



WHITEHOUSE
FLEXIBLE TUBING LTD

Oil & Gas



Rail



Marine



Agriculture



Construction



Automotive



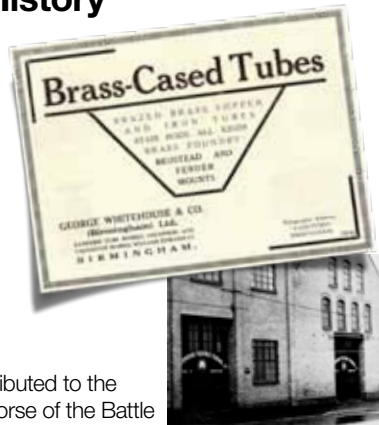
Product Catalogue

Whitehouse Flexible Tubing: A History

From brass-cased tubes to industrial hose solutions

Whitehouse Flexible Tubing is a family firm with a rich history, forged in the late 1800s, when George Whitehouse set up a brass foundry in Birmingham. George Whitehouse & Co manufactured a range of brass products from bedsteads to door handles at its William Edward Street factory. George's three sons, Jack, Jim and Norman, joined the flourishing business, which occupied one end of the small street with housing for the foundry's workers built along it.

With the outbreak of the Second World War, the firm contributed to the war effort by making parts for Hawker Hurricanes – workhorse of the Battle of Britain fighter squadrons. As German bombing raids over the Midlands intensified, Jim and Norman took the decision to clad the factory roof in metal sheeting. That decision proved extraordinarily perspicacious. The very night the work was completed, the factory took a direct hit, but survived to see out the war years in full production.



As the business grew, George Whitehouse & Co diversified into new products, principally stripwound flexible tubing for a wide range of industrial uses – conveyance, ventilation, protective casing and, particularly exhausts for cars. Jim Whitehouse guided the company to growing profitability supplying Britain's booming automotive industry. In the early 1950s, however, the William Edward Street factory was compulsorily purchased and Jim moved the firm to its present location in Redditch.

The next generation of the family, Jim's three sons, Paul, Roger and Ken, picked up the mantle when he retired in 1977, and steered the company through a difficult period as Britain's motor industry gradually declined. Like the generations before them, the brothers understood the importance of innovation, investing in technology and toolmaking design to refine manufacturing processes. They have worked closely with their design teams and toolmakers to ensure they continue to meet customer expectations, bringing new products to market and securing the long-term success of the business.

Today, Whitehouse Flexible Tubing is run by fourth-generation members of the family – Roger's son, Tom and Ken's son, John. They are joined by a third director, Darren Shakells, who started in the business as an apprentice in 1989.

The management team continues the tradition for innovation. As well as investing in new machinery and adding to the product range, they are also extending the assembly workshop to enable manufacture of specialist hoses on site. The company has undergone considerable change over the past two years, refining systems and processes to improve products and services, and achieving ISO9001 Quality Management accreditation along the way.





WHITEHOUSE
FLEXIBLE TUBING LTD

*Specialists in the manufacture of
electrical conduits, exhausts
& industrial hose solutions*

Product Ranges

Conduits & Assemblies

Page 4



Metallic Tubing

Page 22



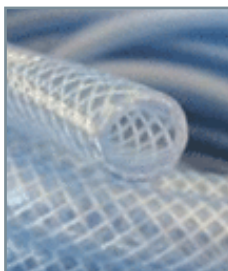
Industrial Assemblies Expansion Joints and Bellows

Page 44



Non-metallic Tubing

Page 48



Clips & Clamps

Page 72



Conduits overview

Our range of conduits are ideal for cable protection and are typically used in the construction and electrical industry.

Standard lengths: 30m & 50m coils (crates, reels & non standard lengths available on request)

DNP Range

Pages 6 & 7



DNP conduit is manufactured to the metric Din Std 49 012

A wide range of fittings are available to suit.

IP Rating: IP40 (Conduit) / IP 40 (Conduit Plus Fittings)

Classification Coding for Conduit System:

BSEN61386-1:2008-125640402010

Temp Range: -25°C to +300°C

DFC Range

Pages 8 & 9



DFC conduit has a Low Smoke & Fume (LSF) PVC covering for reduced fire hazard and is manufactured to the metric Din Std 49 012

IP Rating: IP65 (Conduit) / IP 54 (Conduit Plus Fittings)

Classification Coding for Conduit System:

BSEN61386-1:2008-125640402010

Temp Range: -25°C to +75°C

DNP-SS Range

Pages 10 & 11



DNP-SS conduit is manufactured to the metric Din Std 49 012

A wide range of fittings are available to suit.

IP Rating: IP40 (Conduit) / IP 40 (Conduit Plus Fittings)

Classification Coding for Conduit System:

BSEN61386-125740404010

Temp Range: -100°C to +400°C

NWT Range

Pages 12 & 13



This uncovered galvanised steel conduit is manufactured to the British Imperial Standard BS731 Part 1

A wide range of fittings are available to suit.

IP Rating: IP40 (Conduit) / IP40 (Conduit Plus Fittings)

Classification Coding for Conduit System:

BSEN61386-125740404010

Temp Range: -25°C to +300°C

Conduits overview

VFC Range Pages 14 & 15



This Low Smoke & Fume (LSF) PVC covered galvanised steel conduit is manufactured to the British Imperial Standard BS731 Part 1

A wide range of fittings are available to suit.

IP Rating: IP65 (Conduit) / IP 54 (Conduit Plus Fittings)

Classification Coding for Conduit System:
BSEN61386-222240543020

Temp Range: -25°C to +75°C

NWT-SS Range Pages 16 & 17



DNP-SS conduit is manufactured to the metric Din Std 49 012

A wide range of fittings are available to suit.

IP Rating: IP40 (Conduit) / IP 40 (Conduit Plus Fittings)

Classification Coding for Conduit System:
BSEN61386-125740404010

Temp Range: -25°C to +400°C

Liquid Tight (LQT) Range Page 18



Our range of Light Tight Conduit provides the perfect solution where a higher degree of liquid tightness is required.

IP Rating: IP67 (Conduit) / IP67 (Conduit Plus Fittings)

Classification Coding for Conduit System:
BSEN61386-222230673220

Temp Range: -25°C to +300°C

Pre-wired Conduit Systems Pages 19-21



We manufacture pre-wired conduit systems for power, lighting, data and communications networks

Specification: Our products are made to order so we can make them to your specification

Classification: Home Runs, Tap-offs, Links, Drop Downs

Bare Galvanised Steel Conduit DNP

Construction

DNP is made from electro galvanised steel strip, which is helically wound to produce a squarelock construction. Made to DIN49012

Typical Applications

The Din Standard Conduit Range is extremely versatile. It is a highly flexible conduit that is well suited to a wide range of applications, in particular cable protection. It can be used in most commercial and industrial environments, where dynamic and static applications are required. The tube and fittings are all metallic and therefore can be used when a low fire hazard specification is required.

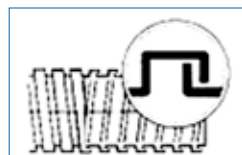
Temp range: -25°C to +300°C

IP Rating: IP40 (Conduit) / IP40 (Conduit Plus Fittings)

Complies with: BSEN61386-1:2008 & BSEN61386-23:2004

Classification Coding for Conduit System:

BSEN61386-125640402010



Squarelock Section

Size reference	Inside diameter (mm)	Outside diameter (mm)	Inside bend radius	Weight (kg) per 100m
DNP.10	7	9	23	8
DNP.12	10	13	35	16
DNP.16	13	16	41	18
DNP.18	15	18	45	20
DNP.20	17	20	51	23
DNP.25	21	25	63	30
DNP.32	29	32	70	45
DNP.40	38	42	92	56
DNP.50	49	55	118	69

Standard Lengths: 30m / 50m coils

Packing: STD coils / wooden reels / loose or joined in crates

Assemblies: Can be supplied cut to your preferred length



Bare Galvanised Steel Conduit DNP

Fittings

Please see below for our standard range of Two Piece Brass Nickel Plated conduit fittings. Some popular sizes do have alternative thread combinations available. Locknuts are available to suit all thread sizes in either galvanised steel or nickel plated brass.

Tubing size ref.	I/D (mm)	O/D (mm)	Male adaptor part no.	Swivel male part no.	Thread size	Plain hole part no.
DNP 10	7	10	DF10-PG7M	DF10-PG7MS	PG.7	DF10-P
DNP 12	10	14	DF12-M16	DF12-MS16	16MM	DF12-P
DNP 16	13	17	DF16-M (SS)	DF16-MS	16MM	DF16-P (SS)
DNP 16	13	17	DF16-M20	DF16-MS20	20MM	—
DNP 18	15	18	DF18-M20	DF18-MS20	20MM	—
DNP 20	17	21	DF20-M (SS)	DF20-MS	20MM	DF20-P (SS)
DNP 25	21	26	DF25-M (SS)	DF25-MS	25MM	DF25-P (SS)
DNP 32	29	34	DF32-M (SS)	DF32-MS	32MM	DF32-P (SS)
DNP 40	38	44	DF40-M	DF40-MS	40MM	DF40-P
DNP 40	38	44	DF40-PG36	DF40-MSPG36	PG.36	—
DNP 50	49	57	DF50-M	DF50-MS	50MM	DF50-P



Male adaptor



Swivel adaptor



Plain hole adaptor

Turn to page 19 for details of our Pre-wired Conduit Systems.



Please contact us if you have any requirements for non-standard fittings.

PVC Covered Galvanised Steel Conduit (DFC)

Construction

A low smoke & fume (LSF) PVC covered helically coiled, galvanised steel, conduit that is manufactured in accordance with Din Standard 49 012 from annealed steel strip to BS.1449 Part 1 1972) and extruded with vacuum formed black LSF- PVC as standard although other colours are available by request. We can use a LSF Zero Halogen PVC Covering if required.

Typical Applications

This PVC Covered Galvanised Steel DIN Standard Conduit is durable, versatile, has a very good bend radius, a degree of weatherproofing, good mechanical strength and a high crush resistance. DFC Conduit is ideal for cable protection and can be used in most commercial and industrial environments, where dynamic and static applications are required.

Temp Range: -25°C to +300°C

IP Rating: IP40 (Conduit) / IP40 (Conduit Plus Fittings)

Complies with: BSEN61386-1:2008 & BSEN61386-23:2004

Classification Coding for Conduit System:

BSEN61386-125640402010



Squarelock Section

Size Reference	I/D (mm)	O/D (mm)	Inside bend radius	Weight (kg) per 100m
DFC10	7	10	35	11
DFC12	10	14	43	19
DFC16	13	17	45	25
DFC20	17	21	58	34
DFC25	21	26	71	38
DFC32	29	34	95	54
DFC40	38	44	122	77
DFC50	49	57	140	112

Standard Lengths: 30m / 50m coils

Packing: Wooden reels

Assemblies: Can be supplied cut to your preferred length

PVC Covered Galvanised Steel Conduit (DFC)

Fittings

Please see below for our standard range of Two Piece Brass Nickel Plated conduit fittings. Some popular sizes do have alternative thread combinations available. Locknuts are available to suit all thread sizes in either galvanised steel or nickel plated brass.

Tubing Size Ref.	I/D (mm)	O/D (mm)	Male Adaptor Part No.	Swivel Male Part No.	Thread Size	Plain Hole Part No
DFC 10	7	10	DF10-PG7M	DF10-PG7MS	PG.7	DF10-P
DFC 12	10	14	DF12-M16	DF12-MS16	16MM	DF12-P
DFC 16	13	17	DF16-M	DF16-MS	16MM	DF16-P
DFC 16	13	17	DF16-M20	DF16-MS20	20MM	
DFC 18	15	18	DF18-M20	DF18-MS20	20MM	
DFC 20	17	21	DF20-M	DF20-MS	20MM	DF20-P
DFC 25	21	26	DF25-M	DF25-MS	25MM	DF25-P
DFC 32	29	34	DF32-M	DF32-MS	32MM	DF32-P
DFC 40	38	44	DF40-M	DF40-MS	40MM	DF40-P
DFC 40	38	44	DF40-PG36	DF40-MSPG36	PG.36	
DFC 50	49	57	DF50-M	DF50-MS	50MM	DF50-P
DFC 50	49	57	DF50-PG48	DF50-MS48	PG.48	



Male adaptor



Swivel adaptor



Plain hole adaptor

Turn to page 19 for details of our Pre-wired Conduit Systems.



Please contact us if you have any requirements for non-standard fittings.

Bare Stainless Steel Conduit (DNP SS)

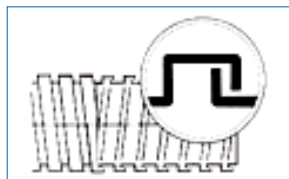
Construction

A helically coiled, stainless steel, conduit with a squarelock section that is manufactured in accordance with DIN Standard 49 012. This conduit can also be supplied in Type 316 Stainless Steel on request.



Applications

Stainless steel conduit is a highly flexible tube which is well suited to a wide range of purposes, in particular cable protection. The stainless steel construction makes this conduit suitable for many applications in the food industry. Due to the anti-corrosive properties of stainless steel it is also suitable for water contact or if constructed from a Type 316 S/S it is ideal for salt water / marine applications.



Squarelock Section

Temp Range: -100°C min, +400°C Max.

IP Rating: IP40 (Conduit) / IP 40 (Conduit Plus Fittings)

Complies with: BSEN61386-1:2008 & BSEN61386:2004

Classification Coding for Conduit Systems:

BSEN61386 – 125740404010

Size Ref.	I/D (mm)	O/D (mm)	Inside Bend radius	Weight (kg) per 100m
DNP.10-SS	7	9	23	8
DNP.12-SS	10	13	35	16
DNP.16-SS	13	16	41	18
DNP.18-SS	15	18	45	20
DNP.20-SS	17	20	51	23
DNP.25-SS	21	25	63	30
DNP.32-SS	29	32	70	45
DNP.40-SS	38	42	92	56
DNP.50-SS	49	55	118	69

Standard Lengths:

30m coils

50m coils

Packing:

Wooden reels

Loose or joined in crates

Cut lengths:

Can be supplied cut to your preferred length

Bare Stainless Steel Conduit (DNP SS)

Two-piece brass nickel-plated adaptors to suit

Tubing size ref.	I/D (mm)	O/D (mm)	Male adaptor Part No.	Swivel Male Part No.	Thread size	Plain Hole Part No.
DNP 10-SS	7	10	DF10-PG7M	DF10-PG7MS	PG.7	DF10-P
DNP 12-SS	10	14	DF12-M16	DF12-MS16	16mm	DF12-P
DNP 16-SS	13	17	DF16-M	DF16-MS	16mm	DF16-P
DNP 16-SS	13	17	DF16-M20	DF16-MS20	20mm	
DNP 18-SS	15	18	DF18-M20	DF18-MS20	20mm	
DNP 20-SS	17	21	DF20-M	DF20-MS	20mm	DF20-P
DNP 25-SS	21	26	DF25-M	DF25-MS	25mm	DF25-P
DNP 32-SS	29	34	DF32-M	DF32-MS	32mm	DF32-P
DNP 40-SS	38	44	DF40-M	DF40-MS	40mm	DF40-P
DNP 40-SS	38	44	DF40-PG36	DF40-MSPG36	PG.36	
DNP 50-SS	49	57	DF50-M	DF50-MS	50mm	DF50-P
DNP 50-SS	49	57	DF50-PG48	DF50-MS48	PG.48	



Male adaptor



Swivel adaptor



Plain hole adaptor

Turn to page 19 for details of our Pre-wired Conduit Systems.

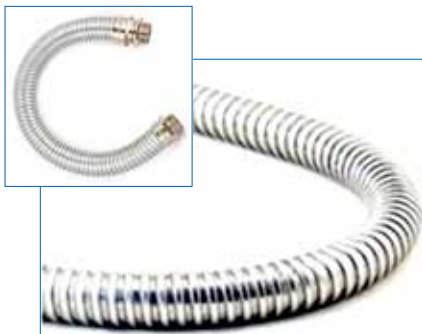


Please contact us if you have any requirements for non-standard fittings.

Bare Galvanised Steel Conduit NWT

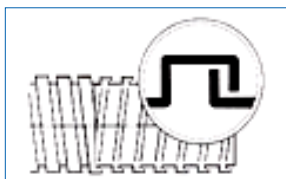
Construction

A helically coiled, galvanised steel, conduit that is manufactured in accordance with BS731 Part 1 from annealed steel strip to BS.1449 Part 1 1972. This conduit is also available with a cotton or fibre packed section which is a standard product of ours and is sometimes referred to as Damp Proof Conduit.



Typical Applications

The British Standard (BS731) Conduit Range is extremely versatile. It is a highly flexible conduit that is well suited to a wide range of applications, in particular cable protection. It can be used in most commercial and industrial environments, where dynamic and static applications are required. The tube and fittings are all metallic and therefore can be used when a low fire hazard specification is required.



Squarelock Section

Temp Range: -50°C Min, +300°C Max.

IP Rating: IP 40 (Conduit) / IP 40 (Tube Plus Fittings)

Classification Coding for Conduit Systems: BSEN61386 – 125640402010

Standard Lengths:	30m Coils	50m Coils
Packing:	Wooden reels	Loose or joined in crates
Cut lengths:	Can be supplied cut to your preferred length	

Connectors

Two piece brass nickel plated adaptors to suit

Our range of two-piece and one-piece connectors provide a flexible solution for most installation requirements and are available in all popular sizes. Please ask our sales team for details.

Male, swivel plain hole

A limited range of stainless steel connectors are also available.

One-piece brass adaptors

One-piece brass adaptors provide an economical alternative for various applications.



2-piece male adaptor



2-piece swivel adaptor



2-piece plain hole adaptor



1-piece female brass



1-piece male brass

Bare Galvanised Steel Conduit NWT

Standard size range

N.B. Weights in brackets are for the Cotton or Fibre Packed, Damp Proof Conduit

I/D (inches)	I/D (mm)	O/D (mm)	Inside bend radius	Weight (kg) per 100m
1/8"	3	5.5	20	5
3/16"	5	7.5	23	6
1/4"	6.4	8.6	25	9 (12)
5/16"	8	10.4	26	13 (15)
3/8"	9.5	12.3	28	14 (21)
1/2"	12.7	16.1	32	20 (24)
5/8"	15.9	19.8	35	23 (30)
3/4"	19	23.3	37	31 (36)
7/8"	22	26	40	35 (49)
1	25.4	30.4	44	39 (63)
1.1/8	28.5	33	47	41 (73)
1.1/4	32	37	52	43 (83)
1.3/8	35	40	54	51 (91)
1.1/2	38	43.3	58	59 (99)
1.3/4	44.5	51	65	72 (116)
2	50.8	55	73	85 (132)
2.1/4"	57	64	100	102 (156)
2.1/2"	63	70	110	115 (178)
2.3/4"	70	77	121	130 (200)
3"	76	83	133	140 (222)

Turn to page 19 for details of our
Pre-wired Conduit Systems.



Please contact us if you have any requirements for non-standard fittings.

PVC Covered Galvanised Steel Conduit (VFC)

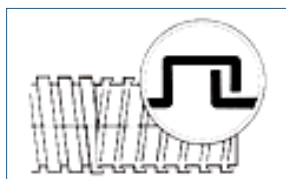
Construction

A low smoke & fume (LSF) PVC covered helically-coiled, galvanised steel, conduit manufactured in accordance with Din Standard 49 012 from annealed steel strip to BS.1449 Part 1 1972) and extruded with vacuum formed black LSF- PVC as standard although other colours are available by request. We can use a LSF Zero Halogen Covering if required.

Typical Applications

This PVC covered Galvanised Steel Conduit is durable, versatile, has a very good bend radius, a degree of weatherproofing, good mechanical strength and a high crush resistance. DFC

Conduit is ideal for cable protection and can be used in most commercial and industrial environments, where dynamic and static applications are required.



Squarelock Section



Temp Range: -25°C Min, +75°C Max.

IP Rating: IP 65 (Conduit) / IP 54 (Tube Plus Fittings)

Complies with: BSEN61386-12008 & BSEN61386-23:2004

Classification Coding for Conduit Systems: BSEN61386 – 222240543020

Standard Lengths:

30m Coils

50m Coils

Packing:

Wooden reels

Cut lengths:

Can be supplied cut to your preferred length

Size Reference	I/D (inches)	I/D (mm)	O/D (mm)	Bend radius	Weight (kg) per 100m
VFC 6	3/16"	5	8	26	8
VFC 10	5/16"	7	10	27	11
VFC 12	3/8"	9	13	28	18
VFC 16	1/2"	13	17	33	25
VFC 20	5/8"	16	20	41	31
VFC 25	3/4"	19	24	45	36
VFC 32	1"	25	32	60	51
VFC 40	1.1/4"	32	38	75	66
VFC 50	1.1/2"	38	44	93	82
VFC 63	2"	50	56	125	112

PVC Covered Galvanised Steel Conduit (VFC)

Connectors

Two piece brass nickel plated adaptors to suit

Our range of two-piece and one-piece connectors provide a flexible solution for most installation requirements and are available in all popular sizes. Please ask our sales team for details.

Male, swivel plain hole

A limited range of stainless steel connectors are also available.



2-piece male adaptor



2-piece swivel adaptor



2-piece plain hole adaptor

One piece brass adaptors

One piece brass adaptors provide an economical alternative for various applications.



1-piece female brass



1-piece male brass

Turn to page 19 for details of our Pre-wired Conduit Systems.



Please contact us if you have any requirements for non-standard fittings.

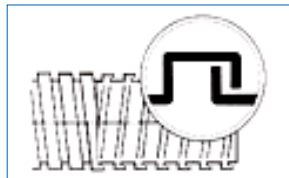
Bare Stainless Steel Conduit to BS731

Construction

A helically-coiled Type 304 Stainless Steel Conduit manufactured in accordance with BS731 Part 1. This tubing can be supplied in Type 316 Stainless Steel on request.

Typical Applications

Our Stainless Steel Conduit is a highly flexible tube which is well suited to a wide a range of purposes, in particular cable protection. The stainless steel construction makes this conduit suitable for many applications in the food industry. Due to the anti-corrosive properties of stainless steel it is also suitable for water contact or if constructed from a Type 316 S/S it is ideal for salt water / marine applications.



Squarelock Section

Temp Range: -100°C Min, +400°C Max.

IP Rating: IP40 (Conduit) / IP 40 (Conduit Plus Fittings)

Complies with: BSEN61386-1:2008 & BSEN61386:2004

Classification Coding for Conduit Systems: BSEN61386 – 125740404010

I/D (inches)	I/D (mm)	O/D (mm)	Inside bend radius	Weight (kg) per 100m
1/8"	3	5.5	20	5
3/16"	5	7.5	23	6
1/4"	6.4	8.6	25	9
5/16"	8	10.4	26	13
3/8"	9.5	12.3	28	14
1/2"	12.7	16.1	32	20
5/8"	15.9	19.8	35	23
3/4"	19	23.3	37	31
7/8"	22	26	40	35
1	25.4	30.4	44	39
1.1/8	28.5	33	47	41
1.1/4	32	37	52	43
1.3/8	35	40	54	51
1.1/2	38	43.3	58	59
1.3/4	44.5	51	65	72
2	50.8	55	73	85
2.1/4"	57	64	100	102
2.1/2"	63	70	110	115
2.3/4"	70	77	121	130
3"	76	83	133	140

Bare Stainless Steel Conduit to BS731

Standard lengths:	30m Coils	50m Coils
Packing:	Wooden reels	Loose or joined in crates
Cut lengths:	Can be supplied cut to your preferred length	

Connectors

Two-piece brass nickel plated adaptors to suit

Our range of two-piece and one-piece connectors provide a flexible solution for most installation requirements and are available in all popular sizes. Please ask our sales team for details.

Male, swivel plain hole

A limited range of stainless steel connectors are also available.



2-piece male adaptor



2-piece swivel adaptor



2-piece plain hole adaptor

One piece brass adaptors

One piece Brass adaptors provide an economical alternative for various applications.

Turn to page 19 for details of our Pre-wired Conduit Systems.



Please contact us if you have any requirements for non-standard fittings.

Liquid Tight Flexible Conduit

Construction

Liquid Tight conduit is made with a cotton packed galvanised steel inner casing with a low smoke and fume PVC covering. P.V.C coating to BS7655 (6746) Type Tll, Tml and Type 9.

Typical Applications

Liquid Tight conduit is ideal when used with liquid tight fittings for applications where a high degree of liquid tightness is required.

This product is suitable for a number a general purpose applications and ideal for environments with lots of oils and greases such as machine tool workshops.



Temp Range: -25°C to +105°C

IP Rating: IP67 (Conduit) / IP67 (Plus Fittings)

- Standard Lengths:**

30m coils50m coils
- Packing:**

STD coilsWooden reelsLoose in crates
- Cut lengths:**

Can be supplied cut to your preferred length

GB Conduit Size (mm)	US Size Reference	I/D (mm)	O/D (mm)	Inside bend radius	Weight (kg) per 100m
16	3/8"	12.6	15	75	30
20	1/2"	16	20	100	45
25	3/4"	21	25	120	60
32	1"	26	30	140	75
40	1.1/4"	35	40	165	100
50	1.1/2"	40	45	190	135
63	2"	51	56	225	170

Fittings

Although we do not stock Liquid Tight Fittings we may, under some circumstances, be able to supply them for bulk orders.

Pre-wired Conduit Systems

How to reduce time for all sorts of new build installations with Whitehouse Flexible Tubing Pre-wired Conduit Systems.

Our Pre-wired Conduit Systems are used for cable management. They are typically used to distribute power, lighting, data and communications in buildings with concrete floors, steel framed cavity floors and suspended ceilings.

The savings that can be derived from the use of our pre-wired conduit allow electrical contractors to be far more competitive when tendering for jobs.

The need to insert the required cabling in order to complete an installation is totally eliminated making our pre-wired flexible conduit systems the best choice for contracts where tight deadlines have to be met to avoid costly penalty clauses.

Our pre-wired conduit systems have been used for numerous state-of-the-art building projects which have included:

- **Birmingham Hospital**
- **Terminal 5 Heathrow**
- **Glasgow Hospital**
- **Enniskillen Hospital**
- **The Gemini Project at Aldermaston.**
- **Principal Place Shoreditch**

We have worked with a number of contractors on these projects including **Balfour Beatty** and **Wago** who have used our flexible conduit as an integral part of their wiring systems. We are also now working with a number of new customers as demand increases for our bespoke systems. In particular we are very proud to be a supplier for the new state-of-the-art Principal Place development in Shoreditch.



Birmingham Hospital



Heathrow Terminal 5



Enniskillen Hospital



Gemini Project



Glasgow Hospital



Principal Place, Shoreditch

Pre-wired Conduit Systems

Advantages

The use of a pre-wired flexible conduit in concrete floors, steel framed cavity floors and suspended ceilings the concrete on each floor of a building has many advantages.

- A substantial amount of **time saved**
- It results in great **cost savings**
- Enables contractors to be **more competitive**
- Peace of mind through our **quality assured** products and services.

Historically, electrical contractors would have used a galvanised steel conduit in the concrete pour, suspended floors and ceilings. The sub circuit cabling would then have to be drawn through.

Although normal practice, it was very time consuming. Pre-wired conduit systems make this process much quicker and more efficient.

Pre-wired conduit options

Home Runs

Large construction projects requiring electrical wiring to be installed use a number of home runs which are used to feed 'Zones' with the necessary **light, power, data** and **communication** wiring. Home Runs are typically 28 Core made up of standard 2.5mm & 4mm Zero Halogen Cables and when required may also contain Belden (audio visual) Cables.

The home run is used to distribute the necessary cabling throughout the zone using a series of Tap Offs, Links and Drop Downs.



Tap offs, Links & Drop Downs

The standard sizes for these connecting pre-wired conduit connections are:

- 16mm (Our Ref. DNP16)
- 20mm (Our Ref. DNP20)
- 25mm (Our Ref. DNP25)

These typically contain a selection of Standard Colour in 2.5mm Dia & 4mm Dia Zero Halogen cables and where required an Audio Visual Cable (Belden).

Pre-wired Conduit Systems

Bespoke design and manufacture

All our Home Runs, Tap Offs, Links & Drop Downs are made to order to allow customers to specify:

- **Dia** of the pre wired flexible tubing
- **Length** of the pre wired flexible tubing
- Length of **tails (whip ends)** if required
- Type of **cabling / wiring** required (size, colour, specifications & quantity)
- **Fittings & end terminations**

Modular wiring is in essence a wiring systems designed for fast, effective installation which is often referred to as a '**Plug & Play**' system. These systems are extremely versatile as they allow changes to room and building layouts without disruption to the electrical installation.

Speak with our Technical Sales Team who are very experienced in the design and manufacture of bespoke solutions to overcome any problems with installation that might arise during a project.

Benefits

- Bespoke systems designed for the requirements of individual projects
- The development of innovative modular solutions using industry standard components
- Modular electrical systems are flexible enough to interface with traditional system installations
- These systems reduce manual handling and therefore significantly reduce the risks associated with working at height during installation.
- Reliance on electrical skills on site is reduced
- Quality control in the manufacture of these systems improves commissioning time with less defects and snagging
- Eliminates on site cutting and reduces waste
- Product delivery can be scheduled on a floor by floor basis which reduces on site storage with 'just in time' delivery.

Metallic Tubing overview

Fibre Packed Squarelock

Pages 26 & 27



Fibre Packed Squarelock Type Flexible Tubing

A strong & economical solution with a fibre packed squarelock section.

Suitable for temporary motor vehicle exhaust systems, dust extraction duties etc.

Max operating temp: +500°C

Non-Packed Concertina

Page 28



Non Packed Concertina Type Flexible Tubing

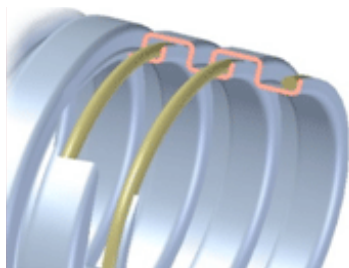
Combines great strength & flexibility. A large strong squarelock section supplied with either a fibre packing or non packed

This highly flexible tube is ideal for ventilation and extraction applications with the fibre packing improving air loss and extraction properties.

Max Operating Temp: +500°C

Fibre-Packed Concertina

Page 29



Fibre Packed Concertina Type Flexible Tubing

Combines great strength & flexibility. A large strong squarelock section supplied with either a fibre packing or non packed

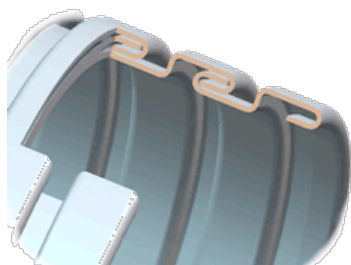
This highly flexible tube is ideal for ventilation and extraction applications with the fibre packing improving air loss and extraction properties.

Max operating temp: +500°C

Metallic Tubing overview

Galvanised Griplock

Pages 30 & 31



Galvanised Steel Griplock Type Flexible Tubing

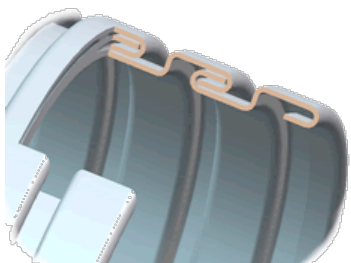
Griplock section provides high tensile strength and a strong resistance to crushing with its interlocking section. Available in galvanised and stainless steel.

A Griplock construction is ideal for a wide range of applications including; exhaust, dry bulk handling, ventilation, conveyance, protective casing etc.

Max operating temp: +500°C

Stainless Steel Griplock

Page 33



Stainless Steel Griplock Type Flexible Tubing

Griplock section provides high tensile strength and a strong resistance to crushing with its interlocking section. available in galvanised and stainless steel

A Griplock construction is ideal for a wide range of applications including; exhaust, dry bulk handling, ventilation, conveyance, protective casing...etc.

Max operating temp: +600°C

Copper Packed Galvanised Steel Interlock

Pages 34 & 35



Galvanised Steel Copper Packed Interlock Type Flexible Tubing

Interlock is fully interlocked section with copper wire packing. Available in either galvanised or stainless steel.

Interlock is ideal for use as an engine exhaust and due to the copper packing which expands under heat it provides a more air tight section than the Griplock.

Max operating temp: +500°C

Metallic Tubing overview

Copper Packed Stainless Steel Interlock

Pages 36 & 37



Stainless Steel Copper Packed Interlock Type Flexible Tubing

Interlock is fully interlocked section with copper wire packing. Available in either galvanised or stainless steel.

Interlock is ideal for use as an engine exhaust and due to the copper packing which expands under heat it provides a more air tight section than the Griplock.

Max operating temp: +600°C

Aluminium Ducting

Pages 38



Aluminium Ducting

Aluminium tube is made from a spirally wound crimp-locked strip. This ducting is self supporting and suitable for use in permanent and temporary situations.

This tube is ideal for use with a wide range of air ducting systems in particular air filters on motor vehicles or applications where weight is a factor.

Max operating temp: +330°C

Stayput / Coolant Hoses

Page 39



Stayput / Gooseneck Type Flexible Tubing

Manufactured from spring steel and have a bright zinc plating and are stayput once positioned.

Typical applications include a requirement for a positionable element to their operation. They can be used as suds oil hoses on lathes, millers etc and cover a range of concept designs and special applications i.e. microphone, sat nav and ipod supports.

Max operating temp: +120°C



Fibre Packed Squarelock

Construction

Fibre Packed Squarelock tubing is made from deep drawing quality carbon steel to BS 1449 electro-galvanised. The tubing is manufactured by winding profiled metal strip into a tube, the section being a squarelock construction, packed with cotton or fibre packing

Applications

Fibre Packed Squarelock is suitable for exhaust systems, dust extraction and conveyance of all sorts of granular products.

Max operating temperature: +500°C

Standard lengths: 2m / 10m

Cut pieces and long lengths available to order.



Fibre Packed
Squarelock Section

Industrial Assemblies – turn to page 44



Clamps to suit (page 72)



Fibre Packed Squarelock

Standard Size Range:

Bore size	I/D (mm)	O/D (mm)	Inside bend radius	Weight (kg) per 100m
3/4"	20	24	40	36
1"	25	30	45	63
1.1/8"	28	32	49	73
1.1/4"	32	37	53	83
1.3/8"	35	40	60	91
1.1/2"	38	43	66	99
1.5/8"	41	46	73	108
1.3/4"	45	50	80	116
1.7/8"	48	53	86	124
2"	51	58	93	132
2.1/8"	54	61	103	144
2.1/4"	57	64	114	156
2.3/8"	60	67	125	167
2.1/2"	63	70	135	178
2.5/8"	66	73	139	189
2.3/4"	70	77	143	200
2.7/8"	72	79	147	210
3"	76	83	151	222
3.1/8"	79	86	155	227
3.1/4"	83	90	162	233
3.3/8"	86	93	168	239
3.1/2"	89	96	175	245
3.5/8"	92	99	179	251
3.3/4"	95	102	183	256
3.7/8"	98	105	188	262
4"	102	109	192	268
4.1/4"	108	115	200	280
4.1/2"	114	121	208	296
4.3/4"	121	128	216	310
5"	127	134	225	325
5.1/2"	140	147	230	356
6"	152	163	266	386
6.1/2"	165	176	289	429
7"	178	189	311	482
8"	203	214	355	620
9"	229	240	401	795
10"	250	261	437	965
11"	279	290	488	1,190
12"	305	316	534	1,315

Non Packed Galvanised Steel Concertina

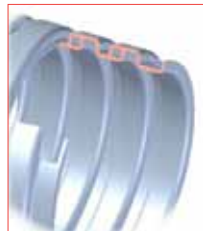
Construction

Whitehouse flexible concertina tubing is made from deep drawing quality carbon steel to BS 1449 electro - galvanised. The tubing is manufactured by winding profiled metal strip into a tube, the section being a squarelock construction.



Applications

Non-packed Concertina tubing provides strength and flexibility. This larger stronger tube provides an ideal solution for a range of applications. Concertina type tube is constructed with a squarelock section.



Non Packed
Concertina Section

Max operating temperature: +500°C

Standard lengths: 10m

Cut pieces and long lengths available to order.

Standard size range:

Bore size	I/D (mm)	O/D (mm)	Inside bend radius	Weight (kg) per 100m
2"	51	58	90	124
2.1/2"	63	70	110	155
3"	76	88	133	186
3.1/2"	89	101	156	217
4"	102	114	179	248
4.1/2"	114	126	200	279
5"	127	139	228	310
5.1/2"	140	152	245	341
6"	152	164	266	372
6.1/2"	165	177	289	403
7"	178	190	312	434
8"	203	215	356	496
9"	229	241	401	558
10"	250	262	438	620
11"	279	291	489	682
12"	305	317	534	744

*N.B. We can manufacture **any** intermediate size above 3" (75mm) I/D. Ask for details*

Clamps to suit
(page 72)



Fibre Packed Galvanised Steel Concertina

Construction

Fibre Packed Concertina is made from deep drawing quality carbon steel to BS 1449 electro - galvanised. The tubing is manufactured by winding profiled metal strip into a tube which has a big deep fibre or cotton packed squarelock section.



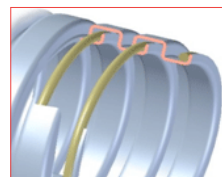
Applications

This tubing combines strength and flexibility with a fibre packing that reduces any air loss through the section which makes it ideal for extraction purposes. This particular construction provides the best radius of all the metallic tubes.

Max operating temperature: +500° C

Standard lengths: 10m

Cut pieces and long lengths available to order.



Fibre Packed Concertina Section

Standard size range:

Bore size	I/D (mm)	O/D (mm)	Inside bend radius	Weight (kg) per 100m
2"	51	58	102	144
2.1/2"	63	70	126	180
3"	76	88	152	216
3.1/2"	89	101	178	252
4"	102	114	204	288
4.1/2"	114	126	228	324
5"	127	139	254	360
5.1/2"	140	152	280	396
6"	152	164	304	432
6.1/2"	165	177	330	468
7"	178	190	356	504
8"	203	215	406	576
9"	229	241	458	648
10"	250	262	500	720
11"	279	290	558	792
12"	305	316	610	864

*N.B. We can manufacture **any** intermediate size above 3" (75mm) I/D. Ask for details*

Clamps to suit
(page 72)



Galvanised Steel Griplock Tubing

Construction

Galvanised Steel Griplock Tubing is made from deep drawing quality carbon steel to BS.1449 electro galvanised. The tube is manufactured by winding profiled metal strip into a tube, the edges being completely interfolded.



Griplock Section

Typical applications:

Griplock tubing has high tensile strength and strong resistance to crushing. This tube is particularly well suited to:

- Absorbing vibration, thermal expansion and noise attenuation.
- Ducting of air smoke, fumes, etc.
- Dry bulk handling; ash, dust, paper trim, grain, plastic pellets, etc.
- Protective capillary casing of instrument cables, wires, etc.

Special features

This product is extremely versatile and can be manufactured 'loose' or 'floppy' like a very flexible conduit or it can be made 'stiff' or 'stayput' which enables it to hold its shape and makes it ideal for exhaust applications. If it is not required to be especially floppy or stayput the tubing is supplied with Medium Flexibility (Mid Flex) as standard.

Standard size range:

I/D (inches)	I/D (mm)	O/D (mm)	Inside bend radius	Weight (kg) per 100m
1/4"	6	9	25	16
5/16"	8	11	30	18
3/8"	10	13	33	23
1/2"	12	16	45	30
5/8"	16	20	55	33
3/4"	20	24	59	34
7/8"	22	26	63	40
1"	25	29	78	49
1.1/8"	28	33	90	62
1.1/4"	32	37	96	75
1.3/8"	35	40	103	88
1.1/2"	38	45	110	101
1.5/8"	41	48	115	108
1.3/4"	45	52	123	118
1.7/8"	48	55	129	126
2"	51	58	135	135
2.1/8"	54	61	143	137
2.1/4"	57	64	150	139
2.3/8"	60	67	158	141
2.1/2"	63	70	165	142
2.3/4"	70	77	180	168
3"	76	83	195	225

Galvanised Steel Griplock Tubing

Standard size range (continued):

I/D (inches)	I/D (mm)	O/D (mm)	Inside bend radius	Weight (kg) per 100 mtrs
3.1/8"	79	84	260	230
3.1/4"	83	88	269	245
3.3/8"	86	91	280	252
3.1/2"	89	94	290	261
3.5/8"	92	97	302	270
3.3/4"	95	100	312	285
3.7/8"	98	103	322	292
4"	102	107	328	310
4.1/4"	108	115	350	315
4.1/2"	114	121	369	325
4.3/4"	121	128	386	333
5"	127	134	403	340
5.1/2"	140	147	446	380
6"	152	159	485	419
7"	178	185	560	485
8"	203	210	640	550
9"	229	236	718	615
10"	254	261	797	680
11"	279	286	873	760
12"	305	312	950	840
13"	330	337	1030	898
14"	356	363	1112	955
15"	381	388	1188	1025
16"	406	413	1268	1090
17"	432	439	1348	1160
18"	457	464	1425	1225
19"	483	490	1504	1290
20"	508	515	1582	1360

Max operating temperature: +500°C

Standard lengths: 2m / 10m / 20m

Cut pieces and long lengths available to order.

See page 44 for details of
our Industrial Assemblies.



Clamps to suit (page 72)



Stainless Steel Griplock Tubing

Construction

Stainless steel griplock is made from austenitic stainless steel type 304 S16 to BSS.1449, (Type 316 can be used on request). Manufactured by winding profiled strip into a tube and completely interfolding the edges.



Griplock Section

Typical applications

Griplock tubing has high tensile strength and strong resistance to crushing. This tube is particularly well suited to:

- Absorbing vibration, thermal expansion and noise attenuation.
- Ducting of air smoke, fumes, etc.
- Dry bulk handling; ash, dust, paper trim, grain, plastic pellets, etc.
- Protective capillary casing of instrument cables, wires, etc.



Standard lengths: 2m / 10m / 20m. Custom lengths available to order.

Max operating temperature: +650°C

Special features

This product is extremely versatile and can be manufactured 'loose' or 'floppy' like a very flexible conduit or it can be made 'stiff' or 'stayput' which enables it to hold its shape and makes it ideal for exhaust applications. If it is not required to be especially floppy or stayput the tubing is supplied with medium flexibility (Mid Flex) as standard.

I/D (inches)	I/D (mm)	O/D (mm)	Inside bend radius	Weight (kg) per 100m
1/4"	6	8	33	10
5/16"	8	10	40	15
3/8"	10	12	49	18
1/2"	12	15	68	23
5/8"	16	19	73	31
3/4"	20	23	79	34
7/8"	22	25	85	38
1"	25	28	90	40
1.1/8"	28	32	115	48
1.1/4"	32	36	120	55
1.3/8"	35	39	125	60
1.1/2"	38	42	130	65
1.5/8"	41	45	142	70
1.3/4"	45	49	153	77
1.7/8"	48	52	164	82

Stainless Steel Griplock Tubing

I/D (inches)	I/D (mm)	O/D (mm)	Inside bend radius	Weight (kg) per 100m
2"	51	55	175	87
2.1/8"	54	59	189	97
2.1/4"	57	62	204	103
2.3/8"	60	65	218	108
2.1/2"	63	68	232	114
2.3/4"	70	75	260	126
2.7/8"	73	78	262	132
3"	76	81	264	171
3.1/8"	79	85	273	177
3.1/4"	83	89	283	186
3.3/8"	86	92	295	193
3.1/2"	89	95	305	200
3.5/8"	92	98	318	206
3.3/4"	95	101	328	213
3.7/8"	98	104	339	220
4"	102	108	345	229
4.1/4"	108	114	368	242
4.1/2"	114	120	388	256
4.3/4"	120	126	406	269
5"	127	133	424	285
5.1/4"	133	139	426	298
5.1/2"	140	146	469	314
6"	152	158	510	341
7"	178	184	590	399
8"	203	209	673	455
9"	229	235	755	514
10"	254	260	838	793
11"	279	285	919	871
12"	305	311	1000	952

Max size 18". N.B. We can manufacture any intermediate size above 3" (75mm) I/D

See page 44 for
details of our
Industrial Assemblies.

Clamps to suit (page 72)



Copper Packed Galvanised Steel Interlock

Construction

Galvanised Steel Interlock Tubing is made from deep drawing quality carbon steel to BS.1449 electro galvanised. The tubing is manufactured by winding profiled metal strip into a tube, the edges being completely interfolded. The section has a wire packing, (cotton or rubber packing can be used on request).



Typical applications

Interlock tubing is ideal for absorbing vibration, thermal expansion and noise attenuation on engine exhausts. Also used for conveying dry bulk goods grain, dry powders and granular products of all sorts.



Copper Packed Interlock Section

Max operating temperature: +500°C

Standard lengths: 2m / 10m / 20m

Cut pieces and long lengths available to order.

Industrial Assemblies –
turn to page 44



Clamps to suit (page 72)



Copper Packed Galvanised Steel Interlock

Standard size range:

Bore size	I/D (mm)	O/D (mm)	Inside bend radius (mm)	Weight (kg) per 100m
3/4"	20	25	100	59
7/8"	22	27	110	71
1"	25	30	125	86
1.1/8"	28	33	140	92
1.1/4"	32	37	160	100
1.3/8"	35	40	175	109
1.1/2"	38	43	190	119
1.5/8"	41	46	205	129
1.3/4"	45	51	225	139
1.7/8"	48	53	240	147
2"	51	56	255	159
2.1/8"	54	60	270	172
2.1/4"	57	62	285	184
2.3/8"	60	66	300	195
2.1/2"	63	69	315	208
2.5/8"	66	72	330	218
2.3/4"	70	76	350	226
2.7/8"	72	78	365	234
3"	76	82	380	245
3.1/8"	79	85	395	258
3.1/4"	83	89	415	268
3.3/8"	86	92	430	275
3.1/2"	89	95	445	285
3.5/8"	92	98	460	295
3.3/4"	95	101	475	305
3.7/8"	98	104	490	316
4"	102	108	510	328
4.1/8"	105	111	525	340
4.1/4"	108	114	540	350
4.1/2"	114	120	570	360
4.3/4"	121	127	605	390
5"	127	133	635	412
5.1/8"	130	136	650	422
5.1/2"	140	146	700	455
6"	152	158	760	495
6.1/2"	165	171	825	535
7"	178	184	890	575
8"	203	209	1015	660
9"	229	235	1145	740
10"	250	256	1250	825
11"	279	285	1395	905
12"	305	311	1525	985

Copper Packed Stainless Steel Interlock

Construction

Stainless steel interlock is made from austenitic steel type 304 S16 to BSS.1449 (stainless steel type 316 can be used on request). Manufactured by winding profiled metal strip into a tube, the edges being completely interfolded. The section has a copper wire packing, although cotton or rubber can be used on request.



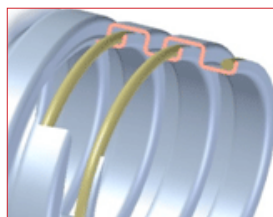
Applications

Interlock tubing is ideal for absorbing vibration, thermal expansion and noise attenuation on exhausts. Also used for conveying dry bulk goods, grain, dry powders and granular products of all sorts.

Max Operating Temperature: 650°C

Standard Lengths: 2m / 10m / 20m

Cut pieces and long lengths available to order.



Copper Packed Interlock Section

Industrial Assemblies –
turn to page 44



Clamps to suit (page 72)



Copper Packed Stainless Steel Interlock

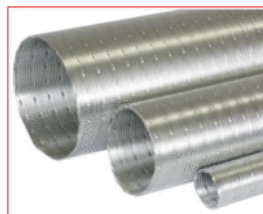
Standard size range:

Bore size	I/D (mm)	O/D (mm)	Inside bend radius	Weight (kg) per 100m
3/4"	20	25	82	45
7/8"	22	27	90	52
1"	25	30	103	60
1.1/8"	28	33	115	68
1.1/4"	32	37	131	75
1.3/8"	35	40	144	82
1.1/2"	38	43	156	90
1.5/8"	41	46	168	98
1.3/4"	45	51	185	102
1.7/8"	48	53	197	110
2"	51	56	209	119
2.1/8"	54	60	221	125
2.1/4"	57	63	234	135
2.3/8"	60	66	246	140
2.1/2"	63	69	258	145
2.5/8"	66	72	271	152
2.3/4"	70	76	287	160
2.7/8"	72	78	299	170
3"	76	82	312	178
3.1/8"	79	85	324	185
3.1/4"	83	89	340	190
3.3/8"	86	92	349	198
3.1/2"	89	95	365	205
3.5/8"	92	98	377	215
3.3/4"	95	101	390	220
3.7/8"	98	104	406	230
4"	102	108	418	238
4.1/8"	105	111	431	242
4.1/4"	108	114	443	250
4.1/2"	114	120	467	260
4.3/4"	121	127	494	272
5"	127	133	521	285
5.1/8"	130	136	533	292
5.1/2"	140	146	574	310
6"	152	158	623	335
6.1/2"	165	171	678	360
7"	178	184	729	385
8"	203	209	832	435
9"	229	235	939	495
10"	250	256	1,041	560
11"	279	285	1,144	625
12"	305	311	1,250	685

Aluminium Ducting

Construction

Aluminium spirally wound crimp-locked strip. The tube has a corrugation depth of 3mm to give an external dimension 6mm larger than the internal size.



Features

- Corrugated Aluminium Construction.
- Easily formed by hand to bends and offsets.
- Maintains cross section area after bending to ensure low air flow resistance.
- Stayput characteristics ensure minimal support required.
- Provides an ideal balance of Strength and Flexibility

Typical Applications

Ideal for use in a wide range of air ducting systems. This ducting is self supporting and suitable for use in permanent situations with the advantage of a very tight bend radius.

Max operating temperature: +330°C

Size range

40mm to 500mm. (O/D = I/D + 8mm)

Any non standard size can be supplied within this range.

Operating temperature range.

Up to 300°C

Lengths

Standard 3m.

Sizes up to 200mm may be supplied as 10m coils.

Fire resistance

BS476 Part 8 - 15 minutes



I/D (inches)	I/D (mm)	Weight (kg) per 100m
1.1/2"	38	0.14
1.3/4"	45	0.16
2"	50	0.18
2.1/4"	55	0.20
2.3/8"	60	0.21
2.1/2"	63	0.23
2.3/4"	70	0.25
3"	75	0.27
3.1/4"	82	0.29
3.1/2"	90	0.32
3.3/4"	95	0.34
4"	100	0.36
4.1/4"	108	0.38
4.1/2"	115	0.40
4.3/4"	120	0.42
5"	125	0.44
6"	152	0.53
7"	178	0.62
8"	203	0.71
9"	229	0.80
10"	250	0.89
12"	305	1.06

Clamps to suit (page 72)



S/S Worm Drive
Hose Clips



Super Heavy Duty
S/S Clamps

Stayput & Coolant Hoses

Typical applications:

Include a requirement for a positionable element to their operation. They can be used as suds oil hoses on lathes, millers etc. and cover a range of concept designs and special applications i.e. microphone, sat nav and ipod supports.

Due to the growing demand for alternative sizes for an ever-increasing range of applications for this type of tubing we have introduced the following new sizes. As these sizes are stocked unplated they are available to be supplied with a coloured finish on request.

Construction

Constructed from a spring with a mild steel 'D' section wire

Finish

Chrome plated with various colours available on request.

Advantages:

- Positionable support,
- Mechanical strength
- Chemical resistance.
- Combinations of fittings.
- Available with Heat Shrink PVC /Polyolefin cover.

Typical applications

- Stayput coolant hoses
- Stayput lights,
- Cameras & microphones,
- USB Stayput lights & fans,
- Stayput flexible arms on machines.
- Industrial endoscopes & detecting instruments,



Adaptor Size	I/D of Tube (mm)	O/D of tube (mm)	Finish	Weight supported horizontally at distance (inches) in kilograms			
				6"	12"	18"	24"
0/A	2.0	4.0	Chrome	n/a	n/a	n/a	n/a
5mm	3.0	6.0	Chrome	n/a	n/a	n/a	n/a
1/8" BSPT	4.0	9.0	Chrome	0.63	0.29	0.18	0.07
0/A	4.0	8.00	Unplated / Chrome	0.47	0.21	0.11	.050
0/A	6.0	11.00	Unplated / Chrome	0.65	0.28	0.14	.054
0/A	7.0	13.00	Unplated / Chrome	1.50	0.77	.400	.230
1/4" BSPT	6.0	12.0	Unplated / Chrome	1.25	0.5	0.29	0.16
3/8" BSPT	9.0	16.0	Unplated / Chrome	1.42	0.58	0.30	0.14
1/2" BSPT	10.0	19.0	Unplated / Chrome	1.80	0.72	0.46	0.18

Metallic Fan Coil Hose

Our standard range of Fan coil hoses provide highly flexible structured, time and cost saving hose assemblies which are highly resistant against pressure and temperature.



Application Areas

- Fan-Coil Applications
- Heating, Air Conditioning and ventilation applications
- Chemical and petrochemical plants
- Oil and gas processing
- Ship building and drilling
- Food processing

Advantages

The design of our fan coil hoses enables the connection between collectors and the pumps without the need for additional fittings which reduces time and money spent on assembly.

Design

Our Flexible Fan Coil connections provide economical solutions for the difficulties of rigid connections. The special welding process we use prevents potential corrosion that may be caused by moisture around the connection points. Our standard range is available in a nickel plated construction with either Carbon or Stainless Steel Ends.

Metallic Fan Coil Hose

BSP Flat Swivel Female x BSPT Hex Male



Product Code	Size	Fitting one end	Fitting other end	Length (mm)
WFT/MFC13FPMC30	1/2"	1/2" Female	1/2" Hex Male	300
WFT/MFC13FPMC45	1/2"	1/2" Female	1/2" Hex Male	450
WFT/MFC19FPMC30	5/8"	5/8" Female	1/2" Hex Male	300
WFT/MFC19FPMC45	5/8"	5/8" Female	1/2" Hex Male	450

BSP Flat Swivel Female x BSPT Hex Male - Stainless Steel



Product Code	Size	Fitting one end	Fitting other end	Length (mm)
WFT/MFC13FPMC30-SS	1/2"	1/2" Female	1/2" Hex Male	300
WFT/MFC13FPMC45-SS	1/2"	1/2" Female	1/2" Hex Male	450
WFT/MFC19FPMC30-SS	5/8"	5/8" Female	1/2" Hex Male	300
WFT/MFC19FPMC45-SS	5/8"	5/8" Female	1/2" Hex Male	450

BSPT Hex Male x BSPT Hex Male



Product Code	Size	Fitting one end	Fitting other end	Length (mm)
WFT/MFC13MCMC30	1/2"	1/2" Hex Male	1/2" Hex Male	300
WFT/MFC13MCMC45	1/2"	1/2" Hex Male	1/2" Hex Male	450
WFT/MFC19MCMC30	5/8"	3/4" Hex Male	3/4" Hex Male	300
WFT/MFC19MCMC45	5/8"	3/4" Hex Male	3/4" Hex Male	450

BSPT Hex Male x BSPT Hex Male – Stainless Steel



Product Code	Size	Fitting one end	Fitting other end	Length (mm)
WFT/MFC13MCMC30-SS	1/2"	1/2" Hex Male	1/2" Hex Male	300
WFT/MFC13MCMC45-SS	1/2"	1/2" Hex Male	1/2" Hex Male	450
WFT/MFC19MCMC30-SS	5/8"	3/4" Hex Male	3/4" Hex Male	300
WFT/MFC19MCMC45-SS	5/8"	3/4" Hex Male	3/4" Hex Male	450

Metallic Fan Coil Hose

BSP Flat Swivel Female x Compression



Product Code	Size	Fitting one end	Fitting other end	Length (mm)
WFT/MFC13FPMB30	1/2"	1/2" Female	15mm Comp	300
WFT/MFC13FPMB45	1/2"	1/2" Female	15mm Comp	450
WFT/MFC19FPMB30	5/8"	3/4" Female	22mm Comp	300
WFT/MFC19FPMB45	5/8"	3/4" Female	22mm Comp	450

BSP Flat Swivel Female x Compression - Stainless Steel



Product Code	Size	Fitting one end	Fitting other end	Length (mm)
WFT/MFC13FPMB30-SS	1/2"	1/2" Female	15mm Comp	300
WFT/MFC13FPMB45-SS	1/2"	1/2" Female	15mm Comp	450
WFT/MFC19FPMB30-SS	5/8"	3/4" Female	22mm Comp	300
WFT/MFC19FPMB45-SS	5/8"	3/4" Female	22mm Comp	450

Compression x Compression



Product Code	Size	Fitting one end	Fitting other end	Length (mm)
WFT/MFC13MBMB30	1/2"	15mm Comp	15mm Comp	300
WFT/MFC13MBMB45	1/2"	15mm Comp	15mm Comp	450
WFT/MFC19MBMB30	5/8"	22mm Comp	22mm Comp	300
WFT/MFC19MBMB45	5/8"	22mm Comp	22mm Comp	450

Compression x Compression – Stainless Steel



Product Code	Size	Fitting one end	Fitting other end	Length (mm)
HQMFC13MBMB30-SS	1/2"	15mm Comp	15mm Comp	300
HQMFC13MBMB45-SS	1/2"	15mm Comp	15mm Comp	450
HQMFC19MBMB30-SS	5/8"	22mm Comp	22mm Comp	300
HQMFC19MBMB45-SS	5/8"	22mm Comp	22mm Comp	450

Metallic Fan Coil Hose

All of our Metal Hose Range are available insulated or uninsulated
Loose insulation & caps available on request.

Class O Insulation, Capped & Vapour Sealed

Nominal bore	(mm)
1/2"	300
1/2"	450
3/4"	300
3/4"	450

Industrial Assemblies, Expansion Joints & Bellows

The extensive design and development services we offer enable us to supply an extensive range of bespoke assemblies in strip wound, Annular (convoluted) and braided flexible hoses to suit your requirements. Our sales team have the time and expertise to help you decide on the correct solution for your application.

Typical assemblies we design and manufacture help customers satisfy requirements for numerous industrial applications ranging from engine test Rigs to fire hoses for oil and petrochemical industries. Other typical applications include:

- Bulk grain transfer hoses
- Hot air ducting
- Exhaust applications
- Protective outer tube
- Expansion joints
- Pressure Rated Hose Applications



An extensive range of end fittings are available including: Camlock, Unicorn, Triclover, ANSI & BS Flanges, Storz, Guillemin Couplings and BSP Fittings.



Land Rover test rig using a Whitehouse hose assembly for emissions.

We are able to manufacture long lengths in large diameters to order for which special arrangements can be made for delivery.



Industrial Assemblies, Expansion Joints & Bellows

Whitehouse flexible tubing specialise on the design and manufacture of a wide range of bespoke flexible hose assemblies including:

- **Expansion Joints**
- **Bellows**
- **Convolute Hoses**
- **Stripwound Assemblies**
- **Braided Assemblies**



Our metal hoses assemblies are suitable for a variety of applications involving extreme working parameters. Temperatures between -269 Degrees 'C' and 750 Degrees 'C' and working pressures in excess of 300 Bar. Some typical applications include:

- **Heating & ventilation**
- **Building services**
- **Gas steam**
- **Vacuum**
- **Chemical**
- **Petrochemical**
- **Applications involving vibration and misalignment of pipework or movement.**

Whitehouse hose assemblies are individually designed for each application to ensure they are ideally suited for demanding applications and environments. In particular our products are ideal for applications for the nuclear, gas, electrical, defence, petrochemical, automotive, steam generation & cryogenics industries.

Some of the most popular applications for which we design bespoke stripwound flexible tubing assemblies include

- **Engine test rigs**
- **Fire hoses for oil and petrochemical industries.**
- **Bulk grain transfer hoses**
- **Hot air ducting**
- **Exhaust applications**
- **Protective outer tube**
- **Expansion joints**
- **Pressure rated hose applications**

Industrial Assemblies, Expansion Joints & Bellows

Construction

Our design engineers will suggest the component parts that will best you're your requirements. We offer a wide selection of tubes in a variety of materials alongside an extensive range of end fittings that ensure we are able to design suitable solutions for most requirements. Speak with our design team if you have any questions or queries and we will be able to determine which product and design would best suit your requirements.



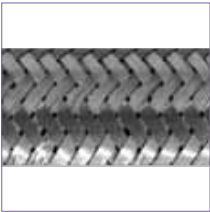
Convoluted hose



Griplock or Copper Packed Interlock type tubing



Polygonal type tubing



Stainless Steel Braiding

Popular end fittings

We offer an extensive range of end fittings including: Camlock, Unicone,Triclover, ANSI & BS Flanges, Storz, Guillemin Couplings and BSP Fittings.

Table of standard end fittings

		
45 Degree	90 Degree	T-Piece
		
Cam Lock	Guillemin Coupling	Bauer Coupling
		
BS & ANSI Flanges	Storz Coupling	Spigot

Other non standard end fittings available by request.

Industrial Assemblies, Expansion Joints & Bellows

Design Specifications: Our individually designed products to our customers specific requirements are made to meet all of your requirements and expectations. To do this we discuss all of the following points with you to ensure that we have covered all relevant details. If submitting an enquiry we suggest that you have as much of the relevant information as possible.

- **Application / purpose:** What is the tubing going to be used for?
- **Temperature:** What are the maximum and minimum operating temperatures?
- **Pressure:** What pressures will the hose be operating at / need to withstand?
- **End fittings:** What end fittings are required and what are their specifications?
- **Environment:** What is the operating environment for the assembly?
- **Special requirements:** Are there any other specific requirements for the hose?

Long lengths, large diameters & conical shaped flex

Where required we are able to manufacture long lengths in large diameters and can even produce conical shaped flexible tubing which enable customers to join different sized ends without the need for expensive or non-standard connectors. Our conical shaped flexible tubing is available in our Concertina & Griplock Types.



Long lengths & large diameters



Conical shaped flexible tubing



Non Metallic Tubing overview

Clear PVC

Page 52



Clear PVC

An FDA approved flexible PVC hose.

Properties: This hose is tough, flexible, durable and suitable for use in food contact applications.

Applications: Flexible PVC hose is used for the transfer and supply of low pressure water, various fluids and powders and light pressure air transfer. It is extremely versatile and is one of our most popular products, used in literally hundreds of different applications across all types of industry.

Temperature range: -15°C to +60°C

Clear Braided PVC

Page 53



Clear Braided PVC Hose

An FDA approved flexible PVC hose manufactured with high tensile polyester fibres.

Properties: This hose is tough, flexible, durable and suitable for use in food contact applications.

Applications: Ideal for the transfer and supply of water, various fluids and powders and light pressure air transfer. It is extremely versatile and is one of our most popular products, used in literally hundreds of different applications across all types of industry.

Temperature range: -15°C to +60°C

Superflex

Pages 54 & 55



Superflex

PVC ducting reinforced with an anti-shock rigid PVC spiral. Perfectly smooth inside, outside slightly corrugated to ensure optimization of flow properties.

Properties: High mechanical characteristics, very light and flexible, resistant to ozone and atmospheric agents, ageing, hydrolysis, UV Rays, and most chemicals.

Applications: Suction of air, fumes, gas, powders, sawing, dust. Air conditioning and ventilation systems, dust extraction, woodworking processing plants.

Temperature range: -10°C to +50°C

Non Metallic Tubing overview

Armorvin type

Pages 56 & 57



Armorvin type

Flexible hose produced with Biovinyl™ and reinforced with a steel spiral.

Properties: Smooth inside and outside to ensure the optimization of flow. Resistant to several chemicals, weather conditions, ozone and UV rays.

Applications: Ideal for delivery food liquids such as drinks, beverages, fruit juices, wine, vinegar and spirits with max. alcohol content of 20%, as well as powders and dry food. Not suitable for milk, dairy products and fatty food. It is often used for filling machines and dispensers.

Temperature range: -10°C to +60°C

WPU-Z

Pages 58 & 59



WPU-Z

Ester based Polyurethane duct reinforced with a steel spiral zinc coated.

Properties: Very light and flexible, axially compressible (about 5:1) for easy handling. The PU-coated spiral allows more bending sessions, thus the duct has good mechanical properties and it is especially suitable for dynamic applications. Resistant to abrasion.

Applications: Woodworking industry, dust extraction, vapours, small industrial cleaning and suction plants. Suction of dry food only.

Temperature range: -40°C to +90°C (+125°C for short periods)

WPU-C

Pages 60 & 61



WPU-C

Ester based Polyurethane duct reinforced with a PU coated coppered steel spiral.

Properties: Very light and flexible, easy to handle. Resistant to abrasion, mineral oils, UV rays, ozone and ageing. Especially suitable for dynamic applications. The PU-coated spiral allows more bending sessions than a hose with a non coated steel spiral.

Applications: Suction of granules, abrasive powders, pellets in woodworking, dust extraction. It is also suitable in food industry for suction of dry food only.

Temperature range: -40°C to +90°C (+125°C for short periods)

Non Metallic Tubing overview

PU60

Pages 62 & 63



PU60

Ether based PU wall, food grade, with an anti-shock rigid PVC spiral. Completely smooth inside, corrugated outside.

Properties: Light duty product with a PU wall thickness from 0.4mm to 0.8mm, light, flexible and easy to bend extremely resistant to abrasion and flexion, this hose features high mechanical properties. Excellent resistance to microbes, hydrolysis, ozone, weather conditions, most chemicals.

Applications: Ideal for applications the suction of pellets, saw dust, abrasive powders, liquids and food.

Suitable for liquids

Temperature range: -40°C to +80°C

PU-BLUE

Pages 64 & 65



PU-BLUE

Ester based Polyurethane duct reinforced with a steel wire coated with blue Polyurethane.

Applications: Ideal for the suction of pellets, dust extraction, abrasive powders and dry food.

Industries: Dust extraction, woodworking

Properties: Very light, flexible and easy to handle. The wire is embedded between two PU Plies for ensuring a better adhesion and really good performance in bending.

Not suitable for liquids

Temperature range: -40°C to +90°C (+125°C for short periods)

WFD.2000

Pages 66 & 67



WFD2000

Ester based Polyurethane duct reinforced with a steel wire coated with blue Polyurethane.

Applications: Ideal for the suction of pellets, sawdust, abrasive powders and dry food.

Industries: Dust extraction, woodworking

Properties: Very light, flexible and easy to handle. The wire is embedded between two PU Plies for ensuring a better adhesion and really good performance in bending.

Temperature range: -40°C to +125°C

Non Metallic Tubing overview

W2SR-Exhaust

Pages 68 & 69



W2SR-Exhaust

Double ply silicone coated glass fabric ducting, reinforced with embedded steel wire helix and external glass cords

Properties: Lightweight, very good flexibility and bending, kink proof, nearly smooth inside, resistant to most chemicals

Applications: Automotive industry, fume & dust extraction, heating, air conditioning & ventilation, plastics industry, printing & paper

Temperature range: -60°C to +270°C (peak)

Dekabon / Synflex

Page 70



Dekabon / Synflex

High density polyethylene bonded to an overlapped aluminium tape having an ethylene copolymer coating

Properties: Lightweight and flexible with stayput properties, smooth inside and out.

Applications: This unique composite-wall tube is designed for pneumatic instrument control and is ideal for inspection of turbine engines on aeroplanes and alike once fitted with a camera. Also suitable for use as a pliable conduit and various stayput applications.

Temperature range: -40°C to +80°C

Clear Low Toxic PVC

Colour: Clear

Characteristics:

This is a soft flexible Clear PVC hose which is manufactured from a low toxic, food grade PVC.

Applications:

Suitable for low pressure solid, liquid and gaseous dispense applications. Food contact applications.

Construction:

Manufactured from a low toxic, food grade PVC FDA grade PVC.

Operating Temperature Range: -20°C to +55°C

Standard Coil Length: 30m

Applications

- Air
- Water
- Food
- General purposes



Size Reference (inches)	I/D size (mm)	O/D size 1.5mm wall	O/D size 3mm wall
1/8"	3	6	
3/16"	5	8	
1/4"	6	9	12
5/16	8	11	14
3/8"	10	13	16
1/2"	12.5	16	19
5/8"	16	19	22
3/4"	19		25
1"	25		31
1.1/4"	32		38
1.1/2"	38		44

Clips to suit (page 72)



S/S Worm Drive Hose Clips

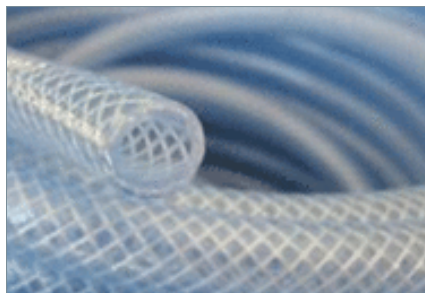
Clear Braided PVC

Construction:

Manufactured from a soft flexible food grade PVC which is reinforced with a polyester yarn.

Features:

The advantages of this tube include it being lightweight, very flexible and resistant to weather conditions.



Operating Temperature

Range: -5°C to +60°C

Standard Coil length: 30m

Size Reference (inches)	I/D (mm)	O/D (mm)
1/4"	6	12
5/16"	8	14
3/8"	10	16
1/2"	13	19
5/8"	16	23
3/4"	19	26
1"	25	33
1.1/4"	32	42
1.1/2"	38	48
2"	50	62

Clips to suit (page 72)



S/S Worm Drive Hose Clips

Superflex

Colour: Dark grey

Temperature range: -10°C to +50°C

Applications:

Suction of air, fumes, vapours, gases, dust, air conditioning and woodworking plants. Resistant to low temperature.

Industries:

Air conditioning and ventilation systems, chemical oil and solvents, dust extraction, heating and ventilation, water and general purpose applications.

Technical Features:

Plasticized PVC ducting reinforced with anti-shock rigid PVC spiral. Perfectly smooth inside, outside corrugated. Wall thickness from 0.8mm to 1.2mm.

Properties:

High mechanical strength, very light and flexible, good bend radius, resistant to ozone and atmospherical agents, ageing, hydrolysis, UV rays, and most chemicals. Halogens free conform to RoHS.

Standards: RoHS 2011/65/EU Directive, REACH Regulation (1907/2006), TRB S 2153.



Clips and clamps to suit (page 72)



S/S Worm Drive Hose Clips



Super Heavy Duty S/S Clamps

Superflex

Standard range

Inside Ø (mm)	Min. wall thickness (mm)	Max. wall thickness (mm)	Weight (g/m)	Vacuum mH2O	Bending radius (mm)	Volume (m ³)
25	0,8	2,5	150	2,5	30	0,072
30	0,8	2,6	190	2,5	35	0,102
31,8	0,8	2,8	200	2	35	0,108
35	0,8	2,9	225	2	35	0,137
38,1	0,8	3,0	250	2	45	0,163
40	0,8	3,0	270	2	50	0,178
45	0,8	3,1	340	2	55	0,207
50	0,8	3,5	415	2	60	0,263
50,8	0,8	3,5	415	2	60	0,266
60	0,8	3,6	485	1,6	70	0,361
63,5	0,8	3,6	505	1,6	70	0,380
70	0,9	3,8	560	1,5	90	0,541
76,2	0,9	3,8	615	1,5	100	0,620
80	0,9	4,3	725	1,5	110	0,655
90	0,9	4,5	825	1,4	125	0,442
100	0,9	4,6	940	1,3	140	0,642
102	0,9	4,6	940	1,3	140	0,654
110	1,0	5,0	1065	1,2	150	0,746
120	1,0	5,0	1165	1	160	0,831
127	1,0	5,0	1230	1	170	0,900
130	1,0	5,0	1260	0,9	170	0,945
140	1,0	5,1	1405	0,9	175	1,041
151,5	1,1	5,2	1550	0,8	180	0,952
152,4	1,1	5,3	1545	0,8	180	0,958
160	1,1	6,0	1725	0,7	190	1,040
180	1,1	6,0	1940	0,4	300	1,228
200	1,1	6,0	2135	0,4	400	1,431
250	1,2	6,8	3210	0,4	450	0,947
300	1,2	6,9	3895	0,3	1000	1,450

Armorvin Type

Colour: Transparent with a steel spiral

Temperature Range: -10°C to +60°C

Applications:

Ideal for solution for the suction and delivery of food, liquids such as drinks, beverages, fruit juices, wine, vinegar and spirits with max. alcohol content of 20%, as well as powders and dry food. No suitable for milk, dairy products and fatty food. It is often used for filling machines and dispensers.

Industries:

Food, agriculture, industrial. The tube can be made electrically bonded by grounding the spiral.

Technical Features:

A flexible PVC hose, reinforced with a steel spiral. Smooth inside and outside to ensure the optimization of flow and resistant to several chemicals, weather conditions, ozone and UV rays.

Standards:

Food grade according to EC 10/2011 Regulation (classes A,B,C and dry food) and to FDA (CFR 21 Parts 170 to 199 Item 175.300), RoHS 2011/65/EU Directive, REACH Regulation (1907/2006), TRB S 2153.



Clips and clamps to suit (page 72)



S/S Worm Drive Hose Clips



Super Heavy Duty S/S Clamps

Armorvin Type

Standard range

Inside Ø (mm)	Outside Ø (mm)	Weight (g/m)	Working pressure bar	Bursting pressure bar	Vacuum mH2O	Bending radius (mm)	Coil length (m)	Volume (m3)
6	12,2	130	5	25	9,5	30	30/60	0,019
8	14,2	160	5	25	9,5	40	30/60	0,022
10	16	185	7,0	35	8,5	50	30/60	0,028
12	18	210	7,0	35	8,5	50	30/60	0,033
14	20	230	7,0	35	8,5	60	30/60	0,039
16	22,4	275	7,0	35	8,5	70	30/60	0,048
18	24,4	300	6	30	8,5	80	30/60	0,067
20	27	355	6,0	30	8,5	90	30/60	0,082
22	29	390	6,0	30	8,5	100	30/60	0,093
25	33	510	6,0	30	8,5	110	30/60	0,111
30	38	600	5,0	25	8,5	140	30/60	0,151
32	40,4	665	5,0	25	8,5	140	30/60	0,171
35	43,4	710	5,0	25	8,5	160	30/60	0,188
38	47	805	5,0	25	8,5	170	30	0,114
40	49,0	880	5,0	25	8,5	180	30	0,125
45	54,8	1135	4,0	20	8	200	30	0,178
50	60	1275	4	20	8	230	30	0,210
60	71,8	1745	3,5	17,5	8	270	30	0,285
63	74,8	1830	3,5	17,5	8	280	30	0,281
70	82	2070	3,5	17,5	7	320	30	0,342
76	88,2	2275	3,5	17,5	7	340	30	0,489
80	92,2	2400	3,5	17,5	7	360	20	0,357
90	103	3025	3,0	15	7	410	20	0,415
102	115	3435	2,0	10	7	460	20	0,517
105	118	3600	2,0	10	7	470	20	0,531
110	127,4	4770	1,6	8	9,0	550	20	0,612
120	137,4	5170	1,2	6	9,0	600	20	0,686
127	144,4	5465	1,2	6	9,0	640	20	0,739
151	168,6	6855	1,2	6	9,0	760	20	1,303

WPU-Z Polyurethane Ducting

Colour: Clear with Coppered Spiral.

Temperature Range: -40°C to +90°C (+125°C for short periods)

Technical Features:

Abrasion resistant Ester based Polyurethane duct reinforced with a zinc covered steel spiral coppered coated. Wall thickness from 0.35 to 0.50mm.

Properties:

Very light and flexible, axially compressible (about 5:1) for easy handling and cost savings in stocking and transporting. The PU-coated spiral allows more bending sessions, thus the duct has good mechanical properties and it is especially suitable for dynamic applications. Resistant to abrasion. Halogens free conform to RoHS, and phthalates free.

Standards:

It can be made electrically bonded by earthing the steel spiral in accordance to TRB S 2153. (For further info regarding electrical resistance speak to our sales team). For dry food only according to EU Regulation 10/2011, RoHS 2011/65/EU Directive, REACH Regulation (1907/2006).

Applications / industries:

Woodworking, dust and vapour extraction, small industrial cleaning, suction plants. Suitable for dry food according to EU Directives.



Clips and clamps to suit (page 72)



S/S Worm Drive Hose Clips



Super Heavy Duty S/S Clamps

WPU-Z Polyurethane Ducting

Standard range

Inside Ø (mm)	Min. Wall thickness (mm)	Weight (g/m)	Vacuum mH2O	Bending radius (mm)	Roll length (m)	Volume (m³)
50	0,35	225	0,40	20	20	0,119
51	0,35	230	0,40	26	20	0,121
60	0,35	270	0,40	30	20	0,139
63	0,35	285	0,40	32	20	0,152
65	0,35	295	0,40	33	20	0,157
70	0,35	360	0,40	35	20	0,184
76	0,35	390	0,40	38	20	0,235
80	0,35	410	0,40	40	20	0,256
90	0,35	450	0,40	45	20	0,297
100	0,40	510	0,30	50	15	0,286
102	0,40	520	0,30	51	15	0,291
110	0,40	560	0,30	55	15	0,323
120	0,40	610	0,25	60	15	0,374
127	0,40	640	0,25	64	15	0,408
130	0,40	660	0,20	65	15	0,437
140	0,40	710	0,20	70	15	0,514
150	0,40	760	0,20	75	15	0,548
152	0,40	770	0,20	76	15	0,554
160	0,45	880	0,15	80	15	0,606
180	0,45	990	0,15	90	15	0,760
200	0,45	1100	0,10	100	15	0,963
203	0,45	1120	0,10	102	15	0,977
220	0,45	1200	0,10	110	10	1,035
228	0,45	1250	0,10	114	10	0,949
250	0,50	1300	0,10	125	On request	On request
254	0,50	1320	0,10	127	On request	On request
300	0,50	1550	0,08	150	On request	On request
305	0,50	1580	0,08	153	On request	On request
350	0,50	1820	0,07	175	On request	On request

WPU-C

Colour: Clear with coppered spiral.

Temperature Range: -40°C to +90°C (+125°C for short periods)

Applications:

Ideal for applications where resistance to abrasion is required such as dust extraction, street cleaning, leaf collection, paddock cleaning, woodworking and the conveyance of abrasive powders.

Technical Features:

Ester based Polyurethane duct reinforced with a steel spiral coppered coated. Wall thickness from 0,35 to 0,50mm.

Properties:

Very light and flexible, axially compressible (about 5:1) for easy handling and cost saving in stocking and transporting. The PU-coated spiral allows more bending sessions, thus the duct has good mechanical properties and it is especially suitable for dynamic applications. Halogens free and conforms to RoHS.

Standards:

It can be made electrically bonded by earthing the steel spiral in accordance to TRB S 2153. The electrical resistance $R \leq 102 \text{ Ohm/m}$ is according to ISO 8031 - ATEX Directive 94/4/EC and 99/92/EC). For dry food only according to EU Regulation 10/2011, RoHS 2011/65/EU Directive, REACH Regulation (1907/2006).



Clips and clamps to suit (page 72)



S/S Worm Drive Hose Clips



Super Heavy Duty S/S Clamps

WPU-C

Standard range

Inside Ø (mm)	Min. wall thickness (mm)	Weight (g/m)	Vacuum mH ₂ O	Bending radius (mm)	Volume (m ³)
50	0,35	225	0,40	20	0,119
51	0,35	230	0,40	26	0,121
60	0,35	270	0,40	30	0,139
63	0,35	285	0,40	32	0,152
65	0,35	295	0,40	33	0,157
70	0,35	360	0,40	35	0,184
76	0,35	390	0,40	38	0,235
80	0,35	410	0,40	40	0,256
90	0,35	450	0,40	45	0,297
100	0,40	510	0,30	50	0,286
102	0,40	520	0,30	51	0,291
110	0,40	560	0,30	55	0,323
120	0,40	610	0,25	60	0,374
127	0,40	640	0,25	64	0,408
130	0,40	660	0,20	65	0,437
140	0,40	710	0,20	70	0,514
150	0,40	760	0,20	75	0,548
152	0,40	770	0,20	76	0,554
160	0,45	880	0,15	80	0,606
180	0,45	990	0,15	90	0,760
200	0,45	1100	0,10	100	0,963
203	0,45	1120	0,10	102	0,977
220	0,45	1200	0,10	110	1,035
228	0,45	1250	0,10	114	0,949
250	0,50	1300	0,10	125	On request
254	0,50	1320	0,10	127	On request
300	0,50	1550	0,08	150	On request
305	0,50	1580	0,08	153	On request
350	0,50	1820	0,07	175	On request

PU60

Colour: Transparent with Ivory Spiral.

Temperature Range: -40°C to +80°C

Applications:

Suitable for Food and the suction of liquids.
Commonly used for dry food such as grains, animal feed, sugar, flour, fatty food, but not for milk or dairy products.

Industries:

Microbes resistant, abrasive powders, agriculture, food, grain, seed drill.

Technical Features:

Ether-based PU wall, food grade, with an anti-shock rigid PVC spiral. Completely smooth inside, corrugated outside.

Properties:

Medium duty product with a wall thickness from 0.8 to 1.2 mm, light, flexible and easy to bend extremely resistant to abrasion and flexion, this hose features high mechanical properties. Excellent resistance to microbes, hydrolysis, ozone, weather conditions, most chemicals. Halogens free and conform to RoHS.

Standards:

Food grade according to FDA Reg. Cfr 21-Item 17.2600 (aqueous and fatty food) and to EU Reg. 10/2011, classes A, B, C, D2, RoHS 2011/65/EU Directive, REACH Regulation (1907/2006), TRB S 2153.

PU60 can be manufactured in antistatic version by adding a copper wire.

By earthing the copper wire in accordance to TRB S 2153 the hose is electrically bonded. The electrical resistance $R \leq 102 \text{ Ohm/m}$ is according to ISO 8031 - ATEX Directive 94/4/EC and 99/92/EC).

Clips and clamps to suit (page 72)



S/S Worm Drive Hose Clips



Super Heavy Duty S/S Clamps



PU60

Standard range

Inside Ø (mm)	Min. wall thickness (mm)	Max. wall thickness (mm)	Weight (g/m)	Vacuum mH2O	Bending radius (mm)	Roll length (m)	Volume (m³)
30	0,8	3,0	250	3,5	100	30	0,083
35	0,8	3,3	290	3	120	30	0,101
38,1	0,8	3,3	310	3	130	30	0,114
40	1,0	3,6	350	3	140	30	0,133
45	1,0	4,0	440	3	160	30	0,150
50,8	1,0	4,5	550	3	175	30	0,201
60	1,0	4,5	640	3	200	30	0,241
63,5	1,0	4,5	670	3	230	30	0,293
70	1,0	4,5	750	3	250	30	0,364
76,2	1,0	4,5	780	2,5	270	30	0,432
80	1,0	5,0	900	2,5	290	30	0,485
90	1,0	5,2	1050	2,5	360	30	0,573
100	1,0	5,7	1250	2,5	400	30	0,713
102	1,0	5,7	1270	2,5	400	30	0,725
120	1,0	5,9	1500	2,5	470	30	0,962
127	1,0	5,9	1600	2,5	500	30	1,120
130	1,0	5,9	1650	2,5	520	30	1,145
140	1,0	6,0	1800	2	570	30	1,646
151,5	1,0	6,4	2000	2	600	20	1,262
203,2	1,2	8,9	2900	1	400	20	1,768
254	1,2	8,9	3600	1	500	10	2,175
304,8	1,2	8,9	4300	0,8	610	10	2,581

PU60 Blue

Colour: Clear PU with Blue PU coated steel spiral

Temperature Range: -40°C to +90°C
(+125°C for short periods)

Applications:

Ideal for applications where a resistance to abrasion is required such as dust extraction, suction of pellets and the conveyance of metal filings and abrasive powders.

Technical Features:

Ester based Polyurethane duct reinforced with a steel wire coated with blue Polyurethane. Wall thickness from 0,4mm to 0,65mm.

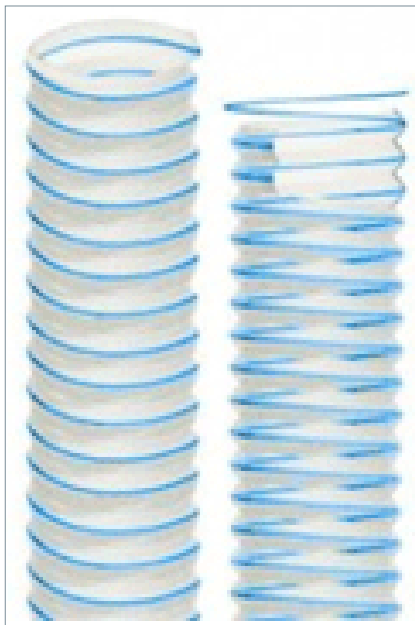
Properties:

Very light and flexible, easy to handle. The wire is embedded between two PU plies for ensuring a better adhesion and really good performance in bending. Halogens free conform to RoHS and phthalates free.

Standards:

It can be made electrically bonded by earthing the steel spiral in accordance to TRB S 2153. The electrical resistance $R \leq 102$ Ohm/m is according to ISO 8031 - ATEX Directive 94/4/EC and 99/92/EC). For dry food only according to EU Regulation, RoHS 2011/65/EU Directive, REACH Regulation (1907/2006).

Clips and clamps to suit (page 72)



S/S Worm Drive Hose Clips



Super Heavy Duty S/S Clamps

PU60 Blue

Standard range

Ø Internal (mm)	Thickness min. (mm)	Weight (g/m)	Vacuum mH2O	Bending radius (mm)	Volume m ³ _{BUB}
38	0,40	215	2,0	30	0,076
51	0,40	275	2,0	40	0,108
63	0,40	335	1,7	55	0,143
76	0,43	400	1,7	65	0,245
80	0,43	420	1,6	65	0,256
90	0,43	470	1,6	75	0,303
102	0,53	530	1,3	85	0,310
110	0,53	570	1,2	90	0,320
120	0,53	615	1,0	100	0,372
127	0,53	615	1,0	105	0,405
140	0,63	840	0,8	115	0,504
152	0,63	890	0,8	125	0,544
160	0,63	935	0,7	130	0,662
180	0,63	1380	0,5	150	0,855
203	0,63	1550	0,4	165	1,146
228	0,63	1740	0,4	185	1,170
254	0,65	1900	0,4	210	1,188
305	0,65	2275	0,3	250	1,613

Contact us for non standard coil lengths or intermediate sizes.

WFD2000

Colour: Black with a green stripe

Temperature Range: -40°C to +125°C

Applications:

Ideal for the extraction air, fumes, vapours and gases

Industries:

Particularly suitable for suction of hot air and fumes in chemical plants, shipyards, the automotive industry, heating air conditioning and ventilation systems.

Microbes resistant, air conditioning and ventilation systems, automotive, chemical oil and solvents, dust extraction, heating and ventilation, high temperature, industrial fumes

Technical features:

Manufactured from thermoplastic rubber reinforced with a steel spiral embedded between the two layers. Wall thickness from 0.4mm to 0.65mm.

Properties:

The product has high mechanical properties and can be used in many applications, especially when good dynamic properties are required: flexible, light, easy to handle, really good bending. Excellent resistance to high temperatures, chemicals and abrasion. Halogens free conform to RoHS.

WFD-2000 can be made electrically bonded by earthing the steel spiral in accordance to TRB S 2153. The electrical resistance $R \leq 102 \text{ Ohm/m}$ is according to ISO 8031 - ATEX Directive 94/4/EC and 99/92/EC.

Standards:

RoHS 2011/65/EU Directive, REACH Regulation (1907/2006), TRB S 2153.

Clips and clamps to suit (page 72)



S/S Worm Drive Hose Clips



Super Heavy Duty S/S Clamps



WFD2000

Standard range

Inside Ø (mm)	Min. wall thickness (mm)	Max. wall thickness (g/m)	Vacuum mH2O	Bending radius (mm)	Volume (m³)
38	0,4	190	2,0	30	0,074
40	0,4	200	2,0	32	0,077
45	0,4	230	2,0	36	0,092
51	0,4	250	2,0	40	0,108
60	0,4	300	1,7	50	0,137
63	0,4	310	1,7	55	0,150
70	0,5	440	1,7	60	0,181
76	0,5	470	1,7	65	0,232
80	0,5	500	1,6	65	0,254
90	0,5	580	1,6	75	0,294
102	0,6	620	1,3	85	0,286
110	0,6	660	1,2	90	0,318
120	0,6	730	1,0	100	0,369
127	0,65	840	1,0	105	0,405
130	0,65	870	0,8	105	0,427
140	0,65	950	0,8	115	0,504
152	0,65	1030	0,8	125	0,544
160	0,65	1100	0,7	130	0,666
180	0,65	1350	0,5	150	0,864
203	0,65	1500	0,4	165	1,157
228	0,65	1700	0,4	185	0,941
254	0,65	1950	0,4	210	1,197
279	0,65	2150	0,4	230	1,426
305	0,65	2400	0,3	250	1,633
356	0,65	2790	0,3	300	
406	0,65	3250	0,3	350	

Please contact our offices for not listed sizes

W2SR Exhaust

Colour: Red

Standard length: 4m.

Temperature range: -60°C + 270°C (peak +300°C)

Applications:

Conveyance of hot air, fumes, exhaust gas in automotive and ventilation systems, plastic industry, printing and paper

Industries:

Automotive, dust extraction, granule drying, heating and ventilation, high temperature, industrial fumes, plastics industry, printing and paper

Technical features:

Single ply silicone coated glass fabric ducting, reinforced with an embedded steel wire helix. External glass cords.

Properties:

This product is lightweight with very good flexibility, is kink proof, nearly smooth inside, resistant to most chemicals and has a working temperature up to +270°C (peak +300°C).



Clips and clamps to suit (page 72)



S/S Worm Drive Hose Clips



Super Heavy Duty S/S Clamps

W2SR Exhaust

Standard range

Part number	Inside Ø (mm)	Weight (g/m)	Vacuum mH2O	Working pressure	Bending radius (mm)	Length (m)
P435025	25	145	7	2,5	25	4
P435032	32	180	5,8	2,5	32	4
P435038	38	210	5,8	2,4	38	4
P435041	41	238	5,8	2,4	41	4
P435051	51	285	5,3	2,4	51	4
P435063	63	355	4,6	2,2	63	4
P435070	70	435	4,6	2,2	70	4
P435083	83	510	4	2,1	83	4
P435089	89	545	4	2,1	89	4
P435102	102	610	3,5	1,8	102	4
P435121	121	815	2,3	1,6	121	4
P435127	127	860	2,1	1,5	127	4
P435152	152	1100	1,7	1,1	152	4
P435160	160	1146	1,5	0,9	160	4
P435178	178	1275	1,4	0,8	178	4
P435203	203	1390	1	0,6	203	4
P435254	254	1780	0,7	0,4	254	4
P435305	305	2170	0,5	0,2	305	4

Contact us for non standard coil lengths or intermediate sizes.

Dekabon / Synflex

Tube Material

Polyethylene / Aluminium composite: black, high density polyethylene bonded to an overlapped aluminium tape having an ethylene copolymer coating

Construction

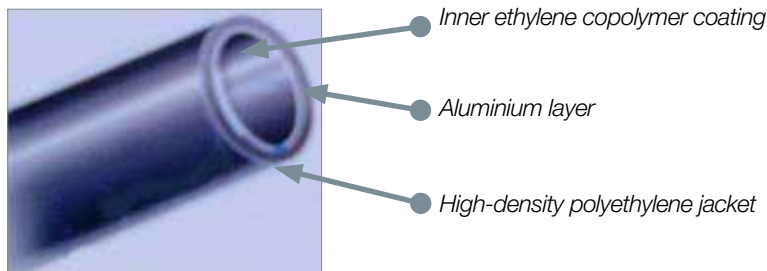
High-density polyethylene cover
Polyethylene / aluminium core

Application

This unique composite-wall tube is designed for pneumatic instrument control. This tube can also be supplied with a metallic casing and fittings to make it suitable for a wide range of alternative stayput applications.

Benefits/strengths

The outer high-density polyethylene layer is impervious to most chemical-containing atmospheres and is corrosion, water and steam resistant; it is very slightly permeable. The majority of thermoplastics, though having weak water absorption, are steam and gas permeable although the inner aluminium sheet reduces this phenomenon to a bare minimum.



Standard Size Range

O/D metric	O/D imperial	Inside dia.	Weight (kg / 100m)
	1/4"	0.170"	2.4
	3/8"	0.250"	5.2
	1/2"	0.375"	7.3
6mm		4mm	2.0
8mm		5.3mm	3.2
10mm		6.3mm	5.7
12mm		8.1mm	7.5
14mm		9.7mm	9.6
15mm		10.7mm	10.6



Clamps & Fittings overview

Band Clamps

Page 73



Galvanised & Stainless Steel Band Clamps

These clamps provide a wide band that has a clamping range which is adjusted by tightening the bolt at the top.

Hose Clips

Page 73



Stainless Steel Worm Driven Hose Clips

These particular clamps are suitable for most general purpose applications and are available to suit an extensive range of tubing sizes. The fine control in adjusting the 'tightness' provides great flexibility.

Exhaust Clamps

Page 74



Exhaust Clamps

A very useful clamp for many applications where you need to clamp our tubing in various situations. Typically used for exhaust applications.

Also available in a Heavy Duty version

Stainless Steel Exhaust Clamps

Pages 75



Stainless Steel Super Heavy Duty Exhaust Clamps

These clamps are manufactured to DIN STD 3017 and comprise of a full band clamps that close via a bolt. They are particularly designed for sealing suction and pressure lines with plastic or steel reinforcements. Their distinguishing feature is an extremely high band tension.

Band Clamps

Band Clamps are a versatile and cost effective solution for a wide range of installations.

They are constructed from Galvanized Mild Steel or Stainless Steel strip that is formed into shape & fitted with a bolt.



S/S Band Clamp



Galvanised Band clamp

Size ref.	To suit tube
BC-01.5	3/4" to 1.1/2"
BC-02.25	1.5/8" to 2.1/4"
BC-03	2.3/8" to 3"
BC-03.7	3.1/8" to 3.5/8"
BC-04.5	3.3/4" to 4.1/2"
BC-05.25	4.5/8" to 5.1/4"
BC-06	5.3/8" to 6"
BC-06.7	6.1/8" to 6.5/8"
BC-07.25	6.3/4" to 7.1/4"
BC-08	7.3/8" to 8"
BC-08.7	8.1/8" to 8.5/8"
BC-09.5	8.3/4" to 9.1/2"
BC-10.25	9.5/8" to 10.1/4"
BC-12	10.3/8" to 12"

Larger sizes are available to order.

Stainless Steel Worm Drive Hose Clips

Stainless Steel Worm Driven Hose Clips are constructed from a stainless steel band with a stainless steel housing and have the following characteristics:

- Patented asymmetrical construction
- Uniform hose sealing
- Wide clamping range
- Gentle on the hose
- 12mm band width



Clamping range (mm)
16 - 25
20 - 32
32 - 50
40 - 60
50 - 70
60 - 80
70 - 90
80 - 100
90 - 110
100 - 120
120 - 140
140 - 160
160 - 180
170 - 190

Some large sizes available on request.

Heavy Duty Exhaust Clamps

A heavy duty version is available in clamp sizes 3.1/2" to 5".

To suit tube (bore size)	Clamp size
3.1/4"	3.1/2"
3.1/2"	3.3/4"
3.7/8"	4.1/8"
4"	4.1/4"
4.1/4"	4.1/2"
4.1/2"	4.3/4"
4.3/4"	5"



U-Bolt Exhaust Clamps

This clamp is ideal for many applications and ideal for attaching our tube in exhaust systems.

Construction: Zinc Plated Mild Steel

To suit tube (bore size)	To suit tube (bore size) mm	Clamp size
7/8"	22	1.1/8"
1"	26	1.1/4"
1.1/8"	28	1.3/8"
1.1/4"	32	1.1/2"
1.3/8"	36	1.5/8"
1.1/2"	39	1.3/4"
1.5/8"	42	1.7/8"
1.3/4"	45	2"
1.7/8"	49	2.1/8"
2"	52	2.1/4"
2.1/8"	55	2.3/8"
2.1/4"	59	2.1/2"
2.3/8"	62	2.3/8"
2.1/2"	65	2.3/4"
2.5/8" - 2.3/4"	70-75	3"
2.7/8" - 3"	52-81	3.1/4"
3.1/8" - 3.1/4"	85-90	3.1/2"
3.3/8" - 3.1/2"	92-98	3.5/8"
3.5/8" - 3.3/4"	92-101	4"



Other sizes available on request.

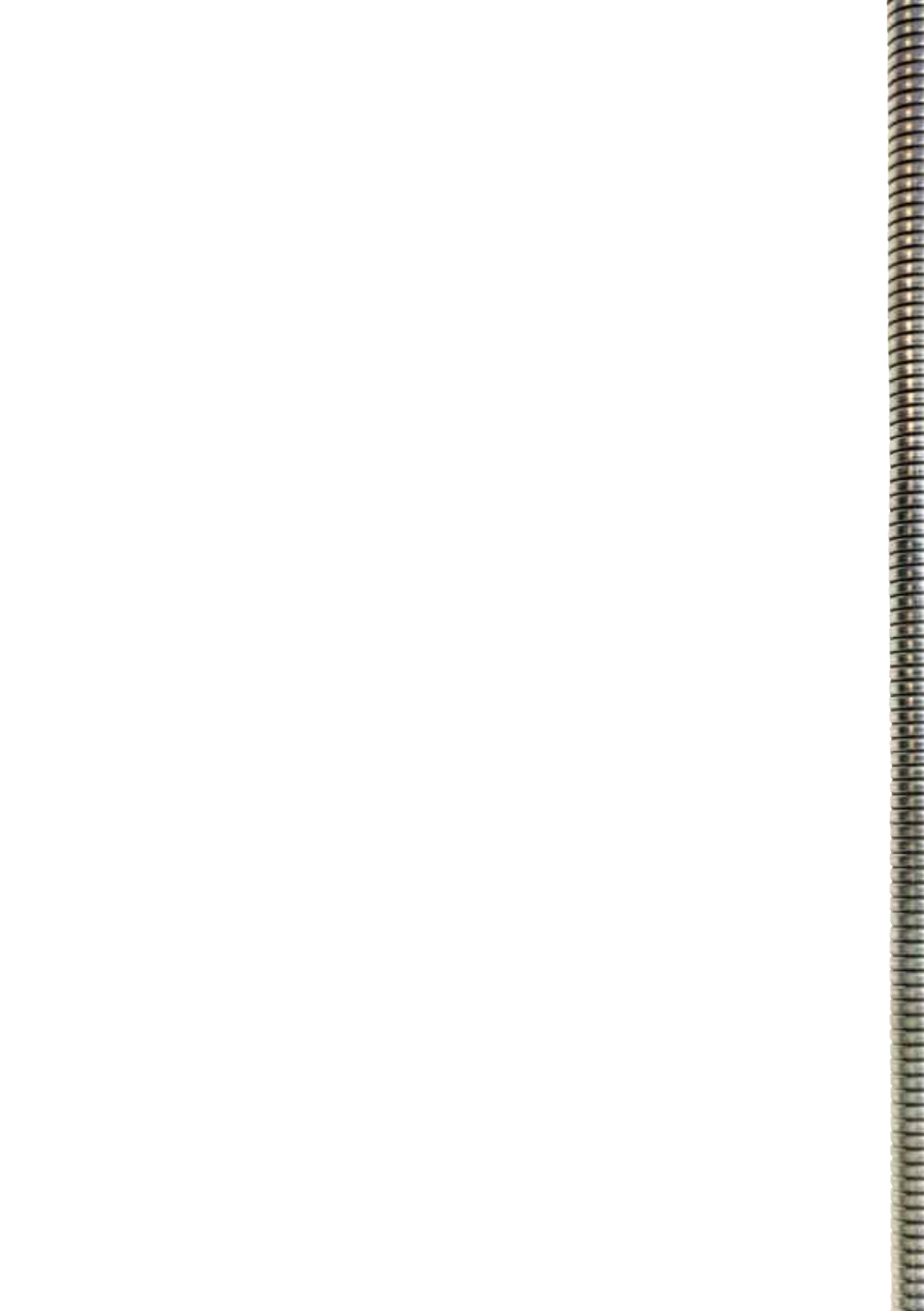
Stainless Steel Super Heavy Duty Exhaust Clamps

Our super heavy duty exhaust clamps comprises full band clamps that close via a bolt. They are particularly designed for sealing suction and pressure lines with plastic or steel reinforcements. Their distinguishing feature is an extremely high band tension.



To suit tube ID	Clamping range	Band width	To suit tube (O/D size mm)	Price (£) each
1 ¾	47-51	20mm	47-51	1.76
2	55-59	20mm	55-59	1.93
2 ¼	63-68	20mm	63-68	1.97
2 ½	68-73	25mm	68-73	2.54
3	79-85	25mm	79-85	2.65
3 ½	91-97	25mm	91-97	2.73
4	104-112	25mm	104-112	3.11
4 ½	112-121	25mm	112-121	3.17
5	130-140	30mm	130-140	4.60
6	150-162	30mm	150-162	4.75

Some other sizes available on request

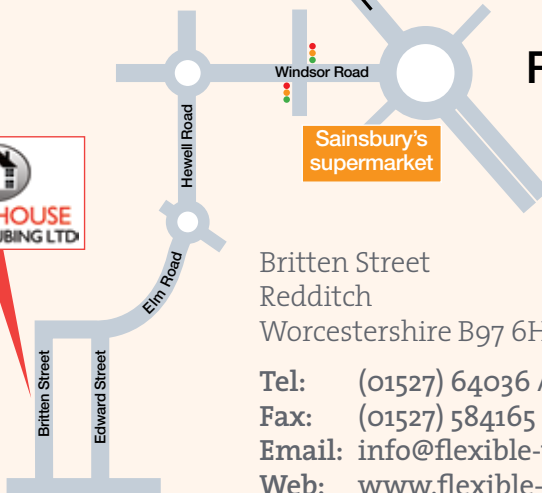






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