PSM International
GLOBAL FASTENING SOLUTIONS

P-TPS SELF CLINCHING PINS

The **P-TPS SELF CLINCHING PIN** is a plain stainless steel unthreaded fastener. It incorporates a plain platform under the head, which when embedded in the sheet, displaces material into the clinch ring securing the fastener firmly in place.

They are used for location, pivot and alignment applications.

ADV ANT AGE S

- EASY TO ASSEMBLE WITH ANY SQUEEZE PRESS
- HIGH RETENTION
- NO DAMAGE TO DECORATIVE FINISHES ON PANELS
- VISUAL PROOF OF SECURITY
- ALWAYS PERPENDICULAR TO PANEL
- HEAD INSTALLS FLUSH WITH SURFACE OF SHEET

DESIGN GUIDE

HOLE SIZE

Holes may be punched or drilled and must be held to a tolerance of (-0.00 +0.08mm (.000"+.003")
Therefore punched holes are recommended

MAXIMUM SHEET HARDNESS

Rb70 for Stainless Steel Studs (P-TPS)

INSTALLATION

Apply squeezing pressure sufficient only to embed the head of the stud flush with surface of the sheet. Avoid excessive pressures.
Installation forces vary with panel material and size of stud head.
See methods of assembly for suggested tooling for applying these forces.

TOOLING NOTE:

Studs are installed using a flat top punch and flat bottom anvil with a clearance hole to accept the plain stud.
Where the sheet material is thin, a special thin sheet bottom anvil is required which includes a countersink at the top to create space for clinch ring and displaced sheet material.
See METHODS OF ASSEMBLY page for details.

PSM International
GLOBAL FASTENING SOLUTIONS

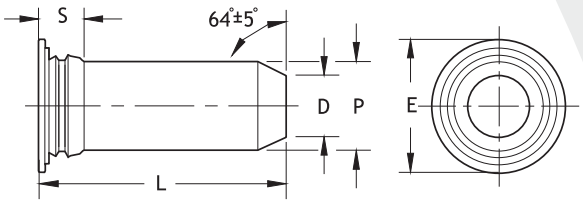
P-TPS SELF CLINCHING PINS

TECHNICAL DATA

P-TPS (METRIC)

MATERIAL CODE

P-TPS - Stainless Steel



METRIC GENERAL DIMENSIONS

All dimensions in millimetres

Pin Diameter P +/- 0.05	Pin Diameter Code	Min Sheet Thickness	Hole Size in Sheet +0.08 -0.00	D +/- 0.15	S Max	Head Diameter E +/- 0.4	Minimum distance centre line hole to sheet edge
3	3mm	1.0	3.5	2.05	2.29	5.2	6.4
4	4mm	1.0	4.5	2.82	2.29	6.12	7.1
5	5mm	1.0	5.5	3.53	2.29	7.19	7.6
6	6mm	1.0	6.5	4.24	2.29	8.13	7.9

METRIC DIAMETER & LENGTH DATA

PIN DIAMETER CODE	Length Code "L" +/- 0.4 (Length Code in millimeters)				
3mm	8	10	12	16	NA
4mm	8	10	12	16	NA
5mm	NA	10	12	16	20
6mm	NA	NA	12	16	20

HOW TO SPECIFY

P-TPS

Product Code	P-TPS-4mm-10
Pin Diameter Code	P-TPS-4mm-10
Length Code (mm)	P-TPS-4mm-10

UNI-BIS Sp. z o.o.
Dystrybutor
ul. Osiedle Leśne 1a
84-300 Lębork, Polska
tel/fax: +48 59 8631417
e-mail: biuro@uni-bis.com
www.uni-bis.com

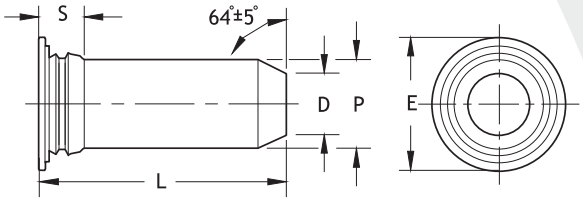
UNI-BIS industry solutions

PSM International
GLOBAL FASTENING SOLUTIONS

P-TPS SELF CLINCHING PINS

TECHNICAL DATA

P-TPS (UNIFIED)



MATERIAL CODE

P-TPS - Stainless Steel

UNIFIED GENERAL DIMENSIONS

All dimensions in inches

PIN DIAMETER P +/- .002	PIN DIAMETER CODE	Min Sheet Thickness	Hole Size in Sheet +.003 -.000	D +/-.006	S Max	Head Diameter E +/- 0.015	Minimum distance centre line hole to sheet edge
.125	125	.040	.144	.090	.090	.205	.250
.187	187	.040	.205	.132	.090	.270	.280
.250	250	.040	.272	.177	.090	.335	.310

UNIFIED DIAMETER & LENGTH DATA

PIN DIAMETER CODE	Length Code "L" +/- .015 in 1/16th of an inch				
	0.375"	0.500"	0.625"	0.750"	1.00"
125	6	8	10	12	NA
187	6	8	10	12	16
250	NA	8	10	12	16

HOW TO SPECIFY

P-TPS

Product Code	P-TPS-125-10
Pin Diameter Code	P-TPS-125-10
Length Code (1/16")	P-TPS-125-10

UNI-BIS Sp. z o.o.
Dystrybutor
ul. Osiedle Leśne 1a
84-300 Lębork, Polska
tel/fax: +48 59 8631417
e-mail: biuro@uni-bis.com
www.uni-bis.com

UNI-BIS industry solutions

PSM International
GLOBAL FASTENING SOLUTIONS

P-TPS SELF CLINCHING PINS

SELF CLINCHING PLAIN PINS are easy to install because no special tooling is necessary. However, it is very important to note that they must always be installed by a squeeze action press rather than a hammer blow.

Punched holes are always recommended.

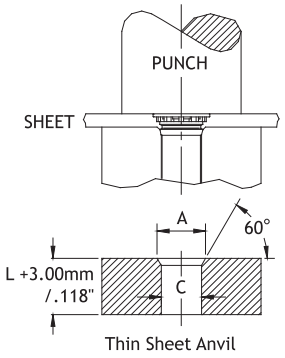
METHOD OF ASSEMBLY

1. Punch a hole in the metal sheet to the size recommended in our technical data table. De-burring of the hole is not recommended.

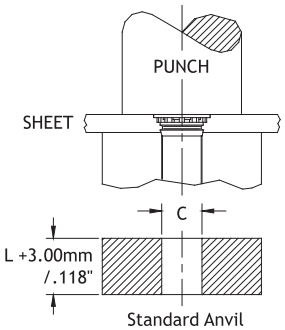
2. Insert the stud through the hole in sheet and into the appropriate anvil as detailed below.

3. Apply squeezing pressure sufficient to install the head flush with top face of sheet.

ASSEMBLY DETAIL



Thin Sheet Anvil



Standard Anvil

Pin Dia	Anvil	
Code	A	C
Metric	mm	mm
3mm	3.83 - 3.93	3.06 - 3.16
4mm	4.83 - 4.93	4.06 - 4.16
5mm	5.84 - 5.94	5.08 - 5.18
6mm	6.84 - 6.94	6.07 - 6.17

Pin Dia	Anvil	
Code	A	C
Unified	inch	inch
125	.158 - .162	.128 - .132
187	.218 - .222	.190 - .194
250	.283 - .287	.253 - .257

Thin Sheet Anvil Use

3mm & 4mm for sheet 1.0 - 1.7
5mm for sheet 1.0 - 1.8
6mm for sheet 1.0 - 1.9

125 for sheet .040”-.060”
187 for sheet .040”-.065”
250 for sheet .040”-.075”

UNI-BIS Sp. z o.o.
Dystrybutor
ul. Osiedle Leśne 1a
84-300 Lębork, Polska
tel/fax: +48 59 8631417
e-mail: biuro@uni-bis.com
www.uni-bis.com

UNI-BIS industry solutions

PSM International
GLOBAL FASTENING SOLUTIONS

P-TPS SELF CLINCHING PINS

PERFORMANCE DA TA

Metric performance data

PIN DIAMETER CODE	Test Sheet Material	Sheet Hardness Rb	Installation (KN)	Push Out (N)
3mm	Aluminum	22	16	700
	Steel	60	23	1100
4mm	Aluminum	22	23	1000
	Steel	60	28	1700
5mm	Aluminum	22	28	1300
	Steel	60	35	2000
6mm	Aluminum	22	31	1600
	Steel	60	40	2400

Unified performance data

PIN DIAMETER CODE	Test Sheet Material	Sheet Hardness Rb	Installation (lbs)	Push Out (lbs)
125	Aluminum	22	4600	160
	Steel	60	6300	240
187	Aluminum	22	6500	250
	Steel	60	8000	400
250	Aluminum	22	7400	300
	Steel	60	9200	540

Note: *The above values are averages when correct installation is performed. Variations in holes size, material and installation will affect these results. For specific advice we strongly recommend consultation with your PSM Technology Centre.*

UNI-BIS Sp. z o.o.
Dystrybutor
ul. Osiedle Leśne 1a
84-300 Lębork, Polska
tel/fax: +48 59 8631417
e-mail: biuro@uni-bis.com
www.uni-bis.com

UNI-BIS industry solutions