



PRODUCT CATALOG



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FOR PLASTICS

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FASTENERS FOR PLASTICS

INSERTS FOR PLASTICS

Based on our long term experience with the plastics industry we offer a large range of fixations adapted to your type of material and method of installation. Our inserts are mainly made of brass ; other materials as steel, aluminum or stainless steel are possible on request.

Type	Family	Type of installation	Plastics			
			Thermo Plastics	Thermo Settings	Special Features	
Ultrasonic Inserts	ISL	By Heat or by Ultrasonics	✓			
	ISHK		✓			
Symmetrical Inserts	ITEC	By Heat or by Ultrasonics	✓			
Miniature Symmetrical Inserts	IMTEC	By Heat or by Ultrasonics	✓			
	IHMTEC		✓			
Expansion Inserts	IPLK	By Press or by hand	✓			
Press-in Inserts	IFL	Broaching by Press	✓			
	IFLH		✓			
Inserts for Amorphous Plastics	IHL	By Heat or by Ultrasonics	✓		Amorphous Plastics	
	IHLH		✓			
Self-tapping Inserts	ISCT	Screw-in	✓	✓		
	IHSCT		✓	✓		
Special Inserts for Thermo settings	ISP	By Press		✓		
	IHSP		✓			
Special Inserts for Hard Plastics	IN41	By press or By Hand	✓	✓	Hard Plastics	
	IN42		✓	✓		
	IN42H		✓	✓		
Blind Inserts for injection Molding	IFTC	Injection Moulding				
Inserts DIN	Serie 16903	Moulding	✓	✓		



PRESS-IN INSERT - IFL/IFLH

NOTES

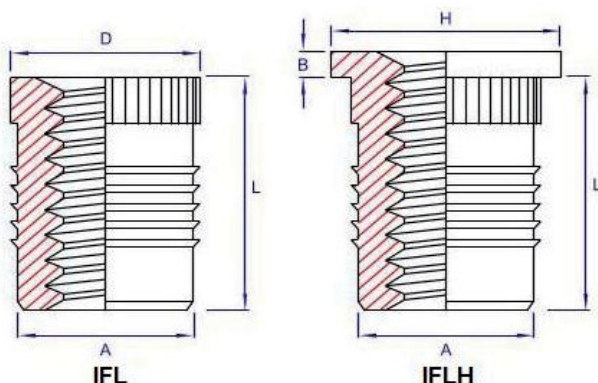
IFL/IFLH is a press-in insert which can be easily installed into most thermoplastic materials. It features a combination of sharp fins and straight knurls. Unlike the press-in locking range, this insert has a free running thread. Headed version is also available.



PRESS-IN INSERT - IFL/IFLH

IFL/IFLH

THREAD Metric UNC	D	H	B	A	L	Nb of fins	Hole Size +0.10 -0.0	Min Wall Thickness
M2	3,7	4,8	0,45	3,1	4,0	2	3,2	1,6
M2.5	4,5	5,5	0,58	3,9	4,8	3	4,0	2,0
M3	4,5	5,5	0,58	3,9	4,8	3	4,0	2,0
M3.5	5,3	6,4	0,74	4,7	6,4	4	4,8	2,4
M4	6,1	7,1	0,89	5,5	7,9	5	5,6	2,8
M5	7,0	7,9	1,07	6,3	9,5	5	6,4	3,2
M6	8,6	9,5	1,32	7,9	12,7	7	8,0	4,0
M8	10,2	11,1	1,32	9,5	12,7	7	9,6	4,8



MATERIALS AND OTHER TYPES

- Brass, Stainless Steel to special order
- Aluminium to special order



INSERT FOR AMORPHOUS PLASTICS- IHL/IHLH

INSERT FOR AMORPHOUS PLASTICS – IHL/IHLH

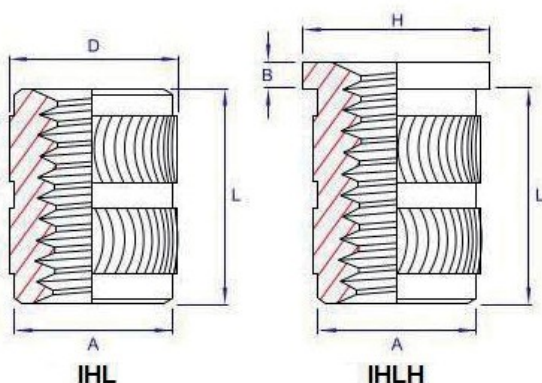
NOTES

IHL is designed for installation into notch sensitive amorphous thermoplastics by heat. It features rounded knurls, avoiding the stress raising sharp crests and roots which typify knurls used on most inserts.



IHL/IHLH

THREA D Metric UNC	D	H	B	A	L	Hole Size +0.10 -0.0	Min Wall Thickness
M2	3,5	4,8	0,51	3,1	3,9	3,2	1,4
M2.5	4,4	5,5	0,58	3,9	5,8	4,0	1,8
M3	4,4	5,5	0,58	3,9	5,8	4,0	1,8
M3.5	5,2	6,4	0,74	4,7	7,1	4,8	2,1
M4	6,1	7,1	0,89	5,5	8,1	5,6	2,4
M5	6,9	7,9	1,07	6,3	9,5	6,4	2,8
M6	8,5	9,5	1,32	7,9	12,7	8,0	3,6
M8	10,0	11,1	1,32	9,5	12,7	9,6	5,0



MATERIALS AND OTHER TYPES

- Brass, Steainless Steel to special order
- Aluminium to special order



SELF TAPPING INSERT- ISCT/IHSCT

NOTES

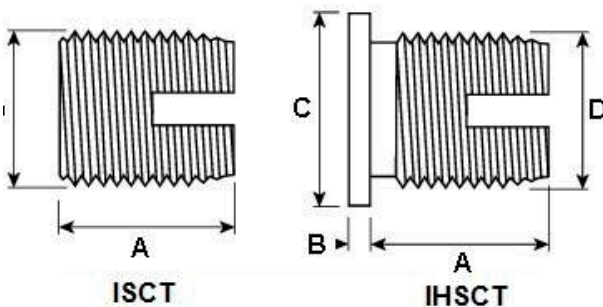
ISCT is a self-tapping insert suitable for installation into a wide range of thermoplastic and thermosetting plastic materials. They are particularly suitable for applications involving high jack-out loading and materials with low core strengths. Headed version also available.



SELF TAPPING INSERT – ISCT/IHSCT

ISCT/IHSCT

THREAD Metric UNC	A	B	C	D Max	Rec Hole Size Thermoplastics	Rec Hole Size Thermosets	Min Wall Thickness
M2.5	6,0	0,58	6,0	4,5	4,0 - 4,1	4,1 - 4,3	Evaluated by pre-production tests
M3	6,0	0,58	6,5	5,0	4,5 - 4,6	4,6 - 4,8	
M3.5	8,0	0,73	7,5	6,0	5,3 - 5,4	5,5 - 5,7	
M4	8,0	0,89	8,0	6,5	5,8 - 5,9	6,0 - 6,2	
M5	10,0	1,06	9,5	8,0	7,1 - 7,2	7,3 - 7,6	
M6	14,0	1,32	12,0	10,0	8,6 - 8,8	9,0 - 9,4	
M8	15,0	1,32	14,0	12,0	10,6 - 10,8	11,0 - 11,4	
M10	18,0	1,57	16,0	14,0	12,6 - 12,8	13,0 - 13,4	
M12	22,0	1,57	18,0	16,0	14,6 - 14,8	15,0 - 15,4	



MATERIALS AND OTHER TYPES

- Brass
- Carbon Steel



BLIND ENDED INSERT FOR MOLDING- IFTC

NOTES

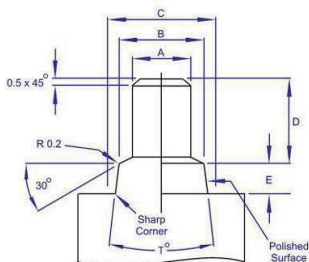
IFTC is a blind ended threaded insert which has been introduced to meet the needs of those molders who, for a variety of reasons, prefer to mold. The unique design of three opposed helical knurl bands combined with the included recesses give extremely high levels of performances in both pull-out and torque tests.



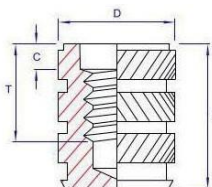
IFTC

Thread	D	L	T Min	C
M2	3,4	5,5	3,6	1,0
M2.5	4,3	6,4	4,0	1,2
M3	4,7	7,3	4,6	1,3
M3.5	5,5	9,2	6,0	1,6
M4	6,3	10,2	6,7	1,8
M5	7,3	11,2	7,4	2,0
M6	9,8	14,4	8,1	2,0
M8	11,4	16,5	11,1	2,3
M10	13,8	17,9	11,9	2,4

LOCATING PIN



Thead	E -0.02 +0.04	A -0.025 +0.00	D -0.10 +0.10	B -0.12 +0.12	T°	C
M2	0,80	1,55	2,65	2,30	6,0	3,0
M2.5	0,90	2,00	3,00	2,80	5,0	3,5
M3	1,5	2,45	3,40	3,12	4,5	4,0
M3.5	1,30	2,85	4,55	3,75	4,5	4,7
M4	1,55	3,25	5,00	4,42	4,5	5,4
M5	1,70	4,15	5,55	5,12	5,0	6,0
M6	1,80	4,95	6,15	6,60	5,5	8,0
M8	2,00	6,70	9,00	8,50	6,0	10,0
M10	2,10	8,40	9,70	10,50	6,0	12,0



IFTC

MATERIALS AND OTHER TYPES

- Brass, Steainless Steel to special order
- Aluminium to special order

BLIND ENDED INSERT FOR MOLDING - IFL/IFLH



PRESS-IN LOCKING INSERT- IPLK

APPLICATION

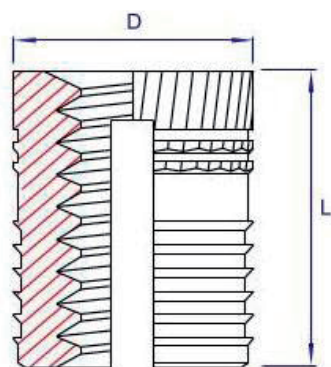
IPLK is a press-in expansion insert designed for use in thermoplastic moldings. It has been developed to give the ease of installation associated with this type of fastener but without the high screw installation torque which has previously been typical. The incorporation of plain and knurled vanes gives levels of pulled-out and torque resistance usually expected from heat installed inserts.



IPLK

Thread Metric UNC	D	L	Alternative Length	Hole Size +0.10 -0.0	Min Wall Thickness
M2	3,7	4,0	–	3,2	1,6
M2.5	4,5	5,8	4,0	4,0	2,0
M3	4,5	5,8	4,0	4,0	2,0
M3.5	5,3	7,2	4,0	4,8	2,4
M4	6,2	8,2	5,8	5,6	2,8
M5	6,9	9,5	5,8 / 8,2	6,4	3,2
M6	8,5	12,7	7,2 / 9,5	8,0	4,0
M8	10,1	12,7	–	9,6	4,8

PRESS-IN LOCKING INSERT - IPLK



IPLK

MATERIAL

- Brass
- Stainless Steel to special order
- IPLK : Press in locking insert for Thermoplastics



EXPANSION INSERT- IN41/IN42/IN42R

NOTES

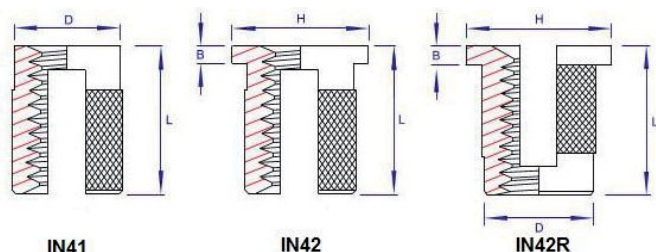
IN4 are press-in expansion inserts which, due to their diamond knurl pattern, give minimum penetration of the sides of the hole without sacrificing pull-out resistance. This makes them ideally suitable for applications into hard thermosetting plastics. Headed and reverse headed inserts are also available.



IN41/IN42/IN42R

Thread	L	Alt. Length	H	B	D	Hole Size +0.10 -0.0	Min Wall Thickness
M2	3,9	–	4,8	0,43	3,2	3,2	2,4
M2.5	4,7	–	5,5	0,51	4,0	4,0	3,2
M3	4,7	3,5	5,5	0,51	4,0	4,0	3,2
M3.5	6,3	3,5	6,4	0,66	4,7	4,8	3,6
M4	7,9	5,0	7,1	0,82	5,5	5,6	4,0
M5	9,4	6,0	7,9	0,99	6,3	6,4	4,8
M6	12,6	9,5	9,5	1,25	7,9	8,0	6,0
M8	12,6	9,5	11,1	1,25	9,5	9,6	7,0

EXPANSION INSERT – IN41/IN42/IN42R



MATERIALS AND OTHER TYPES

- Brass
- Stainless Steel to special order



ULTRASONIC INSERT - ISL/ISHK

NOTES

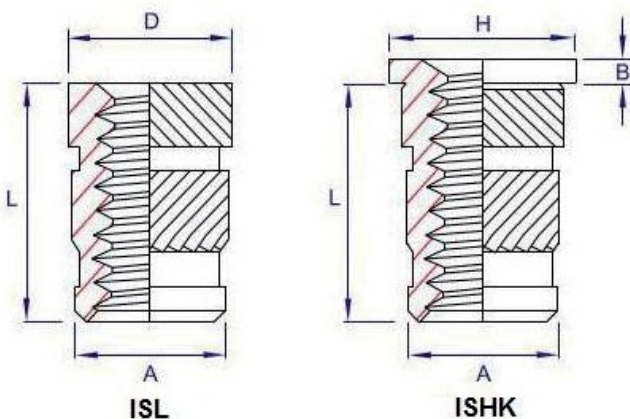
ISL is designed for rapid installation into thermoplastics using heat or ultrasonic. It features opposed helical knurl bands to provide a combination of high torque and pull out resistance. Headed and non-headed versions are available.



ISL/ISHK

THREAD Metric UNC	D	H	B	A	L	Optional Lengths	Hole Size +0.10 -0.0	Min Wall Thickness
M2	3,6	4,8	0,53	3,1	4,0	3,0	3,2	1,3
M2.5	4,6	5,5	0,61	3,9	5,7	4	4,0	1,6
M3	4,6	5,5	0,61	3,9	5,7	4,0 / 4,8	4,0	1,6
M3.5	5,4	6,4	0,76	4,7	7,1	5,0	4,8	1,8
M4	6,3	7,1	0,91	5,5	8,1	4,0 / 4,8 / 5,8	5,6	2,1
M5	7,1	7,9	1,09	6,3	9,5	5,8	6,4	2,6
M6	8,7	9,5	1,35	7,9	12,7	6,8 / 9,5	8,0	3,3
M8	10,2	11,1	1,35	9,5	12,7	-	9,6	4,5
M10	12,6	14,0	1,60	11,8	12,7	-	11,9	6,0
M12	16,7	19,0	2,00	15,8	15,9	-	16,0	8,0

ULTRASONIC INSERT - ISL/ISHK



MATERIALS AND OTHER TYPES

- Brass
- Stainless Steel to special order
- Aluminum to special order



SYMMETRIC INSERT- ITEC

NOTES

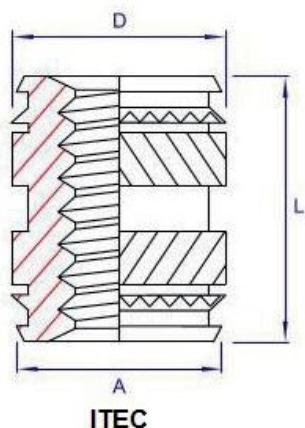
The ITEC features a unique combination of opposed knurls and knurled vanes substantially increasing performance levels, even over the Ultrasonic insert. Installation is simplified by the symmetric nature of the insert, eliminating the need for orientation during automated or hand feeding.



ITEC

THREAD Metric UNC	D	A	L	Alternative Length	Hole Size + 0.10 - 0.0	Minimum Wall Thickness
M2	3,5	3,1	4,0	3	3,2	1
M2.5	4,4	3,9	5,7	4	4,0	1
M3	4,4	3,9	5,7	4,0 / 4,8	4,0	1
M3.5	5,2	4,7	7,1	5,0	4,8	1
M4	6,1	5,5	8,1	4,0 / 4,8 / 5,8	5,6	2
M5	6,8	6,3	9,5	5,8	6,4	2
M6	8,5	7,9	12,7	6,8 / 9,5	8,0	3
M8	10,0	9,5	12,7	-	9,6	4
M10	12,3	11,8	12,7	-	11,9	6
M12	16,3	15,8	15,9	-	16,0	8

SYMMETRIC INSERT- ITEC



MATERIALS AND OTHER TYPES

- Brass
- Stainless Steel to special order
- Aluminum to special order



MINI SYMMETRIC INSERT - IMTEC/IMTH

MINI SYMMETRIC INSERT – IMTEC/IMTH

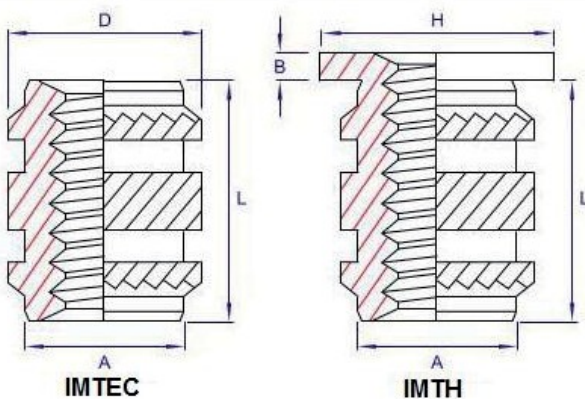
NOTES

IMTEC is a miniature insert with all the design features and characteristics of the symmetric Insert (ITEC) range. It is ideal for today's smaller plastic products and enables the use of very small screws that will provide complete re-usability with no risk of thread stripping problems.



IMTEC/IMTH

Thread	D	A	H	B	L	Hole Size +0.10 -0.0	Min Wall Thickness
M1.4	2,50	2,10	3,00	0,40	3,00	2,15	0,8
M1.6	2,50	2,10	3,00	0,40	3,00	2,15	0,8
M2.0	3,00	2,60	3,50	0,40	3,00	2,65	0,8
M2.5	3,65	3,15	4,00	0,40	4,00	3,20	1,0



MATERIALS AND OTHER TYPES

- Brass, Steainless Steel to special order
- Aluminium to special order



INSERT FOR BRITTLE THERMOSET- ISP/IHSR

INSERT FOR BRITTLE THERMOSET – ISP/IHSR

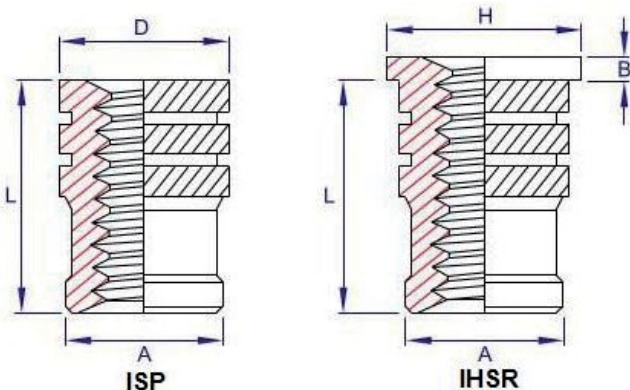


NOTES

ISP/IHSR has been designed to cope with the difficulties presented by hard brittle thermoset materials. The sharp precision knurl pattern cuts into these materials reducing radial stress and allowing thinner boss walls than many other inserts.

ISP/IHSR

THREAD Metric UNC	D	H	B	A	L	Hole Size +0.10 -0.0	Min Wall Thickness
M2	3,3	4,8	0,51	3,0	4,1	3,1	1,6
M2.5	4,2	5,5	0,58	3,7	5,3	3,8	2,0
M3	4,2	5,5	0,58	3,7	5,3	3,8	2,0
M3.5	5,0	6,4	0,74	4,5	6,3	4,6	2,5
M4	5,8	7,1	0,89	5,3	7,4	5,4	2,5
M5	6,6	7,9	1,07	6,1	8,3	6,2	2,5
M6	8,2	9,5	1,32	7,7	9,2	7,8	2,8
M8	9,7	11,1	1,32	9,3	9,2	9,3	3,8
M10	12,7	14,0	1,57	12,2	9,2	12,3	5,0



MATERIALS AND OTHER TYPES

- Brass
- Stainless Steel to special order
- Aluminum to special order



DIN INSERTS FOR OVERMOULDING – SERIES 16903

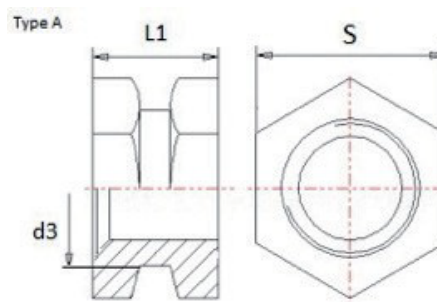
APPLICATION

Insert to DIN 16903 standard for overmoulding use in plastics. All size variations are possible on request.



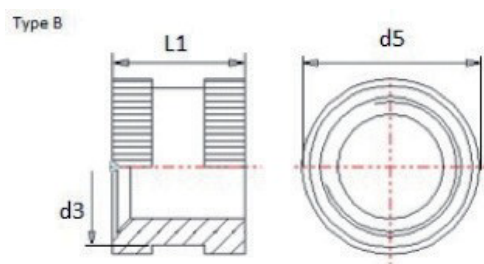
SERIES 16903 – TYPE A

Thread	S	d3	L1
M3	5	3.8	3
M4	6	5	4
M5	7	6.4	5
M6	9	7.4	6
M8	11	10.4	8



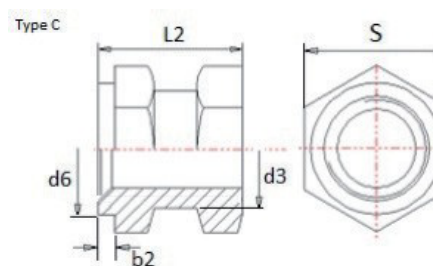
SERIES 16903 – TYPE B

Thread	d5	d3	L1
M2.5	3.8	3.4	2.6
M3	4.2	3.8	3
M4	5.5	5	4
M5	7	6.4	5
M6	8	7.4	6



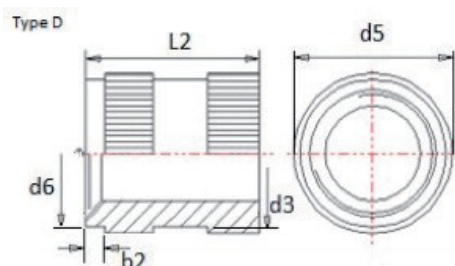
SERIES 16903 – TYPE C

Thread	S	d3	b2	L2	d6
M3	5	3.8	1	4.5	4.2
M4	6	5	1	6	5.5
M5	7	6.4	1	7.5	7
M6	9	7.4	1	9	8
M8	11	10.4	1	12	10



SERIES 16903 – TYPE D

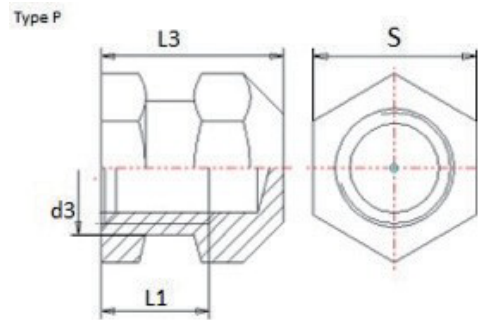
Thread	d5	d3	b2	L2	d6
M2.5	3.8	3.4	0.8	4	3.8
M3	4.2	3.8	1	4.5	4.2
M4	5.5	5	1	6	5.5
M5	7	6.4	1	7.5	7
M6	8	7.4	1	9	8



DIN INSERTS FOR OVERMOULDING – SERIES 16903

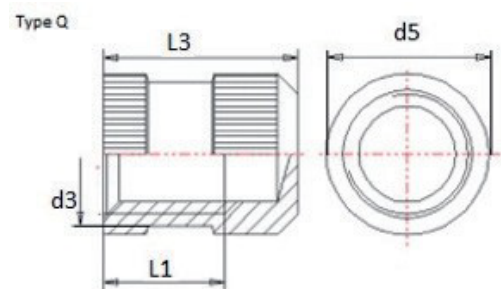
SERIES 16903 – TYPE P

Thread	S	d3	L1	L3
M3	5	3.8	3	5.5
M4	6	5	4	7
M5	7	6.4	5	8.3
M6	9	7.4	6	9.8
M8	11	10.4	8	12.6



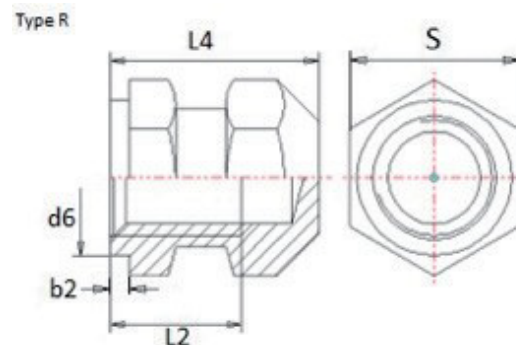
SERIES 16903 – TYPE Q

Thread	d5	d3	L1	L3
M2.5	3.8	3.4	2.6	4.6
M3	4.2	3.8	3	5.5
M4	5.5	5	4	7
M5	7	6.4	5	8.3
M6	8	7.4	6	9.8



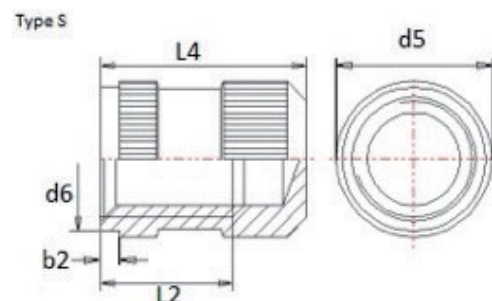
SERIES 16903 - TYPE R

Thread	S	d6	b2	L2	L4
M3	5	4.2	1	4.5	7
M4	6	5.5	1	6	9
M5	7	7	1	7.5	10.8
M6	9	8	1	9	12.8
M8	11	10	1	12	16.6



SERIES 16903 – TYPE S

Thread	d5	d6	b2	L2	L4
M2.5	3.8	3.8	0.8	4	6
M3	4.2	4.2	1	4.5	7
M4	5.5	5.5	1	6	9
M5	7	7	1	7.5	10.8
M6	8	8	1	9	12.8



MATERIALS AND FINISH

- Brass as standard
- Other materials and finishes on request
- Plain
- Nicked-plated



SCREWS FOR THERMOPLASTICS – SERIES IPT

APPLICATION

Screws designed to allow plastic flow during installation with a 30° thread flank angle to limit boss stress and an 8° thread pitch angle for minimum installation torque. High resistance to vibrations and plastic relaxation. Contact us for the complete installation specifications.



SCREWS FOR THERMOPLASTICS – SERIES IPT

SERIES IPT – Flanged button head screws

d	H	P	D Phillips	D Pozi	D T-Drive
2.2	1.60	0.98	4.40 (H1)	4.40 (Z1)	4.50 (T6)
2.5	1.80	1.12	5.00 (H1)	5.00 (Z1)	5.00 (T6)
3	2.10	1.34	6.00 (H1)	6.00 (Z1)	6.00 (T10)
3.5	2.40	1.57	7.00 (H2)	7.00 (Z2)	7.00 (T10)
4	2.50	1.79	8.00 (H2)	8.00 (Z2)	8.00 (T20)
5	3.20	2.24	10.00 (H2)	10.00 (Z2)	10.00 (T20)
6	4.00	2.69	12.00 (H3)	12.00 (Z3)	12.00 (T25)

SERIES IPT – Button head screws

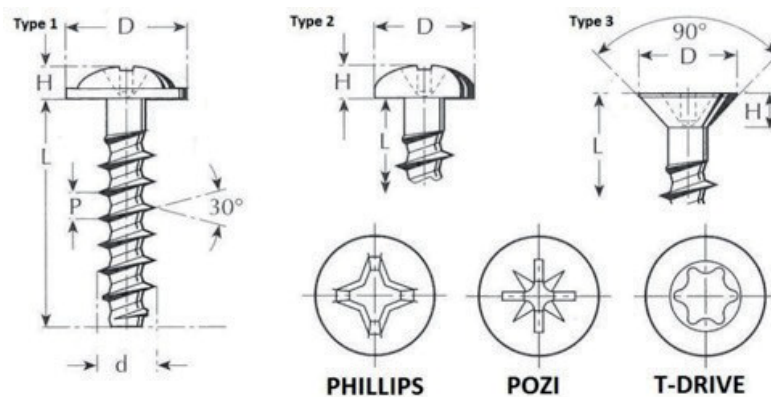
d	H	P	D Phillips	D Pozi	D T-Drive
2.2	1.50	0.98	3.90 (H1)	3.90 (Z1)	4.00 (T6)
2.5	1.70	1.12	4.40 (H1)	4.40 (Z1)	4.20 (T7)
3	2.00	1.34	5.30 (H1)	5.30 (Z1)	5.60 (T10)
3.5	2.50	1.57	6.10 (H2)	6.10 (Z2)	6.90 (T10)
4	2.70	1.79	7.00 (H2)	7.00 (Z2)	7.50 (T20)
5	3.40	2.24	8.80 (H2)	8.80 (Z2)	8.20 (T20)
6	4.00	2.69	10.50 (H3)	10.50 (Z3)	10.80 (T25)

SERIES IPT – Countersunk head screws

d	H	P	D Phillips	D Pozi	D T-Drive
2.2	1.30	0.98	3.80 (H1)	3.80 (Z1)	3.80 (T6)
2.5	1.75	1.12	4.70 (H1)	4.70 (Z1)	4.70 (T8)
3	2.05	1.34	5.50 (H1)	5.50 (Z1)	5.50 (T8)
3.5	2.80	1.57	7.30 (H2)	7.30 (Z2)	7.30 (T15)
4	3.25	1.79	8.40 (H2)	8.40 (Z2)	8.40 (T20)
5	3.40	2.24	9.30 (H2)	9.30 ((Z2)	9.30 (T20)
6	3.80	2.69	11.30 (H2)	11.30 (Z2)	11.30 (T30)

STANDARD LENGTHS

d	L Length +/- 0.25											
2.2	5	6	8	10	12							
2.5	5	6	8	10	12	14	16	18				
3		6	8	10	12	14	16	18	20	25	30	
3.5			8	10	12	14	16	18	20	25	30	
4			8	10	12	14	16	18	20	25	30	
5				10	12	14	16	18	20	25	30	35
6					12	14	16	18	20	25	30	35



MATERIALS AND FINISH	
• Steel zinc clear passivation	• Stainless
• Steel zinc black passivation	• Other materials and finishes on request



MANUAL HEAT STAKING HS1000

APPLICATION

The HS1000 was designed to install the entire range of heat-set inserts that we supply. This machine can be used for prototyping and small series production.



HS1000 MANUAL HEAT STAKING

PRESENTATION

The key to HS1000 reliability resides in its ability to maintain a temperature between 50° and 500°C under every usage condition. The big clearance height allows the installation of inserts from M1.6 to M8 into various applications in an accurate and repetitive manner. The HS1000 also offers the best compromise to speed the deployment of your projects or developments.

TECHNICAL SPECIFICATIONS

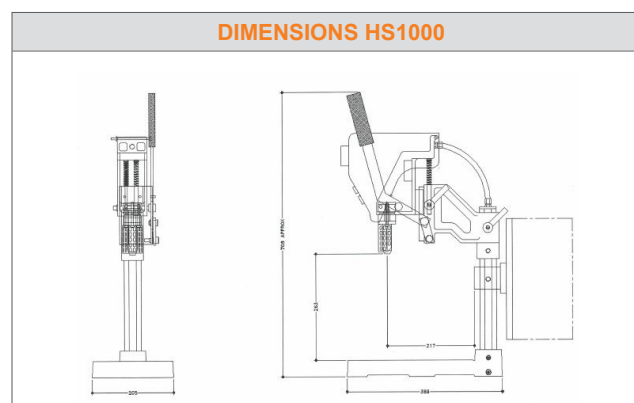
- Adjustable temperature from 50°C to 500°C with a LED display
- Made from solid cast parts with a total weight of 16Kg for stability
- Includes a stop for adjusting the insert installation depth
- Precision linear guide for lowering the head
- Heated 400W head with thermocouple for optimum temperature control
- Clearance below heating tip and foot: 270mm
- Max width: 215mm
- Overall dimensions: H 390mm, D 620mm, W 210mm

USE

- Small series production
- Prototyping and Pre-production tests
- Training
- Quality lab

MAINTENANCE

- The way this version of HS1000 was developed ensures easy maintenance.
- All spare parts are available on request.

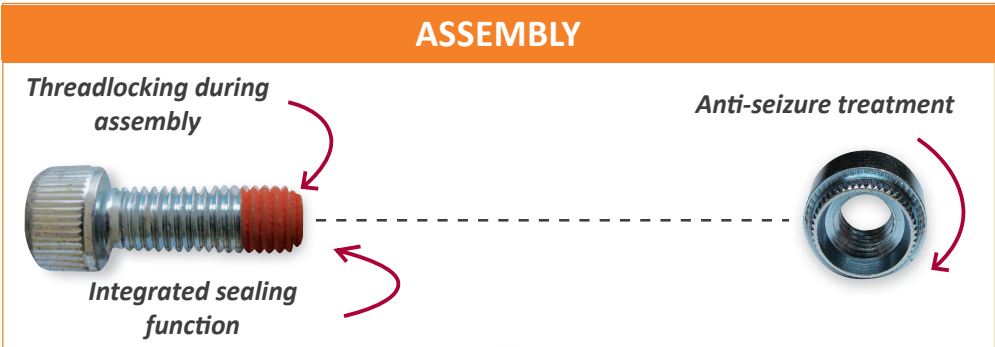
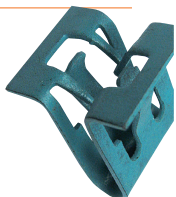




SPECIAL PARTS ACCORDING TO DRAWING

COMPREHENSIVE, INNOVATIVE SOLUTIONS

From specific parts to complete assemblies (screw + threaded part + integrated functions), Inserco Fasteners provides innovative and economical solutions. Our assembly expertise in many areas (screws, inserts, clips, pre-coating treatment, etc.) guarantees the implementation of comprehensive solutions at the best price.

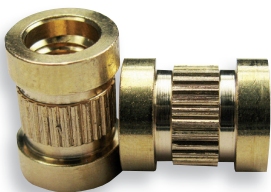
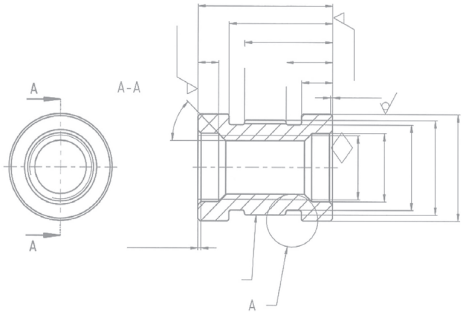


DEVELOPMENT OF SPECIAL PARTS

Inserco Fasteners can develop your assemblies, from specification to the delivery of complete systems.

Specifications	R&D	Sourcing	Technical Approval	Quality Documents	Logistics
Functional analysis	Drawing	Factory selection	Prototypes	Monitoring plan	Stock
Conform to Standards	Specifications	Capacity validation	Testing	PPAP AMDEC	Deliveries Packaging

We have been developing technical fasteners with the same partner factories in Europe and Asia for over 10 years. Both, high flexibility and reactivity allows us to support your DO with economic and longlasting solutions.





INSERCO

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E-mail: contact@inserco.eu



GROUP SPECIALIZED IN GLOBAL ASSEMBLY SOLUTIONS

Soprima, Inserco, Prelok and Foubert are joining together to form the LINKSY group.
The group's offer is organized around assembly solutions thanks to the know-how of each company :

- Inserco & Foubert for fasteners and parts on drawing.
- Soprima & Prelok for pre-coating.

Für weitere Informationen, www.linksy.eu

LINKSY

LINKING SYSTEMS

 **INSERCO**
FASTENERS

 **FOUBERT**
VISSERIE

 **PRELOK**
COATING

SOPRIMA
INDUSTRIE