

Product Brochure

Steel Wire for Flexible Ducts

ZHANGJIAGANG CITY VICROWN NEW MATEREAL CO., LTD.

Your Professional Supplier Of Steel Wire Solutions

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ZHANGJIAGANG CITY VICROWN NEW MATEREAL CO. , LTD.



Company Profile

VICROWN is a steel wire manufacturer in Zhangjiagang, Suzhou, China, specializing in the field of steel wire manufacturing for more than 20 years. We have been exporting to European and American countries for a long time, providing customers with high-quality steel wire that meets international standards.



Core Business

Research and development, production, and sales of various types of steel wires, including:
High carbon steel wire, bright steel wire, copper coated steel wire, brass coated steel wire, galvanized steel wire, bead steel wire, and steel wire for flexible ducts, steel wire for wire shot, etc.



VICROWN Mission:

To provide high-quality steel wire solutions for global customers and create value together

Bright Steel Wire For Flexible Duct



Vicrown Flexible Duct Steel Wire is meticulously crafted to provide robust reinforcement and steadfast support to duct installation. The high carbon steel wire superior formability allows for a smaller bending radius. It enable the production of flexible spiral core for complex layouts and narrow space.

Core Advantages



Kink-free resistance

Vicrown flexible duct wire feature strict diameter tolerance, excellent tensile strength and ductility, they offer perfect kink resistance core for flexible duct.



Meeting your production need

Vicrown high carbon steel wire for flexible feature excellent surface finish, it is easy to form without getting damaged in the process. This result in a higher output and a significant reduction in waster.



Bright Steel Wire For Flexible Duct

Technical Specifications

ITEM	INDICATORS
Material	High carbon steel (C1045 – C 1070)
Surface Sinish	Bright / Uncoated / ungalvanized
Wire Diameter Range	0.8mm - 1.57mm(Customizable with special specifications)
Diameter Tolerance	+/- 0.02mm
Tensile Strength	Customizable based on application requirement Typically ranging 1750-2300MPA
Packaging Form	Steel reel: Standard 420 kgs Capacity Reel-less coil: Standard 420 kgs Capacity

Copper Coated Steel Wire For Duct



Vicrown Copper Coated Steel Wire for Flexible Duct is high carbon spring steel wire with copper coating. It is used inside duct duct or PU hose for reinforcement, providing strength and flexibility, often embed in material like PU (polyurethane), for heavy-duct applications like dust extraction, ventilation, or high-pressure industrial use.

Core Advantages



Resistant to Salt spray corrosion

Brass coating forms a dense passivation film, offering excellent salt spray corrosion resistance and extending duct service life in harsh environments..



Golden decorative surface

Bright brass coating delivers a premium metallic finish, ideal for exposed ducts in high-end commercial spaces, enhancing project aesthetics.



High ductility&easy processing

Flexible brass layer reduces brittle cracking risk during processing, maintaining coating integrity during high-speed winding and bending.



Balancing strength and performance

Copper layer bonds tightly with hose materials, integrating the steel wire skeleton with the duct wall for enhanced structural strength and stability.

Bright Steel Wire For Flexible Duct

Technical Specifications

ITEM	INDICATORS
Material	High carbon steel C1060 C1070 Customizable with special specifications
Surface finish	Copper coating
Wire diameter range	0.80mm to 3.50mm Customizable with special specifications
Diameter Tolerance	+/- 0.02mm
Tensile strength	1600 Mpa1750Mpa Customizable base on application requirement
Packaging form	Steel Reel : Standard 420kgs Capacity Reel-less core: Standard 420kgs Capacity Customizable base on application requirement

Galvanized Steel Wire For Duct



VICROWN specializes in producing galvanized air duct steel wire for ventilation duct reinforcement. Galvanized Steel Wire For Flexible Duct & Hose & Conduits adopts hot-dip galvanizing process to form a dense zinc layer, significantly improving corrosion resistance.

Core Advantages



Long-lasting Corrosion Protection

Perfect Zinc coating prevents rust and extends duct lifespan by 3-5x vs. non-galvanized wires



Uniform Coating & Smooth Surface

Vicrown coating technology ensures zero exposed steel points, minimizing friction-induced air leakage.



High Tensile Strength

Superior tensile strength maintains duct shape under pressure, resisting deformation during operation.



Customizable Solutions

Wire diameters (0.7mm-2.0mm), spool sizes (5kg-500kg), and zinc levels tailored to project specifications.

Galvanized Steel Wire For Duct

Technical Specifications

ITEM		INDICATORS
Material		High carbon steel C1060 /C1070 /c1080 (Customizable with special specifications)
Diameter Range	Surface finish	Zinc coating
Wire diameter range		0.60mm to 2.00mm Customizable with special specifications
Diameter Tolerance		+/- 0.02mm
Tensile strength		1750Mpa 1850Mpa Customizable base on application requirement
Weight of Zinc coating		60 g/m2 80 g/m2 90 g/m2Customizable base on application requirement
Packaging form		Steel Reel : Standard 420kgs Capacity Reel-less core: Standard 420kgs Capacity Customizable base on application requirement

Brass Coated Steel Wire For Duct



VICROWN Brass Coated Steel Wire for Duct is specially designed for high-end HVAC spiral duct systems. Using high carbon steel as the substrate, it is coated with a uniform brass alloy layer through our proprietary precision electroplating technology. This not only provides a unique golden appearance and excellent corrosion resistance, but also significantly enhances the material's ductility and process adaptability. By perfectly combining the strength of steel with the environmental resistance of brass, and backed by our customized solutions and stringent quality control, it is the ideal choice for duct projects pursuing long service life and visual quality.

Core Advantages



Superior Salt Spray Resistance

VICROWN proprietary brass coating offers >30% better salt spray resistance than galvanized steel, significantly extending duct lifespan in harsh environments.



Golden Decorative Finish

Precision electroplated brass provides a premium metallic look, ideal for exposed ducts in high-end commercial spaces, enhancing project aesthetics.



High Ductility & Processability

VICROWN optimized coating ensures excellent flexibility, reducing cracking risk during high-speed winding and bending, boosting production efficiency.



Optimized Welding & Sealing

Strong adhesion to steel/aluminum plates minimizes welding spatter and improves bite sealing, ensuring duct airtightness and structural strength.

Brass Coated Steel Wire For Duct

Technical Specifications

ITEM	INDICATORS
Material	High carbon steel core (e.g., 72A, 82B) + Brass plating (Cu 68%±4%, Zn 32%±4%)
Diameter Range	0.40mm - 1.20mm
Tensile Strength	2150 2450 2750 MPa
Brass Coating Weight	Greater than 3.0g/kg
Adhesion	Excellent vulcanization adhesion with rubber
Packaging	steel reel, 25-30kg/reel
Applications	Reinforcement of high-pressure rubber hoses, springs, PVC/hose manufacturing

Tin Bronze Coated Steel Wire For Duct



VICROWN Tin Bronze Steel Wire For Duct is specially designed for ultra strong corrosion resistance and ultra-high cleanliness environment. The product is based on high-strength steel core and protected by a double-layer metal of bronze and pure tin, perfectly integrating the mechanical strength of bronze with the chemical inertness and cathodic protection characteristics of tin.

Core Advantages



Triple Anti-Corrosion Protection

Bronze layer resists wear, tin layer isolates acid/alkali corrosion, salt spray resistance exceeds 1500 hours, with a lifespan over three times that of galvanized steel wire.



Smooth Surface & Low Resistance

Smooth and rounded surface effectively reduces gas flow resistance, enhancing ventilation efficiency.



Low-Temperature Welding Compatibility

Tin layer has a low melting point, enabling direct low-temperature brazing without flux, avoiding weld corrosion.



Flexible & Fatigue-Resistant

Bronze layer offers excellent ductility, with no coating cracking at a bending radius $\leq 2D$, suitable for complex duct shapes.



Tin Bronze Coated Steel Wire For Duct

Technical Specifications

ITEM	SPECIFICATIONS
Material	High steel wire core(72A/77A/82B),tin bronze alloy coating
Diameter Range	0.40mm - 1.20mm
Tensile Strength	0.40-0.80mm:2450-3050MPa 1.00-1.20mm:2150-2750MPa
Surface Treatment	Tin bronze alloy coating.3.0-5.0g/kg
Diameter Tolerance	+/- 0.02mm
Weight of coating	Greater than 3.0g/kg
Packaging	steel reel 25-30kg/reel



ZHANGJIAGANG CITY VICROWN NEW MATEREAL CO. , LTD.

Powered by technology, grounded in quality,
your trusted partner for duct solutions.



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