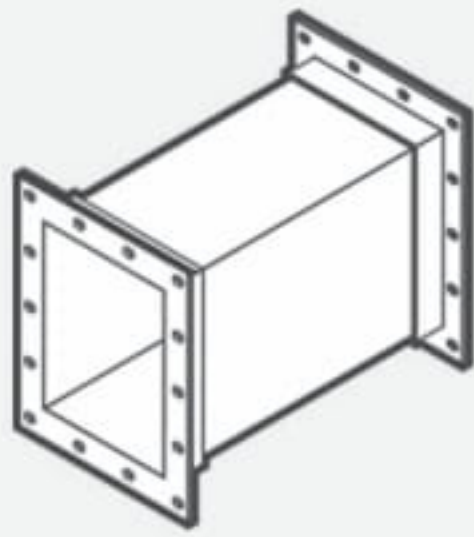


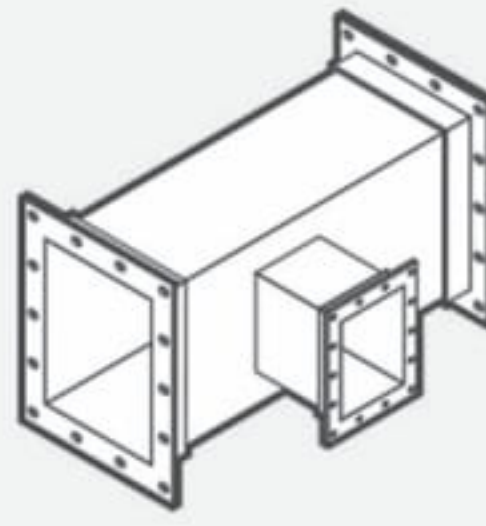
BLACK STEEL



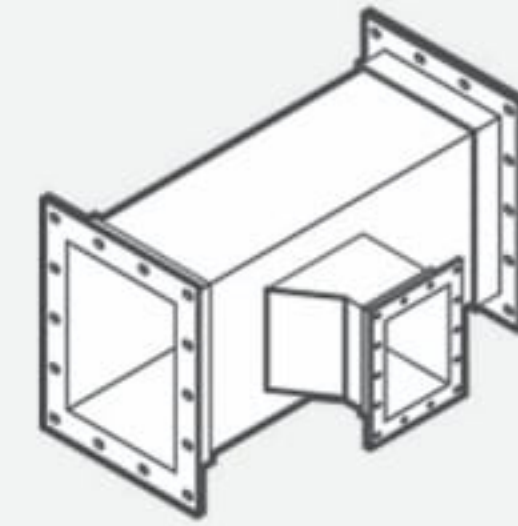
Contents



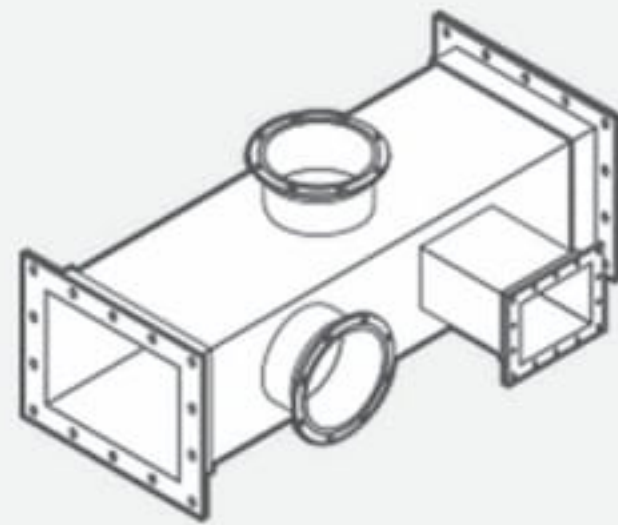
Straight Duct



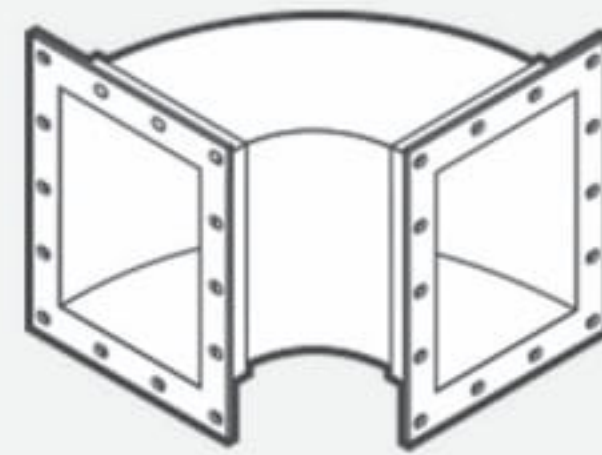
Straight Duct with Straight Rectangular Tap



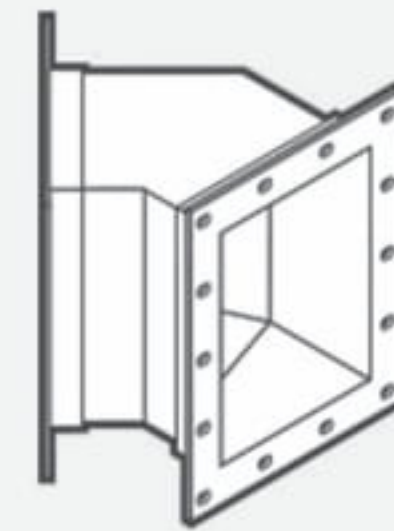
Straight Duct with Rectangular Boot Tap



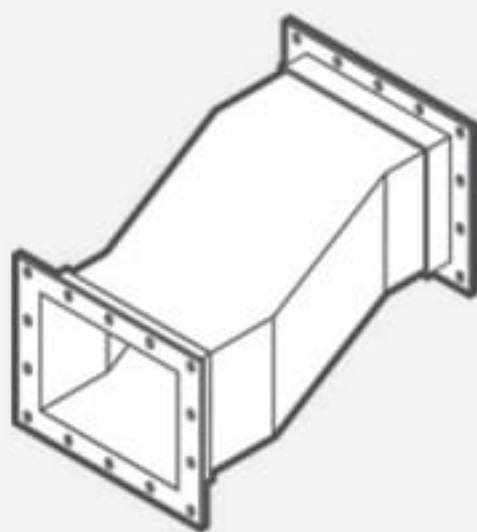
Straight Duct with Rectangular Conical Tap



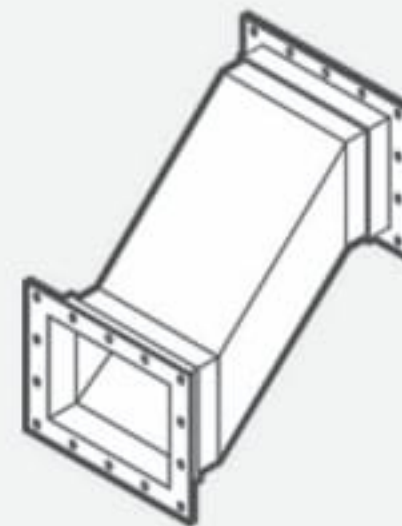
Straight Duct with Rectangular Lateral Tap



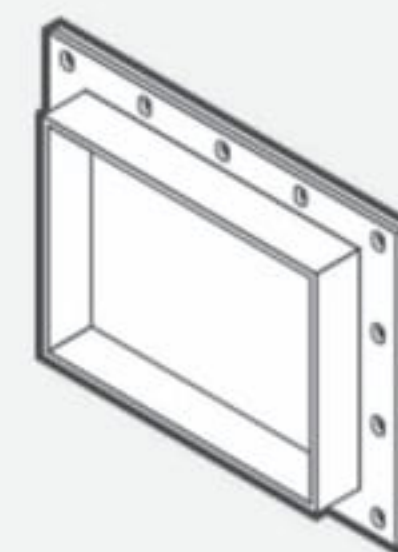
Straight Duct with Round Tap



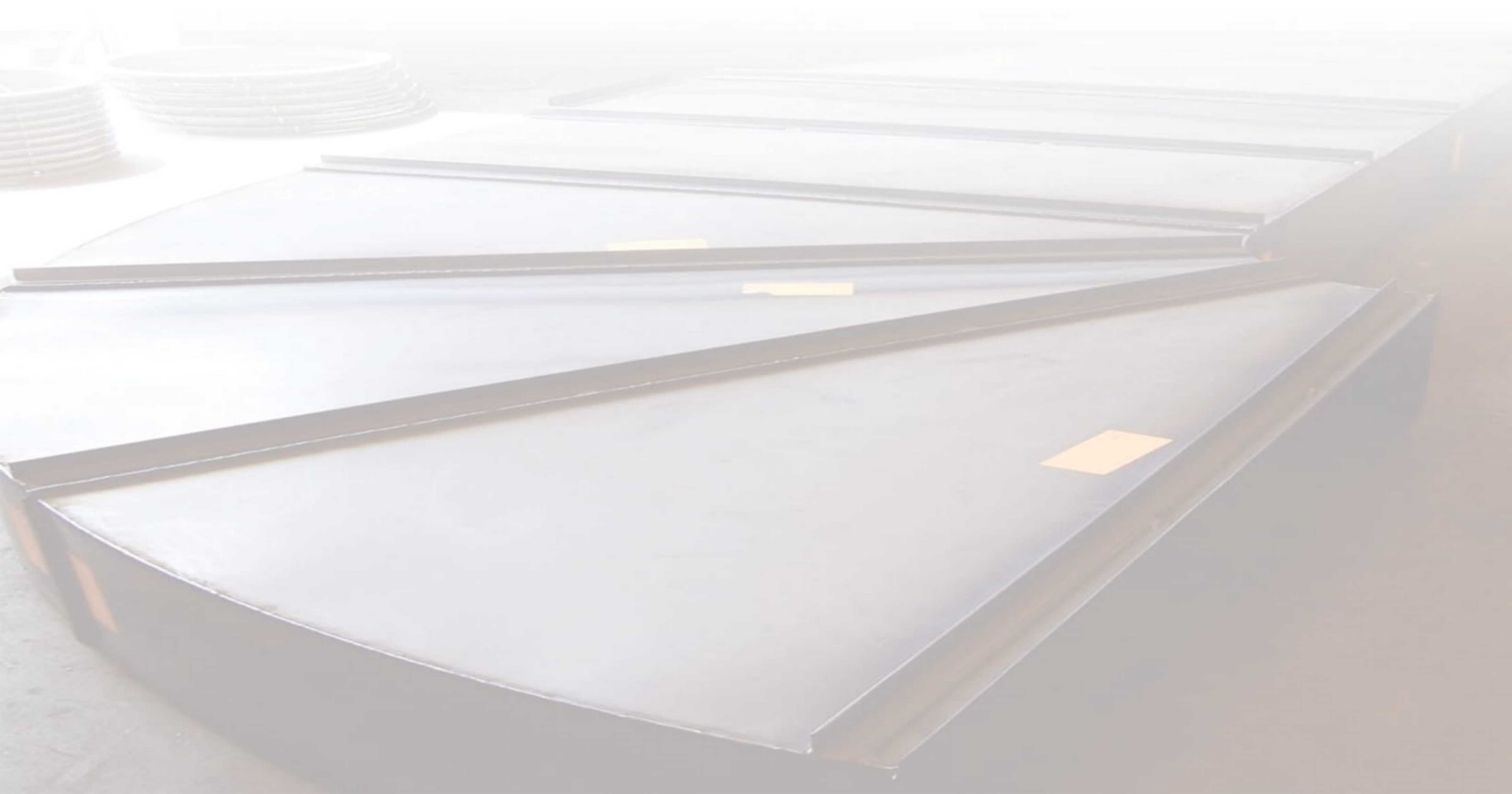
Straight Duct with Multiple Taps

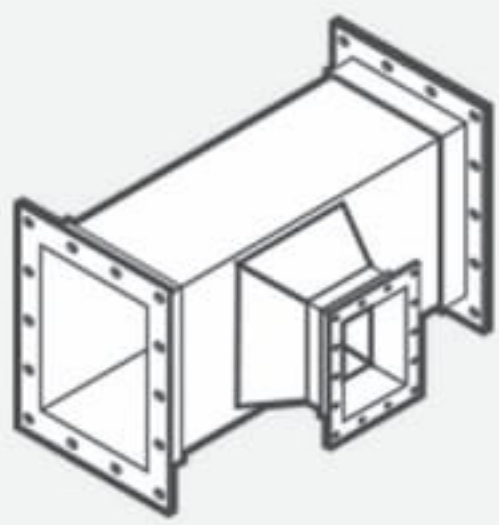


30 . 45 . 60 . 90 or Custom Elbow

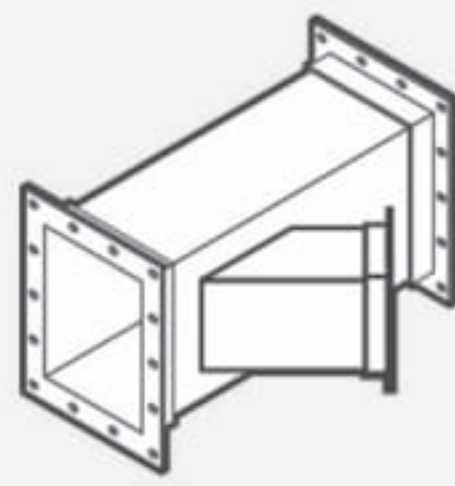


30 . 45 . 60 . 90 or Custom Mitered Elbow

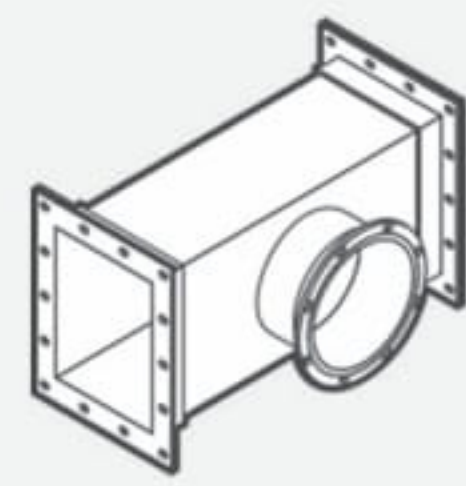




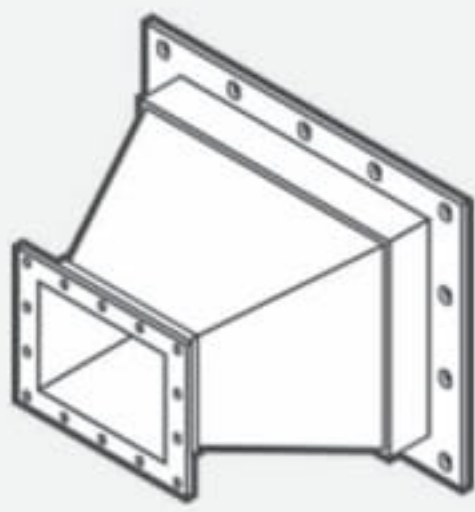
Concentric Transition



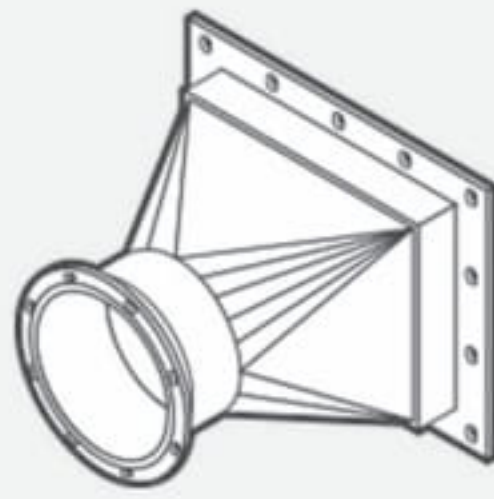
**Concentric Rectangular
Round transition**



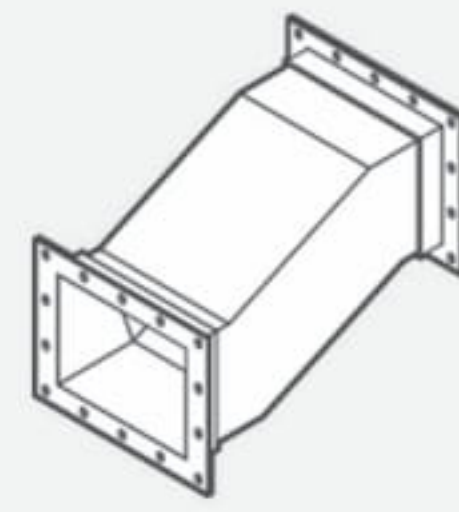
Vertical Offset



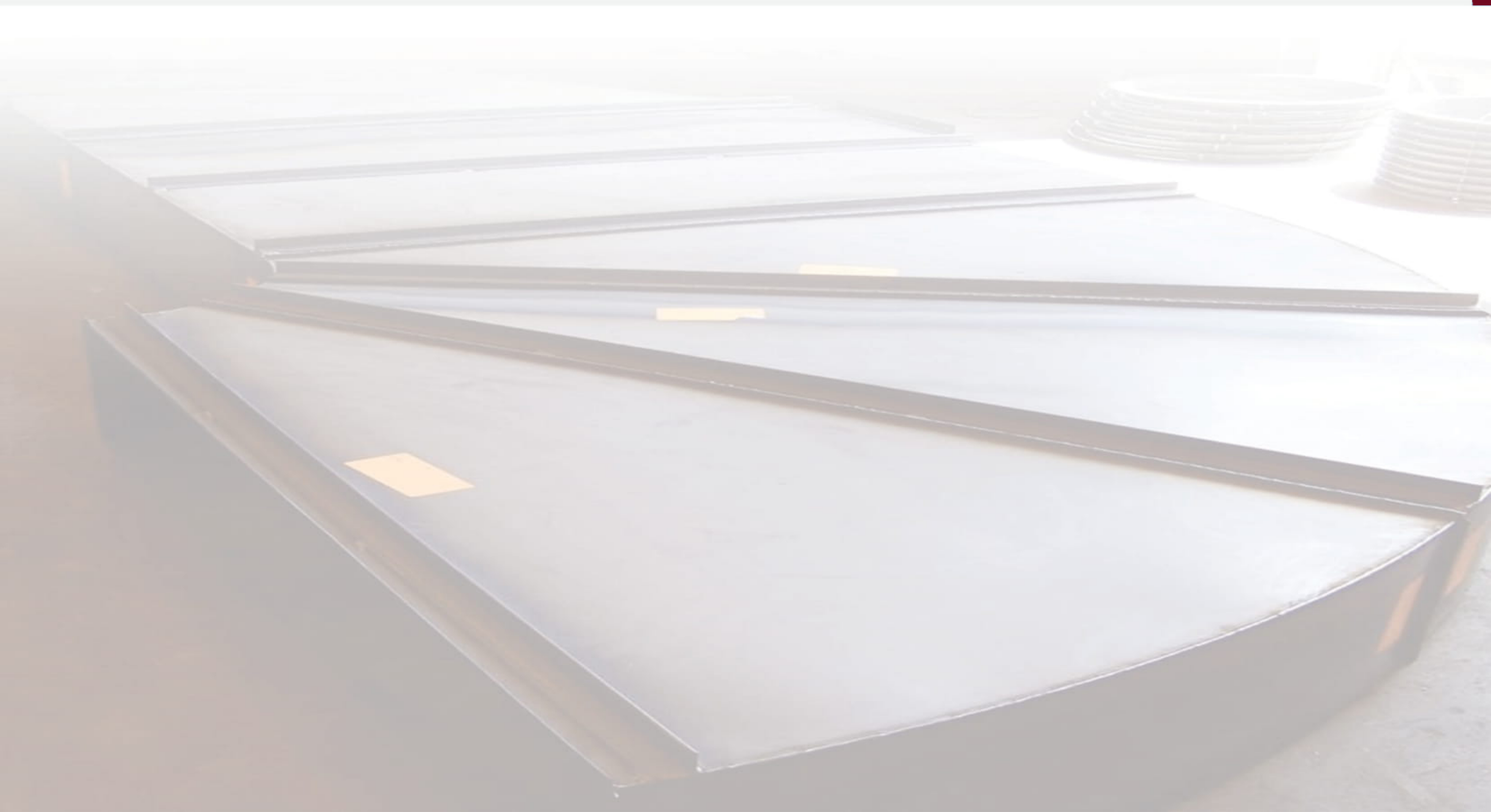
Horizontal offset



Double Offset



End Cap



Black Steel Ducting

Black Steel Ducts (MS Ducts) are fabricated from hot rolled or cold rolled black steel sheets with fully welded construction to achieve leak proofing. The high quality mild steel contains 0.16–0.29% carbon being neither brittle nor ductile. In kitchen exhaust MS ducts are largely used owing to its inherently fire resistant characteristic.



Mounting Flange Standards

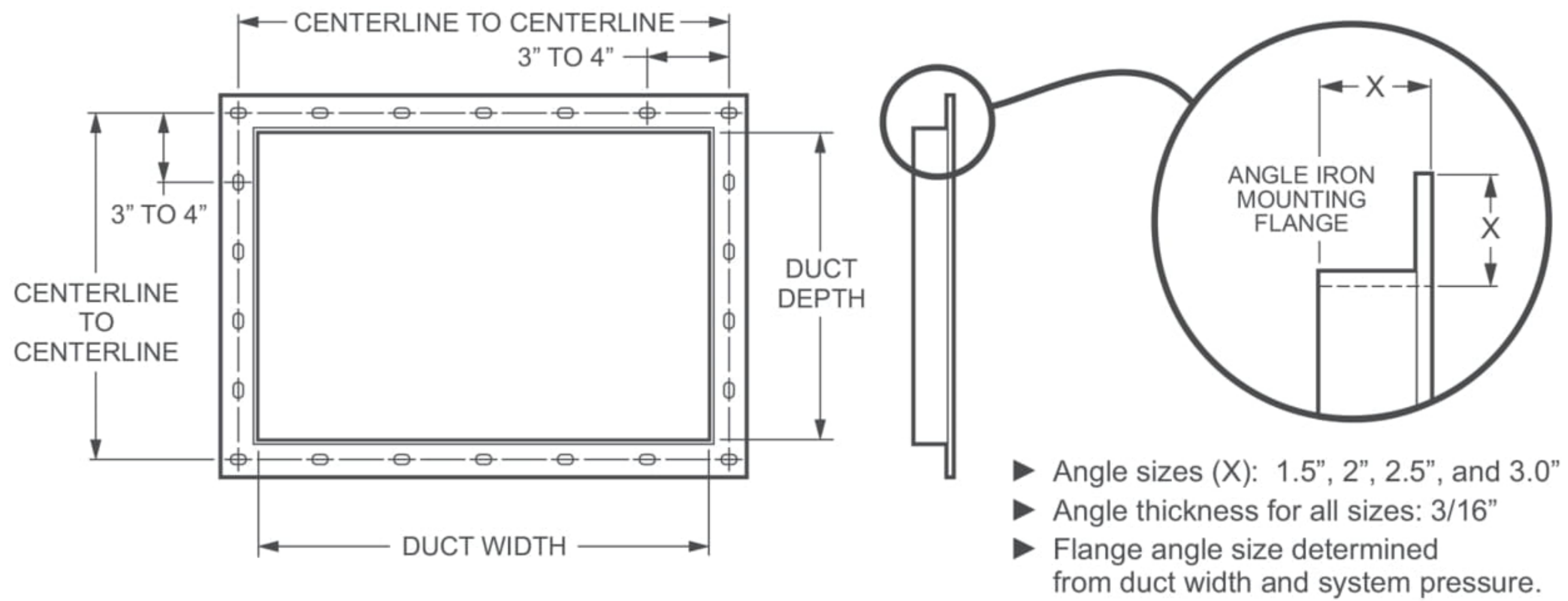


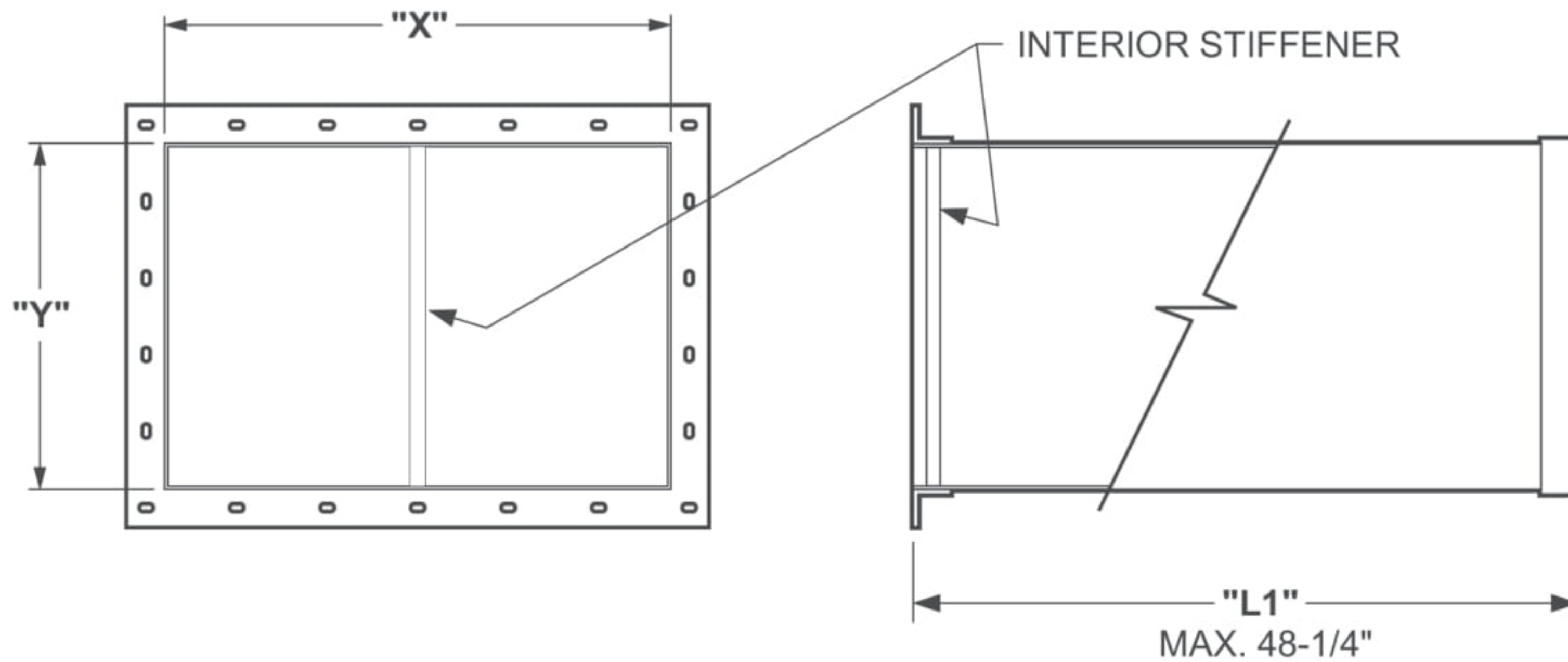
TABLE BELOW IS FOR STANDARD DUCT LENGTH OF 48-1/4"
S = STIFFENER ADDED

DUCT WIDTH	-6" W.G.		-10" W.G.		-14" W.G.		-18" W.G.	
	DUCT GAUGE	ANGLE SIZE	DUCT GAUGE	ANGLE SIZE	DUCT GAUGE	ANGLE SIZE	DUCT GAUGE	ANGLE SIZE
12" - 24"	16	1.5"	12	1.5"	12	1.5"	10	2"
26" - 36"	16	1.5"	12	2"	12	2"	10	2"
38" - 48"	16	2"	12	2"	12	2"	10	3.0"
50" - 60"	16 - S	2"	12 - S	2"	12 - S	2"	10 - S	2"
62" - 72"	16 - S	2"	12 - S	2"	12 - S	2"	10 - S	2"
74" - 84"	16 - S	2"	12 - S	2"	12 - S	2"	10 - S	2.5"
86" - 96"	16 - S	2"	12 - S	2"	12 - S	2.5"	10 - S	3.0"

NOTES

- ▶ Flange material is black steel.
- ▶ The number of holes for the bolt hole pattern is determined from the duct width and depth. Hole to hole distance will be calculated to be between 3" to 4". Oblong holes are punched along the flange centerline.
- ▶ Duct width or depth of 98" and larger requires engineering review.
- ▶ Interior stiffeners (1" SCH40 pipe) are welded between duct sides 50" wide or greater. Separate offset stiffeners are used when both duct width and depth are 50" or greater.

Straight Duct



OPTIONS

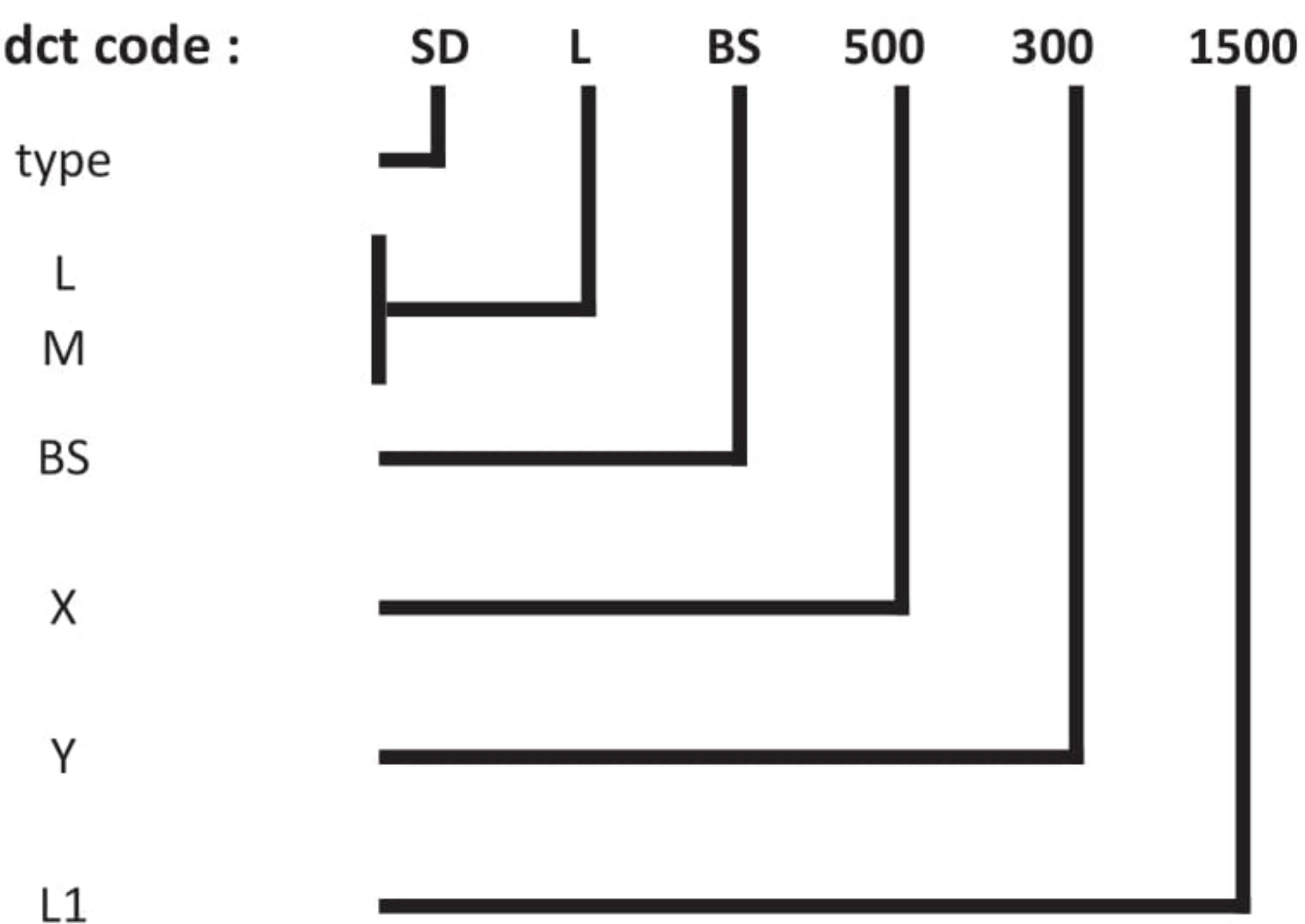
- Custom lengths available.
- Raw end available.
- An interior stiffener (1" SCH40 pipe) is added at the midpoint of the flange for duct width or depth of 50" and greater.

LONGER THAN STANDARD LENGTHS AND/OR HIGHER SYSTEM PRESSURES MAY REQUIRE ADDITIONAL STIFFENERS PER SMACNA

How To Order

SD

Product code :



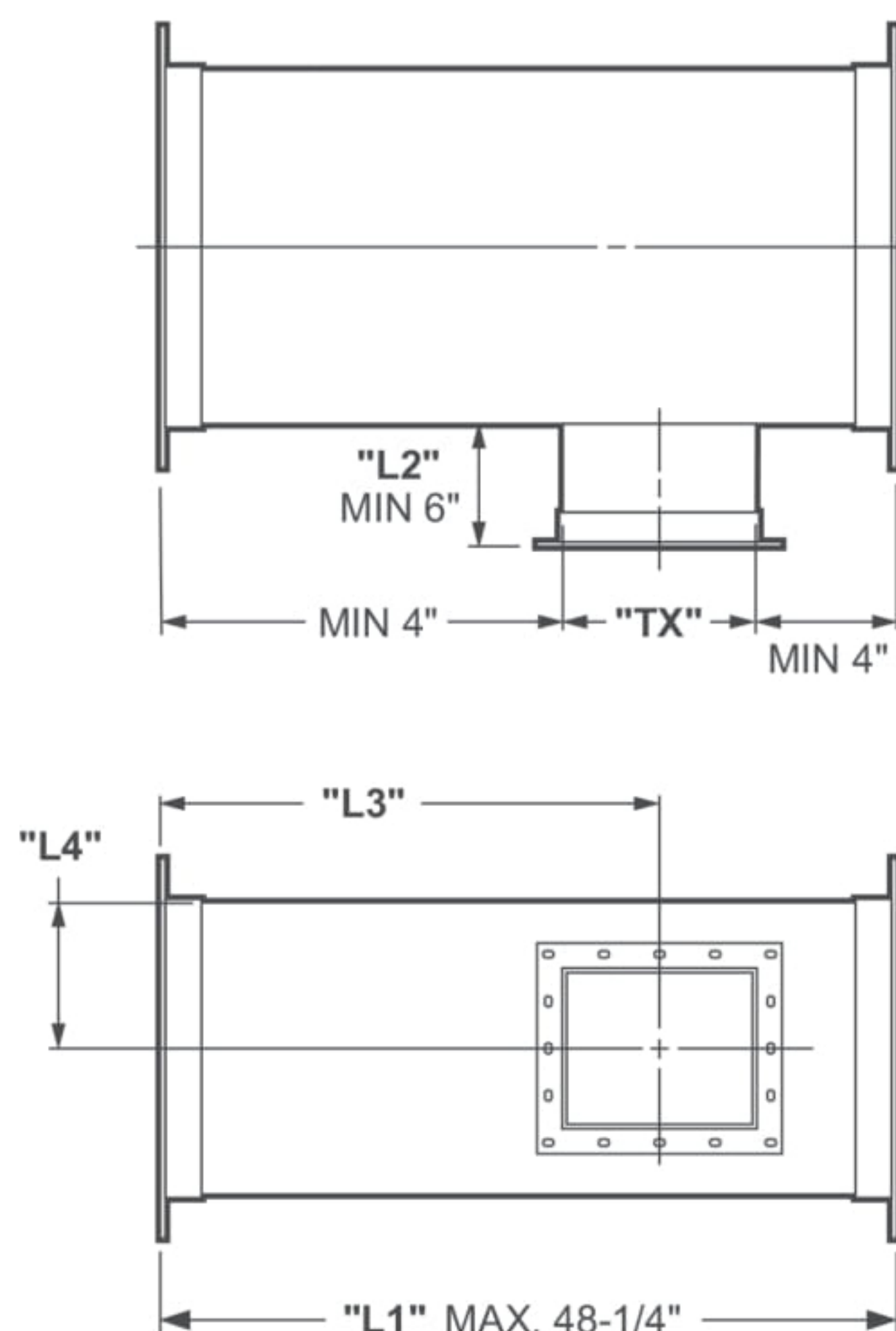
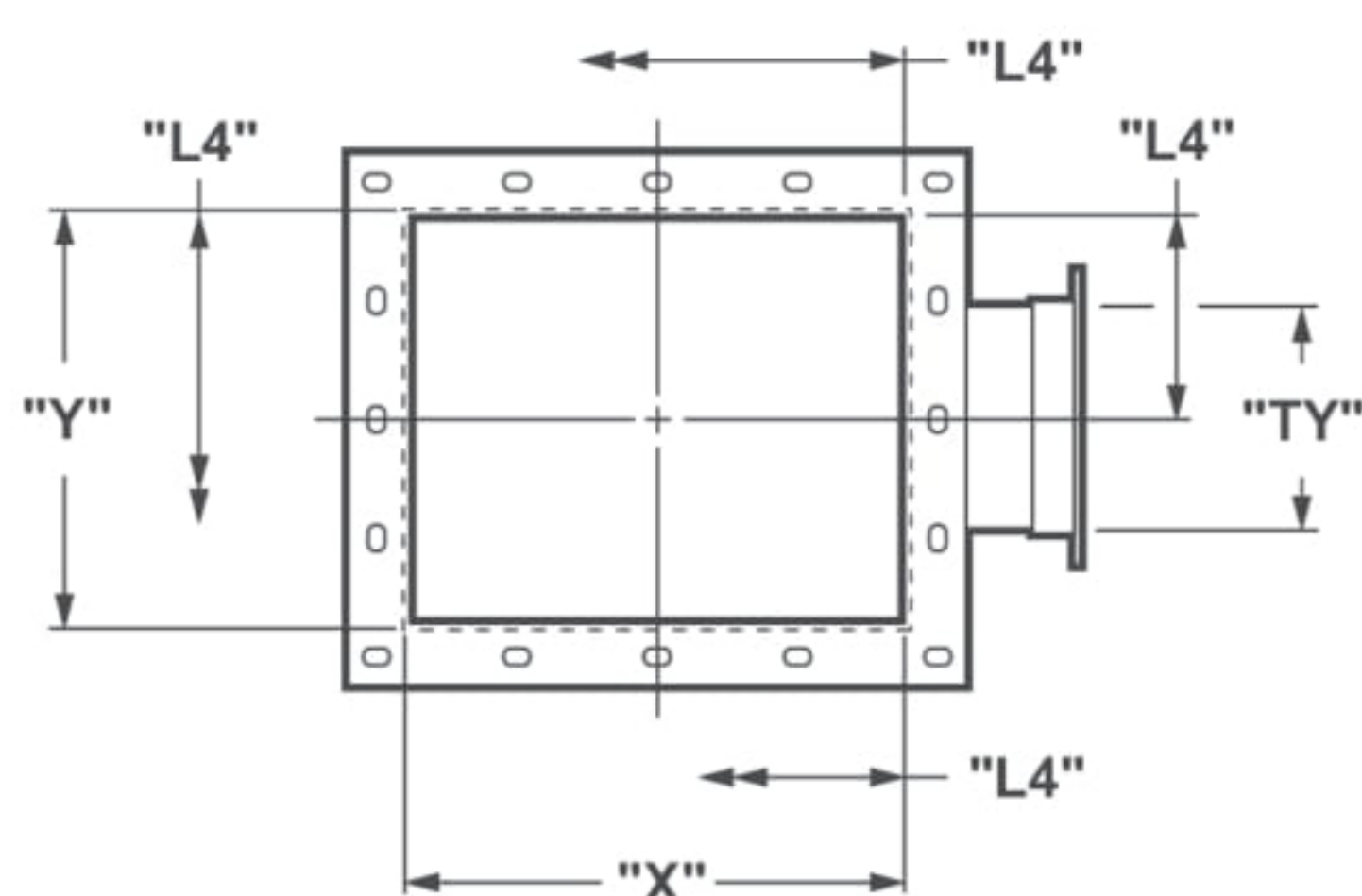
- L** Low-Pressuer
- M** Medium-Pressuer
- BS** Black steel
- X** width
- Y** height
- L1** length

Straight Duct with Straight Rectangular Tap

OPTIONS

- Custom lengths available.
- Raw end available.
- An interior stiffener (1" SCH40 pipe) is added at the midpoint of the flange for duct width or depth of 50" and greater.

LONGER THAN STANDARD LENGTHS AND/OR HIGHER SYSTEM PRESSURES MAY REQUIRE ADDITIONAL STIFFENERS PER SMACNA



How To Order

SDWRT

Prouduct code :	SDWRT	L	BS	500	300	150	150	1500	200	1000	150
type											
L											
M											
BS											
X											
Y											
XT											
YT											
L1											
L2											
L3											
L4											

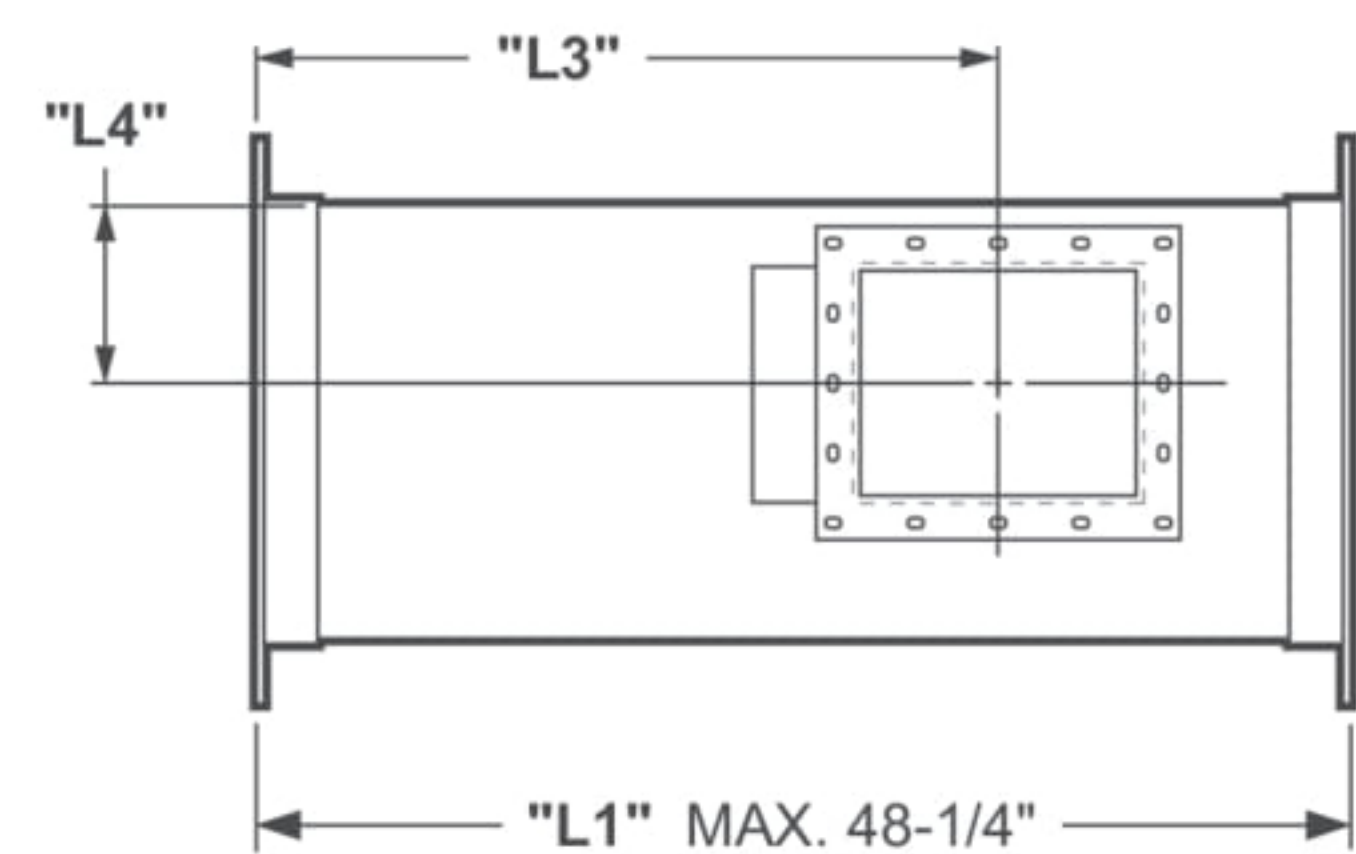
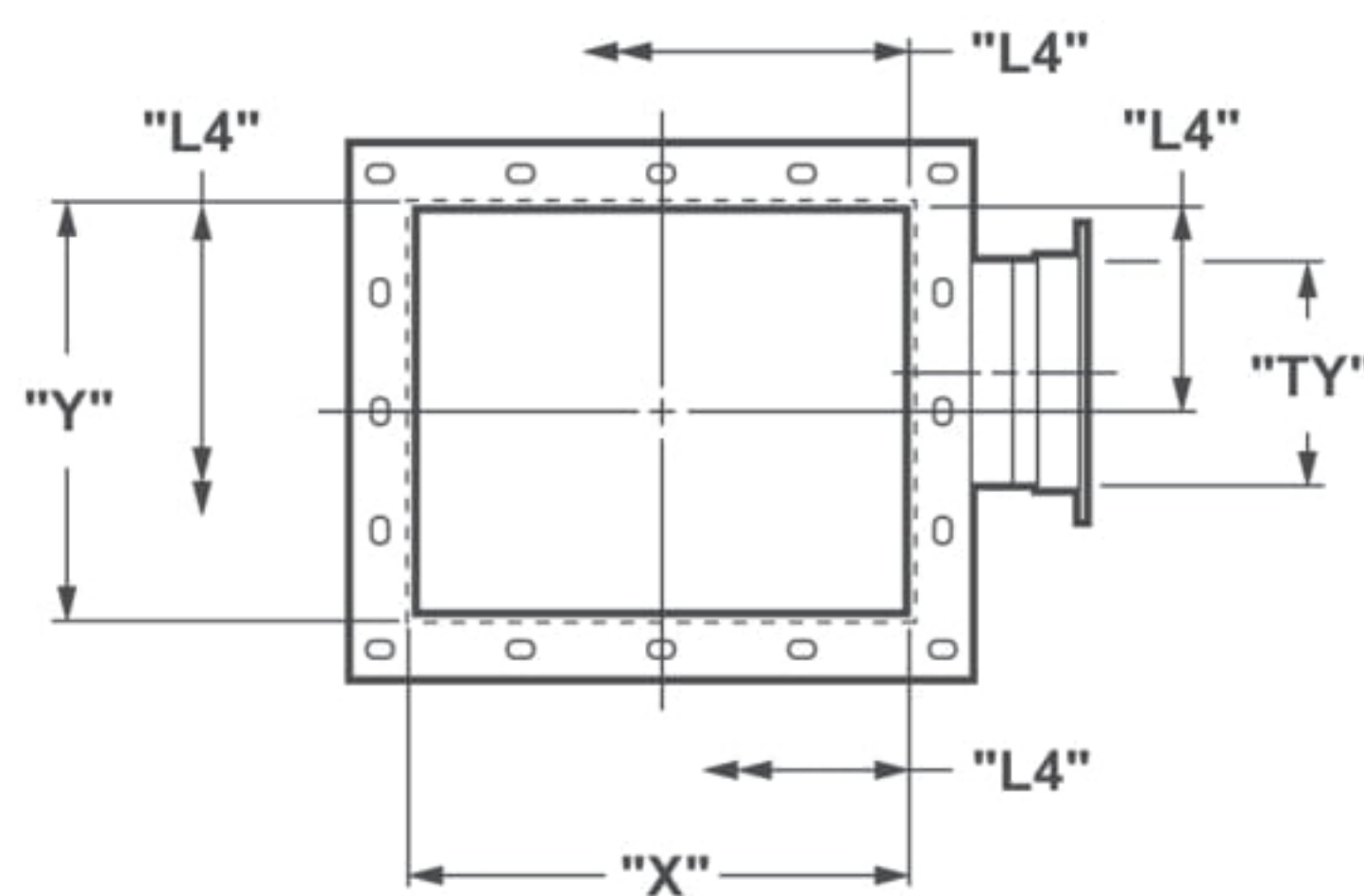
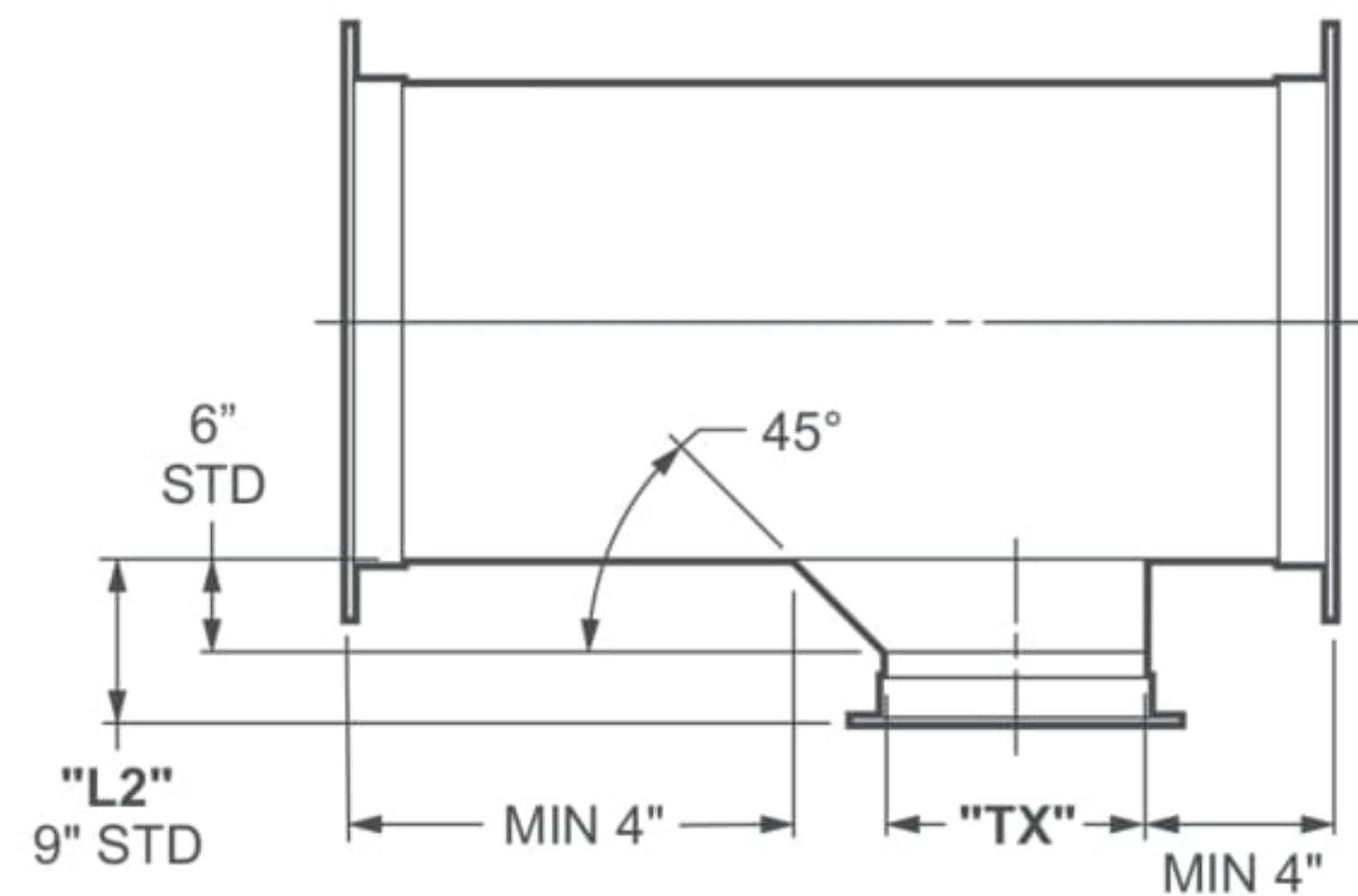
L Low-Pressuer
M Medium-Pressuer
BS Black steel
X width
Y height
XT width Tap
YT height Tap
L1
L2 length
L3
L4

Straight Duct with Rectangular Boot Tap

OPTIONS

- ▶ Custom lengths available.
- ▶ Raw end available.
- ▶ An interior stiffener (1" SCH40 pipe) is added at the midpoint of the flange for duct width or depth of 50" and greater.

LONGER THAN STANDARD LENGTHS AND/OR HIGHER SYSTEM PRESSURES MAY REQUIRE ADDITIONAL STIFFENERS PER SMACNA



How To Order

SDWRBT

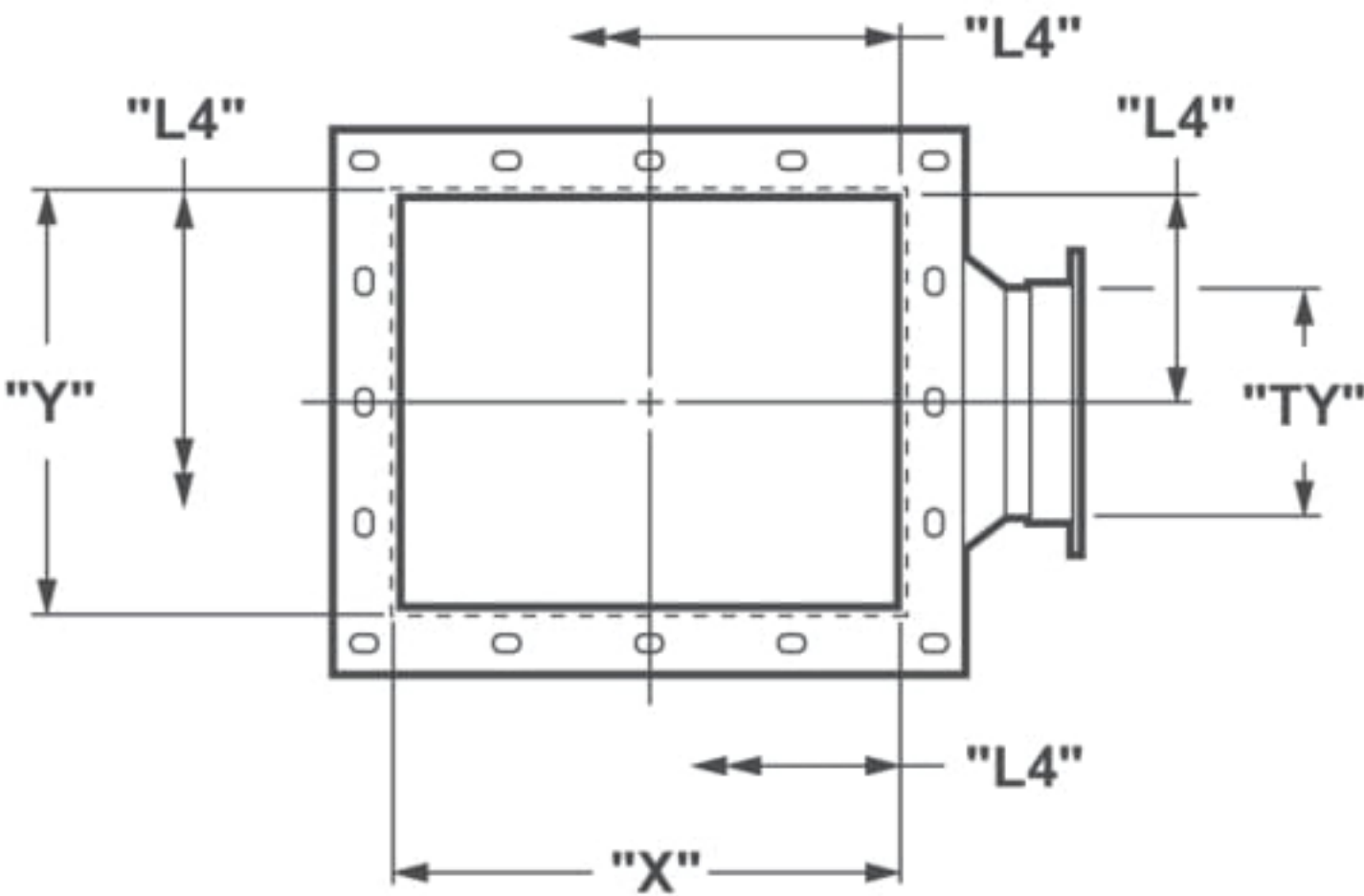
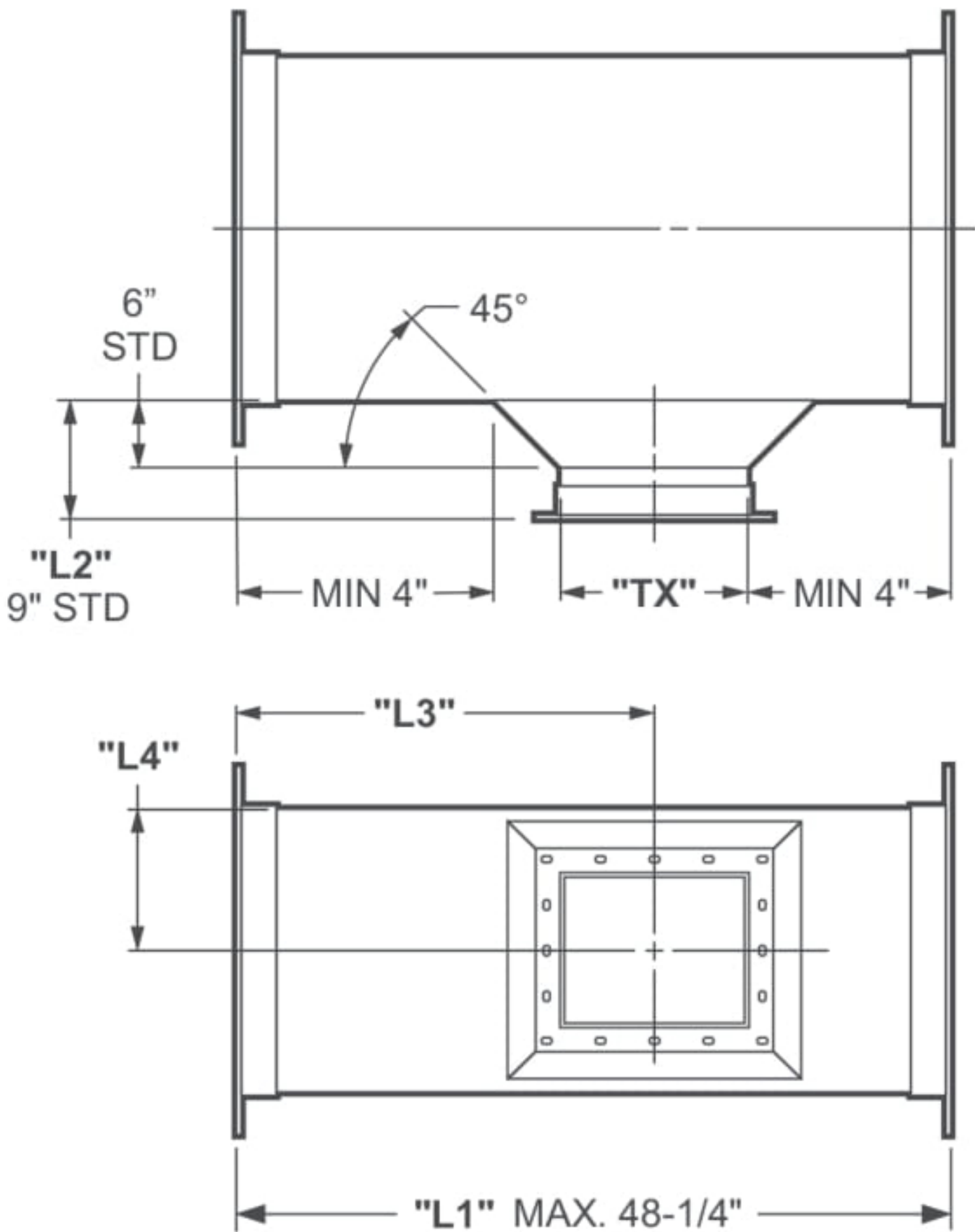
Proudt code :	SDWRBT	L	BS	500	300	150	150	1500	200	1000	150
type											
L											
M											
BS											
X											
Y											
XT											
YT											
L1											
L2											
L3											
L4											

L Low-Pressuer
 M Medium-Pressuer
 BS Black steel
 X width
 Y height
 XT width Tap
 YT height Tap
 L1 length
 L2 length
 L3 length
 L4 length

Straight Duct with Rectangular Conical Tap

- OPTIONS**
- ▶ Custom lengths available.
 - ▶ Raw end available.
 - ▶ An interior stiffener (1" SCH40 pipe) is added at the midpoint of the flange for duct width or depth of 50" and greater.

LONGER THAN STANDARD LENGTHS AND/OR HIGHER SYSTEM PRESSURES MAY REQUIRE ADDITIONAL STIFFENERS PER SMACNA



How To Order

SDWRCT

Proudct code :	SDWRCT	L	BS	500	300	150	150	1500	200	1000	150
type											
L											
M											
BS											
X											
Y											
XT											
YT											
L1											
L2											
L3											
L4											

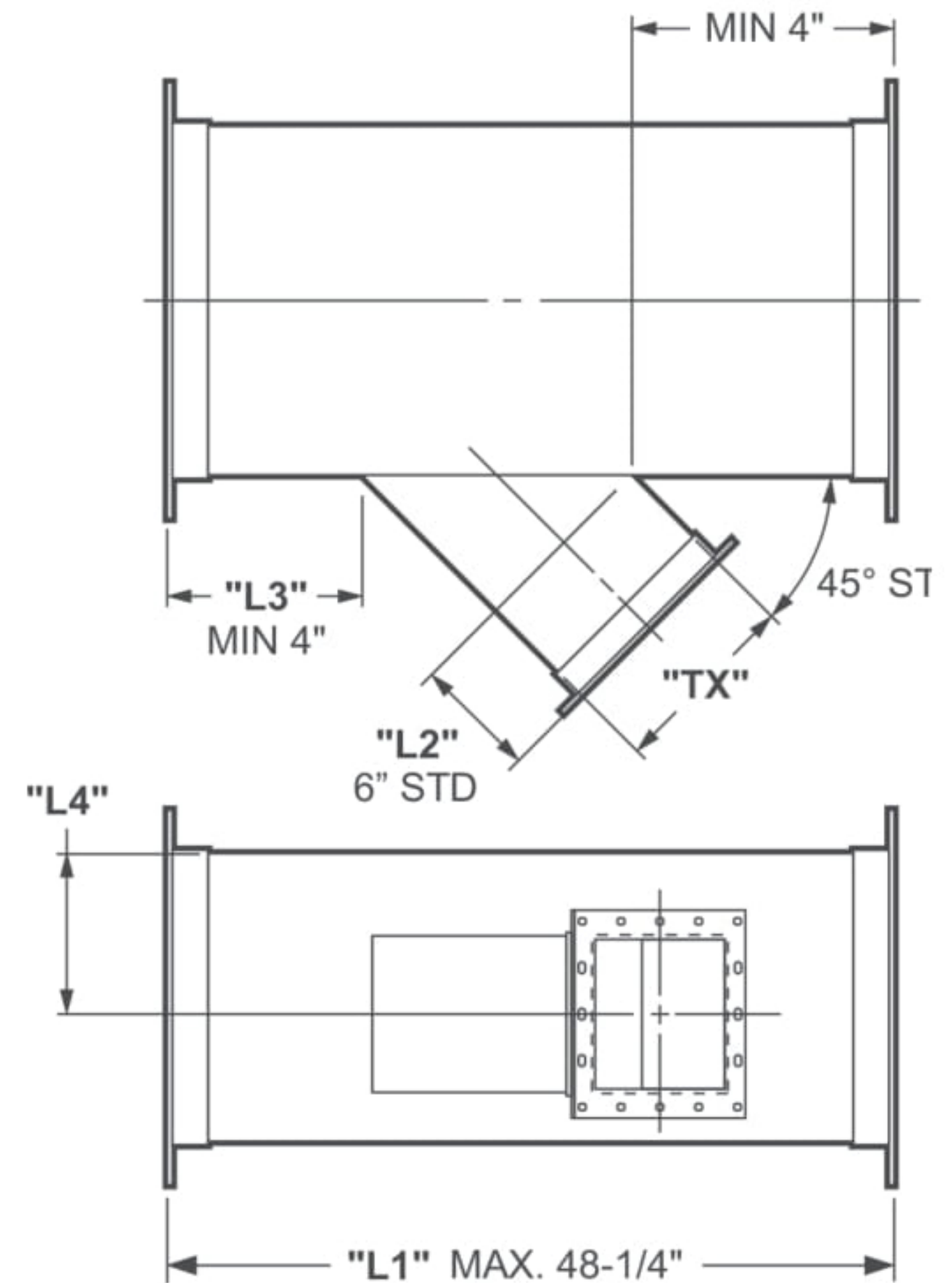
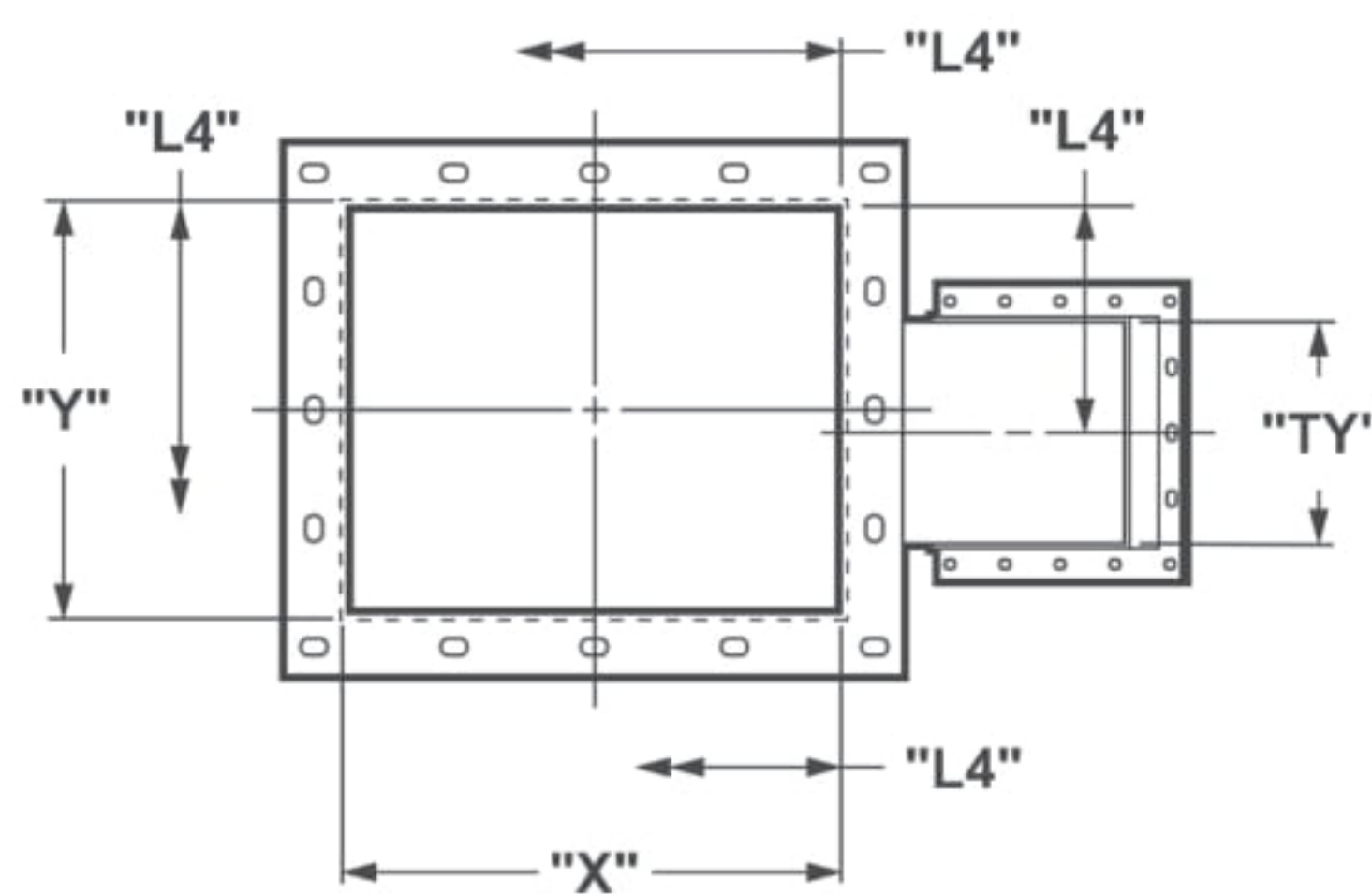
- L Low-Pressuer
- M Medium-Pressuer
- BS Black steel
- X width
- Y height
- XT width Tap
- YT height Tap
- L1
- L2 length
- L3
- L4

Straight Duct with Rectangular Lateral Tap

OPTIONS

- Custom lengths available.
- Raw end available.
- An interior stiffener (1" SCH40 pipe) is added at the midpoint of the flange for duct width or depth of 50" and greater.

LONGER THAN STANDARD LENGTHS AND/OR HIGHER SYSTEM PRESSURES MAY REQUIRE ADDITIONAL STIFFENERS PER SMACNA



How To Order

SDWRLT

Product code :	SDWRLT	L	BS	500	300	150	150	1500	200	1000	150
type											
L											
M											
BS											
X											
Y											
XT											
YT											
L1											
L2											
L3											
L4											

L Low-Pressuer
 M Medium-Pressuer
 BS Black steel
 X width
 Y height
 XT width Tap
 YT height Tap
 L1
 L2 length
 L3
 L4

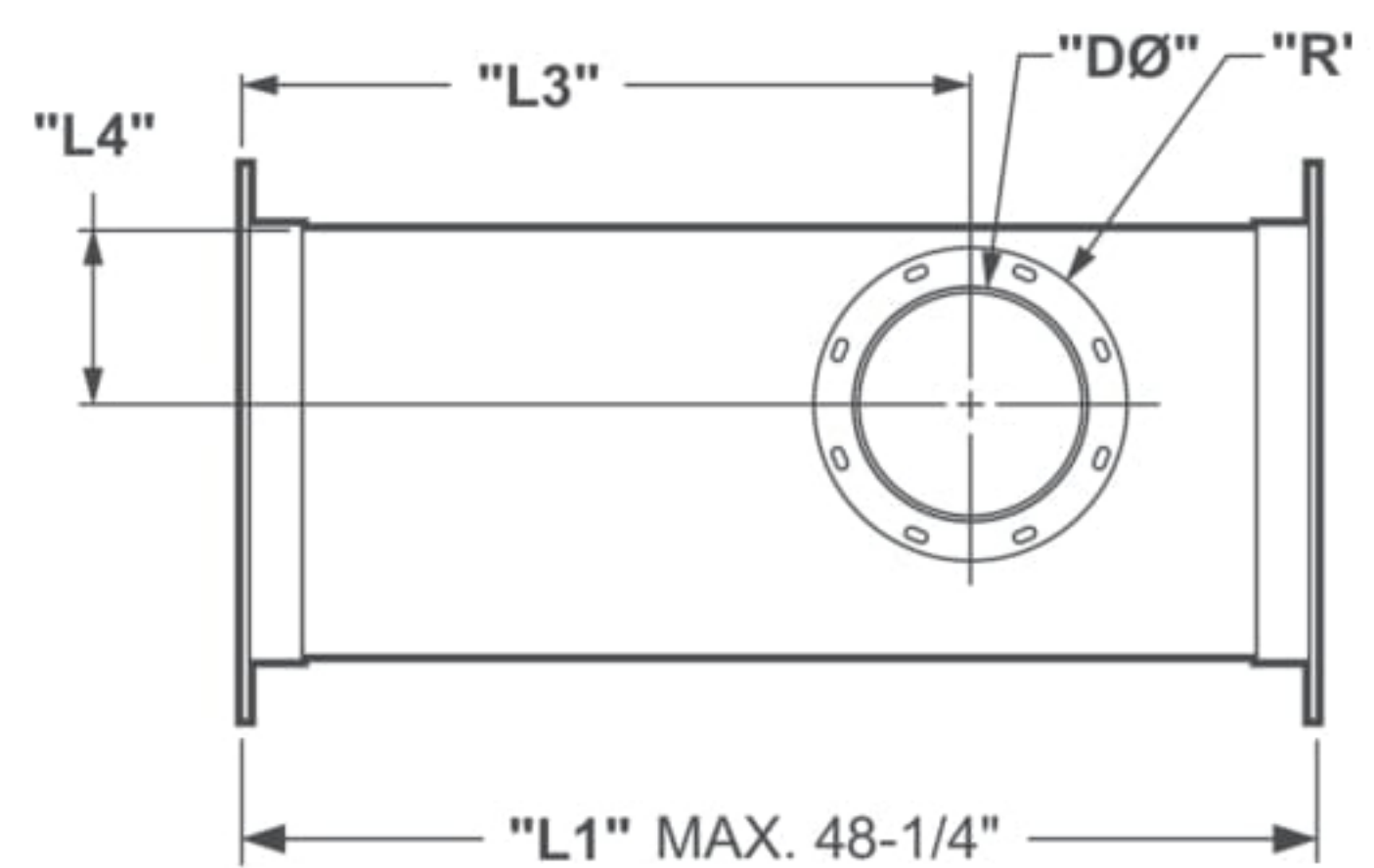
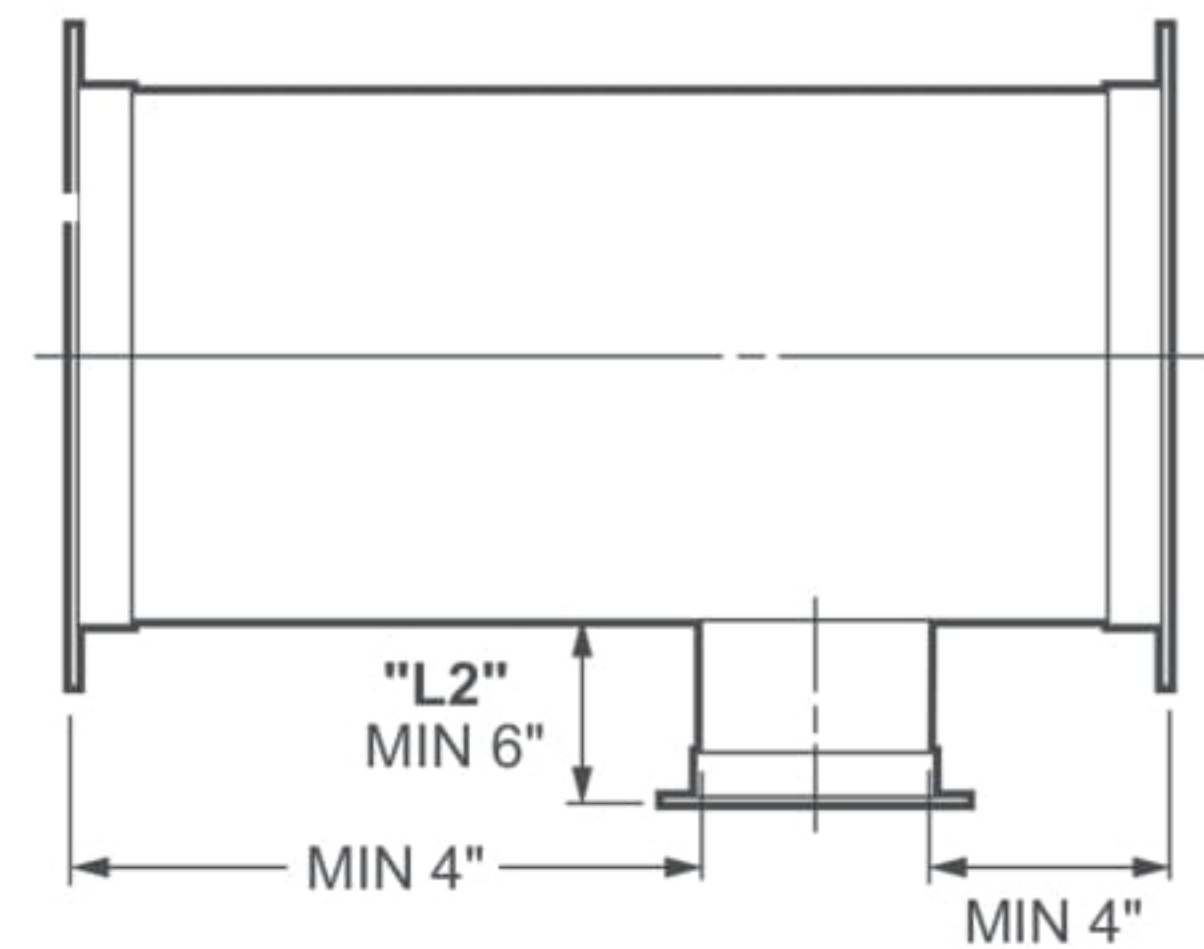
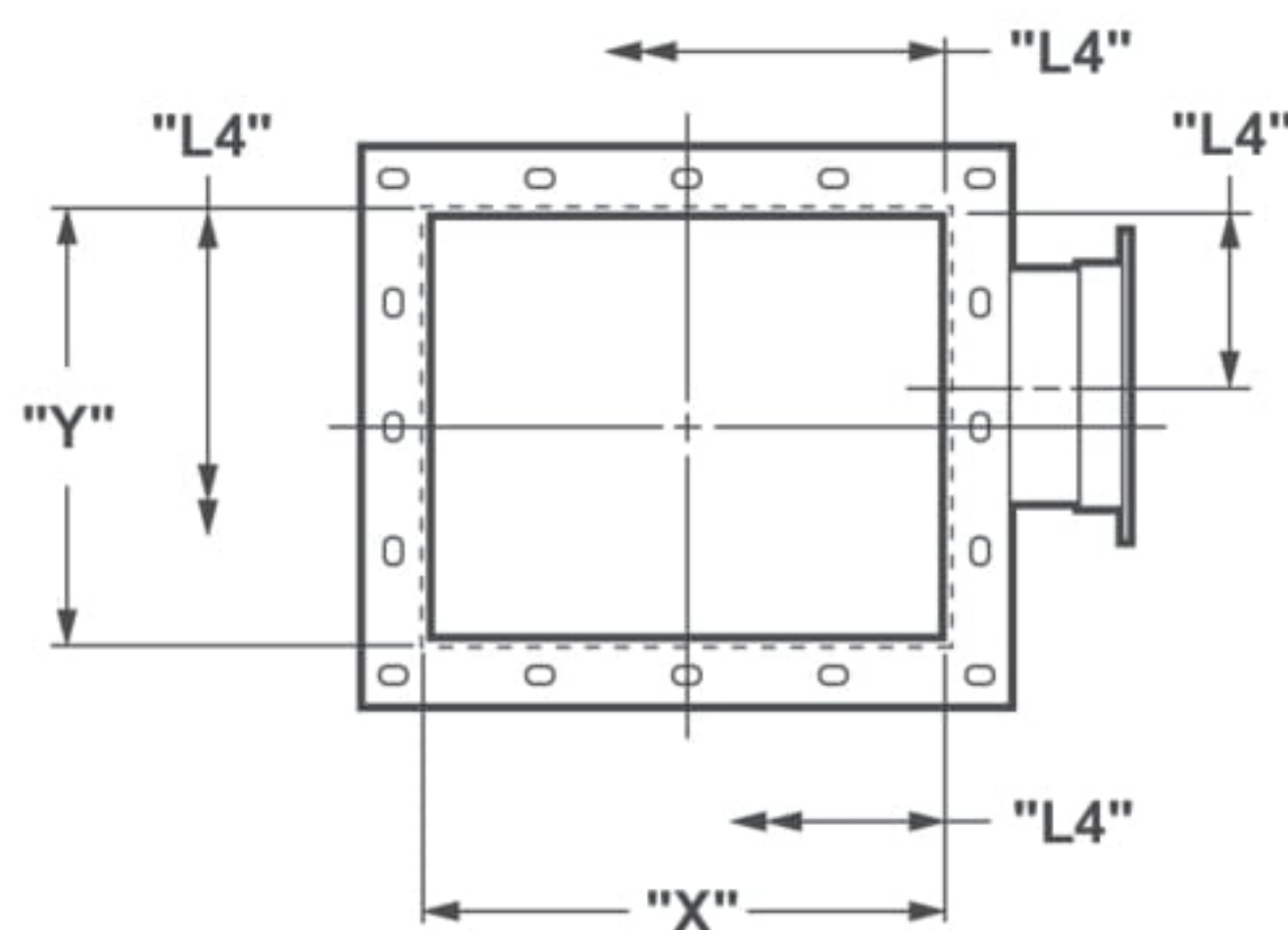
Straight Duct with Round Tap

ROUND RING TYPES ("R")
BI BLACK IRON ANGLE RINGS
 (AVAILABLE 4" - 100")

OPTIONS

- ▶ Custom lengths available.
- ▶ Raw end available.
- ▶ An interior stiffener (1" SCH40 pipe) is added at the midpoint of the flange for duct width or depth of 50" and greater.

LONGER THAN STANDARD LENGTHS AND/OR HIGHER SYSTEM PRESSURES MAY REQUIRE ADDITIONAL STIFFENERS PER SMACNA



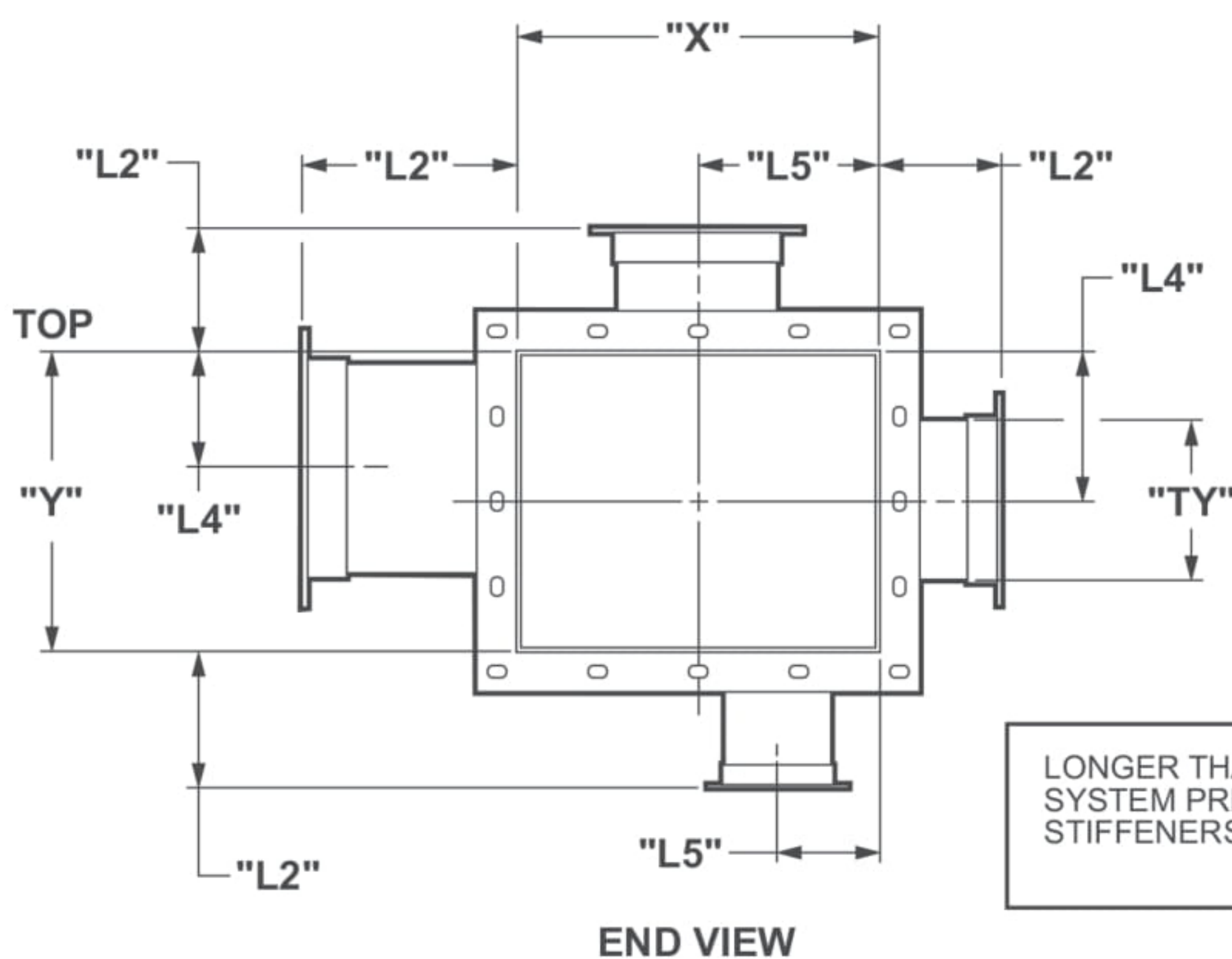
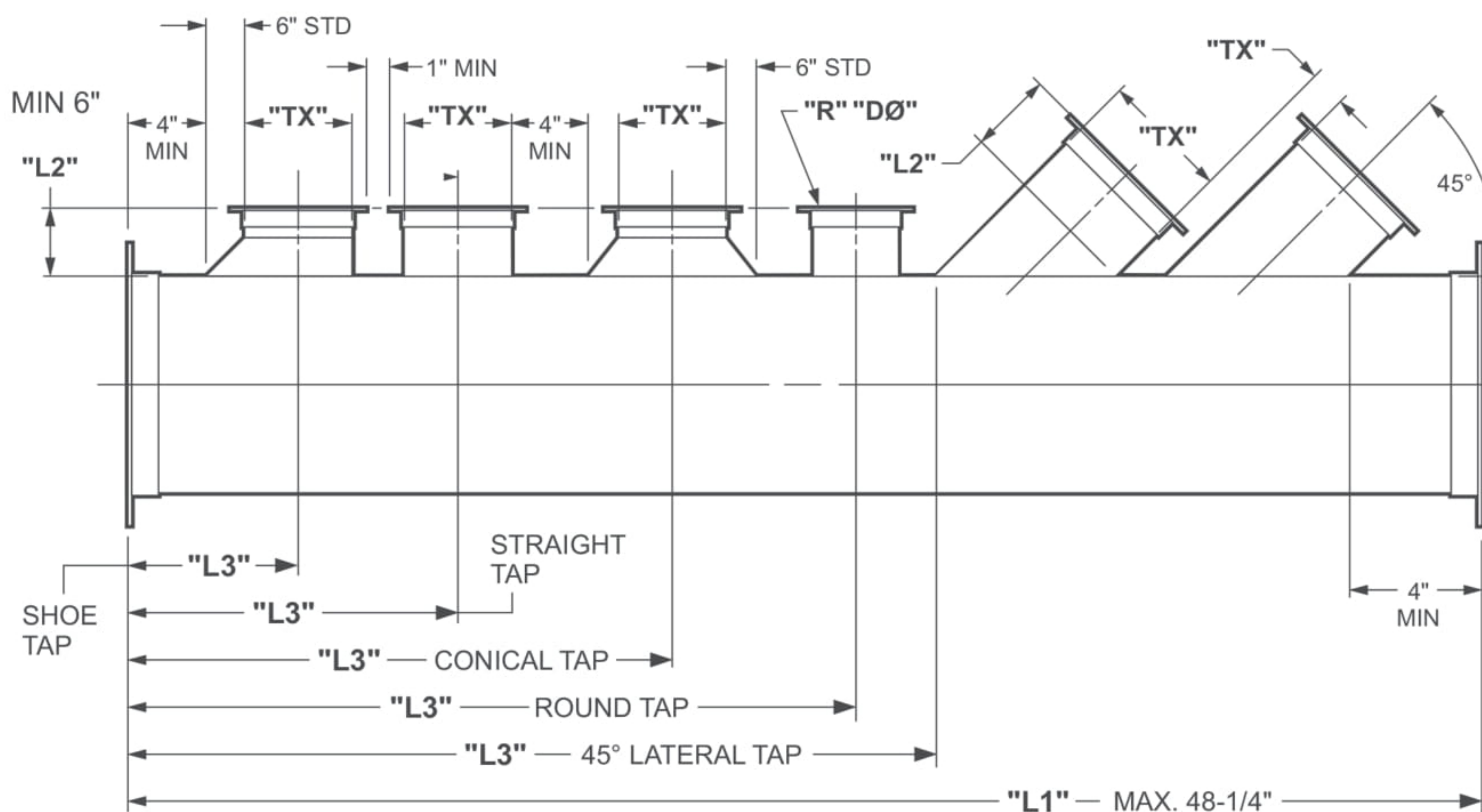
How To Order

SDWROT

Proudt code :	SDWROT	L	BS	500	300	150	1500	200	1000	150
type										
L										
M										
BS										
X										
Y										
D										
L1										
L2										
L3										
L4										

L Low-Pressuer
M Medium-Pressuer
BS Black steel
X width
Y height
D Diameter Tap
L1
L2 length
L3
L4

Straight Duct with Multiple Taps



ROUND RING TYPES ("R")

BI BLACK IRON ANGLE RINGS
(AVAILABLE 4" - 100")

LONGER THAN STANDARD LENGTHS AND/OR HIGHER
SYSTEM PRESSURES MAY REQUIRE ADDITIONAL
STIFFENERS PER SMACNA

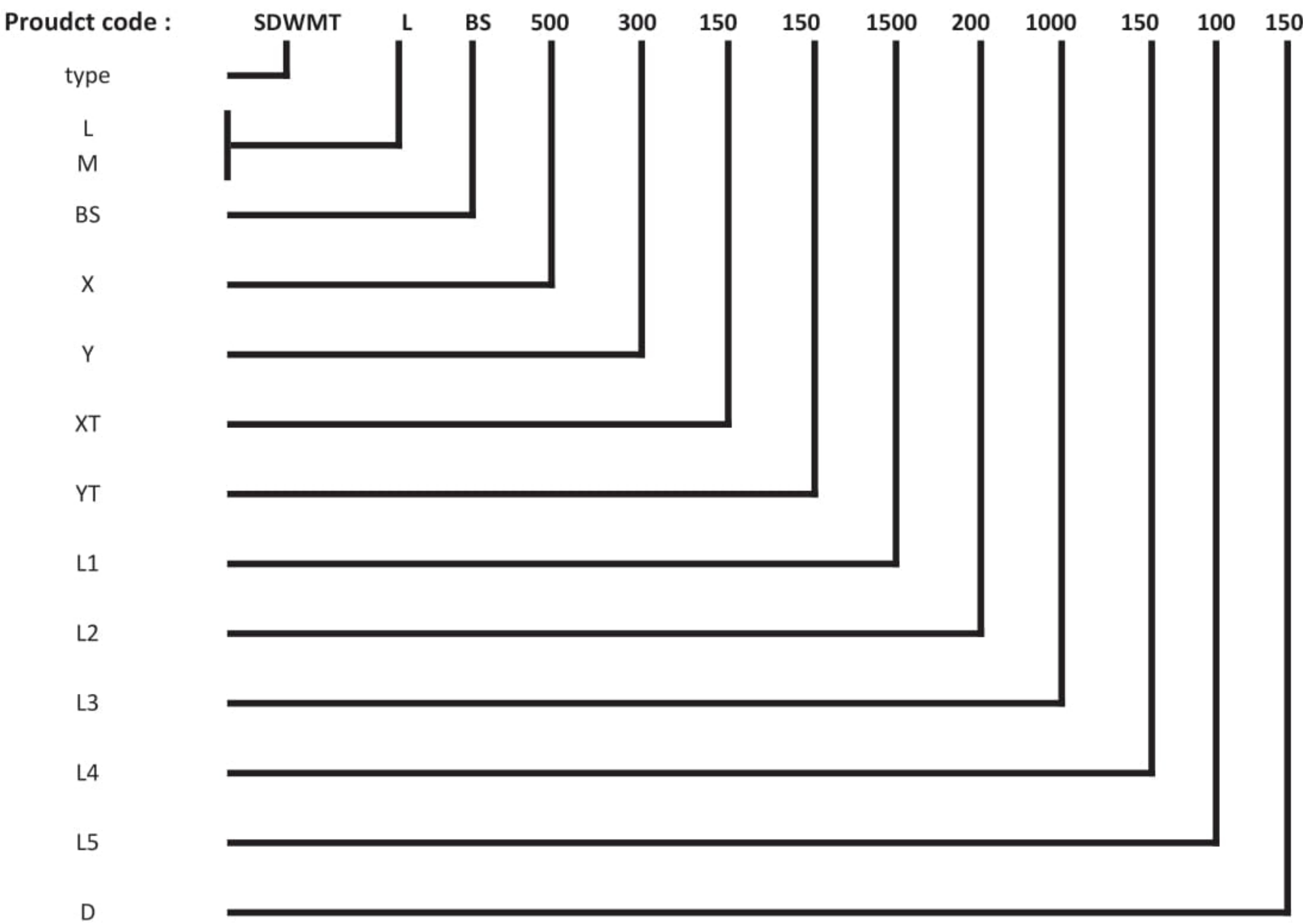
OPTIONS

- ▶ Custom lengths available.
- ▶ Raw end available.
- ▶ An interior stiffener (1" SCH40 pipe) is added at the midpoint of the flange for duct width or depth of 50" and greater.



How To Order

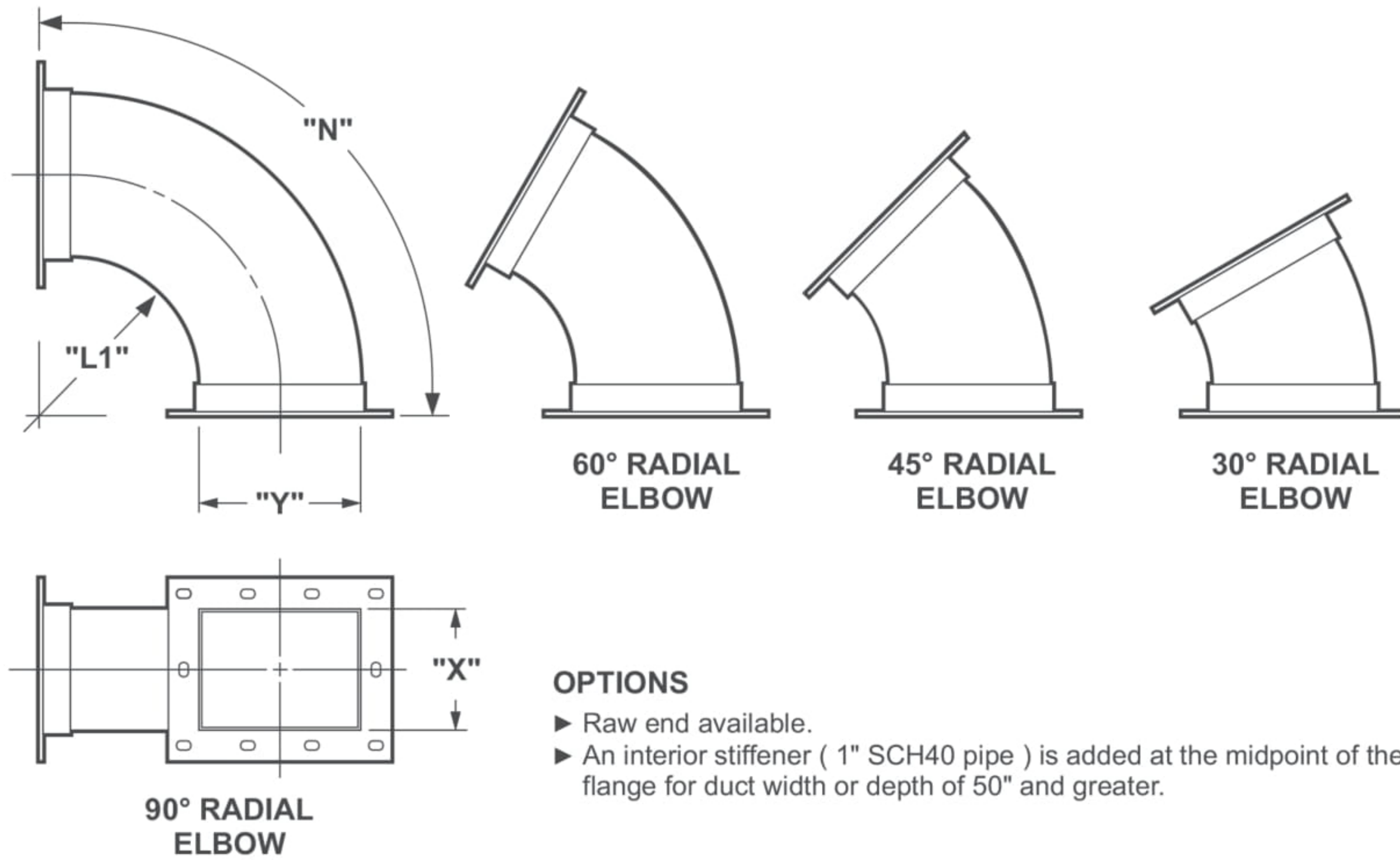
SDWMT



- L Low-Pressuer
- M Medium-Pressuer
- BS Black steel
- X width
- Y height
- XT width Tap
- YT height Tap
- D Diameter Tap
- L1
- L2
- L3 length
- L4
- L5

NOTE
THIS Proudact requires detailed drawings to manufacture

90 . 60 . 45 . 30 or Custom Elbow



OPTIONS

- Raw end available.
- An interior stiffener (1" SCH40 pipe) is added at the midpoint of the flange for duct width or depth of 50" and greater.

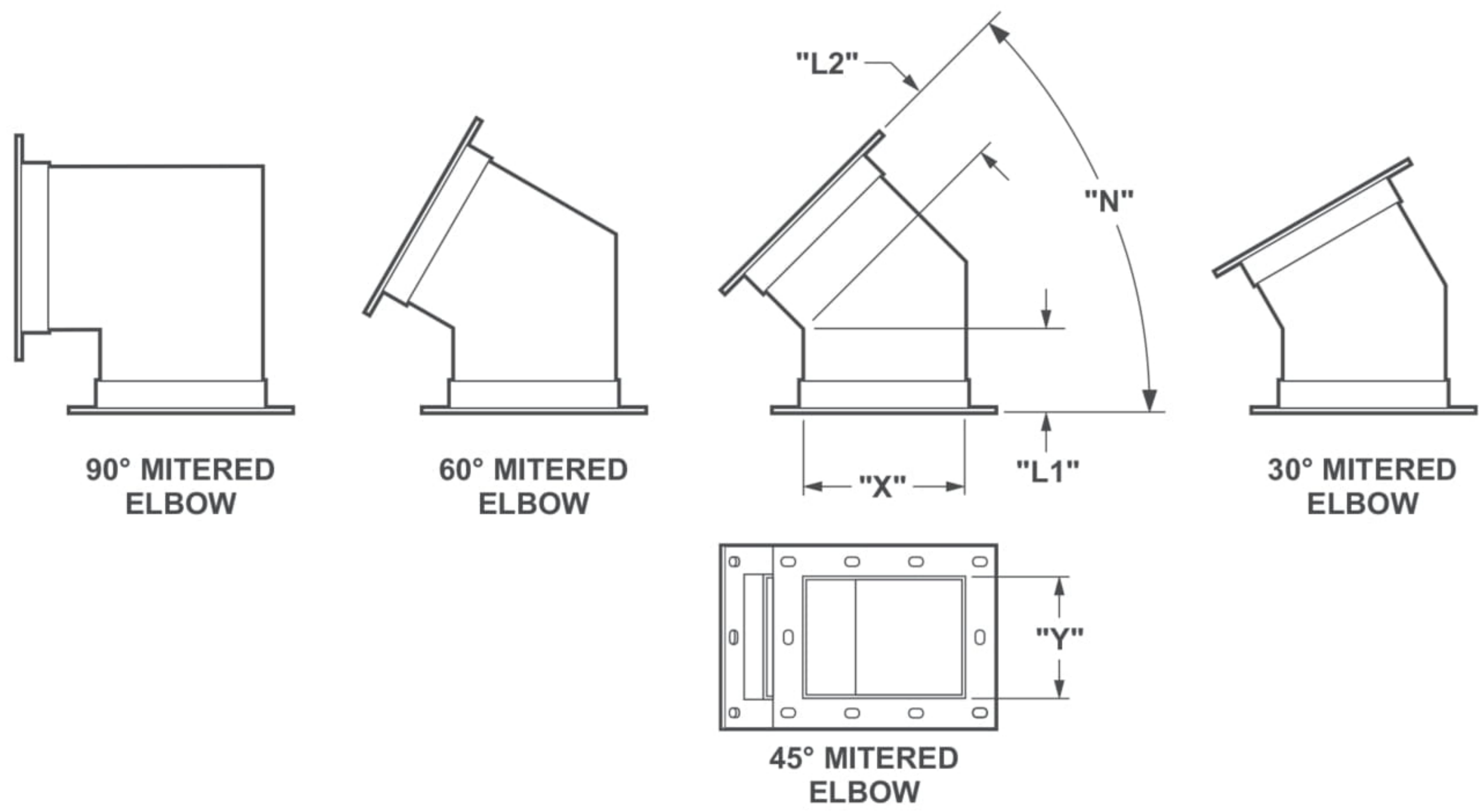
How To Order

CE

Prouduct code :	CE	L	BS	500	300	150	90
type							
L							
M							
BS							
X							
Y							
L1							
α							

L Low-Pressuer
M Medium-Pressuer
BS Black steel
X width
Y height
L1 length
 α 90°

90 . 60 . 45 . 30 or Custom Mitered Elbow



How To Order

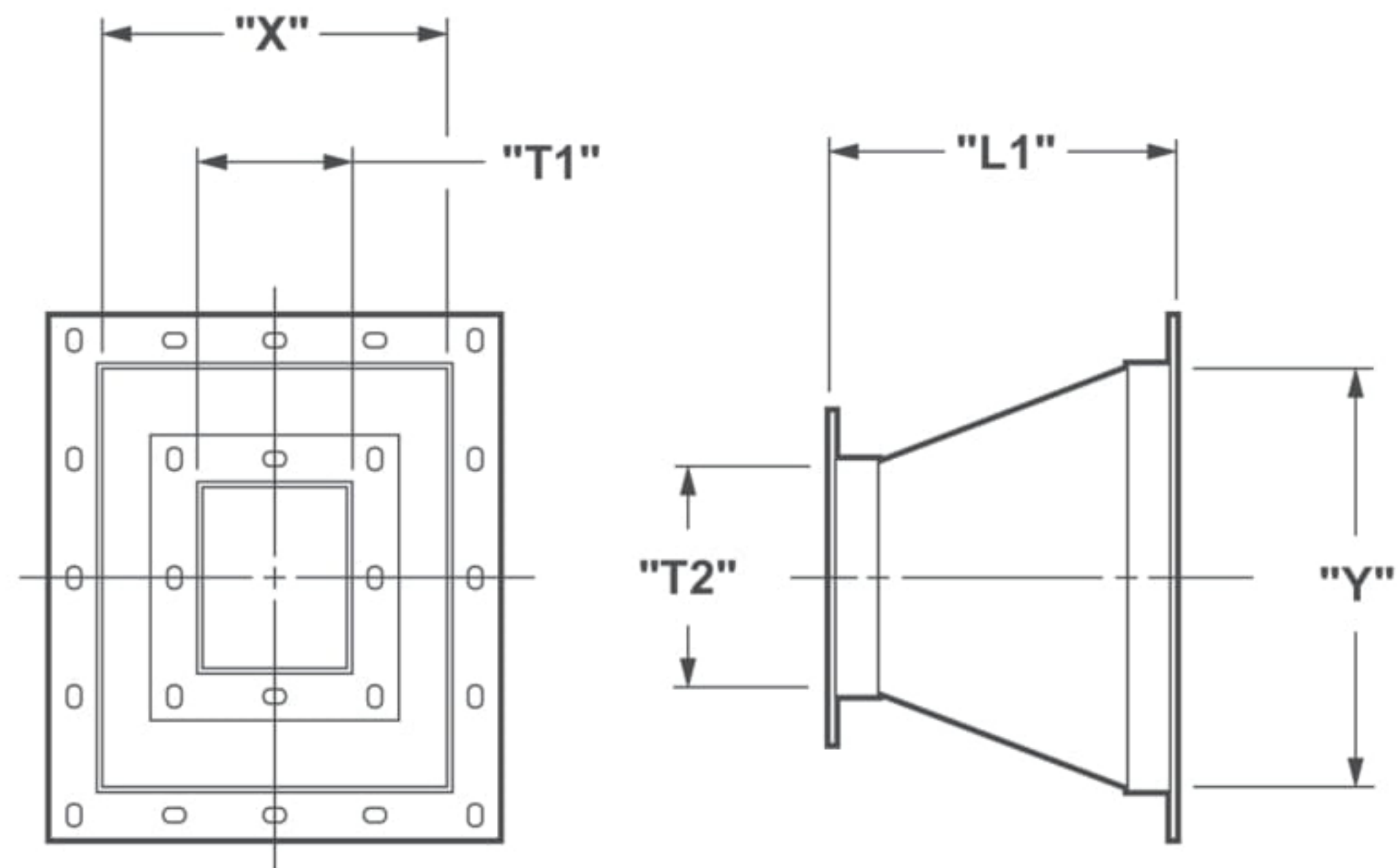
CME

Proudct code :	CME	L	BS	500	300	150	90	90
type								
L								
M								
BS								
X								
Y								
L1								
L2								
α								

L Low-Pressuer
M Medium-Pressuer
BS Black steel
X width
Y height
L1 length
L2 length
 α 90°

Concentric Transition

FOR ECCENTRIC RECTANGULAR TO RECTANGULAR FITTING, USE THE CUSTOM FITTING ORDER SHEET.



OPTIONS

- Raw end available.
- An interior stiffener (1" SCH40 pipe) is added at the midpoint of the flange for duct width or depth of 50" and greater.

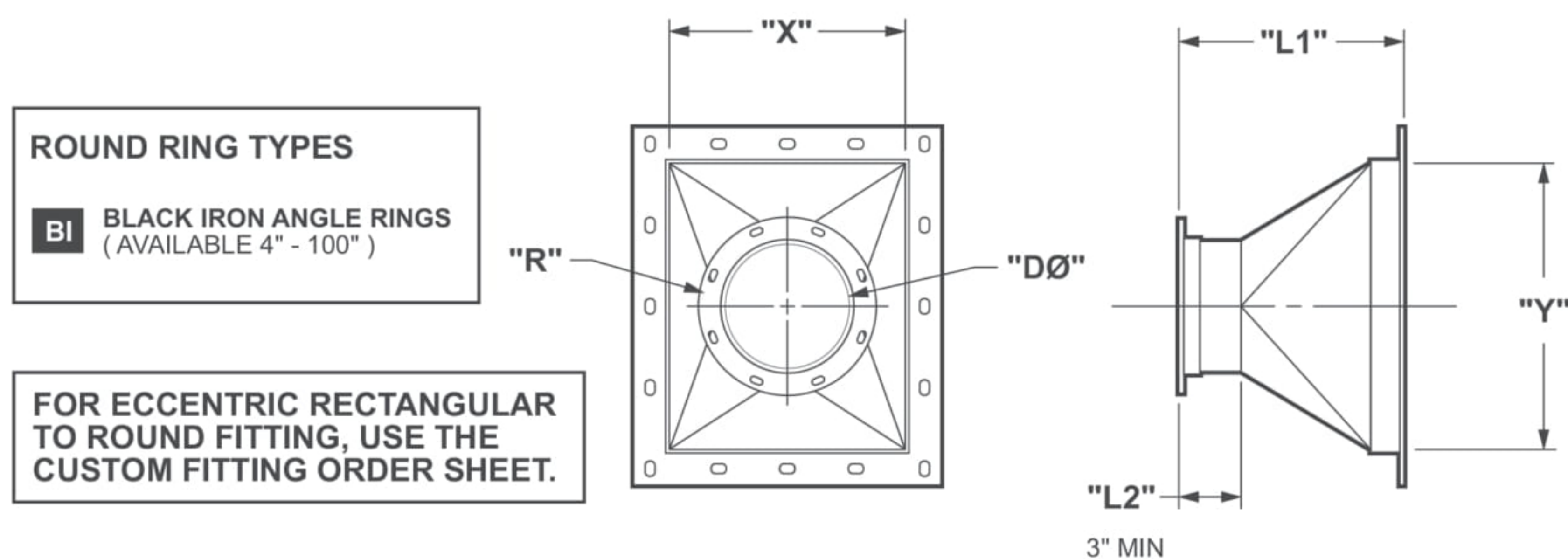
How To Order

CT

Proudct code :	SDWRCT	L	BS	500	300	150	150	700
type								
L								
M								
BS								
X								
Y								
T1								
T2								
L1								

L Low-Pressuer
M Medium-Pressuer
BS Black steel
X width
Y height
T1 width Tap
T2 height Tap
L1 length

Concentric Rectangular Round transition



OPTIONS

- ▶ Raw end available.
- ▶ An interior stiffener (1" SCH40 pipe) is added at the midpoint of the flange for duct width or depth of 50" and greater.

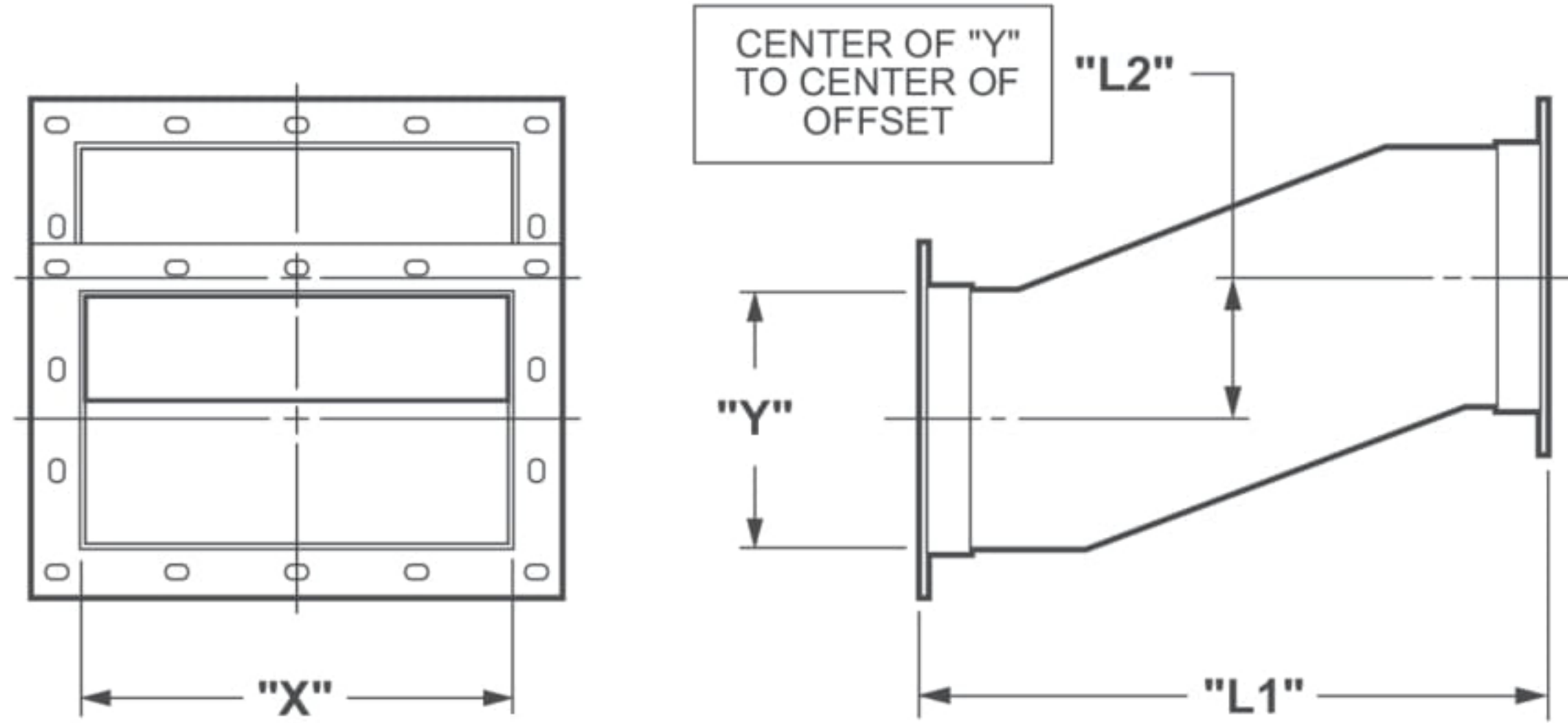
How To Order

CRR

Product code :	CRR	L	BS	500	300	150	700
type							
L							
M							
BS							
X							
Y							
D							
L1							

L	Low-Pressuer
M	Medium-Pressuer
BS	Black steel
X	width
Y	height
D	Diameter
L1	length

Vertical Offset



OPTIONS

- Raw end available.
- An interior stiffener (1" SCH40 pipe) is added at the midpoint of the flange for duct width or depth of 50" and greater.

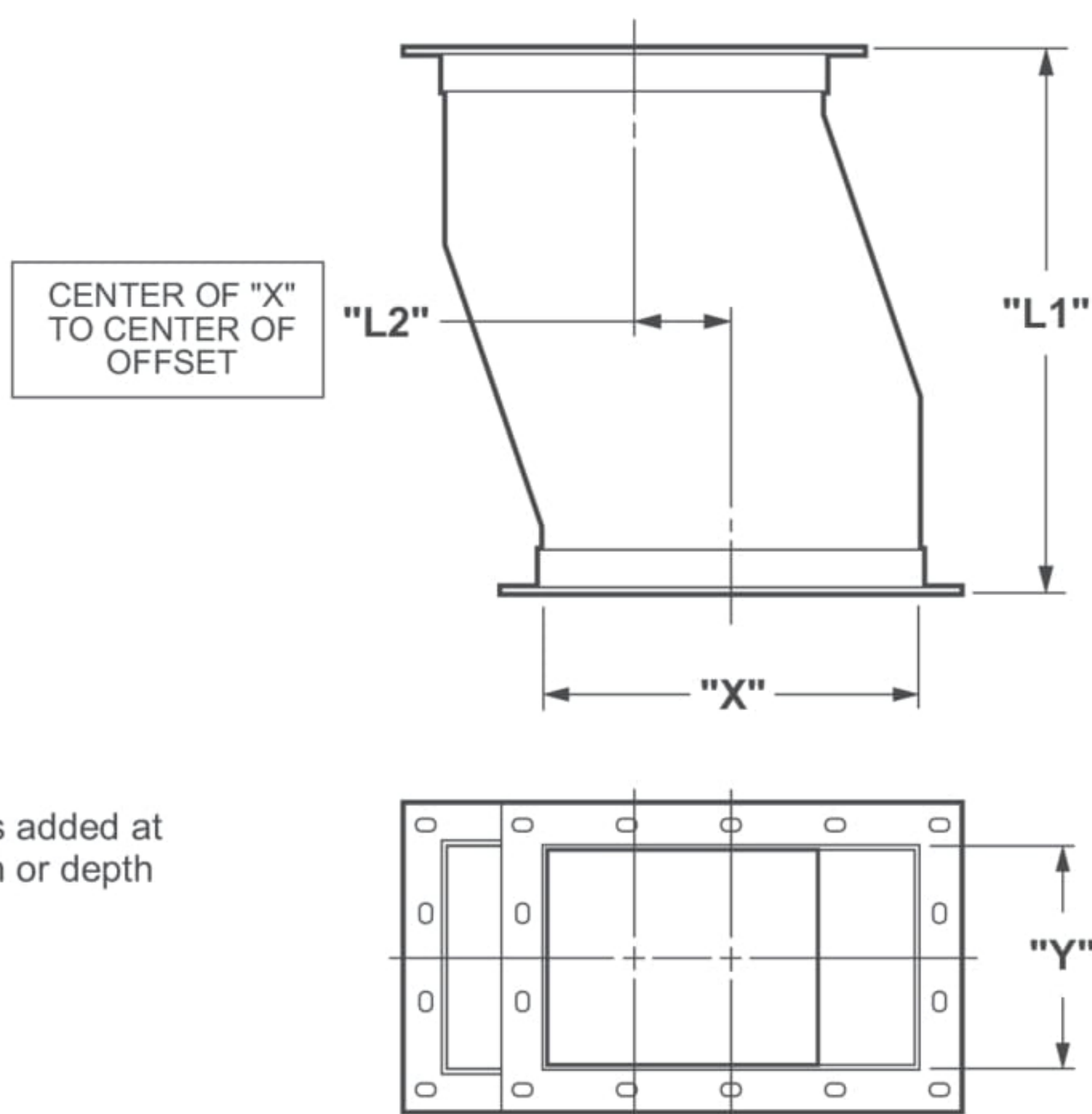
How To Order

VO

Proudct code :	VO	L	BS	500	300	1000	200
type							
L							
M							
BS							
X							
Y							
L1							
L2							

L Low-Pressuer
M Medium-Pressuer
BS Black steel
X width
Y height
L1
L2 length

Horizontal offset



OPTIONS

- Raw end available.
- An interior stiffener (1" SCH40 pipe) is added at the midpoint of the flange for duct width or depth of 50" and greater.

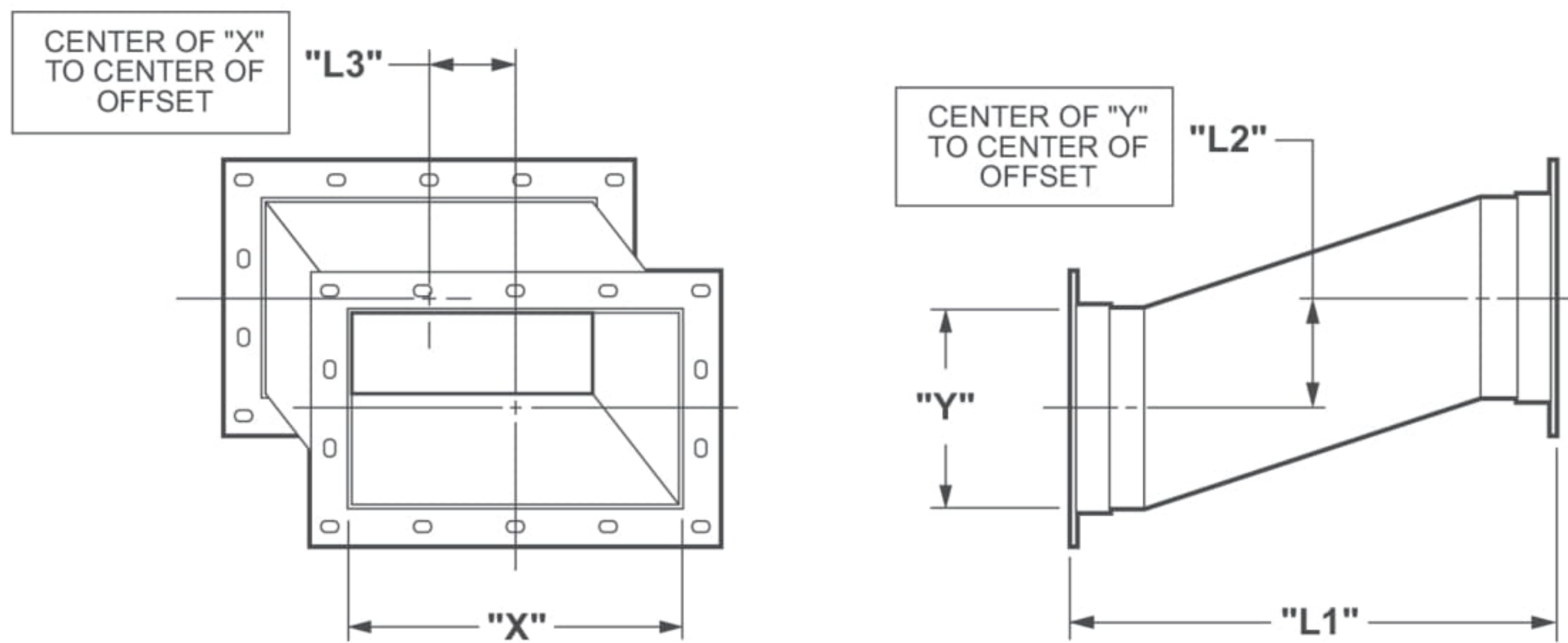
How To Order

HO

Prouduct code :	HO	L	BS	500	300	1000	200
type							
L							
M							
BS							
X							
Y							
L1							
L2							

L Low-Pressuer
M Medium-Pressuer
BS Black steel
X width
Y height
L1
L2 length

Double Offset



OPTIONS

- Raw end available.
- An interior stiffener (1" SCH40 pipe) is added at the midpoint of the flange for duct width or depth of 50" and greater.

How To Order

DO

Product code : HO L BS 500 300 1000 200 100

type

L

M

BS

X

Y

L1

L2

L3

L

M

BS

X

Y

L1

L2

L3

Low-Pressuer

Medium-Pressuer

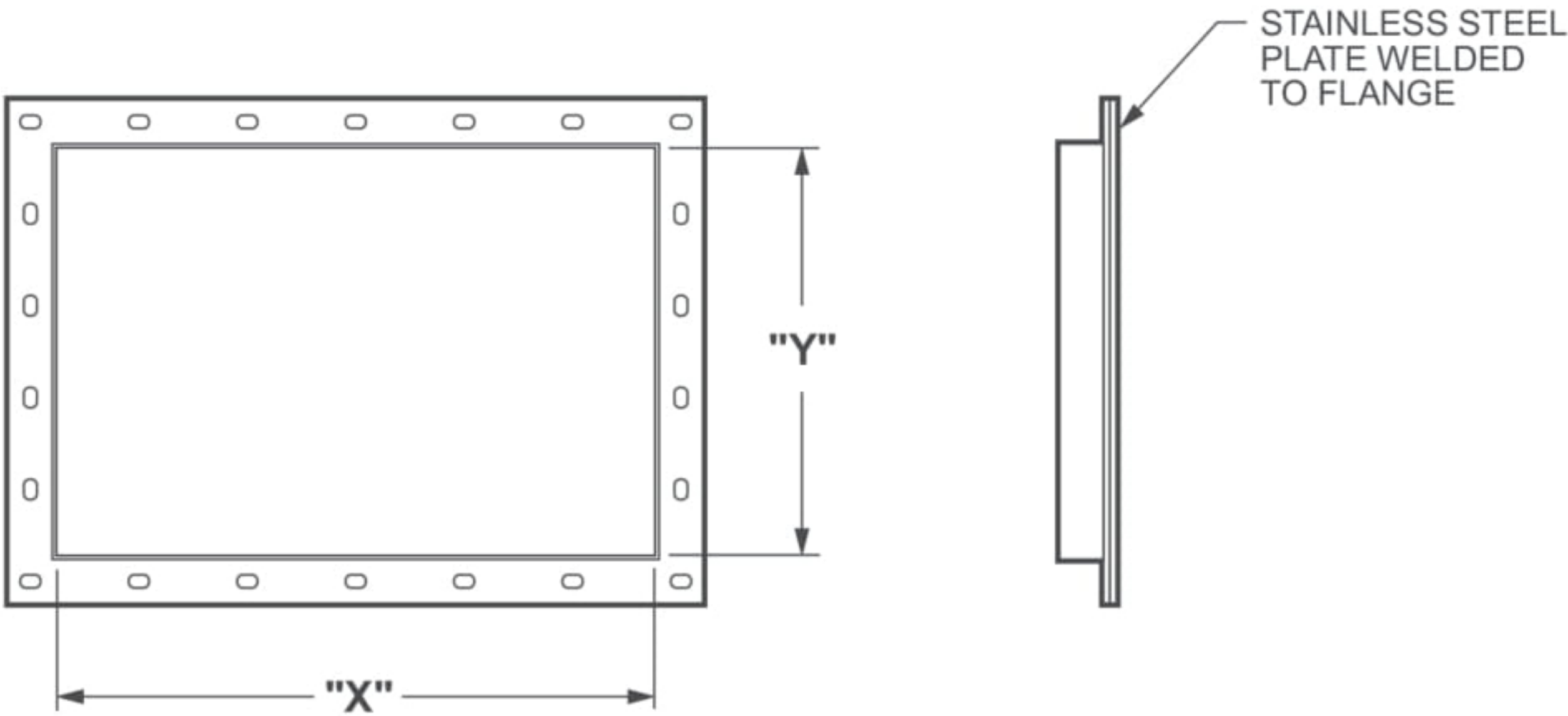
Black steel

width

height

length

End Cap



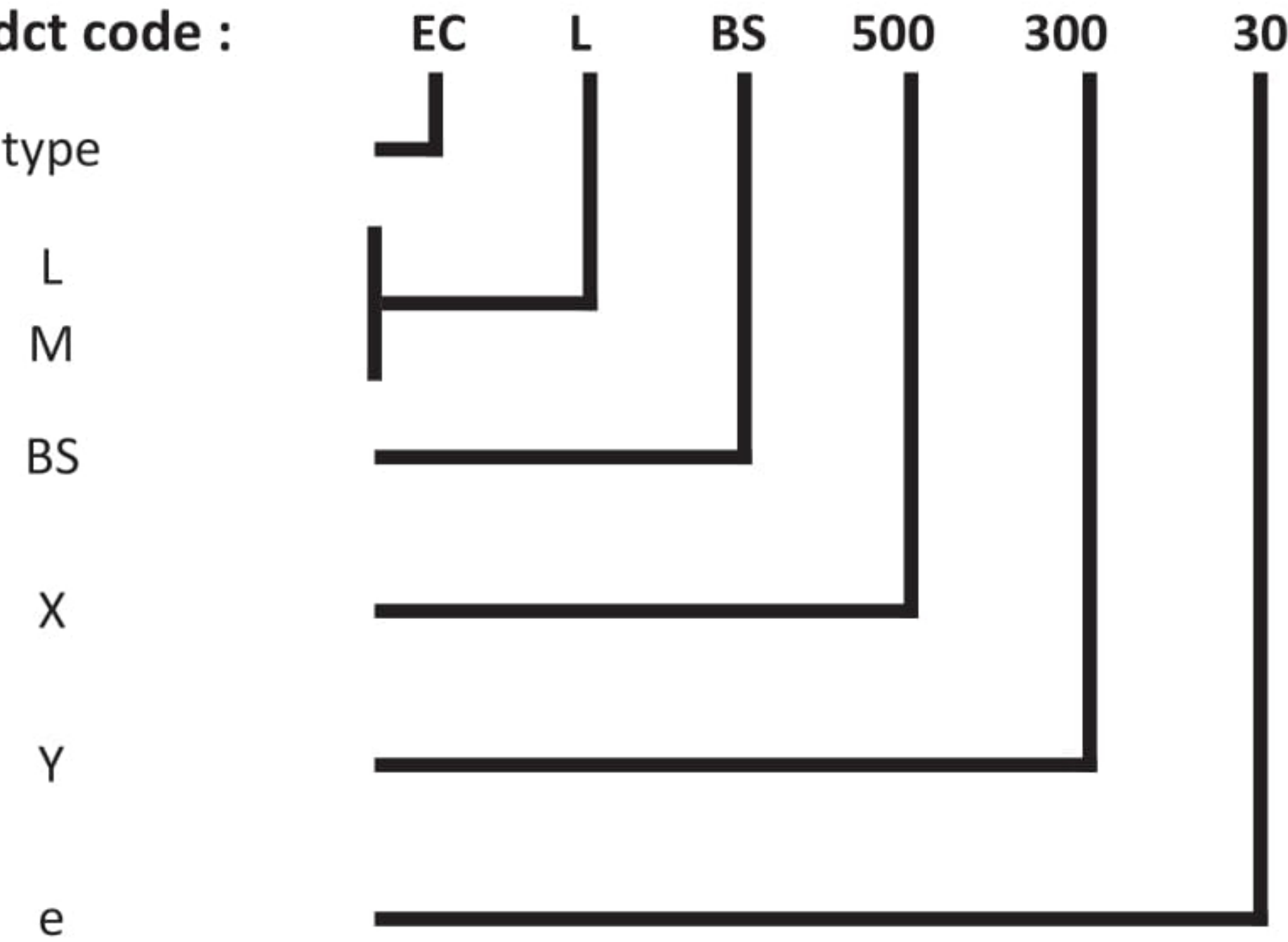
OPTIONS

- ▶ Flange material will be stainless steel unless other material is specified.
- ▶ A stiffener (angle material matching the frame) is added at the flange midpoint or where aesthetically pleasing for duct width or depth of 50" and greater (as required to meet maximum 4' spacing).

How To Order

EC

Proudct code :



- L Low-Pressuer
- M Medium-Pressuer
- BS Black steel
- X width
- Y height
- e extention