

MICRON

NEWSLETTER FROM SOLITAIRE MACHINE TOOLS LIMITED

JANUARY 2014



Dear Friends,

Solitaire family wishes you a Happy & Prosperous New Year!

It has been about six months since we interacted with you. The times have been tough on Auto, Auto Ancillary and also, consequently, Machine Tools Industry. At SMT, our efforts to develop new models of grinders and to tap into new Export markets, has kept us busy even with slowdown in Indian market. Our sales in the US market have gone up, due to boom in the US economy. New markets have opened up for us in Europe, South America and Asia.

We have been busy developing several new models of grinders to meet future requirements of Indian as well as International markets. The new grinders are described in this Newsletter to give you an insight of future offerings besides wide variety of grinders and configurations already available with us.

The No.1 MINI PLUS Grinder has been launched and has been tested by our customers. All feedback from the field is now being implemented and a new batch of grinders are now being manufactured to meet the growing demand. The grinder is equipped with Diamond roll dressing to achieve fast and accurate profile on grinding wheel. The grinder would increase productivity with feasibility to dress and grind at the same time.

The MICRO Centerless grinder prototype is in manufacturing. The grinder is designed for highly precision components like Fuel injection parts, medical implements, aerospace components and tiny engineering parts. It would be full 6 to 7 Axes CNC grinder with automation dedicated to manufacture high volume in short cycle time. The grinder is designed with best components available internationally and would compete with European manufacturers at Indian cost.

The Double Disk grinder prototype is now ready and is being tooled up for Thrufeed component. It will be going in for extensive trials before being offered to customers around the country.

On a sad note, we lost our Founder, Mentor and Chairman - Emeritus, Mr. Prafull J. Sheth on August 15, 2013. He built a strong foundation for Solitaire based on hard work, good work ethics, team work and social responsibility. He led SMT team with his dynamic ideas and futuristic vision for past 25 years. He inspired us all to strive harder to achieve our goals. We will miss him and we hope to pursue his dream of turning SMT in to a World class grinding machine manufacturer.

With warm regards,
Ashok J. Sheth

Precision to the last micron

PERFORMANCE DRIVEN GRINDING SOLUTIONS

Solitaire No. 1 Mini Plus Centerless Grinder

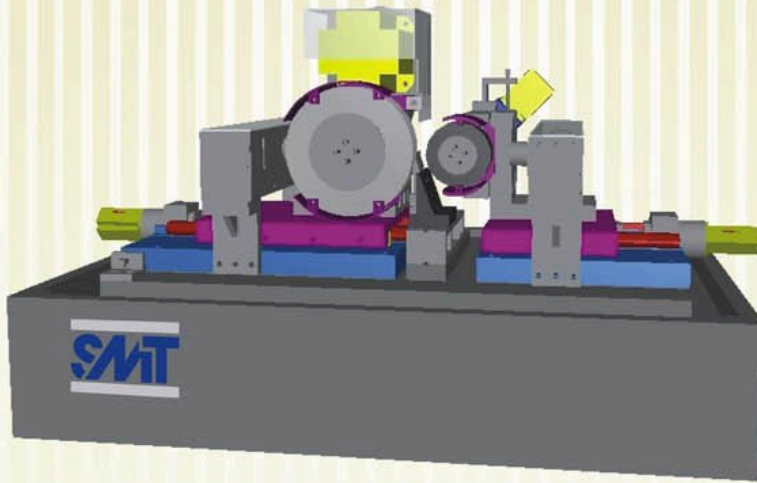


Keeping in mind customer needs and expectations, Solitaire Machine Tools is proud to launch the **No.1 Mini Plus Grinder**. The Grinder has the following specifications:

- The Floor Size of the Grinder remains the same as the No.1 Grinder i.e. 1820 mm (Length) x 1230 mm (Width) x 1550 mm (Height). But the overall weight is increased from 2200kgs to 3200kgs. Hence, the weight is increased by 1 TON which makes the machine more rigid. Rigidity is very important in Centerless Grinding application as the depth of cut, speed of cutting and the quality parameters are directly proportional to the same.
- The machine is equipped with a diamond roll dresser. The programming is done such that the Grinding and Dressing program can be executed together and hence, reduce the overall CYCLE TIME of a component.
- The Grinder can grind components from 1 mm to 40 mm diameter. The wheel width would be up to 100 mm.
- The Grinder can also be offered with automation, as required.

PERFORMANCE DRIVEN GRINDING SOLUTIONS

A Sneek Preview of Solitaire Micro Centerless Grinder



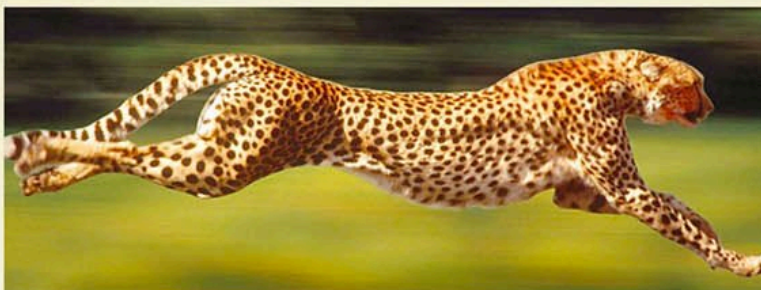
With miniaturization of components in Electronic, Medical, Aerospace and Automotive field, SMT has seen the need to develop a Micro Centerless Grinder. The prototype is now under development and would be launched in coming months. The grinder would be fully automated and equipped with latest technology available around the world. It would include the following features:

- The Base Structure of the machine is Electro-Welded Steel. (Not shown in above picture)
- The Bed of the machine is stress relieved Casting.
- Fixed Center for Easy Automation
- The machine has an optional feature of Diamond Roll Dressing Arrangement for Grinding Wheel
- All slide movements & spindle rotation by Servo motors.
- Machine with total enclosure along with capability to install fume extractor (Not shown in above picture)..

MACHINE SPECIFICATIONS

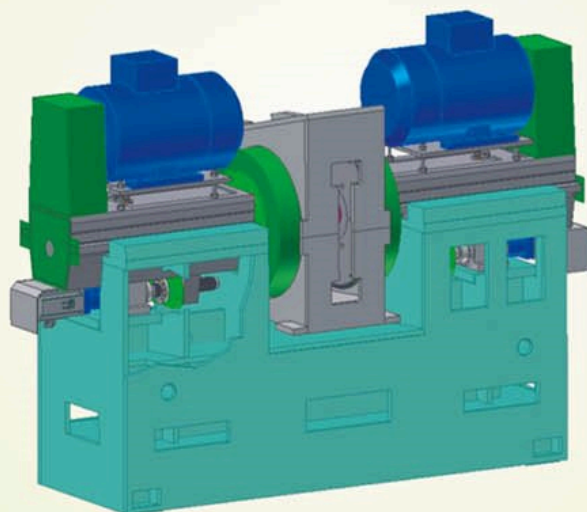
WORK DIAMETER RANGE	0.1 mm to 10 mm
MAX. INFEEED GRINDING LENGTH	50 mm
GRINDING WHEEL	
GRINDING WHEEL DIAMETER (OD x ID x WIDTH)	200mm x 50mm x 50mm
MINIMUM DIAMETER	160 mm
MAX WHEEL SURFACE SPEED	45 m/s (Optional 63m/s)
REGULATING WHEEL	
REGULATING WHEEL DIAMETER (OD x ID x WIDTH)	100mm x 40mm x 50mm
MINIMUM DIAMETER	80mm
SPEED RANGE	5 – 400 RPM
DRIVE MOTOR	
GRINDING WHEEL DRIVE MOTOR - SERVO	2.2kW
REGULATING WHEEL DRIVE MOTOR - SERVO	0.25kW
GENERAL DATA	
FLOOR SPACE (L x W)	1260mm x 800mm
ESTIMATED WEIGHT (in kgs)	2000kgs

PERFORMANCE DRIVEN GRINDING SOLUTIONS



CHEETAH DOUBLE DISC GRINDER

Precise.. Agile..Swift



MACHINE SPECIFICATIONS

	Part Feeding System		
	Through Feed	Rotary Feed	Slide Feed
Workpiece Thickness (mm)	1-100	3-120	20-120
Max. Workpiece Size (mm)	200	100	250
Grinding Wheel dia. (mm)	660	660	660
Usable Grinding Wheel – Average Thickness (mm)	60	60	60
Grinding Wheel Speed (m/sec.)	35	35	35
Grinding Wheelhead Motors (kw)	30+30	30+30	30+30
Axis Travel Distance	130 mm (approx.)		
Axis Travel Speed			
•Jog	600 mm/min		
•Automatic	800 mm/min		
Wheelhead Infeed – min. (mm)	0.001	0.001	0.001
Total Machine Weight (kgs.)	10,000	9,000	10,000

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