



Folio Tooling Catalogue

Carving

Folding

Routing

Engraving

Acrylic
Aluminium
Foam PVC
Stainless Steel

Issue 2

Company Profile

ITC is a round tool specialist. Our objective is simply to provide you, our customer, with the correct cutting tool at the right time. We are confident that the products that we supply and manufacture are the best available for each task.

To achieve this, we continue to invest in the right team of time served engineers, equipped with a full CAD-CAM facility dedicated to the design and manufacture of precision cutting tools.

Whatever your requirement, from a one-off special to 1000 pieces, ITC can provide your company with a cutting tool that works.

BETTER BY DESIGN BETTER BY ITC

ITC's state-of-the-art production facility includes CNC grinding machines from world leading manufacturers, including Walter, Schneeberger, Deckel, Rollomatic and Anca. We have invested in a centralised oil filtration system to ensure that grinding takes place under optimum conditions with clean oil, and our inspection department includes computerised laser measuring equipment, to maintain the high standards for which ITC is renowned.

We source and stock the best available products from around the world, and hold over 100,000 HSS Co and Solid Carbide tools on the shelf ready for immediate despatch. ITC can also provide a fast modification service – even same day in some cases.

We provide same day despatch on standard stocked lines, whatever your industry sector may be. From production sub-contractor to tool room, through aerospace, motor sport, and the medical industry, from milling, drilling and reaming to de-burring, ITC has the tools and expertise to solve your problem.

As a specialist tooling supplier, we believe that good customer service is the key to success for ITC and our customers. We stock and manufacture the best quality products, whether standard or special, and our staff are trained to provide the best back-up to our customers.

Whether you know the tool that you require, or simply know that you “have to cut this bit of material”, our technical representatives and internal technical team are qualified to give advice that is second to none.

ITC — AN EASY COMPANY TO DO BUSINESS WITH

We believe that we offer an unbeatable combination of first class service, rapid response, huge stocks, plus access to a diverse and ever growing product line. Our continued investment in state-of-the-art CNC grinding equipment gives us the capacity to rapidly manufacture specials to customer requirements, and to return tools to “as new” condition.

More manufacturing companies than ever before, both in the UK and abroad, are relying on ITC to solve their manufacturing problems.



Nationwide Service Team

ITC's range of routers, engravers and vinyl blades for the sign manufacturer are designed to give the best possible finish on the full range of materials used in today's high tech sign industry.

Whether you are cutting foam, aluminium, acrylic, wood, brass or stainless steel, the range offers you the best possible selection of tooling for all your applications.

Standard engraving or three dimensional carving, we have a style to suit your requirements.

Vinyl blades for most types of plotter are available, please ask us for details.

ITC will create one off specials or modify tools for those unusual jobs you find yourselves presented with.

ITC stock a comprehensive range of metric and imperial collets for your router spindle.

ITC's in-house manufacturing unit can also re-sharpen your tooling to ensure maximum cost efficiency.

We are pleased to assist any of our customers with technical information and can, upon request, arrange for one of our technical representatives to visit and assess your requirements.

www.itc-ltd.co.uk

Visit our web-site, packed with all that's best in router tooling technology. Included on the site are special offers, plus separate home pages for industry sectors including aerospace, mould and toolmaking and motorsport. It also features the full ITC Catalogue including technical advice sections.

Features of the website include:

- **Fast Search Facility**
- **Online Catalogue**
- **New Products**
- **Special Offers**
- **Technical Help**



Please note, in addition to our comprehensive range of solid router tooling, we are pleased to offer a full range of TCT woodworking tooling for next day delivery - please ask for details.


































For immediate technical advice ring:-

Sally Hunt on +44 (0)1204 303435 or +44 (0)797 1542 893

ITC Tamworth on +44 (0)1827 304500

- we will be happy to help.

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180-10 Series

Single Flute Router For Aluminium & Plastics



Description

Solid carbide single flute, upward spiral, 45° helix. Manufactured from Ultra Wear Resistant Micrograin Carbide to extremely tight tolerances, with exceptional surface finish.

Application

Designed for use on both aluminium, acrylics and other soft non-ferrous materials. The single flute design gives excellent swarf clearance, combined with a short cutting length for strength.

Metric Sizes (mm)

CATALOGUE No.	SIZE	SHANK DIAMETER	OVERALL LENGTH	LENGTH OF CUT
180-0394-10	1	3	38	3
180-0591-10	1.5	3	38	4
180-0787-10-STA	2	3	30	7
180-0984-10	2.5	3	38	7
180-1181-10	3	3	38	8
180-1575-10	4	4	43	11
180-1969-10	5	5	47	13
180-2362-10	6	6	57	13
180-3150-10	8	8	63	19
180-3937-10	10	10	72	22
180-4724-10	12	12	83	26

180-10-ST Series

Single Flute Stub Router For Aluminium & Plastics



Description

Solid carbide single flute, upward spiral, 45° helix, stub length, manufactured from Ultra Wear Resistant Micrograin Carbide.

Application

Offers exceptional surface finish on aluminium, acrylic and PVC. Stub length gives increased rigidity.

Metric Sizes (mm)

CATALOGUE No.	SIZE	SHANK DIAMETER	OVERALL LENGTH	LENGTH OF CUT
180-1181-10-ST	3	3	38	5
180-1575-10-ST	4	4	50	6
180-1969-10-ST	5	5	50	7
180-2362-10-ST	6	6	50	8

180-10-A Series

Single Flute Router For Aluminium & Plastics - Reinforced Shank



Description

Solid carbide single flute, upward spiral, 30° helix on reinforced 6mm shank, ideal for reducing number of collet changes, manufactured from Ultra Wear Resistant Micrograin Carbide.

Application

Offers exceptional surface finish on aluminium, acrylic and PVC.

Metric Sizes (mm)

CATALOGUE No.	SIZE	SHANK DIAMETER	OVERALL LENGTH	LENGTH OF CUT
180-0787-10-A	2	6	40	7
180-0984-10-A	2.5	6	40	8
180-1181-10-A - XL	3	6	40	10
180-1378-10-A	3.5	6	40	10
180-1575-10-A	4	6	40	10
180-1969-10-A	5	6	50	12
180-2165-10-A	5.5	6	50	14

Imperial Shank Sizes

CATALOGUE No.	SIZE	SHANK DIAMETER	OVERALL LENGTH	LENGTH OF CUT
180-1181-10-B	3	1/4"	50	12

180-10-STA Series

Single Flute Stub Router For Aluminium & Plastics



Description

Solid carbide single flute, upward spiral, 30° helix. Manufactured from Ultra Wear Resistant Micrograin Carbide to extremely tight tolerances, with exceptional surface finish. Short overall length combined with useful longer cut length, offer a very robust cutter for most applications.

Application

Designed for use on both aluminium, acrylics and other soft non-ferrous materials. The single flute design gives excellent swarf clearance.

Metric Sizes (mm)

CATALOGUE No.	SIZE	SHANK DIAMETER	OVERALL LENGTH	LENGTH OF CUT
180-0787-10-STA	2	3	30	7
180-1181-10-STA	3	3	30	8
180-1575-10-STA	4	4	40	10
180-2362-10-STA	6	6	50	14

180-10-LG Series

Long Series Single Flute Router For Aluminium & Plastics



Description

Solid carbide single flute, upward spiral, 30° helix. Manufactured from Ultra Wear Resistant Micrograin Carbide, to extremely tight tolerances with exceptional surface finish.

Application

Offers exceptional surface finish on aluminium, acrylic and PVC.

Metric Sizes (mm)

CATALOGUE No.	SIZE	SHANK DIAMETER	OVERALL LENGTH	LENGTH OF CUT
180-0787-10-LG	2	3	38	10
180-1181-10-LG	3	3	38	10
180-1575-10-LG	4	4	50	14
180-1969-10-LG	5	5	60	16
180-2362-10-LG	6	6	60	20
180-3150-10-LG	8	8	100	30
180-3937-10-LG	10	10	100	40
180-4724-10-LG	12	12	100	50

Extra Long Series 180-10-XL

Metric Sizes (mm)

CATALOGUE No.	SIZE	SHANK DIAMETER	OVERALL LENGTH	LENGTH OF CUT
180-1181-10-XL	3	3	55	12
180-2362-10-XL	6	6	75	26

180-10-LH Series

Single Flute Downward Spiral Router For Aluminium & Plastics



Description

Solid carbide single flute, 30° helix. Manufactured from Ultra Wear Resistant Micrograin Carbide, to extremely tight tolerances with exceptional surface finish.

Application

Designed for use on aluminium, acrylic and other non-ferrous materials. The downward spiral helps to hold the material down whilst cutting. Particularly suitable for thinner sheet.

Metric Sizes (mm)

CATALOGUE No.	SIZE	SHANK DIAMETER	OVERALL LENGTH	LENGTH OF CUT
180-0787-10-LH	2	3	38	10
180-1181-10-LH	3	3	38	10
180-1575-10-LH	4	4	50	14
180-2362-10-LH	6	6	60	14
180-3150-10-LH	8	8	100	30
180-3937-10-LH	10	10	100	40

Clearcut

Single Flute Router



Description

Solid carbide single flute, upward spiral, 15° helix. Manufactured from Micrograin Carbide, to extremely tight tolerances with a highly polished flute.

Application

Designed to give an exceptional finish on perspex and acrylic materials. In some cases eliminating the need for flame polishing components after cutting. For best results on acrylics use on a well maintained machine, cut anti-clockwise and use ITC Minimal-Amount-Lubricant. This range of tool also offers exceptional surface finish on foamex and similar materials.

Metric Sizes (mm)

CATALOGUE No.	SIZE	SHANK DIAMETER	OVERALL LENGTH	LENGTH OF CUT
180-1181-10-C	3	3	40	8
180-1181-10-D	3	3	40	12
180-1181-10-E	3	3	40	6
180-1575-10-C	4	4	40	11
180-1575-10-D	4	4	50	15
180-1575-10-E	4	4	50	6
180-1969-10-C	5	5	50	12
180-1969-10-D	5	5	58	21
180-2362-10-C	6	6	58	21
180-2362-10-D	6	6	75	26
180-2362-10-E	6	6	58	14

180 Series

2 Flute Slow Helix Router



Description

2 flute, solid carbide, upward spiral, 15° helix. Manufactured from Ultra Wear Resistant Micrograin Carbide.

Application

Designed with increased clearance angles and an extremely sharp cutting edge to give improved performance on plastics and MDF. The slow helix offers good surface finish without pulling up the material, but still offering efficient swarf removal.

Metric Sizes (mm)

CATALOGUE No.	SIZE	SHANK DIAMETER	OVERALL LENGTH	LENGTH OF CUT
180-3373-20	3	3	40	10
180-5373-20	6	6	64	20

Imperial Sizes (inches)

CATALOGUE No.	SIZE	SHANK DIAMETER	OVERALL LENGTH	LENGTH OF CUT
180-1250-20	1/8	1/8	1-1/2	3/8
180-2500-20	1/4	1/4	2-1/2	3/4

180 Series

2 Flute Straight



Description

2 flute, solid carbide, single end, standard length, straight shank, straight flute, right hand cut, plunge style end cut.

Application

The straight 2 flute router is widely used on materials such as plexiglass and perspex. The straight flute router is preferred in applications where the work piece is fairly rigid. 2 flutes provide the maximum swarf clearance.

Metric Sizes (mm)

CATALOGUE No.	SIZE	SHANK DIAMETER	OVERALL LENGTH	LENGTH OF CUT
180-1181-20	3	3	40	12
180-1575-20	4	4	50	16
180-1969-20	5	5	50	18
180-2362-20	6	6	58	20
180-3150-20	8	8	64	22
180-3937-20	10	10	70	25
180-4724-20	12	12	76	30

Imperial Sizes (inches)

CATALOGUE No.	SIZE	SHANK DIAMETER	OVERALL LENGTH	LENGTH OF CUT
180-3411-20	1/8	1/8	1-1/2	1/2
180-4551-20	3/16	3/16	2	5/8
180-5551-20	1/4	1/4	2-1/2	3/4
180-6251-20	5/16	5/16	2-1/2	13/16
180-6801-20	3/8	3/8	2-1/2	7/8
180-7251-20	7/16	7/16	2-1/2	1
180-7451-20	1/2	1/2	3	1

3 Flute Straight



Description

3 flute, solid carbide, single end, standard length, straight shank, straight flute, right hand cut, plunge style end cut.

Application

The 3 straight flute router is an excellent tool for routing harder materials and also where a fine finish is required. The 3 flute design offers more strength than the 2 flute router.

Metric Sizes (mm)

CATALOGUE No.	SIZE	SHANK DIAMETER	OVERALL LENGTH	LENGTH OF CUT
180-1181-30	3	3	40	12
180-1575-30	4	4	50	16
180-1969-30	5	5	50	18
180-2362-30	6	6	58	20
180-3150-30	8	8	64	22
180-3937-30	10	10	70	25
180-4724-30	12	12	76	30

Imperial Sizes (inches)

CATALOGUE No.	SIZE	SHANK DIAMETER	OVERALL LENGTH	LENGTH OF CUT
180-3411-30	1/8	1/8	1-1/2	1/2
180-4551-30	3/16	3/16	2	5/8
180-5551-30	1/4	1/4	2-1/2	3/4
180-6251-30	5/16	5/16	2-1/2	13/16
180-6801-30	3/8	3/8	2-1/2	7/8
180-7251-30	7/16	7/16	2-1/2	1
180-7451-30	1/2	1/2	3	1

180 Series - Downward Spiral

2 Flute Spiral



Description

2 flute, solid carbide, single end, standard length, straight shank, 30° left hand helix, right hand cut, plunge style end cut.

Application

The 2 flute left hand helix down cut router is an excellent tool for cutting materials that are flexible. The left hand helix directs the cutting force downwards holding the material rigid against the bottom template or support. Burrs on the top surface of the work piece are eliminated. Typically used on softer materials.

Metric Sizes (mm)

CATALOGUE No.	SIZE	SHANK DIAMETER	OVERALL LENGTH	LENGTH OF CUT
180-1181-21	3	3	40	12
180-1575-21	4	4	50	16
180-1969-21	5	5	50	18
180-2362-21	6	6	58	20
180-3150-21	8	8	64	22
180-3937-21	10	10	70	25
180-4724-21	12	12	76	30

Imperial Sizes (inches)

CATALOGUE No.	SIZE	SHANK DIAMETER	OVERALL LENGTH	LENGTH OF CUT
180-3416-20	1/8	1/8	1-1/2	1/2
180-4556-20	3/16	3/16	2	5/8
180-5556-20	1/4	1/4	2-1/2	3/4
180-6256-20	5/16	5/16	2-1/2	13/16
180-6806-20	3/8	3/8	2-1/2	7/8
180-7256-20	7/16	7/16	2-1/2	1
180-7456-20	1/2	1/2	3	1

3 Flute Spiral



Description

3 flute, solid carbide, single end, standard length, straight shank, 30° left hand helix, right hand cut, plunge style end cut.

Application

The 3 flute left hand helix down cut router is best suited for applications requiring good finishes. The left hand spiral combined with 3 flutes makes this router the best selection for free hand routing where smooth chatterless operation is required.

Metric Sizes (mm)

CATALOGUE No.	SIZE	SHANK DIAMETER	OVERALL LENGTH	LENGTH OF CUT
180-1181-31	3	3	40	12
180-1575-31	4	4	50	16
180-1969-31	5	5	50	18
180-2362-31	6	6	58	20
180-3150-31	8	8	64	22
180-3937-31	10	10	70	25
180-4724-31	12	12	76	30

Imperial Sizes (inches)

CATALOGUE No.	SIZE	SHANK DIAMETER	OVERALL LENGTH	LENGTH OF CUT
180-3416-30	1/8	1/8	1-1/2	1/2
180-4556-30	3/16	3/16	2	5/8
180-5556-30	1/4	1/4	2-1/2	3/4
180-6256-30	5/16	5/16	2-1/2	13/16
180-6806-30	3/8	3/8	2-1/2	7/8
180-7256-30	7/16	7/16	2-1/2	1
180-7456-30	1/2	1/2	3	1

2011 Series

2 Flute Coated Router



Description

2 flute solid carbide, upward spiral, 30° helix. Manufactured from Ultra Wear Resistant Micrograin Carbide, TiAlN coated.

Application

Designed for applications requiring extra tool life, particularly suitable for cutting engraving laminates and fire retardant mdf.

Metric Sizes (mm)

CATALOGUE No.	SIZE	SHANK DIAMETER	OVERALL LENGTH	LENGTH OF CUT
2011-1.0C	1	3	38	3
2011-1.5C	1.5	3	38	5
2011-2.0C	2	3	38	7
2011-2.5C	2.5	3	38	7
2011-3.0C	3	3	38	9
2011-3.5C	3.5	4	51	12
2011-4.0C	4	4	51	14
2011-4.5C	4.5	5	51	14
2011-5.0C	5	5	51	16
2011-6.0C	6	6	64	19
2011-6.0C-L	6	6	75	26
2011-7.0C	7	8	64	19
2011-8.0C	8	8	64	21
2011-9.0C	9	10	70	22
2011-10.0C	10	10	70	22
2011-12.0C	12	12	76	25
2011-14.0C	14	14	89	30
2011-16.0C	16	16	89	32
2011-18.0C	18	18	102	35
2011-20.0C	20	20	102	38

155-27 Series

2 Flute Router



Description

2 flute, solid carbide, upward spiral, 30° helix.

Application

A general purpose router. The two flute construction is a multi-purpose tool that can successfully be used to plunge cut. It is an economical tool for routing wood, non-ferrous metals, and plastics.

Imperial Sizes (inches)

CATALOGUE No.	SIZE	SHANK DIAMETER	OVERALL LENGTH	LENGTH OF CUT
155-1303-27	1/32	1/8	1-1/2	5/64
155-1953-27	3/64	1/8	1-1/2	9/64
155-2153-27	1/16	1/8	1-1/2	3/16
155-2453-27	5/64	1/8	1-1/2	1/4
155-2803-27	3/32	1/8	1-1/2	3/8
155-3153-27	7/64	1/8	1-1/2	3/8
155-3453-27	1/8	1/8	1-1/2	1/2
155-3653-27	9/64	3/16	2	1/2
155-3953-27	5/32	3/16	2	9/16
155-4253-27	11/64	3/16	2	9/16
155-4553-27	3/16	3/16	2	5/8
155-4903-27	13/64	1/4	2-1/2	5/8
155-5153-27	7/32	1/4	2-1/2	5/8
155-5553-27	1/4	1/4	2-1/2	3/4
155-6003-27	9/32	5/16	2-1/2	3/4
155-6253-27	5/16	5/16	2-1/2	13/16
155-6553-27	11/32	3/8	2-1/2	7/8
155-6803-27	3/8	3/8	2-1/2	7/8
155-7103-27	13/32	7/16	2-3/4	1
155-7253-27	7/16	7/16	2-3/4	1
155-7453-27	1/2	1/2	3	1
155-7653-27	9/16	9/16	3-1/2	1-1/8
155-7853-27	5/8	5/8	3-1/2	1-1/4
155-8053-27	11/16	3/4	4	1-3/8
155-8253-27	3/4	3/4	4	1-1/2
155-8653-27	7/8	7/8	4	1-1/2
155-9053-27	1	1	4	1-1/2

Metric Sizes (mm)

CATALOGUE No.	SIZE	SHANK DIAMETER	OVERALL LENGTH	LENGTH OF CUT
155-2123-27	1	3	38	3
155-2323-27	1.5	3	38	5
155-2523-27	2	3	38	7
155-2913-27	2.5	3	38	7
155-3373-27	3	3	38	9
155-3573-27	3.5	4	51	12
155-4013-27	4	4	51	14
155-4363-27	4.5	5	51	14
155-4763-27	5	5	51	16
155-5373-27	6	6	64	19
155-5893-27	7	8	64	19
155-6283-27	8	8	64	21
155-6633-27	9	10	70	22
155-6973-27	10	10	70	22
155-7233-27	11	11	70	25
155-7363-27	12	12	76	25
155-7623-27	14	14	89	30
155-7873-27	16	16	89	32
155-8123-27	18	18	102	35
155-8373-27	20	20	102	38
155-8573-27	22	22	102	38
155-8773-27	25	25	102	38

155-24 Series

2 Flute Ball Nose Router



Description

2 flute solid carbide, ball nose, upward spiral, 30° helix.

Application

For routing contoured surfaces usually with 3D software.

Imperial Sizes (inches)

CATALOGUE No.	SIZE	SHANK DIAMETER	OVERALL LENGTH	LENGTH OF CUT
155-2153-24	1/16	1/8	1-1/2	3/16
155-2803-24	3/32	1/8	1-1/2	3/8
155-3453-24	1/8	1/8	1-1/2	1/2
155-3953-24	5/32	3/16	2	9/16
155-4553-24	3/16	3/16	2	5/8
155-5153-24	7/32	1/4	2-1/2	5/8
155-5553-24	1/4	1/4	2-1/2	3/4
155-6003-24	9/32	5/16	2-1/2	3/4
155-6253-24	5/16	5/16	2-1/2	13/16
155-6803-24	3/8	3/8	2-1/2	7/8
155-7253-24	7/16	7/16	2-3/4	1
155-7453-24	1/2	1/2	3	1
155-7653-24	9/16	9/16	3-1/2	1-1/8
155-7853-24	5/8	5/8	3-1/2	1-1/4
155-8053-24	11/16	3/4	4	1-3/8
155-8253-24	3/4	3/4	4	1-1/2
155-8653-24	7/8	7/8	4	1-1/2
155-9053-24	1	1	4	1-1/2

Metric Sizes (mm)

CATALOGUE No.	SIZE	SHANK DIAMETER	OVERALL LENGTH	LENGTH OF CUT
155-2123-24	1	3	38	2
155-2323-24	1.5	3	38	3
155-2523-24	2	3	38	7
155-2913-24	2.5	3	38	7
155-3373-24	3	3	38	9
155-3573-24	3.5	4	51	12
155-4013-24	4	4	51	14
155-4363-24	4.5	5	51	14
155-4763-24	5	5	51	16
155-5373-24	6	6	64	19
155-5893-24	7	8	64	19
155-6283-24	8	8	64	21
155-6633-24	9	10	70	22
155-6973-24	10	10	70	22
155-7233-24	11	11	70	25
155-7363-24	12	12	76	25
155-7623-24	14	14	89	30
155-7873-24	16	16	89	32
155-8123-24	18	18	102	35
155-8373-24	20	20	102	38
155-8573-24	22	22	102	38
155-8773-24	25	25	102	38

159-27 Series

2 Flute Router TiN Coated



Description

2 flute, Ultra Fine Grain solid carbide, upward spiral, 30° helix, titanium nitride coated.

Application

The 159 series 2 flute router is a good choice where extra tool life is required.

Metric Sizes (mm)

CATALOGUE No.	SIZE	SHANK DIAMETER	OVERALL LENGTH	LENGTH OF CUT
159-2523-27	2	3	38	7
159-2913-27	2.5	3	38	7
159-3373-27	3	3	38	9
159-3573-27	3.5	4	51	12
159-4013-27	4	4	51	14
159-4363-27	4.5	5	51	14
159-4763-27	5	5	51	16
159-5373-27	6	6	64	19
159-5893-27	7	8	64	19
159-6283-27	8	8	64	21
159-6633-27	9	10	70	22
159-6973-27	10	10	70	22
159-7233-27	11	11	70	25
159-7363-27	12	12	76	25

Imperial Sizes (inches)

CATALOGUE No.	SIZE	SHANK DIAMETER	OVERALL LENGTH	LENGTH OF CUT
159-2153-27	1/16	1/8	1-1/2	3/16
159-2803-27	3/32	1/8	1-1/2	3/8
159-3453-27	1/8	1/8	1-1/2	1/2
159-3953-27	5/32	3/16	2	9/16
159-4553-27	3/16	3/16	2	5/8
159-5153-27	7/32	1/4	2-1/2	5/8
159-5553-27	1/4	1/4	2-1/2	3/4
159-6003-27	9/32	9/32	2-1/2	3/4
159-6253-27	5/16	5/16	2-1/2	13/16
159-6803-27	3/8	3/8	2-1/2	7/8
159-7253-27	7/16	7/16	2-3/4	1
159-7453-27	1/2	1/2	3	1

162-27 Series

2 Flute Long Series Router



Description

2 flute, solid carbide, long length, upward spiral, 30° helix.

Application

Suitable for applications where a standard 2 flute tool does not offer sufficient reach. Most commonly used on soft non-ferrous materials.

Metric Sizes (mm)

CATALOGUE No.	SIZE	SHANK DIAMETER	OVERALL LENGTH	LENGTH OF CUT
162-3373-27	3	3	64	20
162-4013-27	4	4	64	20
162-4763-27	5	5	64	25
162-5373-27	6	6	75	30
162-6283-27	8	8	75	30
162-6973-27	10	10	75	30
162-7363-27	12	12	100	50
162-7873-27	16	16	125	60
162-8373-27	20	20	125	60

Imperial Sizes (inches)

CATALOGUE No.	SIZE	SHANK DIAMETER	OVERALL LENGTH	LENGTH OF CUT
162-3453-27	1/8	1/8	2-1/4	3/4
162-4553-27	3/16	3/16	2-1/2	3/4
162-5553-27	1/4	1/4	3	1-1/8
162-6253-27	5/16	5/16	3	1-1/8
162-6803-27	3/8	3/8	3	1-1/8
162-7253-27	7/16	7/16	4	2
162-7453-27	1/2	1/2	4	2
162-7853-27	5/8	5/8	5	2-1/4
162-8253-27	3/4	3/4	5	2-1/4
162-9053-27	1	1	5	2-1/4

162-24 Series

2 Flute Ball Nose Long Series Router



Description

2 flute, solid carbide, long length, ball nose, upward spiral 30° helix.

Application

Suitable for use in applications where a standard 2 flute ball nose does not offer sufficient reach.

Metric Sizes (mm)

CATALOGUE No.	SIZE	SHANK DIAMETER	OVERALL LENGTH	LENGTH OF CUT
162-3373-24	3	3	64	20
162-4013-24	4	4	64	20
162-4763-24	5	5	64	25
162-5373-24	6	6	75	30
162-6283-24	8	8	75	30
162-6973-24	10	10	75	30
162-7363-24	12	12	100	50
162-7873-24	16	16	125	60
162-8373-24	20	20	125	60

Imperial Sizes (inches)

CATALOGUE No.	SIZE	SHANK DIAMETER	OVERALL LENGTH	LENGTH OF CUT
162-3453-24	1/8	1/8	2-1/4	3/4
162-4553-24	3/16	3/16	2-1/2	3/4
162-5553-24	1/4	1/4	3	1-1/8
162-6253-24	5/16	5/16	3	1-1/8
162-6803-24	3/8	3/8	3	1-1/8
162-7253-24	7/16	7/16	4	2
162-7453-24	1/2	1/2	4	2
162-7853-24	5/8	5/8	5	2-1/4
162-8253-24	3/4	3/4	5	2-1/4
162-9053-24	1	1	5	2-1/4

163-27 Series

2 Flute Extra Long Series Router



Description

2 flute, solid carbide, extra long length, upward spiral, 30° helix.

Application

Suitable for applications where the 162 series long length does not offer sufficient reach. Most commonly used on soft non-ferrous materials.

Metric Sizes (mm)

CATALOGUE No.	SIZE	SHANK DIAMETER	OVERALL LENGTH	LENGTH OF CUT
163-3373-27	3	3	75	25
163-4013-27	4	4	75	28
163-4763-27	5	5	100	31
163-5373-27	6	6	100	38
163-5373-27XLS	6	6	80	45
163-6283-27	8	8	100	40
163-6973-27	10	10	100	45
163-7363-27	12	12	150	75
163-7873-27	16	16	150	75
163-8373-27	20	20	150	80

Imperial Sizes (inches)

CATALOGUE No.	SIZE	SHANK DIAMETER	OVERALL LENGTH	LENGTH OF CUT
163-3453-27	1/8	1/8	3	1
163-4553-27	3/16	3/16	3	1-1/8
163-5553-27	1/4	1/4	4	1-1/2
163-6253-27	5/16	5/16	4	1-5/8
163-6803-27	3/8	3/8	4	1-3/4
163-7253-27	7/16	7/16	6	3
163-7453-27	1/2	1/2	6	3
163-7853-27	5/8	5/8	6	3
163-8253-27	3/4	3/4	6	3
163-9053-27	1	1	6	3

163-24 Series

2 Flute Ball Nose Extra Long Series Router



Description

2 flute, solid carbide, extra long length, ball nose, upward spiral, 30° helix.

Application

Suitable for use in applications where a 162 series long length 2 flute ball nose does not offer sufficient reach.

Metric Sizes (mm)

CATALOGUE No.	SIZE	SHANK DIAMETER	OVERALL LENGTH	LENGTH OF CUT
163-3373-24	3	3	75	25
163-4013-24	4	4	75	28
163-4763-24	5	5	100	31
163-5373-24	6	6	100	38
163-6283-24	8	8	100	40
163-6973-24	10	10	100	45
163-7363-24	12	12	150	75
163-7873-24	16	16	150	75
163-8373-24	20	20	150	80

Imperial Sizes (inches)

CATALOGUE No.	SIZE	SHANK DIAMETER	OVERALL LENGTH	LENGTH OF CUT
163-3453-24	1/8	1/8	3	3/4
163-4553-24	3/16	3/16	3	1
163-5553-24	1/4	1/4	4	1-1/2
163-6253-24	5/16	5/16	4	1
163-6803-24	3/8	3/8	4	1-3/4
163-7253-24	7/16	7/16	6	3
163-7453-24	1/2	1/2	6	3
163-7853-24	5/8	5/8	6	3
163-8253-24	3/4	3/4	6	3
163-9053-24	1	1	6	3

2121 Series

XXLS 2 Flute Square End Router



Description

2 flute solid carbide, straight shank, upward spiral, 30° helix, manufactured from Ultra Wear Resistant Micrograin Carbide.

Application

Designed for applications requiring extremely long reach in a variety of materials.

Metric Sizes (mm)

CATALOGUE No.	SIZE	OVERALL LENGTH	FLUTE LENGTH
2121-6	6	150	38
2121-8	8	150	40
2121-10	10	200	50
2121-12	12	200	75
2121-16	16	200	75
2121-20	20	200	75

These tools can be modified to your requirements within our CNC manufacturing facility. Alternatively we can make complete to your specifications.

2122 Series

XXLS 2 Flute Ball Nose Router



Description

2 flute solid carbide, straight shank, upward spiral, 30° helix, manufactured from Ultra Wear Resistant Micrograin Carbide.

Application

Designed for applications requiring extremely long reach in a variety of materials.

Metric Sizes (mm)

CATALOGUE No.	SIZE	OVERALL LENGTH	FLUTE LENGTH
2122-6	6	150	38
2122-8	8	150	40
2122-10	10	200	50
2122-12	12	200	75
2122-16	16	200	75
2122-20	20	200	75

These tools can be modified to your requirements within our CNC manufacturing facility. Alternatively we can make complete to your specifications.

164-27 Series

2 Flute Miniature Router



Description

2 flute, solid carbide, upward spiral, 30° helix.

Application

Designed for precision machining in applications where a particularly small tool is required. The common shank size provides rigidity and the flute design gives sufficient swarf clearance for slotting applications.

Metric Sizes (mm)

CATALOGUE No.	SIZE	SHANK DIAMETER	OVERALL LENGTH	LENGTH OF CUT
164-0002-27	0.2	3	38	0.6
164-0003-27	0.3	3	38	0.9
164-0004-27	0.4	3	38	1.2
164-0005-27	0.5	3	38	1.5
164-0006-27	0.6	3	38	1.8
164-0007-27	0.7	3	38	2.1
164-0008-27	0.8	3	38	2.4
164-0009-27	0.9	3	38	2.7
164-0010-27	1.0	3	38	3.0
164-0011-27	1.1	3	38	3.3
164-0012-27	1.2	3	38	3.6
164-0013-27	1.3	3	38	3.9
164-0014-27	1.4	3	38	4.2
164-0015-27	1.5	3	38	4.5
164-0016-27	1.6	3	38	4.8
164-0017-27	1.7	3	38	5.1
164-0018-27	1.8	3	38	5.4
164-0019-27	1.9	3	38	5.7
164-0020-27	2.0	3	38	6.0

164-27ST Series

2 Flute Miniature Stub Router



Description

2 flute, solid carbide, stub length, upward spiral, 30° helix.

Application

Shorter flute length offers increased rigidity over the standard tool. Flute length is typically half that of the standard tool.

Metric Sizes (mm)

CATALOGUE No.	SIZE	SHANK DIAMETER	OVERALL LENGTH	LENGTH OF CUT
164-0002-27ST	0.2	3	38	0.4
164-0003-27ST	0.3	3	38	0.6
164-0004-27ST	0.4	3	38	0.8
164-0005-27ST	0.5	3	38	1.0
164-0006-27ST	0.6	3	38	1.2
164-0007-27ST	0.7	3	38	1.4
164-0008-27ST	0.8	3	38	1.6
164-0009-27ST	0.9	3	38	1.8
164-0010-27ST	1.0	3	38	2.0
164-0011-27ST	1.1	3	38	2.2
164-0012-27ST	1.2	3	38	2.4
164-0013-27ST	1.3	3	38	2.6
164-0014-27ST	1.4	3	38	2.8
164-0015-27ST	1.5	3	38	3.0
164-0016-27ST	1.6	3	38	3.2
164-0017-27ST	1.7	3	38	3.4
164-0018-27ST	1.8	3	38	3.6
164-0019-27ST	1.9	3	38	3.8
164-0020-27ST	2.0	3	38	4.0

3061 Series

3 Flute Router For Stainless Steel



Description

3 Flute Solid Carbide, upward spiral with corner chamfer for extra strength, 30° helix. Manufactured from Ultra Micrograin Carbide, TiAlN coated to give extra wear resistance.

Application

Designed for use on stainless & other steels commonly used in the sign making industry. The special substrate, combined with the hard and lubricious surface coating, gives unbeatable performance.

Metric Sizes (mm)

CATALOGUE No.	SIZE	SHANK DIAMETER	OVERALL LENGTH	LENGTH OF CUT	CHAMFER
3061-3C	3	6	58	3	0.5
3061-4C	4	6	58	4	0.5
3061-5C	5	6	58	5	0.5
3061-6C	6	6	58	6	0.5

General Instructions For Routing Stainless Steel

Run Machine @ 4000 Rpm

Feed @ 2-3 mm/sec

Plunge @ 1/2 of feed rate

- Ensure the cutter is all the way through the material before you start traversing.
- Use a sacrificial bed of foamex.
- Glue your stainless steel workpiece to the foamex, you will then remove the foamex when the job is complete. (Spray carpet glue is ideal)
- It is imperative that your material is rigid and firmly stuck down.
- Use plenty of coolant.

Any questions, please do not hesitate to contact us on the number below. Or alternatively ring Sally on + 44 (0) 1204 303435.

D Series Tools for Superior Engraving

One Dimensional Engraving Tools



Description

The D series is solid carbide and available in three different angles; 30°, 60° and 90° inclusive. Other sizes are available on request.

Application

Designed to give superior performance when engraving a variety of materials from plastics to steels. This range is for bottom loading engraving and routing machines.

One Dimensional

CATALOGUE No.	INCLUDED ANGLE	DIAMETER	OVERALL LENGTH	SPLIT LENGTH
ENG-3.0-30	30°	3	38	5
ENG-6.0-30	30°	6	57	8
ENG-3.0-60	60°	3	38	5
ENG-6.0-60	60°	6	57	8
ENG-125-60	60°	1/8"	1-1/2"	3/8"
ENG-250-60	60°	1/4"	2-1/2"	3/8"
ENG-3.0-90	90°	3	38	5
ENG-6.0-90	90°	6	57	8

Engraving Tools With Flats

CATALOGUE No.	INCLUDED ANGLE	FLAT	DIAMETER	OVERALL LENGTH	SPLIT LENGTH
ENG-6.0-60-0.25	60°	0.25	6	56	8
ENG-6.0-60-0.50	60°	0.50	6	56	8
ENG-6.0-60-0.75	60°	0.75	6	56	8
ENG-6.0-60-1.0	60°	1.0	6	56	8
ENG-6.0-60-1.25	60°	1.25	6	56	8
ENG-6.0-60-1.5	60°	1.5	6	56	8
ENG-6.0-60-2.0	60°	2.0	6	56	8

N.B. These tools can be modified if you require a different size of flat to standards offered, just ring our sales office to arrange.

Engraving Tools For Top Loading Machines

The industry standard tools are supplied unground in the sizes below, however we are happy to custom grind your required angle.

CATALOGUE No.	DIAMETER	OVERALL LENGTH	SPLIT LENGTH
ENG-1719-00	11/64"	6-1/2"	1/2"
ENG-2500-00	1/4"	6-1/2"	1/2"

3 Dimensional Engraving Tools



Description

The 3D engraving/carving tool is a 2 flute design with brazed carbide inserts, available in various angles from 90° to 150° inclusive (other angles available on request).

Application

Typically used with prismatic software for 3D engraving and carving, also suitable for chamfering a variety of materials.

Metric Sizes (mm)

CATALOGUE No.	INCLUDED ANGLE	DIAMETER	OVERALL LENGTH	SHANK DIAMETER
150-3D-6	150°	32	50	6
150-3D-8	150°	32	50	8
140-3D-6	140°	32	50	6
140-3D-8	140°	32	50	8
130-3D-6	130°	32	50	6
130-3D-8	130°	32	50	8
120-3D-6	120°	32	50	6
120-3D-8	120°	32	50	8
110-3D-6	110°	32	50	6
110-3D-8	110°	32	50	8
100-3D-6	100°	32	50	6
100-3D-8	100°	32	50	8
90-3D-6	90°	32	50	6
90-3D-8	90°	32	50	8

Imperial Sizes (inches)

CATALOGUE No.	INCLUDED ANGLE	DIAMETER	OVERALL LENGTH	SHANK DIAMETER
150-3D	150°	1.25	2	1/4
140-3D	140°	1.25	2	1/4
130-3D	130°	1.25	2	1/4
120-3D	120°	1.25	2	1/4
110-3D	110°	1.25	2	1/4
100-3D	100°	1.25	2	1/4
90-3D	90°	1.25	2	1/4

Di-Bond Folding Tool



Description

Solid carbide 2 flute, 1/2" head diameter, with a 90° or 135° inclusive angle and a 3mm flat.

Application

The Di-Bond folding tools enable precise folding of Di-Bond and similar aluminium composite materials typically up to 5mm thick. The following are the most commonly requested types. We can also manufacture to your own specification - for example - alternative angles, varying flats, shanks etc to suit your router.

Metric Sizes (mm)

CATALOGUE No.	SIZE	SHANK DIAMETER	INCLUSIVE ANGLE	WIDTH OF FLAT	OVERALL LENGTH
2021-90-6	12.7	6	90°	3	64
2021-135-6	12.7	6	135°	3	64

Imperial Sizes (inches)

CATALOGUE No.	SIZE	SHANK DIAMETER	INCLUSIVE ANGLE	WIDTH OF FLAT	OVERALL LENGTH
2021-90	1/2	1/4	90°	3mm	2 1/2
2021-135	1/2	1/4	135°	3mm	2 1/2

2091 Series

Upcut / Downcut Router



Description

Solid carbide router, 30° helix, manufactured from special wear resistant micrograin carbide. Bottom part of the flute is Right Hand Spiral / Right Hand Cut, top part of flute Left Hand Spiral / Right Hand Cut.

Application

Specifically designed for the efficient machining of MDF, wood laminates and other similarly abrasive materials. The reverse helix flute design has the effect of pulling the top and bottom of the work piece in towards the centre, eliminating de-lamination.

Metric Sizes (mm)

CATALOGUE No.	SIZE	No FLUTES	SHANK DIAMETER	OVERALL LENGTH	LENGTH OF CUT
2091-2362-20	6	2	6	100	27
2091-3937-30A*	10	3	10	80	22
2091-4724-20	12	2	12	100	55

Imperial Sizes (inches)

CATALOGUE No.	SIZE	No FLUTES	SHANK DIAMETER	OVERALL LENGTH	LENGTH OF CUT
2091-2500-20	1/4	2	1/4	90	27
2091-5000-20	1/2	2	1/2	110	55

* TiN coated for extra life

190 Series

Diamond Cut Router For Glass Fibre



Description

Multiple flute, solid carbide, diamond cut, single end, right hand cut, straight shank, available in four different end cuts.

Application

Designed for use on glass fibre and similar materials. Unique cutting geometry provides an easy cutting action and good surface finish on both hand and CNC operated applications.

Imperial Sizes (inches)

CATALOGUE No.	HEAD DIAMETER	FLUTE LENGTH	SHANK DIAMETER	OVERALL LENGTH
190-1215-10	1/16	3/16	1/8	1-1/2
190-1215-20	1/16	3/16	1/8	1-1/2
190-1215-30	1/16	3/16	1/8	1-1/2
190-1215-40	1/16	3/16	1/8	1-1/2
190-2345-10	1/8	1/2	1/8	1-1/2
190-2345-20	1/8	1/2	1/8	1-1/2
190-2345-30	1/8	1/2	1/8	1-1/2
190-2345-40	1/8	1/2	1/8	1-1/2
190-3445-10	3/16	5/8	3/16	2
190-3445-20	3/16	5/8	3/16	2
190-3445-30	3/16	5/8	3/16	2
190-3445-40	3/16	5/8	3/16	2
190-4445-10	3/16	5/8	1/4	2
190-4445-20	3/16	5/8	1/4	2
190-4445-30	3/16	5/8	1/4	2
190-4445-40	3/16	5/8	1/4	2
190-5555-10	1/4	3/4	1/4	2
190-5555-20	1/4	3/4	1/4	2
190-5555-30	1/4	3/4	1/4	2
190-5555-40	1/4	3/4	1/4	2
190-6555-10	1/4	3/4	1/4	2-1/2
190-6555-20	1/4	3/4	1/4	2-1/2
190-6555-30	1/4	3/4	1/4	2-1/2
190-6555-40	1/4	3/4	1/4	2-1/2
190-7555-10	1/4	1	1/4	3
190-7555-20	1/4	1	1/4	3
190-7555-30	1/4	1	1/4	3
190-7555-40	1/4	1	1/4	3
190-7625-10	5/16	1	5/16	2-1/2
190-7625-20	5/16	1	5/16	2-1/2
190-7625-30	5/16	1	5/16	2-1/2
190-7625-40	5/16	1	5/16	2-1/2
190-8680-10	3/8	1	3/8	2-1/2
190-8680-20	3/8	1	3/8	2-1/2
190-8680-30	3/8	1	3/8	2-1/2
190-8680-40	3/8	1	3/8	2-1/2
190-9745-10	1/2	1	1/2	3
190-9745-20	1/2	1	1/2	3
190-9745-30	1/2	1	1/2	3
190-9745-40	1/2	1	1/2	3

Metric Sizes (mm)

CATALOGUE No.	HEAD DIAMETER	FLUTE LENGTH	SHANK DIAMETER	OVERALL LENGTH
190-1181-10	3	12.5	3	38
190-1181-20	3	12.5	3	38
190-1181-30	3	12.5	3	38
190-1181-40	3	12.5	3	38
190-1575-10	4	16	4	50
190-1575-20	4	16	4	50
190-1575-30	4	16	4	50
190-1575-40	4	16	4	50
190-1969-10	5	16	5	50
190-1969-20	5	16	5	50
190-1969-30	5	16	5	50
190-1969-40	5	16	5	50
190-2362-10	6	19	6	50
190-2362-20	6	19	6	50
190-2362-30	6	19	6	50
190-2362-40	6	19	6	50
190-3150-10	8	22	8	64
190-3150-20	8	22	8	64
190-3150-30	8	22	8	64
190-3150-40	8	22	8	64
190-3937-10	10	25	10	75
190-3937-20	10	25	10	75
190-3937-30	10	25	10	75
190-3937-40	10	25	10	75
190-4724-10	12	25	12	75
190-4724-20	12	25	12	75
190-4724-30	12	25	12	75
190-4724-40	12	25	12	75



Burr End Cut -20

-10	=	No End Cut
-20	=	Burr End Cut
-30	=	End Mill End Cut
-40	=	Drill Point

4011 Series

Corner Rounding Cutter



Description

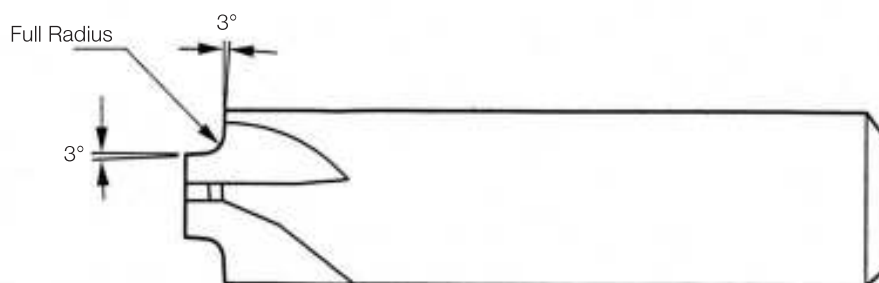
4 flute solid carbide tool with internal radius, manufactured from Ultra Wear Resistant Micrograin Carbide. Includes full 90° radius plus runout.

Application

Designed to produce an external radius on a variety of materials. Available coated by request.

Metric Sizes (mm)

CATALOGUE No.	SHANK DIAMETER	CORNER RADIUS	OVERALL LENGTH
4011-8-0.5R	8	0.5	64
4011-8-1.0R	8	1.0	64
4011-10-1.5R	10	1.5	70
4011-10-2.0R	10	2.0	70
4011-12-2.5R	12	2.5	76
4011-12-3.0R	12	3.0	76
4011-16-3.5R	16	3.5	89
4011-16-4.0R	16	4.0	89
4011-16-4.5R	16	4.5	89
4011-16-5.0R	16	5.0	89



4071 Series

Chamfer Tool



Description

4 flute solid carbide chamfering tool, 100, 90, 82 and 60 degree inclusive angle with staggered teeth. Manufactured from Ultra Tough Micrograin Carbide.

Application

This tool can be used to chamfer and countersink a variety of materials. The staggered tooth design leads to smoother cutting and better surface finish. Available coated by request.

Metric Sizes (mm)

CATALOGUE No.	SIZE	SHANK DIAMETER	No. OF FLUTES	OVERALL LENGTH	INCLUSIVE ANGLE
4071-4-100	4	4	4	50	100°
4071-4-90	4	4	4	50	90°
4071-4-82	4	4	4	50	82°
4071-4-60	4	4	4	50	60°
4071-5-100	5	5	4	50	100°
4071-5-90	5	5	4	50	90°
4071-5-82	5	5	4	50	82°
4071-5-60	5	5	4	50	60°
4071-6-100	6	6	4	64	100°
4071-6-90	6	6	4	64	90°
4071-6-82	6	6	4	64	82°
4071-6-60	6	6	4	64	60°
4071-8-100	8	8	4	64	100°
4071-8-90	8	8	4	64	90°
4071-8-82	8	8	4	64	82°
4071-8-60	8	8	4	64	60°
4071-10-100	10	10	4	70	100°
4071-10-90	10	10	4	70	90°
4071-10-82	10	10	4	70	82°
4071-10-60	10	10	4	70	60°
4071-12-100	12	12	4	76	100°
4071-12-90	12	12	4	76	90°
4071-12-82	12	12	4	76	82°
4071-12-60	12	12	4	76	60°

Edge & Radius Router

Description

Solid carbide, straight flute router.

Application

Designed to produce a radius or chamfer whilst trimming. Ideal for 19mm foam, PVC and similar materials.



Metric Sizes (mm)

CATALOGUE No.	RADIUS SIZE	SHANK DIAMETER	OVERALL LENGTH
2191-12-3	3	12	76

Edge & Chamfer Router



Metric Sizes (mm)

CATALOGUE No.	CHAMFER SIZE	SHANK DIAMETER	OVERALL LENGTH
2181-16-5	5	12	76

These tools can be modified to suit material thickness below 19mm. Please contact us to discuss your requirements.

Carbide Tipped Routers

For Woodworking

In addition to our comprehensive range of solid carbide router tooling, we are pleased to offer a full range of woodwork tooling for next day delivery.

Please call us with your requirements, we will also advise on cutter selection.



Chamfer / V-Groove



Ovolo / Round Over



3 Wing Surfacing Tool

Other styles including:- Dovetail, Ogee, Panel Raiser, Jointing, Trimming & Bearing Mounted Tooling all available for next day delivery.

Lubricant for Signmakers



ITC'S MINIMAL-AMOUNT-LUBRICANT is specifically designed to give superior performance in signmaking and engraving applications.

The advantages of **ITC'S MINIMAL-AMOUNT-LUBRICANT** when sprayed directly onto the work piece in the form of a fine lubricant-air mixture are:-

- Very little lubricant is used
- Tool life is prolonged
- Surface finish is improved
- There are no problems with waste disposal
- The product is Bio-Degradable

ITC'S MINIMAL-AMOUNT-LUBRICANT is available in handy one-litre bottles for next day delivery.

BUY 5 LITRES AND PAY FOR ONLY 4 (A SAVING OF 20%)

3071 Series

Bed Skimming Tool



Description

TCT Router for bed skimming application.

CATALOGUE No.	SIZE (MM)	SHANK DIAMETER
3071-25	25	1/4"
3071-32	32	1/2"
3071-50	50	1/2"

Router Collet



Description

ITC stock a comprehensive range of metric and imperial collets and lock nuts to suit both Perske and Rego-fix motors. Typically the collets requested are Perske VS31, VS50, & VS60 plus Rego-fix ER16 & ER25.

STYLE	SIZE RANGE
VS31	3mm - 8mm
VS31	1/8" & 1/4"
VS50	3mm - 12mm
VS50	1/8", 3/16", 1/4", 3/8" & 1/2"
ER16	1mm - 10mm
ER25	1mm - 16mm
ER32	1mm - 20mm

Conversion Chart

Decimal (mm)	Sizes	Decimal (ins)	Decimal (mm)	Sizes	Decimal (ins)	Decimal (mm)	Sizes	Decimal (ins)	Decimal (mm)	Sizes	Decimal (ins)	Decimal (mm)	Sizes	Decimal (ins)
.794	1/32	.0312	2.383	3/32	.0938	4.700	13	.1850	7.366	L	.2900	12.000		.4724
.800		.0315	2.400		.0945	4.750		.1870	7.400		.2913	12.304	31/64	.4844
.813	67	.0320	2.438	41	.0960	4.763	3/16	.1875	7.493	M	.2950	12.500		.4921
.838	66	.0330	2.450		.965	4.800	12	.1890	7.500		.2953	112.700	1/2	.5000
.851		.0335	2.489	40	.0980	4.850	11	.1910	7.541	19/64	.2969	13.000		.5118
.889	65	.0350	2.500		.0984	4.900		.1929	7.600		.2992	13.096	33/64	.5156
.900		.0354	2.527	39	.0995	4.915	10	.1935	7.671	N	.3020	13.492	17/32	.5312
.914	64	.0360	2.578	38	.1015	4.978	9	.1960	7.700		.3031	13.500		.5315
.940	63	.0370	2.600		.1024	5.000		.1969	7.750		.3051	13.891	35/64	.5469
.950		.0374	2.642	37	.1040	5.055	8	.1990	7.800		.3071	14.000		.5512
.965	62	.0380	2.700		.1063	5.100		.2008	7.900		.3110	14.287	9/16	.5625
.991	61	.0390	2.705	36	.1065	5.105	7	.2010	7.938	5/16	.3125	14.500		.5709
1.000		.0394	2.750		.1083	5.159	13/64	.2031	8.000		.3150	14.684	37/64	.5781
1.016	60	.0400	2.779	7/64	.1094	5.182	6	.2040	8.026	O	.3160	15.000		.5906
1.041	59	.0410	2.794	35	.1100	5.200		.2047	8.100		.3189	15.083	19/32	.5938
1.049		.0413	2.800		.1102	5.220	5	.2055	8.200		.3228	15.479	39/64	.6094
1.067	58	.0420	2.819	34	.1110	5.250		.2067	8.204	P	.3230	15.500		.6120
1.092	57	.0430	.2870	33	.1130	5.300		.2087	8.250		.3248	15.875	5/8	.6250
1.100		.0433	2.900		.1142	5.309	4	.2090	8.300		.3268	16.000		.6299
1.151		.0453	2.946	32	.1160	5.400		.2126	8.334	21/64	.3281	16.271	41/64	.6406
1.181	56	.0465	3.000		.1181	5.410	3	.2130	8.400		.3307	16.500		.6496
1.191	3/64	.0469	3.048	31	.1200	5.500		.2165	8.433	Q	.3320	16.667	21/32	.6562
1.200		.0472	3.100		.1220	5.558	7/32	.2188	8.500		.3346	17.000		.6693
1.250		.0492	3.175	1/8	.1250	5.600		.2205	8.600		.3386	17.066	43/64	.6719
1.300		.0512	3.200		.1260	5.613	2	.2210	8.611	R	.3390	17.463	11/16	.6875
1.321	55	.0520	3.250		.1280	5.700		.2244	8.700		.3425	17.500		.6890
1.349		.0531	3.264	30	.1285	5.750		.2264	8.733	11/32	.3438	17.859	45/64	.7031
1.397	54	.0550	3.300		.1299	5.791	I	.2280	8.750		.3445	18.000		.7087
1.400		.0551	3.400		.1339	5.800		.2283	8.800		.3465	18.258	13/32	.7188
1.450		.0571	3.454	29	.1360	5.900		.2323	8.839	S	.3480	18.500		.7283
1.500		.0591	3.500		.1378	5.944	A	.2340	8.900		.3504	18.654	47/64	.7344
1.511	53	.0595	3.569	28	.1405	5.954	15/64	.2344	9.000		.3543	19.000		.7480
1.550		.0610	3.571	9/64	.1406	6.000		.2362	9.093	T	.3580	19.050	3/4	.7500
1.588	1/16	.0625	3.600		.1417	6.045	B	.2380	9.100		.3583	19.446	49/64	.7656
1.600		.0630	3.658	27	.1440	6.100		.2402	9.129	23/64	.3594	19.500		.7677
1.613	52	.0635	3.700		.1457	6.147	C	.2420	9.200		.3622	19.842	25/32	.7812
1.650		.0650	7.734	26	.1470	6.200		.2441	9.250		.3642	20.000		.7874
1.700		.0669	3.750		.1476	6.248	D	.2460	9.300		.3661	20.241	51/64	.7969
1.702	51	.0670	3.797	25	.1495	6.250		.2461	9.347	U	.3680	20.500		.8071
1.750		.0689	3.800		.1496	6.300		.2480	9.400		.3701	20.638	13/16	.8125
1.778	50	.0700	3.861	24	.1520	6.350	E	.2500	9.500		.3740	21.000		.8268
1.800		.0709	3.900		.1536	6.350	1/4	.2500	9.525	3/8	.3750	21.034	53/64	.8281
10850		.0728	3.912	23	.1540	6.400		.2520	9.576	V	.3770	21.433	27/32	.8438
1.854	49	.0730	3.962	5/32	.1562	6.500		.2559	9.600		.3780	21.500		.8465
1.900		.0748	3.988	22	.1570	6.528	F	.2570	9.700		.3819	21.829	55/64	.8594
1.930	48	.0760	4.000		.1575	6.600		.2598	9.750		.3839	22.000		.8661
1.950		.0768	4.039	21	.1590	6.629	G	.2610	9.800		.3858	22.225	7/8	.8750
1.984	5/64	.0781	4.089	20	.1610	6.700		.2638	9.804	W	.3860	22.500		.8858
1.994	47	.0785	4.100		.1614	6.746	17/64	.2656	9.900		.3898	22.261	57/64	.8906
2.000		.0787	4.200		.1654	6.750		.2657	9.921	25/64	.3906	23.000		.9055
2.050		.0807	4.216	19	.1660	6.756	H	.2660	10.000		.3937	23.017	29/32	.9062
2.057	46	.0810	4.250		.1673	6.800		.2677	10.084	X	.3970	23.416	59/64	.9219
2.083	45	.0820	4.300		.1693	6.900		.2717	10.262	Y	.4040	23.500		.9252
2.100		.0827	4.305	18	.1695	6.909	I	.2720	10.317	13/32	.4062	23.813	15/16	.9375
2.150		.0846	4.366	11/64	.1719	7.000		.2756	10.490	Z	.4130	24.000		.9449
2.184	44	.0860	4.394	17	.1730	7.036	J	.2770	10.500		.4134	24.209	61/64	.9531
2.200		.0866	4.400		.1732	7.100		.2795	10.716	27/64	.4219	24.500		.9646
2.250		.0886	4.496	16	.1770	7.137	K	.2810	11.000		.4331	24.608	31/32	.9688
2.260	43	.0890	4.500		.1772	7.142	9/32	.2812	11.113	7/16	.4375	25.000		.9843
2.300		.0906	4.572	15	.1800	7.200		.2835	11.500		.4528	25.004	63/64	.9844
2.350		.0925	4.600		.1811	7.250		.2854	11.509	29/64	.4531	25.400		1.000
2.375	42	.0935	4.623	14	.1820	7.300		.2874	11.908	18/32	.4688			

English to Metric

MULTIPLY	BY	TO OBTAIN
Inches	25.4	Millimetres
Inches	2.54	Centimetres
Feet	.3048	Metres
Inches per minute	25.4	Millimetres per minute
Cubic Inches per minute	16.387	Cubic Centimetres per minute
Surface Feet per minute	.3048	Surface Metres per minute

Metric to English

MULTIPLY	BY	TO OBTAIN
Millimetres	.0394	Inches
Centimetres	.3937	Inches
Metres	3.2808	Feet
Millimetres per minute	.0394	Inches per minute
Cubic Centimetres per minute	.0610	Cubic Inches per minute
Surface Metres per minute	3.2808	Surface Feet per minute

Terms and Conditions of Sale

1. Interpretation

1.1. The definitions and rules of interpretation in this condition apply in these conditions.

"Buyer"	the person, firm or company who purchases the Goods from ITC;
"ITC"	Industrial Tooling Corporation Limited (Company No. 2373537) the registered office of which is at Cyber House, Unit 1, Kepler, Lichfield Road Industrial Estate, Tamworth, B79 7XL;
"Contract"	any contract between ITC and the Buyer for the sale and purchase of the Goods, incorporating these conditions;
"Delivery Point"	the place where delivery of the Goods is to take place under condition 4;
"Goods"	any goods agreed in the Contract to be supplied to the Buyer by ITC (including any part or parts of them);
"Intellectual Property"	any copyrights, letters, patents, know how, inventions, utility models, registered and unregistered designs, trade and service marks, trade names, logos, patent applications, rights in the nature of copyrights and all other similar rights in the Goods and (where applicable) the Services; and
"Services"	any services agreed in the Contract to be supplied to the Buyer by ITC.

1.2. A reference to a particular law is a reference to it as it is in force for the time being taking account of any amendment, extension, application or re-enactment and includes any subordinate legislation for the time being in force made under it.
1.3. Words in the singular include the plural and in the plural include the singular.
1.4. A reference to one gender includes a reference to the other gender.
1.5. Condition headings do not affect the interpretation of these conditions.

2. Application of terms

2.1. Subject to any variation under condition 2.3 the Contract shall be on these conditions to the exclusion of all other terms and conditions (including any terms or conditions which the Buyer purports to apply under any purchase order, confirmation of order, specification or other document).
2.2. No terms or conditions endorsed on, delivered with or contained in the Buyer's purchase order, confirmation of order, specification or other document shall form part of the Contract simply as a result of such document being referred to in the Contract.
2.3. These conditions apply to all ITC's sales and any variation to these conditions and any representations about the Goods or the Services shall have no effect unless expressly agreed in writing and signed by a director of ITC. The Buyer acknowledges that it has not relied on any statement, promise or representation made or given by or on behalf of ITC which is not set out in the Contract. Nothing in this condition shall exclude or limit ITC's liability for fraudulent misrepresentation.
2.4. Each order or acceptance of a quotation for Goods or Services by the Buyer from ITC shall be deemed to be an offer by the Buyer to buy Goods and/or Services subject to the conditions of the Contract. The Buyer shall ensure that its order is not less than the sum set out in clause 7.2.
2.5. No order placed by the Buyer shall be deemed to be accepted by ITC until a written acknowledgment of order is issued by ITC or (if earlier) ITC delivers the Goods to the Buyer or provides the Services to the Buyer.
2.6. The Buyer shall ensure that the terms of its order and any applicable specification are complete and accurate.
2.7. Any quotation is given on the basis that no Contract shall come into existence until ITC despatches an acknowledgement of order to the Buyer. Any quotation is valid for a period of 60 days only from its date, provided that ITC has not previously withdrawn it.
2.8. Acceptance of delivery of the Goods or performance of the Services shall be deemed conclusive evidence of the Buyer's acceptance of these Conditions.
2.9. Any typographical, clerical or other error or omission in any sales literature, quotation, acceptance of offer, invoice or other document or information issued by ITC shall be subject to correction without any liability on the part of ITC.

3. Description

3.1. The quantity and description of the Goods or the Services to be performed shall be as set out in ITC's quotation or acknowledgement of order.
3.2. All samples, drawings, descriptive matter, specifications and advertising issued by ITC and any descriptions or illustrations contained in ITC's catalogues or brochures are issued or published for the sole purpose of giving an approximate idea of the Goods described in them. They shall not form part of the Contract and this is not a sale by sample.
3.3. If the Goods are to be manufactured or as part of the Services any process is to be applied to the Goods by ITC; or if the Goods or Services are to be provided in accordance with a specification or any other document, data information or materials submitted by the Buyer, the Buyer shall indemnify ITC against all loss, damages, costs and expenses awarded against or incurred by ITC in connection with or paid or agreed to be paid by ITC in settlement of any claim for infringement of any patent, copyright, design, trade mark or other industrial or intellectual property rights of any other person which results from ITC's use of the Buyer's information.
3.4. ITC reserves the right to make any changes in the specification of the Goods which are required to conform with any applicable statutory or EC requirements or, where the Goods are to be supplied to ITC's specification, which do not materially affect their quality or performance.
3.5. No order which has been accepted by ITC may be cancelled by the Buyer except with the agreement in writing of ITC and on terms that the Buyer shall indemnify ITC in full against all loss (including without prejudice to the generality of the foregoing loss of profit), costs (including without prejudice to the generality of the foregoing cost of all labour and materials ordered, whether used or not used), damages, charges and expenses incurred by ITC as a result of cancellation.

4. Delivery

4.1. Unless otherwise agreed in writing by ITC, delivery of the Goods shall take place at ITC's place of business.
4.2. The Buyer shall take delivery of the Goods within 7 days of ITC giving it notice that the Goods are ready for delivery.
4.3. Any dates specified by ITC for delivery of the Goods or the performance of the Services are intended to be an estimate and time for delivery shall not be made of the essence by notice. If no dates are so specified, delivery and performance shall be within a reasonable time.
4.4. Subject to the other provisions of these conditions ITC shall not be liable for any direct, indirect or consequential loss (all three of which terms include, without limitation, pure economic loss, loss of profits, loss of business, depletion of goodwill and similar loss), costs, damages, charges or expenses caused directly or indirectly by any delay in the delivery of the Goods or the performance of the Services (even if caused by ITC's negligence), nor shall any delay entitle the Buyer to terminate or rescind the Contract unless such delay exceeds 180 days.
4.5. If for any reason the Buyer fails to accept delivery of any of the Goods when they are ready for delivery, or ITC is unable to deliver the Goods on time because the Buyer has not provided appropriate instructions, documents, licences or authorisations:
4.5.1. risk in the Goods shall pass to the Buyer;
4.5.2. the Goods shall be deemed to have been delivered;
4.5.3. ITC may store the Goods until delivery, whereupon the Buyer shall be liable for all related costs and expenses (including, without limitation, storage and insurance); and
4.5.4. sell the Goods at the best price readily attainable and (after deducting any costs for storage and other selling expenses) account to the Buyer for the excess over the price or charge the Buyer for any shortfall below the price under the Contract.
4.6. The Buyer shall provide at the Delivery Point and at its expense adequate and appropriate equipment and manual labour for loading the Goods.
4.7. If ITC delivers to the Buyer a quantity of Goods (being bespoke, non-stock items) of up to 10% more or less than the quantity accepted by ITC, the Buyer shall not be entitled to object to or reject the Goods or any of them by reason of the surplus or shortfall and shall pay for such goods at the pro rata Contract rate.
4.8. ITC may deliver the Goods by separate instalments. Each separate instalment shall be invoiced and paid for in accordance with the provisions of the Contract.
4.9. Each instalment shall be a separate Contract and no cancellation or termination of any one Contract relating to an instalment shall entitle the Buyer to repudiate or cancel any other Contract or instalment.

5. Non-delivery

5.1. The quantity of any consignment of Goods as recorded by ITC on despatch from ITC's place of business shall be conclusive evidence of the quantity received by the Buyer under delivery unless the Buyer can produce conclusive evidence of the contrary.
5.2. ITC shall not be liable for any non-delivery of Goods (even if caused by ITC's negligence) unless the Buyer gives written notice to ITC of the non-delivery within 3 days of the date when the Goods would in the ordinary course of events have been received.
5.3. Any liability of ITC for non-delivery of the Goods shall be limited to replacing the Goods within a reasonable time or issuing a credit note at the pro rata Contract rate against any invoice raised for such Goods.

6. Risk/title

6.1. Risk of damage to or loss of the Goods shall pass to the Buyer:
6.1.1. in the case of Goods to be delivered at ITC's premises, at the time when ITC notifies the Buyer that the Goods are available for collection; or
6.1.2. in the case of Goods to be delivered otherwise than at ITC's premises, at the time of delivery; or if the Buyer wrongfully fails to take delivery of the Goods, at the time when ITC has tendered delivery of the Goods.
6.1.3. in respect of deliveries made in accordance with clause 6.1(b) above and notwithstanding any other provision contained in these Conditions, a transportation insurance policy shall be taken out by the Buyer's written request and at the Buyer's expense.
6.2. Ownership of the Goods shall not pass to the Buyer until ITC has received in full (in cash or cleared funds) all sums due to it in respect of:
6.2.1. the Goods; and
6.2.2. all other sums which are or which become due to ITC from the Buyer on any account.
6.3. Until ownership of the Goods has passed to the Buyer, the Buyer shall:
6.3.1. hold the Goods on a fiduciary basis as ITC's bailee;
6.3.2. store each consignment of the Goods (at no cost to ITC) separately from all other goods purchased from ITC and those of the Buyer or any third party in such a way that they remain readily identifiable as ITC's property;
6.3.3. not remove, destroy, deface or obscure any identifying mark or packaging on or relating to the Goods; and
6.3.4. maintain the Goods in satisfactory condition and keep them insured on ITC's behalf for their full price against all risks to the reasonable satisfaction of ITC. On request the Buyer shall produce the policy of insurance to ITC.
6.4. The Buyer may resell the Goods before ownership has passed to it solely on the following conditions:
6.4.1. any sale shall be effected in the ordinary course of the Buyer's business at full market value; and
6.4.2. any such sale shall be a sale of ITC's property on the Buyer's own behalf and the Buyer shall deal as principal when making such a sale.
6.5. The Buyer's right to possession of the Goods shall terminate immediately if:
6.5.1. the Buyer has a bankruptcy order made against him or makes an arrangement or composition with his creditors, or otherwise takes the benefit of any statutory provision for the time being in force for the relief of insolvent debtors, or (being a body corporate) convenes a meeting of creditors (whether formal or informal), or enters into liquidation (whether voluntary or compulsory) except a solvent voluntary liquidation for the purpose only of reconstruction or amalgamation, or has a receiver and/or manager, administrator or administrative receiver appointed of its undertaking or any part thereof, or documents are filed with the court for the appointment of an administrator of the Buyer or notice of intention to appoint an administrator is given by the Buyer or its directors or by a qualifying floating charge holder (as defined in paragraph 14 of Schedule B1 to the Insolvency Act 1986) or a petition is presented to any court for the winding-up of the Buyer or for the granting of an administration order in respect of the Buyer, or any proceedings are commenced relating to the insolvency or possible insolvency of the Buyer; or
6.5.2. the Buyer suffers or allows any execution, whether legal or equitable, to be levied on his/its property or obtained against him/it, or fails to observe or perform any of his/its obligations under the Contract or any other contract between ITC and the Buyer, or is unable to pay its debts within the meaning of section 123 of the Insolvency Act 1986 or the Buyer ceases to trade; or
6.5.3. the Buyer encumbers or in any way charges any part of the Goods.
6.6. ITC shall be entitled to recover payment for the Goods or the Services notwithstanding that ownership of any of the Goods has not passed from ITC.
6.7. The Buyer grants ITC, its agents and employees an irrevocable licence at any time to enter any premises where the Goods are or may be stored in order to inspect them, or, where the Buyer's right to possession has terminated, to recover them.
6.8. Where ITC is unable to determine whether any Goods are the Goods in respect of which the Buyer's right to possession has terminated, the Buyer shall be deemed to have sold all goods of the kind sold by ITC to the Buyer in the order in which they were invoiced to the Buyer.
6.9. On termination of the Contract, howsoever caused, ITC's (but not the Buyer's) rights contained in this condition 6 shall remain in effect.

7. Price

7.1. Unless otherwise agreed by ITC in writing, the price for the Goods shall be the price set out in ITC's price list published on the date of delivery or deemed delivery. The price for the Services shall be in accordance with the quotation provided by ITC to the Buyer in accordance with clause 3.1.
7.2. The minimum value of the Buyer's order shall be not less than £20.00.
7.3. The price for the Goods shall be exclusive of all taxes, levies or duties, and all costs and charges in relation to packaging, loading, unloading, carriage and insurance, all of which amounts the Buyer shall pay in addition when it is due to pay for the Goods.
7.4. In the event that the Buyer's order is to be delivered to the Buyer then the Buyer shall pay for the costs of carriage notified to the Buyer by ITC from time to time.
7.5. ITC reserves the right, by giving notice to the Buyer at any time before the delivery to increase the price and/or the ancillary costs to reflect any increase in the cost to ITC which is due to any factor beyond the control of ITC (such as, without limitation, any foreign exchange fluctuation, currency regulation, alteration of rates of taxes, levies or duties, significant increase in the costs of labour, materials or other costs of manufacture), any change in delivery dates, quantities or specifications for the Goods or change to the required Services which is requested by the Buyer, or any delay caused by any instructions of the Buyer or failure of the Buyer to give ITC adequate information or instructions.

8. Payment

8.1. Subject to condition 8.4, payment of the price for the Goods or the Services is (unless otherwise agreed in writing by the parties) due in pounds sterling on the last working day of the month following the month in which the Goods are delivered or deemed to be delivered. ITC reserves the right to request payment for the Goods and/or Services in advance.

8.2. Time for payment shall be of the essence.

8.3. No payment shall be deemed to have been received until ITC has received cleared funds.

8.4. All payments payable to ITC under the Contract shall become due immediately on its termination despite any other provision.

8.5. The Buyer shall make all payments due under the Contract in full without any deduction whether by way of set-off, counterclaim, discount, abatement or otherwise unless the Buyer has a valid court order requiring an amount equal to such deduction to be paid by ITC to the Buyer.

8.6. If the Buyer fails to pay ITC any sum due pursuant to the Contract, the Buyer shall be liable to pay interest to ITC on such sum from the date for payment at the annual rate of 8% above the base lending rate from time to time of National Westminster Bank plc, accruing on a daily basis until payment is made, whether before or after any judgment. ITC reserves the right to claim interest under the Late Payment of Commercial Debts (Interest) Act 1998.

9. Quality

9.1. Where ITC is not the manufacturer of the Goods, ITC shall endeavour to transfer to the Buyer the benefit of any warranty or guarantee given to ITC.

9.2. ITC warrants that:-

9.2.1. (subject to the other provisions of these conditions) on delivery that the Goods shall be of satisfactory quality within the meaning of the Sale of Goods Act 1979;

9.2.2. bought if the Buyer had made known that purpose to ITC in writing and ITC has confirmed in writing that it is reasonable for the Buyer to rely on the skill; and

9.2.3. that the Services will be provided using reasonable care and skill and, as far as reasonably possible, in accordance with the Contract and at the intervals and within the times referred to in the Contract.

9.3. The above warranty is given by ITC subject to the following conditions:

9.3.1. ITC shall be under no liability if it is established by ITC that some part of the material used in manufacture was defective;

9.3.2. ITC shall be under no liability in respect of any defect in the Goods or Services arising from any drawing, design or specification supplied by the Buyer;

9.3.3. ITC shall be under no liability under the above warranty (or any other warranty, condition or guarantee) if the Price and all ancillary costs have not been paid by the due date for payment.

9.4. ITC shall not be liable for a breach of either of the warranties in condition 9.2 unless:-

9.4.1. the Buyer gives written notice of the defect to ITC, and the defect is as a result of damage in transit to the carrier, within 7 days of the time when the Buyer discovers or ought to have discovered the defect; and

9.4.2. ITC is given a reasonable opportunity after receiving the notice of examining such Goods and the Buyer (if asked to do so by ITC) returns such Goods to ITC's place of business at ITC's cost for the examination to take place there.

9.5. ITC shall not be liable for a breach of either of the warranties in condition 9.2 if:-

9.5.1. the Buyer makes any further use of such Goods after giving such notice; or

9.5.2. the defect arises because the Buyer failed to follow ITC's oral or written instructions as to the storage, installation, commissioning, use or maintenance of the Goods or (if there are none) good trade practice; or

9.5.3. the Buyer alters or repairs such Goods without the written consent of ITC.

9.6. Subject to condition 9.5, if any of the Goods do not conform with either of the warranties in condition 9.2 ITC shall at its option repair or replace such Goods (or the defective part) or refund the price of such Goods at the pro rata Contract rate provided that, if ITC so requests, the Buyer shall, at its expense, return the Goods or the part of such Goods which is defective to ITC.

9.7. If ITC complies with condition 9.6 it shall have no further liability for a breach of either of the warranties in condition 9.2 in respect of such Goods.

10. Limitation of liability

10.1. Subject to condition 4, condition 5 and condition 9, the following provisions set out the entire financial liability of ITC (including any liability for the acts or omissions of its employees, agents and sub-contractors) to the Buyer in respect of:-

10.1.1. any breach of these conditions;

10.1.2. any loss made or results by the Buyer of any of the Goods, or of any product incorporating any of the Goods; and

10.1.3. any representation, statement or tortious act or omission including negligence arising under or in connection with the Contract.

10.2. All warranties, conditions and other terms implied by statute or common law (save for the conditions implied by section 12 of the Sale of Goods Act 1979) are, to the fullest extent permitted by law, excluded from the Contract.

10.3. Nothing in these conditions excludes or limits the liability of ITC:

10.3.1. for death or personal injury caused by ITC's negligence; or

10.3.2. under section 2(3), Consumer Protection Act 1987;

10.3.3. for fraud or other matter which it would be illegal for ITC to exclude or attempt to exclude its liability; or

10.3.4. for fraud or fraudulent misrepresentation.

10.4. Subject to condition 10.2 and condition 10.3:

10.4.1. ITC's total liability in contract, tort (including negligence or breach of statutory duty), misrepresentation, restitution or otherwise, arising in connection with the performance or contemplated performance of the Contract shall be limited to the Contract price; and

10.4.2. ITC shall not be liable to the Buyer for loss of profit, loss of business, or depletion of goodwill in each case whether direct, indirect or consequential, or any claims for consequential compensation whatsoever (howsoever caused) which arise out of or in connection with the Contract.

11. Export terms

11.1. Unless the context otherwise requires, any term or expression which is defined in or given a particular meaning by the provisions of INCOTERMS shall have the same meaning in these Conditions, but if there is any conflict between the provisions of INCOTERMS and these Conditions, the provisions of these Conditions shall prevail.

11.2. Where the Goods are supplied for export from the United Kingdom, the provisions of this clause 11 shall (subject to any special terms agreed in writing between the Buyer and ITC) apply notwithstanding any other provision of these Conditions.

11.3. The Buyer shall be responsible for complying with any legislation or regulations governing the importation of the Goods into the country of destination and for the payment of any duties on them.

11.4. Unless otherwise agreed in writing between the Buyer and ITC, the Goods shall be delivered [FOB the air or sea port of shipment] and the Seller shall be under no obligation to give notice under section 32(3) of the Sale of Goods Act 1979.

11.5. The Buyer shall be responsible for arranging for testing and inspection of the Goods at ITC's premises before shipment. ITC shall have no liability for any claim in respect of any defect in the Goods which would be apparent on inspection and which is made after shipment, or in respect of any damage during transit.

11.6. Unless otherwise required by ITC, payment of all amounts due to the Seller shall be made by an irrevocable letter of credit, in a form acceptable to ITC, to be opened by the Buyer in favour of ITC and confirmed by a bank in the United Kingdom acceptable to ITC within 14 days after the Contract is concluded.

11.7. The Buyer shall not offer the Goods for resale in _____ or any other country notified by ITC to the Buyer at or before the time the Buyer's order is placed, or sell the Goods to any person if the Buyer knows or has reason to believe that that person intends to resell the Goods in any such country.

12. Assignment

12.1. ITC may assign the Contract or any part of it to any person, firm or company.

12.2. The Buyer shall not be entitled to assign the Contract or any part of it without the prior written consent of ITC.

13. Force majeure

13.1. ITC reserves the right to defer the date of delivery or performance or to cancel the Contract or reduce the volume of the Goods ordered by the Buyer (without liability to the Buyer) if it is prevented from or delayed in the carrying on of its business due to circumstances beyond the reasonable control of ITC including, without limitation, acts of God, governmental actions, war or national emergency, acts of terrorism, protests, riot, civil commotion, fire, explosion, flood, epidemic, lock-outs, strikes or other labour disputes (whether or not relating to other party's workforce), or restraints or delays affecting carriers or inability or delay in obtaining supplies of adequate or suitable materials, provided that, if the event in question continues for a continuous period in excess of 90 days, the Buyer shall be entitled to give notice in writing to ITC to terminate the Contract.

14. General

14.1. Each right or remedy of ITC under the Contract is without prejudice to any other right or remedy of ITC whether under the Contract or not.

14.2. If any provision of the Contract is found by any court, tribunal or administrative body of competent jurisdiction to be wholly or partly illegal, invalid, void, voidable, unenforceable or unenforceable in whole or in part, the illegality, invalidity, voidness, voidability, unenforceability or unenforceableness shall be deemed severable and the remaining provisions of the Contract and the remainder of such provision shall continue in full force and effect.

14.3. Failure or delay by ITC in enforcing or partially enforcing any provision of the Contract shall not be construed as a waiver of any of its rights under the Contract.

14.4. Any waiver by ITC of any breach of, or any default under, any provision of the Contract by the Buyer shall not be deemed a waiver of any subsequent breach or default and shall in no way affect the other terms of the Contract.

14.5. The parties to the Contract do not intend that any term of the Contract shall be enforceable by virtue of the Contracts (Rights of Third Parties) Act 1999 by any person that is not a party to it.

14.6. The formation, existence, construction, performance, validity and all aspects of the Contract shall be governed by English law and the parties submit to the exclusive jurisdiction of the English courts.

15. Communications

15.1. All notices sent between the parties relating to the Contract shall be in writing and delivered by hand or sent by pre-paid first class post or sent by fax:

15.1.1. (in case of notices to ITC) to its registered office or such other address as shall be notified to the Buyer by ITC; or

15.1.2. (in the case of notices to the Buyer) to the registered office of the addressee (if it is a company) or (in any other case) to any address of the Buyer set out in any document which forms part of the Contract or such other address as shall be notified to ITC by the Buyer.

15.2. Notices shall be deemed to have been received:

15.2.1. if sent by pre-paid first class post, two days (excluding Saturdays, Sundays and bank and public holidays) after posting (exclusive of the day of posting); or

15.2.2. if delivered by hand, on the day of delivery; or

15.2.3. if sent by fax on a working day prior to 4.00 pm, at the time of transmission and otherwise on the next working day.

15.3. Notices addressed to ITC shall be marked for the attention of Mr P Graves.

16. Indemnity

16.1. If any claim is made against the Buyer that the Goods or Services provided infringe or that their use or resale infringes the patent, copyright, design, trade mark, uncopyrightable or unregistered right or in intellectual property rights of any other person, then unless the claim arises from the use of any drawing, design or specification supplied by the Buyer, ITC shall indemnify the Buyer against all loss, damages, costs and expenses awarded against or incurred by the Buyer in connection with the claim, or paid or agreed to be paid by the Buyer in settlement of the claim, provided that:

16.1.1. the Buyer shall immediately inform ITC of all such claims;

16.1.2. ITC is given full control of any proceedings or negotiations in connection with any such claim;

16.1.3. the Buyer shall give ITC all reasonable assistance for the purposes of any such proceedings or negotiations;

16.1.4. except pursuant to a final award, the Buyer shall not pay or accept any such claim, or compromise any such proceedings without the consent of ITC (which shall not be unreasonably withheld);

16.1.5. the Buyer shall do nothing which would or might vitiate any policy of insurance or insurance cover which the Buyer may have in relation to such infringement, and this indemnity shall not apply to the extent that the Buyer recovers any sums under any such policy or cover (which the Buyer shall use to its best endeavours to do);

16.1.6. ITC shall be entitled to the benefit of, and the Buyer shall accordingly account to ITC for, all damages and costs (if any) awarded in favour of the Buyer which are payable by, or agreed with the consent of the Buyer (which consent shall not be unreasonably withheld) to be paid by, any other party in respect of any such claim; and

16.1.7. without prejudice to any duty of the Buyer at common law, ITC shall be entitled to require the Buyer to take such steps as ITC may reasonably require to mitigate or reduce any such loss, damages, costs or expenses for which ITC is liable to indemnify the Buyer under this clause.

17. Insolvency of Buyer

17.1. This clause applies if:-

17.1.1. the Buyer makes any voluntary arrangement with its creditors or (being an individual or firm) becomes bankrupt or (being a company) becomes subject to an administration order or goes into liquidation (otherwise than for the purposes of amalgamation or reconstruction); or

17.1.2. an encumbrancer takes possession, or a receiver is appointed, of any of the property or assets of the Buyer; or

17.1.3. the Buyer ceases, or threatens to cease, to carry on business; or

17.1.4. ITC reasonably apprehends that any of the events mentioned above is about to occur in relation to the Buyer and notifies the Buyer accordingly.

17.2. If any of the events mentioned in 17.1 occurs, ITC shall be entitled to cancel the Contract or suspend any further deliveries or performance of the Services under the Contract without any liability to the Buyer, and if the Goods have been delivered but not paid for the Price and the Ancillary Costs shall become immediately due and payable notwithstanding any previous agreement or arrangement to the contrary.





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