

MB – Commercial High Carbon Spring Wire

Various Grades:

Quench & Tempered MB Class I and Class II Spring Wire - Round
Quench & Tempered Cold Rolling Quality (CRQ)
Oil Tempered Screen Wire Cloth - Round

General Information:

MB grade wire is used extensively in applications where dynamic loading is not a consideration.

Applications:

Typical applications include springs for overhead garage doors, automobile springs, torsion springs, rake tines, transmission rings, screen wire cloth and appliance applications.

Size Range:

.118" – .625" (3.0mm – 15.9mm)

Specifications:

ASW commercial high carbon spring wires comply with all current industry standards. We produce to: ASTM A-229, SAE, Ford, GM, Chrysler, Fiat, JIS and DIN specifications.

Package:

48" (122cm) coils, 60" (152cm) coils or 80" (203cm) coils.
Shipped loose or on a carrier.
Coil Weights: 1,000 – 4,400lbs (453kg – 2000kg)

American Spring Wire Corp.

26300 Miles Road
Bedford Heights, OH 44146
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Valve Spring Wire

Various Grades:

Oil Tempered Chrome Silicon Valve (9BV)
Oil Tempered Chrome Silicon Vanadium Valve (9MV)
Oil Tempered Chrome Silicon Vanadium Valve + Nickel (90VN)
Hard Drawn *(N.O.T.) Chrome Silicon Valve (9BV)
Hard Drawn *(N.O.T.) Chrome Silicon Vanadium Valve (9MV)
Hard Drawn *(N.O.T.) Chrome Silicon Vanadium +Nickel (90VN)

**(N.O.T.) Not Oil Tempered*

General Information:

Valve spring wire is the highest quality wire available, and is manufactured to specifications that require superior surface quality, internal cleanliness and virtually no decarburization. All ASW valve spring quality wire goes through a surface removal operation to eliminate seams, handling damage and decarburization from the rod. At the finished state, the valve spring wire .250" (6.4mm) and smaller is eddy current tested for surface quality to a defect calibration level of .0015" (40 µm).

Applications:

Valve spring wire is used for demanding applications that include dynamic loading at very high stress levels. Typical examples include springs for engine valves, automatic transmissions, clutch springs, fuel injectors, pumps, generators and air compressors. The rod used for this grade of wire offers minimal inclusion content and is appropriate for applications where anticipated stress or fatigue levels are severe.

Size Range:

.113" – .283" (3.0mm – 7.2mm)

Produced in round, ovate and elliptical shapes.

Specifications:

ASW VSQ wires comply with all industry specifications. These include: ASTM A-877, Ford, GM, Chrysler, Caterpillar, JIS, DIN, E.N., and many customer specific wire specifications.

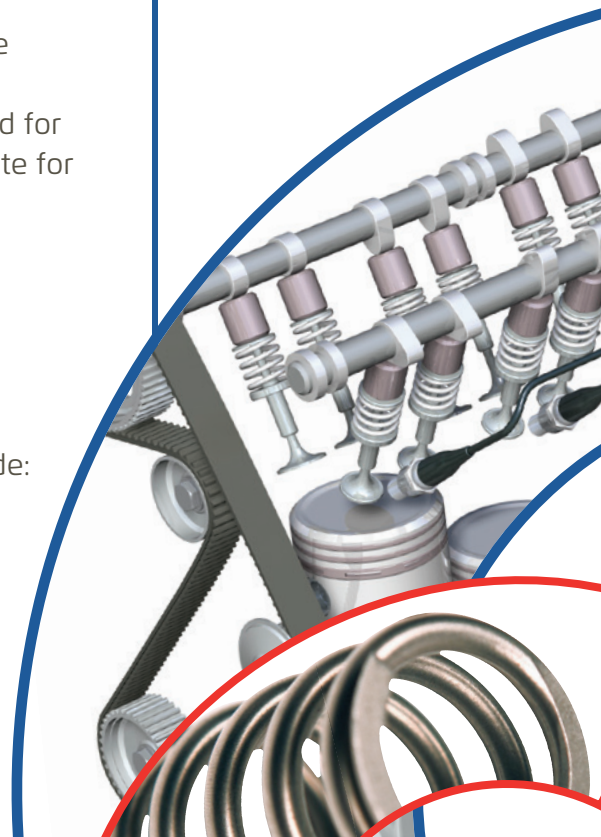
Package:

48" (122cm) coils. Packaged on a carrier.

Coil Weights: 1,000 – 4,400lbs (453kg – 2000kg)

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Commercial Alloy

Various Grades:

Quench & Tempered Chrome Silicon Commercial – Round & Shaped

Quench & Tempered Chrome Silicon 1%

Oil Tempered Chrome Vanadium Commercial – Round & Shaped

General Information:

Quench & Tempered Chrome Silicon Commercial grade wire is used extensively in applications where static loading is a requirement. These springs require greater resistance to stress relaxation (load loss) at elevated temperatures. The wire can be made in various shapes such as trapezoid, square, bevel, and others. The tensile strength can be as high as 320,000psi (2200 Newtons) for the smaller diameter sizes.

Applications:

Typical applications include springs for automatic transmissions, appliances, railroad, farm implements, brake springs and suspension spring applications.

Size Range:

.118" – .625" (3.0mm – 15.9mm) for OT Chrome Silicon Commercial

.118" – .625" (3.0mm – 15.9mm) for OT Chrome Vanadium Commercial

Specifications:

ASW commercial wires comply with all current industry standards. We produce to: ASTM A-401, ASTM A-232, ASTM A-1000, SAE, Ford, GM, Chrysler, JIS and DIN and EN 10270 specifications.

Package:

48" (122cm) coils, 60" (152cm) coils or 80" (203cm) coils.

Shipped loose or on a carrier.

Coil Weights: 1,000 – 4,400lbs (453kg – 2000kg)

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Hard Drawn

Various Grades:

Hard Drawn M.B. class 1 and class 2
Hard Drawn Chrome Silicon Commercial
Hard Drawn H.B.
Music

General Information:

This is a drawn at finish type of wire made from 1060 - 1080 carbon steel. The wire will have good ductility properties to allow for severe bending and forming applications.

Applications:

Hard drawn wire grades are used in applications where dynamic loading is usually not a consideration.

Size Range:

.118" – .250" (3.0mm – 6.5mm)

Specifications:

ASW hard drawn wires meet all current industry standards. Specifically we produce to: ASTM A-227, ASTM A-228, and ASTM A-229.

Package:

30" (76cm) coils or 36" (92cm) coils. Packaged on a carrier.
Coil weights: 1,000 – 4,400lbs (453kg – 2000kg)

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PAF

General Information:

PAF stands for "Patented at Finish" and is typically the last operation after the wire is drawn to its finish size or patented rod. The wire in this condition can be cold reduced further by drawing or rolling.

Size Range:

.150" – .531" (4.0mm – 13.5mm)

Specifications:

PAF is made to order and is not made to any particular specification. The customer will indicate the finish patented tensile that is required.

Package:

48" (122cm) coil.

Shipped on a carrier.

Coil weights: 1,000 – 4,400lbs (453kg – 2000kg)

Applications:

Customer specific. Typically where deep drawing or cold rolling require extra ductility during the forming process.

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Armour Wire

General Information:

Armour wire is a flat cold rolled high carbon steel that is used in the manufacture of deep water flexible pipe for the oil and natural gas industry.

Size Range:

5mm x 2mm through 15mm x 5mm
.197" x .078" through .590" x .197"

Specifications:

Typically produced from medium to high carbon steel grades.
Natural rolled round edges.
All specifications are customer specific.

Package:

Traverse wound coils supplied on pallets.
Coil weights up to 5,500lbs (2500kg).

Applications:

The flat wires are wrapped around the pipe to support the inside of the pipe from the high pressures of the oil and gas. The wire also gives the pipe tensile strength properties during installation. The flat wires also support the pipe from outside pressures of the ocean. The wire must be very durable to withstand the severe bending that occurs during the placement of the wire onto the pipe. In some cases, the wire must withstand potential chemical attacks from H₂S.

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Flat Wire

General Information:

This wire can be produced in the cold rolled or oil tempered condition. Raw material comes from high carbon rod.

Size Range:

5mm x 2mm through 15mm x 5mm
.197" x .078" through .590" x .197"

Specifications:

These wire types are made to customer specific specifications and ASTM A-401 and ASTM A-229.

Package:

Traverse wound coils supplied on pallets.
Coil weights up to 5,500lbs (2500kg).

Applications:

Typical applications are grain augers, clock wound springs, regulator springs, and hood hinge springs.

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Special Shaped Wire

General Information:

ASW die drawn shaped wire is made of high carbon and alloy steels to meet specific customer requirements for applications where uniformity and size dimensions are critical. ASW offers extensive capabilities in the manufacture of special configurations and tolerance restrictions, including an in-house die making facility equipped with the latest wire EDM equipment for the production of shaped dies.

Size Range:

Thickness: .075" (0.20mm)

Width: .500" (12.5mm)

Specifications:

ASW die drawn wire meets all industry standards such as ASTM A-401, ASTM A-229 and ASTM A-1000. Size tolerances and configurations are held to specific customer requirements. Shaped wire can be in the hard drawn or oil tempered condition.

Package:

48" (122cm) coils and 60" (152cm) coils for oil tempered wire.

36" (92cm) coils for hard drawn shaped wire.

Coil weights up to 4,400lbs.

Types:

Shaped wire can be produced in square, rectangular, keystone, oval, elliptical, half-round, D-shape and other custom shapes.

Applications:

Various applications from automotive components, die springs, clutch springs, etc.

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