

TM Technologies

Tools & Methods for Better Metalworking



Air Power Hammers 20th Anniversary Catalog

The Story of the TM Air Power Hammer



by
KENT WHITE
Creator of the Air Power Hammer

*Founder & CEO TM Technologies,
45-year metalman, a.k.a. "The Tinman"*

I feel blessed to have had a long and interesting metalworking career. It's hard to believe I'm now the age the "old timers" were when I began working with them at Harrah's Auto Collection. I've had the good fortune to meet, study, and work with some truly remarkable metal masters, including a few legends along the way. Every day I try to "pay it forward" and share with other craftsmen the timeless techniques these men so graciously shared with me.

When I started TM Technologies 27 years ago, I had no idea that the first product I invented, the TM2000 Welding Lens, would spur the creation of dozens of tools and machines and a well-known metalworking training program.

Over the years, I have tried my best to offer my fellow metal shapers products to make their work easier, more efficient and productive, and ultimately more fun. I strive to give our customers high-quality tools and great value, because I've been saddened to see so many beautifully made American tools disappearing, replaced by second-rate offshore imitations.

I have often been asked how I came up with the idea for the Air Power Hammer. In 1978, I was rebuilding a totaled 275 GTB Ferrari mostly by hand, and thinking how much easier the job would be if I owned some of the common sheet metal shaping machines I'd used at Harrah's and seen at other shops—the planishing hammer, wheeling machine, bead roller, rivet guns, shrinking machines, Pullmax, and the Yoder Power Hammer. But I was a young guy just starting out, and had less than two nickels to rub together. I couldn't afford one machine let alone a half-dozen. I wondered if it would be possible to create an economical machine that could do the work of several. Could I *make* a shaping machine that would shrink, turn edges, curve flanges, stretch rapidly, make reverses, do radius bends, make beads, and planish?

I'd toyed with the idea for years, when in 1987 I found myself confronted with shaping an 18-gauge steel fender for a 1914 Mercedes. I had just finished hand-working and wheeling an entire front clip for a competition Ferrari over the previous weeks. My elbow and shoulder were worn out and inca-

pable of doing the heavy work ahead of me. I needed a way to hammer other than doing it by hand.

I surveyed my available options. The Yoders, Pettingell, and Quick-Work power hammers were industrial-sized machines and well beyond my means. Even if I could afford one, none of them would fit in my little shop, plus they were overkill for the work I had to accomplish. Small air planishers were my only other option, but these couldn't handle the work either. I didn't need rapid light hits to smooth my metal; I needed a hammer that could produce hard, individual hits that would *shape* my metal. And I needed the machine to be small enough to fit on my benchtop. I had no choice but to figure out how to build what I needed.

A local airbase was downsizing, and I fortuitously stumbled into the shop that repaired their rivet guns. It was going out of business! I bought all 17 rivet guns they had left (a whopping \$75 purchase) and came home with a huge box of clunky WW2 military-grade guns used to repair bomb-dropping B-52s. Over the next several

Manufacturing my own products allows me to share the best tools and methods I have discovered (usually the hard way – through blood, sweat, and welding burns). And the one product that stands out for me, above all others, is my Air Power Hammer.



The first prototype (a.k.a. "Bouncing Betty") circa 1987.

weeks I spent my evenings rebuilding (or at least dismantling) the guns and getting most of them running again to one degree or another.

The biggest gun was an Ingersoll AVC27 that I was able to graft onto the largest hand-held auto body planishing "yoke" made by Chicago Pneumatic (CP). I mounted it in a Wilton vise and put the air to it. It worked! But the dang thing jumped so wildly and uncontrollably I was afraid to put metal in it for fear it would throw parts across the shop, or worse.

I studied the ceiling above the frame to see if I could attach a stabilizer from the gun to a roof joist. It didn't take long to recognize that the straight iron bar I was contemplating would probably transmit ungodly sound and dreaded vibration right into the

wall to keep it from dancing around the shop. I was amazed at how much time and effort it was saving. I wondered what other tasks I could get my new machine to do.

I began experimenting with dies for various shaping operations. By 1994, I realized that my clobbered-together prototype might actually have the potential to become the compact, multifunctional shaping machine I'd envisioned 15 years earlier. Could I make it work?

It took six months to sort out a viable benchtop frame design, plus a die and motor system that could stretch metal aggressively two different ways, shrink metal, and planish. This was a good start. I could sell something like this! So I made three frames, tested them, mounted a set of dies in each,

mer – marketing them as the "new planishing hammer."

It appeared to me that these companies were more concerned with filling their wallets than giving the serious craftsman a truly useful tool. The machine I'd shown in Florida could do a lot more than just "planishing." It was discouraging to be asked if my machine was "one of those new planishing hammers," when in fact those hammers were inferior knockoffs of my machine.

I went back to my shop and began working on new dies and designing a hammer for serious craftsmen while contemplating the shortcomings of the cheap planishing hammers now being mass marketed. My goal was to create a machine that had the ability to do multiple shaping operations on a wide variety of metals and thicknesses.



I to r — Prepping my first Hammers for Sun n' Fun, 1995; totaled Aston Martin DB4, before and after repairs done on my new Air Power Hammer, 1995.

rafters, wreaking who-knows-what kind of havoc. I scanned my shop for other options. An unused commercial shock absorber was co-opted for the task. SUCCESS! My new contraption worked really well. I made the fender very quickly in four sections (left, right and center with an additional piece for the ducktail), and was even able to planish it using a smaller CP-5X gun.

The new jerry-rigged device quickly became a mainstay in my shop for a lot of hammering tasks. I located a large lumberyard bandsaw frame and put that into service, which allowed me to unbuckle "Bouncing Betty" from the Wilton and shock absorber. The big cast-iron frame was a joy – after I corralled it against the

and took them to Sun n' Fun in Lakeland, Florida for their debut.

My tent at the air show was packed with people wanting to learn about gas welding and shaping aluminum. Endless questions were answered. Cameras flashed. My Air Hammers were a hit! So much so that within six months several large companies grabbed the concept and produced cheap, lightweight versions of my rivet-gun air ham-

I was working on my machine and doing fab and repair jobs when a totaled Aston Martin DB4 arrived in my shop. The damage was severe, and I doubted I could resurrect the original parts. I took a chance and used my new shrinking dies on the crunched panels. Wow! The process was a complete revelation. Up to this point I had been focused on fabrication and shaping. I now realized my new hammer was ideal for doing dam-

I felt vindicated and achieved recognition for my innovations when Terry Cowan, a well-respected lifelong metalman and Founder of the Metal-shaping Association, publicly acknowledged me as "the originator of the first rivet-gun Air Hammers."

The Story of the TM Air Power Hammer

age repair. This inspired me to create other dies for specific tasks, e.g., flanger dies to turn flanges over curves, and reverse dies for making aircraft fairings. Each new job afforded challenges that helped refine and develop my machine.

Certain jobs became pivotal in the evolution of the Air Power Hammer. In 2002, Jim Wright of Wright Machine Tool asked me to fabricate what he called “the most complicated sections of the Hughes H1 Racer replica” (to date, the only replica ever built of Howard Hughes’ famous plane). I realized this job would require me to create specialized dies for doing highly polished aluminum work. The new tooling saved me a huge amount of time and was a breakthrough in the hammer’s development.

were purchased at the FlyMart during the show. I also repaired a good number of aircraft that had been banged up during the event and needed repairs before they could fly home.

I instructed at Oshkosh for 14 years, and it really opened my eyes as to what others thought about the air hammer’s abilities. Attendees were impressed by the speed of the repairs, the smoothness of the repaired metal, and the versatility of the hammer for making the varied shapes required by aircraft (hollows, nose bowls, cowlings, tanks, fairings, wheel pants). They were excited about the ability to change dies and air motors in seconds, unlike the Pullmax, Yoder, and Pettingells they were using, which took *long* minutes or even hours to change over. And they were delighted by the price, and

work. However, the design of the lower post assembly prevented me from being able to work hollow parts and enclosed shapes adequately. It forced me to rethink my tooling, which resulted in the creation of the Angled-Post Air Hammer. Another task I had been doing by hand and wanted to do on the hammer was straightening wing tips. This need drove me to create the horizontal planishing arm and the short-lived “Z-Frame” Air Hammer.

I now had three Air Hammer models, each with different tooling. My hammers could do many more operations, but needing three separate hammers to do them was not only impractical, it was not the vision I’d had when I set out to create a single machine that could perform the work of several. Back to the drawing board. In 2009, I



I to r — Demonstrating the Air Hammer at Oshkosh, 1998; Finished tail fab on the Hughes H1 Racer, 2004; Testing Interchangeable-Post prototypes, 2008

Being invited to the Oshkosh Air Show (now AirVenture) as an aircraft sheet metal instructor had a tremendous influence on me, more than any single thing I had done to that point. I often repaired damaged aircraft parts during the show. Some were parts that were brought to the show in hopes that I could repair them, while others

the realization that it was possible to both *shape* and *planish* with just one machine.

Another forward leap in the evolution of the machine happened as a result of work I was doing on P51s, P40s, and Grumman Amphibs. I had been straightening propeller spinners by hand for years and desperately wanted the air hammer to do more of this

introduced our first “Interchangeable-Post Air Hammer” that would allow the user to perform all of the shaping operations with one machine.

Around this time I met with some Indian military leaders in Delhi about modifying their Russian-made helicopters for use in the Himalayas. Those meetings made me reevaluate the shaping capabilities of the hammer for helicopter repair and fabrication. My solutions were very useful when I did Air Hammer training for Columbia Helicopters in 2013. It also dovetailed with ideas I’d had for expanding the capabilities of my motors.

I was already selling four air motors of varying speeds and powers, but still felt there was room to expand their range. I

Every year, I was inundated for seven days straight, from the moment the Oshkosh show opened until they chased us out of the buildings after closing. I’d see over a thousand people in a week from the U.S. and overseas, and from a wide range of industries and backgrounds. Many asked for personal time or help. It was exhausting but extremely educational, and I would return home with renewed energy to refine the machine, heartened by their enthusiasm.

wanted to shape even heavier metals and planish even lighter ones. And I wanted the motors to be capable of producing single, controllable, hard hits for accurate nit-picking, as well as very rapid light hits (thousands of blows per second) for sensitive planishing. I knew this would prove to be a serious challenge (one that took years of testing and refining to accomplish).

In 2009, I began work on a new air motor that I hoped would be able to stretch 10-gauge and shrink 12-gauge mild steel. It worked great! Only one minor problem: the motor was so powerful that it bent the tube frame of my original machine! Oh dear. I really wanted to be able to use that motor, but it was clear that a heavier frame was needed. A year later we released our new heavy-duty C-Frame hammer (Model 3000)

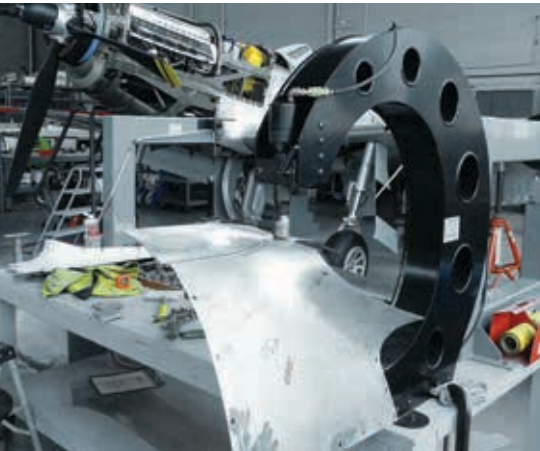
For the first 15 years, improvements to my hammers happened slowly but steadily. But after the introduction of the C-Frame, ideas that had been simmering on the back burner for many years suddenly took off.

Regulator-Lubricator to keep the air motors continuously oiled, and a redesigned locking motor mount. We've added a high-flow air system to increase our air motors' power along with motor refinements for slower speeds and smoother operations. And we now have two new motors just for planishing (a #1 for steel and a #0 for aluminum). But the most exciting expansion has been in die production. We currently have 15 new dies, with another eight in production for release next year.

Despite so much growth, I still felt there

constantly looking for small improvements to make better times. Maybe I adopted this mindset because I spent much of my early career with men who had been racers and designers and were willing to talk with me about the improvements they had seen over the decades. Egad, it's been a long road!

My metalworking and consultation jobs have taken me into many professional shops across the country and overseas. I still see a lot of work being done with the older conventional machines. But my personal style isn't conventional. Yes, I own



Shaping aircraft skins with the C-Frame hammer, 2012; Consulting on a large-scale sculpture in San Antonio, TX, 2014; Fabbng the new Floor-Model, 2015.

for use with our new #6 Air Motor (a.k.a. the "Super Thumper").

The C-Frame was surprisingly popular with metal artists who needed to shape large, often complicated pieces. Several well-known metal sculptors asked me to consult with them on the best ways to make parts using my hammers. They offered unique perspectives, not only on the capabilities they wanted, but also on new dies and motors. Their valuable insights, coupled with other customer feedback, greatly accelerated the development of the entire hammer system.

Over the past five years we have made some great upgrades to our hammers including adding a Filter-

was one thing missing: an industrial-sized machine for large production shops. Encouraged by the metal artists who'd asked me to produce larger machines, I set to work to create a new floor model with a deeper 38" throat. You can see it shown here for the first time – just in time for the 20th anniversary of the launch of my first hammers.

It is difficult at times to look back and realize I've spent nearly 28 years refining my idea. Somehow I kept finding the energy and enthusiasm to push forward. In the beginning I could see flaws in my machine, but I was always convinced that *its advantages were greater than its limitations*. So I kept looking for ways to solve the shortcomings and increase the benefits. This is similar to the world of auto-racing, where you are

many of those machines – the Wheel, bead roller, Pullmax, and various shrinkers – but I prefer to work quickly, efficiently, and with great accuracy. For that reason, nearly all my work is done these days using my Air Power Hammer. Truth be told, every single time I use the machine to make, adjust, modify, or repair a sheet metal part, I experience a deep sense of satisfaction and a smile in my heart. I'm happy to say it has turned out to be the machine I imagined – and more.

Kent White, Nevada City, CA
December 2015

Customer work done using TM Air Power Hammers



'51 Chevy restomod at the Bonneville Salt Flats. Norm Benson, Paso Robles, CA



First air hammer project! Terry Cummings, Annapolis, MD



"Executive Chair." Schroeder Art, TX



© Marijke Unger

Ryan SCW cowling. Ron Englund, Springfield, OR (Russell Williams owner)



Copper barbecue dome. Helming Bros., Jasper, IN



Harley fly screen. Axel Meier, Switzerland



Panel fab, Chinook CH47 heavy-lift heli. Columbia Helicopter, Aurora, OR



"The Dress" (brass). Dave Claussen, Durango, CO



Porsche 911 (901) restoration. Dave DiMaria, Vintage Car Works, Englewood, CO. Far left: Making the new rear lid with his TM Model 2500 Air Power Hammer.



"Sky Wall," 12' x 60' public art installation, 180 panels of .060" 5052 alum. George Schroeder, San Antonio, TX. Center: George shaping panels with his TM hammer.



Kirkham Cobra. Axel Meier, Ruti Switzerland

1964 Harley KR tank and tail. Evan Wilcox, Ukiah, CA

Patinated egret, Bill Sorch, Santa Cruz, CA



J-3 Piper cowlings. Howard Booster, Santa Rosa, CA

Hippos. Schroeder Art, San Antonio Zoological Gardens

Copper turret finial. Joe Helming, Jasper, IN



Dino Ferrari hood. Wil de Groot, Exoticars USA, Milford NJ

Air Power Hammer Capabilities

Important Features

- Every Air Power Hammer we manufacture is handcrafted in our own shop, right here in the U.S.A. These machines are built to be **extremely** durable and will give you decades of reliable, trouble-free work.
- Changing dies and motors on our hammers for different shaping operations (shrinking, stretching, roughing, planishing, etc.) takes only a few seconds – unlike cumbersome electric machines.
- Nearly every die and motor we offer can be used on any of our models, making it easy and cost-effective to upgrade your model or add additional machines without replacing tooling.
- Our hammers are **exceptionally** safe. You'll never need to worry about pinching a finger; the dies remain in almost constant contact with the metal, allowing you to work even small, intricate parts closely.
- Our machines are designed to take up the smallest amount of floor (or bench) space possible while giving you the same shaping power as an industrial-sized machine.



Shrinking

Shrinking is a powerful technique used to shape metal quickly. The 1/8-inch aluminum panel shown above was made entirely by shrinking in less than five minutes. Our Air Power Hammers can shrink up to 10-gauge mild steel with *less work-hardening* than any other machine. Crowned areas can even be shrunk at their centers. And, using our dies and methods you can shrink almost any metal with minimal marking.



Stretching crowns & hollows

You will be pleasantly surprised at how quickly you can stretch high crowns and hollow shapes. The panel shown above was one in a series of 10 aircraft skins produced for Lockheed Martin. The first two days were spent unhappily trying to make the parts on the English Wheel which was unable to produce the subtle shapes required on 2024-T3. The skins were all made using only the Air Power Hammer instead, with zero rejects.



Damage Repair

Straighten damage on aluminum, cold-rolled mild steel, and other metals instead of replacing costly parts. Repairs done to panels with our Hammers are typically so effective they require little or no filler. Damage usually stretches the metal which then requires shrinking. Our hammers have die sets capable of *shrinking while straightening* on both hard and soft metals, and *smoothing without stretching* while planishing the repairs.



Rough-in shapes

Shapes can be rapidly roughed-in (without marking the metal) using our upper Roughing Head combined with a crowned steel lower die. The replacement aircraft skin shown above was made from .040" 2024-T0. It was roughed-in on our Air Power Hammer using our Roughing Head die in about 30 minutes. The smooth bumps left in the metal by the roughing process were easily planished out in about 15 minutes using planishing dies.



Reverses, ducktails, saddles

Forming these shapes by hand can be frustrating, slow, and tedious. Stop struggling with tearing your metal and sanding out jaw marks. Our Hammers make complex shapes quickly and more accurately than any other machine. Our two Reverse die sets make reverses and ducktails with smooth surfaces. The saddle shape shown above was made using only our Large Reverse dies – no planishing!



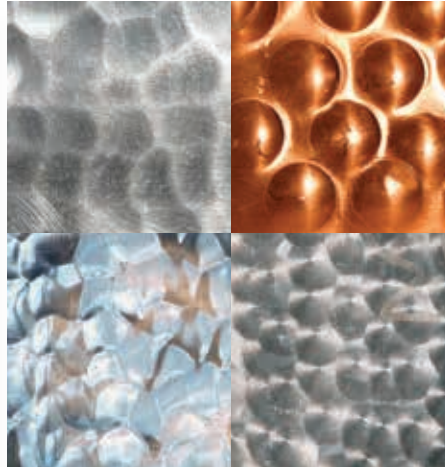
Flanges, wired edges, hems

Forget mangling your nice metal with a bead roller, or hammering the edge over by hand and then using a shrinking or stretching machine to recover your contours. Our Flanger die allows for turning edges of up to 5/8", and you can either shrink or stretch *while you turn the edge*. Not only do you keep your shaped contours, but you do not mark up the metal either. This is ideal for flanging, hemming, and wire edging.



Radius Bends

For making radius bends either along the edge of a panel or through the middle of it, we offer a range of radius bending dies that enable the metal to be either bent straight or bent curved and without marks. This can be especially helpful when making fuel tanks that need rounded corners for weld joints. The two panels above were made from .032" 2024-T3, using our 1/2" radius dies.



Art Marking

Are you a metal artist who would like an easier way to make marks or patterns on your parts instead of hand hammering them? Our hammers are ideal for producing consistent marks on copper, aluminum, and other soft metals. We currently offer a Peening Die set for making concave round marks, and a Pebbling Die set for spherical marks. Contact us if you are interested in having custom pattern dies made.



Planishing

Our Hammers can smooth even the thinnest metals with zero stretching and to a finish that rivals the English Wheel. Unique to our machine is a combination of dies and motors that eliminate the need to hold the panel precisely while planishing. One customer said our system reduced his planishing time on a particular part from six hours down to a mere 45 minutes!

Frequently Asked Questions

Is that a planishing hammer?

Many people mistakenly assume that all air hammers are "planishing" hammers. Not true. Planishing hammers **smooth** metal. Some even do it well. However, if your goal is to **shape** metal, your choice of machines is very limited, especially if you wish to do it rapidly and efficiently using a small amount of shop space. After 20 years of developing and using these machines on a daily basis, and with the enthusiastic customer testimonials we constantly receive, we can confidently say that purchasing a TM Tech Air Power Hammer will be the best money you'll ever spend on a metalworking machine.

What about the English Wheel?

The Wheel is great for smoothing metal, but is limited in its ability to shape. It is unable to shrink, stretch aggressively, generate severe reverse shapes, or turn 90-degree flanges on curves. The Air Power Hammer easily performs all of these operations. We repeatedly hear from customers that our hammers have reduced their need for the Wheel by 90% and have increased their speed greatly. Bottom line: the Air Power Hammer does almost everything the Wheel does and a whole lot of other stuff too!

Will it pay for itself?

Our hammer was initially created to save shoulders, elbows, arms, and wrists from the constant wear and tear caused by pounding metal by hand. What we hadn't expected was the huge boost in productivity it would provide. ***Suddenly we could make parts in minutes that had previously taken hours!*** Because the Air Power Hammer produces uniform hits (which is not possible when using hand tools), shaping parts is far faster and more accurate on almost every task. This means less physical strain on you and your employees. Not only will you save on Worker's Comp claims and repetitive stress injuries, but you will earn more in less time, while having a lot more fun doing it – guaranteed!

Want to see the Air Power Hammer shape metal?



Watch it shrink steel, make reverses, rough-in shapes, and more. Search YouTube for "Tinmantech" videos, or visit our website.

Model 4000



Shown: Floor Model C-Frame with the Straight-Post Lower Assembly and Tall Base option.

FLOOR MODEL AIR POWER HAMMER

For years, customers have been requesting a heavy-duty industrial floor model machine for doing large panels and heavy, thick metals. Our new Floor Model C-Frame hammer is based on the design of one I have used in my own shop for the past 20 years. With a 38" deep throat, this is my go-to frame when I need to do very large panels. This machine can handle the largest sheets, even up to 60" wide. The frame design offers a great deal of freedom for a wide variety of shapes. I have found zero limitations to this frame design.

The size, shape, and throat depth are ideal for commercial production of large parts. The Floor Model is also very advantageous in situations where the metal you are working is large enough to require more than one operator holding the sheet or parts while it is being shaped. Fabricated from 1/4" formed mild steel, it is an **extremely stable**, free-standing machine. This frame is available in three heights (see Product Specs at right) to accommodate operators that may be taller or shorter than average.

Like our 3000 series machines, the 4000 accepts all seven of our Air Motors, including the #6 Air Motor which is capable of stretching up to 10-gauge and shrinking 12-gauge mild steel. The 4000 machine offers two interchangeable lower-assemblies: a Straight-Post, and an Angled-Post. And like our other models, the 4000 machine can utilize every die we offer.

Which model do I need – the 3000 or 4000?

The 3000 machine is ideal for those who are working sheet or parts less than 48" wide, and need a small footprint and/or benchtop version of this machine. However, if you need to work very large panels or parts over 48" wide, the 4000 model is your better choice. **Please note:** if you need the Planishing Arm for working in narrow tight places (like wing tips) you will want the 3000 model as we do not offer this option on the Floor Model at this time.

Features of this model

- **Free-standing industrial frame:** The 4000 machine is designed to handle commercial and industrial production.
- **Deepest throat:** The Floor Model has a deeper throat than any of our other models, allowing you to work much larger panels – up to 60" deep.
- **Air Motors:** Can use all seven of our Air Motors (#0 - #6) giving you total control over the widest range of metals. Variable speeds are easy, from single accurate hits, to thousands of blows per minute.
- **Dies:** Over three dozen dies are available for various forming, rapid shaping and planishing tasks.

Max Capacities (using a #6 Air Motor)

	Shrinking	Stretching
Aluminum	.187"	.250"
Mild Steel	10-gauge	8-gauge
Stainless	12-gauge	10-gauge

Product Specs

- **Frame Construction:** 1/4" mild steel
- **Throat:** 38"
- **Available Frame Bases & Heights:** This machine can be ordered with a short, medium, or tall base depending on your preferred "working height." Ask us for recommendations. Working heights (from floor to dies):
 - **Short base:** 43"
 - **Medium base:** 48"
 - **Tall base:** 53"
- **Dimensions (with Standard Base):** 72" h x 50" d x 20" w
- **Air Requirements:** 90 psi (minimum)
- **Weights:** Machine 650 lbs.; Straight-Post 23 lbs.; Angled-Post 23 lbs.
- **Shipping:** Ships as Freight. Shipping weight varies depending on package purchased, typically 800 - 1000 lbs.

PACKAGES & PRICING - 4000 Model

Basic Package

- Powder-coated industrial frame
- Quick-Lock Motor Mount
- Complete Air System includes: Filter-Regulator-Lubricator, 18-ft. Air Hose, Heavy-Duty Foot Switch with High-Flow Fittings, and Air Motor Oil
- Air Motor Holster
- 2 hr. *Air Hammer Operations* DVD

Standard Package

Includes the Basic Package plus:

- 3-piece Lower Button Die Set
- Small Upper Hammer
- 1" Die Riser
- #2 Medium Air Motor (*You may substitute a different motor. Price differences apply.*)

Deluxe Package

Includes the Standard Package plus:

- Shrinking Die for Soft Metals
- Large Upper Hammer
- Roughing Head
- Rubber Head
- Very High Crown Die
- Large Flat Lower Die
- Flange Curving Die
- Wooden Die Block

Super-Deluxe Package

Includes the Deluxe Package plus:

- Shrinking Die for Hard Metals
- Plastic Planishing Set
- Lower Flanger Die
- Large Reverse Die Set
- Small Reverse Die Set

Complete Package

Includes the Super-Deluxe Pkg. plus:

- Seven Air Motors (# 0, 1, 2, 3, 4, 5, 6)
- Straight-Post Lower Assembly
- Angled-Post Lower Assembly
- Planishing Arm

Heavy-Duty Complete Package

Includes the Complete Package plus:

- Oversized Upper Hammer Die
- Oversized Upper Roughing Head
- Oversized Lower High Crown Die
- Oversized Lower Low Crown Die
- Oversized Die Block

Please Note: Lower Assemblies are sold separately for all packages except the "Complete" and "Heavy-Duty Complete" packages. The Basic Package is for those customers who wish to select their own dies and motors. You will need at least one motor, and one upper and one lower die to operate the machine.

Model 4000

SMS-4000-1B	Basic Package	\$ 9,595. + lower assembly*
SMS-4000-2S	Standard Package	\$ 10,395. + lower assembly*
SMS-4000-3D	Deluxe Package	\$ 11,295. + lower assembly*
SMS-4000-4SD	Super-Deluxe Package	\$ 11,995. + lower assembly*
SMS-4000-5CP	Complete Package	\$ 17,895.
SMS-4000-6HD	Heavy-Duty Complete Package	\$ 18,695.

*Lower Assembly Options

SMS-3100	Straight-Post	\$ 995.
SMS-3200	Angled-Post	\$ 1265.

“ I have been building planes for over 20 years and I am blown away by the capabilities of your power hammer. **It is the best addition to my metalworking tools I have ever made.** I will be buying more die sets as I become more accustomed to it. Thanks for everything.”

– **Dave Allen, Allen Antique Aero, Paso Robles, CA**

Customer Profile



George Schroeder (a.k.a. "Hammerman") working his massive McDougal & Potter forging hammer.

George Schroeder, Sculptor Owner, Schroeder Art

San Antonio, Texas

www.schroederart.com

► Owns TM Models 1000, 2000, 4000

“My first experience using Kent's air hammer was in 2009. I had been producing high-end contemporary sculpture and furniture for over 20 years. I wanted to do more complex shapes but I had no experience with advanced metal shaping. I own and use an industrial forging hammer, but knew I needed a smaller machine for the work I had in mind.

“After doing some research it was clear that Kent was the only choice in terms of knowledge, experience, and equipment. I decided to attend his 4-day Metalworking Intensive. Not only did he teach the class, but he was the inventor of the hammer I was interested in! Attending his course proved to be an invaluable experience. I recently completed a sizable commission for one of the largest shaped-metal sculptures in the U.S. ["Skywall," 720 sq. feet, 5052 aluminum] shaped using only two TM power hammers. Kent even created custom tooling for me for the project.

“It is my professional opinion and experience there are no other hammers that can produce the results of the TM Air Power Hammers.”

Models 3000/3500



Shown: C-Frame with the Straight-Post Lower Assembly.

MULTI-POST "C-FRAME" AIR POWER HAMMER

Our Multi-Post C-Frame machines were designed for commercial metal production shops that need a heavy-duty machine with a small footprint. This machine is fast, safe, hard-hitting, controllable, and extremely versatile. It has the ability to shape 3/16" mild steel then quickly change to planishing thin soft metals such as aluminum or copper (depending on the air motors, dies, and lower assemblies being used).

This hammer has an extremely strong frame, measuring four times as stiff as the rectangular tube frame on our 1000/2000 models. The side plates are 1/4-inch thick and are heavily reinforced to take very heavy abuse and pressures. The 24-inch deep throat allows you to easily work most complex shapes. Our 3000 series machines also support the #6 "Super Thumper" Air Motor which is capable of stretching up to 10-gauge or shrinking 12-gauge mild steel (the #6 motor cannot be used on the 1000/2000 series machines). The 3000 also offers three interchangeable lower assemblies – a Straight-Post, an Angled-Post, and a Planishing Arm – providing you with the widest possible range of shaping options on one machine.

The **3000 MODEL** accommodates both a Straight-Post and an Angled-Post lower assembly (shown above and at right). The Straight-Post can be used for most general shaping operations such as making panels and skins. The Angled-Post gives you the ability to work hollow shapes and their sides. If you do a lot of hollow shapes, then choose the Angled-Post option.

The **3500 MODEL** also accepts a Planishing Arm. This lower assembly was designed for use in tight, narrow spaces (such as inside gas tanks or wing tips) in addition to planishing.

Features of this model

- **Versatile:** This model allows you to switch between three different interchangeable lower assemblies for the widest range of shaping operations.
- **Heavy-Duty frame with small footprint:** This frame is tough enough for light industrial production and heavy daily use, yet requires only a small amount of space.
- **Air Motors:** Seven air motors are available for this model. The C-Frame and Floor-Model are the only models that can accept our largest #6 "Super Thumper" Air Motor.

Max Capacities (using a #6 Air Motor)

	Shrinking	Stretching
Aluminum	.187"	.250"
Mild Steel	10-gauge	8-gauge
Stainless	12-gauge	10-gauge

Specs

- **Frame:** 1/4" mild steel plate. Frame design allows hollow parts to be worked on their sides.
- **Throat:** 24"
- **Dimensions:** 39" h x 38" d x 14.75" w
- **Air Requirements:** 90 psi (minimum)
- **Machine weights:** Frame 110 lbs. plus Straight-Post 36 lbs., Angled-Post 25 lbs., Planishing Arm 24 lbs.
- **Shipping:** Ships as freight. 275-375 lbs. depending on package purchased.

Angled-Post & Planishing Arm



The C-Frame accepts three different lower posts. Each is sold separately, allowing you to purchase only what you need at the time, but still expand later should the need arise.

PACKAGES & PRICING - 3000 Models

Basic Package*

- Powder-coated frame w/bolttable feet
- Quick-Lock Motor Mount
- Complete Air System includes: Filter-Regulator-Lubricator, 12-ft. Air Hose, Heavy-Duty Foot Switch with High-Flow Fittings, and Air Motor Oil
- Air Motor Holster
- 2 hr. *Air Hammer Operations* DVD

Standard Package

Includes the Basic Package plus:

- 3-piece Lower Button Die Set
- Small Upper Hammer
- 1" Die Riser
- #2 Medium Air Motor (*You may substitute a different motor. Price differences apply.*)

Deluxe Package

Includes the Standard Package plus:

- Shrinking Die for Soft Metals
- Large Upper Hammer
- Roughing Head
- Rubber Head
- Very High Crown Die
- Large Flat Lower Die
- Flange Curving Die
- Wooden Die Block

Please Note: Lower Assemblies are sold separately for all packages except the "Complete" and "Heavy-Duty Complete" packages. The Basic Package is for those customers who wish to select their own dies and motors. You will need at least one motor, and one upper and one lower die to operate the machine.

Super-Deluxe Package

Includes the Deluxe Package plus:

- Shrinking Die for Hard Metals
- Plastic Planishing Set
- Lower Flanger Die
- Large Reverse Die Set
- Small Reverse Die Set

Complete Package

Includes the Super-Deluxe Pkg. plus:

- Seven Air Motors (# 0, 1, 2, 3, 4, 5, 6)
- Straight-Post Lower Assembly
- Angled-Post Lower Assembly
- Planishing Arm

Heavy-Duty Complete Package

Includes the Complete Package plus:

- Oversized Upper Hammer Die
- Oversized Upper Roughing Head
- Oversized Lower High Crown Die
- Oversized Lower Low Crown Die
- Oversized Die Block

Model 3000

SMS-3000-1B	Basic Package.....	\$ 6,395. + lower assembly*
SMS-3000-2S	Standard Package	\$ 7,095. + lower assembly*
SMS-3000-3D	Deluxe Package	\$ 8,095. + lower assembly*
SMS-3000-4SD	Super-Deluxe Package	\$ 8,795. + lower assembly*
SMS-3000-5CP	Complete Package	\$ 14,795.
SMS-3000-6HD	Heavy-Duty Complete Package	\$ 15,595.

Model 3500

SMS-3500-1B	Basic Package	\$ 6,995. + lower assembly*
SMS-3500-2S	Standard Package	\$ 7,695. + lower assembly*
SMS-3500-3D	Deluxe Package	\$ 8,695. + lower assembly*
SMS-3500-4SD	Super-Deluxe Package	\$ 9,395. + lower assembly*
SMS-3500-5CP	Complete Package	\$ 16,695.
SMS-3500-6HD	Heavy-Duty Complete Package	\$ 17,495.

* Lower Assembly Options

SMS-3100	Straight-Post	\$ 995.
SMS-3200	Angled-Post	\$ 1,265.
SMS-3300	Planishing Arm (requires Model 3500 frame)	\$ 1,495.

Customer Profile



Dave DiMaria at Pebble Beach, 2014.

Dave DiMaria, Restorer Owner, Vintage Car Works

Englewood, Colorado

www.vintagecarworks.com

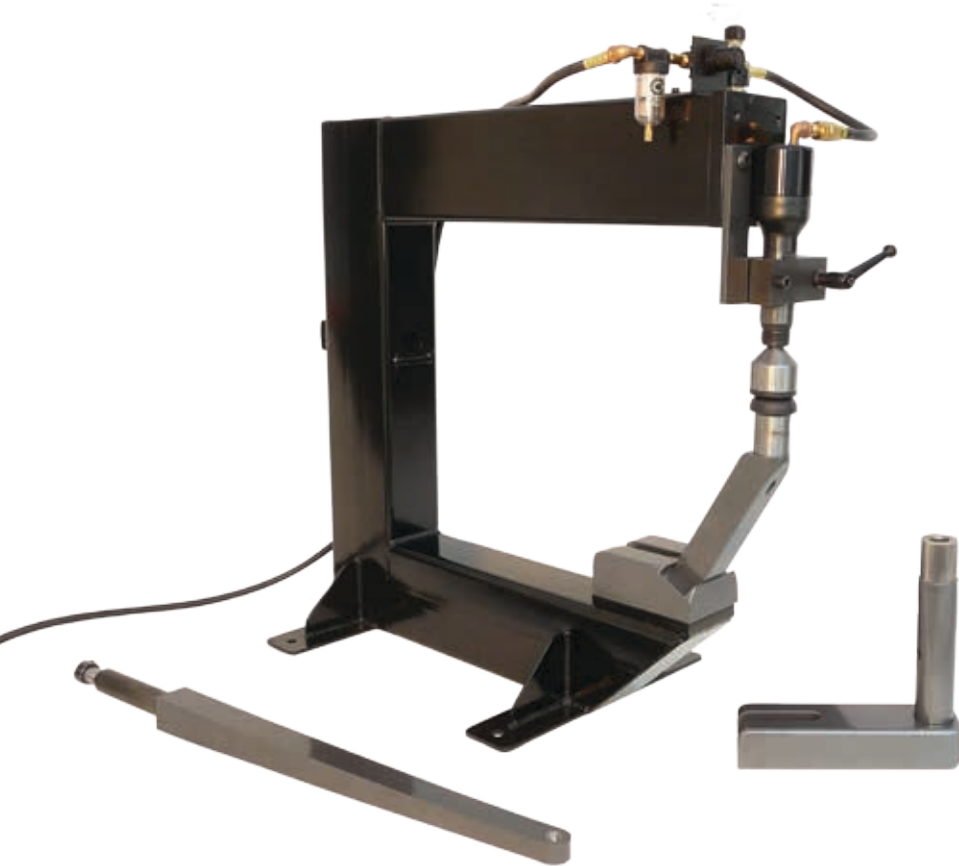
► Owns TM Model 2500

"Kent and I have worked jointly on some of the coolest and rarest Factory Racing Porsches over the years, going back to the late 70's. He has created and refined some of the very best tools for professional metal forming and finishing that I have ever come across and had the opportunity to personally use. Kent is a perfectionist and his tools are the result of his commitment to continuously improve and refine them.

"A perfect example of this are his Air Power Hammers. We have been using his 2500 Model for nearly 4 years now. The machine is quick and accurate, and works flawlessly day-in and day-out. We are able to fabricate panels using just our Air Power Hammer without the need to utilize an English Wheel or other metal forming machines.

"When you buy any of TM Technologies' tools you can be sure that you are not going it alone. Unlike many other tool manufacturers, Kent is one of the best metal fabricators there is. If you have a question (anything from technique to tools to metallurgy) Kent will most likely be able to help you. I don't know of any other tool manufacturer that provides this level of service or expertise."

Models 2000/2500



Shown: Interchangeable-Post frame with the Angled-Post Lower Assembly. Also shown are the Planishing Arm (left), and Straight-Post (right).

INTERCHANGEABLE-POST AIR POWER HAMMER

Our 2000/2500 models are our most popular machines, and are ideal for almost any metal shaper. This hybrid machine combines the portability of our 1000 benchtop model with the interchangeable lower post assemblies found on our large 3000 series hammers. This unique interchangeable tooling design allows the user the widest range of metal shaping options.

The Interchangeable-Post performs all standard metal shaping operations including shrinking, stretching, crowns, reverses, flanged edges, and more. It can stretch 12-gauge mild steel, shrink 14-gauge mild steel, and then quickly change to planishing thin soft metals such as aluminum or copper depending on the air motors, dies, and lower assemblies being used. The frame is built from strong tubular steel, and the 24-inch deep throat allows you to easily work most complex shapes. A quick-locking motor mount allows for **fast** changes between air motors, metal thicknesses, and shaping operations (usually less than 30 seconds).

The **2000 MODEL** has an angled base that allows it to accommodate both a Straight-Post and an Angled-Post lower assembly. The Straight-Post can be used for most general shaping operations, while the Angled-Post assembly gives you the additional ability to work hollow shapes and their sides easily. Each lower assembly is sold separately, allowing you to purchase only what you need at this time, but giving you the opportunity to expand your machine's capabilities later down the line.

The **2500 MODEL** frame accepts a Planishing Arm in addition to the Straight-Post and Angled-Post lower assemblies. The Planishing Arm is designed for working inside tight, narrow spaces (like gas tanks or wing tips) in addition to planishing.

Features of this model

- **Versatile:** This model allows you to switch between three separate interchangeable lower assemblies for the widest range of shaping operations.
- **Portable:** This machine is tough enough for heavy daily use, yet light enough to move easily or take off-site.
- **Small footprint:** Requires only a small amount of space. The frame requires only 14-inches x 32-inches of space.
- **Air Motors:** Six air motors (#0 - #5) allow you total control over a wide range of metals. Variable speeds are easy, from single accurate hits, to thousands of blows per minute.
- **Dies:** Over three dozen dies are available for various forming, rapid shaping and planishing tasks.

Max Capacities (using a #5 Air Motor)

	Shrinking	Stretching
Aluminum	.125"	.187"
Mild Steel	14-gauge	12-gauge
Stainless	16-gauge	14-gauge

Product Specs

- **Frame:** Stout 4" x 6" tubular steel frame. Hollow frame can be filled with sand for added stability or sound deadening. Frame can also be bolted to a benchtop or cart for added stability or portability.
- **Throat:** 24"
- **Dimensions:** 32" h x 34" d x 10" w
- **Air Requirements:** 90 psi
- **Machine weights:** Frame 94 lbs., Straight-Post 23 lbs., Angled-Post 23 lbs., Planishing Arm 21 lbs.
- **Shipping:** Ships by regular UPS truck inside U.S. Typical shipping weight is 150-250 lbs. depending on package purchased. Frame and components ship separately.

PACKAGES & PRICING - 2000 Models

Basic Package

- Powder-coated frame w/bolttable feet
- Quick-Lock Motor Mount
- Complete Air System includes: Filter-Regulator-Lubricator, 10-ft. Air Hose, Heavy-Duty Foot Switch with High-Flow Fittings, and Air Motor Oil
- Air Motor Holster
- 2 hr. *Air Hammer Operations* DVD

Standard Package

Includes the Basic Package plus:

- 3-piece Lower Button Die Set
- Small Upper Hammer
- 1" Die Riser
- #2 Medium Air Motor (*You may substitute a different motor. Price differences apply.*)

Deluxe Package

Includes the Standard Package plus:

- Shrinking Die for Soft Metals
- Large Upper Hammer
- Roughing Head
- Rubber Head
- Very High Crown Die
- Large Flat Lower Die
- Flange Curving Die
- Wooden Die Block

Super-Deluxe Package

Includes the Deluxe Package plus:

- Shrinking Die for Hard Metals
- Plastic Planishing Set
- Lower Flanger Die
- Large Reverse Die Set
- Small Reverse Die Set

Complete Package

Includes the Super-Deluxe Pkg. plus:

- Six Air Motors (# 0, 1, 2, 3, 4, 5)
- Straight-Post Lower Assembly
- Angled-Post Lower Assembly
- Planishing Arm

Heavy-Duty Complete Package

Includes the Complete Package plus:

- Oversized Upper Hammer Die
- Oversized Upper Roughing Head
- Oversized Lower High Crown Die
- Oversized Lower Low Crown Die
- Oversized Die Block

Please Note: Lower Assemblies are sold separately for all packages except the "Complete" and "Heavy-Duty Complete" packages. The Basic Package is for those customers who wish to select their own dies and motors. You will need at least one motor, and one upper and one lower die to operate the machine.

Model 2000

SMS-2000-1B	Basic Package.....	\$ 1,795. + lower assembly*
SMS-2000-2S	Standard Package	\$ 2,565. + lower assembly*
SMS-2000-3D	Deluxe Package	\$ 3,695. + lower assembly*
SMS-2000-4SD	Super-Deluxe Package	\$ 4,495. + lower assembly*
SMS-2000-5CP	Complete Package	\$ 8,895.
SMS-2000-6HD	Heavy-Duty Complete Package	\$ 9,795.

Model 2500

SMS-2500-1B	Basic Package	\$ 2,295. + lower assembly*
SMS-2500-2S	Standard Package	\$ 3,065. + lower assembly*
SMS-2500-3D	Deluxe Package	\$ 4,195. + lower assembly*
SMS-2500-4SD	Super-Deluxe Package	\$ 4,995. + lower assembly*
SMS-2500-5CP	Complete Package	\$ 10,595.
SMS-2500-6HD	Heavy-Duty Complete Package	\$ 11,495.

*Lower Assembly Options

SMS-2100	Straight-Post	\$ 795.
SMS-2200	Angled-Post	\$ 995.
SMS-2300	Planishing Arm (requires Model 2500 frame)	\$ 1,395.

Customer Profile



Rolando Gutierrez, Chief Engineer, Flyboys Aeroworks

El Cajon, California

www.flyboysaeroworks.com

► Owns TM Model 2000

"At Flyboys, we restore Warbirds for some of our nation's most prestigious museums – among them The National World War II Museum in New Orleans and The USS Midway Museum in San Diego. The TM Technologies hammer has proven itself an invaluable addition to our tool arsenal. The aircraft we work on demand a substantial amount of sheet metal shaping, and TM's power hammer can do it all. We also provide internships for students interested in pursuing careers in engineering and aviation maintenance technology and have found that even students and interns can master it rather quickly."



Model 1000



Shown: Straight-Post Air Power Hammer Standard Package, with Air Motor Holster mounted at rear. Additional motors (shown in Holster) sold separately.

STRAIGHT-POST AIR POWER HAMMER

This is the machine that started it all. It is used by professionals, serious builders, and hobbyists, and has been used on a daily basis in our shop for over 20 years. Designed with speed, ease of use and safety in mind, it will give you years of trouble-free, high-quality work. This dependable, reliable light-industrial machine is the ideal starter hammer for those on a budget. Despite its smaller size and lower price, we have many customers producing large-scale work on this machine (see "Skywall" photos on page 7 as one example).

The 1000 Straight-Post model performs all standard shaping operations including shrinking, stretching, crowns, reverses, flanged edges, and more. It has the ability to stretch 12-gauge mild steel, shrink 14-gauge mild steel, and then quickly change to planishing thin soft metals such as aluminum or copper depending on the air motors and dies being used. The Quick-Lock Motor Mount allows for fast adjustment between air motors, metal thicknesses, and shaping operations. The 24-inch throat allows you to easily work most complex shapes.

The frame is built from tubular steel which makes it very strong, yet lightweight enough to still be portable. If you prefer an even more solid stationary machine, a hole in the top of the frame allows you to fill the frame with sand for additional weight and sound-deadening. Some customers who do this like to bolt their machine (using the boltable feet) onto a portable metal cart so they can retain the convenience of having a machine that can still be easily moved around their shop.

The 1000 model is our only machine that comes with a "fixed" lower assembly, which is included in the machine price. All of our other models use interchangeable lower-post assemblies which must be purchased separately.

Which model do I need – the 1000 or 2000?

The 1000 machine is ideal for those who are doing primarily door skins, hoods, side panels, light crowns, and the bottoms of hollows. However, if you need to do a lot of hollow shapes (and in particular – the sides of hollows), you will need a Model 2000 machine with Angled-Post Lower Assembly. Feel free to call us for recommendations on which model, dies, or motors are best suited for your particular applications.

Features of this model

- **Economical:** The 1000 is our original machine, and the most cost-effective choice for those on a budget. It is the only model that does not require you to purchase the lower assembly separately.
- **Portable:** This machine is tough enough for heavy daily use, yet light enough to move easily or take off-site. The machine in our shop has been toted to hangers and airstrips for many years.
- **Small footprint:** The benchtop design requires only a small amount of space (15-inches wide x 34-inches deep).
- **Air Motors:** This machine accepts six of our air motors (#0 - #5) allowing you control over a wide range of metals. Variable speeds are easy, from single accurate hits, to thousands of blows per minute.
- **Dies:** Over three dozen dies are available for various forming, rapid shaping, and planishing tasks.

Max Capacities (using a #5 Air Motor)

	Shrinking	Stretching
Aluminum	.125"	.187"
Mild Steel	14-gauge	12-gauge
Stainless	16-gauge	14-gauge

Product Specs

- **Frame:** Stout 4" x 6" tubular steel frame. Hollow frame can be filled with sand for added stability or sound deadening. Frame can also be bolted to a benchtop or cart for added stability or portability.
- **Throat:** 24"
- **Dimensions:** 32" h x 34" d x 10" w
- **Air Requirements:** 90 psi
- **Weight:** Frame 85 lbs. (machine including a lower assembly is 115 lbs).
- **Shipping:** Ships by regular UPS truck inside U.S. Shipping weight is 135-205 lbs. depending on package purchased. Frame and components ship separately.

PACKAGES & PRICING - 1000 Model

Basic Package

- Powder-coated frame w/bolttable feet
- Quick-Lock Motor Mount
- Complete Air System includes: Filter-Regulator-Lubricator, 10-ft. Air Hose, Heavy-Duty Foot Switch with High-Flow Fittings, and Air Motor Oil
- Air Motor Holster
- 2 hr. *Air Hammer Operations* DVD

Standard Package

Includes the Basic Package plus:

- 3-piece Lower Button Die Set
- Small Upper Hammer
- 1" Die Riser
- #2 Medium Air Motor *(You may substitute a different motor. Price differences apply.)*

Deluxe Package

Includes the Standard Package plus:

- Shrinking Die for Soft Metals
- Large Upper Hammer
- Roughing Head
- Rubber Head
- Very High Crown Die
- Large Flat Lower Die
- Flange Curving Die
- Wooden Die Block

Please Note: This is our only model that includes a lower-post assembly (the Straight-Post) in each package price. The Basic Package is for those who wish to select their own motors and dies (you will need one motor plus an upper and lower die to run the machine).

Super-Deluxe Package

Includes the Deluxe Package plus:

- Shrinking Die for Hard Metals
- Plastic Planishing Set
- Lower Flanger Die
- Large Reverse Die Set
- Small Reverse Die Set

Complete Package

Includes the Super-Deluxe Pkg. plus:

- Six Air Motors (# 0, 1, 2, 3, 4, 5)

Heavy-Duty Complete Package

Includes the Complete Package plus:

- Oversized Upper Hammer Die
- Oversized Upper Roughing Head
- Oversized Lower High Crown Die
- Oversized Lower Low Crown Die
- Oversized Die Block

Model 1000

SMS-1000-1B	Basic Package	\$ 1,995.
SMS-1000-2S	Standard Package	\$ 2,765.
SMS-1000-3D	Deluxe Package	\$ 3,895.
SMS-1000-4SD	Super-Deluxe Package	\$ 4,695.
SMS-1000-5CP	Complete Package	\$ 7,495.
SMS-1000-6HD	Heavy-Duty Complete Package	\$ 8,395.



Air Hammer Operations DVD

This 2-hr. DVD shows how to assemble and use the TM Straight-Post Air Power Hammer and its tooling. Explains cold shrinking, stretching, forming reverses, curving flanges, and turning edges. *(Please note: This video focuses on machine operation, not metalshaping instruction, and only shows assembly of the 1000 model.)*

TMV-0187-D	Air Hammer Operations	\$20.
TMV-0187-R	Air Hammer Operations (30-day Rental)	\$9.40

Customer Profile



Norm and his wife Susan with his '51 Chevy truck project (see the final restomod at Bonneville, p. 6).

Norm Benson, Vintner Owner, Dark Star Cellars

Paso Robles, California
www.darkstarcellars.com

► Owns TM Model 1000

"I just wanted to touch base with you and tell you how happy I am with my Air Power Hammer.

"Although my day job is running a winery, I have a decent-sized metalshop on the property and do quite a bit of automotive restoration and custom hotrods on the side, as well as dabbling in metal art. Not to mention that the winery itself has a lot of metal tanks and equipment I have to maintain.

"This hammer has virtually reduced my shaping time for patch panels in half over my English Wheel. I can shape a panel to blind a gas tank filler hole in a matter of moments – which on my wheel would have taken me an hour and wasted excess material.

"The redesigned motors are amazing. Now that I can run them at one strike per second I can do very minute and precise shrinking operations. It has become invaluable for doing very subtle shrinking to the roof skins I've been working on.

"There isn't another machine on the market today that is as versatile as your air power hammer."

Air Motors & Air System

AIR MOTORS

We have tested, built, and modified thousands of air motors since 1987 to find the ones that meet our requirements for rate of fire, hardness of hit, durability, variability, and ease of use. We firmly believe that no other motor will match ours for reliability or performance.

We offer seven Air Motors each of which is designed to shrink, stretch, or planish a specific range of metals.

Our #1-#6 motors can be gradually adjusted from single, accurate hits, up to hundreds of blows per minute. Our #0 motor is designed exclusively for planishing (not shaping). For that reason, it is capable of thousands of hits per minute (no single hits however). There are a few concepts you need to understand when selecting motors:



1. Shrinking requires more power than stretching. This means that each motor is capable of stretching one thickness more than it shrinks. If a motor can shrink 14-gauge soft steel, it will be able to stretch 12-gauge of the same material.

2. For general planishing, use the next-smaller air motor than the one you used for shaping. If you shaped your panel using the Heavy #3 Air Motor, you will need to switch to the #2 Medium Air Motor to planish. Using the right combination of Air Motors is the trick. Should you accidentally overstretch your part or panel, our "quick-locking" motor mount allows you to rapidly change to shrinking dies and shrink that section down, losing very little time. Since time is money, you want to be able to change dies or go from one operation to the next as quickly as possible.

3. Use our #0 or #1 air motors for sensitive or delicate planishing. If you need to stretch or shrink .032" copper or aluminum or do other very light, gentle planishing, use the #1 motor and then planish with the #0 motor.

SMS-0268	Extra Light Air Motor #0	\$575.
SMS-0138	Light Air Motor #1 (Note: accepts only .401" shank dies. See p. 24)	\$525.
SMS-0137	Medium Air Motor #2	\$565.
SMS-0136	Heavy Air Motor #3	\$595.
SMS-0135	Very Heavy Air Motor #4.....	\$695.
SMS-0270	Extra Very Heavy Air Motor #5	\$795.
SMS-0269	Super Heavy Air Motor #6	\$1,395.

AIR MOTOR CAPABILITIES

Motor	SHRINKS up to:	STRETCHES up to:	Please note:
#0	.025" soft metals	Planishing only up to .050" alum. & 20-gauge soft steel	Requires 1" Die Riser (see p. 24)
#1	.032" aluminum & copper 24-gauge soft steel	Primarily planishing plus stretching .040" soft metal	Requires 1" Die Riser and .401" Shank Dies (p. 24)
#2	.050" aluminum & copper 20-gauge soft steel	.065" aluminum & copper 18-gauge soft steel	Requires 1" Die Riser (see p. 24)
#3	.065" aluminum & copper 16-gauge soft steel	.100" aluminum & copper 14-gauge soft steel	
#4	.100" aluminum & copper 14-gauge soft steel	.125" aluminum & copper 12-gauge soft steel	
#5	.125" aluminum & copper 12-gauge soft steel	.187" aluminum & copper 10-gauge soft steel	
#6	.187" aluminum & copper 10-gauge soft steel	.250" aluminum & copper 8-gauge soft steel	Can only be used with the 3000/4000 models (comes with special motor mount).

Air Motor Holster

Our Motor Holster conveniently stores your air motors and protects them from getting damaged rolling around in a box or drawer. The Holster bolts onto either the top or side of your machine and keeps your motors handy for quick motor changes. Holds up to four motors and includes mounting bolts and bracket. A top-mounted holster can be seen on page 16.



Air Motor Holster
SMS-2800 **\$53.**

AIR MOTOR TUNE-UPS & UPGRADES

Tune-ups: Our motors are designed to run 2000-3000 hours without requiring service if they are properly maintained and oiled. However, things happen. Dirt or condensation in your air supply can wreak havoc with your motor and make it seize up. And improper care or normal wear and tear can make it a candidate for a repair or tune-up. If your motor is not hitting smoothly we can usually repair it for a fraction of the cost of replacing it.

Non-Slip upgrade: If your motors were purchased prior to 2012, you may be interested in having your motor upgraded. Our new motor barrels are **non-slip** and lock tightly into the mount eliminating the need to constantly reset the motor during use. This modification makes thicker, harder metals easier to work.

Slow-Speed upgrade: We have also redesigned our motors to be able to hit **very slowly** (one hit per tap of the pedal) yet still go full roar at the other end! This is really useful when nit-picking.

We can tune-up your old motors and add the new upgrades at the same time. We offer discounts if you have multiple motors you would like rebuilt or upgraded (10% off 2 motors, 15% off 3 motors, 20% off 4+ motors).

Air Motor Tune-ups & Upgrades

Tune-ups & motor repairs starting at.....	\$95.
Non-Slip/locking barrel upgrade.....	\$85.
Slow-speed/Variable upgrade	\$65.
Slow-speed + Non-Slip upgrade	\$135.

AIR MOTOR LUBRICATION

Air Tool Oil

Like all motors, oil is the key to a long life. You should add oil to your motor for every hour (or less) of use. Skipping this step can cause serious, sometimes fatal damage to a motor. We highly recommend the Filter-Regulator-Lubricator for maintaining proper, sustained motor oiling (see below).

Air Tool Oil

TPC-0004	4 oz.	\$4.95
TPC-0032	Quart	\$14.95.
TPC-0128	Gallon	\$49.95.



AIR SYSTEM UPGRADES

Filter-Regulator-Lubricator

It is a vital necessity to keep your air motors well-oiled. If your machine does not have a Filter-Regulator-Lubricator unit (FRL) we highly recommend adding one.

The FRL eliminates the need to oil your air motors by hand after each hour of use. With the FRL, just add oil to one of the polycarbonate bowls and you will be able to run your motors for 1-2 months before refilling.

The FRL also filters out compressor scale – that hard rust scale that ruins air motors of all types. The FRL is a convenient time-saving assembly that will help protect and extend the life of your air motors. Please note your machine model number when ordering.

Filter-Regulator-Lubricator

SMS-0232-T	(1000/2000 models)	\$185.
SMS-0232-C	(3000 models)	\$195.

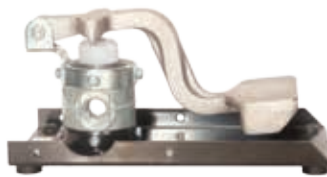


High-Flow Kit

Our redesigned Air System now includes a heavy-duty foot switch with high-flow fittings which will give you 25% more horsepower from our motors than our original foot pedals and fittings. If you have one of our older Air Systems (pre-2014) you may want this upgrade. Please note this Kit can only be used with our Non-Slip motors (see “Air Motor Tune-ups & Upgrades” on p. 18 for details on non-slip motor upgrades).

High Flow Kit

SMS-0150	\$185.
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“My air hammers are working great, no issues at all. I have had several guys ask me to sell mine to them, but I just don’t see doing that unless something better comes around. Guess what? Nothing better is out there. Not even close.”

Michael Whiteaker,
White Mountain Intl.
Machine Exporter,
Qinhuangdao, China

Customer Profile



Bill Sorich, Metalsmith

Santa Cruz, California
www.billsorich.com

► Owns TM Model 2000

“I’ve had my TM Tech hammer close to 20 years. This week I made a duo of barn owls about to take off, wings down and ready to pump. These are made from 1/16” 316 stainless steel flat sheet. Every one of these pieces was stretched and shrunk to form the wings and dished face.

“Kent’s secret weapon are the shrinking dies that move the metal right where you want it. The very powerful air motor and die combo make hours of hand work into minutes, and done with a precision that hand hammering can’t achieve.

“The trick to getting metal to move where you want it is to get it between a rock and a hard spot. That, my friend, is a TM air hammer!”

Bill makes amazing one-of-a-kind metal outdoor barbecues. Below: The Armadillo.



Standard Dies

ABOUT OUR DIES

Our customers will tell you that our dies are one reason our Air Power Hammer is a superior machine. Our dies were developed over 25 years of using this machine on a daily basis. We manufacture our dies from high-quality steel that is precision-machined, properly hardened, tempered, and in some cases precision-ground, for that perfect face or contact area. These are not cheap tools. When you buy our parts you are getting U.S. industry-standard quality. Every item we sell is completely tested in our own shop, *not* on the customer. Tried-and-true. 100% Guaranteed.

Standard Upper Dies

Large Upper Hammer

This die is used for planishing and stretching crowns and large flat surfaces. We use it for making door, hood, and roof skins, or any large panels needing a low crown. This flat-faced 2-1/2" die is made from hardened steel and is precision-ground for flatness.



Large Upper Hammer
SMS-0147 **\$136.**

Small Upper Hammer

This die is for working into corners and tight spots where the large planisher will not fit. It also curves flanges when used in conjunction with the lower Flange Curving Die. 1.6" diameter die is hardened and has a precision-ground flat working face.



Small Upper Hammer
SMS-0276 **\$104.**

Rubber Head

The Rubber Head stretches soft sheet fast without hammer marks and gives you a very nice finish. It also smooths roughed-in areas for fitting, which lessens planishing time. It is not as aggressive as the roughing dies, so you use it on thinner sheet. The Rubber Head is recommended for soft/thin steel, copper, aluminum, brass, zinc, tin, gold, silver, lead, and pewter.



Rubber Head
SMS-0143 **\$144.**

“*Kent, Just wanted to let you know how pleased I am with my new power hammer. I made my first large panel, a hood for a Ferrari Dino, on it and used stretching only to form it. I'm still learning to use all the dies. I sent a picture to show you the hood [see p. 7]. Thanks again.*”

– Wil de Groot, Milford, NJ www.exoticars-usa.com

Standard Lower Dies

Basic Lower Die Set

This 3-piece buttonhead set includes a high crown, low crown, and a flat die for roughing, stretching, and planishing. Use them with the Roughing Head, Rubber Head, or Small or Large Upper Hammer dies. 1-5/8" diam. hardened steel with precision ground flats.



Basic Lower Die Set
SMS-0131 **\$195.**

NEW from
TMM Tech

Large Lower Flat Dies

Use these dies in conjunction with our Large or Oversized Upper Hammer dies for shaping (raising) gentle crowns in large hoods, doors, and roof skins, and smoothing (planishing) panels. Each die has a precision-ground contact patch of a different diameter (1.30", 1.0", .80", .60"). Choose the flat based on the thickness and hardness you are going to be shaping—smaller flats for harder thicker metals, larger flats for softer thinner metals. 2" diam. hardened steel.



Lower Large Flat Dies
SMS-0151 .60" flat **\$90.**
SMS-0153 .80" flat **\$90.**
SMS-0144 1.0" flat **\$90.**
SMS-0157 1.30" flat **\$90.**
SMS-0160 Set of 4 (10% discount).... **\$324.**

Lower Very High Crown Die

Use this die to rapidly stretch high crowns or for planishing inside very high crowns with the Roughing Head or Rubber Head die. If you want to make a nice clearance blister on a race car or airplane this would be the die to use. Artists may also find this die ideal for making distinctive hammered marks. 1-5/8" diam. hardened steel.



Lower Very High Crown
SMS-0145 **\$76.**

Roughing

“Roughing” means to generate a lot of shape in the metal rapidly. We describe the process of shaping metal as “taking it through a controlled wreck.” You are working the sheet (sometimes severely) by stretching and shrinking operations to get the rough shape that you are looking for. You are **not** trying to do finesse work or keep the panel nice and smooth during this stage of the process. Our roughing dies generate a stretch forcefully and rapidly in the sheet of metal, so you don’t wear out your wrist and arm doing the “arm and hammer” method of “blocking” the metal into a shot bag with a big mallet. These dies will help you stretch faster and more easily than you can imagine. *And* you can still lift your arm at the end of the day after doing the work.

Roughing Head

The Roughing Head stretches metal rapidly without leaving hammer marks! It raises high crowns quickly when used with the right air motor. This aggressive upper head stretches saddles and hollows on steel (up to .050”), soft stainless, copper, and 1/2 hard or T4 aluminums. **See our Oversized Roughing Head for large parts at the bottom of this page.**



Roughing Head
SMS-0142 **\$152.**



“ *This hammer is everything you claim and more. I roughed out a pair of helmet halves in no time flat. When a buddy of mine saw this work he got so excited that he said he will be building a frame so he can have one too. My elbow thanks you! After almost two years of very limited metalworking I finally feel good about starting up again and let me tell you I sure missed it. This has given me new hope for a future in metalworking.*”

– **Dean Cunningham, Armorer, Vancouver, WA**

Oversized Dies

When making large shapes you want every blow to cover more square inches. We now offer four oversized dies for doing these tasks: a Roughing Head, an Upper Hammer, and both a High-Crown and a Low-Crown lower die. Oversized Dies demand more power, so you will need a #4, 5, or 6 motor for working aluminum sheet that is .050” to .125”, or mild steel up to .08”. Hardened steel, 3” diam.

Oversized Dies

SMS-0285	Oversized Roughing Head	\$255.
SMS-0286	Oversized Upper Hammer Head.....	\$225.
SMS-0287	Oversized Low-Crown Die.....	\$185.
SMS-0288	Oversized High-Crown Die.....	\$185.
SMS-0020	Complete Oversized Die Set (all 4 dies + Oversized Die Block)	\$895.



Evan Wilcox, Owner, Wilcox Hand-Formed Metal

Ukiah, California
www.wilcoxmetal.com

► Owns TM Model 1000

“Metalworking started as a hobby in shop class in 1972. After studying photography at Art Center College of Design I worked as a photographer and did metalwork on motorcycles on the side. Around 1988, the computer starting taking over photography, and I began working as a metalsmith full-time.

“I’ve had my TM Air Hammer for over 10 years and I use it primarily for shaping. It has really added consistency to my work, and enables me to make very accurate shapes. I used to do everything with just a mallet and sandbag, and the left-right parts would always be a little different. With the power hammer I can track really close. The hammer allows me to keep blows and spacing consistent and even, and do subtle shapes that would be really hard to do on a bag.

“My favorite thing about the hammer is being able to flatten weld beads. Before I learned to weld well, I’d make things with as few pieces as possible. I’d get better shapes when I used more pieces, but then I’d have to disappear even more weld seams. Now I just power hammer my welds flat (I still like to use my English Wheel over that). A lot of my work is polished and has to be perfect. The TM Air Power Hammer is what made this possible for me.”

Dies for Reverses, Flanges, and Shrinking



Saddle shape made using Reverse Dies



Flanged edges made using the Flanger Dies

Dies for Reverses, Fairings, & Saddles

When you need to make a reverse (saddle or ducktail) shape you **need** these dies. These shapes can be a lot of work to make properly. The hand method requires that you use a round-faced mallet and shot bag, whacking away at the metal until it is rough-stretched into (sort of) what you need. Then you have to smooth it out, either with a slapper and dolly or with a machine. These dies are much faster, do a better job, and if you are careful you won't have to do much smoothing. (If you want tips on making reverses check our website for our instructional DVD – *Those Doggoned Reverses, Fairings, and Saddles*, shown at right.)



Large Reverse Die Set

These dies are for making large reverses and saddle shapes such as fender ducktails and aircraft fairings. They stretch and move the metal rapidly and accurately left and right, and leave minimal marks. They can be used to shape metal up to 3/16" thick, depending on the air motor being used. This hardened steel die set has precision-ground faces, and comes as a two-piece set. **Note:** Your hammer must be set up carefully so the faces of these dies line up **exactly**, or your part can be easily damaged.

Large Reverse Die Set

SMS-0280 **\$225.**

Small Reverse Die Set

Never use a mallet and shot bag for reverses again! Make small fairings and saddle shapes rapidly with exceptional control and minimal marks. Designed for working in tight places and on parts with small radii. This two-piece hardened steel set is precision-ground for perfectly matched working surfaces.

Small Reverse Die Set

SMS-0279 **\$202.**



Flange-Working Dies

Flanger Die (aka "Tipping")

This die is designed to create flanges around both inside and outside curves – on compound surfaces! (Inside curves require stretching and outside curves require shrinking.) This die will do both operations, and it will follow a pencil line, depending on your operator skill. You can also use this die for wiring edges. **Note:** This die **must** be used in combination with either of the upper Shrinking Dies – **no** other upper die. Also, this die may be easily damaged by inexperienced hands (i.e. apprentices). It is machined from an aerospace non-ferrous alloy.

Flanger Die

SMS-0274 **\$103.**



Flange Curving Die

Quit using a jaw stretcher! This die is used in conjunction with an upper hammer die to curve flanges (by linear stretching) that you have already made in a bending brake. The surface left by this die combination is almost a mirror finish, so in many cases the metal may simply be polished after curving. The hardened steel lower die is precision-ground to have a perfectly flat working surface. 1-5/8" diam. **Note:** This die **must** be held stationary to work correctly (see our *Air Hammer Operations* DVD for specifics).



Lower Flange Curving Die

SMS-0278 **\$156.**

Shrinking Die Sets

Yes, our Air Power Hammers really do shrink with these dies! And they do a fine job, even shrinking in the middle of a panel once you master the technique (shown on our *Air Hammer Operations* DVD). Many shops rely on these dies for doing panels quickly.

Shrinking Die Set – Soft Metals

Use this 3-piece set for shrinking soft metals such as copper, 1100, 3003, 1/2 hard aluminum (up to .080" with our medium air motor, .095" with the heavy air motor, and .125" with very heavy air motor).

Shrinking Die - Soft Metals

SMS-0141 **\$253.**

Shrinking Die Set – Hard Metals

This 3-piece set is for shrinking the harder metals, such as 10-gauge cold-rolled steel, mild steel, and soft stainless up to .040" with medium air motor, .050" with heavy motor, and .063" with the very heavy air motor. (**Note:** These ratings are not absolute. Results vary depending on air motor used, type of metal, and the skill and experience level of the operator.)

Shrinking Die - Hard Metals

SMS-0140 **\$317.**



Customer Profile



Joe in the early stages of fabbing a copper dome for a large, outdoor barbecue using his home-built TM Air Power Hammer. See finished piece on p. 6.

Joe Helming, Architectural Metal Specialist, Owner, Helming Brothers, Inc.

Jasper, Indiana
www.helmingbrothers.com

► Owns TM Homebuilt Model

"Our company does a wide range of metalwork – everything from roofing applications (including church steeples and crosses, gutters, chimney caps, and lightning protection), to hand-crafted copper lamps and ornaments, bay window awnings, stained-glass restoration, plumbing, and HVAC. We currently operate an 11,000 sq. ft. shop that includes retail and stained glass service space.

"With the TM air hammer we have found a resource that allows for mechanical forming with ease. This tool is used in our shop for shrinking, stretching, smoothing, and planishing of curved metal components.

"The benefit of owning a TM hammer is the time saved over hand forming, and the ease of completion of metal pieces or sections to the finished stage.

"The use of the TM air hammer has opened up new metal working opportunities for a broader range of customers and allows our shop to produce a professional-looking product with much less time invested."



Our shrinking dies can shrink even the middle of large panels. Here Kent is shrinking bronze.

“ I have had Kent's hammer for about 10 years now, and it is a great machine. I have shaped 1/8" aluminum on it and lots of 16-gauge panels on it. It is a big time-saver for turning flanges also. The shrinking dies work great, but there is a learning curve with them. After 10 years, I just wore out the upper die, and they treated me very well on the replacement. I like this hammer so much, that I now have a second machine I am building!"

– **Tim Young, Combine, TX** www.irrationalmetalworks.com

Planishing & Specialty Dies

Planishing Dies

Polymer Planishing Set

This 3-pc. lower die set contains low, medium, and high-crowned dies for planishing soft metals beautifully (without stretching). Use on soft- to medium-hard copper, aluminum, brass, or zinc, with either the Large or Small Upper Hammers, the Large or Small Upper Planishers, or the Upper Wobble Die to produce a fine, beautiful finish. Black polymer, 1-5/8" diam.

Polymer Planishing Set

SMS-0146 **\$154.**



Large Upper Planisher (.401")

This die is a long-time favorite with both Kent and customers. The oversized polished face gives an exceptionally beautiful, smooth finish to panels and parts. **Please note:** This die has a .401" shank. It can be used in the #1 motor (or #0 motor with a Shank Adapter, see below), or in .401" rivet guns. **Do not use this die in air motors #2-6** as it can be easily broken if too much force is applied. Steel, 2-1/4" diam.

.401" Large Upper Planisher

SMS-0164 **\$145.**



Small Upper Planishers

Use these small planishing heads for planishing tasks requiring you to get into tight, small spaces. They can also be used in rivet guns and are also great for art metal work. **Note:** The 1.25" Planisher fits our #0 motor. The 1" Planisher fits the #1 motor but can also be used with the #0 motor if a Shank Adapter is added (see below). **Do not use these dies in air motors #2-6.**

Small Upper Planishers

SMS-0165 1.25" (.498" shank) **\$105.**

SMS-0166 1" (.401" shank) **\$105.**



NEW from TMM Tech

Wobble Dies (.401")

When planishing sheet metal shapes it is sometimes difficult to hold the panel in correct alignment with the dies. This can lead to hammer marks, bumps, frustration, and excessive time spent trying to overcome this problem.

Because these dies "wobble" they level themselves against the metal even when the part is held 10-degrees out of plane. This eliminates the need to hold your part perfectly to get a mark-free finish, and allows some freedom when holding the metal (even one-handed planishing is possible!). This is a huge boon for those planishing large panels or parts that will be bare or polished. Customers using our new Wobble Dies rave about their ability to planish significantly faster and more easily, with a finish nearly as smooth as the English Wheel.

Wobble Die components can be used together or separately in conjunction with other hammer dies. The Upper and Lower Wobble Dies can be used together as a set, or the Upper may be used with any other lower die, and the Lower may be used with any flat upper planishing-style die (the Lower Wobble Die requires the Perch Die to work correctly). Check our website for other new lower Wobble Dies coming in 2016. **Please note:** The Upper Wobble Die has a .401" shank and is meant to be used with our #0 or #1 motors only (the #0 motor requires a Shank Adapter; see at right).

SMS-0169 **3-piece Wobble Set** **\$285.**

NEW from TMM Tech



"Oh my God, I have to have one of those hammers! He can do in seconds what takes me hours to do by hand."

– Kevin C., DVD reviewer, **Air Hammer Operations**



Shank Adapter (.401" – .498")

Add this shank adapter to your .401" die shank for use with our .498" Air Motors.

Shank Adapter

SMS-0284 **\$18.**

1" Die Riser

Our 1" Die Riser is required for use with our shorter #0, #1, and #2 Air Motors. It extends the height of the lower-post assembly by raising the lower die to be closer to the motor. This allows you to quickly switch from our longer air motors (#3-5) to our shorter motors without needing to reposition the upper Motor Mount. Made of hardened steel.

1" Die Riser

SMS-0148 **\$82.**

"These Wobble Dies are a complete game changer. I spent six hours trying unsuccessfully to planish a bare aluminum show car panel. Kent suggested I try his new Wobble Dies. Wow. I did the entire job in 45 minutes, and the finish was beautiful."

– George Schroeder, San Antonio, TX

Specialty Dies

NEW from
TM Tech

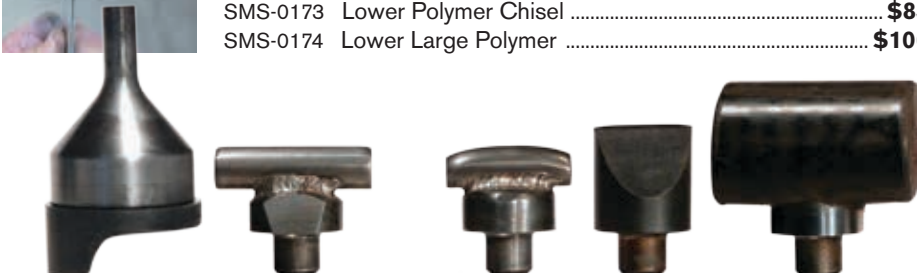


Radius Bending Dies

If you are constructing tanks, rocker panels, or hood panels you will eventually be confronted with the need to make radius bends. Our machine makes very clean, even radius bends on polished sheet from .025" to .080" aluminum and 24- to 18-gauge mild steel. Our dies make from 1/4" to 6" radii, depending on the dies and methods used.

Radius Bending Dies

SMS-0170	Upper Female Radius Die.....	\$156.
SMS-0171	Lower Straight Steel	\$195.
SMS-0172	Lower Curved Steel	\$225.
SMS-0173	Lower Polymer Chisel	\$85.
SMS-0174	Lower Large Polymer	\$106.



Upper Female Radius	Straight Steel	Curved Steel	Polymer Chisel	Large Polymer
RADIUS BENDING COMBINATIONS – Dies, Motors & Metals				
LOWER DIE	Use with this UPPER DIE	For these metal thicknesses	with Motors	
Straight-Steel	Upper Female Radius Die	.063" to soft .125" alum./copper .035" to .075" mild steel	#3, 4, 5 #2, 3, 4, 5	
	Rubber Head	.015" to .090" aluminum/copper .015" to .040" mild steel	#2, 3, 4, 5 #2, 3	
	Leather Roughing Head	.015" to .125" aluminum/copper .015" to .075" mild steel	#2, 3, 4, 5 #2, 3, 4, 5	
Curved-Steel	Rubber Head	.015" to .090" aluminum/copper .015" to .040" mild steel	#2, 3, 4, 5 #2, 3, 4, 5	
	Leather Roughing Head	.015" to .090" aluminum/copper .015" to .075" mild steel	#2, 3, 4, 5 #2, 3, 4, 5	
Polymer Chisel	Rubber Head	.015" to .050" aluminum/copper (.063" if dead soft)	#2, 3 #3	
Large Polymer	Rubber Head	.015" to .050" aluminum/copper .015" to .030" mild steel	#2, 3, 4, 5 #2, 3, 4, 5	
	Leather Roughing Head	.015" to .063" aluminum/copper .015" to .050" mild steel	#2, 3, 4, 5 #2, 3, 4, 5	
	Large Steel Upper Hammer	.015" to .075" aluminum/copper .015" to .065" mild steel	#2, 3, 4, 5 #2, 3, 4, 5	

Non-Rotating Reverse Die Set

How many times have you wished for a set of dies that could work **every square inch** when making complicated reverse shapes? Our new **non-rotating** die set allows you to smooth and adjust contours without leaving marks or stretching the metal! These dies are **truly** unique – there is nothing else like them on the market. Made from hard polymer. Upper: 2" diam. Lower: 2-1/2" diam.

Non-Rotating Reverse Die Set

SMS-0176 **\$355.**



NEW from
TM Tech

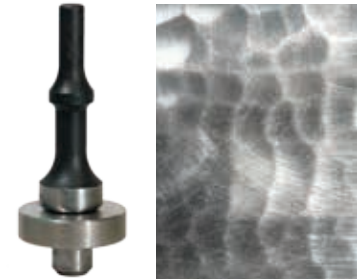
Texture & Marking Dies

We are pleased to introduce our new line of Texture Dies for stamping/marketing art metal. Check our website for new texture dies being released later in 2016.

Our **Peening Die Set** makes concave/convex hammer marks approx. 3/8" in diameter. The two-die set is designed for peening soft metals such as .063" aluminum and .050" copper. The peening die works best with a heavy #4 Air Motor.

Peening Die Set

SMS-0180 **\$77.**



Our new **Pebbling Die Set** makes hobnail-type spherical marks, approximately .425" in diam. Marks may be made either concave or convex depending on the side that shows.

Pebbling Die Set

SMS-0181 **\$118.**



“ I got your new shrinking dies for steel and fooled with them for a minute, and suddenly realized how easy they were to work! They shrink so easily. I cannot miss. Boy is this fun. Thank you very much.”

– **Butch Duke, Bremerton, WA**
(Metal man, 35 years)

Accessories

Useful Gear

Wooden Die Blocks

Our Die Blocks are hand-crafted from beautiful walnut or mahogany (depending on material available). They will protect your dies from being damaged and make for easy access when looking for a specific die. Standard Block holds 27 dies. The Oversized Block holds 8 large/oversized dies.

Die Blocks

- SMS-0300 Standard Die Block **\$250.**
- SMS-0301 Oversized Die Block **\$175.**



Air Hammer Stand

Our welded-steel stand accommodates our 1000, 2000, and 3000 Benchtop hammer models. Please note model when ordering as there are slight variations. Dimensions: 30" x 29.5" x 21.5"

Air Hammer Stands

- SMS-2828-T (1000 & 2000 models) **\$349.**
- SMS-2828-C (3000 model) **\$379.**



Anti-Vibration Gloves

"These gloves are my new 'go-to' hand gear for use with the Air Power Hammer. My hands were taking a real beating on some hard-metal jobs. I ordered anti-vibration gloves from manufacturers across a wide range of industries. I tested different gloves for months, and I found that these gave the best vibration dampening, best cut and abrasion resistance, and best non-slip grip. I also had other metal men using our Air Power Hammers test the gloves. These were the unanimous favorite!" – Kent



NEW from
TM Tech

Anti-Vibration Gloves

- SPS-0200-M Medium **\$58.**
- SPS-0200-L Large **\$58.**
- SPS-0200-XL Extra Large **\$58.**

TM Tech Shop Apron

This apron style (lots of pockets!) has been a favorite of Kent's for decades. Made from exceptionally durable heavy-duty canvas, this handy design features multiple double-stitched tool pockets with riveted reinforcements, hand-aged brass grommets with leather washers, and adjustable herringbone weave khaki-colored cotton straps. Guaranteed to last! Color: Dark denim. One size fits most.

TM Shop Apron

- TMT-1001 29" Length **\$90.**



Offset Kit

If you need to work inside tight spaces and semi-closed shapes like wing tips or tanks but do not have a Planishing Arm for your machine, we offer an "Offset Kit" that allows you to reach inside shapes a full two inches and work inside channels easily. Kit includes a 2" Die Pocket Extender, Extended Motor Mount block, and bolts. (Photo below right shows Kit mounted on machine.)

Offset Kit

- SMS-0281 **\$385.**



Frame Conversion Kit Model 1000 to Model 2000

This kit allows an experienced craftsman to convert a Straight-Post (1000 model) into an Angled-Post (2000 model) frame. Kit contains simple instructions for cutting off the end of the frame, removing the Straight-Post mounting plate, closing off the frame, and adding a new Angled-Post mounting plate. Kit also includes a frame block-off plate, a new pre-drilled mounting plate, bolts and washers. You will need to purchase the Angled-Post Lower Assembly (SMS-2020) separately. **Note:** For a \$175 refundable deposit a customer may borrow a "Motor & Die-Post Alignment Tool" for 30 days to fine-tune their upper and lower assembly alignment after converting their machine.

Frame Conversion Kit

- SMS-2020 **\$125.**

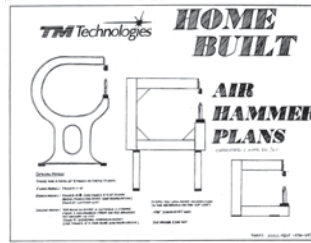


"Build-Your-Own" Air Power Hammer

"Build-Your-Own" Kits & Parts

Air Hammer Plans

If you are on a tight budget we offer plans you can use to build your own machine. This set of 18" x 24" blueprints contains plans for our Model 1000 Benchtop Air Hammer, plus two floor-model variations. Fab your frame and parts from our drawings or purchase our parts below. (**Note:** You will need one motor plus a set of dies to run the machine.)



Air Hammer Plans

SMS-0123 **\$40.**

"Build-Your-Own" Frame Kit

We provide pre-cut frame parts for our 1000 model. You do all the assembly, welding, and frame painting or powder-coating. Great for those on a very tight budget or who wish to build their own frame.



Build-Your-Own Frame Kit (Model 1000)

SMS-1000-FK **\$495.**

"Build-Your-Own" Parts Kit

Kit includes: One set of Plans, Quick-Lock Motor Mount, Straight-Post Lower Assembly, and Complete Air System.

Build-Your-Own Parts Kit (Model 1000)

SMS-1000-BYO **\$895.**

Straight-Post Lower Assembly

Precision-machined Model 1000 lower assembly. Comes with hardened steel receiver. Powder coated black.



Straight-Post Lower Assembly

SMS-0271 **\$325.**

Quick-Lock Motor Mount

Precision machined and engineered to hold tight. Needs no welding. Black finish.



Quick-Lock Motor Mount

SMS-0272-T **\$250.**

Complete Air System

For those who wish to replace an older Air System on their machine, or who are building their own hammer from our plans. Includes: air hoses, the High-Flow Foot Switch w/high-flow fittings, a Filter-Regulator-Lubricator with mounting bracket, and a small bottle of Air Tool Oil. Please note model when ordering.



Complete Air System

SMS-0273-T Model 1000/2000 .. **\$395.**

SMS-0273-C Model 3000 **\$425.**

Customer Profile



Mark Scheidt, Instructor Technical Education Program

New Trier High School
Winnetka, IL

► Purchased TM Model 1000

"I can speak to the Tinman's air hammers from personal experience. When I taught high school, we had a grant come in and I bought a complete air hammer from Kent. I chose his medium air unit. With his dies, it did way more than planish – it could stretch and shrink as well.

"The quality was excellent, and it stood up to student use (abuse) well. Once I was in front of the school's hammer and began to use it, as far as shrinking with an air hammer, it took me a while and multiple viewings of his video before I had the "aha" moment. (It's "in the wrists," not kidding here.) But after that, I was able to successfully instruct my high school students to shrink with his hammer, as well as planish and stretch.

"This is an actual bowl [shown above] shaped from 18-ga. steel by a high school student. It was one of our earliest efforts. I used the bowl as a beginning project to teach a combination of skills. It was blocked out first on the stump and bag, then the TM hammer was used to shrink in the edge, and finish. Later, my students started an informal competition for the deepest bowl.

"As I am now retired, someday I would like to build one of his kits."



Air Power Hammer Training

Whether you've recently purchased an Air Power Hammer, have been using one for years, or are considering purchasing a machine and would like to try one out, TM Tech provides several training courses for all levels of experience. We offer private and small group instruction as well as workshop weekends with up to 8 participants. All classes are hands-on, so plan to get dirty and have fun. Kent covers techniques for shrinking and stretching various alloys and thicknesses, making and shaping parts, motor and die choices, how various dies work, when to change from one operation to another (for instance, when to switch from roughing to shaping to planishing). Every course is customized for the specific interests and needs of the students attending. Private instruction is commonly 1-2 days, small groups 2-3 days, and our workshop weekends are 3-4 days. Cost is based on number of participants and length of training.

Metalworking Training

Does your crew need to increase their efficiency or improve their metalworking, welding, or forming machine skills? Kent can design a specific teaching program to suit your needs, on your equipment, and at your site (or ours). You only need to list what tools and equipment you have, and what you want to accomplish. Courses have covered aircraft sheet metal fabrication and repairs; fuel tank construction and repair; auto body fabrication, repair, and restoration; and general parts fabrication. Past programs have included instruction on the Air Power Hammer, English Wheel, shrinking and stretching techniques, hand tools, and gas welding. Kent has held training programs for FedEx, BFGoodrich, Delta Airlines, UPS in Shannon, Ireland, Precor, EAA AirVenture, Aviation North Expo, and others. His Aero Metal Workshops receive FAA IA Course Credit as Refresher Training Courses. These programs are best accomplished in 3-4 days. Cost is based on number of participants, length of training, travel expenses, and cost of shipping tools, equipment, or machines if needed.

Project Consultations

Are you stumped on a metalworking job (bitten off more than you can chew)? Kent can help you get on track. He has consulted on fabrication, tanks, repairs, aircraft, auto, art metal, and more. Project consultations can range from a phone consultation, to a day or two in our shop, or visits to your location. Depending on your needs and the size of the job, you can bring a project to Kent, or he can travel to your facility to instruct, troubleshoot, and assist you in dealing with the issues that you (or your crew) are experiencing. Using your tools, methods, and level of expertise, he will help you problem-solve, organize a job flow, and give you hands-on help if required. He can also help you tune-up or modify your equipment as needed. (He also provides on-site analysis of tools and machines for optimum effectiveness in producing sheet metal parts for one-off replacement.) The cost for project consultations is based on the amount of time involved and travel expenses if applicable.

CONTACT US

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Email
info@tinmantech.com

Website
www.tinmantech.com



Find us on Facebook & YouTube

ABOUT US

Our company was founded in 1989 by metal craftsman Kent White when he realized that centuries-old metalworking skills were rapidly disappearing, and that new, innovative tools and techniques were needed to revive and preserve these traditions. A handful of products and metalworking classes grew into a much larger product line and a commitment to metalworking training that utilizes the best of old and new techniques.

Twenty-seven years later, Kent and a small group of dedicated employees remain committed to providing metal craftsmen with high-quality tools, supplies, and technical training. We produce hand tools, forming machines, welding equipment and supplies, instructional DVDs, as well as training for metalworkers looking for ongoing support in their craft.

People frequently ask where we are located. We are deep in the pine- and oak-covered Sierra Nevada foothills, 20 miles outside historic Nevada

City in the northern California Gold Country – about an hour west of beautiful Lake Tahoe and 2 hours from the Sacramento and Reno airports.

Despite our small size and rural location, TM's client list includes Boeing, BFGoodrich Aerospace, Columbia Helicopter, Delta Airlines, Lockheed Martin, Honda Marine, Mercury Marine, Ford Prototype, GM Prototype, Toyota Off-Road, Delco Remy, Thomas-Built Buses, Polaris, FMC, Fed-Ex, UPS, Harley Davidson, Faith Forgotten Choppers, Deus Ex Machina, Hughes Satellite, Kodak Labs, and many well-known museums, custom fabrication shops, and departments of the U.S. military.

Kent continues to develop new machines and tools and teach workshops and training programs at our location and at companies around the U.S. He also consults on a wide variety of metalworking projects from prototypes to one-off parts, automotive and aviation fab and restoration, and architectural and sculpture projects.