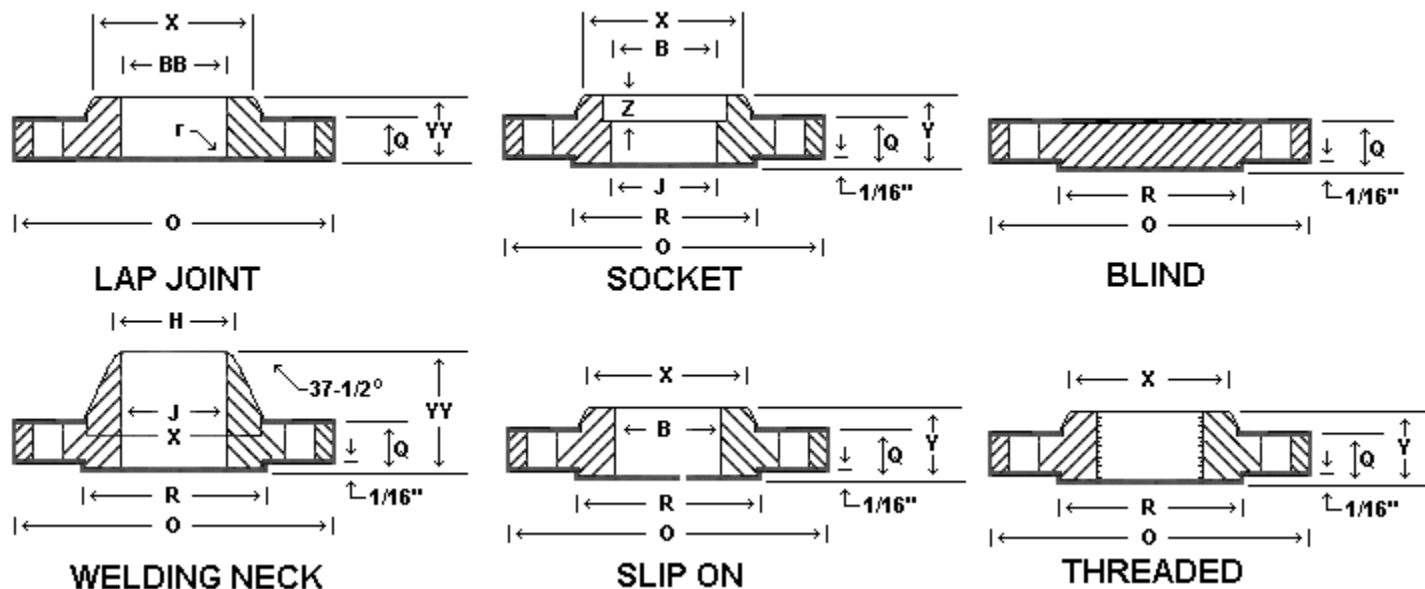
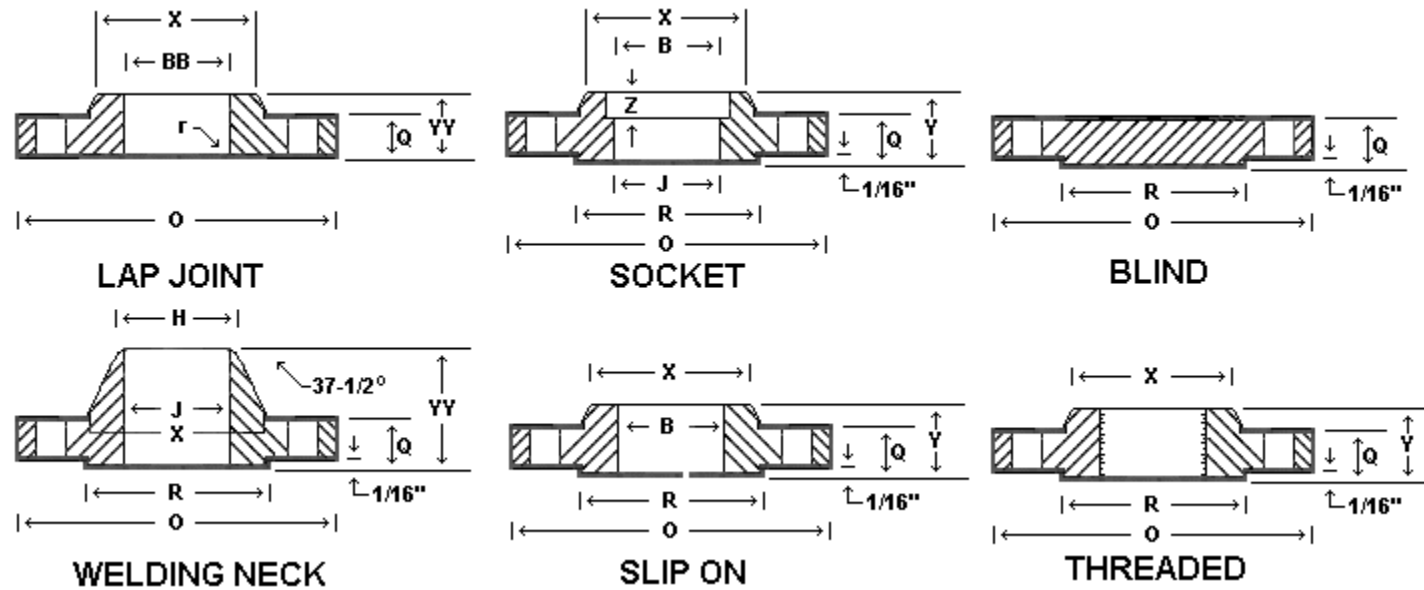


### Dimensions for Class 150 Flanges



Nom Pipe Size (inches)	O	Q	R	X	No. and** Dia. of Bolt	Bolt Circle Dia	YY	H	J	Y	B	R	YY	BB	Z
1/2	3.50	.44	1.38	1.19	4-0.62	2.38	1.88	.84	.62	.62	.88	.12	.62	.90	.38
3/4	3.88	.50	1.69	1.50	4-0.62	2.75	2.06	1.05	.82	.62	1.09	.12	.62	1.11	.44
1	4.25	.56	2.00	1.94	4-0.62	3.12	2.19	1.32	1.05	.69	1.36	.12	.69	1.38	.50
1 1/4	4.62	.62	2.50	2.31	4-0.62	3.50	2.25	1.66	1.38	.81	1.70	.19	.81	1.72	.56
1 1/2	5.00	.68	2.88	2.56	4-0.62	3.88	2.44	1.90	1.61	.88	1.95	.25	.88	1.97	.62
2	6.00	.75	3.62	3.06	4-0.75	4.75	2.50	2.38	2.07	1.00	2.44	.31	1.00	2.46	.69
2 1/2	7.00	.88	4.12	3.56	4-0.75	5.50	2.75	2.88	2.47	1.12	2.94	.31	1.12	2.97	.75
3	7.50	.94	5.00	4.25	4-0.75	6.00	2.75	3.50	3.07	1.19	3.57	.38	1.19	3.60	.81
3 1/2	8.50	.94	5.50	4.81	8-0.75	7.00	2.81	4.00	3.55	1.25	40.70	.38	1.25	4.10	
4	9.00	.94	6.19	5.31	8-0.75	7.50	3.00	4.50	4.03	1.31	4.57	.44	1.31	4.60	
5	10.00	.94	7.31	6.44	8-0.88	8.50	3.50	5.56	5.05	1.44	5.66	.44	1.44	5.69	
6	11.00	1.00	8.50	7.56	8-0.88	9.50	3.50	6.63	6.07	1.56	6.72	.50	1.56	6.75	

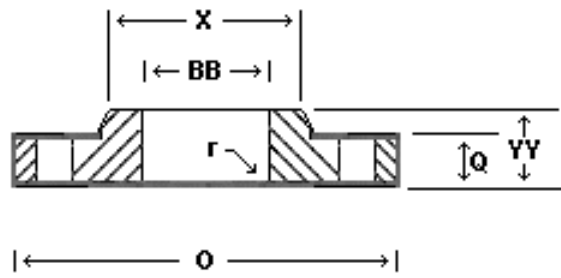
### Dimensions for Class 150 Flanges



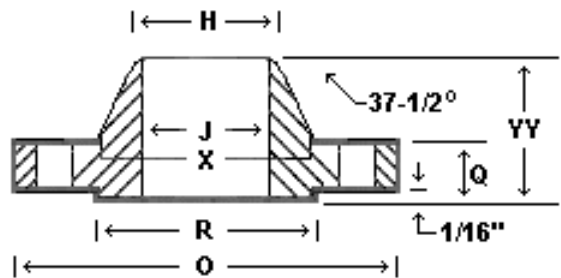
Norm. Pipe Size (inches)	O	Q	R	X	No. and** Dia. of Bolt	Bolt Circle Dia	YY	H	J	Y	B	R	YY	BB	Z
8	13.50	1.12	10.62	9.89	8-0.88	11.75	4.00	8.63	7.98	1.75	8.72	.50	1.75	8.75	
10	16.00	1.19	12.75	12.00	12-1.00	14.25	4.00	10.75	10.02	1.94	10.88	.50	1.94	10.92	
12	19.00	1.25	15.00	14.38	12-1.00	17.00	4.50	12.75	12.00	2.19	12.88	.50	2.19	12.92	
14	21.00	1.38	16.25	15.75	12-1.12	18.75	5.00	14.00		2.25	14.14	.50	3.12	14.18	
16	23.50	1.44	18.50	18.00	16-1.12	21.25	5.00	16.00		2.50	16.16	.50	3.44	16.19	
18	25.00	1.56	21.00	19.88	16-1.25	22.75	5.50	18.00		2.69	18.18	.50	3.81	18.20	
20	27.50	1.69	23.00	22.00	20-1.25	25.00	5.89	20.00		2.88	20.2	.50	4.06	20.25	
24	32.00	1.88	27.25	26.12	20-1.38	29.50	6.00	24.00		3.25	24.25	.50	4.38	24.25	

To Be Specified by Purchaser

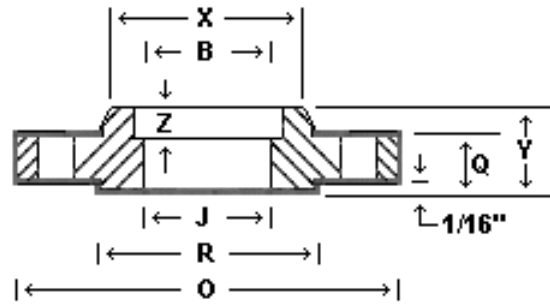
### Dimensions for Class 300 Flanges



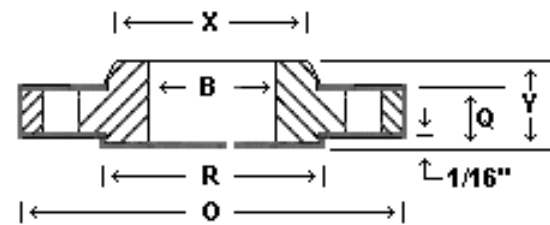
**LAP JOINT**



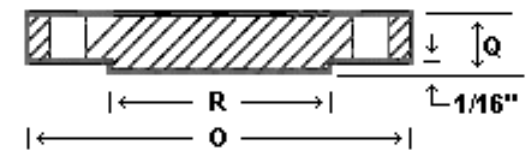
**WELDING NECK**



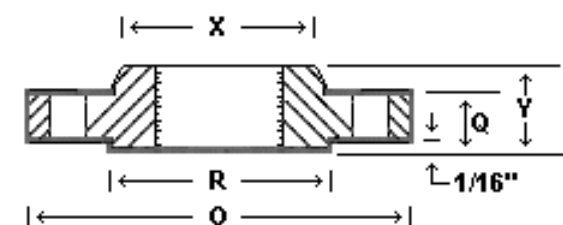
**SOCKET**



**SLIP ON**



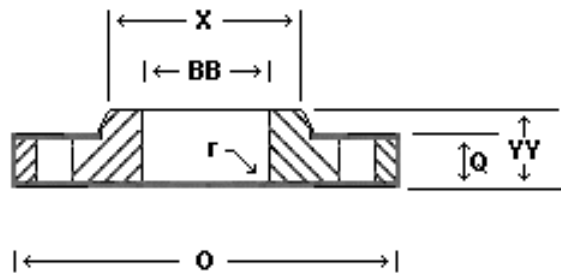
**BLIND**



**THREADED**

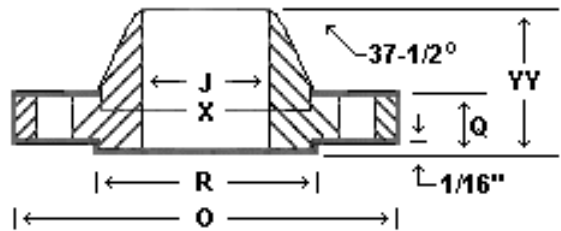
Nom. Pipe Size (inches)	O	Q*	R	X	No. and** Dia of Bolt Holes	Bolt Circle Dia.	YY*	H	J	Y*	B	R	YV	BB	Z	C	T
1/2	3.75	0.56	1.38	1.50	4-0.62	2.62	2.06	0.84	0.62	0.88	0.88	0.12	0.88	0.90	0.38	0.93	0.62
3/4	4.62	0.62	1.69	1.88	4-0.75	3.25	2.25	1.05	0.82	1.00	1.09	0.12	1.00	1.11	0.44	1.14	0.62
1	4.88	0.69	2.00	2.12	4-0.75	3.50	2.44	1.32	1.05	1.06	1.36	0.12	1.06	1.38	0.50	1.41	0.69
1 1/4	5.25	0.75	2.50	2.50	4-0.75	3.88	2.56	1.66	1.38	1.06	1.70	0.19	1.06	1.72	0.56	1.75	0.81
1 1/2	6.12	0.81	2.88	2.75	4-0.88	4.50	2.69	1.90	1.61	1.19	1.95	0.25	1.19	1.97	0.62	1.99	0.88
2	6.50	0.88	3.62	3.31	8-0.75	5.00	2.75	2.38	2.07	1.31	2.44	0.31	1.31	2.46	0.69	2.50	1.12
2 1/2	7.50	1.00	4.12	3.94	8-0.88	5.88	3.00	2.88	2.47	1.50	2.94	0.31	1.50	2.97	0.75	3.00	1.25
3	8.25	1.12	5.00	4.62	8-0.88	6.62	3.12	3.50	3.07	1.69	3.57	0.38	1.69	3.60	0.81	3.63	1.25
3 1/2	9.00	1.19	5.50	5.25	8-0.88	7.25	3.19	4.00	3.55	1.75	4.07	0.38	1.75	4.10		4.13	1.44
4	10.00	1.25	6.19	5.75	8-0.88	7.88	3.38	4.50	4.03	1.88	4.57	0.44	1.88	4.60		4.63	1.44
5	11.00	1.38	7.31	7.00	8-0.88	9.25	3.88	5.56	5.05	2.00	5.66	0.44	2.00	5.69		5.69	1.69
6	12.50	1.44	8.50	8.12	12-0.88	10.62	3.88	6.63	6.07	2.06	6.72	0.50	2.06	6.75		6.75	1.81

### Dimensions for Class 300 Flanges

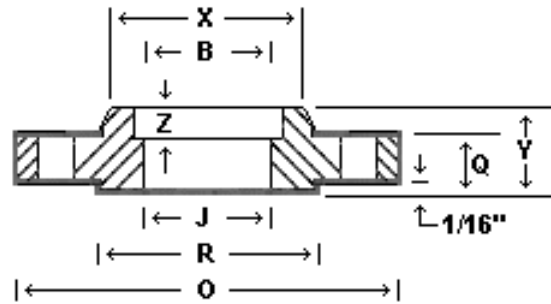


**LAP JOINT**

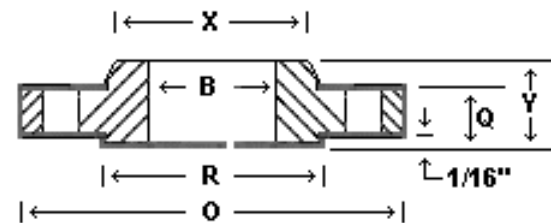
H



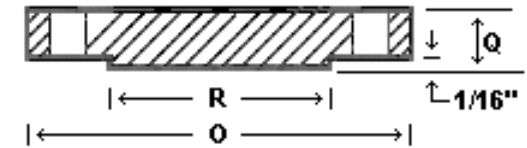
**WELDING NECK**



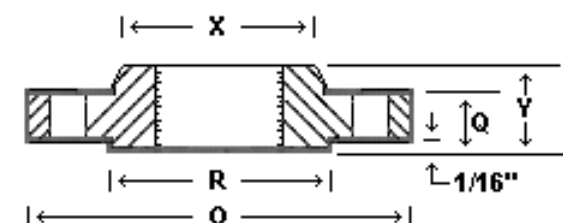
**SOCKET**



**SLIP ON**



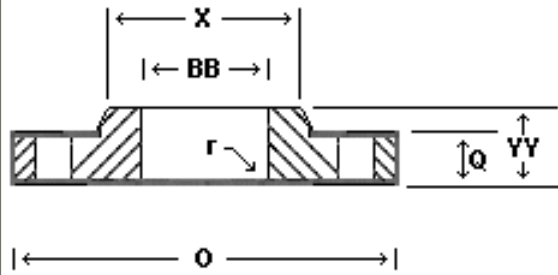
**BLIND**



**THREADED**

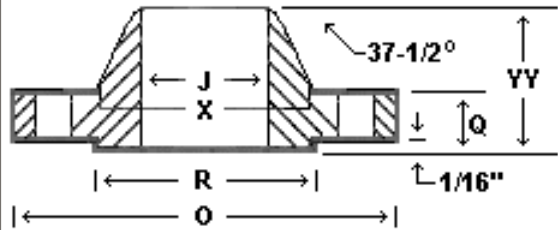
Nom. Pipe Size (inches)	O	Q*	R	X	No. and** Dia of Bolt Holes	Bolt Circle Dia.	YY*	H	J	Y*	B	R	YV	BB	Z	C	T
8	15.00	1.62	10.62	10.25	12-1.00	13.00	4.38	8.63	7.98	2.44	8.72	0.50	2.44	8.75		8.75	2.00
10	17.50	1.88	12.75	12.62	16-1.12	15.25	4.62	10.75	10.02	2.62	10.88	0.50	3.75	10.92		10.88	2.19
12	20.50	2.00	15.00	14.75	16-1.25	17.75	5.12	12.75	12.00	2.88	12.88	0.50	4.00	12.92		12.94	2.38
14	23.00	2.12	16.25	16.75	20-1.25	20.25	5.62	14.00	To Be Specified by Purchaser	3.00	14.14	0.50	4.38	14.18		14.19	2.50
16	25.50	2.25	18.50	19.00	20-1.38	22.50	5.75	16.00		3.25	16.16	0.50	4.75	16.19		16.19	2.69
18	28.00	2.38	21.00	21.00	24-1.38	24.75	6.25	18.00		3.50	18.18	0.50	5.12	18.20		18.19	2.75
20	30.50	2.50	23.00	23.12	24-1.38	27.00	6.38	20.00		3.75	20.20	0.50	5.50	20.25		20.19	2.88
24	36.00	2.75	27.25	27.62	24-1.62	32.00	6.62	24.00		4.19	24.25	0.50	6.00	24.25		24.19	3.25

## Dimensions for Class 600 Flanges

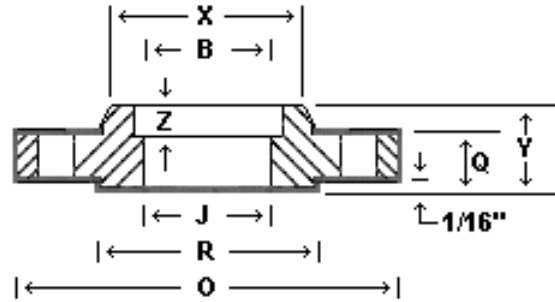


**LAP JOINT**

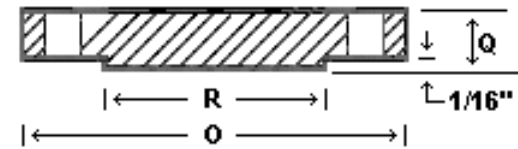
|← H →|



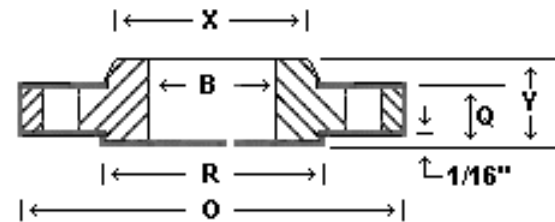
**WELDING NECK**



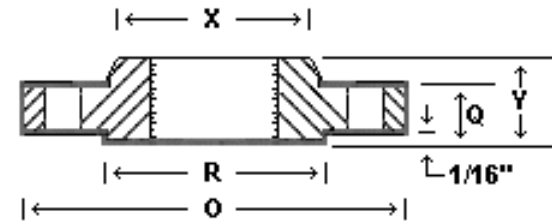
**SOCKET**



**BLIND**



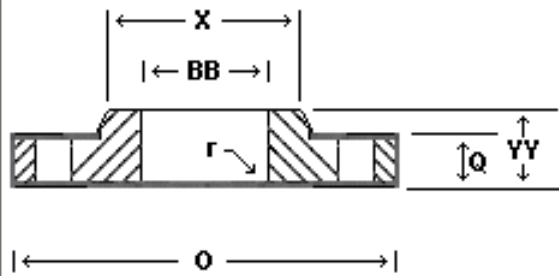
**SLIP ON**



**THREADED**

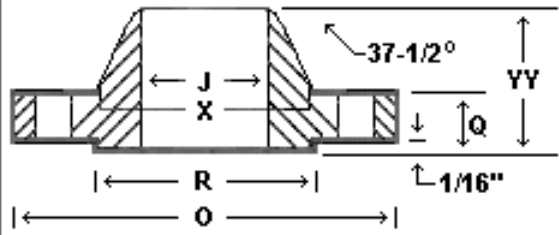
Nom. Pipe Size (inches)	O	Q*	R	X	No. and** Dia of Bolt Holes	Bolt Circle Dia.	YY*	H	J	Y*	B	r	YV	BB	Z	C	T
1/2	3.75	0.56	1.38	1.5	4-0.62	2.62	2.06	0.84	****	0.88	0.88	0.12	0.88	0.90	0.38	0.93	0.62
3/4	4.62	.62	1.69	1.88	4-0.75	3.25	2.25	1.05		1.00	1.09	0.12	1.00	1.11	.44	1.14	0.62
1	4.88	.69	2.00	2.12	4-0.75	3.50	2.44	1.32		1.06	1.36	0.12	1.06	1.38	0.5	1.41	0.69
1 1/4	5.25	0.81	2.50	2.5	4-0.75	3.88	2.62	1.66		1.12	1.70	0.19	1.12	1.72	0.56	1.75	0.81
1 1/2	6.12	0.88	2.88	2.75	4-0.88	4.50	2.75	1.90		1.25	1.95	0.25	1.25	1.97	0.62	1.99	0.88
2	6.50	1.00	3.62	3.31	8-0.75	5.00	2.88	2.38		1.44	2.44	0.31	1.44	2.46	0.69	2.50	1.12
2 1/2	7.50	1.12	4.12	3.94	8-0.88	5.88	3.12	2.88		1.62	2.94	0.31	1.62	2.97	0.75	3.00	1.25
3	8.25	1.25	5.00	4.62	8-0.88	6.62	3.25	3.50		1.81	3.57	0.38	1.81	3.60	0.81	3.63	1.38
3 1/2	9.00	1.38	5.5	5.25	8-1.00	7.25	3.38	4.00		1.94	4.07	0.38	1.94	4.10		4.13	1.56
4	10.75	1.50	6.19	6.00	8-1.00	8.50	4.00	4.50		2.12	4.57	0.44	2.12	4.60		4.63	1.62
5	13.00	1.75	7.31	7.44	8-1.12	10.50	4.50	5.56		2.38	5.66	0.44	2.38	5.69		5.69	1.88
6	14.00	1.88	8.50	8.75	12-1.12	11.50	4.62	6.63		2.62	6.72	0.50	2.62	6.75		6.75	2.00
8	16.50	2.19	10.62	10.75	12-1.25	13.75	5.25	8.63		3.00	8.72	0.50	3.00	8.75		8.75	2.25
10	20.00	2.50	12.75	13.5	16-1.38	17.00	6.00	10.75		3.38	10.88	0.50	4.38	10.92		10.88	2.56

### Dimensions for Class 600 Flanges

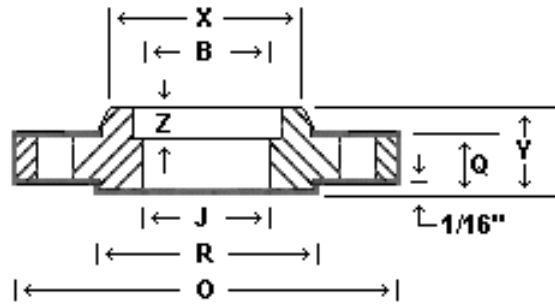


**LAP JOINT**

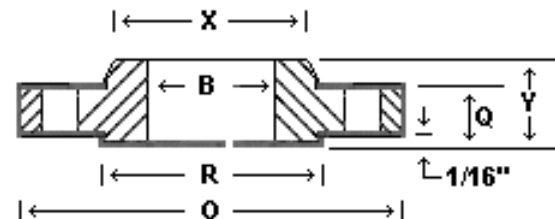
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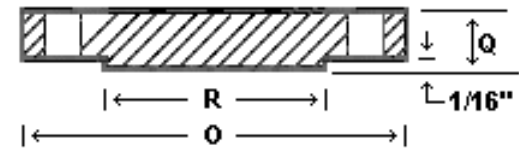
**WELDING NECK**



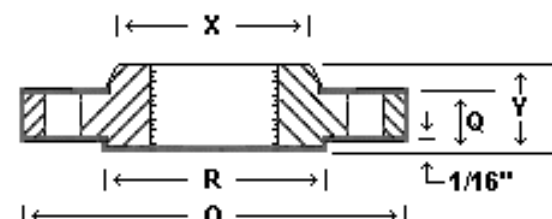
**SOCKET**



**SLIP ON**



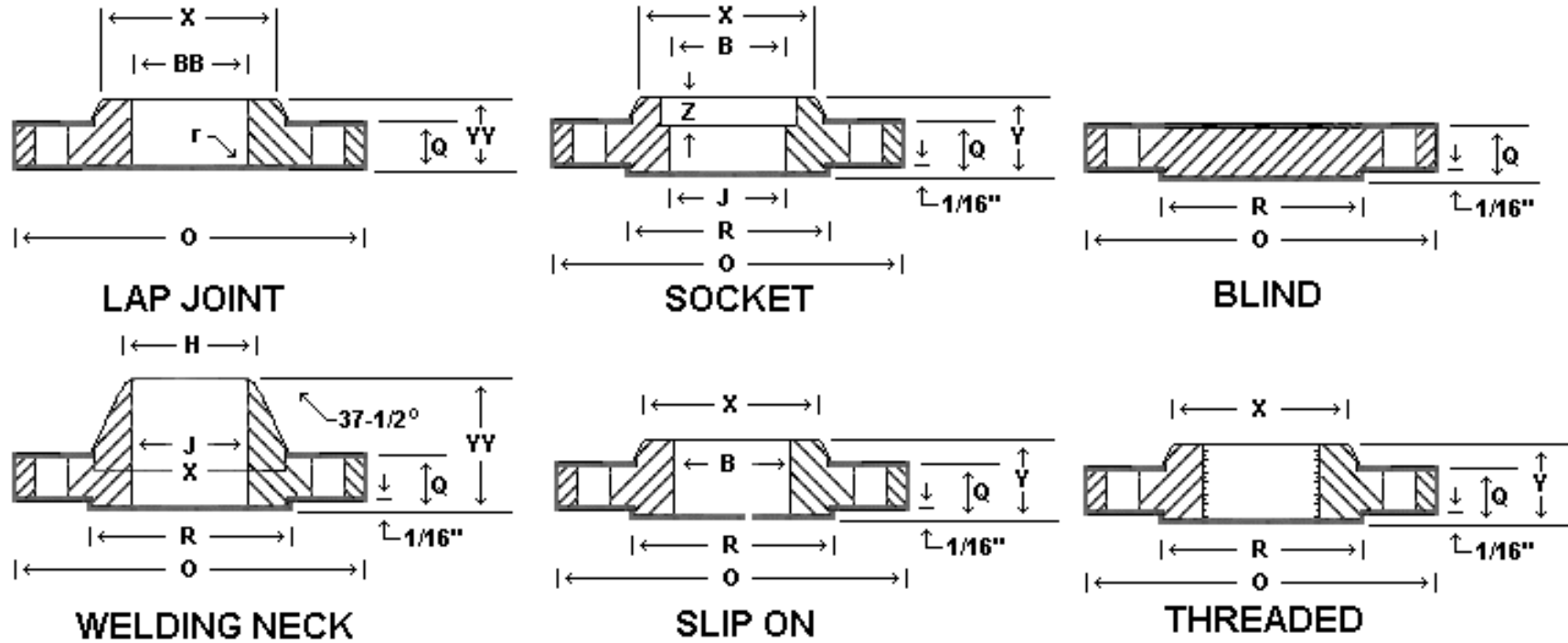
**BLIND**



**THREADED**

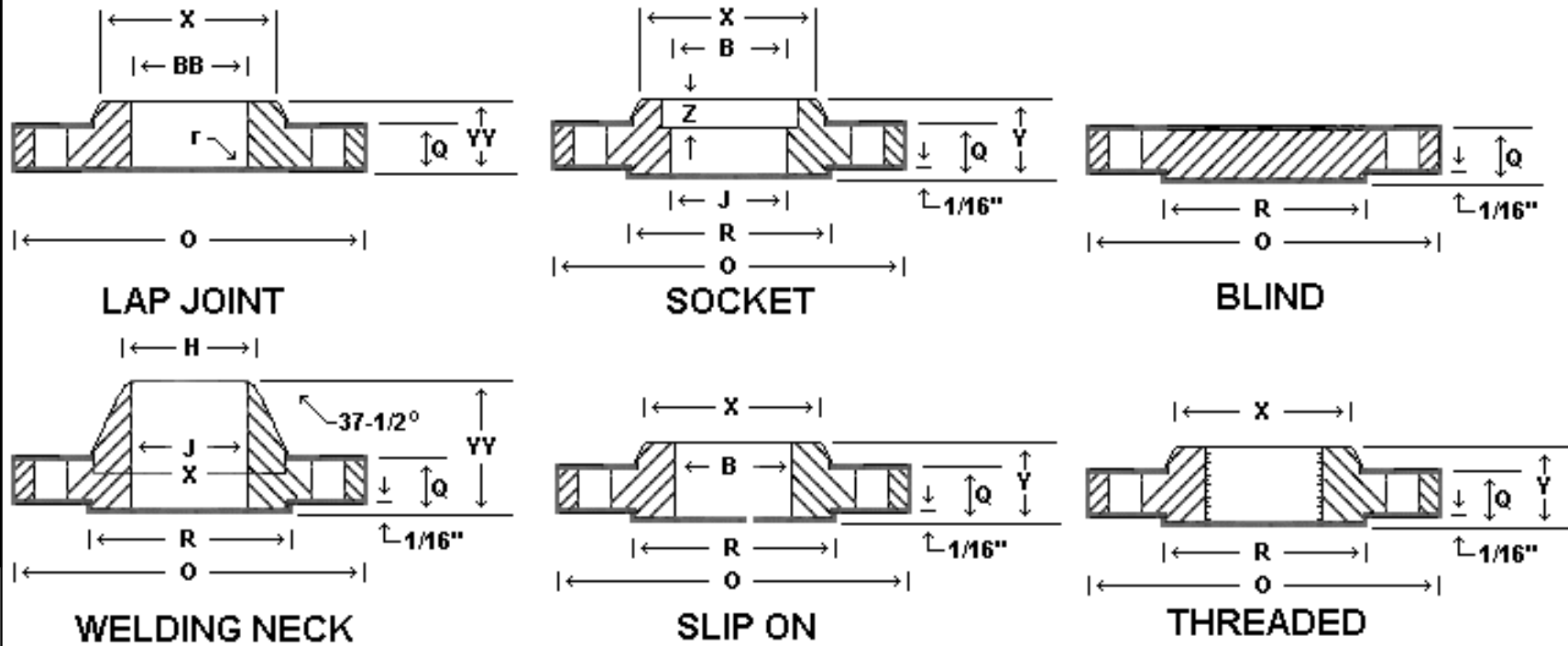
Nom. Pipe Size (inches)	O	Q*	R	X	No. and** Dia of Bolt Holes	Bolt Circle Dia.	YY*	H	J	Y*	B	r	YV	BB	Z	C	T
12	22.00	2.62	15.00	15.75	20-1.38	19.25	6.12	12.75		3.62	12.88	0.50	4.62	12.92		12.94	2.75
14	23.75	2.75	16.25	17.00	20-1.50	20.75	6.50	14.00		3.69	14.14	0.50	5.00	14.18		14.19	2.88
16	27.00	3.00	18.50	19.50	20-1.62	23.75	7.00	16.00		4.19	16.16	0.50	5.5	16.19		18.19	3.06
18	29.25	3.25	21.00	21.50	20-1.75	25.75	7.25	18.00		4.62	18.18	0.50	6.00	18.20		18.10	3.12
20	32.00	3.50	23.00	24.00	24-1.75	28.50	7.50	20.00		5.00	20.2	0.50	6.5	20.25		20.19	3.25
24	37.00	4.00	27.25	28.25	24-2.00	33.00	8.00	24.00		5.50	24.25	0.50	7.25	24.25		24.19	3.62

### Dimensions for Class 900 Flanges



Nom. Pipe Size (inches)	O	Q*	R	X	No. and** Dia of Bolt Holes	Bolt Circle Dia.	YY*	H	J	Y*	B	r	YV	BB	Z	C	T
1/2	4.75	0.88	1.38	1.50	4-0.88	3.25	2.38	0.84		1.25	0.88	0.12	1.25	0.90	0.93	0.88	
3/4	5.12	1.00	1.69	1.75	4-0.88	3.50	2.75	1.05		1.38	1.09	0.12	1.38	1.11	1.14	1.00	
1	5.88	1.12	2.00	2.06	4-1.00	4.00	2.88	1.32		1.62	1.36	0.12	1.62	1.38	1.41	1.12	
1 1/4	6.25	1.12	2.50	2.50	4-1.00	4.38	2.88	1.66		1.62	1.70	0.19	1.62	1.72	1.75	1.19	
1 1/2	7.00	1.25	2.88	2.75	4-1.12	4.88	3.25	1.90		1.75	1.95	0.25	1.75	1.97	1.99	1.25	
2	8.50	1.50	3.62	4.12	8-1.00	6.50	4.00	2.38		2.25	2.44	0.31	2.25	2.46	2.50	1.50	
2 1/2	9.62	1.62	4.12	4.88	8-1.12	7.50	4.12	2.88		2.50	2.94	0.31	2.50	2.97	3.00	1.88	
3	9.50	1.50	5.00	5.00	8-1.00	7.50	4.00	3.50		2.12	3.57	0.38	2.12	3.60	3.63	1.62	
4	11.50	1.75	6.19	6.25	8-1.25	9.25	4.50	4.50		2.75	4.57	0.44	2.75	4.60	4.63	1.88	
5	13.75	2.00	7.31	7.50	8-1.38	11.00	5.00	5.56		3.12	5.66	0.44	3.12	5.69	5.69	2.12	
6	15.00	2.19	8.50	9.25	12-1.25	12.50	5.50	6.63		3.38	6.72	0.50	3.38	6.75	6.75	2.25	

### Dimensions for Class 900 Flanges



Nom. Pipe Size (inches)	O	Q*	R	X	No. and** Dia of Bolt Holes	Bolt Circle Dia.	YY*	H	J	Y*	B	r	YV	BB	Z	C	T
8	18.5	2.50	10.62	11.75	12-1.50	15.5	6.38	8.63	P U R C A S E R	4.00	8.72	0.50	4.5	8.75	8.75	2.50	
10	21.50	2.75	12.75	14.50	16-1.50	18.50	7.25	10.75		4.25	10.88	0.50	5.00	10.92	10.88	2.81	
12	24.00	3.12	15.00	16.50	20-1.50	21.00	7.88	12.75		4.62	12.88	0.50	5.62	12.92	12.94	3.00	
14	25.25	3.38	16.25	17.75	20-1.62	22.00	8.38	14.00		5.12	14.14	0.50	6.12	14.18	14.19	3.25	
16	27.75	3.50	18.50	20.00	20-1.75	24.25	8.5	16.00		5.25	16.16	0.50	6.50	16.19	16.19	3.38	
18	31.00	4.00	21.00	22.25	20-2.00	27.00	9.00	18.00		6.00	18.18	0.50	7.50	18.20	18.19	3.50	
20	33.75	4.25	23.00	24.50	20-2.12	29.50	9.75	20.00		6.25	20.20	0.50	8.25	20.25	20.19	3.62	
24	41.00	5.50	27.25	29.50	20-2.62	35.50	11.50	24.00		8.00	24.25	0.50	10.50	24.25	24.19	4.00	