

## **VFQ**

### **Do you manufacture helical springs with a wire diameter of 8 mm?**

Since such springs are hot formed, the minimum wire diameter is 10 mm (the maximum is 55 mm)

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### **What are the maximum and minimum external and internal dimensions of the helical springs?**

Height : 40 - 1150 mm

Outside diameter : 40 - 410 mm

Inside diameter : 20 - 380 mm

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### **What is the maximum length of the input wire for the helical spring?**

Size limits of material: 3870 - 7000

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### **What surface finishes can you offer for helical springs ?**

We can finish the helical springs using shot peening in the loose state.

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### **What are the possibilities for the structure of the closing threads of the helical spring?**

The coiling diameter of the closing threads can be reduced, a grinding finish is possible

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### **What are the dimension limits for the leaf springs?**

Length of straight spring : 700 - 2200 mm

Free height : do 400 mm

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### **What are the dimension limits for the input material of the leaf springs?**

Width of material : 40 - 130 mm

Thickness of material : 5 - 50 mm

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### **What weight range do you manufacture the leaf springs in?**

Weight 4 - 400 kg

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### How can be the leaves machined?

- x rolling (parabolic)
- x rolling of ends
- x milling
- x planing
- x shot peening in both the loose and clamped state
- x grinding
- x mesh turning

### What are the dimension limits for the manufactured leaf springs?

- a) diameter 40 - 550 mm
  - b) thickness 3 - 24 mm
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### What are the dimension limits for the manufactured involute springs?

- Free height 47 - 470 mm
  - Upper outer diameter 16 - 150 mm
  - Lower outer diameter 50 - 300 mm
  - Width of material 25 - 200 mm
  - Thickness of material 50 - 300 mm
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### What material quality do you use for manufacturing springs?

The following materials are used for manufacturing springs:

Quality in compliance with ČSN international equivalent

14260	54SiCr6
	60SiCr7
14262	55Cr3
15260	50CrV4
	51CrV4
do not exist	51CrMoV4

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### What sort of testing do you execute?

- x tests of force characteristics
- x inspection of the dimensions and shape
- x test of the permanent deformation after loading for a specified time
- x determination of the directions of lateral force under the static load of the spring
- x life (vibration) x corrosive resistance of coatings (free chamber)
- x magnetoscopic inspection of cross and longitudinal cracks
- x material chemical analysis x material decarbonising material structure after TZ
- x material surface hardness / in cross section

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**Can you design and manufacture springs based on the requested spring load parameters?**

Yes, we can design and manufacture springs based on the resultant load parameters.

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**Can you manufacture springs according to samples?**

Yes, we can manufacture springs according to the delivered samples.

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**Can you manufacture springs using the materials delivered by the customer?**

Yes, we can also manufacture springs using the materials delivered by the customer. Due to our very good and lasting relations with our suppliers, we can guarantee that the material is of the requested quality.

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**Can you manufacture and deliver only 1 spring leaf?**

Yes, we will manufacture and deliver even 1 spring leaf.

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**Can you send a price list?**

The prices of springs, which are manufactured, to order according to the customer requirements, are calculated separately depending on the requested quantity, complexity, material quality, used facilities, etc. In such cases, a generally applicable price list cannot be provided.

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**Do you provide bulk discounts?**

Price discounts are granted, but this is done separately, based on the individual purchase contracts. A general and specified discount system is not applied.

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**What are your delivery terms?**

The basic delivery terms depend mostly on the delivery times of the manufacturers of the materials, which is usually 3 months from the order confirmation. A limiting factor may also be the demand for special tools, which are necessary for atypical products, which the company has not yet manufactured. In such a case the delivery term can be up to 4 months. Such a term is not generally applicable. Based on the particular requirements and the available material supplies, the delivery time can be reduced. We are able to keep reserve supplies of completed products for long-term relations with a planning regime.

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**What is the minimum order quantity?**

The minimum order quantity is not specified. We can manufacture and deliver even 1 spring, or 1 leaf (of the leaf or parabolic springs). However, the quantity affects the price quite significantly.

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**Do you arrange transport to the destination requested by the customer?**

Yes, we have a long-term contract with a reliable forwarder and we can transport springs to the destination specified by the customer, including the customs clearance.