



Section 4

Flanges

Edition 2

Specifications

SPECIFICATIONS:

ANSI B16.5 - Pipe Flanges and Flanged Fittings (American)

AS2129 - Flanges for Pipes, Valves and Fittings (Australian)

BS4504 - Circular Flanges for Pipe, Valves and Fittings (PN designated) - (now BS EN1092) (European)

AS4087 - Metallic Flanges for Waterworks Purposes (Australian)

BS10 - Specification for Flanges and bolting for Pipes, Valves and Fittings (British)

**AS2129 is a replica of BS10 but is stated in mm rather than inches. In some sizes bolt holes are slightly larger to give better clearance

APPLICATION: Water Supply, Oil, Gas, Petrochemical, Irrigation, Fire Services, General Industry, Construction.

MARKING: All Flanges when possible will display a heat number, size, table, grade and dimensional standard

PLATE STEEL FLANGES: Plate flanges are mainly used for light duty, lower pressure or non-critical applications, commonly referring to AS2129, BS10 or AS4087 standards. The manufacturing method involves cutting and machining from plate steel

FORGED STEEL FLANGES: Forged Steel flanges are commonly used and specified in the Oil, Gas, Petrochemical and mining sectors, where pressure, temperature and safety considerations often specify the ANSI B16.5, ASME B16.47 or BS4504 standards. The manufacturing method involves the hot forging of suitable steels prior to final machining

MATERIALS

Mild Carbon Steel

ASTM A105

ASTM A182 316L

AAP CAN ALSO OFFER A WIDE RANGE OF PRODUCTS ON REQUEST WHICH INCLUDE

BS4504 (DIN) flanges from PN6 TO PN40

Dimension Tolerance for ANSI B16.5

Threaded, Socket Welding, Slip-On, Lap Joint and Blind			Weld Neck		
Outside Diameter of Hub	≤ 24	± 1/16	Outside Diameter	≤ 24	± 1/16
Inside Diameter	Threaded	Within limits of boring gauge	Inside Diameter	≤ 10	± 1/32
	Socket Weld, Slip on	≤10, + 1/32, -0 ≥12 + 1/16, -0		12 through 18	± 1/16
Outside Diameter of Hub	≤ 12	+ 3/32 - 1/16	Diameter of Contact Face	1/16 Raised Face	± 1/32
	≥14	± 1/8		1/4 Raised face tongue & Groove male, female	± 1/64
Diameter of Contact Face	1/16 Raised Face	± 1/32	Diameter of Hub at Base	≤24	± 1/16
	1/4 Raised face tongue & Groove male, female	± 1/64	> 24	± 1/8	
Drilling	Bolt Circle	± 1/16	Diameter Of Hub at Point Of Welding	NPS ≤5	+ 3/32 -1/32
	Bolt Hole Spacing	± 1/32		NPS ≥6	+ 5/32 -1/32
	Concentricity of bolt circle	NPS ≤ 2 1/2 1/32 max NPS ≥ 3 1/16 max	Drilling	Bolt Circle	± 1/16
Thickness	≤ 18	+ 1/8, -0		Bolt Hole Spacing	± 1/32
	≥ 20	+3/16, -0	Concentricity of bolt circle	NPS ≤ 2 1/2 1/32 max NPS ≥ 3 1/16 max	
Length through the Hub	≤ 18	+1/8, -1/32	Thickness	≤ 18	+1/8 -0
	≥ 20	+3/16, -1/16		≥ 20	+3/16 -0
Length through the Hub				NPS ≤ 4	± 1/16
				5 ≤ NPS ≤10	+1/16 -1/8
				NPS ≥ 12	+ 1/8 -3/16

Temperature / Pressure Ratings ASTM A105						
CARBON STEEL PIPE FLANGES TO ANSI B16.5 (BS.1560)						
FORGINGS TO ASTM A105 — Not recommended for prolonged use above 427°C FORGINGS TO ASTM A350-LF2 — Not to be used above 343°C”						
“TEMPERATURE IN °C”	MAXIMUM WORKING PRESSURE IN kPa BY PN (Pressure Numbers)					
	PN20	PN50	PN100	PN150	PN250	PN420
	CLASS 150	CLASS 300	CLASS 600	CLASS 900	CLASS 1500	CLASS 2500
-29 to 38	1960	5110	10210	15320	25530	42550
50	1920	5010	10020	15020	25040	41730
100	1770	4640	9280	13910	23190	38650
150	1580	4520	9050	13570	22610	37690
200	1400	4380	8760	13150	21910	36520
250	1210	4170	8340	12520	20860	34770
300	1020	3870	7750	11620	19370	32280
350	840	3700	7390	11090	18480	30800
375	740	3650	7290	10940	18230	30390
400	650	3450	6900	10350	17250	28750
425	560	2880	5750	8630	14380	23960
450	470	2000	4010	6010	10020	16690
475	370	1350	2710	4060	6770	11290
500	280	880	1760	2640	4400	7330
525	190	520	1040	1550	2590	4320
540	130	330	650	980	1630	2720

“FLANGES ABOVE DN 600 ARE NOT INCLUDED IN ANSI B16.5 STANDARD AND THE CLASS DESIGNATIONS IN THESE LARGE DIAMETERS DO NOT IMPLY SPECIFIC TEMPERATURE/PRESSURE RATINGS”

CHEMICAL PROPERTIES				
CARBON	MANGANESE	PHOSPHORUS	SULFAR	SILICON
.35% max	.60 - 1.05%	.040% max	.050% max	0.35%

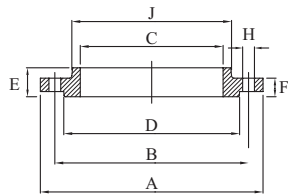
NOTE 1 — For each reduction of 0.01% below the specified carbon maximum (0.35%), an increase of 0.06% manganese above the specified maximum (1.05%) will be permitted up to a maximum of 1.35%.

MECHANICAL PROPERTIES				
TENSILE STRENGTH min, Mpa	YIELD STRENGTH min , Mpa	ELONGATION IN 50mm, min%	REDUCTION OF AREA, min %	HARDNESS, HB max
485	250	22	30	187

c Determined by either the 0.2% off-set method or the 0.5% extension-under-load method.

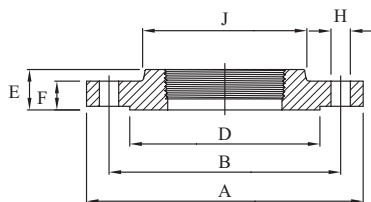
ANSI C150 S.O.W. Flange

ANSI B16.5 C150 S.O.W. Flange													
AAP CODE	IMPERIAL SIZE	A	B	C	D	E	F	H	J	BOLT SIZE	RAISED FACE THICK.	NUMBER HOLES	APPROX. KG/PC
PF15	1/2	89.0	60.3	22.3	35.0	15.9	11.1	16.0	30.2	1/2	1.6	4	0.5
PF20	3/4	98.5	69.8	27.6	42.9	15.9	12.8	16.0	38.2	1/2	1.6	4	0.9
PF25	1	108.0	79.3	34.5	50.9	17.5	14.3	16.0	49.2	1/2	1.6	4	0.9
PF32	1 1/4	117.5	88.9	43.1	63.6	20.7	15.9	16.0	58.8	1/2	1.6	4	1.4
PF40	1 1/2	127.1	98.4	49.5	73.1	22.3	17.5	16.0	65.1	1/2	1.6	4	1.4
PF50	2	152.5	120.6	61.9	92.0	25.5	19.1	20.0	77.8	5/8	1.6	4	2.3
PF65	2 1/2	177.9	139.7	74.6	104.8	28.6	22.3	20.0	90.5	5/8	1.6	4	3.2
PF80	3	190.6	152.4	90.6	127.1	30.2	23.8	20.0	108.0	5/8	1.6	4	3.6
PF94	4	228.7	190.5	116.0	157.2	33.4	23.8	20.0	135.0	5/8	1.6	8	5.9
PF95	5	254.1	215.9	143.7	185.8	36.5	23.8	22.0	163.5	3/4	1.6	8	6.8
PF96	6	279.5	241.3	170.6	216.0	39.7	25.5	22.0	192.1	3/4	1.6	8	8.6
PF98	8	343.0	298.4	221.4	269.9	44.5	28.6	22.0	246.1	3/4	1.6	8	13.6
PFX25	10	406.5	361.9	276.3	323.9	49.2	30.2	26.0	304.9	7/8	1.6	12	19.5
PFX30	12	482.7	431.8	327.1	381.1	55.6	31.8	26.0	365.2	7/8	1.6	12	29.1
PFX35	14	533.5	476.2	359.1	412.8	57.2	35.0	30.0	400.1	1	1.6	12	40.9
PFX40	16	597.0	539.7	410.4	470.0	63.6	36.5	30.0	457.3	1	1.6	16	44.5
PFX45	18	635.1	577.8	461.7	533.5	68.3	39.7	33.0	504.9	1 1/8	1.6	16	59.0
PFX50	20	698.6	635.0	513.0	584.3	73.1	42.9	33.0	558.9	1 1/8	1.6	20	75.0
PFX60	24	812.9	749.3	615.9	692.2	82.6	47.7	36.0	663.6	1 1/4	1.6	20	100.0



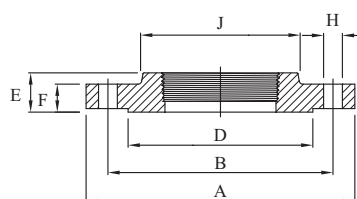
ANSI C150 BSP Screwed Flange

ANSI B16.5 C150 BSP Screwed Flange												
AAP CODE	IMPERIAL SIZE	A	B	D	E	F	H	J	BOLT SIZE	RAISED FACE THICK.	NUMBER HOLES	APPROX. KG/PC
PFSB25	1	108.0	79.3	50.9	17.5	14.3	16	49.2	1/2	1.6	4	0.9
PFSB40	1 1/2	127.1	98.4	73.1	22.3	17.5	16	65.1	1/2	1.6	4	1.4
PFSB50	2	152.5	120.6	92.0	25.5	19.1	20	77.8	5/8	1.6	4	2.3
PFSB80	3	190.6	152.4	127.1	30.2	23.8	20	108.0	5/8	1.6	4	3.6
PFSB94	4	228.7	190.5	157.2	33.4	23.8	20	135.0	5/8	1.6	8	5.9



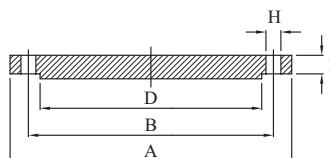
ANSI C150 NPT Screwed Flange

ANSI B16.5 C150 NPT Screwed Flange												
AAP CODE	IMPERIAL SIZE	A	B	D	E	F	H	J	BOLT SIZE	RAISED FACE THICK.	NUMBER HOLES	APPROX. KG/PC
PFS15	1/2	89.0	60.3	35.0	15.9	11.1	16	30.2	1/2	1.6	4	0.5
PFS20	3/4	98.5	69.8	42.9	15.9	12.8	16	38.2	1/2	1.6	4	0.9
PFS25	1	108.0	79.3	50.9	17.5	14.3	16	49.2	1/2	1.6	4	0.9
PFS32	1 1/4	117.5	88.9	63.6	20.7	15.9	16	58.8	1/2	1.6	4	1.4
PFS40	1 1/2	127.1	98.4	73.1	22.3	17.5	16	65.1	1/2	1.6	4	1.4
PFS50	2	152.5	120.6	92.0	25.5	19.1	20	77.8	5/8	1.6	4	2.3
PFS65	2 1/2	177.9	139.7	104.8	28.6	22.3	20	90.5	5/8	1.6	4	3.2
PFS80	3	190.6	152.4	127.1	30.2	23.8	20	108.0	5/8	1.6	4	3.6
PFS94	4	228.7	190.5	157.2	33.4	23.8	20	135.0	5/8	1.6	8	5.9



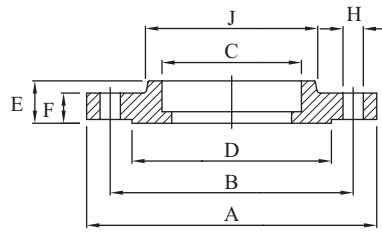
ANSI C150 Blind Flange

ANSI B16.5 C150 Blind Flange											
AAP CODE	IMPERIAL SIZE	A	B	D	F	H	BOLT SIZE	RAISED FACE THICK.	NUMBER HOLES	APPROX. KG/PC	
PFB15	1/2	89	60.3	35.0	11.5	16	1/2	1.6	4	0.42	
PFB20	3/4	98.5	69.8	42.9	13.0	16	1/2	1.6	4	0.61	
PFB25	1	108	79.3	50.9	14.5	16	1/2	1.6	4	0.93	
PFB32	1 1/4	117.5	88.9	63.6	16.0	16	1/2	1.6	4	1.36	
PFB40	1 1/2	127.1	98.4	73.1	17.5	16	1/2	1.6	4	1.8	
PFB50	2	152.5	120.6	92.0	19.1	20	5/8	1.6	4	2.3	
PFB65	2 1/2	180	139.5	104.8	22.3	20	5/8	1.6	4	3.2	
PFB80	3	190.6	152.4	127.1	23.8	20	5/8	1.6	4	4.1	
PFB94	4	228.7	190.5	157.2	23.8	20	5/8	1.6	8	7.7	
PFB96	6	276.5	241.3	216.0	25.5	22	3/4	1.6	8	12.0	
PFB98	8	343.0	298.4	269.9	28.6	22	3/4	1.6	8	21.4	
PFBX25	10	406.5	361.9	232.9	30.2	26	7/8	1.6	12	30.5	
PFBX30	12	482.7	431.8	381.1	31.8	26	7/8	1.6	12	50.0	
PFBX35	14	533.4	476.25	412.8	35.1	28	1	1.6	12	-	
PFBX40	16	596.9	539.75	470.0	36.6	28	1	1.6	16	-	
PFBX45	18	635	577.85	533.5	39.6	32	1 1/8	1.6	16	-	
PFBX50	20	698.5	635	584.3	42.9	32	1 1/8	1.6	20	-	
PFBX60	24	813	749.3	692.2	47.75	35	1 1/4	1.6	20	-	



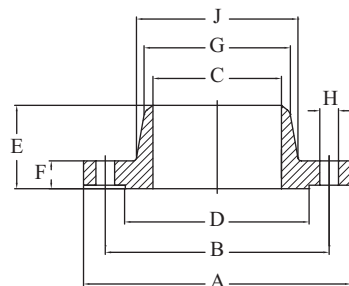
ANSI C150 Socket Weld Flange

ANSI B16.5 C150 Socket Weld Flange														
AAP CODE	IMPERIAL SIZE	A	B	C	D	E	F	H	J	BOLT SIZE	DEPTH OF SOCKET	RAISED FACE THICK.	NUMBER HOLES	APPROX. KG/PC
PF15S	1/2	89.0	60.3	22.3	35.0	15.9	11.1	16	30.2	1/2	9.6	1.6	4	0.5
PF20S	3/4	98.5	69.8	27.6	42.9	15.9	12.8	16	38.2	1/2	11.1	1.6	4	0.9
PF25S	1	108.0	79.3	34.5	50.9	17.5	14.3	16	49.2	1/2	12.8	1.6	4	0.9
PF32S	1 1/4	117.5	88.9	43.1	63.6	20.7	15.9	16	58.8	1/2	14.3	1.6	4	1.4
PF40S	1 1/2	127.1	98.4	49.5	73.1	22.3	17.5	16	65.1	1/2	15.9	1.6	4	1.4
PF50S	2	152.5	120.6	61.9	93	25.5	19.1	20	77.8	5/8	17.5	1.6	4	2.3



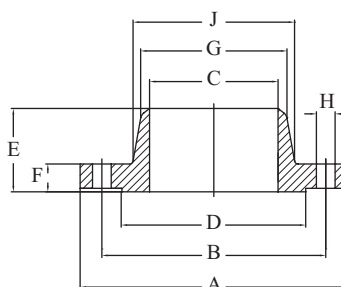
ANSI C150 Weld Neck Flange (STD WT)

ANSI B16.5 C150 Weld Neck Flange														
AAP CODE	IMPERIAL SIZE	A	B	C	D	E	F	G	H	J	BOLT SIZE	RAISED FACE THICK.	NUMBER HOLES	APPROX. KG/PC
PFW15	1/2	89	60.3	15.8	35	47.6	11.1	21.3	16	30.2	1/2	1.6	4	0.9
PFW20	3/4	98.5	69.8	20.4	42.9	52	12.8	26.7	16	38.2	1/2	1.6	4	0.9
PFW25	1	108	79.3	26.7	50.9	55.6	14.3	33.5	16	49.2	1/2	1.6	4	1.4
PFW32	1 1/4	117.5	88.9	35.1	63.6	57	15.9	42.2	16	58.7	1/2	1.6	4	1.4
PFW40	1 1/2	127.1	98.4	40.9	73.1	61.9	17.5	48.3	16	65.1	1/2	1.6	4	1.8
PFW50	2	152.5	120.6	52.5	93	63.6	19.1	60.5	20	77.8	5/8	1.6	4	2.7
PFW65	2 1/2	177.9	139.7	62.7	104.8	69.9	22.3	73.2	20	90.5	5/8	1.6	4	3.6
PFW80	3	190.6	152.4	77.9	127.1	69.9	23.8	89.0	20	108.0	5/8	1.6	4	4.5
PFW94	4	228.7	190.5	102.3	157.2	76.3	23.8	114.4	22	135.0	5/8	1.6	8	6.8
PFW96	6	279.5	241.3	154.1	216.0	89.0	25.5	168.5	22	192.1	3/4	1.6	8	10.9
PFW98	8	343.0	298.4	202.7	269.9	101.7	28.6	219.3	22	246.1	3/4	1.6	8	17.7
PFWX25	10	406.5	361.9	254.5	323.9	101.7	30.2	273.1	26	304.9	7/8	1.6	12	23.6
PFWX30	12	482.7	431.8	304.8	381.1	114.4	31.8	323.9	26	365.2	7/8	1.6	12	36.3



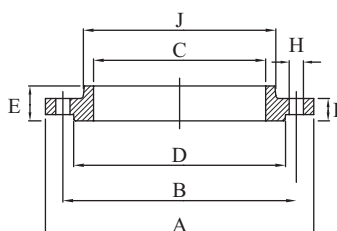
ANSI C150 XS Weld Neck Flange

ANSI B16.5 C150 XS Weld Neck Flange														
AAP CODE	IMPERIAL SIZE	A	B	C	D	E	F	G	H	J	BOLT SIZE	RAISED FACE THICK.	NUMBER HOLES	APPROX. KG/PC
PFW50X	2	152.5	120.6	49.3	92.0	63.6	19.1	60.5	20	77.8	5/8	1.6	4	2.7
PFW65X	2 1/2	177.9	139.7	59.0	104.8	69.9	22.3	73.2	20	90.5	5/8	1.6	4	4.6
PFW80X	3	190.6	152.4	73.7	127.1	69.9	23.8	89.0	20	108.0	5/8	1.6	4	5.2
PFW94X	4	228.7	190.5	97.2	157.2	76.3	23.8	114.4	20	135.0	5/8	1.6	8	7.8
PFW96X	6	279.5	241.3	146.3	216.0	89.0	25.5	168.5	22	192.1	3/4	1.6	8	12.5
PFW98X	8	343.0	298.4	193.7	269.9	101.7	28.6	219.3	22	246.1	3/4	1.6	8	19.9



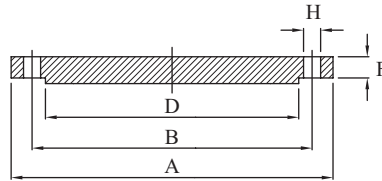
ANSI C300 S.O.W. Flange

ANSI B16.5 C300 S.O.W. Flange														
AAP CODE	IMPERIAL SIZE	A	B	C	D	E	F	H	J	BOLT SIZE	RAISED FACE THICK.	NUMBER HOLES	APPROX. KG/PC	
P3F15	1/2	95.3	66.6	22.3	35.0	22.3	14.3	16	38.2	1/2	1.6	4	0.9	
P3F20	3/4	117.5	82.5	27.6	42.9	25.5	15.9	20	47.7	5/8	1.6	4	1.4	
P3F25	1	123.9	88.9	34.5	50.9	27.0	17.5	20	54.0	5/8	1.6	4	1.4	
P3F32	1 1/4	133.4	98.4	43.1	63.6	27.0	19.1	20	63.6	5/8	1.6	4	1.8	
P3F40	1 1/2	155.6	114.3	49.5	73.1	30.2	20.7	22	69.9	3/4	1.6	4	2.7	
P3F50	2	165.2	127.0	61.9	92.1	33.4	22.3	20	84.2	5/8	1.6	8	3.2	
P3F65	2 1/2	190.6	149.2	74.6	104.8	38.2	25.5	22	100.0	3/4	1.6	8	4.5	
P3F80	3	209.6	168.2	90.6	127.1	42.9	28.6	22	117.5	3/4	1.6	8	5.9	
P3F94	4	254.1	200.0	116.0	157.2	47.7	31.8	22	146.1	3/4	1.6	8	10.0	
P3F95	5	279.5	234.9	143.7	185.8	50.9	35.0	22	177.9	3/4	1.6	8	12.7	
P3F96	6	317.6	269.8	170.6	216.0	52.4	36.5	22	206.4	3/4	1.6	12	17.7	
P3F98	8	381	330.2	221.5	269.8	61.98	41.1	26	256.25	7/8	1.6	12	26.3	
P3FX25	10	444.5	387.35	276.35	323.9	66.54	47.75	28	320.54	1	1.6	16	36.8	
P3FX30	12	520.7	450.85	327.15	381.1	73.15	50.8	32	374.65	1 1/8	1.6	16	52.2	
P3FX40	16	647.7	571.5	410.46	470	82.55	57.15	35	482.6	1 1/4	1.6	20	74.9	



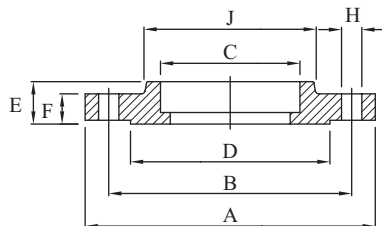
ANSI C300 Blind Flange

ANSI B16.5 C300 Blind Flange										
AAP CODE	IMPERIAL SIZE	A	B	D	F	H	BOLT SIZE	RAISED FACE THICK.	NUMBER HOLES	APPROX. KG/PC
P3FB15	1/2	95.3	66.6	35.0	14.3	16	1/2	1.6	4	0.9
P3FB20	3/4	117.5	82.5	42.9	15.9	20	5/8	1.6	4	1.4
P3FB25	1	123.9	88.9	50.9	17.5	20	5/8	1.6	4	1.4
P3FB32	1 1/4	133.4	98.4	63.6	19.1	20	5/8	1.6	4	1.8
P3FB40	1 1/2	155.6	114.3	73.1	20.7	22	3/4	1.6	4	2.7
P3FB50	2	165.2	127.0	92.1	22.3	20	5/8	1.6	8	3.6
P3FB80	3	209.6	168.2	127.1	28.6	22	3/4	1.6	8	7.3
P3FB94	4	254.1	200.0	157.2	31.8	22	3/4	1.6	8	12.5
P3FB96	6	317.6	269.8	216.0	36.5	22	3/4	1.6	12	22.7
P3FB98	8	381	330.2	269.8	41.1	26	7/8	1.6	12	36.8
P3FBX25	10	444.5	387.35	323.9	47.75	28	1	1.6	16	56.8
P3FBX30	12	520.7	450.85	381.1	50.8	32	1 1/8	1.6	16	84.0



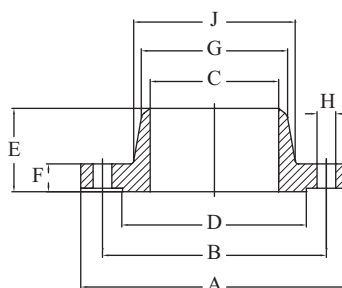
ANSI C300 Socket Weld Flange

ANSI B16.5 C300 Socket Weld Flange														
AAP CODE	IMPERIAL SIZE	A	B	C	D	E	F	H	J	BOLT SIZE	DEPTH OF SOCKET	RAISED FACE THICK.	NUMBER HOLES	APPROX. KG/PC
P3F15S	1/2	95.3	66.6	22.3	35.0	22.3	14.3	16	38.2	1/2	9.6	1.6	4	0.9
P3F20S	3/4	117.5	82.5	27.6	42.9	25.5	15.9	20	47.7	5/8	11.1	1.6	4	1.4
P3F25S	1	123.9	88.9	34.5	50.9	27.0	17.5	20	54.0	5/8	12.8	1.6	4	1.4
P3F32S	1 1/4	133.4	98.4	43.1	63.6	27.0	19.1	20	63.6	5/8	14.3	1.6	4	1.8
P3F40S	1 1/2	155.6	114.3	49.5	73.1	30.2	20.7	22	69.9	3/4	15.9	1.6	4	2.7
P3F50S	2	165.2	127.0	61.9	77.8	33.4	22.3	20	84.2	5/8	17.5	1.6	8	3.2
P3F80S	3	209.6	168.2	90.6	125	42.25	28.6	22	115.5	3/4	20.25	1.6	8	5.9
P3F94S	4	254.1	200.0	116	154.75	47	31.8	22	143.7	3/4	22.09	1.6	8	10.0



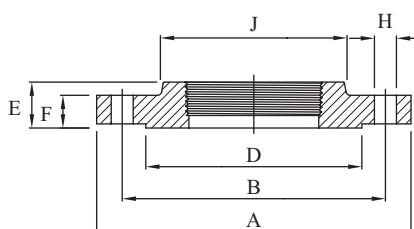
ANSI C300 Weld Neck Flange

ANSI B16.5 C300 Weld Neck Flange														
AAP CODE	IMPERIAL SIZE	A	B	C	D	E	F	G	H	J	BOLT SIZE	RAISED FACE THICK.	NUMBER HOLES	APPROX. KG/PC
P3FW25	1	123.9	88.9	34.5	50.9	62	17.5	33.5	20	54.0	5/8	1.6	4	1.8
P3FW40	1 1/2	155.6	114.3	49.5	73.1	68	20.7	48.3	22	69.9	5/8	1.6	4	3.2
P3FW50	2	165.2	127.0	61.9	92.1	70	22.3	60.5	20	84.2	3/4	1.6	8	4.1
P3FW80	3	209.6	168.2	90.6	127.1	79	28.6	88.9	22	117.5	5/8	1.6	8	6.8
P3FW94	4	254.1	200.0	116.0	157.2	86	31.8	114.3	22	146.1	3/4	1.6	8	11.4
P3FW96	6	317.6	269.8	170.6	216.0	98	36.5	168.4	22	206.4	3/4	1.6	12	19.1
P3FW98	8	381	330.2	202.7	269.9	111	41.1	219.2	26	260.4	7/8	1.6	12	30.4
P3FWX25	10	444.5	387.4	254.5	323.9	117.3	47.7	273.1	28	320.5	1	1.6	16	41.3
P3FWX30	12	520.7	450.8	304.8	382.0	130	50.8	323.8	33.0	374.6	1 1/8	1.6	16	63.6



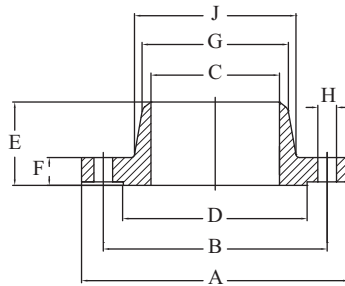
ANSI C300 NPT Screwed Flange

ANSI B16.5 C300 NPT Screwed Flange													
AAP CODE	IMPERIAL SIZE	A	B	D	E	F	H	J	BOLT SIZE	RAISED FACE THICK.	NUMBER HOLES	APPROX. KG/PC	
P3FS15	1/2	95.3	66.6	35.0	22.3	14.3	16	38.2	1/2	1.6	4	0.9	
P3FS20	3/4	117.5	82.5	42.9	25.5	15.9	20	47.7	5/8	1.6	4	1.4	
P3FS25	1	123.9	88.9	50.9	27.0	17.5	20	54.0	5/8	1.6	4	1.4	
P3FS32	1 1/4	133.4	98.4	63.6	27.0	19.1	20	63.6	5/8	1.6	4	1.8	
P3FS40	1 1/2	155.6	114.3	73.1	30.2	20.7	22	69.9	3/4	1.6	4	2.7	
P3FS50	2	165.2	127.0	92.1	33.4	22.3	20	84.2	5/8	1.6	8	3.2	
P3FS80	3	209.6	168.2	127.1	42.9	28.6	22	117.5	3/4	1.6	8	5.9	
P3FS94	4	254.1	200.0	157.2	47.7	31.8	22	146.1	3/4	1.6	8	10.0	



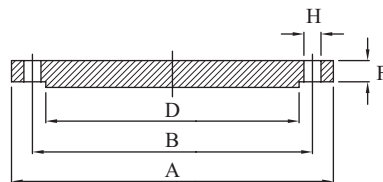
ANSI C600 Weld Neck Flange

ANSI B16.5 C600 Weld Neck Flange												
AAP CODE	IMPERIAL SIZE	A	B	D	E	F	H	J	BOLT SIZE	RAISED FACE THICK.	NUMBER HOLES	APPROX. KG/PC
P6FW25X	1	123.8	88.9	50.9	68.2	23.8	20	54	5/8	6.3	4	1.8
P6FW40X	1 1/2	155	114.3	73.1	76.1	28.5	22	69.8	3/4	6.3	4	3.6
P6FW50X	2	165	127	92.1	79.3	31.7	20	84.1	5/8	6.3	8	5.4
P6FW80X	3	210	168.3	127.1	88.8	38.1	22	117.5	3/4	6.3	8	10.4
P6FW94X	4	273.1	215.9	157.2	107.9	44.4	26	152.4	7/8	6.3	8	19.1
P6FW96X	6	355	292.1	215.9	123.8	53.9	30	222.3	1	6.3	12	36.3



ANSI C600 Blind Flange

ANSI B16.5 C600 Blind Flange										
AAP CODE	IMPERIAL SIZE	A	B	D	F	H	BOLT SIZE	RAISED FACE THICK.	NUMBER HOLES	APPROX. KG/PC
P6FB40	1 1/2	155	114.3	73.1	28.5	22	3/4	6.3	4	3.6
P6FB50	2	165	127	92.1	31.7	20	5/8	6.3	8	4.5
P6FB80	3	210	168.3	127.1	38.1	22	3/4	6.3	8	9.1
P6FB94	4	273.1	215.9	157.2	44.4	26	7/8	6.3	8	18.6

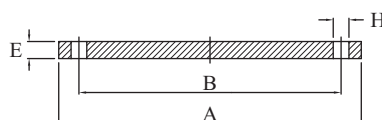


Carbon Steel Plate Flanges Temperature-Pressure Ratings

Temperature-Pressure Ratings for Carbon Steel Plate Flanges													
"Flange table"	Pressure, kPa												Maximum hydrostatic test pressure kPa
	Temperature, °C												
	- 18 to 120	- 50 to 232	250	275	300	325	350	375	400	425	450	475	
D		700	650	600	570	550	500	450	400	350			1 050
C	1 200												1 800
E		1 400	1 300	1 200	1 100	1 000	950	900	800	700			2 100
F		2 100	2 000	1 800	1 700	1 600	1 400	1 300	1 200	1 100			3 150
H		3 500	3 300	3 100	2 900	2 600	2 400	2 000	2 000	1 700	1 300	900	5 250
J		4 800	4 600	4 300	4 000	3 700	3 400	3 100	2 700	2 400	1 900	1 300	7 200
K		6 200	5 900	5 500	5 100	4 700	4 300	3 900	3 500	3 100	2 400	1 600	9 300
R		8 300	7 900	7 400	6 800	6 300	5 800	5 200	4 700	4 200	3 200	2 200	12 450
S		12 400	11 800	11 100	10 300	9 500	8 700	7 900	7 100	6 300	4 800	3 300	18 600
T		19 300	18 400	17 200	16 000	14 700	13 500	12 200	11 000	9 800	7 500	5 100	28 950

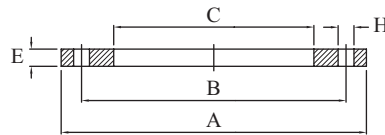
Blind Plate Flange (Table D)

Plate Steel Flange AS2129 (Table D - Blind)								
AAP CODE	IMPERIAL SIZE	A	B	E	H	BOLT SIZE	NUMBER OF HOLES	APPROX. KG/PC
SFBD94	4	216	178	12	18	M16	4	3.43
SFBD95	5	254	210	13	18	M16	8	5.31
SFBD96	6	279	235	13	18	M16	8	6.49
SFBD98	8	337	292	13	18	M16	8	9.28
SFBDX25	10	406	356	16	22	M20	8	16.14
SFBDX30	12	457	406	19	22	M20	12	24.4
SFBDX35	14	525	470	22	26	M24	12	-
SFBDX40	16	580	521	22	26	M24	12	43.5
SFBDX45	18	640	584	25	26	M24	12	-
SFBDX50	20	705	641	29	26	M24	16	-
SFBDX60	24	825	756	32	30	M27	16	-



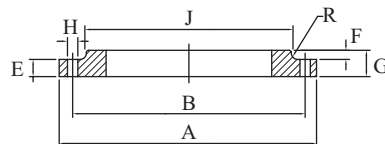
Slip On Plate Flange (Table D)

Plate Steel Flange AS2129 (Table D - Slip On)									
AAP CODE	IMPERIAL SIZE	A	B	C	E	H	BOLT SIZE	NUMBER OF HOLES	APPROX. KG/PC
SFPD94	4	216	178	116	12	18	M16	4	2.3
SFPD95	5	254	210	144	13	18	M16	8	3.5
SFPD96	6 1/2	279	235	167	13	18	M16	8	3.7
SFPD96X	6 5/8	279	235	170	13	18	M16	8	3.7
SFPD98	8	337	292	221	13	18	M16	8	4.8
SFPDX25	10	406	356	275	16	22	M20	8	8.3
SFPDX30	12	457	406	327	19	22	M20	12	11.0
SFPDX35	14	525	470	359	22	26	M24	12	18.8
SFPDX40	16	580	521	410	22	26	M24	12	21.7
SFPDX45	18	640	584	461	25	26	M24	12	29
SFPDX50	20	705	641	513	29	26	M24	16	39.9
SFPDX60	24	825	756	615	32	30	M27	16	57



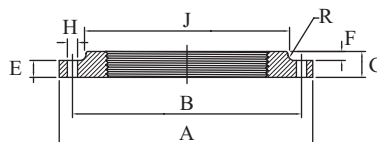
Slip on Flange (Table D)

Forged Steel Plate Flange BS 10 (Table D - Slip On)												
AAP CODE	IMPERIAL SIZE	A	B	J	E	F	G	H	BOLT SIZE	NUMBER OF HOLES	RADIUS OF BOSS	APPROX. KG/PC
SFDS94	4	215.9	177.8	139.7	9.5	19.0	28.5	18	M16	4	9.5	2.6



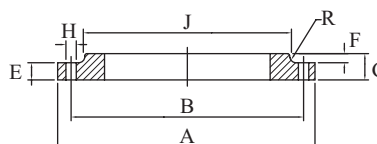
Galvanised Screwed Flange (Table D)

Forged Steel Plate Flange BS 10 (Table D - Screwed Gal)												
AAP CODE	SIZE IMPERIAL	A	B	J	E	F	G	H	BOLT SIZE	NUMBER HOLES	RADIUS OF BOSS	APPROX. KG/PC
SFD94G	4	215.9	177.8	139.7	9.5	19.0	28.5	18	M16	4	9.5	2.6
SFD96G	6	279.4	234.9	196.8	12.7	19.0	31.7	18	M16	8	9.5	4.8



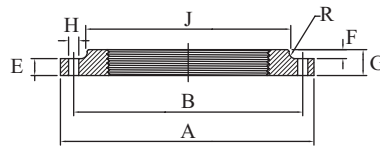
Slip On Flange (Table E)

Forged Steel Plate Flange BS 10 (Table E - Slip On)												
AAP CODE	IMPERIAL SIZE	A	B	J	E	F	G	H	BOLT SIZE	NUMBER OF HOLES	RADIUS OF BOSS	APPROX. KG/PC
SFES20	3/4	101.6	73.0	44.5	6.3	11.1	17.4	14	M12	4	6.3	0.5
SFES25	1	114.3	82.6	52.4	7.1	11.1	18.2	14	M12	4	6.3	0.7
SFES32	1 1/4	120.7	87.3	57.0	7.9	11.1	19.0	14	M12	4	6.3	0.7
SFES40	1 1/2	133.3	98.4	69.9	8.7	12.7	21.4	14	M12	4	6.3	1.0
SFES50	2	152.4	114.3	79.4	9.5	12.7	22.2	18	M16	4	6.3	1.3
SFES65	2 1/2	165.1	127.0	92.9	10.3	15.9	26.2	18	M16	4	6.3	1.5
SFES80	3	184.1	146.0	106.4	11.1	15.9	27.0	18	M16	4	6.3	2.1
SFES94	4	215.9	177.8	139.7	13.7	19.0	32.7	18	M16	8	9.5	3.3
SFES96	6	279.4	235.0	190.5	17.5	19.0	36.5	22	M20	8	9.5	6.0
SFES98	8	337	292	241.3	21	22.21	43.21	22	M20	8	9.5	7.8
SFESX25	10	406	356	298.5	24	26	50	22	M20	12	9.5	14.6



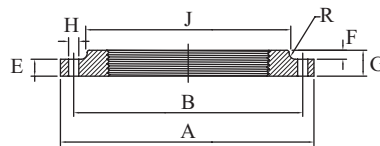
Screwed Flange (Table E)

Forged Steel Plate Flange BS 10 (Table E - Screwed)												
AAP CODE	IMPERIAL SIZE	A	B	J	E	F	G	H	BOLT SIZE	NUMBER OF HOLES	RADIUS OF BOSS	APPROX. KG/PC
SFE15	1/2	95.3	66.7	38.1	6.3	9.5	15.8	14	M12	4	6.3	0.4
SFE20	3/4	101.6	73.0	44.5	6.3	11.1	17.4	14	M12	4	6.3	0.5
SFE25	1	114.3	82.6	52.4	7.1	11.1	18.2	14	M12	4	6.3	0.7
SFE32	1 1/4	120.7	87.3	57.0	7.9	11.1	19.0	14	M12	4	6.3	0.7
SFE40	1 1/2	133.3	98.4	69.9	8.7	12.7	21.4	14	M12	4	6.3	1.0
SFE50	2	152.4	114.3	79.4	9.5	12.7	22.2	18	M16	4	6.3	1.3
SFE65	2 1/2	165.1	127.0	92.9	10.3	15.9	26.2	18	M16	4	6.3	1.5
SFE80	3	184.1	146.0	111.9	11.1	15.9	27.0	18	M16	4	6.3	2.1
SFE94	4	215.9	177.8	139.7	13.7	19.0	32.7	18	M16	8	9.5	3.3



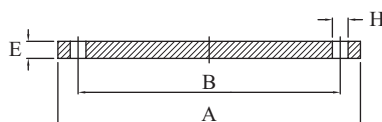
Galvanised Screwed Flange (Table E)

Forged Steel Plate Flange BS 10 (Table E - Screwed Gal)												
AAP CODE	IMPERIAL SIZE	A	B	J	E	F	G	H	BOLT SIZE	NUMBER OF HOLES	RADIUS OF BOSS	APPROX. KG/PC
SFE15G	1/2	95.3	66.7	38.1	6.3	9.5	15.8	14	M12	4	6.3	0.34
SFE20G	3/4	101.6	73.0	44.5	6.3	11.1	17.4	14	M12	4	6.3	0.45
SFE25G	1	114.3	82.6	52.4	7.1	11.1	18.2	14	M12	4	6.3	0.57
SFE32G	1 1/4	120.7	87.3	57.0	7.9	11.1	19.0	14	M12	4	6.3	0.79
SFE40G	1 1/2	133.3	98.4	69.9	8.7	12.7	21.4	14	M12	4	6.3	1.02
SFE50G	2	152.4	114.3	79.4	9.5	12.7	22.2	18	M16	4	6.3	1.36
SFE65G	2 1/2	165.1	127.0	92.9	10.3	15.9	26.2	18	M16	4	6.3	1.7
SFE80G	3	184.1	146.0	111.9	11.1	15.9	27.0	18	M16	4	6.3	2.27
SFE94G	4	215.9	177.8	139.7	13.7	19.0	32.7	18	M16	8	9.5	3.18



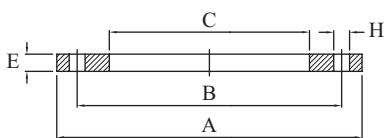
Blind Plate Flange (Table E)

Plate Steel Flange AS2129 (Table E - Blind)								
AAP CODE	IMPERIAL SIZE	A	B	E	H	BOLT SIZE	NUMBER OF HOLES	APPROX. KG/PC
SFBE15	1/2	95	67	12	14	M12	4	0.64
SFBE20	3/4	102	73	12	14	M12	4	0.7
SFBE25	1	114	83	12	14	M12	4	0.94
SFBE32	1 1/4	121	87	12	14	M12	4	0.95
SFBE40	1 1/2	133	98	12	14	M12	4	1.38
SFBE50	2	152	114	12	18	M16	4	1.69
SFBE65	2 1/2	165	127	12	18	M16	4	1.82
SFBE80	3	184	146	12	18	M16	4	2.41
SFBE94	4	216	178	13	18	M16	8	3.72
SFBE95	5	254	210	14	18	M16	8	5.32
SFBE96	6	279	235	17	22	M20	8	8.25
SFBE98	8	337	292	19	22	M20	8	12.91
SFBEX25	10	406	356	22	22	M20	12	22.85
SFBEX30	12	457	406	25	26	M24	12	31.2
SFBEX35	14	525	470	29	26	M24	12	48.54
SFBEX40	16	580	521	32	26	M24	12	65.5
SFBEX45	18	640	584	35	26	M24	16	87
SFBEX50	20	705	641	38	26	M24	16	114.75
SFBEX60	24	825	756	48	33	M30	16	192.5



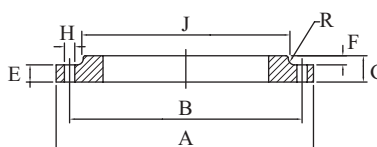
Slip on Plate Flange (Table E)

Slip On Plate Steel Flange AS2129 (Table E)									
AAP CODE	IMPERIAL SIZE	A	B	C	E	H	BOLT SIZE	NUMBER OF HOLES	APPROX. KG/PC
SFPE15	1/2	95	67	23	12	14	M12	4	0.6
SFPE20	3/4	102	73	29	12	14	M12	4	0.6
SFPE25	1	114	83	35	12	14	M12	4	0.8
SFPE32	1 1/4	121	87	44	12	14	M12	4	0.9
SFPE40	1 1/2	133	98	50	12	14	M12	4	1.1
SFPE50	2	152	114	62	12	18	M16	4	1.3
SFPE65	2 1/2	165	127	78	12	18	M16	4	1.5
SFPE80	3	184	146	90	12	18	M16	4	1.8
SFPE94	4	216	178	117	13	18	M16	8	2.4
SFPE95	5	254	210	144	14	18	M16	8	3.6
SFPE96	6 1/2	279	235	167	17	22	M20	8	4.8
SFPE96X	6 5/8	279	235	170	17	22	M20	8	4.7
SFPE98	8	337	292	221	19	22	M20	8	7.0
SFPEX25	10	406	356	275	22	22	M20	12	11.1
SFPEX30	12	457	406	327	25	26	M24	12	14.2
SFPEX35	14	525	470	359	29	26	M24	12	24.8
SFPEX40	16	580	521	410	32	26	M24	12	31.5
SFPEX45	18	640	584	461	35	26	M24	16	40.1
SFPEX50	20	705	641	513	38	26	M24	16	52.3
SFPEX60	24	825	756	615	48	33	M30	16	85.4



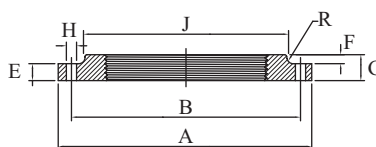
Slip On Flange (Table H)

Forged Steel Plate Flange BS 10 (Table H - Slip On)												
AAP CODE	SIZE IMPERIAL	A	B	J	E	F	G	H	BOLT SIZE	NUMBER OF HOLES	RADIUS OF BOSS	APPROX. KG/PC
SFHS15	1/2	114.3	82.6	47.6	12.7	9.5	22.2	18	M16	4	6.3	1.0
SFHS20	3/4	114.3	82.6	47.6	12.7	11.1	23.8	18	M16	4	6.3	1.0
SFHS25	1	120.7	87.3	52.4	14.3	11.1	25.4	18	M16	4	6.3	1.2
SFHS32	1 1/4	133.4	98.4	63.5	17.5	11.1	28.6	18	M16	4	6.3	1.8
SFHS40	1 1/2	139.7	104.8	69.9	17.5	12.7	30.2	18	M16	4	6.3	1.9
SFHS50	2	165.1	127.0	92.9	19.0	12.7	31.7	18	M16	4	6.3	3.0
SFHS65	2 1/2	184.1	146.0	111.9	19.0	15.9	34.9	18	M16	8	6.3	3.7
SFHS80	3	205.0	165.1	130.2	22.2	15.9	38.1	18	M16	8	6.3	5.1
SFHS94	4	228.6	190.5	152.4	25.4	19.0	44.4	18	M16	8	9.5	6.9
SFHS96	6	304.8	260.3	215.9	28.6	19.0	47.6	22	M20	12	9.5	12.5



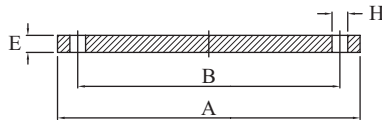
Screwed Flange (Table H)

Forged Steel Plate Flange BS 10 (Table H - Screwed)												
AAP CODE	IMPERIAL SIZE	A	B	J	E	F	G	H	BOLT SIZE	NUMBER OF HOLES	RADIUS OF BOSS	APPROX. KG/PC
SFH20	3/4	114.3	82.6	47.6	12.7	11.1	23.8	18	M16	4	6.3	1.1
SFH25	1	120.7	87.3	52.4	14.3	11.1	25.4	18	M16	4	6.3	1.2
SFH32	1 1/4	133.4	98.4	63.5	17.5	11.1	28.6	18	M16	4	6.3	1.8
SFH40	1 1/2	139.7	104.8	69.9	17.5	12.7	30.2	18	M16	4	6.3	1.9
SFH50	2	165.1	127.0	92.9	19.0	12.7	31.7	18	M16	4	6.3	3.0
SFH65	2 1/2	184.1	146.0	111.9	19.0	15.9	34.9	18	M16	8	6.3	3.7
SFH80	3	203.2	165.1	130.2	22.2	15.9	38.1	18	M16	8	6.3	5.1



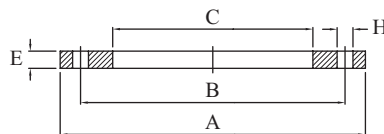
Blind Plate Flange (Table H)

Plate Steel Flange AS2129 (Table H - Blind)								
AAP CODE	IMPERIAL SIZE	A	B	E	H	BOLT SIZE	NUMBER OF HOLES	APPROX. KG/PC
SFBH50	2	165	127	19	18	M16	4	3.07
SFBH65	2 1/2	184	146	19	18	M16	8	3.87
SFBH80	3	205	165	22	18	M16	8	5.41
SFBH94	4	229	191	25	18	M16	8	8.07
SFBH96	6	305	260	29	22	M20	12	



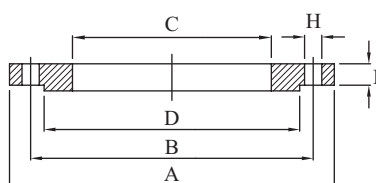
Slip on Plate Flange (Table H)

Slip on Plate Flange AS2129 (Table H)									
AAP CODE	IMPERIAL SIZE	A	B	C	E	H	BOLT SIZE	NUMBER OF HOLES	APPROX. KG/PC
SFPH15	1/2	114	83	22	13	18	M16	4	0.9
SFPH20	3/4	114	83	29	13	18	M16	4	0.9
SFPH25	1	121	87	35	14	18	M16	4	1.0
SFPH32	1 1/4	133	98	44	17	18	M16	4	1.6
SFPH40	1 1/2	140	105	50	17	18	M16	4	1.7
SFPH50	2	165	127	62	19	18	M16	4	2.6
SFPH65	2 1/2	184	146	78	19	18	M16	8	3.1
SFPH80	3	205	165	91	22	18	M16	8	4.2
SFPH94	4	229	191	115	25	18	M16	8	5.7
SFPH95	5	279	235	143	29	22	M20	8	9.6
SFPH96	6 1/2	305	260	167	29	22	M20	12	10.5
SFPH96X	6 5/8	305	260	170	29	22	M20	12	10.4
SFPH98	8	368	324	221	32	26	M24	12	16.2
SFPHX25	10	432	381	275	35	26	M24	16	21.7
SFPHX30	12	489	438	327	41	30	M27	16	30.9



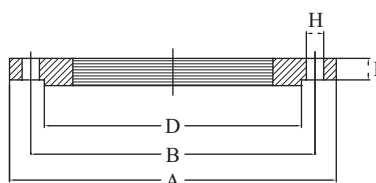
DIN PN16 Slip On Plate Flanges

BS 4504 PN16 Slip On											
AAP CODE	IMPERIAL SIZE	A	B	C	D	F	H	BOLT SIZE	RAISED FACE THICK.	NUMBER HOLES	APPROX. KG/PC
SFPPN1615	1/2	95	65	22	49	14	14	M12	3	4	0.6
SFPPN1620	3/4	105	75	29	59	15	14	M12	3	4	0.9
SFPPN1625	1	115	85	35	69	15	14	M12	3	4	1.0
SFPPN1632	1 1/4	140	100	42.3	80	15	18	M16	3	4	1.7
SFPPN1640	1 1/2	150	110	50	88	16	18	M16	3	4	1.8
SFPPN1650	2	165	125	62	102	20	18	M16	3	4	2.4
SFPPN1665	2 1/2	185	145	78	122	20	18	M16	3	4	3.0
SFPPN1680	3	200	160	91	138	20	18	M16	3	8	3.3
SFPPN1694	4	220	180	116	158	22	18	M16	3	8	4.0
SFPPN1695	5	250	210	144	188	22	18	M16	3	8	4.9
SFPPN1696X	6 5/8	285	240	170	212	24	22	M20	3	8	6.6
SFPPN1696	6 1/2	285	240	167	212	24	22	M20	3	8	6.5
SFPPN1698	8	340	295	221	268	26	22	M20	3	12	9.0



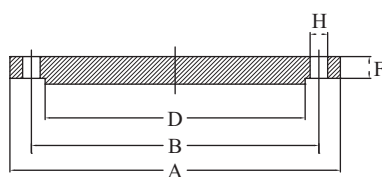
DIN PN16 Flange Screwed BSP Thread

BS 4504 PN16 Slip Screwed BSP										
AAP CODE	IMPERIAL SIZE	A	B	D	F	H	BOLT SIZE	RAISED FACE THICK.	NUMBER HOLES	APPROX. KG/PC
SFPN16B25	1	115	85	69	15	14	M12	3	4	1.0
SFPN16B40	1 1/2	150	110	88	16	18	M16	3	4	1.8
SFPN16B50	2	165	125	102	20	18	M16	3	4	2.4
SFPN16B80	3	200	160	138	20	18	M16	3	8	3.3



DIN PN16 Blind Plate Flange

BS 4504 PN16 Blind										
AAP CODE	IMPERIAL SIZE	A	B	D	F	H	BOLT SIZE	RAISED FACE THICK.	NUMBER HOLES	APPROX. KG/PC
SFPPN1650B	2	165	125	102	20	18	M16	3	4	2.6
SFPPN1665B	2 1/2	185	145	122	20	18	M16	3	4	3.3
SFPPN1680B	3	200	160	138	20	18	M16	3	8	4.3
SFPPN1694B	4	220	180	158	22	18	M16	3	8	5.3
SFPPN1695B	5	250	210	188	22	18	M16	3	8	7.7
SFPPN1696B	6 1/2	285	240	212	24	22	M20	3	8	9.8
SFPPN1698B	8	340	295	268	26	22	M20	3	12	15.5

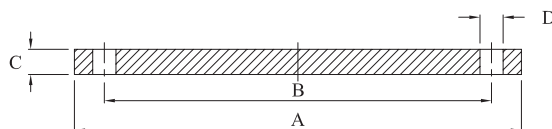


4087 Steel Flanges

Classification and Allowable Pressures			
PRESSURE CLASS	ALLOWABLE OPERATING PRESSURE kPa	MAXIMUM OPERATING PRESSURE kPa	ALLOWABLE SITE TEST PRESSURE kPa
PN16	1600	1920	2000
PN21	2100	2520	2625
PN35	3500	4200	4375

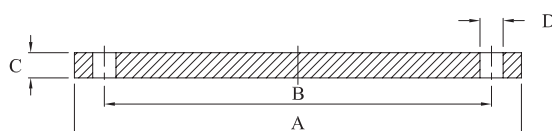
4087 PN16 Blind Flat Faced Flange

4087 PN16 Blind Flat Faced Flange								
AAP CODE	IMPERIAL SIZE	A	B	C	D	BOLT SIZE	NUMBER HOLES	APPROX. KG/PC
4087BPN1680	3	185	146	11	18	M16	4	2.23
4087BPN1694	4	215	178	13	18	M16	4	3.05
4087BPN1696	6	280	235	13	18	M16	8	7.01
4087BPN1698	8	335	292	19	18	M16	8	12.84
4087BPN16X25	10	405	356	19	22	M20	8	18.76
4087BPN16X30	12	455	406	23	22	M20	12	28.53
4087BPN16X37	15	550	495	30	26	M24	12	-
4087BPN16X40	16	580	521	30	26	M24	12	54.45
4087BPN16X45	18	640	584	30	26	M24	12	74.26
4087BPN16X50	20	705	641	38	26	M24	16	113.90
4087BPN16X60	24	825	756	48	30	M27	16	197.15



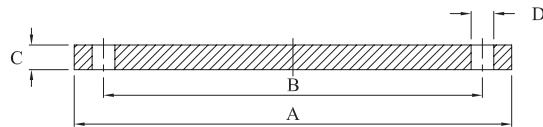
4087 PN21 Blind Flat Faced Flange

4087 PN21 Blind Flat Faced Flange								
AAP CODE	IMPERIAL SIZE	A	B	C	D	BOLT SIZE	NUMBER HOLES	APPROX. KG/PC
4087BPN2194	4	230	191	19	18	M16	8	5.89
4087BPN2196	6	305	260	24	22	M20	12	12.90
4087BPN2198	8	370	324	24	22	M20	12	19.40
4087BPN21X25	10	430	381	30	26	M24	12	32.70
4087BPN21X30	12	490	438	38	26	M24	16	42.41
4087BPN21X40	16	610	552	38	30	M27	20	82.96
4087BPN21X45	18	675	610	38	33	M30	20	101.64
4087BPN21X50	20	735	673	48	33	M30	24	152.13
4087BPN21X60	24	850	781	58	36	M33	24	247.22
4087BPN21X75	30	1015	940	58	36	M33	28	355.40
4087BPN21X90	36	1185	1105	68	39	M36	32	568.27
4087BPN21X120	48	1530	1441	88	42	M39	40	1231.70



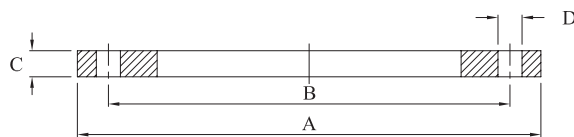
4087 PN35 Blind Flat Faced Flange

4087 PN35 Blind Flat Faced Flange								
AAP CODE	IMPERIAL SIZE	A	B	C	D	BOLT SIZE	NUMBER HOLES	APPROX. KG/PC
4087BPN3596	6	305	260	31	22	M20	12	16.67
4087BPN3598	8	370	324	31	22	M20	12	25.05
4087BPN35X25	10	430	381	38	26	M24	12	41.42
4087BPN35X30	12	490	438	38	26	M24	16	53.71
4087BPN35X60	24	850	781	68	36	M33	24	289.85



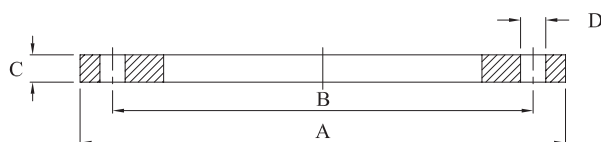
4087 PN16 Plate Flat Faced Flange

4087 PN16 Plate Flat Faced Flange								
AAP CODE	IMPERIAL SIZE	A	B	C	D	BOLT SIZE	NUMBER HOLES	APPROX. KG/PC
4087SPN1680	3	185	146	11	18	M16	4	1.68
4087SPN1694	4	215	178	13	18	M16	4	2.13
4087SPN1696	6	280	235	13	18	M16	8	4.32
4087SPN1698	8	335	292	19	18	M16	8	7.10
4087SPN16X25	10	405	356	19	22	M20	8	9.82
4087SPN16X30	12	455	406	23	22	M20	12	11.36
4087SPN16X37	15	550	495	30	26	M24	12	-
4087SPN16X40	16	580	521	30	26	M24	12	29.57
4087SPN16X45	18	640	584	30	26	M24	12	34.83
4087SPN16X50	20	705	641	38	26	M24	16	52.25
4087SPN16X60	24	825	756	48	30	M27	16	84.90
4087SPN16X75	30	995	1092	66	36	M33	24	111.85
4087SPN16X120	48	1490	1410	76	36	M33	32	324.85



4087 PN21 Plate Flat Faced Flange

4087 PN21 Plate Flat Faced Flange								
AAP CODE	IMPERIAL SIZE	A	B	C	D	BOLT SIZE	NUMBER HOLES	APPROX. KG/PC
4087SPN2194	4	230	191	19	18	M16	8	4.32
4087SPN2196	6	305	260	24	22	M20	12	8.60
4087SPN2198	8	370	324	24	22	M20	12	12.14
4087SPN21X25	10	430	381	30	26	M24	12	18.58
4087SPN21X30	12	490	438	38	26	M24	16	22.68
4087SPN21X40	16	610	552	38	30	M27	20	43.50
4087SPN21X45	18	675	610	38	33	M30	20	51.70
4087SPN21X50	20	735	673	48	33	M30	24	74.25
4087SPN21X60	24	850	781	58	36	M33	24	111.54
4087SPN21X75	30	1015	940	58	36	M33	28	116.73
4087SPN21X90	36	1185	1105	68	39	M36	32	209.58
4087SPN21X120	48	1530	1441	88	42	M39	40	532.82



4087 PN35 Plate Flat Faced Flange

4087 PN35 Plate Flat Faced Flange								
AAP CODE	IMPERIAL SIZE	A	B	C	D	BOLT SIZE	NUMBER HOLES	APPROX. KG/PC
4087SPN3594	4	230	165	24	18	M16	8	7.44
4087SPN3596	6	305	260	31	22	M20	12	16.67
4087SPN3598	8	370	324	31	22	M20	12	25.05
4087SPN35X25	10	430	381	38	26	M24	12	41.42
4087SPN35X30	12	490	438	38	26	M24	16	53.71
4087SPN35X40	16	610	552	48	30	M27	20	104.90
4087SPN35X60	24	850	781	68	36	M33	24	289.85

