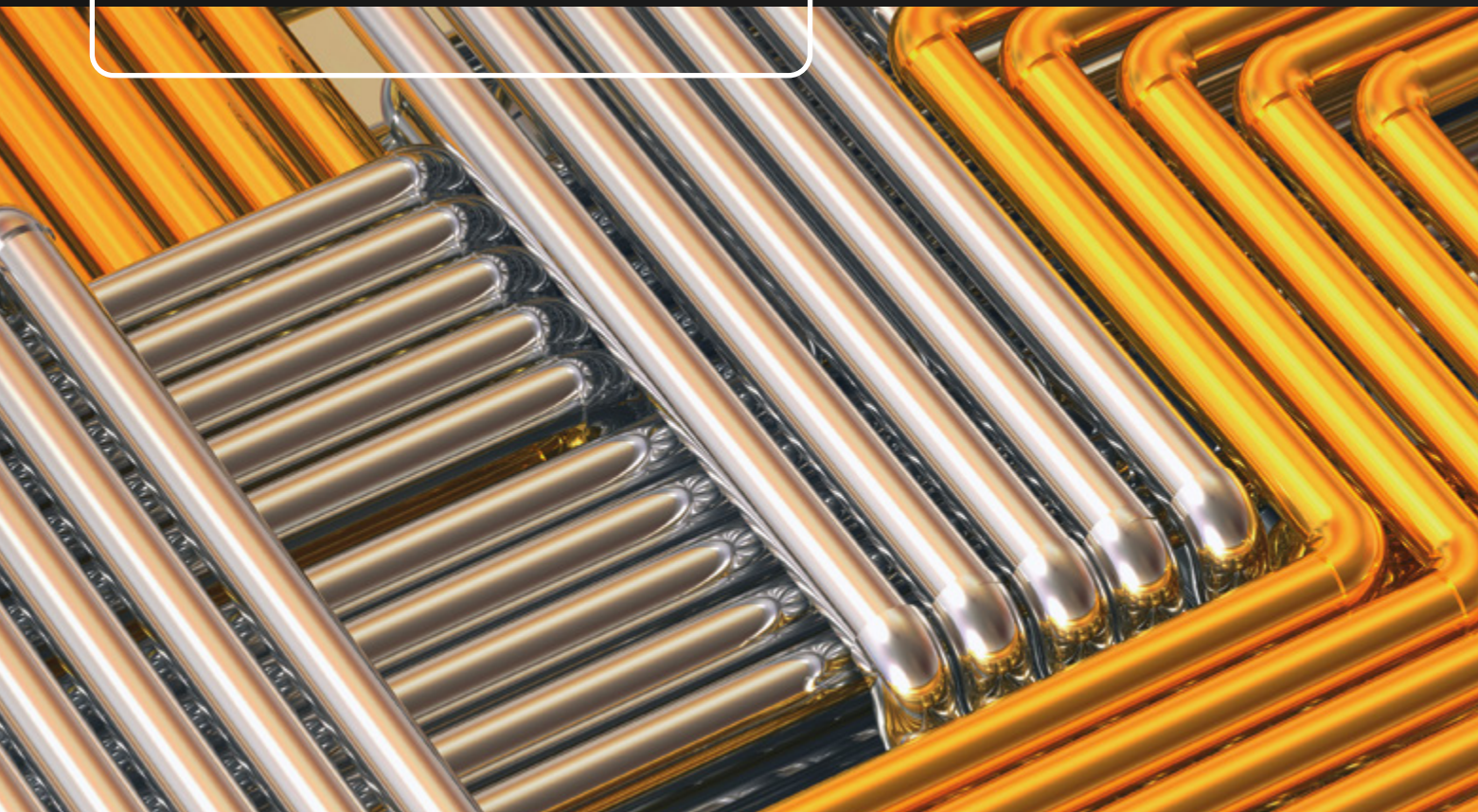




TUBE SELECTION GUIDE

Adding to our range of useful guides for designers and specifiers of tube components, this Tube Selection Guide provides an overview of the commonly available metal tube dimensions in a range of materials.



AN OVERVIEW OF STOCK / STANDARD SIZES

Adding to our range of useful guides for designers and specifiers of tube components, this Tube Selection Guide provides an overview of the commonly available metal tube dimensions in a range of materials. We hope that by providing this information, you can design your components around standard tube sizes thus simplifying sourcing and reducing the final cost of your product.

The following tables show the combinations of metal type, outside diameter and wall thickness, for both metric and imperial sizes, that are commercially available in the UK/Europe, for diameters from 3mm to 76mm. It is, of course, possible to have other sizes manufactured to special order where volumes are very significant, but it is preferable to select a standard size unless you have an extremely good reason to deviate from that.

If we can help you with any further information, please contact us. We will be happy to assist whether or not you are a current customer.

Supplementing this guide, and also available for free download from www.listertube.com, are the:



Tube Bending Design Guide

Focusing on the specifics of the bending process



Tube Bending Size Guide

An indication of the optimal bend radii



Tube End Design Guide

Detailed information on end forming



Tube Component Optimisation Guide

Providing an understanding of the whole process of tube manipulation and related processes

STANDARD MATERIALS		PROPERTIES - PROS & CONS		
		ADVANTAGES	DISADVANTAGES	ADDITIONAL INFORMATION
1	MILD STEEL - SEAMLESS	<ul style="list-style-type: none"> Large range of sizes/gauges/grades available Excellent bend quality (consistent/reliable) Suitable for mandrel bending (thin wall) 	<ul style="list-style-type: none"> Higher cost 	<ul style="list-style-type: none"> Available pre-plated (zinc and clear passivate) or natural finish/self colour in most metric sizes More suited to high pressure applications
2	MILD STEEL - WELDED	<ul style="list-style-type: none"> Good range of sizes/gauges/grades available Low cost 	<ul style="list-style-type: none"> Size tolerances can be variable Inconsistent bend quality (due to size tolerance) Internal seam can compromise mandrel bending 	<ul style="list-style-type: none"> Standard sizes tend to be imperial - with limited metric sizes available Only available in natural finish (un-plated) More suited to structural (hand rails, support tubes, etc.) and mechanical applications
3	STAINLESS STEEL - SEAMLESS	<ul style="list-style-type: none"> Large range of sizes/gauges/grades available Excellent bend quality (consistent/reliable) Corrosion resistance 	<ul style="list-style-type: none"> Higher cost 	<ul style="list-style-type: none"> More suited to high pressure/high temperature applications Suitable for food/dairy and hygiene applications
4	STAINLESS STEEL - WELDED	<ul style="list-style-type: none"> Good range of sizes/gauges/grades available Low cost Corrosion resistance 	<ul style="list-style-type: none"> Size tolerances can be variable Inconsistent bend quality (due to size tolerance) Internal seam can compromise mandrel bending 	<ul style="list-style-type: none"> Standard sizes tend to be imperial - with limited metric sizes available Suitable for food/dairy and hygiene applications
5	COPPER - HALF HARD / STRAIGHT LENGTHS	<ul style="list-style-type: none"> Soft/malleable for bending Corrosion resistance Conducts heat (heat transfer/cooling systems) 	<ul style="list-style-type: none"> High cost Standard straight length is only 3 metres 	<ul style="list-style-type: none"> C106 is standard commercial grade (H/Hard) 6 metre lengths are available to order (requires MOQ)
6	ALUMINIUM	<ul style="list-style-type: none"> Lightweight Corrosion resistance Relatively low cost 	<ul style="list-style-type: none"> Brittle - most grades are not suitable for bending May require annealing (heat treatment) to bend Limited size range 	<ul style="list-style-type: none"> Some commercial grades (e.g. 6063, 6082) in thicker gauges may bend without annealing - and may age harden naturally - although this cannot be controlled or measured easily Mainly larger imperial sizes - limited metric sizes only available in special grades (to order)

* For Special Materials / Alloys / Brass - Contact our sales team for information

METRIC SIZES

See colour chart (page two) for standard size/gauge availability below by material type.

STANDARD SIZES (OUTSIDE DIAMETER)	STANDARD GAUGES (WALL THICKNESS) METRIC						
	<1.0MM	1.0MM	1.5MM	2.0MM	2.5MM	3.0MM	>3.0MM
4MM	1 2 3 4 5	1 2 3 4 5					
6MM	1 2 3 4 5	1 2 3 4 5 6	1 2 3 4	1 2 3 4			
7.96MM (5/16" OD) OR 8MM	1 2 3 4 5	1 2 3 4 5 6	1 2 3 4	1 2 3 4			
10MM	2	1 2 3 4 5 6	1 2 3 4	1 2 3 4	1 2 3		
12MM		1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4	1 2 3		
14MM			1 2 3 4	1 2 3 4			
15MM		1 2 3 4 5	1 2 3 4 5	1 2 3 4			
16MM			1 2 3 4	1 2 3 4	1 2 3 4	1 3	1
18MM			1 2 3 4	1 2 3 4	1		
19.05MM (3/4" OD)			2	2		2	
20MM			1 2 3 4	1 2 3 4	1 3	1 3	1 2 3 4
22MM			1 2 3 4 5	1 2 3 4 5	1		
22.22MM (7/8" OD)			2 4	2 4			
25MM			1 2 3 4 5	1 2 3 4 5	2 4	1 2 3	1
25.4MM (1" OD)			2 4	2 4		2 4	
26.67MM (3/4" NB)						2	
28MM		4	4 5 3	4 3 1		1	
30MM			2 4 5	1 2 3 4	1	1 3	1
33.7MM (1" NB)						1	1
35MM			1 2 4 5	1 2 3	1	1 3	
38MM					1	1	1
38.1MM (1-1/2" OD)			4				
40MM (1-5/8" OD)				1 2			
42MM			2 4	1	1		

IMPERIAL SIZES

See colour chart (page two) for standard size/gauge availability below by material type.

STANDARD SIZES (OUTSIDE DIAMETER)	STANDARD GAUGES (WALL THICKNESS) IMPERIAL								
	<22SWG	22SWG (0.71MM)	20SWG (0.91MM)	18SWG (1.22MM)	16SWG (1.63MM)	14SWG (2.03MM)	12SWG (2.64MM)	10SWG (3.25MM)	>10SWG
3.18MM (1/8" OD)	1 2 3 4 5	1 2 3 4 5							
4.76MM (3/16" OD)	1 2 3 4 5	1 2 3 4 5							
6.35MM (1/4" OD)		1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4				
7.96MM (5/16" OD) OR 8MM		5	5	5					
9.53MM (3/8" OD)		1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4				
10MM			5	5	5				
12MM			5	5	5				
12.7MM (1/2" OD)			1 2 3 4 5	1 2 3 4 5	1 2 3 4 5 6	1 2 3 4			
13.72MM (1/4" NB)					1 2 3 4	1 2 3 4			
15MM		5	5	5	5				
15.88MM (5/8" OD)				1 2 3 4	1 2 3 4 5 6	1 2 3 4			6
16MM				5					
17.15MM (3/8" NB)					1 2 3 4	1 2 3 4			
19.05MM (3/4" OD)				1 2 3 4	1 2 3 4 5 6	1 2 3 4		1 2 3 4 6	
21.34MM (1/2" NB)						1 3 1		1 3	
22MM		5	5	5					
22.22MM (7/8" OD)				1 3 3 5 6	1 3 3 5 6	1 3 3			
25.4MM (1" OD)		5	5 6	5 6	5 6	1 3		1 3 6	
26.67MM (3/4" NB)					3 4	3 1 3 1 4		1	
28MM		5	5						
28.57MM (1-1/8" OD)			2	2	2 6	2			6
31.75MM (1-1/4" OD)				2	1 2 3 4 5 6	1 2 3 4	1 2	1 2 3 6	
33.7MM (1" NB)					4			4	
38.1MM (1-1/2" OD)					1 2 3 4 6	1 2 3 4	1 2	1 2 6	
40MM (1-5/8" OD)						6			6
42.4MM (1-1/4" NB)							3 4	1 2 3 4	1 2
44.45MM (1-3/4" OD)					1 2 4			1	
48.3MM (1-1/2" NB)						1 2	4	1 2 4	1
50.8MM (2" OD)				4	1 2 4 6	1 2 4	1 3	1 2 3 6	
60.3MM (2" NB)								1 2	1 2
63.5MM (2-1/2" OD)						1		1 2	1 2
76.2MM (3" OD)									1 2 4



CONTACT US

listertube.com

Tel 01527 517120

Fax 01527 517123

Email tube@lister.co.uk

Address

21 Bartleet Road,
Washford Heath Industrial Est.,
Redditch, West Midlands,
B98 0DG

"As part of a business established more than 150 years ago, we understand just how important the full customer service process is to the success and longevity of business relationships. It's in our DNA!"

DR PETER DAVIES

CHIEF EXECUTIVE,
JAMES LISTER & SONS



Our sample rebate offer means you could get a refund of anything up to 100% on your production samples!

*T&Cs apply

LET'S DISCUSS YOUR NEXT PROJECT



SAMPLE



APPROVAL



REBATE

