



# AIRCRAFT ROLL

FAB & SMART SERIES





Some of the Revolution Machine Tools Team

## ABOUT REVOLUTION MACHINE TOOLS

Revolution Machine Tools (RMT), founded by long time industry leader Kyle Jorgenson, is a metal fabrication machine tools company. RMT's design team has created the most innovative and precise tools in the North American market today. We are partners with leading manufacturers who build our designs to our stringent specifications in state of the art manufacturing facilities.

Kyle Jorgenson started in the Machine Tool industry working with his father, Roger Jorgenson, who founded Jorgenson Machine Tools in 1974. Roger taught Kyle how important relationships and customer service are, and Kyle has built his reputation on those principles. Revolution Machine Tools is supported by an ever expanding team of industry professionals, which include design, marketing, service and support, who have these same values and respect Kyle's vision. Together, they are creating a revolution in the Machine Tool industry.

RMT's main focus is in cutting, forming, and rolling machines for the metal fabrication industry. RMT's research and development team has created the most innovative, fast, durable and accurate machines in the industry. Our machines are all backed by a strong warranty and an outstanding service team dedicated to keeping your machines operational. We understand the time value of money and how expensive downtime can be.





## PRE-SALE CONSULTATION

RMT's commitment to service begins with our site assessment consultation, before we even discuss purchasing equipment. We start by making an assessment of your production area to determine whether the equipment will work well in your manufacturing environment. We look at where the equipment will be placed on the production floor, how it will be brought into the facility, and even ways to make the disposal of scrap and waste easier to remove. We will evaluate material handling and flow. We will also recommend the proper installation of our equipment, or we can even come install it for you. More importantly, we can verify adequate electrical, pneumatic or hydraulic requirements and we look at the surrounding equipment to assess if there are any electro-magnetic or vibration interference issues.



We do all of these things because:  
We take pleasure in helping make our customers businesses more successful.  
Many of our customers have become life long friends that have carried over to several generations.

844-768-4636 / [www.RMTUS.com](http://www.RMTUS.com) 3



# REVOLUTIONARY SERVICE

## QUALIFIED SERVICE TECHNICIANS

Join the Revolution with service technicians from Revolution Machine Tools that can maintain, troubleshoot and fix your machines. Our goal at RMT is to ensure our customers experience smooth operations and greater return on investment by having their machines repaired and maintained by qualified personnel who are committed to the customer's success.

The service team at Revolution Machine Tools is experienced and able to diagnose, repair and install your equipment when you need it. Twenty-four hours a day, you will reach a live service technician 365 days out of the year. We know that you can't wait for days or weeks to keep your production deadlines, and we are committed to minimizing your downtime and keeping your manufacturing processes moving forward.

## PREVENTATIVE MAINTENANCE PROGRAM

Keeping your machines operating at their peak performance is key to successful manufacturing. At Revolution Machine Tools, we have the right preventative maintenance plan to fit your needs; thus, keeping your machines performing at their most efficient levels.



Our service technicians will create an optimal preventative maintenance plan for you. They will evaluate your machines, and provide you with a customized maintenance plan. Each plan will include general maintenance, safety evaluations, suggested repairs and part replacement.

## SERVICE WHEN YOU NEED IT

Twenty-four hours a day, seven-days a week, you can count on Revolution Machine Tools to be there when you need them. How many times have you needed customer service for a machine breakdown? Each and every breakdown equates to a loss in opportunity cost and profit. At Revolution Machine Tools, we are committed to making sure you get the most out of your equipment, and when it does breakdown, providing repair services in a timely manner.

So, if you are in need of a troubleshooting or repair, you can call our service team anytime, 24-hours a day/7-days a week. Anytime you run into a machine problem, you can reach a service technician by phone or e-mail and we will answer or respond.. You don't need help in two days, you need it now.



**SERVICE HOTLINE**  
**844-RMT-SERV (768-7378)**  
**SERVICE@RMTUS.COM**



# PARTS & TOOLING

## SUPERIOR PARTS AND TOOLING

Every machine used in the cutting, chipping, fabrication and forming of metal has consumables and tooling to keep them performing efficiently. These consumables and tools range from hydraulic oil, laser nozzle tips, replacement parts, software and more. Making sure you have the right products to take care of your machines is what we at Revolution Machine Tools specialize in. We stock the highest grade consumables, replacement parts and tooling to fit your needs; and, if on the rare occasion we don't have the part, we most likely know where to find it.

Our parts and tooling department is constantly looking for ways to maximize the potential of your machines. Specialized tooling can be ordered and shipped to your location. We have qualified customer service representatives who can help you find solutions and answers to your manufacturing needs.

Revolution Machine Tools and its staff are committed to providing you the most effective service possible. We encourage you to call, even if we don't carry your brand of machine, and see if we can support you in making sure you have the right parts and tooling to fulfill your production goals and needs.



*Talip, Parts and Tooling Manager*

## REPLACEMENT PARTS AND ACCESSORIES



**SWITCHES**



**GEARS AND BEARINGS**



**ELECTRICAL COMPONENTS**



# NEED MULTI RADIUS BENDING?

As with all RMT designs, these special rolls are designed and engineered here in the USA. Built with quality components and extremely intelligent design, these rolls are built to last decades.

No other machines match the speed, simplicity and precision for the aviation industry as the RMT F-FAB Series machines. These machines bend aluminum or titanium alloyed sheets even with one or more radius, including hyperbolic shapes, to get precise cylindrical or tapered forms. The RMT R&D teams experience and expertise can even help create custom machines to solve any problem specific to your project.

There was a time when several companies fought over the aircraft and aerospace industry in forming leading edge's, helicopter propellers, and other special projects. Almost all of those companies are gone now and their used machines are very difficult to find.

RMT F-FAB series rolls have filled the need and brought back with even more unique features the machine that makes these difficult parts, simple again.



## F-FAB SERIES



# ADVANTAGES

The movement of the upper beam is powered by separate dual speed AC motors, gearboxes, screw jacks and zero backlash couplings. Upper beam positions are monitored by very sensitive linear encoders and digital readouts.

Top and bottom rolls are driven by a high torque dual speed AC motor and gear set. Gearbox rotation transferred to the rolls by sensitive cardan joints. The strong magnetic disk brakes prevent the sheet from sliding back during pre-bending operation.



If you have ever tried to form relatively thin titanium, then you know exactly how flexible and elastic it is. Overcoming the ultra high yield point to allow the material to form to the new shape you need requires not only special knowledge, but special machinery that takes into consideration the challenges that such materials bring to the table. RMT Rolls are all designed to perform with a wide range of materials to suit each customer's need.



## STANDARD

- Digital readout
- Dual speed
- Induction hardened rolls (HRC 54-58)
- AISI 1050 Carbon steel rolls ground and chrome coated
- Upper beam is powered by separate dual speed AC motors, gearboxes, screw jacks and zero backlash couplings
- Machine body constructed of stress-relieved high yield steel
- Rolls seated in bronze roller bushings
- All rolls driven by AC motor and helical gear box with cardan shafts
- Emergency stop wire around the machine
- Electrical and mechanical protection against over loads
- Manual lubrication
- World standard electrical components



## OPTIONAL

- NC control unit
- Motorized bottom rolls
- Motorized and NC controlled bottom rolls
- All axis positioning with adjustable speed on NC machines
- Hydraulic side support system (both sides)
- Material feeding table (idle or motorized)
- Automatic central lubrication
- Automation systems

# F-FAB 12-1







# CAPACITY CHART

	F-FAB 6-100	F-FAB 10-100	F-FAB 12-100	F-FAB 16-100	F-FAB 20-100	F-FAB 10-150	F-FAB 12-150	F-FAB 16-150	F-FAB 20-150	F-FAB 10-200	F-FAB 12-200	F-FAB 16-200	F-FAB 20-200
Bending Length	6'	10'	12'	16'	20'	10'	12'	16'	20'	10'	12'	16'	20'
Aluminum 5754-H22	12 Ga	14 Ga	14 Ga	16 Ga	16 Ga	0.156	0.156	0.125	0.125	0.250	0.250	0.210	0.210
Aluminum 6061-T6	14 Ga	16 Ga	16 Ga	18 Ga	18 Ga	0.125	0.125	12 Ga	12 Ga	0.210	0.210	0.187	0.187
Mild Steel	14 Ga	16 Ga	16 Ga	18 Ga	18 Ga	0.125	0.125	12 Ga	12 Ga	0.210	0.210	0.187	0.187
Titanium 6242	16 Ga	20 Ga	20 Ga	22 Ga	22 Ga	14 Ga	14 Ga	16 Ga	16 Ga	10 Ga	10 Ga	12 Ga	12 Ga
Upper Roll	1.00	1.00	1.00	1.00	1.00	1.50	1.50	1.50	1.50	2.00	2.00	2.00	2.00
Lower Rolls	1.75	1.75	1.75	1.75	1.75	2.00	2.00	2.00	2.00	2.36	2.36	2.36	2.36
Max. Pass Through	2.00	2.00	2.00	2.00	2.00	2.50	2.50	2.50	2.50	3.00	3.00	3.00	3.00
Length	139	187	211	259	307	187	211	259	307	190	141	262	310
Width	34	34	34	34	34	34	34	34	34	44	44	44	44
Height	84	84	84	84	84	84	84	84	84	96	96	96	96
Working Height	39.37	39.37	39.37	39.37	39.37	39.37	39.37	39.37	39.37	39.37	39.37	39.37	39.37
Weight	4,270	5,823	6,600	8,153	9,706	10,390	11,660	14,190	16,730	14,960	16,720	20,240	23,760
Motor Power	5.5	5.5	5.5	5.5	5.5	9.0	9.0	9.0	9.0	13.5	13.5	13.5	13.5

Due to ongoing product development, machine specifications can change at any time.



# F-SMART

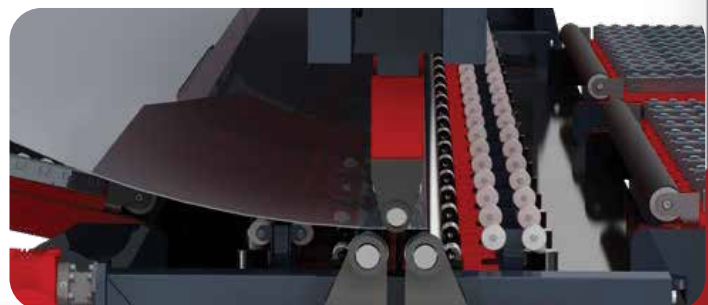
NUMERIC CONTROLLED VARIABLE GEOMETRY SERVO DRIVEN THREE ROLLS FUSELAGE PANELS AND WING EDGE BENDING MACHINE



Aircraft and Aerospace projects require superb precision and repeatability and the RMT F-SMART series can make it easy to reliably form part after part that you can count on.

## ADVANTAGES

- Superior spring-back control on thin, high yield materials, by using precise roll positioning and narrow roll geometry. This allows for almost flawless repeatability on even hard to form pieces.
- Gearbox disc braking system allows for perfect press bending without allowing the material to slide.
- Excessive upper beam daylight lets you easily remove parts.
- Portable NC control unit moves with you so you can monitor the forming process anywhere in the work area.
- Independent tiltable in-feed and out-feed tables provide support to protect your forming radius



# NOTES





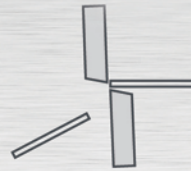
*Hydraulic Presses*



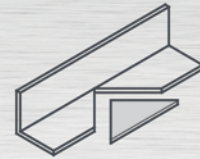
*Fiber Lasers*



*Press Brakes*



*Shears*



*Ironworkers*



*Plate Rolls*



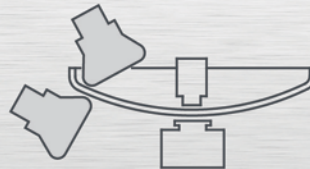
*Angle Rolls*



*Bandsaws*



*Dishing Presses*



*Flanging Machines*



*Drilling Machines*

*"If you need a machine and don't buy it, you'll find that you have paid for it anyway, but don't have it."*

*Henry Ford*

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