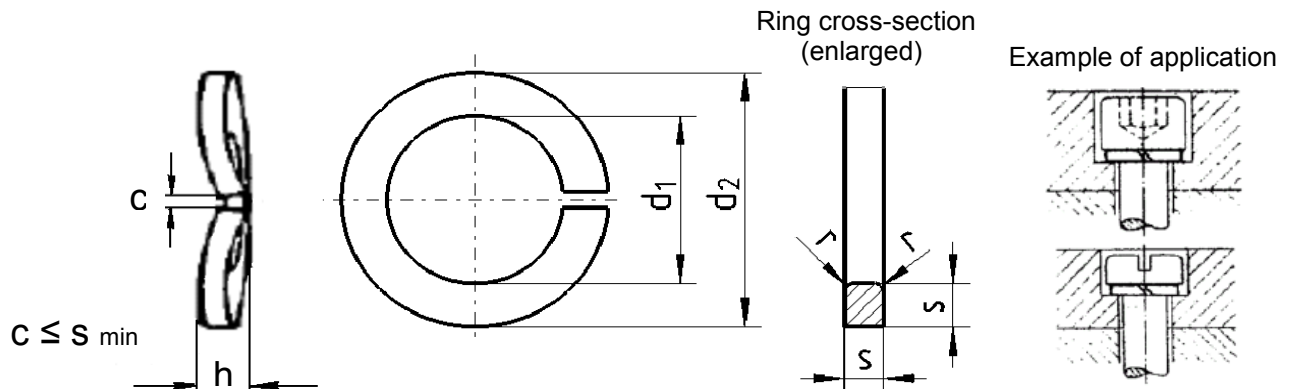


Curved Spring Lock Washer, design Vossloh VHZ ^{1*)} for screws with cylindrical head

Content	Vossloh VHZ ^{1*)}	
Material	Spring Steel	
Property class (Material)	38Si7 ^{2*)} (1.5023)	
	Standard	EN 10089
Mechanical properties	Hardness range	430 up to 530 HV
Dimension / Tolerances	Vossloh VHZ	
Loading Test	DIN 267-26: 1987 (as DIN 128)	
Surface	blank or blackened (BL)	Zinc-galvanized and chromated (bluish or yellowish) ^{3*)}
	Standard	-
Acceptability	ISO 3269	

Dept.	Document No.	Type	Rev.	Released	Ing.	Status
9610	NB 335840	EC	A	2011-04-27	EN	Approved



Hint for the designer:

Locking properties see HZN 404304, HZN 404318 and HZN 404321 (Folder 202).
This springs are for right and left hand thread applications.

1*) Not public standardized. Design Vossloh (corresponds to DIN 128 (Form A), except d₂, s). Address 2010: mail@vossloh.info

2*) Or similar steel acc. to DIN 267-26: 1987 which mentions spring steel acc. to DIN 17221 or DIN 17222.

3*) Grey fields: Do not use for new designs (Risk of brittle fracture).

Replacement are spring steel blank or spring steel with mechanically deposited coatings (bluish).

Internal
remark:

VPDM 3D model available

Yes ☐

Partly ☒

No ☐

Pos-No-Plan: HCSN401088

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Dimensions in mm

Nominal diameter (Thread diameter)			4	5	6	8	10	12	(14)	16		20	
Nom. dim = d ₁	min.		4.1	5.1	6.1	8.1	10.2	12.2	14.2	16.2		20.2	
	max		4.4	5.4	6.5	8.5	10.8	13.0	15.0	17.2		21.2	
d ₂		max	7	8.8	9.9	12.7	16.1	18.3	21.4	24.6		30.6	
s	Nominal dimension		1.2	1.6	1.6	2.0	2.5	2.5	3.0	3.5		4.5	
	max		1.3	1.7	1.7	2.1	2.65	2.65	3.2	3.7		4.7	
	min.		1.1	1.5	1.5	1.9	2.35	2.35	2.8	3.3		4.3	
h	Delivery condition	max	1.7	2.1	2.1	2.8	3.7	3.7	4.5	5.2		6.4	
		min.	2.0	2.4	2.4	3.2	4.1	4.1	5.0	5.9		7.3	
	After loading test	min.	1.5	1.8	1.8	2.4	3.1	3.1	3.8	4.4		5.5	
r		≈	0.3	0.3	0.3	0.5	0.8	0.8	1.0	1.0		1.0	
Mass (weight) in kg/1000 pcs. (ρ = 7.85 kg/dm ³)			0.195	0.370	0.42	1.05	1.96	2.28	3.8	5.94		12.3	
Material	Surface	Identity No.: NB 335840P....											
Spring Steel	blank		5	6	7	8	9	10		12		13	
	Zinc-galvanized ^{3*)}				57	58	59	60		62		63	

Avoid sizes in brackets.

Specified weights in table are reference values. A conclusion on number of pieces is therefore not possible.

1*) Not public standardized. Design Vossloh (corresponds to DIN 128 (Form A), except d₂, s). Address 2010: mail@vossloh.info

3*) Grey fields: Do not use for new designs (Risk of brittle fracture). Replacement are spring steel blank or spring steel with mechanically deposited coatings (bluish).

Example of designation: Curved Spring Lock Washer for Hex Socket Cap Screw, design Vossloh VHZ,
nominal thread diameter 10, made of Spring Steel, blank

Text: SPR-L-WASHER VHZ 10 ST/BL

Identity No.: NB 335840P0009