

# CORPORATE DOSSIER

ONE OF THE  
**MOST INTELLIGENT**  
MACHINES EVER



**FWT**<sup>®</sup>  
Unifying Innovation & Technology

# EMBRACING FRICTION

The tough ones are born out of tough times. Diamonds are formed when carbon deposits undergo intense temperature and pressure. Steel is created by melting iron ore at a very high temperature. Harsh conditions bring out the best.

When surfaces of two disparate metals undergo friction, the heat thus produced plasticises the metal surfaces; with a certain amount of lateral upset (force) a bonding between the two metals occurs at molecular level. This bonding is stronger than any other bonds created through conventional welding. That's friction welding.

BONDING AT FRICTION POINT



# MADE IN INDIA ROARING with PRIDE across the globe

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Machines | Welds | Solutions  
Since 2002





SME TOP 100 AWARD



Partnership with MTI, US



Appreciation by Forbes & Company



Appreciation by Godrej Aerospace  
for BrahMos Project



Recognition by DRDL

# LEADERSHIP



Since 2002, FWT have been an established brand in the friction welding industry. Starting small, growing steadily, year on year, one thing that FWT has never missed out on is Leadership Development.

Be it in contract manufacturing, introducing newer technologies to Indian market, building world-class machines, setting benchmark for high-quality in process, product and people or leveraging collaborations, the firm has deployed passion, self-confidence & boldness to stay way ahead of its times.

## LEADERSHIP THROUGH CORE VALUES

-  COMMITMENT
-  EXCELLENCE
-  VALUE
-  INTEGRITY
-  RESPONSIBILITY

## INDUSTRIES

- |   |   |   |
|---|---|---|
|  |  |  |
| Cutting Tools   | Agriculture & Trucking  | Nuclear   |
|  |  |  |
| Aerospace & Defence   | Oil Refineries  | More  |

# EXCELLENCE

United we rise; divided...

Bonds so strong, we just cannot be divided...

Since its inception, FWT had understood the real difference between “building machines” and “building the best machines ever”. Excellence has never been a choice, but a mandate. It is always planned for right from the beginning, followed throughout the process and continues to be the most striking element of FWT machines after years since their deployments at client locations.

*Our expertise in delivering excellence, has helped us win some of the most prestigious clients who required highest quality, versatility & B-R-E-A-K-T-H-R-O-U-G-H technology for their **mission-critical** applications*



Tests conducted on friction-welded components



**Machining  
measurement accuracy  
for machine building**



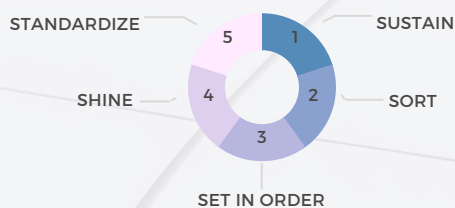
FAROARM® is the registered product of FARO Technologies, Inc.

## PRACTICES

**POKA YOKE**

**5S**

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## CERTIFICATIONS





# FACTS MACHINES

*Committed to provide strategic advantage to our clients through excellence and leadership in technology*

## WORLD-CLASS DIRECT-DRIVE ROTARY FRICTION WELDING MACHINES



**INDIA | USA | UK | POLAND | TURKEY  
ITALY | CHINA | ROMANIA | MEXICO**

# FACTS COMPONENTS

**13** **MILLION +**  
**JOBS DELIVERED**  
...and counting

**60+** **METAL**  
**COMBINATIONS**

**0** **FAILURES**



**AEROSPACE & DEFENCE | AUTOMOTIVE | CUTTING TOOLS |  
ELECTRICITY | NUCLEAR PLANTS | PUMP & VALVE | OTHERS...**

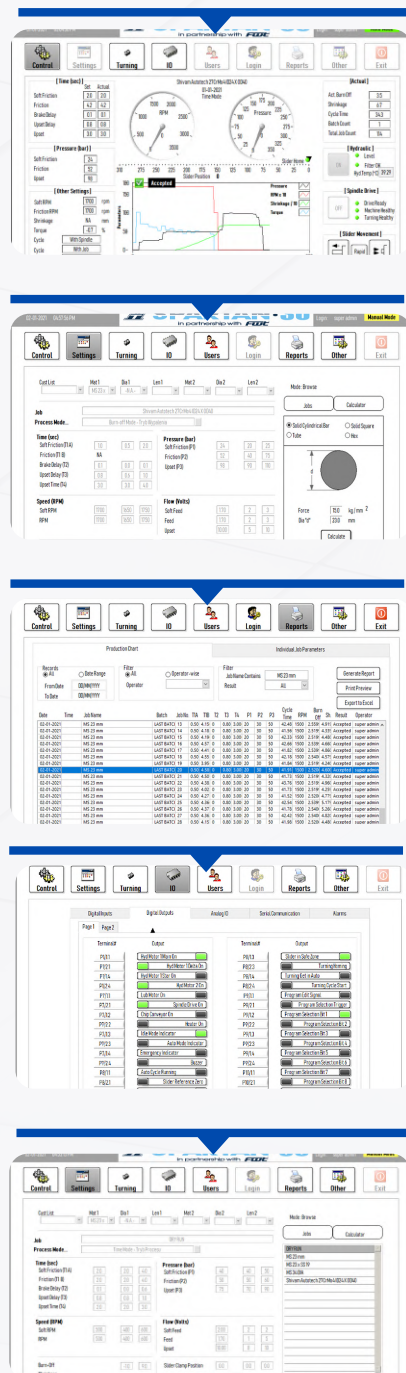


# SIMPLICITY

Convenient dashboard  
for parameterisation

We believe in the 'Simplicity is the ultimate sophistication' principle. Our software engineering team develop operator console software such that application & operation specific parameters once configured within the machine, get the job done with consistent weld quality throughout the batch. It requires near zero human intervention. The optional programmable robots take care of loading the job, and unloading the welded ones. The dashboard is highly intuitive and requires only a few minutes of training.

FWT Machines, built using Poka Yoke, are extremely safe to operate. They have inbuilt intelligence to pre-empt and resolve any unexpected errors or breakdowns. FWT's Remote Diagnostics and Troubleshooting makes it convenient for the technical team to address the issues from anywhere and anytime.



## FEATURES

Total Safety  
User-based locks  
Multiple Geometries  
Clean & Intuitive  
Quality & Reliability  
Advanced Parameter Configuration  
Graphical Interface  
Historic & Live Data and Analytics  
Cp/Cpk configuration  
Industry 4.0 ready





# AWARDS

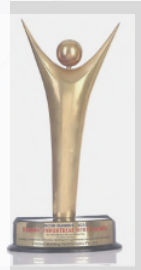
## EXCELLENCE IN RESEARCH & INNOVATION ENTREPRENEUR'S INTERNATIONAL FORUM



## G.S. PARKHE AWARD FOR INNOVATION IN ENTREPRENEURSHIP MCCIA, PUNE



## FIRST GENERATION SUCCESSFUL ENTREPRENEUR AWARD MCCIA, PUNE



### INNOVATION

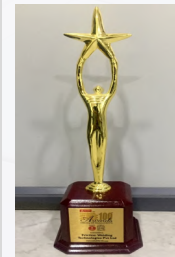
## EXEMPLARY INDUSTRIALIST ANNA TALWALKAR MEMORIAL



## INDIA'S SMALL GIANT AWARD INDIA SME FORUM



## INDIA'S TOP 100 SME'S AWARD INDIA SME 100 FORUM



### FORUMS

## VALUABLE SUPPORT FOR ROBOLUTION TAL, INDIA



## CERTIFICATE OF APPRECIATION WELDFAB TECH TIMES



## INSPIRING PROJECT AWARD WELDFAB TECH TIMES



### OTHERS

# RESEARCH & DEVELOPMENT

Innovation has been the driving force for FWT. It's research-oriented approach isn't just for educational purposes, but also to innovate and deploy advanced technology within its friction welding machines.

FWT's R&D programs have been acknowledged by several prestigious institutes and organisations such as DRDL, Godrej Aerospace & BARC, among others.

- FWT-50 machine has been world's first ever versatile machine to manufacture multiple size and multiple geometric bi-metallic components for defence application – BrahMos Super Sonic Ramjet Missiles
- Formula to derive the minimum motor power required to run a friction welding machine, and the reason behind it
- Cp/Cpk parameterisation programming for consistent weld-quality





# TRUSTED BY



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**FWT are our  
Green-Channel  
vendors with zero  
defects**

**RAVI PREM**  
COO  
Forbes & Company Ltd.



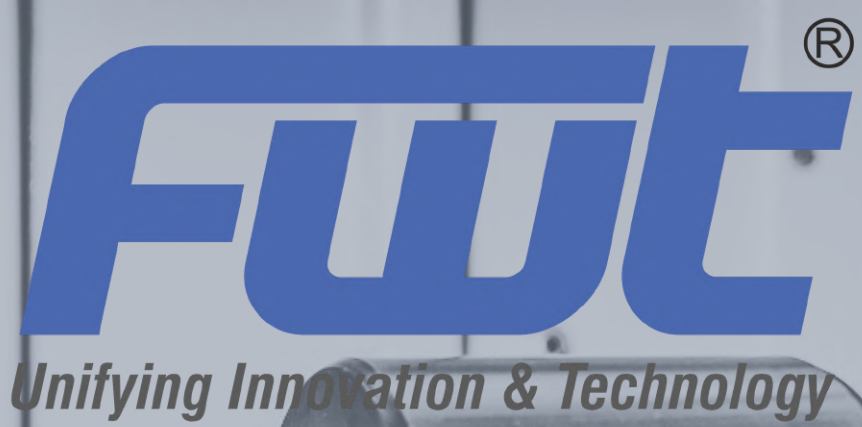
**FWT build world-class  
machines & are great  
technology innovators**

**AMOL LAHOTI**  
HEAD STRATEGIC SOURCING  
Gabriel India Ltd.



**FWT has a lot of  
knowledge in friction  
welding**

**BOB BESSE**  
SALES DIRECTOR  
MTI, USA



## GET IN TOUCH

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