MetriX
PHARMA SOLUTIONS

OSD ENGINEERING SOLUTIONS
Hyderabad, India

METRIX PHARMA SOLUTIONS

Engineering Precision for Pharmaceutical Manufacturing

ENGINEERED PRECISION

Built for Performance.
Designed for Reliability.

GLOBAL STANDARDS LOCAL EXCELLENCE

Delivering Quality Solutions
from Hyderabad to the World.

END-TO-END OSD PARTNER

Form Concept to Commisssioning-
We Engineer Success.

www.metrixpharmasolutions.com

Your Trusted Partner in
OSD Engineering Solutions
and Pharmaceutical Innovation.

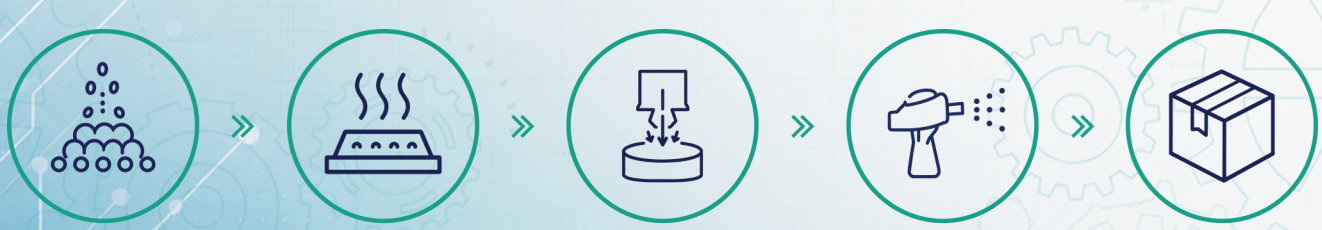
WHO WE ARE

End-to-End
OSD Engineering Partner

Metrix Pharma Solutions is a Hyderabad-based, engineering-driven solutions provider specializing in Oral Solid Dosage (OSD) phamaceutical equipment, precision-engineered critical spares, and custom fabrication services.

We Operate as a complete solution partner across the full OSD manufacturing lifecycle-delivering precision-engineered components, complete equipment systems, retrofit upgrades, and automation solutions compatible with global OEM standards. Our engineering capabilities span mechanical fabrication, pneumatic systems, and electrical automation.

OUR OSD PROCESS EXPERTISE



PROCESS STAGE: COMPRESSION & COATING

Tablet Press & Coating Systems

Complete change parts, precision-engineered spares, and assemblies for tablet compression and film coating — compatible with all major global OEM platforms including Fette, ACG, Cadmach, Korsch, IMA, Manesty, Kilian, and Stokes.

Tablet Compression Machines All Makes & Models

- Turrets (B-type, D-type, BB-type) - upper & lower
- Punches, dies and tooling sets (TSM/EU standards)
- Feed frames, cam tracks & cam profiles
- Hopper assemblies & scraper blades
- Compression rollers & roller assemblies
- Feeder paddle wheels & metering screws
- Ejection cams & anti-binding cams

Coating Machines All Makes & Models

- Perforated coating pans (all diameters)
- Spray guns, nozzles & manifold assemblies
- Baffles & internal pan assemblies
- Inlet/exhaust plenum chambers & air ducts
- Atomisation air assemblies
- Coating pan seals & door gaskets

OEM Platform Compatibility

- Fette · ACG · Cadmach · Korsch
- IMA · Manesty · Kilian · Stokes
- Sejong · Elizabeth Hata · Courtoy





PROCESS STAGE: GRANULATION & DRYING

Granulation & Fluid Bed Systems



Rapid Mixer Granulator (RMG) All Makes

Comprehensive supply of granulation equipment systems and critical internals — including the most technically demanding and frequently replaced components in fluid bed operations.

- Fluid Bed Dryer (FBD) — complete systems
- Fluid Bed Processor (FBP)
- Fluid Bed Equipment (FBE)
- Granulation bowls & product containers
- Impeller & chopper assemblies (RMG)
- Spray systems & nozzle lances
- Air handling assemblies & distribution plates

Critical Fluid Bed Internals

The highest wear, most frequently replaced components in FBD/FBP systems:

- Finger bags — all micron ratings (5µm to 200µm)
- Finger bag cages & support frames (all materials)
- Exhaust filters: coarse, fine, & HEPA grades
- Anti-static & conductive filter bags (potent API)
- HEPA filter housings & mounting frames
- Perforated distribution plates (all hole patterns)
- Expansion chambers & body extensions
- Air lock valve assemblies



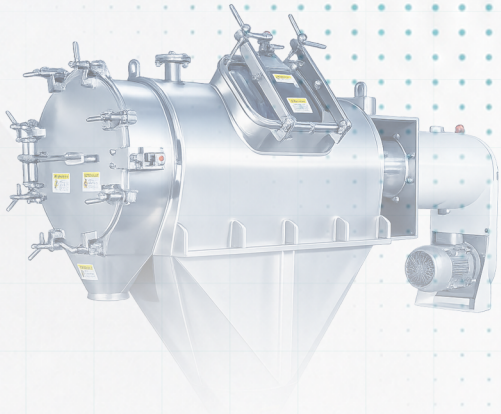
Compatible OEM Platforms

- Glatt · GEA · Aeromatic-Fielder
- Diosna · ACG · Pharma-Meyer
- Huttlin · Vector · Niro

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PROCESS STAGE: BLENDING, MILLING & DRY GRANULATION

Blending, Milling & Roll Compaction



Blending Systems

- Octagonal blender — all capacities
- Double cone blender
- Ribbon blender (horizontal & vertical)
- Bin / Conta blender systems
- V-blender / Y-blender
- Planetary mixer
- Drum blender assemblies
- IBC (Intermediate Bulk Container) systems

Milling & Sizing

- Co-mill (Comil-compatible) — all screen sizes
- Multi-mill / oscillating granulator
- Vibro sifter — all mesh sizes & frames
- Inline sifter assemblies & deck frames
- Conical mill screens & impellers



Roll Compaction Systems

- Roll compactors — complete system supply
- Compaction rollers & scraper blades
- Granule discharge milling screens
- Roll surface pattern tooling

Material Handling

- Pneumatic conveying systems
- Vacuum transfer units
- Dust extraction & containment systems
- Powder handling frames & trolleys
- Charge & discharge valves (butterfly, diaphragm)
- Containment valve assemblies (split butterfly)
- Gravity chutes & transfer hoppers

Compatible OEM Platforms

- Quadro · Gansons · Shakti · Anchor
- Fitzmill · Alexanderwerk · Gerteis
- Hosokawa · Bepex · Tapasya

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PROCESS STAGE: PACKAGING

Packaging Lines & Critical Spares



Packaging Line Systems

- Bottle filling line change parts (all formats)
- Blister packing machine components
- Star wheels — all sizes & materials
- Timing screws & infeed screws
- Guide rails & side guides
- Conveyor assemblies & belt systems
- Cap tightening turrets
- Filling nozzle assemblies
- Induction seal heads
- Checkweigher & inspection system parts

High-Value Repeat Components

The most frequently replaced, highest-margin components across all OSD equipment:

Components	Satuts
Tablet Press Turrets	• Repeat
Punches & Dies	• Repeat
Cam Tracks	• Repeat
Finger Bags	• Repeat
HEPA Housings	• Repeat
Star Wheels	• Repeat
Teflon Parts	• Repeat
Silicone Gaskets	• Repeat
Spray Nozzles	• Repeat
Feed Frames	• Repeat

Compatible OEM Platforms

- Bosch · IMA · Romaco · Uhlmann
- ACG · Marchesini · Dividella
- Variovac · Multivac





CUSTOM ENGINEERING

Fabrication, Materials & Manufacturing



Custom Engineering & Fabrication

- Mechanical fabrication - all types and complexity
- Pneumatic systems & valve assemblies
- Structural & utility fabrication
- Reverse engineering from physical sample or drawing
- Design-to-fabrication full project execution
- Granulation skids & process module skids
- CIP (Clean-in-Place) system design & fabrication
- Ducting, piping & process support structures
- Pressure vessels & storage tanks (SS)
- Bespoke transfer trolleys & material handling

Critical Fluid Bed Internals

- CNC & VMC precision machining
- TIG & orbital welding (hygienic joints)
- Mirror polishing — Ra ≤0.4µm product contact
- Full dimensional inspection & CMM verification
- Assembly validation & fit testing

Custom Engineering & Fabrication

- **SS 316L**
  Primary product-contact grade. Low-carbon, maximum corrosion resistance. Ra ≤0.4µm surface finish. Full mill certificates & traceability.
- **SS 316**
  Product contact & structural components. Full MOC documentation, inspection certificates available.
- **SS 304**
  Non-contact structural fabrication, support frames, enclosures, utility systems.
- **Teflon / PTFE**
  Bearings, seals, guide rails, gaskets. Chemical inert, FDA-grade material options available.
- **Engineering Polymers**
  UHMWPE, PEEK, Nylon - for low-friction, high-precision sliding components.
- **Elastomers**
  Silicone, EPDM, Viton, NBR gaskets and O-rings. Pharmaceutical-grade sealing.

GMP Compliance Notes

- Surface finish documentation (Ra certificates)
- Material traceability from mill to finished part
- Dimensional inspection reports (IQC/OQC)
- Passivation records for SS components

ELECTRICAL & AUTOMATION

Smart Automation Solutions



Full-stack automation capability - from control panel design and PLC programming to VFD integration and legacy machine modernization. We engineer intelligent, validated controls for reliable pharmaceutical manufacturing operations.

PLC-Based Control Systems

- PLC programming & logic development
- HMI integration & SCADA connectivity
- Siemens, Allen Bradley, Delta platforms
- Recipe management & batch control
- 21 CFR Part 11 ready configuration
- Audit trail & electronic batch records

VFD & Drive Engineering

- VFD selection, sizing & installation
- Motor soft-start systems
- Speed-controlled blending & granulation
- Energy monitoring integration
- Fault-safe drive configurations
- Multi-motor synchronized systems

Control Panel Design & Build

- Custom panel design per equipment specs
- Schematic design & documentation
- Cable traying, termination & labeling
- Safety relay & emergency stop circuits
- Panel installation & commissioning
- Troubleshooting & after-sales support

RETROFIT & MODERNISATION

Upgrade Without Replacement



Our retrofit solutions deliver equivalent performance gains at a fraction of new equipment cost - modernising existing plant without disrupting production schedules.

- **1. Manual to PLC Automation**
  Convert manually operated machines to fully PLC-controlled, recipe-driven systems with HMI and audit trail.
- **2. VFD Speed Control Upgrade**
  Replace fixed-speed drives with VFDs for energy savings, process precision, and reduced mechanical wear.
- **3. Safety & Compliance Enhancement**
  Upgrade ageing electrical systems — updated panels, guarding, interlocks, and emergency stop circuits.
- **4. Mechanical Overhaul & Restoration**
  Worn shafts, cams, bearings, and seals replaced with precision-machined components to OEM-level performance.

Client Benefits — Retrofit vs. Replacement

- Significantly lower capital investment
- Faster ROI — typically 3–6 months payback
- Minimised production downtime during upgrade
- Extended machine lifecycle by 8–12 years
- GMP & audit compliance restored
- Reduced energy consumption via VFD optimisation

EXPORT & GLOBAL SUPPLY

Export-Ready. Globally Compatible.

Metrix Pharma Solutions maintains the documentation standards, packaging protocols, and quality traceability required for international pharmaceutical supply chains. We have successfully supplied OSD components and systems to the USA pharma market and are equipped for broader global export.

- Material of Construction (MOC) Certificates
- Mill Test Reports & Material Traceability
- Dimensional Inspection Reports
- Surface Finish & Ra Value Documentation
- Packing List & Weight /Dimension Certificate
- Quality Inspection Sign-off
- International Shipping Compliance

EXPORT MARKET

United States of America

TRUSTED CLIENT

Evaric Pharmaceuticals

INDUSTRY FOCUS

Pharmaceutical (OSD)

BASE

Hyderabad Pharma Capital of India



OUR ADVANTAGE

Why Clients Choose Metrix Pharma Solutions

Single-Point Solution

One partner for equipment, spares, fabrication, and automation - eliminating multi-vendor complexity and delays.

Engineering Depth

True process understanding we solve pharma engineering problems, not just supply parts from a catalogue.

Reliable Execution

We commit to delivery. Complex, custom, or urgent requirements are executed with consistency every time.

Global OEM Coverage

Compatible with all major global OEM manufacturers no proprietary lock-in, maximum sourcing flexibility.

+91 9494055866
sales@metrixpharmasolutions.com

Metrix Pharma Solutions
Plot No: 116/A & B, Mayuri Nagar, Miyapur,
Hyderabad, Telangana - 500049



READY TO DISCUSS YOUR REQUIREMENTS?

Contact our engineering team today. We handle equipment sourcing, custom fabrication, spares, and full automation projects across the OSD manufacturing spectrum.

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