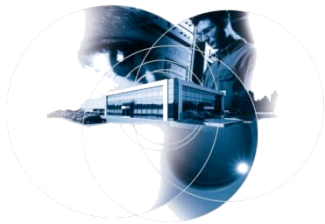
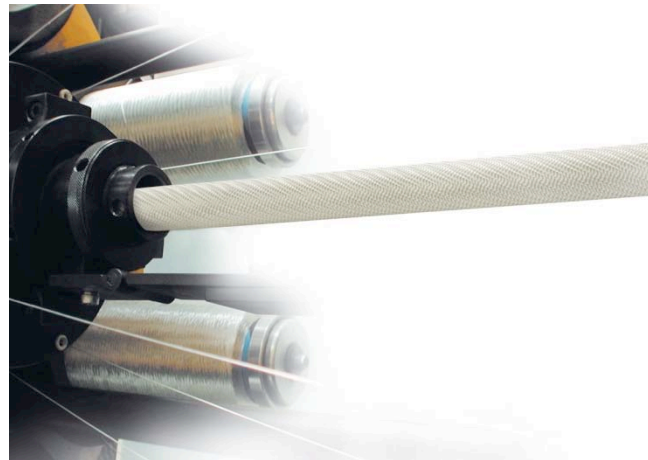


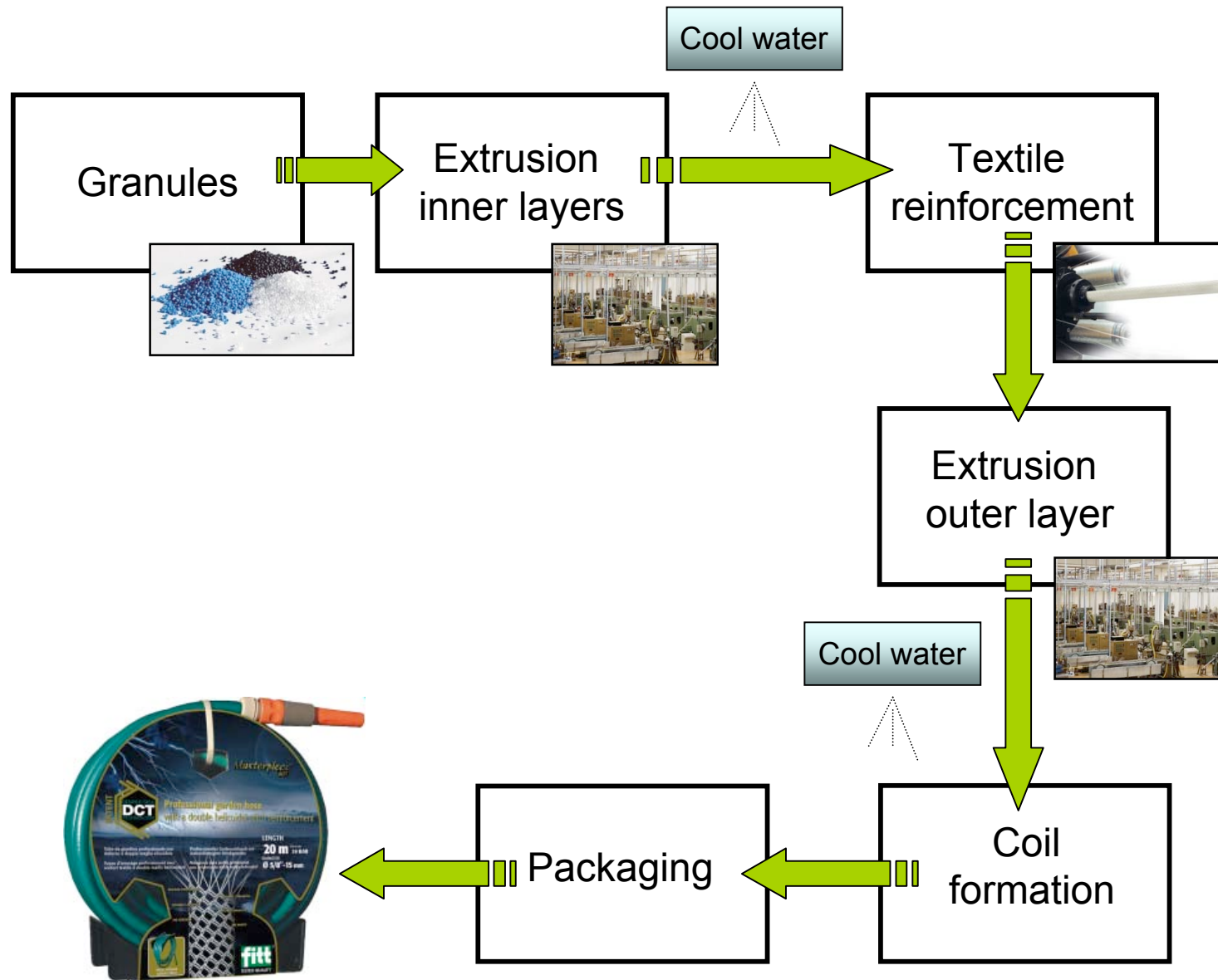


HOSE FEATURES

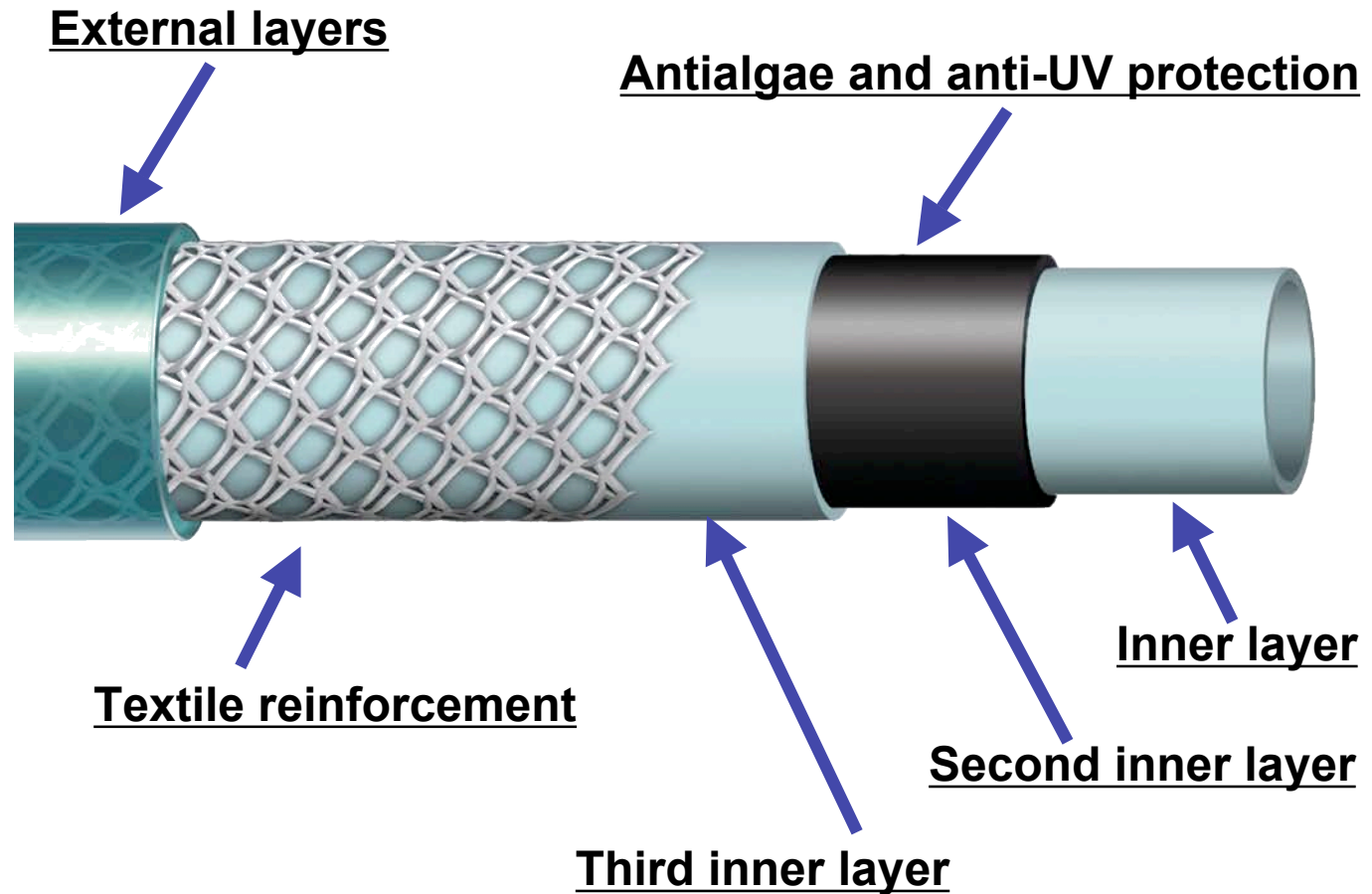




Gardening hose production cycle



Garden hose structure





HOSE CHARACTERISTICS

Layers



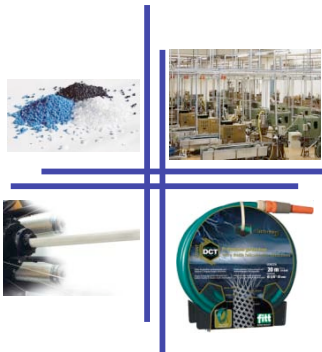
Layers are important features of hoses as they influence the physical strength, the texture, the lifespan and, partly, the performance. The number of layers may vary from the minimum of 1 (mono-layer) to a maximum of 6.

Layers may be transparent or opaque and their thickness may vary.

The stitch



Hoses without stitch, which is usually made by a single extrusion, are no longer used. They have been replaced by hoses made with a stitch which enables the hose to withstand water pressure without swelling up and contributes to the improved performance of the hose.





HOSE CHARACTERISTICS

Weight

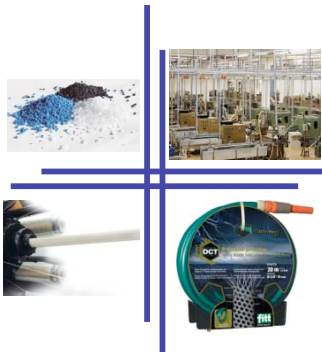


This feature is very important though often undervalued. The amount of material used defines the performance. The weight varies according to diameter of the hose from a minimum of around 80gr. to a maximum of 270gr. per meter, for diameters between 1/2" and 3/4".

Pressure resistance



Pressure resistance is also a very important feature (in a domestic water system water comes out with 4 bar). Although frequently ignored, a hose may be subjected to high pressure due to the stopcock settings, often causing the hose to expand and the fitting to detach. The dilation due to pressure can provoke the detaching of the layers and the breaking of the stitch, undermining the efficiency and the efficacy of the hose.





HOSE CHARACTERISTICS



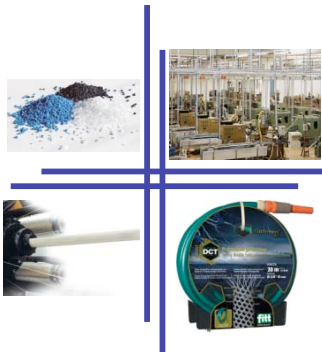
Malleability

A hose can be defined “easy to handle” when it is possible to twist it forcefully without forming knots which don’t allow the water to flow. The level of the malleability depends on materials and stitch.



Durability

A good quality hose, made with carefully selected material, should last a very long time. With appropriate care, when stored during winter time it will last even longer. It is not just the quality of the hose that affects its lasting, but also how it is used.





HOSE CHARACTERISTICS

Temperature resistance



A hose passes its life exposed to extremes of temperature from direct sunlight to chilling frosts. A good quality hose should neither crack due to frost nor become too soft and floppy in the sun. This depends on the raw materials used during the production.

However it is appropriate to protect hoses from extremes of weather to prolong its life.

Antialga layers



The function of opaque layers is to prevent the sun's rays from coming into contact with the water which remains inside the hoses and as consequence the formation of algae. What typically happens in transparent hoses is that water remains inside the hose and algae forms as a result of photosynthesis caused by the sun's rays.

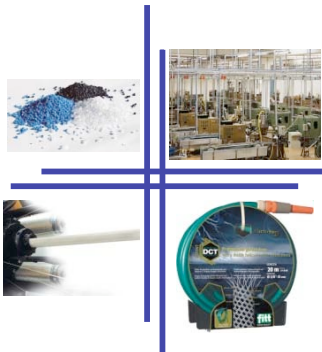




MONOLAYER HOSE



It is made of single-layer PVC with no textile or any other reinforcement. Those hoses have been almost completely replaced by reinforced hoses.



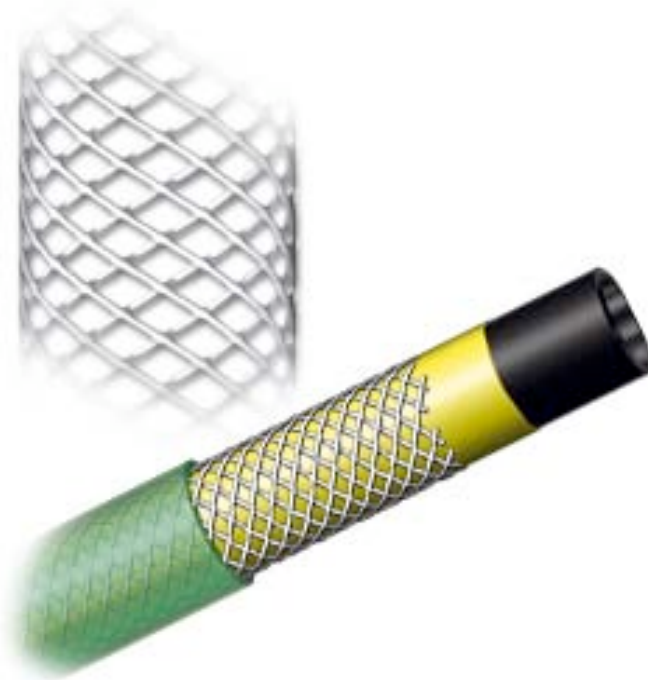
Advantages: Completely inert, maximum malleability

Disadvantages: Minimum pressure resistance

FITT manufactures: Pastello, Aeternum, Supergel, Antigelo, Livelle, Duplo, Duplo-R



BRAIDED HOSE

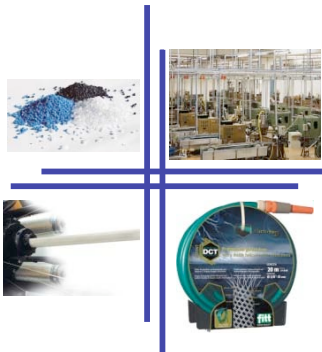


This was the first hose to be reinforced by arranging and weaving thin strands of polyester yarn over its entire surface. Braided hoses have the advantages of better pressure resistance and in fact they are heavily used in technical applications. However, braided reinforcement hose has a high level of rigidity and is particularly prone to constriction and bending.

Advantages: Maximum pressure resistance without swelling up

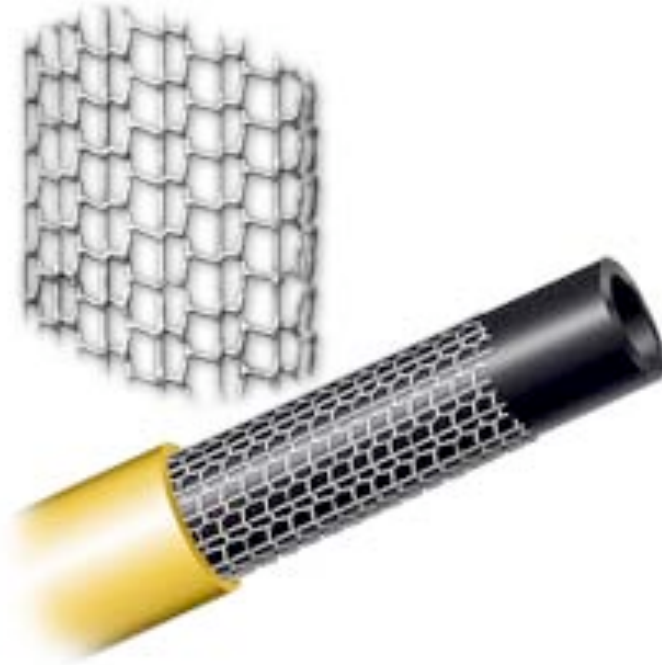
Disadvantages: Rigid, poor malleability, very likely to constrict

FITT manufactures: **Tobby Green, Sun, Idrocolor, Idromat, Quick, Flor, Agrifort, Profy, Bravo, Skipper**





KNITTED HOSE



The reinforcement is made on special machines that apply layers of polyester reinforcement in evenly knitted loops parallel to the axis of the hose. In terms of malleability and elasticity, knitted hose is far more advanced than braided hose. However its high malleability makes the knitted hose very difficult to be used. When using the knitted hose with sprinklers and other watering tools it is often necessary to secure the appliance to prevent it moving or being turned over by watering pressure.

Advantages: Improved malleability, high flexibility

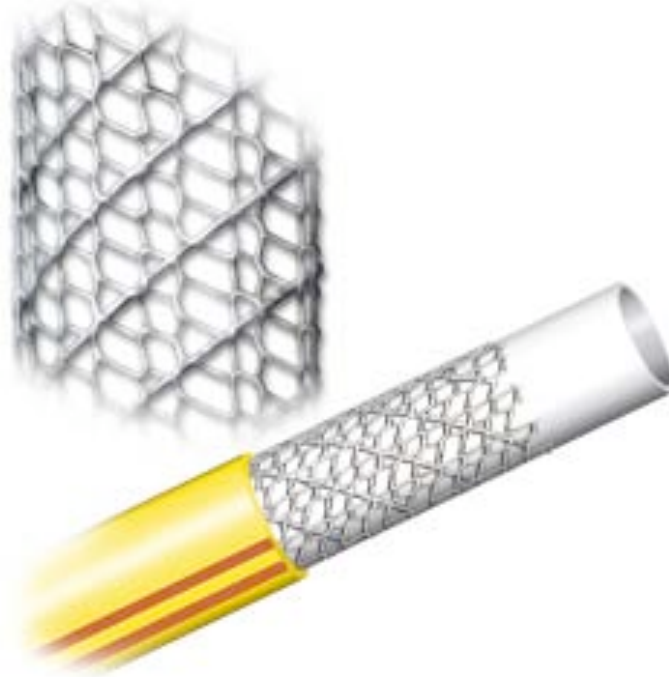
Disadvantages: Likely to twist, form knots and tangles, difficult to coil and uncoil, low pressure resistance

FITT manufactures: Top Mat





SPIRAL KNITTED HOSE



This development of the knitted hose was intended to reduce its obvious disadvantages. The development consists of adding an extra strand to the basic weave, running spirally for the length of the hose and positioned in the opposite direction to that of the weave to counteract for the effect of rotation. The spiral knitted hose behaves the same way as the knitted hoses because of its rigidity.



Advantages: Reduced rotation

Disadvantages: Rigidity, lack of malleability, folds and constrictions.

FITT manufactures: Star Top



NTS[®] HOSE



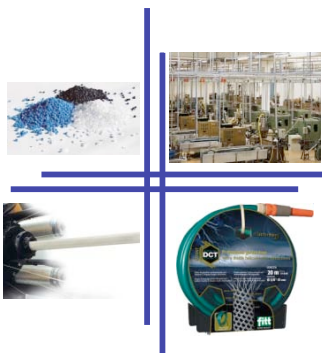
The event of NTS[®] created a revolution in the hose sector. This type of stitch, exclusively researched and developed by FITT, radically eliminates the problem of twisting, knotting and tangling. Its helicoidal structure completely counteracts the usual unrolling problems and so avoids the obvious disadvantages of knitted hose while retaining its better qualities.

The NTS[®] hoses roll and unroll easily from hose storage trolleys and reels making gardening tasks so much easier. At the same time NTS[®] hoses remain exceptionally malleable.

Advantages: No knots, no twisting, maximum malleability, high pressure resistance

Disadvantages: None

FITT manufactures:
NTS[®] Stratos, NTS[®] Jeans,
NTS[®] Toby, NTS[®] Whiteplus,
NTS[®] Flash, NTS[®] Wintech
ACUA

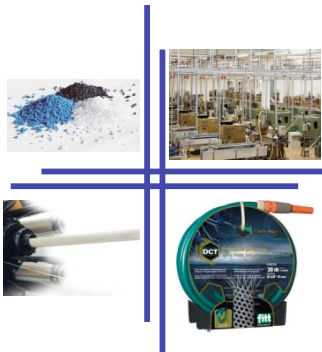




DCT® HOSE



With the DCT® stitch FITT has reached a level of quality which has never been achieved by a garden hose up today. DCT® “Double Cell Technology” patented technology - exclusively researched and developed by FITT, with double helicoidal honeycomb stitch which guarantees an incredible pressure and dilation resistance of the hose, for an exceptional lasting, even in the most extreme conditions. **DCT® Masterpiece®**, the only professional garden hose, guarantees: no knots, no twisting, very easy to handle, total flexibility and only first quality raw materials.



Advantages: Total stability, no knots, no twisting, maximum malleability, no dilation, pressure resistance up to 50 bar.

Disadvantages: Try to find one...

FITT manufactures: DCT® Masterpiece, NATIVE



NTS TEXTILE STITCH



This type of stitch, exclusively researched and developed by FITT, radically eliminates the problem of twisting, knotting and tangling.

Its helicoidal structure completely counteracts the usual unrolling problems and so avoids the obvious disadvantages of knitted hose while retaining its better qualities.



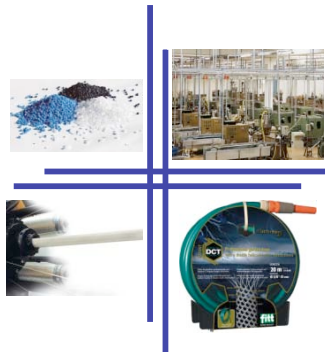
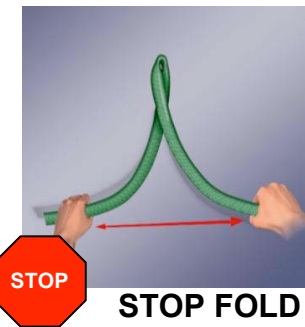
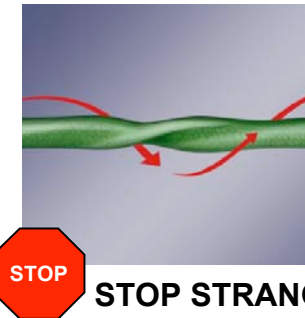
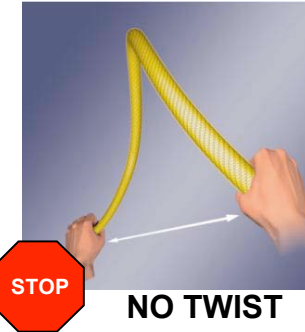
Advantages: No knots, no twisting, maximum malleability, high pressure resistance.



NTS TEXTILE STITCH

PATENTED TECHNOLOGY:

- no knots formation
- no strangle formation
- maximum malleability
- long lasting performances





Not anymore knots!



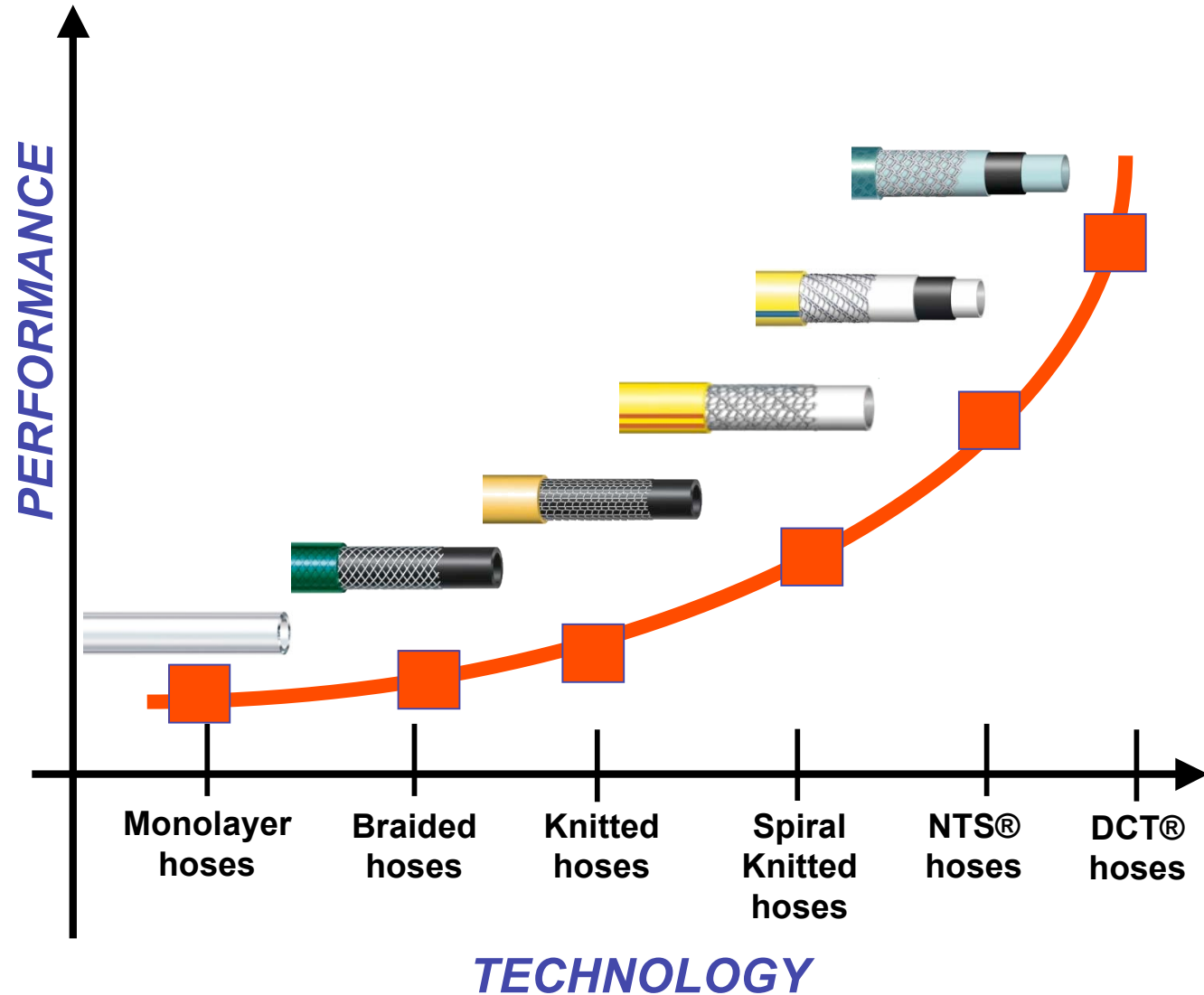


Easy to roll
and unroll !





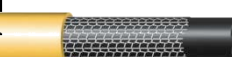





HOSE TECHNOLOGY





HOSE CHARACTERISTICS

	No Knots	No Twist	Pressure Resistance	Malleability
Monolayer 	•••	•••	•	••
Braided 	•	•••	••••	•
Knitted 	••	•	••	•••
Spiral-Knitted 	•••	•••	•••	••
NTS® 	••••	••••	••••	••••
DCT® 	•••••	•••••	•••••	•••••

