



Access To **YOUR** Success



STAR WIRE (INDIA) LIMITED

DIAGNOSTIC CENTRE



NABL LABORATORY

WITH

A VISION OF FUTURISTIC TECHNOLOGY



INTRODUCTION

Star Wire Diagnostic Center (SWDC) is about 37 kms from Delhi, located on Mathura Road (NH-2) Ballabgarh, District Faridabad (Haryana). The city is near Faridabad town & easily accessible by Rail, Bus and Air.

SWDC is a part of **Star Wire (India) Ltd.** (ISO -9000, TS 16949 & ISO 14000 company) which is one of the reputed mini steel plant in India, engaged in the manufacturing of special alloy steels, stainless steels for diversified engineering applications in shape of casting, forging and rolled products, headed by **Dr. S.K. Goel** Doctorate in Metallurgy (**IIT Roorkee**). **SWDC** is an advanced testing laboratory offering diversified testing facilities through qualified professionals of high caliber and highly sophisticated modern equipments. The laboratory is known for its economical, fast, accurate and reliable results.

SWDC also has a prestigious accreditation from **NABL** (National Accreditation Board for testing and Calibration Laboratories) and our test results are acceptable to third party inspection agencies like LRS, BV, BHEL, Defence, DGQA, RDSO, RITES, EIL, BIS, LLOYD'S REGISTER, TUV INDIA, NTPC & DELHI METRO etc.

OUR DIVERSIFIED TESTING FACILITIES

FERROUS AND NON-FERROUS METALS:

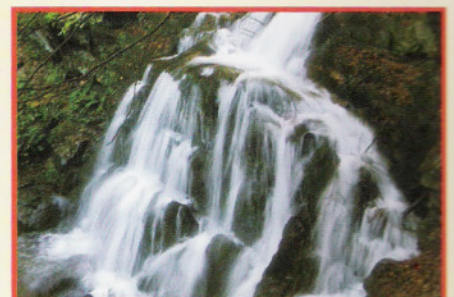
Chemical, Mechanical & Metallurgical Testing of Steel and Alloys of Aluminum, Copper, Zinc, Lead, Tin, Nickel, Titanium etc.,

Non destructive testing (NDT) -- Ultrasonic Testing, Radiography, Dye Penetrations Test, MPI etc.,

Failure Analysis and Corrosion Test of Metals & Alloys etc.,

ENVIRONMENTAL PRODUCTS

Water and Waste water, Effluents, Ambient Air, Noise and Stack Emission Monitoring, Soil, Solid Waste Quality, Meteorology, Environmental Audits, Environmental Management Plan and Microbiological Testing etc.,



CERAMICS & BUILDING MATERIALS

Chemical and Mechanical testing of Cement, Concrete, Design Mix, Soil ,Admixture, Bitumen, Tor Steel, Pipe, Lime Stone, Mineralogical Testing, Cement Clinkers, Marble, Tiles, Refractory and Bricks etc.,



PETROLEUM PRODUCT

Chemical and Physical testing of (Fuel Oil, Furnace Oil, Greases, Kerosene, Bitumen, Lubricants, Thinner, Diesel Oil, Engine oil, Gear Oil, Hydraulic Fluids, Cutting Oil, Quenching Oil and Insulating Oil etc.,



"Some of Our Distinguished Customers"

Reliance Energy Ltd.
Rites Ltd.
Delhi Metro Rail Corporation (DMRC)
Air Port Authority of India
Engineers India Ltd. (EIL)
Haryana State Pollution Control Board (HSPCB)
Delhi Pollution Control Committee (DPCC)
Ministry of DGQA
Gas Authority of India (GAIL)
Hindustan Copper Ltd. (HCL)
ACC
Hindustan Petroleum Corpn. Ltd. (HPCL)
Bharat Petroleum Corporation Ltd.(BPCL)
Indian Oil Corporation Ltd (IOCL)
National Highway Authority of India (NHAI)
NTPC
L & T (Switch Gear)
Larsen & Turbo Ltd. (L&T Construction Divn.)
JCB Ltd.
Delhi Development Authority (DDA)
Class India Ltd. & Class France
Power Grid Corporation of India Ltd(PGCI)
Haryana Power Generation Corpn. Ltd. (HPGCL)
National Hydro Power Corporation (NHPC)
Tau Devi Lal Thermal Power Station
Greater Noida Development Authority (GNDA)
Agra Development Authority (ADA)

Faridabad Development Authority (FDA)
Delhi State Ind. Development Corp.Ltd.(DSIDC)
Delhi Jal Board (DJB)
Indian Railways Welfare Association
Northern Railway
Govt. of Maharashtra
UP State Bridge Corpn.
CPWD
PWD
Hindustan Construction Co. Ltd. (HCC)
Gammon India Ltd.
Simplex Concrete Piles (India) Ltd.
JK Cement Ltd.
Punj LLOYD Ltd.
Jaiprakash Associate Ltd.
Ircn International Ltd.
Mukand Ltd.
Afcron Infrastructure
Nagarjuna Construction Co.
Haryana Urban Development Authority(HUDA)
Sunway Construction SDN BHD
B.Seenaiah & Company (Projects) Ltd.
Navayuga Engineering Company Ltd.
Gayatri Projects Ltd.
Bridge and Roof Co. (India) Ltd.
VRC Construction (India) Ltd.
Metro Tunneling Group (MTG)
ITD Cementation India Ltd.
Unitech Limited

KMC Constructions Ltd.
Ahuja Builders
IJM-IJM-II Joint Venture
Oriental Structure Engineers Ltd.
Vatika Greens Ltd.
UEM India Ltd.
Delphi India
JBM Auto Industries
LG Electronics
Imperial Auto Industries Ltd.
GKN Drive Line India Ltd.
Escorts Ltd.
Jindal Saw Ltd.
Allied Overseas Ltd.
Shivani Locks
Plasser India Ltd.
Kenmore Vikas
Havel's India Ltd.
Gemi Motors (GE Motors)
Arvind Engineers
Gabrial India Ltd.
ANG Auto Ltd.
VTL (VXL Technology)
Sandhan Vikas India Ltd.
Subros Ltd.
Bengal Industries Ltd.
Bhushan Steels Ltd.
Jindal Stainless Steel Ltd.
Modern Steel Ltd.
Sunflag Iron & Steel Ltd.

TESTING FACILITIES

CHEMICAL TESTING :

- * *Ferro Alloys of Vanadium, Tungsten, Molybdenum, Titanium, Boron, Chromium, Silicon, Nickel & Manganese etc.,*
- * *High Speed Steel, Tool Steel, Stainless Steel, Low Alloy Steel, Plain Carbon Steel, Graphitic Carbon*
- * *Oxygen, Nitrogen & Hydrogen in Steel*
- * *Aluminum Alloys, Zinc Alloys, Tin Alloys, Lead Alloys, Copper Alloys, Silver Alloys, White Metal, Gun Metal, Moral Metal & Brazing Material etc.,*
- * *Coating Thickness: Galvanizing, Paint, Powder Coating, Phosphating, Anodizing & Electroplating*
- * *I.G.C test*
- * *Refractories, Ceramics, Dolomite, Lime Stone, Fluor Spar & Cement*

MECHANICAL TESTING

- * *Tensile Strength, Elongation, Proof Stress & Breaking Load etc.,*
- * *Hardness BHN, HRB/HRC, VPN & Shore Hardness etc.,*
- * *Izod and Charpy Impact Test U / V notch (at room temp. 0° C & subzero)*
- * *Compression Test,*
- * *Bend Test and Re-bend Test,*
- * *Flattening Test,*
- * *Drift Expansion Test,*
- * *Erichsen Cupping Test,*
- * *Jominy Hardenability Test,*
- * *I.G.C. Test*
- * *Salt Spray Test*
- * *Welders Qualification Test As Per ASME Sec IX*

METALLURGICAL TESTING

- * *Grain size, Decarb Depth, Case Depth, Inclusion Rating, Micro Structure with Photograph, Cupping Test and Weld Penetration Test etc.,*

NONDESTRUCTIVE TESTING

- * *Eddy Current Testing*
- * *Ultra Sonic Testing,*
- * *Dye Penetration Testing,*
- * *Magnetic Particle Testing,*
- * *Radiographic Testing*

FAILURE ANALYSIS

CERAMICS & BUILDING MATERIALS

TESTING FACILITIES

- * **Cement Analysis** (Chemical and Physical).
- * **Coarse Aggregate** : Sieve Test, Specific Gravity, Impact Value, Crushing Value, Abrasion Value, Flakiness Index, Elongation Index, Soundness, 10% Fine Value, Shrinkage and Alkali reactivity etc.,
- * **Fine Aggregate** : Sieve Test, Specific Gravity, Bulk Density, Soundness, Alkali Aggregate Reactivity, Silt Content & Mica Content etc.,
- * **Brick, Tile and Marble**: Water Absorption, Compressive Strength, Efflorescence, Abrasion Value, Flexural Strength and Mohs Hardness etc.,
- * **Concrete** : Concrete Design Mix, Drying Shrinkage & Moisture Movement, Core Test, Air Content, Compressive Strength, Permeability Test, Flexural Strength and Split Tensile Strength etc.,
- * **Soil and Sub-base Material** : Liquid limit & Plastic limit, Particle Size, Proctor Compaction Test, Deleterious Substance, ID Consolidation Test, Laboratory CBR test, In situ Density, Free Swelling Index, Tri - axial test, Direct Shear Test & job mix formula for WMM & GSB Material etc.,
- * **Bitumen** : Bitumen Mix Design (DBM, BM, BC), Bitumen Content, Penetration Test & Softening Point etc.,
- * **Fly ash** (Chemical and Physical)
- * **C. I Pipes** (Chemical and Physical)
- * **Tor Steel** (Chemical and Physical)
- * **Hammer test**
- * **Admixture** (Chemical and Physical)

National Highway



Largest contribution of SWDC in testing of Steel, Cement & Concrete For Delhi Metro



Multistoreyed Building



ENVIRONMENTAL PRODUCTS

WATER & WASTE WATER TESTING FACILITIES :

- * **Physical:** Colour, Odour, Taste, Temperature, pH Value, Turbidity, TDS, Calcium Saturation Index and Suspended Solids etc.,
- * **Chemical:** Alkalinity, Acidity, Total Hardness, Permanent and Temporary Hardness, Metal Elements, Dissolved Oxygen, B.O.D., C.O.D., Oil & Grease, Nitrogen, Sodium, Potassium, Detergents and Pesticides etc.,
- * **Microbiological:** SPC, Coliforms, E. Coli, F.Coli, Thermophilic Bacteria, Proteolytic + Lipolytic Organism, Sulphur Reducing Bacteria, Salmonella, Shigella and Bio-assay Test etc.,

AMBIENT AIR, NOISE AND STACK EMISSION MONITORING & TESTING

- * Particulate Matter, Metals, CO, HCl, CS₂, NO₂, SO₂, Formaldehyde, Chromic acid Mist, Fluoride, NH₃ & H₂S etc.

MAJOR TESTING EQUIPMENTS

Gas Chromatograph

Nephelometer

Orsat Apparatus

High Volume Sampler

B.O.D. Incubator

Bacteriological Microscope

Stack Monitoring Kit

Respirable Dust Sampler

Bacteriological Incubator

Meteorological Data System

Atomic Absorption Spectrophotometer

Fluoride Meter

Flame Photometer

Water Quality Analyzer

Digital Spectrophotometer

Sound Level Meter

Stack Velocity Monitor

Colony Counter

pH / Ion Meter

Centrifuge



Ambient Air Sampling



Water Testing Using
Atomic Absorption Spectrophotometer

PETROLEUM PRODUCTS

DIESEL FUEL (HSD/LDO) ,FUEL OIL , INSULATING OIL / TRANSFORMER OIL , ENGINE OIL , COAL AND COKE TESTING FACILITIES

**** Aniline Point, Ash Content, Carbon Residue, Pour Point / Cloud Point, Copper Strip Corrosion Test, Kinematic Viscosity, Density, Sulphur Content, Water Content, Asphaltene, Calorific Value, Sulphated Ash, Sediments, Total Base Number (TBN), Total Acid Number (TAN), Resistivity, Interfacial Tension, Dielectric Strength, Dissipation Factor & Dissolved Gas Analysis Etc.**

MAJOR TESTING EQUIPMENTS

Gas Chromatograph

Atomic Absorption Spectrophotometer

Bomb Calorimeter

Viscometers

Viscosity Bath

Distillation Apparatus

Surface Tensiometer

Flash Point Apparatus

Pour / Cloud Point Apparatus

Potentiometric Titrator

Insulating Oil Testing System

Karl Fisher Titrator

Canardson Carbon Residue Apparatus

Centrifuge

Dean And Stark Apparatus

Constant Temperature Water Bath



Chromatography Of Oil



Tan Delta Of Oil



**You Are Always Welcome To Avail
Experience, Expertise And Excellence
At**

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