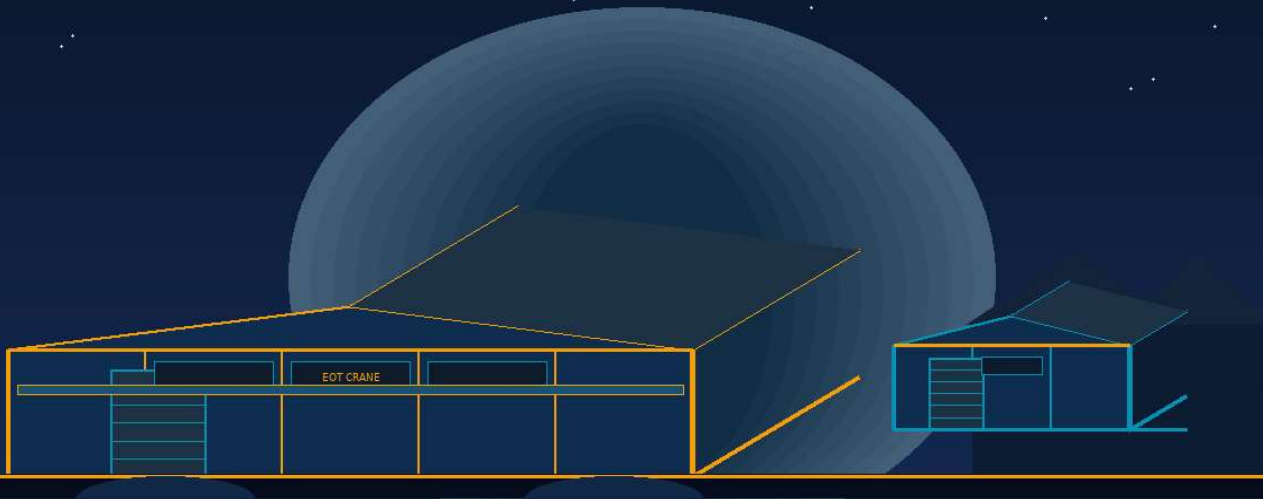




IndustrialPro

Building Programme

HRS portal frames · LGS light industrial · Full range.

From tool room to 50m-span warehouse — 60 days. Guaranteed.

60 days

Structural completion

50m

Max clear span HRS

20T

Crane capacity

IS 800

LSD design throughout

Every beam DesignAI-designed. Every component QR-labelled. In-house fabricated.

HRS for heavy spans.

LGS for light industrial.

MME IndustrialPro

Your shed in 60 days.

Fixed price. Guaranteed.

MME IndustrialPro

Overhead crane ready

from Day 1.

MME IndustrialPro

02

Why SIPCOT Manufacturers Build With MME

Every week a factory shed is delayed,
production output is delayed with it.
On a ₹15 Crore production line,
one week of delay = ₹30-75L lost output.

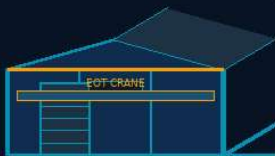
RCC contractors promise 12 months.
They deliver in 18. The line sits idle.
Steel contractors deliver late because
they subcontract fabrication and wait
for external plasma cutters.

MME fabricates in-house at SIPCOT.
DesignAI generates every plasma cut
file. Our own machines run 24 hours.
Structural completion in 60 days.
Not a promise — a contractual guarantee.

60 days Structural completion SLA

₹0 Rework cost — QR traceability

50m Max HRS clear span



DesignAI → 60 days

IN-HOUSE FABRICATION

No subcontracting. MME's Chennai factory plasma-cuts every rafter, column, and connection plate from DesignAI's exact G-code output. No re-programming delay. No dimensional rework.

RCC and other steel contractors all subcontract fabrication — adding 3-6 weeks and $\pm 5\text{mm}$ dimensional tolerance. MME: $\pm 1\text{mm}$ every time.

BOTH HRS AND LGS

MME is the only South India manufacturer offering both Hot Rolled Steel portal frames (12m-50m clear span) and Light Gauge Steel units (up to 12m) from one factory, one BIM model.

Your heavy production shed and your adjacent quality lab or office pod: same system, same designer, same invoice, same timeline.

OVERHEAD CRANE FROM DAY 1

Crane runway beam (305×102×28 UB or heavier) is designed into the portal frame from Day 1. No retrofitting, no strengthening, no additional cost later.

EOT crane up to 20T. Jib crane provision. SWL calculations from DesignAI. IS 807 crane runway design included in every industrial shed over 500m².

SITEIQ QUALITY ASSURANCE

Every weld, every connection, every FC pour in your embedded LGS office or quality lab is monitored by SiteIQ. Photo evidence + SHA-256 hash + timestamp for every structural milestone.

Your bank's technical appraisal team, your insurance surveyor, and your production line commissioning team all see the same verified record.

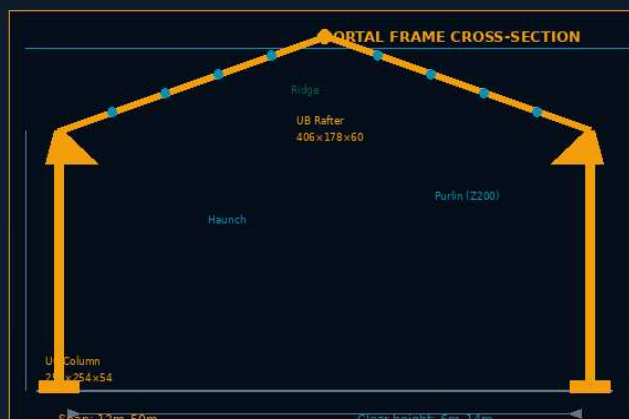
QR TRACEABILITY

Every structural element — every UB column, every joist, every C-stud — carries a QR code from the plasma cutter to its structural position. Scan any element to trace its IS 2062 mill certificate, weld inspection record, and erection date.

For pharma, food, and aerospace-supply manufacturers: this is the compliance audit trail that RCC can never provide.

HRS PORTAL FRAME SYSTEM — TECHNICAL SPECIFICATION

Hot Rolled Steel. IS 800:2007 LSD. 12m to 50m clear span. Up to 20T overhead crane.



Primary sections

406x178x60 UB rafter + 254x254x54 UC column (standard 20m span). Heavier sections for longer spans or crane loads. IS 2062 E350.

Column base plates

300x300x20mm Gr 350. HD bolts M24 x 4 No. Pocket in RC pad footing per IS 800 Annex D.

Knee haunch

200mm depth x 600mm length. Welded plate haunch. Full-penetration weld per IS 816. NDT inspection as required.

Secondary purlins

Z200x65x25x2.5mm HDGI cold-formed. Produced in-house. 1.2m spacing standard. Anti-sag rods at mid-span.

STANDARD SPAN AND SECTION SELECTION GUIDE

Clear Span	Rafter Section	Column Section	Eave Height	Bay Width	Crane (max)	
12-18m	305x127x37 UB	203x203x46 UC	5-8m	6m	5T	d-height.
18-24m	406x178x54 UB	254x254x54 UC	6-10m	6-8m	10T	OT). 406x178x60 UB
24-32m	457x191x67 UB	305x305x75 UC	7-12m	6-8m	15T	
32-40m	533x210x82 UB	356x368x129 UC	8-12m	7-8m	20T	ing in every bay. IS 875
40-50m	610x229x101 UB	356x368x153 UC	10-14m	8m	20T	vich panel option.

Wind design

IS 875 Part 3 Industrial terrain category 2 (open sites) or 3 (suburban industrial). Wind speed per location.

Seismic design

IS 1893 non-critical industrial I=1.0. Ductile detailing at knee joint.

LGS LIGHT INDUSTRIAL SYSTEM — WHEN LIGHT IS RIGHT

G550 HDGI cold-formed steel. Up to 12m span. 4.5m–7.5m eave. Fast. Precise. Expandable.

WHEN TO CHOOSE LGS OVER HRS

Need	LGS	HRS
Clear span	Up to 12m	12m to 50m
Structure weight	Very light ($\pm 18\text{kg/m}^2$)	Medium-heavy ($\pm 35\text{--}60\text{kg/m}^2$)
Overhead crane	No (not recommended $>0.5\text{T}$)	Up to 20T EOT
Speed	Fastest (4–6 weeks shell)	Fast (6–10 weeks shell)
Foundation	Minimal — pad/strip	Larger pads / raft
Thermal insulation	FC600 integrated (standard)	Add-on insulation required
Office pod embedded	Native — same system	Add LGS partition system
Salty/humid environment	G550 Z275 — excellent	Needs additional protection
Cost per sqft (structure)	₹600–850/sqft	₹700–1,100/sqft

LGS LIGHT INDUSTRIAL — SYSTEM SPECIFICATION

Frame type

LGS C140/C200 load-bearing wall studs OR C-section portal (to 12m span). G550 HDGI, Z275 hot-dip galvanised. IS 811 compliant.

Wall system

FC600 foam concrete fill standard. Thermal 0.14 W/mK — no additional insulation needed. 60-min fire rating. IS 2185 Part 4.

Roof system

Z200 purlins at 1.2m centres. 0.5mm TCT Zinalume trimdek or insulated panel. Ridge vent for natural ventilation. IS 875 Pt 3.

Floor

LGS C200 joists + FC1000 screed. Standard for office pods and quality labs. RC slab for heavy plant areas.

Eave height

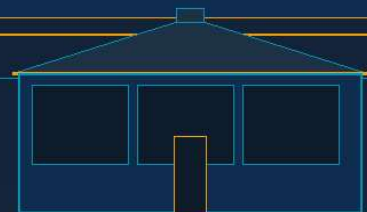
4.5m to 7.5m standard. Custom heights to 9m with HRS knee brace column option.

Applications

Security guard post (400 sqft) • Quality control lab • Tool store • Component store • Worker welfare • Control room • Small assembly

HRS hybrid

LGS office pod + quality room embedded within HRS production shed — same DesignAI model, one coordination drawing, one contractor.



LGS Light Industrial Unit

THE MME INDUSTRIALPRO RANGE

Four typologies. Every industrial need. HRS and LGS from one factory.

IB — 1

LIGHT INDUSTRIAL UNIT

500-2,000 sq ft · LGS system · ₹8-25 Lakhs

LGS load-bearing frame · 4.5-7.5m eave · FC600 walls · Roll-up shutter · Personnel door

The entry-level industrial building for tool stores, component stores, quality control labs, security buildings, control rooms, and small assembly areas. Embedded within or alongside any HRS shed...

IDEAL FOR: Small manufacturers · Tool stores · QC labs · Worker welfare · Guard posts

IB — 2

PRODUCTION SHED

2,000-8,000 sq ft · HRS system · ₹25-90 Lakhs

HRS portal frame · 12-24m span · 5-8m eave · Z200 purlins · Crane provision to 10T

The standard SIPCOT production unit. HRS portal frame at 12-24m clear span. Overhead crane provision from Day 1 (not a retrofit). Mezzanine floor option for office and storage. 60-day structural ...

IDEAL FOR: Auto ancillary · Precision manufacturing · SIPCOT units · Assembly

IB — 3

WAREHOUSE / LOGISTICS

8,000-30,000 sq ft · HRS system · ₹90-300 Lakhs

HRS portal frame · 20-40m span · 7-12m eave · Multiple docks · Sprinkler provision · Mezzanine

The large-format logistics and warehousing shed. HRS portal spans up to 40m clear. Multiple truck docking bays. Fire sprinkler main provision. Dock leveller provision. Mezzanine for picking opera...

IDEAL FOR: 3PL logistics · E-commerce warehousing · Cold storage · Distribution centres

IB — 4

HEAVY INDUSTRIAL SPAN

30,000-80,000 sq ft · HRS system · ₹300L+

HRS heavy section portal · 32-50m span · 10-14m eave · 20T EOT crane · Full industrial fit-out

The heavy engineering and large-format manufacturing shed. 32-50m clear span portal frames — no internal columns interrupting production flow. 20T overhead crane as standard. CNC machine pit prov...

IDEAL FOR: Heavy machinery · Press shops · Fabrication · Automotive assembly

DESIGN GALLERY — ELEVATIONS, PLANS & SECTIONS

Illustrative. DesignAI generates your full structural model with IS-code calculations in 48 hours.

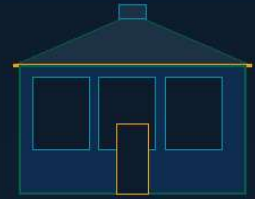
BUILDING ELEVATIONS



IB-3 Warehouse (30m span)



IB-2 Production Shed (20m)



IB-1 LGS Light Unit

FLOOR PLAN EXAMPLES



IB-3 Warehouse (3 docks + racking + mezzanine)



IB-2 Production shed (machines + QC)



IB-1 LGS light industrial

CROSS-SECTION — CRANE BAY DETAIL



RAFTER
406x178x60 UB

HAUNCH
Welded plate, full pen.

RUNWAY
IS 807 design

PURLIN
Z200 in-house

COLUMN
254x254x54 UC

BASE
300x300x20 PL

SYSTEM KEY

■ **HRS COLUMNS**
IS 2062 E350 · IS 800:2007

■ **HRS RAFTERS**
406x178x60 UB standard

■ **Z200 PURLINS**
In-house roll-formed HDGI

■ **LGS WALLS**
FC600 + G550 HDGI studs

DesignAI generates the complete portal frame: section sizes, haunch geometry, purlin layout, crane runway design, foundation specification, and plasma-cut G-code files — in 48 hours.

Upload your plot. Tell us: span, eave height, crane load, bay count, production use.
designai.mme.build · Free consultation · Fixed-price EPC contract issued same week

PARALLEL PRODUCTION

Factory produces all bays simultaneously while site prepares foundations. Components arrive site on Week 3 — no waiting.

COLUMN-FREE SPAN

Up to 50m clear span — no intermediate columns to interrupt production layout, material flow, or crane coverage.

EXPANDABLE

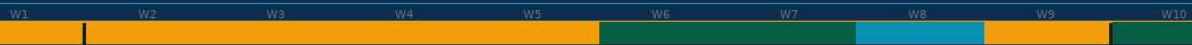
Add bays to either end of an existing HRS shed — frame bolts on with standard splice connection. No demolition. Production continues.

All dimensions and sections subject to DesignAI structural calculation · IS 800:2007 design · SE-stamped certificate with every project

THE BUILD PROCESS — FROM DESIGNAI TO STRUCTURAL COMPLETION

60-day structural completion guarantee. Contractual. Only possible with in-house fabrication.

60-DAY PROGRAMME — IB-2 PRODUCTION SHED (20m x 60m, 10 BAYS)



01

DAYS 1-5

DesignAI Structural Model

Client submits: span, eave height, bay count, crane load, location. DesignAI generates complete IS 800:2007 structural model with all section sizes, haunch geometry, foundation spec, and plasma-cut G-code files in 48 hours. SE reviews and stamps. Fixed-price EPC contract issued.

02

DAYS 5-10

Foundation Preparation

RC M25 pad foundations to DesignAI specification. Hold-down bolts and anchor bolt cage cast in. Foundation cure 7-10 days — runs in parallel with factory fabrication. Foundation is 30-40% smaller than RCC equivalent.

03

DAYS 5-25

In-House Fabrication — All Bays Simultaneously

Chennai factory plasma-cuts all rafter, column, and haunch plates from DesignAI G-code simultaneously. No sequential subcontracting. All QR labels applied at CNC machine. Connection bolts pre-kitted per bay. Bundle-dispatched to site.

04

DAYS 25-42

Frame Erection

MME erection crew bolts up portal frames bay by bay. Crane or telehandler on site. Connection torquing recorded in SiteIQ. Bracing installed. Frame plumbing checked with total station. All events logged with photo + timestamp.

05

DAYS 42-52

Secondary Structure + Cladding

Z200 purlins and Z140 girts fixed. Anti-sag rods installed. Zincalume trimdek roof sheeting. Wall cladding or FC600 LGS wall panels for office/quality areas. Ridge cap and flashings. Building weathertight.

06

DAYS 52-58

Services + Crane Runway

Electrical cable tray and distribution. Crane runway beam + buffer stops (if required). Dock levellers. Louvre ventilation. Gutters and downpipes. LED industrial lighting provision.

07

DAYS 58-60

SiteIQ Inspection + Handover

Automated defect scan. Connection torque re-check. Plumb re-verification. Structural certificate. QR manifest. IS 800 compliance document. 10-year structural warranty. Keys handed over.

08

DAY 61

PRODUCTION STARTS

Your line moves in. Your plant is commissioned. Your output begins. Every day after Day 60 is payback.

Structural completion in 60 days — contractual. Penalty clause if we miss. Only possible: in-house fabrication.

Compare: RCC contractor 14-20 months. Subcontract steel 16-28 weeks. MME: 60 days.

SECTOR-SPECIFIC SOLUTIONS

MME IndustrialPro is specified for four major industrial sectors in South India.

AUTOMOTIVE ANCILLARY

Hyundai · Locom · Renault-Nissan · Kia supply chain

Shed type

IB-2 to IB-3 · 20–40m span · 6–10m eave · IS 800 LSD

Crane provision

5T to 20T EOT overhead crane from Day 1. IS 807 runway design.

Clean areas

LGS FC600 partition walls for inspection bays and clean assembly. FC600 is non-porous — no particle shedding.

Expansion

Phase 2 bays bolt onto existing HRS frame — production line continues during expansion. No demolition.

Timeline

IB-2 (4,000 sqft): 60 days structural. Full internal fit-out: 80 days.

Special

Epoxy floor coating provision. Tool room as LGS light unit embedded. ESD earthing provision.

PHARMA & FOOD PROCESSING

Hyundai · Locom · Renault-Nissan · Kia supply chain

Shed type

IB-2 · 20–30m span · Temperature control provision

Wall specification

FC600 non-absorbent walls — Class A surface, can be wiped and disinfected. No mould substrate. IS 3809 fire rated.

Fire safety

IS 3809 structural fire rating. IS 1641 compartmentation. FA provision per IS 2189.

Cleanroom

LGS ISO-14644 compliant cleanroom pod embedded within main shed. FC board internal finish — no particulate shedding.

Cold storage

Insulated sandwich panel roof and wall option — 80mm PIR panel, $U=0.25$ W/m^2K . For 2–8°C or -18°C storage.

FSSAI/GMP

DesignAI generates FSSAI/cGMP layout compliance documentation. Smooth wall corners standard.

LOGISTICS & WAREHOUSING

Hyundai · Locom · Renault-Nissan · Kia supply chain

Shed type

IB-3 to IB-4 · 30–50m span · 10–14m eave · Multiple docks

Clear span

Up to 50m without intermediate columns — full racking and automation compatibility.

Loading docks

Dock leveller provision (600mm x 2,000mm standard). Dock seals. HRS dock canopy frame.

Fire sprinkler

Main provision and riser installation. IS 15105 (sprinkler) layout from DesignAI. Zoned per bay.

Mezzanine

HRS intermediate mezzanine frame for picking floor. 3.5 kN/m^2 live load standard. Staircase and pallet gate.

Insulation

Insulated panel roof for cold chain and pharma distribution. Standard zincalume for ambient.

HEAVY MANUFACTURING

Hyundai · Locom · Renault-Nissan · Kia supply chain

Shed type

IB-4 · 32–50m span · 10–14m eave · 20T EOT crane

Heavy crane

Crane runway designed to IS 807 for 10T to 20T EOT. Top-running double girder standard for >10T.

Floor loading

Heavy plant provision: 20–50 kN/m^2 slab specification. Pit provision for presses. Anchor bolt layout from DesignAI.

Column-free span

50m clear — no internal columns to interrupt press line, fabrication flow, or crane hook reach.

Utility masts

HRS utility mast frames for electrical busbar, compressed air, and inert gas distribution at production height.

Noise + vibration

LGS FC600 control room within shed: 55dB acoustic separation from production floor.

PRICING GUIDE

EPC rates per sqft. Total project estimates. All prices ex-GST, ex-foundation.

EPC RATE SCHEDULE — HRS AND LGS INDUSTRIAL

Building Type	Structure only ₹/sqft	Structure + Cladding	Full TurnKey ₹/sqft	Notes
LGS light industrial (500-2,000 sqft)	₹600-750	₹850-1,050	₹1,200-1,500	IB-1. FC600 walls. 4-6 week shell.
HRS production shed (12-24m span)	₹700-900	₹950-1,150	₹1,300-1,700	IB-2. Crane provision included.
HRS warehouse (24-40m span)	₹750-1,000	₹1,000-1,250	₹1,400-1,850	IB-3. Multiple docks. Mezzanine option.
HRS heavy span (40-50m)	₹950-1,200	₹1,200-1,500	₹1,700-2,200	IB-4. 20T crane. Heavy floor loading.
Insulated sandwich panel (add to HRS)	—	₹150-250/sqft	₹150-250/sqft	Cold storage. PIR 80mm. U=0.25.
LGS office pod (embedded in HRS)	₹850-950	₹1,050-1,200	₹1,400-1,600	FC600 walls. IS 3809 fire rated.
LGS cleanroom (embedded)	₹1,200-1,500	₹1,500-1,800	₹2,000-2,800	ISO 14644 provision. FC board.

TOTAL PROJECT ESTIMATES — WHAT SIPCOT UNITS ACTUALLY BUILD

Project	Cost	Timeline	Notes
IB-1 LGS Unit (1,200 sqft)	₹14-22L	6 weeks	Tool store / QC lab / office pod. TurnKey.
IB-2 Production shed (6,000 sqft)	₹50-80L	8 weeks	20m x 30m. 10T crane. TurnKey.
IB-3 Warehouse (20,000 sqft)	₹150-240L	10 weeks	40m x 50m. 3 docks. Mezzanine. TurnKey.
IB-4 Heavy span (50,000 sqft)	₹400-600L	14 weeks	50m x 100m. 20T crane. Full fit-out.
IB-2 + embedded LGS office	₹65-100L	10 weeks	6,000 sqft shed + 800 sqft office. Combined.
IB-3 cold storage (insulated)	₹200-320L	12 weeks	20,000 sqft. Insulated panel. -18°C provision.

EOT CRANE ADD-ON PRICING

5T EOT

₹8-12L

305x102x28 UB runway beam

10T EOT

₹14-20L

406x140x39 UB runway beam

15T EOT

₹22-32L

457x152x52 UB runway beam

20T EOT

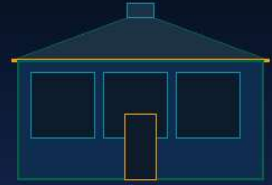
₹35-50L

533x165x66 UB runway beam

Prices include runway beam + brackets + buffer stops. Crane supplied separately by client-nominated vendor. IS 807 design included.

EVERY MME INDUSTRIALPRO PROJECT INCLUDES:

- ✓ DesignAI: complete IS 800:2007 structural model, plasma-cut G-code files, foundation spec in 48 hours
- ✓ Fixed-price EPC contract — price agreed Day 1, 60-day structural completion guaranteed
- ✓ SE-stamped structural calculations (IS 800, 875, 1893, 807) + IS 2062 mill certificates
- ✓ SiteIQ construction monitoring: connection torque records, erection photos, SHA-256 event log
- ✓ QR traceability on every structural element from plasma cutter to structural position
- ✓ 10-year structural warranty · Digital handover pack · As-built drawing record



60 days. Your shed. Guaranteed.

Start with a free DesignAI structural model.

CALL US

+ 91 [CEO mobile]

Gangaivendan Padmanabhan
Co-Founder & CEO

EMAIL US

industrial@mme.build

For shed quotations,
site visits and DesignAI demos

DESIGN ONLINE

designai.mme.build

Upload your plot + requirements
Get full structural model in 48 hrs

VISIT OUR FACTORY — THE PROOF IS THE BUILDING

MME's own factory at SIPCOT Sriperumbudur is built with the IndustrialPro system.
Every SIPCOT manufacturer within 500m of our gate can inspect a live HRS portal frame building.



*We needed a 30m × 60m production shed with a 10T crane in 8 weeks.
MME completed structural erection in 58 days. The crane was running by Day 75.*

— Plant Manager, Auto ancillary manufacturer, SIPCOT Sriperumbudur, 2025

60 days

structural completion

50m

max clear span

20T

crane capacity

IS 800

LSD throughout

IB-1 LIGHT UNIT

₹8-25L

EPC per project

IB-2 PRODUCTION

₹25-90L

EPC per project

IB-3 WAREHOUSE

₹90-300L

EPC per project

IB-4 HEAVY SPAN

₹300L+

EPC per project

FIXED PRICE • 60-DAY GUARANTEE • 10-YEAR WARRANTY • IS 800:2007 • QR TRACED • IN-HOUSE FABRICATED

SIPCOT SRIPERUMBUDUR — WE ARE YOUR NEIGHBOUR

MME's manufacturing facility is within SIPCOT Sriperumbudur — the same industrial zone as your plot.
Factory tour available. Live HRS portal frame visible. No sales office visit — come see the product.

MME INDUSTRIALPRO • METAL MATRIX ENGINEERING PVT. LTD.

SIPCOT Sriperumbudur, Chennai, Tamil Nadu • industrial@mme.build • designai.mme.build

IS 800:2007 • IS 875 Part 3 • IS 1893 • IS 2062 E350 • IS 807 (crane) • G550 HDGI LGS

Prices ex-GST, ex-foundation • Site-specific conditions apply • Content correct at time of print