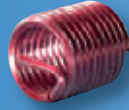


THE BLUE BOOK



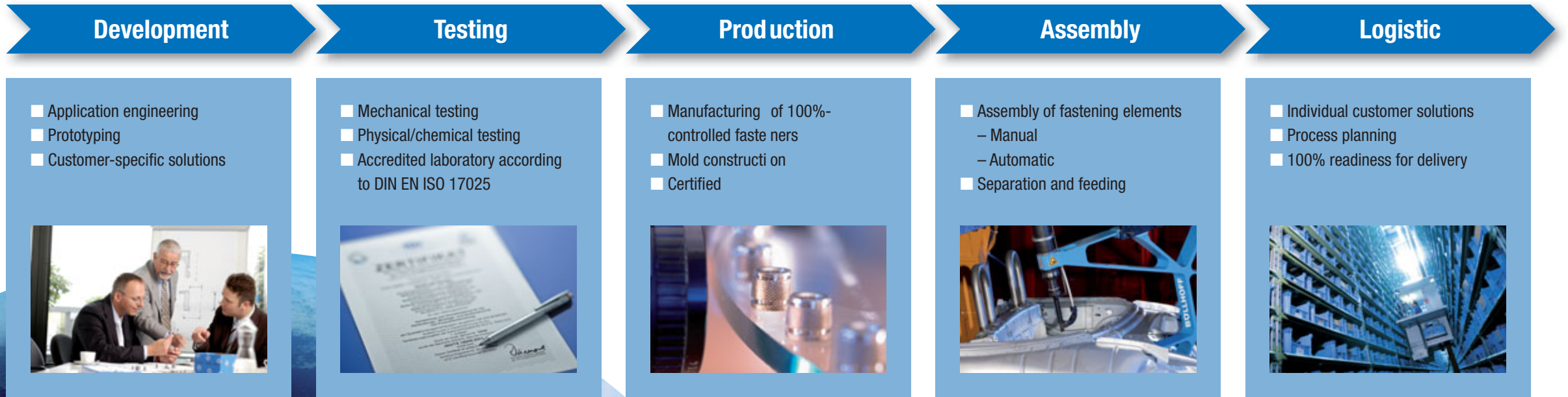
Aerospace Buyer's Directory To
HELICOIL® Wire Thread Inserts

Helicoil® plus
made by **BÖLLHOFF**

Issue 1/June 2009

BÖLLHOFF

We serve all stages of your value-added chain



Böllhoff International with companies in:

- Argentina
- Austria
- Brazil
- Canada
- China
- Czech Republic
- France
- Germany
- Hungary
- India
- Italy
- Japan
- Mexico
- Poland
- Romania
- Russia
- Slovakia
- South Africa
- Spain
- Turkey
- United Kingdom
- USA

Apart from these 22 countries, Böllhoff supports its international customers in other important industrial markets in close partnership with agents and dealers.

Böllhoff: Partner of the Aerospace Industry all over the world



HELICOIL® Wire Thread Inserts

HELICOIL® wire thread inserts have been manufactured by Böllhoff for the aerospace and defense industry since 1956.

With the wide range of the HELICOIL® product portfolio Böllhoff offers an outstanding solution for the production of extremely high strength threads in metal with minimal shearing resistance and requiring minimum space. HELICOIL® thread inserts feature high resistance to wear and tear, low thread friction and narrow tolerances, high surface quality and resistance to both corrosion and temperature.

The precision and reliability of the Böllhoff HELICOIL® thread inserts have been proven by the demands of the aerospace and defense industries over the decades.

The products featured in this buyer's directory include a wide range of globally referenced aerospace and defense wire thread inserts specified and used by major manufacturers all over the world.

Quality Management System Accreditations

EN9100, DIN EN ISO 9001, DIN EN ISO 14001, DIN EN ISO/IEC 17025, ISO/TS16949, SBAC

HELICOIL® Wire Thread Insert Capabilities

AGS3600	LN9039
AGS3700	LN9039A
AGS4677	LN9499
AS6733	LN9499A
DIN65536	NASM33537
	NASM8846
EN2942	NASM122076 to NASM122275
EN2944	NASM124651 to NASM124850
EN3542	NASM21209
	NAS1130

Furthermore multiple customized HELICOIL® wire thread inserts are manufactured according to customer company standards for the aerospace and defense industries, which are available on request.

For additional information about the full HELICOIL® product range and the dedicated installation tools please refer to the main Böllhoff HELICOIL® product and tooling catalogues as referenced below.

HELICOIL® product and tooling catalogues

- Catalogue for metric thread inserts for metal (no. 0100/08.02)
- Catalogue for imperial thread inserts for metal (no. 0101/07.02)

HELICOIL® Screw Thread Inserts **Contents**

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HELICOIL® Product Reference

	Insert Materials						Finishes				Type			Thread		Page
	STAINLESS STEEL	BRONZE	INCONEL X 750	NIMONIC	CADMIUM PLATED	DRY FILM LUBE	SILVER PLATED	SELF FINISH OR BARE	DYED	FREE RUNNING	SCREW LOCK	UNC	UNF	METRIC COARSE	METRIC FINE	
AGS3600	●				●						●	●				10
AGS3700				●			●				●	●				11
AGS4677	●				●						●			●	●	12
AS6733	●						●		●				●			13
DIN65536		●					●	●			●			●	●	14
EN2942			●				●				●			●		16
EN2944	●							●	●		●			●		17
EN3542			●					●	●		●			●		18
LN9039	●							●	●	●				●	●	19
LN9039A	●				●					●				●	●	21
LN9499	●							●	●		●			●	●	22
LN9499A	●				●					●				●	●	24
NASM122076 to NASM124831	●				●	●				●		●				26
NASM21209	●				●	●			●		●			●	●	29
NAS1130	●							●	●	●	●	●				32

Insert Material Guide

HELICOIL® aerospace wire thread inserts are available in the following materials:

Stainless Steel Grade 304

Material specifications: AS7245, DTD734, 1.4301
Temperature resistance: 315°C long term (425°C short term)

Standard, general purpose material
Stocked in most sizes
Ideal for original equipment applications, repair and overhaul

Bronze

Material specification: 2.1020.34 according DIN17677
Temperature resistance: 250°C long term (300°C short term)

Non magnetic
For electrical bonding joints and low permeability

Inconel X 750 (Heat Resisting Nickel Alloy)

Material specifications: AS7246, EN3018, 2.4669
Temperature resistance: 550°C long term (750°C short term)

For use in high temperature applications

Nimonic 90 (Austenitic High Temperature Alloy)

Material specifications: HR 503, 2.4632
Temperature resistance: 600°C long term (900°C short term)

For use in high temperature applications

Insert Coatings and Platings

HELICOIL® aerospace wire thread inserts are available in the following finishes:

Silver Plating

Recommended to reduce galling of threads at high temperatures

For use up to 1200°F / 650°C

Material Specifications: QQ-S-365 / SAE AMS 2411 / EN2786 / DTD939

Colour: Silver white

Cadmium Plating

Provides high corrosion resistance

Provides lubrication to prevent galling

(Not recommended for new design due to its toxic nature)

Material Specifications: QQ-P-416 Type II / DEF STD 03-19

Colour: Yellow

Dry Film Lubricant

Provides additional lubrication in high friction applications

High temperature resistance (400°F / 240°C)

Highly recommended with HELICOIL® screwlock inserts

Mildly corrosion resistant

Material Specifications: MIL-L46010 / AS5272

Colour: Grey

Colour Coding

Facilitates verification of insert installation

Allows for quick identification of similar size inserts

Colours: red, green, blue and yellow

In general all HELICOIL® screwlock inserts (imperial and metric dimensions) are supplied with a red colouring in accordance with NASM21209.

Colourings of the HELICOIL® thread inserts for identification purpose according to customer specific requirements are also available.

HELICOIL® thread inserts for aerospace are available in the following surface finishes and platings depending on the HELICOIL® base material.

Material	Non-finished	Dry Film Lubricant	Cadmium Plating	Silver Plating
Stainless Steel Grade 304	●	●	●	●
Bronze	●	–	–	●
Inconel X 750	●	–	–	●
Nimonic 90	●	–	–	●

Other finishes are available on request.

HELICOIL® Tools

Tapping tools



Manual tapping tools



Drill and tapping tools



Machine tapping tools



Machine tap former

Gauges



"Internal thread gauges" for checking the tapped hole

Manual installation tools



Type H-PSG
(threaded mandrel, pitch
guiding, with bit gauge)



Type H-PMG
(flat mandrel, pitch guiding,
with bit gauge)



Type H-PM
(flat mandrel, without pitch
guiding, with bit gauge)



Type H-M
(fly-over tool with bit gauge)

Installation mandrels for electric installation tools



Type 4160.23



Type 4160.25

Electric installation tools



Type B-S 206
up to M 6 / UNC 1/4"-20 / UNF 1/4"-28
(without picture:
Type B-S 824 for larger dimensions)



Type E-S 206
M 6 / UNC 12-24 / UNF 10-32
(without picture:
Type E-S 410 for larger dimensions)

HELICOIL® Tools

Pneumatic installation tools



Type P-S 412
up to M 12 / UNC 1/2"-3 / UNF 1/2"-20



Type P-S 1216
for larger dimensions

Mechanical installation tools



Type P-PSG
up to M 26 / UNC 1/2"-13 / UNF 1/2"-20

Stripfeed system



Parallel system type S for installation of stripfeed inserts

Repair kits



HELICOIL® repair kits are available per dimension up to
M 36 / UNC 1 1/2"-6 / UNF 1"-12 / BSW 1 1/2"-6 / BSF 1"-10 / G 1"-11.

Various standard and special range kits are also part of our portfolio.

AGS3600 series

HeliCoil[®] Wire Thread Insert

Insert Material: **Corrosion Resistant Steel
(Stainless Steel 304) AMS7245, DTD734**

Finish: **Cadmium Plating**

Type: **Screwlock**

Thread form: **UNC and UNF**

Produced to SBAC Technical committee standards, this series of inserts is specified in aerospace applications with a UNC or UNF thread format and is available in the 5 nominal lengths. The screw locking coil acts as locking mechanism for the male fastener. The cadmium plated finish provides lubrication and minimises galling.

Part Number

AGS3605

AGS3606

AGS3607

AGS3608

AGS3609

AGS3610

AGS3611

AGS3612

AGS3613

AGS3614

AGS3615

AGS3616

AGS3617

AGS3618

AGS3619

AGS3620

AGS3621

AGS3622

AGS3623

AGS3629

AGS3630

AGS3631

AGS3632

AGS3633

AGS3634

AGS3635

AGS3636

AGS3654

AGS3655

AGS3656

AGS3657

AGS3658

AGS3659

AGS3660

AGS3661

AGS3679

AGS3680

AGS3681

AGS3682

AGS3683

AGS3684

AGS3685

AGS3686

AGS3700 series

HeliCoil[®] Wire Thread Insert

Insert Material: **Nimonic 90, BS HR503**

Finish: **Silver Plating**

Type: **Screwlock**

Thread form: **UNF**

Produced to SBAC technical committee standards, this series of UNF thread form inserts is available in most lengths. Specified predominantly in engine applications where heat and vibration is inherent, the screw locking coil acts as locking mechanism for the male fastener. The silver finish reduces galling of threads at high temperatures.

Part Number

AGS3706	AGS3733		
AGS3707	AGS3734		
AGS3708	AGS3735		
AGS3709	AGS3736		
AGS3710	AGS3756		
AGS3711	AGS3757		
AGS3712	AGS3758		
AGS3713	AGS3759		
AGS3718	AGS3760		
AGS3719	AGS3761		
AGS3720	AGS3781		
AGS3721	AGS3782		
AGS3722	AGS3783		
AGS3723	AGS3784		
AGS3731	AGS3785		
AGS3732	AGS3786		

AGS4677 series

HeliCoil® Wire Thread Insert

Insert Material: **Corrosion Resistant Steel
(Stainless Steel 304), AMS7245, DTD734**

Finish: **Cadmium Plating**

Type: **Screwlock**

Thread form: **Metric Course and Metric Fine**

Produced to SBAC technical committee standards, this series of inserts is specified in aerospace applications with metric thread format and is available in the '5' nominal lengths. The screw locking coil acts as locking mechanism for the male fastener. The cadmium plated finish provides lubrication and mimimises galling.

Part Number

AGS4677M04060	AGS4677M08120	AGS4677M14350	
AGS4677M04080	AGS4677M08160	AGS4677M14420	
AGS4677M04100	AGS4677M08200	AGS4677M16160	
AGS4677M04120	AGS4677M08240	AGS4677M16240	
AGS4677M05075	AGS4677M10100	AGS4677M16320	
AGS4677M05100	AGS4677M10150	AGS4677M16400	
AGS4677M05125	AGS4677M10200	AGS4677M16480	
AGS4677M05150	AGS4677M10250	AGS4677M18180	
AGS4677M06090	AGS4677M10300	AGS4677M18270	
AGS4677M06120	AGS4677M12120	AGS4677M18360	
AGS4677M06150	AGS4677M12180	AGS4677M18450	
AGS4677M06180	AGS4677M12240	AGS4677M18540	
AGS4677M07105	AGS4677M12300	AGS4677M20200	
AGS4677M07140	AGS4677M12360	AGS4677M20300	
AGS4677M07175	AGS4677M14140	AGS4677M20400	
AGS4677M07210	AGS4677M14210	AGS4677M20500	
AGS4677M08080	AGS4677M14280	AGS4677M20600	

AS6733 series

HeliCoil[®] Wire Thread Insert

Insert Material: **Corrosion Resistant Steel**
(Stainless Steel 304), AMS7245, DTD734

Finish: **Self Finish (unplated)**

Type: **Free running**

Thread form: **UNF**

Produced to SBAC technical committee standards, this series of inserts is specified in aerospace applications with UNF thread format and is available in the 5 nominal lengths.

Part Number

AS6733-1	AS6733-24	AS6733-51	
AS6733-2	AS6733-25	AS6733-52	
AS6733-3	AS6733-26	AS6733-53	
AS6733-4	AS6733-31	AS6733-54	
AS6733-5	AS6733-32	AS6733-55	
AS6733-6	AS6733-33	AS6733-56	
AS6733-7	AS6733-34	AS6733-61	
AS6733-8	AS6733-35	AS6733-62	
AS6733-9	AS6733-36	AS6733-63	
AS6733-10	AS6733-37	AS6733-64	
AS6733-11	AS6733-38	AS6733-65	
AS6733-16	AS6733-39	AS6733-66	
AS6733-17	AS6733-40	AS6733-67	
AS6733-18	AS6733-41	AS6733-68	
AS6733-19	AS6733-46	AS6733-69	
AS6733-20	AS6733-47	AS6733-70	
AS6733-21	AS6733-48	AS6733-71	
AS6733-22	AS6733-49		
AS6733-23	AS6733-50		

DIN65536 series

HeliCoil® Wire Thread Insert

Insert Material: **Bronze, 2.1020.34**
 Finish: **Bare**
 Type: **Screwlock**
 Thread form: **Metric Coarse and Metric Fine**

Produced to European standards, this series of inserts is specified in aerospace applications with metric thread format and is available in 3 nominal length. Bronze thread inserts are non magnetic and have a low permeability. They are used for electrical bonding joints.

Part Number

DIN65536-01 025 A
 DIN65536-01 037 A
 DIN65536-01 050 A
 DIN65536-02 030 A
 DIN65536-02 045 A
 DIN65536-02 060 A
 DIN65536-03 040 A
 DIN65536-03 060 A
 DIN65536-03 080 A
 DIN65536-04 050 A
 DIN65536-04 075 A
 DIN65536-04 100 A
 DIN65536-05 060 A
 DIN65536-05 090 A
 DIN65536-05 120 A
 DIN65536-06 080 A
 DIN65536-06 120 A

DIN65536-06 160 A
 DIN65536-07 080 A
 DIN65536-07 120 A
 DIN65536-07 160 A
 DIN65536-08 100 A
 DIN65536-08 150 A
 DIN65536-08 200 A
 DIN65536-09 100 A
 DIN65536-09 150 A
 DIN65536-09 200 A
 DIN65536-10 120 A
 DIN65536-10 180 A
 DIN65536-10 240 A
 DIN65536-11 120 A
 DIN65536-11 180 A
 DIN65536-11 240 A

DIN65536 series (cont'd)

HeliCoil® Wire Thread Insert

Insert Material: **Bronze, 2.1020.34**
 Finish: **Silverplated**
 Type: **Screwlock**
 Thread form: **Metric Coarse and Metric Fine**

Produced to European standards, this series of inserts is specified in aerospace applications with metric thread format and is available in 3 nominal length. Bronze thread inserts are non magnetic and have a low permeability. They are used for electrical bonding joints. The silver finish reduces galling of threads at high temperatures.

Part Number

DIN65536-01 025 U	DIN65536-06 160 U		
DIN65536-01 037 U	DIN65536-07 080 U		
DIN65536-01 050 U	DIN65536-07 120 U		
DIN65536-02 030 U	DIN65536-07 160 U		
DIN65536-02 045 U	DIN65536-08 100 U		
DIN65536-02 060 U	DIN65536-08 150 U		
DIN65536-03 040 U	DIN65536-08 200 U		
DIN65536-03 060 U	DIN65536-09 100 U		
DIN65536-03 080 U	DIN65536-09 150 U		
DIN65536-04 050 U	DIN65536-09 200 U		
DIN65536-04 075 U	DIN65536-10 120 U		
DIN65536-04 100 U	DIN65536-10 180 U		
DIN65536-05 060 U	DIN65536-10 240 U		
DIN65536-05 090 U	DIN65536-11 120 U		
DIN65536-05 120 U	DIN65536-11 180 U		
DIN65536-06 080 U	DIN65536-11 240 U		
DIN65536-06 120 U			

EN2942 series

HeliCoil® Wire Thread Insert

Insert Material: **Inconel X750, EN3018**
 Finish: **Silver Plating**
 Type: **Screwlock**
 Thread form: **Metric Coarse and Metric Fine**

Produced to European standards, this series of inserts is specified in aerospace applications with metric thread format and is available in 2 nominal length. Specified predominantly in engine applications where heat and vibration is inherent, the screw locking coil acts as locking mechanism for the male fastener. The silver finish reduces galling of threads at high temperatures.

Part Number

- EN2942-040-050
- EN2942-040-060
- EN2942-050-063
- EN2942-050-075
- EN2942-060-075
- EN2942-060-090
- EN2942-070-088
- EN2942-070-105
- EN2942-080-100
- EN2942-080-120
- EN2942-100-125
- EN2942-100-150

EN2944 series

HeliCoil® Wire Thread Insert

Insert Material: **Corrosion Resistant Steel, EN2947**

Finish: **Bare, blue coloured**

Type: **Screwlock**

Thread form: **Metric Coarse and Metric Fine**

Produced to European standards, this series of inserts is specified in aerospace applications with metric thread format and is available in 3 nominal length. The screw locking coil acts as locking mechanism for the male fastener.

Part Number

EN2944-040-060
 EN2944-040-080
 EN2944-040-100
 EN2944-050-075
 EN2944-050-100
 EN2944-050-125
 EN2944-060-090
 EN2944-060-120
 EN2944-060-150
 EN2944-070-105
 EN2944-070-140
 EN2944-070-175
 EN2944-080-120
 EN2944-080-160
 EN2944-080-200
 EN2944-100-150
 EN2944-100-200

EN2944-100-250

EN3542 series

HeliCoil® Wire Thread Insert

Insert Material: **Inconel X750, EN3018**
 Finish: **Bare, yellow coloured**
 Type: **Screwlock**
 Thread form: **Metric Coarse and Metric Fine**

Produced to European standards, this series of inserts is specified in aerospace applications with metric thread format and is available in 2 nominal length. Specified predominantly in engine applications where heat and vibration is inherent, the screw locking coil acts as locking mechanism for the male fastener. The silver finish reduces galling of threads at high temperatures.

Part Number

EN3542-040-050			
EN3542-040-060			
EN3542-050-063			
EN3542-050-075			
EN3542-060-075			
EN3542-060-090			
EN3542-070-088			
EN3542-070-105			
EN3542-080-100			
EN3542-080-120			
EN3542-100-125			
EN3542-100-150			

LN9039 series

HeliCoil® Wire Thread Insert

Insert Material: **Corrosion Resistant Steel**
 (Stainless Steel 304), AS7245, 1.4301

Finish: **Self Finish (unplated)**

Type: **Free running**

Thread form: **Metric Coarse and Fine**

Produced to European standards, this series of inserts is specified in aerospace applications with metric thread format and is available in the 5 nominal lengths.

Part Number

LN903900025	LN903904120	LN903908200	LN903912360
LN903900037	LN903904150	LN903909100	LN903913120
LN903900050	LN903904180	LN903909150	LN903913180
LN903901030	LN903905070	LN903909200	LN903913240
LN903901045	LN903905105	LN903910100	LN903914140
LN903901060	LN903905140	LN903910150	LN903914210
LN903902040	LN903906080	LN903910200	LN903914280
LN903902060	LN903906120	LN903910250	LN903914350
LN903902080	LN903906160	LN903910300	LN903914420
LN903903050	LN903907080	LN903911120	LN903915140
LN903903075	LN903907120	LN903911180	LN903915210
LN903903100	LN903907160	LN903911240	LN903915280
LN903903125	LN903907200	LN903912120	LN903916160
LN903903150	LN903907240	LN903912180	LN903916240
LN903904060	LN903908100	LN903912240	LN903916320
LN903904090	LN903908150	LN903912300	LN903916400

LN9039 series (cont'd)

HeliCoil® Wire Thread Insert

Insert Material: **Corrosion Resistant Steel**
(Stainless Steel 304), AS7245, 1.4301

Finish: **Self Finish (unplated)**

Type: **Free running**

Thread form: **Metric Coarse and Fine**

Part Number

LN903916480

LN903917160

LN903917240

LN903917320

LN903918180

LN903918270

LN903918360

LN903918450

LN903918540

LN903919180

LN903919270

LN903919360

LN903920180

LN903920270

LN903920360

LN903920450

LN903920540

LN903921200

LN903921300

LN903921400

LN903922200

LN903922300

LN903922400

LN903923200

LN903923300

LN903923400

LN9039A series

HeliCoil® Wire Thread Insert

Insert Material: **Corrosion Resistant Steel**
(Stainless Steel 304), AS7245, 1.4301

Finish: **Cadmium Plating**

Type: **Free running**

Thread form: **Metric Coarse and Fine**

Produced to European standards, this series of inserts is specified in aerospace applications with metric thread format and is available in the 5 nominal lengths. The cadmium plated finish provides lubrication and minimises galling.

Part Number

LN9039A00025
 LN9039A00037
 LN9039A00050
 LN9039A01030
 LN9039A01045
 LN9039A01060
 LN9039A02040
 LN9039A02060
 LN9039A02080
 LN9039A03050
 LN9039A03075
 LN9039A03100
 LN9039A03125
 LN9039A03150
 LN9039A04060
 LN9039A04090
 LN9039A04120
 LN9039A04150
 LN9039A04180
 LN9039A05070
 LN9039A05105
 LN9039A05140
 LN9039A06080

LN9039A06120
 LN9039A06160
 LN9039A07080
 LN9039A07120
 LN9039A07160
 LN9039A07200
 LN9039A07240
 LN9039A08100
 LN9039A08150
 LN9039A08200
 LN9039A09100
 LN9039A09150
 LN9039A09200
 LN9039A10100
 LN9039A10150
 LN9039A10200
 LN9039A10250
 LN9039A10300
 LN9039A11120
 LN9039A11180
 LN9039A11240
 LN9039A12120
 LN9039A12180

LN9039A12240
 LN9039A12300
 LN9039A12360
 LN9039A13120
 LN9039A13180
 LN9039A13240
 LN9039A14140
 LN9039A14210
 LN9039A14280
 LN9039A14350
 LN9039A14420
 LN9039A15140
 LN9039A15210
 LN9039A15280
 LN9039A16160
 LN9039A16240
 LN9039A16320
 LN9039A16400
 LN9039A16480
 LN9039A17160
 LN9039A17240
 LN9039A17320
 LN9039A18180

LN9039A18270
 LN9039A18360
 LN9039A18450
 LN9039A18540
 LN9039A19180
 LN9039A19270
 LN9039A19360
 LN9039A20180
 LN9039A20270
 LN9039A20360
 LN9039A20450
 LN9039A20540
 LN9039A21200
 LN9039A21300
 LN9039A21400
 LN9039A22200
 LN9039A22300
 LN9039A22400
 LN9039A23200
 LN9039A23300
 LN9039A23400

LN9499 series

HeliCoil® Wire Thread Insert

Insert Material: **Corrosion Resistant Steel
(Stainless Steel 304), AS7245, 1.4301**

Finish: **Self Finish (unplated)**

Type: **Screwlock**

Thread form: **Metric Coarse and Fine**

Produced to European standards, this series of inserts is specified in aerospace applications with metric thread format and is available in the 5 nominal lengths. The screw locking coil acts as a locking mechanism for the male fastener.

Part Number

LN949900025

LN949900037

LN949900050

LN949901030

LN949901045

LN949901060

LN949902040

LN949902060

LN949902080

LN949903050

LN949903075

LN949903100

LN949903125

LN949903150

LN949904060

LN949904090

LN949904120

LN949904150

LN949904180

LN949905070

LN949905105

LN949905140

LN949906080

LN949906120

LN949906160

LN949907080

LN949907120

LN949907160

LN949907200

LN949907240

LN949908100

LN949908150

LN949908200

LN949909100

LN949909150

LN949909200

LN949910100

LN949910150

LN949910200

LN949910250

LN949910300

LN949911120

LN949911180

LN949911240

LN949912120

LN949912180

LN949912240

LN949912300

LN9499 series (cont'd)

HeliCoil® Wire Thread Insert

Insert Material: **Corrosion Resistant Steel**
 (Stainless Steel 304), AS7245, 1.4301

Finish: **Self Finish (unplated)**

Type: **Screwlock**

Thread form: **Metric Coarse and Fine**

Part Number

LN949912360
 LN949913120
 LN949913180
 LN949913240
 LN949914140
 LN949914210
 LN949914280
 LN949914350
 LN949914420
 LN949915140
 LN949915210
 LN949915280
 LN949916160
 LN949916240
 LN949916320
 LN949916400

LN949916480
 LN949917160
 LN949917240
 LN949917320
 LN949918180
 LN949918270
 LN949918360
 LN949918450
 LN949918540
 LN949919180
 LN949919270
 LN949919360
 LN949920180
 LN949920270
 LN949920360
 LN949920450

LN949920540
 LN949921200
 LN949921300
 LN949921400
 LN949922200
 LN949922300
 LN949922400
 LN949923200
 LN949923300
 LN949923400

LN9499A series

HeliCoil® Wire Thread Insert

Insert Material:	Corrosion Resistant Steel (Stainless Steel 304), AS7245, 1.4301
Finish:	Cadmium Plating
Type:	Screwlock
Thread form:	Metric Coarse and Fine

Produced to European standards, this series of inserts is specified in aerospace applications with metric thread format and is available in the 5 nominal lengths. The screw locking coil acts as a locking mechanism for the male fastener. The cadmium plated finish provides lubrication and minimises galling.

Part Number

LN9499A00025	LN9499A04120	LN9499A08200	
LN9499A00037	LN9499A04150	LN9499A09100	
LN9499A00050	LN9499A04180	LN9499A09150	
LN9499A01030	LN9499A05070	LN9499A09200	
LN9499A01045	LN9499A05105	LN9499A10100	
LN9499A01060	LN9499A05140	LN9499A10150	
LN9499A02040	LN9499A06080	LN9499A10200	
LN9499A02060	LN9499A06120	LN9499A10250	
LN9499A02080	LN9499A06160	LN9499A10300	
LN9499A03050	LN9499A07080	LN9499A11120	
LN9499A03075	LN9499A07120	LN9499A11180	
LN9499A03100	LN9499A07160	LN9499A11240	
LN9499A03125	LN9499A07200	LN9499A12120	
LN9499A03150	LN9499A07240	LN9499A12180	
LN9499A04060	LN9499A08100	LN9499A12240	
LN9499A04090	LN9499A08150	LN9499A12300	

LN9499A series (cont'd)

HeliCoil® Wire Thread Insert

Insert Material: **Corrosion Resistant Steel**
 (Stainless Steel 304), AS7245, 1.4301

Finish: **Cadmium Plating**

Type: **Screwlock**

Thread form: **Metric Coarse and Fine**

Part Number

LN9499A12360
 LN9499A13120
 LN9499A13180
 LN9499A13240
 LN9499A14140
 LN9499A14210
 LN9499A14280
 LN9499A14350
 LN9499A14420
 LN9499A15140
 LN9499A15210
 LN9499A15280
 LN9499A16160
 LN9499A16240
 LN9499A16320
 LN9499A16400

LN9499A16480
 LN9499A17160
 LN9499A17240
 LN9499A17320
 LN9499A18180
 LN9499A18270
 LN9499A18360
 LN9499A18450
 LN9499A18540
 LN9499A19180
 LN9499A19270
 LN9499A19360
 LN9499A20180
 LN9499A20270
 LN9499A20360
 LN9499A20450

LN9499A20540
 LN9499A21200
 LN9499A21300
 LN9499A21400
 LN9499A22200
 LN9499A22300
 LN9499A22400
 LN9499A23200
 LN9499A23300
 LN9499A23400

NASM122076 to NASM124831 series

REPLACING MS21208

HeliCoil® Wire Thread Insert

Insert Material:	Corrosion Resistant Steel (Stainless Steel 304), AS7245
Finish:	Self Finish (unplated), Cadmium Plating and Dry Film Lubricant
Type:	Free running
Thread form:	UNC and UNF

Add following for Plating or Coating

“P” for Cadmium Plating Insert
 “L” for Dry Film Lubricant
 Left Blank for Self Finish (unplated)

Example
MS122076P
 = Cadmium Plating Insert

Produced to USA standards this series of free running inserts in UNC and UNF thread format is available in 5 nominal lengths. Available as self finish or with a cadmium plated finish which provides lubrication and minimises galling. A dry film lubricant finish is also available which provides additional lubrication in high friction applications.

Part Number

NASM122076	NASM122094	NASM122131	NASM122168
NASM122077	NASM122095	NASM122132	NASM122169
NASM122078	NASM122115	NASM122133	NASM122170
NASM122079	NASM122116	NASM122134	NASM122171
NASM122080	NASM122117	NASM122135	NASM122172
NASM122081	NASM122118	NASM122155	NASM122173
NASM122082	NASM122119	NASM122156	NASM122174
NASM122083	NASM122120	NASM122157	NASM122175
NASM122084	NASM122121	NASM122158	MA122195
NASM122085	NASM122122	NASM122159	NASM122196
NASM122086	NASM122123	NASM122160	NASM122197
NASM122087	NASM122124	NASM122161	NASM122198
NASM122088	NASM122125	NASM122162	NASM122199
NASM122089	NASM122126	NASM122163	NASM122200
NASM122090	NASM122127	NASM122164	NASM122201
NASM122091	NASM122128	NASM122165	NASM122202
NASM122092	NASM122129	NASM122166	NASM122203
NASM122093	NASM122130	NASM122167	NASM122204

NASM122076 to NASM124831 series (cont'd)

REPLACING MS21208

HeliCoil® Wire Thread Insert

Insert Material: **Corrosion Resistant Steel
(Stainless Steel 304), AS7245**

Finish: **Self Finish (unplated),
Cadmium Plating and Dry Film Lubricant**

Type: **Free running**

Thread form: **UNC and UNF**

Part Number

NASM122205	NASM122242	NASM124655	NASM124694
NASM122206	NASM122243	NASM124656	NASM124695
NASM122207	NASM122244	NASM124657	NASM124696
NASM122208	NASM122245	NASM124658	NASM124697
NASM122209	NASM122246	NASM124659	NASM124698
NASM122210	NASM122247	NASM124660	NASM124699
NASM122211	NASM122248	NASM124661	NASM124700
NASM122212	NASM122249	NASM124662	NASM124701
NASM122213	NASM122250	NASM124663	NASM124702
NASM122214	NASM122251	NASM124664	NASM124703
NASM122215	NASM122252	NASM124666	NASM124704
NASM122235	NASM122253	NASM124667	NASM124706
NASM122236	NASM122254	NASM124668	NASM124707
NASM122237	NASM122255	NASM124669	NASM124708
NASM122238	NASM122275	NASM124670	NASM124709
NASM122239	NASM124651	NASM124671	NASM124710
NASM122240	NASM124653	NASM124691	NASM124711
NASM122241	NASM124654	NASM124693	NASM124731

NASM122076 to NASM124831 series (cont'd)

REPLACING MS21208

HeliCoil® Wire Thread Insert

Insert Material:	Corrosion Resistant Steel (Stainless Steel 304), AS7245
Finish:	Self Finish (unplated), Cadmium Plating and Dry Film Lubricant
Type:	Free running
Thread form:	UNC and UNF

Part Number

NASM124733

NASM124734

NASM124735

NASM124736

NASM124737

NASM124738

NASM124739

NASM124740

NASM124741

NASM124742

NASM124743

NASM124744

NASM124746

NASM124747

NASM124748

NASM124749

NASM124750

NASM124751

NASM124771

NASM124773

NASM124774

NASM124775

NASM124776

NASM124777

NASM124778

NASM124779

NASM124780

NASM124781

NASM124782

NASM124783

NASM124784

NASM124786

NASM124787

NASM124788

NASM124789

NASM124790

NASM124791

NASM124811

NASM124813

NASM124814

NASM124815

NASM124816

NASM124817

NASM124818

NASM124819

NASM124820

NASM124821

NASM124822

NASM124823

NASM124824

NASM124826

NASM124827

NASM124828

NASM124829

NASM124830

NASM124831

NASM21209 series

HeliCoil® Wire Thread Insert

Insert Material:	Corrosion Resistant Steel (Stainless Steel 304), AS7245
Finish:	Self Finish (unplated), Cadmium Plating and Dry Film Lubricant
Type:	Screwlock
Thread form:	UNC and UNF

Add following for Plating or Coating

"P" for Cadmium Plating Insert
 "L" for Dry Film Lubricant
 Left Blank for Self Finish (unplated)

Example
MS21209-C0310P
= Cadmium Plating Insert

Produced to USA standards, this series of screwlock inserts in UNC and UNF thread format and is available in 5 nominal lengths. The screw locking coil acts as a locking mechanism for the male fastener. Available as self finish or with a cadmium plated finish which provides lubrication and minimises galling. A dry film lubricant finish is also available which provides additional lubrication in high friction applications.

Part Number

NASM21209-C0210	NASM21209-C0525	NASM21209-C1215	NASM21209-C1830
NASM21209-C0215	NASM21209-C0530	NASM21209-C1220	NASM21209-C2010
NASM21209-C0220	NASM21209-C0610	NASM21209-C1225	NASM21209-C2015
NASM21209-C0225	NASM21209-C0615	NASM21209-C1230	NASM21209-C2020
NASM21209-C0230	NASM21209-C0620	NASM21209-C1410	NASM21209-C2025
NASM21209-C0310	NASM21209-C0625	NASM21209-C1415	NASM21209-C2030
NASM21209-C0315	NASM21209-C0630	NASM21209-C1420	NASM21209-C2210
NASM21209-C0320	NASM21209-C0810	NASM21209-C1425	NASM21209-C2215
NASM21209-C0325	NASM21209-C0815	NASM21209-C1430	NASM21209-C2220
NASM21209-C0330	NASM21209-C0820	NASM21209-C1610	NASM21209-C2225
NASM21209-C0410	NASM21209-C0825	NASM21209-C1615	NASM21209-C2230
NASM21209-C0415	NASM21209-C0830	NASM21209-C1620	NASM21209-C2410
NASM21209-C0420	NASM21209-C1010	NASM21209-C1625	NASM21209-C2415
NASM21209-C0425	NASM21209-C1015	NASM21209-C1630	NASM21209-C2420
NASM21209-C0430	NASM21209-C1020	NASM21209-C1810	NASM21209-C2425
NASM21209-C0510	NASM21209-C1025	NASM21209-C1815	NASM21209-C2430
NASM21209-C0515	NASM21209-C1030	NASM21209-C1820	
NASM21209-C0520	NASM21209-C1210	NASM21209-C1825	

NASM21209 series (cont'd)

HeliCoil® Wire Thread Insert

Insert Material:	Corrosion Resistant Steel (Stainless Steel 304), AS7245
Finish:	Self Finish (unplated), Cadmium Plating and Dry Film Lubricant
Type:	Screwlock
Thread form:	UNC and UNF

Part Number

NASM21209-C1-10	NASM21209-C5-25	NASM21209-C9-15	NASM21209-F0625
NASM21209-C1-15	NASM21209-C5-30	NASM21209-C9-20	NASM21209-F0630
NASM21209-C1-20	NASM21209-C6-10	NASM21209-C9-25	NASM21209-F0810
NASM21209-C1-25	NASM21209-C6-15	NASM21209-C9-30	NASM21209-F0815
NASM21209-C1-30	NASM21209-C6-20		NASM21209-F0820
NASM21209-C2-10	NASM21209-C6-25	NASM21209-F0310	NASM21209-F0825
NASM21209-C2-15	NASM21209-C6-30	NASM21209-F0315	NASM21209-F0830
NASM21209-C2-20	NASM21209-C7-10	NASM21209-F0320	NASM21209-F1010
NASM21209-C2-25	NASM21209-C7-15	NASM21209-F0325	NASM21209-F1015
NASM21209-C2-30	NASM21209-C7-20	NASM21209-F0330	NASM21209-F1020
NASM21209-C4-10	NASM21209-C7-25	NASM21209-F0410	NASM21209-F1025
NASM21209-C4-15	NASM21209-C7-30	NASM21209-F0415	NASM21209-F1030
NASM21209-C4-20	NASM21209-C8-10	NASM21209-F0420	NASM21209-F1210
NASM21209-C4-25	NASM21209-C8-15	NASM21209-F0425	NASM21209-F1215
NASM21209-C4-30	NASM21209-C8-20	NASM21209-F0430	NASM21209-F1220
NASM21209-C5-10	NASM21209-C8-25	NASM21209-F0610	NASM21209-F1225
NASM21209-C5-15	NASM21209-C8-30	NASM21209-F0615	NASM21209-F1230
NASM21209-C5-20	NASM21209-C9-10	NASM21209-F0620	NASM21209-F1410

NASM21209 series (cont'd)

HeliCoil® Wire Thread Insert

Insert Material:	Corrosion Resistant Steel (Stainless Steel 304), AS7245
Finish:	Self Finish (unplated), Cadmium Plating and Dry Film Lubricant
Type:	Screwlock
Thread form:	UNC and UNF

Part Number

NASM21209-F1415	NASM21209-F2030	NASM21209-F4-15	NASM21209-F7-30
NASM21209-F1420	NASM21209-F2210	NASM21209-F4-20	NASM21209-F8-10
NASM21209-F1425	NASM21209-F2215	NASM21209-F4-25	NASM21209-F8-15
NASM21209-F1430	NASM21209-F2220	NASM21209-F4-30	NASM21209-F8-20
NASM21209-F1610	NASM21209-F2225	NASM21209-F5-10	NASM21209-F8-25
NASM21209-F1615	NASM21209-F2230	NASM21209-F5-15	NASM21209-F8-30
NASM21209-F1620	NASM21209-F2410	NASM21209-F5-20	NASM21209-F9-10
NASM21209-F1625	NASM21209-F2415	NASM21209-F5-25	NASM21209-F9-15
NASM21209-F1630	NASM21209-F2420	NASM21209-F5-30	NASM21209-F9-20
NASM21209-F1810	NASM21209-F2425	NASM21209-F6-10	NASM21209-F9-25
NASM21209-F1815	NASM21209-F2430	NASM21209-F6-15	NASM21209-F9-30
NASM21209-F1820		NASM21209-F6-20	
NASM21209-F1825	NASM21209-F1-10	NASM21209-F6-25	
NASM21209-F1830	NASM21209-F1-15	NASM21209-F6-30	
NASM21209-F2010	NASM21209-F1-20	NASM21209-F7-10	
NASM21209-F2015	NASM21209-F1-25	NASM21209-F7-15	
NASM21209-F2020	NASM21209-F1-30	NASM21209-F7-20	
NASM21209-F2025	NASM21209-F4-10	NASM21209-F7-25	

NAS1130 series

Helicoil® Wire Thread Insert

Insert Material:	Corrosion Resistant Steel (Stainless Steel 304), AS7245
Finish:	Self Finish (unplated), Cadmium Plating and Dry Film Lubricant
Type:	Free running and Screwlock
Thread form:	UNC and UNF

Add following for Plating or Coating

"P" for Cadmium Plating Insert
 "D" for Dry Film Lubricant
 Left Blank for Self Finish (unplated)

Example
NAS1130-04-10P
 = **Cadmium Plating Insert**

HELICOIL® tangless inserts are used in non critical aerospace and defence applications and are available in UNC and UNF thread format in free running and screwlock up to 3D long subject to thread form. The screw locking coil acts as a locking mechanism for the male fastener. Available as self finish or with a cadmium plated finish which provides lubrication and minimises galling. A dry film lubricant finish is also available which provides additional lubrication in high friction applications.

Part Number

NAS1130-02-10	NAS1130-06-15	NAS1130-3-20	NAS1130-4-25
NAS1130-02-15	NAS1130-06-20	NAS1130-3-25	NAS1130-4-30
NAS1130-02-20	NAS1130-06-25	NAS1130-3-30	NAS1130-4F-10
NAS1130-02-25	NAS1130-06-30	NAS1130-3C-10	NAS1130-4F-15
NAS1130-02-30	NAS1130-06L10	NAS1130-3C-15	NAS1130-4F-20
NAS1130-02L10	NAS1130-06L15	NAS1130-3C-20	NAS1130-4F-25
NAS1130-02L15	NAS1130-06L20	NAS1130-3C-25	NAS1130-4F-30
NAS1130-02L20	NAS1130-06L25	NAS1130-3C-30	NAS1130-4FL10
NAS1130-02L25	NAS1130-06L30	NAS1130-3CL10	NAS1130-4FL15
NAS1130-02L30	NAS1130-08-10	NAS1130-3CL15	NAS1130-4FL20
NAS1130-04-10	NAS1130-08-15	NAS1130-3CL20	NAS1130-4FL25
NAS1130-04-15	NAS1130-08-20	NAS1130-3CL25	NAS1130-4FL30
NAS1130-04-20	NAS1130-08-25	NAS1130-3CL30	NAS1130-4L10
NAS1130-04-25	NAS1130-08-30	NAS1130-3L10	NAS1130-4L15
NAS1130-04-30	NAS1130-08L10	NAS1130-3L15	NAS1130-4L20
NAS1130-04L10	NAS1130-08L15	NAS1130-3L20	NAS1130-4L25
NAS1130-04L15	NAS1130-08L20	NAS1130-3L25	NAS1130-4L30
NAS1130-04L20	NAS1130-08L25	NAS1130-3L30	
NAS1130-04L25	NAS1130-08L30	NAS1130-4-10	
NAS1130-04L30	NAS1130-3-10	NAS1130-4-15	
NAS1130-06-10	NAS1130-3-15	NAS1130-4-20	

Further Aerospace Products



Quick-Release Fasteners

QUICKLOC® clamp, turn and push-in fasteners for quick, repeated, unlockable fastenings and fast assembly.

- Cost-effective
- No tooling required for installation
- Light weight design
- Reliable and robust
- Adaptable in clamping force, colour and design



Blind Rivet Nuts

RIVNUT® aero blind rivet nuts solutions for installing a load carrying internal or external thread to thin-walled metal or plastic components even for single sided installations.

Available aviation standards:

- NAS1329
- NAS1330
- Customized blind rivet nut applications



Thin Wall Inserts

Thin wall inserts are one-piece fasteners for locking, vibration and torque resistant threads with high strength, especially designed for metals with low shear strength like Aluminium and Magnesium alloys.

Available aviation standards (on customer request):

- LN29540
- LN29534
- LN29908
- MIL-I-45932
- NSA5054

Notes

BÖLLHOFF

Böllhoff Verbindungstechnik GmbH

Archimedesstraße 1 – 4

33649 Bielefeld · Germany

Phone +49 (0)5 21 / 44 82 - 180

Fax +49 (0)5 21 / 44 82 - 9 31 80

aerospace@boellhoff.com

www.boellhoff.com

Bollhoff Otalú S.A.

Z.I. de l'Albanne

Rue d'Archimède

73493 La Ravoire / Chambéry

France

Phone 0033 4 79 96 70 00

Bollhoff Fastenings Ltd.

Midacre Rose Hill

GB - Willenhall / W-Midlands WV 132 JW

United Kingdom

Phone 0044 19 02 63 71 61



BÖLLHOFF