

天津东风航空科技有限公司

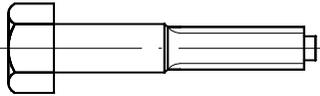
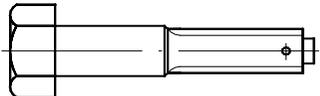
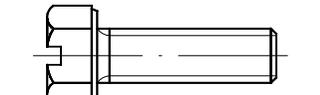
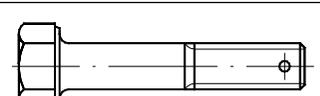
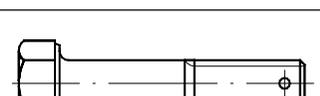
# 产品标准目录

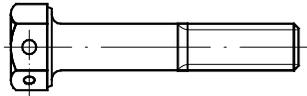
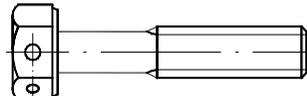
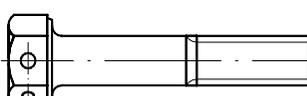
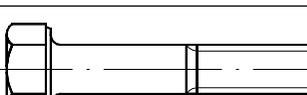
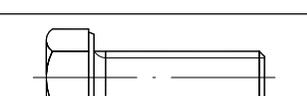
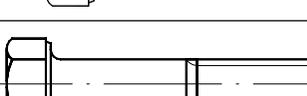
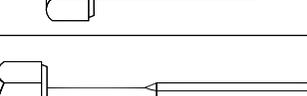
天津东风航空科技有限公司标准化室编制

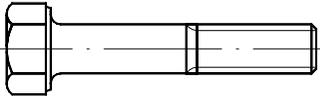
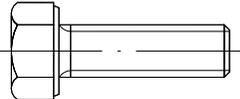
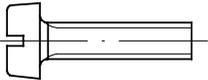
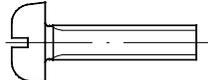
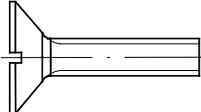
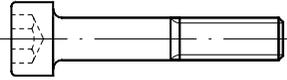
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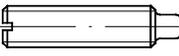
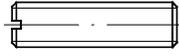
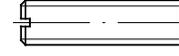
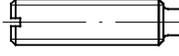
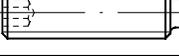
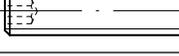
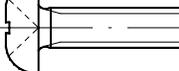
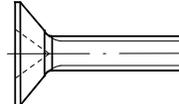
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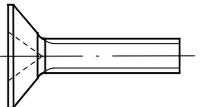
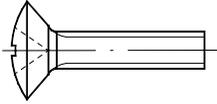
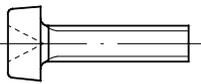
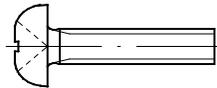
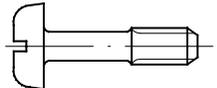
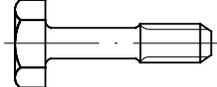
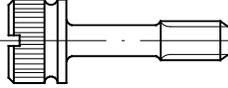
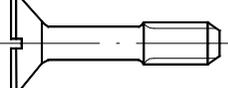
## 一、国家标准（GB）系列

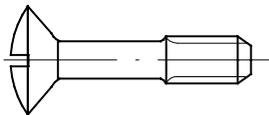
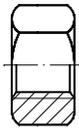
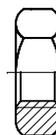
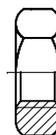
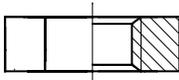
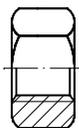
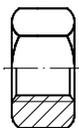
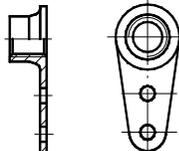
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	螺栓：					
1	GB27—88	六角头铰制孔用螺栓—A和B级		M6~M24	ML30CrMnSiA	8.8
2	GB28—88	六角头螺杆带孔铰制孔用螺栓—A和B级		M6~M24	ML30CrMnSiA	8.8
3	GB29.1—88	六角头头部带槽螺栓—A和B级		M3~M12	ML30CrMnSiA	8.8
4	GB29.2—88	十字槽凹穴六角头螺栓		M4~M8	ML25	5.8
5	GB31.1—88	六角头螺杆带孔螺栓—A和B级		M6~M24	ML30CrMnSiA	8.8
6	GB31.2—88	六角头螺杆带孔螺栓细杆—B级		M6~M20	ML25	5.8
7	GB31.3—88	六角头螺杆带孔螺栓细牙—A和B级		M8×1 ~M24×2	ML30CrMnSiA	8.8

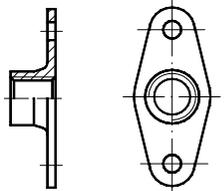
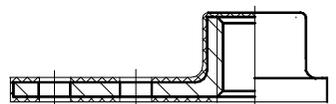
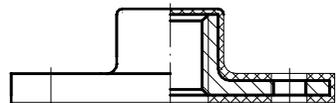
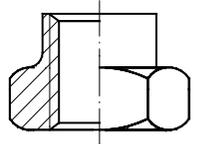
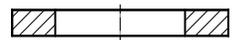
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8	GB32.1—88	六角头头部带孔螺栓—A和B级		M6~M24	ML30CrMnSiA	8.8
9	GB32.2—88	六角头头部带孔螺栓细杆—B级		M6~M20	ML25	5.8
10	GB32.3—88	六角头头部带孔螺栓细牙—A和B级		M8×1 ~M24×2	ML30CrMnSiA	8.8
11	GB/T5780—2000	六角头螺栓—C级		M5~M24	ML25	4.8
12	GB/T5781—2000	六角头螺栓全螺纹—C级		M5~M24	ML25	4.8
13	GB/T5782—2000	六角头螺栓		M1.6~M24	ML25 ML30CrMnSiA 1Cr18Ni9Ti	5.6 8.8、10.9 A2-50、A2-70
14	GB/T5783—2000	六角头螺栓 全螺纹		M1.6~M24	ML25 ML30CrMnSiA 1Cr18Ni9Ti	5.6 8.8、10.9 A2-50、A2-70
15	GB/T5784—2000	六角头螺栓—细杆—B级		M3~M20	ML25 ML30CrMnSiA 1Cr18Ni9Ti	5.6 8.8、10.9 A2-50、A2-70

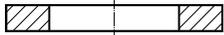
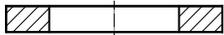
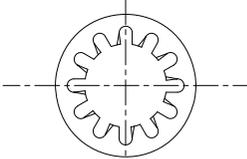
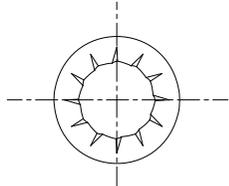
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17	GB/T5786—2000	六角头螺栓—细牙 —全螺纹		M8×1 ~M24×2	ML25 ML30CrMnSiA 1Cr18Ni9Ti	5.6 8.8、10.9 A2-50、A2-70
	螺钉:					
18	GB/T65—2000	开槽圆柱头螺钉		M1.6~M10	ML25 1Cr18Ni9Ti	4.8、5.8 A2-50、A2-70
19	GB/T67—2000	开槽盘头螺钉		M1.6~M10	ML25 1Cr18Ni9Ti	4.8、5.8 A2-50、A2-70
20	GB/T68—2000	开槽沉头螺钉		M1.6~M10	ML25 1Cr18Ni9Ti	4.8、5.8 A2-50、A2-70
21	GB/T69—2000	开槽半沉头螺钉		M1.6~M10	ML25 1Cr18Ni9Ti	4.8、5.8 A2-50、A2-70
22	GB/T70.1—2000	内六角圆柱头螺钉		M1.6~M12	ML30CrMnSiA 1Cr18Ni9Ti	8.8、10.9 A2-50、A2-70

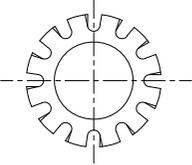
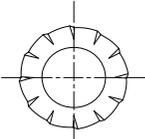
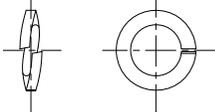
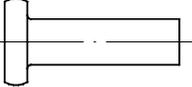
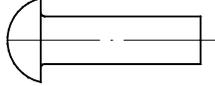
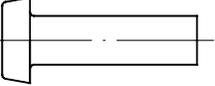
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24	GB72—85	开槽锥端紧定螺钉		M3~M12	ML30CrMnSiA 1Cr18Ni9Ti	14H、33H、 A1-50
25	GB73—85	开槽平端紧定螺钉		M1.6~M12	ML30CrMnSiA 1Cr18Ni9Ti	14H、22H、 A1-50
26	GB74—85	开槽凹端紧定螺钉		M1.6~M12	ML30CrMnSiA 1Cr18Ni9Ti	14H、22H、 A1-50
27	GB75—85	开槽长圆柱端紧定螺钉		M1.6~M12	ML30CrMnSiA 1Cr18Ni9Ti	14H、22H、 A1-50
28	GB/T77—2000	内六角平端紧定螺钉		M3~M16	ML30CrMnSiA 1Cr18Ni9Ti	45H、A1-50
29	GB/T78—2000	内六角锥端紧定螺钉		M3~M16	ML30CrMnSiA 1Cr18Ni9Ti	45H、A1-21H
30	GB/T79—2000	内六角圆柱端紧定螺钉		M3~M16	ML30CrMnSiA 1Cr18Ni9Ti	45H、A1-21H
31	GB/T80—2000	内六角凹端紧定螺钉		M3~M16	ML30CrMnSiA 1Cr18Ni9Ti	45H、A1-21H
32	GB/T818—2000	十字槽盘头螺钉		M1.6~M10	ML25 1Cr18Ni9Ti	4.8、 A2-50、A2-70
33	GB/T819.1—2000	十字槽沉头螺钉：钢4.8级		M1.6~M10	ML25	4.8

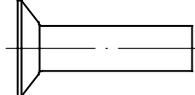
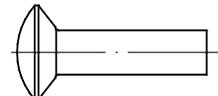
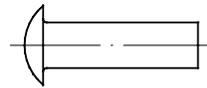
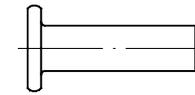
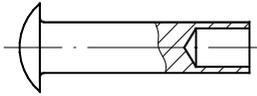
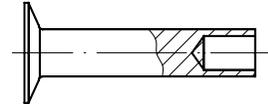
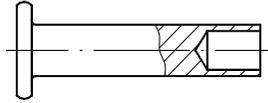
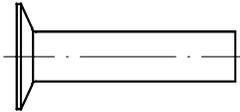
序号	标准代号	产品名称	简图	规格	主要材料	强度等级
34	GB/T819.2—1997	十字槽沉头螺钉:钢8.8级、不锈钢和有色金属		M2~M10	ML30CrMnSiA 1Cr18Ni9Ti	8.8、 A2-70
35	GB/T820—2000	十字槽半沉头螺钉		M1.6~M10	ML25 1Cr18Ni9Ti	4.8、 A2-50、A2-70
36	GB/T822—2000	十字槽圆柱头螺钉		M2.5~M8	ML25 1Cr18Ni9Ti	4.8、5.8 A2-50、A2-70
37	GB823—88	十字槽小盘头螺钉		M2~M8	ML25 1Cr18Ni9Ti	4.8、 A2-50、C4-50
38	GB837—88	开槽盘头不脱出螺钉		M3~M10	ML25 1Cr18Ni9Ti	4.8、 A2-50、C4-50
39	GB838—88	六角头不脱出螺钉		M5~M16	ML25 1Cr18Ni9Ti	4.8、 A2-50、C4-50
40	GB839—88	滚花头不脱出螺钉		M3~M10	ML25 1Cr18Ni9Ti	4.8、 A2-50、C4-50
41	GB948—88	开槽沉头不脱出螺钉		M3~M10	ML25 1Cr18Ni9Ti	4.8、 A2-50、C4-50

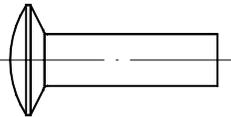
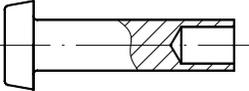
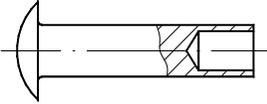
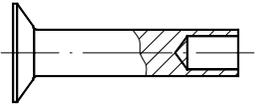
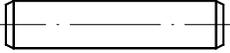
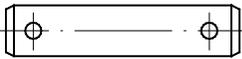
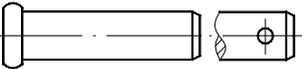
序号	标准代号	产品名称	简图	规格	主要材料	强度等级
42	GB949—88	开槽半沉头不脱出螺钉		M3~M10	ML25 1Cr18Ni9Ti	4.8、 A2-50、C4-50
	螺母:					
43	GB/T6170—2000	1型六角螺母		M1.6~M30	ML30CrMnSiA 1Cr18Ni9Ti	6、8、10 A2-50、A2-70
44	GB/T6171—2000	1型六角螺母-细牙		M8×1 ~M36×3	ML30CrMnSiA 1Cr18Ni9Ti	6、8、10 A2-50、A2-70
45	GB/T6172.1—2000	六角薄螺母		M1.6~M30	ML30CrMnSiA 1Cr18Ni9Ti	04、05 A2-035、
46	GB/T6173—2000	六角薄螺母—细牙		M8×1 ~M36×3	ML30CrMnSiA 1Cr18Ni9Ti	04、05 A2-035
47	GB/T6174—2000	六角薄螺母—无倒角		M1.6~M10	45 有色金属	110HV30 CU2、CU3
48	GB/T6175—2000	2型六角螺母		M5~M36	ML30CrMnSiA	6、8、10
49	GB/T6176—2000	2型六角螺母—细牙		M8×1 ~M36×3	ML30CrMnSiA	6、8、10
50	GB929—88	单耳托板自锁螺母		M3~M10	30CrMnSiA 25、Cr17Ni2	HRC30~36 HRC33~39

序号	标准代号	产品名称	简图	规格	主要材料	强度等级
51	GB930—88	双耳托板自锁螺母		M3~M10	30CrMnSiA 25、1Cr17Ni2	HRC30~36 HRC33~39
52	GB932—88	气密单耳托板自锁螺母		M3~M10	密封材料为 尼龙 1010	母体 GB929
53	GB933—88	气密双耳托板自销螺母		M3~M10	密封材料为 尼龙 1010	母体 GB930
54	GB1337—88	六角自销螺母		M3~M24× 1.5	30CrMnSiA	HRC30~36
55	GB1338—88	小六角扁自销螺母		M3~M24× 1.5	30CrMnSiA	HRC30~36
56	GB1339—88	小六角自销螺母		M3~M24× 1.5	30CrMnSiA	HRC30~36
	垫圈:					
57	GB/T95—2002	平垫圈—C级		1.6~24	45	100HV
58	GB/T96.1—2002	大垫圈—A级		3~24	45 1Cr18Ni9Ti	200HV、300HV 200HV

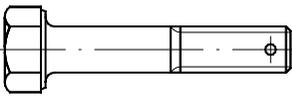
序号	标准代号	产品名称	简图	规格	主要材料	强度等级
59	GB/T96.2—2002	大垫圈—C级		3~24	45	100HV
60	GB/T97.1—2002	平垫圈—A级		1.6~24	45 1Cr18Ni9Ti	200HV、300HV 200HV
61	GB/T97.2—2002	平垫圈—倒角型—A		5~24	45 1Cr18Ni9Ti	200HV、300HV 200HV
62	GB/T97.3—2002	销轴用平垫圈		3~24	45	160HV
63	GB/T97.4—2002	平垫圈—用于螺钉和垫圈组合件		2~12	45	200HV 300HV
64	GB/T97.5—2002	平垫圈—用于自攻螺钉和垫圈组合件		2.2~9.5	45	180HV
65	GB/T848—2002	小垫圈—A级		1.6~24	45 1Cr18Ni9Ti	200HV、300HV 200HV
66	GB861.1-87	内齿锁紧垫圈		2-20	65Mn	HRC40-50
67	GB861.2-87	内锯齿锁紧垫圈		2-20	65Mn	HRC40-50

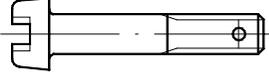
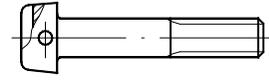
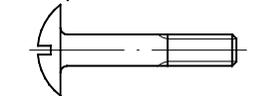
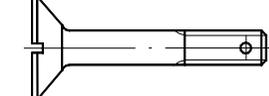
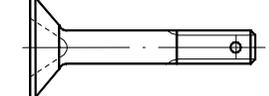
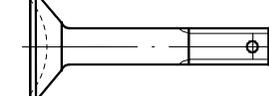
68	GB862.1-87	外齿锁紧垫圈		2-20	65Mn	HRC40-50
69	GB862.2-87	外锯齿锁紧垫圈		2-20	65Mn	HRC40-50
70	GB859-87	轻型弹簧垫圈		3-30	65Mn 1Cr18Ni9Ti	HRC42-50 —
71	GB93-87	标准型弹簧垫圈		2-48		
	铆钉、销					
72	GB109—86	平头铆钉		2~10	ML10、ML20 1Cr18Ni9Ti LY1、LY10、LF10	
73	GB867—86	半圆头铆钉		1~16		
74	GB868—86	平锥头铆钉		2~16		

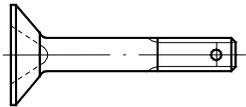
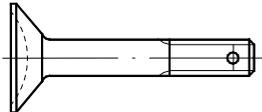
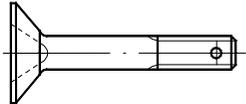
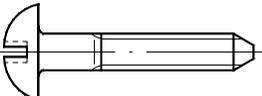
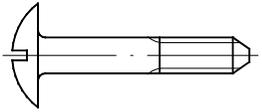
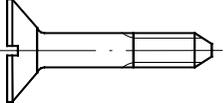
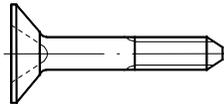
序号	标准代号	产品名称	简图	规格	主要材料	强度等级
75	GB869—86	沉头铆钉		1~16	ML10、ML20 1Cr18Ni9Ti LY1、LY10、LF10	
76	GB870—86	半沉头铆钉		1~16		
77	GB871—86	扁圆头铆钉		1.2~10		
78	GB872—86	扁平头铆钉		1.2~10		
79	GB873—86	扁圆头半空心铆钉		1.2~10		
80	GB874—86	120°沉头半空心铆钉		1.2~8		
81	GB875—86	扁平头半空心铆钉		1.2~10		
82	GB954—86	120°沉头铆钉		1.2~8		

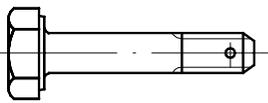
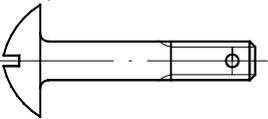
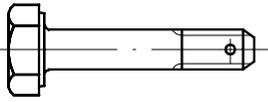
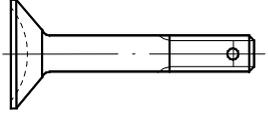
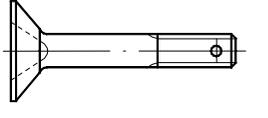
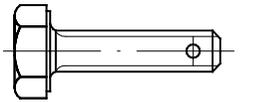
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83	GB1012—86	120°半沉头铆钉		3~6	ML10、ML20 1Cr18Ni9Ti LY1、LY10、LF10	
84	GB1013—86	平锥头半空心铆钉		1.4~10		
85	GB1014—86	大扁圆头半空心铆钉		2~8		
86	GB1015—86	沉头半空心铆钉		1.4~10		
87	GB/T119.1—2000	圆柱销 不淬硬钢和奥氏体 不锈钢		2~20	45 1Cr18Ni9T	125~245HV30 210~280HV30
88	GB/T119.2—2000	圆柱销 淬硬钢和马氏体不 锈钢		2~20	GCr15 1Cr13、2Cr13	550~650HV30 460~560HV30
89	GB880—86	带孔销		2~20	45	HRC28~38
90	GB882—86	销轴				

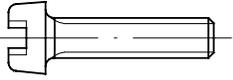
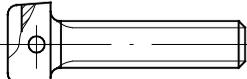
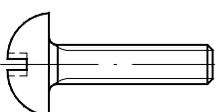
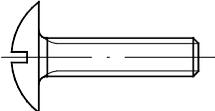
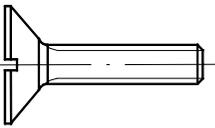
## 二、国家军用(GJB)标准系列

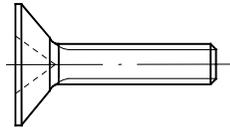
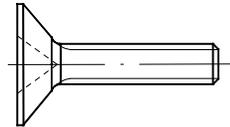
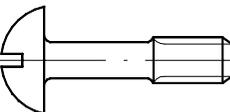
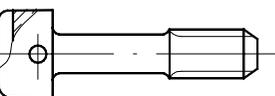
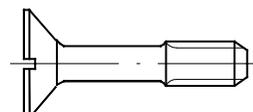
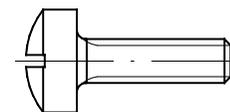
序号	标准代号	产品名称	简图	规格	主要材料	强度等级
	普通螺纹螺栓:					
1	GJB3371/1~9—98	六角头螺栓		2.5~18 4~24 5~18 5~18	ML25 30CrMnSiA 1Cr17Ni2 1Cr18Ni9Ti	$\geq 590\text{MPa}$ 1100~1280MPa 1100~1280MPa —
2	GJB3371/10~18—98	短螺纹小六角头螺栓		5~18	GH2132 H62	$\geq 900\text{MPa}$ —
3	GJB3371/19—98	光杆公差带 f9 六角头螺栓		4~24	30CrMnSiA	1100~1280MPa
4	GJB3371/20—98	光杆公差带 f9 短螺纹小六角头螺栓		5~22	30CrMnSiA	1100~1280MPa
5	GJB3371/21~24—98	光杆公差带 h8 短螺纹小六角头螺栓		5~24	30CrMnSiA 1Cr11Ni2W2MoV 40CrNiMoA GH2132	1100~1280MPa 1100~1280MPa 1100~1280MPa $\geq 900\text{MPa}$
6	GJB3371/25~28—98	铰链连接用光杆公差带 f7 小六角头螺栓		4~22		
7	GJB3371/29~32—98	铰链连接用光杆公差带 h6 小六角头螺栓				

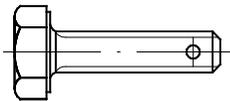
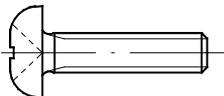
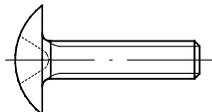
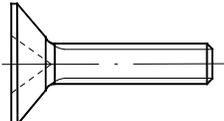
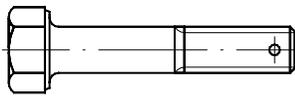
序号	标准代号	产品名称	简图	规格	主要材料	强度等级
8	GJB3371/33~39—98	圆柱头螺栓		1.6~10	ML25 30CrMnSiA 1Cr17Ni2 H62	$\geq 590\text{MPa}$ 1100~1280MPa 1100~1280MPa —
9	GJB3371/40~44—98	头部带保险孔的 圆柱头螺栓		2~10	ML25 1Cr18Ni9Ti H62	$\geq 590\text{MPa}$ — —
10	GJB3371/45~47—98	扁圆头螺栓		2~8	ML25 30CrMnSiA 1Cr17Ni2	$\geq 590\text{MPa}$ 1100~1280MPa 1100~1280MPa
11	GJB3371/48~56—98	100°沉头螺栓		3~10	ML25 30CrMnSiA 1Cr17Ni2 1Cr18Ni9Ti GH2132 H62	$\geq 590\text{MPa}$ 1100~1280MPa 1100~1280MPa — $\geq 900\text{MPa}$ —
12	GJB3371/57~60—98	十字槽 100°沉头 螺栓		4~10	ML25 30CrMnSiA 1Cr17Ni2	$\geq 590\text{MPa}$ 1100~1280MPa 1100~1280MPa
13	GJB3371/61—98	光杆公差带 f9100°沉头螺栓		5~20	30CrMnSiA	1100~1280MPa

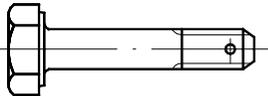
序号	标准代号	产品名称	简图	规格	主要材料	强度等级
14	GJB3371/62—98	光杆公差带 f9 十字槽 100° 沉头螺栓		5~10	30CrMnSiA	1100~1280MPa
15	GJB3371/63—98	光杆公差带 h8 短螺纹 100° 沉头螺栓		5~20	30CrMnSiA	1100~1280MPa
16	GJB3371/64—98	光杆公差带 h8 短螺纹十字槽 100° 沉头螺栓		5~10	30CrMnSiA	1100~1280MPa
17	GJB3371/65—98	半圆头锥端螺栓		4~10	30CrMnSiA	1100~1280MPa
18	GJB3371/66—98	扁圆头锥端螺栓		4~8	30CrMnSiA	1100~1280MPa
19	GJB3371/67—98	100° 沉头锥端螺栓		4~10	30CrMnSiA	1100~1280MPa
20	GJB3371/68—98	十字槽 100° 沉头锥端螺栓		4~10	30CrMnSiA	1100~1280MPa

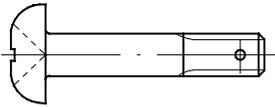
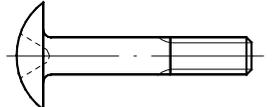
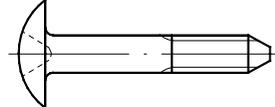
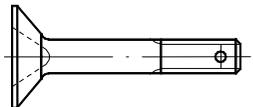
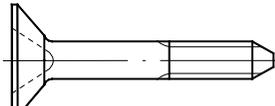
序号	标准代号	产品名称	简图	规格	主要材料	强度等级
21	GJB3371/69—98	光杆公差带 f9 短螺纹六角头 螺栓		5~24	30CrMnSiA	1100~1280MPa
22	GJB3371/70~76—98	半圆头螺栓		5~22	ML25 30CrMnSiA 1Cr17Ni2 H62	≥590MPa 1100~1280MPa 1100~1280MPa —
23	GJB3371/77~78—98	光杆公差带 r6 短 螺纹六角头螺栓		5~22	30CrMnSiA LY12—CZ	1100~1280MPa —
24	GJB3371/83—98	光杆公差带 r6 短螺纹 100° 沉 头螺栓		5~20	30CrMnSiA	1100~1280MPa
25	GJB3371/84—98	光杆公差带 r6 短螺纹十字槽 100° 沉头螺栓		5~10	30CrMnSiA	1100~1280MPa
普通螺纹螺钉:						
26	GJB3372/1~10—98	六角头螺钉		M2.5~M10	ML25 30CrMnSiA 1Cr17Ni2 1Cr18Ni9Ti GH2132 H62	≥590MPa 1100~1280MPa 1100~1280MPa — ≥900MPa —

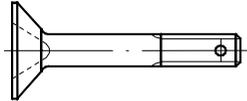
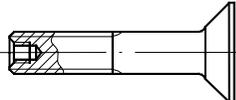
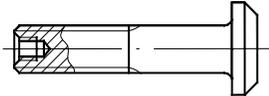
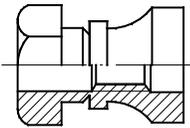
序号	标准代号	产品名称	简图	规格	主要材料	强度等级
27	GJB3372/11~17—98	圆柱头螺钉		M1.6~M10	ML25 30CrMnSiA 1Cr17Ni2	$\geq 590\text{MPa}$ 1100~1280MPa 1100~1280MPa
28	GJB3372/18~24—98	头部带保险孔的圆柱头螺钉		M2~M10	ML25 30CrMnSiA 1Cr18Ni9Ti H62	$\geq 590\text{MPa}$ 1100~1280MPa — —
29	GJB3372/25~31—98	半圆头螺钉		M1.6~M10	ML25 30CrMnSiA 1Cr17Ni2 GH2132 H62	$\geq 590\text{MPa}$ 1100~1280MPa 1100~1280MPa $\geq 900\text{MPa}$ —
30	GJB3372/32~35—98	扁圆头螺钉		M2~M8	ML25 30CrMnSiA 1Cr17Ni2 LY8	$\geq 590\text{MPa}$ 1100~1280MPa 1100~1280MPa $\geq 375\text{MPa}$
31	GJB3372/36~44—98	100°沉头螺钉		M1.6~M10	ML25 30CrMnSiA 1Cr17Ni2 1Cr18Ni9Ti GH2132 H62	$\geq 590\text{MPa}$ 1100~1280MPa 1100~1280MPa — $\geq 900\text{MPa}$ —

序号	标准代号	产品名称	简图	规格	主要材料	强度等级
32	GJB3372/45~48—98	十字槽 100° 沉头螺钉		M2.5~M10	ML25 30CrMnSiA 1Cr17Ni2 LY8	$\geq 590\text{MPa}$ 1100~1280MPa 1100~1280MPa $\geq 375\text{MPa}$
33	GJB3372/49~52—98	十字槽 100° 小沉头螺钉		M2.5~M10	ML25 30CrMnSiA 1Cr17Ni2 LY8	$\geq 590\text{MPa}$ 1100~1280MPa 1100~1280MPa $\geq 375\text{MPa}$
34	GJB3372/53—98	半圆头不脱出螺钉		M3~M6	45	—
35	GJB3372/54~55—98	头部带保险孔的不脱出圆柱头螺钉		M3~M6	45 HPb59—1	— —
36	GJB3372/56	100° 沉头不脱出螺钉		M3~M6	45	—
37	GJB3372/57~59—98	固定表盘螺钉		M1.4~M3	ML25 H62 H62 防磁	—

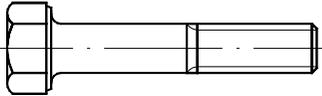
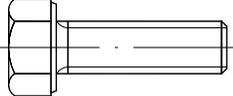
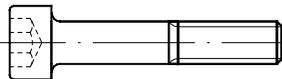
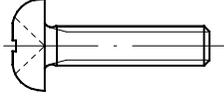
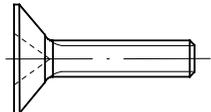
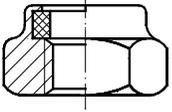
序号	标准代号	产品名称	简图	规格	主要材料	强度等级
	MJ 螺纹螺钉:					
38	GJB3373/1~4—98	MJ 螺纹六角头螺钉		MJ3×0.5~ MJ10×1.25	30CrMnSiA 1Cr17Ni2 1Cr11Ni2W2MoV	1100~1280MPa
39	GJB3373/5~6—98	MJ 螺纹盘头螺钉		MJ3×0.5~ MJ10×1.25	30CrMnSiA 1Cr17Ni2	1100~1280MPa
40	GJB3373/7~8—98	MJ 螺纹十字槽扁圆头螺钉		MJ3×0.5~ MJ8×1	30CrMnSiA 1Cr17Ni2	1100~1280MPa
41	GJB3373/9~10—98	MJ 螺纹十字槽100°沉头螺钉		MJ3×0.5~ MJ10×1.25	30CrMnSiA 1Cr17Ni2	1100~1280MPa
	MJ 螺纹螺栓:					
42	GJB3374/1~4—98	MJ 螺纹六角头螺栓		4~20	30CrMnSiA 1Cr17Ni2 40CrNiMoA 38CrA	1100~1280MPa 1100~1280MPa 1100~1280MPa 900~1100MPa
43	GJB3374/5—98	MJ 螺纹光杆公差带 f9 六角头螺栓		4~20	30CrMnSiA	1100~1280MPa

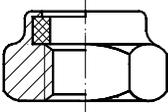
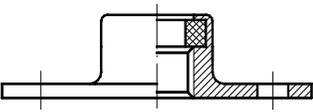
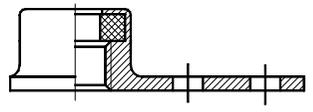
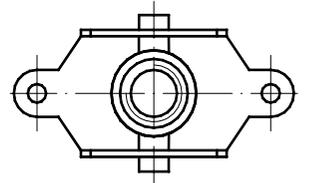
序号	标准代号	产品名称	简图	规格	主要材料	强度等级
44	GJB3374/6—98	MJ 螺纹光杆公差带 f9 短螺纹六角头螺栓		5~18	30CrMnSiA	1100~1280MPa
45	GJB3374/7—98	MJ 螺纹光杆公差带 r6 短螺纹六角头螺栓		5~18	30CrMnSiA	1100~1280MPa
46	GJB3374/8~11—98	MJ 螺纹短螺纹小六角头螺栓		5~18	30CrMnSiA 1Cr17Ni2 40CrNiMoA 38CrA	1100~1280MPa 1100~1280MPa 1100~1280MPa 900~1100MPa
47	GJB3374/12—98	MJ 螺纹光杆公差带 f9 短螺纹小六角头螺栓		5~18	30CrMnSiA	1100~1280MPa
48	GJB3374/13~15—98	MJ 螺纹光杆公差带 h8 短螺纹小六角头螺栓		5~18	30CrMnSiA 1Cr17Ni2 38CrA	1100~1280MPa 1100~1280MPa 900~1100MPa
49	GJB3374/16~18—98	铰链连接用 MJ 螺纹光杆公差带 f7 小六角头螺栓		4~18	30CrMnSiA 1Cr11Ni2W2MoV 40CrNiMoA	1100~1280MPa
50	GJB3374/19~21—98	铰链连接用 MJ 螺纹光杆公差带 h6 小六角头螺栓		4~18	30CrMnSiA 1Cr11Ni2W2MoV 40CrNiMoA	1100~1280MPa

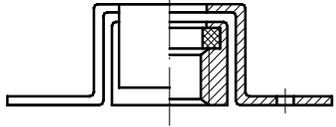
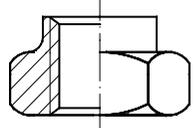
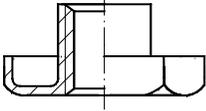
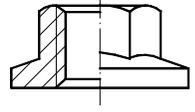
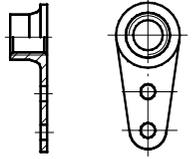
序号	标准代号	产品名称	简图	规格	主要材料	强度等级
51	GJB3374/22~24—98	MJ 螺纹十字槽 盘头螺栓		4~12	30CrMnSiA 1Cr17Ni2 38CrA	1100~1280MPa 1100~1280MPa 900~1100MPa
52	GJB3374/25~26—98	MJ 螺纹扁圆头 螺栓		4~8	30CrMnSiA 1Cr17Ni2	1100~1280MPa
53	GJB3374/27~28—98	MJ 螺纹扁圆头 锥端螺栓		4~8	30CrMnSiA 1Cr17Ni2	1100~1280MPa
54	GJB3374/29—98	MJ 螺纹十字槽 100° 沉头螺栓		4~10	30CrMnSiA	1100~1280MPa
55	GJB3374/30—98	MJ 螺纹光杆公 差带 f9 十字槽 100° 沉头螺栓		5~10	30CrMnSiA	1100~1280MPa
56	GJB3374/31—98	MJ 螺纹十字槽 100° 沉头锥端 螺栓		4~10	30CrMnSiA	1100~1280MPa

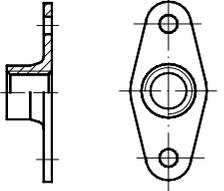
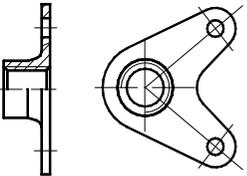
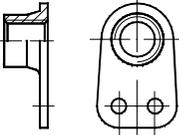
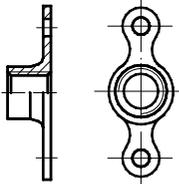
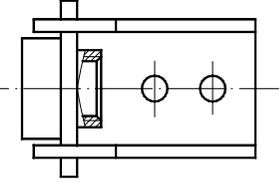
序号	标准代号	产品名称	简图	规格	主要材料	强度等级
57	GJB3374/32—98	MJ 螺纹光杆公差带 h8 十字槽 100° 沉头螺栓		5~10	30CrMnSiA	1100~1280MPa
58	GJB3374/33—98	MJ 螺纹光杆公差带 r6 十字槽 100° 沉头螺栓		5~10	30CrMnSiA	1100~1280MPa
59	GJB3378/1—98	抗剪型光杆公差带 r6 100° 沉头钛合金高锁螺栓		5~10	TC4	≥1100 MPa
60	GJB3378/2—98	抗剪型光杆公差带 f9 100° 沉头钛合金高锁螺栓		5~10	TC4	≥1100 MPa
61	GJB3378/3—98	抗剪型光杆公差带 r6 平头钛合金高锁螺栓		5~10	TC4	≥1100 MPa
62	GJB3378/4—98	抗剪型光杆公差带 f9 平头钛合金高锁螺栓		5~10	TC4	≥1100 MPa
63	GJB3377—98	抗剪型 MJ 螺纹高锁螺母		MJ5×0.8~ MJ10×1.25	LY12—CS	≥375 MPa

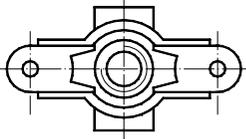
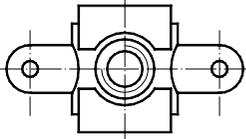
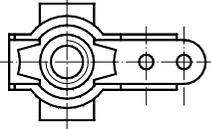
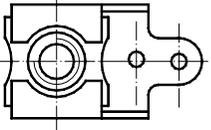
### 三、航天工业(QJ)标准系列

序号	标准代号	产品名称	简图	规格	主要材料	强度等级
	钛合金螺栓螺钉:					
1	QJ2580—93 (Q/W1027—2004)	钛合金六角头 螺栓		M3~M12	TB3	$\geq 800$ MPa $\geq 1100$ MPa
2	QJ2581—93 (Q/W1027—2004)	钛合金六角头 全螺纹螺栓		M3~M12	TB3	$\geq 800$ MPa $\geq 1100$ MPa
3	QJ2582—93 (Q/W1028—2004)	钛合金内六角 圆柱头螺钉		M3~M8	TB3	$\geq 800$ MPa $\geq 1100$ MPa
4	QJ2583—93 (Q/W1029—2004)	钛合金十字槽 盘头螺钉		M3~M10	TB3	$\geq 800$ MPa $\geq 1100$ MPa
5	QJ2584—93 (Q/W1030—2004)	钛合金十字槽 沉头螺钉		M3~M10	TB3	$\geq 800$ MPa $\geq 1100$ MPa
	尼龙圈自锁螺母:					
6	QJ3078.2—98	尼龙圈 六角自锁螺母		M3~M10	10	—

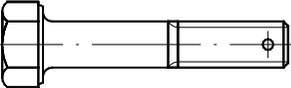
序号	标准代号	产品名称	简图	规格	主要材料	强度等级
7	QJ3078.3—98	尼龙圈合金钢六角自锁螺母		M3~M20×1.5	30CrMnSiA	30~36HRC
8	QJ3078.4—98	尼龙圈不锈钢六角自锁螺母		M3~M8	1Cr18Ni9Ti	—
9	QJ3078.5—98	尼龙圈薄型六角自锁螺母		M3~M20×1.5	30CrMnSiA	30~36HRC
10	QJ3078.6—98	尼龙圈双耳托板自锁螺母		M3~M8	10	—
11	QJ3078.7—98	尼龙圈单耳托板自锁螺母		M3~M8	10	—
12	QJ3078.8—98	尼龙圈游动双耳托板螺母		M3~M8	10	—

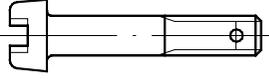
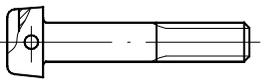
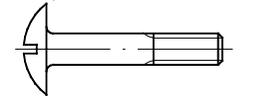
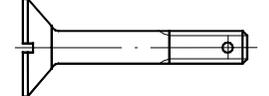
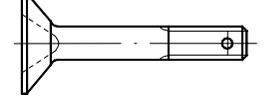
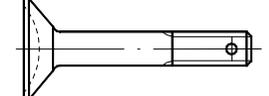
序号	标准代号	产品名称	简图	规格	主要材料	强度等级
13	QJ3078.9—98	尼龙圈游动方螺母		M3~M12× 1.5	30CrMnSiA	30~36HRC
	全金属自锁螺母:					
14	QJ3079.2—98	全金属六角自锁螺母		M3~M20× 1.5	30CrMnSiA	30~36HRC
15	QJ3079.3—98	内外扳拧六角自锁螺母		M4~M10	30CrMnSiA	30~36HRC
16	QJ3079.4—98	六角法兰面自锁螺母		M3~M10	30CrMnSiA	30~36HRC
17	QJ3079.5—98	单耳托板螺母		M3~M10	30CrMnSiA	30~36HRC
18	QJ3079.6—98	不锈钢单耳托板螺母		M3~M10	1Cr17Ni2	30~36HRC

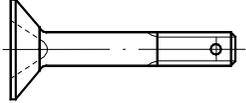
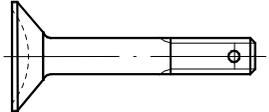
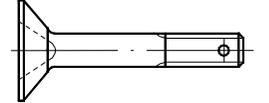
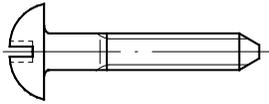
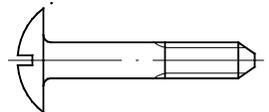
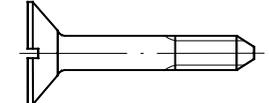
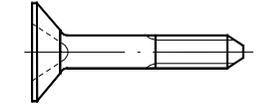
序号	标准代号	产品名称	简图	规格	主要材料	强度等级
19	QJ3079.7—98	双耳托板螺母		M3~M10	30CrMnSiA	30~36HRC
20	QJ3079.8—98	不锈钢双耳托板螺母		M3~M10	1Cr17Ni2	30~36HRC
21	QJ3079.9—98	角形托板螺母		M4~M10	30CrMnSiA	30~36HRC
22	QJ3079.10—98	不锈钢角形托板螺母		M4~M10	1Cr17Ni2	30~36HRC
23	QJ3079.11—98	短单耳托板螺母		M4~M6	30CrMnSiA	30~36HRC
24	QJ3079.12—98	小尺寸双耳托板螺母		M4~M6	30CrMnSiA	30~36HRC
25	QJ3079.13—98	游动直角托板螺母		M4~M6	30CrMnSiA	30~36HRC

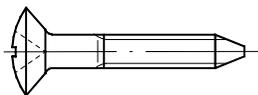
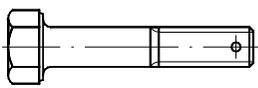
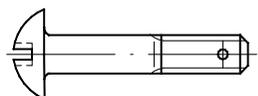
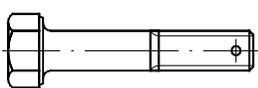
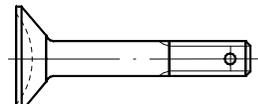
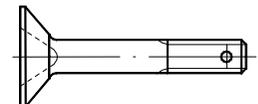
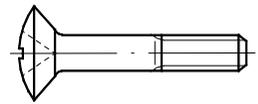
序号	标准代号	产品名称	简图	规格	主要材料	强度等级
26	QJ3079.14—98	游动双耳托板螺母(A型)		M3~M8	30CrMnSiA	30~36HRC
27	QJ3079.15—98	游动双耳托板螺母(B型)		M3~M12× 1.5	30CrMnSiA	30~36HRC
28	QJ3079.16—98	不锈钢游动双耳托板螺母		M3~M12× 1.5	1Cr17Ni2	33~39HRC
29	QJ3079.17—98	游动单耳托板螺母(A型)		M3~M8	30CrMnSiA	30~36HRC
30	QJ3079.18—98	游动单耳托板螺母(B型)		M3~M12× 1.5	30CrMnSiA	30~36HRC
31	QJ3079.19—98	不锈钢游动单耳托板螺母		M3~M12× 1.5	1Cr17Ni2	33~39HRC

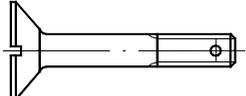
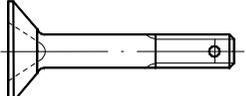
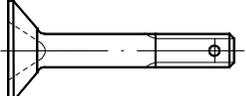
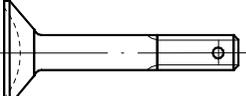
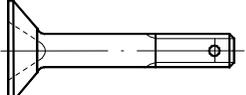
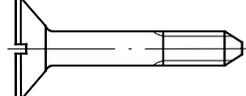
#### 四、航空工业(HB)标准系列

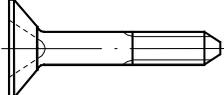
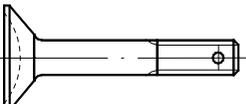
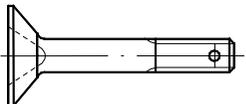
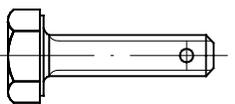
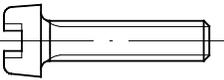
序号	标准代号	产品名称	简图	规格	主要材料	强度等级
	螺栓:					
1	HB1—101—95	六角头螺栓		2.5~18	ML25	≥590MPa
2	HB1—102—95	短螺纹小六角头螺栓		4~24	ML30CrMnSiA	1175±100MPa
				5~18	40CrNiMoA	1175±100MPa
				5~18	1Cr17Ni2	1175±100MPa
				5~18	1Cr18Ni9Ti	—
				5~18	GH2132	1030±100MPa
				4~12	H62	—
3	HB1—103—95	光杆公差带 f9 六角头螺栓	4~24	ML30CrMnSiA	1175±100MPa	
4	HB1—104—95	光杆公差带 f9 短螺纹小六角头螺栓	5~22	ML30CrMnSiA	1175±100MPa	
5	HB1—105—95	光杆公差带 h8 短螺纹小六角头螺栓	5~24	ML30CrMnSiA GH2132 40CrNiMoA 1Cr11Ni2W2MoV	1175±100MPa 1030±100MPa 1175±100MPa 1175±100MPa	
6	HB1—106—95	铰链连接用光杆公差带 f7 小六角头螺栓	4~22			
7	HB1—107—95	铰链连接用光杆公差带 h6 小六角头螺栓	4~22			

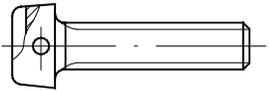
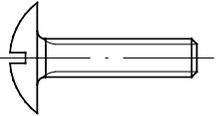
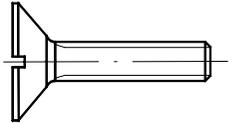
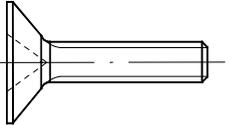
序号	标准代号	产品名称	简图	规格	主要材料	强度等级
8	HB1—126—95	圆柱头螺栓		1.6~10 4~10 1.6~10 2~6	ML25 ML30CrMnSiA 1Cr17Ni2 H62	$\geq 590\text{MPa}$ 1175±100MPa 1175±100MPa —
9	HB1—127—95	头部带保险孔的 圆柱头螺栓		2~10 5~10 2~6	ML25 1Cr18Ni9Ti H62	$\geq 590\text{MPa}$ — —
10	HB1—128—95	扁圆头螺栓		2~8 4~8 5~8	ML25 ML30CrMnSiA 1Cr17Ni2	$\geq 590\text{MPa}$ 1175±100MPa 1175±100MPa
11	HB1—129—95	90° 沉头螺栓		1.6~10 4~10 5~10 5~10 5~10 1.6~6	ML25 ML30CrMnSiA 1Cr17Ni2 1Cr18Ni9Ti GH2132 H62	$\geq 590\text{MPa}$ 1175±100MPa 1175±100MPa — 1030±100MPa —
12	HB1—130—95	十字槽 90° 沉头 螺栓		4~10	ML25 ML30CrMnSiA 1Cr17Ni2	$\geq 590\text{MPa}$ 1175±100MPa 1175±100MPa
13	HB1—131—95	光杆公差带 f9 90° 沉头螺栓		5~20	ML30CrMnSiA	1175±100MPa

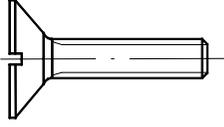
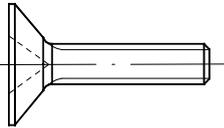
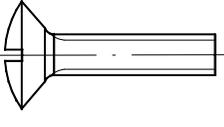
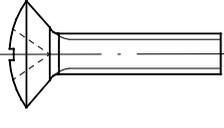
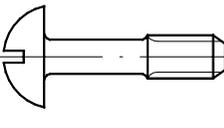
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14	HB1—132—95	光杆公差带 f9 十字槽 90° 沉头螺栓		5~10	ML30CrMnSiA	1175±100MPa
15	HB1—133—95	光杆公差带 h8 短螺纹 90° 沉头螺栓		5~20	ML30CrMnSiA	1175±100MPa
16	HB1—134—95	光杆公差带 h8 短螺纹十字槽 90° 沉头螺栓		5~10	ML30CrMnSiA	1175±100MPa
17	HB1—138—95	半圆头锥端螺栓		5~10	ML30CrMnSiA	1175±100MPa
18	HB1—139—95	扁圆头锥端螺栓		4~8	ML30CrMnSiA	1175±100MPa
19	HB1—140—95	90° 沉头锥端螺栓		4~10	ML30CrMnSiA	1175±100MPa
11	HB1—141—95	十字槽 90° 沉头锥端螺栓		4~10	ML30CrMnSiA	1175±100MPa

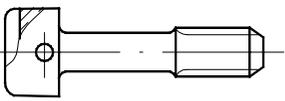
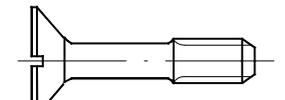
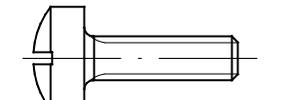
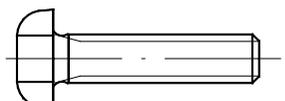
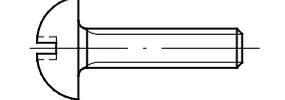
序号	标准代号	产品名称	简图	规格	主要材料	强度等级
12	HB1—142—95	十字槽 120° 半沉头锥端螺栓		4~10	ML30CrMnSiA	1175±100MPa
13	HB1—151—95	光杆公差带 f9 短螺纹六角头螺栓		5~24	ML30CrMnSiA	1175±100MPa
14	HB1—152—95	半圆头螺栓		1.6~10	ML25 ML30CrMnSiA 1Cr17Ni2 H62	≥590MPa 1175±100MPa 1175±100MPa —
15	HB1—153—95	光杆公差带 r6 短螺纹六角头螺栓		5~22	ML30CrMnSiA LY12—CZ	1175±100MPa —
16	HB1—155—95	光杆公差带 r6 短螺纹 90° 沉头螺栓		5~20	ML30CrMnSiA	1175±100MPa
17	HB1—156—95	光杆公差带 r6 短螺纹十字槽 90° 沉头螺栓		5~10	ML30CrMnSiA	1175±100MPa
18	HB1—157—95	短螺纹十字槽 120° 半沉头螺栓		4~10	ML30CrMnSiA LY8	1175±100MPa ≥375MPa

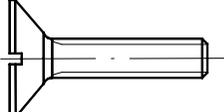
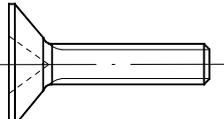
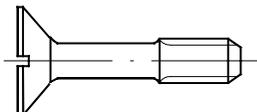
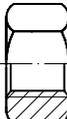
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19	HB7187~7195—95	100° 沉头螺栓		1.6~10	ML25 ML30CrMnSiA 1Cr17Ni2 1Cr18Ni9Ti GH2132 H62	≥590MPa 1175±100MPa 1175±100MPa — 1030±100MPa —
20	HB7196~7199—95	十字槽 100° 沉头螺栓		4~10	ML25 ML30CrMnSiA 1Cr17Ni2 LY8	≥590MPa 1175±100MPa 1175±100MPa ≥375MPa
21	HB7200—95	光杆公差带 f9 100° 沉头螺栓		5~20	ML30CrMnSiA	1175±100MPa
22	HB7201—95	光杆公差带 f9 十字槽 100° 沉头螺栓				
23	HB7202—95	光杆公差带 h8 短 螺纹 100° 沉头螺 栓		5~20	ML30CrMnSiA	1175±100MPa
24	HB7203—95	光杆公差带 h8 短 螺纹十字槽 100° 沉头螺栓		5~20	ML30CrMnSiA	1175±100MPa
25	HB7204—95	100° 沉头锥端螺 栓		4~10	ML30CrMnSiA	1175±100MPa

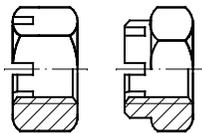
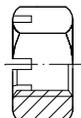
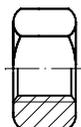
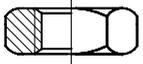
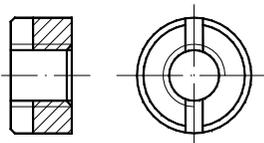
序号	标准代号	产品名称	简图	规格	主要材料	强度等级
26	HB7205—95	十字槽 100° 沉头 锥端螺栓		4~10	ML30CrMnSiA	1175±100MPa
27	HB7206—95	光杆公差带 r6 短 螺纹 100° 沉头螺 栓		5~10	ML30CrMnSiA	1175±100MPa
28	HB7207—95	光杆公差带 r6 短 螺纹十字槽 100° 沉头螺栓		5~20	ML30CrMnSiA	1175±100MPa
	螺钉:					
29	HB1—201—95	六角头螺钉		M 2.5~10 M 4~10 M 3~10 M 2.5~10 M 3~10 M 5~10 M 2.5~6 M 5~10	ML25 ML30CrMnSiA 40CrNiMoA 1Cr17Ni2 1Cr18Ni9Ti GH2132 H62 1Cr11Ni2W2MoV	≥590MPa 1175±100MPa 1175±100MPa 1175±100MPa — 1030±100MPa — 1175±100MPa
30	HB1—202—95	圆柱头螺钉		M 1.6~10 M 4~10 M 1~10 M 3~10 M 1.6~6 M 1.6~10	ML25 ML30CrMnSiA 1Cr17Ni2 LY8 H62 GH2132	≥590MPa 1175±100MPa 1175±100MPa ≥375MPa — 1030±100MPa

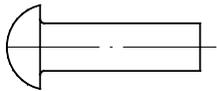
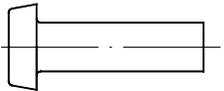
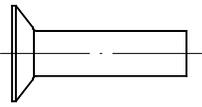
序号	标准代号	产品名称	简图	规格	主要材料	强度等级
31	HB1—203—95	头部带保险孔的 圆柱头螺钉		M 2~10 M 4~10 M 4~10 M 2~10 M 3~10 M 2~6	ML25 38CrA ML30CrMnSiA 1Cr18Ni9Ti LY8 H62	$\geq 590\text{MPa}$ $1030 \pm 100\text{MPa}$ $1175 \pm 100\text{MPa}$ — $\geq 375\text{MPa}$ —
32	HB1—204—95	扁圆头螺钉		M 2~8 M 4~8 M 2~8 M 3~8	ML25 ML30CrMnSiA 1Cr17Ni2 LY8	$\geq 590\text{MPa}$ $1175 \pm 100\text{MPa}$ $1175 \pm 100\text{MPa}$ $\geq 375\text{MPa}$
33	HB1—205—95	90° 沉头螺钉		M 1.6~10 M 4~10 M 4~10 M 2~10 M 1.6~3 M 5~10 M 3~10 M 1.6~6	ML25 38CrA ML30CrMnSiA 1Cr17Ni2 1Cr18Ni9Ti GH2132 LY8 H62	$\geq 590\text{MPa}$ $1030 \pm 100\text{MPa}$ $1175 \pm 100\text{MPa}$ $1175 \pm 100\text{MPa}$ — $1030 \pm 100\text{MPa}$ $\geq 375\text{MPa}$ —
34	HB1—206—95	十字槽 90° 沉头 螺钉		M 2.5~10 M 4~10 M 2.5~10 M 3~10	ML25 ML30CrMnSiA 1Cr17Ni2 LY8	$\geq 590\text{MPa}$ $1175 \pm 100\text{MPa}$ $1175 \pm 100\text{MPa}$ $\geq 375\text{MPa}$

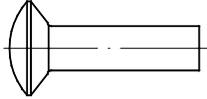
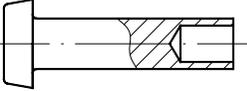
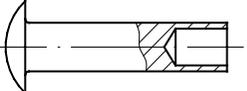
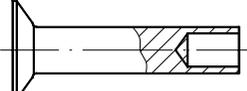
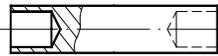
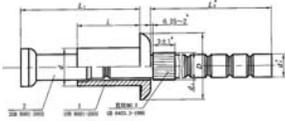
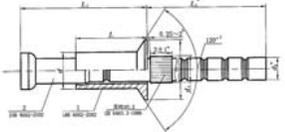
序号	标准代号	产品名称	简图	规格	主要材料	强度等级
35	HB1—207—95	120° 沉头螺钉		M 2~10 M 4~10 M 2~10 M 3~10 M 2~10	ML25 ML30CrMnSiA 1Cr17Ni2 LY8 GH2132	$\geq 590\text{MPa}$ $1175 \pm 100\text{MPa}$ $1175 \pm 100\text{MPa}$ $\geq 375\text{MPa}$ $1030 \pm 100\text{MPa}$
36	HB1—208—95	十字槽 120° 沉头螺钉		M 3~10 M 4~10 M 3~10 M 3~10	ML25 ML30CrMnSiA 1Cr17Ni2 LY8	$\geq 590\text{MPa}$ $1175 \pm 100\text{MPa}$ $1175 \pm 100\text{MPa}$ $\geq 375\text{MPa}$
37	HB1—209—95	90° 半沉头螺钉		M 1.6~6 M 4~6 M 4~6 M 1.6~6	ML25 38CrA ML30CrMnSiA H62	$\geq 590\text{MPa}$ $1030 \pm 100\text{MPa}$ $1175 \pm 100\text{MPa}$ —
38	HB1—210—95	十字槽 90° 半沉头螺钉		M 2.5~6 M 4~6 M 4~6	ML25 38CrA ML30CrMnSiA	$\geq 590\text{MPa}$ $1030 \pm 100\text{MPa}$ $1175 \pm 100\text{MPa}$
39	HB1—211—95	十字槽 120° 半沉头螺钉		M 4~10 M 4~10 M 4~10 M 4~6	ML25 ML30CrMnSiA 1Cr17Ni2 H62	$\geq 590\text{MPa}$ $1175 \pm 100\text{MPa}$ $1175 \pm 100\text{MPa}$ —
40	HB1—212—95	半沉头不脱出螺钉		M3~6	45	$\geq 590\text{MPa}$

序号	标准代号	产品名称	简图	规格	主要材料	强度等级
41	HB1—213—95	头部带保险孔的不脱出圆柱头螺钉		M3~6	HPb59—1	—
42	HB1—214—95	120° 沉头不脱出螺钉		M3~6	45	≥590MPa
43	HB1—215—95	固定表盘螺钉		M1.4~M3	ML25 H62 H62 防磁	≥590MPa —
44	HB1—216—95	两边切平的接触螺钉		M4~M12× 1.5	H62	—
45	HB1—221—95	半圆头螺钉		M 1.6~10 M 4~10 M 1.6~10 M 3~10 M1.6~6 M 1.6~6 M 1.6~10	ML25 ML30CrMnSiA 1Cr17Ni2 LY8 H62 H62 防磁 GH2132	≥590MPa 1175±100MPa 1175±100MPa ≥375MPa — — 1030±100MPa

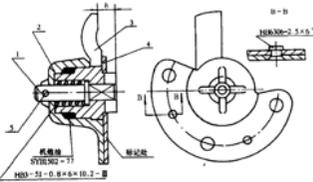
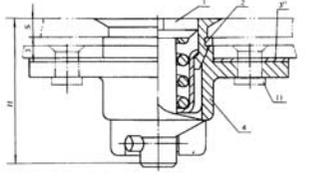
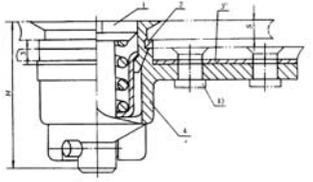
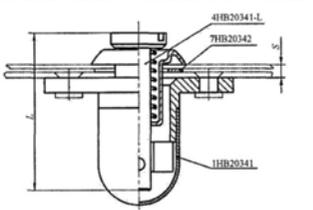
序号	标准代号	产品名称	简图	规格	主要材料	强度等级
46	HB7208~7216—95	100° 沉头螺钉		M 1.6~10 M 4~10 M 4~10 M 2~10 M5~10 M 1.6~3 M 8~10 M 1.6~6	ML25 38CrA ML30CrMnSiA 1Cr17Ni2 GH2132 1Cr18Ni9Ti LY8 H62	$\geq 590\text{MPa}$ 1030±100MPa 1175±100MPa 1175±100MPa 1030±100MPa — $\geq 375\text{MPa}$ —
47	HB7217~7220—95	十字槽 100° 沉头螺钉		M 2.5~10 M 4~10 M 2.5~10 M 3~10	ML25 ML30CrMnSiA 1Cr17Ni2 LY8	$\geq 590\text{MPa}$ 1175±100MPa 1175±100MPa $\geq 375\text{MPa}$
48	HB7221—95	100° 沉头不脱出螺钉		M3~M6	45	$\geq 590\text{MPa}$
	螺母:					
49	HB1—401—83	六角厚螺母		M4~M18	45 30CrMnSiA 1Cr18Ni9Ti 1Cr11Ni2W2MoV GH2132 HPb59-1	$\geq 590\text{MPa}$ 980±100MPa — 980±100MPa 835±100MPa —

序号	标准代号	产品名称	简图	规格	主要材料	强度等级	
50	HB1—402—83	六角槽形厚螺母		M4~M18	45 30CrMnSiA 38CrA 1Cr17Ni2 1Cr18Ni9Ti 1Cr11Ni2W2MoV GH2132 LY11-CZ HPb59-1	≥590MPa 980±100MPa 835±100MPa 980±100MPa — 980±100MPa 835±100MPa — —	
51	HB1—403—83	六角槽形螺母					
52	HB1—404—83	六角槽形扁螺母					
53	HB6223~6228—89 HB6251~6254—89	小六角螺母					
54	HB6255~6264—89	六角螺母					
55	HB6265~6274—89	小六角较薄螺母					M6~M27
56	HB6275~6284—89	六角较薄螺母					
57	HB6285~6293—89	小六角较薄螺母					
58	HB6294~6296—89	带槽圆螺母		M1.6~M12	45 HPb59-1 HPb59-1	—	

序号	标准代号	产品名称	简图	规格	主要材料	强度等级
	铆钉:					
59	HB6229~6239—89	半圆头铆钉		1~10	L4、LY1、LY10 LF10、LF20 ML18 1Cr18Ni9Ti H62、 T3	—
60	HB6297~6303—89	平锥头铆钉		2~10	L4、LY1、LY10 LF10、LF20 ML18 1Cr18Ni9Ti	—
61	HB6304~6314—89	沉头铆钉		1.4~10	L4、LY1、LY10 LF10、LF20 ML18 1Cr18Ni9Ti H62、 T3	—
62	HB6315~6319—89	120° 沉头铆钉		2~8	L4、LY1、LY10 LF10、ML18 1Cr18Ni9Ti	—
63	HB6323~6328—89	大扁圆头铆钉		2~8	L4、LY1、LY10 LF10、LF21、 ML18 1Cr18Ni9Ti	—

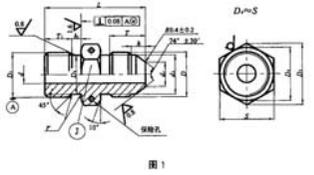
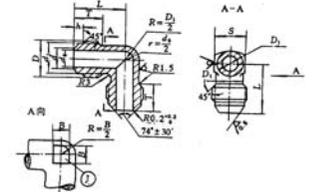
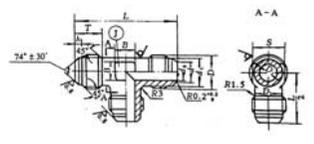
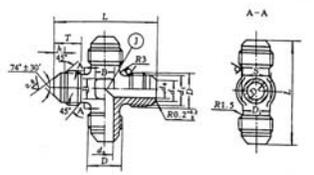
序号	标准代号	产品名称	简图	规格	主要材料	强度等级
64	HB6329~6331—89	120° 半沉头铆钉		3~6	LY10、 ML18 1Cr18Ni9Ti	—
65	HB6332~6337—89	平锥头半空心铆钉		1.4~4	L4、LY1、 ML18、 H62、T3 1Cr18Ni9Ti	—
66	HB6332~6337—89	大扁圆头半空心铆钉		2~4	L4、LY1、 ML18、 H62、 T3	—
67	HB6344~6349—89	沉头半空心铆钉		1.4~4	L4、LY1、 ML18、 H62、T3	—
68	HB6350—89	无头半空心铆钉		1.4~10	25	—
69	HB8001-2002	不锈钢平圆头抽芯铆钉		1~13	组合件（不锈钢）	—
70	HB8002-2002	不锈钢 120° 沉头抽芯铆钉		1~11	组合件（不锈钢）	—

序号	标准代号	产品名称	简图	规格	主要材料	强度等级
71	HB8003-2002	铝合金平圆头抽芯铆钉		1~13	组合件 (铝合金)	—
72	HB8004-2002	铝合金 90° 沉头抽芯铆钉		1~11	组合件 (铝合金)	—
73	HB8005-2002	铝合金 120° 沉头抽芯铆钉		1~11	组合件 (铝合金)	—
74	HB5505-1983	90° 沉头抗拉环槽铆钉		4~6	30CrMnSiA	1175±100MPa
75	HB5506-1983	平圆头抗拉环槽铆钉		4~6	30CrMnSiA	1175±100MPa

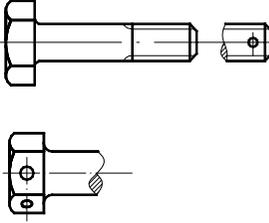
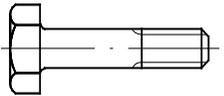
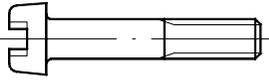
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	快卸锁					
76	HB2-32-94	口盖锁		1~10	组合件	
77	HB2-36-94	双耳快卸锁		1~3	组合件	
78	HB2-37-94	单耳快卸锁		1~3	组合件	
79	HB20341-2016	密封销钉快卸锁		1~7	组合件	

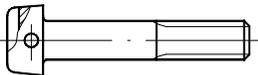
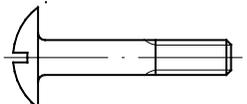
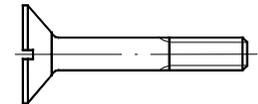
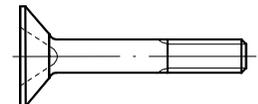
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	弹簧					
80	HB3-51~53-90	压缩弹簧		d=0.2~3	II a、50CrV、 65SiMnWA	
81	HB3-54~55-2008	拉伸弹簧		d=0.2~3	70E、65Si2MnWA	
82	HB6766-93	压缩弹簧		d=0.2~3	G1	

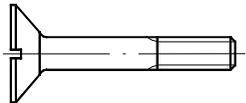
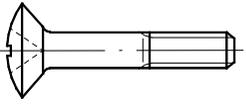
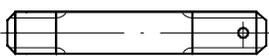
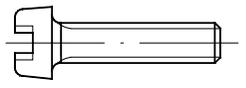
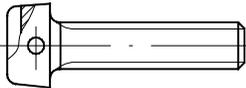
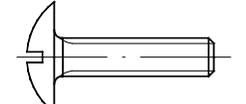
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	管路连接件					
83	HB4-44-2002	平管嘴		2~35	45、30CrMnSiA、 1Cr17Ni2、 1Cr11Ni2W2MoV	
84	HB4-45-2002	外套螺母		2~35	45、2A12、 1Cr17Ni2、 1Cr11Ni2W2MoV	
85	HB4-47-1999	压紧螺母		M6~M24× 1.5	45、2A12	

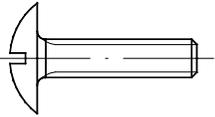
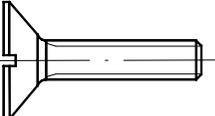
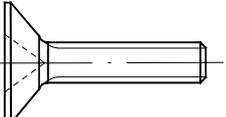
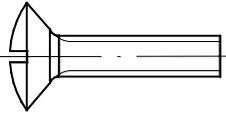
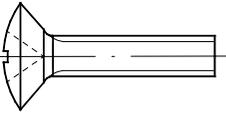
86	HB4-8-2002	扩口式拧入式直通管接头		2~35	45、2A12、 1Cr18Ni9Ti、 1Cr11Ni2W2MoV	
87	HB4-13-1999	直角管接头		2~35	LD5、45、 1Cr18Ni9Ti	
88	HB4-17-1999	三通管接头		2~35	LD5、45、 1Cr18Ni9Ti	
89	HB4-26-1999	四通管接头		2~35	LD5、45、 1Cr18Ni9Ti	

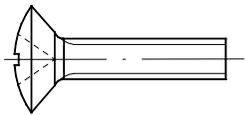
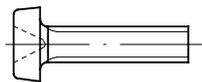
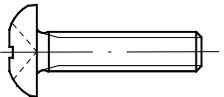
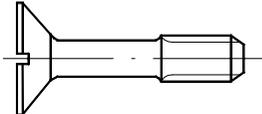
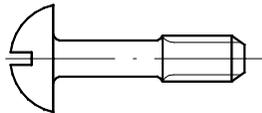
## 五、航天一院(YC、Q/Y)标准系列

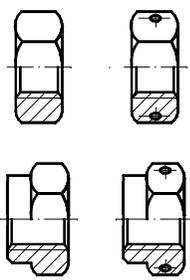
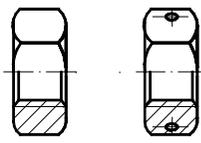
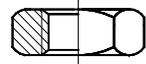
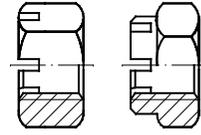
序号	标准代号	产品名称	简图	规格	主要材料	强度等级
	螺栓:					
1	Q/Y70.1~70.16—2001 (YC011~0123—88)	六角头螺栓		M2~M18 M5~M24 M5~M24 M5~M12 M5~M12 M6~M20 M2~M12 M2~M12	45 30CrMnSiA 1Cr18Ni9Ti 2A11-T4 2B11 2A14-T6 H62Y2 HPb59-1	≥630MPa 1200±100MPa — — 375MPa 440MPa — —
2	Q/Y71.1~71.7—2001 (YC0125~0137—88)	小六角头螺栓		M8~M18	45 30CrMnSiA 1Cr18Ni9Ti	≥630MP 1200±100MPa —
3	Q/Y72.1~72.3—2001 (YC0143~0145—88)	六角头螺栓		M5~M24	30CrMnSiA	1200±100MPa
4	Q/Y73—2001 (YC0148—88)	小六角头短螺 纹螺栓		M5~M24	30CrMnSiA	1200±100MPa
5	Q/Y74.1~74.4—2001 (YC0164~0170—88)	开槽圆柱头螺 栓		M1.6~M10 M3~M10 M3~M10 M1.6~M6 M3~M10	45 2A11-T4 2B11 H62Y2 2Cr13	≥630MP — 375MPa — HRC25~31

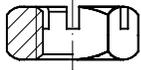
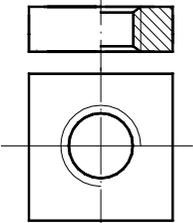
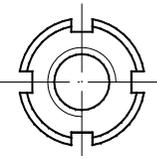
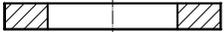
序号	标准代号	产品名称	简图	规格	主要材料	强度等级
6	Q/Y75.1~75.3—2001 (YC0172~0176—88)	开槽带保险孔 圆柱头螺栓		M2~M10	45	≥630MP
				M3~M10	2A11-T4	—
				M3~M10	2B11	375MPa
				M2~M6	H62Y2	—
				M2~M6	HPb59-1	—
7	Q/Y76.1~76.5—2001 (YC0180~0194—88)	开槽扁圆头 螺栓		M1.6~M10	45	≥630MP
				M5~M10	30CrMnSiA	1200±100MPa
				M3~M10	2A11-T4	—
				M3~M10	2B11	375MPa
				M1.6~M6	H62Y2	—
				M1.6~M6	HPb59-1	—
8	Q/Y77.1~77.2—2001 (YC0195~0197—88)	开槽平凸头 螺栓		M8~M8	45	≥630MP
				M5~M8	30CrMnSiA	1200±100MPa
9	Q/Y78.1~78.5—2001 (YC01100~01114—88)	开槽沉头螺栓		M1.6~M10	45	≥630MP
				M5~M10	30CrMnSiA	1200±100MPa
				M3~M10	2A11-T4	—
				M3~M10	2B11	375MPa
				M1.6~M6	H62Y2	—
				M1.6~M6	HPb59-1	—
10	Q/Y79.1~79.2—2001 (YC01116~01118—88)	十字槽沉头 螺栓		M4~M10	ML25	≥590MPa
				M5~M10	ML30CrMnSiA	1200±100MPa

序号	标准代号	产品名称	简图	规格	主要材料	强度等级
11	Q/Y80—2001 (YC01125—88)	开槽沉头螺栓		M5~M12	30CrMnSiA	1200±100MPa
12	Q/Y81.1~81.2—2001 (YC01130~01132—88)	开槽半沉头螺栓		M3~M10 M5~M10	45 30CrMnSiA	≥630MP 1200±100MPa
13	Q/Y82.1~82.6—2001 (YC01170~01175—88)	螺柱 ( $b_m=d$ )		M8~M18	45 30CrMnSiA 1Cr18Ni9Ti	≥630MP 1200±100MPa —
14	Q/Y83.1~83.6—2001 (YC01180~01185—88)	螺柱 ( $b_m=2d$ )		M3~M18	45 30CrMnSiA 1Cr18Ni9Ti	≥630MP 1200±100MPa —
	螺钉:					
15	Q/Y84.1~84.2—2001 (YC021~023—88)	开槽圆柱头螺钉		M1.6~M10 M1.6~M6	45 H62Y2 HPb59-1	≥630MP
16	Q/Y85.1~85.3—2001 (YC026~028—88)	开槽保险孔圆柱头螺钉		M2~M10 M3~M10 M2~M6 M2~M6	45 1Cr18Ni9Ti H62Y2 HPb59-1	≥630MP — — —
17	Q/Y86.1~86.3—2001 (YC0210~0214—88)	开槽扁圆头螺钉		M1.6~M10 M3~M10 M3~M10 M1.6~M6	45 2A11-T4 2B11 H62Y2、 HPb59-1	≥630MP — 375MPa —

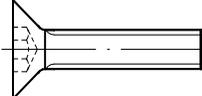
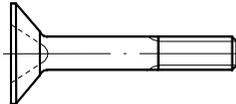
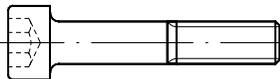
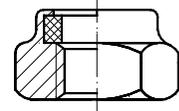
序号	标准代号	产品名称	简图	规格	主要材料	强度等级
18	Q/Y87.1~87.2—2001 (YC0218~0220—88)	开槽平凸头 螺钉		M2~M8 M3~M8 M3~M8	10 2B11 2A11-T4	— 375MPa —
19	Q/Y88.1~88.4—2001 (YC0224~0230—88)	开槽沉头螺钉		M1.6~M10 M3~M10 M3~M10 M1.6~M6 M3~M10	45 2A11-T4 2B11 H62Y2、 HPb59-1 1Cr18Ni9Ti	≥630MP — 375MPa — —
20	Q/Y89—2001 (YC0232—88)	十字槽沉头 螺钉		M4~M10	ML25	≥590MPa
21	Q/Y90.1~90.2—2001 (YC0235~0237—88)	开槽半沉头 螺钉		M2~M10 M2~M6	45 H62Y2、 HPb59-1	≥630MP —
22	Q/Y91.1~91.2—2001 (YC0240~0241—88)	120° 十字槽半 沉头螺钉		M4~M10	45 30CrMnSiA	≥630MP 1200±100MPa

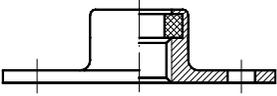
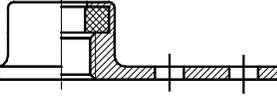
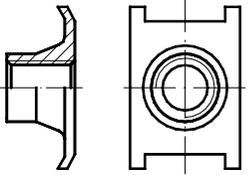
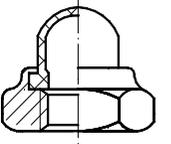
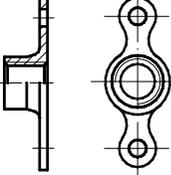
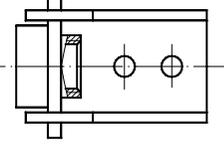
序号	标准代号	产品名称	简图	规格	主要材料	强度等级
23	Q/Y92—2001 (YC0245—88)	120° 十字槽半 沉头螺钉		M4~M10	45 30CrMnSiA	$\geq 630\text{MPa}$ 1200±100MPa
24	Q/Y93.1~93.2—2001 (YC0250~0251—88)	开槽锥端紧定 螺钉		M2~M10 M2~M6	45 HPb59-1	HV $\geq 187$ —
25	Q/Y94.1~94.2—2001 (YC0255~0256—88)	开槽倒角端紧 定螺钉		M2~M10 M2~M6	45 HPb59-1	HV $\geq 187$ —
26	Q/Y95.1~95.2—2001 (YC0261~0262—88)	十字槽平圆头 螺钉		M2~M10 M3~M10	ML25 2B11	$\geq 590\text{MPa}$ $\geq 375\text{MPa}$
27	Q/Y96—2001 (YC0266—88)	十字槽平凸头 螺钉		M2~M8	10	—
28	Q/Y97—2001 (YC0270—88)	开槽沉头不脱 出螺钉		M5~M10	45	$\geq 630\text{MPa}$
29	Q/Y98—2001 (YC0274—88)	开槽圆头不脱 出螺钉		M5~M10	45	$\geq 630\text{MPa}$

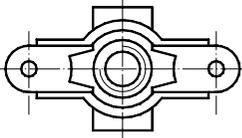
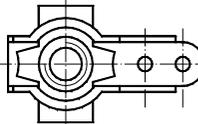
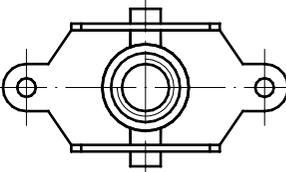
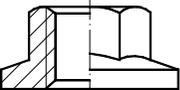
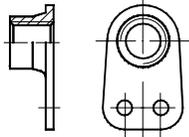
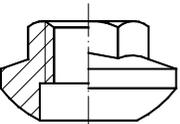
序号	标准代号	产品名称	简图	规格	主要材料	强度等级
	螺母、垫圈:					
30	Q/Y30.1~30.9—2000 (YC031~0313—88)	六角螺母		M4~M24	45 30CrMnSiA 1Cr18Ni9Ti 2A11-T4 HPb59-1	— 980±98MPa — — —
31	Q/Y31.1~31.10—2000 (YC0315~0329—88)	六角薄螺母		M5~M24		
32	Q/Y32.1~32.6—2000 (YC0330~0337—88)	六角保险螺母		M3~M30	45 和 20 30CrMnSiA 1Cr18Ni9Ti 2A11-T4 2A12-T4 HPb59-1	— 980±98MPa — — —
33	Q/Y33.1~33.4—2000 (YC0340~0345—88)	六角开槽厚螺母		M4~M24	45 30CrMnSiA 1Cr18Ni9Ti 2A11-T4	— 980±98MPa — —
34	Q/Y34.1~34.4—2000 (YC0346~0351—88)	六角开槽螺母		M6~M24		

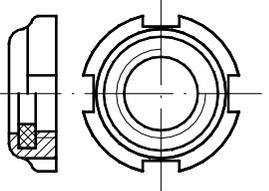
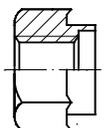
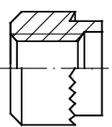
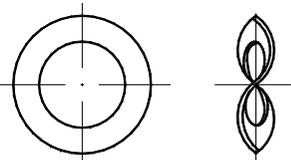
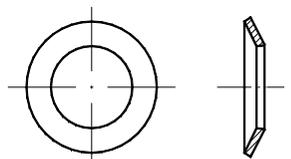
序号	标准代号	产品名称	简图	规格	主要材料	强度等级
35	Q/Y35.1~35.4—2000 (YC0352~0358—88)	六角开槽扁螺母		M4~M24	45 30CrMnSiA 1Cr18Ni9Ti 2A11-T4	— 980±98MPa — —
36	Q/Y37.1~37.2—2000 (YC0376~0377—88)	方螺母		M3~M24	45	HRC24~30
37	Q/Y38—2000 (YC0379—88)	小圆螺母		M10~M30	45	HRC24~30
38	Q/Y39—2000 (YC0380—88)	圆螺母		M10~M30		
39	Q/Y49.1~49.5—2000 (YC041~044—88 YC0433—88)	平垫圈		1.6~24	08Al 和 08F 30CrMnSiA 1Cr18Ni9Ti 2A12-T4 HPb59-1	— 300~400HV — — —

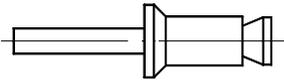
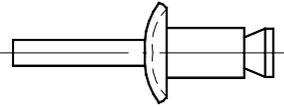
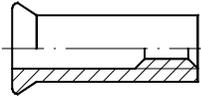
## 六、航天二院(WE)标准系列

序号	标准代号	产品名称	简图	规格	主要材料	强度等级
	螺钉:					
1	WE300—88	沉头内六角螺钉		M5	30CrMnSiA	10.9
2	WE308—88	十字槽 120° 沉头螺钉		M4~ M6	30CrMnSiA 1Cr18Ni9Ti	10.9 A1-50
3	WE309—88	十字槽 90° 沉头螺钉		M2~ M6		
4	WE310—88	圆柱头内六角螺钉		M2.5~ M6	30CrMnSiA 1Cr18Ni9Ti	10.9 A1-50
	螺母:					
5	WE209—88	六角尼龙圈锁紧螺母 (标准型)		M3~ M10	15 MLC15 Y12	5
6	WE210—88	六角尼龙圈锁紧螺母 (特薄型)		M5~ M10	15 MLC15 Y12	04
7	WE224—88	六角尼龙圈锁紧螺母 (薄型)		M2.5~ M14	30CrMnSiA	10
8	WE229—88	不锈钢六角尼龙圈锁紧螺母 (标准型)		M3~ M8	1Cr18Ni9Ti	A1-50

序号	标准代号	产品名称	简图	规格	主要材料	强度等级
9	WE212—88	双耳托板尼龙圈锁紧螺母		M4~ M6	15 MLC15 Y12	5
10	WE213—88	单耳托板尼龙圈锁紧螺母		M4~ M6	15 MLC15 Y12	5
11	WE214—88	自锁螺母		M4	30CrMnSiA	8
12	WE215—88	六角尼龙罩密封锁紧螺母		M8	30CrMnSiA	8
13	WE217—88	轻型双耳托板自锁螺母		M4~ M5	30CrMnSiA	8
14	WE218—88	直角托板自锁螺母		M4~ M5	30CrMnSiA	8

序号	标准代号	产品名称	简图	规格	主要材料	强度等级
15	WE219—88	游动双耳托板自锁螺母		M3~ M8	30CrMnSiA	8
16	WE220—88	游动单耳托板自锁螺母		M3~ M5	30CrMnSiA	8
17	WE221—88	游动双耳托板尼龙圈锁紧螺母		M6~ M8	15 MLC15 Y12	5
18	WE222—88	六角法兰面自锁螺母		M3~ M6	30CrMnSiA	10
19	WE223—88	小型短单耳托板自锁螺母		M6	30CrMnSiA	8
20	WE225—88	六角法兰球面自锁螺母		M6	30CrMnSiA	10

序号	标准代号	产品名称	简图	规格	主要材料	强度等级
21	WE226—88	尼龙圈锁紧圆螺母		M20×1	30CrMnSiA	8
22	WE227—88	铆装螺母		M2~ M5	20	—
23	WE228—88	铆装螺母		M2~ M2.5	Y12 M15 H62	—
	垫圈:					
24	WE284—88	波形弹性垫圈		2~8	0Cr <sub>12</sub> Mn <sub>5</sub> Ni <sub>4</sub> Mo <sub>3</sub> Al	—
25	WE284—88	碟形弹性垫圈		8~12	50CrVA 65Mn	HRC42~48 HRC44~50

序号	标准代号	产品名称	简图	规格	主要材料	强度等级
	铆钉:					
26	WE260—88	沉头管状抽芯铆钉		2.5×3.9 2.5×4.8 2.5×6.6	M115	—
27	WE261—88	平圆头管状抽芯铆钉		2.5×3.9 2.5×4.8 2.5×6.6	M115	—
28	WE266—88	120° 沉头螺纹空心铆钉		M4~M6	M115	—