

Issue #2

Adolf's Foundry Solutions

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Mission Statement

“Doing it Right the First Time”

Our mission is to provide new lean manufacturing practices to the foundry industry.

Adolf's Foundry Solutions are products made with the highest integrity, they are dependable, extremely durable and very cost effective.

History

1949

Adolf started his pattern maker apprenticeship in Berlin, Germany during 1949. Trained by German master craftsmen, Adolf excelled as an apprentice and completed a four year apprenticeship program in three years, allowing him to graduate at the top of his class with honors. In Germany, at that time, it was mandatory practice for all apprentices to spend six weeks working in a foundry doing piece work on the molding line. These experiences gave Adolf unique insights in visualizing and problem solving when building patterns.

1959

Adolf immigrated to Toronto, Canada in 1959. He searched for work within his trade as a journeyman pattern maker, but he was unable to find consistent work there. Finding North America to be a land of opportunity, Adolf then traveled West to British Columbia, Seattle, and eventually he settled in Portland, Oregon.

1961

Adolf obtained work as a patternmaker in Portland, Oregon at Dependable Pattern Works. A year later he met his wife to be, Leonor Larios, a young accountant from San Pedro Sula, Honduras. They married in 1962 and had three children throughout the course of six years.

1969

Adolf and Leonor Volkmann decided to go independent and started their own family operated business...Adolf's Pattern Shop, Inc.

1984

Adolf developed the Style ~A~ alignment inserts to eliminate shift in the molding process, and started working on the tooling for The Style ~B~ alignment inserts.

2014

Adolf has engineered and developed 122 products to support the foundry industry in North America and world wide. This year he will celebrate his 80th Birthday...he still comes to work everyday.



Alignment Solutions

Style ~A~ Alignment Insert



Ai-100
1.5 dia.



Ai-101
2.0 dia.



Ai-102
2.5 dia.



Ai-103
2.5 dia.



Ai-104
3.5 dia.

Style ~A~ alignment inserts are available in four different sizes and have three different depths. These inserts are made out of A.B.S. plastic and will help foundries create a perfect match when mounted on: match plates, match boards, insert boards, cope & drag boards, and molding boxes. These alignment inserts can also be used in cold molding, air set, no bake and vacuum molding.



ACP-130
2.5 x 1.87 x 15°



ACP-131
2.5 x 2.5 x 10°



ACP-132
3.5 x 3.5 x 10°

Alignment Core Print

Alignment core prints are a great solution for aligning larger molds. Our prints locate on a half inch hole and are used in green sand, no bake, air set, and vacuum molding. They are reversible and fit perfectly on either side of the cope and drag match boards. Adolf designed his core prints with a sand-trap ring and an additional .125 inch height for clearance to collect any sand that rubs off during mold closure. The sand-trap rings are absolutely necessary for no bake and air set molding.

These alignment prints are supported by our alignment core boxes.

Wood Cutting Tools

Adolf's wood cutting tools are specifically designed to support styles A & B alignment inserts. They are made of hardened high speed steel and will create a perfect diameter on all your wooden match boards or molding boxes. Our cutting blades are interchangeable with the cutting blade holder. This allows pattern shops and foundries to explore multiple options in creating different diameters with limited tooling cost. *Do not use on aluminum plates.*

- WCT-120** 1.5 in cutter w. 3/8 pilot hole.
- WCT-121** .75 in. cutting blade holder.
- WCT-122** 1.5 in. cutting blade.
- WCT-123** 1.75 in. cutting blade.
- WCT-124** 2.0 in. cutting blade.
- WCT-125** 2.5 in. cutting blade.
- WCT-126** 3.5 in. cutting blade.



Alignment Solutions

Style ~B~ Alignment Insert



Ai-105
1.5 dia.



Ai-106
1.75 dia.



Ai-107
2.5 dia.



Ai-108
1.5 dia. Z Tol.



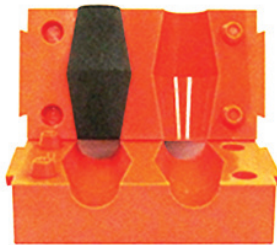
Ai-109
1.75 dia. Z Tol.



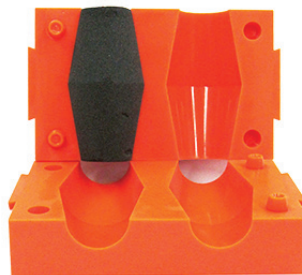
Ai-110
2.5 dia. Z Tol.

Style ~B~ alignment inserts are specifically designed for match plates & match boards for automated molding machines. With both halves telescoping and inter-locking at the parting through the diameter, these inserts will create the deepest match buttons possible and can be mounted on either side of the cope and drag. Our grey *zero tolerance* inserts are designed for the green sand **only**, and our 1.5 B & 2.5 B inserts can be modified to 3/8" or 1/2" plates.

Alignment Core Boxes



ACB-140
2.5 dia. x 5.in x 10°
2 Cavity Corebox



ACB-142
3.5 dia. x 7.in x 10°
2 Cavity Corebox



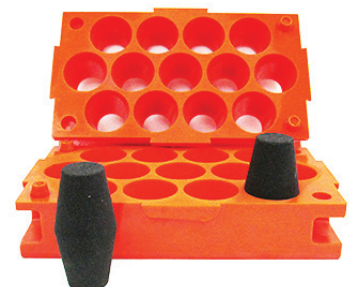
ACB-143
2.5 dia. x 5.in x 10°
7 Cavity Corebox



ACB-144
3.5 dia. x 7.in x 10°
7 Cavity Corebox



ACB-145
2.5 dia. x 2.375.in x 15°
13 Cavity Corebox



ACB-146
2.5 dia. x 5.in x 10°
13 Cavity Corebox

Adolf's alignment core boxes are lightweight, compact molds that produce perfectly round and seamless cores. They are available in *two*, *seven*, and *thirteen cavity* core boxes. All core boxes are secured with C-Clamps and made out of DuraTech tooling material for optimal wear resistance and effortless mold releasing properties.

Pouring & Filtering Solutions

Single Cavity Filtering Basins



PFB-200
2 sq. x 1 in. filter



PFB-201
3 dia. X 1 in. filter



PFB-202
3 sq. x 1 in. filter



PFB-203
4 sq. & 5 sq. filters



PFB-204
3 sq. x 1 in. filter

Adolf's single cavity filtering basins are lightweight molds made out of DuraTech tooling material. Imagine a combination of pouring, filtering, and riser technologies all in one basin. With several different basins to choose from, foundries can now use their own no-bake sand to create an endless supply of filtering basins. Additional savings can also be increased by utilizing sand reclamation.

Double Cavity Filtering Basins



PFB-207
2.17 sq. filters



PFB-208
2 sq. & 3 dia. filters



PFB-209
2.17 sq. & 3 dia.



PFB-210
2.17sq. & 3 sq.



PFB-211
2.5 dia. x .5 filter

Our double cavity filtering basins are also made of DuraTech tooling material. With twice the value of our single cavity filtering basins, foundries can actually increase productivity and profit by customizing these basins into 4 and 6 cavity basins. One customized six cavity filtering basin has already produced over 2 million cores and is still operational.

Pouring Basins



PBR-220
4.5 x 4.0 x 3.5 deep
2 dia. outlet



PBR-221
4.5 x 4.0 x 3.5 deep
2 dia. outlet



PBR-222
4.5 x 4.0 x 2.25 deep
2 dia. outlet

Single face *vortex* reducing pouring basins.

Pop-off riser or small pouring basins.

Tilt faced pouring cups.

Adolf's pouring basins are lightweight molds made out of DuraTech tooling material. They support no bake, greensand, air set, and flaskless molding.

Filtering Basins



PFB-205

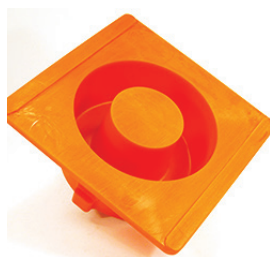
4 sq. x 1.25 in filter



PFB-206

PFB-205/Sand saver

Riser Rings



PBR-223

3 id. x 6 od. x 2.75 h



PBR-224

4 id. x 7.5 od. x 3 h



PBR-225

6 id. x 11 od. x 2.75 h



PBR-226

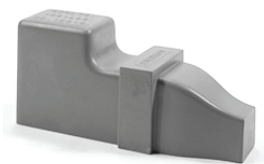
6 id. x 11 od. x 6 h

Adolf's riser rings are lightweight molds made out of DuraTech for exceptional durability and effortless mold releasing properties. Just spray once a day with a silicone based releasing agent and you will have years of worry free service.

Filtering Runner Basins

Filtering basins for the running system are an alternative filtering method used in the vacuum molding and horizontal filtering processes. Adolf's filtering basins are available in eight sizes and come with single and double filtering outlets. All filtering basins can be easily adapted to a running system and are secured with wood screws.

Single Outlet



FBR-230

2 sq. x .75 in. filter

Double Outlets



FBR-231

2 sq. x .75 in. filter



FBR-232

2.17 sq. x .5 in. filter



FBR-233

2.17 sq. x .5 in. filter



FBR-234

3 sq. x 1 in. filter



FBR-235

3 sq. x 1 in. filter



FBR-236

4 sq. x 1 in filter



FBR-237

4 sq. x 1 in filter

Sprue Alternatives

14 Inch Sprues



LDS-300
1.25 d x 2.25 d
w. 2° draft



LDS-301
1.50 d x 2.50 d
w. 2° draft



LDS-302
1.75 d x 2.75 d
w. 2° draft

Adolf's 14 inch sprues are made of DuraTech tooling material for effortless mold releasing properties. They come in three different sizes: 1¼, 1½, and 1¾ inches with a 2° draft angle. They are designed to support foundries that utilize extra long sprues in their molding process.

Filtering Sprue Plugs



DFP-310
2" dia. filter
8 in. hieght w. 2° draft



DFP-311
3" dia. filter
8 in. hieght w. 2° draft



DFP-312
4" dia. filter
8 in. hieght w. 2° draft



DFP-313
5" dia. filter
8 in. hieght w. 2° draft

Adolf's filtering sprue plugs are designed with a break off notch and they are located on a half inch pin that can be mounted either on a pattern or on your runner system. These plugs utilize circular cermaic filters and come in four different sizes, 2, 3, 4, 5 inches in diameter. Like all of our tooling, Adolf's sprue filtering plugs are made out of DuraTech tooling material for optimal wear resistance.



PDS-320

.50 sq. x 2.5 sq. x 6 in.

Pop-Up Sprue Basins

Adolf's pop-up sprue basins locate on a half inch pin and come with either as *soft base*, *solid inner core* or *solid lower base* construction like item numbers PDS-325, PDS-326, and PDS-327.

All pop-up sprue basins can be mounted on the pattern or the runners. They are all made from a compressible DuraTech tooling material, come in nine different sizes and are used in jolt and squeeze box molding.



PDS-321

.75 sq. x 2.0 sq. x 8 in.



PDS-324 pop-up sprue under compression



PDS-328

1.75 dia. x 3.5 sq. x 8 in.



PDS-322

1.25 dia. x 3.0 dia. x 5 in.



PDS-327

1.25 dia. x 3.5 sq. x 12 in.



PDS-323

1.25 dia. x 3.5 dia. x 6.5 in.



PDS-324

1.25 dia. x 4.0 dia. x 7.5 in.



PDS-325

1.25 dia. x 3.5 sq. x 8 in.



PDS-326

1.5 dia. x 3.5 sq. x 10 in.

Automated Basins & Pins

Single Faced Basins



ADB-330
.625 dia. x 3.0 dia.
2.5 in. height



ADB-331
.75 dia. x 3.0 dia.
2.5 in. height



ADB-332
.75 dia. x 3.0 dia.
3.0 in. height



ADB-333
.875 dia. x 3.0 dia.
2.5 in. height



ADB-334
.875 dia. x 3.0 dia.
3.0 in. height

Adolf's single faced sprues are specifically designed to support foundries that utilize automated molding technology. All basins are made from DuraTech Tooling Material for optimal wear resistance. Our single faced sprues come in several sizes that vary in diameter and height to support your foundries automated molding needs.

Pyramid Style Basins



ADB-339
1.25 dia. x 2.5 sq.
1.25 height



ADB-340
1.25 dia. x 2.5 sq.
1.625 height



ADB-341
1.0 dia. x 2.5 sq.
1.25 height



ADB-342
1.0 dia. x 2.5 sq.
1.625 height



ADB-343
.75 dia. x 2.5 sq.
1.25 height

Our pyramid sprues are new to our inventory and designed to reduce the vortex in automated molding. These new down sprues have a 2.50 inch square base and taper to 1.25 or 1.625 inches in height. All of Adolf's pyramid style sprue basins are supported by our sprue pins.

New

Three Faced Basins



ADB-373-H/S
1.25 dia. x 3.5 dia.
3.5 in. height

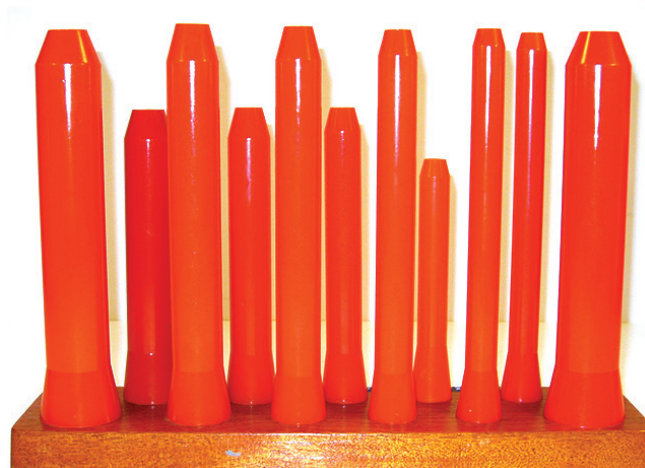


ADB-374-H/S
1.0 dia. x 3.0 dia.
3.5 in. height



ADB-375-H/S
1.0 dia. x 3.0 dia.
3 in. height

Our three faced sprues are the newest addition to our *vortex* reducing sprues. We have currently adapted our tooling to support both Hunter and Sinto automated molding machines. These sprues are made of DuraTech tooling material to give foundries a quality product with optimal wear resistance and effortless mold releasing properties.



Automated Basins & Pins

Single Faced Basins



ADB-335
1.0 dia. x 3.5 dia.
2.25 in. height



ADB-336
1.0 dia. x 3.0 dia.
3 in. height



ADB-337
1.0 dia. x 3.0 dia.
3.5 in. height



ADB-338
1.25 dia. x 3.5 dia.
3.5 in. height

Pyramid Style Basins



ADB-344
.75 dia. x 2.5 sq.
1.625 height



ADB-345
.625 dia. x 2.5 sq.
1.25 height



ADB-346
.625 dia. x 2.5 sq.
1.625 height



ADB-347-H/S
1.25 dia. x 2.5 sq.
2.25 height
Hunter/Sinto Machines

ADB-360
1.25 dia. X 3.125 sq.
2.25 in. Height
Utilizes a 55 mm filter

Sprue Pins

Adolf's sprue pins are made of DuraTech for optimal wear resistance and specifically designed to support foundries which utilize automated molding technologies.

Our sprue pins range in sizes from .625 inch in diameter to 1.25 inches in diameter, and from 5 inches to 7½ inches in height.

- ADP-350** .625 dia. x 5 in. long
- ADP-351** .625 dia. x 7.5 in. long
- ADP-352** .750 dia. x 6 in. long
- ADP-353** .750 dia. x 7.5 in. long
- ADP-354** .875 dia. x 6 in. long
- ADP-355** .875 dia. x 7.5 in. long
- ADP-356** 1.00 dia. x 6 in. long
- ADP-357** 1.00 dia. x 7.5 in. long
- ADP-358** 1.25 dia. x 7.5 in. long

New



ADB-383-H/S
1.25 dia. x 3.5 dia.
3.5 in. height



ADB-384-H/S
1.0 dia. x 3.0 dia.
3.5 in. height



ADB-385-H/S
1.0 dia. x 3.0 dia.
3 in. height

Four Faced Basins

Adolf's four faced sprues are a new addition to our *vortex* reducing sprues. We have currently adapted our tooling on our 3 and 4 faced sprues to support both Hunter and Sinto automated molding machines. All basins are made of DuraTech tooling material to give foundries a quality product with optimal wear resistance and effortless mold releasing properties.

Metallurgy Solutions

Test Bars & Inter-Changeable Bars



TBB-400
ASTM: A-871
Steel Keel Block



TBB-401
ASTM: A-536-93
Ductile Iron



TBB-402
ASTM: A-48
Gray Iron



TBB-403
ASTM: A-48
Gray Iron

Adolf's test bar basins come in five different sizes and support A.F.S. standards and adhere to ASTM specifications: A-48, A-536-93, and A-781. All test bars and basins are made out of DuraTech tooling material. Our *Inter-changeable* test bars support our 1, 2 and 4 cavity test bar basins.

Test Wedges & Inter-Changeable Wedges



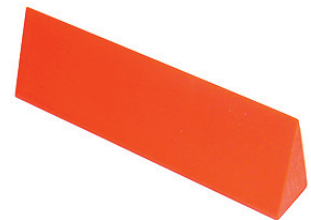
TWB-410
ASTM: A-367
2.W Test Wedge



TWB-411
ASTM: A-367
3.W Test Wedge



TWB-412
ASTM: A-367
Inter-changeable Wedges



TWB-413
ASTM: A-367
3.5W Test Wedge

Adolf's test wedges and test wedge basins coming in four different sizes, support A.F.S. standards and adhere to ASTM specification: A-367. All of our inter-changeable test wedges and basins are made out of DuraTech tooling material for optimal wear resistance and durability.

Test Coupon Basin



TCB-420
ASTM: A-367 & A-842-7
8 cavity Iron Test Coupon

Adolf's test coupon basin is made out of DuraTech tooling material. They are ideal for testing all irons. This basins adhere to ASTM specifications: A-367 and A-842-7.

Metallurgy Solutions

Test Bars & Inter-Changeable Bars



TBB-404
ASTM: A-48
Gray Iron



TBB-405
ASTM: A-48
.88 dia. x 6 in

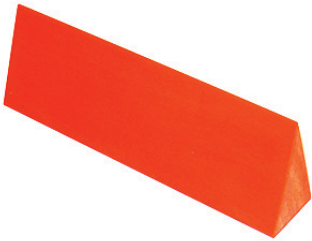


TBB-406
ASTM: A-48
1.20 dia. x 8 in



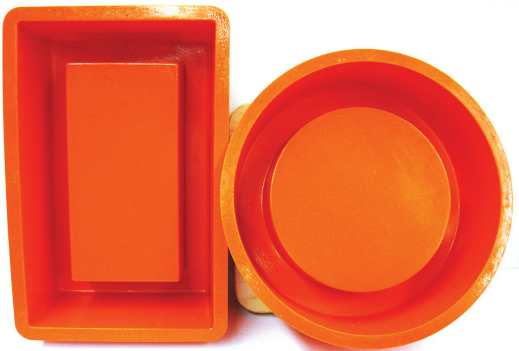
TBB-407
ASTM: A-48
2.0 dia. x 8 in

Inter-Changeable Wedge



TWB-414
ASTM: A-367
4.W Test Wedge

50 lbs. PIG Boxes



PIG-501

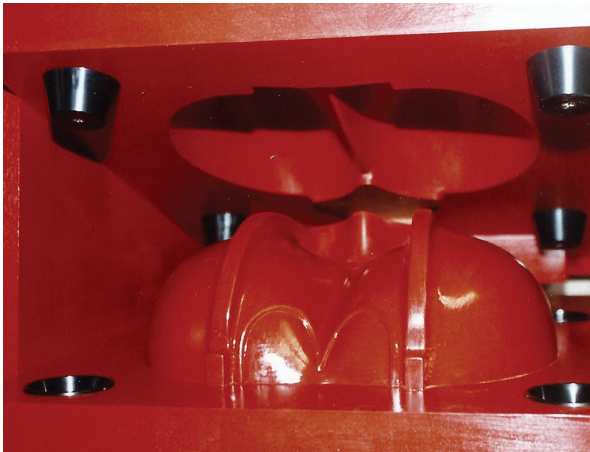
PIG-502

Adolf's PIG boxes create 50 pound ignots and are designed to help foundries have more control in storing their inventory and formulating alloys. Our Pig boxes are light weight molds made out of DuraTech to provide optimal wear resistance, durability, and effortless mold releasing properties.

PIG-501 produces a rectangular casting 12" x 6" x 3".

PIG-502 produces a diameter casting of 10" x 2 3/4".

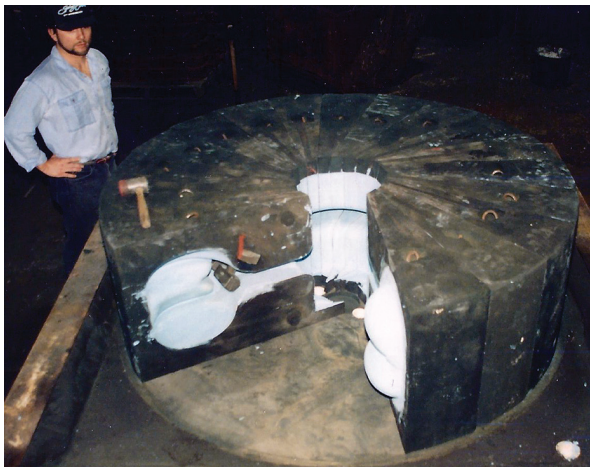
Photo Gallery



*Pelton Wheel Pattern
with Ai-103 Alignment Inserts*



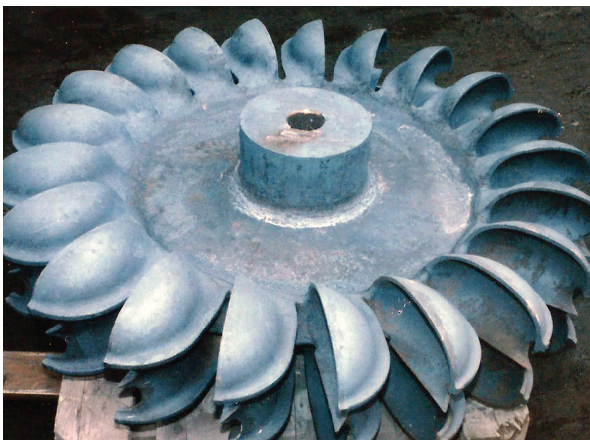
*Vacuum Molding with Ai-104
& Filtering Basins for Runner System*



Pelton Wheel Mold assembly



ESCO's Continuous Chain Pattern w. Alignment Inserts



Pelton wheel casting



Adolf Building a Large Impeller Housing

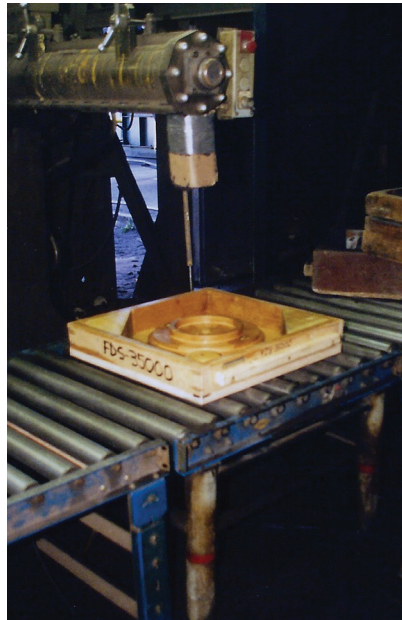
Photo Gallery

DuraTech Tooling Material

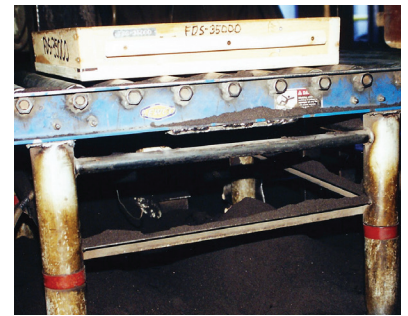
- ♦ Optimal wear resistance.
- ♦ Extremely durable & light weight.
- ♦ Can be poured into patterns/molds.
- ♦ Liner for corebox construction.
- ♦ Liner for blow cones.



DuraTech Patterns on Match Plate



Silent Adjustable Vibrator



Silent Adjustable Vibrator



DuraTech Core Box Liner



Adolf Turning Large Pattern



Large Crane Hook Pattern & Mold w. Alignment Inserts



DuraTech Liner on Palmer Blow Cone



Molds with Pouring & Filtering Basins PFB-204 & PFB-205

Silent Adjustable Vibrator



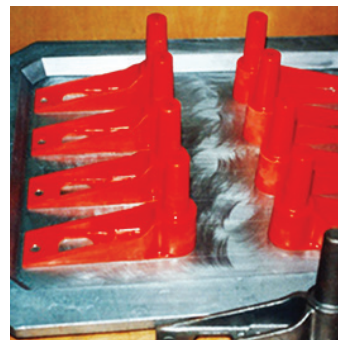
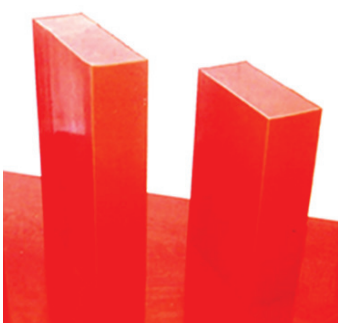
Adolf's silent adjustable vibrator is a time efficient solution for any air set, greensand, or no bake molding line.

Our vibrator is powered by a *three-phase, sixty hertz., three quarter* horse power electrical motor, with enclosed counter weights to ensure safety. The silent adjustable vibrator will compact molding sands within 10-12 seconds.

We recommend attaching this vibrator to a 24"x 30"x 27" steel table. The motor can be mounted either vertically or horizontally depending on your needs; table capacity should not exceed 1000 lbs.

Larger tables are available upon request.

DuraTech Tooling Material



DuraTech Tooling Material is a lightweight orange polyurethane plastic designed for high production runs. It is known in the foundry industry for its exceptional mold releasing properties, optimal wear resistance, and its extra-ordinary strength and durability. This amazing tooling material is available in sheets from $\frac{1}{8}$ - 2 inches in thickness by 31.5 inches wide and by 55 inches in length; custom blocks, rods, and tubing are also available upon request.

For more information about Adolf's Foundry Solutions contact Ricardo Volkmann at Adolf's Pattern Shop, Inc.

Contact Information

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Adolf's
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INCORPORATED



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