

KAPTECH

STAINLESS STEEL HOSE ASSEMBLIES

- **Excellent corrosion resistance**

Stainless Steel hose construction throughout.

- **High Strength & Safety**

All-welded assembly gives total integrity of tube, braid and end fittings.

- **Wide pressure range**

From full vacuum up to 220 bar, dependent on exact specification.

- **Excellent flexibility**

Corrugated tube allows tight, kink-free bends and ease of handling.

- **Wide temperature range**

Between -200°C and +600°C, dependent on working pressure.

- **Fire and damage resistant**

Tough, all-metal construction.

- **Long service life**

Without the ageing deterioration of non-metal hoses.

- **Excellent steam resistance**

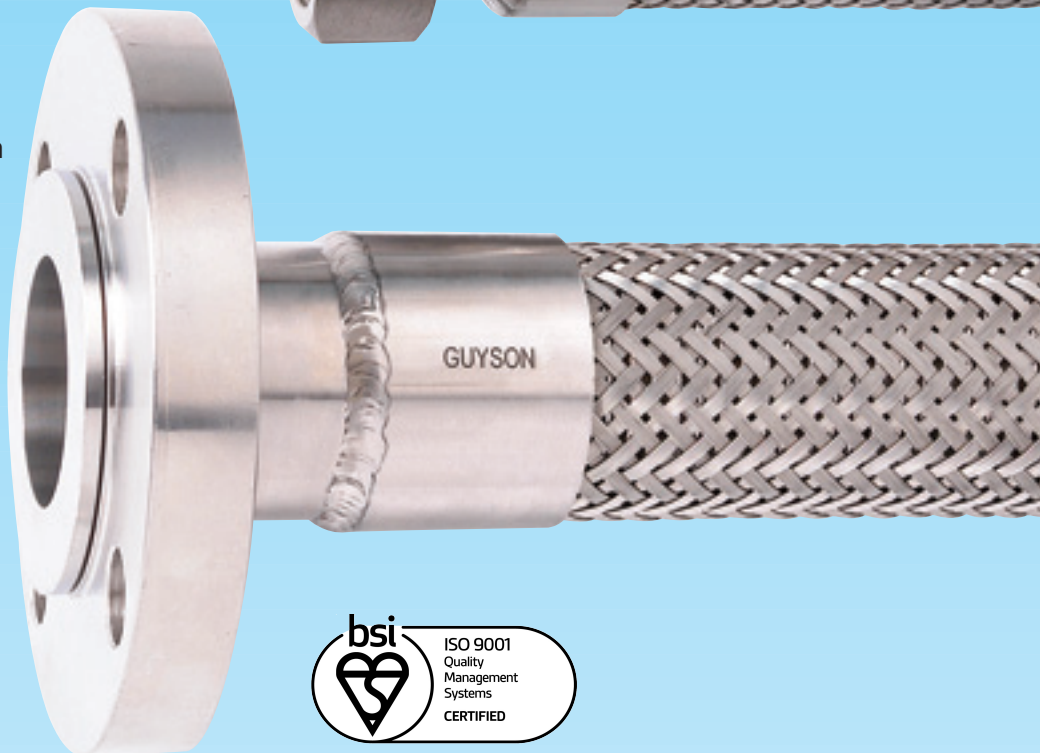
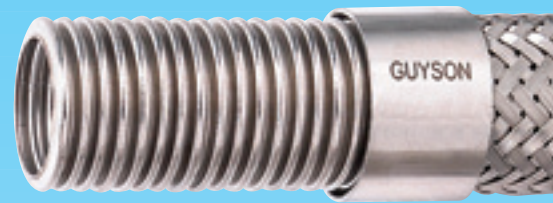
Longer service life than non-metal steam hoses.

- **Standard Sizes:**

1/4" up to 4" nb. Larger sizes are available on request.

- **Wide range of end fittings:**

BSP, NPT, flanges, hygienic type, specials, etc.



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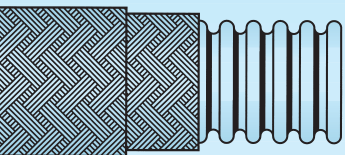


For capabilities and general technical data, see overleaf

KAPTECH

STAINLESS STEEL HOSE ASSEMBLIES

Construction: The Kaptech Stainless Steel flexible hose assemblies listed are manufactured from annularly-corrugated tube formed from butt-welded rigid tube, to BS6501 Part 1 type B flexibility; they also meet ISO 10380



class 1. Assemblies to type C flexibility are also freely available.

Single or double layers of wire braid are applied externally to the hose

and welded to the fittings at each end to give pressure holding capability and protection from abrasion. The extent of braiding, gauge and angle of lay is carefully calculated for optimum performance.

The stainless corrugated tube is available in 321 and 316 grade, with braid in 304 or 316; other materials such as bronze, Monel, etc., are also readily available.



End Fittings:

Because Kaptech hose assemblies are individually made in our works they can have end fittings selected to suit customers' application

requirements from a wide range of standard and special configurations, including male & female BSP and NPT threads, fixed & swivel flanges to various specifications, hygienic fittings, tube ends, weld ends, quick-release couplings, etc.



Design & Installation: Kaptech Stainless Steel flexibles should be configured and installed in such a way that the minimum bend radius is not exceeded, the hose is not stretched, compressed nor twisted, and the external braid is not subject to wear nor damage. The use of elbow ends can often help in achieving a satisfactory installation.



Optional Additional Features

Internal Liners - to protect tube against abrasion or high flow velocities.

External Casing - for protection against undue risk of overbending and external damage.

Rubber and Plastic Covers - to give anti-scuff and environmental protection, comfortable handling, and a wipe-clean surface.

External insulation - to maintain fluid temperature and protect operator.

Duplex Assemblies - hose-within-a-hose for heat-tracing or cooling.



KAPTECH Stainless Steel Hose Assemblies

ISO 10380					Min Bend Radius		Maximum Pressure		
NB	DN	PN	Braid	O/D	Static	Flexing	Working	Test	Weight
1/4"	6	150	Single	11.4mm	25mm	110mm	167 bar	250 bar	0.16 kg/m
		150	Double	12.8			220	350	0.24
3/8"	10	100	Single	16.3	38	150	100	150	0.27
		150	Double	17.6			178	267	0.38
1/2"	12	63	Single	21	45	165	74	111	0.36
		100	Double	22.4			103	155	0.53
3/4"	20	63	Single	27.4	70	200	65	97	0.52
		63	Double	29			86	129	0.77
1"	25	50	Single	35.8	85	200	50	75	0.70
		63	Double	37.9			76	114	1.1
1 1/4"	32	25	Single	43.2	105	250	39	59	0.86
		50	Double	45.3			57	85	1.3
1 1/2"	40	25	Single	50	127	250	35	53	1.2
		50	Double	52.2			55	82	1.7
2"	50	25	Single	64.2	160	350	30	45	1.5
		40	Double	66.3			44	66	2.3
2 1/2"	65	25	Single	78.6	200	410	26	39	2.8
		40	Double	80.7			46	69	3.7
3"	80	20	Single	91.9	230	450	22	33	3.4
		40	Double	94.1			40	60	4.5
4"	100	16	Single	129	230	560	18	27	5.1
		25	Double	132			33	49	6.9

Intermediate and larger sizes available on request.

Pressure Ratings: The pressure ratings listed above are for Kaptech Stainless Steel hose assemblies at normal ambient temperatures.

The maximum working pressure gives a safety factor of 4:1 against the burst pressure. The maximum working pressures should be reduced according to the table opposite where higher temperatures are involved.

To prevent permanent damage to the hose the maximum test pressure must never be exceeded.

Pressure ratings shown are valid for Group 2 fluids only [per Pressure Equipment Directive 97/23/EC, Art.9 (2)]. Consult Guyson Technical Department for Group 1 (dangerous) fluids ratings.

Temperature	321	316
-200 to +50°C	100%	100%
100	96	94
150	92	90
200	88	86
250	84	82
300	80	78
350	76	74
400	72	70
450	66	
500	60	
550	54	
600	44	

Flow: To avoid the risk of premature fatigue failure we suggest that flow rates of 45 m/sec (gas) and 22 m/sec (liquid) should not be exceeded for hose installed in a straight configuration; these values should be reduced by 50% for a 90° bend, 25% for a 45° bend, etc., proportionate to the angle of bend.

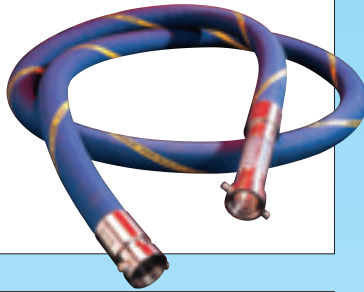
Pressure drop in Stainless Steel flexible hoses is approximately double that in plain steel pipe; this means that an increase in diameter of the hose of approximately 15% is sufficient to reduce the pressure drop to a similar value to that in plain steel pipe.

Note: All technical information shown above correct at time of print and may be subject to change without notice. For specific applications please consult Guyson Technical Department

OTHER GUYSON PRODUCTS

KAPTECH HYGIENIC HOSE

Our range of hygienic hoses covers virtually all applications in the food, dairy, brewing and pharmaceutical industries.



KAPTECH COMPOSITE HOSE

Light, easy-handling hoses with good flexibility and modest cost. A wide range of chemical resistance is achieved through the use of polypropylene, PTFE, etc.



KAPTECH PTFE HOSE

All Kaptech PTFE flexibles have the highest level of chemical resistance. A wide range of standard and special end fittings are available, factory-swaged on for total security.



KAPTECH INDUSTRIAL HOSES

A wide range of robust rubber hoses for general industrial services, including water, steam, chemicals, air, oils, fuels, and many other liquids and gases.



KAPTECH SILICONE HOSE

Kaptech silicone hoses have ultra-smooth bores and external surfaces giving especial suitability for pharmaceutical and biomedical applications.



KAPTECH HOSE REELS

Automatic, self-retracting hose reels for convenient and safe handling of wash-down hoses, etc.



Stainless Steel bellows, vibration eliminators and sight-glasses are also available.

HANSEN QUICK RELEASE COUPLINGS



With a comprehensive range of types, sizes and materials Hansen couplings provide fast, leak-free connection and disconnection of hoses for an unrivalled variety of liquids and gases, including, water, steam, fuels, solvents, fine chemicals, oils etc. Self-sealing and dry-break types give automatic prevention of spillage.



Guyson Service

The Guyson team of hose specialists offers unrivalled expertise in specification and selection of suitable hose assemblies for customers' application conditions. Advice is freely available to customers by correspondence, telephone, fax, e-mail and personal visits to customer sites. All Kaptech hose assemblies are fully tested before despatch and are supplied under our ISO 9000 accredited quality system.



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