

COMPANY INTRODUCTION

PROFILE

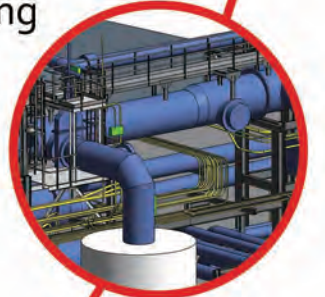
ALPSIAN was born in 2012 in Shanghai as a company committed to providing quality industrial products (mainly pipeline products) and services to worldwide projects in following industries:

- 1>Oil and Gas
- 2>Power
- 3>Chemical
- 4>Petrochemical
- 5>Mining/Minerals
- 6>Water and Sewage network lines

Composed of highly qualified, skilled, and experienced engineers and inspectors, we are confident to manage every aspect of our undertaken projects. Over the past ten years, our proven technologies, products and services have been acknowledged by VEOLIA, KOGAS, DUGAS, SAZEH, NIOC, METSO, etc.

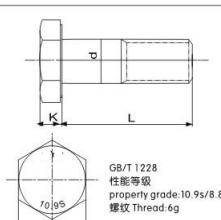
Why are we doing better than others? it comes from following works:

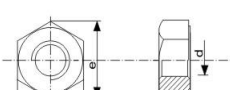
No compromises on quality (as per client's requests)
High-efficient communication skills with clients.
Over 200 audited manufacturers & machining shops.
Production A to Z stages inspection system.
Professional makes great work, we are greatly honored to take any of your inquiries.

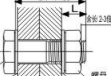




■GB/T1231-2006

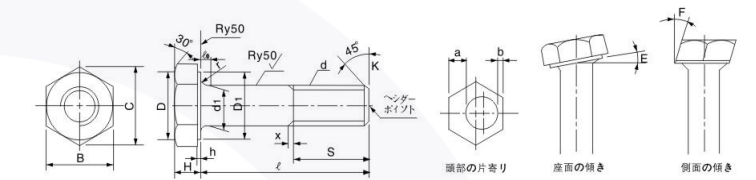
 GB/T 1228 性能等级 property grade:10.9s/8.8s 螺纹 Thread:6g	螺栓尺寸 BOLT DIMENSIONS(mm)						螺纹规格d		M16	M20	M22	M24	M27	M30	
	d	16	20	22	24	27	30	公称应力截面积 As/mm²							
	S	27	34	36	41	46	50		157	245	303	353	459	561	
	K	10	12.5	14	15	17	18.7								
	L	45-130	50-160	55-220	60-240	65-260	70-260		10.9S	保证载荷KN	163-195	255-304	315-376	367-438	477-569

 GB/T 1229 性能等级 property grade:10H/8H 螺纹 Thread 6H	螺母尺寸 NUT DIMENSIONS(mm)						螺纹规格d		M16	M20	M22	M24	M27	M30
	d	16	20	22	24	27	30	公称应力截面积 As/mm²	157	245	303	353	459	561
	S	27	34	36	41	46	50		1040					
	m	17.1	20.7	23.6	24.2	27.6	30.7 <th>保证应力Sp/Mpa</th>	保证应力Sp/Mpa						
	e	29.6	37.7	39.6	45.2	50.9	55.4	10H	保证载荷/KN	163	255	315	367	477

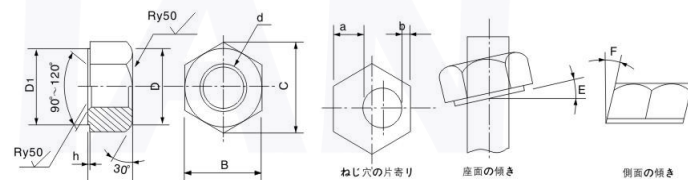
 GB/T 1230 性能等级 property grade:HRC35-45	垫圈尺寸 WASHER NUT DIMENSIONS(mm)						机械性能/MECHANICAL PROPERTIES								
	d	16	20	22	24	27	30								
	d1	17	21	23	25	28	31	d	16	20	22	24	27	30	
	d2	33	40	42	47	52	56	Rm/Mpa	1040	≥940	≥10	≥42	≥47	0.110-0.150	≤0.01
	H	4	4	5	5	5	5	屈服强度 Yield strength	≥1040	≥940	≥10	≥42	≥47	0.110-0.150	≤0.01
螺栓长度计算方法/CALCUATION METHOD OF BOLT LENGTH															
d								16	20	22	24	27	30	螺栓长度=连接板厚度×1.1 L1=螺母厚度+垫圈厚度×(2-3) 公称值	
L								30	35	35	40	45	50	L=总长=连接板厚度×1.1 L1=螺母厚度+垫圈厚度×(2-3) 公称值 L1=nut thickness+2xwasher thickness+(2-3) thread pitch	

■日标 (JIS B1186)

钢结构用高强度大六角螺栓连接副



単位 (mm)																		
ねじの呼び (d)	d1(t)		H		B		C	D	D1	r	K	a-b	E	F	h	s		
	基準 寸法	許容差	基準 寸法	許容差	基準 寸法	許容差	約	約	最小		約	最大	最大	最大		基準 寸法	許容差	
M16	16	+0.7 -0.2	10	±0.8	27	0 -0.8	31.2	25	25	1.2~2.0	2	0.8	1°	2°	0.4~0.8	30	+5 0	
M20	20		13		32		37	30	29		2.5	0.9					35	
M22	22		14	±0.9	36		41.6	34	33		1.1					40		
M24	24	+0.8 -0.4	15		41	0 -1	47.3	39	38	1.6~2.4	3	1.2				45	+6 0	
M27	27		17		46		53.1	44	43			1.3					50	
M30	30		19	±1.0	50		57.7	48	47	2.0~2.8	3.5	1.5				55		

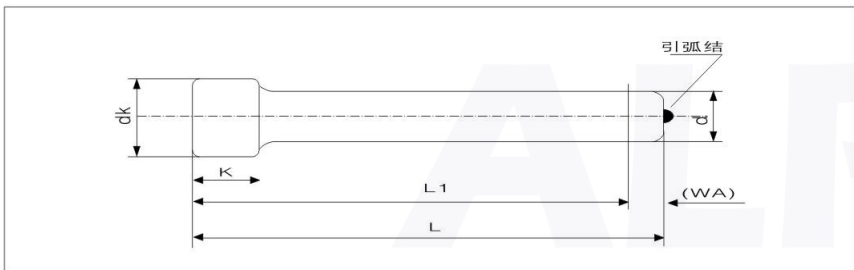


ねじの呼び (d)	ねじの外径	H		B		C	D	D1	a-b		E		F		h
		基準 寸法	許容差	基準 寸法	許容差	約	約	最小	約	最大	約	最大	約	最大	
M16	16	16	± 0.35	27	0 -0.8	31.2	25	25	0.8						
M20	20	20		32		37	30	29	0.9						
M22	22	22		36		41.6	34	33	1.1						
M24	24	24	± 0.4	41	0 -1	47.3	39	38	1.2		1°	2°	0.4~0.8		
M27	27	27		46		53.1	44	43	1.3						
M30	30	30		50		57.7	48	47	1.5						

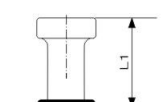
座金の呼び (d)	d		D		t		Cまたは r
	基準 寸法	許容差	基準 寸法	許容差	基準 寸法	許容差	
16	17	$+0.7$ 0	32		4.5	± 0.5	1.5
20	21		40	0 -1			2
22	23	$+0.8$ 0	44				
24	25		48		6	± 0.7	2.4
27	28		56	0 -1.2			
30	31	$+1.0$ 0	60		8		2.8



GB/T10433-2002



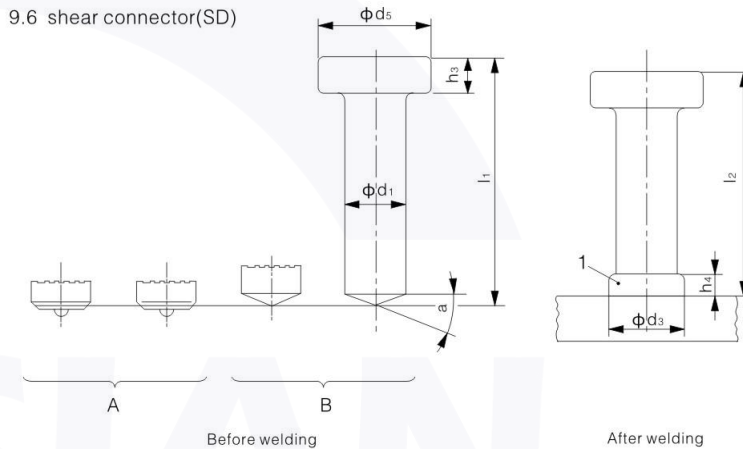
焊钉尺寸/STUD DIMENSIONS							
d	公称	10	13	16	19	22	25
	min	9.64	12.57	15.57	18.48	21.48	24.48
dk	min	17.65	21.58	28.58	31.5	34.5	39.5
	max	18.35	22.42	29.42	32.5	35.5	40.5
K	min	6.55	7.55	7.55	9.55	9.55	11.45
	max	7.45	8.45	8.45	10.45	10.45	12.55
WA参考		4	5	5	6	6	6
L1		40-180	40-200	50-250	60-300	80-300	80-300

		材料化学成份/chemical compositions of material(%)						
		材料	C	Si	Mn	P	S	Al
		ML15Al	0.13-0.18	≤0.10	0.30-0.60	≤0.035	≤0.035	≥0.020
		机械性能/MECHANICAL PROPERTIES						
国别		抗拉强度 σ _b (N/mm ²)	屈服点 σ _{p0.2} (N/mm ²)		伸长率 δ _s (%)		收缩率 ψ (%)	
中国GB/T10433		≥400	≥320		δ _s ≥ 14		—	
		机械性能/MECHANICAL PROPERTIES						
国别		焊 钉 规 格						
		10	13	16	19	22	25	
中国 GB/T10433	拉力载荷 N	32970	55860	84420	119280	159600	206220	
	弯曲试验	用锤打击焊钉，使焊钉弯曲30°时，其焊缝和热影响区无肉眼可见裂缝。						

国际标准(ISO13918)

电弧螺柱焊用圆柱头焊钉

9.6 shear connector(SD)



Key
1 Weld Collar
A Shape A of tip(example)
B Shape B of tip(example)

Figure 5-Shear Connector(SD)

Table 10-Dimensions of shear connectors(SD)with/2 according to Table A.4

Dimensions in Millimetres								
$d_1-0.4^{a,e}$	9.5	10	12.7	13	16	19	22	25 25.4
$d_{\pm 0.3}$	19		25		32	32 ^d	35	41
d_1^c	13		17		21	23	29	31
$h_1 \pm 0.5$	7		8		8	10	10	12
h_1^c	2.5		3		4.5	6	6	7
$\alpha \pm 2.5^\circ$	22.5°		22.5°		22.5°	22.5°	22.5°	22.5°
$l_1 \pm 1.5$	$l_2^{b,c}+3$		$l_2^{b,c}+3$		$l_2^{b,c}+4$	$l_2^{b,c}+4.5$	$l_2^{b,c}+5$	$l_2^{b,c}+5.5$

技术要求 technical requirements	材料 material	抗拉强度 σ_b (N/mm ²)	屈服强度 (N/mm ²)	伸长率 δ_5 (%)
SD1	SWRCH15A 18A	≥450	≥350	$\delta_5 \geq 15$
SD2	SWRCH15A	≥400	≥320	$\delta_5 \geq 14$
特殊	Q345D	≥495	≥395	$\delta_5 \geq 18$



■GB/T3632-2008

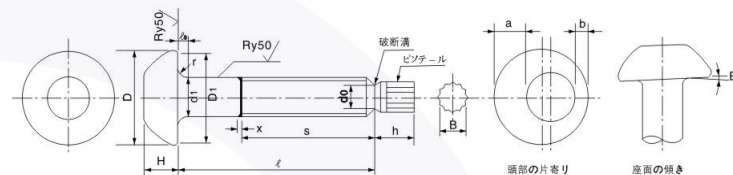
螺栓尺寸 BOLT DIMENSIONS(mm)	螺纹规格d					
	M16	M20	M22	M24	M27	M30
d	16	20	22	24	27	30
dk	30	37	41	44	50	55
K	10	13	14	15	17	19
K'	17	19	21	23	24	25
L	45~130	50~160	55~220	60~240	65~260	70~280
GB/T 3632 性能等级 property grade: 10.9S 螺纹 Thread: 6g						

螺母尺寸 NUT DIMENSIONS(mm)	螺纹规格d					
	M16	M20	M22	M24	M27	M30
d	16	20	22	24	27	30
S	27	34	36	41	46	50
K	10	12.5	14	15	17	18.7
L	45~130	50~160	55~220	60~240	65~260	70~280
GB/T 3632 性能等级 property grade: 10H 螺纹 Thread: 6H						

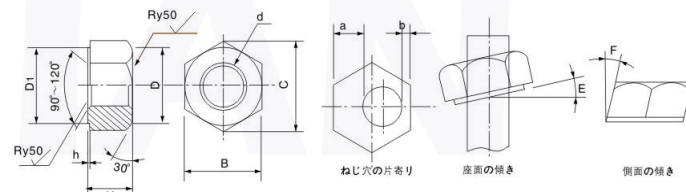
垫圈尺寸 WASHER NUT DIMENSIONS(mm)	机械性能/MECHANICAL PROPERTIES					
	d	Rm/Mpa	Rp0.2/Mpa	A/%	Z/%	σ _{0.2} /N/mm ²
d	16	20	22	24	27	30
d ₁	17	21	23	25	28	31
d ₂	33	40	42	47	52	56
H	4	4	5	5	5	5
GB/T3632 性能等级 property grade: HRC35-45						

■日标 (JSSII-09-1996)

钢结构用扭剪型高强度螺栓连接副



単位 (mm)																				
ねじの呼び (d)	d ₁ (1)		D ₁	D		H		d ₂		h	B		r	a-b	E	s				
	基準寸法	許容差	約	約	基準寸法	許容差	基準寸法	基準寸法	約	基準寸法	許容差	約	最大	最大	基準寸法	許容差				
M16	16	+0.7 -0.2	26	27	10	±0.8	規定しない	規定しない	15	11.3	±0.3	1.2~2.0	0.8	1°	30	+5 0				
M20	20		33	34	13	18			14.1	0.9			35							
M22	22		37	38.5	14	19			15.4	1.1			40							
M24	24	+0.8 -0.4	41	43	15	20			16.8	1.2		45	+6 0							
M27	27		47	49	17	22			19.0	1.3		50								
M30	30		53	55	19	±1.0			24	21.1		2.0~2.8	1.5		55					



ねじの呼び (d)	ねじの外径	H		B		C	D	D ₁	a-b		E	F	h
		基準寸法	許容差	基準寸法	許容差				最小	最大			
M16	16	16	±0.35	27	0 -0.8	31.2	25	25	0.8				
M20	20	20		32		37	30	29	0.9				
M22	22	22		36		41.6	34	33	1.1				
M24	24	24	±0.4	41	0 -1	47.3	39	38	1.2				
M27	27	27		46		53.1	44	43	1.3				
M30	30	30		50		57.7	48	47	1.5				

座金の呼び (d)	d		D		t		Cまたは r
	基準寸法	許容差	基準寸法	許容差	基準寸法	許容差	
16	17	+0.7 0	32		4.5	±0.5	1.5
20	21		40				2
22	23	+0.8 0	44	0 -1			
24	25		48		6	±0.7	2.4
27	28		56				
30	31	+1.0 0	60	-0.2	8		2.8

■美标 (ASTM F1852\ASTM F2280)

钢结构用扭剪型高强度螺栓连接副

BITOLA Gauge	5/8"	3/4"	7/8"	1"	1.1/8"
	F.P.P.	11	10	9	8
Ø E	mín.	15.36	18.51	21.64	24.79
	máx.	16.30	19.50	22.73	25.95
H	mín.	9.60	11.60	13.50	15.05
	máx.	10.20	12.25	14.30	15.90
R	mín.	0.55	0.55	0.80	1.60
	máx.	1.60	1.60	1.60	2.30
S Ref.	10.92	13.46	15.49	17.78	20.32
LS Ref.	15.25	16.50	18.30	20.30	22.85
Ø D mín.	28.00	34.00	39.00	45.00	50.55
K mín.	31.70	35.00	38.10	44.45	50.80
B Ref.	14.30	17.00	20.20	22.40	24.60
Table	716/2	716/3	716/4	716/5	---
Linha de fabricação / Line of manufacture					
Tolerancia / Tolerance					
1.3/4" á 6.3/4"	+0.00	+0.00	+0.00	+0.00	+0.00
	-3.05	-4.80	-4.80	-4.80	-6.35

NOMINAL	Ø A		Ø B		Ø C	
	mín.	máx.	mín.	máx.	mín.	máx.
1/2"	13.49	14.29	26.19	27.78	2.50	4.50
5/8"	17.46	18.26	32.54	34.13	3.10	4.50
3/4"	20.64	21.43	36.51	38.10	3.10	4.50
7/8"	23.81	24.61	43.66	45.24	3.50	4.50
1"	28.58	29.37	50.01	51.59	3.50	4.50
1.1/8"	30.18	31.78	55.55	58.75	3.50	4.50
1.1/4"	34.93	36.52	61.90	65.10	3.50	4.50
1.1/2"	41.28	42.87	74.60	77.80	3.50	4.50
1.3/4"	47.63	49.22	84.13	87.32	4.50	7.10

Dimensão Nominal	3"	1"	5"	3"	7"	1"	1.1/8"	1.1/4"
	8	2	8	4	8	8	7	7
F.F.P.	16	13	11	10	9	8	7	8
UNC	16	13	11	10	9	8	7	8
S mín.	17.14	21.59	26.19	30.78	35.41	40.00	44.61	49.22
S máx.	17.46	22.22	26.98	31.75	36.52	41.27	46.02	50.80
E mín.	19.51	24.61	29.84	35.10	40.36	45.62	50.85	56.11
E máx.	20.17	25.65	31.16	36.65	42.16	47.65	53.16	58.65
H mín.	8.66	11.78	14.91	18.03	21.16	24.29	27.41	30.15
H máx.	9.58	12.80	16.03	19.25	22.47	25.70	28.93	31.77
Ø mín.	8.494	11.430	14.376	17.399	20.391	23.337	26.218	29.392
Ø máx.	8.638	11.595	14.559	17.594	20.599	23.561	26.456	29.636
UNC	849/1	849/2	849/3	849/4	849/5	849/6	849/7	849/8
Table	849/1	849/2	849/3	849/4	849/5	849/6	849/7	849/8
Dimensão Nominal	1.3/8"	1.1/2"	1.5/8"	1.3/4"	1.7/8"	2"	2.1/4"	2.1/2"
F.F.P.	6	6	5	5	4.5	4.5	4.5	4
UNC	6	6	5	5	4.5	4.5	4.5	4
S mín.	53.82	58.42	63.01	67.61	72.24	76.84	86.05	95.25
S máx.	55.57	60.32	65.07	69.85	74.63	79.38	88.90	98.73
E mín.	61.36	66.60	71.83	77.10	82.34	87.60	98.09	108.58
E máx.	64.16	69.64	75.15	80.64	86.15	91.64	102.64	113.64
H mín.	33.27	36.40	39.52	42.64	45.77	48.90	54.74	60.98
H máx.	35.00	38.22	41.45	44.67	47.90	51.13	57.17	63.62
Ø mín.	32.174	35.349	38.524	41.150	45.562	47.134	53.484	59.375
Ø máx.	32.438	35.615	38.795	41.445	45.816	47.449	53.804	59.718
UNC	---	---	---	---	---	---	---	---
Table	---	---	---	---	---	---	---	---



ASTM F1852扭剪型螺栓/螺母垫圈配套表

		螺 栓		螺 母		垫 圈	
型式/标准		ASTM F1852		ASTM A563		ASTM F436	
性能等级		A325		ASTMA194 Grade 2H		38-45HRC	
表面处理		磷化、发黑		磷化、发黑		磷化、发黑	
连接副紧固轴力							
规格	1/2" -13UNC	5/8" -11UNC	3/4" -10UNC	7/8" -9UNC	1"-8UNC	1-1/8" -7UNC	
紧固轴力lbs/KN	13000/57.85	20000/89.00	29000/129.05	41000/182.45	54000/240.30	59000/262.55	
螺栓机械性能							
性能等级	螺栓规格	抗拉强度Ksi/Mpa	保证载荷Ksi/Mpa	屈服强度Ksi/Mpa	洛氏硬度HRC		
A325	1/2" ~ 1"	120/827	85/586	92/634	25 ~ 34		
	1-1/8	105/724	74/510	81/558	19 ~ 30		
螺母机械性能				垫圈机械性能			
性能等级	保证载荷Ksi/Mpa		硬度		性能等级		硬度
A194 2H	144/993		24HRC ~ 38HRC		F436		38 ~ 45HRC

ASTM F2280扭剪型螺栓/螺母垫圈配套表

		螺栓		螺母		垫圈	
型式/标准		ASTM F2280		ASTM A563		ASTM F436	
性能等级		A490		ASTMA194 Grade 2H		38-45HRC	
表面处理		磷化、发黑		磷化、发黑		磷化、发黑	
连接副紧固轴力							
规格	1/2"-13UNC	5/8"-11UNC	3/4"-10UNC	7/8"-9UNC	1"-8UNC	1-1/8"-7UNC	
紧固轴力lbs/KN	16000/71.2	25000/111.25	37000/164.65	51000/226.95	67000/298.15	84000/373.8	
螺栓机械性能							
性能等级	螺栓规格	抗拉强度Ksi/Mpa	保证载荷Ksi/Mpa	屈服强度Ksi/Mpa	洛氏硬度HRC		
A490	1/2" - 1-1/8"	150 - 173/1034 - 1193	120/827	130/896	33 - 39		
螺母机械性能				垫圈机械性能			
性能等级	保证载荷Ksi/Mpa		硬度	性能等级		硬度	
A194 2H	175/1207		24HRC - 38HRC	F436		38 - 45HRC	

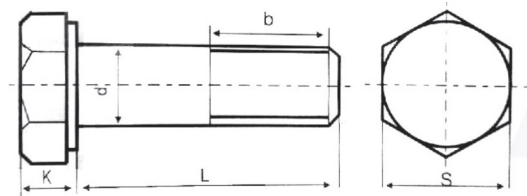


标准号	规格(长度)	材质	强度等级	表面方式
DIN976-1986	M6-M64 100-3000	普碳钢 中碳钢 合金钢 不锈钢	4.8级	本色
DIN975-1986			8.8级	镀锌
ASME 1318.31.1M-2008			10.9级	热镀锌
ASME 1318.31.2-2008			B7、B8	达克罗
及其它定制产品			B8M	电泳

标准号	规格(强度)	材质
企标JX-T-003-01	M16-M20	35CrMo 20MnTiB
强度等级	表面方式	用途
8.8级、10.9级	电镀锌/热镀锌/达克罗	幕墙玻璃安装用 隧道、地铁轨道用

钢结构用大六角头高强度螺栓配螺母垫圈
Heavy hex head bolts

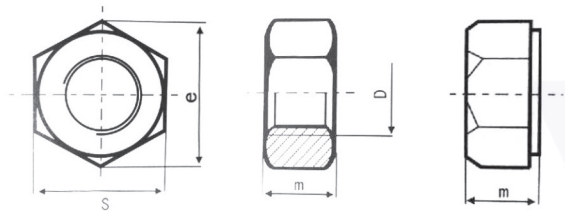
表面磷化，发黑，镀锌，热镀锌，达克罗
THE FINISH:PLAIN PHOS PHINED,BLACK,Z/P,HDG,DACROMET
STANDARD:DIN6914/6915/6916 ,GB1228/1229/1230,A325(A325M)/A563(563M)
/F436(f436,M)/A490(A490M)/A563(A563M)F436(F436M),JIS1180



GB/T1228
强度级别Strength grade：10.9s
螺纹Thread：6g

Table with 8 columns: d, s, K, L, and four unlabeled columns for dimensions 12, 16, 20, 22, 24, 27, 30.

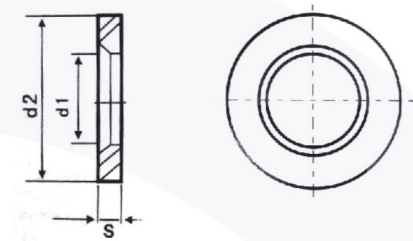
Table with 9 columns: M12, M16, M20, M22, M24, M27, M30, 螺栓硬度, and one unlabeled column for values 8.85, 10.99, 70-86.8, 130-162, 203-252, 251-312, 293-364, 381-473, 466-518, 583-696.



GB/T1229
强度级别Strength grade：10H
螺纹Thread：6H

Table with 8 columns: d, s, M, E, and four unlabeled columns for dimensions 12, 16, 20, 22, 24, 27, 30.

Table with 9 columns: d, M12, M16, M20, M22, M24, M27, M30, 螺栓硬度, and one unlabeled column for values 8H, 10H, 70, 130, 203, 251, 293, 381, 466, 583.



GB/T1230
强度级别Strength grade：HR35-45

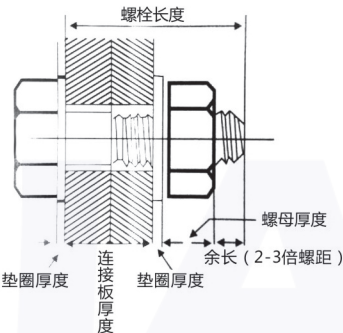


Table with 8 columns: d, d1, d2, s, and four unlabeled columns for dimensions 12, 16, 20, 22, 24, 27, 30.

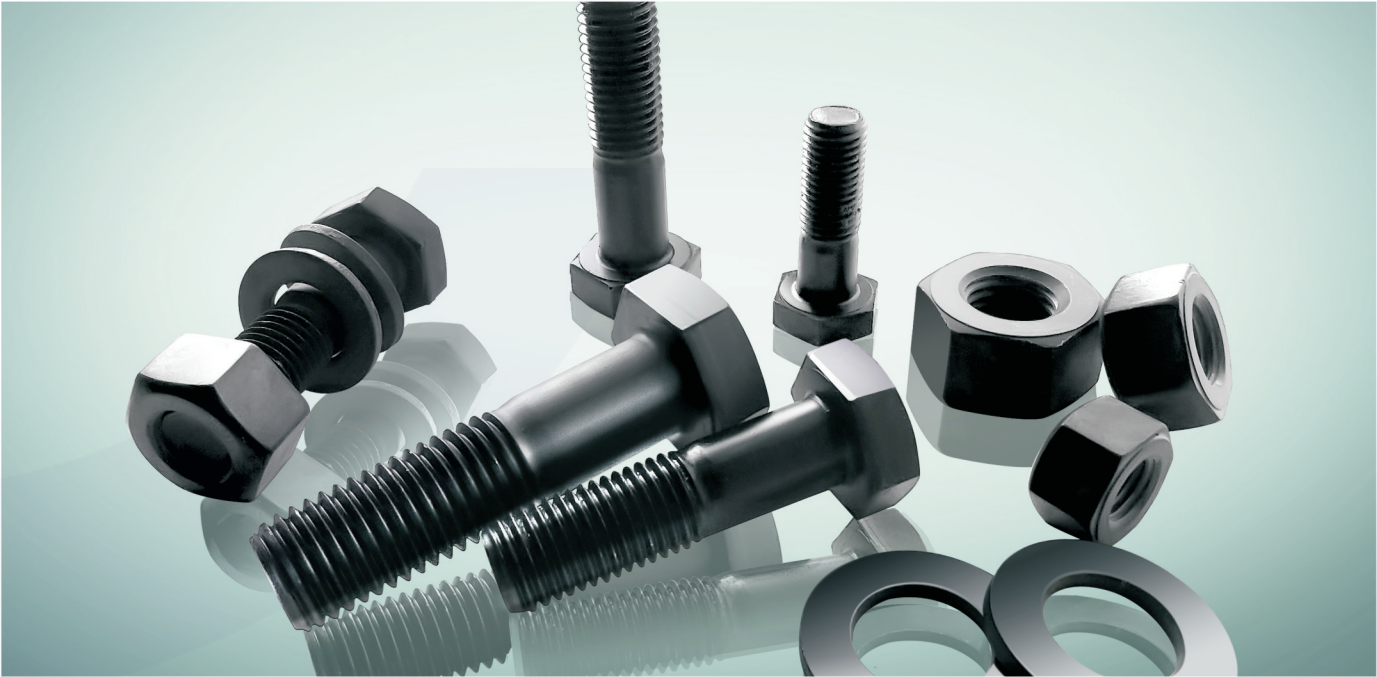
Table with 7 columns: D, M16, M20, M22, M24, M27, M30, and one unlabeled column for values 8.8S KN, 10.9S KN, 75, 120, 150, 170, 225, 275, 110, 170, 210, 250, 320, 390.

施拧扭矩计算方法：
施工轴力×扭矩系数平均值(K)×螺栓直径(d)=施拧扭矩定值

Table with 7 columns: sigma_b, sigma_0.2, S_0.5, sigma_T, ak, and two unlabeled columns for values 1040-1240, >=940, >=10, >=42, >=59, 0.110-0.150, <=0.01.

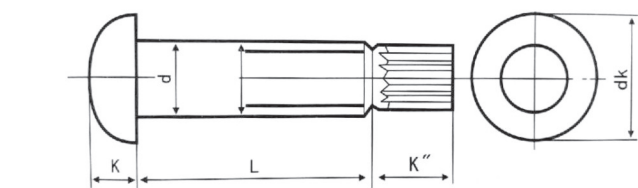
Table with 8 columns: D, L1, and six unlabeled columns for dimensions 12, 16, 20, 22, 24, 27, 30.

螺栓长度L=连接板厚度+L1
L1=螺母厚度+2×垫圈厚度+ (2-3)倍螺距
L(Bolt length)=Connecting plate thickness+L1
L1=Nut thickness+2×washer thickness+ (2-3) thred pitch



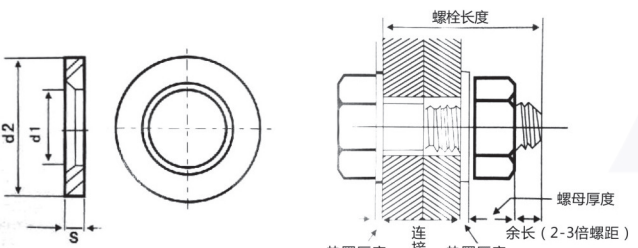
扭剪型螺栓
Torsional shear bolt

表面磷化，发黑，镀锌，热镀锌，达克罗
THE FINISH:PLAIN PHOS PHINED,BLACK,Z/P,HDG,DACROMET



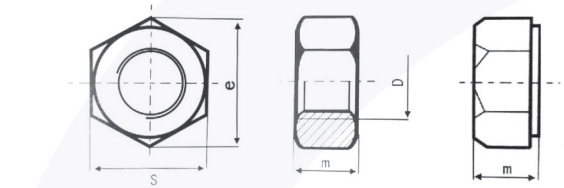
GB/T3632
强度级别Strength grade:10.9s 螺纹Thread:6g

螺栓尺寸Bolt dimension				
d	16	20	22	24
dk	30	37	41	44
K	10	13	14	15
K''	17	19	21	23
L	40-120	45-140	50-160	55-180



GB/T3632
强度级别Strength grade:HRC35-45

垫圈尺寸(Washer dimension)				
d	16	20	22	24
d1	17	21	23	25
d2	33	40	42	47
s	4	4	5	5



GB/T3632
强度级别Strength grade:10H 螺纹Thread:6H

螺母尺寸Nut dimension				
d	16	20	22	24
s	27	34	36	41
M	17.1	20.7	23.6	24.2
E	29.6	37.3	39.6	45.2

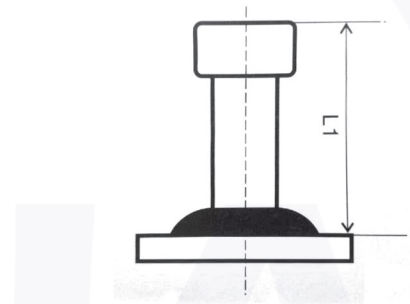
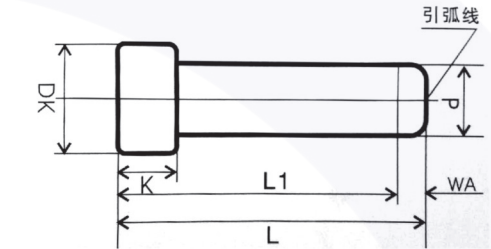
机械性能Mechanical properties							
d	σ_b N/mm ²	$\sigma_{0.2}$ N/mm ²	δ_5 %	ψ %	ak J/cm ²		
						紧固轴力 p	kn
						平均轴力 P	标准偏差 σ
16	1040-1240	≥940	≥10	≥42	≥59	99-120	≤9.90
20						154-186	≤15.39
22						191-231	≤19.11
24						222-270	≤22.25

螺栓长度计算方法Calculation method of bolt length				
D	16	20	22	24
L1	25	30	35	40

螺栓长度L=连接板厚度+L1
L1=螺母厚度+2×垫圈厚度+(2-3) 倍螺距
L(Bolt length) =Connecting plate thickness+L1
L1=Nut thickness+2×washer thickness+ (2-3) thred pitch



焊钉
Shear stud



焊钉尺寸Welding nail size							
D	公称	10	13	16	19	22	25
	min	9.64	12.57	15.57	18.48	21.48	24.48
	max	10	13	16	19	22	25
DK	max	18.35	22.42	29.42	32.5	35.5	40.5
	min	17.65	21.58	28.58	31.5	34.5	39.5
K	max	7.45	8.45	8.45	10.45	10.45	12.55
	min	6.55	7.55	7.55	9.55	9.55	11.45
MA参考		4	5	5	6	6	6
L1		40-100	80-120	80-120	80-170	80-200	80-200

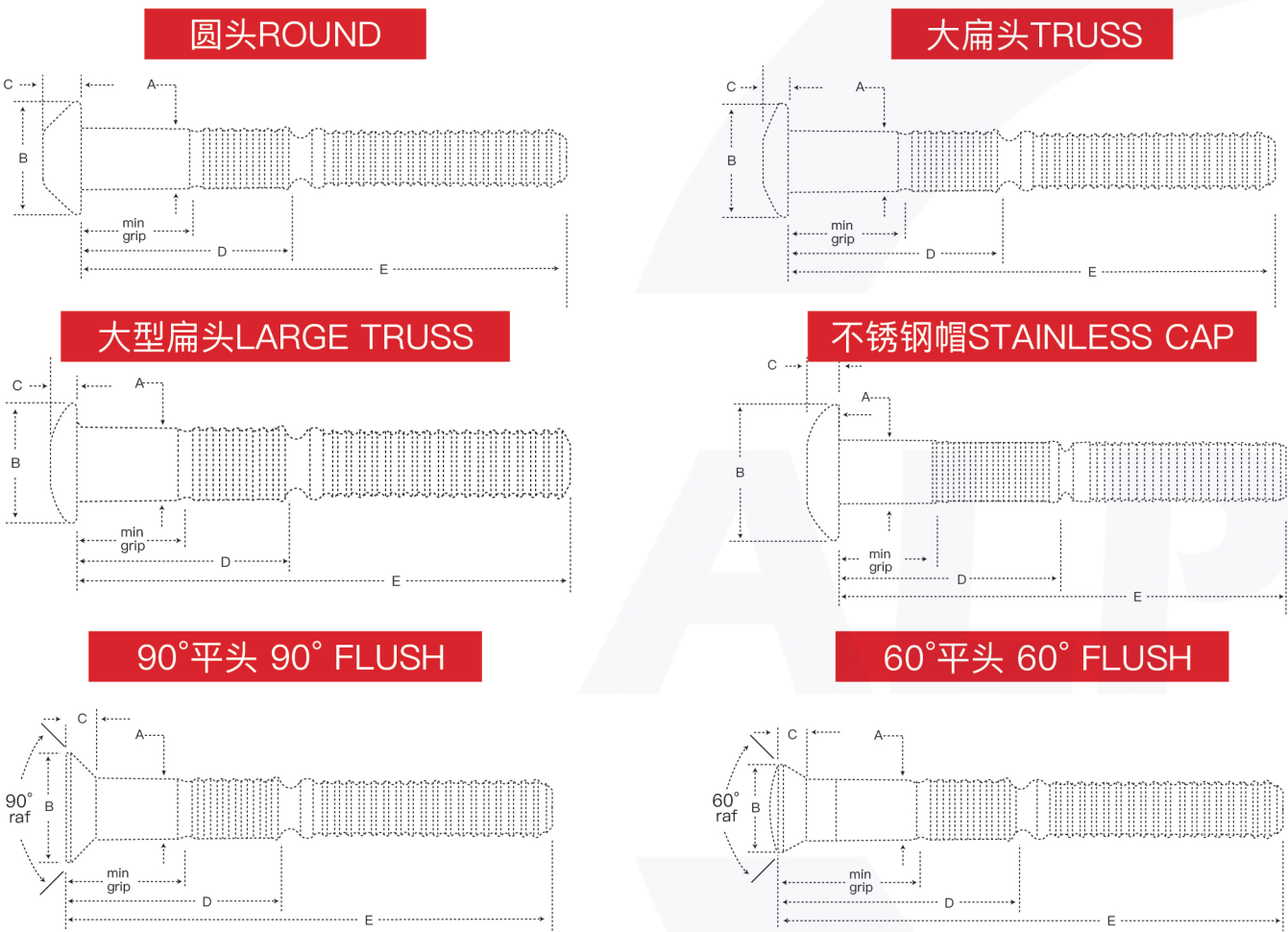
材料化学和成分Chemistry of materials and components					
参考	C %	Si %	Mn %	P %	S %
普碳钢	≤0.20	≤0.10	0.30-0.60	≤0.04	≤0.04

机械性能Mechanical properties			
抗拉强度	屈服点	伸长率	收缩率
σ_b , N/mm ²	σ_s , N/mm	δ_5 , %	ψ %
400-550	≥240	≥14	----

焊接部机械性能Welding mechanical property								
焊钉规格	8	10	13	16	19	22	24	25
拉力负荷(KN)	20.1-27.6	31.4-43.2	58.1-73	80.4-111	113-156	152-209	180-240	196-270
弯曲试验	用捶打击焊钉，使焊钉弯曲至30°时，其焊缝和热影响区无肉眼可见的裂缝							



环槽铆钉
Lock bolt



紧固件尺寸
Fastener Dimensions

紧固件尺寸 Fastener Dimensions														
直径 Dia	代码 Code	A	圆头 ROUND		大扁头 TRUSS		大型扁头 LARGE TRUSS		90°平头 90° FLUSH		不锈钢帽头 STAINLESS CAP		60°平头 60° FLUSH	
			B	C	B	C	B	C	B	C	B	C	B	C
1/2"	16	.493- .515	.870- .940	.310- .320	.857- .938	.215- .260	1.027- 1.09	.251- .281	.870- .940	.225- .239	-	-	-	-
5/8"	20	.617- .642	1.086- 1.196	.367- .432	1.086- 1.196	.267- .432	1.288- 1.375	.298- .328	1.093- 1.183	.284- 300	1.44 1.33-	.33- .39	-	-
3/4"	24	.740- .770	1.328- 1.438	.455- .530	1.328- 1.438	.323- .398	-	-	1.312- 1.417	.350- .380	-	-	1.101- 1.125	.337- .357
7/8"	28	.865- .900	1.540- 1.660	.530- .580	1.540- 1.660	.395- .445	-	-	1.531- 1.655	.396- .430	-	-	1.298- 1.338	.393- .413
1"	32	1.025- .990	1.750- 2.000	.590- .650	-	-	-	-	1.750- 1.895	.473- .501	-	-	1.478- 1.522	.454- .474
1-1/8"	36	1.095- 1.125	2.000- 2.125	.656- .720	-	-	-	-	-	-	-	-	1.661- 1.715	.506- .526
1-3/8"	44	1.400- 1.350	2.470- 2.590	.815- .880	-	-	-	-	2.448- 2.572	.648- .703	-	-	-	-



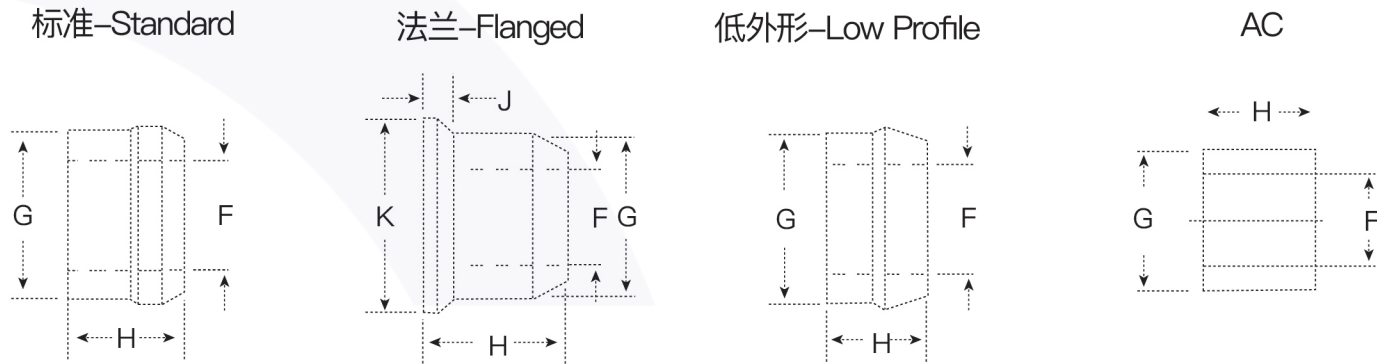
紧固厚度表
 Grip Tables

紧固厚度表Fastener Thickness Table														
紧固厚度 Grip	紧固厚度范围 Grip Range	1/2" (16)		5/8" (20)		3/4" (24)		7/8" (28)		1" (32)		1-1/8" (36)		1-3/8" (44)
		D	E	D	E	D	E	D	E	D	E	D	E	紧固厚度范围 Grip Range
4	.250-.500	1.213	3.172	1.433	3.656	1.518	4.156	-	-	-	-	-	-	至34.25" 需要数据
8	.500-.750	1.463	3.422	1.683	3.906	1.768	4.406	1.921	4.688	2.073	5.375	-	-	
12	.750-1.000	1.713	3.672	1.933	4.156	2.018	4.656	2.171	4.938	2.323	5.625	-	-	
16	1.000-1.250	1.963	3.922	2.183	4.406	2.268	4.906	2.421	5.188	2.573	5.875	-	-	
20	1.250-1.500	2.213	4.172	2.433	4.656	2.518	5.156	2.671	5.438	2.823	6.125	-	-	
24	1.500-1.750	2.463	4.422	2.683	4.906	2.768	5.406	2.921	5.688	3.073	6.375	-	-	
28	1.750-2.000	2.713	4.672	2.933	5.156	3.018	5.656	3.171	5.938	3.323	6.625	-	-	
32	2.000-2.250	2.963	4.922	3.183	5.406	3.268	5.906	3.421	6.188	3.573	6.875	-	-	
36	2.250-2.500	3.213	5.172	3.433	5.656	3.518	6.156	3.671	6.438	3.823	7.125	-	-	
40	2.500-2.750	3.463	5.422	3.683	5.906	3.768	6.406	3.921	6.688	4.073	7.375	-	-	
44	2.750-3.000	3.713	5.672	3.933	6.156	4.018	6.656	4.171	6.938	4.323	7.625	-	-	
48	3.000-3.250	3.963	5.922	4.183	6.406	4.268	6.906	4.421	7.188	4.573	7.875	-	-	
52	3.250-3.500	4.213	6.172	4.433	6.656	4.518	7.156	4.671	7.438	4.823	8.125	-	-	
56	3.500-3.750	4.463	6.422	4.683	6.906	4.768	7.406	4.921	7.688	5.073	8.375	5.250	8.563	
60	3.750-4.000	4.713	6.672	4.933	7.156	5.018	7.656	5.171	7.938	5.323	8.625	5.500	8.813	
64	4.000-4.250	4.963	6.922	5.183	7.406	5.268	7.906	5.421	8.188	5.573	8.875	5.750	9.063	
68	4.250-4.500	5.213	7.172	5.433	7.656	5.518	8.156	5.671	8.438	5.823	9.125	6.000	9.313	
72	4.500-4.750	5.463	7.422	5.683	7.906	5.768	8.406	5.921	8.688	6.073	9.375	6.250	9.563	
76	4.750-5.000	5.713	7.672	5.933	8.156	6.018	8.656	-	-	6.323	9.625	6.500	9.813	Up to 34.25" call for data
80	5.000-5.250	5.963	7.922	-	-	-	-	-	-	6.573	9.875	6.750	1.063	
84	5.250-5.500	-	-	-	-	-	-	-	-	6.823	1.125	7.000	1.313	
88	5.500-5.750	-	-	-	-	-	-	-	-	7.073	1.375	7.250	1.563	
92	5.750-6.000	-	-	-	-	-	-	-	-	7.323	1.625	7.500	1.813	

*所有紧固件厚度使用标准套环计算 All grips are calculated using a standard collar



套环数据和尺寸
 Collar data and dimensions



- 1.使用法兰套环时，最小紧固厚度是使用标准套环时的最小紧固厚度（标称 “J” ）；
最大紧固厚度是使用标准套环时最大紧固厚度（标称 “J” ）（其中，“J” 表示法兰的凸缘厚度）
- 2.使用低外形套环时，最小等于最小紧固厚度（见表），
最大紧固厚度等于最小紧固厚度+紧固厚度范围+ “L” （其中，“L” 表示低外形和标准套环的高度差。）

套环尺寸Collar Dimensions							
类型 Type	直径 Dia	F	G	H	J	K	L
标准 Standard	1/2"	.515-.540	.765-.800	.610-.645	-	-	-
	5/8"	.650-.665	.970-.985	.845-.875	-	-	-
	3/4"	.776-.790	1.165-1.180	.930-.960	-	-	-
	7/8"	.896-.920	1.355-1.375	1.083-1.120	-	-	-
	1"	1.030-1.050	1.550-1.575	1.235-1.280	-	-	-
	1-1/8"	1.150-1.180	1.740-1.770	1.390-1.440	-	-	-
法兰 Flanged	1/2"	.510-.535	.793-.807	.726-.756	.094-.156	.969-1.031	-
	5/8"	.650-.665	.980-.996	.929-.959	.125-.187	1.218-1.281	-
	3/4"	.776-.790	1.170-1.195	1.109--1.155	.156-.218	1.480-1.525	-
	7/8"	.896-.920	1.360-1.370	1.293-1.339	.187-.250	1.570-1.615	-
	1"	1.030-1.050	1.550-1.565	1.485-1.515	.218-.281	1.843-1.906	-
	1-1/8"	1.160-1.175	1.750-1.760	1.675-1.715	.273-.289	2.105-2.145	-
低外形 Low Profile	1/2"	.515-.535	.780-.800	.470-.500	-	-	.140-.145
	5/8"	.640-.665	.972-.982	.670-.700	-	-	.175
	3/4"	.775-.790	1.165-1.180	.715-.745	-	-	.215
	7/8"	.910-.930	1.360-1.375	.833-.863	-	-	.250-.257
	1"	1.030-1.050	1.552-1.568	.950-.980	-	-	.285-.300
AC	1-3/8"	1.409-1.419	2.147-2.157	1.738-1.762	-	-	-