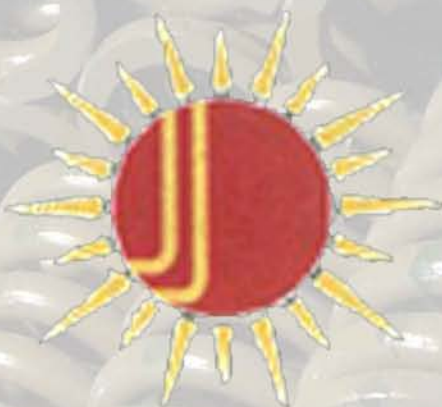


Associate Company : JJ Spring Manufacturing Pvt. Ltd.



J.J. Spring Manufacturing Private Limited, an ISO 9001:2008 company, was established in 1996 and is a quality manufacturer of helical hot coiled springs. It is an approved and audited vendor of the Indian Railways and has a history of supplying quality hot coiled springs to them.

The company uses modern yet cost effective methods to maximize production, efficiency and quality. The annual production is 2400 MT at full capacity. They are able to produce springs within the following specification :

Parameter	Minimum	Maximum
Inner Diameter of Finished Spring	32 mm	200 mm
Length/Height of Finished Spring	100 mm	450 mm
Diameter of Rod used to Produce Spring	7 mm	50mm

MANUFACTURING OVERVIEW



Above : Peeling & Straightening Yard.

Below : Centerless Grinding Machines





Worker inserting steel rods for coiling into a First-In-First-Out Walking Beam Furnace





Coiling of heated bars into Helical Springs





Sealing of open ends after coiling

Tempering after quenching





Pressure testing and
scragging of all
finished products



QUALITY SYSTEMS OVERVIEW



Magnetic Crack Detection
(wet method) for finished
springs



Spectrometer for raw
material testing

M/s J.J. SPRING MFG.(P) LTD.
BALITIKURI , HOWRAH.

HIGH SPEED BOGIE SPRING
 Drg. No. WD-92058-5/5 ITEM -1,2 & 3

SPRING STIFFNESS K.G/mm.

	LOAD OF 30%.	LOAD OF 70%.	STIFFNESS (K.G/mm)
(1) OUTER	- 918 K.G. (900 N.)	2144 K.G. (2102 N.)	26.24 - 29.0
(2) INNER	- 636 K.G. (623 N.)	1484 K.G. (1455 N.)	33.48 - 35.83
(3) SHNUBBER	- 713 K.G. (699 N.)	1665 K.G. (1632 N.)	19.19 - 20.46

LOAD TEST

	TEST						
	FR. HT.	0.5 TON.	1.0 TON.	1.5 TON.	2.0 TON.	2.5 TON.	LOAD
(1) OUTER	- 260±3	242	224	206	-	170	2667 Kg. 163.5
(2) INNER	- 243±3	-	214	-	185	-	2126 Kg. 181.8
(3) SHNUBBER	- 293±3	268	243	217	192	-	2379 Kg. 172.8

General guidelines for Quality Management

Stress Testing
 &
 Load Testing
 using
 Universal Testing
 Machine





Finished goods waiting for dispatch





www.iqcglobal.com

JAS-ANZ



www.jas-anz.org/register

Certificate of Compliance

INTEGRATED QUALITY CERTIFICATION PVT. LTD.

Hereby Certifies that the Quality Management System of

J.J. Spring Manufacturing Pvt. Ltd.

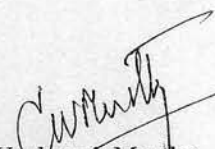
J - 45, Howrah Industrial Estate, Baltikuri,
Howrah - 711 113, West Bengal, INDIA.

has been assessed and conforms to the
quality management system standard

ISO 9001 : 2008

Scope: Manufacture of Alloy and Spring Steel Helical Coil Springs,
9.5-50mm diameter for Indian Railways & other Engineering Industries

ANZSIC Code : 27/2762
Exclusion(s) : 7.3
Certificate Number : QMS/JAS-C1936/0266
Last Issue date : None
Issue date : 13.12.2010
Expiry date : 12.12.2013
Attachment(s) : None


C.S. Venkatesh Murthy
Executive Director

This certificate is valid subject to periodic surveillance audits of the quality management systems within the above defined scope as per the agreed contract terms and conditions. The organisation shall provide written notification to Integrated Quality Certification Pvt. Ltd. of any significant changes which have impact on the scope of this certificate of compliance.

To check the validity of this certificate please contact:
Platinum City, G/13/03, Site # 02, Next to CMTI, HMT Road,
Yeshwanthpur Post, Bangalore - 560 022, INDIA.
Tel : +91(80) 41172752, 41277353 Fax : +91(80) 41280347
Email : iqccorporate@iqcglobal.com Website : www.iqcglobal.com

GOVERNMENT OF INDIA
MINISTRY OF RAILWAYS

RESEARCH DESIGNS & STANDARDS ORGANISATION
MANAK NAGAR LUCKNOW - 226011

QM-F-7.1-4

It has been decided to place

Factory Address:	Office Address:
M/s J J Spring Manufacturing (P) Ltd., Shed No J-45, Howrah Industrial Estate, Baltikuri, Howrah-711113	M/s J J Spring Manufacturing (P) Ltd., 43/3, Hazra Road, 1st & 11nd Floor, Kolkata-700019

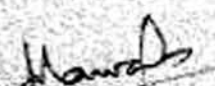
on the list of approved vendors for the items listed below for supply to primary manufacturers and various railway units:

For manufacture and supply of:

S.N.	Item	Drg./Specs.	Status of Registration i.e. Part-I or Part-II
1.	Suspension coil springs to material Gr.60Si7 for freight stock.	Spec. No. WD-01-HLS-1994 Rev. 3 of Jan' 09; Material - IS: 3195	Part-II
2.	Suspension coil springs to material Gr.52Cr4 Mo2V (Snubber & Side Bearer) for freight stock	Spec. No. WD-01-HLS-1994 Rev. 3 of Jan' 09; Material - IS: 3195	Part-II

Total Two (02) Items Only.

Vendor Code no. 395
Registration No. QAM/Regn/JJ Spg/JC-468
Date of issue: 03.01.2013
This registration shall be valid till - 31.03.2016


(S.K. Bhowal)
Director (I&L)
For Director General/RDSO

Distribution:

Director / Dy Director, I&L, RDSO

- 3, Kollaghat street Kolkata - 700001
- New Annexe building first floor, Western Railway, Church Gate, Mumbai - 400 020.
- IRCOT Building, Behind Shankar Market, Shivalji Bridge, New Delhi - 110 002.

Please note

1. All future changes in equipment, facilities & establishment at your works should be promptly communicated to the zonal in charge.
2. Notwithstanding what has been stated above, this office reserves the right to cancel your registration or to delete any components from the approved list at any time without notice & without assigning any reason therefor.
3. Inspection Authority is Director (I&L), RDSO, Kolkata.

CERTIFICATE OF APPROVAL