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Dimensions in mm

1 DIAGRAM AND DIMENSIONS

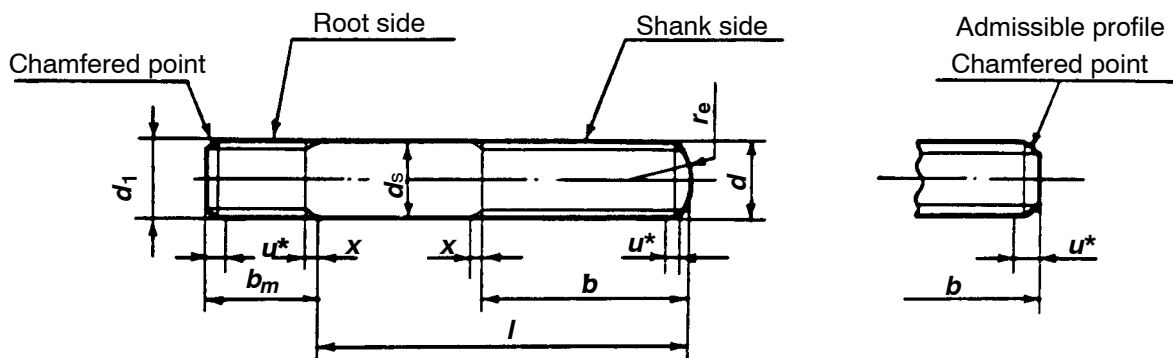


TABLE I – Basic dimensions

Thread d	(6g)	M5	M6	M8	M10	M12	M14	M16	M20	M24	
	d_1										(2m/6g)
Pitch	P	0.8	1	1.25	1.5	1.75	2	2	2.5	3	
b	0	$I \leq 120$	16	18	22	26	30	34	38	46	54
		$120 < I \leq 200$	–	–	–	32	36	40	44	52	60
		$I > 200$	–	–	–	–	–	–	–	–	73
b_m	nominal	13	15	20	25	32	35	40	50	60	
	(js16) deviation	± 0.55		± 0.65		± 0.80			± 0.95		
d_s	nominal	5.00	6.00	8.00	10.00	12.00	14.00	16.00	20.00	24.00	
	(h13) deviation	0 –0.18		0 –0.22		0 –0.27			0 –0.33		
r_e	approx.	7	8.4	11.2	14	16.8	19.6	22.4	28	33.6	
u	(2 P) max.	1.6	2.0	2.5	3.0	3.5	4.0	4.0	5.0	6.0	
x	(2.5 P) max.	2	2.5	3.1	3.8	4.4	5.0	5.0	6.2	7.5	

* Length of incomplete thread.

Edition	Date	Description of modifications	Group
1	18.12.1986		TPM
5	27.07.2000	In Table III: DAC 500–5 and DAC 500–5–LC finishes added and DAC 5 updated to DAC 320–5.	
6	05.09.2003	Added: Lexicon Code, Standards Quoted, in Table III Note (■), Fe/Zn 12 IV S, GEO 321–5–PM finishes. DAC 500–5–LC finish cancelled.	
7	27.01.2006	Added: Supervisor, Manager, finish Fe/Zn 12 IV in Table III. Modified: note ■ to finish Fe/Zn 12 IV S and Standards Quoted.	
8	15.03.2007	Note added and coatings containing hexavalent chromium removed from Table III and replaced with corresponding chromium-free coatings. Coatings with alphanumeric standard number frozen in Table III.	

HANDLING ON INTERLEAF
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In case of dispute the only valid reference is the original Italian edition.


TABLE II – Lengths, basic Standard No. and mass (7.85 kg/dm³)

Thread <i>d</i>		M5		M6		M8		M10		M12	
nomin.	deviation	Basic	Mass	Basic	Mass	Basic	Mass	Basic	Mass	Basic	Mass
		Std. No.	g/piece approx.	Std. No.	g/piece approx.	Std. No.	g/piece approx.	Std. No.	g/piece approx.	Std. No.	g/piece approx.
10	± 0.29	73630	2.78								
12*	± 0.35	73631	3.01	73644	4.87						
16		73632	3.47	73645	5.57	73660	12.1				
20	± 0.42	73633	3.93	73646	6.27	73661	13.4	73678	24.2		
25		73634	4.65	73647	7.21	73662	15.0	73679	26.8	73698	44.9
30		73635	5.40	73648	8.29	73663	16.8	73680	29.5	73699	48.8
35*	± 0.50	73636	6.16	73649	9.38	73664	18.7	73681	32.4	73700	52.7
40		73637	6.91	73650	10.5	73665	20.6	73682	35.4	73701	56.9
45*		73638	7.67	73651	11.6	73666	22.6	73683	38.4	73702	61.3
50		73639	8.42	73652	12.6	73667	24.5	73684	41.4	73703	65.6
55*	± 0.60	73640	9.17	73653	13.7	73668	26.4	73685	44.4	73704	70.0
60		73641	9.92	73654	14.8	73669	28.4	73686	47.4	73705	74.3
65*				73655	15.9	73670	30.3	73687	50.5	73706	78.7
70				73656	17.0	73671	32.2	73688	53.5	73707	83.0
80				73657	19.2	73672	36.1	73689	59.5	73708	91.7
90*	± 0.70			73658	21.4	73673	40.0	73690	65.6	73709	100
100						73674	43.8	73691	71.6	73710	109
110*						73675	47.6	73692	77.6	73711	118
120						73676	51.4	73693	83.7	73712	126
130	± 0.80							73694	89.7	73713	135
140								73695	95.7	73714	143
150*										73715	151

— — — Stud bolts above the broken line have a smooth part 3 mm long on the shank. For these screws the threaded shank length is:

$$b \text{ approx. } l - (x + 3)$$

* Stud bolts with length *l* marked with symbol * should not be used without special authorisation.

(continues )

(continued)

Thread d		M14		M16		M20		M24	
nominal	deviation	Basic	Mass	Basic	Mass	Basic	Mass	Basic	Mass
		Std. No.	g/piece approx.	Std. No.	g/piece approx.	Std. No.	g/piece approx.	Std. No.	g/piece approx.
25	± 0.42	73718	65.2						
30		73719	70.7	73738	100				
35*	± 0.50	73720	76.1	73739	108	73758	194		
40		73721	81.5	73740	115	73759	205		
45*		73722	87.3	73741	122	73760	216	73778	348
50		73723	93.2	73742	130	73761	227	73779	364
55*	± 0.60	73724	99.1	73743	137	73762	239	73780	381
60		73725	105	73744	145	73763	251	73781	397
65*		73726	111	73745	153	73764	263	73782	414
70		73727	117	73746	160	73765	275	73783	431
80		73728	129	73747	176	73766	299	73784	466
90*	± 0.70	73729	141	73748	191	73767	323	73785	501
100		73730	152	73749	207	73768	348	73786	536
110*		73731	164	73750	222	73769	372	73787	570
120		73732	176	73751	238	73770	396	73788	605
130*	± 0.80	73733	187	73752	252	73771	419	73789	639
140		73734	199	73753	268	73772	443	73790	674
150*		73735	211	73754	283	73773	467	73791	708
160		73736	223	73755	299	73774	492	73792	743
180*					330	73775	540	73793	813
200	± 0.90					73776	588	73794	882
220*								73795	949

— — — Stud bolts above the broken line have a smooth part 3 mm long on the shank. For these screws the threaded shank length is:

$$b \text{ approx. } l - (x + 3)$$

* Stud bolts with length l marked with symbol * should not be used without special authorisation.

2 TECHNICAL SPECIFICATIONS AND REFERENCES TO STANDARDS
TABLE III – Coatings free from hexavalent chrome 1)
1) Warning:

Coatings free from *hexavalent chrome* which **shall be used** starting from **JULY 01, 2007** according to EC regulation 2000/53/EC for **vehicles with total weight on ground < 3.5 ton**.

IVECO has decided to extend Directive 2000/53/EC to all the VEHICLE RANGES.

Type of material			STEEL		
Strength class	Symbol		8.8	10.9	A2-70
	Standard		IVECO STD. 18-0505-E001		I.S. 18-0506
	Code		25056	25057	25099
Symbol	Finish		Location number of Standard *		
	Standard	Code	(as per IVECO STD. 10-0004)		
Without			1XXXXX20	1XXXXX30	1XXXXX70
Fe/Zn 12 IV ▲	I.S. 18-1102	778	1XXXXX21	–	–
F.F AG 6	I.S. 18-1106	210	1XXXXX23	1XXXXX33	–
GEO 321-5	I.S. 18-1101	A22	1XXXXX24	1XXXXX34	–
GEO 500-5	I.S. 18-1101	A34	1XXXXX25	1XXXXX35	–
Fe/Zn 12 IV S ○	I.S. 18-1102	783	1XXXXX2A	–	–
Fe/Zn 12 IV ●		778	1XXXXX2B	–	–
GEO 321-5-PM	I.S. 18-1101	A26	1XXXXX2C	1XXXXX3C	–
Thread	Shank side	Tolerance	6g		
		Standard	IVECO STD. 10-3112		
	Root side	Tolerance	2m 6g		
		Standard	IVECO STD. 10-3140		
Tolerances	Category		A		
	Standard		IVECO STD. 10-1481		
Surface defects			IVECO STD. 18-0505-E006		
Testing			IVECO STD. 18-0505-E10 (2nd level)		

* XXXXX = Basic Standard No.

▲ For $P \leq 1$ mm the finish is: Fe/Zn 7 IV.

○ For $P \leq 1$ mm the finish is: Fe/Zn 7 IV S, code 784.

● For screws with pitch ≤ 1 : Fe/Zn 7 IV, code 776.

 Coatings with normal FROZEN alphanumeric starting from 15/03/2007.

3 DESIGNATION

Example of designation of a stud bolt with long root, thread $d = M12$, nominal length $l = 80$ mm, strength class 10.9 and finish GEO 321-5:

STUD BOLT M12x80 – 10.9 – GEO 321-5 – 17370834 EY11-0158

STANDARDS QUOTED

IVECO STD.: 10-0004, 10-1481, 10-3112, 10-3140, 18-0506, 18-0505-E001, 18-0505-E006, 18-0505-E010, 18-1101, 18-1102, 18-1106.