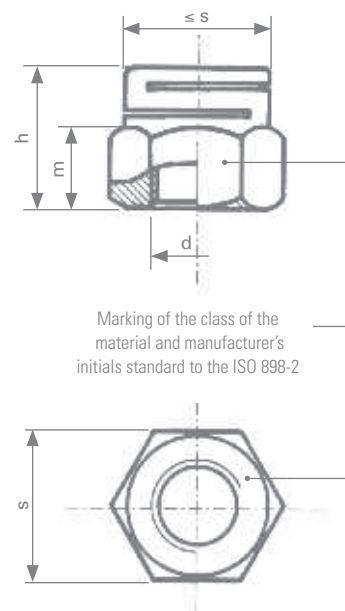


Definition: all metals reusable slotted self-locking hexagon nut standard to the NFE 25 411 and SNCF ST 001-002 FPN6

Threading: standard to ISO 965-2

Characteristic and performance test: steel ISO 898-2 / NF EN ISO 2320

d	pitch	s	h	m
M 2	0,40	4,00	4,50	2,30
M 2,5	0,45	5,00	4,50	2,30
M 3	0,50	5,50	4,50	2,50
M 4	0,70	7,00	5,30	2,60
M 5	0,80	8,00	6,30	3,00
M 6	1,00	10,00	7,00	3,60
M 7	1,00	11,00	8,10	4,80
M 8	1,25	13,00	8,80	4,80
M 10	1,50	16,00	11,00	6,00
M 12	1,75	18,00	13,00	7,20
M 14	2,00	21,00	15,00	8,40
M 16	2,00	24,00	18,70	11,50
M 18	2,50	27,00	20,00	11,50
M 20	2,50	30,00	21,00	12,00
M 22	2,50	34,00	21,50	12,50
M 24	3,00	36,00	25,50	15,40
M 27	3,00	41,00	28,00	17,00
M 30	3,50	46,00	31,50	18,50
M 33	3,50	50,00	32,00	18,70
M 36	4,00	55,00	34,50	19,50
M 39	4,00	60,00	37,00	20,50
M 42	4,50	65,00	39,50	23,00
M 45	4,50	70,00	43,00	24,00
M 48	5,00	75,00	46,00	25,00



Quality class	Classification	Range of application
Class 8 steel	QV	Self-color -50° C + 300° C ⁽¹⁾
Class 10 steel	QK	
Class 12 steel	QL	

Others: Brass - Bronze - Light alloy - Titanium...

⁽¹⁾ Values are only given as an indication

Surface treatment (standard to ROHS requirements)			
Electrolytic coating (steel)	Yellow	ZJ	ISO 4042
	White Lanthane ® Finish	ZL	400 h
	White Lanthane ® Finish + Top coat	ZF	600 h
Zinc lamellar (steel)	600 h to 1000 h salt spray		on request
Self Color		BT	

Example of ordering code					
	Type	Diam X pitch	Class	Protection	
classification	ESL	100150	QV	ZL	00
wording	ESL	M10 X 1,50	8	Zinc Lanthane ®	*

*Standard size

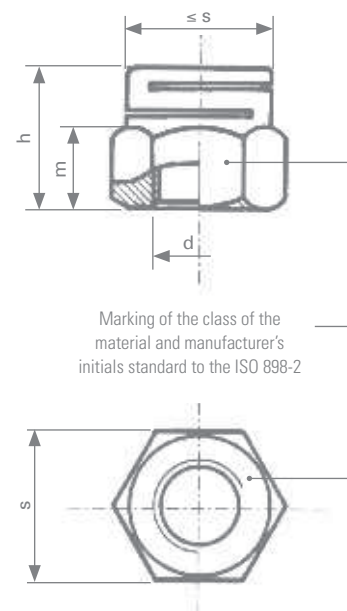
On request: other materials, plating, sizes, imperial thread

Definition: all metals reusable slotted self-locking hexagon nut standard to the NFE 25 411 and SNCF ST 001-002 FPN6

Threading: standard to ISO 965-2

Characteristic and performance test: stainless steel NF EN ISO 3506-2 / NF E 25035

d	pitch	s	h	m
M 2	0,40	4,00	4,50	2,30
M 2,5	0,45	5,00	4,50	2,30
M 3	0,50	5,50	4,50	2,50
M 4	0,70	7,00	5,30	2,60
M 5	0,80	8,00	6,30	3,00
M 6	1,00	10,00	7,00	3,60
M 7	1,00	11,00	8,10	4,80
M 8	1,25	13,00	8,80	4,80
M 10	1,50	16,00	11,00	6,00
M 12	1,75	18,00	13,00	7,20
M 14	2,00	21,00	15,00	8,40
M 16	2,00	24,00	17,00	9,50
M 18	2,50	27,00	19,50	11,50
M 20	2,50	30,00	21,00	12,00
M 22	2,50	34,00	21,50	12,50
M 24	3,00	36,00	25,50	15,40
M 27	3,00	41,00	28,00	17,00
M 30	3,50	46,00	31,50	18,50
M 33	3,50	50,00	32,00	18,70
M 36	4,00	55,00	34,50	19,50
M 39	4,00	60,00	37,00	20,50
M 42	4,50	65,00	39,50	23,00
M 45	4,50	70,00	43,00	24,00
M 48	5,00	75,00	46,00	25,00



Quality class	Classification	Range of application
Stainless steel A2-70	ZE	Corrosive atmosphere -200° C + 400° C ⁽¹⁾
Stainless steel A4-80	ZH	

⁽¹⁾ Values are only given as an indication

Surface treatment (standard to ROHS requirements)		
Passivation		PA
Antigalling	Stanal ® 400	ST
	Sherardisation (NF EN 13811)	SH
Self color		BT

Example of ordering code					
	Type	Diam X pitch	Class	Protection	
classification	ESL	100150	ZH	ST	00
wording	ESL	M10 X 1,50	A4 80	Stanal ® 400	*

*Standard size

On request: other materials, plating, sizes, imperial thread

Definition: all metals reusable slotted self-locking hexagon nut standard to the NFE 25 411 and SNCF ST 001-002 FPN6

Threading: series UNC / UNF ANSI B1.1 and BS 1580 - BSF / BSW on request

Characteristic and performance test: for steel ISO 898-2 / ISO 2320
for stainless steel ISO 3506-2 / NF E 25035

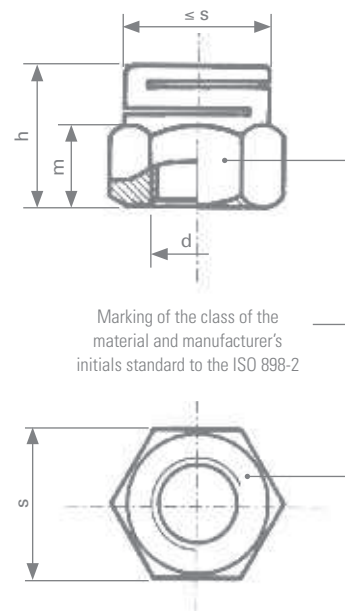
d / inches	d / mm	pitch / UNC	pitch / UNF	s / mm	h / mm	m / mm	Codes
N°8	4,16	32	36	8,00	5,30	2,60	H
N°10	4,82	24	32	9,00	6,30	3,00	I
1/4	6,35	20	28	11,00	7,50	4,00	K
5/16	7,94	18	24	13,00	8,80	4,80	L
3/8	9,52	16	24	14,00	8,80	4,80	M
7/16	11,11	14	20	17,00	11,00	6,00	N
1/2	12,70	13	20	18,00	13,00	7,20	O
9/16	14,29	12	18	22,00	15,00	8,00	P
5/8	15,87	11	18	24,00	17,00	9,50	Q
3/4	19,05	10	16	28,00	21,00	12,00	R
7/8	22,22	9	14	33,00	22,00	12,50	S
1	25,40	8	12	41,00	24,00	13,50	T
1 1/4	31,75	7	12	46,00	29,50	16,00	V
1 1/2	38,10	6	12	55,00	32,00	17,50	X
1 3/4	44,45	5	-	on request			Z
2	50,80	4	-	75,00	46,00	25,50	Y

Quality class	Classification	Range of application
Class 8 steel / Grade 5	QV	Self color -50° C +300° C ⁽¹⁾
Class 10 steel / Grade 8	QK	
Class 12 steel / Grade 10	QL	
Stainless steel A2-70	ZE	Corrosive atmosphere -200° C +400° C ⁽¹⁾
Stainless steel A4-80	ZH	

Others: Brass - Bronze - Light alloy - Titanium...

⁽¹⁾ Values are only given as indication

Surface treatment (standard to ROHS requirements)			
Electrolytic coating (steel)	Yellow	ZJ	ISO 4042
	White Lanthane ® Finish	ZL	400 h
	White Lanthane ® Finish + Top coat	ZF	600 h
Zinc lamellar (steel)	600 h to 1000 h salt spray		on request
Antigalling (stainless steel)	Stanal ® 400	ST	
	Sherardisation (NF EN 13811)	SH	
Self Color		BT	



Example of ordering code

	Type	Diam X pitch	Class	Protection	
classification	ESL	N00UNC	QV	ZL	00
wording	ESL	ø 7/16" UNC	8	Zinc Lanthane®	*

*Standard size

On request: other materials, plating, sizes, imperial thread

Definition: all metals reusable slotted self-locking hexagon nut

Threading: series UNC / UNF ANSI B1.1 and BS 1580 - BSF / BSW on request

Characteristic and performance test: for steel ISO 898-2 / ISO 2320
for stainless steel ISO 3506-2 / NF E 25035

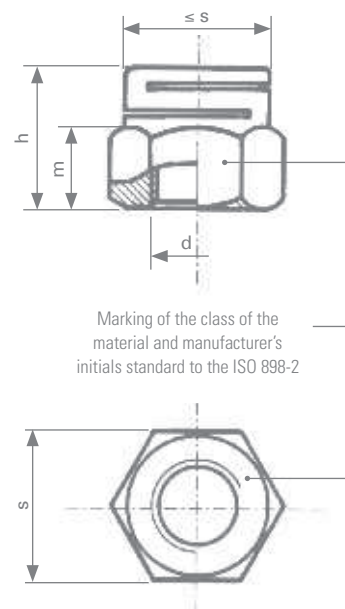
d / inches	d / mm	pitch / UNC	pitch / UNF	s / min.	s / max.	h	m	codes
N°1	1,854	64	72	6,172	6,375	5,30	2,60	B
N°2	2,184	56	64	6,172	6,375	5,30	2,60	C
N°3	2,515	48	56	6,172	6,375	5,30	2,60	D
N°4	2,845	40	48	6,172	6,375	5,30	2,60	E
N°5	3,175	40	44	6,172	6,375	5,30	2,60	F
N°6	3,505	32	40	7,747	7,950	6,30	3,00	G
N°8	4,166	32	36	8,534	8,763	6,30	3,00	H
N°10	4,826	24	32	9,321	9,550	6,30	3,00	I
N°12	5,486	24	28	10,871	11,125	7,50	4,50	J
1/4	6,350	20	28	10,871	11,125	7,50	4,50	K
5/16	7,938	18	24	12,420	12,700	8,80	4,80	L
3/8	9,525	16	24	13,995	14,274	8,80	4,80	M
7/16	11,113	14	20	17,145	17,475	11,00	6,00	N
1/2	12,700	13	20	18,694	19,050	13,00	7,20	O
9/16	12,032	12	18	21,869	22,225	15,00	8,00	P
5/8	15,875	11	18	23,418	23,825	17,00	9,50	Q
3/4	19,050	10	16	27,635	28,575	21,00	12,00	R
7/8	22,225	9	14	32,232	33,324	22,00	12,50	S
1	25,400	8	12	36,830	38,100	24,00	13,50	T
1 1/8	28,575	7	12	41,427	42,875	25,00	14,00	U
1 1/4	31,750	7	12	46,024	47,701	29,50	16,00	V
1 3/8	34,925	6	12	50,647	52,374	32,00	17,00	W
1 1/2	38,100	6	12	55,245	57,150	35,00	18,50	X

Quality class	Classification	Range of application
Class 8 steel / Grade 5	QV	Self color -50° C +300° C ⁽¹⁾
Class 10 steel / Grade 8	QK	
Class 12 steel / Grade 10	QL	
Stainless steel A2-70	ZE	Corrosive atmosphere -200° C +400° C ⁽¹⁾
Stainless steel A4-70	ZK	
Stainless steel A4-80	ZH	

Others: Brass - Bronze - Light alloy - Titanium...

⁽¹⁾ Values are only given as indication

Surface treatment (standard to ROHS requirements)			
Electrolytic coating (steel)	Yellow	ZJ	ISO 4042
	White Lanthane ® Finish	ZL	400 h
	White Lanthane ® Finish + Top coat	ZF	600 h
Zinc lamellar (steel)	600 h to 1000 h salt spray		on request
Antigalling (stainless steel)	Stanal ® 400	ST	
	Sherardisation (NF EN 13811)	SH	
Self Color		BT	



Example of ordering code

	Type	Diam X pitch	Class	Protection	
classification	ESL	N00UNC	QV	ZL	00
wording	ESL	ø 7/16" UNC	8	Zinc Lanthane®	*

*Standard size

On request: other materials, plating, sizes, imperial thread



Definition: all metals reusable slotted self-locking hexagon flange nut with free washer

Threading: standard to ISO 965-2

Characteristic and performance test: for steel ISO 898-2 / ISO 2320
for stainless steel ISO 3506-2 / NF E 25035

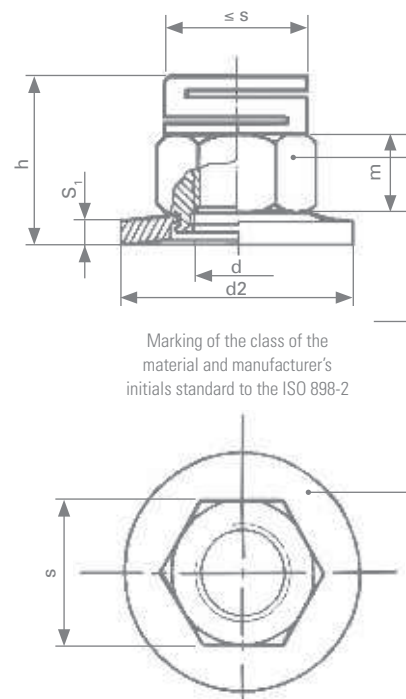
d	pitch	s	h	m	d ₂ *	s ₁
M 4	0,70	7,00	7,00	2,60	12,00	1,10
M 5	0,80	8,00	8,50	3,00	14,00	1,30
M 6	1,00	10,00	9,00	4,50	18,00	1,40
M 8	1,25	13,00	11,00	4,80	22,00	1,60
M 10	1,50	16,00	13,40	6,00	22,00 / 27,00	1,80
M 12	1,75	18,00	15,80	7,20	27,00	1,80
M 14	2,00	21,00	17,80	8,40	30,00	2,40
M 16	2,00	24,00	19,80	9,50	40,00	3,20

Sizes: * Only given as an indication. On request for other type and other diameter of washers

Quality class	Classification	Range of application
Class 8 steel / Grade 5	QV	Self color -50° C +300° C ⁽¹⁾
Class 10 steel / Grade 8	QK	
Stainless steel A2-70	ZE	Corrosive atmosphere -200° C +400° C ⁽¹⁾
Stainless steel A4-80	ZH	

Others: Brass - Bronze - Light alloy - Titanium...

⁽¹⁾ Values are only given as indication



Marking of the class of the material and manufacturer's initials standard to the ISO 898-2

Surface treatment (standard to ROHS requirements)			
Electrolytic coating (steel)	Yellow	ZJ	ISO 4042
	White Lanthane ® Finish	ZL	400 h
	White Lanthane ® Finish + Top coat	ZF	600 h
Zinc lamellar (steel)	600 h to 1000 h salt spray		on request
Antigalling (stainless steel)	Stanal ® 400	ST	
	Sherardisation (NF EN 13811)	SH	
Self Color		BT	

Example of ordering code

	Type	Diam X pitch	Class	Protection	
classification	ERM	100150	ZH	ST	01
wording	ERM	M10 X 1,50	A4 80	Stanal ®	*

*Standard size

On request: other materials, plating, sizes, imperial thread



Definition: all metals reusable slotted self-locking hexagon flange nut with free washer

Threading: series UNC / UNF ANSI B1.1 and BS 1580 - BSF / BSW on request

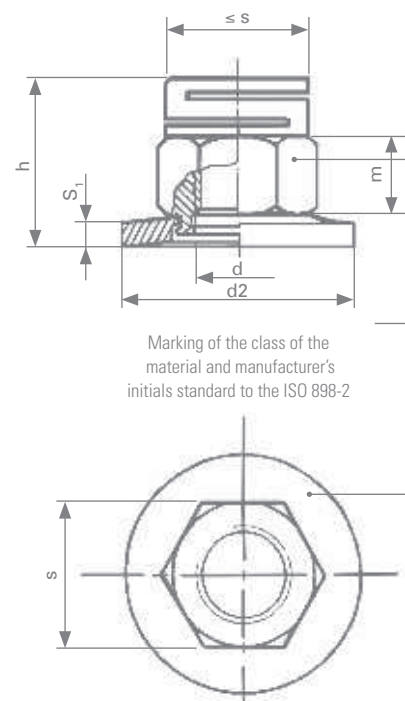
Characteristic and performance test: for steel ISO 898-2 / ISO 2320
for stainless steel ISO 3506-2 / NF E 25035

d nominal	pitch / UNC	pitch / UNF	s	h	m	d ₂ *	s ₁	codes
N°10	24	32	9,00	8,00	3,00	14,00	1,30	I
1/4	20	28	11,00	9,50	4,00	18,00	1,40	K
5/16	18	24	13,00	10,80	4,80	22,00	1,60	L
3/8	16	24	14,00	10,80	4,80	22,00	1,60	M
7/16	14	20	17,00	13,50	6,00	27,00	1,80	N
1/2	13	20	18,00	15,80	7,20	30,00	2,40	O
5/8	11	18	24,00	21,00	9,50	40,00	3,20	Q
3/4	10	16	28,00	25,00	12,00	40,00	3,20	R

* Different type and diameter of washers can be supplied on request

Quality class	Classification	Range of application
Class 8 steel / Grade 5	QV	Self color -50° C +300° C ⁽¹⁾
Class 10 steel / Grade 8	QK	
Class 12 steel / Grade 10	QL	
Stainless steel A2-70	ZE	Corrosive atmosphere -200° C +400° C ⁽¹⁾
Stainless steel A4-80	ZH	

⁽¹⁾ Values are only given as an indication



Surface treatment (standard to ROHS requirements)			
Electrolytic coating (steel)	Yellow	ZJ	ISO 4042
	White Lanthane ® Finish	ZL	400 h
	White Lanthane ® Finish + Top coat	ZF	600 h
Zinc lamellar (steel)	600 h to 1000 h salt spray		on request
Antigalling (stainless steel)	Stanal ® 400	ST	
	Sherardisation (NF EN 13811)	SH	
Self Color		BT	

Example of ordering code					
	Type	Diam X pitch	Class	Protection	
classification	ERM	N00UNF	QV	ZL	01
wording	ERM	ø 7/16" UNF	8	Zinc Lanthane®	*

*Standard size

On request: other materials, plating, sizes, imperial thread



THM

HFR NUT

THIN TYPE

January 2013

Definition: all metals reusable two slotted self-locking hexagon nut

Threading: standard to ISO 965-2

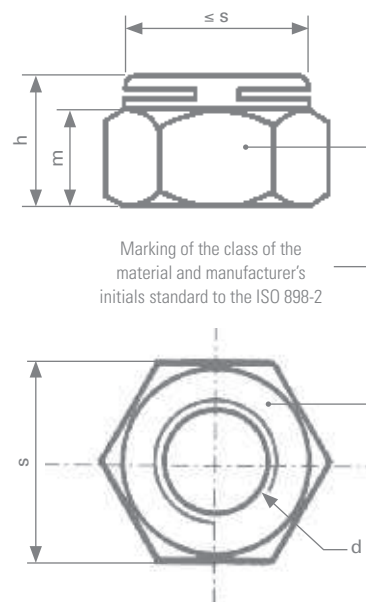
Characteristic and performance test: for steel ISO 898-2 / ISO 2320
for stainless steel ISO 3506-2 / NF E 25035

Range of operations: from diameter M4 to M45

d nominal	pitch	h	m	s
M 4	0,70	4,50	2,50	7,00
M 5	0,80	4,80	2,60	8,00
M 6	1,00	5,20	2,70	10,00
M 8	1,25	6,00	3,50	13,00
M 10	1,50	7,50	4,50	17,00
M 12	1,75	9,00	5,50	19,00
M 14	2,00	11,00	7,00	22,00
M 16	2,00	12,00	8,00	24,00
M 18	2,50	14,00	9,50	27,00
M 20	2,50	15,00	10,50	30,00
M 22	2,50	17,00	12,00	32,00
M 24	3,00	19,00	13,00	36,00
M 27	3,00	20,00	14,00	41,00
M 30	3,50	21,50	15,00	46,00
M 33	3,50	23,00	16,50	50,00
M 36	4,00	25,00	18,00	55,00
M 39	4,00	26,00	19,00	60,00
M 42	4,50	30,00	22,00	65,00
M 45	4,50	32,00	24,00	70,00

Quality class	Classification	Range of application
Class 8 steel / Grade 5	QV	Self color -50° C +300° C ⁽¹⁾
Class 10 steel / Grade 8	QK	
Class 12 steel / Grade 10	QL	
Stainless steel A2-70	ZE	Corrosive atmosphere -200° C +400° C ⁽¹⁾
Stainless steel A4-70	ZK	
Stainless steel A4-80	ZH	

⁽¹⁾ Values are only given as an indication



Surface treatment (standard to ROHS requirements)			
Electrolytic coating (steel)	Yellow	ZJ	ISO 4042
	White Lanthane ® Finish	ZL	400 h
	White Lanthane ® Finish + Top coat	ZF	600 h
Zinc lamellar (steel)	600 h to 1000 h salt spray		on request
Antigalling (stainless steel)	Stanal ® 400	ST	
	Sherardisation (NF EN 13811)	SH	
Self Color		BT	

Example of ordering code					
	Type	Diam X pitch	Class	Protection	
classification	THM	100150	ZH	ST	00
wording	THM	M10 X 1,50	A4 80	Stanal ®	*

*Standard size

On request: other materials, plating, sizes, imperial thread



Definition: all metals reusable two slotted self-locking hexagon nut

Threading: standard to ISO 965-2

Characteristic and performance test: for steel ISO 898-2 / ISO 2320
for stainless steel ISO 3506-2 / NF E 25035

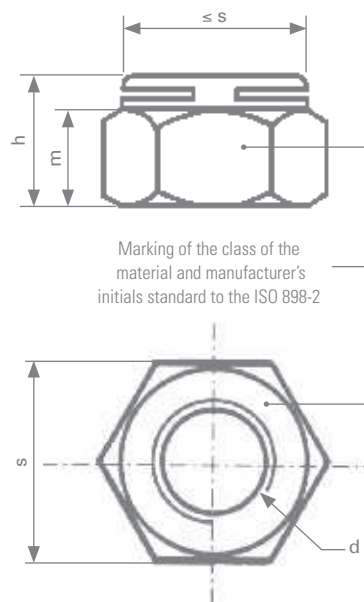
Range of operations: from diameter M4 to M45

d nominal	pitch	h	m	s
M 4	0,70	5,50	3,50	7,00
M 5	0,80	6,50	4,30	8,00
M 6	1,00	7,50	5,00	10,00
M 8	1,25	8,50	6,00	13,00
M 10	1,50	11,00	8,00	17,00
M 12	1,75	13,00	9,50	19,00
M 14	2,00	15,00	11,00	22,00
M 16	2,00	17,00	13,00	24,00
M 18	2,50	20,00	15,50	27,00
M 20	2,50	22,00	17,50	30,00
M 22	2,50	23,00	18,00	32,00
M 24	3,00	25,00	19,00	36,00
M 27	3,00	27,00	21,00	41,00
M 30	3,50	30,00	23,50	46,00
M 33	3,50	33,00	26,50	50,00
M 36	4,00	36,00	29,00	55,00
M 39	4,00	38,00	31,00	60,00
M 42	4,50	42,00	34,00	65,00
M 45	4,50	45,00	37,00	70,00

Quality class	Classification	Range of application
Class 8 steel / Grade 5	QV	Self color -50° C +300° C ⁽¹⁾
Class 10 steel / Grade 8	QK	
Class 12 steel / Grade 10	QL	
Stainless steel A2-70	ZE	Corrosive atmosphere -200° C +400° C ⁽¹⁾
Stainless steel A4-70	ZK	
Stainless steel A4-80	ZH	

⁽¹⁾ Values are only given as an indication

Surface treatment (standard to ROHS requirements)			
Electrolytic coating (steel)	Yellow	ZJ	ISO 4042
	White Lanthane ® Finish	ZL	400 h
	White Lanthane ® Finish + Top coat	ZF	600 h
Zinc lamellar (steel)	600 h to 1000 h salt spray		on request
Antigalling (stainless steel)	Stanal ® 400	ST	
	Sherardisation (NF EN 13811)	SH	
Self Color		BT	



Example of ordering code

	Type	Diam X pitch	Class	Protection	
classification	THU	100150	ZH	ST	00
wording	THU	M10 X 1,50	A4 80	Stanal ®	*

*Standard size

On request: other materials, plating, sizes, imperial thread

HCB

HFR NUT

HEIGHT (h) = 0,8d

January 2013

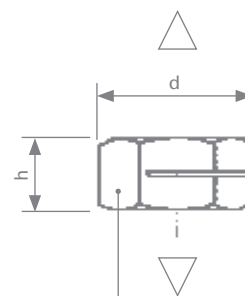
Definition: all metals self-locking hexagon nut with one slot

Threading: standard to ISO 965-2

Characteristic and performance test: for steel ISO 898-2 / ISO 2320
for stainless steel ISO 3506-2 / NF E 25035

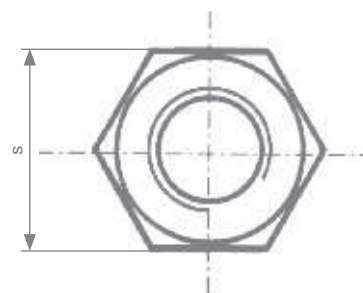
Range of operations: from diameter M5 to M48

d	pitch	h - min.	h - max.	s
M 5	0,80	3,70	4,70	8,00
M 6	1,00	4,70	5,20	10,00
M 8	1,25	6,14	6,80	13,00
M 10	1,50	7,64	8,40	16,00
M 12	1,75	9,50	10,80	18,00
M 14	2,00	10,30	12,80	21,00
M 16	2,00	12,30	14,80	24,00
M 18	2,50	14,20	15,80	27,00
M 20	2,50	14,90	18,00	30,00
M 22	2,50	16,90	19,40	34,00
M 24	3,00	17,70	21,50	36,00
M 27	3,00	20,70	23,80	41,00
M 30	3,50	22,70	25,60	46,00
M 33	3,50	24,70	28,70	50,00
M 36	4,00	27,40	31,00	55,00
M 39	4,00	29,40	33,40	60,00
M 42	4,50	32,40	34,00	65,00
M 45	4,50	34,40	36,30	70,00
M 48	5,00	36,40	38,70	75,00



Marking of the class of the material and manufacturer's initials standard to the ISO 898-2

△ Assembly direction



Quality class	Classification	Range of application
Class 8 steel / Grade 5	QV	Self color -50° C +300° C ⁽¹⁾
Class 10 steel / Grade 8	QK	
Class 12 steel / Grade 10	QL	
Stainless steel A2-70	ZE	Corrosive atmosphere -200° C +400° C ⁽¹⁾
Stainless steel A4-70	ZK	
Stainless steel A4-80	ZH	

⁽¹⁾ Values are only given as an indication

Surface treatment (standard to ROHS requirements)			
Electrolytic coating (steel)	Yellow	ZJ	ISO 4042
	White Lanthane ® Finish	ZL	400 h
	White Lanthane ® Finish + Top coat	ZF	600 h
Zinc lamellar (steel)	600 h to 1000 h salt spray		on request
Antigalling (stainless steel)	Stanal ® 400	ST	
	Sherardisation (NF EN 13811)	SH	
Self Color		BT	

Example of ordering code

	Type	Diam X pitch	Class	Protection	
classification	HCB	100150	ZH	ST	00
wording	HCB	M10 X 1,50	A4 80	Stanal ®	*

*Standard size

On request: other materials, plating, sizes, imperial thread

HCE

HFR NUT

HEIGHT (h) = d

January 2013

Definition: all metals self-locking hexagon nut with one slot

Threading: standard to ISO 965-2

Characteristic and performance test: for steel ISO 898-2 / ISO 2320
for stainless steel ISO 3506-2 / NF E 25035

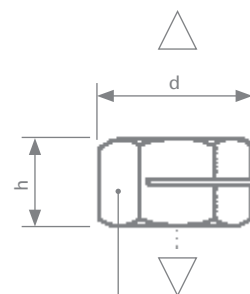
Range of operations: from diameter M4 to M48

d	pitch	h - min.	h - max.	s
M 4	0,70	3,90	4,10	7,00
M 5	0,80	4,80	5,10	8,00
M 6	1,00	5,40	6,00	10,00
M 8	1,25	7,14	8,00	13,00
M 10	1,50	8,94	10,00	16,00
M 12	1,75	11,57	12,00	18,00
M 14	2,00	13,40	14,10	21,00
M 16	2,00	15,70	16,40	24,00
M 18	2,50	16,90	18,00	27,00
M 20	2,50	19,00	20,30	30,00
M 22	2,50	20,50	22,00	34,00
M 24	3,00	22,60	24,00	36,00
M 27	3,00	25,40	27,00	41,00
M 30	3,50	27,30	30,00	46,00
M 33	3,50	30,90	33,00	50,00
M 36	4,00	33,10	36,00	55,00
M 39	4,00	35,90	40,40	60,00
M 42	4,50	36,60	43,40	65,00
M 45	4,50	38,90	46,40	70,00
M 48	5,00	41,20	49,40	75,00

Quality class	Classification	Range of application
Class 8 steel / Grade 5	QV	Self color -50° C +300° C ⁽¹⁾
Class 10 steel / Grade 8	QK	
Class 12 steel / Grade 10	QL	
Stainless steel A2-70	ZE	Corrosive atmosphere -200° C +400° C ⁽¹⁾
Stainless steel A4-70	ZK	
Stainless steel A4-80	ZH	

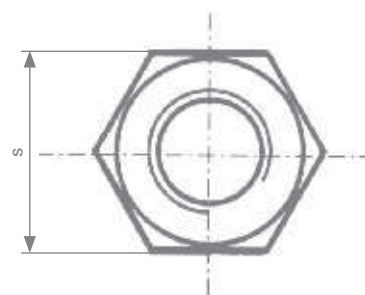
⁽¹⁾ Values are only given as an indication

Surface treatment (standard to ROHS requirements)			
Electrolytic coating (steel)	Yellow	ZJ	ISO 4042
	White Lanthane ® Finish	ZL	400 h
	White Lanthane ® Finish + Top coat	ZF	600 h
Zinc lamellar (steel)	600 h to 1000 h salt spray		on request
Antigalling (stainless steel)	Stanal ® 400	ST	
	Sherardisation (NF EN 13811)	SH	
Self Color		BT	



Marking of the class of the material and manufacturer's initials standard to the ISO 898-2

△ Assembly direction



Example of ordering code

	Type	Diam X pitch	Class	Protection	
classification	HCE	100150	ZH	ST	00
wording	HCE	M10 X 1,50	A4 80	Stanal ®	*

*Standard size

On request: other materials, plating, sizes, imperial thread

HCT

HFR NUT

HEIGHT (h) = 1,3d

January 2013

Definition: all metals self-locking hexagon nut with one slot

Threading: standard to ISO 965-2

Characteristic and performance test: for steel ISO 898-2 / ISO 2320
for stainless steel ISO 3506-2 / NF E 25035

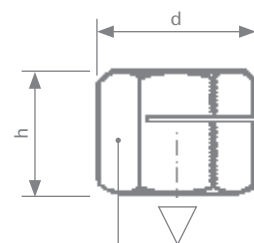
Range of operations: from diameter M3 to M48

d	pitch	h - min.	h - max.	s
M 3	0,50	3,80	4,00	5,50
M 4	0,70	5,10	5,30	7,00
M 5	0,80	6,20	6,70	8,00
M 6	1,00	7,60	8,00	10,00
M 8	1,25	10,20	10,60	13,00
M 10	1,50	12,75	13,25	16,00
M 12	1,75	15,35	15,85	18,00
M 14	2,00	18,00	18,40	21,00
M 16	2,00	20,60	21,00	24,00
M 18	2,50	23,20	23,60	27,00
M 20	2,50	25,80	26,20	30,00
M 22	2,50	28,40	28,80	34,00
M 24	3,00	31,00	31,40	36,00
M 27	3,00	34,90	35,30	41,00
M 30	3,50	36,80	39,20	46,00
M 33	3,50	42,70	43,10	50,00
M 36	4,00	46,50	47,10	55,00
M 39	4,00	50,40	51,00	60,00
M 42	4,50	54,30	54,90	65,00
M 45	4,50	58,20	58,80	70,00
M 48	5,00	62,10	62,70	75,00

Quality class	Classification	Range of application
Class 8 steel / Grade 5	QV	Self color -50° C +300° C ⁽¹⁾
Class 10 steel / Grade 8	QK	
Class 12 steel / Grade 10	QL	
Stainless steel A2-70	ZE	Corrosive atmosphere -200° C +400° C ⁽¹⁾
Stainless steel A4-70	ZK	
Stainless steel A4-80	ZH	

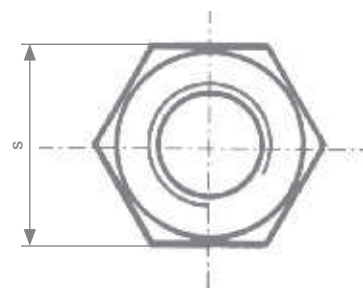
⁽¹⁾ Values are only given as an indication

Surface treatment (standard to ROHS requirements)			
Electrolytic coating (steel)	Yellow	ZJ	ISO 4042
	White Lanthane ® Finish	ZL	400 h
	White Lanthane ® Finish + Top coat	ZF	600 h
Zinc lamellar (steel)	600 h to 1000 h salt spray		on request
Antigalling (stainless steel)	Stanal ® 400	ST	
	Sherardisation (NF EN 13811)	SH	
Self Color		BT	



Marking of the class of the material and manufacturer's initials standard to the ISO 898-2

△ Assembly direction



Example of ordering code

	Type	Diam X pitch	Class	Protection	
classification	HCT	100150	ZH	ST	00
wording	HCT	M10 X 1,50	A4 80	Stanal ®	*

*Standard size

On request: other materials, plating, sizes, imperial thread



ESF

HFR NUT

RIVETING

January 2013

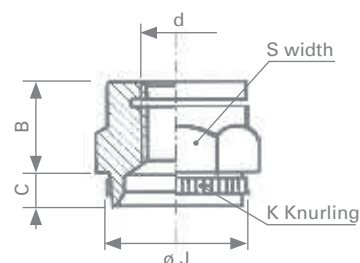
Definition: all metals self-locking riveting nut, with locking slot

Threading: standard to ISO 965-2

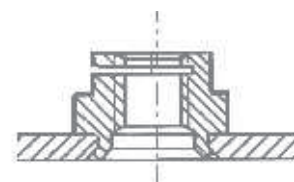
Characteristic and performance test: for steel ISO 898-2 / ISO 2320
for stainless steel ISO 3506-2 / NF E 25035

d	s	Jo + 0,05	B	C	sheet thickness	ø Boring
M 4	8,00	6,74	5,30	1,60	1,50	6,55
				2,20	2,00	à
				2,60	2,50	6,65
M 6	11,00	8,90	7,00	2,20	2,00	8,70
				2,60	2,50	à
				3,40	3,00	8,80
M 8	14,00	10,50	9,80	2,60	2,50	10,30
				3,40	3,00	à
				4,20	4,00	10,40

Sizes: The sheet thicknesses were given as examples, please contact us for other thicknesses



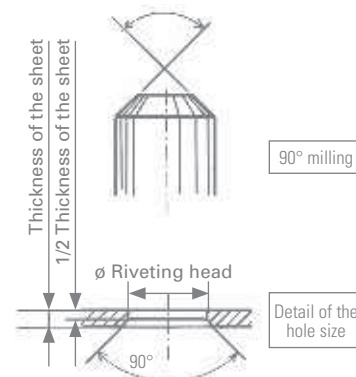
Assembly instruction



ESF riveting nut

Quality class	Classification	Range of application
Class 8 steel / Grade 5	QV	Self color -50° C +300° C ⁽¹⁾
Stainless steel A4-80	ZH	Corrosive atmosphere -200° C +400° C ⁽¹⁾

⁽¹⁾ Values are only given as an indication



Surface treatment (standard to ROHS requirements)			
Electrolytic coating (steel)	Yellow	ZJ	ISO 4042
	White Lanthane ® Finish	ZL	400 h
	White Lanthane ® Finish + Top coat	ZF	600 h
Zinc lamellar (steel)	600 h to 1000 h salt spray		on request
Antigalling (stainless steel)	Stanal ® 400	ST	
	Sherardisation (NF EN 13811)	SH	
Self Color		BT	

Example of ordering code

	Type	Diam X pitch	Class	Protection	
classification	ESF	060100	QV	ZL	26
wording	ESF	M6 X 1,00	8	White Lanthane®	2,6*

*Sheet thickness

On request: other materials, plating, sizes, imperial thread



HMP

HFR NUT

NYLON INSERT ISO 10511

January 2013

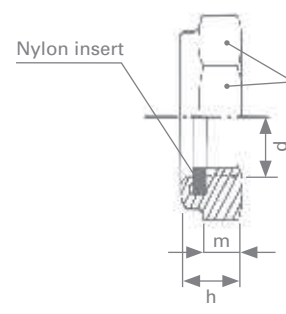
Definition: self-locking nut with nylon insert

Threading: standard to ISO 965-2

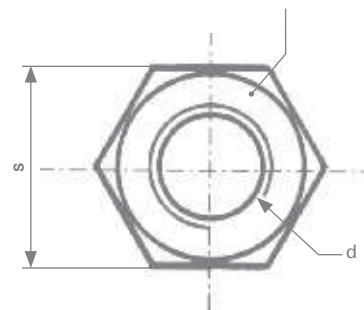
Characteristic and performance test: for steel ISO 898-2 / ISO 2320
for stainless steel ISO 3506-2 / NF E 25035

Range of operations: from diameter M3 to M36

d	pitch	h - min.	h - max.	m - min.	s
M 3	0,50	3,42	3,90	1,55	5,50
M 4	0,70	4,52	5,00	1,95	7,00
M 5	0,80	4,52	5,00	2,45	8,00
M 6	1,00	5,52	6,00	2,90	10,00
M 8	1,25	6,18	6,76	3,70	13,00
M 10	1,50	7,98	8,56	4,70	16,00
M 12	1,75	9,53	10,23	5,70	18,00
M 14	2,00	10,22	11,32	6,42	21,00
M 16	2,00	11,32	12,42	7,42	24,00
M 18	2,50	14,40	15,50	9,00	27,00
M 20	2,50	13,10	14,90	9,10	30,00
M 24	3,00	16,00	17,80	10,90	36,00
M 27	3,00	20,40	22,20	13,50	41,00
M 30	3,50	20,10	22,20	13,90	46,00
M 36	4,00	23,40	25,50	16,90	55,00



Marking of the class of the material and manufacturer's initials standard to the ISO 898-2



Quality class	Classification	Range of application	
Class 04 steel	QN	Usual ring	Brown ring
Class 05 steel	QS		
Stainless steel A2-70	ZE	-40° C +120° C ⁽¹⁾	-40° C +230° C ⁽¹⁾
Stainless steel A4-70	ZK		
Stainless steel A4-80	ZH		

⁽¹⁾ Values are only given as an indication

Surface treatment (standard to ROHS requirements)

Electrolytic coating (steel)	Yellow	ZJ	ISO 4042
	White Lanthane ® Finish	ZL	400 h
	White Lanthane ® Finish + Top coat	ZF	600 h
Zinc lamellar (steel)	600 h to 1000 h salt spray		on request
Antigalling (stainless steel)	Stanal ® 400	ST	
	Sherardisation (NF EN 13811)	SH	
Self Color		BT	

Example of ordering code

	Type	Diam X pitch	Class	Protection	
classification	HMP	100150	ZH	ST	00
wording	HMP	M10 X 1,50	A4 80	Stanal ®	*

*Standard size

On request: other materials, plating, sizes, imperial thread

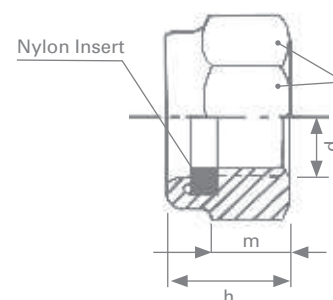
Definition: self-locking nut with nylon insert

Threading: standard to ISO 965-2

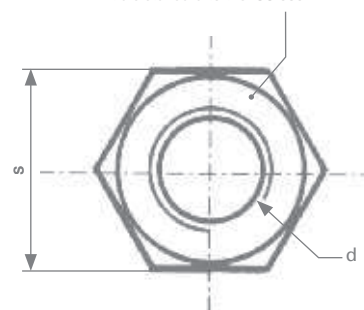
Characteristic and performance test: for steel ISO 898-2 / ISO 2320
for stainless steel ISO 3506-2 / NF E 25035

Range of operations: from diameter M3 to M36

d	pitch	h - min.	h - max.	m - min.	s
M 3	0,50	4,02	4,50	2,15	5,50
M 4	0,70	5,52	6,00	2,90	7,00
M 5	0,80	6,22	6,80	4,40	8,00
M 6	1,00	7,42	8,00	4,90	10,00
M 8	1,25	8,92	9,50	6,44	13,00
M 10	1,50	11,20	11,90	8,04	16,00
M 12	1,75	14,20	14,90	10,37	18,00
M 14	2,00	15,90	17,00	12,10	21,00
M 16	2,00	17,80	19,10	14,10	24,00
M 18	2,50	21,00	22,30	15,10	27,00
M 20	2,50	20,70	22,80	16,90	30,00
M 24	3,00	25,00	27,10	20,20	36,00
M 27	3,00	30,40	32,50	22,50	41,00
M 30	3,50	30,10	32,60	24,30	46,00
M 36	4,00	36,40	38,90	29,40	55,00



Marking of the class of the material and manufacturer's initials standard to the ISO 898-2



Quality class	Classification	Range of application	
Class 8 steel / Grade 5	QV	Usual ring	Brown ring
Class 10 steel / Grade 8	QK		
Stainless steel A2-70	ZE		
Stainless steel A4-70	ZK	-40° C +120° C ⁽¹⁾	-40° C +230° C ⁽¹⁾
Stainless steel A4-80	ZH		

⁽¹⁾ Values are only given as an indication

Surface treatment (standard to ROHS requirements)			
Electrolytic coating (steel)	Yellow	ZJ	ISO 4042
	White Lanthane ® Finish	ZL	400 h
	White Lanthane ® Finish + Top coat	ZF	600 h
Zinc lamellar (steel)	600 h to 1000 h salt spray		on request
Antigalling (stainless steel)	Stanal ® 400	ST	
	Sherardisation (NF EN 13811)	SH	
Self Color		BT	

Example of ordering code

	Type	Diam X pitch	Class	Protection	
classification	HUP	100150	ZH	ST	00
wording	HUP	M10 X 1,50	A4 80	Stanal ®	*

*Standard size

On request: other materials, plating, sizes, imperial thread

Definition: all metals reusable slotted self-locking nut, with nylon insert

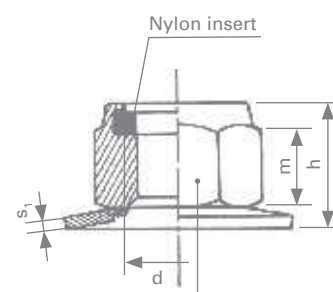
Threading: standard to ISO 965-2

Characteristic and performance test: for steel ISO 898-2 / ISO 2320
for stainless steel ISO 3506-2 / NF E 25035

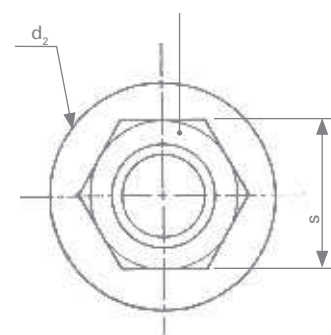
d	pitch	s	h	m	d ₂ *	s ₁
M 4	0,70	7,00	7,70	3,30	12,00	1,10
M 5	0,80	8,00	8,70	4,50	14,00	1,30
M 6	1,00	10,00	10,10	5,60	18,00	1,40
M 8	1,25	13,00	12,00	7,30	22,00	1,60
M 10	1,50	16,00	14,80	8,40	27,00	1,80
M 12	1,75	18,00	18,40	11,40	27,00 / 30,00 **	1,80
M 14	2,00	21,00	20,50	13,30	32,00	2,40
M 16	2,00	24,00	23,70	14,20	40,00	3,20

Sizes: * Only given as an indication. On request for other type and other diameter of washers

** Stainless steel for diameter 27; steel for diameter 30.



Marking of the class of the material and manufacturer's initials standard to the ISO 898-2



Quality class	Classification	Range of application
Class 8 steel / Grade 5	QV	Self color -40° C +120° C ⁽¹⁾
Class 10 steel / Grade 8	QK	
Stainless steel A2-70	ZE	
Stainless steel A4-80	ZH	

⁽¹⁾ Values are only given as an indication

Surface treatment (standard to ROHS requirements)			
Electrolytic coating (steel)	Yellow	ZJ	ISO 4042
	White Lanthane ® Finish	ZL	400 h
	White Lanthane ® Finish + Top coat	ZF	600 h
Zinc lamellar (steel)	600 h to 1000 h salt spray		on request
Antigalling (stainless steel)	Stanal ® 400	ST	
	Sherardisation (NF EN 13811)	SH	
Self Color		BT	

Example of ordering code

	Type	Diam X pitch	Class	Protection	
classification	EUM	100150	ZH	ST	00
woding	EUM	M10 X 1,50	A4 80	Stanal ®	*

*Standard size

On request: other materials, plating, sizes, imperial thread

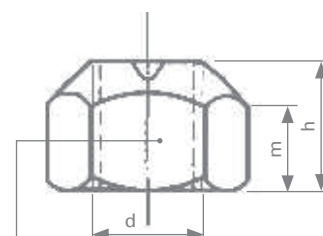
Definition: all metals self-locking hexagon nut, with marking on the top of the nut

Threading: standard to ISO 965-2

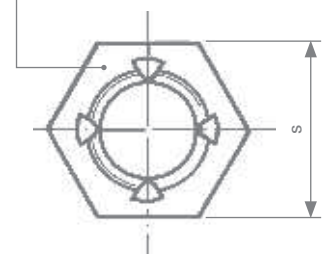
Characteristic and performance test: for steel ISO 898-2 / ISO 2320
for stainless steel ISO 3506-2 / NF E 25035

Range of operations: from diameter M5 to M36

d	pitch	h - min.	h - max.	m - min.	s
M 5	0,80	4,80	5,10	3,52	8,00
M 6	1,00	5,40	6,00	3,92	10,00
M 8	1,25	7,14	8,00	5,15	13,00
M 10	1,50	8,94	10,00	6,43	16,00
M 12	1,75	11,57	12,00	8,30	18,00
M 14	2,00	13,40	14,10	9,68	21,00
M 16	2,00	15,70	16,40	11,28	24,00
M 18	2,50	15,80	16,20	12,70	27,00
M 20	2,50	19,00	20,30	13,52	30,00
M 24	3,00	22,60	23,90	16,16	36,00
M 27	3,00	on request			
M 30	3,50	27,30	30,00	19,44	46,00
M 36	4,00	33,10	36,00	23,52	55,00



Marking of the class of the material and manufacturer's initials standard to the ISO 898-2



Quality class	Classification	Range of application
Class 8 steel / Grade 5	QV	Self color -50° C +300° C ⁽¹⁾
Class 10 steel / Grade 8	QK	
Class 12 steel / Grade 10	QL	
Stainless steel A2-70	ZE	Corrosive atmosphere -200° C +400° C ⁽¹⁾
Stainless steel A4-70	ZK	
Stainless steel A4-80	ZH	

⁽¹⁾ Values are only given as an indication

Surface treatment (standard to ROHS requirements)			
Electrolytic coating (steel)	Yellow	ZJ	ISO 4042
	White Lanthane ® Finish	ZL	400 h
	White Lanthane ® Finish + Top coat	ZF	600 h
Zinc lamellar (steel)	600 h to 1000 h salt spray		on request
Antigalling (stainless steel)	Stanal ® 400	ST	
	Sherardisation (NF EN 13811)	SH	
Self Color		BT	

Example of ordering code

	Type	Diam X pitch	Class	Protection	
classification	GSL	100150	ZH	ST	01
wording	GSL	M10 X 1,50	A4 80	Stanal ®	*

*Standard size

On request: other materials, plating, sizes, imperial thread

Definition: all metals self-locking hexagon flange nut
locking by deformation of the last threads given by recessions at the top of the nut

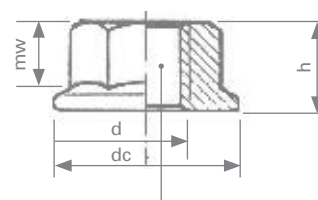
Threading: standard to ISO 965-2

Characteristic and performance test: for steel ISO 898-2 / ISO 2320
for stainless steel ISO 3506-2 / NF E 25035

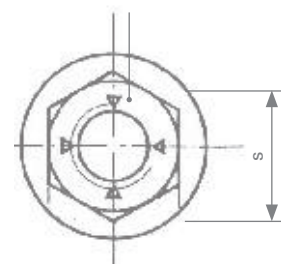
Range of operations: from diameter M5 to M20 (steel)
from diameter M5 to M12 (stainless steel)



d	dc	s	h	mw
M 5	11,80	8,00	5,00	2,20
M 6	14,20	10,00	6,00	3,10
M 8	17,90	13,00	8,00	4,50
M 10	21,80	15,00	10,00	5,50
M 12	26,00	18,00	12,00	6,70
M 14	29,90	21,00	14,00	7,80
M 16	34,50	24,00	16,00	9,00
M 20	42,80	30,00	20,00	11,10



Marking of the class of the material and manufacturer's initials standard to the ISO 898-2



Quality class	Classification	Range of application
Class 8 steel / Grade 5	QV	Self color -50° C +300° C ⁽¹⁾
Stainless steel A2-70	ZE	Corrosive atmosphere -200° C +400° C ⁽¹⁾

Others: Brass - Bronze - Light alloy - Titanium...

⁽¹⁾ Values are only given as an indication

Surface treatment (standard to ROHS requirements)			
Electrolytic coating (steel)	Yellow	ZJ	ISO 4042
	White Lanthane ® Finish	ZL	400 h
	White Lanthane ® Finish + Top coat	ZF	600 h
Zinc lamellar (steel)	600 h to 1000 h salt spray		on request
Antigalling (stainless steel)	Stanal ® 400	ST	
	Sherardisation (NF EN 13811)	SH	
Self Color		BT	

Example of ordering code

	Type	Diam X pitch	Class	Protection	
classification	SRF	100150	QV	ZL	00
wording	SRF	M10 X 1,50	8	White Lanthane®	*

*Standard size

On request: other materials, plating, sizes, imperial thread

HHS HUS HMS

HFR NUT

STARNUTS

January 2013

Definition: all metals self-locking hexagon nut locking by deformation of the last threads given by recessions at the top of the nut standard to the NF EN ISO 7719 (NFE 25401)

Threading: standard to ISO 965-2

Characteristic and performance test: for steel ISO 898-2 / ISO 2320
for stainless steel ISO 3506-2 / NF E 25035

Dimensions: all forms allowed Hh H Hm: ISO 4033 Symbol Hh (high)
ISO 4032 Symbol H (regular)
ISO 4035 Symbol Hm (low)

Diameter: M3 to M36

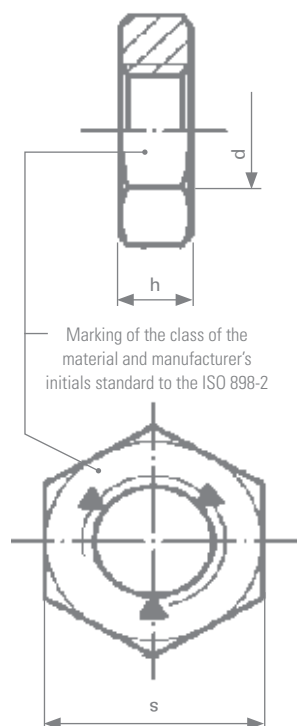


d	pitch	s	h HMS		h HUS		h HHS	
			min.	max.	min.	max.	min.	max.
M 3	0,50	5,50	1,55	1,80	2,15	2,40	-	-
M 4	0,70	7,00	1,95	2,20	2,90	3,20	-	-
M 5	0,80	8,00	2,45	2,70	4,40	4,70	4,80	5,10
M 6	1,00	10,00	2,90	3,20	4,90	5,20	5,40	5,70
M 8	1,25	13,00	3,70	4,00	6,44	6,80	7,14	7,50
M 10	1,50	16,00	4,70	5,00	8,04	8,40	8,94	9,30
M 12	1,75	18,00	5,70	6,00	10,37	10,80	11,57	12,00
M 14	2,00	21,00	6,45	7,00	12,10	12,80	13,40	14,10
M 16	2,00	24,00	7,42	8,00	14,10	14,80	15,70	16,40
M 18	2,50	27,00	8,42	9,00	15,10	15,80	16,90	17,60
M 20	2,50	30,00	9,10	10,00	16,90	18,00	19,00	20,30
M 22	2,50	34,00	9,90	11,00	18,10	19,40	20,50	21,80
M 24	3,00	36,00	10,90	12,00	20,20	21,50	22,60	23,90
M 27	3,00	41,00	12,40	13,50	22,50	23,80	25,40	26,70
M 30	3,50	46,00	13,90	15,00	24,30	25,60	27,30	28,60
M 33	3,50	50,00	15,40	16,50	27,40	28,70	30,90	32,50
M 36	4,00	55,00	16,90	18,00	29,40	31,00	33,10	34,70

Quality class	Classification	Range of application
Class 04 steel	QN	Self color -50° C +300° C ⁽¹⁾
Class 05 steel	QS	
Class 8 steel / Grade 5	QV	
Class 10 steel / Grade 8	QK	
Stainless steel A2-70	ZE	Corrosive atmosphere -200° C +400° C ⁽¹⁾
Stainless steel A4-70	ZK	
Stainless steel A4-80	ZH	

⁽¹⁾ Values are only given as an indication

Surface treatment (standard to ROHS requirements)			
Electrolytic coating (steel)	Yellow	ZJ	ISO 4042
	White Lanthane ® Finish	ZL	400 h
	White Lanthane ® Finish + Top coat	ZF	600 h
Zinc lamellar (steel)	600 h to 1000 h salt spray		on request
Antigalling (stainless steel)	Stanal ® 400	ST	
	Sherardisation (NF EN 13811)	SH	
Self Color		BT	



Example of ordering code					
	Type	Diam X pitch	Class	Protection	
classification	HUS	100150	QV	ZL	00
woding	HUS	M10 X 1,50	8	White Lanthane®	*

*Standard size

On request: other materials, plating, sizes, imperial thread

MODULAR FIXTURES

STAINLESS STEEL CHANNEL

January 2013

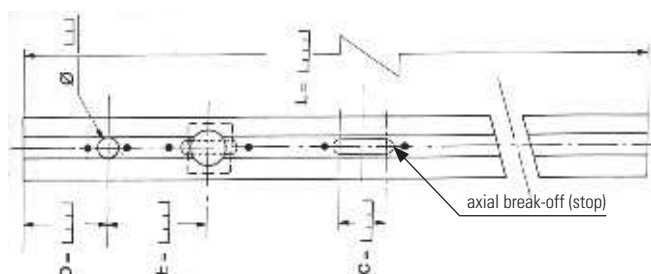
Threading: standard to ISO 262 / ISO 965-2

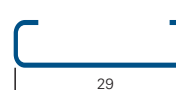
Characteristic and performance tests: ISO 2320 / ISO 3506-2

Material: stainless steel A2-70

Surface treatment: stainless steel - Antigalling : - Stanal ® 400
(Standard to ROHS requirements) - Sherardisation
- Passivation

Field of application: contact us



Ref. 201144  Material: AISI 304 Z6 CN 1809	M3 to M5 M3 to M5 M3 to M5 M3 to M6 
Ref. 203010  Material: AISI 304L Z2 CN 1810	M3 to M8 M3 to M8 M3 to M8 M3 to M8 
Ref. 203326  Material: AISI 304L Z2 CN 1810	M6 to M12 M6 to M12 M6 to M10 M8 to M12 
Ref. 203048  Material: AISI 304L Z2 CN 1810	M6 to M10 M6 to M10 M6 to M8 M6 to M12 



Ease of use:

- From 25 mm to 6 meters long
- Unlimited quantity of nuts and / or screws can be positioned within the channel
- Range of diameter for nuts and / or screws
- Range of type of nuts and/or screws (possible combination)
- Equidistance between products
- Internal technical setup (oval holes, lights, spring mounts, prepunched rivet holes)
- Channels may be manufactured straight, bent and / or curved.

For special applications and inserts, please do not hesitate to **contact us**

MODULAR FIXTURES

LIGHT ALLOY CHANNEL

January 2013

Threading: standard to ISO 262 / ISO 965-2

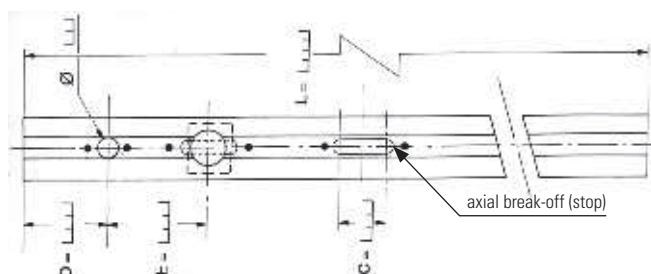
Characteristic and performance tests: ISO 2320

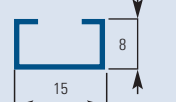
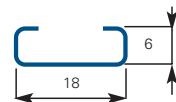
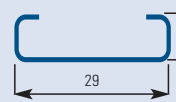
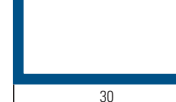
Material: light alloy

Surface treatment: all treatments

(Standards to ROHS requirements)

Field of application: contact us



Ref. 101000  Material: AISI 6060 A GS T5	M3 to M5 M3 to M5 M3 to M5 M3 to M6 
Ref. 403010  Material: AISI 1050 A A5	M3 to M8 M3 to M8 M3 to M8 M3 to M8 
Ref. 403048  Material: AISI 1050 A A5	M6 to M10 M6 to M10 M6 to M10 M6 to M12 
Ref. 501000  Material: AISI 6060 A GS T5	M6 to M10 M6 to M10 M6 to M10 M6 to M12 



Ease of use:

- From 25 mm to 6 meters long
- Unlimited quantity of nuts and / or screws can be positioned within the channel
- Range of diameter for nuts and / or screws
- Range of type of nuts and / or screws (possible combination)
- Equidistance between products
- Internal technical setup (oval holes, lights, spring mounts, prepunched rivet holes)
- Channels may be manufactured straight, bent and / or curved.

For special applications and inserts, please do not hesitate to **contact us**

CLANFIX

HFR NUT

STEEL / STAINLESS STEEL

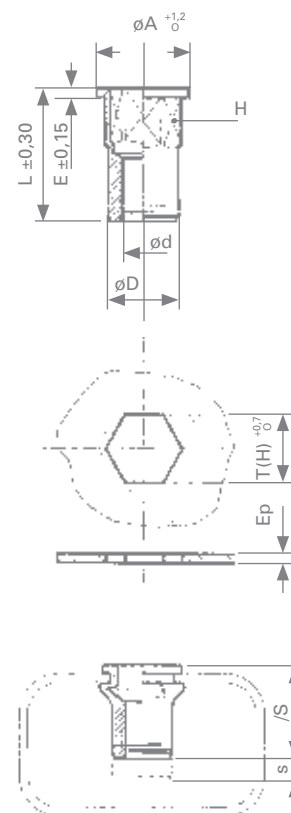
January 2013

Definition: blind rivet self-lock nut

Threading: standard to ISO 262 and ISO 965-2

Characteristic and performance test: for steel standard to NF EN ISO 2320
for stainless steel standard to NF EN ISO 3506-2

d	sheet thickness (Ep)	T	T(H)	diameter (A)	diameter (D)	L	E
M 4 x 0,70	1,00 -> 2,50	7,00	7,00	9,00	7,00	16,20	1,00
M 5 x 0,80	1,50 -> 3,00	9,00	9,00	11,00	9,00	20,40	1,20
M 6 x 1,00	1,50 -> 3,50	11,00	11,00	14,00	11,00	23,40	1,50
M 8 x 1,25	2,00 -> 4,00	13,00	13,00	16,00	13,00	28,80	1,50
M 10 x 1,50	2,50 -> 4,50	16,00	16,00	20,00	16,00	32,20	1,70
M 12 x 1,75	3,00 -> 5,00	18,00	18,00	23,00	18,00	37,30	2,00



Quality class	Classification	Range of application
Steel	QJ	Self color -50° C +300° C ⁽¹⁾
Stainless steel A2-70	ZE	Corrosive atmosphere -200° C +400° C ⁽¹⁾
Stainless steel A4-80	ZH	

⁽¹⁾ Values are only given as an indication

Surface treatment (standard to ROHS requirements)

Electrolytic coating (steel)	Yellow	ZJ	ISO 4042
	White Lanthane ® Finish	ZL	400 h
	White Lanthane ® Finish + Top coat	ZF	600 h
Zinc lamellar (steel)	600 h to 1000 h salt spray		on request
Antigalling (stainless steel)	Stanal ® 400	ST	
	Sherardisation (NF EN 13811)	SH	
Self Color		BT	

Example of ordering code

Type	Diam X pitch	Class	Protection	
CLAN	100150	ZH	ST	00
CLANFIX	M10 X 1,50	Stainless steel 316L	Stanal ®	*

*Standard size

On request: other materials, plating, sizes, imperial thread

SPR

HFR NUT

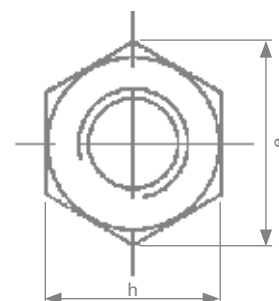
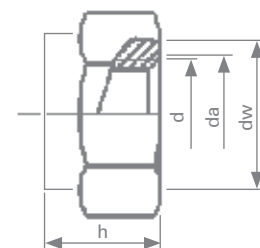
SPRING STOP NUT

January 2013

Definition: all metals self-locking nut with metallic insert

Threading: standard to ISO 965-2

d	pitch	da	dw - min.	h	s	E - min.
M 3	0,50	3,00 – 3,45	4,80	2,70 – 3,30	5,32 – 5,50	6,01
M 4	0,70	4,00 – 4,60	5,90	3,50 – 4,10	6,78 – 7,00	7,66
M 5	0,80	5,00 – 5,75	6,90	4,30 – 4,90	7,78 – 8,00	8,79
M 6	1,00	6,00 – 6,75	8,90	4,60 – 5,40	9,78 – 10,00	11,05
M 8	1,25	8,00 – 8,75	11,60	6,90 – 7,70	12,73 – 13,00	14,38
M 10	1,50	10,00 – 10,80	15,60	7,90 – 8,70	16,73 – 17,00	18,90
M 12	1,75	12,00 – 13,00	17,40	10,10 – 10,90	18,67 – 19,00	21,10
M 14	2,00	14,00 – 15,10	20,50	12,00 – 13,00	21,67 – 22,00	24,49
M 16	2,00	16,00 – 17,30	22,50	14,00 – 15,00	23,67 – 24,00	26,75
M 18	2,50	18,00 – 19,50	24,90	15,50 – 16,50	26,16 – 27,00	29,56
M 20	2,50	20,00 – 21,50	27,70	17,00 – 18,00	29,16 – 30,00	32,95



Quality class	Classification	Range of application
Class 5 steel	QF	Self color -50° C +300° C ⁽¹⁾
Class 6 steel	QJ	
Stainless steel A2-70	ZE	Corrosive atmosphere -200° C +400° C ⁽¹⁾

⁽¹⁾ Values are only given as an indication

Surface treatment (standard to ROHS requirements)

Electrolytic coating (steel)	Yellow	ZJ	ISO 4042
	White Lanthane ® Finish	ZL	400 h
	White Lanthane ® Finish + Top coat	ZF	600 h

Example of ordering code

	Type	Diam X Pitch	Class	Protection	
classification	SPR	100150	QF	ZL	00
wording	SPR	M10 X 150	Steel	White Lanthane®	*

*Standard size

On request: other materials, plating, sizes, imperial thread

SPECIAL PRODUCTS



SELF-LOCKING BUSHING NUT



CONICAL SELF-LOCKING NUT
BY HEXAGONAL
DEFORMATION



TURRET SELF-LOCKING NUT
WITH SINGLE SLOT



SLOTTED ROUND NUT



SELF-LOCKING CHANNEL NUT
DOUBLE SLOTTED



SELF-LOCKING ACORN NUT
BY AXIAL DEFORMATION



SQUARE SELF-LOCKING NUT



SELF-LOCKING ACORN NUT
WITH NYLON INSERT



NYLON INSERT CLINCH NUT



ACORN NUT WITH DISC
SPRING WASHER

On request: other materials, plating, sizes, imperial thread

SPECIAL PRODUCTS



SELF-LOCKING
STUD



CAPTIVE
SCREW



SEX BOLTS



MULTI DIRECTIONAL INSERT



TWELVE POINTS FLANGE HEAD
SCREW SPECIAL WASHER



SELF-LOCKING NUT
TWELVE POINTS FLANGE NUT



SPECIAL NUT
FOR ELECTRICAL CONNECTION



TAMPER PROOF NUT

On request: other materials, plating, sizes, imperial thread