

**LAMBA
TECHNO
FLOORING
SOLUTIONS**

SPECIALIST IN INDUSTRIAL & WAREHOUSE FLOORING



www.Ltfsolutions.co.in

**...DELIVERING
FASTER – FLATTER – FLOORS
FOR FUTURE!**

Realterm (Indospace) – Area: >
100000.00 M2 @ Pune & Haryana;
Surface Regularity: FM 2 (TR- 34)

ABOUT US

With a full range of hi-tech equipment, experienced and qualified teams of professionals, we are able to provide fine tolerance floor as per international standards including TR-34, DIN 15-185 & ASTM 1155, meeting today's free movement surface regularity requirements for very flat floors.

An ideal floor would be perfectly flat and level and have no joints.

WHAT WE DO

- Laser Screed Specialist
- Superflat, FM 2 Floor as per TR 34 (high tolerance floors)
- Jointless Floors
- Floor flatness surveying- Floor Pro (Digital Profileograph)
- Design & Execution of Grade slabs with Steel Fibre or Traditional Steel bar Reinforcement
- Plate Dowel & Steel Armoured Joints for edge protection
- Saw Cutting, Dry Shakes & Joint Sealing
- Densification, Dustproofing & Concrete Polishing (with Advance Nano Silica Technology from USA)
- Floor repair and maintenance

WHY USE LTF FLOORS

- Proven track record
- Extensive portfolio of successful projects
- Experts in the field
- Good working relationships with clients
- Full design offerings
- Our flooring solutions are free of defects like
 - ❖ Joint failures/ raveling edges
 - ❖ Surface delamination
 - ❖ Shrinkage cracks
 - ❖ Dust generation
- Services- Joint layout drawings, pour schedule drawing.
- Largest fleet of laser screed machines
- Skilled workers on payrolls (150 employees)
- Backup machines to meet any contingency
- On time delivery



We cover all aspects from design, detailing and specification, through to material selection, preparation, installation and then maintenance of floor slab.

Lamba Techno Flooring Solutions is a name that has become synonymous with quality flooring solutions, Delivering Faster-Flatter-Floors for Future!.

LTF SPL has developed a few special tools and techniques, it is essentially a question of attitude and commitment. Our company ensures that the project is planned well, managed effectively, resourced correctly and that workers are properly trained and supervised. This results in the production of an exceptionally flat slab in areas for Defined Movement (DM-2) and for Free Movement FM2 as per TR-34.

THE LTFS “LARGE POUR” FLOORING SOLUTIONS



LP-FM2 (LARGE POUR FREE MOVEMENT)

(Largest Fleet of Laser screed Machines in India)

Where reasonable soil exists, a nominally reinforced slab on grade (S.O.G) provides the most effective Concrete Flooring Solutions. To minimize risk of cracking Drying Shrinkage is controlled by carefully designed layout and installation of Induced and formed Joints. Secondary reinforcement is provided by light Steel Fabric or Steel Fibres.



Using cutting edge technology of laying floors with Laser Screed (Large line laser screed with a telescope boom of 6.1 M - Model S15 R) & Copperhead (Small line Laser Screed machine) which does not requires guide rails to screed concrete, it eliminates the need of having form work at regular intervals except at day joint thus making wide bay construction of pore size 500 to 2000 M2. This reduces construction joints by say 80% which is the weakest section of a floor. Large Pour floors can be constructed to tolerance of TR-34 FM 2 (In free-movement floors, MHE can travel randomly in any direction).

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RENAISSANCE INFRASTRUCTURE AT BHIWANDI, THANE

Project Area-26000 M²

**Large Panels Casting-
650 M² each**

**Floor Specification- FM2
Floor(TR 34)**



REALTERM (INDOSPACE) AT PUNE & HARYANA

Project Area- > 100000 M²

**Surface Regularity FM 2
(TR-34)**



HONDA SIEL AT TAPUKARA, ALWAR, RAJASTHAN

Project Area- >100000 M²

**Large Panels Casting- upto
1400 M² each panel**

**Floor Specification- FM2
Floor(TR 34)**

THE LTFS “SPECIAL” FLOORING SOLUTIONS

SF-LS (SUPERFLAT LONG STRIP)

Long Strip is the conventional methodology for constructing TR-34 Superflat finish concrete floors for Very Narrow Aisle (VNA) warehouse Applications. Without substantial remedial work no other construction method can be used to achieve the precise tolerances of longstrip. When you want the highest quality floor for defined traffic floors choose LTFS longstrip – a proven solution with no Risk!



**M/s. Wacker Metroerck
Chemicals at Kolkata**

Superflat - Category I (TR 34)

Area - 2137 M²



**M/s. Knorr Bremse India
P LTD at Palwal**

VNA floor Wire guided

**Superflat floor - Category
I (TR 34)**

Area - 4000 M²

JL-SOG (JOINTLESS SLAB ON GRADE)

The Joint Less slab on grade (S.O.G) is our premium flooring solution for clients who want maximum durability with the minimum number of joints for lower long term maintenance costs. Using 30 to 45 Kg/ m3 of Steel Fibres, the width and distribution of shrinkage cracks can be controlled to eliminate Saw Cuts thereby providing Joint Free areas of up to 2000 m².

With the LTFS Joint less S.O.G you can reduce the risk of defects such as Curling and loss of load transfer at joints – perfect for floors with heavy loads or requiring very high tolerances. To suppress fibres at the surface a Dry Shake Topping is recommended with application by semi mechanized topping spreader. A truly functional and low maintenance flooring solution!



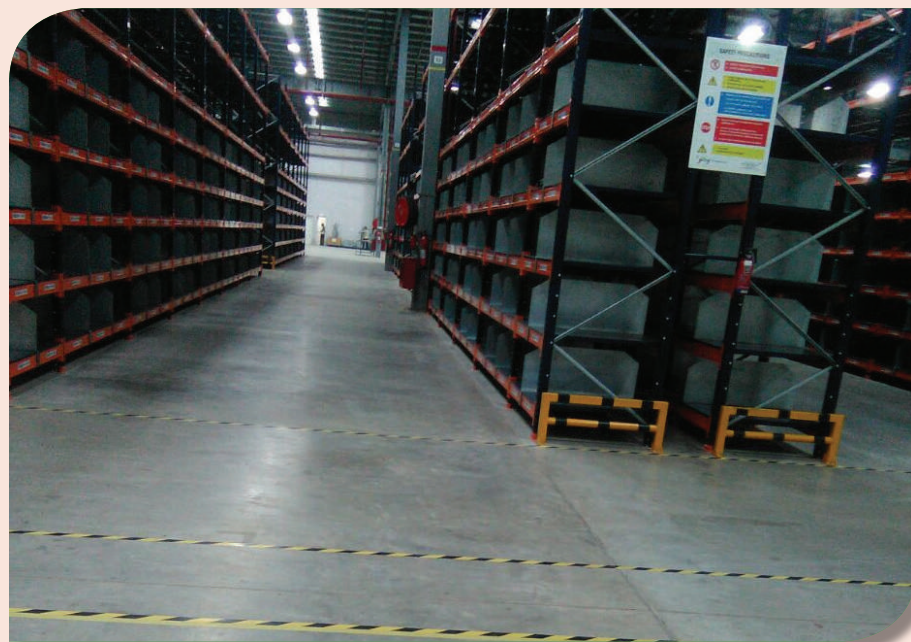
M/s. Knorr Bremse at Palwal

Jointless Floor

**Surface regulatory -
Category I (TR 34)**

**Project Area - 7500 M²
(Panel size - 30 x 24 M)**

SR-SOP (STEEL REINFORCED SLAB ON PILE)



If geotechnical investigations indicate that ground conditions are inadequate for a ground- supported floor, the floor may be constructed on piles. In principle, any of the construction methods can be used, but most such floors are built with a jointless method.

**M/s. Arshiya at Khurja
(UP, India)**

Slab on Pile Floor

Project Area - 18000 M²

HW-FS (HARDWEAR FLOOR SOLUTION) - NANO SILICA TECHNOLOGY FROM LYTHIC USA

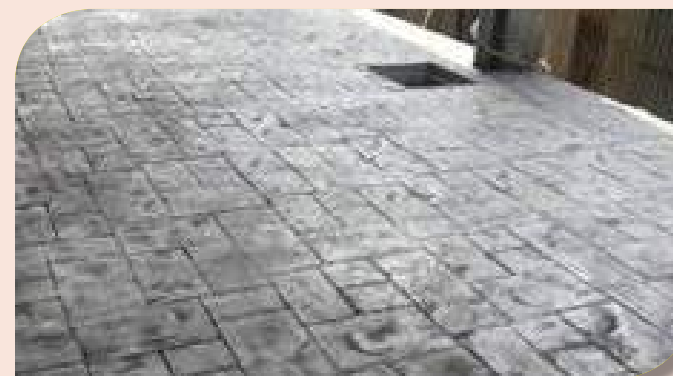
For a floor that could stand up to abuse, easy to clean, cost effective to make, and looked good enough for aesthetic; we suggest our HardWear Floor Solution. The HardWear Floor is considered the best option for creating a beautiful and hard-wearing surface. Densification and Dust Proofing of Concrete surface is done with Nano Silica Technology from LYTHIC USA. Burnishing, Grinding, Polishing, Coloured Dry Shakes – The Possibilities are endless. Work with LTF SPL to develop an innovative and unique decorative concrete flooring solution for your project.



Number of floor casted for Retail & Distribution centers for Reliance Retail at Davangere, Sangali, Jaipur, Bhilwara, Amritsar & Patiala, Including Surface Treatment with Lythic XL Densifier.

SC-AFS (STAMPED CONCRETE ARCHITECTURAL FLOORING SYSTEM)

Do you want a little something extra? Ask about the LTFS Architectural Concrete Flooring Solutions. Concrete is cost effective, natural and extremely flexible. Stamped Concrete system allows you to duplicate the beauty and texture of natural stone, brick, slate, wood, and other materials. Decorative concrete is a stamped impression concrete system comprising of PU Stamps, coloured dry shake hardeners (100% UV stable/resistant colours) as a topping, hydrophobic release powder, liquid colouring agents for colour accenting and weather resistant acrylic sealers.



**M/s. Reliance Retail Mall at Dwarka Delhi
Area - 10000 SQF**

OUR SERVICES

GROUND PREPARATION

No matter how well a concrete floor is installed if it is not founded on a well prepared sub- base the life span of the floor can be seriously affected.

We consider this element of the work to be critical. Whilst we can't account for the ground conditions deep beneath the floor slab, we work with contractors to ensure sub-bases are prepared to the correct tolerances and compacted properly. Prior to our operatives starting on-site one of our engineers will visit the site and carry out a level survey on the sub-base and plate bearing tests to confirm the preparation has been carried out to the correct specification.



CONCRETE DESIGN, SPECIFICATION AND TESTING



DESIGN

Where suitable we can provide design based on Steel fibre solution backed by our associate. We also lay floors using traditional steel bar reinforcement and floors on Metal Decks.



Laying concrete using Steel Bar Reinforcement



Laying over Metal Deck

STEEL FIBRE REINFORCED CONCRETE (SFRC)

Provides you with a time saving and cost efficient solution for flooring. Being Multi dimensional reinforcement it offers following advantages:-

- Optimal Load bearing
- Optimal Crack control
- High fatigue resistance
- High impact resistance

Getting more out of your slab

- Easier to maintain
- Longer lifespan
- Optimized Thickness
- Timesaving construction
- Better Performance
- The ductile steel fibre floor with stands moderate deformations, minimizes curling of concrete slab.
- Easier and more accurate installation of Super flat floor.



DETAIL

Our drawings incorporate bay layouts and specific detail interfaces at manholes, joint positions, column encasements etc.

ISOLATION JOINTS

Wall & Column Isolation with Compressible Board as per International Code of Practice TR-34.

- For avoiding any restraint to the slab &
- Controlling Carcks

AUXILIARY/ LOCAL REINFORCEMENT



Patching of notching effect due to re-entrant corners at the column wall and other locations with means of reinforcing bars.

Wall Isolation with Auxiliary Reinforcement.



Column Isolation with Auxiliary Reinforcement



Wall Isolation

STEEL ARMoured JOINT FOR ARRIS PROTECTION



Free Movement Armoured Joint system ensures adequate load transfer in contraction and construction joints and eliminates resistance to joint opening and movement in both horizontal plane directions. The system also provides extremely durable edge protection to the concrete slabs, particularly when subjected to traffic.

PLATE DOWELS AND SLEEVES

Our Discontinuous plate dowel load transfer system is dedicated to provide load transfer during the construction of formed free movement contraction joints. The system comprising of discrete steel plate dowel and plastic release sleeves. The sleeve contains nails for fixing to the timber form work. The systems also solves problem of slab locking caused by conventional dowels.



IMPORTED MACHINES

BUMP CUTTER & HIGHWAY STRAIGHTEDGE



Bump Cutter
with the key
hole profile



Highway Straightedge/Check Rod

TOP SPREADERS

Spreading of Non Metallic Hard Top dry shake floor hardener, by mechanized equipments for evenly spreading.



POWER FLOAT EQUIPMENTS

Imported Power float equipments like walk behind and Ride-on Trowel are used for finishing, concrete surface. We use Float Pans which is the most significant step to produce a SUPERFLAT FLOOR Finish.



Walk Behind - 600
mm dia disc



Walk Behind - 900
mm dia disc



Ride-on Trowel

SAWN JOINTS- ON TIME CUTTING UPTO RIGHT DEPTH

The floor is sawn into panels on a 4m to 6m grid to relieve drying shrinkage stresses, within 24-36 hrs of laying of concrete.



FLOOR SURVEYING

For floor surveying Automatic Robotic instrument (FloorPro - Digital Profileograph) is used. Floor Level & Flatness Survey Report is submitted to ascertain whether the floor meets the requirements of International Standards of TR-34 & is used to ensure to our clients that we walk the talk.



MAINTENANCE

Floor Joints & Surface Maintenance during Operations

We at LTF SPL at the initial stage plan the joint layout, considering performance of the slab throughout the life of the floor, and set out the expected number, location and performance of the joints. The performance factors considered include joint width, levelness across joints and the stability of joint edges and joint sealants.

Joints and sealants typically require most attention in any maintenance plan. The edges of construction joints have poor strength against impact and wear. Armoured joint is used to protecting the edges. Or alternately joint filling is done with sealants with right Shore A hardness to supports the joint arris while allowing for movement.

In the early stages, the amount of shrinkage is small, but shrinkage will continue for many months. For this reason, sealing should be left as late in the construction process as possible, and ideally just before building handover.

JOINT SEALANT

Initially for accommodating high movement soft PU based sealants typically with Shore A hardness above 35, Elongation at break > 600% & Recoverability > 80% is used which only provide limited joint arris support. This is considered as temporary sealant protection in traffic movement areas and should be replaced later with a harder sealant that will provide support for the joint arris. After about 8-10 months or a year, the soft sealants which got deboned in due course, is replaced with epoxy based sealants typically have a higher Shore A hardness in the range 80-100.

Please note that any sealant (polysulphide or PU) with shore hardness A in range of 15-25 is not suitable for initial joint filling of an Industrial & warehouse floors which is under traffic movement.

NOTE The bottom surface of the sealant is isolated from the concrete by using closed-cell polyethylene foam (backer rod). This allows the joint movement to occur over the entire width of the sealant. The joint is sealed flush with the concrete surface to eliminate stepping.



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LYTHIC™ CLEANER FOR FLOOR CLEANING



LYTHIC SOLUTIONS™ COLLOIDAL SILICA NANO TECHNOLOGY

Lythic™ cleaner is a non-corrosive cleaner, formulated to remove surface dirt and soil from concrete floor surfaces. It fortifies concrete surfaces with amorphous silica as it cleans to increase durability and maintain surface polish.



OUR CLIENTS

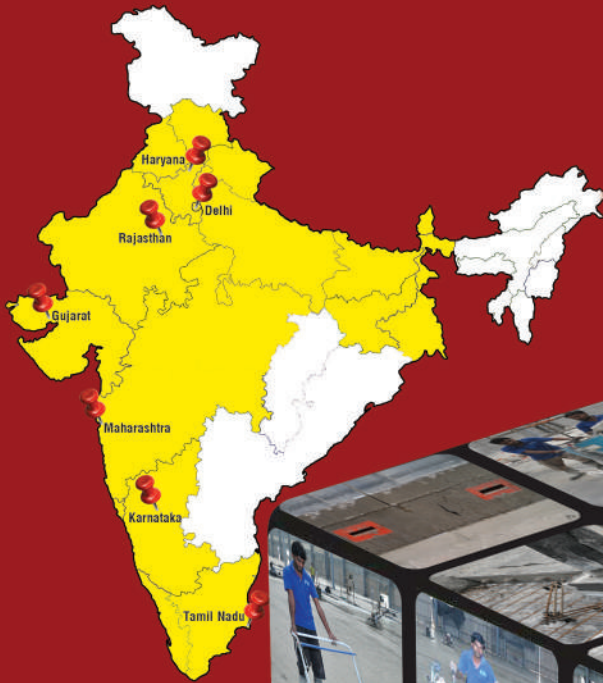


PLACE YOUR
NAME

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OUR PRESENCE



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