



Spacechem Group India

ISO 9001:2008

ISO 14001:2004 | OHSAS 18001:2007

Head Office: C-120, Bulandshahr Road Industrial Area, Ghaziabad – 201009, INDIA

Email: garg@spacechemgroup.com

www.spacechemgroup.com

Contact Person:

Mr. Krishan Avatar Garg (MD, 98101 35304)

Mr. Priyam Garg (Director, 9810175304)

Company Presentation: Steel Bridge Fabrication

Contents

- ❖ Introduction and about Spacechem Enterprises
- ❖ RDSO Registration
- ❖ Quality Accreditation & QA/QC Processes
- ❖ Manufacturing Process adopted for various Projects
- ❖ Some of our recent accolades




About Spacechem Enterprises

Introduction and about Spacechem Enterprises

- ❖ Established in 1987
- ❖ We are a RDSO approved workshop based in Ghaziabad, U.P.
- ❖ Leading player in Bridge Fabrication, Customized Equipment
- ❖ Our infrastructure is spread over 4 full fledged manufacturing plants
- ❖ Equipped with world class heavy machinery with automated plant for plate fabricated beams, boxes, girders
- ❖ Monthly fabrication capacity of over 2,500 MT

RDSO Registration

Registration No:
CBS/G/Reg/Spacechem
Dated 01.05.2017


सत्यमेव जयते

Srijan Tripathi
सृजन त्रिपाठी
Director/B&S/SB-I
निदेशक/पुल एवं संरचना/इ0पु0 1

भारत सरकार - रेल मंत्रालय
अनुसंधान अभिकल्प और मानक संगठन
लखनऊ - 226011
Government of India-Ministry of Railways
Research Designs & Standards Organisation
Lucknow- 226011
Phone / Fax : 0522-2465703
email : dbssb1rdsso@gmail.com

No : CBS/G/Reg/Spacechem
Date: -05-2017

M/s Spacechem Enterprises,
C-120 Bulandshahar Road,
Industrial Area, Ghaziabad-201009(U.P.).

Sub: Continuation in the approved list of RDSO for fabrication and supply of Steel Bridge Girders with works in Industrial Area, Ghaziabad.
Ref.: RDSO's Renewal Letter No. CBS/G/Reg/Spacechem dated 26-09-2014.


1. As per the changes in ISO procedures, Periodicity of Quality Audit is to be 5 year from date of last quality audit for all RDSO Controlled item. Henceforth, next date of quality audit for all RDSO controlled items shall be only after 5 years from date of registration/last quality Audit, irrespective of whatever date of next audit has been communicated to the firm earlier. Accordingly, your registration in the approved list of RDSO for fabrication & supply of Steel Bridge Girders, with works in Industrial Area, Ghaziabad, is continuing. The scheduled Quality Audit is now to be conducted during last three months of the 5 years period i.e. July -Sept., 2019.

2. Any change in the address of your office or manufacturing units shall be brought to the notice of Director General/B&S, RDSO, Lucknow. You are liable to be dropped from the approved list if your product is found unsatisfactory at any stage of fabrication and inspection or on any other violation as mentioned in Para 4.5, 4.6 & 4.8 of "Guidelines for Registration and Quality Audit of Vendors in Bridge & Structure Directorate", available on RDSO Website-<http://www.rdsso.indianrailways.gov.in>.

3. The further continuation in the approved list of RDSO will be subject to Scheduled Quality Audit which generally will be conducted during last three months of the 5 years period. However, if special condition warrants, Quality Audit may be conducted earlier also.


4. It is the responsibility of the firm to facilitate the RDSO Team for conducting Quality Audit as & when required.

Please acknowledge receipt of the letter.


(Srijan Tripathi)
Director/ B&S/SB-I
For Director General/B&S

Copy forwarded for information and necessary action to:

I. Chief Bridge Engineer:
1. Central Railway, Mumbai CST-400 001.
2. Eastern Railway, Fairlie Place, Kolkata-700 001.



RDSO Registration Part –A

Registration No:

CBS/G/Reg/Spacechem

Dated 18.12.2019

AND

CBS/G/Reg/Spacechem

Dated 18.12.2019



Ph. Rly. 42122 (O)
Telefax: 0522-2459920 (O)
Email: dsb2rdsso@gmail.com

भारत सरकार-रेल मंत्रालय
अनुसंधान अभिकल्प और मानक संगठन
लखनऊ- 226011
Government of India - Ministry of Railways
Research Designs & Standards Organisations
Manak Nagar, Lucknow-226011



BY SPEED POST

No. CBS/G/Reg./Space Chem

Dated 19-12-2019

Space Chem Engineers Private Limited,
BN-69-75, Phase-3,
UPDIDC Industrial Area,
Masuri-Gulawathi Road,
Ghaziabad-201302.

Sub: Continuation of firms name in the RDSO approved list of Vendors for fabrication of Open Web, Composite and other Steel Plate Girders Part 'A'.

Ref: Your firm's letter dated 22-11-2019.

Based on the compliance received vide reference above, it has been approved by the competent authority that firm's name has now continued in the RDSO approved list of Vendors for fabrication & supply of steel bridge Girder Part 'A'.

The other conditions given in Vendor Registration have no change.

Pradeep
19/12/19
(Pradeep Kumar)
Joint Director/B&S



Ph. Rly. 42122 (O)
Telefax: 0522-2459920 (O)
Email: dsb2rdsso@gmail.com

भारत सरकार-रेल मंत्रालय
अनुसंधान अभिकल्प और मानक संगठन
लखनऊ- 226011
Government of India - Ministry of Railways
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Manak Nagar, Lucknow-226011



BY SPEED POST

No. CBS/G/Reg./Space Chem

Dated 19-12-2019

Space Chem Enterprises,
C-120, Bulandshahar Road,
Industrial Area, Ghaziabad-201009. (UP)

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Pradeep
19/12/19
(Pradeep Kumar)
Joint Director/B&S

DMRC Approval Letter



दूरभाष Tel : 23417910/12
फैक्स Fax : 23417921

दिल्ली मेट्रो रेल कॉर्पोरेशन लि०
DELHI METRO RAIL CORPORATION LTD.

(भारत सरकार एवं दिल्ली सरकार का संयुक्त उपक्रम)
(A JOINT VENTURE OF GOVERNMENT OF INDIA AND GOVT. OF DELHI)

No. DMRC/Corp/20/Design/001/99/Vol. X

December 5, 2013

Managing Director
Spacechem Enterprises
C-20, Bulandshahar Road Industrial Area,
Ghaziabad – 201 009

Kind Attn:- Mr. Krishna Avtar Garg

Sub:- Approval to Spacechem Enterprises for fabrication and erection of steel bridges for Delhi Metro Rail Projects.

Ref:- Your letter no. SE/2013-14/DMRC/568 dated 21.11.2013

Dear Sir,

This has reference to your request regarding the subject mentioned above and the technical documents/credentials submitted by you to this office for approval for Supply, Transport, Fabrication and Erection of Steel Structure for Bridges" to L&T Ltd., Delhi for our CC-28 Project.

In view of above, we would like to inform you that we have 'no objection' in case M/s Spacechem Enterprises Supply, Transport, Fabrication and Erection of Steel Structure for Bridges to L&T for Delhi Metro Rail Phase-III Project (Contract CC-28) or any other project in Delhi Metro.

We have already communicated our no objection to our concerned site office. You are requested to approach to our contractor/s at site, depending upon the requirements, for providing your services in DMRC project since DMRC is not directly receiving the services from vendors.

In any case, the quality of your product/s should meet the required strength and other DMRC specifications/technical requirements.

However, the Corporation wholly reserves the rights to revoke/suspend the enlistment on the basis of review any time during the enlistment period. Please note that this approval has been accorded on the

(मेट्रो भवन, फायर ब्रिगेड लेन, बाराखम्बा रोड, नई दिल्ली-110001)

Metro Bhawan, Fire Brigade Lane, Barakhamba Road, New Delhi-110001

condition of maintaining of quality intact. In case of any negative feedback and deterioration in quality, this approval will stand cancelled automatically. Mandatory checks/inspections will also be carried out as and when required so as to satisfy the site about the quality and the performance.

The above authorization, however, does not bind the Corporation in anyway for use of your product in the works.

Yours sincerely,

(Rajan Kataria)
Chief General Manager (Design)

Quality Accreditation

- ISO 9001:2008 - Quality Management System
- ISO 14001:2004 - Environmental Management System
- OHSAS 18001:2007 - Occupational Health Safety Management System



QA – QC Process

NDT – Inhouse

Chemical & Mechanical
Testing – Outsourced from
NABL approved LABs





Manufacturing
Process adopted
at our plant....

Manufacturing Process
adopted at our plant

Material Inspection

a) At Steel Plant

b) At Material Yard

c) In our Workshop



Step 1. CNC Plate / Profile Cutting Machine

Manufacturing
Process adopted
at our plant

CNC Profile Cutting – 50 MT per day



Manufacturing
Process adopted
at our plant

Step 2. CNC Plate Drill Machine for Splice plates



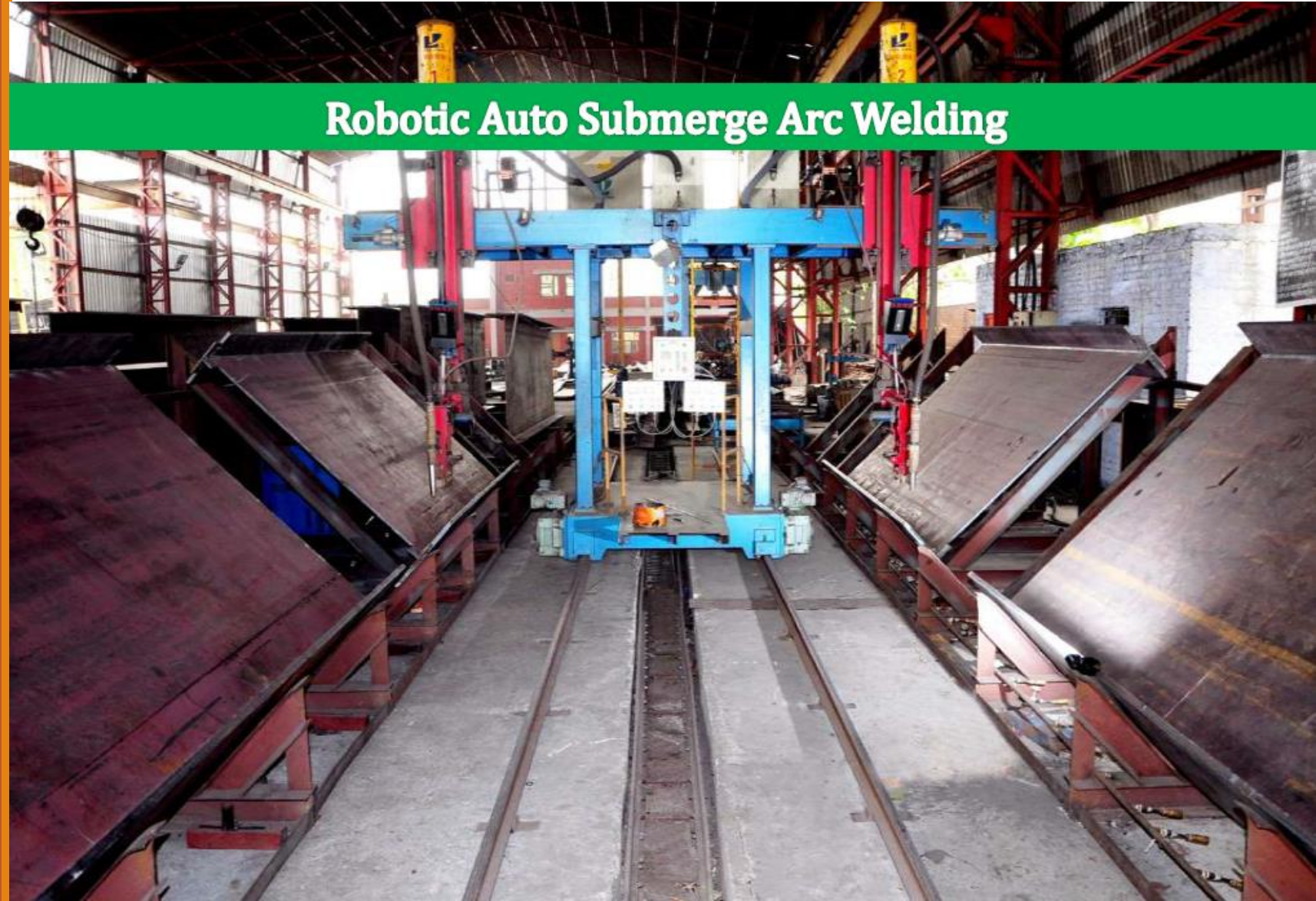
Manufacturing
Process adopted
at our plant

Step 3. Beam Assembly Machine



Manufacturing
Process adopted
at our plant

Step 4. Beam Welding Machine



Robotic Auto Submerge Arc Welding

Step 5. Beam Straightening Machine

Manufacturing
Process adopted
at our plant



Manufacturing
Process adopted at
our plant

Step 6: Auto Box-Welding Machine used for Box girders

Auto Box-Welding Machine



Manufacturing
Process adopted at
our plant

Step 7. CNC 3-Axis Beam Drilling Machine



Manufacturing
Process adopted at
our plant

**Step 8: Trial Assembly of Extra Large Bridges
(82m span – 1200 MT bridge for L&T – Hyderabad Metro)**
**We have space to assemble up to 150m long bridge
inside our factory premises**



Step 8: Trial Assembly Inside our Shop
(60m – 335 MT Bow String bridge for L&T – DMRC)
We have space to assemble up to 80m long bridge
inside our fabrication shop

Manufacturing
Process adopted at
our plant



Manufacturing
Process adopted at
our plant

Step 8: Trial Assembly Inside our Shop
(62m – 450 MT OWG L&T – DMRC at Mayapuri)
We have space to assemble up to 80m long bridge
inside our fabrication shop



Manufacturing
Process adopted at
our plant

Step 8: Trial Assembly
(This is 62m x 27m wide assembly for ROB)
We have space to assemble up to 80m long bridge
inside our fabrication shop



Manufacturing
Process adopted at
our plant

Step 9: Surface Preparation, Metalizing and Painting



Plant & Machinery

- ❖ 4 full fledged manufacturing plants located on National Highway No. 24
- ❖ Over 50,000 sq.m. of Industrial sheds and yards
- ❖ Material Lifting Capacity using EOT Cranes: 50 MT (2 Nos), 25 MT (5 Nos), 10 MT (5 Nos), Hydra – 4 Nos.

Unit-I	E-81, Industrial Area, Bulandshahar Road, Ghaziabad-201009 (UP) India
Unit-II	C-120, Industrial Area, Bulandshahar Road, Ghaziabad-201009 (UP) India
Unit -III	B-51-53, UPSIDC Industrial Area (Phase-I), M.G. Road, Ghaziabad – 201302
Unit -IV	B-69-85, UPSIDC Industrial Area (Phase-III), M.G. Road, Ghaziabad – 201302

UNIT 2:

C-120, B.S. Road,
Industrial Area,
Ghaziabad

Facilities -

Area: 5000 m²

Gantry Crane – 5 MT= 1 (6m), 10
MT

EOT Cranes: 15MT= 1 (9m),
25MT= 1 (9m), 40MT= 1 (9m)

Plant & Machinery –

CNC Plate Cutting M/c

I Beam Assembly M/c

Robotic Welding M/c

I Beam Straightening M/c

Plate Bending M/c

Paint Shop

Other Facilities –

Design Department, Planning
Department, Accounts Department



UNIT 3:

B-52, UPSIDC Phase
1, MG Road, Dasna,
Ghaziabad

Facilities -

Area: 8000 m^2

Gantry Crane – 10 MT

EOT Cranes: 25MT= 2 Nos, 50MT
= 1 Nos.

Plant & Machinery –

Plate Bending Machine

SAW & MIG Welding Workshop

Covered Assembly Area

Paint Shop

Company Guest House



UNIT 4:

BN-69, UPSIDC Phase
3, MG Road, Dasna,
Ghaziabad

Facilities -

Area: 34,000 m^2

Gantry Crane – 15 MT

EOT Cranes: 50 MT= 1
Nos, 15 MT = 4 Nos, 10
MT = 1 Nos

Plant & Machinery –

I Beam Assembly Line

CNC Plate Cutting Machine

CNC Plate Drilling Machine

CNC 3-Axis Beam Drilling Machine

Robotic Box Welding Machine

Milling Machine

SAW & SMAW Welding Workshop

Covered and Open Assembly Area

Paint Shop

<u>Sr. No.</u>	<u>Description</u>	<u>Make</u>	<u>Model & Year of manufacture</u>	<u>Capacity</u>	<u>Condition</u>	<u>Nos. proposed to be deployed</u>
	<u>I/H/Box: Beam Assembly</u>					
1	CNC PROFILE CUTTING MACHINE	WUXI	2014	50MT/Day(01)	Good	02 No.
2	ASSEMBLY MACHINE	WUXI	2014	HEIGHT 300mm to 2000mm	Good	02 No.
3	DOUBLE CANTILEVER SAW MACHINE	WUXI	2014	50MT/Day(01)	Good	02 No.
4	FLANGE STRAIGHTENING MACHINE	WUXI	2014	THICKNESS 80mm	Good	02 No.
5	BOX WELDING MACHINE	WUXI	2014	250mm to 1200mm	Good	01 No.
6	FACE MILLING MACHINE	WUXI	2014	50MT/Day	Good	01 No.
7	CNC 3 axis drilling Machine	FIN CNC	2014	2500 mm x 16000mm	Good	01 No.
8	CNC PLATE DRILLING MACHINE	FIN CNC	2014		Good	01 No.
	<u>WELDING SETS</u>					
9	SAW WELDING MACHINE		Various	1200 AMPS	Good	04 No.
10	WELDING RECTIFIER	RILAND/ADVANI	Various	400 AMPS.	Good	20 No.
11	MIG WELDING SET	TECHNO WELD	Various	400 AMPS.	Good	10 No.
	<u>OTHERS</u>					
12	RADIAL DRILL MACHINE	HMT	Various	50mm Dia.	Good	02 No.
		HMT/PARMAR	Various	32mm Dia.	Good	02 No.
13	ROLLING MACHINE		2002	40mm 01 No.	Good	01 No.
14	STUD WELDING MACHINE		Various	UP TO 40 DIA.	Good	04 No.
15	COMPRESSOR	AVAST	Various		Good	03 No.
16	MOTHER OVEN		Various		Good	04 No.
17	PORTABLE OVEN		Various		Good	08 No.
18	HAND GRINDER	BOSCH	2011-12	9"/7"/5"	Good	20 No.
19	SAND BLASTING EQUIPMENT	SE	2010	MANUAL	Good	01 No.

20	SPRAY GUN PAINTING	SE	2010	MANUAL	Good	01 No.
21	PUG MACHINE	BOSCH	2008-12	SEMI AUTO	Good	04 No.
23	DIESEL GENERATOR	Various		400 KVA Backup	Good	03 No.
25	MAGNETIC DRILL MACHINE				Good	01 No.
MATERIAL HANDLING FACILITY:						
27	MATERIAL HANDLING OVER HEAD	SE	Various	50.0 MT (10.0 M Lift)	Good	02 No.
	CRANES	SE	Various	10.0 MT	Good	05 No.
		SE	Various	25.0 MT	Good	05 No.



Finally,
some of
our recent
accolades...

2x87m span Open-Web ROB at Agra-Lucknow Expressway for Afcons Infrastructure - UPEIDA

27 June 2017: Agra – Lucknow Expressway was executed as a Top Priority project under the government of Shri. Akhilesh Yadav. The project is now completed and open for traffic.

Spacechem Group is proud to be associated with this project. We have supplied and erected 2 numbers of 87m span Open-Web Through-Type-Truss Bridges at Badhan on this Agra-Lucknow Expressway. The project was awarded to Spacechem by Afcons Infrastructure - UPEIDA and the project value was Rs. 29.87 Crore for supply and Rs. 3.32 Crore for Erection & Launching. Each span weighs 1625 MT.

CLIENTS

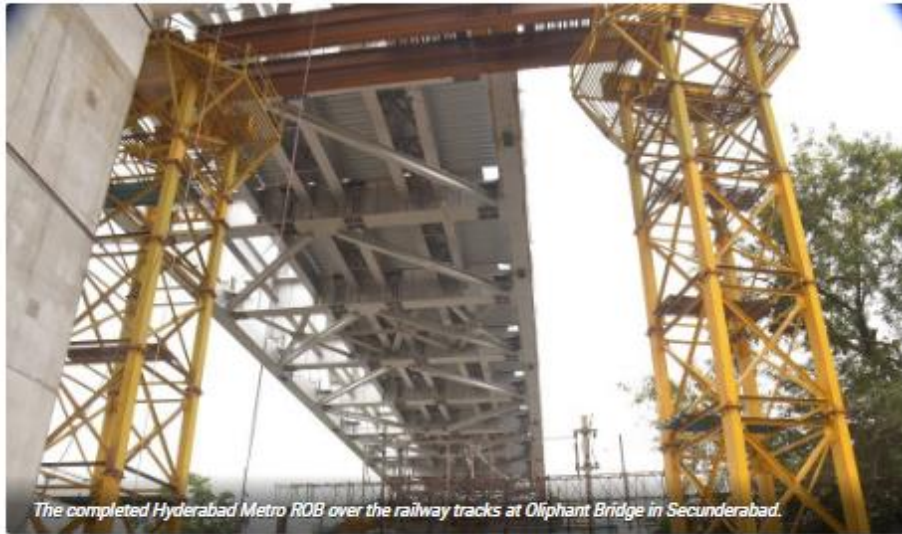


Hyderabad Metro ROB placed at Oliphant Bridge

Manufactured in Ghaziabad, the steel bridge was dismantled and brought to Secunderabad in containers and reassembled.



By TelanganaToday | Published: 19th Aug 2017 7:53 pm



Hyderabad: The Hyderabad Metro Rail Limited on Saturday successfully placed a mammoth steel bridge over the railway tracks at Oliphant Bridge in Secunderabad.

Two tall Metro pillars with a length of 272 feet accommodated the massive steel box girder Metro bridge structure on their pier caps. Manufactured in Ghaziabad, the steel bridge was dismantled and brought to Secunderabad in containers and reassembled at a one acre property leased from the Railways near Secunderabad station.



NCR Railways: India's 1st 76m Fully welded Bow String Girder

Customer: North Central Railways (NCR)

Scope of Work: Fabrication and Erection of 2x76m Span Bow String Girders
 Fabrication and Erection of 2x46m Span Bow String Girders
 Sub-structure work including open well foundation, Well Cap, Piers and Pier Cap, Deck Slab etc.



Steel Truss Bridge at Rajouri Garden for L&T Construction – DMRC

22 June 2017: Delhi Metro began trial run on the upcoming Pink Line (Shiv Vihar – Majlis Park). We are very proud to inform that Spacechem Group has manufactured and erected a Steel Truss Bridge in Rajouri Garden which is in use on this metro route.

The project was awarded to Spacechem by L&T Construction - DMRC and the project value was Rs. 2.96 Crore. The bridge is a fully bolted structure having span of 60m and weights 335 MT. Scope of work included Steel Fabrication, Assembly & Launching.





Spacechem Group India

ISO 9001:2008

ISO 14001:2004 | OHSAS 18001:2007



80m - Bow String Bridge for Delhi Meerut Expressway at 0+000 Km.

14 April 2018, Delhi : We have recently completed the construction of 80m - Bow String Bridge for Delhi Meerut Expressway near Sarai Kale Khan. This impressive looking structure has been erected in slope with one end of the bridge higher than the other by over 3m.

Client: National Highway Authority of India (NHAI)
Scope of Work: Fabrication, supply and erection of 80m span Bow String Girder
Weight of Bridge: 700 MT



**Agencies
Involved:**



GAWAR
CONSTRUCTION LIMITED



R.K. Infra

Steel Truss Bridge at Mayapuri for L&T Construction – DMRC

23 June 2017: The Delhi Metro Rail Corporation (DMRC) started the trial run on the 6.5 km stretch between Shakarpur and Mayapuri elevated section of the upcoming 59 km-long Majlis Park-Shiv Vihar corridor. We are very proud to inform that Spacechem Group has manufactured and erected a Steel Truss Bridge in Mayapuri which is in use on this metro route.

The project was awarded to Spacechem by L&T Construction - DMRC. The bridge is a fully bolted structure having span of 66m and weights 325 MT. Scope of work included Steel Fabrication, Assembly & Launching.





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3x30.5m Span (Through-type) Steel Girder for Northern Railways

05 May 2018, Khatoli (UP): We have recently completed the supply and erection of Bridge No. 154 at km 102/14-15 located in Khatoli, UP. The scope of work includes supply, fabrication and erection of 3x30.5m span Open Web Steel Girder as per RDSO drawings.

The launching and erection of this project was very typical as our erection team had to fabricate a nose for this job and pull the consolidated structure of 96m using mechanical winches over a canal.



NHAI Project: Jaipur Ring Road Project

Customer: Gawar Construction Limited

Agency Involved: West Central Railway (WCR) & National Highway Authority of India (NHAI)

Scope of Work: Design, Fabrication and Erection of 2x102m Span and 2x45m Span Bow String Girder over running Railway Line



DFCC Project: Fabrication & Erection of Open Web Girders

Customer: Tata Projects Limited

Agency Involved: DFCC, NR, NCR

Scope of Work: Fabrication and Erection of 7x61m Span Yamuna River
 Fabrication and Erection of 6x45.7m Span Markanda River
 Erection of 2x84m Span, 2x67m Span, 2x54m Span at Etawah





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Bhandari Bridge, Amritsar

07 May 2018, Amritsar: We have recently completed the construction of Road-over-Bridge with superstructure 1x51.629m (semi-through type) composite steel girder and substructure with pile foundations at Bhandari Bridge ROB No. 156 at Km. 510/33-34 on Jalandhar – Amritsar section. The erection and launching of this project was very typical as it involved deployment of 800MT, 500MT and 400MT cranes to launch the girders each weighing over 210 MT.

Client: Northern Railways

Scope of Work: Substructure: Piling, Pile cap, Pier, Pier Cap; Superstructure: Fabrication, metalizing, painting, shear connectors, erection and launching; followed by deck slab and road work.

Weight of Bridge: 600 MT



Doubling of Katni – Singrauli Project

Customer: IRCON International Ltd.

Agency Involved: WCR, ECR

Scope of Work: Fabrication and Supply of RDSO Composite Plate Girders
1x30.5m, 5x24.4m, 61x18.3m, 46x12.3m Span



Thank you