Self-Clinching Non-Locking Steel Nuts — DSP 1.1.5

1. Scope

This DSEI describes the types, sizes and performance characteristics of self-clinching non-locking steel nuts allowable in any DEK design.

2. Applicability

Any new design initiated after the first issue date of this document.
Any major rework of an existing design initiated after the first issue date of this document.

3. Preferred Supplier

PEM® is the preferred brand for this component type. This brand is supplied by the Penn Engineering & Manufacturing Corp. (www.pemnet.com)

4. Carbon Steel Self-Clinching Nuts

These are the DEK preferred fasteners for use in mild steel sheet.
The fasteners should be inserted to achieve the push out and torque out as stated in Table 1 when tested in a steel sheet in accordance with PEM® bulletin CL.
To achieve maximum performance it is recommended to use the maximum shank length suitable for the desired sheet thickness.
For full technical and application details refer to PEM® bulletin CL.

SIZE	DEK Part Number	PEM Part Number	Minimum Material Thickness	PUSH OUT (N)	TORQUE OUT (Nm)
M2	701410	S-M2-0ZI	0,8	376	1.18
	701411	S-M2-1ZI	1	440	1.36
	701412	S-M2-2ZI	1,4	808	1.62
M2,5	701413	S-M2.5-0ZI	0,8	376	1.18
	701414	S-M2.5-1ZI	1	440	1.36
	701415	S-M2.5-2ZI	1,4	808	1.62
M3	701416	S-M3-0ZI	0,8	376	1.18
	701031	S-M3-1ZI	1	440	1.36
	701030	S-M3-2ZI	1,4	808	1.62
M4	701420	S-M4-0ZI	0,8	392	2.36
	701039	S-M4-1ZI	1	516	3.2
	701421	S-M4-2ZI	1,4	1000	4.08
M5	701422	SS-M5-0ZI	0,8	424	2.88
	701038	SS-M5-1ZI	1	640	3.6
	701036	SS-M5-2ZI	1,4	890	5.44
M6	701459	S-M6-00ZI	0,92	720	8
	701423	S-M6-0ZI	1,2	1104	10.4
	701424	S-M6-1ZI	1,4	1408	13.6
	701035	S-M6-2ZI	2,29	1408	13.6
M8	701425	S-M8-1ZI	1,4	1496	14.96
	701426	S-M8-2ZI	2,29	1496	16.24
M10	701427	S-M10-1ZI	2,31	1616	28.96
	701428	S-M10-2ZI	3,18	1616	28.96
M12	701461	S-M12-1ZI	3,18	2452	59.12

Table 1 – Carbon Steel DEK-PEM® Cross Reference

5. Stainless Steel Self-Clinching Nuts

These are the DEK preferred fasteners for use in aluminium sheet.
The fasteners should be inserted to achieve the push out and torque out as stated in Table 2 when tested in a steel sheet in accordance with PEM® bulletin CL.
To achieve maximum performance it is recommended to use the maximum shank length suitable for the desired sheet thickness.
For full technical and application details refer to PEM® bulletin CL.

SIZE	DEK Part Number	PEM Part Number	Minimum Material Thickness	PUSH OUT (N)	TORQUE OUT (Nm)
M2	701450	CLS-M2-0	0,8	376	1.18
	701451	CLS-M2-1	1	440	1.36
	701452	CLS-M2-2	1,4	808	1.62
M2,5	701453	CLS-M2.5-0	0,8	376	1.18
	701454	CLS-M2.5-1	1	440	1.36
	701455	CLS-M2.5-2	1,4	808	1.62
M3	701456	CLS-M3-0	0,8	376	1.18
	701457	CLS-M3-1	1	440	1.36
	701458	CLS-M3-2	1,4	808	1.62
M4	701417	CLS-M4-0	0,8	392	2.36
	701418	CLS-M4-1	1	516	3.2
	701043	CLS-M4-2	1,4	1000	4.08
M5	701419	CLSS-M5-0	0,8	424	2.88
	701429	CLSS-M5-1	1	640	3.6
	701430	CLSS-M5-2	1,4	890	5.44
M6	701431	CLS-M6-0	0,92	720	8
	701460	CLS-M6-00	1,2	1104	10.4
	701432	CLS-M6-1	1,4	1408	13.6
	701433	CLS-M6-2	2,29	1408	13.6
M8	701434	CLS-M8-1	1,4	1496	14.96
	701435	CLS-M8-2	2,29	1496	16.24
M10	701436	CLS-M10-1	2,31	1616	28.96
	701437	CLS-M10-2	3,18	1616	28.96

Table 2 – Stainless Steel DEK-PEM® Cross Reference

6. Hardened Stainless Steel Self-Clinching Nuts

These are the DEK preferred fasteners for use in stainless steel sheet.
The fasteners should be inserted to achieve the push out and torque out as stated in Table 3 when tested in a steel sheet in accordance with PEM® bulletin CL.
To achieve maximum performance it is recommended to use the maximum shank length suitable for the desired sheet thickness.
For full technical and application details refer to PEM® bulletin CL.

SIZE	DEK Part Number	PEM Part Number	Minimum Material Thickness	PUSH OUT (N)	TORQUE OUT (Nm)
M3	701438	SP-M3-0	0,8	460	1.26
	701439	SP-M3-1	1	580	1.54
	701442	SP-M3-2	1,4	1032	1.62
M4	701443	SP-M4-0	0,8	516	2.7
	701440	SP-M4-1	1	640	3.34
	701441	SP-M4-2	1,4	1280	4.06
M5	701444	SP-M5-0	0,8	640	3.16
	701445	SP-M5-1	1	820	4.06
	701446	SP-M5-2	1,4	1420	5.42
M6	701448	SP-M6-1	1,4	1600	13.6
M8	701447	SP-M8-1	1,4	1680	15.2
M10	701449	SP-M10-1	2,31	1720	30.4

Table 3 – Hardened Stainless Steel DEK-PEM® Cross Reference

7. Alternative Supplier

Alternative suppliers are permissible provided that their products meet all of the dimensional and performance characteristics of the PEM® equivalent.