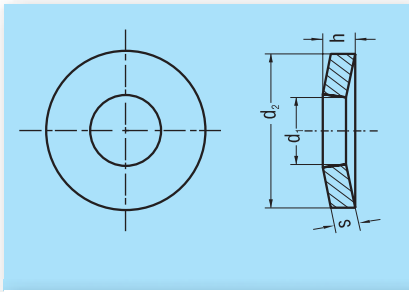


SCHNORR® HDS Load Washers as per DIN 6796



HDS Load Washer

These load washers have been specifically developed for high-strength bolts in the strength classes 8.8–10.9 as per DIN ISO 898 Part 1 (SAE Grade 5). The loads of the washers have been matched to these bolts and are 70 to 90% of the bolt load in the flat state.

Available materials:

Carbon steel SAE 1060

Stainless steel 17-7 PH

Available finishes:

phosphated (Standard) – in stock

zinc-plated clear (ZC) – in stock

zinc-plated yellow (ZY) – in stock

Order Reference	Bolt Size		d ₁ mm	d ₂ mm	s mm	h		d ₁ inch	d ₂ inch	s inch	h		Steel Flat Load lbs
	metric mm	imperial inch				max. mm	min. mm				max. inch	min. inch	
HDS 2	2		2,2	5	0,4	0,6	0,5	.087	.197	.016	.024	.020	141
HDS 2.5	2,5		2,7	6	0,5	0,72	0,61	.106	.236	.020	.028	.024	213
HDS 3	3	1/8"	3,2	7	0,6	0,85	0,72	.126	.276	.024	.033	.028	297
HDS 3.5	3,5		3,7	8	0,8	1,06	0,92	.146	.315	.031	.042	.036	542
HDS 4	4	5/32"	4,3	9	1	1,3	1,12	.169	.354	.039	.051	.044	848
HDS 5	5	3/16"	5,3	11	1,2	1,55	1,35	.209	.433	.047	.061	.053	1232
HDS 6	6	1/4"	6,4	14	1,5	2	1,7	.252	.551	.059	.079	.067	1931
HDS 7	7		7,4	17	1,75	2,3	2	.291	.669	.069	.091	.079	2540
HDS 8	8	5/16"	8,4	18	2	2,6	2,24	.331	.709	.079	.102	.088	3350
HDS 10	10	3/8"	10,5	23	2,5	3,2	2,8	.413	.906	.098	.126	.110	4968
HDS 12	12	1/2"	13	29	3	3,95	3,43	.512	1.142	.118	.156	.135	7666
HDS 14	14	9/16"	15	35	3,5	4,65	4,04	.591	.378	.138	.183	.159	10341
HDS 16	16	5/8"	17	39	4	5,25	4,58	.669	1.535	.157	.207	.180	13421
HDS 18	18		19	42	4,5	5,8	5,08	.748	1.654	.177	.228	.200	16726
HDS 20	20	3/4"	21	45	5	6,4	5,6	.827	1.772	.197	.252	.220	20952
HDS 22	22	7/8"	23	49	5,5	7,05	6,15	.906	1.929	.217	.278	.242	25561
HDS 24	24		25	56	6	7,75	6,77	.984	2.205	.236	.305	.267	29450
HDS 27	27	1"	28	60	6,5	8,35	7,3	1.102	2.362	.256	.329	.287	34621
HDS 30	30	1 1/8"	31	70	7	9,2	8	1.220	2.756	.276	.362	.315	38667

Technical notes and explanations

- h max is spring height as received
- h min is spring height after compression
- load information for design reference only
- figures based on spring steel, values will be different for other materials
- to be used for static applications only not stack in series or parallel
- S and VS are designed for use in light and medium duty applications