



Strength That Creates a Sustainable Future

INFINITY RISE TRADING LLC

TECHNICAL PRODUCT BROCHURE

Complete Iron & Steel Solutions

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Executive Summary

At Infinity Rise Trading LLC, we believe that steel is more than an industrial commodity—it is a fundamental material powering progress, innovation, and economic growth. As a UAE-based company, Infinity Rise Trading LLC is strategically positioned to supply complete Iron & Steel Solutions across the domestic market, the GCC, and international destinations.

Backed by an in-house R&D division and state-of-the-art processing capabilities, we deliver verified, compliant, and competitively priced steel products at scale.

Corporate Vision, Mission & Values

Vision

To be a trusted global partner in Iron & Steel Solutions, recognized for excellence, strategic procurement, and sustainable industry leadership.

Mission

To deliver high-quality steel solutions for our customers and stakeholders, creating lasting value through integrity, operational excellence, innovation, and a steadfast commitment to sustainability and responsible resource utilization.

Core Values

- **Integrity:** Committed to honest dealings, total compliance, and building trusted long-term partnerships.
 - **Strength:** Supplying reliable, high-specification materials that form lasting structural foundations.
 - **Operational Excellence:** Achieving precision customization and seamless global logistics execution.
 - **Sustainability:** Prioritizing responsible resource utilization and supporting eco-efficient industrial growth.
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Strategic Advantages & Capabilities

Infinity Rise Trading LLC provides complete iron and steel solutions to industrial end-users, fabricators, and contractors globally.

Strategic Location & Logistics Gateway

Operating from the United Arab Emirates provides direct access to major maritime gateways, and an established highway network. This infrastructure enables efficient bulk and containerized shipments worldwide, ensuring on-time delivery directly to customer facilities or job sites.

Customization & Value-Added Processing

Our facilities provide tailored steel processing services to meet strict engineering parameters:

- Precision Slitting & Strip Re-coiling
- Cut-to-Length Sheet Processing & Leveling
- Custom Sizing & Edging Treatments
- Surface Treatment & Preservation (Oiling & Passivation)

Core Product Portfolio

We offer a comprehensive selection of flat steel products tailored to construction, manufacturing, fabrication, and engineering applications.

Product Category	Primary Formats	Thickness Range	Primary Applications
Hot Rolled Pickled & Oiled (HRPO)	Coils, Slit Coils, Cut Sheets	1.80 mm – 4.50 mm	Automotive, Stamping, Tubing, Heavy Framing
Cold Rolled Full Hard (CRFH)	Coils, Slit Coils	0.18 mm – 3.00 mm	Re-rolling, Galvanizing, Drum & Barrel Making
Hot-Dip Galvanized (HDG)	Coils, Slit Coils, Plain Sheets	0.20 mm – 3.00 mm	Construction, HVAC, Ducting, Structural Decking

Hot Rolled Pickled & Oiled (HRPO)

HRPO steel is hot-rolled steel that has undergone acid pickling to remove mill scale and surface oxides, followed by oil coating to prevent rust formation. It offers enhanced surface cleanliness and improved formability for demanding processing operations.



HRPO Dimensional & Manufacturing Range

Parameter	HRPO Coil	HRPO Slit Coil	HRPO Sheet
Thickness (mm)	1.80 – 4.50	1.80 – 4.50	1.80 – 2.50
Width (mm)	700 – 1265	100 – 1250	500 – 1265
Length (mm)	Continuous Coil	Continuous Coil	1000 – 4000
Coil Inner Diameter (mm)	610	610	N/A
Maximum Coil Weight	25 MT	25 MT	1.0 – 3.0 MT (Bundle)
Edge Condition	Untrimmed / Mill Edge	Trimmed / Slit Edge	Untrimmed / Trimmed
Surface Preservation	Lightly Oiled / Medium Oiled	Oiled	Oiled

Applicable Standards & Grades (HRPO)

Standard Specification	Grade Designations
SAE J403	SAE 1006, SAE 1008, SAE 1010, SAE 1012, SAE 1015, SAE 1016, SAE 1018, SAE 1021
EN 10111	DD 11
ASTM A1011M	HSLA 50 Class 1, HSLA 55 Class 1, HSLA 65 Class 1

Cold Rolled Full Hard (CRFH)

Cold Rolled Full Hard steel is produced directly after cold reduction without annealing. It exhibits high yield strength, rigid hardness, and precise thickness tolerances, making it the ideal raw material for continuous galvanizing lines, re-rolling operations, and specialized structural roll-forming.



CRFH Technical Specifications

Property / Parameter	CRFH Coil Specifications	CRFH Slit Coil Specifications
Thickness Range (mm)	0.180 – 3.00 mm	0.180 – 3.00 mm
Width Range (mm)	725 – 1265 mm	30 – 1250 mm
Coil Inner Diameter (ID)	610 mm	508 mm / 610 mm
Outer Diameter (OD)	2000 mm Max	2000 mm Max
Max Unit Weight	25 MT Max	25 MT Max
Edge Condition	Mill Edge	Trimmed / Slit Edge
Surface Treatment	Platout (Surface Oil + Iron Powder Protective Coating, 600 mg/m ² Max)	Platout (Surface Oil + Iron Powder Protective Coating, 600 mg/m ² Max)
Applicable Standard	JIS G 3141	JIS G 3141
Standard Grade	SPCC 1B	SPCC 1B

Hot-Dip Galvanized (HDG)

Hot-Dip Galvanized steel coils and sheets undergo continuous zinc bath immersion to form a sacrificial protective coating against corrosion. Available in regular spangle, minimized spangle, and skin-passed extra-smooth surface finishes.



HDG Dimensional & Technical Parameters

Technical Parameter	HDG Coil	HDG Slit Coil	HDG Plain Sheet
Thickness (mm)	0.20 – 3.00	0.20 – 2.56	0.22 – 2.56
Width (mm)	725 – 1250	30 – 725	400 – 1250
Length (mm)	Continuous	Continuous	500 – 4000
Coil ID (mm)	508 / 610	508 / 610	N/A
Zinc Coating Range	Up to 350 GSM (Z90 to Z350 / G30 to G115)	Up to 350 GSM	Up to 350 GSM
Surface Spangle	Regular / Minimized / Suppressed / Skin Passed	Regular / Minimized / Suppressed / Skin Passed	Regular / Minimized / Suppressed / Skin Passed
Surface Passivation	Chromated (Cr+6 / Cr+3) / Non-Passivated / Oiled	Chromated / Non-Passivated / Oiled	Chromated / Non-Passivated / Oiled

Grade Index & Cross-Reference Matrix

ASTM & EN Standards Matrix (HDG)

Standard Specification	Applicable Commercial Grades	Structural & High-Strength Grades
ASTM A653 / A653M	CS Type A, CS Type B, CS Type C, LFQ	SS 33 (230), SS 37 (255), SS 40 (275), SS 50 (340), SS 55 (380), SS 80 (550)
ASTM A653 / A653M	FS Type A, FS Type B, DDS Type A	N/A
EN 10346	DX51D, DX52D	S220GD, S250GD, S280GD, S320GD, S350GD, S550GD
EN 10346	DX53D, DX54D	N/A

JIS, AS & IS Standards Matrix (HDG)

Standard Specification	Applicable Commercial Grades	Structural & High-Strength Grades
JIS G 3302	SGCC, SGCH, SGCD1, SGCD2	SGC340, SGC400, SGC440, SGC490, SGC570
AS 1397	G1, G2, G3	G250, G300, G350, G450, G550
IS 277	GP, GPL	GP350 Class 1, GP450, GPH

Industrial Applications & End Uses

Our steel products serve critical infrastructure and manufacturing sectors globally:

Industry Sector	Primary End-Use Applications
Building & Construction	Roof cladding, side wall panels, composite decking, purlins (Z & C sections), lintels, door frames, false ceilings, partition channels, louvers, and rainwater gutters.
HVAC & Ducting	Heating and ventilation air ducts, cable trays, electrical trunking, air handler enclosures, and spiral ductwork.
Industrial Manufacturing	Steel drums, storage barrels, shipping containers, highway guardrails, road signage, and agricultural silos.
Appliances & Consumer Goods	Refrigerator backings, washing machine cabinets, air conditioner outer units, water heaters, and computer hardware chassis.
Furniture & Fixtures	Metal desks, filing cabinets, industrial shelving, lockers, almirahs, and storage racks.

Quality Assurance & Testing

Quality and compliance are embedded in every operational step at Infinity Rise Trading LLC. Materials undergo comprehensive laboratory verification before dispatch to ensure adherence to international engineering standards.

Laboratory Testing Capabilities

- **Chemical Composition Analysis:** Carbon, Manganese, Silicon, Sulfur, Phosphorus, and micro-alloying element verification via Optical Emission Spectrometry.
 - **Mechanical & Tensile Testing:** Yield strength, ultimate tensile strength, percentage elongation, and strain hardening value (n-value) determination.
 - **Bend & Formability Testing:** 180-degree bend tests and Erichsen cupping tests for ductility and deep-drawing evaluation.
 - **Coating Weight & Surface Mass Inspection:** Triple-spot and single-spot zinc coating mass determination (GSM).
 - **Dimensional & Surface Profiling:** Micrometer thickness gauging, width camber measurement, squareness check, and surface roughness measurement.
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Packaging, Handling & Storage Guidelines

To ensure steel products arrive and remain in pristine condition, adhere to the following handling and storage recommendations:

Storage Recommendations

- Store all steel coils and bundles under cover in clean, dry, well-ventilated indoor conditions.
 - Never store unpacked coils in open or exposed weather conditions; repack immediately if outer wrapping is damaged.
 - Avoid storing steel products near active chemicals, acid baths, or corrosive chemical fumes.
 - Place coils on protective wooden padding, rubber cradles, or wedge-shaped timber blocks to prevent coil denting and rim distortion.
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Stacking Guidelines

- Restrict coil stacking to a maximum height of 2 coils high.
- Always place smaller-diameter coils above larger-diameter coils.
- Install a fixed floor chock system to restrain coil movement in storage rows.
- Store sheet bundles stacked over flat wooden pallets using timber dunnage separators.

Technical Enquiries & Order Specifications

When submitting enquiries or requests for quotation, please provide the following parameters to ensure swift processing and precise quotation matching:

Required Information Checklist

- **Product Type:** HRPO, CRFH, or HDG
- **Applicable Standard & Grade:** (e.g., ASTM A653 CS Type A, EN 10346 DX51D, JIS G 3302 SGCC)
- **Nominal Dimensions:** Thickness (mm) × Width (mm) × Length (mm for sheets)
- **Coating Mass (HDG):** Zinc mass requirement in GSM (e.g., Z120, Z275)
- **Surface Treatment:** Passivated, Oiled, or Unoiled
- **Quantity Requirements:** Metric Tonnage (MT) or number of coils
- **Destination Port / Delivery Location:** Preferred Incoterms and shipping terms

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