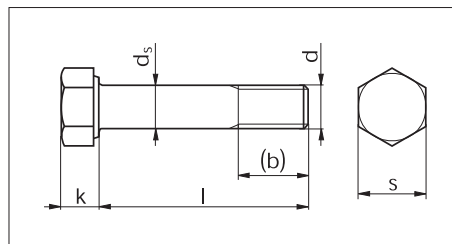


HV-BOLTS FOR STRUCTURAL BOLTING ASSEMBLIES

According to EN 14399-4



**High-strength structural bolt-
ing assemblies for preloading
– EN14399 Part 4: System HV –
Hexagon bolt and nut assemblies**

System HV
k-class K1
Property class 10.9
Hot Dip Galvanized

Thread dia. d		M12	M16	M20	M22	M24	M27	M30	M36
(b) Aux. dim.	mm	23	28	33	34	39	41	44	52
d _s Nominal dim.	mm	12	16	20	22	24	27	30	36
k Nominal dim.	mm	8	10	13	14	15	17	19	23
s Max.	mm	22	27	32	36	41	46	50	60

For bolted joint in steel and metal constructions.

HV-sets are designed for use in Shear/bearing bolted joint, tensile stress use in categories A-E according to DIN EN 1993-1-8 for preloaded and non-preloaded screw sets.

Thrd. dia. d	Length l in mm	Steel 10.9 Art. No.	P. Qty.	Thrd. dia. d	Length l in mm	Steel 10.9 Art. No.	P. Qty.
M12	30	0079 412 30	100/1	M16	65	0079 416 65	25/1
	35	0079 412 35			70	0079 416 70	
	40	0079 412 40			75	0079 416 75	
	45	0079 412 45			80	0079 416 80	
	50	0079 412 50			85	0079 416 85	
	55	0079 412 55			90	0079 416 90	
	60	0079 412 60			95	0079 416 95	
	65	0079 412 65			100	0079 416 100	
	70	0079 412 70			105	0079 416 105	
	75	0079 412 75			110	0079 416 110	
	80	0079 412 80	115		0079 416 115		
	85	0079 412 85	120		0079 416 120		
	90	0079 412 90	125		0079 416 125		
	95	0079 412 95	130		0079 416 130		
	100	0079 412 100	135		0079 416 135		
	105	0079 412 105	140		0079 416 140		
	110	0079 412 110	145		0079 416 145		
	115	0079 412 115	150		0079 416 150		
	120	0079 412 120	155		0079 416 155		
	125	0079 412 125	160		0079 416 160		
130	0079 412 130	165	0079 416 165				
135	0079 412 135	170	0079 416 170				
140	0079 412 140	175	0079 416 175				
145	0079 412 145	180	0079 416 180				
150	0079 412 150	190	0079 416 190				
155	0079 412 155	200	0079 416 200				
160	0079 412 160	40	0079 420 40				
165	0079 412 165	45	0079 420 45				
170	0079 412 170	50	0079 420 50				
175	0079 412 175	55	0079 420 55				
180	0079 412 180	60	0079 420 60				
190	0079 412 190	65	0079 420 65				
M16	35	0079 416 35	50/1	M20	70	0079 420 70	25/1
	40	0079 416 40			75	0079 420 75	
	45	0079 416 45			80	0079 420 80	
	50	0079 416 50			85	0079 420 85	
	55	0079 416 55			90	0079 420 90	
	60	0079 416 60			95	0079 420 95	
					100	0079 420 100	
					105	0079 420 105	

HV bolts as per DIN EN 14399-4 (previously DIN 6914) are used with HV nuts as per DIN EN 14399-4 (previously DIN 6915) and washers as per DIN EN 14399-6 (previously DIN 6916), DIN 6917 or DIN 6918.

"Only complete fittings (bolts, nuts and washers) from the same manufacturer are to be used." (excerpt from DIN EN 1993-1-8/NA:2010-12)

The Design of Steel Structures with HV sets is regulated in EN 1090-2 and EN 1993-1-8/NA.

HV bolts characteristics:

- Large under-head surface
 - Less surface pressure
 - Reduced setting
- Large under-head radius
 - Smaller notching effect
 - Improved fatigue strength
- Defined friction properties
 - Enables preloading
- Batch Marking on the product
 - Thus the requirement for inspection certificate 3.1 may be dispensed with. (see Table 1 in EN 1090-2 DIN: 2011-10)
- CE mark
 - according harmonized European standard EN 14399-1