

# Clifa® press-in nut/stud ...

Clifa®-press-in nuts and Clifa® studs are threaded inserts made of steel with a specially formed shank or head.

Clifa®-press-in nuts and Clifa® studs can also be supplied in rust-proof material, and the nuts additionally in light alloy.

Clifa®-threaded inserts are pressed into moulded components with prepunched receiving holes. During this process, the material flows out of the area of the hole wall into the gear ring / the annular grooves of the Clifa® threaded inserts. A permanent connection is formed.

Several Clifa® inserts can be installed in a single work process. The fastening screw is always screwed in from the opposite side.

## Fields of application

Clifa® press-in elements serve as a screw point mainly on moulded parts of steel or light metal. They may also be used as spacers.

## Product features

- Clifa® is torque-proof, capable of withstanding high loads.
- It has minimal outside dimensions for space and weight-saving
- The thread is wear-resistant, clean and true to gauge
- Mounting in drilled, punched or lasered receiving holes
- Do not countersink drill holes in the component
- Can be used in surface-treated, galvanized or unweldable materials
- Clifa® is not pressed out during the screwing process.
- The component material must be softer than the Clifa® element



## Specifications

Works Standard sheets Clifa®  
Pages 11 to 20

High-performance installation equipment for short cycle times in largescale production on request.



# Clifa® installation ...

## Installation

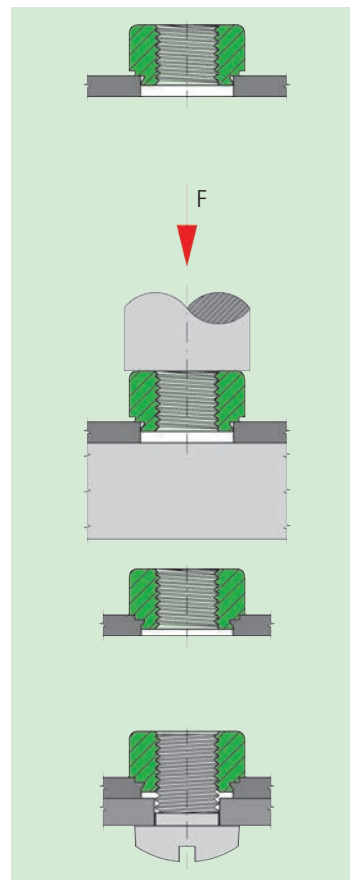
The receiving hole is punched, lasered or drilled **but not deburred or countersunk**.

With punched holes, Clifa® is pressed in from the punching burr side. The press-in process takes place on a plane parallel basis using a customary press with adjustable pressure level, until the surface of the shoulder in the Clifa® pressin nut comes to rest flat against the surface of the sheet metal.

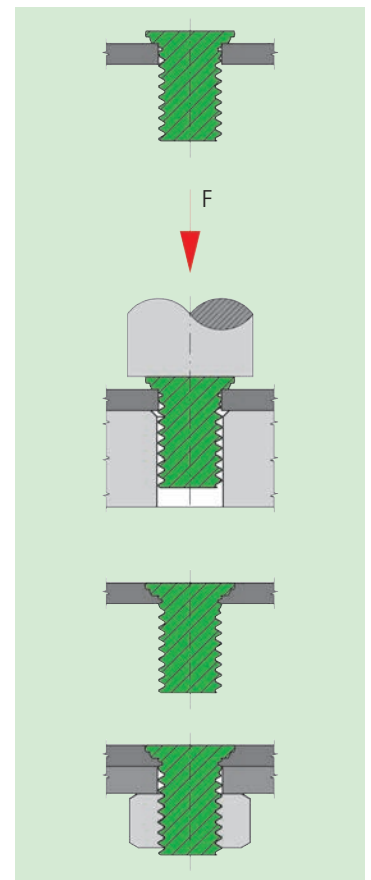
In the case of the Clifa®-SP/SPD/SPS stud, the head must be fully pressed in and come to rest flush with the surface of the sheet metal.

Pressure which is too high or applied only on one side as well as inclined support surfaces must be avoided wherever possible.

## Examples for mounting



Press-in nut Clifa®



Press-in stud Clifa®-SP

Fig. 8



## Special request

short length
standoff bushings for metals
standoff bushings for plastics
threaded press-in stud
Flush surface on the press-in side of the nut element ( /- thread closed on one side)
Grub screw for thin sheet thicknesses
Grub screw for high load values
threaded press-in stud for lower press-in force

## We recommend

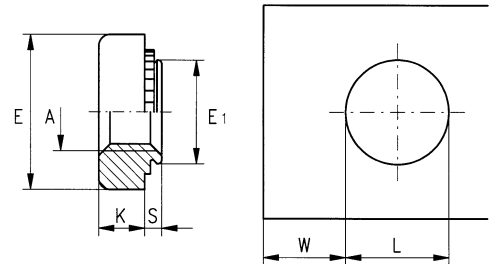
Clifa®-M	(Works Standard 500 0 to 503 0)
Clifa®-AM	(Works Standard 503 8 to 525 8)
Clifa®-AL	(Works Standard 503 6 to 525 6)
Clifa®-ABO/-ABG	(Works Standard 570 0 to 571 0)
Clifa®-SPD	(Works Standard 5.. 2)
Clifa®-SA	(Works Standard 515 4 to 534 4)
Clifa®-SAD	(Works Standard 515 9 to 534 9)

**Application**

Clifa®-press-in nuts are used to create wear-free screw connections capable of withstanding high loads in thin-walled moulded components from 0,8 mm in thickness made of

- steel,
- light alloy,
- NF metal (up to hardness HRB 80).

The nut is anchored in the component as a result of the press-in process.



Dimensions in mm

	Article no. of the first group of digits	for sheet metal thickness		Shank height max.	Article no. of the second and third group of digits	Internal thread	External diameter	Nut height	Collar	Hole diameter	Minimum spacing
		M	S								
M3 to M5	500 0.. .. .	0,8 to 1,0	0,7	... 000 020 ...	M 2	6,0	1,6	4,15	4,2	2,9	
	501 0.. .. .	1,1 to 1,4	1,0	... 000 025 ...	M 2,5	6,0	1,6	4,15	4,2	2,9	
	502 0.. .. .	1,5 to 2,3	1,3	... 000 030 ...	M 3	7,0	1,6	4,7	4,75	3,6	
	503 0.. .. .	from 2,4	2,2	... 000 040 ...	M 4	8,0	2,4	5,35	5,4	3,8	
M6 to M8	500 0.. .. .	1,0 to 1,3	1,0	... 000 050 ...	M 5	9,0	2,4	6,3	6,35	3,8	
	501 0.. .. .	1,4 to 2,3	1,35	... 000 060 ...	M 6	11,0	4,4	8,7	8,75	4,6	
	502 0.. .. .	2,4 to 3,2	2,2	... 000 080 ...	M 8	12,5	6,0	10,45	10,5	4,8	
	503 0.. .. .	from 3,3	3,0	... 000 100 ...	M 10	15,0	6,7	12,6	12,7	4,8	
M10	501 0.. .. .	2,4 to 3,2	2,2								
	502 0.. .. .	3,3 to 6,3	3,0								
	503 0.. .. .	from 6,4	6,0								

**Example for finding the article number**

Press-in nut Clifa®-M with internal thread M3 made of hardened, zinc plated and blue passivated steel for sheet metal thickness 1,8 mm: Clifa®-M 502 000 030.110

**Materials**

- Steel hardened, zinc plated, blue passivated \* Article no. (fourth group of digits) ... 110
- Steel hardened, zinc-nickel plated, transparent passivated \* Article no. (fourth group of digits) ... 143
- Stainless steel 1.4305 Article no. (fourth group of digits) ... 500
- Light alloy Article no. (fourth group of digits) ... 700

**Other finishes or special shapes on request; standoff bushings see page 14.**

\* Also available as a cold-forming part (steel, tempered FK10).

**Tolerances**

ISO 2768-m

**Thread**

Internal thread A: as per ISO 6H

**Press-in force** as a guideline value for selection of the press.

Clifa®-M, Clifa®-AM, Clifa®-P	For shaped parts made of:
	Steel
M 2 / M 2,5	5 to 15 kN
M 3	5 to 17 kN
M 4	7 to 20 kN
M 5	7 to 25 kN
M 6	15 to 37 kN
M 8	17 to 40 kN
M 10	20 to 50 kN

**Animation**



The required press-in force must be determined by trial and error. For different material qualities and surfaces, higher press-in force may be required. The firmest fit is achieved if the recommended hole diameters and tolerances are precisely adhered to.