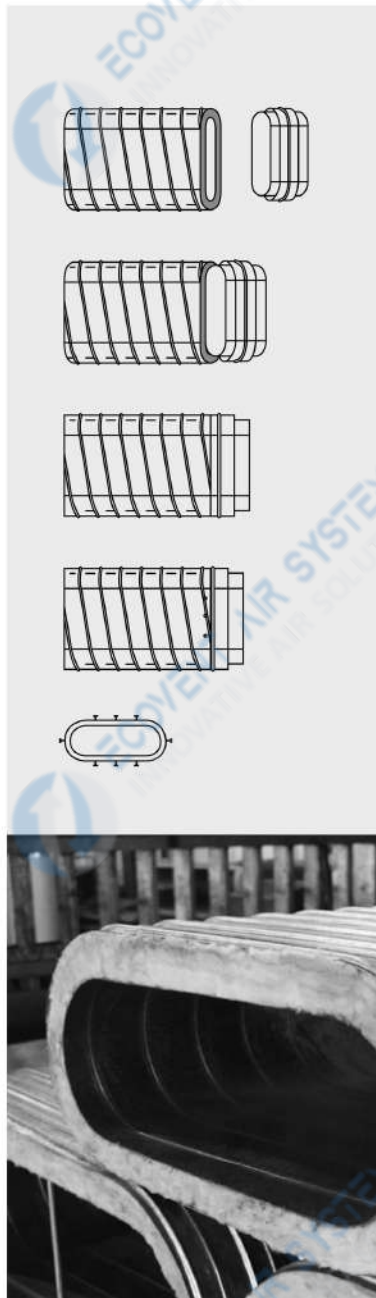




DOUBLE WALL OVAL DUCT & FITTINGS

ASSEMBLY INSTRUCTIONS



Description

ecovent Oval Double Wall must be assembled according to these instructions:

Before Assembly

The duct must be free from dirt.

Assembly of Instructions

- Only use undamaged ecovent Oval Double Wall duct and fittings. Double wall duct must be cut at a right angle and carefully deburred.
- Slip the inner shell of the double wall fitting into the inner shell of the double wall flat oval duct. Use the inner shell extension to aid in guiding the outer shells together.
- Slip the outer shell of the double wall fitting into the outer shell of the double wall flat oval duct up to the bead.
- Fasten the duct and fitting together with self tapping sheet metal screws or pressure proof pop rivets.

The following numbers and dimensions of steel screws and pop rivets are recommended:

Circumference mm	Min. Diameter mm	Number
1171 - 1222	3.2	4
1228 - 1829	4.0	6
1835 - 2442	4.0	8
2478 - 3043	4.0	10
3056 - 3671	4.8	12
3685 - 4171	4.8	14

Placement of the fastening screws should be opposite from one another evenly spaced around the circumference, much like the procedure for tightening lug nuts on a tire. Start where the distance between the duct and the fitting is largest. In event of incorrect installation, holes caused by screws or pop rivets must be sealed before re-assembly.

$$\text{Circumference} = (W-H) \times 2 + (H \times 3.1416)$$

Where: W = Major Dimension, H = Minor Dimension



PRE INSULATED FLAT OVAL DUCT SYSTEMS



ECOVENT OVAL DOUBLE WALL

Application

For applications in which space restrictions prohibit the use of round duct, ecovent offers double wall, flat oval duct in spiral lockseam and longitudinal seam constructions. Each piece is constructed of a solid metal pressure shell and a metal inner liner (either perforated or solid metal) with a layer of insulation sandwiched between. Flat oval duct provides a more efficient alternative to rectangular duct in these applications where space is restricted. ecovent manufactures flat oval duct with the same techniques used to make round duct. As a result, flat oval duct shares many of the performance characteristics of round duct.

Spiral lockseam duct is constructed with an interlocking helical seam that runs the length of the duct's outer pressure shell. As with round spiral lockseam duct, the flat oval type combines efficient performance with a structural strength equal to that of heavier gauges of other types of duct.

Flat oval duct is available with a longitudinal seam construction for applications that require very heavy gauges or large sizes. The longitudinal seam of the ducts outer pressure shell is fully welded.

Description

The ECOVENT Oval Double Wall system is designed for use in places with restricted headroom and especially suitable for lengthy duct systems with relatively few branchings and outlets. The duct is made of galvanized spiral duct and supplied in 2 m length as standard.

Pre insulated flat oval ducts are available with a full range of matching fittings and accessories. Sizes are from 500mm x 150mm to 1700mm x 400mm (inner dimension). The flat oval represents the ultimate in ducting, combining the best properties of rectangular and round spiral ducts.

Standard products are normally (as per ASTM A653, lock forming quality) manufactured from hot dip, galvanized sheet or coil - all as specified in SMACNA and DW 142 sheet metal ductwork.

- Standard Length: 2 meters
- Standard Profile of Inner and Outer Shell: SPKG
- Standard Insulation Thickness: 25 mm

CONSTRUCTION AND STANDARD SIZES



OVAL DOUBLE WALL DUCT & FITTINGS

Standard Sizes (for Insulation Thickness 25 mm & 50 mm)

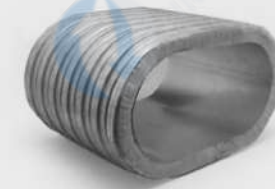
Duct Sizes				Flat Oval Ducts		Fittings & SMKGS	
Inner Shell		Outer Shell		Gauge - Profile		Inner Shell	Outer Shell
W	H	W	H	SKG	SPKG	Gauge	Gauge
Inner	Outer						
500	150	550	200	24	26	20	20
500	200	550	250	24	26	20	20
500	250	550	300	24	26	20	20
550	150	600	200	24	26	20	20
550	200	600	250	24	26	20	20
550	250	600	300	24	26	20	20
600	150	650	200	24	26	20	20
600	200	650	250	24	26	20	20
600	250	650	300	24	26	20	20
700	150	750	200		24	20	20
700	200	750	250		24	20	20
700	250	750	300		24	20	20
800	1500	850	200		24	20	20
800	200	850	250		24	20	20
800	250	850	300		24	20	20
900	180	950	200		24	20	18
900	200	950	250		24	20	18
900	250	950	300		24	20	18
1000	150	1050	200		24	18	18
1000	200	1050	250		24	18	18
1000	250	1050	300		24	18	18
1100	150	1150	200		24	18	18
1100	200	1150	250		24	18	18
1100	250	1150	300		24	18	18
1200	150	1250	200		24	18	18
1200	200	1250	250		24	18	18
1200	250	1250	300		24	18	18
1200*	300	1300	400		24	18	18
1200*	400	1300	500		24	18	18
1300*	300	1400	400		22	18	18
1300*	400	1400	500		22	18	18
1400*	300	1500	400		22	18	18
1400*	400	1500	500		22	18	18
1500*	300	1600	400		22	18	16
1500*	400	1600	500		22	18	16
1600*	300	1700	400		22	16	16
1600*	400	1700	500		22	16	16
1700*	300	1800	400		20	16	16
1700*	400	1800	500		20	16	16

* For 50 mm insulation thickness.



PRE INSULATED SPIRAL SEAMED DUCT

Dimensions

SKGL
SKGS

Description

SKGL: Thermal Double Wall Duct

- Outer Shell: Solid Galvanized Steel
- Inner Shell: Solid Galvanized Steel
- Insulation: 25 mm or 50 mm
- Insulation Density: 24 kg/m³ as standard, other densities available on request.

SKGS: Acoustic Double Wall Duct

- Outer Shell: Solid Galvanized Steel
- Inner Shell: Perforated Galvanized Steel
- Insulation: 25 mm or 50 mm
- Insulation Density: 24 kg/m³ as standard, other densities available on request.

Standard length is 2000 mm

Ordering

Product Code: SKGL - aaa x bbb

Type _____

W _____

H _____

Internal Dimensions

W mm	H mm
500	150
550	200
600	250
700	150
700	250
800	150
800	200
800	250
900	200
900	250
1000	200
1000	250

Internal Dimensions

W mm	H mm
1100	200
1100	250
*1200	300
*1200	400
*1300	300
*1300	400
*1400	300
*1400	400
*1500	300
*1500	400

* For 50 mm insulation thickness.

• For other available sizes, see page 174.

PRE INSULATED LONGITUDINAL SEAMED DUCT



HARD BEND 90°

SMKGL
SMKGS

Dimensions



Description

SMKGL: Thermal Double Wall Duct

- Outer Shell: Solid Galvanized Steel
- Inner Shell: Solid Galvanized Steel
- Insulation: 25 mm or 50 mm
- Insulation Density: 24 kg/m³ as standard, other densities available on request.

SMKGS: Acoustic Double Wall Duct

- Outer Shell: Solid Galvanized Steel
- Inner Shell: Perforated Galvanized Steel
- Insulation: 25 mm or 50 mm
- Insulation Density: 24 kg/m³ as standard, other densities available on request.

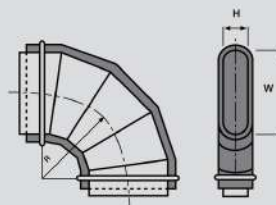
Standard length is 1000 mm

Ordering

Product Code: SMKGL - aaa x bbb

Type _____
W _____
H _____

Dimensions

SKYVL/90°
SKYVS/90°

Description

Segmented Five Section Hard Bend - Angle from 1° - 135°; joints and seams by continuous seam or stitch welding.

- R = 1.5 W, 5 - gore bend
- R = W, 4 - gore bend

SKYVL/90°: Thermal Double Wall 90° Hard Bend
SKYVS/90°: Acoustic Double Wall 90° Hard Bend

- Inner Shell Dimension (mm): W x H
- Insulation: 25 mm or 50 mm
- Insulation Density: 24 kg/m³ as standard, other densities available on request.

Ordering

Product Code: SKYVL/90 - aaa x bbb

Type _____
W _____
H _____

W
mm

H
mm

500	150
550	200
600	250
700	150
700	250
800	150
800	200
800	250
900	200
900	250
1000	200
1000	250

W
mm

H
mm

1100	200
1100	250
*1200	300
*1200	400
*1300	300
*1300	400
*1400	300
*1400	400
*1500	300
*1500	400

- * For 50 mm insulation thickness.
• For other available sizes, see page 174.

W
mm

H
mm

500	150
550	200
600	250
700	150
700	250
800	150
800	200
800	250
900	200
900	250
1000	200
1000	250

W
mm

H
mm

1100	200
1100	250
*1200	300
*1200	400
*1300	300
*1300	400
*1400	300
*1400	400
*1500	300
*1500	400

- * For 50 mm insulation thickness.
• For other available sizes, see page 174.

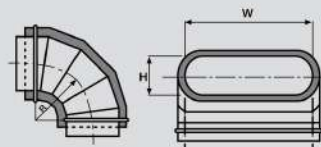
EASY BEND 90°



MITERED BEND HARD

SKYPL/90°
SKYPS/90°

Dimensions



Description

Segmented Five Section Easy Bend - Angle from 1° - 90°; joints and seams by continuous seam or stitch welding.

- R = 1.5 H, 5 - gore bend
- R = H, 4 - gore bend

SKYPL/90°: Thermal Double Wall 90° Easy Bend
SKYPS/90°: Acoustic Double Wall 90° Easy Bend

- Inner Shell Dimension (mm): W x H
- Insulation: 25 mm or 50 mm
- Insulation Density: 24 kg/m³ as standard, other densities available on request.

Ordering

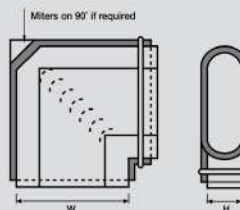
Product Code: SKYPL/90 - aaa x bbb

Type

W

H

Dimensions



SKYVML/90°
SKYVMS/90°



Description

Mitered Hard Bend - Angle from 1° - 90°; joints and seams by continuous seam or stitch welding.

SKYVML/90°: Thermal Double Wall 90° Mitered Hard Bend
SKYVMS/90°: Acoustic Double Wall 90° Mitered Hard Bend

- Inner Shell Dimension (mm): W x H
- Insulation: 25 mm or 50 mm
- Insulation Density: 24 kg/m³ as standard, other densities available on request.

Ordering

Product Code: SKYVML/90 - aaa x bbb

Type

W

H

Internal Dimensions

W mm	H mm
500	150
550	200
600	250
700	150
700	250
800	150
800	200
800	250
900	200
900	250
1000	200
1000	250

Internal Dimensions

W mm	H mm
1100	200
1100	250
*1200	300
*1200	400
*1300	300
*1300	400
*1400	300
*1400	400
*1500	300
*1500	400

- * For 50 mm insulation thickness.
- For other available sizes, see page 174.

Internal Dimensions

W mm	H mm
500	150
550	200
600	250
700	150
700	250
800	150
800	200
800	250
900	200
900	250
1000	200
1000	250
1100	200

Internal Dimensions

W mm	H mm
1100	250
*1200	300
*1200	400
*1300	300
*1300	400
*1400	300
*1400	400
*1500	300
*1500	400

- * For 50 mm insulation thickness.
- For other available sizes, see page 174.

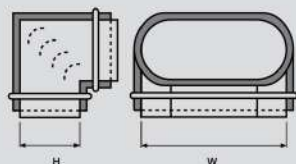
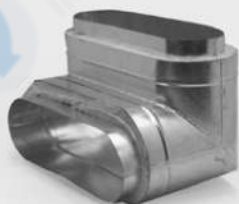
MITERED BEND EASY



TWIN BEND

SKYPML/90°
SKYPMS/90°

Dimensions



Description

SKYPML/90°: Thermal Double Wall 90° Easy Bend

SKYPMS/90°: Acoustic Double Wall 90° Easy Bend

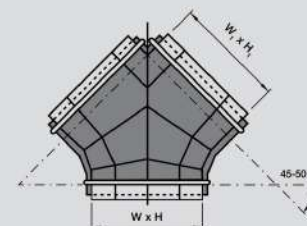
- Inner Shell Dimension (mm): W x H
- Insulation: 25 mm or 50 mm
- Insulation Density: 24 kg/m³ as standard, other densities available on request.

Ordering

Product Code: SKYPML/90 - aaa x bbb

Type _____
W _____
H _____

Dimensions



SKKYL/45°-50°
SKKYS/45°-50°

Ordering

Product Code: SKKYL/45 - aaa x bbb / ccc x ddd

Type _____
W _____
H _____
W_i _____
H_i _____

Description

Twin Bend - Angle from 45° - 50°: joints and seams by continuous seam or stitch welding.

SKKYL/45°: Thermal Double Wall Twin Bend
SKKYS/45°: Acoustic Double Wall Twin Bend

- Inner Shell Dimension (mm): W x H, W_i x H_i
- Insulation: 25 mm or 50 mm
- Insulation Density: 24 kg/m³ as standard, other densities available on request.

Internal Dimensions

W mm	H mm
500	150
550	200
600	250
700	150
700	250
800	150
800	200
800	250
900	200
900	250
1000	200
1000	250
1100	200
1100	250
*1200	300
*1200	400

Internal Dimensions

W mm	H mm
*1300	300
*1300	400
*1400	300
*1400	400
*1500	300
*1500	400

- * For 50 mm insulation thickness.
- For other available sizes, see page 174.

W mm	H mm	W _i mm	H _i mm
500	150	500	150
550	200	550	200
600	250	600	250
700	150	700	150
700	250	700	250
800	150	800	150
800	200	800	200
800	250	800	250
900	200	900	200
900	250	900	250
1000	200	1000	200
1000	250	1000	250
1100	200	1100	200
1100	250	1100	250

- * For 50 mm insulation thickness.
- For other available sizes, see page 174.

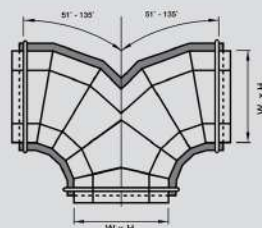
TWIN BEND



SKKYL/51°
SKKYS/51°-135°



Dimensions



Description

Twin Bend - Angle from 51°-135°: joints and seams by continuous seam or stitch welding.

SKKYL/90°: Thermal Double Wall Twin Bend
SKKYS/90°: Acoustic Double Wall Twin Bend

- Inner Shell Dimension (mm): $W \times H, W_1 \times H_1$
- Insulation: 25 mm or 50 mm
- Insulation Density: 24 kg/m³ as standard, other densities available on request.

Ordering

Product Code: SKKYL/90 - aaa x bbb / ccc x ddd

Type	
W	
H	
W ₁	
H ₁	

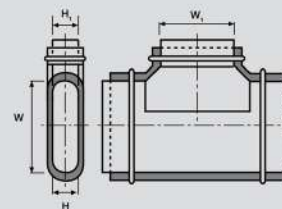
W mm	H mm	W ₁ mm	H ₁ mm
500	150	500	150
550	200	550	200
600	250	600	250
700	150	700	150
700	250	700	250
800	150	800	150
800	200	800	200
800	250	800	250
900	200	900	200
900	250	900	250
1000	200	1000	200
1000	250	1000	250
1100	200	1100	200
1100	250	1100	250

- * For 50 mm insulation thickness.
• For other available sizes, see page 174.

HORIZONTAL TEE



Dimensions



Description

Horizontal Tee: joints and seams by continuous seam or stitch welding.

STYVL: Thermal Double Wall Horizontal Tee
STYVS: Acoustic Double Wall Horizontal Tee

- Inner Shell Dimension (mm): $W \times H, W_1 \times H_1$
- Insulation: 25 mm or 50 mm
- Insulation Density: 24 kg/m³ as standard, other densities available on request.

Ordering

Product Code: STYVL - aaa x bbb / ccc x ddd

Type	
W	
H	
W ₁	
H ₁	

W mm	H mm	W ₁ mm	H ₁ mm
500	150	500	150
550	200	500	200
600	250	500	250
700	150	500	150
700	250	500	250
800	150	500	150
800	200	500	200
800	250	500	250
900	200	500	200
900	250	500	250
1000	200	550	200
1000	250	550	250
1100	200	550	200
1100	250	550	250

- * For 50 mm insulation thickness.
• For other available sizes, see page 174.

STYVL
STYVS



VERTICAL TEE

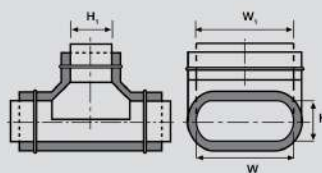


BOOT TEE

STYPL STYPS



Dimensions



Description

Vertical Tee : joints and seams by continuous seam or stitch welding.

STYPL: Thermal Double Wall Vertical Tee
STYPS: Acoustic Double Wall Vertical Tee

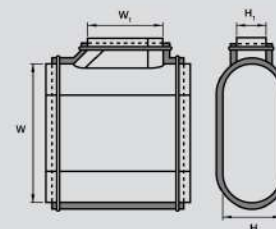
- Inner Shell Dimension (mm): $W \times H, W_1 \times H_1$
- Insulation: 25 mm or 50 mm
- Insulation Density: 24 kg/m³ as standard, other densities available on request.

Ordering

Product Code: STYPL/45 - aaa x bbb / ccc x

Type	
W	
H	
W ₁	
H ₁	

Dimensions



STYVBL STYVBS



Description

Boot Tee: joints and seams by continuous seam or stitch welding.

STYVBL: Thermal Double Wall Boot Tee
STYVBS: Acoustic Double Wall Boot Tee

- Inner Shell Dimension (mm): $W \times H, W_1 \times H_1$
- Insulation: 25 mm or 50 mm
- Insulation Density: 24 kg/m³ as standard, other densities available on request.

Ordering

Product Code: STYVBL - aaa x bbb / ccc x ddd

Type	
W	
H	
W ₁	
H ₁	

W mm	H mm	W ₁ mm	H ₁ mm
500	150	500	150
550	200	550	200
600	250	600	250
700	150	700	150
700	250	700	250
800	150	800	150
800	200	800	200
800	250	800	250
900	200	900	200
900	250	900	250
1000	200	1000	200
1000	250	1000	250
1100	200	1100	200
1100	250	1100	250

W mm	H mm	W ₁ mm	H ₁ mm
*1200	300	1300	400
*1200	400	1300	500
*1300	300	1400	400
*1300	400	1400	500
*1400	300	1500	400
*1400	400	1500	500
*1500	300	1600	400
*1500	400	1600	500

- * For 50 mm insulation thickness.
- For other available sizes, see page 174.

W mm	H mm	W ₁ mm	H ₁ mm
500	150	500	150
550	200	500	200
600	250	500	250
700	150	500	150
700	250	500	250
800	150	500	150
800	200	500	200
800	250	500	250
900	200	500	200
900	250	500	250
1000	200	550	200
1000	250	550	250
1100	200	550	200
1100	250	550	250

W mm	H mm	W ₁ mm	H ₁ mm
*1200	300	600	200
*1200	400	600	300
*1300	300	650	200
*1300	400	650	300
*1400	300	700	300
*1400	400	700	400
*1500	300	800	300
*1500	400	800	400

- * For 50 mm insulation thickness.
- For other available sizes, see page 174.

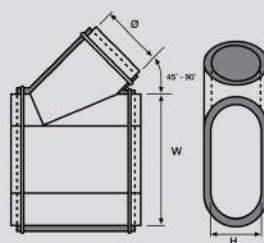
LATERAL ROUND BRANCH TEE



STYPL/45° - 90°
STYPS/45° - 90°



Dimensions



Description

Lateral Tee 45° - 90° : joints and seams by continuous seam or stitch welding.

STYPL/45°: Thermal Double Wall Lateral Round Branch Tee
STYPS/45°: Acoustic Double Wall Lateral Round Branch Tee

- Inner Shell Dimension (mm): W x H, d
- Insulation: 25 mm or 50 mm
- Insulation Density: 24 kg/m³ as standard, other densities available on request.

Ordering

Product Code: STYPL/45 - aaa x bbb / ccc

Type _____
W _____
H _____
ød _____

W mm	H mm	ød mm
500	150	150
550	200	200
600	250	250
700	150	150
700	250	250
800	150	150
800	200	200
800	250	250
900	200	200
900	250	250
1000	200	200
1000	250	250
1100	200	200

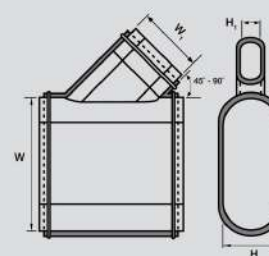
W mm	H mm	ød mm
1100	250	250
*1200	300	300
*1200	400	400
*1300	300	300
*1300	400	400
*1400	300	300
*1400	400	400
*1500	300	300
*1500	400	400

- * For 50 mm insulation thickness.
- For other available sizes, see page 174.



LATERAL FLAT OVAL BRANCH TEE

Dimensions



Description

Lateral Tee 45° - 90° : joints and seams by continuous seam or stitch welding.

STYVSL/45°: Thermal Double Wall Lateral Flat Oval Branch Tee
STYVSS/45°: Acoustic Double Wall Lateral Flat Oval Branch Tee

- Inner Shell Dimension (mm): W x H, W1 x H1
- Insulation: 25 mm or 50 mm
- Insulation Density: 24 kg/m³ as standard, other densities available on request.

Ordering

Product Code: STYVSL/45 - aaa x bbb / ccc x ddd

Type _____
W _____
H _____
W1 _____
H1 _____

W mm	H mm	W1 mm	H1 mm
500	150	500	150
550	200	500	200
600	250	500	250
700	150	500	150
700	250	500	250
800	150	500	150
800	200	500	200
800	250	500	250
900	200	500	200
900	250	500	250
1000	200	550	200
1000	250	550	250
1100	200	550	200

W mm	H mm	W1 mm	H1 mm
1100	250	550	250
*1200	300	600	200
*1200	400	600	300
*1300	300	650	200
*1300	400	650	300
*1400	300	700	300
*1400	400	700	400
*1500	300	800	300
*1500	400	800	400

- * For 50 mm insulation thickness.
- For other available sizes, see page 174.

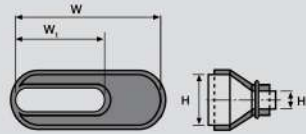
ECCENTRIC REDUCER



SMYOL
SMYOS



Dimensions



Description

Eccentric Reducer: joints and seams by continuous seam or stitch welding.

SMYOL: Thermal Double Wall Eccentric Reducer
SMYOS: Acoustic Double Wall Eccentric Reducer

- Inner Shell Dimension (mm): W x H, d
- Insulation: 25 mm or 50 mm
- Insulation Density: 24 kg/m³ as standard, other densities available on request.

Ordering

Product Code: SMYOL - aaa x bbb / ccc x ddd

Type	
W	
H	
W ₁	
H ₁	

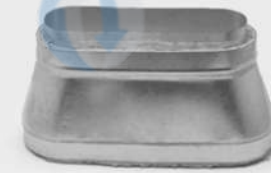
W mm	H mm	W ₁ mm	H ₁ mm
550	200	500	150
550	250	500	200
600	300	550	250
700	200	600	150
700	250	600	200
800	200	700	150
800	250	700	200
800	300	700	250
900	250	800	200
900	300	800	250
1000	250	900	200
1000	300	900	250
1100	250	1000	200
1100	300	1000	250

- * For 50 mm insulation thickness.
- For other available sizes, see page 174.

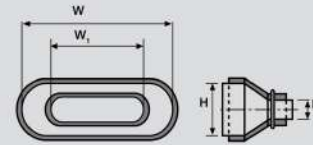


CENTRIC REDUCER

SMYL
SMYS



Dimensions



Description

Centric Reducer: joints and seams by continuous seam or stitch welding.

SMYL: Thermal Double Wall Centric Reducer
SMYS: Acoustic Double Wall Centric Reducer

- Inner Shell Dimension (mm): W x H, d
- Insulation: 25 mm or 50 mm
- Insulation Density: 24 kg/m³ as standard, other densities available on request.

Ordering

Product Code: SMYL - aaa x bbb / ccc x ddd

Type	
W	
H	
W ₁	
H ₁	

W mm	H mm	W ₁ mm	H ₁ mm
550	200	500	150
550	250	500	200
600	300	550	250
700	200	600	150
700	250	600	200
800	200	700	150
800	250	700	200
800	300	700	250
900	250	800	200
900	300	800	250
1000	250	900	200
1000	300	900	250
1100	250	1000	200
1100	300	1000	250

- * For 50 mm insulation thickness.
- For other available sizes, see page 174.

CENTRIC - ECCENTRIC REDUCER



**SMYKL
SMYKS**

Dimensions

Description

Centric - Eccentric Reducer: joints and seams by continuous seam or stitch welding.

SMYKL: Thermal Double Wall Centric - Eccentric Reducer
SMYKS: Acoustic Double Wall Centric - Eccentric Reducer

- Inner Shell Dimension (mm): W x H, W₁ x H₁
- Insulation: 25 mm or 50 mm
- Insulation Density: 24 kg/m³ as standard, other densities available on request.

Ordering

Product Code: SMYKL - aaa x bbb / ccc x ddd

Type _____
W _____
H _____
W₁ _____
H₁ _____

W mm	H mm	W ₁ mm	H ₁ mm
550	200	500	150
550	250	500	200
600	300	550	250
700	200	600	150
700	250	600	200
800	200	700	150
800	250	700	200
800	300	700	250
900	250	800	200
900	300	800	250
1000	250	900	200
1000	300	900	250
1100	250	1000	200

W mm	H mm	W ₁ mm	H ₁ mm
1100	300	1000	250
*1200	400	1100	300
*1200	500	1100	400
*1300	400	1200	300
*1300	500	1200	400
*1400	400	1300	300
*1400	500	1300	400
*1500	400	1400	300
*1500	500	1400	400

* For 50 mm insulation thickness.
• For other available sizes, see page 174.



OVAL TO ROUND TRANSITION

Dimensions

**SMYPL
SMYPS**

Description

Oval to Round Transition: joints and seams by continuous seam or stitch welding.

SMYPL: Thermal Double Wall Oval to Round Transition
SMYPS: Acoustic Double Wall Oval to Round Transition

- Inner Shell Dimension (mm): W x H, d
- Insulation: 25 mm or 50 mm
- Insulation Density: 24 kg/m³ as standard, other densities available on request.

Ordering

Product Code: SMYPL - aaa x bbb / ccc

Type _____
W _____
H _____
ød _____

W mm	H mm	ød mm
500	150	150
550	200	200
600	250	250
700	150	150
700	250	250
800	150	150
800	200	200
800	250	250
900	200	200
900	250	250
1000	200	200
1000	250	250
1100	200	200

W mm	H mm	ød mm
1100	250	250
*1200	300	300
*1200	400	400
*1300	300	300
*1300	400	400
*1400	300	300
*1400	400	400
*1500	300	300
*1500	400	400

* For 50 mm insulation thickness.
• For other available sizes, see page 174.

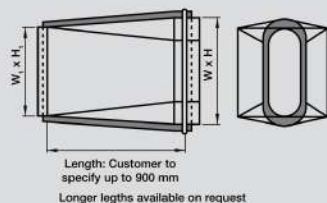
SQUARE TO OVAL TRANSITION



COLLAR SADDLE

SMYRL
SMYRS

Dimensions



Description

Concentric - Eccentric Square to Oval Transition: joints and seams by continuous seam or stitch welding.

SMYRL: Thermal Double Wall Centric - Eccentric Square to Oval Transition
SMYRS: Acoustic Double Wall Centric - Eccentric Square to Oval Transition

- Inner Shell Dimension (mm): $W \times H, W_1 \times H_1$
- Insulation: 25 mm or 50 mm
- Insulation Density: 24 kg/m³ as standard, other densities available on request.

Ordering

Product Code: SMYRL - aaa x bbb / ccc x ddd

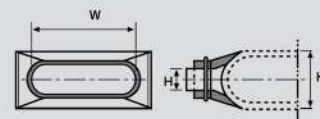
Type _____
W _____
H _____
W₁ _____
H₁ _____

W mm	H mm	W ₁ mm	H ₁ mm
500	150	400	200
550	200	450	250
600	250	500	300
700	150	550	200
700	250	600	300
800	150	600	200
800	200	650	250
800	250	700	300
900	200	750	250
900	250	750	300
1000	200	800	250
1000	250	850	300
1100	200	900	250

W mm	H mm	W ₁ mm	H ₁ mm
1100	250	950	300
*1200	300	1100	350
*1200	400	1100	450
*1300	300	1150	350
*1300	400	1200	450
*1400	300	1200	350
*1400	400	1250	450
*1500	300	1300	350
*1500	400	1350	450

- * For 50 mm insulation thickness.
- For other available sizes, see page 174.

Dimensions



SLKPL
SLKPS

Description

Collar Saddle: joints and seams by continuous seam or stitch welding.

SLKPL: Thermal Double Wall Collar Saddle
SLKPS: Acoustic Double Wall Collar Saddle

- Inner Shell Dimension (mm): $W \times H, W_1 \times H_1$
- Insulation: 25 mm or 50 mm
- Insulation Density: 24 kg/m³ as standard, other densities available on request.

Ordering

Product Code: SLKPL - aaa / bbb x ccc

Type _____
H₁ _____
W _____
H _____

Internal Dimensions

H ₁ mm	W mm	H mm
200	500	150
250	550	200
300	600	250
200	700	150
300	700	250
200	800	150
250	800	200
300	800	250
250	900	200
300	900	250
250	1000	200
300	1000	250
250	1100	200

Internal Dimensions

H ₁ mm	W mm	H mm
300	1100	250
*400	1200	300
*500	1200	400
*400	1300	300
*500	1300	400
*400	1400	300
*500	1500	400
*400	1600	300
*500	1600	400

- * For 50 mm insulation thickness.
- For other available sizes, see page 174.

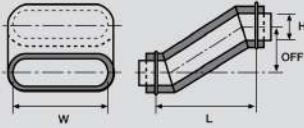
OFFSET





**SOFL
SOFS**

Dimensions



Description

Offset: joints and seams by continuous seam or stitch welding.

SOFL: Thermal Double Wall Offset
SOFS: Acoustic Double Wall Offset

- Inner Shell Dimension (mm): W x H,
- Insulation: 25 mm or 50 mm
- Insulation Density: 24 kg/m³ as standard, other densities available on request.

Ordering

Product Code: SOFL - aaa / bbb x ccc

Type _____

W _____

H _____

Off _____

W mm	H mm	Off mm	L mm
500	150	200	459
550	200	200	473
600	250	300	658
700	150	200	459
700	250	300	658
800	150	200	459
800	200	200	473
800	250	300	658
900	200	200	473
900	250	300	658
1000	200	200	473
1000	250	300	658
1100	200	200	473

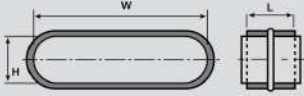
W mm	H mm	Off mm	L mm
1100	250	300	658
*1200	300	200	473
*1200	400	300	658
*1300	300	200	473
*1300	400	300	658
*1400	300	200	473
*1400	400	300	473
*1500	300	200	473
*1500	400	300	658

- * For 50 mm insulation thickness.
• For other available sizes, see page 174.



MALE COUPLING

Dimensions





**SLYPL
SLYPS**

Description

Male Coupling: joints and seams by continuous seam or stitch welding.

SLYPL: Thermal Double Wall Male Coupling
SLYPS: Acoustic Double Wall Male Coupling

- Inner Shell Dimension (mm): W x H,
- Insulation: 25 mm or 50 mm
- Insulation Density: 24 kg/m³ as standard, other densities available on request.

Ordering

Product Code: SLYPL - aaa x bbb

Type _____

W _____

H _____

W mm	H mm	L mm
500	150	100
550	200	100
600	250	100
700	150	100
700	250	100
800	150	100
800	200	100
800	250	100
900	200	100
900	250	100
1000	200	100
1000	250	100
1100	200	100

W mm	H mm	L mm
1100	250	100
*1200	300	100
*1200	400	100
*1300	300	100
*1300	400	100
*1400	300	100
*1400	400	100
*1500	300	100
*1500	400	100

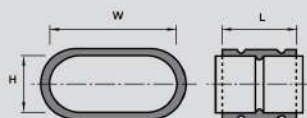
- * For 50 mm insulation thickness.
• For other available sizes, see page 174.

FEMALE COUPLING



SLYOL
SLYOS

Dimensions



Description

Female Coupling: joints and seams by continuous seam or stitch welding.

SLYOL: Thermal Double Wall Female Coupling
SLYOS: Acoustic Double Wall Female Coupling

- Inner Shell Dimension (mm): W x H
- Insulation: 25 mm or 50 mm
- Insulation Density: 24 kg/m³ as standard, other densities available on request.

Ordering

Product Code: SLYOL - aaa x bbb

Type _____
W _____
H _____

W mm	H mm	L mm
500	150	200
550	200	200
600	250	200
700	150	200
700	250	200
800	150	200
800	200	200
800	250	200
900	200	200
900	250	200
1000	200	200
1000	250	200
1100	200	200

Internal Dimensions

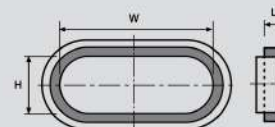
W mm	H mm	L mm
1100	250	200
*1200	300	200
*1200	400	200
*1300	300	200
*1300	400	200
*1400	300	200
*1400	400	200
*1500	300	200
*1500	400	200

- * For 50 mm insulation thickness.
- For other available sizes, see page 174.



END CAP

Dimensions



STPL
STPS

Description

End Cap: joints and seams by continuous seam or stitch welding.

STPL: Thermal Double Wall End Cap
STPS: Acoustic Double Wall End Cap

- Inner Shell Dimension (mm): W x H
- Insulation: 25 mm or 50 mm
- Insulation Density: 24 kg/m³ as standard, other densities available on request.

Ordering

Product Code: STPL - aaa x bbb

Type _____
W _____
H _____

W mm	H mm	L mm
500	150	50
550	200	50
600	250	50
700	150	50
700	250	50
800	150	50
800	200	50
800	250	50
900	200	50
900	250	50
1000	200	50
1000	250	50
1100	200	50

Internal Dimensions

W mm	H mm	L mm
1100	250	50
*1200	300	50
*1200	400	50
*1300	300	50
*1300	400	50
*1400	300	50
*1400	400	50
*1500	300	50
*1500	400	50

- * For 50 mm insulation thickness.
- For other available sizes, see page 174.

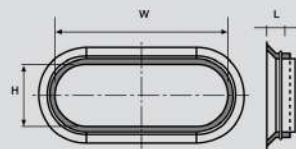
TAKE OFF



BOOT

SLKTL
SLKTS

Dimensions



Description

Take off: joints and seams by continuous seam or stitch welding.

SLKTL: Thermal Double Wall Take Off
SLKTS: Acoustic Double Wall Take Off

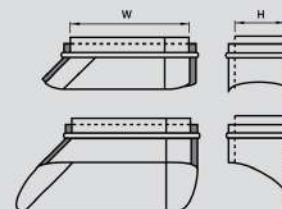
- Inner Shell Dimension (mm): W x H
- Insulation: 25 mm or 50 mm
- Insulation Density: 24 kg/m³ as standard, other densities available on request.

Ordering

Product Code: SLKTL - aaa x bbb

Type _____
W _____
H _____

Dimensions

SBLKPL
SBLKPS

Description

Hard Boot: joints and seams by continuous seam or stitch welding.

SBLKPL: Thermal Double Wall Boot
SBLKPS: Acoustic Double Wall Boot

- Inner Shell Dimension (mm): W x H
- Insulation: 25 mm or 50 mm
- Insulation Density: 24 kg/m³ as standard, other densities available on request.

Ordering

Product Code: SBLKPL - aaa x bbb

Type _____
W _____
H _____

Internal Dimensions

W mm	H mm	L mm
500	150	125
550	200	125
600	250	125
700	150	125
700	250	125
800	150	125
800	200	125
800	250	125
900	200	125
900	250	125
1000	200	125
1000	250	125
1100	200	125

Internal Dimensions

W mm	H mm	L mm
1100	250	125
*1200	300	125
*1200	400	125
*1300	300	125
*1300	400	125
*1400	300	125
*1400	400	125
*1500	300	125
*1500	400	125

- * For 50 mm insulation thickness.
- For other available sizes, see page 174.

Internal Dimensions

W mm	H mm
500	150
550	200
600	250
700	150
700	250
800	150
800	200
800	250
900	200
900	250
1000	200
1000	250
1100	200
1100	250
*1200	300

Internal Dimensions

W mm	H mm
*1200	400
*1300	300
*1300	400
*1400	300
*1400	400
*1500	300
*1500	400

- * For 50 mm insulation thickness.
- For other available sizes, see page 174.

BRANCH

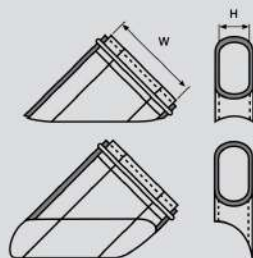


SPECIFICATIONS FOR DUCT AND FITTINGS

SSLKPL/45°
SSLKPS/45°



Dimensions



Description

Tangential and Centric Branch 45°: joints and seams by continuous seam or stitch welding.

SSLKPL/45°: Thermal Double Wall Branch
SSLKPS/45°: Acoustic Double Wall Branch

- Inner Shell Dimension (mm): W x H
- Insulation: 25 mm or 50 mm
- Insulation Density: 24 kg/m³ as standard, other densities available on request.

Ordering

Product Code: SSLKPL/45 - aaa x bbb

Type _____
W _____
H _____

W
mm

H
mm

500	150
550	200
600	250
700	150
700	250
800	150
800	200
800	250
900	200
900	250
1000	200
1000	250
1100	200
1100	250
*1200	300

Internal Dimensions

W
mm

H
mm

*1200	400
*1300	300
*1300	400
*1400	300
*1400	400
*1500	300
*1500	400

- * For 50 mm insulation thickness.
- For other available sizes, see page 174.

I. General

A. All double wall flat oval supply, return and exhaust ductwork shall be SAFID Oval Double Wall as manufactured by SAFID or approved equal.

B. The contractor may, at his option, convert any or all rectangular double wall ductwork to round and/ or flat oval double wall ductwork provided that the project space limitations are properly addressed and that the overall system design static pressure is not exceeded.

II. Materials

A. Unless otherwise noted, all double wall duct and fittings thermal or acoustical shall be G90 galvanized steel in accordance with ATSM A-924 and A-653 (previously known as A-527).

B. Unless otherwise noted, insulation for thermal and acoustical double wall duct and fittings shall be 25 mm in thickness and 24kg/m³ in density (50 mm thickness insulation with different densities can be supplied upon request).

C. When specified on contract documents, stainless steel type 304 or type 316 in accordance with ASTM A-240 shall be provided.

D. All duct materials must be of such condition and quality that no solvents are required as surface preparation for painting.

III. Construction

A. All duct and fittings shall be constructed per SMACNA's Duct Construction Standards 2500 Pa (+10 in W.G.) as shown in the table below:

Flat-Oval Duct & Fittings		
Major Axis (mm)	Galvanized Spiral Duct	Galvanized Fittings (ga)
500 - 600	24	20
650 - 950	24	20
950 - 1200	24	18
1250 - 1500	22	18
1550 - 1650	22	16
1700 - 1800	20	16
1800 AND ABOVE	18	16

* For more details see page 174.

B. Fittings:

All fittings/ends will be calibrated according to the manufacturers published dimensional tolerance standards.

2. The radius of all 90° and 45° elbows shall be 1.5 times the major axis for hard bend elbows and 1.5 times the minor axis for easy bend elbows.

3. All fittings that are of either spot welded or button punched construction shall be internally sealed. Fittings that are of continuously welded construction are not to be internally sealed.

C. Flat Oval Double Wall Duct:

1. All flat oval double wall duct shall be constructed using spiral lockseam sheetmetal construction.

2. All flat oval spiral ducts are to be constructed with a corrugation between each spiral lockseam for added strength and rigidity.

IV. Performance

A. The flat oval duct system performance will meet SMACNA's leakage Class 3 requirements.

