



MADE IN QATAR

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GROUP OF COMPANIES



CAT-SPIRO DUCTING



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GROUP OF COMPANIES

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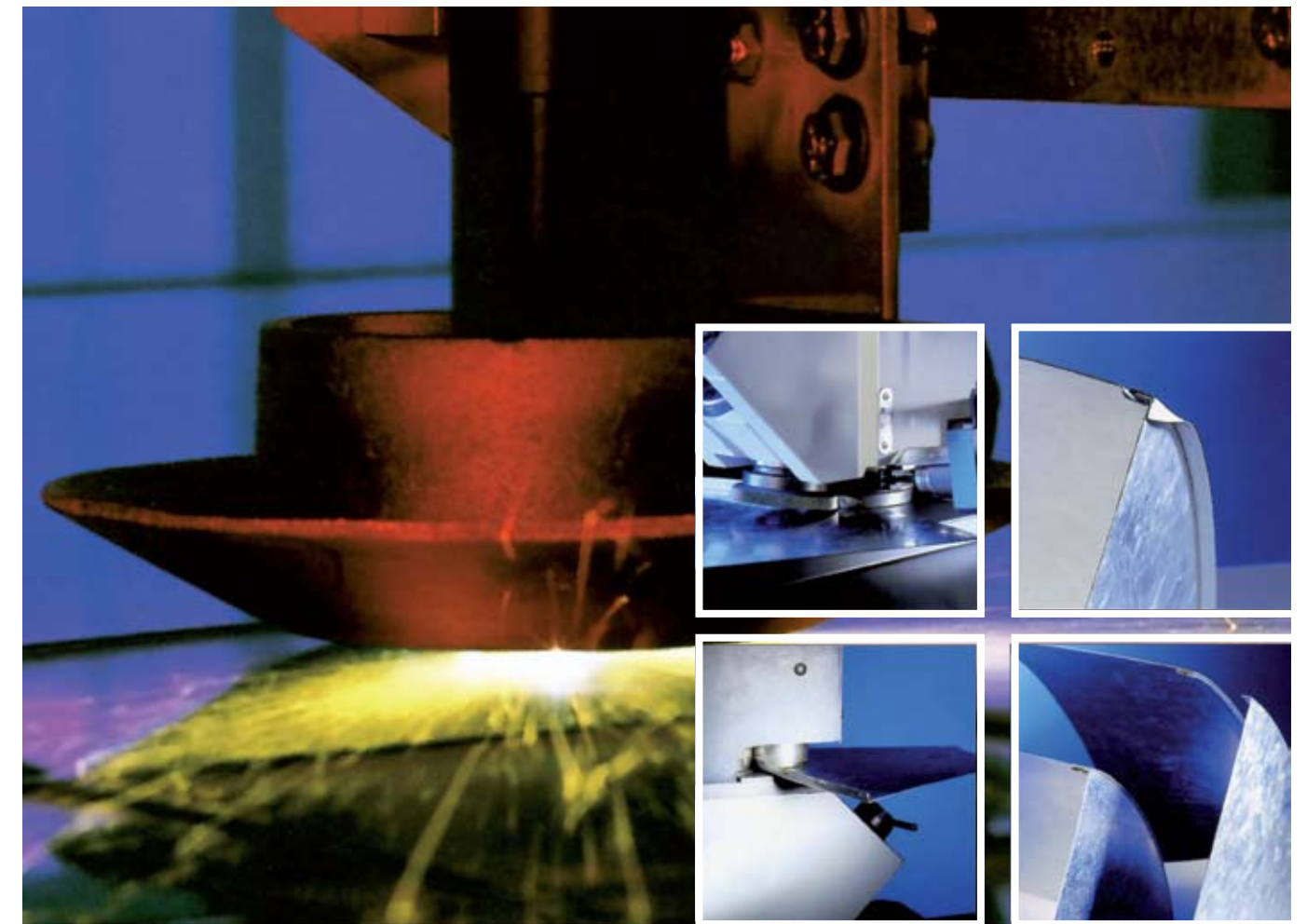
CAT DUCT PRODUCTS ARE WIDELY APPROVED AND USED IN QATAR INCLUDING PROJECTS FOR KAHRAMAA, ASHGHAL, PEARL QATAR ETC.

CAT DUCT PRODUCT RANGE

- GI Rectangular Ducting
- GI Spiral Ducting
- Aluminum Ducting
- Stainless Steel Ducting
- Black Steel Ducting
- Fire Rated Ducting
- Rectangular Volume Control Dampers (GI & SS)
- Round Volume Control Dampers (GI, SS & AL)
- Fire Dampers
- Air Filters
- Access Doors
- VAV
- Sound Attenuators
- Back Draft Dampers
- Metal Cladding (AL & SS)
- Fresh Air Intake Assembly
- S.S. Kitchen Equipments

Moving Forward

AT CAT, AFTER OUR INITIAL SUCCESS IN MANUFACTURING RECTANGULAR DUCTS FOR HVAC APPLICATIONS, WE'VE COMMENCED THE MANUFACTURE OF SPIRAL DUCTS AT OUR MODERN FACILITY IN THE SALWA INDUSTRIAL AREA, DOHA -- **THE FIRST FACTORY OF ITS KIND IN QATAR.**



For us at CAT Duct, already a major player in supplying and servicing HVAC products and systems, this new product extension enables us to meet our customers' and consultant requirement for single manufacturer for both Rectangular and Spiral ducts and fittings.

Equipped with state-of-the-art equipments from Switzerland, this facility manufactures Spiral Ducts and accessories conforming to SMACNA and DW 144 standards.

Since the production capacity of Spiral Tubeformer can reach upto 80 metres per minute for smaller duct sizes and 30 metre per minute for larger duct sizes, CAT Spiro can meet even the most stringent project delivery requirements.

Adding even more to our capabilities at CAT.

LIST OF STATE-OF-THE-ART MACHINES (Made in Switzerland)

SPIRO Tubeformer, Type 1602
Hydraulic operated clinching roller
Automatic length measurement system
Basic run-off table
Additional run-off table
Vertical decoiler DCV-1000
Rails for Decoiler DCV-100
Basic unit for flying slit (1602)
Set of standard tooling for flying slit "Basic"
Form Roll Unit No. 1A
Form Roll Unit No. 3
Forming Heads (Inner diameter)
100, 125, 160, 200 mm
250, 315, 400 mm
500 mm
630,800 mm
1000, 1250 mm

SPIRO GORELOCKER COMBIT

SPIRO STITCHWELDER 1000
Cooling Unit

SPIRO LITELOCKER
Die & Punch for stainless steel
Die Round 4.5 mm

SPIRO EDGEFORMER

CAT-SPIRO Ducting

CAT-SPIRO DUCTING-THE LEAK PROOF DUCT SYSTEM

CAT-SPIRO Ducting is an approved range of quick-fitting, spiral-seam ducts and fittings With factory fitted sealing gaskets of EPDM rubber. The sealing gasket provides a tight and reliable-Joint. CAT-SPIRO Ducting is available as a complete range with dimensions from Ø 100 up to Ø 1600 mm

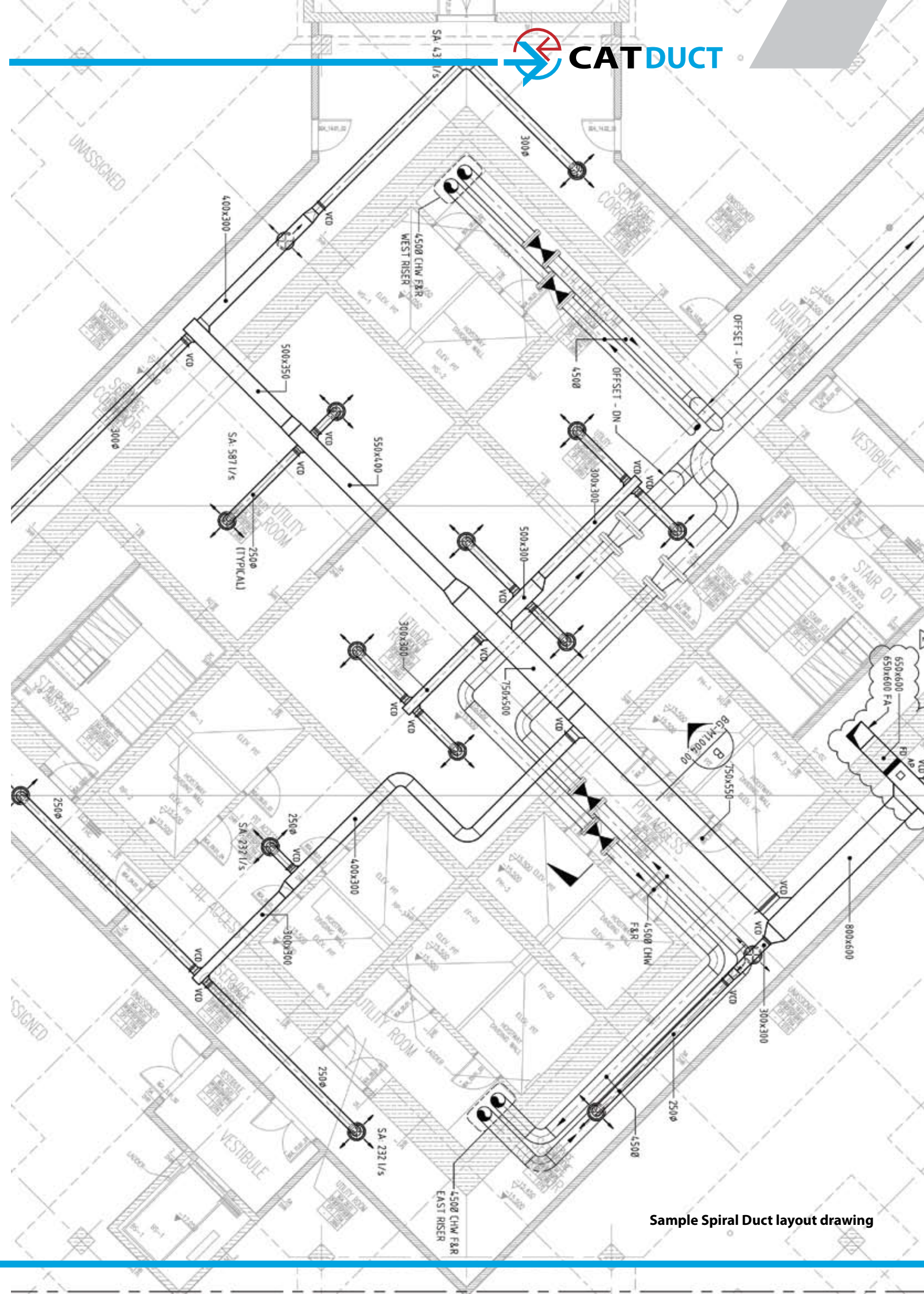
CAT-SPIRO Ducting complies with DW 144 Class C specification. The high, uniform quality and the effective factory-fitted sealing system means that installation is fast and easy . CAT-SPIRO Ducting is leak proof when fitted and does not require any additional sealing.

The spirally wound tubes produced on tube formers feature a patented seam cavity, which Both stabilizes the tubes and locks the seams into place ensuring that tolerance are maintained Even during handling and transport

We have special attachments for tube former machine to produce straight ducts with – Corrugation which gives additional stiffness. Also it is equipped with flying splitter which provides Optimum cut quality and prevents metal deposits inside the ducts.

Benefits of the CAT-SPIRO Ducting:

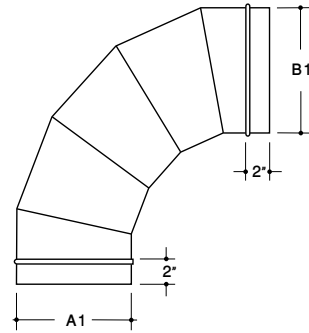
- Fast and easy installation
- Factory-fitted gasket without loose parts.
- Adjustable-twisting and fine adjustment mean there's no risk of leakage.
- Environmentally friendly-the system with solvent free sealant.
- Can be installed in all kinds of weather.
- Temperature resistant from -30° C to +100° C .
- Withstands positive pressure up to +3000 pa ,negative pressure -5000 pa.
- Aesthetic design –an advantage for visible installation.
- Reduced duct surface area compared to rectangular ducts and in turn savings In cost of insulation and accessories



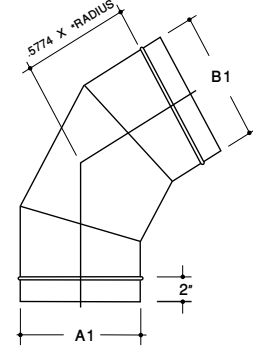
Sample Spiral Duct layout drawing

SINGLE WALL ROUND ELBOWS

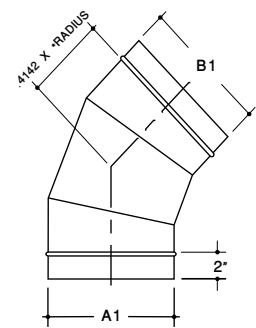
90° 5-PIECE ELBOW



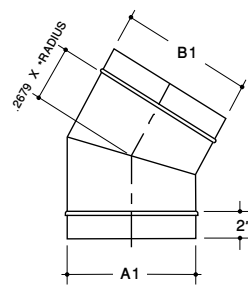
60° 3-PIECE ELBOW



45° 3-PIECE ELBOW

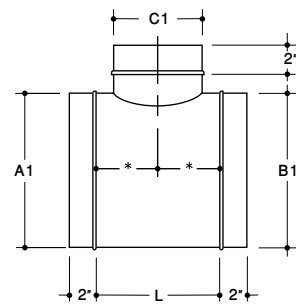


30° 2-PIECE ELBOW

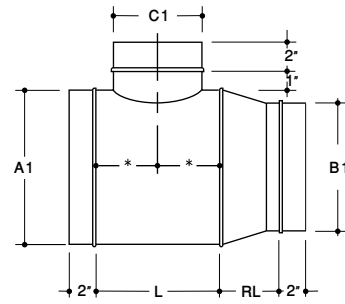


SINGLE WALL ROUND TEE FITTINGS

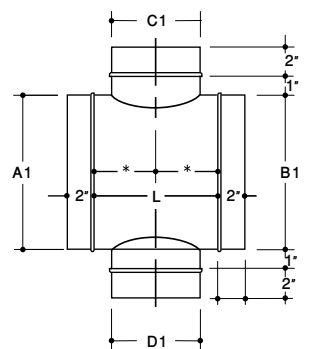
TEE



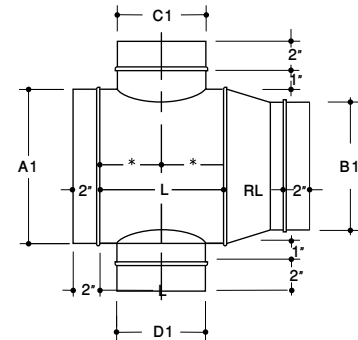
REDUCING TEE



CROSS



REDUCING CROSS

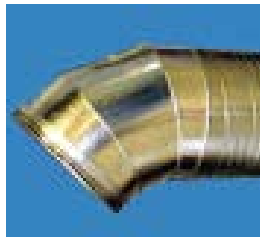


Machines for every application



TUBEFORMER 1602

Sets new benchmarks by launching their latest model of spiral tube machines which covers the complete range of international standard sizes up to 1600 mm diameter.



Controlled corrugation unit



METU Flange splitter



GORELOCKER COMBI-T

The machine which has been developed on the basis of practical experience by the world's leading manufacturer of machines for round ducts. The New Benchmark for Production of Segment Bends



Flanging station



Closing station



Double flange

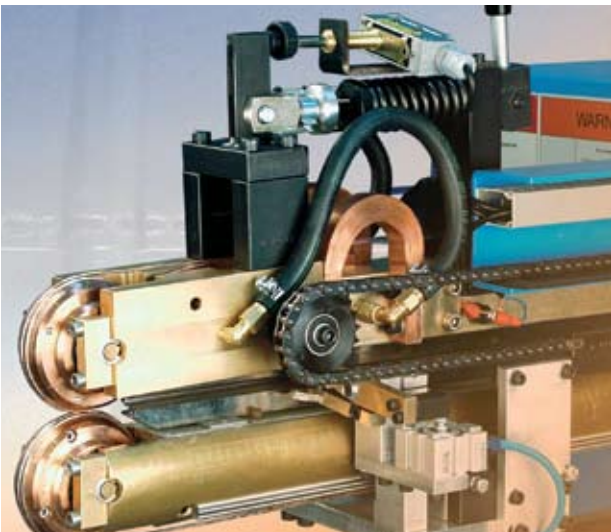


Single flange



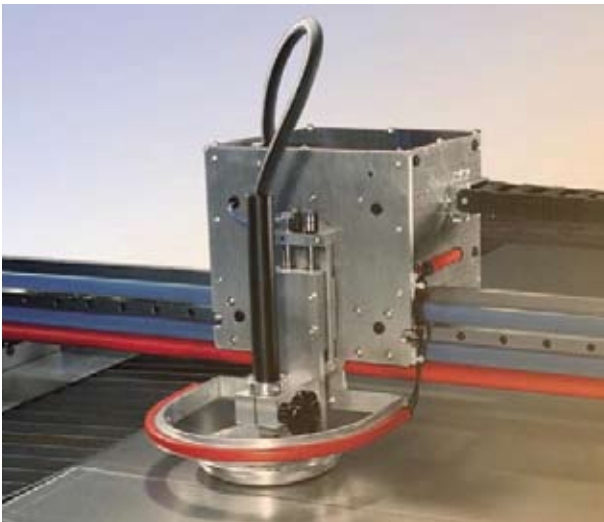
Closed seam

Machines for every application



STITCHWELDER 1000

The Stitchwelder 1000 has an adjustable welding speed from 3-12m per minute making it a very productive and effective machine. It produces a beautiful tight seam and adjusts easily to different tube sizes and fittings.



PLASMACUTTER

Plasmacutter offers a cost effective operation for the cutting of a wide range of sheet metal. This machine is ideally suited for light industrial operation, where sheet metal thickness does not exceed 10 mm. A perfect example is its employment in the HVAC industry and related branches.



LITELOCKER 3

- SPIRO Litelocker is a sturdy and advanced button lock machine.
- It enables 2 sheet metal to be firmly joined together (cold forming) without incurring any damages to the sheet metal surface. The pressforce is made by using a pneumo-hydraulic system.



Laser pointer to enable to seem a straight line



Various types of dies and punches



Rotating punch head for working on edges

CAT-SPIRO DUCT CONSTRUCTION STANDARDS

SI No.	Diameter*	Circumference	Cross section Area M ²
1	100 mm	314.00 mm	0.008
2	125 mm	392.50 mm	0.012
3	160 mm	502.40 mm	0.020
4	200 mm	628.00 mm	0.031
5	250 mm	785.00 mm	0.049
6	315 mm	989.00 mm	0.078
7	355 mm	1115.00 mm	0.009
8	400 mm	1256.00 mm	0.126
9	450 mm	1413.00 mm	0.159
10	500 mm	1570.00 mm	0.196
11	560 mm	1758.40 mm	0.246
12	630 mm	1978.20 mm	0.312
13	710 mm	2229.40 mm	0.396
14	800 mm	2512.00 mm	0.350
15	900 mm	2826.00 mm	0.636
16	1000 mm	3140.00 mm	0.785
17	1120 mm	3518.00 mm	0.986
18	1250 mm	3925.00 mm	1.227

**Sizes upto 1600 mm Ø can also be supplied by CAT-SPIRO*

“CATDUCT” Spiral duct system includes straight tube of various sizes complete with fittings available in Galvanized steel construction as standard. However Aluminium/stainless steel ducts are also available as optional.

The tubes are produced on Tubeformer machine from “SPIRO INTERNATIONAL S.A” Switzerland.

The fittings are produced on Original “Gore Locker” and “Stitch Welder” machines from ‘SPIRO INTERNATIONAL S.A,’ Switzerland.

SMACNA standard (Low pressure - 500 pa - positive pressure)	
Maximum diameter	G I Sheet thickness
0 to 360 mm	0.50 mm
361 to 660 mm	0.56 mm
661 to 910 mm	0.70 mm
911 to 1270 mm	0.90 mm
DW 144 Standards (All pressure classifications - positive pressure)	
Maximum diameter	G I Sheet thickness
0 to 160 mm	0.50 mm
161 to 315 mm	0.60 mm
316 to 800 mm	0.80 mm
801 to 1000 mm	1.00 mm
1001 to 1250 mm	1.20 mm

**Sizes upto 1600 mm Ø can also be supplied by CAT-SPIRO*