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Celmec International Leading the way in Air Control, Heating & Cooling

At Celmec International, it is our belief that working closely with our clients aids the mutual success of both organisations and for this reason we have adopted the following mission:

"To excel in the commercial and industrial building industry by setting new standards with innovative products through leadership, first class customer service and engineering excellence."

It is with confidence that we at Celmec International offer our Spiral Duct & Fittings as part of our unique product range. Our products have been tried and proven for well over two decades.





Duct and Fitting Range

Spiral Duct Range

- Spiral metal tubing is factory machine formed with high volume economy with tolerances and quality of the highest standards.
- Round is available in a diameter range of 76mm to 1524mm and gauges from 0.5mm to 1.2mm.
- Where restricted space or aesthetic requirements are a consideration, Celmec's range of flat oval ducting is available in size ranges.

Spiral Fitting Range

 A complete range of associated fabricated fittings, machine made to match round and flat oval are available. The following list may be used as a guide to the type of fittings:

> 90° Bends - Pops 45° Bends - Hangers Reducers - Branch take-offs Spigot Joiners - Angle rings Block Ends

Construction and Materials

Prices are based on the standard material of galvanised steel construction. Other materials are available such as stainless steel, aluminium, mild steel, etc. Prices for these are available on request. The full spiral duct and fitting range is available in:

- Plain single wall
- Double wall insulated 25mm
- Double wall insulated 50mm
- Corrugated
- Matching seam

Applications

• Celmec's range of spiral duct and fittings are used primarily for air conditioning, ventilation, heating and industrial systems, but other major areas of usage include:

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Pipe and well liners

Tunnel ventilation, drainage systems and irrigation

Concrete voids

Builders rubbish chutes

Fume and dust removal

Smoke and exhaust stacks

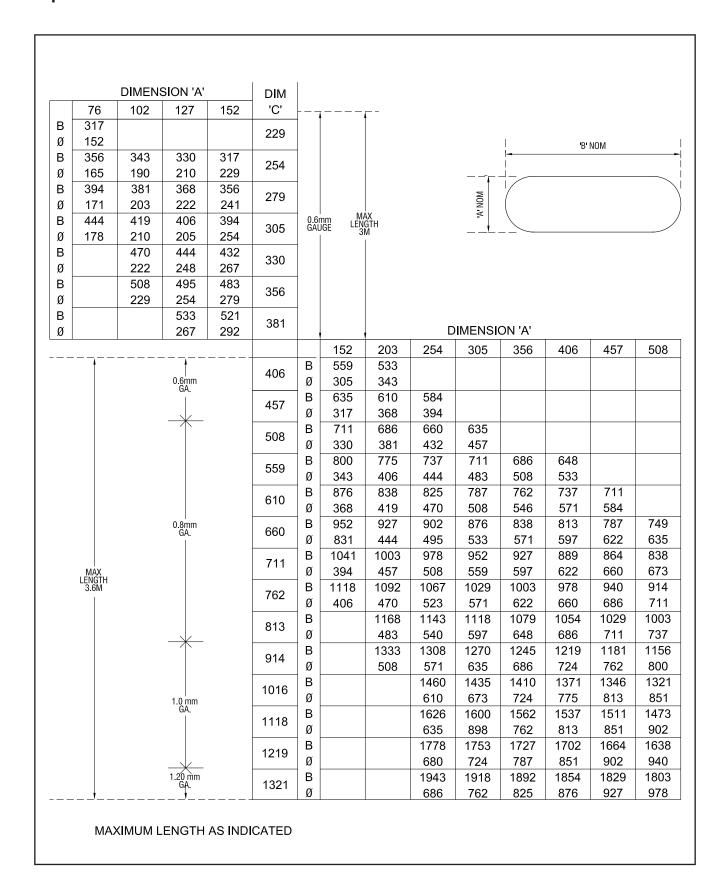
Sound absorbers

Conveyor and material hangling systems



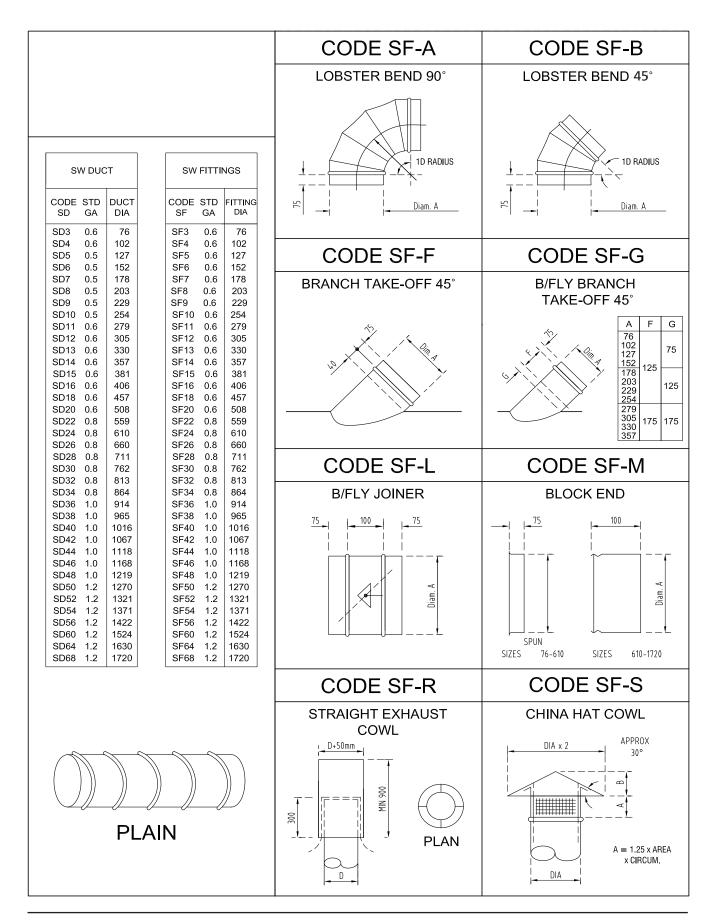
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Equivalent Duct Sizes Round to Oval





Fittings - SF





Fittings - SF

CODE SF-C	CODE SF-D	CODE SF-E	
STANDARD REDUCER PLAIN PLAIN	BRANCH TAKE-OFF 90-	B/FLY BRANCH TAKE-OFF 90	
PLAIN CONCENTRIC ECCENTRIC Diam. C Diam. C	Dim. A 76 102 127 152 178 203 229 254 279 305 330 357	Diam. A F G 76 102 127 152 178 203 228 228 224 278 305 330 357 175 175	
CODE SF-H	CODE SF-J	CODE SF-K	
BRANCH TAKE0FF CONED	B/FLY BRANCH JOINER TAKE-OFF CONED		
Dim. A 75	Diam. A 75 75 76 102 75 175 175 175 330 357 175 175 175	36 8 36 	
CODE SF-N	CODE SF-P	CODE SF-Q	
BAND CLIPS	HALF BAR HANGER	FULL HANGER	
Diam. A	12mm & HOLE — 50 x 5 FLAT BAR	WELD M12 NUT 75 x 5 FLAT BAR 10 Ø ROD OVER 1000 Ø 3-OFF RODS	
CODE SF-T	ORDER/CODE EXAMPLE		
MOTORIZED B/FLY DAMPER 50 250 50	PLAIN SPIRAL DUCT 254 Ø 3.5 METRED LONG STD ROUND PLAIN FITTING 76 Ø B/FLY BRANCH TAKE-OFF 45 DEGREES	TYPE CODE GAL. LENGTH DUCT SD254 0.6 3.5m TYPE CODE TYPE DIA. FITTING SF76 G 76	



Round Spiral Duct

Spiral duct is available in siingle wall, 25mm Insulated and 50mm Insulated. Sizes are as follows:

Diameter (mm) 76 102 127 152 178 203 229 254 279 305 330 357 381 406 457 508 559 610 660 711 762 813 864 914 965	Standard Guage (mm) 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.
660 711 762 813 864	0.8 0.8 0.8 0.8 0.8
965 1016 1118 1219 1270 1321 1422 1524	1.0 1.0 1.0 1.0 1.2 1.2 1.2
1324	1.2

Length of plain duct can be to any reasonable and transportable length required, although stock is available in 4 meter for most sizes up to 457 diameter. The length if insulated duct should be no longer than 3 meters.

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Round Duct Connector

Spiralmate

The Spiralmate Round Duct Connector was developed to provide a simple method of connecting sections of Spiral Round Duct work at a lower overall cost. Additionally, the Spiralmate Round Duct Connector System results in the creation of an airtight joint with failsafe alignment and excellent appearance.

The Spiralmate Round Duct Connector is not recommended for applications with duct gauges heavier than 1.6mm or lighter than 0.5mm. Width of pocket is sufficient to accommodate spiral lock.

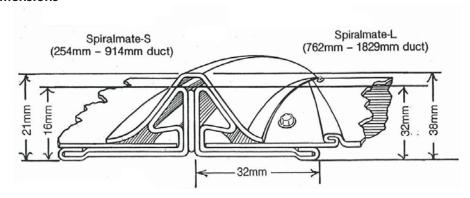
The Round Duct Connector are:

Spiralmate-S (small: 254mm - 914mmSpiralmate-L (large): 762mm - 1829mm

Composition and Materials

- Two mating Round Duct Connector Flanges roll-formed from hot dipped galvanised steel with an integral sealant.
- A Closure Ring roll-formed from hot dipped galvanised steel.

Dimensions



Applicable Standards

- Flange Steel: hot dipped galvanised steel
- Closure Ring Steel: hot dipped galvanised steel

Technical

The characteristics of a particular duct connection or joint are usually referenced to the Sheet Metal and Air Conditioning Contractors National Association (SMACNA) manuals. SMACNA encourages the use of new technology, but does not endorse proprietary products. The Spiralmate Duct Connector System has been tested by Professional Services Industries, Inc., a division of Pittsburgh Testing Laboratories, with test results as noted.

No external sealant was employed and the certified test results reveal: Virtually no leakage at up to 4.5kPa positive pressure or down to 2.5kPa negative pressure.

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Installation

- 1. Slide a Spiralmate Duct Connector Flange onto end of each duct to be mated then seat end of duct into mastic sealant by hammering with a mallet.
- 2. Attach Flange onto duct section using mechanical fasteners (screws or spot welding).
- 3. Apply a short piece of Gsket Tape to the exposed, raw edge of duct.
- 4. Repeat procedure on mating duct.
- 5. Apply Gasket Tape to the face of one Spiralmate Duct Connector Flange.
- 6. Spiralmate Duct Connector Closure Ring is slipped over mated flanges and the Closure Ring is drawn tight with a bolt.

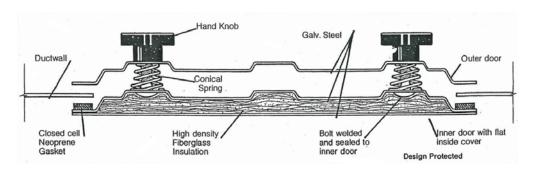
Access Door

The Ductmate Access Door:

- Completely airtight
- Fully insulated
- Smooth interior finish
- No measuring (self-sticking template provided)
- No frame to install and seal
- Rectangular shape of opening provides more effective access area
- Effortless opening and closing (no tools required)

Width	Height	No Carton	With Carton
250	150	10	12
300	200	10	14
450	300	5	20

Cross section of access door:



Materials & construction details:

Precision stemmed galvanised steel for long lasting protection.

Gasket

UL listed closed cell Neoprene Gasket permanently bonded to inside door to eliminate leakage. Conical Springs are installed over the bolts, between the inner and outer door to facilitate opening.

Template

Duct-opening cut-out Template is provided for exact size of Duct opening required.

Inside Door

Double thickness with high-density fiberglass insulation between steel. The two layers of metal are potwelded together at the rim. Inside surface of Access Door is smooth, to reduce friction.

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<u>Knobs</u>

Knobs are easily turned by hand, no special tools required.



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Installation Instructions

1. Remove backing from template and adhere to duct in desired location.



2. Cut opening around perimeter of template.



3. Install door in opening (insert at an angle).



4. Tighten knobs finger-tight (do not over tighten)





