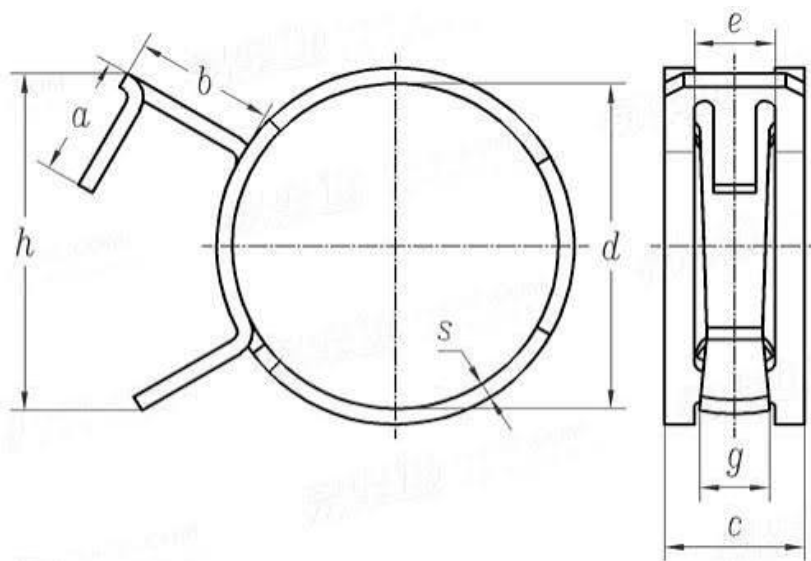




SPRING STEEL WIRE HOSE CLAMP (DIN3021)



INVICTA CLAMPS

Precision Clamping Solutions

Product Category: Hose Clamps

Product Type: Spring Steel Wire Hose Clamp

Application: Automotive & Industrial Fluid / Coolant Hose Connections

PRODUCT DESCRIPTION

Invicta **Spring Steel Wire Hose Clamps** are designed to provide a reliable and consistent clamping force on flexible hose connections.

The spring-steel construction allows the clamp to compensate for dimensional changes in the hose caused by **temperature fluctuations, material relaxation and thermal expansion/contraction**, helping maintain clamping pressure throughout the service life of the connection.

The clamp can be opened using suitable pliers, positioned over the hose and released to apply continuous radial clamping force.

KEY FEATURES

- Constant spring tension around the hose
 - Automatically compensates for thermal expansion and contraction
 - Suitable for applications exposed to temperature variations
 - Compact and lightweight construction
 - Quick installation and removal using suitable pliers
 - No screw-tightening or torque setting required
 - Suitable for repetitive temperature cycles
 - Available in multiple diameters
 - Custom sizes can be developed against customer requirements
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TECHNICAL SPECIFICATION

Parameter	Specification
Clamp Type	Spring Steel Wire Hose Clamp
Material	High-Carbon Spring Steel
Material Condition	Heat Treated / Spring Tempered
Surface Finish	Zinc Plated / Customer-Specified Protective Coating
Clamping Principle	Constant Spring Tension
Installation	Mechanical / Pneumatic Pliers
Size Range	Available in multiple diameters; customer-specific sizes on request
Temperature Capability	Dependent on material, coating and application
Corrosion Protection	According to specified surface treatment
Production	High-volume serial production capability
Inspection	Dimensional and functional inspection

TYPICAL APPLICATIONS

Automotive

- Engine coolant hoses
- Cooling circuits
- Radiator hose connections
- Heater hoses
- Thermal-management systems
- Fluid lines
- Passenger vehicles
- Commercial vehicles
- Off-highway vehicles

Industrial

- Cooling systems
- Water circulation systems

- Flexible hose connections
 - Pumps and auxiliary equipment
 - General fluid-transfer applications
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FUNCTIONAL ADVANTAGES

CONSTANT CLAMPING FORCE

Spring-steel construction maintains radial force on the hose without requiring periodic screw retightening.

TEMPERATURE COMPENSATION

The clamp responds to changes in hose diameter resulting from heating and cooling cycles.

QUICK ASSEMBLY

The clamp is expanded using suitable installation pliers, positioned over the connection and released into its working position.

COMPACT DESIGN

The low-profile construction is suitable for applications where installation space is restricted.

APPLICATION-SPECIFIC ENGINEERING

Clamp diameter, wire dimensions, material, heat treatment and surface protection can be selected according to the application requirements.

MATERIAL & SURFACE PROTECTION

The clamp is manufactured from **spring-grade carbon steel**, heat treated to achieve the required elastic properties and clamping characteristics.

Available surface-protection options can include:

- Zinc plating
- Zinc-based corrosion-protection systems
- Customer-specified coatings

Material grade and coating specification can be adapted according to the required operating environment, corrosion-resistance requirement and customer specification.

SIZE AVAILABILITY

Spring Steel Wire Hose Clamps are available in a range of nominal diameters.

For quotation and technical selection, please specify:

Required Clamp Diameter / Hose OD: _____ mm

Hose Material: _____

Operating Temperature: _____ °C

Required Corrosion Resistance: _____

Annual Quantity: _____

Application: _____

Custom dimensions can be evaluated against **customer drawings, samples or application data**.

QUALITY & MANUFACTURING

Invicta Clamps manufactures clamping solutions using controlled production and inspection processes designed to provide:

- Dimensional consistency
- Repeatable spring characteristics
- Consistent clamping performance
- Controlled surface protection
- Batch-to-batch repeatability
- High-volume production capability

Customer-specific inspection requirements, documentation and testing can be supported subject to project requirements.

ORDERING INFORMATION

When submitting an enquiry, please provide:

1. Required clamp diameter or hose outside diameter
 2. Hose material and wall thickness, where available
 3. Application
 4. Operating temperature range
 5. Surface coating/corrosion-resistance requirement
 6. Drawing or sample, where applicable
 7. Annual requirement
 8. Batch quantity
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Note: Product specifications, dimensions, materials and surface treatments may be modified according to customer-specific requirements. Final technical specifications are subject to approved drawings and application validation.