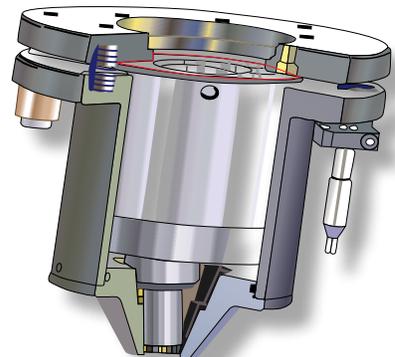
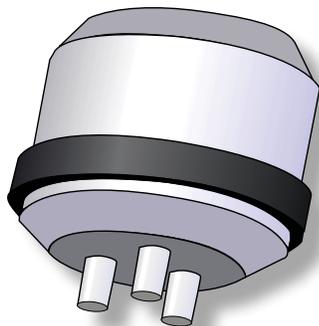


# **Orbitform Group**

*...solutions delivered.*



*Riveting - Forming - Welding - Conveying - Prototyping*

# *Assembly Equipment Solutions for Manufacturing Since 1987*

Orbitform manufactures precision forming, fastening, joining and assembly equipment for a wide range of industries and applications.

We provide prototype engineering services for assembly of parts and specialized forming and fastening. From aerospace to automotive, Orbitform's intelligent machines can monitor and control the manufacturing and assembly process. Profit from twenty five years of industry experience and let Orbitform guide your forming process!





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# Orbital Forming

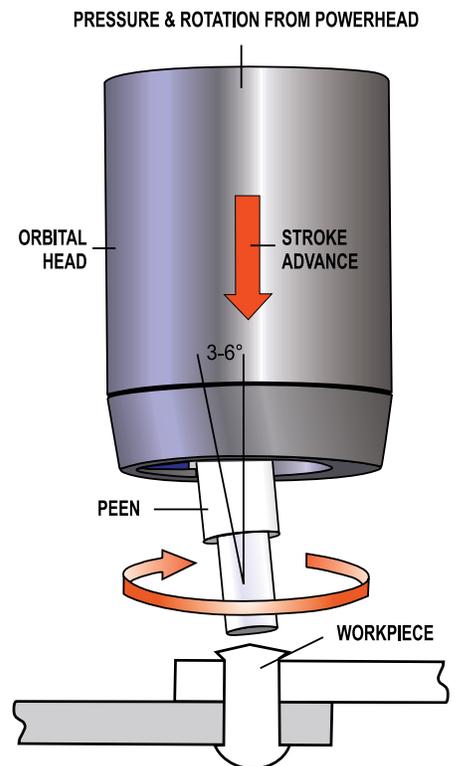
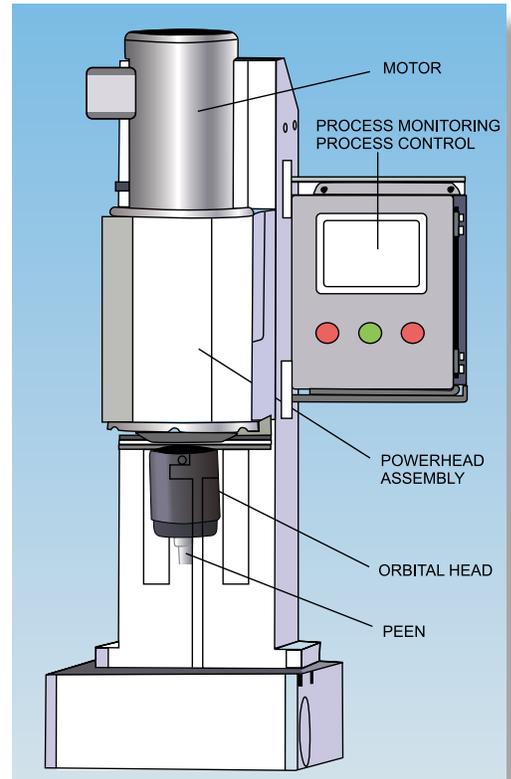
## What is Orbital Forming?

Orbital forming is a quiet, non-impact process of coldforming - replacing traditional riveting, staking, crimping, pressing, welding and other fastening operations.

Orbital forming uses a peen tool, mounted in a rotating spindle and inclined at a slight angle toward the center of the spindle. The peen intersects the workpiece on a line of contact and gradually moves material to the desired final form.

## What Can Orbital Forming Do?

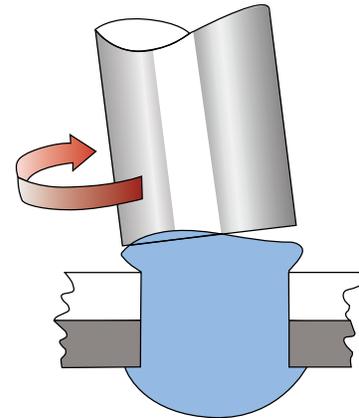
A robust and precise process, orbital forming can be used to crown, flare, swage, peen, roll, curl, broach, seal, retain and crimp material. Orbital forming also allows fine control of final form, clamp force, etc. with unequaled repeatability.





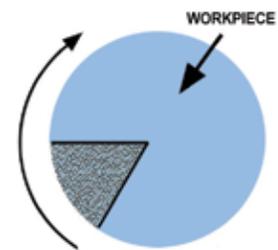
### How Can I Benefit Using Orbital Forming?

Orbital forming can accomplish the same amount of forming work with a fraction (20%) of the force of conventional processes like staking and pressing. It can be used to replace loose fasteners, be applied with exacting process control and be used over a wide spectrum of materials (metals, plastics, delicate, hard, etc.)



Orbitform's orbital forming tool spins at a 3-6 degree angle. As contact pressure is achieved, the tool precisely forms material into desired shape.

**AREA OF CONTACT  
BETWEEN PEEN AND WORKPIECE**



# Modular Powerheads

## Orbital & Spiral



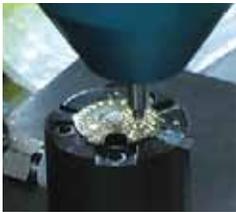
**Orbitform  
M-500  
Modular  
Powerhead**

### The Industry Standard

Orbitform modular powerheads are available in a wide range of sizes for custom applications. They are efficient at any angle and can be easily integrated with other assembly equipment.

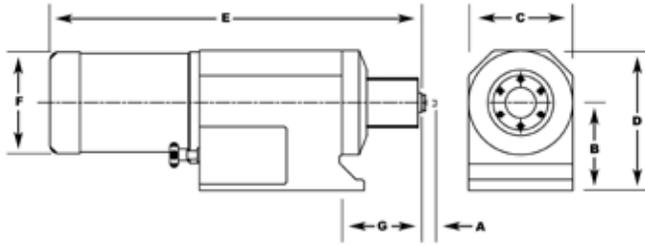
All powerheads are available in single, multi-spindle or multi-point configurations and include an orbital head and peen. Most Orbitform powerheads come complete with pre-wired, built-in, internal limit switches. Motors are pre-wired for convenience.

Orbitform's modular powerheads can be used as a single station or designed into a multiple function system.



**Spiral Form heads are available for Model 125, 240, 310, and 500 Powerheads.**

MODULAR POWERHEADS PNEUMATIC	Head Forming Capacity in Mild Steel	Stroke	Maximum Downward Force	Weight	A	B	C	D
M-125 / MS-125	.125 (3.17 mm)	.06-1.5 (38.1 mm)	590 lbs. @ 100 psi	80 lbs.	1.5 (38.1 mm)	3.0 (76.2 mm)	4.0 (101.6 mm)	5.0 (127 mm)
M-240 / MS-240	.236 (6 mm)	.06-1.75 (44.45 mm)	1460 lbs. @ 100 psi	100 lbs.	1.75 (44.45 mm)	3.75 (95.2 mm)	5.5 (139.7 mm)	6.5 (165.1 mm)
M-250	.250 (6.35 mm)	.06-1.5 (38.1 mm)	1625 lbs. @ 100 psi	100 lbs.	1.5 (38.1 mm)	3.25 (82.5 mm)	4.75 (120.6 mm)	5.62 (142.7 mm)
M-310 / MS-310	.312 (7.92 mm)	.06-2.0 (50.8 mm)	2120 lbs. @ 100 psi	120 lbs.	1.75 (44.5 mm)	5.25 (133.4 mm)	7.0 (177.8 mm)	8.75 (222.3 mm)
M-500 / MS-500	.500 (12.7 mm)	.06-2.5 (63.5 mm)	4400 lbs. @ 100 psi	240 lbs.	2.5 (63.5 mm)	8.0 (203.2 mm)	9.5 (241.3 mm)	12.75 (323.8 mm)
M-503	.500 (12.7 mm)	.75-3.0 (76.2 mm)	4400 lbs. @ 100 psi	240 lbs.	2.5 (63.5 mm)	8.0 (203.2 mm)	9.5 (241.3 mm)	12.75 (323.8 mm)
M-506	.500 (12.7 mm)	3.5-6.0 (152.4 mm)	4400 lbs. @ 100 psi	375 lbs.	2.5 (63.5 mm)	8.0 (203.2 mm)	9.5 (241.3 mm)	12.75 (323.8 mm)
M-506-AS5	.500 (12.7 mm)	1.0-6.0 (152.4 mm)	4400 lbs. @ 100 psi	375 lbs.	2.5 (63.5 mm)	8.0 (203.2 mm)	9.5 (241.3 mm)	12.75 (323.8 mm)
M-750	.750 (19.05 mm)	.06-2.5 (63.5 mm)	7510 lbs. @ 100 psi	350 lbs.	2.5 (63.5 mm)	8.0 (203.2 mm)	9.5 (241.3 mm)	12.75 (323.8 mm)
MODULAR POWERHEADS HYDRAULIC	Head Forming Capacity in Mild Steel	Stroke	Maximum Downward Force	Weight	A	B	C	D
M-600	.600 (15.24 mm)	.06-1.75 (44.45 mm)	6280 lbs. @ 500 psi	180 lbs.	1.75 (44.5 mm)	5.25 (133.4 mm)	7.0 (177.8 mm)	8.75 (222.3 mm)
M-1006	1 (25.4 mm)	4.0-6.0 (152.4 mm)	18,000 lbs. @ 1000 psi	450 lbs.	6.0 (152.4 mm)	8.0 (203.2 mm)	9.5 (241.3 mm)	12.75 (323.8 mm)
M-1000 HD	1 (25.4 mm)	.06-2.5 (63.5 mm)	18,000 lbs. @ 1000 psi	350 lbs.	2.5 (63.5 mm)	8.0 (203.2 mm)	9.5 (241.3 mm)	12.75 (323.8 mm)
M-1500	1.5 (38.10 mm)	.06-3.0 (76.2 mm)	38,500 lbs. @ 1000 psi	625 lbs.	3.0 (76.2 mm)	8.0 (203.2 mm)	12.0 (304.8 mm)	14.0 (355.6 mm)

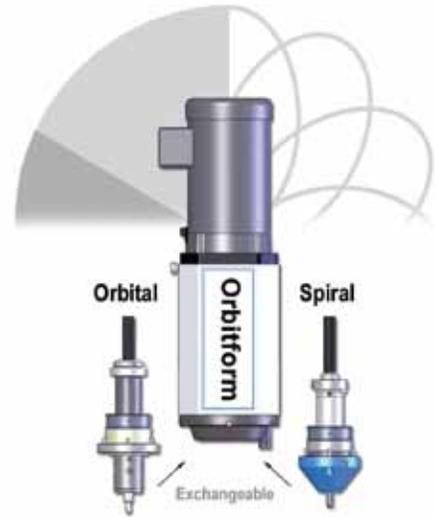


**Lubed-for-Life**

Designed for rugged low-maintenance use, Orbitform powerheads come with hassle-free lifetime bearing and seal lubrication.

Without preventive maintenance the life expectancy of a competitors forming head is often measured in months. With Orbitform's orbital powerheads the components can last for years.

Orbitform's main drive incorporates a set of angular contact bearings as opposed to single row thrust bearings. With this arrangement the comparable thrust load is significantly greater - by as much as 40 percent.



**Spiral Form forming process uses an 11-sided spiral pattern and is beneficial for many applications. Orbitform powerheads can accommodate either option, an industry first.**

E	F	G	Air Consumption Displacement	SCFM @ 100 psi*
21.0 (533.4 mm)	4.0 (101.6 mm)	6.19 (157.2 mm)	16 cubic in.	.72
23.0 (584.2 mm)	5.5 (139.7 mm)	5.75 (146.0 mm)	46 cubic in.	2.07
27.62 (701.5 mm)	4.75 (120.6 mm)	5.25 (133.4 mm)	46 cubic in.	2.07
28.38 (720.8 mm)	7.5 (190.5 mm)	6.5 (165.1 mm)	62 cubic in.	2.80
31.38 (797 mm)	7.5 (190.5 mm)	5.19 (131.8 mm)	208 cubic in.	9.39
31.38 (797 mm)	7.5 (190.5 mm)	5.19 (131.8 mm)	208 cubic in.	9.39
37.5 (952.5 mm)	7.5 (190.5 mm)	6.25 (158.8 mm)	370 cubic in.	16.88
37.5 (952.5 mm)	7.5 (190.5 mm)	6.25 (158.8 mm)	370 cubic in.	16.88
37.5 (952.5 mm)	7.5 (190.5 mm)	6.25 (158.8 mm)	364 cubic in.	16.43

E	F	G
31.25 (793.75 mm)	7.5 (190.5 mm)	7.5 (190.5 mm)
43.26 (1098.8 mm)	8.5 (215.9 mm)	7.5 (190.5 mm)
37.5 (952.5 mm)	9.0 (228.6 mm)	9.25 (234.9 mm)
49.88 (1266.95 mm)	10.12 (257 mm)	14.5 (368.3 mm)

**Available Options:**

220-240V 50Hz single phase motor or 380-440V 50Hz three phase motor.

Note: Motors and limit switches are CE marked and compliant with European safety regulations.

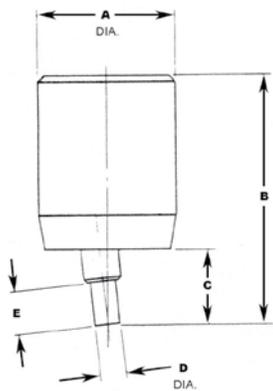


**Orbitform Bench Machine with MS-240 Modular Powerhead**

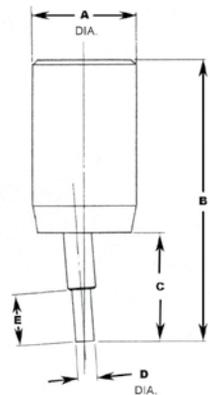
# Orbital Heads



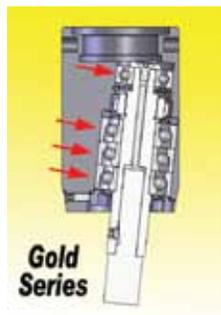
SINGLE POINT ORBITAL HEAD DIMENSIONS	Peen Diameter	Capacity	Peen Length	A	B	C	D	E
HS-250	.312 (7.92 mm)	.180 (4.57 mm)	2.187 (55.55 mm)	1.75 (44.45 mm)	4.0 (101.6 mm)	1.43 (36.32 mm)	.312 (7.92 mm)	.88 (22.35 mm)
HS-310	.312 (7.92 mm)	.312 (7.92 mm)	1.625 (41.27 mm)	2.0 (50.8 mm)	4.0 (101.6 mm)	1.38 (35.05 mm)	.312 (7.92 mm)	.62 (15.75 mm)
HS-500	.50 (12.7 mm)	.50 (12.7 mm)	2.25 (57.15 mm)	2.75 (69.85 mm)	5.0 (635 mm)	1.50 (127 mm)	.50 (12.7 mm)	.88 (22.35 mm)
HS-750	.75 (19.05 mm)	.75 (19.05 mm)	3.0 (76.2 mm)	3.62 (91.95 mm)	6.0 (152.4 mm)	2.0 (50.8 mm)	.75 (19.05 mm)	1.25 (31.75 mm)
HS-1000-4	1.0 (25.4 mm)	1.0 (25.4 mm)	5.0 (127 mm)	4.5 (114.3 mm)	8.0 (203.2 mm)	3.0 (76.2 mm)	1.0 (25.4 mm)	2.0 (50.8 mm)
HS-1000-6	1.0 (25.4 mm)	1.0 (25.4 mm)	5.0 (127 mm)	5.0 (127 mm)	8.0 (203.2 mm)	2.88 (73.15 mm)	1.0 (25.4 mm)	2.0 (50.8 mm)
HL-225	.312 (7.92 mm)	.180 (4.57 mm)	2.187 (55.55 mm)	1.5 (38.1 mm)	4.625 (117.47 mm)	1.5 (38.1 mm)	.312 (7.92 mm)	.75 (19.05 mm)
HL-250	.312 (7.92 mm)	.180 (4.57 mm)	3.5 (88.9 mm)	1.75 (44.45 mm)	6.5 (165.1 mm)	3.0 (76.2 mm)	.312 (7.92 mm)	1.75 (44.45 mm)
HL-310	.312 (7.92 mm)	.312 (7.92 mm)	3.5 (88.9 mm)	2.0 (50.8 mm)	5.5 (139.7 mm)	2.0 (50.8 mm)	.312 (7.92 mm)	1.25 (31.75 mm)
HL-500	.50 (12.7 mm)	.50 (12.7 mm)	3.875 (98.42 mm)	2.75 (69.85 mm)	7.5 (190.5 mm)	2.88 (73.15 mm)	.50 (12.7 mm)	1.38 (35.05 mm)
HL-600	.625 (15.87 mm)	.625 (15.87 mm)	4.25 (107.95 mm)	3.25 (82.55 mm)	8.5 (215.9 mm)	3.0 (76.2 mm)	.625 (15.87 mm)	1.38 (35.05 mm)
HL-700	.75 (19.05 mm)	.75 (19.05 mm)	5.0 (127 mm)	3.62 (91.95 mm)	9.0 (228.6 mm)	3.5 (88.9 mm)	.75 (19.05 mm)	2.0 (50.8 mm)
HL-750	.75 (19.05 mm)	.75 (19.05 mm)	5.0 (127 mm)	3.62 (91.95 mm)	9.0 (228.6 mm)	3.4 (86.36 mm)	.75 (19.05 mm)	2.0 (50.8 mm)
HL-900	1.0 (25.4 mm)	.75 (19.05 mm)	3.375 (85.72 mm)	3.6 (91.44 mm)	9.0 (228.6 mm)	4.25 (107.95 mm)	1.0 (25.4 mm)	1.53 (38.86 mm)



STANDARD HS



HL SERIES



Orbitform's Gold Series orbital heads provide:

- Top efficiency and forming capacity (18 times over std. heads)
- .005 inch runout accuracy
- Ability to handle short/long cycles, hard materials and multiple shifts
- Maximum punch in a small envelope i.e., multi-spindles/close centers
- Maximum forming power using minimal energy.

*...solutions delivered.*



Orbitform Multi-Form: Forming two or more rivets simultaneously.

# Multi-Form

## Multiple Options For Automation

Orbitform multi-spindle, multi-point and parallel plate eccentric drive forming heads are used throughout manufacturing and assembly operations. The advantages are cost and cycle time reduction for volume production.

## Multi-Spindle Forming Heads

Center distances for multi-spindle applications typically range from 1.7 inch. (43.2 mm) to 12 inch. (304.8 mm). Minimum center distances are dependent on rivet size and corresponding orbital head.

Multi-spindle orbital forming is not restricted to a single plane since separate spindles and orbital heads are used for each rivet. These heads can be designed for different heights in relationship to one another.



Using multi-spindle forming heads, workpieces are formed simultaneously to:

- Minimize redundant handling
- Maximize productivity.

Quick change orbital head adapter



B-310 with multi-point and pressure pad

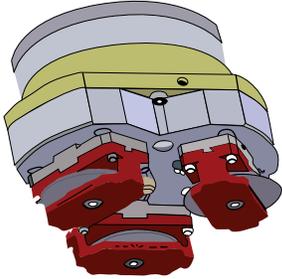
## Multi-Point Forming Heads

Multi-point forming heads are eccentric-driven with integral, fixed-center forming peens used in close center applications. Orbital motion is generated by the eccentric action of the head. Center distances for multi-point applications can range from .188 in. (4.7 mm) to 3.0 in. (76.2 mm).

## PPED Multi-Point Forming Heads

Parallel Plate Eccentric Drive or PPED forming heads are engineered for applications that require forming of multiple points within a pattern and on different planes. PPED heads can form multiple locations and multiple heights can be formed simultaneously.

# Roller Forming



This rollerhead has articulating fingers to move the rollers into the piece being formed while applying a clamp load to the assembly.

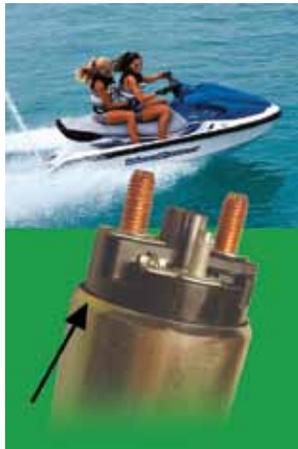


## What is Roller Forming?

Orbitform's Roller Forming process uses multiple rollers mounted on a rotating spindle to gently smooth and form material into a seamless, solid form. The rollers intersect the workpiece on an exact contact line, gradually moving material to the desired shape as the powerhead advances.



This ball joint cap is a result of a controlled Roller Form process, maintaining cosmetics and securing cap plug.



This solenoid closure of metal to plastic is an example of how multiple rollers can crimp and seal.

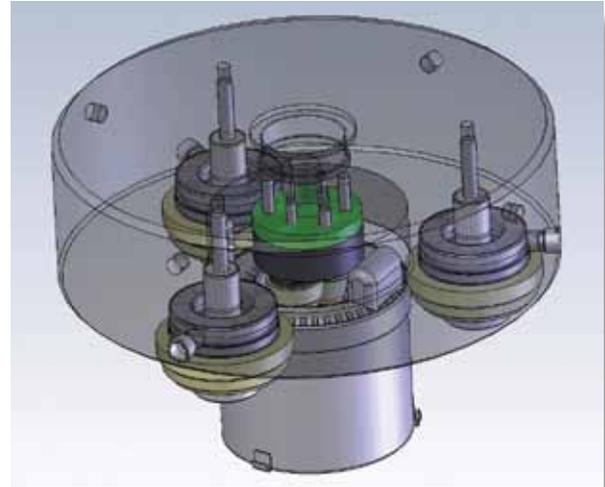


This custom rod end is secured by multiple rollers, forming the lip to a preset force using Orbitform process control.

*...solutions delivered.*



A Roller Forming head spins on a rotating spindle at a constant speed. As contact pressure is achieved, multiple rolling tools form material into the desired shape.



This rollerhead has horizontally oriented external rollers and vertically adjustable interior rollers to simultaneously form the ID and OD of the workpiece.

Roller Forming can displace large diameters and thin wall materials, often difficult with other fastening methods. The process is advantageous when used to roll or close a lip. Rollerforming can be used in applications where rollers articulate as well as rotate, allowing for access into grooves and other areas.

Forming a curl or lip with Roller Forming takes less force than normally required for straight crimping or pressing. Roller Forming replaces crimp tooling which can be problematic in appearance, process control and reliability. It is strong for critical automotive applications of steel and aluminum, and versatile for appearance sensitive plastic parts.

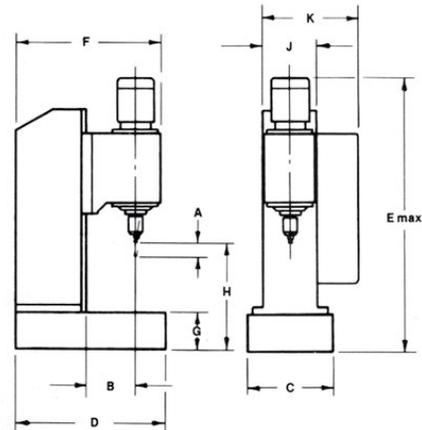
Orbitform's Roller Form process can:

- Crimp and seal using multiple rollers
- Cold form with precise control
- Satisfy cosmetic requirements on assembled parts
- Form both inside and outside diameters simultaneously
- Be used in work cells and automated assembly.



Roller Forming fastens large or small diameter parts with a smooth and seamless appearance.

# Orbitform Bench Machines



Orbitform bench machine typical features and options include:

- Parallel Plate Eccentric Drive Multi-Points
- Multi-Spindle Heads
- Height Sensing Pressure Pads
- Standard / Remote Stroke Adjuster
- LDT (Linear Variable Transducer)
- Lexan / Wire Mesh Guards
- X, Y and Z Positioning
- Precision Workstands with or w/o casters
- Multi-Point Heads
- Rollerheads
- Load Cells
- Light Curtains
- Anti-Rotate Heads
- Automatic Slides
- Additional I/O
- Offset Motor Mounts



Orbitform B-240 ready for immediate shipment - please call 1-800-957-4838 for delivery options.

BENCH MACHINES PNEUMATIC	Head Forming Capacity in Mild Steel	Stroke	Maximum Downward Force	Weight
B-125	.125 (3.17 mm)	.06-1.5 (38.1 mm)	590 lbs. @ 100 psi	150 lbs.
B-240	.236 (6 mm)	.06-1.75 (44.45 mm)	1460 lbs. @ 100 psi	250 lbs.
B-250	.250 (6.35 mm)	.06-1.5 (38.1 mm)	1625 lbs. @ 100 psi	220 lbs.
B-310	.312 (7.92 mm)	.06-1.75 (44.45 mm)	2120 lbs. @ 100 psi	580 lbs.
B-500	.500 (12.7 mm)	.06-2.5 (63.5 mm)	4400 lbs. @ 100 psi	1000 lbs.
B-503	.500 (12.7 mm)	.75-3.0 (73.5 mm)	4400 lbs. @ 100 psi	1000 lbs.
B-506	.500 (1.27 mm)	3.5-6.0 (152.4 mm)	4400 lbs. @ 100 psi	1200 lbs.
B-506-AS5	.500 (1.27 mm)	1.0-6.0 (152.4 mm)	4400 lbs. @ 100 psi	1200 lbs.
B-750	.750 (19.5 mm)	.06-2.5 (63.5 mm)	7510 lbs. @ 100 psi	1100 lbs.



Orbitform B-500

## Flexible Assembly Solutions

Orbitform bench machines are modular and designed for tabletop use across many industries and applications. The flexible design allows components to be added to support many applications. Dependent upon capacity required for your application these machines are powered by either pneumatics or hydraulics.

Complete workstation solutions include:

- Powerhead assembly
- Cast column and base
- Vertical adjustment and clamping
- Complete machine controls
- Dual palm buttons.



A	B	C	D	E	F	G	H	J	K
1.5 (38.1 mm)	3.5 (88.9 mm)	7.0 (44.45 mm)	13.0 (330.2 mm)	30.5 (762 mm)	11.0 (279.4 mm)	2.0 (50.8 mm)	8.0 (203.2 mm)	4.5 (114.3 mm)	11.0 (279.4 mm)
1.75 (44.45 mm)	4.50 (10.16 mm)	8.75 (222.3 mm)	14.75 (374.65mm)	35.75 (908.05 mm)	19.25 (488.95mm)	4.0 (10.16 mm)	12.75 (323.85 mm)	6.0 (152.4 mm)	13.25 (336.5 mm)
1.5 (38.1 mm)	4.0 (1016 mm)	8.0 (203.2 mm)	15.0 (381 mm)	38.38 (974.8 mm)	13.75 (349.2 mm)	2.0 (50.8 mm)	10.5 (266.7 mm)	6.0 (152.4 mm)	11.5 (292.1 mm)
1.75 (44.45 mm)	5.25 (133.35 mm)	11.25 (285.75 mm)	19.0 (482.6 mm)	41.62 (1057.1 mm)	18.0 (457.2 mm)	5.38 (136.65 mm)	13.25 (336.55 mm)	7.5 (190.5 mm)	15.5 (393.7 mm)
2.5 (63.5 mm)	8.0 (203.2 mm)	16.0 (406.4 mm)	28.0 (711.2 mm)	49.38 (1254.2 mm)	27.0 (685.8 mm)	6.0 (152.4 mm)	18.0 (457.2 mm)	10.0 (254 mm)	18.0 (457.2 mm)
2.5 (63.5 mm)	8.0 (203.2 mm)	16.0 (406.4 mm)	28.0 (711.2 mm)	49.38 (1254.2 mm)	27.0 (685.8 mm)	6.0 (152.4 mm)	18.0 (457.2 mm)	10.0 (254 mm)	18.0 (457.2 mm)
2.5 (63.5 mm)	8.0 (203.2 mm)	16.0 (406.4 mm)	28.0 (711.2 mm)	61.0 (1549.4 mm)	27.0 (685.8 mm)	6.0 (152.4 mm)	18.0 (457.2 mm)	10.0 (254 mm)	18.0 (457.2 mm)
2.5 (63.5 mm)	8.0 (203.2 mm)	16.0 (406.4 mm)	28.0 (711.2 mm)	61.0 (1549.4 mm)	27.0 (685.8 mm)	6.0 (152.4 mm)	18.0 (457.2 mm)	10.0 (254 mm)	18.0 (457.2 mm)
2.5 (63.5 mm)	8.0 (203.2 mm)	16.0 (406.4 mm)	28.0 (711.2 mm)	57.25 (1454.1 mm)	27.0 (685.8 mm)	6.0 (152.4 mm)	17.0 (431.8 mm)	10.0 (254 mm)	18.0 (457.2 mm)

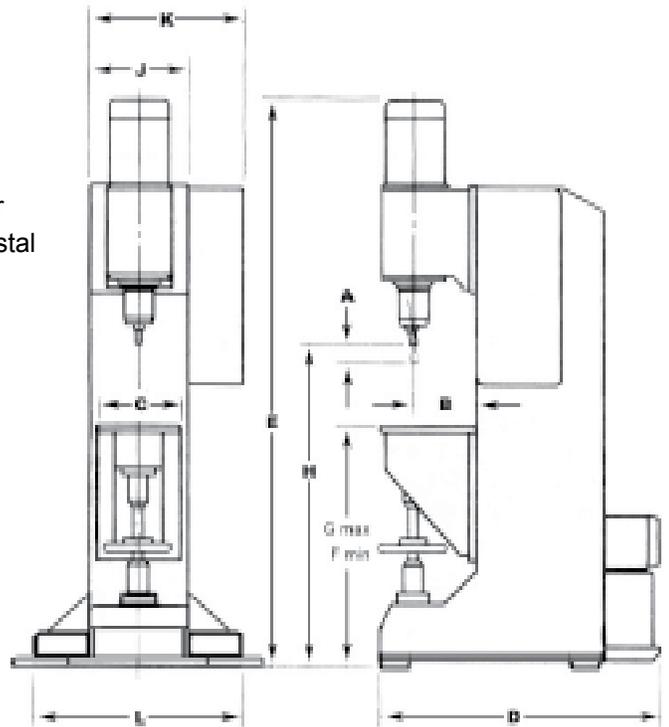
# Orbital Pedestal Machines

## Pedestal Machines

For regular and large parts that require loading clearance under the peen tool, Orbitform's pedestal machines are the answer.

Fabricated steel frames provide stability during the forming process.

The stand-alone machines, with built-in height-adjustment tables, provide comfortable work-positioning and unrestricted access.



**Orbitform  
P-1500  
with  
hydraulic  
spindle**

PEDESTAL MACHINES PNEUMATIC	Head Forming Capacity in Mild Steel	Stroke	Maximum Downward Force	Weight
P-500	.500 (12.7 mm)	.06-2.5 (63.5 mm)	4400 lbs. @ 100 psi	850 lbs.
P-506	.500 (12.7 mm)	3.5-6.0 (152.4 mm)	4400 lbs. @ 100 psi	1050 lbs.
P-750	.750 (19.05 mm)	.06-2.5 (63.5 mm)	7510 lbs. @ 100 psi	950 lbs.
PEDESTAL MACHINES HYDRAULIC	Head Forming Capacity in Mild Steel	Stroke	Maximum Downward Force	Weight
P-1000 HD	1 (25.4 mm)	.06-2.5 (63.5 mm)	18,000 lbs. @ 1000 psi	1150 lbs.
P-1006	1 (25.4 mm)	4.0-6.0 (152.4 mm)	18,000 lbs. @ 1000 psi	1150 lbs.
P-1500	1.5 (38.1 mm)	.06-3.0 (76.2 mm)	38,500 lbs. @ 1000 psi	1500 lbs.



Orbitform P-1000

Designed specifically for large-diameter parts, Orbitform pedestal machines headforming pressure is produced hydraulically or pneumatically dependent upon capacity required to form parts.

Features include:

- Fixed powerheads with adjustable saddle
- Heavy duty steel frame
- Same controls and features as bench machines.

A	B	C	D	E	F	G	H	J	K	L
2.5 (63.5 mm)	9.0 (28.6 mm)	12.0 (304.8 mm)	33.0 (838.2 mm)	86.0 (2184.4 mm)	36.0 (914.4 mm)	48.0 (1219.2 mm)	48.5 (1231.9 mm)	14.0 (355.6 mm)	25.0 (635 mm)	36.0 (914.4 mm)
2.5 (63.5 mm)	9.0 (28.6 mm)	12.0 (304.8 mm)	33.0 (838.2 mm)	92.0 (2336.8 mm)	36.0 (914.4 mm)	48.0 (1219.2 mm)	48.5 (1231.9 mm)	14.0 (355.6 mm)	25.0 (635 mm)	36.0 (914.4 mm)
2.5 (63.5 mm)	9.0 (28.6 mm)	12.0 (304.8 mm)	33.0 (838.2 mm)	87.0 (2209.8 mm)	36.0 (914.4 mm)	48.0 (1219.2 mm)	48.5 (1231.9 mm)	14.0 (355.6 mm)	25.0 (635 mm)	36.0 (914.4 mm)
A	B	C	D	E	F	G	H	J	K	L
2.5 (63.5 mm)	9.0 (28.6 mm)	12.0 (304.8 mm)	52.0 (1320.8 mm)	86.0 (2184.4 mm)	36.0 (914.4 mm)	48.0 (1219.2 mm)	48.5 (1231.9 mm)	14.0 (355.6 mm)	25.0 (635 mm)	36.0 (914.4 mm)
2.5 (63.5 mm)	9.0 (28.6 mm)	12.0 (304.8 mm)	52.0 (1320.8 mm)	92.0 (2336.8 mm)	36.0 (914.4 mm)	48.0 (1219.2 mm)	48.5 (1231.9 mm)	14.0 (355.6 mm)	25.0 (635 mm)	36.0 (914.4 mm)
3.0 (76.2 mm)	9.0 (28.6 mm)	12.0 (304.8 mm)	64.0 (1625.6 mm)	104.0 (2641.6 mm)	36.0 (914.4 mm)	48.0 (1219.2 mm)	48.5 (1231.9 mm)	21.0 (533.4 mm)	32.0 (812.8 mm)	46.0 (1168.4 mm)

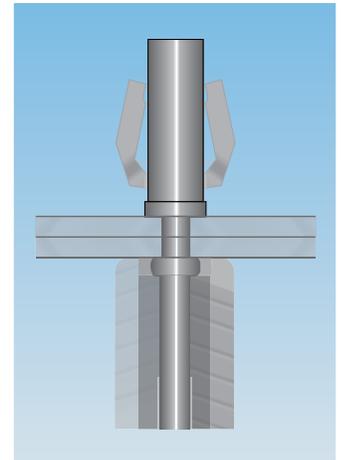
# Impact Riveters

## What is Impact Riveting?

Impact riveting is a cold forming assembly process in which a short soft metal rivet, having a head on one end, is used to join objects, such as metal plates, by passing the shank through holes and forming a new head by flattening out the other end.

It is a permanent process in which a rivet is automatically fed and inserted into one or more components, joining them with compressive distortion of the rivet end.

Impact riveting is inexpensive, quick and reliable. It is a rugged assembly method for joining similar or dissimilar materials.



With automatic feed impact riveting, there must be clear access to the rivet location from both sides of the parts being assembled. Clearance from only one side will require either the use of blind fasteners (typically an increase in both fastener and installation costs) or redesign so that access from both sides is available.

The force to insert the rivets is generated mechanically, pneumatically or hydraulically. Orbitform impact riveters include all of these drives.

## Hot Upset Riveting

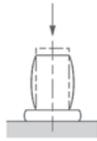


Orbitform's Hot Upset forms and fastens parts through precision heat (temp/time) and pressure applied to assembly applications to compress and expand the form/rivet to a desired diameter.

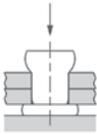
*...solutions delivered.*

## Solid Impact Riveting

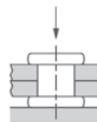
In solid impact riveting, a compressive axial load is applied to the end of the rivet shank. This causes the rivet shank to swell throughout its length as it shortens under the load.



The rivet shank continues to expand until the hole in the parts being assembled restrict it from further expansion.

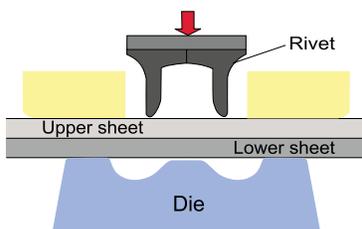


The unrestricted rivet end then expands, forming the rivet clinch.



This is an excellent method of permanently assembling solid materials. As is shown in the above sequence, however, there is substantial force being applied by the expanding rivet shank on the parts being assembled.

Solid impact riveting is used to assemble bed frames, shelving, automotive structural components, stampings, and wherever solid materials are permanently assembled.



## Self-Piercing Riveting

Self-pierce riveting allows the joining of two or three dissimilar materials, i.e. steel, aluminum and plastic. It has a lower cost than other types of riveting and spot welding - plus it is fast and consistent.

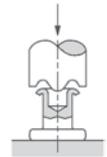
Used in many industries, from metal fabrication and construction to transportation and electronics The self-piercing process makes high-quality joints.

## Semi-Tubular Impact Riveting

Semi-tubular riveting requires less force and allows longer rivets to be used without buckling the rivet shank. A semi-tubular rivet is a rivet with a hollow end whose hole depth does not exceed 112% of the rivet body diameter. (A tubular rivet is any rivet whose hole depth is greater than that.)

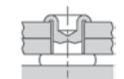


Semi-tubular rivets are inserted like solid rivets. The way the rivet is formed and its affect on the parts being assembled, however, are quite different. In semi-tubular impact riveting, a compressive axial load is applied to the end of the tubular rivet shank with a specially shaped form tool. This causes the rivet end to flare as it follows the shape of the tool.

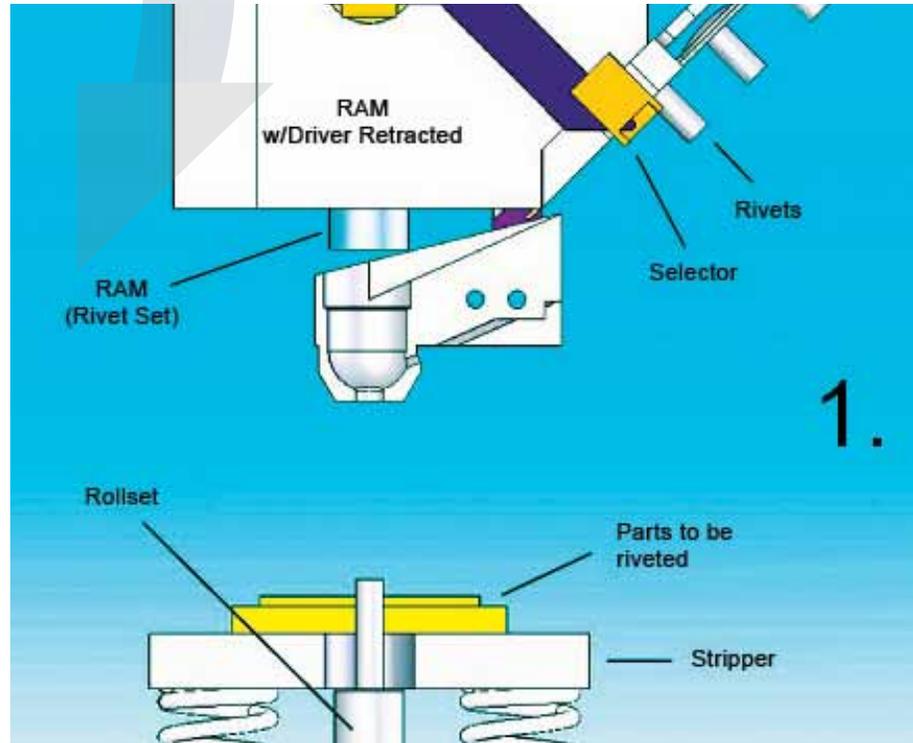


The rivet end continues to flare and roll until the end has rolled back against the surface of the workpiece.

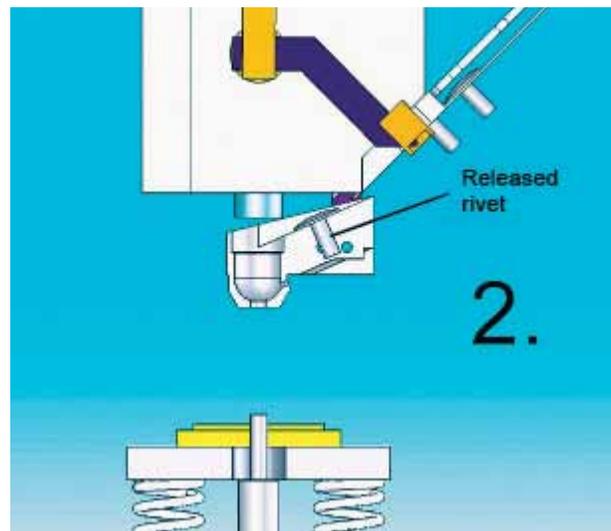
The parts being assembled are (typically) slightly compressed under this load. Most of the joint strength is compressive between the rivet head and rivet clinch (formed end). Rivet shank expansion, like that required for successful solid impact riveting, is minimal. Rivet insertion force is typically less than 40% of that required for a solid rivet of the same shank diameter & material



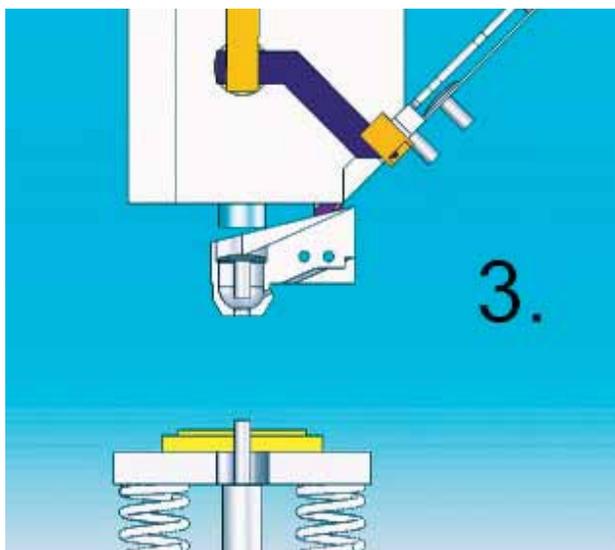
# Rivet Feeding Sequence



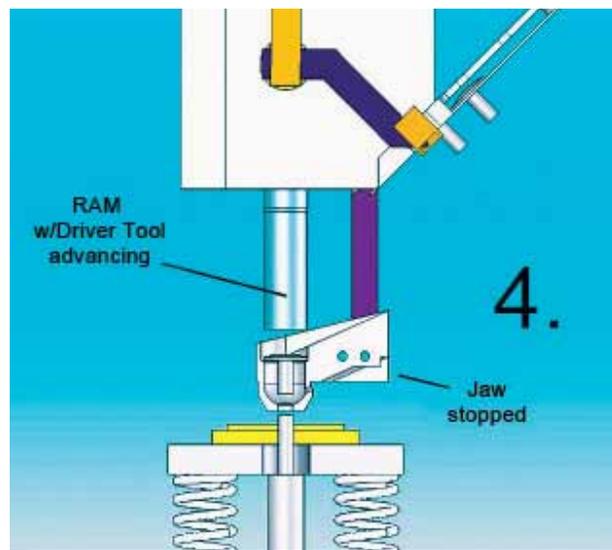
Rivets are stacked behind the selector. The ram is in the upper or home position. Parts are placed over the rollset pin and supported by a spring loaded stripper. The front half of the jaw set is removed for clarity.



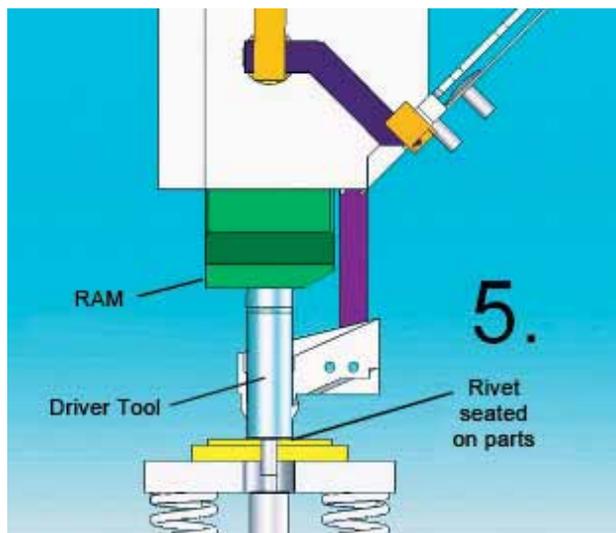
The selector has released a single rivet. The rivet is shown sliding down the jaw toward the jaw pocket.



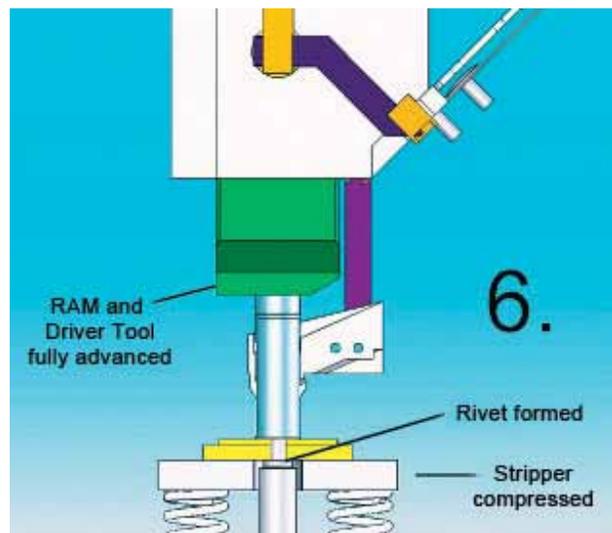
The rivet has come to rest in the jaw pocket.



The ram is advancing, with the jaw stopping just above the rollset pin.



The driver has pushed the rivet through the jaw, where it seats against the parts to be riveted. The spring loaded stripper clamps the parts together tightly as the ram continues to advance against the pressure of the stripper.



The stripper compresses as the ram continues to advance the rivet against the face of the driver to form.

# Light Capacity



**Model 64**



**Model WR-2000**  
(shown w/force and distance monitoring)

## Versatility, Quality, Durability

Orbitform's product line of impact riveters are engineered for a lifetime of hard work. Besides their dependability and rugged construction, they feature the industry's most heavy-duty clutches, drives and cylinders. Hopper changeover is easy. All machines are available with an unlimited variety of tooling, anvils, anvil holders, and special fixturing per application.

Orbitform supports our customers with factory trained sales engineers and applications specialists. *We have the expertise to satisfy all of your riveting requirements.*



**Model 68-B-E Contact Setter**

*...solutions delivered.*

**Model 56****Model 216**

<b>BENCHTOP MODELS</b>	<b>Rivet Diameter (max. inches) Semi-Tubular</b>	<b>Rivet Length (max. inches)</b>	<b>Throat Depth (inches)</b>	<b>Stroke (inches)</b>	<b>Dimensions (W x L x H inches)</b>	<b>Weight (pounds)</b>
216	.187 (4.75 mm)	1 (25.4 mm)	6 (152.4 mm)	1.25 (31.75 mm)	4 x 8 x 14 (101.6 x 203.2 x 355.6 mm)	23 (10.44 k)
63*	.125 (3.17 mm)	.562 (14.28 mm)	6.25 (158.75 mm)	2 (50.8 mm)	15.5 x 22 x 26 (393.7 x 558.8 x 660.4 mm)	220 (99.88 k)
64*	.156 (3.97 mm)	.75 (19 mm)	6.25 (158.75 mm)	2 (50.8 mm)	17.125 x 23.5 x 28.5 (434.97 x 596.9 x 723.9 mm)	235 (106.69 k)
68 BE	.156 (3.96 mm)	1.5 (57.15 mm)	1.625 (41.27 mm)	adjustable	24 x 24 x 22.75 (609.6 x 609.6 x 577.85 mm)	120 (54.48 k)

\* Also offered as pneumatic, horizontal, offset, and fixed center models.

<b>BENCHTOP PNEUMATIC MODELS</b>	<b>Rivet Diameter (max. inches) Semi-Tubular</b>	<b>Rivet Length (max. inches)</b>	<b>Throat Depth (inches)</b>	<b>Stroke (inches)</b>	<b>Dimensions (W x L x H inches)</b>	<b>Weight (pounds)</b>
56	.125 (3.17 mm)	.562 (14.28 mm)	9 (228.6 mm)	2 (50.8 mm)	3.25 x 18.25 x 25.75 (82.55 x 463.55 x 654.05 mm)	90 (40.86 k)
57	.187 (4.75 mm)	.75 (19 mm)	12 (304.8 mm)	3 (76.2 mm)	5 x 23.25 x 33.625 (127 x 590.55 x 854.07 mm)	230 (104.42 k)
58	.25 (6.35 mm)	.75 (19 mm)	12 (304.8 mm)	3 (76.2 mm)	5 x 23.25 x 33.625 (127 x 590.55 x 854.07 mm)	230 (104.42 k)
WR-2000*	.25 (6.35 mm)	.75 (19 mm)	12 (304.8 mm)	3 (76.2 mm)	9 x 28 x 32.5 (229 x 712 x 826 mm)	200 (90.8 k)

\* Features loadcell as standard.

# Medium Capacity



Model 256

## Safe and Easy-To-Use

Orbitform products are designed for maximum operator protection and ergonomics including: safety ring guards, palm buttons, foot switches and light curtains. Full powertrain guarding and enclosed flywheel, crankshaft, and connecting rod make for efficient and safe operation.

All pedestal impact riveting products include:

- Good work visibility for safe, efficient use
- Convenient positioning of operating switches
- Ergonomic operation and reduced noise levels - *for less operator fatigue.*



Model 305



Maximum Operator Safety

*...solutions delivered.*



Model 405

### Larger Throat Depth - an Orbitform Advantage

Orbitform impact riveters are designed for reliability and simplified maintenance under severe production requirements.

Pedestal models have a standard throat depth of 12 inches with an optional 24 inch throat for extra clearance for applications with large surface areas.



MEDIUM CAPACITY PEDESTAL MODELS	Rivet Diameter (max. inches) Semi-Tubular	Rivet Length (max. inches)	Throat Depth (inches)	Stroke (inches)	Dimensions (W x L x H inches)	Weight (pounds)
255*	.125 (3.17 mm)	.562 (14.28 mm)	12 (304.8 mm)	2.5 (63.5 mm)	30 x 24 x 67 (762 x 609.6 x 1701.8 mm)	535 (249.7 k)
256*	.156 (3.96 mm)	.75 (19 mm)	12 (304.8 mm)	2.5 (63.5 mm)	30 x 24 x 67 (762 x 609.6 x 1701.8 mm)	550 (249.7 k)
305*	.187 (4.76 mm)	.75 (19 mm)	12 (304.8 mm)	3.5 (88.9 mm)	27 x 33 x 70.5 (685.8 x 838.2 x 1790.7 mm)	690 (314 k)
305-24	.187 (4.76 mm)	.75 (19 mm)	24 (609.6 mm)	3.5 (88.9 mm)	27 x 51 x 72 (685.8 x 1295.4 x 1828.8 mm)	755 (342.77 k)
310	.187 (4.76 mm)	1 (25.4 mm)	12 (304.8 mm)	3.5 (88.9 mm)	27 x 33 x 72 (685.8 x 838.2 x 1828.8 mm)	715 (324.61 k)
310-24	.187 (4.76 mm)	1 (25.4 mm)	24 (609.6 mm)	3.5 (88.9 mm)	27 x 51 x 72 (685.8 x 1295.4 x 1828.8 mm)	960 (435.84 k)
313	.187 (4.76 mm)	1.375 (34.92 mm)	12 (304.8 mm)	3.5 (88.9 mm)	27 x 33 x 72 (685.8 x 838.2 x 1828.8 mm)	755 (342.77 k)
313-24	.187 (4.76 mm)	1.375 (34.92 mm)	24 (609.6 mm)	3.5 (88.8 mm)	27 x 51 x 72 (685.8 x 1295.4 x 1828.8 mm)	755 (342.77 k)
405*	.25 (.35 mm)	.75 (19 mm)	12 (304.8 mm)	3.5 (88.9 mm)	27 x 33 x 72 (685.8 x 838.2 x 1828.8 mm)	755 (342.77 k)
410	.25 (6.35 mm)	1 (25.4 mm)	12 (304.8 mm)	3.5 (88.9 mm)	27 x 33 x 72 (685.8 x 838.2 x 1828 mm)	870 (394.9 k)
413	.25 (6.35 mm)	1.375 (34.92 mm)	12 (304.8 mm)	3.5 (88.9 mm)	27 x 33 x 72 (685.8 x 838.2 x 1828.8 mm)	900 (408.6 k)
423	.25 (6.35 mm)	2.375 (60.32 mm)	12 (304.8 mm)	5.5 (139.7 mm)	26 x 39 x 78 (660.4 x 990.6 x 1981.2 mm)	900 (408.6 k)
423-24	.25 (6.35 mm)	2.375 (60.32 mm)	24 (609.6 mm)	5.5 (139.7 mm)	26 x 51 x 78 (660.4 x 1295.4 x 1981.2 mm)	1060 (481.24 k)
505 LS	.25 (6.35 mm)	2.5 (63.5 mm)	12 (304.8 mm)	5.625 (142.87 mm)	78 x 32 x 78 (1981.2 x 812.8 x 1981.2 mm)	1040 (472.16 k)

\* Also offered as fixed center models.

# Heavy Capacity



## Flexible Production with Minimal Down Time

Orbitform's heavy capacity riveting machines utilize high speed clutches for fast and accurate cycling. Quick rivet delivery with every machine sequence is assured by a robust rivet escapement. Parts supply bins and spill trays can be placed inches from the setting tools for increased productivity.

Advantages of these machines include:

- Quick retooling for different rivet sizes with quick-change raceways
- Clutch maintenance and adjustment rarely needed
- No hopper drive lubrication with enclosed cam clutch
- Rated power available throughout the full range of the machine stroke
- No perishable drive train components
- Adjustable rivet setting force
- (Optional) force and position monitoring integration.

These machines are also available as table-mounted units with the hydraulic power unit mounted beneath the table for conservation of floor space.

<b>HEAVY CAPACITY HYDRAULIC MODELS</b>	<b>Rivet Diameter (max. inches)</b>	<b>Rivet Length (max. inches)</b>	<b>Throat Depth (inches)</b>	<b>Stroke (inches)</b>	<b>Floor Space (inches)</b>
H-2001	.406 (10.3 mm)	1.25 (31.8 mm)	12 (304.8 mm)	4 (101.6 mm)	24 x 36 (610 x 915 mm)
H-2002 Double Drive Fixed Center	.281 (7.1 mm)(2)	1.25 (31.8 mm)	12 (304.8 mm)	4 (101.6 mm)	24 x 36 (610 x 915 mm)
H-4001	.625 (15.9 mm)	1.25 (31.8 mm)	12 (304.8 mm)	4 (101.6 mm)	30 x 36 (762 x 915 mm)
H-4002 Double Drive Fixed Center	.438 (11.1 mm)(2)	1.25 (31.8 mm)	12 (304.8 mm)	4 (101.6 mm)	30 x 36 (762 x 915 mm)

*...solutions delivered.*



**Model RHV-2000**  
(with vibratory feeder)



**Model RHV-2000**

<b>HEAVY CAPACITY PEDESTAL MODELS</b>	<b>Rivet Diameter (max. inches) Solid Rivets</b>	<b>Rivet Length (max. inches)</b>	<b>Throat Depth (inches)</b>	<b>Stroke (inches)</b>	<b>Dimensions (W x L x H inches)</b>	<b>Weight (pounds)</b>
510	.312** (7.93 mm)	1 (25.4 mm)	12 (304.8 mm)	3.5 (88.9 mm)	28 x 32 x 78 (711.2 x 812.8 x 1981.2 mm)	1040 (472.16 k)
513	.312** (7.93 mm)	1.375 (32.92 mm)	12 (304.8 mm)	3.5 (88.9 mm)	28 x 32 x 78 (711.2 x 812.8 x 1981.2 mm)	1040 (472.16 k)
R-2000	.25 (6.35 mm)	.75 (19 mm)	8 (203.2 mm)	3 (76.2 mm)	22 x 29 x 62 (560 x 865 x 1575 mm)	675 (306.45 k)
RS-2000	.25 (6.35mm)	.75 (19 mm)	9 to 40 (228.6 to 1016 mm)	3 (76.2 mm)	varies	865-2400 (392-1090 k)
RC-2000 Underfeed***	.25 (6.35 mm)	.75 (19 mm)	8 (203.2 mm)	3 (76.2 mm)	28 x 36 x 62 (712 x 915 x 1575 mm)	800 (363.2 k)
R-5000 Long Stroke	.188 (4.78 mm)	2 (50.8 mm)	8 (203.2 mm)	5 (127 mm)	26 x 29 x 66 (660 x 740 x 1680 mm)	675 (306.45 k)
RS-5000	.188 (4.78 mm)	2 (50.8 mm)	14-40 (6.35-18.14 mm)	5 (127 mm)	varies	865-2400 (392-1090 k)
RHV-2000	.375 (9.53 mm)	.75 (19 mm)	8 to 12 (203.2 to 304.8 mm)	3 (76.2 mm)	24 x 34 x 66 (610 x 865 x 1676 mm)	1000 (454 k)
RCHV-2000 Underfeed***	.375 (9.53 mm)	.75 (9.53 mm)	8 (203.2 mm)	3 (76.2 mm)	24 x 34 x 74 (610 x 865 x 1880 mm)	1000 (454 k)
RHV-5000 Long Stroke	.313 (7.95 mm)	2 (50.8 mm)	8 (203.2 mm)	5 (127 mm)	24 x 34 x 66 (610 x 865 x 1680 mm)	675 (306.45 k)

\* Also offered as fixed center model \*\*Semi-tubular rivets \*\*\*Underfeed system brings in rivets from below part

# Fixed Center



Model 63-FC

## Built Solid

Orbitform's components are made of hardened steel. Slide rails raceways are made of spring steel and back rails are stainless steel.

All machines come with steel castings and heavy duty bearings for extra strength and long life.



Large throat depth Model FC

## Double Riveters - Long Production Experts

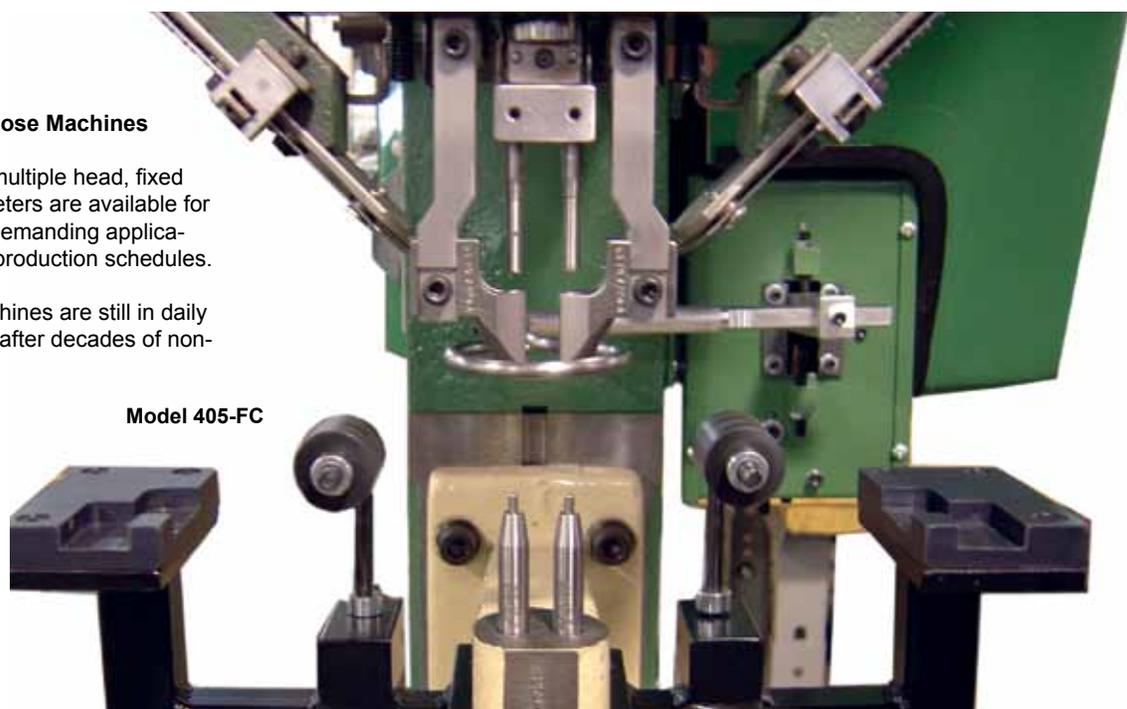
Orbitform's fixed center riveters are compact special purpose machines designed to set two rivets simultaneously on very close centers. The minimum distance is dependent only on the size of the rivet heads. Maximum rivet spacing with these machines is up to four inches.

Joined parts that need two rivets to secure them, such as electronic equipment, hardware parts, tools, toys, cooking utensils and other high volume production applications can benefit from very low costs as compared to two machines.

## Multi-Purpose Machines

Powerful multiple head, fixed center, riveters are available for the most demanding applications and production schedules.

Many machines are still in daily use, even after decades of non-stop work!



**Model 405-FC**

<b>FIXED CENTER MODELS</b>	<b>Rivet Diameter (max. inches) Semi-Tubular</b>	<b>Rivet Length (max. inches)</b>	<b>Throat Depth (inches)</b>	<b>Stroke (inches)</b>	<b>Dimensions (W x L x H inches)</b>	<b>Weight (pounds)</b>
63 FC	.093 (.22 mm)	.562 (14.28 mm)	6.25 (158.75 mm)	2 (50.8 mm)	23.75 x 23.5 x 26 (603.25 x 596.9 x 660.4 mm)	250 (113.5 k)
64 FC	.125 (3.17 mm)	.75 (19 mm)	6.25 (158.75 mm)	2 (50.8 mm)	26.25 x 23.5 x 28.5 (673.1 x 596.9 x 723.9 mm)	280 (127.12 k)
255 FC	.093 (.22 mm)	.562 (14.28 mm)	12 (304.8 mm)	2.5 (63.5 mm)	30 x 24 x 67 (762 x 610 x 1701.8 mm)	600 (272.4 k)
256 FC	.125 (3.17 mm)	.75 (19 mm)	12 (304.8 mm)	2.5 (63.4 mm)	30 x 24 x 67 (762 x 610 x 1701.8 mm)	595 (270.13 k)
305 FC	.14 (3.57 mm)	.75 (19 mm)	12 (304.8 mm)	3.5 (88.9 mm)	27 x 33 x 70.5 (685.8 x 838.2 x 1790.7 mm)	785 (356.39 k)
405 FC	.187 (4.74 mm)	.75 (19 mm)	12 (304.8 mm)	3.5 (88.9 mm)	27 x 33 x 72 (685.8 x 838.2 x 1828.8 mm)	785 (356.39 k)
QR-2000	.250* (4) (6.35 mm)	.75 (19 mm)	8 (203.2 mm)	3 (76.2 mm)	22 x 34 x 62 (560 x 865 x 1575 mm)	750 (340.5 k)
RR-2000	.156* (2) (3.96 mm)	.75 (19 mm)	8 (203.2 mm)	3 (76.2 mm)	22 x 34 x 62 (560 x 865 x 1575 mm)	750 (340.5 k)
RR-5000	.125 (2) (3.17 mm)	2 (50.8 mm)	8 (203.2 mm)	5 (127 mm)	24 x 34 x 60 (610 x 865 x 1676 mm)	950
RRS-2000	.156* (2) (3.96 mm)	.75 (19 mm)	9-40 (228.6-18.14 mm)	3 (76.2 mm)	varies	940-2475 (427-1123 k)
RRS-5000	.125 (3.17 mm)	2 (50.8 mm)	14-40 (6.35-18.14 mm)	5 (127 mm)	varies	940-2475 (427-1123 k)
RRHV-2000 Double Drive	.250* (2) (6.35 mm)	.75 (19 mm)	8 (203.2 mm)	3 (76.2 mm)	24 x 34 x 66 (610 x 865 x 1676 mm)	1100 (499.4 k)
RRHV-5000	.187 (2) (4.74 mm)	2 (50.8 mm)	8 (203.2 mm)	5 (127 mm)	24 x 34 x 66 (610 x 865 x 1676 mm)	1300 (590.2 k)
QRHV-5000	.125* (4) (3.17 mm)	2 (50.8 mm)	8 (203.2 mm)	5 (127 mm)	24 x 34 x 66 (610 x 865 x 1676 mm)	1500 (681 k)

\*Solid rivet

# Hydra-Pneumatic



Model HP2000

The HP can automatically compensate for minor material thickness or rivet length variances for consistent results. Setting pressure can be accurately controlled, allowing for use on brittle or fragile parts as well as heavy-duty applications.

**Riveter provides versatility and reliability - a technology update!**

Orbitform's hydra-pneumatic (HP) riveter gives rivets a smooth ride. The HP is more controllable and adaptable than other impact riveting machines. Available with up to a 24 inch throat, the HP can autofeed and can quickly set solid rivets up to 7/16 inch diameter.

**Orbitform's HP riveter features:**

- Twenty ton capacity
- Lubed for life ram assembly (less maintenance)
- Single/multiple tooling available
- Ease of alignment (upper/lower tooling)
- Ability to set rivets at multiple finished heights
- Few moving parts and wear points
- Long stroke range
- Quiet operation
- Optional features for dynamic force and distance monitoring and control
- Palm buttons, foot switches or light curtains available.

<b>HYDRA PNEUMATIC MODELS</b>	<b>Rivet Diameter (max. inches) Solid-Mild Steel</b>	<b>Rivet Length (max. inches)</b>	<b>Throat Depth (inches)</b>	<b>Stroke (inches)</b>	<b>Force at 100 PSI</b>	<b>Dimensions (W x L x H inches)</b>	<b>Weight (pounds)</b>
HP800	.281 (7.13 mm)	1.5 (38.1 mm)	18 (457.2 mm)	4 (101.6 mm)	15886	30 x 37 x 86 (762 x 939.8 x 2184.4 .mm)	1100 (499.4 k)
HP1000	.343 (8.71 mm)	1.5 (38.1 mm)	18 (457.2 mm)	4 (101.6 mm)	25950	33 x 44 x 90 (838.2 x 1117.6 x 2286 mm)	2100 (954.5 k)
HP2000	.437 (11.11 mm)	1.5 (38.1 mm)	18 (457.2 mm)	4 (101.6 mm)	38671	33 x 44 x 90 (838.2 x 1117.6 x 2286 mm)	2100 (954.5 k)

*...solutions delivered.*

# Factory Rebuilt

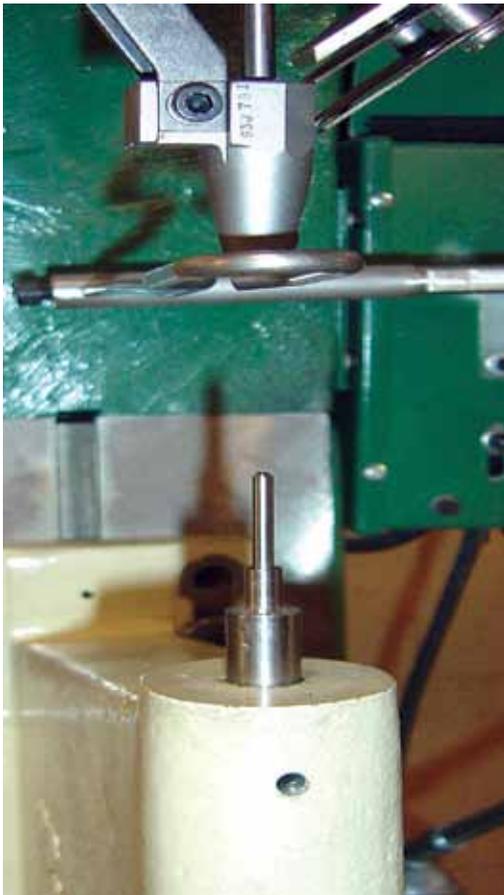


## Factory Rebuilt Machines (FRM)

Orbitform offers comprehensive factory rebuilding and retooling for all Milford and Adtech riveting machines. FRM service includes a full six month warranty on all non-perishable components and tooling.

## How Can We Help

If you have a machine in use that requires rebuilding, or need a riveting machine and an FRM would work, please call or email us.



After Rebuild



# Process Monitoring

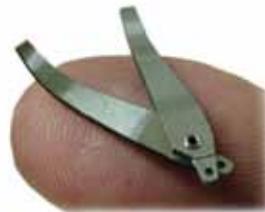
*by Orbitform*



Orbitform's line of process monitoring and process control solutions are unique to the industry. Instead of forcing customers to conform to preprogrammed black box products, Orbitform affords our customers the opportunity to effectively and very efficiently create the process control or process monitoring package they need.

Orbitform was first in the industry - and remains the leader - to integrate the design of key analog and digital monitoring devices into their entire product line. With Orbitform there are no add on devices and components because they have all been elegantly designed into the product.

Additionally, how we apply the Orbitform philosophy to customers' needs is further enhanced by our ability to often accomplish the task while staying within the specifications of optional components required/requested by our customers.



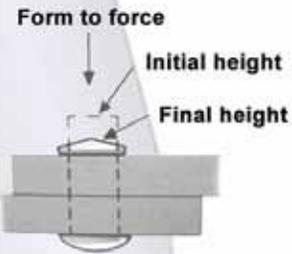
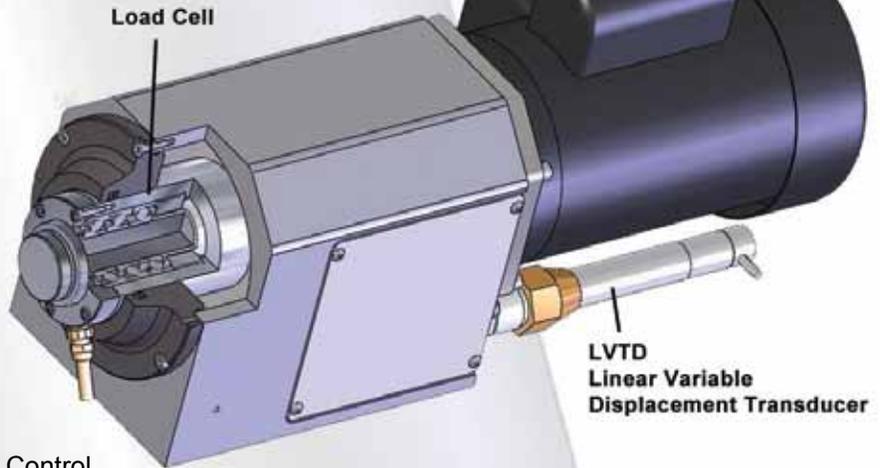
### Typical Orbitform Features

#### PROCESS MONITORING

- Force Monitoring
- Form Height
- Form Collapse
- Part Presence

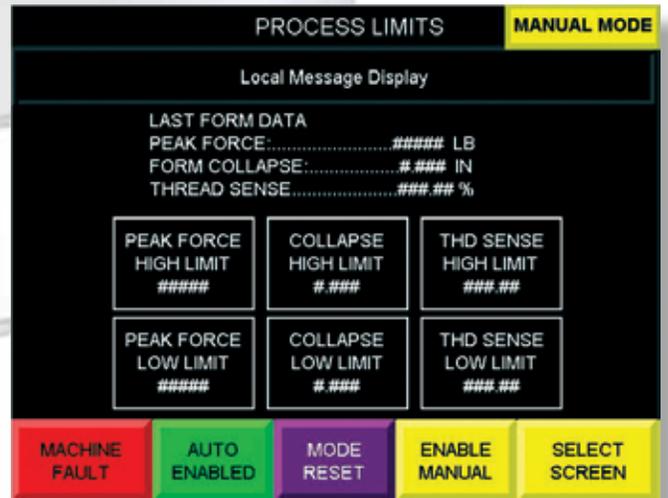
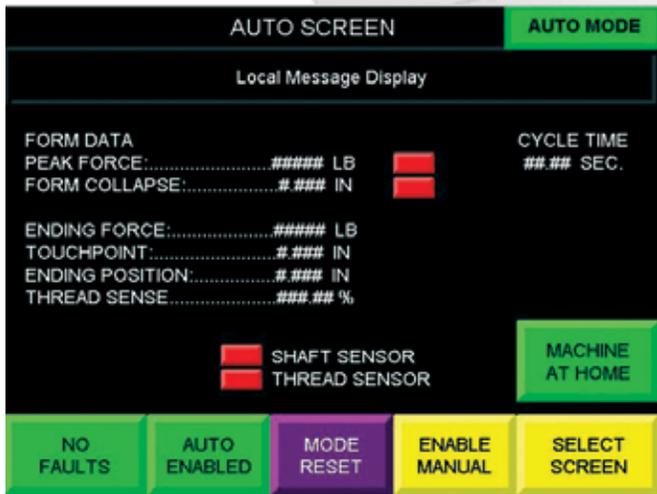
#### PROCESS CONTROL

- Form to Force Control
- Form to Distance
- Form to Height
- Form to Collapse Position Control
- Variable Ramp Rate Control



### Typical Orbitform Screens

Shown are two typical screens for specific customer applications. We strive to insure the content of our screens are operator friendly and instinctive to use.



# Palletized Conveyors

Orbitform conveyors are ideal for:

- Industrial environments
- Low impact part handling
- Work-in-process (WIP) buffering / accumulation
- Asynchronous or synchronous WIP flow



Small systems can ship fully assembled.



## PALLETIZED SOLUTIONS

- Perform well in low and high load applications.
- Designed for all environments.
- Minimizes part handling and cycle time.
- WIPCON - up to 80 lbs/ft.
- BRUTE - up to 200 lbs/ft.



## MODULAR CONSTRUCTION

- Rugged welded steel tube leg frames.
- Adjustable leveling feet for fast setup and installation.
- Optional weldable leg attachments for permanent installations.
- Custom designed station fabrications available.

- Heavy-duty extrusions provide rigid support and ease of assembly.
- T-slots on sides allow mounting of hardware and control devices at any location. T-slots on bottom allow for mounting to modules and leg supports and provide mounting location for piping and wireway.
- Steel chain channel provides protection against wear.

*...solutions delivered.*



### Get Your Parts Into the Loop

Orbitform specializes in automation system design. We can supply mechanical conveyor equipment without controls, conveyors with junction box and valve stack integration points, and fully operable systems. Orbitform is experienced in complex controls and trafficking technology, and is an experienced RFID integrator.



#### TURN MODULES

- Chain is guided around curves through side rails.
- Low friction, long-life bearing decreases chain loading, increasing module life.
- Alignment pins ensure centering of adjoining tracks.
- Polished aluminum covers.
- Cut-out in entrance/exit track provides escape for any foreign material.
- Slotted cornering disk maintains stability during conveyance around bends.
- Radial load bearing wheel reduces friction.



#### T-STOPS (TRAFFIC STOP)

- Heavy-duty casting provides structural rigidity.
- Pallet load is positively transferred to the channel section without relying on fastener clamping forces.
- Spring advance feature prevents pallet motion should system lose air pressure.
- Automation components hidden under cover, easily removable for stand-up service from above.



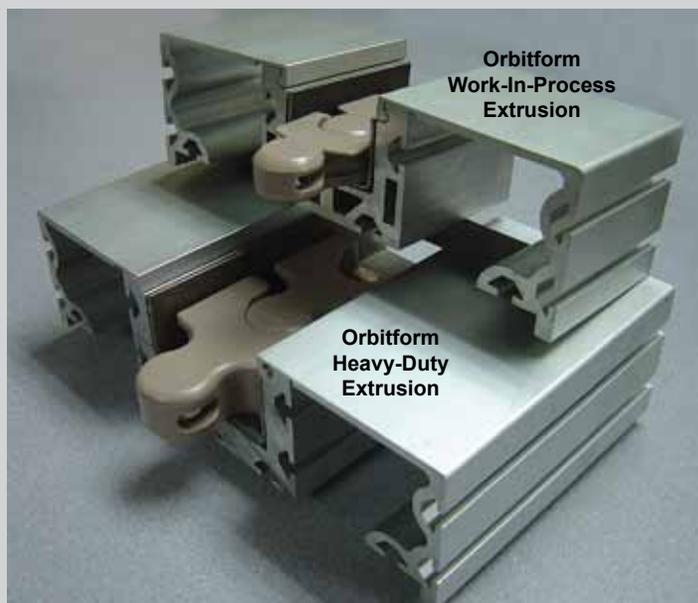
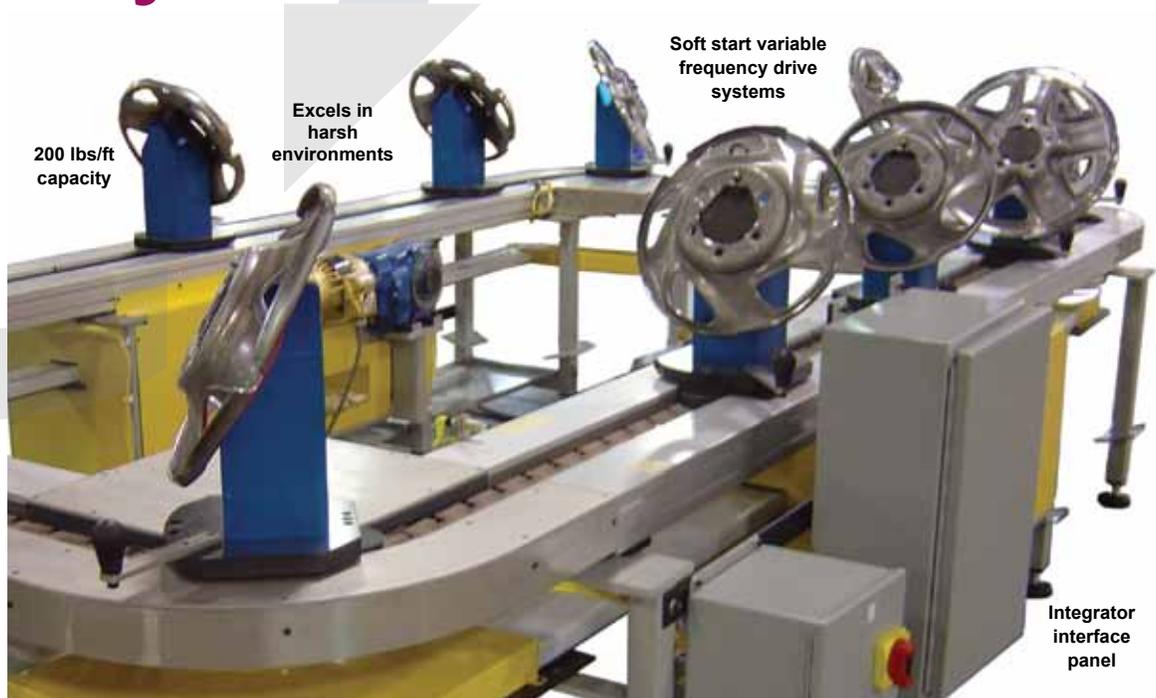
#### ACCU-STOP (ACCURATE PALLET STOP)

- Three-point lift pin design provides precision location in X, Y, and Z axis.
- Freestanding wrap design allows processing online.
- Picture above shows rollerhead press forming online with Orbitform's compliant accu-stop.

- **Complex flow capabilities**
- **Flexible and reconfigurable systems**
- **Maximized throughput, minimized costs**

# Heavy-Duty Palletized Conveyors

Orbitform 2550 Conveyor



Orbitform's Heavy-Duty Palletized Conveyor can handle parts of all sizes with ease. Features include the industry's heaviest extrusion with a capacity to 200 lbs/ft.

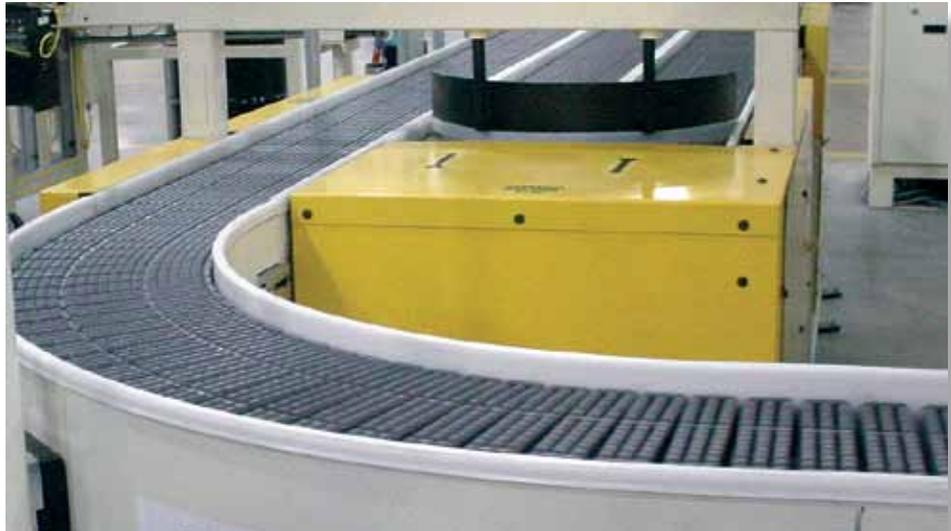
Orbitform conveyors excel in all types of environments.

*...solutions delivered.*

# Low Back Pressure (LBP) Conveyors

## Multiple Rollers

Using Orbitform's Low Back Pressure Conveyors, parts ride directly on a densely populated array of plastic rollers. The parts flow freely with very low friction and exert minimal force on adjacent parts.



Low Back Pressure Conveyors economize space and are beneficial for part buffering, minimizing part contact, and very applicable for round thin parts.

# Solutions Lab

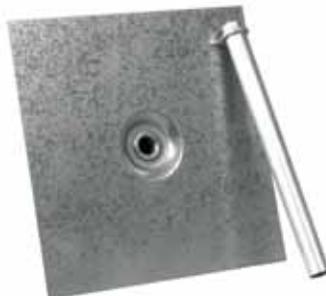
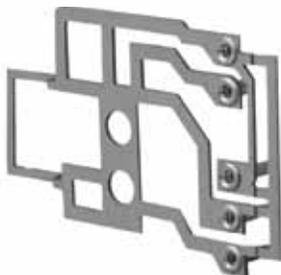


## Custom Solutions

Orbitform's world renowned Solutions Lab is unique to the industry and allows customers to receive the individual service they deserve regardless of the size or scope of the project. From prototypes to short-run production Orbitform's expertise is here for your advantage.

Have your sample parts analyzed to determine the best fastening method and the most efficient type of forming.

Our services often result in specific product design input for our customers.





Orbitform's custom application engineering includes:

- Impact, orbital, and welding solutions
- Fast personal response, quick part turnaround
- Value driven proposals
- Product design feedback / guidance.

From saddles to satellites, let Orbitform's skilled application team help you define and design your product and process.



# Resistance Welders and Robotic MIG Welders

**Standard H-Frame Resistance Welder**



Orbitform designs and builds welding equipment for assembly automation.

Our robotic MIG welders can accommodate unusual geometries and thick materials.

Our resistance welding equipment can accommodate high volume production.

Our engineering team can evaluate your needs to develop the most efficient tooling and welding system for you. By looking at the overall process (welding volume, annual production, etc.), a unique system concept is generated and a cost-effective quotation provided.



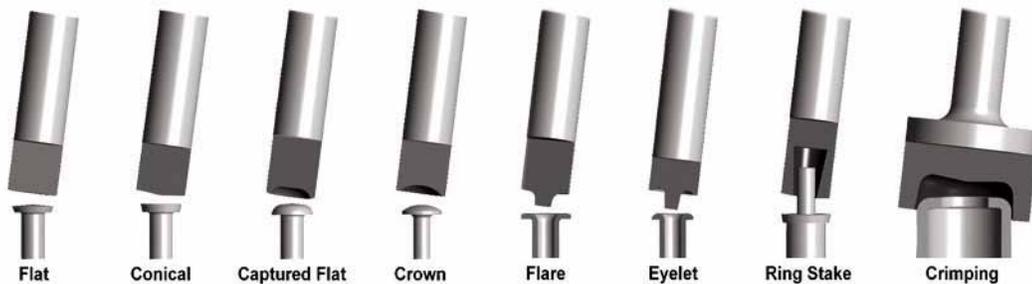
**Mini-Z Robotic MIG Welder**

# Parts / Service

## Impact Riveter and Orbital Parts

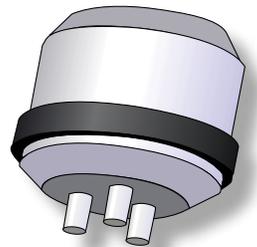
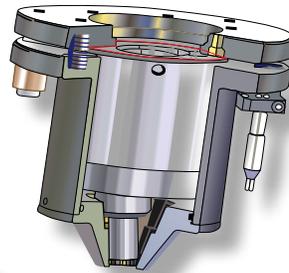
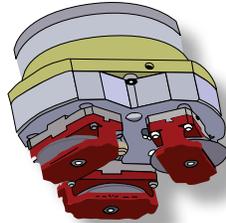
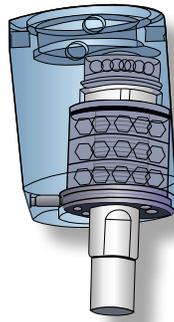


Orbitform has the engineering and manufacturing resources to offer replacement riveting and forming tools and parts. We offer quick turnaround and blanket tool orders - to help you the best way possible.



Orbital forming tools (peens) can be designed to satisfy your specific application needs.

For information on orbital or impact riveting applications, spare parts, applications lab, service, or anything related to forming, fastening, joining and assembly, please call **1-517-787-9447** or email [sales@orbitform.com](mailto:sales@orbitform.com).



 **Orbitform Group**  
...solutions delivered.