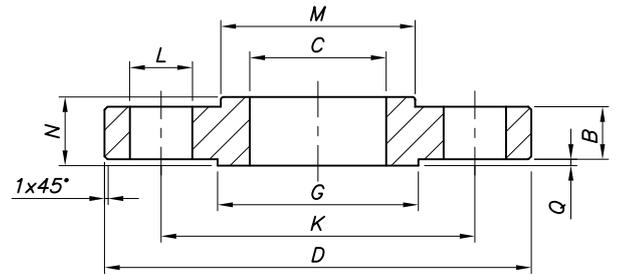
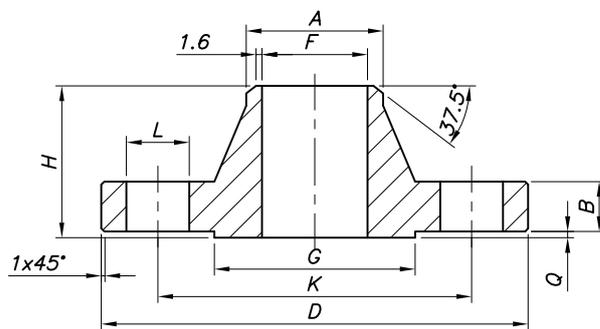


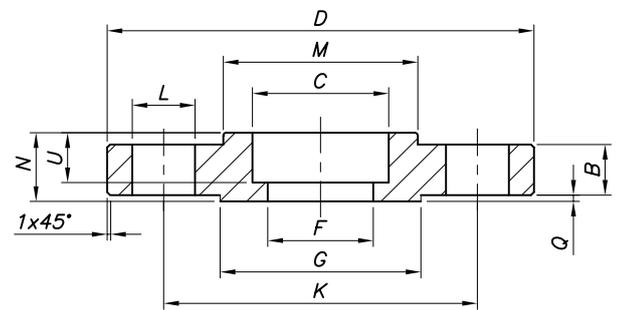
FLANGE CEGO



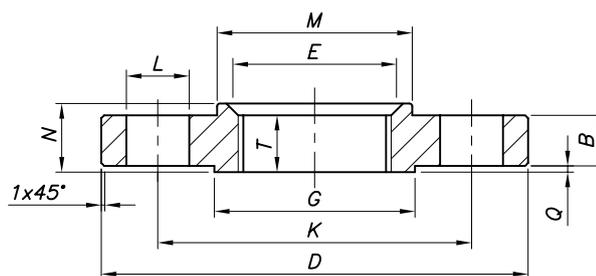
FLANGE SOBREPOSTO



FLANGE COM PESCOÇO



FLANGE DE ENCAIXE



FLANGE ROSCADO



QG IND. E COM. DE ACESSÓRIOS INDUSTRIAIS LTDA.

TÍTULO:	FLANGES 150# / 300# / 600#		CÓDIGO:	IT-009	FOLHA:	05	REV.:	03	
MATERIAL:	AÇO INOX F304/L, F316/L AÇO CARBONO (A105)		NORMA:	A182 - ASME B16.5 A105 - ASME B16.5					
ESCALA:	S/ESCALA	DATA:	29/07/19	DESENHISTA:	SILVANA	VERIFICAÇÃO:	SIDNEY	APROVAÇÃO:	IVO

DIMENSÕES COMUNS																					
Ø NOM.	1/2"	3/4"	1"	1.1/4"	1.1/2"	2"	2.1/2"	3"	3.1/2"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	22"	24"
A	21.3	26.7	33.4	42.2	48.3	60.3	73.0	88.9	101.6	114.3	141.3	168.3	219.1	273.0	323.8	355.6	406.4	457.0	508.0	558.8	610.0
C	22.2	27.7	34.5	43.2	49.5	61.9	74.6	90.7	103.4	116.1	143.8	170.7	221.5	276.2	327.0	359.2	410.5	461.8	513.1	564.4	616.0
F	DE ACORDO COM O SCHEDULE SOLICITADO PELO CLIENTE																				
G	34.9	42.9	50.8	63.5	73.0	92.1	104.8	127.0	139.7	157.2	185.7	215.9	269.9	323.8	381.0	412.8	469.9	533.4	584.2	641.4	692.2
R	3	3	3	5	6	8	8	10	10	11	11	13	13	13	13	13	13	13	13	13	13
U	10	11	13	14	16	17	19	21	...	...	...	...	...	...	...	...	...	...	...	...	...

150#

Ø NOM.	1/2"	3/4"	1"	1.1/4"	1.1/2"	2"	2.1/2"	3"	3.1/2"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	22"	24"
B	9.6	11.2	12.7	14.3	15.9	17.5	20.7	22.3	22.3	22.3	22.3	23.9	27.0	28.6	30.2	33.4	35.0	38.1	41.3	44.5	46.1
D	90	100	110	115	125	150	180	190	215	230	255	280	345	405	485	535	595	635	700	750	815
H	48	53	56	58	62	64	70	70	72	77	89	89	102	102	115	127	127	140	145	150	153
K	60.3	69.9	79.4	88.9	98.4	120.7	139.7	152.4	177.8	190.5	215.9	241.3	298.5	362.0	431.8	476.3	539.8	577.9	635.0	692.2	749.3
L	15.9	15.9	15.9	15.9	15.9	19.1	19.1	19.1	19.1	19.1	22.2	22.2	22.2	25.4	25.4	28.6	28.6	31.8	31.8	34.9	34.9
M	30	38	49	59	65	78	90	108	122	135	164	192	246	305	365	400	457	505	559	610	663
N	16	16	18	21	23	26	29	31	32	34	37	40	45	50	56	58	64	69	73	80	83
Q	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
FUROS	4	4	4	4	4	4	4	4	8	8	8	8	8	12	12	12	16	16	20	20	20

300#

Ø NOM.	1/2"	3/4"	1"	1.1/4"	1.1/2"	2"	2.1/2"	3"	3.1/2"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	22"	24"
B	12.7	14.3	15.9	17.5	19.1	20.7	23.9	27.0	28.6	30.2	33.4	35.0	39.7	46.1	49.3	52.4	55.6	58.8	62.0	65.1	68.3
D	95	115	125	135	155	165	190	210	230	255	280	320	380	445	520	585	650	710	775	840	915
E(min)	23.6	29.0	35.8	44.4	50.3	63.5	76.2	92.2	104.9	117.6	144.4	171.4	222.2	276.2	328.6	360.4	411.2	462.0	512.8	...	614.4
H	53	58	62	66	69	70	77	80	81	86	99	99	112	118	131	143	146	159	162	166	169
K	66.7	82.6	88.9	98.4	114.3	127.0	149.2	168.3	184.2	200.0	235.0	269.9	330.2	387.4	450.8	514.4	571.5	628.6	685.8	743.0	812.8
L	15.9	19.1	19.1	19.1	22.2	19.1	22.2	22.2	22.2	22.2	22.2	22.2	25.4	28.6	31.8	31.8	34.9	34.9	34.9	41.3	41.3
M	38	48	54	64	70	84	100	117	133	146	178	206	260	321	375	425	483	533	587	640	702
N	23	26	27	27	31	34	39	43	45	48	51	53	62	67	73	77	83	89	96	102	107
Q	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
T	16	16	18	21	23	29	32	32	37	37	43	47	51	56	61	64	69	70	74	...	83
FUROS	4	4	4	4	4	8	8	8	8	8	8	12	12	16	16	20	20	24	24	24	24

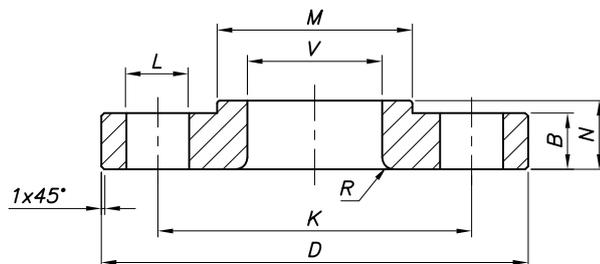
600#

Ø NOM.	1/2"	3/4"	1"	1.1/4"	1.1/2"	2"	2.1/2"	3"	3.1/2"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	22"	24"
B	14.3	15.9	17.5	20.7	22.3	25.4	28.6	31.8	35.0	38.1	44.5	47.7	55.6	63.5	66.7	69.9	76.2	82.6	88.9	95.2	101.6
D	95	115	125	135	155	165	190	210	230	275	330	355	420	510	560	605	685	745	815	870	940
E(min)	23.6	29.0	35.8	44.4	50.6	63.5	76.2	92.2	104.9	117.6	144.4	171.4	222.2	276.2	328.6	360.4	411.2	462.0	512.8	...	614.4
H	59	64	69	74	77	80	86	90	93	109	121	124	140	159	163	172	185	191	197	204	210
K	66.7	82.6	88.9	98.4	114.3	127.0	149.2	168.3	184.2	215.9	266.7	292.1	349.2	431.8	489.0	527.0	603.2	654.0	723.9	777.7	838.2
L	15.9	19.1	19.1	19.1	22.2	19.1	22.2	22.2	25.4	25.4	28.6	28.6	31.8	34.9	34.9	38.1	41.3	44.5	44.5	47.6	50.8
M	38	48	54	64	70	84	100	117	133	152	189	222	273	343	400	432	495	546	610	663	718
N	29	32	34	36	39	44	48	53	56	61	67	74	83	93	99	101	113	124	134	140	147
Q	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
T	16	16	18	21	23	29	32	35	40	42	48	51	58	66	70	74	78	80	83	...	93
FURO	4	4	4	4	4	8	8	8	8	8	8	12	12	16	20	20	20	20	24	24	24

TOLERÂNCIAS

DIMENSÃO	A	B	C	F	G 150# 300#	G 600#	H	K
ATÉ 4"	+2.0 -1.0	+3.0 -0.0	+1.0 -1.0	+1.0 -1.0	+1.0 -1.0	+0.5 -0.5	+1.5 -1.5	+1.5 -1.5
ATÉ 5"	+4.0 -1.0		+1.5 -1.5	+1.5 -1.5			+1.5 -3.0	
6" A 10"		+3.0 -5.0	+3.0 -1.5	+3.0 -1.5				
12" A 18"								
20" e ACIMA		+5.0 -0.0	+3.0 -1.5	+3.0 -1.5				

 <p>conexões e tubos</p>	QG IND. E COM. DE ACESSÓRIOS INDUSTRIAIS LTDA.												
	TÍTULO: FLANGES 150# / 300# / 600#										CÓDIGO: IT-009	FOLHA: 06	REV.: 04
	MATERIAL: AÇO INOX F304/L, F316/L AÇO CARBONO (A105)					NORMA: A182 - ASME B16.5 A105 - ASME B16.5							
	ESCALA: S/ESCALA			DATA: 11/08/20		DESENHISTA: SILVANA		VERIFICAÇÃO: SIDNEY		APROVAÇÃO: IVO			



DIMENSÕES COMUNS

Ø NOM.	1/2"	3/4"	1"	1.1/4"	1.1/2"	2"	2.1/2"	3"	3.1/2"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	22"	24"	
R	3	3	3	5	6	8	8	10	10	11	11	13	13	13	13	13	13	13	13	13	13	13
V	22.9	28.2	34.9	43.7	50.0	62.5	75.4	91.4	104.1	116.8	144.4	171.4	222.2	277.4	328.2	360.2	411.2	462.3	514.4	565.2	616.0	

150#

Ø NOM.	1/2"	3/4"	1"	1.1/4"	1.1/2"	2"	2.1/2"	3"	3.1/2"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	22"	24"
B	11.2	12.7	14.3	15.9	17.5	19.1	22.3	23.9	23.9	23.9	23.9	25.4	28.6	30.2	31.8	35.0	36.6	39.7	42.9	46.1	47.7
D	90	100	110	115	125	150	180	190	215	230	255	280	345	405	485	535	595	635	700	750	815
K	60.3	69.9	79.4	88.9	98.4	120.7	139.7	152.4	177.8	190.5	215.9	241.3	298.5	362.0	431.8	476.3	539.8	577.9	635.0	635.0	749.3
L	15.9	15.9	15.9	15.9	15.9	19.1	19.1	19.1	19.1	19.1	22.2	22.2	22.2	25.4	25.4	28.6	28.6	31.8	31.8	34.9	34.9
M	30	38	49	59	65	78	90	108	122	135	164	192	246	305	365	400	457	505	559	610	663
N	16	16	17	21	22	25	29	30	32	33	36	40	44	49	56	79	87	97	103	108	111
FUROS	4	4	4	4	4	4	4	4	8	8	8	8	8	12	12	12	16	16	20	20	20

300#

Ø NOM.	1/2"	3/4"	1"	1.1/4"	1.1/2"	2"	2.1/2"	3"	3.1/2"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	22"	24"
B	14.3	15.9	17.5	19.1	20.7	22.3	25.4	28.6	30.2	31.8	35.0	36.6	41.3	47.7	50.8	54.0	57.2	60.4	63.5	66.7	69.9
D	95	115	125	135	155	165	190	210	230	255	280	320	380	445	520	585	650	710	775	840	915
K	66.7	82.6	88.9	98.4	114.3	127.0	149.2	168.3	184.2	200.0	235.0	269.9	330.2	387.4	450.8	514.4	571.5	628.6	685.8	743.0	812.8
L	15.9	19.1	19.1	19.1	22.2	19.1	22.2	22.2	22.2	22.2	22.2	22.2	25.4	28.6	31.8	31.8	34.9	34.9	34.9	41.3	41.3
M	38	48	54	64	70	84	100	117	133	146	178	206	260	321	375	425	483	533	587	640	702
N	22	25	27	27	30	33	38	43	44	48	51	52	62	95	102	111	121	130	140	145	152
FUROS	4	4	4	4	4	8	8	8	8	8	8	12	12	16	16	20	20	24	24	24	24

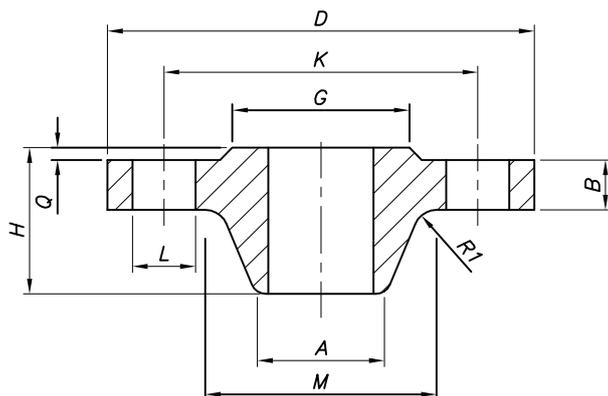
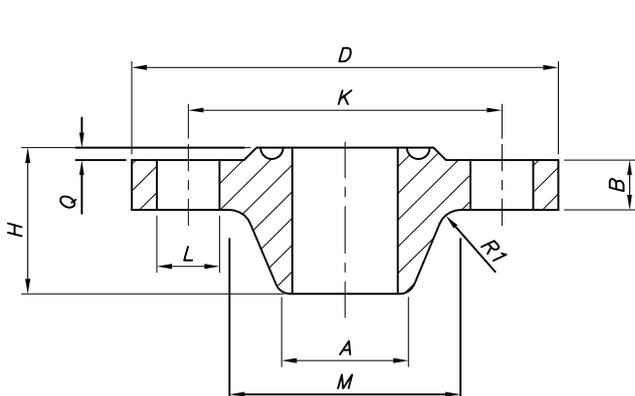
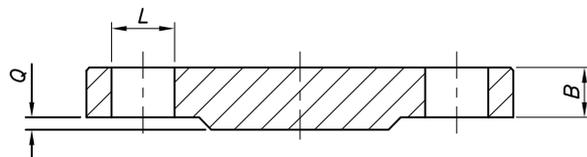
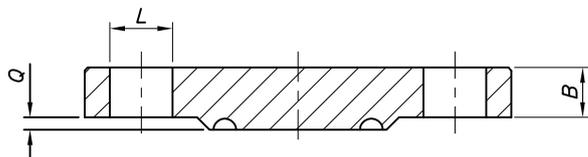
600#

Ø NOM.	1/2"	3/4"	1"	1.1/4"	1.1/2"	2"	2.1/2"	3"	3.1/2"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	22"	24"
B	14.3	15.9	17.5	20.7	22.3	25.4	28.6	31.8	35.0	38.1	44.5	47.7	55.6	63.5	66.7	69.9	76.2	82.6	88.9	95.2	101.6
D	95	115	125	135	155	165	190	210	230	275	330	355	420	510	560	605	685	745	815	870	940
K	66.7	82.6	88.9	98.4	114.3	127.0	149.2	168.3	184.2	215.9	266.7	292.1	349.2	431.8	489.0	527.0	603.2	654.0	723.9	777.7	838.2
L	15.9	19.1	19.1	19.1	22.2	19.1	22.2	22.2	25.4	25.4	28.6	28.6	31.8	34.9	34.9	38.1	41.3	44.5	44.5	47.6	50.8
M	38	48	54	64	70	84	100	117	133	152	189	222	273	343	400	432	495	546	610	663	718
N	22	25	27	29	32	37	41	46	49	54	60	67	76	111	117	127	140	152	165	175	184
FUROS	4	4	4	4	4	8	8	8	8	8	8	12	12	16	20	20	20	20	24	24	24

TOLERÂNCIAS

DIMENSÃO	B	K	M	V	Diâm. furo do parafuso	L
ATÉ 4"	+3.0 -0.0	+1.5 -1.5	+3.0 -0.0	+1.0 -0.0	DE 15,87 ATÉ 22,22	+0,38 -0.0
ATÉ 6"						
6" ATÉ 10"					ACIMA DE 25,4	+0,79 -0.0
12" e acima						

	QG IND. E COM. DE ACESSÓRIOS INDUSTRIAIS LTDA.					
	TÍTULO: FLANGE SOLTO 150# / 300# / 600#			CÓDIGO: IT-009	FOLHA: 10	REV.: 03
	MATERIAL: AÇO INOX F304/L, F316/L AÇO CARBONO (A105)		NORMA: A182 - ASME B16.5 A105 - ASME B16.5			
	ESCALA: S/ESCALA	DATA: 29/07/19	DESENHISTA: SILVANA	VERIFICAÇÃO: SIDNEY	APROVAÇÃO: IVO	



RING JOINT

RAISED FACE



QG IND. E COM. DE ACESSÓRIOS INDUSTRIAIS LTDA.

TÍTULO: FLANGES GRANDES SÉRIE A 150# / 300# / 600#		CÓDIGO: IT-009	FOLHA: 11	REV.: 03
MATERIAL: AÇO INOX F304/L, F316/L AÇO CARBONO (A105)		NORMA: A182 - ASME B16.47 A105 - ASME B16.47		
ESCALA: S/ESCALA	DATA: 02/08/19	DESENHISTA: SILVANA	VERIFICAÇÃO: SIDNEY	APROVAÇÃO: IVO

150#												
Ø NOM.	26"	28"	30"	32"	34"	36"	38"	40"	42"	44"	46"	48"
A	660,4	711,2	762,0	812,8	863,6	914,4	965,2	1016,0	1066,8	1117,6	1168,4	1219,2
B (WN)	66,7	69,9	73,1	79,4	81,0	88,9	85,8	88,9	95,3	100,1	101,6	106,4
B(cego)	66,7	69,9	73,1	79,4	81,0	88,9	85,8	88,9	95,3	100,1	101,6	106,4
D	870	925	985	1060	1110	1170	1240	1290	1345	1405	1455	1510
G	749	800	857	914	965	1022	1073	1124	1194	1245	1295	1359
H	121	126	137	145	150	158	158	164	172	178	186	193
K	806,4	863,6	914,4	977,9	1028,7	1085,8	1149,4	1200,2	1257,3	1314,4	1365,2	1422,4
L	34,93	34,93	34,93	41,28	41,28	41,28	41,28	41,28	41,28	41,28	41,28	41,28
FUROS	24	28	28	28	32	32	32	36	36	40	40	44
M	676	727	781	832	883	933	991	1041	1092	1143	1197	1248
Q	2	2	2	2	2	2	2	2	2	2	2	2
R1	10	11	11	11	13	13	13	13	13	13	13	13

300#												
Ø NOM.	26"	28"	30"	32"	34"	36"	38"	40"	42"	44"	46"	48"
A	660,4	711,2	762,0	812,8	863,6	914,4	965,2	1016,0	1066,8	1117,6	1168,4	1219,2
B (WN)	77,8	84,2	90,5	96,9	100,1	103,2	106,4	112,8	117,5	122,3	127,0	131,8
B(cego)	82,6	88,9	93,7	98,5	103,2	109,6	106,4	112,8	117,5	122,3	127,0	131,8
D	970	1035	1090	1150	1205	1270	1170	1240	1290	1355	1415	1465
G	749	800	857	914	965	1022	1029	1086	1137	1194	1245	1302
H	185	197	210	223	232	242	181	194	200	207	216	224
K	876,3	939,8	997,0	1054,1	1104,9	1168,4	1092,2	1155,7	1206,5	1263,6	1320,8	1371,6
L	44,45	44,45	47,63	50,80	50,80	53,98	41,28	44,45	44,45	47,63	50,80	50,80
FUROS	28	28	28	28	28	32	32	32	32	32	28	32
M	721	775	827	881	937	991	994	1048	1099	1149	1203	1254
Q	2	2	2	2	2	2	2	2	2	2	2	2
R1	10	11	11	11	13	13	13	13	13	13	13	13

600#												
Ø NOM.	26"	28"	30"	32"	34"	36"	38"	40"	42"	44"	46"	48"
A	660,4	711,2	762,0	812,8	863,6	914,4	965,2	1016,0	1066,8	1117,6	1168,4	1219,2
B (WN)	108,0	111,2	114,3	117,5	120,7	123,9	152,4	158,8	168,3	173,1	179,4	189,0
B(cego)	125,5	131,8	139,7	147,7	154,0	162,0	155,0	162,0	171,5	177,8	185,8	195,3
D	1015	1075	1130	1195	1245	1315	1270	1320	1405	1455	1510	1595
G	749	800	857	914	965	1022	1054	1111	1168	1226	1276	1334
H	229	242	255	267	277	290	261	271	286	296	307	323
K	914,4	965,2	1022,4	1079,5	1130,3	1193,8	1162,0	1212,8	1282,7	1333,5	1390,6	1460,5
L	50,80	53,98	53,98	60,33	60,33	66,68	60,33	60,33	66,68	66,68	66,68	73,03
FUROS	28	28	28	28	28	28	28	32	28	32	32	32
M	748	803	862	918	973	1032	1022	1073	1127	1181	1235	1289
Q	7	7	7	7	7	7	7	7	7	7	7	7
R1	13	13	13	13	14	14	14	14	14	14	14	14

TOLERÂNCIAS

DIMENSÃO	A	B		G	H	K	Q	
26 a 48"	+5.0 -2.0	B<=25	+3.0 / -0,0	+2.0 -2.0	+3,0 -5,0	+1.5 -1.5	150# e 300#	+0,5 / -0,5
		25<B<=50	+5.0 / -0,0					
		50<B<=75	+8.0 / -0,0				600#	+2,0 / -2,0
		B>75	+10.0 / -0,0					

	QG IND. E COM. DE ACESSÓRIOS INDUSTRIAIS LTDA.											
	TÍTULO: FLANGES GRANDES SÉRIE A 150# / 300# / 600#								CÓDIGO: IT-009	FOLHA: 12	REV.: 03	
	MATERIAL: AÇO INOX F304/L, F316/L AÇO CARBONO (A105)						NORMA: A182 - ASME B16.47 A105 - ASME B16.47					
	ESCALA: S/ESCALA			DATA: 02/08/19			DESENHISTA: SILVANA		VERIFICAÇÃO: SIDNEY		APROVAÇÃO: IVO	