

**FLEXIBLE HOSES** 

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## **FLEXIBLE HOSES**



Luxor's Flexible hoses are first rate Made in Italy products, reliable and top quality products worldwide renowned.

The excellent mechanical and hygienic features, the easiness of their installation and the good value of this product find a continuously increasing appreciation by installers and merchants. The constant attention given to the market demands, to customers' requirements and to the hygienic and environmental obligations, make Luxor's flexible hoses a clear point of reference in the sanitary-plumbing market.

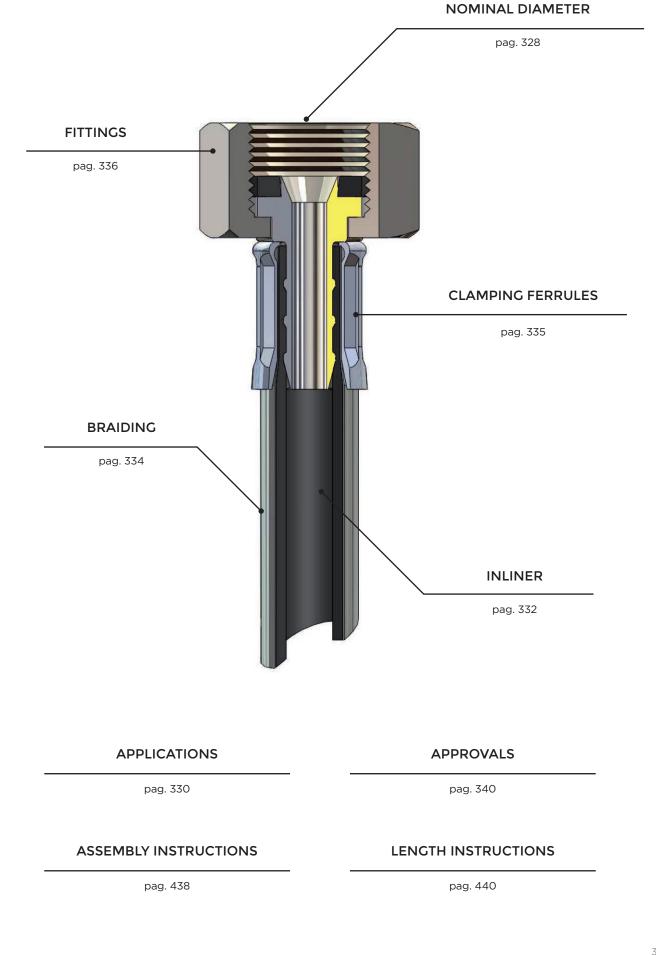
Luxor's flexible hoses are the ideal solution for any type of installation for the distribution of sanitary and drinking water: reliable, easy to fit, cost effective. Luxor's industrial manufacturing process represents the state of the art for the high technology of the production machinery which guarantee a perfect production in every single step.

The hoses are thoroughly checked through severe quality controls, including high resolution photo-camera devices which can detect 100% any possible fault occurred during the production process.

Luxor's Company's Quality System and Luxor's flexible hoses are approved and certified by the most important International Institutes, which recognize and appreciate, besides the product technical qualities, also the Company's policy clearly addressed towards the customer's satisfaction and to the accomplishment to the rules requirements compulsory to the manufactured goods.







### 327

## NOMINAL DIAMETER



Luxor Spa's range of hoses comprises products which com-ply with the most prominent international standards and the current European norm EN13618:2017.

The table below shows the most relevant technical features for every nominal diameter, as well as the availability with silicone, TP, EPDM, PEX and butyl inliner.

Inliner Range	Nominal Diameter	K Inner ø mm	🎸 Outerømm	Min bending radius	Inner fittings ø mm	Flow rate at 3 bar	Max working pressure	Cmm Max working temperature	Cmm Min working temperature	Available Fittings	Available Braidings
	DN6	6,3	10	40	4,7	16 l/min	10 Bar	70° C	-5° C	Brass, stainless steel, plastic	Stainless steel, nylon PA 6.6
	DN8	8,5	12	48	6,2	28 l/min	10 Bar	70° C	-5° C	Brass, stainless steel, plastic	Stainless steel, nylon PA 6.6
	DN8	8,5	12,5	48	6,2	28 l/min	10 Bar	90° C	-20° C	Brass	Stainless steel
	DN10	9,4	13	56	7,5	46 l/min	10 Bar	70° C	-5° C	Brass, copper, stainless steel, plastic	Stainless steel, nylon PA 6.6
	DN10	9,4	14	56	7,5	46 l/min	10 Bar	90° C	-20° C	Brass	Stainless steel
	DN13	12,5	18	72	10	74 l/min	10 Bar	70° C	-5° C	Brass, copper, stainless steel, plastic	Stainless steel, nylon PA 6.6
	DN13	12,5	18	72	10	74 l/min	10 Bar	90° C	-20° C	Brass	Stainless steel
	DN15	15	20	80	12,5	83 l/min	10 Bar	110° C	-5° C	Brass, copper, stainless steel, galvanised steel	Stainless steel, galvanised steel
	DN15	15	20	80	12,5	83 l/min	10 Bar	90° C	-20° C	Brass	Stainless steel
	DN18	19	26	104	15,5	200 l/min	10 Bar	110° C	-5° C	Brass, copper, stainless steel, galvanised steel	Stainless steel, galvanised steel
	DN18	19	26	104	15,5	200 l/min	10 Bar	90° C	-20° C	Brass	Stainless steel
	DN25	25,5	33	132	21	280 l/min	10 Bar	110° C	-5° C	Brass, copper, stainless steel, galvanised steel	Stainless steel, galvanised steel
	DN25	25,5	33	132	21	280 I/min	10 Bar	90° C	-20° C	Brass	Stainless steel
	DN32	32	42	168	27	490 l/min	6 Bar	110° C	-5° C	Brass, stainless steel, galvanised steel	Stainless steel, galvanised steel
	DN32	32	42	168	27	490 I/min	6 Bar	90° C	-20° C	Brass	Stainless steel
	DN40	40	53	212	32	800 I/min	6 Bar	110° C	-5° C	Brass, stainless steel, galvanised steel	Stainless steel, galvanised steel
	DN50	50	65	275	41	1300 I/min	6 Bar	110° C	-5° C	Brass, stainless steel, galvanised steel	Stainless steel, galvanised steel

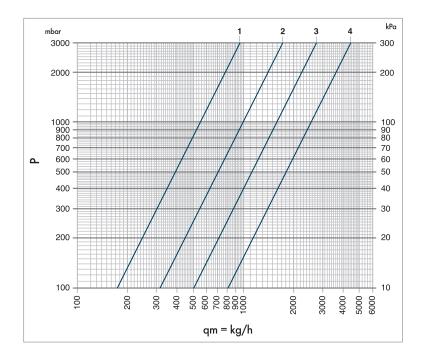
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Silicone

EPDM

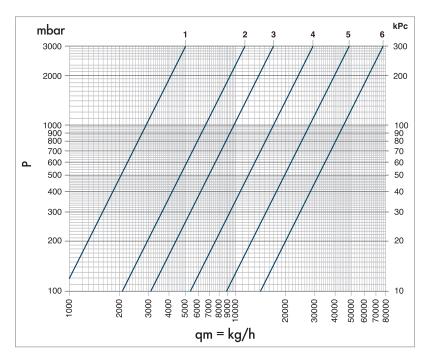


## FLOW RATE CHARTS



Flow capacity diagram on hoses with straight fittings, length 1400 mm.

HOSE DIMENSIONS	POS	Kv	Flow I/min con ΔP 3 bar
DN 6	1	0,55	16
DN 8	2	0,97	28
DN 10	3	1,59	46
DN 13	4	2,56	74



HOSE DIMENSIONS	POS	Kv	Flow I/min con ∆P 3 bar
DN 15	1	2,9	83
DN 18	2	6,6	200
DN 25	3	9,8	280
DN 30	4	17	490
DN 40	5	28	800
DN 50	6	45	1300



## APPLICATIONS

Luxor Spa's flexible hoses are the ideal solution for every application, both sanitary and industrial. They are safe and easy to install.



traditional taps



mixers

The table below shows some of the most common applications, as well as the availability with silicone, TP, EPDM, PEX and butyl inliner.



heating systems



flushing tanks



boilers



washing machines



shower cabins



kitchen pull-out shower



mounting columns



whirpools



generic installations



water heaters



pumps



conditioning systems / fan coil



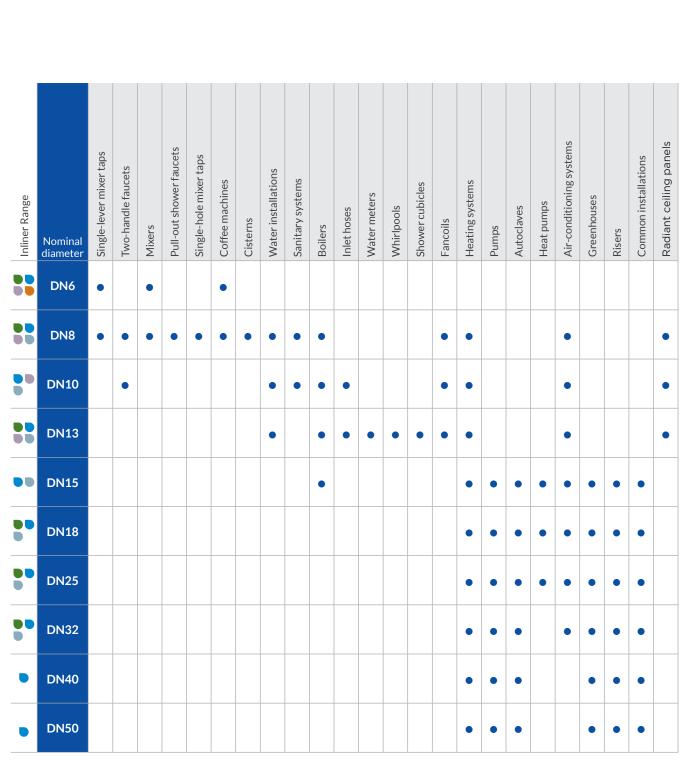
dishwasher



coffee machines



radiant ceiling panels





Butyl

INLINER

#### SILICONE

Silicone, a noble high-quality material, has gained growing recognition on sanitary markets at an international level. It is the most hygienic material available on the market and guarantees complete purity. Outstanding elasticity and excellent mechanical properties throughout the temperature range exemplify its characteristics.

#### **THERMOPLASTIC**

As the result of years of R&D of noble and high-performance materials, TP combines the purity and hygiene of PEX and silicone with the outstanding mechanical properties of EPDM. Flexibility, versatility and usability make Luxor TP hoses a high-quality product certified by the most prominent international institutes. Luxor TP hoses were developed in order to protect the end users' wellbeing and the environment by being hygienically pure and completely recyclable.

#### **EPDM**

EPDM rubber is the most widespread inliner material. Available in various compounds, it shows excellent hygienic and mechanical characteristics as well as resistance to oxidation, environmental factors and high temperatures.

### PEX

PEX is a thermoplastic material endowed with excellent hygienic properties which does not affect the taste and smell of water throughout the temperature range. PEX hoses have established themselves on the market as a good alternative to EPDM.

### BUTYL

Butyl is a material with low oxygen permeability. This feature makes it suitable for all closed circuit applications where oxygen creates corrosion.











PROPERTIES	SILICONE	THERMOPLASTIC	EPDM	PEX	BUTYL
Hygienic Purity				••••	-
Mechanical Resistance					
Resistance to Temperature			•••••	••	•••
Durability		••••	••••		
Flexibility		••••	••••	•	
Approvals		••••			-
Range			•••••	•	
Versatility			•••••	•	•

Sufficient

Discrete

Good

### BRAIDING



The external reinforcing braiding is made using stainless steel threads AISI 304 Ø 0,20 mm, Ø 0,22 mm, galvanized steel threads Ø 0,30 mm and Nylon threads PA 6.6 Ø 0,25 mm and Ø 0,30 mm.

These threads, joined to become plaits are assembled so to cover completely the inner pipe giving to the flexible hose the faculty to sustain the normal working pressure and the possible overpressure which can occur during an ordinary performance of the hydraulic system.

#### STAINLESS STEEL THREADS

The stainless steel threads have a minimum Ø 0,20 mm, a higher dimension of the one normally employed by other producers, so to guarantee a safe and reliable top quality product. Thanks to this excellent covering material, Luxor's flexible hoses have successfully passed the most severe mechanical tests of European and International Certification Institutes of the hydrosanitary field.

#### NYLON THREADS

The Nylon PA 6.6 threads also assure excellent resistance

and good mechanical qualities thanks to the elasticity of material and the good performance at high and low temperature. Flexible hoses with braiding in Nylon PA 6.6 have found a large market in the kitchen mixers with pull-out showers for example, due to their good performance and their resistance to the wear and tear due to the friction rub and to the low noise produced during the normal daily use.

#### BRAIDING

The braiding percentage of covering can change in accordance to the specific product requests and to the customer's requirements, going from a 97% cover until 80%.

The 97% braiding covers perfectly the inner pipe making the flexible hose mechanically more resistant to the strains and giving a better aesthetic exterior.

The thread dimension, the quality of the material and the covering percentage of the braiding distinguish Luxor's hoses, products with a high quality profile, from those of other producers.





## CLAMPING FERRULES

The clamping ferrules of the end connectors are in stainless steel AISI 304 (from DN6 to DN50) and in aluminium (from DN15 to DN50), materials firm and safe, which differing from brass, are not subjects to breakage given by stress corrosion.

Next to the peculiar specific qualities of the stainless steel, that is the resistance to corrosion and oxidation, the stainless steel clamping ferrules AISI 304 are solubilized so to stress relieve and reduce the superficial hardness of the material and avoid the possible development of splits during the pressing process.

#### PRESSURE

The pressure of the clamping ferrules to the braided hose

and to the end connectors is made with an octagonal pressing process.

For special dimensional requirements is carried out a double pressing called "calibration" which allows a further external space reduction of the clamping ferrules.

### IDENTIFICATION MARK

All Luxor's flexible hoses are clearly and rigorously marked with an identification mark on the clamping ferrules bearing the mark LUX, year of production and the technical-regulation quotes.

By marking the hose each producer assumes his responsibility of what is produced: BEWARE OF HOSES WITH NO NAME!



### FITTINGS



The end connectors are produced in brass CW617N and CW614N with low lead content in compliance to the recent rules UNI EN12165 and UNI EN12164.

For some markets, or for some particular applications, are also available fittings in brass CW602N, which differs from the commonly used brass, since it prevents the brass from dezincification caused by the loss of zinc and the consequent redeposit of copper.

Though the percentage of lead within the brass alloys for the fittings are low and guaranteed by the European regulation, the new challenge that producers of plumbing material are facing is the total exclusion of lead from the manufactured products. With the main target to constantly improve the hygienic quality of the product and to improve the pureness of the materials, Luxor is engaged to use for particular markets brass Ecobrass type with zero percentage of lead.

The fittings, based on the specific markets demands or on product certification requirement, undergo further manufacturing processes such as: normalization (to stress relieve the material and reduce the surface hardness and avoid the occurring of production cracks).

For particular application, where high resistance to oxidation and good resistance to mechanical stress is required, the fittings are produced in stainless steel AISI304.

Other fittings are produced in deoxidated phosphor cooper Cu-DHP quality with chemical composition: Cu 99,9% min, whose mechanical qualities, dimensions and tolerances are in compliance to the EN1057 rule and its connected regulations.

For particular requirements and for those markets less demanding are also available end connectors in steel AVP.

#### SEALING GASKETS AND O-RINGS

The water tightness of the end connectors is guaranteed by the use of gaskets and o-rings in EPDM and NBR, materials with high ozone free properties, which preserve their tightening features and mechanical resistance throughout times.

The compounds used, thanks to the excellent hygienic properties, are fit for drinking water adduction, and have been approved by the most rigorous Certification Institutes of the hydrosanitary field.

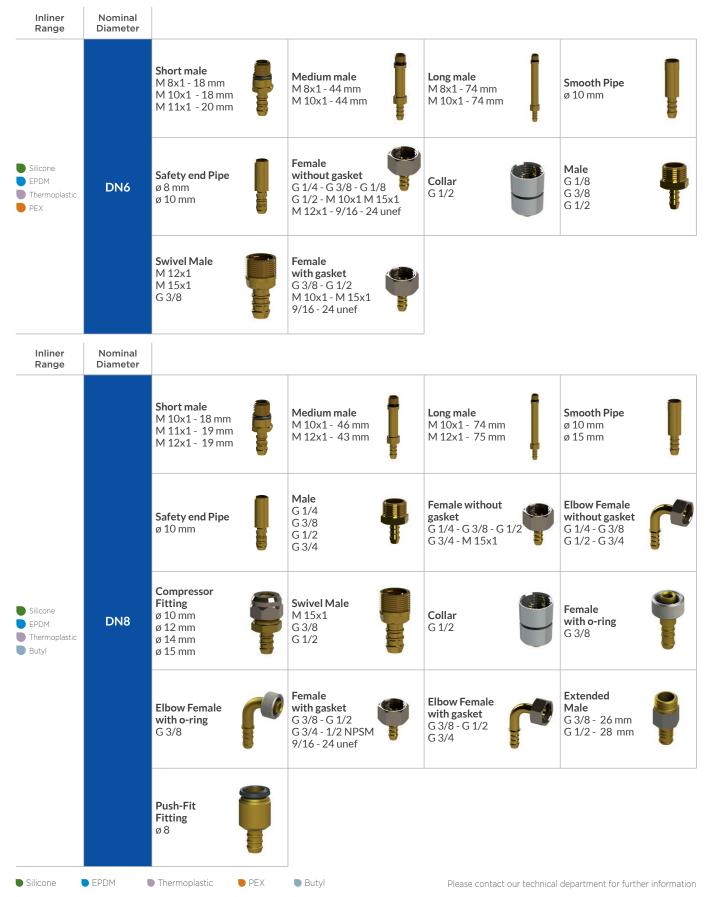
The mechanical, physical and hygienic qualities of the gaskets and o-rings are constantly tested with specific laboratory tests both carried out internally or externally to verify their conformity to the rules requirements.





## TYPE OF FITTINGS

Luxor's main target is that to satisfy the customer during the development process of the new products and give new technical solutions.

























Nominal Diameter						
		Nation:	WaterMark	Nation: Australia		Nation: Denmark
	<b>kiwa</b> 🛄	Certification: DM 174		Certification: WATERMARK		Certification: VA
		Inliner Range:		Inliner Range:		Inliner Range:
	ŝ	Nation: France	DVCW	Nation: Germany		Nation: Norway
		Certification: QB		Certification: DVGW		Certification: SINTEF
		Inliner Range:		Inliner Range:		Inliner Range:
DN6	kiwa ÿ	Nation:	w Show store	Nation: Switzerland		Nation: Sweden
		Certification: KIWA		Certification: SVGW	4	Certification: RISE
		Inliner Range:		Inliner Range:		Inliner Range:
	NSF Jumme 27	Nation:	EN 13618	Nation: UE		Nation: UK
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PEX

Thermoplastic

Please contact our offices for information about technical specifications and certified products or visit the website of the corresponding certification body for the latter. Please refer to www.nsf.org for a complete list of NSF approved products. Please refer to www.iapmort.org for a complete list of UPC/CUPC approved products.

Silicone

EPDM

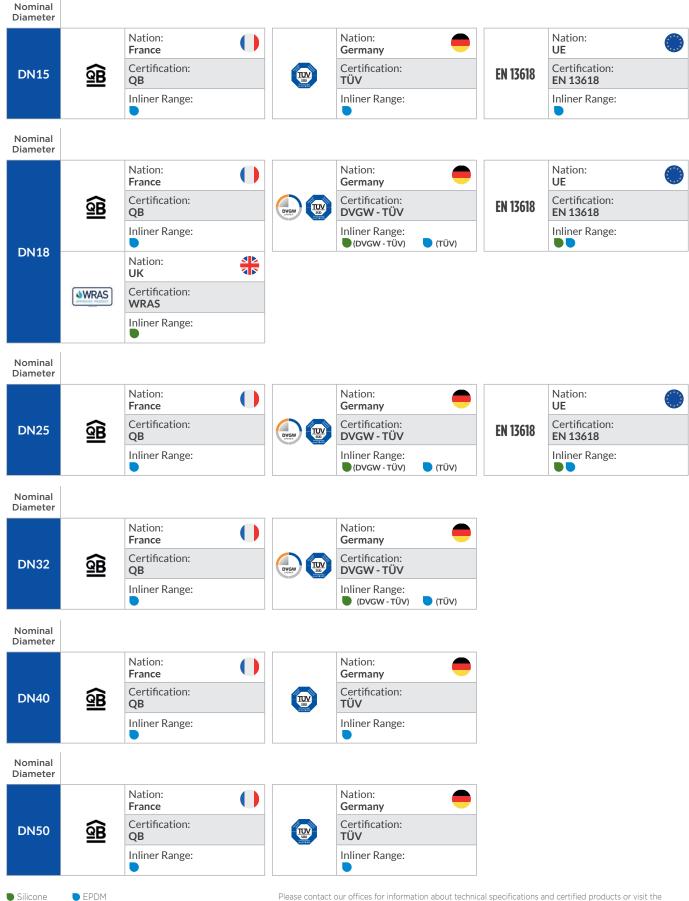


Nominal Diameter						
		Nation: Italy	WaterMark	Nation: Australia		Nation: Denmark
	kiwa III	Certification: DM 174		Certification: WATERMARK		Certification: VA
		Inliner Range:		Inliner Range:		Inliner Range:
		Nation: France		Nation: Germany		Nation: Norway
	ଖ୍ଞ	Certification: <b>QB</b>		Certification: DVGW - TÜV		Certification: SINTEF
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		Certification: NSF - IAPMO		Certification: EN 13618		Certification: WRAS
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# Nominal

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	kiwa INI	Certification: DM 174	WaterMark	Certification: WATERMARK		Certification: VA
		Inliner Range:		Inliner Range:		Inliner Range:
		Nation: France		Nation: Germany		Nation: Norway
	ଞ	Certification: <b>QB</b>		Certification: DVGW - TÜV		Certification: SINTEF
<b>D</b> 1140		Inliner Range:		Inliner Range: (DVGW-TÜV) (TÜV) (DVGW)		Inliner Range:
DN13	kiwa	Nation: <b>Holland</b>		Nation: Switzerland	٣	Nation: Sweden
		Certification: KIWA		Certification: SVGW		Certification: RISE
		Inliner Range:		Inliner Range:		Inliner Range:
		Nation: <b>USA</b>		Nation:	WRAS	Nation:
		Certification: NSF - IAPMO	EN 13618	Certification: EN 13618		Certification: WRAS
		Inliner Range:		Inliner Range:		Inliner Range:

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