

REINFORCEMENT WIRE

For metallic reinforcement of belts, hoses and tyres

- » Used material grades: C alloyed steels
- » Coating: Most of the wires are coated in brass (enhanced wire-to-rubber adhesion)
- » After drawing, the wires are braided, formed into sheets or spiralled, which then are coated with elastomers

Inner tube for conveyance of the fluid	gives the hose its chemical compatibility characteristics. Therefore, it has to be flexible and needs to be matched to the fluid carried within the tube
Reinforcement for strength	surrounds the inner tube and gives the necessary strength as well as the ability to hold pressure.
Outer cover for protection	protects the reinforcement from abrasion, corrosion, chemicals and ozone.

High pressure hose wire

- » A hydraulic hose connects moving components
- » Steel inserts allow usage under maximum pressures
- » Hydraulic hoses usually consist of the hose itself and hose fittings
- » Permanent pressure tight connection of all parts due to deformation of the hose pressing process
- » The anatomy of hoses consists of three basic elements (Figure 1)
- » The materials selected depend on the operating temperature, the environmental conditions and the fluid, which is conveyed within the hose.
- » Reinforcement layer is the most important load-bearing element within the hose.
- » There can be several layers and types of reinforcements, which allows hoses to withstand high and extra high pressure.
- » Depending on the internal pressure, a distinction is made between braided and spiral reinforcement (Figure 2).
- » Braiding machines continuously lay steel braids over one another to form long lengths of hose.
- » Spiralling is more difficult and is used to form highest pressure hydraulic hoses.



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How do our products stand out from those of the competition?

- » From ore to wire from one single source. Thus, maximum flexibility in all process steps.
- » Products developed on a customized basis to meet the highest requirements
- » Consistent and uniform tensile strengths
- » Worldwide operation with the necessary logistics
- » The best winding technology available, therefore high unwinding speeds
- » Environmental friendly and most advanced production facilities
- » Local sales hubs

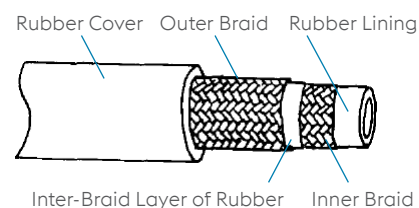


Figure 1 – Source:
Entwistle, K. M.; The behaviour of braided
hydraulic hose reinforced with steel wires,
Int. J. Mech. Sci. Vol. 23, 1980

Product Portfolio High Pressure Hose Wire

Specifications	
Diameter (mm)	Tensile strength (N/mm ²)
0,15	3210 - 3690
0,20	3370 - 3600
0,25	3210 - 3690
0,30	3420 - 3670
0,38	3280 - 3500
0,40	3170 - 3390

Surface

- » Standard surface is brass coated or bare

Quality Control

- » EN ISO 9001:2008

For detailed information regarding our certifications, visit our webpage www.voestalpine.com/wire

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Figure 2 – Source:
[https://www.tubes-international.com/
products/hose-reels-and-hose-accessories/
protective-elements/](https://www.tubes-international.com/products/hose-reels-and-hose-accessories/protective-elements/)