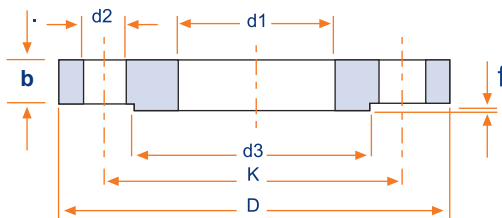
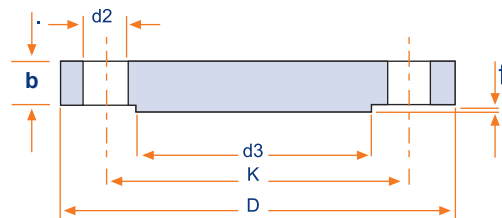


Steel Flanges



Plain Flange



Blind Flange

DN 80-3000

PN 6-10

EN 1092-1(ISO 7005-1, DIN 2501)

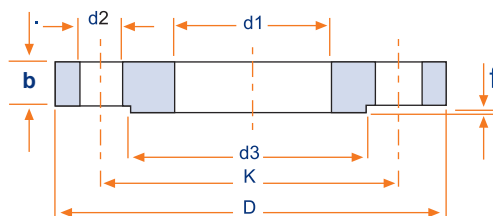
unit: mm

Pipe		PN 6							PN 10						
Size	outside diameter of pipe	Flange diameter	Pitch circle diameter	Holes	Diameter of bolt hole	Raised face diameter	Thick-ness	Raised face	Flange diameter	Pitch circle diameter	Holes	Diameter of bolt hole	Raised face diameter	THICK-NESS	Raised face
DN	d1	D	K	no.	d2	d3	b	f	D	K	no.	d2	d3	b	f
80	89	190	150	4	18	128	15	2	200	160	4/8	18	138	20	2
100	114.3	210	170	4	18	148	15	2	220	180	8	18	162	20	2
125	140	240	200	8	18	178	20	2	250	210	8	18	188	20	2
150	168	265	225	8	18	202	20	2	285	240	8	22	218	25	2
200	219	320	280	8	18	258	20	2	340	295	8	22	268	25	2
250	273	375	335	12	18	312	20	2	395	350	12	22	320	25	2
300	324	440	395	12	22	365	20	2	445	400	12	22	370	25	2
350	355	490	445	12	22	415	20	2	505	460	16	22	430	25	2
400	406	540	495	16	22	465	25	2	565	515	16	26	482	30	2
450	457	595	550	20	22	520	25	2	615	565	20	26	530	30	2
500	508	645	600	20	22	570	25	2	670	620	20	26	585	30	2
550	559									675	20	30	630		2
600	610	755	705	20	26	670	25	2	780	725	20	30	685	30	2
650	660			24	26			3	835	780	24	30	740		3
700	711	860	810	24	26	775	25	3	895	840	24	30	800	30	3
750	762								965	900	24	33	850		3
800	813	975	920	24	30	880	25	3	1015	950	24	33	905	35	3
900	914	1075	1020	24	30	980	25	4	1115	1050	28	33	1005	35	4
1000	1016	1175	1120	28	30	1080	25	4	1230	1160	28	28	1110	35	4
1100	1118								1340	1270	32	36	1221		4
1200	1220	1405	1340	32	33	1295	30	4	1455	1380	32	39	1330	40	4
1400	1422	1630	1560	36	36	1510	30	4	1675	1590	36	42	1535	45	4
1600	1626	1830	1760	40	36	1710	35	5	1915	1820	40	48	1760	45	5
1800	1829	2045	1970	44	39	1920	35	5	2115	2020	44	48	1960	50	5
2000	2032	2265	2180	48	42	2125	40	5	2325	2230	48	48	2170	55	5
2200	2235	2475	2390	52	42	2335	40	5	2550	2440	52	56	2370	60	5
2400	2438	2685	2600	56	42	2545	45	5	2760	2650	56	56	2570	65	5
2600	2641	2905	2810	60	48	2750	c	5	2960	2850	60	56	2780	c	5
2800	2845	3115	3020	64	48	2960	c	5	3180	3070	64	56	3000	c	5
3000	3048	3315	3220	68	48	3160	c	5	3405	3290	68	62	3210	c	5

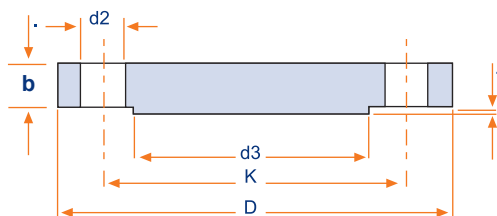
مشخصات برای سایزهای بالاتر بر حسب درخواست مشتری اعلام می گردد.

سایر استانداردهای قابل ساخت: ANSI, AWWA, ISO, DIN

Steel Flanges



Plain Flange



Blind Flange

DN 80-2200

PN 16-25

EN 1092-1(ISO 7005-1, DIN 2501)

unit: mm

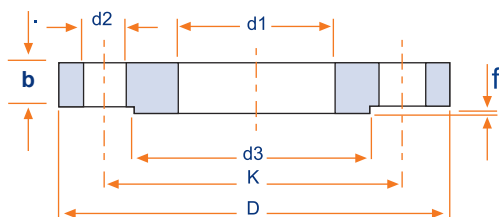
Pipe		PN 16							PN 25						
Size	outside diameter of pipe	Flange diameter	Pitch circle diameter	Holes	Diameter of bolt hole	Raised face diameter	Thick-ness	Raised face	Flange diameter	Pitch circle diameter	Holes	Diameter of bolt hole	Raised face diameter	THICK-NESS	Raised face
DN	d1	D	K	no.	d2	d3	b	f	D	K	no.	d2	d3	b	f
80	89	200	160	8	18	138	20	2	200	160	8	18	138	20	2
100	114.3	220	180	8	18	158	20	2	235	190	8	22	162	20	2
125	140	250	210	8	18	188	20	2	270	220	8	26	188	20	2
150	168	285	240	8	22	212	25	2	300	250	8	26	218	25	2
200	219	340	295	12	22	268	25	2	360	310	12	26	278	30	2
250	273	405	355	12	26	320	25	2	425	370	12	30	335	30	2
300	324	460	410	12	26	378	30	2	485	430	16	30	395	35	2
350	355	520	470	16	26	438	30	3	555	490	16	33	450	40	3
400	406	580	525	16	30	490	30	3	620	550	16	36	505	40	3
450	457	640	585	20	30	490	35	3	670	600	16	36	505	40	3
500	508	715	650	20	33	610	35	3	730	660	20	36	615	45	3
550	559	775	710	20	33	665		3	785	710	20	39	660		3
600	610	840	770	20	36	725	35	3	845	770	20	39	720	45	3
650	660	860	790	24	36	740		3	895	820	24	39	770		3
700	711	910	840	24	36	795	35	3	960	875	24	39	820	45	3
750	762								1020	935	24	42	880		3
800	813	1025	950	24	39	900	40	3	1085	990	24	42	930	50	3
900	914	1125	1050	28	39	1000	40	4	1185	1090	28	33	1030	60	4
1000	1016	1255	1170	28	42	1115	45	4	1320	1210	28	48	1140	60	4
1100	1118	1355	1270	32	42	1215		4	1420	1310	32	56	1240	c	4
1200	1220	1485	1390	32	48	1330	50	4	1530	1420	32	56	1350	70	4
1400	1422	1685	1590	36	48	1530	50	4	1755	1640	36	62	1560	75	4
1600	1626	1930	1820	40	56	1750	60	5	1975	1860	40	62	1780	85	5
1800	1829	2130	2020	44	56	1950	60	5	2195	2070	44	70	1985	90	5
2000	2032	2345	2230	48	62	2150	65	5	2425	2300	48	70	2210	95	5
2200	2235	2555	2440	52	62	2360	65	5						c	

مشخصات برای سایزهای بالاتر بر حسب درخواست مشتری اعلام می گردد.

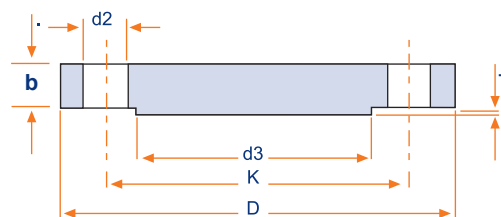
سایر استانداردهای قابل ساخت: ANSI, AWWA, ISO, DIN

شرکت نهرآب گستر اشتهارد ضمن رعایت استانداردهای ذیربط حق هر گونه تغییر در ابعاد و مشخصات را جهت ارتقاء کیفی برای خود محفوظ می دارد.

Steel Flanges



Plain Flange



Blind Flange

DN 80-1600
PN 40-64-100
EN 1092-1(ISO 7005-1, DIN 2501)

unit: mm

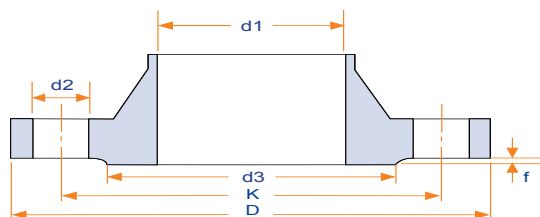
Pipe		PN 40					PN 64				PN 100			
Size	outside diameter of pipe	Flange diameter	Pitch circle diameter	Holes	Diameter of bolt hole	Thick-ness	Raised face diameter	Raised face	Holes	Pitch circle diameter	Flange diameter	Pitch circle diameter	Holes	Diameter of bolt hole
DN	d1	D	K	no.	d2	b	D	K	no.	d2	D	K	no.	d2
80	89	200	160	8	18	25	215	170	8	22	230	180	8	26
100	114	235	190	8	22	25	250	200	8	26	265	210	8	30
125	140	270	220	8	26	25	295	240	8	30	315	250	8	33
150	168	300	250	8	26	30	345	280	8	33	355	290	12	33
200	219	375	320	12	30	30	415	345	12	36	430	360	12	36
250	273	450	385	12	33	40	470	400	12	36	505	430	12	39
300	324	515	450	16	33	40	530	460	16	36	585	500	16	42
350	355	580	510	16	36	45	600	525	16	39	655	560	16	48
400	406	660	585	16	39	50								
450	406	685	610	20	39	50	670	585	16	42	715	620	16	48
500	508	755	670	20	42	50	800	705	20	48	870	760	20	56
600	610	890	795	20	48	60	930	820	20	56	990	875	20	62
700	711	995	900	24	48	65	1045	935	24	56	1145	1020	24	70
800	812	1140	1030	24	56	70	1165	1050	24	62				
900	914	1250	1140	28	56	75	1285	1170	28	62				
1000	1016	1360	1250	28	56	80	1415	1290	28	70				
1200	1220	1575	1460	32	62	90	1665	1530	32	78				
1400	1422	1795	1680	36	62	100								
1600	1626	2025	1900	40	70	110zzzz								

مشخصات برای سایزهای بالاتر بر حسب درخواست مشتری اعلام می گردد.

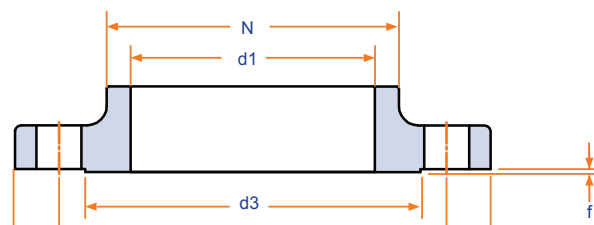
سایر استانداردهای قابل ساخت: ANSI, AWWA, ISO, DIN

شرکت نهرآب گستر اشتهاارد ضمن رعایت استانداردهای زیربط حق هر گونه تغییر در ابعاد و مشخصات را جهت ارتقاء کیفی برای خود محفوظ می دارد.

Steel Flanges



Welding Neck



Slip-On

DN 80-3000

PN 10-16

EN 1092-1(ISO 7005-1, DIN 2501)

unit: mm

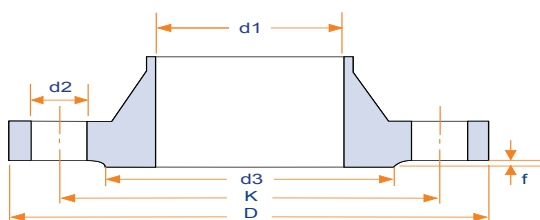
Pipe		PN 10							PN 16						
Size	outside diameter of pipe	Flange diameter	Pitch circle diameter	Holes	Diameter of bolt hole	Raised face diameter	Raised face	Neck Dia	Flange diameter	Pitch circle diameter	Holes	Diameter of bolt hole	Raised face diameter	Raised face	Neck Dia
DN	d1	D	K	no.	d2	d3	f	N	D	K	no.	d2	d3	f	N
80	89	200	160	4/8	18	138	2	118	200	160	8	18	138	2	118
100	114.3	220	180	8	18	162	2	140	220	180	8	18	158	2	140
125	140	250	210	8	18	188	2	168	250	210	8	18	188	2	168
150	168	285	240	8	22	218	2	195	285	240	8	22	212	2	195
200	219	340	295	8	22	268	2	246	340	295	12	22	268	2	246
250	273	395	350	12	22	320	2	298	405	355	12	26	320	2	298
300	324	445	400	12	22	370	2	348	460	410	12	26	378	2	350
350	355	505	460	16	22	430	2	400	520	470	16	26	438	3	400
400	406	565	515	16	26	482	2	456	580	525	16	30	490	3	456
450	457	615	565	20	26	530	2	502	640	585	20	30	490	3	502
500	508	670	620	20	26	585	2	559	715	650	20	33	610	3	559
550	559		675	20	30	630	2		775	710	20	33	665	3	
600	610	780	725	20	30	685	2	658	840	770	20	36	725	3	658
650	660	835	780	24	30	740	3		860	790	24	36	740	3	
700	711	895	840	24	30	800	3		910	840	24	36	795	3	760
750	762	965	900	24	33	850	3								
800	813	1015	950	24	33	905	3		1025	950	24	39	900	3	864
900	914	1115	1050	28	33	1005	4		1125	1050	28	39	1000	4	968
1000	1016	1230	1160	28	28	1110	4		1255	1170	28	42	1115	4	1072
1100	1118	1340	1270	32	36	1221	4		1355	1270	32	42	1215	4	
1200	1220	1455	1380	32	39	1330	4		1485	1390	32	48	1330	4	
1400	1422	1675	1590	36	42	1535	4		1685	1590	36	48	1530	4	
1600	1626	1915	1820	40	48	1760	5		1930	1820	40	56	1750	5	
1800	1829	2115	2020	44	48	1960	5		2130	2020	44	56	1950	5	
2000	2032	2325	2230	48	48	2170	5		2345	2230	48	62	2150	5	
2200	2235	2550	2440	52	56	2370	5		2555	2440	52	62	2360	5	
2400	2438	2760	2650	56	56	2570	5								
2600	2641	2960	2850	60	56	2780	5								
2800	2845	3180	3070	64	56	3000	5								
3000	3048	3405	3290	68	62	3210	5								

مشخصات برای سایزهای بالاتر بر حسب درخواست مشتری اعلام می گردد.

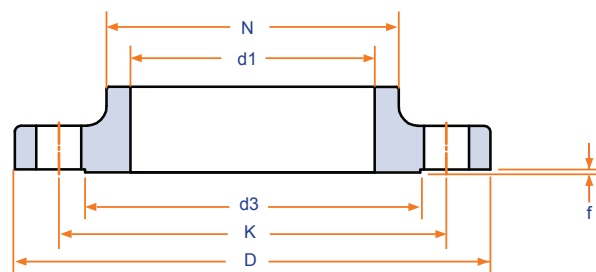
سایر استانداردهای قابل ساخت: ANSI, AWWA, ISO, DIN

شرکت نهرآب گستر اشتهاارد ضمن رعایت استانداردهای زیربط حق هر گونه تغییر در ابعاد و مشخصات را جهت ارتقاء کیفی برای خود محفوظ می دارد.

Steel Flanges



Welding Neck



Slip-On

DN 80-2200

PN 25-40

EN 1092-1(ISO 7005-1, DIN 2501)

unit: mm

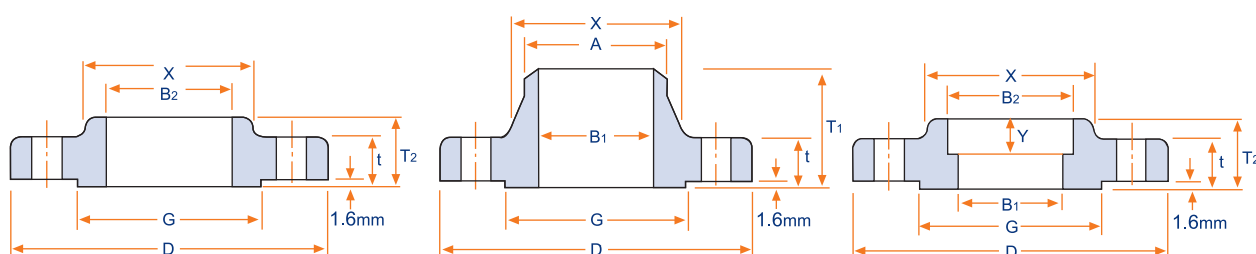
Pipe		PN 25							PN 40						
Size	outside diameter of pipe	Flange diameter	Pitch circle diameter	Holes	Diameter of bolt hole	Raised face diameter	Raised face	Neck Dia	Flange diameter	Pitch circle diameter	Holes	Diameter of bolt hole	Raised face diameter	Raised face	Neck Dia
DN	d1	D	K	no.	d2	d3	f	N	D	K	no.	d2	d3	f	N
80	89	200	160	8	18	138	2	118	200	160	8	18	138	2	118
100	114.3	235	190	8	22	162	2	145	235	190	8	22	162	2	145
125	140	270	220	8	26	188	2	170	270	220	8	26	188	2	170
150	168	300	250	8	26	218	2	200	300	250	8	26	218	2	200
200	219	360	310	12	26	278	2	256	375	320	12	30	285	2	260
250	273	425	370	12	30	335	2	310	450	385	12	33	345	2	312
300	324	485	430	16	30	395	2	364	515	450	16	33	410	2	380
350	355	555	490	16	33	450	3	418	580	510	16	36	465	2	424
400	406	620	550	16	36	505	3	472	660	585	16	39	535	2	478
450	457	670	600	16	36	505	3	520	685	610	20	39	560	2	522
500	508	730	660	20	36	615	3	580	755	670	20	42	615	2	576
550	559	785	710	20	39	660	3	684							
600	610	845	770	20	39	720	3		890	795	20	48	735	2	686
650	660	895	820	24	39	770	3								
700	711	960	875	24	39	820	3		995	900	24	48	840	3	
750	762	1020	935	24	42	880	3								
800	813	1085	990	24	42	930	3		1140	1030	24	56	960	3	
900	914	1185	1090	28	33	1030	4		1250	1140	28	56	1070	3	
1000	1016	1320	1210	28	48	1140	4		1360	1250	28	56	1180	3	
1100	1118	1420	1310	32	56	1240	4								
1200	1220	1530	1420	32	56	1350	4		1575	1460	32	62	1380	3	
1400	1422	1755	1640	36	62	1560	4		1795	1680	36	62	1600	3	
1600	1626	1975	1860	40	62	1780	5		2025	1900	40	70	1815	4	
1800	1829	2195	2070	44	70	1985	5								
2000	2032	2425	2300	48	70	2210	5								

مشخصات برای سایزهای بالاتر بر حسب درخواست مشتری اعلام می گردد.

سایر استانداردهای قابل ساخت: ANSI, AWWA, ISO, DIN

شرکت نهرآب گستر اشتهارد ضمن رعایت استانداردهای زیربط حق هر گونه تغییر در ابعاد و مشخصات را جهت ارتقاء کیفی برای خود محفوظ می دارد.

ANSI B16.5 FORGED FLANGES (CLASS 150)



SLIP-ON

WELDING NECK

SOCKET WELDING

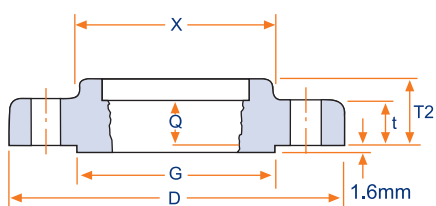
unit: mm

Nominal Pipe Size	Outside Diam.	O.D. of Raised Face	Diam. at Base of Hub	Thickness	BORE			LENGTH THRU HUB			Diam. of Hub at Bevel	Radius of Fillet	Thread Length
					Welding Neck Socket Welding	Slip-on Socket Welding	Lap Joint	Welding Neck	Slip-on Threaded Socket Welding	Lap Joint			
	D	G	X	t	B ₁	B ₂	B ₃	T ₁	T ₂	T ₃	A	R	Q
1/2	89	35.1	30.2	11.2	15.7	22.4	22.9	47.8	15.7	15.7	21.3	3.0	15.7
3/4		42.9	38.1	12.7	20.8	27.7	28.2	52.3	15.7	15.7	26.7	3.0	15.7
1	108	50.8	49.3	14.2	52.6	34.5	35.1	55.6	17.5	17.5	33.5	3.0	17.5
1 1/4	117	63.5	58.7	15.7	35.1	43.2	43.7	57.2	20.6	20.6	42.2	4.8	20.6
1 1/2	127	73.2	65.0	17.5	40.9	49.5	50.0	62.0	22.4	22.4	48.3	6.4	22.4
2	152	91.9	77.7	19.1	52.6	62.0	62.5	63.5	25.4	25.4	60.5	7.9	25.4
2 1/2	178	104.6	90.4	22.4	62.7	74.7	75.4	69.9	28.4	28.4	73.2	7.9	23.4
3	194	127.0	108.0	23.9	78.0	90.7	91.4	69.9	30.2	30.2	88.9	9.7	30.2
3 1/2	216	139.7	122.2	23.9	90.2	103.4	104.2	71.4	31.8	31.8	101.6	9.7	31.8
4	229	157.2	134.9	23.9	102.4	116.1	116.8	76.2	33.3	33.3	114.3	11.2	33.3
5	254	185.7	163.6	23.9	128.3	143.8	144.5	88.9	36.6	36.6	141.2	11.2	36.6
6	279	215.9	192.0	25.4	154.2	170.7	171.5	88.9	39.6	39.6	168.4	12.7	39.6
8	343	269.7	246.1	28.4	202.7	221.5	222.3	101.6	44.5	44.5	219.2	12.7	44.5
10	406	323.9	304.8	30.2	254.5	276.4	277.4	101.6	49.3	49.3	273.1	12.7	49.3
12	483	381.0	365.3	31.8	304.8	327.2	328.2	114.3	55.6	55.6	323.9	12.7	55.6
14	533	412.8	400.1	35.1	336.6	359.2	360.2	127.0	57.2	79.2	355.6	12.7	57.2
16	597	469.9	457.2	36.6	387.4	410.5	411.2	127.0	63.5	87.4	406.4	12.7	63.5
18	635	533.4	505.0	39.6	438.2	461.8	462.3	139.4	68.3	96.8	457.2	12.7	68.3
20	699	584.2	558.8	42.9	489.0	513.1	514.4	144.5	73.2	103.1	508.0	12.7	73.2
24	813	692.2	663.4	47.8	590.6	616.0	616.0	152.4	82.6	111.3	609.6	12.7	82.6

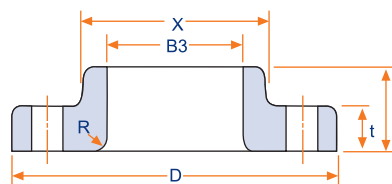
Notes: Class 150 flanges except Lap Joint will be furnished with 0.06" (1.6mm) raised face which is included in 'Thickness' (t) and 'Length through Hub' (T₁), (T₂). For Slip-on, Threaded, Socket Welding and Lap Joint Flanges, the hubs can be shaped either vertical from base to top or tapered within the limits of 7 degrees.

شرکت نهرآب گستر اشتهاارد ضمن رعایت استانداردهای زیربست حق هر گونه تغییر در ابعاد و مشخصات را جهت ارتقاء کیفی برای خود محفوظ می دارد.

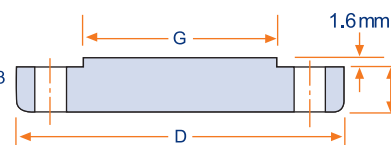
ANSI B16.5 FORGED FLANGES (CLASS 150)



THREADED



LAP JOINT



BLIND

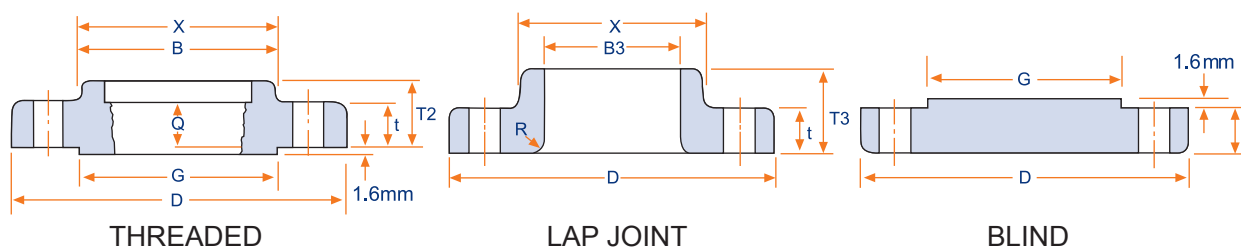
unit: mm

Nominal Pipe Size	Depth of Socket	DRILLING			BOLTING			APPROXIMATE WEIGHT										
		Bolt Circle Diam	Number of Holes	Diam. of Holes	Diam. of Bolt (inch)	Machine Bolt Length	Stud Bolt Length	Welding Neck		Slip-on and Threaded		Lap Joint		Blind		Socket Welding		
	Raised Face							Raised Face	Ring Joint	Kg	lb	Kg	lb	Kg	lb	Kg	lb	Kg
1/2	9.7	60.5	4	15.7	1/2	50.8	57.2	—	0.51	1.10	0.47	1.00	0.51	1.00	0.47	1.00	0.47	1.00
3/4	11.2	69.9	4	15.7	1/2	50.8	63.5	—	0.73	1.60	0.58	1.30	0.64	1.40	0.63	1.40	0.59	1.30
1	12.7	79.2	4	15.7	1/2	57.2	63.5	76.2	1.07	2.40	0.86	1.90	0.93	1.80	0.94	2.10	0.87	1.90
1 1/4	14.2	88.9	4	15.7	1/2	57.2	69.9	82.6	1.40	3.10	1.08	2.40	1.16	2.00	1.23	2.70	1.11	2.40
1 1/2	15.7	98.6	4	15.7	1/2	63.5	69.9	82.6	1.81	4.00	1.41	3.10	1.51	3.30	1.62	3.60	1.45	3.20
2	17.5	120.7	4	19.1	5/8	69.9	82.6	95.3	2.59	5.70	2.26	5.00	2.38	5.20	2.64	5.80	2.33	5.00
2 1/2	19.1	139.7	4	19.1	5/8	76.2	88.9	101.6	4.28	9.40	3.43	7.60	3.60	7.90	4.06	9.00	3.55	7.80
3	20.6	152.4	4	19.1	5/8	76.2	88.9	101.6	5.18	1.40	3.87	8.50	4.04	8.90	4.90	10.80	4.02	8.90
3 1/2	22.4	177.8	8	19.1	5/8	76.2	88.9	101.6	5.45	12.00	4.99	11.00	4.99	11.00	5.90	13.00	4.99	11.00
4	23.9	190.5	8	19.1	5/8	76.2	88.9	101.6	7.32	16.10	5.75	12.70	5.96	13.00	7.41	16.30	5.99	13.20
5	23.9	215.9	8	22.4	3/4	82.6	95.3	108.0	8.91	19.60	6.22	13.70	6.44	14.00	8.76	19.30	6.68	14.70
6	26.9	241.3	8	22.4	3/4	82.6	101.6	114.3	11.26	24.80	7.38	16.30	7.59	16.00	11.31	24.90	7.99	17.60
8	31.8	298.5	8	22.4	3/4	88.9	108.0	120.7	17.68	39.00	12.36	27.30	12.66	27.90	19.92	43.90	13.29	29.30
10	33.3	362.0	12	25.4	7/8	101.6	114.3	120.7	24.79	54.70	17.10	37.70	16.78	37.00	29.39	64.80	19.50	43.00
12	39.6	481.8	12	25.4	7/8	101.6	120.7	133.4	38.98	85.90	27.68	61.00	28.30	62.40	43.70	96.30	29.03	64.00
14	41.4	476.3	12	28.4	1	114.3	133.4	146.1	54.71	114.00	35.20	77.60	41.50	91.50	59.42	140.00	38.56	85.00
16	44.5	539.8	16	28.4	1	114.3	133.4	146.1	64.41	142.00	42.18	93.00	52.98	116.80	77.11	170.00	44.49	98.00
18	49.3	577.9	16	31.8	1 1/8	127.0	146.1	158.8	74.84	165.00	49.71	109.60	59.00	130.00	94.80	209.00	54.43	120.00
20	54.1	635.0	20	31.8	1 1/8	139.7	158.8	171.5	89.36	197.00	65.50	140.00	72.12	159.00	123.38	272.00	70.30	155.00
24	63.5	749.3	20	35.1	1 1/4	152.4	171.5	184.2	199.66	263.80	90.50	199.50	99.02	218.30	188.24	415.00	95.25	210.00

The gasket surface and backside (bearing surface for bolting) are made parallel within 1 degree. To accomplish parallelism, spot facing is carried out according to MSS SP-9, without reducing thickness (t).
Depth of Socket (Y) is covered by ANSI B16.5 only in size through 3 inch is at the manufacturer's option.

شرکت نهرآب گستر اشتیارد ضمن رعایت استانداردهای زیربط حق هر گونه تغییر در ابعاد و مشخصات را جهت ارتقاء کیفی برای خود محفوظ می دارد.

ANSI B16.5 FORGED FLANGES (CLASS 300)



unit: mm

Nominal Pipe Size	Depth of Socket	DRILLING			BOLTING			APPROXIMATE WEIGHT										
		Bolt Circle Diam.	Number of Holes	Diam. of Holes	Diam. of Bolt (inch)	Machine Bolt Length	Stud Bolt Length		Welding Neck		Slip-on and Threaded		Lap Joint		Blind		Socket Welding	
							Raised Face	Raised Face	Ring Joint	Kg	lb	Kg	lb	Kg	lb	Kg	lb	Kg
1/2	9.7	66.5	4	15.7	1/2	57.2	63.5	76.2	0.78	1.70	0.62	1.40	0.61	1.30	0.62	1.40	0.62	1.40
3/4	11.2	82.6	4	19.1	5/8	63.5	76.2	88.9	1.34	3.00	1.15	2.50	1.15	2.50	1.16	2.50	1.19	2.60
1	12.7	88.9	4	19.1	5/8	63.5	76.2	88.9	1.64	3.60	1.39	3.10	1.38	3.00	1.42	3.00	1.44	3.20
1 1/4	14.2	98.6	4	19.1	5/8	69.9	82.6	95.3	2.06	4.50	1.67	3.70	1.66	3.70	1.79	3.90	1.73	3.80
1 1/2	15.7	114.3	4	22.4	3/4	76.2	88.9	101.6	3.06	6.70	2.53	5.60	2.52	5.60	2.68	5.90	2.62	5.80
2	17.5	127.0	8	19.1	5/8	76.2	88.9	101.6	3.40	7.50	2.80	6.20	2.79	6.20	3.09	6.80	2.94	6.50
2 1/2	19.1	149.4	8	22.4	3/4	82.6	101.6	114.3	5.31	11.70	4.25	9.40	4.22	9.30	4.75	10.50	4.49	9.90
3	20.6	168.1	8	22.4	3/4	88.9	108.0	120.7	7.32	16.10	5.81	12.80	5.78	12.70	6.79	14.90	6.20	13.70
3 1/2	22.4	184.2	8	22.4	3/4	95.3	108.0	127.0	8.17	18.00	7.72	17.00	7.72	17.00	9.53	21.00		
4	23.9	200.2	8	22.4	3/4	95.3	114.3	127.0	11.30	24.90	10.13	22.30	10.07	22.20	12.00	26.50		
5	23.9	235.0	8	22.4	3/4	108.0	120.7	133.4	15.12	33.30	12.58	27.70	12.52	27.60	15.96	35.20		
6	26.9	296.7	12	22.4	3/4	108.0	120.7	139.7	19.68	43.40	16.04	35.40	15.95	35.20	21.20	46.70		
8	31.8	330.2	12	25.4	7/8	120.7	139.7	152.4	30.48	67.20	24.50	54.00	24.37	53.70	34.60	76.30		
10	33.3	387.4	16	28.4	1	139.7	158.8	171.5	43.74	96.40	34.16	75.30	39.92	88.00	55.34	122.00		
12	39.6	450.9	16	31.8	1 1/8	146.1	171.5	184.2	64.41	142.00	51.26	113.00	58.70	129.40	78.90	174.00		
14	41.4	514.4	20	31.8	1 1/8	158.8	177.8	190.5	88.30	194.70	72.12	159.00	83.46	184.00	107.05	236.00		
16	44.5	571.5	20	35.1	1 1/4	165.1	190.5	203.2	112.94	249.00	90.40	199.30	106.14	234.00	139.25	307.00		
18	49.3	628.7	24	35.1	1 1/4	171.5	196.9	209.6	138.34	305.00	109.00	240.30	133.95	295.30	176.90	396.00		
20	54.1	685.8	24	35.1	1 1/4	184.2	203.2	222.3	167.37	369.00	136.00	300.00	157.65	347.60	223.17	492.00		
24	63.5	812.8	24	41.1	1 1/2	203.2	228.6	254.0	235.41	519.00	204.00	449.70	240.40	530.00	342.00	754.00		

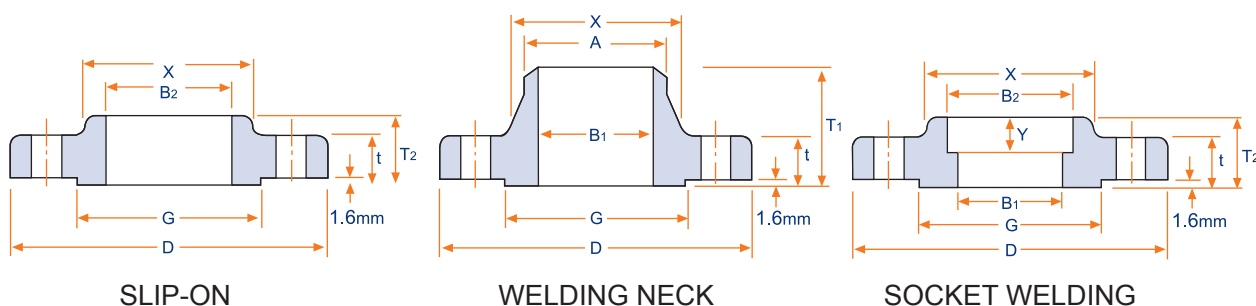
(4) Blind Flanges may be made with the same hub as that used for Slip-on Flanges or without hub.

(5) The gasket surface and backside (bearing surface for bolting) are made parallel within 1 degree. To accomplish parallelism, spot facing is carried out according to MSS SP-9, without reducing thickness (t)

(6) Depth of Socket (Y) is covered by ANSI B16.5 only in sizes through 3 inch is at the manufacturer's option.

شرکت نهرآب گستر اشتهاارد ضمن رعایت استانداردهای ذیربط حق هر گونه تغییر در ابعاد و مشخصات را جهت ارتقاء کیفی برای خود محفوظ می دارد.

ANSI B16.5 FORGED FLANGES (CLASS 300)



unit: mm

Nominal Pipe Size	Outside Diam.	Diam at Base of Hub	O.D. of Raised Face	Thickness	BORE				LENGTH THRU HUB			Diam. of Hub at Bevel	Radius of Fillet	Thread Length
					Welding Neck Socket Welding	Slip-on Socket Welding	Lap Joint	Countor Bore Min. Threaded Min.	Welding Neck	Slip-on Threaded Socket Welding	Lap Joint			
	D	X	G	t	B ₁	B ₂	B ₃	B	T ₁	T ₂	T ₃	A	R	Q
1/2	95	38.1	35.1	14.2	15.7	22.4	22.9	23.6	52.3	22.4	22.4	21.3	3.0	15.7
3/4	117	47.8	42.9	15.7	20.8	27.7	28.2	29.0	57.2	25.4	25.4	26.7	3.0	15.7
1	124	58.8	50.8	17.5	26.7	34.5	35.1	35.8	62.0	26.9	26.9	33.5	3.0	17.5
1 1/4	138	63.5	63.5	19.1	35.1	43.2	43.7	44.5	65.0	26.9	26.9	42.2	4.8	20.6
1 1/2	155	69.9	73.2	20.6	40.9	49.5	50.0	50.5	68.3	30.2	30.2	48.3	6.4	22.4
2	165	84.1	91.9	22.4	52.6	62.0	62.5	63.5	69.9	33.3	33.3	60.5	7.9	28.4
2 1/2	191	100.1	104.6	25.4	62.7	74.7	75.4	76.2	76.2	38.1	38.1	73.2	7.9	31.8
3	210	117.3	127.0	28.4	78.0	90.7	91.4	92.2	79.2	42.9	42.9	88.9	9.7	31.8
3 1/2	229	133.4	139.7	30.2	90.2	103.4	104.1	104.9	81.0	44.5	44.5	101.6	9.7	36.6
4	254	146.1	157.2	31.8	102.4	116.1	116.8	117.6	85.9	47.8	47.8	114.3	11.2	36.6
5	279	177.8	185.7	35.1	128.3	143.8	144.5	144.5	98.6	50.8	50.8	141.2	11.2	42.9
6	318	206.2	215.9	36.6	154.2	170.7	171.5	171.5	98.6	52.3	52.3	168.4	12.7	46.0
8	381	260.4	269.7	41.1	202.7	221.5	222.3	222.3	111.3	62.0	62.0	219.2	12.7	50.8
10	445	320.5	323.9	47.8	254.5	276.4	277.4	276.4	117.3	66.5	95.3	273.1	12.7	55.6
12	521	374.7	381.0	50.8	304.8	327.2	328.2	328.7	130.0	73.2	101.6	323.9	12.7	60.5
14	584	425.5	412.8	53.8	336.6	359.2	360.2	360.4	142.7	76.2	111.3	355.6	12.7	63.5
16	648	482.6	469.9	57.2	387.4	410.5	411.2	411.2	146.1	82.6	120.7	406.4	12.7	68.3
18	711	533.4	583.4	60.5	438.2	461.8	462.3	462.0	158.8	88.9	130.0	457.2	12.7	69.9
20	775	587.2	584.2	63.5	489.0	513.1	514.4	512.8	162.1	95.3	139.7	508.0	12.7	73.2
24	914	701.5	692.2	69.9	590.6	616.0	616.0	614.4	168.1	106.4	152.4	609.6	12.7	82.6

Notes: (3) For Slip-on, Threaded, Socket Welding and Lap Joint Flanges, the hubs can be shaped either vertical from base to top or tapered within the limits of 7 degrees.

مشخصات برای سایزهای بالاتر بر حسب درخواست اعلام می گردد.

شرکت نهرآب گستر اشتهاارد ضمن رعایت استانداردهای زیربط حق هر گونه تغییر در ابعاد و مشخصات را جهت ارتقاء کیفی برای خود محفوظ می دارد.

Dimensional Tolerances EN 1092-1:2001 (ISO 7005-1)

ANSI B16.5

EN 1092-1:2001(ISO 7005-1)

unit: mm

ANSI B16.5

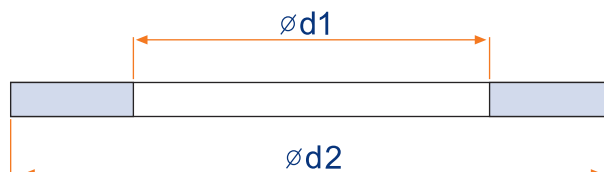
unit: inch

Plain flange and Blind flange		
outside diameter (D)	$\leq \text{DN } 150$	± 2.0
	$> \text{DN } 150 \leq \text{DN } 500$	± 3.0
	$> \text{DN } 500 \leq \text{DN } 1200$	± 5.0
	$> \text{DN } 1200 \leq \text{DN } 1800$	± 7.0
	$\geq \text{DN } 1800$	± 10.0
Facing diameter	$\leq \text{DN } 250$	2 -1.5
	$\geq \text{DN } 300$	3 -1.5
Facing height	For all size 1 minimum	
Diameter of bolt circle(k)	bolt size M10 to M24	± 1
	bolt size M27 to M33	± 1.25
	bolt size M36 to M52	± 1.5
	bolt size M56 to M95	± 2
Diameter of bolt hole	< 20	0.5 0
	> 20	1 0
Flange thickness(t)	$\pm (2+0.05 t)$	
center to center of adjacent bolt hole	bolt size $\leq \text{M}24$	± 1
	bolt size M27 to M24	± 1.5
	bolt size $> \text{M}45$	± 2

Welding Neck and Blank		
outside diameter	When O.D is 24" or Less	$+1/16'' (1.6\text{mm})$
	When O.D is over 24	$+1/8'' (3.2\text{mm})$
Inside diameter	10" and smaller	$+1/32'' (0.8\text{mm})$
	12" thru 18"	$+1/16'' (1.6\text{mm})$
	20" and Larger	$+1/8'' (3.2\text{mm})$
Diameter of contact face	1/16" Reised face	$+1/32'' (0.8\text{mm})$
	1/4" Reised face Tongue & Groove Male , Female	$+1/64'' (0.4\text{mm})$
Diameter of Haub at bass	when Hub base is 24" or smaller	$+1/16'' (1.6\text{mm})$
	when Hub base is over 24"	$+1/8'' (3.2\text{mm})$
Diameter of Hub at point of welding	5" and smaller	$+3/32'' (3.4\text{mm})$ $-1/32'' (0.8\text{mm})$
	6" and larger	$+5/32'' (4.0\text{mm})$ $-1/32'' (0.8\text{mm})$
Drilling	Bolt circle	$+1/16'' (1.6\text{mm})$
	Bolt hole spacing	$+1/32'' (0.8\text{mm})$
	Eccentricity of Bolt circle with respect to facing	21/2" & smaller $1/32'' (0.8\text{mm})\text{max}$ 3" & Larger $1/16'' (1.6\text{mm})\text{max}$
	Eccentricity of Bolt circle with	$1/32'' (0.8\text{mm})\text{max}$
	Eccentricity of facing with respeat to Bore	$1/32'' (0.8\text{mm})\text{max}$
Thickness	18" and smaller	$+1/8'' (3.2\text{mm})$ 0
	20" and larger	$+3/16'' (4.8\text{mm})$ 0
Length thru hub	10" and smaller	$+1/16'' (1.6\text{mm})$
	12" and larger	$+1/8'' (3.2\text{mm})$

Sealing for Flanges with Plain Contact Surface DN 50-DN 2400 PN 6-PN 40

واشر لاستیکی منجید دار
مناسب برای فشار کاری ۶ تا ۴۰ بار



EN1514-1 (DIN 2690)

unit: mm

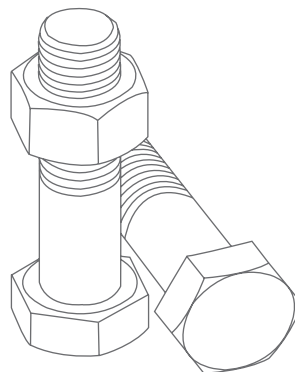
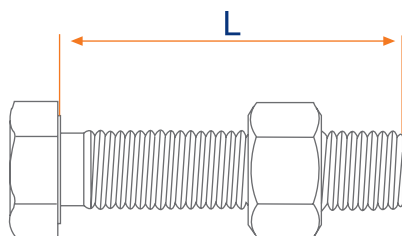
Nominal Width	$\varnothing d1$	$\varnothing d2$				
		Nominal Pressure(PN)				
		6	10	16	25	40
50	61	95	107	107	107	107
65	77	115	127	127	127	127
80	89	132	142	142	142	142
100	115	152	162	162	168	168
125	141	182	192	192	195	195
150	169	207	218	218	225	225
175	195	237	248	248	255	267
200	220	252	273	273	285	292
250	273	318	328	330	342	353
300	324	373	378	385	402	418
350	356	423	438	445	458	475
400	407	473	490	497	515	547
450	458	528	540	557	565	572
500	508	578	595	618	625	628
600	610	680	695	735	730	745
700	712	785	810	805	830	850
800	813	890	915	910	940	970
900	915	990	1015	1010	1040	1080
1000	1016	1090	1120	1125	1150	1190
1200	1220	1305	1340	1340	1360	1395
1400	1420	1520	1545	1540	1575	1615
1600	1620	1720	1770	1760	1795	1830
1800	1820	1930	1970	1960	2000	
2000	2020	2135	2180	2165	2230	
2200	2220	2345	2380	2375		
2400	2420	2555	2590	2585		

Hexagon Head Screws and Nut

DIN-EN 24018

DIN-EN 24016

DIN 933-934



No.	DN		PN6		PN10		PN16		PN25		PN40	
	mm	Inch	Qty.	Size	Qty.	Size	Qty.	Size	Qty.	Size	Qty.	Size
1	50	2"	4	M12×70	4	M16×80	4	M16×80	4	M16×80	4	M16×80
2	65	2 1/2"	4	M12×70	8	M16×80	8	M16×80	8	M16×80	8	M16×80
3	80	3"	4	M16×80	8	M16×80	8	M16×80	8	M16×80	8	M16×80
4	100	4"	4	M16×80	8	M16×80	8	M16×80	8	M20×90	8	M20×90
5	125	5"	8	M16×80	8	M16×80	8	M16×80	8	M24×90	8	M24×110
6	150	6"	8	M16×80	8	M20×90	8	M20×90	8	M24×110	8	M24×110
7	200	8"	8	M16×80	8	M20×90	12	M20×90	12	M24×110	12	M27×120
8	250	10"	12	M16×80	12	M20×90	12	M24×110	12	M27×120	12	M30×140
9	300	12"	12	M20×90	12	M20×90	12	M24×110	16	M27×120	16	M30×140
10	350	14"	12	M20×90	16	M20×90	16	M24×110	16	M30×140	16	M33×140
11	400	16"	16	M20×90	16	M24×110	16	M27×120	16	M33×140	16	M36×160
12	450	18"	16	M20×90	20	M24×110	20	M27×120	20	M33×140	20	M36×160
13	500	20"	20	M20×90	20	M24×110	20	M30×140	20	M33×140	20	M39×160
14	600	24"	20	M24×110	20	M27×120	20	M33×140	20	M36×160	20	M45×190
15	700	28"	24	M24×110	24	M27×120	24	M33×160	24	M39×160	24	M45×190
16	800	32"	24	M27×120	24	M30×140	24	M36×160	24	M45×190	24	M52×230
17	900	36"	24	M27×120	28	M30×140	28	M36×160	28	M45×190	28	M52×230
18	1000	40"	28	M27×120	28	M33×140	28	M39×160	28	M52×230	28	M52×230
19	1100	44"	32	M30×140	32	M33×140	32	M39×160	32	M52×230		
20	1200	48"	32	M30×140	32	M36×160	32	M45×190	32	M52×230	32	M52×270
21	1400	56"	36	M33×140	36	M39×160	36	M45×190	36	M56×270	36	M56×270
22	1600	64"	40	M33×140	40	M45×190	40	M52×230	40	M56×270	40	M64×300
23	1800	72"	44	M36×160	44	M45×190	44	M52×230	44	M64×300		
24	2000	80"	48	M39×160	48	M45×190	48	M56×270	48	M64×300		