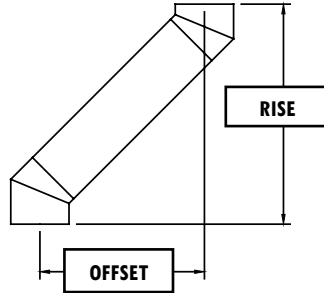


## 45° ELBOWS

UB OFFSET TABLE - Use this table if you are not installing a slip length (UBSF) between the elbows.

LENGTH BETWEEN ELBOWS	45° Elbows	
	RISE	OFFSET
<b>6 INCH Ø</b>		
NO LENGTH	8 1/4	3 1/2
5" Length	11	6 1/4
6" slip Length	11	6 1/4
12" Length	16	11 1/4
18" Length	20 1/4	15 1/2
24" Length	24 1/2	19 3/4
36" Length	33	28 1/4
UBAF min	36 1/2	31 3/4
UBAF max	56 1/4	51 1/2
<b>7 INCH Ø</b>		
NO LENGTH	9	3 3/4
5" Length	11 3/4	6 1/2
6" slip Length	11 3/4	6 1/2
12" Length	16 3/4	11 1/2
18" Length	21	15 3/4
24" Length	25 1/4	20
36" Length	33 3/4	28 1/2
UBAF min	37 1/4	32
UBAF max	57	51 3/4
<b>8 INCH Ø</b>		
NO LENGTH	9 3/4	4
5" Length	12 1/2	7
6" slip Length	12 1/2	7
12" Length	17 1/2	11 3/4
18" Length	21 3/4	16
24" Length	26	20 1/4
36" Length	34 1/2	28 3/4
UBAF min	38	32 1/4
UBAF max	57 3/4	52 1/4

All measurements are in inches



## 45° ELBOWS

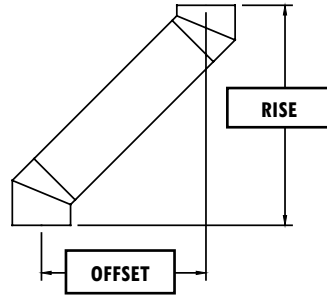
UB OFFSET TABLE - Use this table when a slip length (UBSF) is installed between the elbows.

LENGTH BETWEEN ELBOWS	45° Elbows	
	RISE	OFFSET
<b>6 INCH Ø</b>		
NO LENGTH + UB6SF	11 3/4 - 11 3/4	7 - 7
5" Length + UB6SF	12 3/4 - 15 1/4	8 - 10 1/2
5" Length + UB12SF	17 3/4 - 20 1/4	8 - 15 1/2
12" Length + UB12SF	18 3/4 - 26 1/2	14 - 21 3/4
18" Length + UB12SF	24 - 31 3/4	19 1/4 - 27
24" Length + UB18SF	29 1/4 - 42	24 1/2 - 37 1/4
UBAF min + UB6SF	44 - 46 1/4	39 1/4 - 41 1/2
UBAF min + UB18SF	44 - 56 3/4	39 1/4 - 52
UBAF max + UB18SF	68 1/4 - 81	63 1/2 - 76 1/4
36+36+12 + UB18SF	79 1/2 - 92 1/4	74 3/4 - 87 1/2
36+36+24 + UB18SF	89 3/4 - 102 3/4	85 - 98
36+36+36 + UB18SF	100 1/4 - 113	92 1/2 - 108 1/4
<b>7 INCH Ø</b>		
NO LENGTH + UB6SF	12 1/2 - 12 1/2	7 1/4 - 7 1/4
5" Length + UB6SF	13 1/2 - 16	8 1/4 - 10 3/4
5" Length + UB12SF	18 1/2 - 21	8 1/4 - 15 3/4
12" Length + UB12SF	19 1/2 - 27 1/4	14 1/4 - 22
18" Length + UB12SF	24 3/4 - 32 1/2	19 1/2 - 27 1/4
24" Length + UB18SF	30 - 42 3/4	24 3/4 - 37 1/2
UBAF min + UB6SF	44 3/4 - 47	39 1/2 - 41 3/4
UBAF min + UB18SF	44 3/4 - 57 1/2	39 1/2 - 52 1/4
UBAF max + UB18SF	69 - 81 3/4	63 3/4 - 76 1/2
36+36+12 + UB18SF	80 1/4 - 93	75 - 87 3/4
36+36+24 + UB18SF	90 1/2 - 103 1/2	85 1/4 - 98 1/4
36+36+36 + UB18SF	101 - 113 3/4	95 3/4 - 108 1/2
<b>8 INCH Ø</b>		
NO LENGTH + UB6SF	13 1/4 - 13 1/4	7 1/2 - 7 1/2
5" Length + UB6SF	14 1/4 - 16 1/2	8 1/2 - 11
5" Length + UB12SF	19 1/4 - 21 3/4	8 1/2 - 16 1/4
12" Length + UB12SF	20 1/4 - 27 3/4	14 3/4 - 22 1/4
18" Length + UB12SF	25 1/2 - 33	19 3/4 - 27 1/2
24" Length + UB18SF	30 3/4 - 43 1/2	25 - 37 3/4
UBAF min + UB6SF	45 1/2 - 47 3/4	39 3/4 - 42 1/4
UBAF min + UB18SF	45 1/2 - 58 1/4	39 3/4 - 52 1/2
UBAF max + UB18SF	69 3/4 - 82 1/2	64 - 76 3/4
36+36+12 + UB18SF	81 - 93 3/4	75 1/4 - 88
36+36+24 + UB18SF	91 1/4 - 104	85 3/4 - 98 1/2
36+36+36 + UB18SF	101 3/4 - 114 1/2	96 - 108 3/4

### 30° ELBOWS

UB OFFSET TABLE- Use this table when a slip length (UBSF) is not installed between the elbows.

LENGTH BETWEEN OFFSETS	30° Elbows	
	RISE	OFFSET
<b>6 INCH Ø</b>		
NO LENGTH	7 1/4	2
5" Length	10 1/2	4
6" Slip Length	10 1/2	4
12" Length	16 3/4	7 1/2
18" Length	21 3/4	10 1/2
24" Length	27	13 1/2
36" Length	37 1/2	19 1/2
UBAF min	41 3/4	22
UBAF max	66	36
<b>7 INCH Ø</b>		
NO LENGTH	7 3/4	2
5" Length	11	4
6" Slip Length	11	4
12" Length	17 1/4	7 1/2
18" Length	22 1/4	10 1/2
24" Length	27 1/2	13 1/2
36" Length	38	19 1/2
UBAF min	42 1/4	22
UBAF max	66 1/2	36
<b>8 INCH Ø</b>		
NO LENGTH	8 1/4	2 1/4
5" Length	11 3/4	4 1/4
6" Slip Length	11 3/4	4 1/4
12" Length	17 3/4	7 3/4
18" Length	23	10 3/4
24" Length	28 1/4	13 3/4
36" Length	38 1/2	19 3/4
UBAF min	43	22 1/4
UBAF max	67 1/4	36 1/4



All measurements are in inches

### 30° ELBOWS

UB OFFSET TABLE- Use this table when a slip length (UBSF) is installed between the elbows.

LENGTH BETWEEN OFFSETS	30° Elbows	
	RISE	OFFSET
<b>6 INCH Ø</b>		
NO LENGTH + UB6SF	10 1/2 - 10 1/2	5 1/2 - 5 1/2
5" Length + UB6SF	11 3/4 - 14	6 1/2 - 9
5" Length + UB12SF	16 3/4 - 19 1/4	6 1/2 - 14 1/4
12" Length + UB12SF	17 3/4 - 25 1/4	12 3/4 - 20 1/4
18" Length + UB12SF	23 - 30 1/2	17 3/4 - 25 1/2
24" Length + UB18SF	28 1/4 - 41	23 - 35 3/4
UBAF min + UB6SF	42 3/4 - 45 1/4	37 3/4 - 40 1/4
UBAF min + UB18SF	42 3/4 - 55 1/2	37 3/4 - 50 1/2
UBAF max + UB18SF	67 - 79 3/4	62 - 74 3/4
36+36+12 + UB18SF	78 1/4 - 91 1/4	73 1/4 - 86
36+36+24 + UB18SF	88 3/4 - 101 1/2	83 3/4 - 96 1/2
36+36+36 + UB18SF	99 1/4 - 112	94 - 106 3/4
<b>7 INCH Ø</b>		
NO LENGTH + UB6SF	11 - 11	5 1/2 - 5 1/2
5" Length + UB6SF	12 1/4 - 14 1/2	6 1/2 - 9
5" Length + UB12SF	17 1/4 - 19 3/4	11 1/2 - 14
12" Length + UB12SF	18 1/4 - 25 3/4	12 1/2 - 20 1/4
18" Length + UB12SF	23 1/2 - 31	17 3/4 - 25 1/2
24" Length + UB18SF	28 3/4 - 41 1/2	23 - 35 3/4
UBAF min + UB6SF	43 1/4 - 45 3/4	37 3/4 - 40
UBAF min + UB18SF	43 1/4 - 56	37 3/4 - 50 1/2
UBAF max + UB18SF	67 1/2 - 80 1/4	62 - 74 3/4
36+36+12 + UB18SF	78 3/4 - 91 3/4	73 3/4 - 86
36+36+24 + UB18SF	89 1/4 - 102	83 1/2 - 96 1/2
36+36+36 + UB18SF	99 3/4 - 112 1/2	94 - 106 3/4
<b>8 INCH Ø</b>		
NO LENGTH + UB6SF	11 3/4 - 11 3/4	5 3/4 - 5 3/4
5" Length + UB6SF	12 3/4 - 15 1/4	6 3/4 - 9 1/4
5" Length + UB12SF	17 3/4 - 20 1/4	11 3/4 - 14 1/4
12" Length + UB12SF	18 3/4 - 26 1/2	12 3/4 - 20 1/2
18" Length + UB12SF	24 - 31 3/4	18 - 25 3/4
24" Length + UB18SF	29 1/4 - 42	23 1/4 - 36
UBAF min + UB6SF	44 - 46 1/4	38 - 40 1/4
UBAF min + UB18SF	44 - 56 3/4	38 - 50 3/4
UBAF max + UB18SF	68 1/4 - 81	62 1/4 - 75
36+36+12 + UB18SF	79 1/2 - 92 1/4	73 1/2 - 86 1/4
36+36+24 + UB18SF	89 3/4 - 102 3/4	83 3/4 - 96 3/4
36+36+36 + UB18SF	100 1/4 - 113	94 1/4 - 107