



Spin / Orbital Riveting Machines
Pneumatic & Hydraulic

Company Profile

We "S. M. Engineers", Established in the year 1997 at Faridabad, We are reckoned as one of the prominent manufacturers and suppliers of a comprehensive range of Industrial Riveting Machines (Pneumatic & Hydraulic). The products offered by us, consists of Spin Riveting Machine, Orbital. Riveting Machines, Dual/Both End Riveting Machines, Pedustrial Riveting Machine, Cookware/Utensil riveting machine. Our highly qualified professionals manufacture these as per the defined industry standards, using advanced technology and high quality, raw materials. In addition, our customers highly acknowledge these machines for attributes like durable finish, reliable Performance, robust construction and longer service life.

In order to meet the specific requirements of our customers, we have set up a well equipped manufacturing unit. The entire unit is installed with all the relevant amenities and advanced & hi-tech 'equipment for the production of flawless Industrial Riveting Machines. We always endeavor to offer superior quality products. Never compromising on the quality, we supply best quality products in accordance with the international standards. Based on the feedback of our customers, we are constantly innovating our products. We also have a separate designing unit, which is equipped with CAD 2D & 3D software and other designing tools.

Under the able guidance of our mentor, 'Mr. Ranjan Gandotra', we have carved a niche in this highly competitive industry. He keeps complete team motivating, to give their best and meet the clients' demands. His rich industry experience and sharp business acumen have assisted us in developing a widespread clientele across the nation and worldwide.

Applications

APPLICATION IN AUTOMOBILE INDUSTRY

- BRAKE LINING ASSEMBLY
- CLUTCH PLATE ASSEMBLY
- DOOR LOCK ASSEMBLY
- LEVERS
- DOOR HINGES
- BRAKE SHOES / LINING
- SCREW JACK ASSEMBLY
- BALL JOINT ASSEMBLY
- CLUTCH PLATE ASSEMBLY
- PISTON ROD FOR SHOCKER ABROSBER, ETC.

APPLICATION IN ELECTRICAL INDUSTRY

- ELECTRICAL CONTACTS
- BULB HOLDERS
- MCB'S
- SWTCHGEARS ETC.

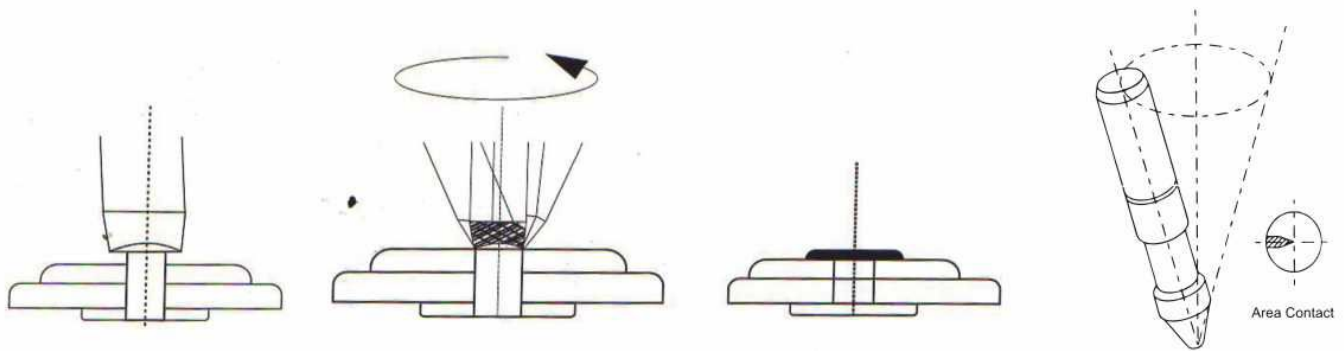
APPLICATION IN GENERAL INDUSTRY

- HAND TOOLS, SCISSORS, PLIERS, FORKS, ETC.
- DOMESTIC APPLIANCES
- LUGGAGE INDUSTRIES, CASTERWHEELS
- LOCKS, ETC.
- DOOR HANDLES, LATCHES, HINGES, ETC.
- UTENSILES / COOKWARES
- IMPELLERS, ETC.

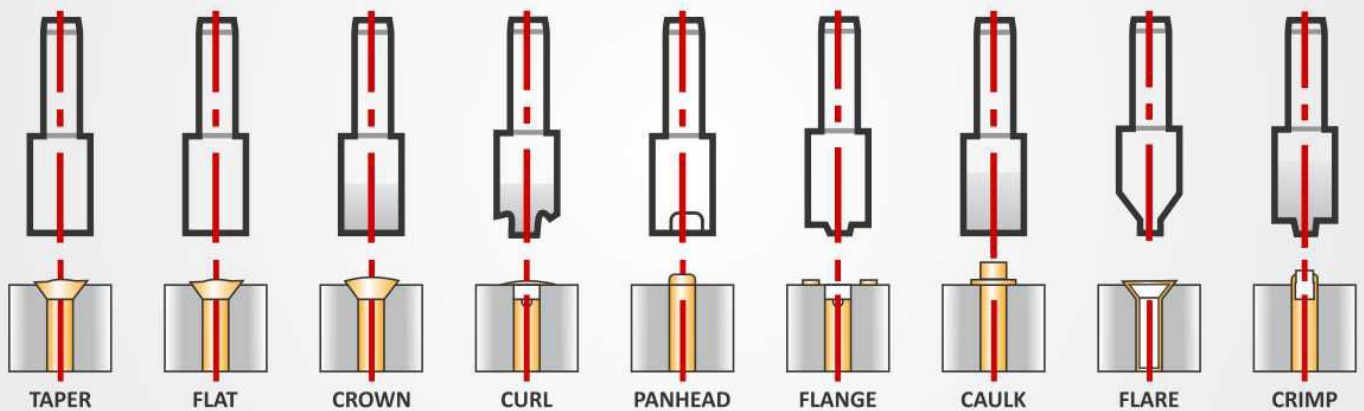
Why Spin / Orbital Riveting Process

SPIN / Orbital Riveting Process is one of the most versatile process of cold forming of metals. The deforming force has to be so large that the stresses in the deforming region reaches the value of YIELD STRESS of that material. At this value of stress the material starts flowing and the riveting head is formed. In conventional method the force is applied by a hammer or by a pneumatic or hydraulic cylinder on a punch. Theoretically the riveting force required is the yield stress of the material multiplied by the area of the rivet shank in contact with the punch.

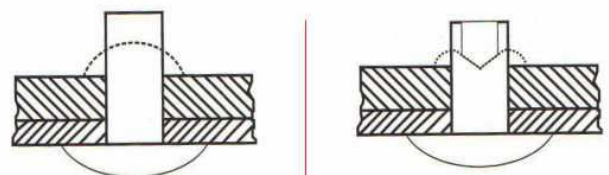
In SPIN / ORBITAL riveting process the riveting tool (or punch) is inclined with respect to the rivet axis. This reduces the area of contact between the punch and the rivet shank. Thus the riveting force required is reduced drastically. The inclined riveting tool also rotates around the axis of the rivet. This result in very gentle deformation of the material. These inclined riveting tools are set in tool holders from 30 to 50 according to the job.



Different Type of Riveting Processes



ORBITAL MULTI-SPIN TWIN-SPIN SPIN-PRESS



— BEFORE SETTING
— AFTER SETTING

SOLID RIVET

TUBULAR RIVET

UTENSIL / COOKWARE RIVETING MACHINES

RIV5-U, RIV7-U, RIV6-SS



RIV-P500L



MODEL NO.	RIVETING CAPACITY (MS) UPTO	THROAT DEPTH	SHUT HEIGHT (MAX)	STROKE ADJUSTMENT	AXIAL FORCE
RIV-080/2	2 mm	110 mm	125	30 mm	180 kgs
RIV-100/4	4 mm	125 mm	150	30 mm	300 kgs
RIV-5-U	5 mm	125 mm	For Utensils upto 18" DIA	30 mm	300 kgs
RIV-6-U	6 mm-ss	150 mm	For Utensils upto 24" DIA	40 mm	1200 kgs
RIV-123/6	6 mm	125 mm	175	35 mm	500 kgs
RIV-7-U	7 mm	125 mm	For Utensils upto 21" DIA	35 mm	500 kgs
RIV-150/8	8 mm	140/150 mm	180	40 mm	900 kgs
RIV-160/10	10 mm	150 mm	180	40 mm	1200 kgs
RIV-200/12	12 mm	200 mm	200	50 mm	1600 kgs
RIV-P500L	10 mm	175 mm	For Piston rods upto 500 mm	40 mm	1200 kgs

GENERAL SPECIFICATIONS

- (A) Electrical panel consisting of built in overload relays, starters for motor protection - solenoid valve and electronic digital timer to control riveting time, (we use Schneider, T&C, Select make timer and digital counter in our panel and Motor of ABB and CG make.
- (B) Micromatic adjustment (least count 0.02 mm) with graduated dial for precise stroke control, also equipped with provision for major shut height adjustment, i.e (Up / Down travel with handle wheel equipped with gear train and lead screw)

SPIN / ORBITAL RIVETING MACHINES

RIV080/2



RIV100/4



RIV125/6



RIV150/8



RIV160/10



RIV200/12



CYCLE TIME ADJUSTMENT	BASE AREA (WORKING)	MACHINE SIZE	MOTOR (H.P) 3Ph. 415V-1400 rpm	AIR PRESSURE
0-9.99 Secs	200 x 200	200 x 450 x 750	0.25	5-6 kg/CM ²
0-9.99 Secs	200 x 250	250 x 500 x 900	0.50	5-6 kg/CM ²
0-9.99 Secs	200 x 250	250 x 500 x 1275	0.50	5-6 kg/CM ²
0-9.99 Secs	300 x 300	300 x 600 x 1500	1.50	5-6 kg/CM ²
0-9.99 Secs	250 x 250	250 x 500 x 950	0.50/0.75	5-6 kg/CM ²
0-9.99 Secs	200 x 250	250 x 520 x 1350	0.50/0.75	5-6 kg/CM ²
0-9.99 Secs	300 x 300	300 x 600 x 1050	1.0	5-6 kg/CM ²
0-9.99 Secs	300 x 300	300 x 600 x 1100	1.5	5-6 kg/CM ²
0-9.99 Secs	300 x 375	300 x 700 x 1350	2.0	5-6 kg/CM ²
0-9.99 Secs	300 x 300	300 x 600 x 1100	1.5/2.0	5-6 kg/CM ²

GENERAL SPECIFICATIONS

- (C) Air filter, regulator and lubrication unit (Make JANATICS)
- (D) Base provided with T-Slot to clamp fixture
- (E) Rigid C.I. box type frame construction ensuring negligible Deflection under load
- (F) Electrical foot switch

HYDRAULIC RIVETING MACHINES

RIV12-HYD



RIV16-HYD



Model No.	Riveting Capacity (ms) Upto	Throat Depth	Shut Height (max)	Stroke Adjustment	Axial Force	Cycle Time Adjustment	Base Area (working)	Machine Size	Motorh (h.p) 3ph. 415v-1400 Rpm	Air Pressure
RIV12-HYD	12 mm	150 mm	175 mm	45 mm	1800 kg.	0-9.99 sec.	300 x 300	300 x 300 x 1200	1.5 + 1.5	10-20kg./cm ² HYD. PR.
RIV16-HYD	16 mm	200 mm	200 mm	50 mm	3000 kg.	0-9.99 sec.	350 x 325	350 x 700 x 1350	2.0 + 2.0	20-30kg./cm ² HYD. PR.
RIV20-HYD	20 mm	200 mm	225 mm	50 mm	4000 kg.	0-9.99 sec.	350 x 350	350 x 700 x 1500	3.0 + 3.0	30-40kg./cm ² HYD. PR.



DUAL/ BOTH END RIVETING MACHINES



MODEL NO.	RIV-BE6	RIV-BE8	RIV-BE10	RIV-BE112H
RIVETING CAPACITY	6 mm	8 mm	10 mm	12 mm
THROAT DEPTH	125 mm	140 mm	150 mm	150 mm
SHUT HEIGHT (MAX)	200 mm	300 mm	400 mm	400 mm
STROKE ADJUSTMENT	35 mm	40 mm	40 mm	45 mm
CYCLE TIME ADJUSTMENT	0-9.99 secs	0-9.99 secs	0-9.99 secs	0-9.99 secs
BASE AREA (WORKING)	300 x 1250	300 x 1350	300 x 1450	300 x 1450
MOTOR (H.P) 3Ph. 415V-1440 RPM	0.75 + 0.75	1.0 + 1.0	1.5 + 1.5	1.5 + 1.5 + 2.0
AIR / HYD. PRESSURE	5-6 kg/cm ²	5-6 kg/cm ²	5-6 kg/cm ²	20-30 kg/cm ² HYD.PR





sme *S.M. ENGINEERS*
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