

**WELD NUT – HEXAGON FLANGE – PROOF LOAD 10 CAPABILITY  
CATEGORY 250.020****FOREWORD:**

This standard was released originally to cover hexagon flange weld nuts capable of withstanding the proof load equivalent to a property class 10.

Two styles of weld projections are included, elongated and round:

Elongated projections are suitable for welding to relatively thin steel with and without light duty coatings.

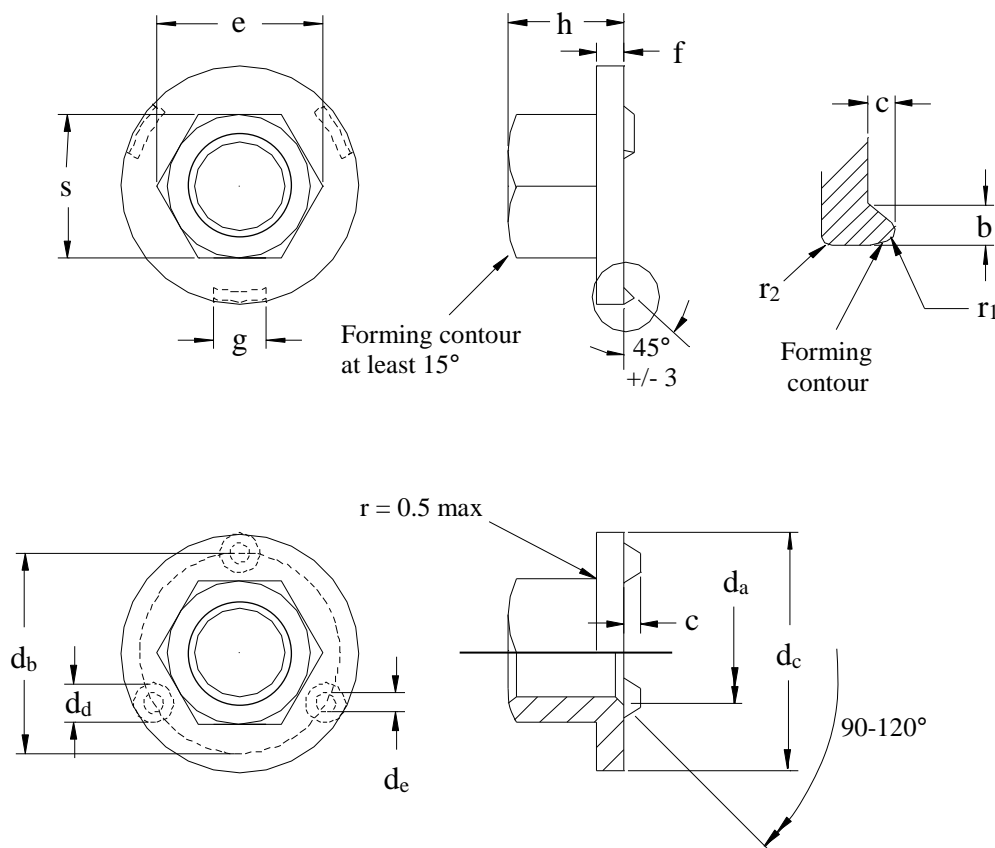
Round projections are intended for welding to relatively thicker steel and steels with heavy duty coatings such as 60G60GHD.

Before selecting the projection type Engineering should consult with the welding experts in Manufacturing to ensure that the correct projection shape is specified to meet material and welding equipment capability.

The different projection types are available in a threaded version and an un-threaded version with a hole size suitable to accept thread forming screws.

The design of these nuts is similar to nuts manufactured in accordance with ISO/FDIS 21670.

FIGURE 1





WELD NUT – HEXAGON FLANGE – PROOF LOAD 10 CAPABILITY

Nominal Size		M5	M6	M8	M10	M12	M14
Pitch (Threaded)		0.8	1	1.25	1.5	1.75	2.0
Hole size (Unthreaded) +/- 0.05		4.65	5.5	7.35	9.3	11.2	13.2
b	+ 0.0 – 0.2	2.2	2.7	2.7	2.95	3.2	3.45
c	+/- 0.1	0.8	0.8	1.0	1.2	1.2	1.2
d <sub>a</sub>	max.	6.0	7.0	9.5	11.5	14.0	16.0
d <sub>b</sub>	+/- 0.2	10.9	13.2	17.2	21.2	24.5	27.5
d <sub>c</sub>	+ 0.0 – 1.0	15.5	18.5	22.5	26.5	30.5	33.5
d <sub>d</sub>	min.	3.3	4.0	4.0	4.0	4.7	4.7
	max.	3.6	4.3	4.3	4.3	5.0	5.0
d <sub>e</sub>	min.	1.5	1.9	1.9	1.9	2.2	2.2
	max.	1.8	2.2	2.2	2.2	2.5	2.5
e	min	8.2	10.6	13.6	16.9	19.4	22.4
f	+/- 0.25	1.7	2.0	2.5	3.0	3.0	4.0
g	+/- 0.1	4.0	5.0	6.0	7.0	8.0	8.0
h	min.	4.7	6.64	9.64	12.57	14.57	16.16
	max.	5.0	7.0	10.0	13.0	15.0	17.0
s	h14	8.0	10.0	13.0	16.0	18.0	21.0
r <sub>1</sub>	+/- 0.1	0.6	0.6	0.8	1.0	1.0	1.0
r <sub>2</sub>	+/- 0.1	0.3	0.5	0.8	1.0	1.2	1.2
Recommended Panel Hole Dia.	min.	Replaced by ESBU5A-1294-AB or latest					
	max.						
ELONGATED PROJECTIONS							
Recommended Metal Thickness max.	LCS Bare	0.8	1.5	1.5	1.5	2.0	2.0
	HSLA & Coated	0.8	1.0	1.0	1.0	1.5	1.5
PART NUMBER	THREADED	W520750	W520751	W520752	W520753	W520754	W520755
PART NUMBER	UNTHREADED	W520760	W520761	W520762	W520763	W520764	W520765
ROUND PROJECTIONS							
Recommended Metal Thickness max.	LCS Bare	1.0	2.3	2.3	2.3	2.5	2.5
	HSLA & Coated	0.8	2.0	2.0	2.0	2.2	2.2
PART NUMBER	THREADED	W520770	W520771	W520772	W520773	W520774	W520775
PART NUMBER	UNTHREADED	W520780	W520781	W520782	W520783	W520784	W520785

Projections must be coplanar within 0.13mm

Material & Performance: WE 960 Property Class equivalent to 10.

Note these nuts may not meet all of the requirements of property class 10 but shall meet the proof load requirements.

Unthreaded weld nuts shall have a maximum hardness of 250 HV

General Specifications: WE 900

Finish: WX 100

Example Description:

**W520750 NUT WELD M5 HF 10**

**W520780 NUT WELD 5MM HF THDLS 10**



**SUMMARY OF REVISIONS**

2017 11 22 Replaced panel hole sizes with ESBU5A-1294-AB or latest  
2016 04 13 Corrected D<sub>b</sub> dimension in Table for M14