

TORNILLERÍA Y REMACHES

1. Guía.

DIN	Descripción	Esquema	DIN	Descripción	Esquema
84	Tornillo cabeza de metal métrica normal		915	Espárrago Allen. Tornillo sin cabeza con hueco hexagonal extremo con tetón largo	
86	Tornillo cabeza de metal redonda		916	Espárrago Allen. Tornillo sin cabeza con hueco hexagonal extremo achaflanado con cono embutido	
94	Pasador "aleta o Mediacaña"		931	Tornillo cabeza hexagonal media rosca	
125-A	Arandela plana sin bisel		933	Tornillo cabeza hexagonal rosca fondo	
127-B	Arandela Grower reforzada		934	Tuerca hexagonal	
571	Tornillo rosca madera barraquero		963	Tornillo cabeza de metal plana	
603	Tornillo cabeza de metal redonda cuello cuadrado zincado con tuerca		975	Varilla roscada. Rosca métrica Varilla de 1 m	
906	Tapones roscados con hexágono interior rosca cónica		981	Tuerca KM	
908	Tapones roscados con aro y hexágono interior		985	Tuerca hexagonal autoblocante	
912	Tornillo cabeza allen		2093	Arandelas de platillo Serie A y Serie B	
913	Espárrago Allen. Tornillo sin cabeza con hueco hexagonal extremo achaflanado.		6797-A	Arandela dentada elástica	
914	Espárrago Allen. Tornillo sin cabeza con hueco hexagonal extremo cónico		6798-A	Arandela en abanico	

13/ TORNILLERÍA Y REMACHES

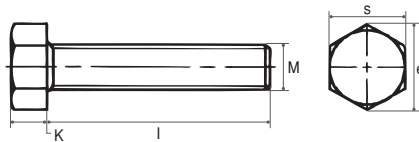
TORNILLERÍA

TORNILLERÍA

1. Tornillería Hexagonal.

DIN 933

TORNILLO CABEZA HEXAGONAL. ROSCA FONDO



d	M4	M5	M6	M8	M10	M12	M14	M16	M18	M20	M22	M24
s	7	8	10	13	17	19	22	24	27	30	32	36
k	2,8	3,5	4	5,3	6,4	7,5	8,8	10	11,5	12,5	14	15
Paso	0,7	0,8	1	1,25	1,50	1,75	2	2	2,5	2,5	2,5	3
e	7,66	8,79	11,05	14,38	18,90	21,10	24,49	26,75	30,14	33,53	35,72	39,98

Calidad 6.8 Ref. Catálogo	Calidad 8.8 Ref. Catálogo	Calidad Inox. Ref. Catálogo	Medidas d x L
13010001	13010162	13010323	M4x8
13010002	13010163	13010324	M4x10
13010003	13010164	13010325	M4x12
13010004	13010165	13010326	M4x14
13010005	13010166	13010327	M4x16
13010006	13010167	13010328	M4x18
13010007	13010168	13010329	M4x20
13010008	13010169	13010330	M4x22
13010009	13010170	13010331	M4x25
13010010	13010171	13010332	M4x30
13010011	13010172	13010333	M4x35
13010012	13010173	13010334	M4x40
13010013	13010174	13010335	M4x45
13010014	13010175	13010336	M4x50
13010015	13010176	13010337	M5x8
13010016	13010177	13010338	M5x10
13010017	13010178	13010339	M5x12
13010018	13010179	13010340	M5x14
13010019	13010180	13010341	M5x16
13010020	13010181	13010342	M5x18
13010021	13010182	13010343	M5x20
13010022	13010183	13010344	M5x22
13010023	13010184	13010345	M5x25
13010024	13010185	13010346	M5x30
13010025	13010186	13010347	M5x35
13010026	13010187	13010348	M5x40
13010027	13010188	13010349	M5x45
13010028	13010189	13010350	M5x50
13010029	13010190	13010351	M6x8
13010030	13010191	13010352	M6x10
13010031	13010192	13010353	M6x12
13010032	13010193	13010354	M6x14
13010033	13010194	13010355	M6x16
13010034	13010195	13010356	M6x18
13010035	13010196	13010357	M6x20
13010036	13010197	13010358	M6x22

Calidad 6.8 Ref. Catálogo	Calidad 8.8 Ref. Catálogo	Calidad Inox. Ref. Catálogo	Medidas d x L
13010037	13010198	13010359	M6x25
13010038	13010199	13010360	M6x30
13010039	13010200	13010361	M6x35
13010040	13010201	13010362	M6x40
13010041	13010202	13010363	M6x45
13010042	13010203	13010364	M6x50
13010043	13010204	13010365	M6x60
13010044	13010205	13010366	M8x10
13010045	13010206	13010367	M8x12
13010046	13010207	13010368	M8x14
13010047	13010208	13010369	M8x16
13010048	13010209	13010370	M8x18
13010049	13010210	13010371	M8x20
13010050	13010211	13010372	M8x22
13010051	13010212	13010373	M8x25
13010052	13010213	13010374	M8x30
13010053	13010214	13010375	M8x35
13010054	13010215	13010376	M8x40
13010055	13010216	13010377	M8x45
13010056	13010217	13010378	M8x50
13010057	13010218	13010379	M8x55
13010058	13010219	13010380	M8x60
13010059	13010220	13010381	M8x70
13010060	13010221	13010382	M8x80
13010061	13010222	13010383	M8x90
13010062	13010223	13010384	M8x100
13010063	13010224	13010385	M10x16
13010064	13010225	13010386	M10x20
13010065	13010226	13010387	M10x22
13010066	13010227	13010388	M10x25
13010067	13010228	13010389	M10x30
13010068	13010229	13010390	M10x35
13010069	13010230	13010391	M10x40
13010070	13010231	13010392	M10x45
13010071	13010232	13010393	M10x50
13010072	13010233	13010394	M10x55

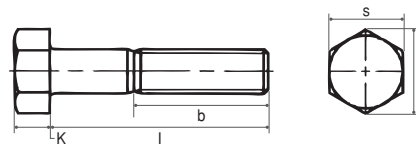
Calidad 6.8 Ref. Catálogo	Calidad 8.8 Ref. Catálogo	Calidad Inox. Ref. Catálogo	Medidas d x L
13010073	13010234	13010395	M10x60
13010074	13010235	13010396	M10x70
13010075	13010236	13010397	M10x80
13010076	13010237	13010398	M10x90
13010077	13010238	13010399	M10x100
13010078	13010239	13010400	M12x16
13010079	13010240	13010401	M12x20
13010080	13010241	13010402	M12x25
13010081	13010242	13010403	M12x30
13010082	13010243	13010404	M12x35
13010083	13010244	13010405	M12x40
13010084	13010245	13010406	M12x45
13010085	13010246	13010407	M12x50
13010086	13010247	13010408	M12x55
13010087	13010248	13010409	M12x60
13010088	13010249	13010410	M12x70
13010089	13010250	13010411	M12x80
13010090	13010251	13010412	M12x90
13010091	13010252	13010413	M12x100
13010092	13010253	13010414	M14x20
13010093	13010254	13010415	M14x25
13010094	13010255	13010416	M14x30
13010095	13010256	13010417	M14x35
13010096	13010257	13010418	M14x40
13010097	13010258	13010419	M14x45
13010098	13010259	13010420	M14x50
13010099	13010260	13010421	M14x55
13010100	13010261	13010422	M14x60
13010101	13010262	13010423	M14x70
13010102	13010263	13010424	M14x80
13010103	13010264	13010425	M14x90
13010104	13010265	13010426	M14x100
13010105	13010266	13010427	M16x20
13010106	13010267	13010428	M16x25
13010107	13010268	13010429	M16x30
13010108	13010269	13010430	M16x35

Calidad 6.8 Ref. Catálogo	Calidad 8.8 Ref. Catálogo	Calidad Inox. Ref. Catálogo	Medidas d x L	Calidad 6.8 Ref. Catálogo	Calidad 8.8 Ref. Catálogo	Calidad Inox. Ref. Catálogo	Medidas d x L	Calidad 6.8 Ref. Catálogo	Calidad 8.8 Ref. Catálogo	Calidad Inox. Ref. Catálogo	Medidas d x L
13010109	13010270	13010431	M16x40	13010127	13010288	13010449	M18x80	13010145	13010306	13010467	M22x55
13010110	13010271	13010432	M16x45	13010128	13010289	13010450	M18x90	13010146	13010307	13010468	M22x60
13010111	13010272	13010433	M16x50	13010129	13010290	13010451	M18x100	13010147	13010308	13010469	M22x65
13010112	13010273	13010434	M16x55	13010130	13010291	13010452	M20x30	13010148	13010309	13010470	M22x70
13010113	13010274	13010435	M16x60	13010131	13010292	13010453	M20x35	13010149	13010310	13010471	M22x80
13010114	13010275	13010436	M16x65	13010132	13010293	13010454	M20x40	13010150	13010311	13010472	M22x90
13010115	13010276	13010437	M16x70	13010133	13010294	13010455	M20x45	13010151	13010312	13010473	M22x100
13010116	13010277	13010438	M16x80	13010134	13010295	13010456	M20x50	13010152	13010313	13010474	M24x40
13010117	13010278	13010439	M16x90	13010135	13010296	13010457	M20x55	13010153	13010314	13010475	M24x45
13010118	13010279	13010440	M16x100	13010136	13010297	13010458	M20x60	13010154	13010315	13010476	M24x50
13010119	13010280	13010441	M18x30	13010137	13010298	13010459	M20x65	13010155	13010316	13010477	M24x55
13010120	13010281	13010442	M18x35	13010138	13010299	13010460	M20x70	13010156	13010317	13010478	M24x60
13010121	13010282	13010443	M18x40	13010139	13010300	13010461	M20x80	13010157	13010318	13010479	M24x65
13010122	13010283	13010444	M18x45	13010140	13010301	13010462	M20x90	13010158	13010319	13010480	M24x70
13010123	13010284	13010445	M18x50	13010141	13010302	13010463	M20x100	13010159	13010320	13010481	M24x80
13010124	13010285	13010446	M18x55	13010142	13010303	13010464	M22x40	13010160	13010321	13010482	M24x90
13010125	13010286	13010447	M18x60	13010143	13010304	13010465	M22x45	13010161	13010322	13010483	M24x100
13010126	13010287	13010448	M18x70	13010144	13010305	13010466	M22x50				

Consultar para otras dimensiones y calidades

DIN 931

TORNILLO CABEZA HEXAGONAL. MEDIA ROSCA



d	M4	M5	M6	M8	M10	M12	M14	M16	M18	M20	M22	M24
s	7	8	10	13	17	19	22	24	27	30	32	36
k	2,8	3,5	4	5,3	6,4	7,5	8,8	10	11,5	12,5	14	15
Paso	0,7	0,8	1	1,25	1,50	1,75	2	2	2,5	2,5	2,5	3
b (l _s 125)	14	16	18	22	26	30	34	38	42	46	50	54
e	7,66	8,79	11,05	14,30	18,90	21,10	24,49	26,75	30,14	33,53	35,72	39,98



Calidad 6.8 Ref. Catálogo	Calidad 8.8 Ref. Catálogo	Calidad Inox. Ref. Catálogo	Medidas d x L	Calidad 6.8 Ref. Catálogo	Calidad 8.8 Ref. Catálogo	Calidad Inox. Ref. Catálogo	Medidas d x L	Calidad 6.8 Ref. Catálogo	Calidad 8.8 Ref. Catálogo	Calidad Inox. Ref. Catálogo	Medidas d x L
13010484	13010689	13010894	4x20	13010502	13010707	13010912	6x35	13010520	13010725	13010930	8x55
13010485	13010690	13010895	4x25	13010503	13010708	13010913	6x40	13010521	13010726	13010931	8x60
13010486	13010691	13010896	4x30	13010504	13010709	13010914	6x45	13010522	13010727	13010932	8x65
13010487	13010692	13010897	4x35	13010505	13010710	13010915	6x50	13010523	13010728	13010933	8x70
13010488	13010693	13010898	4x40	13010506	13010711	13010916	6x55	13010524	13010729	13010934	8x75
13010489	13010694	13010899	4x45	13010507	13010712	13010917	6x60	13010525	13010730	13010935	8x80
13010490	13010695	13010900	4x50	13010508	13010713	13010918	6x65	13010526	13010731	13010936	8x90
13010491	13010696	13010901	4x55	13010509	13010714	13010919	6x70	13010527	13010732	13010937	8x100
13010492	13010697	13010902	4x60	13010510	13010715	13010920	6x75	13010528	13010733	13010938	8x110
13010493	13010698	13010903	5x20	13010511	13010716	13010921	6x80	13010529	13010734	13010939	8x120
13010494	13010699	13010904	5x25	13010512	13010717	13010922	6x90	13010530	13010735	13010940	8x130
13010495	13010700	13010905	5x30	13010513	13010718	13010923	6x100	13010531	13010736	13010941	8x140
13010496	13010701	13010906	5x35	13010514	13010719	13010924	6x110	13010532	13010737	13010942	8x150
13010497	13010702	13010907	5x40	13010515	13010720	13010925	8x30	13010533	13010738	13010943	8x160
13010498	13010703	13010908	5x45	13010516	13010721	13010926	8x35	13010534	13010739	13010944	8x180
13010499	13010704	13010909	5x50	13010517	13010722	13010927	8x40	13010535	13010740	13010945	10x35
13010500	13010705	13010910	6x25	13010518	13010723	13010928	8x45	13010536	13010741	13010946	10x40
13010501	13010706	13010911	6x30	13010519	13010724	13010929	8x50	13010537	13010742	13010947	10x45

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13/ TORNILLERÍA Y REMACHES

TORNILLERÍA

Calidad 6.8 Ref. Catálogo	Calidad 8.8 Ref. Catálogo	Calidad Inox. Ref. Catálogo	Medidas d x L	Calidad 6.8 Ref. Catálogo	Calidad 8.8 Ref. Catálogo	Calidad Inox. Ref. Catálogo	Medidas d x L	Calidad 6.8 Ref. Catálogo	Calidad 8.8 Ref. Catálogo	Calidad Inox. Ref. Catálogo	Medidas d x L
13010538	13010743	13010948	10x50	13010590	13010795	13011000	14x150	13010642	13010847	13011052	20x120
13010539	13010744	13010949	10x55	13010591	13010796	13011001	14x160	13010643	13010848	13011053	20x130
13010540	13010745	13010950	10x60	13010592	13010797	13011002	14x170	13010644	13010849	13011054	20x140
13010541	13010746	13010951	10x65	13010593	13010798	13011003	14x180	13010645	13010850	13011055	20x150
13010542	13010747	13010952	10x70	13010594	13010799	13011004	14x190	13010646	13010851	13011056	20x160
13010543	13010748	13010953	10x75	13010595	13010800	13011005	16x50	13010647	13010852	13011057	20x170
13010544	13010749	13010954	10x80	13010596	13010801	13011006	16x55	13010648	13010853	13011058	20x180
13010545	13010750	13010955	10x90	13010597	13010802	13011007	16x60	13010649	13010854	13011059	20x190
13010546	13010751	13010956	10x100	13010598	13010803	13011008	16x65	13010650	13010855	13011060	20x200
13010547	13010752	13010957	10x110	13010599	13010804	13011009	16x70	13010651	13010856	13011061	20x210
13010548	13010753	13010958	10x120	13010600	13010805	13011010	16x75	13010652	13010857	13011062	20x220
13010549	13010754	13010959	10x130	13010601	13010806	13011011	16x80	13010653	13010858	13011063	20x230
13010550	13010755	13010960	10x140	13010602	13010807	13011012	16x90	13010654	13010859	13011064	20x240
13010551	13010756	13010961	10x150	13010603	13010808	13011013	16x100	13010655	13010860	13011065	20x250
13010552	13010757	13010962	10x160	13010604	13010809	13011014	16x110	13010656	13010861	13011066	22x70
13010553	13010758	13010963	10x170	13010605	13010810	13011015	16x120	13010657	13010862	13011067	22x75
13010554	13010759	13010964	10x180	13010606	13010811	13011016	16x130	13010658	13010863	13011068	22x80
13010555	13010760	13010965	12x40	13010607	13010812	13011017	16x140	13010659	13010864	13011069	22x90
13010556	13010761	13010966	12x45	13010608	13010813	13011018	16x150	13010660	13010865	13011070	22x100
13010557	13010762	13010967	12x50	13010609	13010814	13011019	16x160	13010661	13010866	13011071	22x110
13010558	13010763	13010968	12x55	13010610	13010815	13011020	16x170	13010662	13010867	13011072	22x120
13010559	13010764	13010969	12x60	13010611	13010816	13011021	16x180	13010663	13010868	13011073	22x130
13010560	13010765	13010970	12x65	13010612	13010817	13011022	16x190	13010664	13010869	13011074	22x140
13010561	13010766	13010971	12x70	13010613	13010818	13011023	16x200	13010665	13010870	13011075	22x150
13010562	13010767	13010972	12x75	13010614	13010819	13011024	16x210	13010666	13010871	13011076	22x160
13010563	13010768	13010973	12x80	13010615	13010820	13011025	16x220	13010667	13010872	13011077	22x180
13010564	13010769	13010974	12x90	13010616	13010821	13011026	16x230	13010668	13010873	13011078	22x200
13010565	13010770	13010975	12x100	13010617	13010822	13011027	16x240	13010669	13010874	13011079	22x220
13010566	13010771	13010976	12x110	13010618	13010823	13011028	16x250	13010670	13010875	13011080	22x240
13010567	13010772	13010977	12x120	13010619	13010824	13011029	18x60	13010671	13010876	13011081	24x70
13010568	13010773	13010978	12x130	13010620	13010825	13011030	18x65	13010672	13010877	13011082	24x75
13010569	13010774	13010979	12x140	13010621	13010826	13011031	18x70	13010673	13010878	13011083	24x80
13010570	13010775	13010980	12x150	13010622	13010827	13011032	18x75	13010674	13010879	13011084	24x90
13010571	13010776	13010981	12x160	13010623	13010828	13011033	18x80	13010675	13010880	13011085	24x100
13010572	13010777	13010982	12x170	13010624	13010829	13011034	18x90	13010676	13010881	13011086	24x110
13010573	13010778	13010983	12x180	13010625	13010830	13011035	18x100	13010677	13010882	13011087	24x120
13010574	13010779	13010984	12x190	13010626	13010831	13011036	18x110	13010678	13010883	13011088	24x130
13010575	13010780	13010985	12x200	13010627	13010832	13011037	18x120	13010679	13010884	13011089	24x140
13010576	13010781	13010986	14x45	13010628	13010833	13011038	18x130	13010680	13010885	13011090	24x150
13010577	13010782	13010987	14x50	13010629	13010834	13011039	18x140	13010681	13010886	13011091	24x160
13010578	13010783	13010988	14x55	13010630	13010835	13011040	18x150	13010682	13010887	13011092	24x170
13010579	13010784	13010989	14x60	13010631	13010836	13011041	18x160	13010683	13010888	13011093	24x180
13010580	13010785	13010990	14x65	13010632	13010837	13011042	18x170	13010684	13010889	13011094	24x190
13010581	13010786	13010991	14x70	13010633	13010838	13011043	18x180	13010685	13010890	13011095	24x200
13010582	13010787	13010992	14x75	13010634	13010839	13011044	20x60	13010686	13010891	13011096	24x210
13010583	13010788	13010993	14x80	13010635	13010840	13011045	20x65	13010687	13010892	13011097	24x240
13010584	13010789	13010994	14x90	13010636	13010841	13011046	20x70	13010688	13010893	13011098	24x250
13010585	13010790	13010995	14x100	13010637	13010842	13011047	20x75				
13010586	13010791	13010996	14x110	13010638	13010843	13011048	20x80				
13010587	13010792	13010997	14x120	13010639	13010844	13011049	20x90				
13010588	13010793	13010998	14x130	13010640	13010845	13011050	20x100				
13010589	13010794	13010999	14x140	13010641	13010846	13011051	20x110				

Consultar para otras dimensiones y calidades

13/ TORNILLERÍA Y REMACHES

TORNILLERÍA

Calidad 8.8 Ref. Catálogo	Calidad 12.9 Ref. Catálogo	Calidad Inox. Ref. Catálogo	Medidas d x L
13011231	13011452	13011673	12x180
13011232	13011453	13011674	14x25
13011233	13011454	13011675	14x30
13011234	13011455	13011676	14x35
13011235	13011456	13011677	14x40
13011236	13011457	13011678	14x45
13011237	13011458	13011679	14x50
13011238	13011459	13011680	14x55
13011239	13011460	13011681	14x60
13011240	13011461	13011682	14x65
13011241	13011462	13011683	14x70
13011242	13011463	13011684	14x80
13011243	13011464	13011685	14x90
13011244	13011465	13011686	14x100
13011245	13011466	13011687	14x110
13011246	13011467	13011688	14x120
13011247	13011468	13011689	14x130
13011248	13011469	13011690	14x140
13011249	13011470	13011691	14x150
13011250	13011471	13011692	14x160
13011251	13011472	13011693	14x180
13011252	13011473	13011694	16x25
13011253	13011474	13011695	16x30
13011254	13011475	13011696	16x35
13011255	13011476	13011697	16x40
13011256	13011477	13011698	16x45
13011257	13011478	13011699	16x50
13011258	13011479	13011700	16x55
13011259	13011480	13011701	16x60
13011260	13011481	13011702	16x65

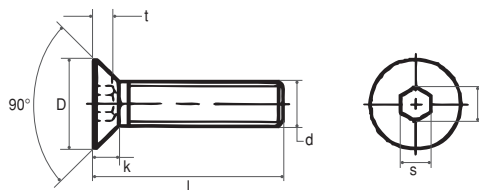
Calidad 8.8 Ref. Catálogo	Calidad 12.9 Ref. Catálogo	Calidad Inox. Ref. Catálogo	Medidas d x L
13011261	13011482	13011703	16x70
13011262	13011483	13011704	16x80
13011263	13011484	13011705	16x90
13011264	13011485	13011706	16x100
13011265	13011486	13011707	16x110
13011266	13011487	13011708	16x120
13011267	13011488	13011709	16x130
13011268	13011489	13011710	16x140
13011269	13011490	13011711	16x150
13011270	13011491	13011712	16x160
13011271	13011492	13011713	16x180
13011272	13011493	13011714	18x40
13011273	13011494	13011715	18x45
13011274	13011495	13011716	18x50
13011275	13011496	13011717	18x55
13011276	13011497	13011718	18x60
13011277	13011498	13011719	18x65
13011278	13011499	13011720	18x70
13011279	13011500	13011721	18x80
13011280	13011501	13011722	18x90
13011281	13011502	13011723	18x100
13011282	13011503	13011724	18x110
13011283	13011504	13011725	18x120
13011284	13011505	13011726	18x130
13011285	13011506	13011727	18x140
13011286	13011507	13011728	18x150
13011287	13011508	13011729	18x160
13011288	13011509	13011730	18x180
13011289	13011510	13011731	20x40
13011290	13011511	13011732	20x45

Calidad 8.8 Ref. Catálogo	Calidad 12.9 Ref. Catálogo	Calidad Inox. Ref. Catálogo	Medidas d x L
13011291	13011512	13011733	20x50
13011292	13011513	13011734	20x55
13011293	13011514	13011735	20x60
13011294	13011515	13011736	20x70
13011295	13011516	13011737	20x80
13011296	13011517	13011738	20x90
13011297	13011518	13011739	20x100
13011298	13011519	13011740	20x110
13011299	13011520	13011741	20x120
13011300	13011521	13011742	20x130
13011301	13011522	13011743	20x140
13011302	13011523	13011744	20x150
13011303	13011524	13011745	20x160
13011304	13011525	13011746	20x180
13011305	13011526	13011747	24x45
13011306	13011527	13011748	24x50
13011307	13011528	13011749	24x55
13011308	13011529	13011750	24x60
13011309	13011530	13011751	24x70
13011310	13011531	13011752	24x80
13011311	13011532	13011753	24x90
13011312	13011533	13011754	24x100
13011313	13011534	13011755	24x110
13011314	13011535	13011756	24x120
13011315	13011536	13011757	24x130
13011316	13011537	13011758	24x140
13011317	13011538	13011759	24x150
13011318	13011539	13011760	24x160
13011319	13011540	13011761	24x180

Consultar para otras dimensiones y calidades

DIN 7991

TORNILLO CABEZA PLANA ALLEN



d	M3	M4	M5	M6	M8	M10	M12	M14	M16	M20
D	6	8	10	12	16	20	24	27	30	36
s	2	2,5	3	4	5	6	8	10	10	12
k	1,7	2,3	2,5	3,3	4,4	5,5	6,54	7	7,5	8,5
T	1,2	1,8	2,3	2,5	3,5	4,4	4,6	4,8	5,3	5,9
e	2,3	2,87	3,44	4,58	5,72	6,86	9,15	11,43	11,43	13,72

Calidad 12.9 Ref. Catálogo	Calidad Inox. Ref. Catálogo	Medidas d x L
13011762	13011861	3x6
13011763	13011862	3x8
13011764	13011863	3x10
13011765	13011864	3x12
13011766	13011865	3x14
13011767	13011866	3x16

Calidad 12.9 Ref. Catálogo	Calidad Inox. Ref. Catálogo	Medidas d x L
13011768	13011867	3x18
13011769	13011868	3x20
13011770	13011869	3x25
13011771	13011870	3x30
13011772	13011871	4x8
13011773	13011872	4x10

Calidad 12.9 Ref. Catálogo	Calidad Inox. Ref. Catálogo	Medidas d x L
13011774	13011873	4x12
13011775	13011874	4x14
13011776	13011875	4x16
13011777	13011876	4x18
13011778	13011877	4x20
13011779	13011878	4x25

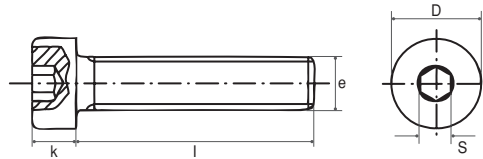
Calidad 12.9 Ref. Catálogo	Calidad Inox. Ref. Catálogo	Medidas d x L
13011780	13011879	4x30
13011781	13011880	4x35
13011782	13011881	4x40
13011783	13011882	5x8
13011784	13011883	5x10
13011785	13011884	5x12

Calidad 12.9 Ref. Catálogo	Calidad Inox. Ref. Catálogo	Medidas d x L	Calidad 12.9 Ref. Catálogo	Calidad Inox. Ref. Catálogo	Medidas d x L	Calidad 12.9 Ref. Catálogo	Calidad Inox. Ref. Catálogo	Medidas d x L	Calidad 12.9 Ref. Catálogo	Calidad Inox. Ref. Catálogo	Medidas d x L
13011786	13011885	5x14	13011806	13011905	6x45	13011826	13011925	10x25	13011846	13011945	14x35
13011787	13011886	5x16	13011807	13011906	6x50	13011827	13011926	10x30	13011847	13011946	14x40
13011788	13011887	5x18	13011808	13011907	6x55	13011828	13011927	10x35	13011848	13011947	14x45
13011789	13011888	5x20	13011809	13011908	6x60	13011829	13011928	10x40	13011849	13011948	14x50
13011790	13011889	5x25	13011810	13011909	8x10	13011830	13011929	10x45	13011850	13011949	14x55
13011791	13011890	5x30	13011811	13011910	8x12	13011831	13011930	10x50	13011851	13011950	14x60
13011792	13011891	5x35	13011812	13011911	8x14	13011832	13011931	10x55	13011852	13011951	14x70
13011793	13011892	5x40	13011813	13011912	8x16	13011833	13011932	10x60	13011853	13011952	16x30
13011794	13011893	5x45	13011814	13011913	8x18	13011834	13011933	10x70	13011854	13011953	16x35
13011795	13011894	5x50	13011815	13011914	8x20	13011835	13011934	12x20	13011855	13011954	16x40
13011796	13011895	6x10	13011816	13011915	8x25	13011836	13011935	12x25	13011856	13011955	16x45
13011797	13011896	6x12	13011817	13011916	8x30	13011837	13011936	12x30	13011857	13011956	16x50
13011798	13011897	6x14	13011818	13011917	8x35	13011838	13011937	12x35	13011858	13011957	16x55
13011799	13011898	6x16	13011819	13011918	8x40	13011839	13011938	12x40	13011859	13011958	16x60
13011800	13011899	6x18	13011820	13011919	8x45	13011840	13011939	12x45	13011860	13011959	16x70
13011801	13011900	6x20	13011821	13011920	8x50	13011841	13011940	12x50			
13011802	13011901	6x25	13011822	13011921	8x55	13011842	13011941	12x55			
13011803	13011902	6x30	13011823	13011922	8x60	13011843	13011942	12x60			
13011804	13011903	6x35	13011824	13011923	10x16	13011844	13011943	12x70			
13011805	13011904	6x40	13011825	13011924	10x20	13011845	13011944	14x30			

Consultar para otras dimensiones y calidades

DIN 7984

TORNILLO CABEZA REDUCIDA ALLEN



d	M4	M5	M6	M8	M10	M12
D	7	8,5	10	13	16	18
s	3	4	5	6	8	10
k	2,8	3,5	4	5	6,5	7,5



Calidad 12.9 Ref. Catálogo	Calidad Inox. Ref. Catálogo	Medidas d x L	Calidad 12.9 Ref. Catálogo	Calidad Inox. Ref. Catálogo	Medidas d x L	Calidad 12.9 Ref. Catálogo	Calidad Inox. Ref. Catálogo	Medidas d x L	Calidad 12.9 Ref. Catálogo	Calidad Inox. Ref. Catálogo	Medidas d x L
13011960	13012035	M4x8	13011980	13012055	M5x20	13012000	13012075	M6x45	13012020	13012095	M8x65
13011961	13012036	M4x10	13011981	13012056	M5x22	13012001	13012076	M6x50	13012021	13012096	M8x70
13011962	13012037	M4x12	13011982	13012057	M5x25	13012002	13012077	M6x55	13012022	13012097	M8x75
13011963	13012038	M4x14	13011983	13012058	M5x30	13012003	13012078	M6x60	13012023	13012098	M8x80
13011964	13012039	M4x16	13011984	13012059	M5x35	13012004	13012079	M6x65	13012024	13012099	M10x16
13011965	13012040	M4x18	13011985	13012060	M5x40	13012005	13012080	M6x70	13012025	13012100	M10x18
13011966	13012041	M4x20	13011986	13012061	M5x45	13012006	13012081	M8x12	13012026	13012101	M10x20
13011967	13012042	M4x22	13011987	13012062	M5x50	13012007	13012082	M8x14	13012027	13012102	M10x22
13011968	13012043	M4x25	13011988	13012063	M6x8	13012008	13012083	M8x16	13012028	13012103	M10x25
13011969	13012044	M4x30	13011989	13012064	M6x10	13012009	13012084	M8x18	13012029	13012104	M10x30
13011970	13012045	M4x35	13011990	13012065	M6x12	13012010	13012085	M8x20	13012030	13012105	M10x35
13011971	13012046	M4x40	13011991	13012066	M6x14	13012011	13012086	M8x22	13012031	13012106	M10x40
13011972	13012047	M4x45	13011992	13012067	M6x16	13012012	13012087	M8x25	13012032	13012107	M10x45
13011973	13012048	M4x50	13011993	13012068	M6x18	13012013	13012088	M8x30	13012033	13012108	M10x50
13011974	13012049	M5x8	13011994	13012069	M6x20	13012014	13012089	M8x35	13012034	13012109	M10x55
13011975	13012050	M5x10	13011995	13012070	M6x22	13012015	13012090	M8x40			
13011976	13012051	M5x12	13011996	13012071	M6x25	13012016	13012091	M8x45			
13011977	13012052	M5x14	13011997	13012072	M6x30	13012017	13012092	M8x50			
13011978	13012053	M5x16	13011998	13012073	M6x35	13012018	13012093	M8x55			
13011979	13012054	M5x18	13011999	13012074	M6x40	13012019	13012094	M8x60			

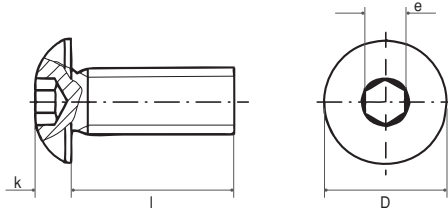
Consultar para otras dimensiones y calidades

13/ TORNILLERÍA Y REMACHES

TORNILLERÍA

DIN 7380

TORNILLO CABEZA REDONDA ALLEN



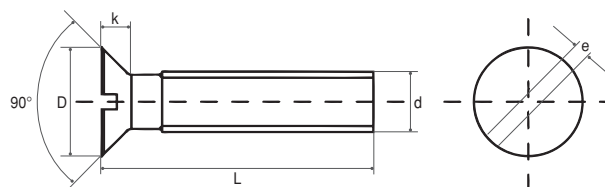
d	M3	M4	M5	M6	M8	M10
D	5,7	7,6	9,5	10,5	14	17,5
s	2	2,5	3	4	5	6
k	1,65	2,2	2,75	3,3	4,4	5,5
e	2,3	2,87	3,44	4,58	5,72	6,86

Calidad 12.9 Ref. Catálogo	Calidad Inox. Ref. Catálogo	Medidas d x L	Calidad 12.9 Ref. Catálogo	Calidad Inox. Ref. Catálogo	Medidas d x L	Calidad 12.9 Ref. Catálogo	Calidad Inox. Ref. Catálogo	Medidas d x L	Calidad 12.9 Ref. Catálogo	Calidad Inox. Ref. Catálogo	Medidas d x L
13012110	13012166	3x10	13012124	13012180	4x35	13012138	13012194	6x12	13012152	13012208	8x25
13012111	13012167	3x12	13012125	13012181	4x40	13012139	13012195	6x14	13012153	13012209	8x30
13012112	13012168	3x14	13012126	13012182	5x10	13012140	13012196	6x16	13012154	13012210	8x35
13012113	13012169	3x16	13012127	13012183	5x12	13012141	13012197	6x20	13012155	13012211	8x40
13012114	13012170	3x20	13012128	13012184	5x14	13012142	13012198	6x25	13012156	13012212	8x45
13012115	13012171	3x25	13012129	13012185	5x16	13012143	13012199	6x30	13012157	13012213	8x50
13012116	13012172	3x30	13012130	13012186	5x20	13012144	13012200	6x35	13012158	13012214	8x60
13012117	13012173	4x10	13012131	13012187	5x25	13012145	13012201	6x40	13012159	13012215	10x20
13012118	13012174	4x12	13012132	13012188	5x30	13012146	13012202	6x45	13012160	13012216	10x25
13012119	13012175	4x14	13012133	13012189	5x35	13012147	13012203	6x50	13012161	13012217	10x30
13012120	13012176	4x16	13012134	13012190	5x40	13012148	13012204	6x60	13012162	13012218	10x35
13012121	13012177	4x20	13012135	13012191	5x45	13012149	13012205	8x14	13012163	13012219	10x40
13012122	13012178	4x25	13012136	13012192	5x50	13012150	13012206	8x16	13012164	13012220	10x45
13012123	13012179	4x30	13012137	13012193	6x10	13012151	13012207	8x20	13012165	13012221	10x50

3. Tornillería de Metal.

DIN 963

TORNILLO CABEZA PLANA



d	M3	M4	M5	M6	M8	M10	M12
k	1,65	2,2	2,5	3	4	5	6
D	5,6	7,5	9,2	11	14,5	18	24
e	0,8	1	1,2	1,6	2	2,5	3

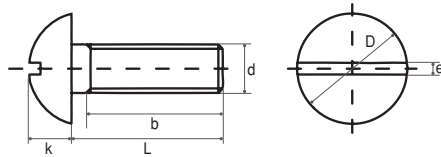
Zincado.

L	M3	M4	M5	M6	M8	M10	M12
5	13012222	13012235	-	-	-	-	-
6	13012223	13012236	-	-	-	-	-
8	13012224	13012237	13012250	-	-	-	-
10	13012225	13012238	13012251	13012264	13012277	-	-
12	13012226	13012239	13012252	13012265	13012278	-	-
16	13012227	13012240	13012253	13012266	13012279	-	-
20	13012228	13012241	13012254	13012267	13012280	13012290	-
25	13012229	13012242	13012255	13012268	13012281	13012291	13012300
30	13012230	13012243	13012256	13012269	13012282	13012292	13012301
35	13012231	13012244	13012257	13012270	13012283	13012293	13012302
40	13012232	13012245	13012258	13012271	13012284	13012294	13012303
45	13012233	13012246	13012259	13012272	13012285	13012295	13012304
50	13012234	13012247	13012260	13012273	13012286	13012296	13012305
60	-	13012248	13012261	13012274	13012287	13012297	13012306
70	-	13012249	13012262	13012275	13012288	13012298	13012307
80	-	-	13012263	13012276	13012289	13012299	13012308

Disponibles en Acero Inox
Consultar para otras medidas

DIN 86

TORNILLO CABEZA REDONDA



d	M3	M4	M5	M6	M8
k	6	8	10	12	16
D	1,8	2,4	3	3,6	4,8

Zincado.

L	M3	M4	M5	M6	M8
5	13012309	13012321	-	-	-
6	13012310	13012322	-	-	-
7	13012311	13012323	13012337	-	-
8	13012312	13012324	13012338	-	-
10	13012313	13012325	13012339	13012350	13012363
13	13012314	13012326	-	13012351	13012364
15	13012315	13012327	13012340	13012352	13012365
20	13012316	13012328	13012341	13012353	13012366
25	13012317	13012329	13012342	13012354	13012367
30	13012318	13012330	13012343	13012355	13012368
35	13012319	13012331	13012344	13012356	13012369
40	13012320	13012332	13012345	13012357	13012370
45	-	13012333	13012346	13012358	13012371
50	-	13012334	13012347	13012359	13012372
60	-	13012335	13012348	13012360	13012373
70	-	13012336	13012349	13012361	13012374
80	-	-	-	13012362	13012375

Disponibles en Acero Inox
Consultar para otras medidas

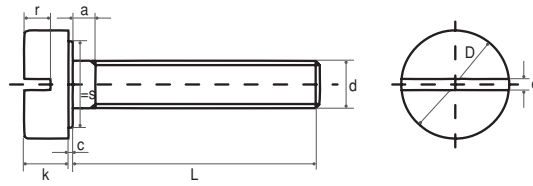


13/ TORNILLERÍA Y REMACHES

TORNILLERÍA

DIN 84

MÉTRICA NORMAL



d	M2	M3	M4	M5	M6	M8
k	1,3	2	2,6	3,3	3,9	5
r	0,6	0,85	1,1	1,3	1,6	2
e	0,5	0,8	1,2	1,2	1,6	2

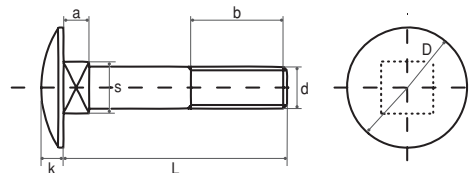
Zincado.

L	M2	M3	M4	M5	M6	M8
4	13012376	13012383	-	-	-	-
5	13012377	13012384	-	-	-	-
6	13012378	13012385	13012398	13012413	-	-
8	13012379	13012386	13012399	13012414	13012428	-
10	13012380	13012387	13012400	13012415	13012429	13012444
12	-	13012388	13012401	13012416	13012430	13012445
14	-	13012389	13012402	13012417	13012431	13012446
16	13012381	13012390	13012403	13012418	13012432	13012447
20	13012382	13012391	13012404	13012419	13012433	13012448
25	-	13012392	13012405	13012420	13012434	13012449
30	-	13012393	13012406	13012421	13012435	13012450
35	-	13012394	13012407	13012422	13012436	13012451
40	-	13012395	13012408	13012423	13012437	13012452
45	-	13012396	13012409	13012424	13012438	13012453
50	-	13012397	13012410	13012425	13012439	13012454
60	-	-	13012411	13012426	13012440	13012455
70	-	-	13012412	13012427	13012441	13012456
80	-	-	-	-	13012442	13012457
90	-	-	-	-	13012443	-

Disponibles en Acero Inox
Consultar para otras medidas

DIN 603

TORNILLO CABEZA REDONDA CUELLO CUADRADO ZINCADO CON TUERCA



d	M5	M6	M8	M10	M12	M16
Paso	0,8	1	1,25	1,75	1,75	2
b1	16	18	22	26	30	38
b2	22	24	28	32	36	44
dk	13	16	20	24	30	38
a	4	4	5	6	8	12
k	3,3	3,5	4,5	5	6,5	8,5
v	5	6	8	10	12	16

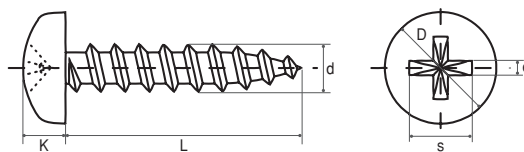
Zincado.

L	M5	M6	M7	M8	M10	M12	M16
16	13012458	13012471	13012491	13012508	-	-	-
20	13012459	13012472	13012492	13012509	13012538	-	-
25	13012460	13012473	13012493	13012510	13012539	13012568	-
30	13012461	13012474	13012494	13012511	13012540	13012569	-
35	13012462	13012475	13012495	13012512	13012541	13012570	-
40	13012463	13012476	13012496	13012513	13012542	13012571	13012597
45	13012464	13012477	13012497	13012514	13012543	13012572	13012598
50	13012465	13012478	13012498	13012515	13012544	13012573	13012599
55	13012466	13012479	13012499	13012516	13012545	13012574	13012600
60	13012467	13012480	13012500	13012517	13012546	13012575	13012601
65	13012468	13012481	13012501	13012518	13012547	13012576	13012602
70	13012469	13012482	13012502	13012519	13012548	13012577	13012603
80	13012470	13012483	13012503	13012520	13012549	13012578	13012604
90	-	13012484	13012504	13012521	13012550	13012579	13012605
100	-	13012485	13012505	13012522	13012551	13012580	13012606
110	-	13012486	13012506	13012523	13012552	13012581	13012607
120	-	13012487	13012507	13012524	13012553	13012582	13012608
130	-	13012488	-	13012525	13012554	13012583	13012609
140	-	13012489	-	13012526	13012555	13012584	13012610
150	-	13012490	-	13012527	13012556	13012585	13012611
160	-	-	-	13012528	13012557	13012586	13012612
170	-	-	-	13012529	13012558	13012587	13012613
180	-	-	-	13012530	13012559	13012588	13012614
190	-	-	-	13012531	13012560	13012589	-
200	-	-	-	13012532	13012561	13012590	13012615
210	-	-	-	13012533	13012562	13012591	-
220	-	-	-	13012534	13012563	13012592	13012616
230	-	-	-	13012535	13012564	13012593	-
240	-	-	-	13012536	13012565	13012594	13012617
250	-	-	-	-	13012566	13012595	13012618
260	-	-	-	13012537	13012567	13012596	-

Consultar para otras medidas

DIN 7981

TORNILLO ROSCA CHAPA AUTORROSCANTE



d	M4	M6	M7	M8	M10	M12	M14
d	2,9	3,5	3,9	4,2	4,8	5,5	6,3
k	2,2	2,6	2,8	3,05	3,55	3,95	4,55
n° h	1	2	2	2	2	3	3
s	3	4,2	4,4	4,7	5,1	6,8	7,1



Zincado.

L	M4	M6	M7	M8	M10	M12	M14
6,5	13012619	13012626	13012635	-	-	-	-
9,5	13012620	13012627	13012636	13012646	13012660	-	-
13	13012621	13012628	13012637	13012647	13012661	13012677	13012693
16	13012622	13012629	13012638	13012648	13012662	13012678	13012694
19	13012623	13012630	13012639	13012649	13012663	13012679	13012695
22	13012624	13012631	13012640	13012650	13012664	13012680	13012696
25	13012625	13012632	13012641	13012651	13012665	13012681	13012697
32	-	13012633	13012642	13012652	13012666	13012682	13012698

Continúa en página siguiente

13/ TORNILLERÍA Y REMACHES

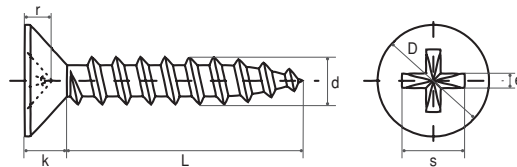
TORNILLERÍA

L	M4	M6	M7	M8	M10	M12	M14
38	-	13012634	13012643	13012653	13012667	13012683	13012699
45	-	-	13012644	13012654	13012668	13012684	13012700
50	-	-	13012645	13012655	13012669	13012685	13012701
60	-	-	-	13012656	13012670	13012686	13012702
70	-	-	-	13012657	13012671	13012687	13012703
80	-	-	-	13012658	13012672	13012688	13012704
90	-	-	-	13012659	13012673	13012689	13012705
100	-	-	-	-	13012674	13012690	13012706
110	-	-	-	-	13012675	13012691	13012707
120	-	-	-	-	13012676	13012692	13012708

Disponibles en Acero Inox
Consultar para otras medidas

DIN 7982

CABEZA AVELLANADA



d	M4	M6	M7	M8	M10	M12	M14
d	2,9	3,5	3,9	4,2	4,8	5,5	6,3
k	1,7	2,1	2,3	2,5	3	3,4	3,8
n° h	1	2	2	2	2	3	3
s	3	4,2	4,6	4,7	5,1	6,8	7,1

Zincado.

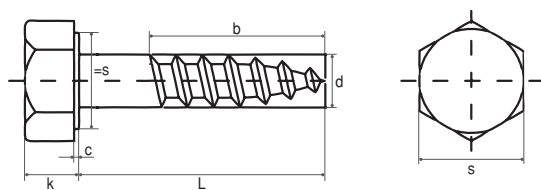
L	M4	M6	M7	M8	M10	M12	M14
6,5	13012709	-	-	-	-	-	-
9,5	13012710	13012716	13012724	13012734	-	-	-
13	13012711	13012717	13012725	13012735	13012746	13012757	13012768
16	13012712	13012718	13012726	13012736	13012747	13012758	13012769
19	13012713	13012719	13012727	13012737	13012748	13012759	13012770
22	13012714	13012720	13012728	13012738	13012749	13012760	13012771
25	13012715	13012721	13012729	13012739	13012750	13012761	13012772
32	-	13012722	13012730	13012740	13012751	13012762	13012773
38	-	13012723	13012731	13012741	13012752	13012763	13012774
45	-	-	13012732	13012742	13012753	13012764	13012775
50	-	-	13012733	13012743	13012754	13012765	13012776
60	-	-	-	13012744	13012755	13012766	13012777
70	-	-	-	13012745	13012756	13012767	13012778
	-	-	-	-	-	-	13012779

Disponibles en Acero Inox
Consultar para otras medidas

4. Tornillería de Madera.

DIN 571

TORNILLO BARRAQUERO. ROSCA MADERA



d	5	6	7	8	10	12	14	16
b	b ≥ 6							
k	3,5	4	5	5,5	7	8	-	10
s	8	10	12	13	17	19	-	24

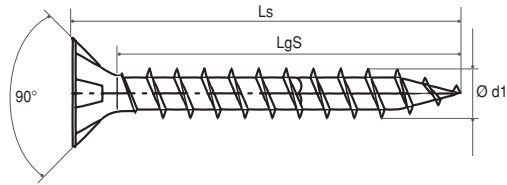
Zincado.

L	5	6	7	8	10	12	14	16
20	13012780	13012788	-	-	-	-	-	-
25	13012781	13012789	-	13012814	-	-	-	-
30	13012782	13012790	13012802	13012815	13012833	-	-	-
35	13012783	13012791	13012803	13012816	13012834	-	-	-
40	13012784	13012792	13012804	13012817	13012835	-	-	-
45	13012785	13012793	13012805	13012818	13012836	-	-	-
50	13012786	13012794	13012806	13012819	13012837	13012851	-	-
60	13012787	13012795	13012807	13012820	13012838	13012852	-	-
70	-	13012796	13012808	13012821	13012839	13012853	-	-
80	-	13012797	13012809	13012822	13012840	13012854	13012868	-
90	-	13012798	13012810	13012823	13012841	13012855	-	13012873
100	-	13012799	13012811	13012824	13012842	13012856	13012869	13012874
110	-	13012800	13012812	13012825	13012843	13012857	-	-
120	-	13012801	13012813	13012826	13012844	13012858	13012870	13012875
130	-	-	-	13012827	13012845	13012859	-	-
140	-	-	-	13012828	13012846	13012860	13012871	13012876
150	-	-	-	13012829	13012847	13012861	-	13012877
160	-	-	-	13012830	13012848	13012862	13012872	13012878
180	-	-	-	13012831	13012849	13012863	-	13012879
200	-	-	-	13012832	13012850	13012864	-	13012880
220	-	-	-	-	-	13012865	-	13012881
240	-	-	-	-	-	13012866	-	13012882
260	-	-	-	-	-	13012867	-	13012883

Disponibles en Acero Inox
Consultar para otras medidas

Cabeza Plana. Ranura en Cruz Z

GALVANIZADO. BICROMATADO



Templado / Revestimiento sintético.

Ref. catálogo	Código	Ø rosca d1 (mm)	Long. total Ls (mm)	Long. rosca estándar Lgs (mm)	Tamaño de cuchilla Z	Ref. catálogo	Código	Ø rosca d1 (mm)	Long. total Ls (mm)	Long. rosca estándar Lgs (mm)	Tamaño de cuchilla Z
13012884	1081020200105	2,0	10	8	1	13012933	1081020450205	4,5	20	15	2
13012885	1081020200125	2,0	12	11	1	13012934	1081020450255	4,5	25	20	2
13012886	1081020200165	2,0	16	15	1	13012935	1081020450305	4,5	30	25	2
13012887	1081020250105	2,5	10	8	1	13012936	1081020450355	4,5	35	30	2
13012888	1081020250125	2,5	12	10	1	13012937	1081020450405	4,5	40	34	2
13012889	1081020250155	2,5	15	12	1	13012938	1081020450455	4,5	45	39	2
13012890	1081020250165	2,5	16	14	1	13012939	1081020450505	4,5	50	44	2
13012891	1081020250205	2,5	20	17	1	13012940	1081020450555	4,5	55	49	2
13012892	1081020250255	2,5	25	22	1	13012941	1081020450605	4,5	60	54	2
13012893	1081020300105	3,0	10	7	1	13012942	1081020450705	4,5	70	59	2
13012894	1081020300125	3,0	12	10	1	13012943	1081020450805	4,5	80	59	2
13012895	1081020300135	3,0	13	10	1	13012944	1081020500165	5,0	16	12	2
13012896	1081020300155	3,0	15	12	1	13012945	1081020500205	5,0	20	15	2
13012897	1081020300165	3,0	16	13	1	13012946	1081020500255	5,0	25	20	2
13012898	1081020300175	3,0	17	13	1	13012947	1081020500305	5,0	30	25	2
13012899	1081020300205	3,0	20	16	1	13012948	1081020500355	5,0	35	30	2
13012900	1081020300255	3,0	25	21	1	13012949	1081020500405	5,0	40	35	2
13012901	1081020300305	3,0	30	26	1	13012950	1081020500455	5,0	45	39	2
13012902	1081020300355	3,0	35	31	1	13012951	1081020500505	5,0	50	44	2
13012903	1081020300405	3,0	40	36	1	13012952	1081020500555	5,0	55	49	2
13012904	1081020300455	3,0	45	36	1	13012953	1081020500605	5,0	60	54	2
13012905	1081020350125	3,5	12	9	2	13012954	1081020500705	5,0	70	61	2
13012906	1081020350135	3,5	13	9	2	13012955	1081020500805	5,0	80	61	2
13012907	1081020350155	3,5	15	11	2	13012956	1081020500905	5,0	90	61	2
13012908	1081020350165	3,5	16	13	2	13012957	1081020501005	5,0	100	61	2
13012909	1081020350175	3,5	17	13	2	13012958	1081020501105	5,0	110	69	2
13012910	1081020350205	3,5	20	16	2	13012959	1081020501205	5,0	120	69	2
13012911	1081020350255	3,5	25	21	2	13012960	1081020600305	6,0	30	24	3
13012912	1081020350305	3,5	30	25	2	13012961	1081020600355	6,0	35	29	3
13012913	1081020350355	3,5	35	30	2	13012962	1081020600405	6,0	40	34	3
13012914	1081020350405	3,5	40	35	2	13012963	1081020600455	6,0	45	38	3
13012915	1081020350455	3,5	45	40	2	13012964	1081020600505	6,0	50	43	3
13012916	1081020350505	3,5	50	40	2	13012965	1081020600555	6,0	55	48	3
13012917	1081020400125	4,0	12	9	2	13012966	1081020600605	6,0	60	53	3
13012918	1081020400155	4,0	15	11	2	13012967	1081020600705	6,0	70	61	3
13012919	1081020400165	4,0	16	13	2	13012968	1081020600805	6,0	80	61	3
13012920	1081020400175	4,0	17	13	2	13012969	1081020600905	6,0	90	61	3
13012921	1081020400205	4,0	20	16	2	13012970	1081020601005	6,0	100	61	3
13012922	1081020400255	4,0	25	21	2	13012971	1081020601105	6,0	110	68	3
13012923	1081020400305	4,0	30	25	2	13012972	1081020601205	6,0	120	68	3
13012924	1081020400355	4,0	35	30	2	13012973	1081020601305	6,0	130	68	3
13012925	1081020400405	4,0	40	35	2	13012974	1081020601405	6,0	140	68	3
13012926	1081020400455	4,0	45	40	2	13012975	1081020601505	6,0	150	68	3
13012927	1081020400505	4,0	50	45	2	13012976	1081020601605	6,0	160	65	3
13012928	1081020400555	4,0	55	50	2	13012977	1081020601805	6,0	180	65	3
13012929	1081020400605	4,0	60	50	2	13012978	1081020602005	6,0	200	65	3
13012930	1081020400705	4,0	70	50	2	13012979	1081020602205	6,0	220	65	3
13012931	1081020400805	4,0	80	50	2	13012980	1081020602405	6,0	240	65	3
13012932	1081020450165	4,5	16	13	2						