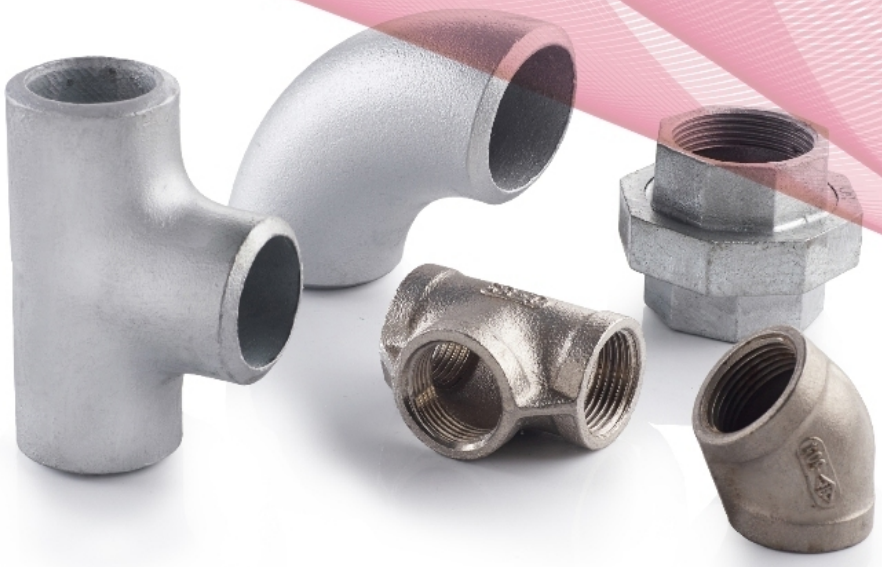


FIREFIGHTING, AIR CONDITIONING

AND VARIOUS PIPING INSTALLATION PIPES & FITTINGS

消防空調及各式配管安裝管件

盟諭實業有限公司
MONG YU ENTERPRISE

IP66

目錄 Contents

盟諭實業有限公司成立於1997年，為一專營並製造動力儀電管件、防爆電氣管件、高壓PIPE&TUBE管及管配件、消防空調用管配件與五金材料之公司，產品銷售遍及本國各大石化廠、鋼鐵廠、電力公司、科學園區、捷運等…動力儀電相關工程，迄今已累積了相當之專業經驗。

Established in 1997, Mong Yu Enterprise is a company specializing in the manufacturing of dynamometer electric piping accessories, explosion-proof electrical piping accessories, high-pressure PIPE & TUBE piping and piping accessories, fire-fighting air-conditioning piping accessories, and hardware parts. Our products are sold throughout the country's major petrochemical plants, steel plants, power companies, science parks, MRT, etc., earning substantial professional experiences in dynamometer related engineering projects.

為強化管理與產品生產控管，委由法國標準協會(AFNOR)艾法諾國際股份有限公司認證通過ISO-9001品質管理及ISO-14001環境管理等認證。盟諭公司也致力於防爆相關產品的不斷研發與精進，並於民國一0五年開始，陸續將自有產品委由德國萊茵TÜV驗證機構進行IECEx防爆相關認證，迄今~已有多項防爆產品通過IECEx認證。未來盟諭公司將持續本著技術、品質、服務的核心價值，不斷的在產品上創新與研發，堅持對產品品質上的追求，與客戶至上的服務品質。

In order to strengthen the management and production control, we obtained ISO-9001 Quality Management System and ISO-14001 International Environment which were certified by AFNOR Asia of AFNOR GROUP. Also, committed to the continuous research, development and improvement of explosion-proof related products, we have entrusted TÜV Rheinland to test our products for IECEx Certification since 2016, and several of them have successfully obtained it. In the future, Mong Yu Enterprise, which upholds the core values of technology, quality and service, will keep innovating and developing new products based on our insistence on the pursuit of product quality and customer-oriented service quality.

營業產品系列
Product Series

- IEC/UL/TS認證防爆管件
  IEC/UL/TS Explosion-proof Fittings
- 電氣&儀表電力安裝管與管件
  Electrical System & Instrumentation
  Power Installation Conduits & Fittings
- 高壓TUBE & PIPE管與管件
  High Pressure Tubes & Fittings
  High Pressure Pipes & Fittings
- 消防空調及各式配管安裝管與管件
  Firefighting , Air Conditioning and
  Various Piping Installation Pipes & Fittings
- 五金產品
  Hardware Parts

證書
Certificate

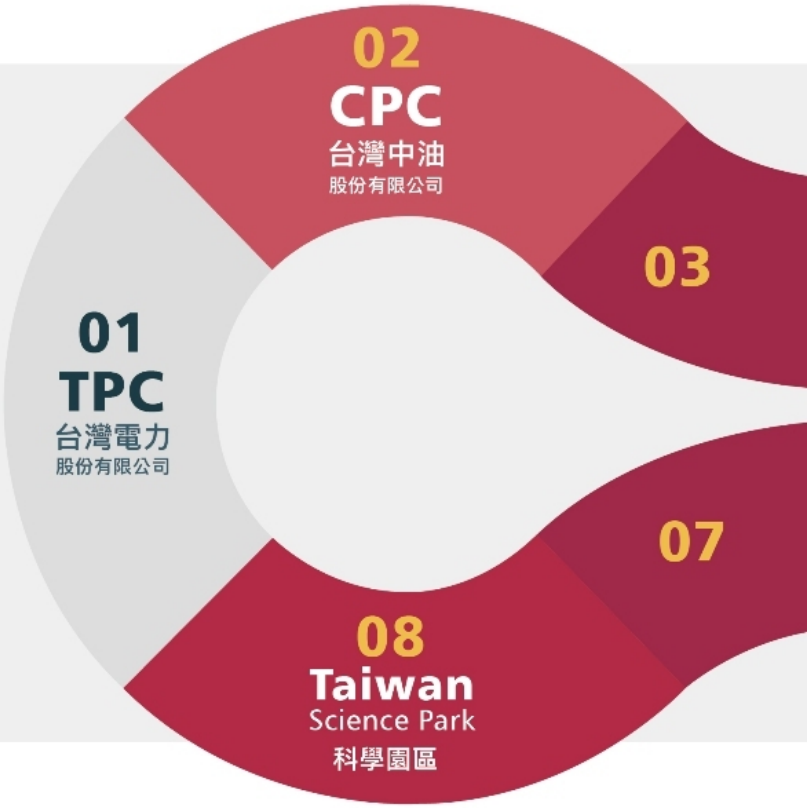

afaq
Certificate
Certificat
Certificate of Registration
TTQ10049-05
盟諭實業有限公司
ISO 9001 : 2015 (CNS 12681 : 2016)
TAF
IAF
afnor

品質證書 Quality Certificates
ISO 9001 : 2015 (CNS12681 : 2016)


afaq
Certificate
Certificat
Certificate of Registration
TTE10049-00
盟諭實業有限公司
ISO 14001 : 2015 (CNS 14001 : 2016)
TAF
IAF
afnor

環安證書 Environmental Certificates
ISO 14001 : 2015 (CNS14001 : 2016)

實績表



01 台灣電力股份有限公司TPC

林口電廠

新鼎儀電工程
中鼎動力工程
工信煤倉動力工程
工信煤倉儀電工程

通霄電廠

中鼎動力工程
中鼎儀電工程

大林電廠

中鼎動力工程
中鼎儀電工程
現代動力儀電工程
日商住友動力儀電工程
榮工動力儀電工程

02 台灣中油股份有限公司CPC

林園廠區

108冷卻水塔動力儀電工程
第一轉烷化工場
第五丁二烯萃取及第七芳香烴工場
中鼎六輕NC06動力儀電工程
十座3000公秉高壓球型槽興建工程

大林廠區

柴油加氫脫硫工場動力儀電工場
廢水處理相關設備統包工程
RFCC動力工程
RFCC區外儀電工程
G區電氣設備及配電工程
第三、四摻配儀電工程
富台第12蒸餾興建動力儀電工程
中鼎第11柴油興建動力儀電工程

03 台塑企業集團 Formosa Plastics Group

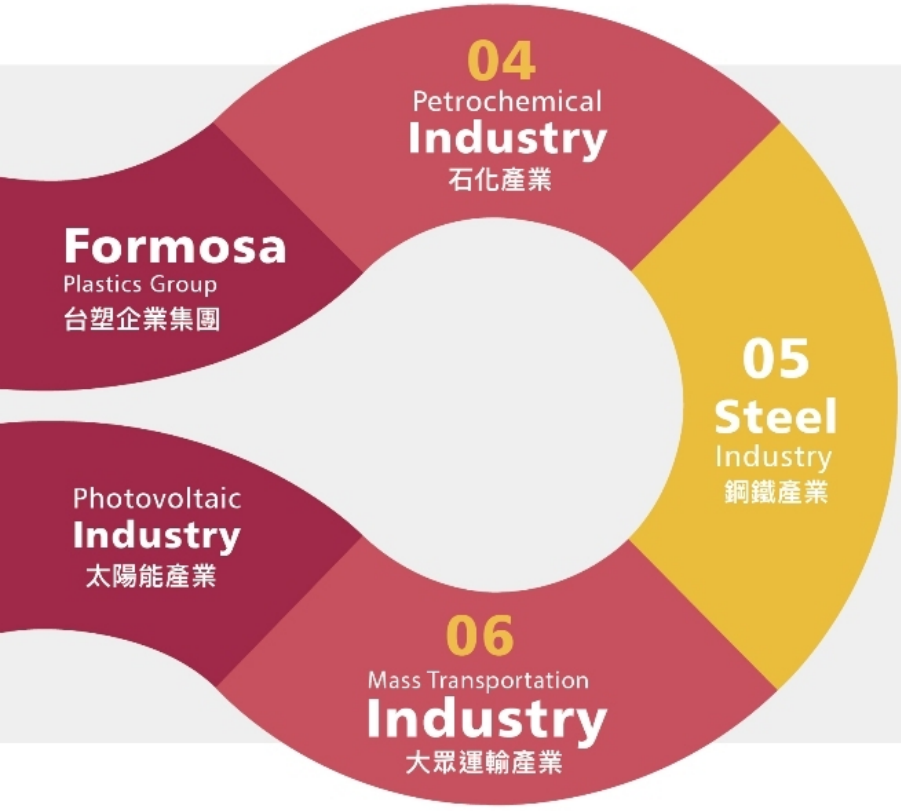
麥寮廠區

LBO動力儀電工程
ALO3動力儀電工程
OL3動力儀電工程
六輕園區碳纖廠儀電工程
SAP廠動力儀電工程
中鼎C5動力儀電工程
煉三廠MTBE#單元電氣儀電工程

04 石化產業 Petrochemical industry

動力、儀電、消防工程

亞東石化股份有限公司 OPTC
台灣寶理塑膠股份有限公司 Polyplastics
亞洲聚合股份有限公司 APC
台灣聚乙烯股份有限公司 TVCM
中國人造纖維股份有限公司 CMFC
華夏海灣塑膠股份有限公司 CGPC
東聯化學股份有限公司 OUCC
台灣苯乙烯工業股份有限公司 TSMC



李長榮化學工業股份有限公司 LCY
信昌化學工業股份有限公司 TPCC
遠榮氣體工業股份有限公司 YRIG
台橡股份有限公司 TSRC
國喬石油化學股份有限公司 GPPC
長春人造樹脂廠股份有限公司 CCP
申豐特用應材股份有限公司 Shinfoong

05 鋼鐵產業 Steel industry

動力、儀電、消防工程

中國鋼鐵股份有限公司 CSC
中龍鋼鐵股份有限公司 DRAGON Steel
中鋼鋁業股份有限公司 CAC
豐興鋼鐵股份有限公司 Feng Hsin Steel
東和鋼鐵企業股份有限公司 Tung Ho Steel

06 大眾運輸產業 Mass transportation industry

水電環控工程、電信工程

高雄捷運股份有限公司 KRTC
台北大眾捷運股份有限公司 TRTC

07 太陽能產業 Photovoltaic industry

動力、儀電、消防配管工程

寶德能源科技股份有限公司 Powertec

廠房太陽能板安裝工程

中國鋼鐵股份有限公司 CSC

08 科學園區 Taiwan Science Park

機電動力
(無塵室動力配管、設備機電安裝、消防空調電力安裝)

台灣積體電路製造股份有限公司 TSMC
聯華電子股份有限公司 UMC
台灣康寧顯示玻璃股份有限公司 CORNING
台灣神隆股份有限公司 ScinoPharm Taiwan
群創光電股份有限公司 InnoLux

碳鋼鋼管

配管用有縫碳鋼鋼管(SGP)
Carbon Seam Steel Pipes for Ordinary Piping

標稱管徑 Designator		外徑 O.D	厚度 Thickness	鋼管重量 Weight
A	B	mm	mm	Kg/M
15	1/2	21.7	2.8	1.31
20	3/4	27.2	2.8	1.68
25	1	34	3.2	2.43
32	1-1/4	42.7	3.5	3.38
40	1-1/2	48.6	3.5	3.89
50	2	60.5	3.8	5.31
65	2-1/2	76.3	4.2	7.47
80	3	89.1	4.2	8.79
100	4	114.3	4.5	12.2
125	5	139.8	4.5	15
150	6	165.2	5.0	19.8
200	8	216.3	5.8	30.1
250	10	267.4	6.6	42.4
300	12	318.5	6.9	53
350	14	355.6	7.9	67.7
400	16	406.4	7.9	77.6
450	18	457.2	7.9	87.5
500	20	508	7.9	97.4

CNS6445 G3127 中國國家標準 / JIS G3452 日本工業規格

- 適用種類 SGP
  Equivalent to JIS G3452 SGP
- 水壓測試(Hydrostatic Test):
  鋼管經25kg/cm²之水壓測試，無洩漏或其他缺陷
  Its strength to withstand the pressure 25kg/cm² without leakage and other defects.
- 厚度許可差(Tolerance on thickness):
  +無規定/-12.5% (+Not Specified/-12.5%)

壓力配管用有縫碳鋼鋼管(STPG)
Carbon Seam Steel Pipes for Pressure Service

標稱管徑 Designator		外徑 O.D	厚度(SCH40) Thickness	鋼管重量 Weight	厚度(SCH80) Thickness	鋼管重量 Weight
A	B	mm	mm	Kg/m	mm	Kg/M
15	1/2	21.7	2.8	1.31	3.7	1.64
20	3/4	27.2	2.9	1.74	3.9	2.24
25	1	34	3.4	2.57	4.5	3.27
32	1-1/4	42.7	3.6	3.47	4.9	4.57
40	1-1/2	48.6	3.7	4.1	5.1	5.47
50	2	60.5	3.9	5.44	5.5	7.46
65	2-1/2	76.3	5.2	9.12	7	12
80	3	89.1	5.5	11.3	7.6	15.3
100	4	114.3	6	16	8.6	22.4
125	5	139.8	6.6	21.7	9.5	30.5
150	6	165.2	7.1	27.7	11.0	41.8
200	8	216.3	8.2	42.1	12.7	63.8
250	10	267.4	9.3	59.2	15.1	93.9
300	12	318.5	10.3	78.3	17.4	129
350	14	355.6	11.1	94.3	19	158
400	16	406.4	12.7	123	21.4	203
450	18	457.2	14.3	156	23.8	254
500	20	508	15.1	184	26.2	311
550	22	558.8	15.9	213	–	–

CNS4626 G3111 中國國家標準

- 適用種類 STPG 370 / STPG 410
  Equivalent to JIS G3454 STPG 370 / STPG 410
- 外徑公差 Tolerance on O.D
  25A以下(Or Under): ±0.3mm
  32A至300A(Or Over): ±0.8%
  300A以上(Or Over): ±0.5%
- 厚度許可差(Tolerance on thickness):
  未滿(Under)3mm: ±0.3mm
  3mm以上(Or Over): ±10%

壓力配管用有縫碳鋼鋼管
Carbon Seam Steel Pipes for Pressure Service

ASTM A-53
(American Society for Testing and Materials for Steel Pipe Ordinary Use)

標稱管徑 Designator	外徑 O.D	厚度(SCH40) Thickness	水壓測試 Test Pressure	鋼管重量 Weight	厚度(SCH80) Thickness	水壓測試 Test Pressure	鋼管重量 Weight
Inch	mm	mm	Grade B(psi)	Kg/M	mm	Grade B(psi)	kg/M
1/2	21.3	2.77	700	1.3	3.73	850	1.6
3/4	26.7	2.87	700	1.7	3.91	850	2.2
1	33.4	3.38	700	2.5	4.55	850	3.2
1-1/4	42.2	3.56	1300	3.4	4.85	1900	4.5
1-1/2	48.3	3.68	1300	4	5.08	1900	5.4
2	60.3	3.91	2500	5.4	5.54	2500	7.5
2-1/2	73	5.16	2500	8.6	7.01	2500	11.4
3	88.9	5.49	2500	11.3	7.76	2500	15.3
4	114.3	6.02	2210	16.1	8.56	2800	22.3
5	141.3	6.6	1950	21.8	9.5	2800	30.9
6	168.3	7.1	1780	28.3	11.0	2740	42.6
8	219.1	8.18	1570	42.6	12.7	2430	64.6
10	372	9.27	1430	60.3	15.09	2320	96
12	323.8	10.31	1340	79.7	17.48	2270	132
14	355.6	11.13	1310	94.6	19.05	2250	158
16	406.4	12.7	1310	123.3	21.44	2220	204
18	457.2	14.27	1310	155.9	–	–	–
20	508	15.09	1250	183.4	–	–	–

工業配管用不鏽鋼管 Stainless Steel Pipes

• 規範 standard: ASTM A778, A312, A358 / CNS6331 G3124 / JIS G3459 • 鋼種 Type: 304 / 304L / 316 / 316L

標稱管徑 Designator		外徑 O.D		厚度 Thickness	SCH NO.
A	B	ASTM	JIS	mm	
8	1/4	–	13.8	1.2	SCH 5.
		–	13.8	1.5	–
		13.7	13.8	1.65	SCH 10
		–	13.8	2.0	SCH 20
		13.7	13.8	2.2	SCH 40
10	3/8	–	17.3	1.5	–
		17.2	17.3	1.65	SCH 10
		–	17.3	2.0	SCH 20
		17.2	17.3	2.3	SCH 40
15	1/2	–	20.4	2.0	–
		–	20.4	2.5	–
		–	21.7	2.0	–
		21.3	21.7	2.11	SCH 10
		–	21.7	2.5	SCH 20
		21.3	21.7	2.77	SCH 40
20	3/4	–	27.2	2.0	–
		26.7	27.2	2.11	SCH 10
		–	27.2	2.5	SCH 20
		26.7	27.2	2.87	SCH 40
25	1	–	34	2.0	–
		–	34	2.5	–
		33.4	34	2.77	SCH 10
		–	34	3.0	SCH 20
		33.4	34	3.38	SCH 40
		–	34	3.5	–
		–	34	4.0	–
32	1–1/4	–	42.7	2.0	–
		–	42.7	2.5	–
		42.2	42.7	2.77	SCH 10
		–	42.7	3.0	SCH 20
		–	42.7	3.5	–
		42.2	42.7	3.56	SCH 40
		–	42.7	4.0	–
40	1–1/2	–	48.6	2.0	–
		–	48.6	2.5	–
		48.3	48.6	2.77	SCH 10
		–	48.6	3.0	SCH 20
		–	48.6	3.5	–
		48.3	48.6	3.68	SCH 40
		–	48.6	4.0	–
50	2	–	60.5	2.0	–
		–	60.5	2.5	–
		60.3	60.5	2.77	SCH 10
		–	60.5	3.0	SCH 20
		–	60.5	3.5	–
		60.3	60.5	3.91	SCH 40
		–	60.5	4.0	–
65	2–1/2	–	76.3	2.0	–
		–	76.3	2.5	–
		73	76.3	3.05	SCH 10
		–	76.3	3.5	SCH 20
		–	76.3	4.0	–
		–	76.3	5.0	–
		73	76.3	5.16	SCH 40

工業配管用不鏽鋼管 Stainless Steel Pipes

• 規範 standard: ASTM A778, A312, A358 / CNS6331 G3124 / JIS G3459 • 鋼種 Type: 304 / 304L / 316 / 316L

標稱管徑 Designator		外徑 O.D		厚度 Thickness	SCH NO.
A	B	ASTM	JIS	mm	
80	3	–	89.1	2.0	–
		–	89.1	2.5	–
		88.9	89.1	3.05	SCH 10
		–	89.1	3.5	–
		–	89.1	4.0	SCH 20
		–	89.1	5.0	–
		88.9	89.1	5.49	SCH 40
100	4	–	114.3	2.0	–
		–	114.3	2.5	–
		114.3	114.3	3.05	SCH 10
		–	114.3	3.5	–
		–	114.3	4.0	SCH 20
		–	114.3	5.0	–
		114.3	114.3	6.02	SCH 40
125	5	–	139.8	2.5	–
		–	139.8	3.0	–
		141.3	139.8	3.40	SCH 10
		–	139.8	3.5	–
		–	139.8	4.0	–
		–	139.8	5.0	SCH 20
		–	139.8	6.0	–
		141.3	139.8	6.55	SCH 40
150	6	–	165.2	3.0	–
		168.3	165.2	3.40	SCH 10
		–	165.2	4.0	–
		–	165.2	5.0	SCH 20
		–	165.2	6.0	–
		168.3	165.2	7.11	SCH 40
200	8	–	216.3	3.0	–
		–	216.3	3.5	–
		219.1	216.3	3.76	SCH 10
		–	216.3	4.5	
		–	216.3	5.0	–
		–	216.3	6.0	–
		–	216.3	6.5	SCH 20
		219.1	216.3	8.18	SCH 40
250	10	–	267.4	3.0	–
		–	267.4	3.5	–
		273.1	267.4	4.19	SCH 10
		–	267.4	5.0	–
		–	267.4	6.0	–
		–	267.4	6.5	SCH 20
		273.1	267.4	9.27	SCH 40
300	12	–	318.5	3.0	–
		–	318.5	3.5	–
		–	318.5	4.0	–
		323.9	318.5	4.57	SCH 10
		–	318.5	5.0	–
		–	318.5	6.0	–
		–	318.5	6.5	SCH 20
		323.9	–	9.52	SCH 40
		–	318.5	10.30	SCH 40

公差 Tolerance　ASTM A778, A312, A358 / CNS6331 G3124 / JIS G3459

項目 Item / 規格 Specification		外徑 Outside diameter							厚度 Wall thickness	真直度 Straightness	長度 Length
ASTM	外徑 O.D. (mm)	≤48.26	48.26 - 114.3	114.3 - 219.08	219.08 - 457.2	457.2 - 660.4	660.4 - 863.6	863.6 - 1219.2	+22.5% −12.5%	6.4mm/6M	+50mm −0mm
	公差 Tolerance (mm)	+0.4 −0.8	+0.8 −0.8	+1.6 −0.8	+2.4 −0.8	+3.2 −0.8	+4.0 −0.8	+4.8 −0.8	+22.5% −12.5%	6.4mm/6M	+50mm −0mm
CNS/JIS	外徑 O.D. (mm)	<30mm			≥30mm				厚度 W.T. (mm) <2mm ≥2mm	–	不可低於指定長度 ≥defined length
	公差 Tolerance (mm)	±0.3mm			±1%				公差 Tolerance (mm) ±0.2mm ±10%	–	不可低於指定長度 ≥defined length

水壓測試標準 Hydrostatic Test Standard　ASTM A312, A358

尺寸	外徑	厚度 Wall thickness							
	Outsode diameter	SCH 5		SCH 10		SCH 40		SCH 80	
Pipe Size	mm	mm	Mpa	mm	Mpa	mm	Mpa	mm	Mpa
1/4"	13.7			1.65	18	2.24	18	3.02	18
3/8"	17.2			1.65	18	2.31	18	3.2	18
1/2"	21.3	1.65	18	2.11	18	2.77	18	3.73	18
3/4"	26.7	1.65	16	2.11	18	2.87	18	3.91	18
1"	33.4	1.65	13	2.77	18	3.38	18	4.55	18
1-1/4"	42.2	1.65	10	2.77	17	3.56	18	4.85	18
1-1/2"	48.3	1.65	9	2.77	15	3.68	18	5.08	18
2"	60.3	1.65	7	2.77	12	3.91	16	5.54	18
2-1/2"	73	2.11	8	3.05	11	5.16	18	7.01	18
3"	88.9	2.11	6	3.05	9	5.49	16	7.62	18
4"	114.3	2.11	5	3.05	7	6.02	13	8.56	18
5"	141.3	2.77	5	3.4	6	6.55	12	9.52	17
6"	168.3	2.77	4.5	3.4	5	7.11	11	10.97	17
8"	219.1	2.77	3.5	3.76	4.5	8.18	10	12.7	15
10"	273.1	3.4	3.5	4.19	4	9.27	9	12.7	12
12"	323.9	3.96	3.5	4.57	3.5	9.52	8	12.7	10

CNS6331 G3124 / JIS G3459　表一 Table 1

單位：Mpa(kgf/cm²)

標稱厚度 Schedule	5S	10S	20S	40S	80S	120S	160S
水壓試驗壓力 Testing pressure	1.5(15)	2.0(20)	3.5(35)	6(60)	12(120)	18(180)	20(200)

CNS6331 G3124 / JIS G3459　表二 Table 2

單位：Mpa(kgf/cm²)

厚度 / 外徑 Thickness / Diameter	≥0.8 <1.6	≥1.6 <2.4	≥2.4 <3.2	≥3.2 <4	≥4 <4.8	≥4.8 <5.6	≥5.6 <6.3	≥6.3 <7.1	≥7.1 <7.9	≥79
水壓試驗壓力 Testing pressure	2.0(20)	4.0(40)	6.0(60)	8.0(80)	10(100)	12(120)	14(140)	16(160)	18(180)	20(200)

150磅可鍛鑄鐵 150PSI Malleable Iron / 300磅球墨鑄鐵 300PSI Ductile Iron

生產範圍與規格 Production Range and Specification

- 材質 Material：
  150PSI: ASTM A-197, ASTM A-47
  300PSI: ASTM A536
- 300磅尺寸 Dimensions For 300PSI：
  ASME B 16.3, B16.14
- 300磅由任尺寸 Union Dimensions For 300PSI：
  ANSI B16.39
- 150磅尺寸 Dimensions For 150PSI：
  BS EN10242, BS 143&1256
- 螺紋 Thread：
  300PSI: ANSI B1.20.1
  150PSI: ISO 7/1
- 可供規格 Size Available：
  1/8"～4"

產品編碼 Designation part number system

W	—	1	2	—	3	—	4
		產品代碼 Name of fitting	壓力 Pressure		尺寸 Size		材質 Material

1 產品 / 代碼 Name of Fittings / Code
參考型錄產品代碼 Reference Cat. NO

2 壓力 / 代碼 Pressure / Code
- 300PSI / 300 - 150PSI / 150

3 尺寸 / 代碼 Size / Code

尺寸 Size	1/8"	1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"
代碼 Code	01	02	03	04	06	1	12	15	2	25	3	4

4 材質 / 代碼 Material / Code
- Malleable Iron(Hot Dip Galvanized) / H
  可鍛鑄鐵(熱浸鍍鋅) / H
- SUS304 / S4
  不鏽鋼304 / S4
- SUS316 / S6
  不鏽鋼316 / S6

範例 Example

W	—	TB	150	—	04	—	S4
		產品代碼 Name of fitting	壓力 Pressure		尺寸 Size		材質 Material
		三通	150磅		1/2"		不鏽鋼SUS304

W	—	UF	300	—	1	—	H
		產品代碼 Name of fitting	壓力 Pressure		尺寸 Size		材質 Material
		由任	300磅		1"		可鍛鑄鐵熱浸鍍鋅

鑄鐵管件 Cast Iron Pipe Fittings

150磅可鍛鑄鐵 150PSI Malleable Iron / 300磅球墨鑄鐵 300PSI Ductile Iron

W-L 150/300磅彎頭
150/300PSI Elbows

W-RTB 150/300磅異徑三通
150/300PSI Reducing Tees

W-UF 150/300磅平底由任
150/300PSI Unions

W-RLB 150/300磅異徑彎頭
150/300PSI Reducing Elbows

W-CRB 150/300磅十字通接頭
150/300PSI Cross

W-HN 150/300磅六角立布
150/300PSI Hexagon Nipples

W-LB45 150/300磅45°彎頭
150/300PSI 45° Elbows

W-S 150/300磅管接頭
150/300PSI Couplings

W-HBU 150/300磅卜申
150/300PSI Bushings

W-SLB 150/300磅內外絲彎頭
150/300PSI Male-Female Elbows

W-RSB 150/300磅異徑管接頭
150/300PSI Reducing Couplings

W-SP 150/300磅塞頭
150/300PSI Plugs

W-TB 150/300磅三通
150/300PSI Tees

W-X 150/300磅內外絲接頭
150/300PSI Adapters

W-CAP 150/300磅管帽
150/300PSI Caps

適用標準 Applicable Standard

- ASTM A234
  中高溫鍛造碳鋼和合金鋼管件材質規範
  Pipe Fitting of Wrought Carbon Steel and Alloy Steel for Moderate and Elevated Temperatures

- ASTM A403
  鍛造奧氏體不銹鋼管配件材質規範
  Wrought Austenitic Stainless Steel Piping Fittings

- ASTM A420
  低溫鍛造碳鋼和合金鋼管件材質規範
  Pipe Fitting of Wrought Carbon Steel and Alloy Steel for low Temperatures Service

- ANSI B16.9
  製作鍛鋼對焊管件規範
  Factory-Made Wrought Steel Butt-Welding Fitting

- ANSI B16.28
  鍛鋼對接焊短半徑彎頭規範
  Wrought Steel Butt-Welding Short Radius Elbows and Returns

- MSS SP-43
  鍛造不銹鋼對焊管件規範
  Wrought Stainless Steel Butt-Welding Fittings

- MSS SP-75
  高強度鍛造焊接管件規範
  Specification for High Test Wrought Welding Fittings

- JIS B2311
  一般用途鋼對焊管件規範
  Steel Butt-Welding Pipe Fittings for Ordinary Use

- JIS B2312
  特殊用途鋼對焊管件規範
  Steel Butt-Welding Pipe Fittings for Special Use

- JIS B2313
  鋼板對焊管件規範
  Steel Plate Butt-Welding Pipe Fittings

尺寸公差 Dimensional Tolerances

ANSI B16.9 , B16.28

in: mm

Nominal Pipe Size	All Fittings			90° / 45° Elbows and Tee	Reducers Lap Joint Stub Ends	Cap	180° Returns			Lap Joint Stub Ends		
	Outside Diameter at Bevel	Inside Diameter at End	Wall Thread	Center to end Dimension	Overall Length	Overall Length	Center to Center Dimension	Back to Face Dimension	Aligment of Ends	Outside Diameter of Lap	Thickness of Lap	Fillet Radius of Lap
Inch	O.D	I.D	T	A, B, C, M	F, H	E	P	K	U	G	T	R
1/2~2-1/2	+1.52, -0.76	±0.76	Not less than 87.5% of norminal thickness	±1.52	±1.52	±3.05	±6.35	±6.35	±0.76	+0, -0.76	+1.52, -0	+0, -0.76
3~3-1/2	±1.52	±1.52		±1.52	±1.52	±3.05	±6.35	±6.35	±0.76	+0, -0.76	+1.52, -0	+0, -0.76
4	±1.52	±1.52		±1.52	±1.52	±3.05	±6.35	±6.35	±0.76	+0, -0.76	+1.52, -0	+0, -0.76
5~8	+2.29, -1.52	+1.52		±1.52	±1.52	±6.35	±6.35	±6.35	±0.76	+0, -0.76	+1.52, -0	+0, -0.76
10~18	+4.06, -3.05	±3.05		±2.29	±2.29	±6.35	±9.65	±6.35	±1.52	+0, -1.52	+1.52, -0	+0, -1.52
20~24	+6.35, -4.83	±4.83		±2.29	±2.29	±6.35	±9.65	±6.35	±1.52	+0, -1.52	+1.52, -0	+0, -1.52
26~30	+6.35, -4.83	±4.83		±3.05	±4.83	±9.65	-	-	-	-	-	-
32~48	+6.35, -4.83	±4.83		±4.83	±4.83	±9.65	-	-	-	-	-	-

MSS SP-43

in: mm

Nominal Pipe Size	All Fittings		90° / 45° Elbows and Tee	Reducers Lap Joint Stub Ends	Cap	180° Returns			Lap Joint Stub Ends	
	Outside Diameter at Welding End	Wall Thread	Center to end Dimension	Overall Length	Overall Length	Center to Center Dimension	Back to Face Dimension	Aligment of Ends	Outside Diameter of Lap	Fillet Radius of Lap
Inch		T	A, B, C, M	F, H	E	P	K	U	G	R
1/2~2-1/2	±0.76	Not less than 87.5% of norminal thickness	±1.52	±1.52	±3.05	±6.35	±6.35	±0.76	+0, -0.76	+0, -0.76
3~3-1/2	±0.76		±1.52	±1.52	±3.05	±6.35	±6.35	±0.76	+0, -0.76	+0, -0.76
4	±0.76		±1.52	±1.52	±3.05	±6.35	±6.35	±0.76	+0, -1.52	+0, -0.76
5~8	+1.52, -0.76		±1.52	±1.52	±6.35	±6.35	±6.35	±0.76	+0, -1.52	+0, -0.76
10~18	+2.29, -0.76		±2.29	±2.29	±6.35	±9.65	±6.35	±1.52	+0, -1.52	+0, -1.52
20~24	+3.05, -0.76		±2.29	±2.29	±6.35	±9.65	±6.35	±1.52	+0, -1.52	+0, -1.52

MSS SP-75

in: mm

Nominal Pipe Size	Inside Diameter at End	Mimum Wall Thickness	Out Of Roundness			90°, 60°, 45°, 30° Elbows and Tee Center to End Dimension		Reducers Over all Length	Cap Over all Length
			At End of Fittings		Throughout Body of Elbows	A, B, C, M			
			Elbows	Other		1-1/2R & Tee	3R		
Inch								H	E
16~24	±2.29	Norminal -0.25	4.83	3.05	2.5%	±2.29	±3.05	±2.29	±6.35
26~36	±2.29		1% of diameter	3.05	2.5%	±3.05	±6.35	±4.83	±9.65
38~48	±3.05		1% of diameter	3.05	2.5%	±4.83	±9.65	±9.65	±9.65

產品編碼 Designation part number system

W	—	1	2	—	3	4	—	5
		產品代碼 Name of fitting	厚度 Thickness		尺寸 Size	鋼管製作型式 Pipe manufacturing type		材質 / 表面處理 Material / Finish

1 產品 / 代碼

Name of Fittings / Code

參考型錄產品代碼 Reference Cat. NO

2 厚度 / 代碼

Thickness / Code

– SCH5 / S5 – SCH10 / S10 – SCH20 / S20 – SCH40 / S40 – SCH80 / S80

3 尺寸 / 代碼

Size / Code

尺寸 Size	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"~8"	10"~44"
代碼 Code	04	06	1	12	15	2	25	3~8	100~440

4 鋼管製作型式 / 代碼

Pipe manufacturing type / Code

– SEAM(有縫) / W – SEAMLESS(無縫) / SE

5 材質 / 代碼

material / Code

– Carbon Steel / A
黑品碳鋼 / A

– Carbon Steel / Zinc Electroplated / E
碳鋼 / 電鍍鋅 / E

– Carbon Steel / Hot Dip Galvanized / H
碳鋼 / 熱浸鍍鋅 / H

– Stainless Steel 304 / S4
不鏽鋼SUS304 / S4

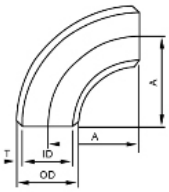
– Stainless Steel 316 / S6
不鏽鋼SUS316 / S6

範例 Example

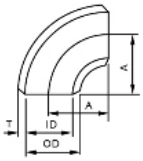
W	—	L90	S40	—	3	W	—	H
		產品代碼 Name of fitting	厚度 Thickness		尺寸 Size	鋼管製作型式 Pipe manufacturing type		材質 /表面處理 Material / Finish
		90°彎頭	SCH40		3"	有縫		碳鋼 / 熱浸鍍鋅

W	—	T	S80	—	120	SE	—	A
		產品代碼 Name of fitting	厚度 Thickness		尺寸 Size	鋼管製作型式 Pipe manufacturing type		材質 /表面處理 Material / Finish
		三通	SCH80		12"	無縫		碳鋼 / 黑品

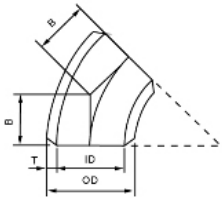
對焊管配件尺寸圖–彎頭90°、S90°、45°



W–L90 90°長徑對焊接頭
90° Long Radius Elbow



W–L90S 90°短徑對焊彎頭
90° Short Radius Elbow

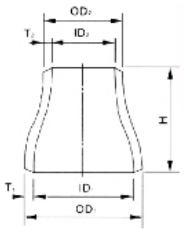


W–L45 45°對焊彎頭
45° Radius Elbow

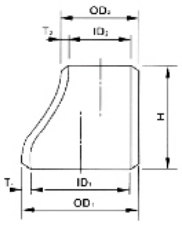
ANSI B16.9 B16.28

Nominal Pipe Size	Outside Diameter at Bevel	Center to End			
		Long Radius Elbow		Short Radius Elbow	
		90 Deg.	45 Deg.	90 Deg.	45 Deg.
NPS	D	A	B	A	B
1/2	21.3	38.1	15.7	–	–
3/4	26.7	28.4	11.2	–	–
1	33.4	38.1	22.4	25.4	–
1–1/4	42.2	47.8	25.4	31.8	–
1–1/2	48.3	57.2	28.4	38.1	–
2	60.3	76.2	35.1	50.8	–
2–1/2	73.0	95.2	44.4	63.5	–
3	88.9	114.3	50.8	76.2	31.6
3–1/2	101.6	133.4	57.2	88.9	36.8
4	114.3	152.4	63.5	101.6	42.1
5	141.3	190.5	79.2	127.0	52.6
6	168.3	228.6	95.2	152.4	63.4
8	219.1	304.8	127.0	203.2	84.2
10	273.1	381.0	158.8	254.0	105.2
12	323.9	457.2	190.5	304.8	126.3
14	355.6	533.4	222.2	355.6	147.3
16	406.4	609.6	254.0	406.4	168.3
18	457.2	685.8	285.8	457.2	189.4
20	508.0	762.0	317.5	508.0	210.4
22	558.8	838.2	342.9	558.8	231.5
24	609.6	914.4	381.0	609.6	252.5
26	660.4	990.6	406.4	660.4	273.5
28	711.2	1066.8	438.2	711.2	294.6
30	762.0	1143.0	469.9	762.0	315.6
32	812.8	1219.2	501.6	812.8	378.1
34	863.6	1295.4	533.4	863.6	357.7
36	914.4	1371.6	565.2	914.4	378.8
38	965.2	1447.8	599.9	–	–
40	1016.0	1524.0	632.0	1016.0	420.8
42	1066.8	1600.2	660.4	1066.8	441.9
44	1117.6	1676.4	695.5	1117.6	462.9

對焊管配件尺寸圖-同心大小頭、偏心大小頭



W-RE 同心對焊大小接頭
Concentric Reducers



W-ECC 偏心對焊大小接頭
Eccentric Reducers

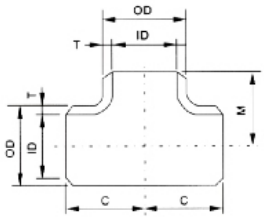
ANSI B16.9 MSS SP-75

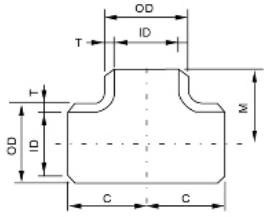
Nominal Pipe Size (NPS)	Outside Diameter at Bevel		End to End
	Large End	Small End	
3/4x1/2	26.7	21.3	38.1
3/4x3/8	26.7	17.3	38.1
1x3/4	33.4	26.7	50.8
1x1/2	33.4	21.3	50.8
1-1/4x1	42.2	33.4	50.8
1-1/4x3/4	42.2	26.7	50.8
1-1/4x1/2	42.2	21.3	50.8
1-1/2x1-1/4	48.3	42.2	63.5
1-1/2x1	48.3	33.4	63.5
1-1/2x3/4	48.3	26.7	63.5
1-1/2x1/2	48.3	21.3	63.5
2x1-1/2	60.3	48.3	76.2
2x1-1/4	60.3	42.2	76.2
2x1	60.3	33.4	76.2
2x3/4	60.3	26.7	76.2
2-1/2x2	73.0	60.3	88.9
2-1/2x1-1/2	73.0	48.3	88.9
2-1/2x1-1/4	73.0	42.2	88.9
2-1/2x1	73.0	33.4	88.9
3x2-1/2	88.9	73.0	88.9
3x2	88.9	60.3	88.9
3x1-1/2	88.9	48.3	88.9
3x1-1/4	88.9	42.2	88.9
3-1/2x3	101.6	88.9	101.6
3-1/2x2-1/2	101.6	73.0	101.6
3-1/2x2	101.6	60.3	101.6
3-1/2x1-1/2	101.6	48.3	101.6
3-1/2x1-1/4	101.6	42.2	101.6
4x3-1/2	114.3	101.6	101.6
4x3	114.3	88.9	101.6
4x2-1/2	114.3	73.0	101.6
4x2	114.3	60.3	101.6
4x1-1/2	114.3	48.3	101.6
5x4	141.3	141.3	127.0
5x3-1/2	141.3	101.6	127.0
5x3	141.3	88.9	127.0
5x2-1/2	141.3	73.0	127.0
5x2	141.3	60.3	127.0
6x5	168.3	141.3	139.7
6x4	168.3	114.3	139.7
6x3-1/2	168.3	101.6	139.7
6x3	168.3	88.9	139.7
6x2-1/2	168.3	73.0	139.7

Nominal Pipe Size (NPS)	Outside Diameter at Bevel		End to End
	Large End	Small End	
8x6	219.1	168.3	152.4
8x5	219.1	141.3	152.4
8x4	219.1	114.3	152.4
8x3-1/2	219.1	101.6	152.4
10x8	273.1	219.1	117.8
10x6	273.1	168.3	117.8
10x5	273.1	141.3	117.8
10x4	273.1	114.3	117.8
12x10	323.9	273.1	203.2
12x8	323.9	219.1	203.2
12x6	323.9	168.3	203.2
12x5	323.9	141.3	203.2
14x12	335.6	323.9	330.2
14x10	335.6	273.1	330.2
14x8	335.6	219.1	330.2
14x6	335.6	168.3	330.2
16x14	406.4	355.6	355.6
16x12	406.4	323.9	355.6
16x10	406.4	273.1	355.6
16x8	406.4	219.1	355.6
18x16	457.2	406.4	381.0
18x14	457.2	355.6	381.0
18x12	457.2	323.9	381.0
18x10	457.2	273.1	381.0
20x18	508.0	457.2	508.0
20x16	508.0	406.4	508.0
20x14	508.0	355.6	508.0
20x12	508.0	323.9	508.0
22x20	558.8	508.0	508.0
22x18	558.8	457.2	508.0
22x16	558.8	406.4	508.0
22x14	558.8	355.6	508.0
24x22	609.6	558.8	508.0
24x20	609.6	508.0	508.0
24x18	609.6	457.2	508.0
24x16	609.6	406.4	508.0
26x24	660.4	609.6	609.6
26x22	660.4	558.8	609.6
26x20	660.4	508.0	609.6
26x18	660.4	457.2	609.6

Nominal Pipe Size (NPS)	Outside Diameter at Bevel		End to End
	Large End	Small End	
28x26	711.2	660.4	609.6
28x24	711.2	609.6	609.6
28x20	711.2	508.0	609.6
28x18	711.2	457.2	609.6
30x28	762.0	711.2	609.6
30x26	762.0	660.4	609.6
30x24	762.0	609.6	609.6
30x20	762.0	508.0	609.6
32x30	812.8	762.0	609.6
32x28	812.8	711.2	609.6
32x26	812.8	660.4	609.6
32x24	812.8	609.6	609.6
34x32	863.6	812.8	609.6
34x30	863.6	762.0	609.6
34x26	863.6	711.2	609.6
34x24	863.6	660.4	609.6
36x34	914.4	863.6	609.6
36x32	914.4	812.8	609.6
36x30	914.4	762.0	609.6
36x26	914.4	711.2	609.6
36x24	914.4	660.4	609.6
38x36	965.2	914.4	609.6
38x34	965.2	863.6	609.6
38x32	965.2	812.8	609.6
38x30	965.2	762.0	609.6
38x28	965.2	711.2	609.6
38x26	965.2	660.4	609.6
40x38	1016.0	965.2	609.6
40x36	1016.0	914.4	609.6
40x34	1016.0	863.6	609.6
40x32	1016.0	812.8	609.6
40x30	1016.0	762.0	609.6
42x40	1066.8	1016.0	609.6
42x38	1066.8	965.2	609.6
42x36	1066.8	914.4	609.6
42x34	1066.8	863.6	609.6
42x32	1066.8	812.8	609.6
42x30	1066.8	762.0	609.6
44x42	1117.6	1066.8	609.6
44x40	1117.6	1016.0	609.6
44x38	1117.6	965.2	609.6
44x36	1117.6	914.4	609.6

對焊管配件尺寸圖–三通 T





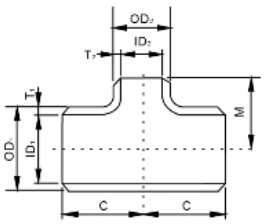
W–T 對焊三通/對焊異徑三通接頭 Straight and Reducing Tees

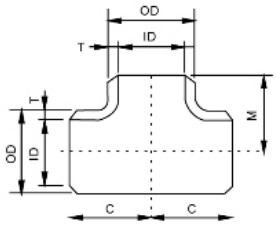
ANSI B16.9 MSS SP–75

Nominal Pipe Size (NPS)	Outside Diameter at Bevel D		Center to End	
			Run	Outlet(1)
	Run	Outlet	C	M
1/2x1/2	21.3	21.3	25.4	25.4
1/2x3/8	21.3	17.1	25.4	25.4
1/2x1/4	21.3	13.7	25.4	25.4
3/4x3/4	26.7	26.7	28.4	28.4
3/4x1/2	26.7	21.3	28.4	28.4
3/4x3/8	26.7	17.1	28.4	28.4
1x1	33.4	33.4	38.1	38.1
1x3/4	33.4	26.7	38.1	38.1
1x1/2	33.4	21.3	38.1	38.1
1–1/4x1–1/4	42.2	42.2	47.8	47.8
1–1/4x1	42.2	33.4	47.8	47.8
1–1/4x3/4	42.2	26.7	47.8	47.8
1–1/4x1/2	42.2	21.3	47.8	47.8
1–1/2x1–1/2	48.3	48.3	57.2	57.2
1–1/2x1–1/4	48.3	42.2	57.2	57.2
1–1/2x1	48.3	33.4	57.2	57.2
1–1/2x3/4	48.3	26.7	57.2	57.2
1–1/2x1/2	48.3	21.3	57.2	57.2
2x2	60.3	60.3	63.5	63.5
2x1–1/2	60.3	48.3	63.5	60.5
2x1–1/4	60.3	42.2	63.5	57.2
2x1	60.3	33.4	63.5	50.8
2x3/4	60.3	26.7	63.5	44.4
2–1/2x2–1/2	73.0	73.0	76.2	76.2
2–1/2x2	73.0	60.3	76.2	69.8
2–1/2x1–1/2	73.0	48.3	76.2	66.5
2–1/2x1–1/4	73.0	42.2	76.2	63.5
2–1/2x1	73.0	33.4	76.2	57.2
3x3	88.9	88.9	85.9	85.9
3x2–1/2	88.9	73.0	85.9	82.6
3x2	88.9	60.3	85.9	76.2
3x1–1/2	88.9	48.3	85.9	73.2
3x1–1/4	88.9	42.2	85.9	69.8
3–1/2x3–1/2	101.6	101.6	95.2	95.2
3–1/2x3	101.6	88.9	95.2	91.9
3–1/2x2–1/2	101.6	73.0	95.2	88.9
3–1/2x2	101.6	60.3	95.2	82.6
3–1/2x1–1/2	101.6	48.3	95.2	79.2
4x4	114.3	114.3	104.6	104.6
4x3–1/2	114.3	101.6	104.6	101.3
4x3	114.3	88.9	104.6	98.6
4x2–1/2	114.3	73.0	104.6	95.2
4x2	114.3	60.3	104.6	88.9
4x1–1/2	114.3	48.3	104.6	85.9

Nominal Pipe Size (NPS)	Outside Diameter at Bevel D		Center to End	
			Run	Outlet(1)
	Run	Outlet	C	M
5x5	141.3	141.3	124.0	124.0
5x4	141.3	114.3	124.0	117.3
5x3–1/2	141.3	101.6	124.0	114.3
5x3	141.3	88.9	124.0	111.3
5x2–1/2	141.3	73.0	124.0	108.0
5x2	141.3	60.3	124.0	104.6
6x6	168.3	168.3	142.7	142.7
6x5	168.3	141.3	142.7	136.7
6x4	168.3	114.3	142.7	130.0
6x3–1/2	168.3	101.6	142.7	127.0
6x3	168.3	88.9	142.7	124.0
6x2–1/2	168.3	73.0	142.7	120.6
8x8	219.1	219.1	177.8	177.8
8x6	219.1	168.3	177.8	168.1
8x5	219.1	141.3	177.8	162.1
8x4	219.1	114.6	177.8	155.4
8x3–1/2	219.1	101.6	177.8	152.4
10x10	273.1	273.1	215.9	215.9
10x8	273.1	219.1	215.9	203.2
10x6	273.1	168.3	215.9	193.5
10x5	273.1	141.3	215.9	190.5
10x4	273.1	114.3	215.9	184.2
12x12	323.9	323.9	254.0	254.0
12x10	323.9	273.1	254.0	241.3
12x8	323.9	219.1	254.0	228.6
12x6	323.9	168.3	254.0	218.9
12x5	323.9	141.3	254.0	215.9
14x14	355.6	355.6	279.4	279.4
14x12	355.6	323.9	279.4	269.7
14x10	355.6	273.1	279.4	257.0
14x8	355.6	219.1	279.4	247.6
14x6	355.6	168.3	279.4	238.3
16x16	406.4	406.4	304.8	304.8
16x14	406.4	355.6	304.8	304.8
16x12	406.4	323.9	304.8	295.1
16x10	406.4	273.1	304.8	282.4
16x8	406.4	219.1	304.8	273.0
16x6	406.4	168.3	304.8	263.7
18x18	457.2	457.2	342.9	342.9
18x16	457.2	406.4	342.9	330.2
18x14	457.2	355.6	342.9	330.2
18x12	457.2	323.9	342.9	320.5
18x10	457.2	273.1	342.9	307.8
18x8	457.2	219.1	342.9	298.4

對焊管配件尺寸圖-異徑三通T





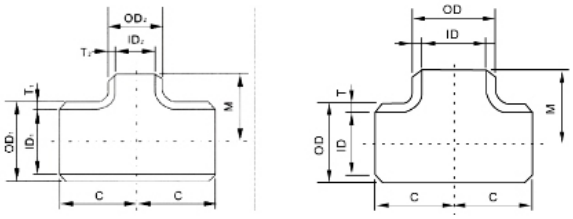
W-T 對焊三通/對焊異徑三通接頭 Straight and Reducing Tees

ANSI B16.9 MSS SP-75

Nominal Pipe Size (NPS)	Outside Diameter at Bevel D		Center to End	
	Run	Outlet	Run C	Outlet(1) M
20x20	508.0	508.0	381.0	381.0
20x18	508.0	457.2	381.0	369.3
20x16	508.0	406.4	381.0	355.6
20x14	508.0	355.6	381.0	355.6
20x12	508.0	323.9	381.0	345.9
20x10	508.0	273.1	381.0	333.2
20x8	508.0	219.1	381.0	323.8
22x22	558.8	558.8	419.1	419.1
22x20	558.8	508.0	419.1	406.4
22x18	558.8	457.2	419.1	393.7
22x16	558.8	406.4	419.1	381.0
22x14	558.8	355.6	419.1	381.0
22x12	558.8	323.9	419.1	371.3
22x10	558.8	273.1	419.1	358.6
24x24	609.6	609.6	431.8	431.8
24x22	609.6	558.8	431.8	431.8
24x20	609.6	508.0	431.8	431.8
24x18	609.6	457.2	431.8	419.1
24x16	609.6	406.4	431.8	406.4
24x14	609.6	355.6	431.8	406.4
24x12	609.6	323.9	431.8	396.7
24x10	609.6	273.1	431.8	384.0
26x26	660.4	660.4	495.3	495.3
26x24	660.4	606.9	495.3	482.6
26x22	660.4	558.8	495.3	469.9
26x20	660.4	508.0	495.3	457.2
26x18	660.4	457.2	495.3	444.5
26x16	660.4	406.4	495.3	431.8
26x14	660.4	355.6	495.3	431.8
26x12	660.4	323.9	495.3	422.1
28x28	711.2	711.2	520.7	520.7
28x26	711.2	660.4	520.7	520.7
28x24	711.2	609.6	520.7	508.0
28x22	711.2	558.8	520.7	495.3
28x20	711.2	508.0	520.7	482.6
28x18	711.2	457.2	520.7	469.9
28x16	711.2	406.4	520.7	457.2
28x14	711.2	355.6	520.7	457.2
28x12	711.2	323.9	520.7	447.5
30x30	762.0	762.0	558.8	558.8
30x28	762.0	711.2	558.8	546.1
30x26	762.0	660.4	558.8	546.1
30x24	762.0	609.6	558.8	533.4
30x22	762.0	558.8	558.8	520.7
30x20	762.0	508.0	558.8	508.0
30x18	762.0	457.2	558.8	495.3
30x16	762.0	406.4	558.8	482.6
30x14	762.0	355.6	558.8	482.6

Nominal Pipe Size (NPS)	Outside Diameter at Bevel D		Center to End	
	Run	Outlet	Run C	Outlet(1) M
30x12	762.0	323.9	558.8	472.6
30x10	762.0	273.1	558.8	460.2
32x32	812.8	812.8	596.9	596.9
32x30	812.8	762.0	596.9	584.2
32x28	812.8	711.2	596.9	571.5
32x26	812.8	660.4	596.9	571.5
32x24	812.8	609.6	596.9	558.8
32x22	812.8	558.8	596.9	546.1
32x20	812.8	508.0	596.9	533.4
32x18	812.8	457.2	596.9	520.7
32x16	812.8	406.4	596.9	508.0
32x14	812.8	355.6	596.9	508.0
34x34	863.6	863.6	635.0	635.0
34x32	863.6	812.8	635.0	622.3
34x30	863.6	762.0	635.0	609.6
34x28	863.6	711.2	635.0	596.9
34x26	863.6	660.4	635.0	596.9
34x24	863.6	609.6	635.0	584.2
34x22	863.6	558.8	635.0	571.5
34x20	863.6	508.0	635.0	558.8
34x18	863.6	457.2	635.0	546.1
34x16	863.6	406.4	635.0	533.4
36x36	914.4	914.4	673.1	673.1
36x34	914.4	863.6	673.1	660.4
36x32	914.4	812.8	673.1	647.7
36x30	914.4	762.0	673.1	635.0
36x28	914.4	711.2	673.1	622.3
36x26	914.4	660.4	673.1	622.3
36x24	914.4	609.6	673.1	609.6
36x22	914.4	558.8	673.1	596.9
36x20	914.4	508.0	673.1	584.2
36x18	914.4	457.2	673.1	571.5
36x16	914.4	406.4	673.1	558.8
38x38	965.2	965.2	711.2	711.2
38x36	965.2	914.4	711.2	711.2
38x34	965.2	863.6	711.2	698.5
38x32	965.2	812.8	711.2	685.8
38x30	965.2	762.0	711.2	673.1
38x28	965.2	711.2	711.2	660.4
38x26	965.2	660.4	711.2	647.7
38x24	965.2	609.6	711.2	647.7
38x22	965.2	558.8	711.2	635.0
38x20	965.2	508.0	711.2	622.3
38x18	965.2	457.2	711.2	609.6

對焊管配件尺寸圖–異頭三通、馬鞍座

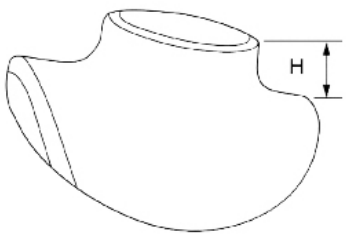


W–T 對焊三通/對焊異徑三通接頭 Straight and Reducing Tees

ANSI B16.9 MSS SP–75

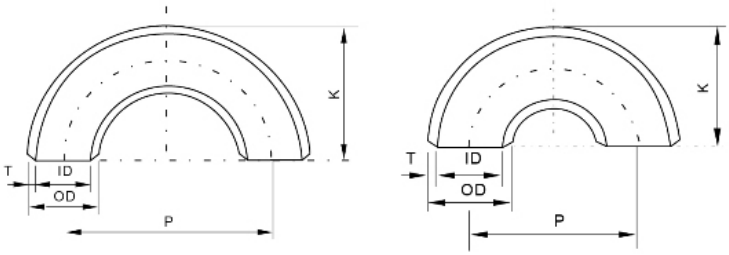
Nominal Pipe Size (NPS)	Outside Diameter at Bevel D		Center to End	
			Run	Outlet(1)
	Run	Outlet	C	M
40x40	1016.0	1016.0	749.3	749.3
40x38	1016.0	965.2	749.3	749.3
40x36	1016.0	914.4	749.3	736.6
40x34	1016.0	836.6	749.3	723.9
40x32	1016.0	812.8	749.3	711.2
40x30	1016.0	762.0	749.3	698.5
40x28	1016.0	711.2	749.3	673.1
40x26	1016.0	660.4	749.3	673.1
40x24	1016.0	609.6	749.3	660.4
40x22	1016.0	558.8	749.3	647.7
40x20	1016.0	508.0	749.3	635.0
40x18	1016.0	457.2	749.3	623.3
42x42	1066.8	1066.8	762.0	711.2
42x40	1066.8	1016.0	762.0	711.2
42x38	1066.8	965.2	762.0	711.2
42x36	1066.8	914.4	762.0	711.2
42x34	1066.8	863.6	762.0	711.2
42x32	1066.8	812.8	762.0	711.2
42x30	1066.8	762.0	762.0	711.2
42x28	1066.8	711.2	762.0	698.5
42x26	1066.8	660.4	762.0	698.5
42x24	1066.8	609.6	762.0	660.4
42x22	1066.8	558.8	762.0	660.4
42x20	1066.8	508.0	762.0	660.4
42x18	1066.8	457.2	762.0	647.7
42x16	1066.8	406.4	762.0	635.0
44x44	1117.6	1117.6	812.8	762.0
44x42	1117.6	1066.8	812.8	762.0
44x40	1117.6	1016.0	812.8	749.3
44x38	1117.6	965.2	812.8	736.6
44x36	1117.6	914.4	812.8	723.9
44x34	1117.6	863.6	812.8	723.9
44x32	1117.6	812.8	812.8	711.2
44x30	1117.6	762.0	812.8	711.2
44x28	1117.6	711.2	812.8	698.5
44x26	1117.6	660.4	812.8	698.5
44x24	1117.6	609.6	812.8	698.5
44x22	1117.6	558.8	812.8	685.8
44x20	1117.6	508.0	812.8	685.8

電焊馬鞍座尺寸表



Nominal Pipe Size (NPS)	H (m/m)
1–1/2"	29
2"	32
2–1/2"	38
3"	40
4"	47
5"	54
6"	67
8"	67
10"	80
12"	92
14"	102
16"	102
18"	114
20"	127
22"	127
24"	127
26"	165
28"	165
30"	178
32"	178
34"	178
36"	178
38"	178
40"	178
42"	178
44"	178
46"	178
48"	178

對焊管配件尺寸圖-180°彎頭

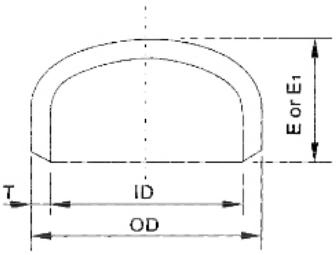


W-RTE 180°對焊彎頭 Radius Return Elbow

ANSI B16.9 B16.28

Nominal Pipe Size	Outside Diameter at Bevel	Long Radius		Short Radius	
		Center to Center			
NPS	D	P	K	P	K
1/2	21.3	76.2	47.8	–	–
3/4	26.7	57.2	42.9	–	–
1	33.4	76.2	55.6	50.8	41.1
1-1/4	42.2	95.2	69.8	63.5	52.3
1-1/2	48.3	114.3	82.6	76.2	62.0
2	60.3	152.4	106.4	101.6	81.0
2-1/2	73.0	109.5	131.8	127.0	100.1
3	88.9	228.6	158.8	152.4	120.7
3-1/2	101.6	266.7	184.2	177.8	139.7
4	114.3	304.8	209.6	203.2	158.8
5	141.3	381.0	261.9	254.0	196.9
6	168.3	457.2	312.7	304.8	236.5
8	219.1	609.6	414.3	406.4	312.7
10	273.1	762.0	517.7	508.0	390.7
12	323.9	914.4	619.3	609.6	466.9
14	355.6	1066.8	711.2	711.2	533.4
16	406.4	1219.2	812.8	812.8	609.6
18	457.2	1371.6	914.4	914.4	685.8
20	508.0	1524.0	1016.0	1016.0	762.0
22	558.8	1676.4	1117.6	1117.6	838.2
24	609.6	1828.8	1219.2	1219.2	914.4

對焊管配件尺寸圖-管帽CAP



W-CAP 對焊管帽 Caps

ANSI B16.9 MSS SP-75

Nominal Pipe Size	Outside Diameter at Bevel	Length(2)	Limiting Wall Thickness for length	Length(3)
NPS	D	E	E	E1
1/2	21.3	25.4	4.6	25.4
3/4	26.7	25.4	3.8	25.4
1	33.4	38.1	4.6	38.1
1-1/4	42.2	38.1	4.8	38.1
1-1/2	48.3	38.1	5.1	38.1
2	60.3	38.1	5.6	44.4
2-1/2	73.0	38.1	7.1	50.8
3	88.9	50.8	7.6	63.5
3-1/2	101.6	63.5	8.1	76.2
4	114.3	63.5	8.6	76.2
5	141.3	76.2	9.7	88.9
6	168.3	88.9	10.9	101.6
8	219.1	101.6	12.7	127.0
10	273.1	127.0	12.7	152.4
12	323.9	152.4	12.7	177.8
14	355.6	165.1	12.7	190.5
16	406.4	177.8	12.7	203.2
18	457.2	203.2	12.7	228.6
20	508.0	228.6	12.7	254.0
22	558.8	254.0	12.7	254.0
24	609.6	266.7	12.7	304.8
26	660.4	266.7		
28	711.2	266.7		
30	762.0	266.7		
32	812.8	266.7		
34	863.6	266.7		
36	914.4	266.7		
38	965.2	304.8		
40	1016.0	304.8		
42	1066.8	304.8		
44	1117.6	304.8		

Approximates weights 管件重量表

unit: kg/pc

Nominal Pipe Size	90° LR Elbows				45° LR Elbows				90° SR Elbows			
	5S	10S	40S	80S	5S	10S	40S	80S	5S	10S	40S	80S
1/2	0.049	0.06	0.075	0.11	0.024	0.03	0.038	0.09	–	–	–	–
3/4	0.062	0.06	0.075	0.11	0.031	0.03	0.037	0.09	–	–	–	–
1	0.078	0.14	0.16	0.23	0.039	0.1	0.12	0.14	0.077	0.094	0.118	0.18
1-1/4	0.125	0.24	0.26	0.4	0.063	0.14	0.17	0.23	0.101	0.152	0.204	0.28
1-1/2	0.17	0.28	0.35	0.5	0.085	0.18	0.2	0.31	0.114	0.189	0.245	0.34
2	0.286	0.46	0.66	1	0.143	0.31	0.4	0.54	0.191	0.318	0.434	0.68
2-1/2	0.576	0.8	1.3	1.8	0.288	0.45	0.7	0.96	0.383	0.541	0.909	1.3
3	0.81	1.2	2.15	3	0.405	0.65	1.1	1.6	0.54	0.761	1.36	1.9
3-1/2	1.08	1.53	2.82	3.8	0.54	0.76	1.41	2	0.719	1.02	1.88	2.7
4	1.39	2	4	6.1	0.696	1.05	1.95	2.8	0.928	1.31	2.56	3.8
5	2.83	3.42	6.48	10	1.42	1.71	3.24	4.8	1.89	2.28	4.32	6.3
6	4.03	5.25	9.94	15.8	3.01	2.43	4.97	7.9	2.68	3.24	6.63	10.4
8	7.06	10	20.1	32	3.53	5.01	10.1	15.8	4.71	6.68	13.4	21.55
10	13.2	15	35.4	48	6.62	7.77	17.7	23.9	8.83	10.4	23.6	31.75
12	22.3	25.9	56.2	72	11.1	12.5	28.1	38	14.8	16.7	37.5	47.17

unit: kg/pc

Nominal Pipe Size	Caps				Tees			
	5S	10S	40S	80S	5S	10S	40S	80S
1/2	0.03	0.032	0.04	0.05	0.053	0.09	0.12	0.2
3/4	0.04	0.04	0.05	0.06	0.075	0.12	0.16	0.27
1	0.053	0.09	0.11	0.14	0.128	0.28	0.3	0.4
1-1/4	0.066	0.11	0.14	0.18	0.203	0.45	0.49	0.72
1-1/2	0.076	0.14	0.18	0.24	0.281	0.59	0.75	1
2	0.099	0.19	0.24	0.34	0.384	0.8	0.96	1.8
2-1/2	0.169	0.24	0.35	0.5	0.732	1.18	1.95	3.2
3	0.253	0.4	0.7	0.86	0.958	1.55	2.8	3.8
3-1/2	0.34	0.56	1.05	1.1	1.21	1.71	3.17	5.4
4	0.409	0.58	1.2	1.6	1.49	2.45	4.65	7.1
5	0.805	1	1.8	2.5	2.85	3.45	6.54	11.7
6	1.11	1.6	2.8	4.5	3.88	5.02	10	18
8	1.74	2.5	5.4	7.4	6.27	8.91	17.9	33.8
10	3.26	4.9	9.1	12.3	11.4	13.4	30.4	47.3
12	5.47	6.5	13	17	18.7	21	47.2	72

unit: kg/pc

Nominal Pipe Size	Stub Ends-ANSI Length				Stub Ends-MSS Length			
	5S	10S	40S	80S	5S	10S	40S	80S
1/2	0.059	0.077	0.145	0.172	0.47	0.6	0.77	–
3/4	0.068	0.086	0.163	0.231	0.58	0.73	0.99	–
1	0.091	0.141	0.222	0.395	0.104	0.172	0.206	–
1-1/4	0.132	0.209	0.318	0.562	0.13	0.217	0.276	–
1-1/2	0.159	0.25	0.4	0.685	0.145	0.242	0.315	–
2	0.245	0.377	0.704	1.41	0.184	0.308	0.424	–
2-1/2	0.35	0.472	1.071	2.11	0.303	0.43	0.731	–
3	0.468	0.64	1.489	2.89	0.342	0.484	0.87	–
3-1/2	–	–	–	–	–	–	–	–
4	0.713	0.981	2.533	4.25	0.432	0.614	1.2	–
5	1.049	1.239	3.609	7.58	0.726	0.878	1.68	–
6	1.625	1.952	5.58	10.43	0.887	1.08	2.21	–
8	2.452	3.11	10	15.83	1.36	1.94	3.93	–
10	4.045	4.871	13.89	24.31	2.15	2.53	5.8	–
12	6.615	7.123	19.97	29.35	2.89	3.25	7.34	–

Approximates weights 管件重量表

unit: kg/pc

Nominal Pipe Size	Reducing Tees			
	5S	10S	40S	80S
3/4 x 1/2	0.11	0.13	0.23	0.23
1 x 3/4	0.021	0.27	0.42	0.45
1 x 1/2	0.2	0.25	0.4	0.45
1-1/4 x 1	0.31	0.52	0.68	0.79
1-1/4 x 3/4	0.3	0.5	0.68	0.79
1-1/4 x 1/2	0.29	0.48	0.68	0.79
1-1/2 x 1-1/4	0.4	0.68	1.02	1.13
1-1/2 x 1	0.39	0.64	0.99	1.13
1-1/2 x 3/4	0.38	0.66	0.97	1.13
1-1/2 x 1/2	0.36	0.6	0.91	1.13
2 x 1-1/2	0.49	0.82	1.7	1.93
2 x 1-1/4	0.46	0.78	1.63	1.87
2 x 1	0.45	0.76	1.59	1.86
2 x 3/4	0.42	0.62	1.47	1.81
2 x 1/2	0.42	0.62	1.47	1.81
2-1/2 x 2	0.81	1.36	2.72	3.26
2-1/2 x 1-1/2	0.74	1.24	2.49	3.23
2-1/2 x 1-1/4	0.7	1.19	2.38	3.2
2-1/2 x 1	0.67	1.13	2.27	3.18
3 x 2-1/2	1.22	1.77	3.06	3.74
3 x 2	1.17	1.7	2.95	3.63
3 x 1-1/2	1.12	1.66	2.84	3.48
3 x 1-1/4	1.12	1.64	2.84	3.45
3 x 1	1.12	1.64	2.84	3.45
3-1/2 x 3	1.53	2.22	3.99	5.72
3-1/2 x 2-1/2	1.48	2.15	3.86	5.53
3-1/2 x 2	1.45	2.04	3.76	5.35
3-1/2 x 1-1/2	1.4	1.91	3.63	5.22
4 x 3-1/2	1.79	2.59	5.35	7.08
4 x 3	1.76	2.54	5.26	7.08
4 x 2-1/2	1.7	2.47	5.13	7.03
4 x 2	1.71	2.46	5.08	7.03
4 x 1-1/2	1.68	2.44	5.03	6.89
5 x 4	3.76	5.44	9.53	11.57
5 x 3-1/2	3.67	5.31	9.3	11.34
5 x 3	3.59	5.17	9.07	11.11
5 x 2-1/2	3.49	5.03	8.85	10.89
5 x 2	3.41	4.9	8.62	10.66
6 x 5	6.26	7.71	15.53	18.14
6 x 4	6.03	7.48	15.3	17.78
6 x 3-1/2	5.94	7.35	14.07	17.33
6 x 3	5.85	7.26	14.85	16.78
6 x 2-1/2	5.76	7.12	14.62	16.33
6 x 2	5.76	7.12	14.62	16.33
8 x 6	9.21	11.34	24.49	35.57
8 x 5	9.03	11.11	24.04	33.11
8 x 4	8.8	10.84	23.45	32.52
8 x 3-1/2	8.62	10.61	23	31.98
10 x 8	12.34	16.22	38.99	49.72
10 x 6	12.11	16.15	37.86	48.53
10 x 5	11.57	14.04	36.76	48.35
10 x 4	11.25	13.91	36.63	47.22
12 x 10	18.78	24.49	53.98	83.46
12 x 8	18.42	24.04	53.07	79.38
12 x 6	17.96	23.45	51.71	74.84
12 x 5	17.33	22.59	49.9	72.58

Nominal Pipe Size	Con. & Ecc. Reducers			
	5S	10S	40S	80S
3/4 x 1/2	0.05	0.05	0.06	0.1
1 x 3/4	0.1	0.1	0.11	0.2
1 x 1/2	0.09	0.1	0.11	0.2
1-1/4 x 1	0.11	0.14	0.16	0.23
1-1/4 x 3/4	0.11	0.13	0.15	0.23
1-1/4 x 1/2	0.1	0.13	0.15	0.23
1-1/2 x 1-1/4	0.15	0.19	0.25	0.35
1-1/2 x 1	0.13	0.18	0.23	0.34
1-1/2 x 3/4	0.12	0.175	0.22	0.33
1-1/2 x 1/2	0.11	0.165	0.21	0.29
2 x 1-1/2	0.17	0.29	0.4	0.54
2 x 1-1/4	0.16	0.28	0.39	0.52
2 x 1	0.15	0.27	0.38	0.5
2 x 3/4	0.13	0.26	0.36	0.45
2 x 1/2	0.13	0.25	0.34	0.45
2-1/2 x 2	0.28	0.46	0.68	0.91
2-1/2 x 1-1/2	0.26	0.44	0.65	0.86
2-1/2 x 1-1/4	0.24	0.43	0.64	0.84
2-1/2 x 1	0.23	0.42	0.63	0.79
3 x 2-1/2	0.34	0.56	0.94	1.25
3 x 2	0.31	0.55	0.91	1.18
3 x 1-1/2	0.3	0.53	0.88	1.13
3 x 1-1/4	0.28	0.52	0.86	1.09
3 x 1	0.28	0.51	0.85	1.09
3-1/2 x 3	0.54	0.72	1.3	1.81
3-1/2 x 2-1/2	0.49	0.71	1.2	1.59
3-1/2 x 2	0.47	0.7	1.1	1.59
3-1/2 x 1-1/2	0.43	0.64	0.98	1.47
4 x 3-1/2	0.56	0.85	1.6	2.15
4 x 3	0.54	0.83	1.5	2.04
4 x 2-1/2	0.52	0.81	1.4	1.99
4 x 2	0.48	0.78	1.35	1.93
4 x 1-1/2	0.46	0.75	1.3	1.81
5 x 4	1.15	1.4	2.7	3.74
5 x 3-1/2	1.11	1.35	2.58	3.52
5 x 3	1.06	1.3	2.48	3.4
5 x 2-1/2	1.01	1.18	2.37	3.18
5 x 2	0.96	1.05	2.26	2.95
6 x 5	1.5	1.95	3.7	5.44
6 x 4	1.48	1.9	3.5	5.22
6 x 3-1/2	1.46	1.8	3.45	4.99
6 x 3	1.42	1.7	3.4	4.76
6 x 2-1/2	1.28	1.6	3.3	4.54
6 x 2	1.28	1.5	3.2	4.54
8 x 6	2.02	3.08	5.9	8.48
8 x 5	1.84	2.96	5.4	8.16
8 x 4	1.79	2.76	5	7.71
8 x 3-1/2	1.72	2.68	5	7.48
10 x 8	3.67	5	9.9	13.38
10 x 6	3.58	4.8	9.7	13.38
10 x 5	3.5	4.6	9.5	12.7
10 x 4	3.33	3.64	9.04	11.57
12 x 10	6.4	7.42	15.2	19.73
12 x 8	6.08	7.22	14.4	19.05
12 x 6	5.85	6.82	14	18.14
12 x 5	5.76	6.59	13.61	17.69

材質	產品規格	標稱壓力	接口方式	尺寸									備註
				15	20	25	32	40	50	65	80	100	
				1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"	
砲金銅	閘閥	125S/200WOG	螺紋	•	•	•	•	•	•	•	•	•	CNS11090 B2765
	閘閥	150S/300WOG	螺紋	•	•	•	•	•	•	•	•		
	球塞閥	600WOG/200WOG	螺紋	•	•	•	•	•	•	•	•		
	昇桿式閘閥	150S/300WOG	螺紋	•	•	•	•	•	•	•	•		CNS11089 B2764
	昇桿式閘閥	150S/300WOG	螺紋	•	•	•	•	•	•	•	•		CNS11084 B2764
	橫式逆止閥	125S/200WOG	螺紋	•	•	•	•	•	•	•	•	•	CNS11088 B2763
	緩衝式逆止閥	250CWP	螺紋	•	•	•	•	•	•	•	•		
	Y型逆止閥	150S/300WOG	螺紋	•	•	•	•	•	•				
	Y型過濾器	150S/300WOG	螺紋	•	•	•	•	•	•	•	•		
	球型閥	125S/200WOG	螺紋	•	•	•							
	球型墊片閥	150S/300WOG	螺紋	•	•	•	•	•	•				
	消防專用閘閥	175PSI	螺紋	•	•	•	•	•	•				UL/FM(消防認證合格品)
黃銅	閘閥	200WOG	螺紋	•	•	•	•	•	•	•	•	•	CNS9805 B2740
	橫式逆止閥	200WOG	螺紋	•	•	•	•	•	•	•	•	•	CNS9804 B2740

材質	產品規格	標稱壓力	接口方式	尺寸														備註
				40	50	65	80	100	125	150	200	250	300	350	400	450	500	
				1-1/2"	2"	2-1/2"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	
鑄鐵	消防專用閘閥	175PSI	法蘭式		•	•	•	•		•	•	•	•					UL/FM(消防認證合格品)
	消防專用逆止閥	175PSI	法蘭式				•	•		•	•							UL/FM(消防認證合格品)
	閘閥	JIS-10K	法蘭式		•	•	•	•	•	•	•	•	•	•	•			CNS713 B2107
	昇桿式閘閥	JIS-10K	法蘭式		•	•	•	•	•	•	•	•	•	•	•			CNS715 B2109
	球型閥	JIS-10K	法蘭式	•	•	•	•	•	•	•	•	•						
	Y型過濾器	JIS-10K	法蘭式		•	•	•	•	•	•	•	•	•	•				16"～24"訂製品
	橫式逆止閥	JIS-10K	法蘭式		•	•	•	•	•	•	•	•						橡膠閥座(一般給水)
	緩衝式逆止閥	JIS-10K	法蘭式		•	•	•	•	•	•	•	•	•					
	雙瓣式逆止閥	150LB/JIS-10K	對夾		•	•	•	•	•	•	•	•	•	•	•	•	•	
	拉柄式底閥	JIS-10K	法蘭式		•	•	•	•	•	•	•	•	•					
	把手式蝶閥	150LB/JIS-10K	對夾		•	•	•	•	•	•								CNS12744 B2801
	齒輪式蝶閥	150LB/JIS-10K	對夾		•	•	•	•	•	•	•	•	•	•	•	•	•	CNS12744 B2801
	偏心式蝶閥把手型	150LB/JIS-10K	對夾		•	•	•	•	•	•								
	偏心式蝶閥齒輪型	150LB/JIS-10K	對夾		•	•	•	•	•	•	•	•	•	•	•	•	•	最大承製尺寸至26"
	全耳式蝶閥把手型	150LB/JIS-10K	全耳對夾	•	•	•	•	•	•	•								
	全耳式蝶閥齒輪型	150LB/JIS-10K	全耳對夾	•	•	•	•	•	•	•	•	•	•	•	•	•	•	最大承製尺寸至24"

閥 Valves

材質	產品規格	標稱壓力	接口方式	尺寸													備註
				50	65	80	100	125	150	200	250	300	350	400	450	500	
				2"	2-1/2"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	
延性鑄鐵	昇桿式閘閥	JIS-16K	法蘭式	●	●	●	●		●	●	●	●	●	●			不銹鋼座/銅座
	橫式逆止閥	JIS-16K	法蘭式	●	●	●	●		●	●	●	●					不銹鋼座/銅座
	Y型過濾器	JIS-16K	法蘭式	●	●	●	●	●	●	●	●	●	●	●	●	●	最大承製尺寸至24"
	球型閥	JIS-16K	法蘭式	●	●	●	●	●	●	●	●						
	雙瓣式逆止閥	JIS-16K	對夾	●	●	●	●	●	●	●	●	●	●	●	●	●	最大承製尺寸至24"
	緩衝式逆止閥	JIS-16K	法蘭式	●	●	●	●	●	●	●	●	●	●	●	●		橡膠閥座
	把手式蝶閥	JIS-16K	對夾	●	●	●	●	●									延性鑄鐵/不銹鋼閥盤
	齒輪式蝶閥	JIS-16K	對夾	●	●	●	●	●	●	●	●	●	●	●	●	●	延性鑄鐵/不銹鋼閥盤，18"以上建議改用偏心式齒輪型
	偏心式蝶閥把手型	JIS-16K/20K	對夾	●	●	●	●	●	●								不銹鋼心桿，閥盤防結露
	偏心式蝶閥齒輪型	JIS-16K/20K	對夾	●	●	●	●	●	●	●	●	●	●	●	●	●	不銹鋼心桿，閥盤防結露

材質	產品規格	標稱壓力	接口方式	尺寸																	
				15	20	25	32	40	50	65	80	100	125	150	200	250	300	350	400	450	500
				1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"
不銹鋼	閘閥	300PSI	螺紋	●	●	●	●	●	●	●											
	球型閥	300PSI	螺紋	●	●	●	●	●	●												
	橫式逆止閥	300PSI	螺紋	●	●	●	●	●	●												
	Y型過濾器	800PSI	螺紋	●	●	●	●	●	●												
	一片式球型閥	800PSI	螺紋	●	●	●	●	●	●												
	二片式球型閥	1000PSI	螺紋	●	●	●	●	●	●	●											
	三片式球型閥	1000PSI	螺紋	●	●	●	●	●	●	●											
	緩衝式逆止閥	300PSI	螺紋	●	●	●	●	●	●												
	昇桿式逆止閥	150LB/JIS-10K	法蘭式	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
	球型閥	150LB/JIS-10K	法蘭式	●	●	●	●	●	●	●	●	●	●	●	●	●	●				
	橫式逆止閥	150LB/JIS-10K	法蘭式	●	●	●	●	●	●	●	●	●	●	●	●	●	●				
	雙瓣式逆止閥	150LB/JIS-10K	對夾						●	●	●	●	●	●	●	●	●	●	●	●	●
	緩衝式逆止閥	150LB/JIS-10K	法蘭式						●	●	●	●	●	●	●	●	●	●			
	拉柄式底閥	JIS-10K	法蘭式						●	●	●	●	●	●	●	●	●				
	Y型過濾器	150LB/JIS-10K	法蘭式	●	●	●	●	●	●	●	●	●	●	●	●	●	●				
	二片式球塞閥	150LB/JIS-10K	法蘭式	●	●	●	●	●	●	●	●	●	●	●	●	●	●				
	把手式蝶閥	150LB/JIS-10K	對夾						●	●	●	●	●	●							
	齒輪式蝶閥	150LB/JIS-10K	對夾						●	●	●	●	●	●	●	●	●	●	●	●	●
	偏心式蝶閥把手型	JIS-10K/16K/20K	對夾						●	●	●	●	●	●							
	偏心式蝶閥齒輪型	JIS-10K/16K/20K	對夾						●	●	●	●	●	●	●	●	●	●	●	●	●

1 簡介

Introduction

法蘭 (Flange)，又叫法蘭凸緣盤或突緣。法蘭是管道與管道之間相互連接的零件，用於管端之間的連接；也有用在設備進出口上的法蘭，用於兩個設備之間的連接，如減速機法蘭。法蘭連接或法蘭接頭，是指由法蘭、墊片及螺栓三者相互連接作為一組組合密封結構的可拆連接。管道法蘭係指管道裝置中配管用的法蘭，用在設備上係指設備的進出口法蘭。法蘭上有孔眼，螺栓使兩法蘭緊連。法蘭間用襯墊密封。法蘭分螺紋連接法蘭、焊接法蘭和卡夾法蘭。法蘭都是成對使用的，兩片法蘭盤之間加上密封墊片，然後用螺栓緊固。不同壓力的法蘭厚度不同，它們使用的螺栓也不同。水泵和閥門，在和管道連接時，這些器材設備的局部，也製成相對應的法蘭形狀，也稱為法蘭連接。凡是在兩個平面周邊使用螺栓連接同時封閉的連接零件，一般都稱為“ 法蘭 ”。

The flange is the part of the piping and the piping that is connected to each other for the connection between the ends of the pipe. It is also used for the flange on the inlet and outlet of the device for the connection between two devices, such as the flange of the reducer. A flange connection or a flange joint refers to a detachable connection in which a flange, a gasket and a bolt are connected to each other as a combined sealing structure. Pipe flange refers to the flange used for piping in the pipeline installation. It is used on the equipment to refer to the inlet and outlet flanges of the equipment. There are holes in the flange, and the bolts make the two flanges tightly connected. The flanges are sealed with gaskets. Flange is divided into threaded connection flange, welded flange and clip flange. Flanges are used in pairs. A gasket is placed between the two flanges and then bolted. Different flange thicknesses for different pressures use different bolts. Pumps and valves, when connected to the pipeline, part of these equipment also made into the corresponding flange shape, it is also known as flange connection. Joint parts that are bolted at the same time around two planes are generally referred to as "flanges".

2 法蘭標準

Flanges Standard

美標：ANSI B16.5、ANSI 16.47 Class 150, 300, 400, 600, 900, 1500, 2500

日標：JIS 5K, 10K, 16K, 20K

德標：DIN2527, 2543, 2545, 2566 2572, 2573, 2576, 2631, 2632, 2633, 2634, 2638

3 法蘭型式

Flanges Standard

- SO 滑套法蘭 SLIP-ON Flanges
- SC 絲口法蘭 SCREWED Flange
- SW 套焊法蘭 SOCKET WELDING Flange
- WN 焊頸法蘭 WELDING NECK Flange
- LJ 鬆套法蘭 LAP JOINT Flange
- BL 盲法蘭 BLIND Flange
- PL 平法蘭 PLATE Flange

4 法蘭密封面

Flanges Sealing Surface

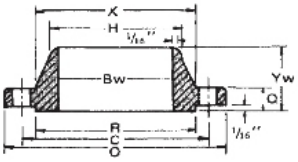
- RF 凸面 Raise Face
- FF 平面 Flat Face

5 法蘭材質

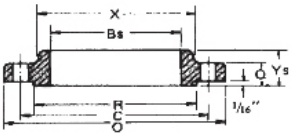
Flanges Material

- 碳鋼 Carbon Steel：ASTM A105、 ASTM A350 LF1, LF2, LF3
- 不銹鋼 Stainless Steel：ASTM A182 F304, 304L, F316, 316L, 304H, 310, 321, 347, 348
- 合金鋼 Alloy Steel：ASTM A182 F1, F2, F5, F5a, F9, F11, F12, F21, F22

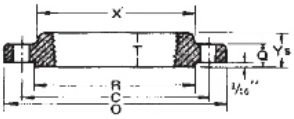
Forged Steel Flanges 150lb. ANSI B16.5



Welding Neck



Slip-on

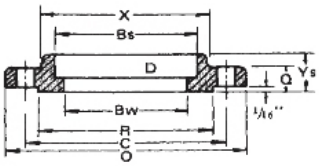


Screwed

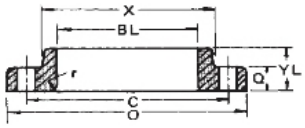
Dimensions in mm

Nominal Pipe Size	Common Dimensions				Dia.of Hub at Bevel	Length Thru Hub			Dia. of Bore		
	Outside Dia.of Flange	Thick. of Flange	Dia.of Hub at Base	Dia.of Raised Face		Slip-on Screwed Socket	Welding Neck	Lap Joint	Slip-on, Socket	Welding Neck, Socket	Lap Joint
	O	Q	X	R	H	Ys	Yw	YL	Bs	Bw	BL
1/2	88.9	11.2	30.2	34.9	21.3	15.9	47.6	15.9	22.4	15.7	22.9
3/4	98.4	12.7	38.1	42.9	26.7	15.9	52.4	15.9	27.7	20.8	28.2
1	108.0	14.3	49.2	50.8	33.5	17.5	55.6	17.5	34.5	26.7	35.1
$1^{1/4}$	117.5	15.9	58.7	63.5	42.2	20.6	57.2	20.6	43.2	35.1	43.7
$1^{1/2}$	127.0	17.5	65.1	73.0	48.3	22.2	61.9	22.2	49.5	40.9	50.0
2	152.4	19.1	77.8	92.1	60.5	25.4	63.5	25.4	62.0	52.6	62.5
$2^{1/2}$	177.8	22.3	90.5	104.8	73.2	28.6	69.9	28.6	74.7	62.7	75.4
3	190.5	23.9	108.0	127.0	88.9	30.2	69.9	30.2	90.7	78.0	91.4
$3^{1/2}$	215.9	23.9	122.2	139.7	101.6	31.8	71.4	31.8	103.4	90.2	104.1
4	228.6	23.9	134.9	157.2	114.3	33.3	76.2	33.3	116.1	102.4	116.8
5	254.0	23.9	163.5	185.7	141.2	36.5	88.9	36.5	143.8	128.3	144.5
6	279.4	25.4	192.1	215.9	168.4	39.7	88.9	39.7	170.7	154.2	171.5
8	342.9	28.6	246.1	269.9	219.2	44.5	101.6	44.5	221.5	202.7	222.3
10	406.4	30.2	304.8	323.9	273.1	49.2	101.6	49.2	276.4	254.5	277.4
12	482.6	31.8	365.1	381.0	323.9	55.6	114.3	55.6	327.5	304.8	328.2
14	533.4	35.0	400.1	412.8	355.6	57.2	127.0	79.4	359.2	336.6	360.2
16	596.9	36.6	457.2	469.9	406.4	63.5	127.0	87.3	410.5	387.4	411.2
18	635.0	39.7	504.8	533.4	457.2	68.3	139.7	96.8	461.8	438.2	462.3
20	698.5	42.9	558.8	584.2	508.0	73.0	144.5	103.2	513.1	489.0	514.4
24	812.8	47.7	663.6	692.2	609.6	82.6	152.4	111.1	616.0	590.6	616.0

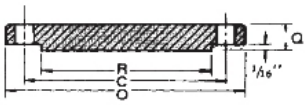
Forged Steel Flanges 150lb. ANSI B16.5



Socket Welding



Lap Joint

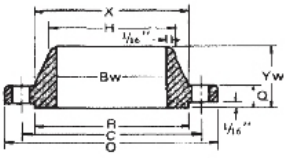


Blind

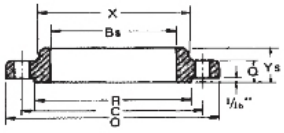
Dimensions in mm

Nominal Pipe Size	Radius of Fillet	Minmum Thread Length	Depth of Socket	Drilling				Length of Stud Bolts		
				Dia. of Bolt Circle	Number of Bolts	Dia. of Bolts	Dia. of Bolt Holes	Stud Bolts		Machine Bolts
								1/16" Raised Face	Ring Joint	1/16" R.F.
	r	T	D	C						
1/2	3.2	15.9	9.5	60.3	4	1/2	15.9	2 1/4	–	1 3/4
3/4	3.2	15.9	11.1	69.9	4	1/2	15.9	2 1/4	–	2
1	3.2	17.5	12.7	79.4	4	1/2	15.9	2 1/2	3	2
1 1/4	4.8	20.6	14.3	88.9	4	1/2	15.9	2 1/2	3	2 1/4
1 1/2	6.4	22.2	15.9	98.4	4	1/2	15.9	2 3/4	3 1/4	2 1/4
2	7.9	25.4	17.5	120.7	4	5/8	19.1	3	3 1/2	2 3/4
2 1/2	7.9	28.6	19.1	139.7	4	5/8	19.1	3 1/4	3 3/4	3
3	9.5	30.1	20.6	152.4	4	5/8	19.1	3 1/2	4	3
3 1/2	9.5	31.8	22.2	177.8	8	5/8	19.1	3 1/2	4	3
4	11.1	33.3	23.8	190.5	8	5/8	19.1	3 1/2	4	3
5	11.1	36.5	23.8	215.9	8	3/4	22.2	3 3/4	4 1/4	3 1/4
6	12.7	39.7	27.0	241.3	8	3/4	22.2	3 3/4	4 1/4	3 1/4
8	12.7	44.5	31.8	298.5	8	3/4	22.2	4	4 1/2	3 1/2
10	12.7	49.2	33.3	362.0	12	7/8	25.4	4 1/2	5	3 3/4
12	12.7	55.6	39.7	431.8	12	7/8	25.4	4 1/2	5	4
14	12.7	57.1	41.3	476.3	12	1	28.6	5	5 1/2	4 1/4
16	12.7	63.5	44.5	539.9	16	1	28.6	5 1/4	5 3/4	4 1/2
18	12.7	68.3	49.2	577.9	16	1 1/8	31.8	5 3/4	6 1/4	4 3/4
20	12.7	73.0	54.0	635.0	20	1 1/8	31.8	6	6 1/2	5 1/4
24	12.7	82.5	63.5	749.3	20	1 1/4	34.9	6 3/4	7 1/4	5 3/4

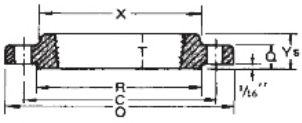
Forged Steel Flanges 300lb. ANSI B16.5



Welding Neck



Slip-on

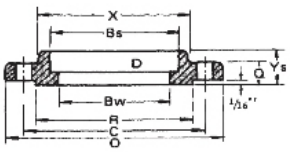


Screwed

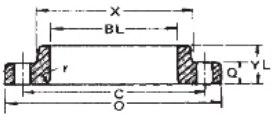
Dimensions in mm

Nominal Pipe Size	Common Dimensions				Dia.of Hub at Bevel	Length Thru Hub			Dia. of Bore		
	Outside Dia.of Flange	Thick. of Flange	Dia.of Hub at Base	Dia.of Raised Face		Slip-on Screwed Socket	Welding Neck	Lap Joint	Slip-on, Socket	Welding Neck, Socket	Lap Joint
	O	Q	X	R	H	Ys	Yw	YL	Bs	Bw	BL
1/2	95.3	14.3	38.1	34.9	21.3	22.2	52.4	22.2	22.4	15.7	22.9
3/4	117.5	15.9	47.6	42.9	26.7	25.4	57.2	25.4	27.7	20.8	28.2
1	123.8	17.5	54.0	50.8	33.5	27.0	61.9	27.0	34.5	26.7	35.1
$1^{1/4}$	133.4	19.1	63.5	63.5	42.2	27.0	65.1	27.0	43.2	35.1	43.7
$1^{1/2}$	155.6	20.7	69.9	73.0	48.3	30.2	68.3	30.2	49.5	40.9	50.0
2	165.1	22.3	84.1	92.1	60.5	33.3	69.9	33.3	62.0	52.6	62.5
$2^{1/2}$	190.5	25.4	100.0	104.8	73.2	38.1	76.2	38.1	74.7	62.7	75.4
3	209.6	28.6	117.5	127.0	88.9	42.9	79.4	42.9	90.7	78.0	91.4
$3^{1/2}$	228.6	30.2	133.4	139.7	101.6	44.5	81.0	44.5	103.4	90.2	104.1
4	254.0	31.8	146.1	157.2	114.3	47.6	85.7	47.6	116.1	102.4	116.8
5	279.4	35.0	177.8	185.7	141.2	50.8	98.4	50.8	143.8	128.3	144.5
6	317.5	36.6	206.4	215.9	168.4	52.4	98.4	52.4	170.7	154.2	171.5
8	381.0	41.3	260.4	269.9	219.2	61.9	111.1	61.9	221.5	202.7	222.3
10	444.5	47.7	320.7	323.9	273.1	66.7	117.5	95.3	276.4	254.5	277.4
12	520.7	50.8	374.7	381.0	323.9	73.0	130.2	101.6	327.5	304.8	328.2
14	584.2	54.0	425.5	412.8	355.6	76.2	142.9	111.0	359.2	336.6	360.2
16	647.7	57.2	482.6	469.9	406.4	82.6	146.1	120.7	410.5	387.4	411.2
18	711.2	60.4	533.4	533.4	457.2	88.9	158.8	130.2	461.8	438.2	462.3
20	774.7	63.5	587.4	584.2	508.0	95.3	161.9	139.7	513.1	489.0	514.4
24	914.4	69.9	701.7	692.2	609.6	106.4	168.3	152.4	616.0	590.6	616.0

Forged Steel Flanges 300lb. ANSI B16.5



Socket Welding



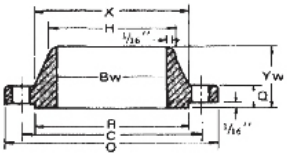
Lap Joint

Blind

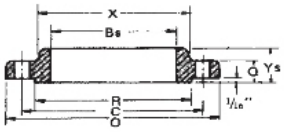
Dimensions in mm

Nominal Pipe Size	Radius of Fillet	Minmum Thread Length	Depth of Socket	Drilling				Length of Stud Bolts			Counter Bore Screwed Flance Min
				Dia. of Bolt Circle	Number of Bolts	Dia. of Bolts	Dia. of Bolt Holes	Stud Bolts		Machine Bolts	
								1/16" Raised Face	Ring Joint	1/16" R.F.	
	r	T	D	C							C
1/2	3.2	15.9	9.5	66.7	4	1/2	15.9	$2^{1/2}$	3	2	23.6
3/4	3.2	15.9	11.1	82.6	4	5/8	19.1	$2^{3/4}$	$3^{1/4}$	$2^{1/2}$	29.0
1	3.2	17.5	12.7	88.9	4	5/8	19.1	3	$3^{1/2}$	$2^{1/2}$	35.8
$1^{1/4}$	4.8	20.6	14.3	98.4	4	5/8	19.1	3	$3^{1/2}$	$2^{3/4}$	44.5
$1^{1/2}$	6.4	22.2	15.9	114.3	4	3/4	22.2	$3^{1/2}$	4	3	50.5
2	7.9	28.6	17.5	127.0	8	5/8	19.1	$3^{1/4}$	4	3	63.5
$2^{1/2}$	7.9	31.8	19.1	149.2	8	3/4	22.2	$3^{3/4}$	$4^{1/2}$	$3^{1/4}$	76.2
3	9.5	31.8	20.6	168.3	8	3/4	22.2	4	$4^{3/4}$	$3^{1/2}$	92.2
$3^{1/2}$	9.5	36.5	–	184.2	8	3/4	22.2	$4^{1/4}$	5	$3^{3/4}$	104.9
4	11.1	36.5	–	200.0	8	3/4	22.2	$4^{1/4}$	5	$3^{3/4}$	117.6
5	11.1	42.9	–	235.0	8	3/4	22.2	$4^{1/2}$	$5^{1/4}$	4	144.5
6	12.7	46.0	–	269.9	12	3/4	22.2	$4^{3/4}$	$5^{1/2}$	$4^{1/4}$	171.5
8	12.7	50.8	–	330.2	12	7/8	25.4	$5^{1/4}$	6	$4^{3/4}$	222.3
10	12.7	55.6	–	387.4	16	1	28.6	6	$6^{3/4}$	$5^{1/4}$	276.4
12	12.7	60.3	–	450.9	16	$1^{1/8}$	31.8	$6^{1/2}$	$7^{1/4}$	$5^{3/4}$	328.7
14	12.7	63.5	–	514.4	20	$1^{1/8}$	31.8	$6^{3/4}$	$7^{1/2}$	6	360.4
16	12.7	68.3	–	571.5	20	$1^{1/4}$	34.9	$7^{1/4}$	8	$6^{1/2}$	411.2
18	12.7	69.9	–	628.7	24	$1^{1/4}$	34.9	$7^{1/2}$	$8^{1/4}$	$6^{3/4}$	462.0
20	12.7	73.0	–	685.8	24	$1^{1/4}$	34.9	8	$8^{3/4}$	7	512.8
24	12.7	82.6	–	812.8	24	$1^{1/2}$	41.3	9	10	$7^{3/4}$	614.4

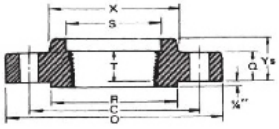
Forged Steel Flanges 400lb. ANSI B16.5



Welding Neck



Slip–on

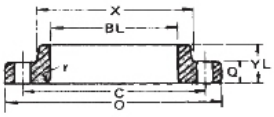


Screwed

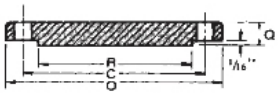
Dimensions in mm

Nominal Pipe Size	Common Dimensions				Dia.of Hub at Bevel	Length Thru Hub			Dia. of Bore		
	Outside Dia.of Flange	Thick. of Flange	Dia.of Hub at Base	Dia.of Raised Face		Slip–on Screwed Socket	Welding Neck	Lap Joint	Slip–on, Socket	Welding Neck, Socket	Lap Joint
	O	Q	X	R	H	Ys	Yw	YL	Bs	Bw	BL
1/2	95.3	14.3	38.1	34.9	21.3	22.2	52.4	22.2	22.4	14.0	22.9
3/4	117.5	15.9	47.6	42.9	26.7	25.4	57.2	25.4	27.7	18.8	28.2
1	123.8	17.5	54.0	50.8	33.5	27.0	61.9	27.0	34.5	24.4	35.1
1 1/4	133.4	20.7	63.5	63.5	42.2	28.6	66.7	28.6	43.2	32.5	43.7
1 1/2	155.6	22.3	69.9	73.0	48.3	31.8	69.9	31.8	49.5	38.1	50.0
2	165.1	25.4	84.1	92.1	60.5	36.5	73.0	36.5	62.0	49.3	62.5
2 1/2	190.5	28.6	100.0	104.8	73.2	41.3	79.4	41.3	74.7	58.9	75.4
3	209.6	31.8	117.5	127.0	88.9	46.0	82.6	46.0	90.7	73.7	91.4
3 1/2	228.6	35.0	133.4	139.7	101.6	49.2	85.7	49.2	103.4	85.3	104.1
4	254.0	35.0	146.1	157.2	114.3	50.8	88.9	50.8	116.1	97.3	116.8
5	279.4	38.1	177.8	185.7	141.2	54.0	101.6	54.0	143.8	122.2	144.5
6	317.5	41.3	206.4	215.9	168.4	57.2	103.2	57.2	170.7	146.3	171.5
8	381.0	47.7	260.4	269.9	219.2	68.3	117.5	68.3	221.5	193.8	222.3
10	444.5	54.0	320.7	323.9	273.1	73.0	123.8	101.6	276.4	247.7	277.4
12	520.7	57.2	374.7	381.0	323.9	79.4	136.5	108.0	327.5	298.5	328.2
14	584.2	60.4	425.5	412.8	355.6	84.1	149.2	117.5	359.2	330.2	360.2
16	647.7	63.5	482.6	469.9	406.4	93.7	152.4	127.0	410.5	381.0	411.2
18	711.2	66.7	533.4	533.4	457.2	98.4	165.1	136.5	461.8	431.8	462.3
20	774.7	69.9	587.4	584.2	508.0	101.6	168.3	146.1	513.1	482.6	514.4
24	914.4	76.2	701.7	692.2	609.6	114.3	174.6	158.8	616.0	584.2	616.0

Forged Steel Flanges 400lb. ANSI B16.5



Lap Joint

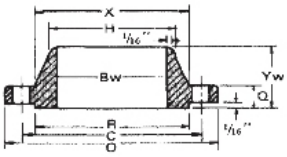


Blind

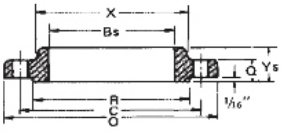
Dimensions in mm

Nominal Pipe Size	Radius of Fillet	Minmum Thread Length	Depth of Socket	Drilling				Length of Stud Bolts			Counter Bore Screwed Flance Min
				Dia. of Bolt Circle	Number of Bolts	Dia. of Bolts	Dia. of Bolt Holes	Stud Bolts		Male & Female Also Tongue & Groove	
								1/4" Raised Face	Ring Joint		
	r	T	D	C							C
1/2	3.2	15.9	–	66.7	4	1/2	15.9	3	3	$2^{3/4}$	23.6
3/4	3.2	15.9	–	82.6	4	5/8	19.1	$3^{1/4}$	$3^{1/4}$	3	29.0
1	3.2	17.5	–	88.9	4	5/8	19.1	$3^{1/2}$	$3^{1/2}$	$3^{1/4}$	35.8
$1^{1/4}$	4.8	20.6	–	98.4	4	5/8	19.1	$3^{3/4}$	$3^{3/4}$	$3^{1/2}$	44.5
$1^{1/2}$	6.4	22.2	–	114.3	4	3/4	22.2	4	4	$3^{3/4}$	50.5
2	7.9	28.6	–	127.0	8	5/8	19.1	4	$4^{1/4}$	$3^{3/4}$	63.5
$2^{1/2}$	7.9	31.8	–	149.2	8	3/4	22.2	$4^{1/2}$	$4^{3/4}$	$4^{1/4}$	76.2
3	9.5	34.9	–	168.3	8	3/4	22.2	$4^{3/4}$	5	$4^{1/2}$	92.2
$3^{1/2}$	9.5	39.7	–	184.2	8	7/8	25.4	$5^{1/4}$	$5^{1/2}$	5	104.9
4	11.1	36.5	–	200.0	8	7/8	25.4	$5^{1/4}$	$5^{1/2}$	5	117.6
5	11.1	42.9	–	235.0	8	7/8	25.4	$5^{1/2}$	$5^{3/4}$	$5^{1/4}$	144.5
6	12.7	46.0	–	269.9	12	7/8	25.4	$5^{3/4}$	6	$5^{1/2}$	171.5
8	12.7	50.8	–	330.2	12	1	28.6	$6^{1/2}$	$6^{3/4}$	$6^{1/4}$	222.3
10	12.7	55.6	–	387.4	16	$1^{1/8}$	31.8	$7^{1/4}$	$7^{1/2}$	7	276.4
12	12.7	60.3	–	450.9	16	$1^{1/4}$	34.9	$7^{3/4}$	8	$7^{1/2}$	328.7
14	12.7	63.5	–	514.4	20	$1^{1/4}$	34.9	8	$8^{1/4}$	$7^{3/4}$	360.4
16	12.7	68.3	–	571.5	20	$1^{3/8}$	38.1	$8^{1/2}$	$8^{3/4}$	$8^{1/4}$	411.2
18	12.7	69.9	–	628.7	24	$1^{3/8}$	38.1	$8^{3/4}$	9	$8^{1/2}$	462.0
20	12.7	73.0	–	685.8	24	$1^{1/2}$	41.3	$9^{1/2}$	$9^{3/4}$	$9^{1/4}$	512.8
24	12.7	82.6	–	812.8	24	$1^{3/4}$	47.6	$10^{1/2}$	11	$10^{1/4}$	614.4

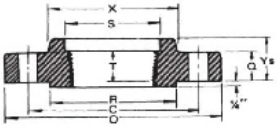
Forged Steel Flanges 600lb. ANSI B16.5



Welding Neck



Slip-on

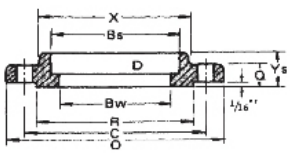


Screwed

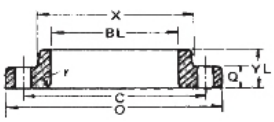
Dimensions in mm

Nominal Pipe Size	Common Dimensions				Dia.of Hub at Bevel	Length Thru Hub			Dia. of Bore		
	Outside Dia.of Flange	Thick. of Flange	Dia.of Hub at Base	Dia.of Raised Face		Slip-on Screwed Socket	Welding Neck	Lap Joint	Slip-on Screwed	Welding Neck, Socket	Lap Joint
	O	Q	X	R	H	Ys	Yw	YL	Bs	Bw	BL
1/2	95.3	14.3	38.1	34.9	21.3	22.2	52.4	22.2	22.4	14.0	22.9
3/4	117.5	15.9	47.6	42.9	26.7	25.4	57.2	25.4	27.7	18.8	28.2
1	123.8	17.5	54.0	50.8	33.5	27.0	61.9	27.0	34.5	24.4	35.1
1 1/4	133.4	20.7	63.5	63.5	42.2	28.6	66.7	28.6	43.2	32.5	43.7
1 1/2	155.6	22.3	69.9	73.0	48.3	31.8	69.9	31.8	49.5	38.1	50.0
2	165.1	25.4	84.1	92.1	60.5	36.5	73.0	36.5	62.0	49.3	62.5
2 1/2	190.5	28.6	100.0	104.8	73.2	41.3	79.4	41.3	74.7	58.9	75.4
3	209.6	31.8	117.5	127.0	88.9	46.0	82.6	46.0	90.7	73.7	91.4
3 1/2	228.6	35.0	133.4	139.7	101.6	49.2	85.7	49.2	103.4	85.3	104.1
4	273.1	38.1	152.4	157.2	114.3	54.0	101.6	54.0	116.1	97.3	116.8
5	330.2	44.5	188.9	185.7	141.2	60.3	114.3	60.3	143.8	122.2	144.5
6	355.6	47.7	222.3	215.9	168.4	66.7	117.5	66.7	170.7	146.3	171.5
8	419.1	55.6	273.1	269.9	219.2	76.2	133.4	76.2	221.5	193.8	222.3
10	508.0	63.5	342.9	323.9	273.1	85.7	152.4	111.1	276.4	247.7	277.4
12	588.8	66.7	400.1	381.0	323.9	92.1	155.6	117.5	327.2	298.5	328.2
14	603.3	69.9	431.8	412.8	355.6	93.7	165.1	127.0	359.2	–	360.2
16	685.8	76.2	495.3	469.9	406.4	106.4	177.8	139.7	410.5	–	411.2
18	743.0	82.6	546.1	533.4	457.2	117.5	184.2	152.4	461.8	–	462.3
20	812.8	88.9	609.6	584.2	508.0	127.0	190.5	165.1	513.1	–	514.4
24	939.8	101.6	717.6	692.2	609.6	139.7	203.2	184.2	616.0	–	616.0

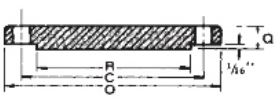
Forged Steel Flanges 600lb. ANSI B16.5



Socket Welding



Lap Joint

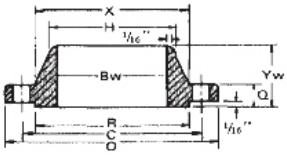


Blind

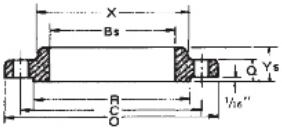
Dimensions in mm

Nominal Pipe Size	Radius of Fillet	Minmum Thread Length	Depth of Socket	Drilling				Length of Stud Bolts			Counter Bore Screwed Flance Min
				Dia. of Bolt Circle	Number of Bolts	Dia. of Bolts	Dia. of Bolt Holes	Stud Bolts		Male & Female Also Tongue & Groove	
								1/2" Raised Face	Ring Joint		
	r	T	D	C							S
1/2	3.2	15.9	9.5	66.7	4	1/2	15.9	3	3	2 3/4	23.6
3/4	3.2	15.9	11.1	82.6	4	5/8	19.1	3 1/4	3 1/4	3	29.0
1	3.2	17.5	12.7	88.9	4	5/8	19.1	3 1/2	3 1/2	3 1/4	35.8
1 1/4	4.8	20.6	14.3	98.4	4	5/8	19.1	3 3/4	3 3/4	3 1/2	44.5
1 1/2	6.4	22.2	15.9	114.3	4	3/4	22.2	4	4	3 3/4	50.5
2	7.9	28.6	17.5	127.0	8	5/8	19.1	4	4 1/4	3 3/4	63.5
2 1/2	7.9	31.8	19.1	149.2	8	3/4	22.2	4 1/2	4 3/4	4 1/4	76.2
3	9.5	34.9	20.6	168.3	8	3/4	22.2	4 3/4	5	4 1/2	92.2
3 1/2	9.5	39.7	22.2	184.2	8	7/8	25.4	5 1/4	5 1/2	5	104.9
4	11.1	41.3	–	215.9	8	7/8	25.4	5 1/2	5 3/4	5 1/4	117.6
5	11.1	47.6	–	266.7	8	1	28.6	6 1/4	6 1/2	6	144.5
6	12.7	50.8	–	292.1	12	1	28.6	6 1/2	6 3/4	6 1/4	171.5
8	12.7	57.2	–	349.3	12	1 1/8	31.8	7 1/2	7 3/4	7 1/4	222.3
10	12.7	65.1	–	431.8	16	1 1/4	34.9	8 1/4	8 1/2	8	276.4
12	12.7	69.9	–	489.0	16	1 1/4	34.9	8 1/2	8 3/4	8 1/4	328.7
14	12.7	73.0	–	527.1	20	1 3/8	38.1	9	9 1/4	8 3/4	360.4
16	12.7	77.8	–	603.3	20	1 1/2	41.3	9 3/4	10	9 1/2	411.2
18	12.7	79.4	–	654.1	24	1 5/8	44.5	10 1/2	10 3/4	10 1/4	462.0
20	12.7	82.6	–	723.9	24	1 5/8	44.5	11 1/4	11 1/2	11	512.8
24	12.7	92.1	–	838.2	24	1 7/8	50.8	12 3/4	13 1/4	12 1/2	614.4

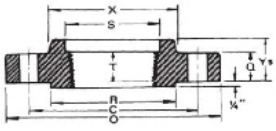
Forged Steel Flanges 900lb. ANSI B16.5



Welding Neck



Slip-on

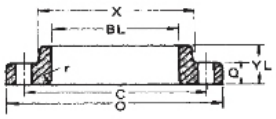


Screwed

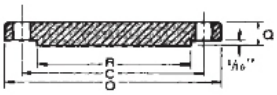
Dimensions in mm

Nominal Pipe Size	Common Dimensions				Dia.of Hub at Bevel	Length Thru Hub			Dia. of Bore		
	Outside Dia.of Flange	Thick. of Flange	Dia.of Hub at Base	Dia.of Raised Face		Slip-on Screwed Socket	Welding Neck	Lap Joint	Slip-on, Socket	Welding Neck, Socket	Lap Joint
	O	Q	X	R	H	Ys	Yw	YL	Bs	Bw	BL
1/2	120.7	22.3	38.1	34.9	21.3	31.8	60.3	31.8	22.4	To be specified by purchaser	22.9
3/4	130.2	25.4	44.5	42.9	26.7	34.9	69.9	34.9	27.7		28.2
1	149.2	28.6	52.4	50.8	33.5	41.3	73.0	41.3	34.5		35.1
$1^{1/4}$	158.8	28.6	63.5	63.5	42.2	41.3	73.0	41.3	43.2		43.7
$1^{1/2}$	177.8	31.8	69.9	73.0	48.3	44.5	82.6	44.5	49.5		50.0
2	215.9	38.1	104.8	92.1	60.5	57.2	101.6	57.2	62.0		62.5
$2^{1/2}$	244.5	41.3	123.8	104.8	73.2	63.5	104.8	63.5	74.7		75.4
3	241.3	38.1	127.0	127.0	88.9	54.0	101.6	54.0	90.7		91.4
4	292.1	44.5	158.8	157.2	114.3	69.9	114.3	69.9	116.1		116.8
5	349.3	50.8	190.5	185.7	141.2	79.4	127.0	79.4	143.8		144.5
6	381.0	55.6	235.0	215.9	168.4	85.7	139.7	85.7	170.7		171.5
8	469.9	63.5	298.5	269.9	219.2	101.6	161.9	114.3	221.5		222.3
10	546.1	69.9	368.3	323.9	273.1	108.0	184.2	127.0	276.4		277.4
12	609.6	79.4	419.1	381.0	323.9	117.5	200.0	142.9	327.2		328.2
14	641.4	85.8	450.9	412.8	355.6	130.2	212.7	155.6	359.2		360.2
16	704.9	88.9	508.0	469.9	406.4	133.4	215.9	165.1	410.5		411.2
18	787.4	101.6	565.2	533.4	457.2	152.4	228.6	190.5	461.8		462.3
20	857.3	108.0	622.3	584.2	508.0	158.8	247.7	209.6	513.1		514.4
24	1041.4	139.7	749.3	692.2	609.6	203.2	292.1	266.7	616.0		616.0

Forged Steel Flanges 900lb. ANSI B16.5



Lap Joint

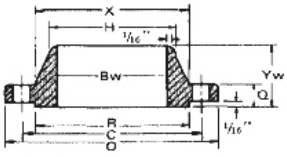


Blind

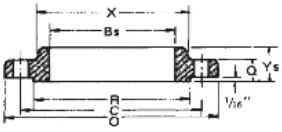
Dimensions in mm

Nominal Pipe Size	Radius of Fillet	Minmum Thread Length	Depth of Socket	Drilling				Length of Stud Bolts			Counter Bore Screwed Flance Min
				Dia. of Bolt Circle	Number of Bolts	Dia. of Bolts	Dia. of Bolt Holes	1/4" Raised Face	Ring Joint	Male & Female Also Tongue & Groove	
	r	T	D	C							S
1/2	3.2	22.2	–	82.6	4	3/4	22.2	4	4	3 3/4	23.6
3/4	3.2	25.4	–	88.9	4	3/4	22.2	4 1/4	4 1/4	4	29.0
1	3.2	28.6	–	101.6	4	7/8	25.4	4 3/4	4 3/4	4 1/2	35.8
1 1/4	4.8	30.2	–	111.1	4	7/8	25.4	4 3/4	4 3/4	4 1/2	44.5
1 1/2	6.4	31.8	–	123.8	4	1	28.6	5 1/4	5 1/4	5	50.5
2	7.9	38.1	–	165.1	8	7/8	25.4	5 1/2	5 3/4	5 1/4	63.5
2 1/2	7.9	47.6	–	190.5	8	1	28.6	6	6 1/4	5 3/4	76.2
3	9.5	41.3	–	190.5	8	7/8	25.4	5 1/2	5 3/4	5 1/4	92.2
4	11.1	47.6	–	235.0	8	1 1/8	31.8	6 1/2	6 3/4	6 1/4	117.6
5	11.1	54.0	–	279.4	8	1 1/4	34.9	7 1/4	7 1/2	7	144.5
6	12.7	57.2	–	317.5	12	1 1/8	31.8	7 1/2	7 1/2	7 1/4	171.5
8	12.7	63.5	–	393.7	12	1 3/8	38.1	8 1/2	8 3/4	8 1/4	222.3
10	12.7	71.4	–	469.9	16	1 3/8	38.1	9	9 1/4	8 3/4	276.4
12	12.7	76.2	–	533.4	20	1 3/8	38.1	9 3/4	10	9 1/2	328.7
14	12.7	82.6	–	558.8	20	1 1/2	41.3	10 1/2	11	10 1/4	360.4
16	12.7	85.7	–	616.0	20	1 5/8	44.5	11	11 1/2	10 3/4	411.2
18	12.7	88.9	–	685.8	20	1 7/8	50.8	12 3/4	13 1/4	12 1/2	462.0
20	12.7	92.1	–	749.3	20	2	54.0	13 1/2	14	13 1/4	512.8
24	12.7	101.6	–	901.7	20	2 1/2	66.7	17	17 3/4	16 3/4	614.4

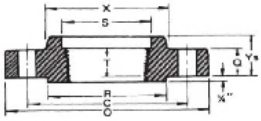
Forged Steel Flanges 1500lb. ANSI B16.5



Welding Neck



Slip-on

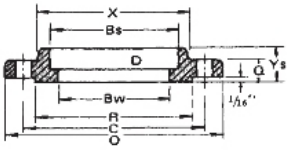


Screwed

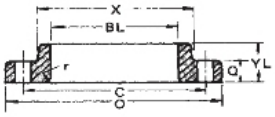
Dimensions in mm

Nominal Pipe Size	Common Dimensions				Dia.of Hub at Bevel	Length Thru Hub			Dia. of Bore		
	Outside Dia.of Flange	Thick. of Flange	Dia.of Hub at Base	Dia.of Raised Face		Slip-on Screwed Socket	Welding Neck	Lap Joint	Slip-on, Socket	Welding Neck, Socket	Lap Joint
	O	Q	X	R	H	Ys	Yw	YL	Bs	Bw	BL
1/2	120.7	22.3	38.1	34.9	21.3	31.8	60.3	31.8	22.4	To be specified by purchaser	22.9
3/4	130.2	25.4	44.5	42.9	26.7	34.9	69.9	34.9	27.7		28.2
1	149.2	28.6	52.4	50.8	33.5	41.3	73.0	41.3	34.5		35.1
1 1/4	158.8	28.6	63.5	63.5	42.2	41.3	73.0	41.3	43.2		43.7
1 1/2	177.8	31.8	69.9	73.0	48.3	44.5	82.6	44.5	49.5		50.0
2	215.9	38.1	104.8	92.1	60.5	57.2	101.6	57.2	62.0		62.5
2 1/2	244.5	41.3	123.8	104.8	73.2	63.5	104.8	63.5	74.7		75.4
3	266.7	47.7	133.4	127.0	88.9	73.0	117.5	73.0	90.7		91.4
4	311.2	54.0	161.9	157.2	114.3	90.5	123.8	90.5	116.1		116.8
5	374.7	73.1	196.9	185.7	141.2	104.8	155.6	104.8	143.8		144.5
6	393.7	82.6	228.6	215.9	168.4	119.1	171.5	119.1	170.7		171.5
8	482.6	92.1	292.1	269.9	219.2	142.9	212.7	142.9	221.5		222.3
10	584.2	108.0	368.3	323.9	273.1	158.8	254.0	177.8	276.4		277.4
12	673.1	123.9	450.9	381.0	323.9	181.0	282.6	219.1	327.2		328.2
14	749.3	133.4	495.3	412.8	355.6	–	298.5	241.3	359.2		360.2
16	825.5	146.1	552.5	469.9	406.4	–	311.2	260.4	410.5		411.2
18	914.4	162.0	596.9	533.4	457.2	–	327.0	276.2	461.8		462.3
20	984.3	177.8	641.4	584.2	508.0	–	355.6	292.1	513.1		514.4
24	1168.4	203.2	762.0	692.2	609.6	–	406.4	330.2	616.0		616.0

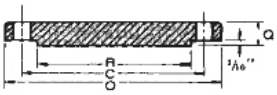
Forged Steel Flanges 1500lb. ANSI B16.5



Socket Welding



Lap Joint

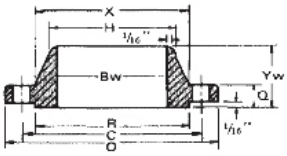


Blind

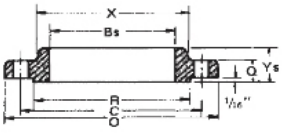
Dimensions in mm

Nominal Pipe Size	Radius of Fillet	Minmum Thread Length	Depth of Socket	Drilling				Length of Stud Bolts			Counter Bore Screwed Flance Min
				Dia. of Bolt Circle	Number of Bolts	Dia. of Bolts	Dia. of Bolt Holes	1/4" Raised Face	Ring Joint	Male & Female Also Tongue & Groove	
	R	T	D	C							S
1/2	3.2	22.2	9.5	82.6	4	3/4	22.2	4	4	3 3/4	23.6
3/4	3.2	25.4	11.1	88.9	4	3/4	22.2	4 1/4	4 1/4	4	29.0
1	3.2	28.6	12.7	101.6	4	7/8	25.4	4 3/4	4 3/4	4 1/2	35.8
1 1/4	4.8	30.2	14.3	111.1	4	7/8	25.4	4 3/4	4 3/4	4 1/2	44.5
1 1/2	6.4	31.8	15.9	123.8	4	1	28.6	5 1/4	5 1/4	5	50.5
2	7.9	38.1	17.5	165.1	8	7/8	25.4	5 1/2	5 3/4	5 1/4	63.5
2 1/2	7.9	47.6	19.1	190.5	8	1	28.6	6	6 1/4	5 3/4	76.2
3	9.5	50.8	–	203.2	8	1 1/8	31.8	6 3/4	7	6 1/2	92.2
4	11.1	57.2	–	241.3	8	1 1/4	34.9	7 1/2	7 3/4	7 1/4	117.6
5	11.1	63.5	–	292.1	8	1 1/2	41.3	9 1/2	9 3/4	9 1/4	144.5
6	12.7	69.9	–	317.5	12	1 3/8	38.1	10	10 1/4	9 3/4	171.5
8	12.7	76.2	–	393.7	12	1 5/8	44.5	11 1/4	11 3/4	11	222.3
10	12.7	84.1	–	482.6	12	1 7/8	50.8	13 1/4	13 1/2	13	276.4
12	12.7	92.1	–	571.5	16	2	54.0	14 3/4	15 1/4	14 1/2	328.7
14	12.7	–	–	635.0	16	2 1/4	60.3	16	16 3/4	15 3/4	360.4
16	12.7	–	–	704.9	16	2 1/2	66.7	17 1/2	18 1/2	17 1/4	411.2
18	12.7	–	–	774.7	16	2 3/4	73.0	19 1/4	20 1/4	19	462.0
20	12.7	–	–	831.9	16	3	79.4	21	22 1/4	20 3/4	512.8
24	12.7	–	–	990.6	16	3 1/2	92.1	24	25 1/2	23 3/4	614.4

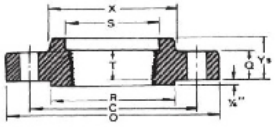
Forged Steel Flanges 2500lb. ANSI B16.5



Welding Neck



Slip-on

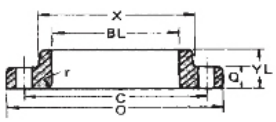


Screwed

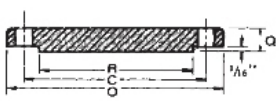
Dimensions in mm

Nominal Pipe Size	Common Dimensions				Dia.of Hub at Bevel	Length Thru Hub			Dia. of Bore		
	Outside Dia.of Flange	Thick. of Flange	Dia.of Hub at Base	Dia.of Raised Face		Slip-on Screwed Socket	Welding Neck	Lap Joint	Slip-on, Socket	Welding Neck, Socket	Lap Joint
	O	Q	X	R	H	Ys	Yw	YL	Bs	Bw	BL
1/2	133.4	30.2	42.9	34.9	21.3	39.7	73.0	39.7	22.4	To be specified by purchaser	22.9
3/4	139.7	31.8	50.8	42.9	26.7	42.9	79.4	42.9	27.7		28.2
1	158.8	35.0	57.2	50.8	33.5	47.6	88.9	47.6	34.5		35.1
1 1/4	184.2	38.1	73.0	63.5	42.2	52.4	95.3	52.4	43.2		43.7
1 1/2	203.2	44.5	79.4	73.0	48.3	60.3	111.1	60.3	49.5		50.0
2	235.0	50.8	95.3	92.1	60.5	69.9	127.0	69.9	62.0		62.5
2 1/2	266.7	57.2	114.3	104.8	73.2	79.4	142.9	79.4	74.7		75.4
3	304.8	66.7	133.4	127.0	88.9	92.1	168.3	92.1	90.7		91.4
4	355.6	76.2	165.1	157.2	114.3	108.0	190.5	108.0	116.1		116.8
5	419.1	92.1	203.2	185.7	141.2	130.2	228.6	130.2	143.8		144.5
6	482.6	108.0	235.0	215.9	168.4	152.4	273.1	152.4	170.7		171.5
8	552.5	127.0	304.8	269.9	219.2	177.8	317.5	177.8	221.5		222.3
10	673.1	165.1	374.7	323.9	273.1	228.6	228.6	228.6	276.4		277.4
12	762.0	184.2	441.3	381.0	323.9	254.0	254.0	254.0	327.2		328.2

Forged Steel Flanges 2500lb. ANSI B16.5



Lap Joint

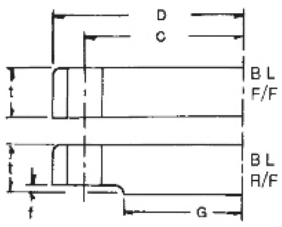


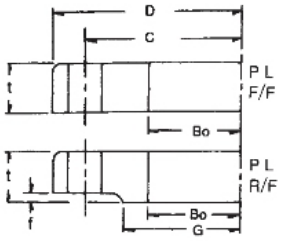
Blind

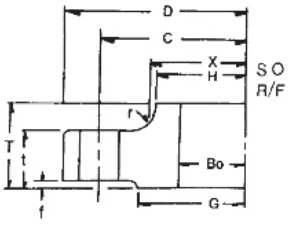
Dimensions in mm

Nominal Pipe Size	Radius of Fillet	Minmum Thread Length	Depth of Socket	Drilling				Length of Stud Bolts			Counter Bore Screwed Flance Min
				Dia. of Bolt Circle	Number of Bolts	Dia. of Bolts	Dia. of Bolt Holes	1/4" Raised Face	Ring Joint	Male & Female Also Tongue & Groove	
	r	T	D	C							S
1/2	3.2	28.6	9.6	88.9	4	3/4	22.2	$4^{3/4}$	$4^{3/4}$	$4^{1/2}$	23.6
3/4	3.2	31.8	11.1	95.3	4	3/4	22.2	$4^{3/4}$	$4^{3/4}$	$4^{1/2}$	29.0
1	3.2	34.9	12.7	108.0	4	7/8	25.4	$5^{1/4}$	$5^{1/4}$	5	35.8
$1^{1/4}$	4.8	38.1	14.3	130.2	4	1	28.6	$5^{3/4}$	6	$5^{1/2}$	44.5
$1^{1/2}$	6.4	44.5	16.0	146.1	4	$1^{1/8}$	31.8	$6^{1/2}$	$6^{3/4}$	$6^{1/4}$	50.5
2	7.9	50.8	17.5	171.5	8	1	28.6	$6^{3/4}$	7	$6^{1/2}$	63.5
$2^{1/2}$	7.9	57.2	19.0	196.9	8	$1^{1/8}$	31.8	$7^{1/2}$	$7^{3/4}$	$7^{1/4}$	76.2
3	9.5	63.5	–	228.6	8	$1^{1/4}$	34.9	$8^{1/2}$	$8^{3/4}$	$8^{1/4}$	92.2
4	11.1	69.9	–	273.1	8	$1^{1/2}$	41.3	$9^{3/4}$	$10^{1/4}$	$9^{1/2}$	117.6
5	11.1	76.2	–	323.9	8	$1^{3/4}$	47.6	$11^{1/2}$	$12^{1/4}$	$11^{1/4}$	144.5
6	12.7	82.6	–	368.3	8	2	54.0	$13^{1/2}$	14	$13^{1/4}$	171.5
8	12.7	95.3	–	438.2	12	2	54.0	15	$15^{1/2}$	$14^{3/4}$	222.3
10	12.7	108.0	–	539.8	12	$2^{1/2}$	66.7	19	20	$18^{3/4}$	276.4
12	12.7	120.7	–	619.1	12	$2^{3/4}$	73.0	21	22	$20^{3/4}$	328.7

Steel Pipe Flanges JIS Flanges JIS 5kg/cm²







(5K)–1

Dimensions in mm

Pipe B	Pipe A	Pipe	Bo (2)		D (2)		t (2)		T (2)		G (2)	
3/8	10	17.3	17.8	+0.5 −0.0	75	+1.0 −0.0	9	+1.0 −0.0	–	±1.0	42	±0.8
1/2	15	21.7	22.2		80		9		–		48	
3/4	20	27.2	27.7		85		10		–		52	
1	25	34.0	34.5		95		10		–		62	
1 1/4	32	42.7	43.2		115		12		–		72	
1 1/2	40	48.6	49.1		120		12		–		78	
2	50	60.5	61.1		130		14		–		88	
2 1/2	65	76.3	77.1		155		14		–		112	
3	80	89.1	90.0		180		14		–		125	
3 1/2	90	101.6	102.6	+1.0 −0.0	190		14		–		135	
4	100	114.3	115.4		200		16		–		145	
5	125	139.8	141.2		235		16		–		180	
6	150	165.2	166.6		265		18		–		210	
7	175	190.7	192.1		300		18		–		235	±0.9
8	200	216.3	218.0		320	+1.5 −0.0	20		–		255	
9	225	241.8	243.7		345		20		–		280	
10	250	267.4	269.5		385		22	+1.5 −0.0	32		320	
12	300	318.5	321.0		430		22		34		365	
14	350	355.6	358.1		480		24		36		405	
16	400	406.4	409.0	+1.5 −0.0	540		24		36		465	
18	450	457.2	460.0		605	+2.0 −0.0	24		40		525	
20	500	508.2	511.0		655		24		40		575	
22	550	558.8	562.0		720		26		42		630	
24	600	609.6	613.0	+2.0 −0.0	770		26		44		680	±1.0
26	650	660.4	664.0		825		26		48		735	
28	700	711.2	715.0		875		26		48		785	
30	750	762.0	766.0		945		28		52	±1.5	840	
32	800	812.8	817.0	+2.5 −0.0	995		28		52		890	
34	850	863.6	868.0		1045	−0.0	28		54		940	
36	900	914.4	919.0		1095		30		56		990	
40	1000	1016.0	1021.0	+3.0 −0.0	1195		32		60		1090	±1.2
44	1100	1117.6	1123.0		1305		32		–		1200	
48	1200	1219.2	1224.0		1420		34		–		1305	
54	1350	1371.6	1377.0		1575	+3.0 −0.0	34		–		1460	
60	1500	1524.0	1529.0		1730		36		–		1615	

Steel Pipe Flanges

JIS Flanges JIS 5kg/cm²

Blind

Plate

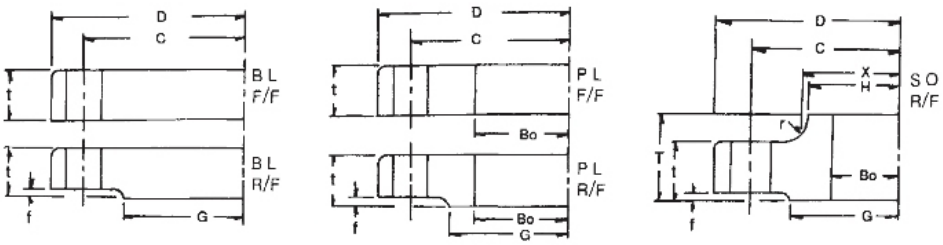
Slip-on

(5K)-2

Dimensions in mm

f	r	H (2)		X (2)		C (2)		Number of Holes	Bolt Diameter	kg/pc		
										PL	SO	BL
1	–	–		–		55		4	12	0.3	–	0.3
1	–	–		–		60		4	12	0.3	–	0.4
1	–	–		–		65		4	12	0.4	–	0.5
1	–	–		–		75		4	12	0.5	–	0.6
2	–	–		–		90		4	15	0.8	–	0.9
2	–	–		–		95		4	15	0.9	–	1.0
2	–	–		–		105	±0.5	4	15	1.1	–	1.4
2	–	–		–		130		4	15	1.5	–	2.0
2	–	–		–		145		4	19	2.0	–	2.7
2	–	–		–		155		4	19	2.1	–	3.0
2	–	–	+2.0 −0.0	–	+2.0 −0.0	165		8	19	2.4	–	3.7
2	–	–		–		200		8	19	3.3	–	5.2
2	–	–		–		230		8	19	4.4	–	7.5
2	–	–		–		260		8	23	5.5	–	9.5
2	–	–		–		280		8	23	6.4	–	12.2
2	–	–		–		305		12	23	6.7	–	14.0
2	5	286		290		345	±0.6	12	23	9.5	10.1	19.3
3	5	338		342		390		12	23	10.3	11.3	24.3
3	5	378		382		435		12	25	14.0	14.0	33.2
3	5	432		436		495		16	25	16.9	18.3	41.9
3	5	495		500		555		16	25	21.6	24.8	53.0
3	5	546		552		605		20	25	23.1	26.9	61.9
3	5	597		603		665		20	27	30.3	34.1	81.2
3	5	648		654		715		20	27	32.7	37.5	93.2
3	5	702		708	+2.5 −0.0	770	±0.8	24	27	35.9	42.8	106.9
3	5	751	+2.5 −0.0	758		820		24	27	38.2	45.4	120.6
3	5	802		810		880		24	33	48.7	57.4	150.5
3	5	854		862		930		24	33	51.6	60.8	167.4
3	5	904	+3.0 −0.0	912	+3.0 −0.0	980		24	33	54.4	63.5	185.1
3	5	956		964		1030		24	33	61.1	75.3	218.1
3	5	1058		1066		1130	±1.0	28	33	70.5	88.5	277.3
3	–	–		–		1240		28	33	81.7	–	331.9
3	–	–	+3.5 −0.0	–	+3.5 −0.0	1350		32	33	102.0	–	417.8
3	–	–		–		1505	±1.5	32	33	115.9	–	515.6
3	–	–		–		1660		36	33	157.4	–	659.2

Steel Pipe Flanges JIS Flanges JIS 10kg/cm²



(10K)–1

Dimensions in mm

Pipe B	Pipe A	Pipe	Bo (2)		D (2)		t (2)		T (2)		G (2)	
3/8	10	17.3	17.8	+0.5 −0.0	90	+1.0 −0.0	12	+1.0 −0.0	–	±1.0	48	±0.8
1/2	15	21.7	22.2		95		12		–		52	
3/4	20	27.2	27.7		100		14		–		58	
1	25	34.0	34.5		125		14		–		70	
1 1/4	32	42.7	43.2		135		16		–		80	
1 1/2	40	48.6	49.1		140		16		–		85	
2	50	60.5	61.1		155		16		–		100	
2 1/2	65	76.3	77.1		175		18		–		120	
3	80	89.1	90.0		185		18		–		130	
3 1/2	90	101.6	102.6	+1.0 −0.0	195		18		–		140	
4	100	114.3	115.4		210		18		–		155	
5	125	139.8	141.2		250		20		–		185	
6	150	165.2	166.6		280		22	+1.5 −0.0	–		215	
7	175	190.7	192.1		305	+1.5 −0.0	22		32		240	±0.9
8	200	216.3	218.0		330		22		32		265	
9	225	241.8	243.7		350		22		34		285	
10	250	267.4	269.5		400		24		36		325	
12	300	318.5	321.0		445		24		38		370	
14	350	355.6	358.1		490		26		42		415	
16	400	406.4	409.0	+1.5 −0.0	560		28		44		475	
18	450	457.2	460.0		620	+2.0 −0.0	30		48		530	
20	500	508.2	511.0		675		30		48		585	
22	550	558.8	562.0		745		32		52	±1.5	640	
24	600	609.6	613.0	+2.0 −0.0	795		32		52		690	±1.0
26	650	660.4	664.0		845		34		56		740	
28	700	711.2	715.0		905		34		58		800	
30	750	762.0	766.0		970		36		62		855	
32	800	812.8	817.0	+2.5 −0.0	1020	+2.5 −0.0	36		64		905	
34	850	863.6	868.0		1070		36		66		955	
36	900	914.4	919.0		1120		38		70		1005	±1.2
40	1000	1016.0	1021.0	+3.0 −0.0	1235		40		74		1110	
44	1100	1117.6	1123.0		1345		42		78		1200	
48	1200	1219.2	1224.0		1465		44		82		1325	
54	1350	1371.6	1377.0		1630	+3.0 −0.0	48		88		1480	
60	1500	1524.0	1529.0		1795		50		90		1635	

Steel Pipe Flanges JIS Flanges JIS 10kg/cm²

Blind

Plate

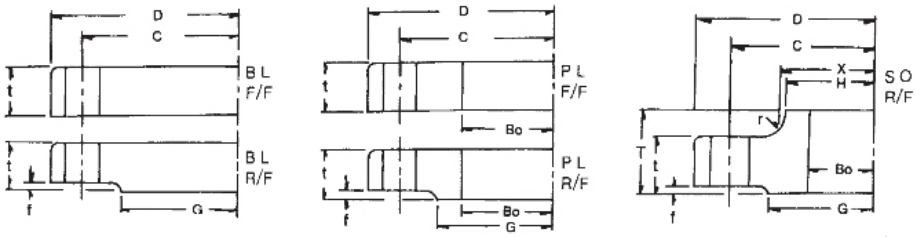
Slip-on

(10K)-2

Dimensions in mm

f	r	H (2)		X (2)		C (2)		Number of Holes	Bolt Diameter	kg/pc		
										PL	SO	BL
1	–	–		–		65		4	15	0.5	–	0.6
1	–	–		–		70		4	15	0.6	–	0.7
1	–	–		–		75		4	15	0.8	–	0.9
1	–	–		–		90		4	19	1.2	–	1.3
2	–	–		–		100		4	19	1.5	–	1.7
2	–	–		–		105		4	19	1.6	–	1.8
2	–	–		–		120	±0.5	4	19	1.9	–	3.3
2	–	–		–		140		4	19	2.6	–	3.3
2	–	–		–		150		8	19	2.6	–	3.5
2	–	–		–		160		8	19	2.8	–	4.0
2	–	–	+1.5 −0.0	–	+1.5 −0.0	175		8	19	3.2	–	4.6
2	–	–		–		210		8	23	4.8	–	7.3
2	–	–		–		240		8	23	6.4	–	10.1
2	6	208		212		265		12	23	6.8	7.3	11.8
2	6	234		238		290		12	23	7.6	8.1	14.0
2	6	260		264		310		12	23	7.8	8.5	15.8
2	6	288		292		355	±0.6	12	25	11.8	12.7	22.7
3	6	340		346		400		16	25	13.6	13.8	30.4
3	6	380		386		445		16	25	16.4	18.2	37.1
3	6	436		442		510		16	27	23.0	25.2	52.5
3	6	496		502		565		20	27	29.5	33.0	68.8
3	6	548	+2.0 −0.0	554	+2.0 −0.0	620		20	27	33.5	37.6	82.1
3	6	604		610		680		20	33	43.1	49.7	105.8
3	6	656		662		730		24	33	45.7	52.6	120.2
3	6	706	+2.5 −0.0	712	+2.5 −0.0	780	±0.8	24	33	52.1	60.6	145.0
3	6	762		770		840		24	33	59.5	70.6	167.2
3	6	816		824		900		24	33	73.2	85.8	204.2
3	6	868		876		950		28	33	76.4	91.2	225.4
3	6	920	+3.0 −0.0	928	+3.0 −0.0	1000		28	33	80.7	98.6	248.8
3	6	971		979		1050		28	33	89.4	109.0	288.4
3	6	1073		1081		1160	±1.0	28	39	109.2	133.0	367.7
3	8	1175		1185		1270		28	39	131.6	163.0	460.0
3	8	1278	+3.5 −0.0	1290	+3.5 −0.0	1380		32	39	163.5	199.0	572.2
3	8	1432		1450		1540		36	45	204.7	250.0	769.0
3	8	1585		1600		1700	±1.5	40	45	250.2	297.0	974.9

Steel Pipe Flanges JIS Flanges JIS 16kg/cm²



(16K)–1

Dimensions in mm

Pipe B	Pipe A	Pipe	Bo (2)		D (2)		t (2)		T (2)		G (2)	
3/8	10	17.3	17.8	+0.5 −0.0	90	+1.0 −0.0	12	+1.0 −0.0	16	±1.0	48	±0.8
1/2	15	21.7	22.2		95		12		16		52	
3/4	20	27.2	27.7		100		14		20		58	
1	25	34.0	34.5		125		14		20		70	
1 1/4	32	42.7	43.2		135		16		22		80	
1 1/2	40	48.6	49.1		140		16		24		85	
2	50	60.5	61.1		155		16		24		100	
2 1/2	65	76.3	77.1		175		18		26		120	
3	80	89.1	90.0		200		20		28		135	
3 1/2	90	101.6	102.6	+1.0 −0.0	210		20		30		145	
4	100	114.3	115.4		225		22	+1.5 −0.0	34		160	
5	125	139.8	141.2		270		22		34		195	
6	150	165.2	166.6		305	+1.5 −0.0	24		38		230	±0.9
7	175	190.7	192.1		325		26		40		250	
8	200	216.3	218.0		350		26		40		275	
9	225	241.8	243.7		385		26		40		325	
10	250	267.4	269.5		430		28		44		345	
12	300	318.5	321.0		480		30		48		395	
14	350	355.6	358.1		540		34		52	±1.5	440	
16	400	406.4	409.0	+1.5 −0.0	605	+2.0 −0.0	38		60		495	
18	450	457.2	460.0		675		40		64		560	
20	500	508.2	511.0		730		42		68		615	
22	550	558.8	562.0		795		44		70		670	±1.0
24	600	609.6	613.0	+2.0 −0.0	845		46		74		720	
26	650	660.4	664.0		895		48		77		770	
28	700	711.2	715.0		960		50		80		820	
30	750	762.0	766.0		1020	+2.5 −0.0	52	+2.0 −0.0	83		880	
32	800	812.8	817.0	+2.5 −0.0	1085		54		86		930	
34	850	863.6	868.0		1135		56		89		980	
36	900	914.4	919.0		1185		58		93		1030	±1.2
40	1000	1016.0	1021.0	+3.0 −0.0	1320		62		99		1140	
44	1100	1117.6	1123.0		1420		66		105	±2.0	1240	
48	1200	1219.2	1225.0		1530	+3.0 −0.0	70		112		1350	
52	1300	1320.8	1326.0		1645		74		–		1450	
54	1350	1371.6	1377.0		1700		76		–		1510	
56	1400	1422.4	1428.0		1755		78		–		1560	
60	1500	1524.0	1529.0		1865		80		–		1670	

Steel Pipe Flanges

JIS Flanges JIS 16kg/cm²

Blind

Plate

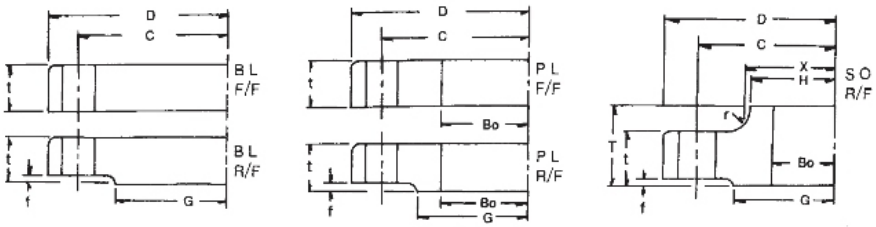
Slip-on

(16K)-2

Dimensions in mm

f	r	H (2)		X (2)		C (2)		Number of Holes	Bolt Diameter	kg/pc		
										PL	SO	BL
1	4	26		28		65		4	15	0.5	0.5	0.6
1	4	30		32		70		4	15	0.6	0.6	0.6
1	4	38		42		75		4	15	0.7	0.8	0.8
1	4	46		50		90		4	19	1.2	1.2	1.3
2	5	56		60		100		4	19	1.5	1.6	1.7
2	5	62		66		105		4	19	1.6	1.7	1.8
2	5	76	+1.0 −0.0	80	+1.0 −0.0	120	±0.5	8	19	1.7	1.8	2.1
2	5	94		98		140		8	19	2.4	2.6	3.1
2	6	108		112		160		8	23	3.5	3.7	4.5
2	6	120		124		170		8	23	3.7	4.0	5.0
2	6	134		138		185		8	23	4.5	4.9	6.3
2	6	164		170		225		8	25	6.5	7.0	9.2
2	6	196		202		260		12	25	8.7	9.6	12.8
2	6	216		222		280		12	25	10.7	10.9	16.5
2	6	244		252		305		12	25	10.9	12.1	18.6
2	6	266	+1.5 −0.0	272	+1.5 −0.0	335	±0.6	12	27	13.9	14.1	23.1
2	6	304		312		380		12	27	18.0	20.0	30.6
3	8	354		364		430		16	27	21.5	24.4	40.7
3	8	398		408		480		16	33	30.8	35.0	57.8
3	10	446		456		540		16	33	42.8	46.2	82.2
3	10	504	+2.0 −0.0	514	+2.0 −0.0	605		20	33	55.1	61.9	107.6
3	10	558		568		660		20	33	65.1	73.3	133.1
3	10	612		622		720		20	39	77.9	88.1	164.1
3	10	666		676		770	±0.8	24	39	86.0	98.8	193.2
5	10	704	+2.5 −0.0	726	+2.5 −0.0	820		24	39	96.3	101.0	227.5
5	10	754		776		875		24	42	114.1	120.0	272.6
5	10	806		832		935		24	42	132.7	141.0	321.9
5	10	865	+3.0 −0.0	885	+3.0 −0.0	990		24	48	152.1	161.0	375.6
5	10	916		936		1040		24	48	166.5	177.0	428.1
5	10	968		986		1090	±1.0	28	48	178.1	191.0	481.8
5	12	1070		1098		1210		28	56	235.3	230.0	636.0
5	12	1080		1200		1310		32	56	267.9	289.0	784.0
5	12	1282	+3.5 −0.0	1302	+3.5 −0.0	1420		32	56	321.1	348.0	972.4
5	–	–		–		1530		32	62	378.6	–	1185.2
5	–	–		–		1590	±1.5	32	62	410.0	–	1303.8
5	–	–		–		1640		36	62	436.0	–	1422.5
5	–	–		–		1750		36	62	496.4	–	1656.6

Steel Pipe Flanges JIS Flanges JIS 20kg/cm²



(20K)–1

Dimensions in mm

Pipe B	Pipe A	Pipe	Bo (2)		D (2)		t (2)		T (2)		G (2)	
3/8	10	17.3	17.8	+0.5 −0.0	90	+1.0 −0.0	14	+1.0 −0.0	20	±1.0	48	±0.8
1/2	15	21.7	22.2		95		14		20		52	
3/4	20	27.2	27.7		100		16		22		58	
1	25	34.0	34.5		125		16		24		70	
1 1/4	32	42.7	43.2		135		18		26		80	
1 1/2	40	48.6	49.1		140		18		26		85	
2	50	60.5	61.1		155		18		26		100	
2 1/2	65	76.3	77.1		175		20		30		120	
3	80	89.1	90.0		200		22	+1.5 −0.0	34		135	
3 1/2	90	101.6	102.6	+1.0 −0.0	210		24		36		145	
4	100	114.3	115.4		225		24		36		160	
5	125	139.8	141.2		270		26		40		195	
6	150	165.2	166.6		305	+1.5 −0.0	28		42		230	±0.9
7	175	190.7	192.1		325		30		46		250	
8	200	216.3	218.0		350		30		46		275	
9	225	241.8	243.7		385		32		48		300	
10	250	267.4	269.5		430		34		52	±1.5	345	
12	300	318.5	321.0		480		36		56		395	
14	350	355.6	358.1		540		40		62		440	
16	400	406.4	409.0	+1.5 −0.0	605	+2.0 −0.0	46		70		495	
18	450	457.2	460.0		675		48		78		560	
20	500	508.2	511.0		730		50		84		615	
22	550	558.8	562.0		795		52	+2.0 −0.0	90		670	±1.0
24	600	609.6	613.0	+2.0 −0.0	845		54		96		720	
26	650	660.4	664.0		945		60		–		790	
28	700	711.2	715.0		995		64		–		840	
30	750	762.0	766.0		1080	+2.5 −0.0	68		–		900	
32	800	812.8	817.0	+2.5 −0.0	1140		72		–		960	
34	850	863.6	868.0		1200		74		–		1020	±1.2
36	900	914.4	919.0		1250		76		–		1070	

Steel Pipe Flanges JIS Flanges JIS 20kg/cm²

Blind

Plate

Slip-on

(20K)-2

Dimensions in mm

f	r	H (2)		X (2)		C (2)		Number of Holes	Bolt Diameter	kg/pc		
										PL	SO	BL
1	4	30	+1.0 −0.0	32	+1.0 −0.0	65	±0.5	4	15	0.6	0.6	0.6
1	4	34		36		70		4	15	0.7	0.7	0.7
1	4	40		42		75		4	15	0.8	0.8	0.9
1	4	48		50		90		4	19	1.3	1.3	1.5
2	5	56		60		100		4	19	1.5	1.6	1.8
2	5	62		66		105		4	19	1.7	1.7	2.0
2	5	76		80		120		8	19	1.9	1.9	2.4
2	5	100		104		140		8	19	2.6	2.6	3.4
2	6	113		117		160		8	23	3.8	3.9	4.9
2	6	126		130		170		8	23	4.4	4.6	6.0
2	6	138		142		185		8	23	4.9	5.1	6.9
2	6	166		172		225		8	25	7.8	8.3	11.0
2	6	196		202		260	±0.6	12	25	10.1	10.6	14.9
2	6	218		226	+1.5 −0.0	280		12	25	12.0	12.1	19.0
2	6	244	+1.5 −0.0	252		305		12	25	12.6	13.3	21.4
2	6	266		274		335		12	27	16.0	16.3	28.5
2	6	304		312		380		12	27	21.9	23.4	37.2
3	8	354		364		430		16	27	25.8	27.7	48.8
3	8	398		408		480		16	33	36.2	39.2	68.0
3	10	446		456	+2.0 −0.0	540		16	33	51.7	54.2	99.4
3	10	504	+2.0 −0.0	514		605	±0.8	20	33	61.1	71.7	129.1
3	10	558		568		660		20	33	77.4	86.2	158.4
3	10	612		622		720		20	39	92.2	105.0	194.0
3	10	666	+2.5 −0.0	676	+2.5 −0.0	770		24	39	101.1	119.0	226.9
5	–	–		–		850		24	48	147.6	–	311.6
5	–	–		–		900		24	48	168.0	–	370.9
5	–	–		–		975	±1.0	24	56	212.7	–	460.1
5	–	–		–		1030		24	56	248.5	–	546.5
5	–	–		–		1090		24	56	280.5	–	626.2
5	–	–		–		1140		28	56	296.9	–	694.9

Dimensional Tolerances ANSI B16.5

Thread, Slip-on, Lap Joint, Socket Welding and Blind

Outside Diameter*	O.D. 24 inch or smaller ··· ±1/16 inch
	O.D. over 24 inch ··· ±1/8 inch
Inside Diameter (bore)	threaded: to standard gauge limits Slip-on; Lap joint; Socket-welding
	10 inch and smaller ··· +1/32-0 inch
	12 inch and smaller ··· +1/16-0 inch
Diameter counter bore	threaded
	10 inch and smaller ··· +1/32-0 inch
	12 inch and large ··· +1/16-0 inch
Outside Diameter of Hub *	12 inch and smaller ··· +3/32-1/16 inch
	14 inch and large ··· ±1/8 inch
Diameter of contact face	1/16 inch raised face; 1/4 inch raised face; tongue & grooved
	Male & Female ··· ±1/64 inch
Thickness	18 inch and smaller ··· +1/8-0 inch
	20 inch and large ··· +3/16-0 inch
Length Through Hub*	18 inch and smaller ··· +1/8-1/32 inch
	20 inch and large ··· +3/16-1/16 inch
Drilling*	bolt circle ··· ±1/16 inch
	bolt hole spacing ··· ±1/32 inch
	Eccentricity with respectto bore ··· 1/32 inch maximum

Welding Neck

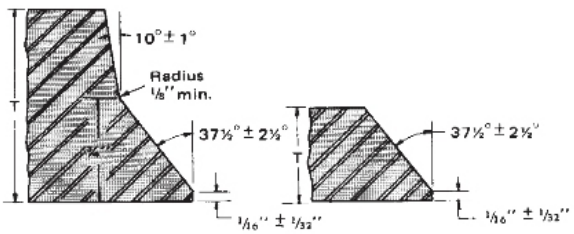
Outside Diameter*	O.D. 24 inch or smaller ··· ±1/16 inch
	O.D. over 24 inch ··· ±1/8 inch
Inside Diameter (bore)	10 inch and smaller ··· ±1/32 inch
	12 through 18 inch ··· ±1/16 inch
	20 inch and large ··· +1/8-1/16 inch
Diameter count face	1/16 inch raised face; 1/4 inch raised face; tougue & grooved
	Male & Female ··· ±1/64 inch
Diameter of Hub at Base*	when x is 24 inch or smaller ··· ±1/16 inch
	when x is over 24 inch ··· ±1/8 inch
Diameter of Hub at Point of Welding	5 inch and smaller ··· +3/32-1/32 inch
	6 inch and large ··· +5/32-1/32 inch
Thickness	18 inch and smaller ··· +1/8-0 inch
	20 inch and large ··· +3/16-0 inch
Length Through Hub*	10 inch and smaller ··· ±1/16 inch
	12 inch and large ··· ±1/8 inch
Drilling*	bolt circle ··· ±1/16 inch
	bolt hole spacing ··· ±1/32 inch
	Eccentricity with respect to bore ··· 1/32 inch maximum

* Not Covered by ANSI B16.5

1 Ring Joint Facing

Depth L ··· + 1/64–0 inch
Width F ··· ± 0.008 inch
Pitch Diameter P ··· ± 0.005 inch
Radius at Bottom r ··· max
23° angle ··· ± 1/2°

2 Welding Bevels



Butt welding ends having thicknesses (T) less than 3/16 inch may have a slight chamfer or be square; thicknesses of 3/16 to 3/4 inch inclusive shall be beveled 371/2° and the root face (land) shall be 1/16 inch; thicknesses greater than 3/4 inch shall be beveled 371/2° with the thickness beyond 3/4 inch beveled 10°.

3 Orifice Flange

For orifice flanges (not covered by ANSI B16.5) the usual tolerance on the dimensions 15/16 inch from gasket surface to meter connection tap is ± 1/64 inch for sizes 3 inch and smaller, ± 1/32 inch for sizes 4 inch and larger; regular flange tolerances apply to all other dimensions expect bore tolerances which are 1/2 of 1 percent of nominal bore size.

Material Specifications ASTM

Specification or stadards designation	Symbol	Chemical Requirements											Mechanical Requirements				
		C	Mn	P	S	Si	Ni	Cr	Mo	V	Nb	Cu	T.S. min.	Y.S. min.	EL. min.	RED. min.	HB min.
		%	%	%	%	%	%	%	%	%	%	%	psi	psi	%	%	max.
A105		Max. 0.35	Max. 0.60 1.05	Max. 0.040	Max. 0.050	Max. 0.35	Max. 0.40	Max. 0.30	Max. 0.12	Max. 0.03	Max. 0.02	Max. 0.40	70,000	36,000	22	30	137 ~187
A181	I	0.35	1.10	0.050	0.050	0.35							60,000	30,000	22	35	
A181	I1	0.35	1.10	0.050	0.050	0.35							70,000	36,000	18	24	
A182	F1	0.28	0.60 ~0.90	0.045	0.045	0.15 ~0.35			0.44 ~0.65				70,000	40,000	25	35	143 ~192
A182	F2	0.21	0.30 ~0.80	0.040	0.040	0.10 ~0.60	0.50 Max	0.50 ~0.81	0.44 ~0.65				70,000	40,000	20	30	143 ~192
A182	F5	0.15	0.30 ~0.60	0.030	0.030	0.50	0.50 Max	4.00 ~6.00	0.44 ~0.65				70,000	40,000	20	35	143 ~217
A182	F5a	0.25	0.60	0.040	0.030	0.50		4.00 ~6.00	0.44 ~0.65				90,000	65,000	22	50	187 ~248
A182	F9	0.15	0.30 ~0.60	0.030	0.030	0.50 ~1.00		8.00 ~10.00	0.90 ~1.10				85,000	55,000	20	40	179 ~207
A182	F11	0.10 ~0.20	0.30 ~0.80	0.040	0.040	0.05 ~1.00		1.00 ~1.50	0.44 ~0.65				70,000	40,000	20	30	143 ~207
A182	F12	0.10 ~0.20	0.30 ~0.80	0.040	0.040	0.10 ~0.60		8.00 ~10.00	0.44 ~0.65				70,000	40,000	20	30	143 ~207
A182	F21	0.15	0.30 ~0.60	0.040	0.040	0.50		2.65 ~3.35	0.80 ~1.06				75,000	45,000	20	30	156 ~207
A182	F22	0.15	0.30 ~0.60	0.040	0.040	0.50		2.00 ~2.50	0.87 ~1.13				75,000	45,000	20	30	156 ~207
A182	F304	0.08	2.00	0.040	0.030	1.00	8.00 ~11.00	18.00 ~20.00					75,000	30,000	30	50	
A182	F304H	0.04 ~0.10	2.00	0.040	0.030	1.00	8.00 ~11.00	18.00 ~20.00					75,000	30,000	30	50	
A182	F304L	0.035	2.00	0.040	0.030	1.00	8.00 ~13.00	18.00 ~20.00					70,000	25,000	30	50	
A182	F310	0.15	2.00	0.040	0.030	1.00	19.00 ~20.00	24.00 ~26.00					75,000	30,000	30	50	
A182	F316	0.08	2.00	0.040	0.030	1.00	10.00 ~14.00	16.00 ~18.00	2.00 ~3.00				75,000	30,000	30	50	
A182	F316H	0.04 ~0.10	2.00	0.040	0.030	1.00	10.00 ~14.00	16.00 ~18.00	2.00 ~3.00				75,000	30,000	30	50	
A182	F316L	0.035	2.00	0.040	0.030	1.00	10.00 ~15.00	16.00 ~18.00	2.00 ~3.00				70,000	25,000	30	50	
A182	F321	0.08	2.00	0.030	0.030	1.00	9.00 ~12.00	17.00 ~Min.					75,000	30,000	30	50	
A182	F347	0.08	2.00	0.030	0.030	1.00	9.00 ~13.00	17.00 ~20.00					75,000	30,000	30	50	
A182	F348	0.08	2.00	0.030	0.030	1.00	9.00 ~13.00	17.00 ~20.00					75,000	30,000	30	50	
A350	LF1	0.30	0.75 ~1.05	0.035	0.040	0.15 ~0.30							60,000 ~85,000	30,000	25	38	
A350	LF2	0.30	1.35	0.035	0.040	0.15 ~0.30							70,000 ~95,000	36,000	22	30	
A350	LF3	0.20	0.90	0.035	0.040	0.20 ~0.35	3.25 ~3.75						70,000 ~95,000	37,500	22	35	

Approx. Weight List ANSI B16.5 Forged Flanges

Unit Pound And (kg)

Class	Nominal Pipe Size	Slip on Type				Blind	Welding Neck
		Slip On	Screwed	Socket	Lap Joint		
150 lb	1/2	1 (0.45)	1 (0.45)	2 (0.91)	2 (0.91)	2 (0.91)	2 (0.91)
	3/4	1 1/2 (0.68)	1 1/2 (0.68)	2 (0.91)	2 1/2 (0.91)	2 (0.91)	2 (0.91)
	1	2 (0.91)	2 (0.91)	2 (0.91)	2 (0.91)	2 (0.91)	2 1/2 (1.14)
	1 1/4	2 1/2 (1.14)	2 1/2 (1.14)	3 (1.36)	3 1/2 (1.36)	3 (1.36)	2 1/2 (1.14)
	1 1/2	3 (1.36)	3 (1.36)	3 (1.36)	3 (1.36)	3 (1.36)	4 (1.81)
	2	5 (2.18)	5 (2.27)	5 (2.27)	5 (2.27)	4 (1.82)	6 (2.72)
	2 1/2	8 (3.45)	8 (3.63)	7 (3.18)	8 (3.63)	7 (3.18)	10 (4.45)
	3	9 (4.01)	10 (4.54)	8 (3.63)	9 (4.09)	9 (4.09)	11 1/2 (5.22)
	3 1/2	11 (4.99)	12 (5.45)	11 (4.99)	11 (4.99)	13 (5.90)	12 (5.45)
	4	13 (5.63)	13 (5.90)	13 (5.90)	13 (5.90)	17 (7.72)	16 1/2 (7.49)
	5	15 (6.74)	15 (6.81)	15 (6.81)	15 (6.81)	20 (9.08)	21 (9.53)
	6	17 (7.90)	19 1/2 (8.85)	19 (8.63)	19 (8.63)	27 (12.26)	26 (11.80)
	8	28 (12.90)	30 (13.62)	30 (13.62)	30 (13.62)	47 (21.34)	42 (19.07)
	10	40 (17.60)	41 (18.61)	43 (19.52)	43 (19.52)	67 (30.42)	54 (24.52)
	12	61 (27.69)	65 (29.51)	64 (29.06)	64 (29.06)	123 (45.00)	88 (39.95)
	14	83 (37.68)	85 (38.59)	85 (38.59)	99 (44.95)	139 (63.11)	114 (51.76)
	16	106 (48.12)	93 (42.22)	93 (42.22)	128 (58.11)	187 (84.90)	142 (64.47)
	18	109 (49.49)	120 (54.48)	120 (54.48)	146 (66.28)	217 (98.52)	165 (74.90)
	20	148 (67.19)	155 (70.37)	155 (70.37)	185 (83.99)	283 (128.48)	197 (89.44)
	24	204 (92.62)	210 (95.34)	210 (95.34)	260 (118.04)	415 (188.41)	268 (121.67)
300 lb	1/2	1 1/2 (0.68)	1 1/2 (0.68)	3 (1.36)	3 (1.36)	2 (0.91)	2 (0.91)
	3/4	2 1/2 (1.14)	2 1/2 (1.14)	3 (1.36)	3 (1.36)	3 (1.36)	3 (1.36)
	1	3 (1.36)	3 (1.36)	3 (1.36)	3 (1.36)	4 (1.82)	4 (1.82)
	1 1/4	4 1/2 (2.04)	4 1/2 (2.04)	4 (1.82)	4 1/2 (2.04)	6 (2.72)	5 (2.72)
	1 1/2	6 1/2 (2.95)	6 1/2 (2.95)	6 (2.72)	6 1/2 (2.95)	7 (3.18)	7 (3.18)
	2	7 (3.18)	7 (3.18)	7 (3.18)	7 (3.18)	8 (3.63)	8 (3.63)
	2 1/2	10 (4.54)	10 (4.54)	10 (4.54)	10 (4.54)	12 (5.45)	12 (5.45)
	3	13 (5.90)	14 (6.36)	13 (5.90)	14 1/2 (6.58)	16 (7.26)	18 (8.17)
	3 1/2	16 (7.26)	16 (7.26)	17 (7.72)	17 (7.72)	21 (9.53)	20 (9.1)
	4	23 1/2 (10.67)	24 (10.90)	22 (9.99)	24 (10.90)	28 (12.71)	26 1/2 (12.03)
	5	29 (13.17)	31 (14.07)	–	28 (12.71)	37 (16.80)	36 (16.34)
	6	36 (16.34)	36 (16.34)	–	39 (17.71)	48 (21.79)	45 (20.43)
	8	56 (25.42)	56 (25.42)	–	58 (26.33)	79 (35.87)	69 (31.33)
	10	77 (34.96)	80 (36.32)	–	91 (41.31)	122 (55.39)	100 (45.4)
	12	113 (51.30)	110 (49.94)	–	139 (63.11)	183 (83.08)	142 (64.47)
	14	159 (72.19)	164 (74.46)	–	189 (85.81)	241 (109.41)	206 (93.52)
	16	210 (95.34)	220 (99.88)	–	240 (108.96)	315 (143.01)	249 (113.05)
	18	253 (114.86)	280 (127.12)	–	305 (138.47)	414 (187.96)	306 (138.92)
	20	307 (139.38)	325 (147.55)	–	375 (170.25)	515 (233.81)	369 (167.53)
	24	490 (222.46)	490 (222.46)	–	530 (240.62)	800 (363.2)	519 (235.63)

Approx. Weight List ANSI B16.5 Forged Flanges

Unit Pound And (kg)

Class	Nominal Pipe Size	Slip on Type			Blind	Welding Neck
		Slip On	Screwed	Lap Joint		
400 lb	1/2	2 (0.91)	2 (0.91)	3 (1.36)	2 (0.91)	3 (1.36)
	3/4	3 (1.36)	3 (1.36)	3 (1.36)	3 (1.36)	3 1/2 (1.59)
	1	3 1/2 (1.59)	3 1/2 (1.59)	4 (1.82)	4 (1.82)	4 (1.82)
	1 1/4	4 1/2 (2.04)	4 1/2 (2.04)	6 (2.72)	6 (2.72)	5 1/2 (2.50)
	1 1/2	6 1/2 (2.95)	6 1/2 (2.95)	7 (3.18)	8 (3.63)	8 (3.63)
	2	8 (3.63)	8 (3.63)	9 (4.09)	10 (4.54)	10 (4.54)
	2 1/2	12 (5.45)	12 (5.45)	12 (5.45)	15 (6.81)	14 (6.36)
	3	15 (6.81)	15 (6.81)	15 (6.81)	20 (9.08)	18 (8.17)
	3 1/2	21 (9.53)	21 (9.53)	20 (9.08)	29 (13.17)	26 (11.80)
	4	24 (10.9)	24 (10.9)	25 (11.35)	33 (14.98)	30 (13.62)
	5	31 (14.07)	31 (14.07)	29 (13.17)	44 (19.98)	39 (17.71)
	6	39 (17.71)	39 (17.71)	42 (19.07)	61 (27.69)	49 (22.45)
	8	63 (28.60)	63 (28.60)	64 (29.06)	100 (45.4)	78 (35.41)
	10	91 (41.31)	91 (41.31)	112 (50.85)	155 (70.37)	110 (49.94)
	12	129 (58.57)	129 (58.57)	152 (69.01)	226 (102.60)	160 (72.64)
	14	191 (86.71)	191 (86.71)	210 (95.34)	310 (140.74)	233 (105.78)
	16	253 (114.86)	253 (114.86)	280 (127.12)	398 (180.69)	194 (133.78)
	18	310 (140.74)	310 (140.74)	345 (156.63)	502 (227.91)	360 (163.44)
	20	378 (171.61)	378 (171.61)	420 (190.68)	621 (281.93)	445 (202.03)
	24	539 (244.71)	539 (244.71)	615 (279.21)	936 (424.94)	640 (290.56)
600 lb	1/2	2 (0.91)	2 (0.91)	3 (1.36)	2 (0.91)	3 (1.36)
	3/4	3 (1.36)	3 (1.36)	3 (1.36)	3 (1.36)	3 1/2 (1.59)
	1	3 1/2 (1.59)	3 1/2 (1.59)	4 (1.82)	4 (1.82)	4 (1.82)
	1 1/4	4 1/2 (2.04)	4 1/2 (2.04)	6 (2.72)	6 (2.72)	5 1/2 (2.50)
	1 1/2	6 1/2 (2.95)	6 1/2 (2.95)	7 (3.18)	8 (3.63)	8 (3.63)
	2	8 (3.63)	8 (3.63)	9 (4.09)	10 (4.54)	10 (4.54)
	2 1/2	12 (5.45)	12 (5.45)	12 (5.45)	15 (6.81)	14 (6.36)
	3	15 (6.81)	15 (6.81)	15 (6.81)	20 (9.08)	18 (8.17)
	3 1/2	21 (9.53)	21 (9.53)	20 (9.08)	29 (13.17)	26 (11.80)
	4	33 (14.98)	33 (14.98)	36 (16.34)	41 (18.61)	37 (16.80)
	5	63 (28.60)	63 (28.60)	63 (28.60)	68 (30.87)	68 (30.87)
	6	80 (36.32)	80 (36.32)	78 (35.41)	86 (39.04)	73 (33.14)
	8	97 (44.04)	97 (44.04)	112 (50.85)	139 (63.11)	112 (50.85)
	10	177 (80.36)	177 (80.36)	195 (88.53)	231 (104.87)	189 (85.81)
	12	215 (97.61)	215 (97.61)	240 (108.96)	295 (133.93)	226 (102.60)
	14	259 (117.59)	259 (117.59)	290 (131.66)	378 (148.91)	347 (157.54)
	16	366 (166.16)	366 (166.16)	400 (181.6)	527 (239.26)	481 (218.37)
	18	476 (216.10)	476 (216.10)	469 (212.93)	665 (301.91)	555 (251.97)
	20	612 (277.85)	612 (277.85)	604 (274.22)	855 (388.17)	690 (313.26)
	24	876 (397.70)	876 (397.70)	866 (393.16)	1175 (533.45)	977 (443.56)

Approx. Weight List ANSI B16.5 Forged Flanges

Unit Pound And (kg)

Class	Nominal Pipe Size	Slip on Type			Blind	Welding Neck
		Slip On	Screwed	Lap Joint		
900 lb	1/2	6 (2.72)	6 (2.72)	9 (4.09)	4 (1.82)	7 (3.18)
	3/4	6 (2.72)	6 (2.72)	9 (4.09	6 (2.72)	7 (3.18)
	1	7 1/2 (3.41)	7 1/2 (3.41)	9 (4.09)	9 (4.09)	8 1/2 (3.86)
	1 1/4	10 (4.54)	10 (4.54)	10 (4.54)	10 (4.54)	10 (4.54)
	1 1/2	14 (6.36)	14 (6.36)	14 (6.36)	14 (6.36)	14 (6.36)
	2	22 (9.99)	22 (9.99)	25 (11.35)	25 (11.35)	24 (10.90)
	2 1/2	36 (16.34)	36 (16.34)	35 (15.89)	35 (15.89)	36 (16.34)
	3	31 (14.07)	31 (14.07)	20 (13.62)	32 (14.53)	29 (13.17)
	4	53 (24.06)	53 (24.06)	51 (23.15)	54 (24.52)	51 (23.15)
	5	83 (37.68)	83 (37.68)	81 (36.77)	87 (39.50)	86 (39.04)
	6	108 (49.03)	108 (49.03)	105 (47.67)	113 (51.30)	110 (49.94)
	8	172 (78.09)	172 (78.09)	188 (85.35)	197 (89.44)	187 (84.90)
	10	245 (111.23)	245 (111.23)	277 (125.76)	290 (131.66)	268 (121.67)
	12	326 (148.00)	326 (148.00)	371 (168.43)	413 (187.50)	372 (168.89)
	14	380 (172.52)	380 (172.52)	397 (180.24)	494 (224.28)	567 (255.15)
	16	459 (208.39)	459 (208.39)	488 (221.55)	619 (281.03)	685 (310.99)
	18	647 (293.74)	647 (293.74)	670 (304.18)	880 (399.52)	924 (419.50)
	20	792 (359.57)	792 (359.57)	868 (394.07)	1107 (502.58)	1164 (528.46)
	24	1480 (671.92)	1480 (671.92)	1659 (753.19)	2099 (952.95)	2107 (956.58)
1500 lb	1/2	6 (2.72)	6 (2.72)	9 (4.09)	4 (1.82)	7 (3.18)
	3/4	6 (2.72)	6 (2.72)	9 (4.09)	6 (2.72)	7 (3.18)
	1	7 1/2 (3.41)	7 1/2 (3.41)	9 (4.09)	9 (4.09)	8 1/2 (3.86)
	1 1/4	10 (4.54)	10 (4.54)	10 (4.54)	10 (4.54)	10 (4.54)
	1 1/2	14 (6.36)	14 (6.36)	14 (6.36)	14 (6.36)	14 (6.36)
	2	22 (9.99)	22 (9.99)	25 (11.35)	25 (11.35)	24 (10.90)
	2 1/2	36 (16.34)	36 (16.34)	35 (15.9)	35 (15.89)	36 (16.34)
	3	48 (21.79)	48 (21.79)	47 (21.3)	48 (21.79)	48 (21.79)
	4	73 (33.14)	73 (33.14)	75 (34.05)	73 (33.14)	69 (31.33)
	5	132 (59.93)	132 (59.93)	138 (62.65)	142 (64.47)	132 (59.93)
	6	164 (74.46)	164 (74.46)	170 (77.18)	159 (72.19)	164 (74.46)
	7	258 (117.13)	258 (117.13)	286 (129.84)	302 (137.11)	273 (123.94)
	10	436 (197.94)	436 (197.94)	485 (220.19)	507 (230.18)	454 (206.12)
	12	667 (302.82)	667 (302.82)	749 (340.05)	775 (351.85)	690 (313.26)
2500 lb	1/2	7 (3.18)	7 (3.18)	7 (3.18)	7 (3.18)	8 (3.63)
	3/4	9 (4.09)	9 (4.09)	8 (3.63)	10 (4.54)	9 (4.09)
	1	12 (5.45)	12 (5.45)	12 (5.45)	12 (5.45)	13 (5.90)
	1 1/4	18 (8.17)	18 (8.17)	17 (7.72)	18 (8.17)	20 (9.08)
	1 1/2	25 (11.35)	25 (11.35)	24 (10.90)	25 (11.35)	28 (12.71)
	2	38 (17.25)	38 (17.25)	37 (16.80)	39 (17.71)	42 (19.07)
	2 1/2	55 (24.97)	55 (24.97)	53 (24.06)	56 (25.42)	52 (23.61)
	3	83 (37.68)	83 (37.68)	80 (36.32)	86 (39.04)	94 (42.68)
	4	127 (57.66)	127 (57.66)	122 (55.39)	133 (60.38)	146 (66.28)
	5	210 (95.34)	210 (95.34)	204 (92.62)	223 (101.24)	224 (110.78)
	6	323 (146.64)	323 (146.64)	314 (142.56)	345 (156.63)	378 (171.61)
	8	485 (220.19)	485 (220.19)	471 (213.83)	533 (241.98)	576 (261.50)
	10	925 (419.95)	925 (419.95)	897 (407.24)	1025 (465.35)	1068 (484.87)
	12	1300 (590.2)	1300 (590.2)	1262 (572.95)	1464 (644.66)	1608 (730.03)

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