the ringless or metal ring technique. Universal for casting all crown & bridge alloys.

Use with FastFire Liquid for optimal performance.

FastFire 15 investment

- 60 g (25 count).....38089
- 60 g (150 count)...38134
- 90 g (25 count).....38097
- 90 g (100 count)...38142
- 33 lb. (15 kg).....330220

FastFire liquid

- 33.8 oz (1 L).....38161
- 11.5 oz (340 mL)...38166



Cera-Fina investment

Formerly a Whip Mix product

A carbon-free, fine-grained formula that produces a silky-smooth mix, resulting in accurate casting with smooth surfaces. Ideal for casting all classes of alloys.

Use with Special Liquid Concentrate for optimal performance.

Cera-Fina investment

- 60 g (144 count)...05134
- 90 g (144 count)...05142
- 33 lb. (15 kg)330225

Special Liquid Concentrate

- 33.8 oz (1 L)02194
- 11.5 oz (340 mL)...02135
- 1 gal (3.8 L)02240



Cermigold investment

Formerly a Whip Mix product

A tough, dependable phosphate investment with carbon for bright, gold-colored castings. Uniform results time after time. Ideal for casting ceramic gold and crown & bridge alloys.

Use with Special Liquid Concentrate for optimal performance.

Ceramigold investment

- 60 g (144 count)...00427
- 90 g (100 count)...00432

Special Liquid Concentrate

- 33.8 oz (1 L)02194
- 11.5 oz (340 mL)...02135
- 1 gal (3.8 L)02240



PC 15 investment

Formerly a Whip Mix product

A phosphate investment for pressable ceramics. Easy to use, fine-grain investment providing reliable results with modern ceramic systems.

Use with FastFire Liquid for optimal performance.

PC 15 investment

- 100 g (100 count) .38183

FastFire Liquid

- 33.8 oz (1 L)38161
- 11.5 oz (340 mL)...38166

Ethyl Silicate



Chromex™ investment & liquids

A two-part ethyl silicate investment formulated for strength to reduce potential cracking during burnout. User-friendly, fool proof technique ensures exceptional results. Ideal for casting precious and nonprecious, high temperature alloys for partial denture frames.

Available in Regular and Fine formulas.

- Chromex investment
- 47 lb. (21 kg).....400102
- Chromex Fine investment
- 47 lb. (21 kg).....400108
- Chromex™ liquids
- 1 gal (3.8 L) & 500 ml kit
 - A & B liquids kit...400117



Neoloy® 'E' investment with ABC binders

An ethyl silicate investment system consisting of investment and three liquids. Provides an extended working time for ease of use. Ideal for casting precious and nonprecious, high temperature alloys for partial denture frames.

- Neoloy 'E' investment
- 47 lb. (21 kg).....400022
- ABC Binders
- 1 gal (3.8 L) - 3 count
 - 3 gal (11.3 L) kit...400023

Refractory Die Material



Polyvest refractory die material

Formerly a Whip Mix product

A refractory die material with medium thermal expansion. Formulated with a coefficient of thermal expansion to closely match today's newer porcelains.

Use with Special Liquid Concentrate PLUS for optimal performance.

- Polyvest investment
- 60 g (24 count)24930
- Special Liquid Concentrate PLUS
- 33.8 oz (1 L).....38127
 - 11.5 oz (340 mL)...38122



Univest™ investment

A gypsum-based investment developed for high reliability and compatibility with low heat partial denture alloys. Ideal for casting low temperature alloys for crown & bridge and partial denture frames.

25 lb. (11.3 kg)..... PV2600
44 lb. (20 kg)..... PV2605



Beauty Cast investment

Formerly a Whip Mix product

Uniform results with minimal effort using the hygroscopic expansion technique. Ideal for casting low-fusing crown & bridge alloys.

50 g (24 count)00078
50 g (144 count)00108
33 lb. (33 kg)330230



Cristobalite™ investment

Formerly a Whip Mix product

A gypsum investment for low-fusing crown and bridge alloys. Offers high thermal expansion at low temperatures. Suitable for all inlays with standard vacuum or painting techniques.

50 g (144 count)01228



Novocast investment

Formerly a Whip Mix product

An advanced inlay investment that provides increased accuracy for casting conventional gold alloys. Ideal for low-fusing crown & bridge alloys.

50 g (144 count)01082

Expansion Liquids



Universal Expansion Liquid

Enhances the setting expansion and thermal expansion of investments.

Use with Biovest® and Multi-Vest™ investments for optimal performance.

32 oz (0.95 L).....26410



Special Liquid Concentrate & Special Liquid Concentrate PLUS

Formerly a Whip Mix product

Achieves greater expansion of investments.

Use with Cera-Fina, Ceramigold, FastFire 15 (PLUS), Formula 1® (PLUS), Hi-Temp, and Polyvest (PLUS) investments for optimal performance.

- Special Liquid Concentrate
- 33.8 oz (1 L).....02194
 - 11.5 oz (340 mL)...02135
 - 1 gal (3.8 L)02240

- Special Liquid Concentrate PLUS
- 33.8 oz (1 L).....38127
 - 11.5 oz (340 mL)...38122



FastFire Liquid

Formerly a Whip Mix product

Controls the expansion of investments.

Use with FastFire 15 and PC 15 investments for optimal performance.

- 33.8 oz (1 L).....38161
- 11.5 oz (340 mL)38166

Mold & Pattern Coat



Protective Coat powder & liquid/All Purpose Protective Coat

Refractory powders and a specialized liquid binder specifically designed to be used as a wash coat for refractory models made in Perflex® duplicating material and as a face coat for plastic/wax patterns. Can be mixed to your preferred thickness or bought as a pre-made slurry (All Purpose Protective Coat).

- Protective Coat powder
- 8.8 lb. (4 kg).....026204
- Protective Coat liquid
- 1 L (3.8 gal)025835
- All Purpose Protective Coat
- 200 ml (4 count) .025920

Alloys



Neoloy® Plus CoCr alloys

Delivers inclusion-free precision castings with adjustable spring hardness, fracture resistant elasticity, and a brilliant luster. Ideal for torch casting or induction casting.

Available in Regular or Hard formulas.

1 kg resealable pouch

- Regular.....600000
- Hard.....600030

Disposable Rings



Foil Lined Rings

Foil-lined disposable ring.

3.5" (89 mm) diameter x 3" (75 mm) tall.

200 count carton.....71000

Dips



R&R® Rosin Dips

Low-melting dips ideal for sealing partial denture refractory models.

Available in Standard and Hard formulas.

R&R Rosin Dip

- 10 lb. (4.5 kg).....06500

R&R Rosin Dip Hard

- 15 lb. (6.8 kg).....06000



R&R® Cold Dip

An environmentally friendly, cold rosin dipping solution.

1 gal (3.8 L).....06800

Fused Alumina



**R&R® WFA™
white fused alumina**

A high-purity, fine-blast abrasive for divesting and cleaning appliances, delivering consistent, reliable performance with uniform particle sizes. Among the highest quality available with over 99% purity.

44 lb. (20 kg)

- 100 microns19300
- 50 microns.....19400

Walnut Shells



R&R® Ground Walnut Shells

An abrasive media to blast, clean, and polish acrylics. Highly durable and reusable, minimizing breakdown and reducing costs.

50 lb. (22.7 kg)

- 12/2007400
- 10/1207500

Wax Pens



R&R® Wax Pen

A versatile tool designed for various wax modeling tasks. With its straightforward design and functionality, this portable device simplifies wax sculpting, modification, and shaping. Offers a wide temperature range, making it suitable for a wide range of applications. Its compact, lightweight design ensures easy handling and precision.

Wax pen & 6 tips800001

Duplicating Units



Neycraft™ Multizone™ duplicating unit

An innovative and user-friendly unit capable of meeting the changing needs as workflow increases and decreases. Designed with a number of unique operating features:

- Smart capability to work with variable capacities
- Lid safety switch to prevent fire, damage, and injury
- Complete user temperature control
- Power saving feature to extend motor life
- Preprogrammed and ready-to-use with the ability to adjust features easily

3 gallon unit (Melts 1, 2, or 3 gallons of material)
 120V 535631000
 230V 535632000
 5 gallon unit (Melts 3, 4, or 5 gallons of material)
 230 V 535652000

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

Casting machine9491045

Vulcan® burnout furnaces

Provides faster heating and cooling than full firebrick as well as a longer life and more durability than fiber construction. 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. Its vertical lift door directs heat away from the operator and is standard for safety and space conservation.

Each furnace comes with a 1-Year Limited Warranty.



Vulcan Single-Stage burnout furnace

Features a single-stage digital controller.



Vulcan 3-Stage burnout furnace

Features a 3-stage digital controller.

Available in two standard muffle sizes .

S-550 100-120V	5355730002
S-550 200-240V	5355730001

3-130 200-240V	5355740001
3-130 100-120V	5355740002
3-550 200-240V	5355740003
3-550 100-120V	5355740004

Spare Parts

We know eventually equipment breaks due to wear and tear. Fortunately, we have 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.

Spare Parts for Vulcan burnout furnaces

Encoder.....	SRM-02844	Service muffle assy 130 120V.....	9493422
Exhaust port plug, 1" kit.....	9491093A	Service muffle assy 130 230V.....	9493420
Insulation, door-130.....	9493325	Shelf: Free standing model 550	9493327
Insulation, door-550.....	9493365	Switch.....	1835.3118
Membrane switch 3-130.....	FP-02899	Switch, door	9493338
Membrane switch 3-550.....	FP-02881	Thermocouple.....	TC-005
Motor; spring.....	9356001	Tongs, MFG	9491010A
Rubber foot.....	9390616	Tray: bottom model 130.....	9353053
Service board 3-stage.....	DENT3STAGE	Tray: bottom model 550.....	9353057
Service board single-stage.....	DENTA	Vulcan 120 volt power cord.....	FP-02842
Service muffle 550 120V.....	9493471	Vulcan 240 volt power cord.....	FP-02839
Service muffle 550 230V.....	9493423	Vulcan 240 volt power cord Euro	FP-02841

Spare Parts for the Neycraft centrifugal casting machine

Clutch & coupling assembly.....	9491056	Service Slide assembly	9491054
Crucible former 2.0 dia.....	9357118	Silica crucible replacement.....	9353025
Counterbalance weight.....	9491066	Tongs, MFG.....	9491010A

R&R'S DENTAL ROOTS

R&R's roots run deep in the dental industry. Starting in 1872, we provided supplies, instruments, and investments for casting gold dental inlays. Today, R&R is pleased to offer a variety of dental casting



1872 - 1876

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

1882



R&R becomes a founding member of the American Dental Trade Association (ADTA), now known as the Dental Trade Alliance (DTA)



2000

R&R acquires the PreVest™ line of dental stones, plasters, and investments

1968

R&R sells its dental retail outlets and retains its wholesale operations

1964

R&R becomes the fourth largest dental dealer chain and is sold to Dentsply Sirona (DS)



2003

R&R absorbs manufacturing and R&D personnel from Austenal® Laboratories



2012

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



2019

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

Proudly serving the dental industry for over 150 years!

2025

R&R refreshes its identity to represent its commitment to advancing innovation and delivering industry-leading solutions.

furniture to dentists. Later, we continued on to develop revolutionary dental products, such as products for modeling and investing applications.



c. 1890-1905

R&R releases dental cabinet line

**Photo is courtesy of DougSchmittAntiques.com*

1900

Ransom becomes President of ADTA

1900-1920

R&R publishes *The Dental Summary*, the precursor to JADA (*The Journal of the American Dental Association*)

1940s



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



1931

R&R launches Castone® dental stone, a type III stone

1904



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

2020



R&R divests from DS and assumes DS traditional lab portfolio



2021

R&R expands traditional dental lab line, leveraging industrial technology to develop FiberStone™ resin die stone

2022

R&R proudly celebrates its 150th anniversary



2025

R&R acquires the rights to the former Whip Mix investment line



2024

R&R completes a 50% expansion on its primary production facility to accommodate company growth

2023



R&R's opens its European office in Rötha, Germany, to provide order and shipping support for EU and UK customers

Master Model™
die stone



“Very accurate! Works great for very accurate models like we use for partial frameworks.”

- Connie Rose

R&R® 3D Model Elite™ model resin



“We’ve had a great experience using R&R 3D Model Elite resin in our lab. The team at R&R has been a great resource, offering quick and reliable technical support whenever we need it. Their expertise really stands out, and it’s been helpful in making sure we’re maximizing the resin’s potential. The resins performance has been seamless and easy to use with all appliances.”

- Lantz Dental Prosthetics

Uniflex™
duplicating material



“It’s great stuff! I get very accurate duplications and the material holds up very well and lasts fairly long with recycling over and over. I’ve been very, very happy with it. Thanks for everything.”

- Nick Hayden

Multi-Vest™
investment



“Best material I’ve ever used! After using it for the past 8-10 months, there is no doubt it is the best material I’ve ever used in 20 years. It’s an absolutely spectacular investment and I feel grateful to have been turned onto it. I’ve had great success with it. Thanks for everything.”

- Nick Hayden

Uninvest™
investment



“Perfect replacement! It’s the perfect replacement for Ticonium Investic investment!”

- CCDental Design

Uni-Rock™
dental stone



“I’ve used 264 pounds so far! It has just the right amount of working time to flask a metal partial. Strong enough for denture or partial models and opposing models for crown and bridge.”

- Steve's Dental Lab

R&R

Ransom&Randolph Dental Laboratory Catalog

Ransom-Randolph.com

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