

The English version is a translation, in case of dispute the original German version will govern.

### 1. Introduction

The respective production documents (drawing and bill of materials) specify which fastening elements are to be used. With the availability of fastening elements according to KMW-Factory standard WN1-1 to WN1-8, not all bill of materials can be converted to the new WN1 fastening elements. For bill of materials that were released before the WN1 was created, this appendix controls the automatic replacement of DIN EN ISO 4042: 2001-01 standard parts.

All remaining fasteners that are not included in the following table are categorically barred from automatic replacement.

For suppliers is valid: For fasteners, which were barred from Recoding according to table 1, an application for a construction deviation according to KMW quality assurance condition QS-0003 is required. The same is valid generally for all deviations from the requirements from this document.

KMW internal: The defined processes apply.

### 2. Recoding according to WN1

The following table permits the recoding of galvanic coatings according to DIN EN ISO 4042:2001-01 into coding according to WN1. This table is only valid for fasteners up to and including quality 08.8, 8.8 and 8<sup>1</sup>.

pitch <sup>2</sup>	metric thread	fine thread	DIN EN ISO 4042:2001-01	according to WN1 [DIN EN ISO 4042:2018-11]
0,25	M1 M1,2	M1,4 to M10	A1*, A2*	WN1-6 [ISO4042/Zn3/An/T0]
3	M1,4	-	A1*, A2*	WN1-6 [ISO4042/Zn3/An/T0]
0,35	M1,6 M1,8	M2 to M50	A1*, A2*	WN1-6 [ISO4042/Zn3/An/T0]
0,4	M2	-	A1*, A2*	WN1-6 [ISO4042/Zn3/An/T0]
0,45	M2,5	-	A1*, A2*	WN1-6 [ISO4042/Zn3/An/T0]
0,5	M3	M4 to M22	A2*	WN1-1 [ISO4042/ZnNi5/Fn/T2(μ0,12-0,18)]
0,6	M3,5	-	A2*	WN1-1 [ISO4042/ZnNi5/Fn/T2(μ0,12-0,18)]
0,7	M4	-	A2*	WN1-1 [ISO4042/ZnNi5/Fn/T2(μ0,12-0,18)]
0,75	M4,5	M6 to M33	A2*	WN1-1 [ISO4042/ZnNi5/Fn/T2(μ0,12-0,18)]
0,8	M5	-	A2*	WN1-1 [ISO4042/ZnNi5/Fn/T2(μ0,12-0,18)]
1	M6	M8 to M80	A2*	WN1-1 [ISO4042/ZnNi5/Fn/T2(μ0,12-0,18)]
1,25	M8	M10, M12	A2*	WN1-1 [ISO4042/ZnNi5/Fn/T2(μ0,12-0,18)]
1,5	M10	M12 to M150	A3*	WN1-2 [ISO4042/ZnNi8/Fn/T2(μ0,12-0,18)]
1,75	M12	-	A3*	WN1-2 [ISO4042/ZnNi8/Fn/T2(μ0,12-0,18)]
2	M14 M16	M18 to M200	A3*	WN1-2 [ISO4042/ZnNi8/Fn/T2(μ0,12-0,18)]
2,5	M18 M20 M22	-	A3*	WN1-2 [ISO4042/ZnNi8/Fn/T2(μ0,12-0,18)]
3	M24 M27	M30 to M300	A3*	WN1-2 [ISO4042/ZnNi8/Fn/T2(μ0,12-0,18)]
3,5	M30 M33	-	A3*	WN1-2 [ISO4042/ZnNi8/Fn/T2(μ0,12-0,18)]
4	M36 M39	M42 to M300	A3*	WN1-2 [ISO4042/ZnNi8/Fn/T2(μ0,12-0,18)]
4,5	M42	-	A3*	WN1-2 [ISO4042/ZnNi8/Fn/T2(μ0,12-0,18)]
5	M48	-	A3*	WN1-2 [ISO4042/ZnNi8/Fn/T2(μ0,12-0,18)]
5,5	M56	-	A3*	WN1-2 [ISO4042/ZnNi8/Fn/T2(μ0,12-0,18)]
6	M64	M70 to M300	A3*	WN1-2 [ISO4042/ZnNi8/Fn/T2(μ0,12-0,18)]

**Annotation: make sure that all fastening elements involved (such as screws, washers, and nuts) have the same plating.**

In the original co-signed by

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### 3. Fastening elements according to WN1-4, WN1-5 and WN1-8

Fasteners according to WN1-4, WN1-5 and WN1-8 are equally permitted plating's in accordance with DIN EN ISO 10683:2018-11 as well as VDA235-104:2013-07. Both standards include an identical zinc flake coating system.

The equally is effective if the quality assurance conditions according to VDA235-104:2013-07 in every case is observed.

For suppliers: When using WN1-4, WN1-5 and WN1-8 fastening elements a specific tightening torque is required. In case of construction deviations with regard to the use of WN1-4, WN1-5 and WN1-8 fasteners, this values have to defined by KMW.

KMW internal: When using WN1-4, WN1-5 and WN1-8 fastening elements, the tightening torque must be apply or calculate in accordance to the assembly instructions / standard.

### 4. Fastening elements A2P/A3P

The coatings A2B/A3B according to DIN EN ISO 4042:2001-01 are in the updated version of the standard DIN EN ISO 4042:2018-11 under a new name ISO4042/Zn5/An / ISO4042/Zn8/An still included.

For fastening elements with coatings A2P/A2B/A3P/A3B, it is permissible to replace them with fasteners according to DIN EN ISO 4042:2018-11 with the new designation ISO4042/Zn5/An for thread pitch  $P \leq 1,25$  (previously A2B) and ISO4042/Zn8/An for thread pitch  $P > 1,25$  (previously A3B).<sup>3</sup>

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<sup>1</sup> Strength class of the screws according to DIN EN ISO 898-1.

The Quality 08.8 is a designation for screws of the strength class 8.8 with reduced load capacity because of its geometry (e.g. flat-head screw).

<sup>2</sup> The thread pitch (P) is the leading value for coating thickness, for better orientation, the standard thread size is also given in the Table.

<sup>3</sup> The thread pitch (P) is the leading value for the coating thickness. The value  $P=1,25$  correspondent to a metric standard thread size M8, this information is only for orientation.

Version	Date	Amendments	Relevant section
-	2020-11-18	Initial release	all
A	2021-03-02	Changed all chapters	all
B	2021-05-12	Chapters 1,2,3 changed, chapter 4 added	1, 2, 3, 4