Installation materials

Thorsman

Cabling and fixing for demanding professionals





Get it right, right away



Make a green choice

Thorsman = Schneider Electric





Now it becomes easier to find what you want in the shop shelves. Whether you look for boxes, mini-trunking, screws, plugs or clips, all you have to do is keep a look-out for the green colour to get top quality. The products used to be sold under the Thorsman brand. Now everything is available in the green packing of Schneider Electric.

But green is not only a colour to us in Schneider Electric. It is also a matter of responsibility. Many of our products are therefore also green while considering people and environment. Our production is both resource-effective and halogen-free, read more about this on pages 6-7.

Moreover, our whole offer, from the smallest screw to fire classified boxes, is in every detail developed to make your job easy. You will get the same nice result, just as quickly, every time. In short: Stick to the green and you needn't redo, get it right, right away!

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The right thing yesterday and tomorrow

The company Thorsman has become integrated with Schneider Electric. And you may know of Thorsman, but what is Schneider Electric? It is the global energy specialist with around 100 000 employees in more than 100 countries and enormous resources. We go in for inventing or further developing the best products in the world, having the same aim as Thorsman: To facilitate your everyday life.

The right thing for the future

We concentrate much time and effort in studying what happens out there in your everyday life. This, in turn, results in innovations that simplify and improve modern installations. Like for instance, we have taken all alarming reports about carcinogenic and dangerous halogens quite seriously. So all our products are now halogen-free.

Get it right, right away!

Having the right products makes your installations correct at the first go. If your reality should change, our products must also keep up with this development. So, among the product news of the year you will for instance find a new concrete screw that allows you to work without wall plugs. The smart cable fixing Cable Wing that keeps your cables in order without reducing the flexibility and the through bolt TEX with high quality for the professional installer. As said before, with the right product you will get the right result, so make the right choice directly!

New!

Grepi

Grepi super plug with acid-proof screw for



The new green Thorsman

The whole Thorsman range will be transferred to green Schneider Electric packages during the course of the year.

New!

Push-in terminals

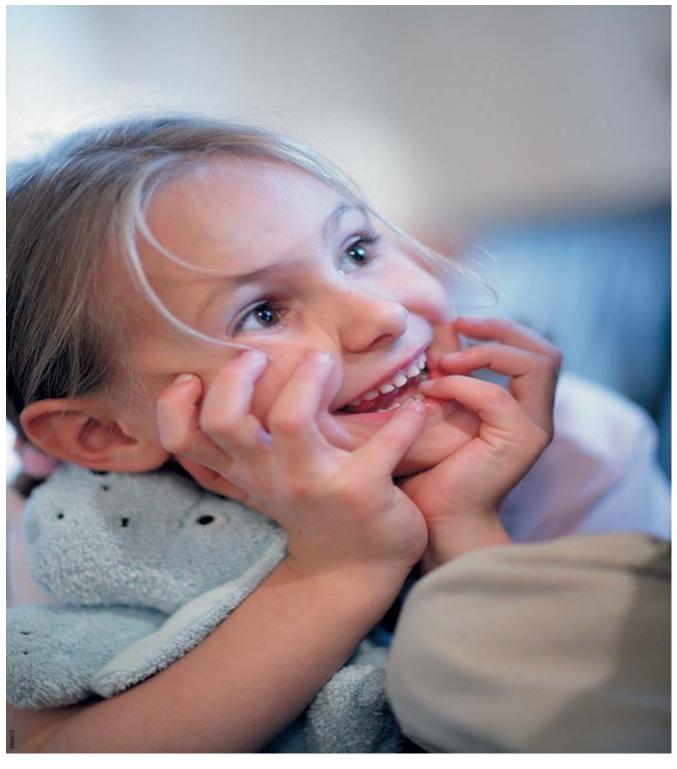
For tool-less connection, 3 or 5 pole. Can take up to 2.5 mm² per pole.

Many want to be halogen-free

Thorsman fixing is!

Why all this sudden talk about halogens? What are they exactly? And why did Schneider Electric as early as in 2004 stop using flame retardants containing halogens?

We would like to tell you more about this. Read more on the next page!



What are halogens?

Halogens are formed when certain elements are being mixed. They are fluorine, chlorine, bromine and iodine. One by one, in small quantities and in their natural spots, these salts and minerals do no harm. On the contrary, they are essential for various chemical processes in the earth crust and in the oceans. But ever since halogens came into use as flame retardants in electrical products, their injurious effects have become ovious. Much like lead, halogens are absorbed and stored by all living organisms, and they are decomposed just as slowly and are extremely toxic.

Why is it dangerous?

Experiments on animals show that bromated flame retardants may have an effect on sex hormones and thyroxine. As a result, metabolic disturbance, learning difficulties, deteriorated memory functions and injuries to the liver, the skin and the central nervous system may arise. Before 1960 halogens were not in use, and studies have shown that people had no PBDE (halogens) in their blood at that time. But today the PBDE content is doubled every 5 years in both human beings and wild animals.

For us 100% halogen-free material applies!

We take you, your health and our environment just as seriously as we do the products that we produce and sell. Therefore, Schneider Electric decided as early as in 2004 to stop using halogen-containing flame retardants with immediate effect. Other companies have chosen to phase out their use.





Favourites in new packages in several places

Don't feel troubled if you won't recognize our packages on the shelves. Your old favourites are still in the range, but in new package designs. The reason for the change is that many selling shops have complained about broken boxes and packages. To avoid this problem, the new design will clearly show what is inside each box. And what's more,

additional selling shops will increase availability. Thus, in all imaginable ways it will be easier for you to get it right, right away.

Select Thorsman news

We constantly make supplementary additions to our range of products that facilitate today's installations. So, here are three innovations that will most certainly delight you! First, the smart cable fixing Cable Wing, to be used for flexible installations where you want to keep extra cable lengths in order. The next new products is Grepi, a plug for light concrete, being a frequent material today. And last but not least, we have produced a new and very smart concrete screw for the same reason.





The functioning of Cable Wing

Just screw the "wing" to the ceiling or to a piece of furniture and fix or wind the cable around it, until you need the extra length.







Through bolt Thorsman TEX

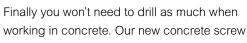
High quality through bolts for the professional installer. Documented quality SP/SITAC.



Grepi, plug for light concrete

Unlike an ordinary plug, Grepi gets a firm hold in light concrete without it crumbling around the drill hole when the screw is tightened home.

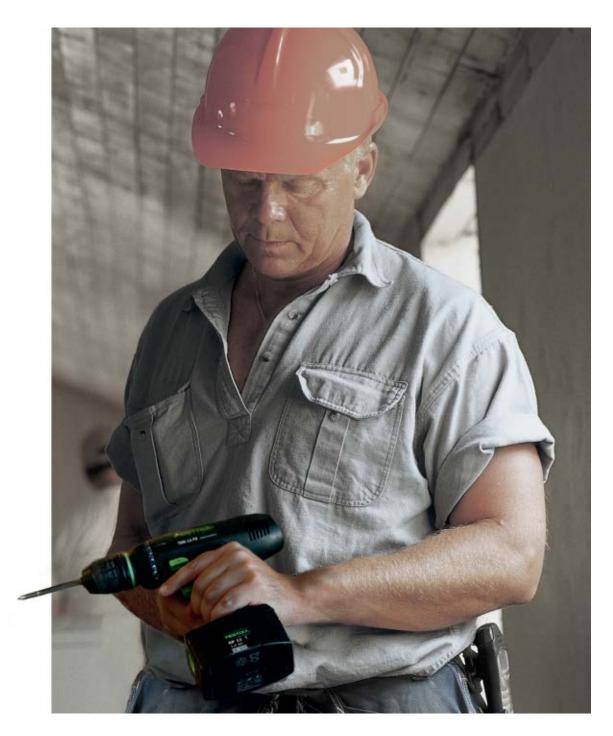




Concrete screw, for "plug-free" jobs!

only requires a hole and no plug.





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Thorsman



In 1957 a man named Oswald Thorsman gets an idea of a better fixing of lamps and the like. He moulds the first sample of the now well-known plastic plug in his own kitchen oven. This innovation results in the foundation of the company Thorsman, and soon also junction boxes, trunking and everything else an electrician could need are in the range. The Thorsman company has today become integrated in Schneider Electric but as a homage to the innovation capacity and the quality, the fixing materials still bear Oswald's family name.

General contents

Thorsman Installation materials

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Fixing guide



¹⁾ Together with screws and/or plugs etc. = Suitable ²⁾ Together with plug = Not suitable

3) Together with clip plug TCP

⁴⁾ Not natural stone

⁵⁾ Together with TPS nail plug

					.0				
Application	Product	Concrete, Stonerock	Low density materials	Solid bricks and blocks	Hollow bricks and blocks	Plasterboard	Wooden board	Sheet metal	W ₀₀₀
Mini trunking	Wall plug TP	1)	1)	1)	_1)	_1)	1)		
		_ ′	,	,	,	,	,	_	_
	Nailplug TPS	•	•	•	•	•	•		
	Installation screw TFT	•	2)	•	• ²⁾	•	•		•
	Installation screw TSC	e ²⁾	e ²⁾	e ²⁾	2)	2)	•	•	•
Installation trunking and Cable distribution trunking	Wall plug TP	•1)	•1)	• 1)	1)	• 1)	1)		
	Nailplug TPS	•	•	•	•	•	•		
and 111	Cavity fixing TMX					•	•	•	
0 0	Installation screw TSC	• 2)	e 2)	e ²⁾	e ²⁾	• ²⁾	•	•	•
3434-3434	Concrete screw	•4)		•					
Skirting trunking	Wall plug TP	•1)	• 1)	• 1)	1)	• 1)	• 1)		
	Nailplug TPS	•	•	•	•	•	•		
	Cavity fixing TPD					•			
	Cavity fixing THW	•				•			
	Installation screw TFT	•	2)	•	2)	•	•		•
	Installation screw TSC	2)	2)	2)	2)	2)	•	•	•
	Concrete screw	•4)		•					
Outlets and switches (surface mounted)	Wall plug TP	•1)	•1)	• 1)	• 1)	•1)	1)		
	Nailplug TPS	•	•	•	•	•	•		
	Cavity fixing TPD	•				•			
	Cavity fixing THW					•			
	Installation screw TFT	•	2)	•	2)	•	•		•
	Wood screw TGS	2)	2)	2)	2)	2)	•		•
= Suitable	1) Together with screws and	d/or pluas eta	C.	4) Not natu	ural stone				

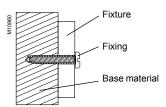
= Suitable = Not suitable

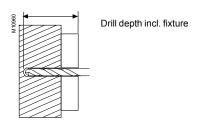
¹⁾ Together with screws and/or plugs etc.
2) Together with plug
3) Together with clip plug TCP

⁴⁾ Not natural stone ⁵⁾ Together with TPS nail plug

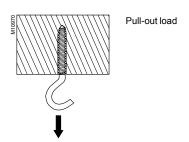
Technical information

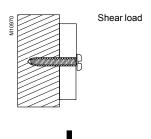
Terminology

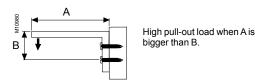


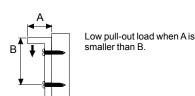


Types of load









Metric units

Metric Units have been used throughout this handbook and all fixings are made to Metric Standard.

Strictly speaking, the recommended loads for the fixings should be listed in Newtons or Kilo Newtons (N or kN), as they are forces. But fixing calculations generally start from the weight of the fixture. For the sake of simplicity, we have chosen to give all loads in N or kN and suggest that the appropriate conversion of 1 kN = approximately 100 kg should be used.

Recommended load

Methods of testing fixings vary between different manufacturers, which makes it difficult to compare test results.

Our tests are performed together with internationally recognized testing institutes.

The test results presented in this catalogue include a safety factor. This implies that all recommended loads stated by us can safely be used.

Calculate the load

If you only have pull-out load or shear load you can easily determine the load per fixing point. But make allowance for any load which might be added later and for any uneven distribution of the load over the fixing points.

Often pull-out load appears together with shear load. Wall-mounted shelves are one example. The pull-out load increases with the distance from the wall. In most cases it is sufficient to add an extra margin, but be aware of the substantial pull-out load created in bracket fixings with high loads placed far out from the wall.

Choose the fixing to suit the base material

Study the load recommendations given for the base material which best agrees with your particular one.

Concrete

In-situ concrete normally has a strength of 25 N/mm² (called C25) or better. Precast structural components have considerably higher strength (C40–60).

Stone and rock

The same recommendations as for concrete can be used, but check for cracks.

Hollow bricks and building blocks

Hollow building blocks are normally of a low compressive strength (5 N/mm² or higher).

Due to the relatively low strength of these building materials, there is a limit for the size of the expansion fixings that can be used without cracking the brick or block. That is why load recommendations for some fixings are only given for the smaller sizes.

Solid bricks and blocks

Fixing in brick or block walls is one of the most frequent fixing situations. The strength of the wall depends on several factors that have to be considered.

- · Individual strength of the blocks or bricks
- · Strength of mortar joints
- Workmanship in brick or block laying
- Support of the wall

Fixing of light fittings to a brick or block wall presents few problems. Try to avoid mortar joints.

With increasing weight and larger fixtures you should avoid mortar joints and make sure that the bricks or blocks are not cracking. As a general rule a larger quantity of smaller fixings is safer than some few larger fixings. Fixing of heavy fixtures to a brick or block wall is not recommended unless the wall has been designed for that purpose.

Technical information

Board materials

The cavity fixings are specialized fixings for plasterboard/gypsum board, plywood, particle board, chipboard, sheet metal and other board types where only one side of the material is accessible. Board materials vary in quality between countries and it is therefore difficult to compare test results. All cavity fixings are tested in well-defined Scandinavian plasterboard (13 and 2x13 mm) as being the most common board material. We recommend only loads up to 80 kg to be fixed directly in board materials. Heavier loads must be fixed in the structural elements.

Through fixing

Nail plugs and Anchors are examples of through fixings. They can be inserted through the hole in the fixture and into the base material while the fixture is still in position.

Minimum edge distance and internal spacing

The distance between the fixing points and the nearest edge of the base material should exceed 5–10 times the hole diameter. The internal spacing between the fixing points should exceed 10–20 times the hole diameter. These are general recommendations, the specific information is given in the technical data for the fixing.

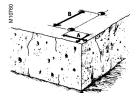
Excessive heat

Fixings made of plastic material are not suitable in environments with temperatures above 60 °C (140 °F). For exact figures, see the technical data for each specific fixing element.

Fireproof fixings

Always consider the consequences of a fire. Do not use fixings made of plastic for fixtures in ceilings and on walls near emergency exits.

15



diameter. (Example: Hole diameter = 10 mm. A = 50 to 100 mm) B = 10 to 20 times the hole diameter.

A = 5 to 10 times the hole

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Technical information



Corrosion

All steel fixings must have a protection against corrosion in order to stay safe over a long time.

Electroplated steel (Fzb) is suitable for indoor and protected outdoor use, called C2 in our catalogue.

Hot dip galvanized steel (Fzv) is suitable for outdoor applications, called C3 or C4 in our catalogue, depending on the thickness of the zinc layer. Acid proof stainless steel is suitable for aggressive indoor and outdoor environments, called C5M in our catalogue.

Atmospheric corrosivity categories and examples of typical environments

Corrosivity category	· · · · · · · · · · · · · · · · · · ·			
	Outdoors	Indoors		
C1 very low	_	Heated buildings with clean atmospheres, e.g. offices, shops, schools, hotels.		
C2 low	Atmospheres with low level of pollution. Mostly rural areas.	Unheated buildings where condensation may occur, e.g. depots, sports halls, multi-storey car parks.		
C3 medium	Urban and industrial atmospheres, moderate sulphur dioxide pollution. Coastal areas with low salinity.	Production rooms with high humidity and some air pollution, e.g. food-processing plants, laundries, breweries, dairies.		
C4 high	Industrial areas and coastal areas with moderate salinity.	Chemical plants, swimming-baths, coastal ship- and boat yards, car-washs.		
C5-I very high (industrial)	Industrial areas with high humidity and aggressive atmosphere.	Buildings in areas with almost permanent condensation and with high pollution.		
C5-M very high (marine)	Coastal and offshore areas with high salinity.	Buildings in areas with almost permanent condensation and with high pollution.		

Unit conversions

Weight	
kg	lb
6	13
7	15
8	18
9	20
10	22
12	26
14	31
16	35
18	40
20	44
25	55
30	66
35	77
40	88
45	99
50	110
60	132
70	154
80	176
90	198
100	220
110	243
120	265
130	287
140	306
150	330
200	440
250	550
300	660
350	770
400	880
450	990
500	1100
600	1325
700	1545
800	1765
900	1985
1000	2205
1100	2425
1200	2645
	1

Drill diame	Drill diameters				
Approxima	te convesion				
mm	inch				
4	5/32				
5	3/16				
5.5	7/32				
6	1/4				
8	5/16				
10	3/8				
11	7/16				
12	15/32				
13	1/2				
14	9/16				
15	19/32				
16	5/8				
20	3/4				
22	7/8				
25	1				
28	1 1/8				
32	1 1/4				
35	1 3/4				
38	1 1/2				

Torque						
Nm	lb&inch					
8.5	74					
10	85					
20	175					
25	215					
30	260					
40	350					
50	430					
65	560					
150	1325					
250	2200					

Length mm to inch: mm x 0.0349 inch to mm: inch x 25.40

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Wall plugs Thorsman TP™







Description

TP is a wall plug of polythene for light-weight installations in most building materials. The plug is especially suitable for installations where shear loads are dominating. For mounting where pull-out loads dominate, or by high temperatures, metal fixings are recommended.

TP has a smooth surface to get high friction against the wall of the hole. Four slits spread the radial expansion in all dimensions.

The wall plug has a collar and wings to prevent the plug from rotating and disappearing into the hole.

TP has a unique Colour Code™ to identify each plug size. This Colour Code has been registered as a trade mark in all EU countries and in Norway. The Colour Code is printed on the cartons.

Material data

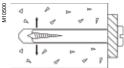
Material	HDPE (polyethylene HD).
Colours	White, yellow, red, brown, blue, green. grey, orange.
Operative data	
Temperature range	-50°C to +80°C



Drill the hole in accordance with the table and install the plug. In plasterboard - make a hole using a drill or an awl. The hole should be a press fit for the plug. Use TP1 yellow for a single sheet and TP2 red for double sheets.



Fix with a screw long enough to penetrate through the whole length of the plug and fixture.



The installation is ready and the screw has expanded the plug in a correct way.

Techni	ical dat	a						
	Drill diameter				Practical loading cap. with biggest screw Shear load/Pull-out load ¹⁾			
TP type	Concrete	Low-density ²⁾ concrete	Min. drill depth	Wood screw	Concrete C25	Solid brick	Low-density ²⁾ concrete 500 and expanded clay	
	mm	mm	mm	Ø mm	kN³)	kN³)	kN ³⁾	
TP0	5.5	_	20	3.5–5	0.4/0.15	0.3/0.15	_	
TP1	5.5	5	25	3.5-5	0.5/0.25	0.4/0,2	0.1/0.04	
TP2	5.5	5	40	3.5-5	0.6/0.4	0.5/0.3	0.15/0.04	
TP2B	8	7	45	5–6	1.2/0.8	0.7/0.4	0.25/0.1	
TP3	10	9	50	5–7	1.4/1.0	_	0.3/0.15	
TP4	12	10	65	8–10	3.0/2.0	_	0.5/0.25	
TP 14	14	_	78	10-12	4.0/2.5	_	_	
TP 16	16	_	88	12	5.0/3.0	_	_	
TP 6x30	6	6	35	3.5–5	0.6/0.4	0.5/0.3	0.2/0.08	

¹) Safety factor 4.5 for shear and 6 for pull-out load.
 ²) Low-density concrete might also be called lightweight or aerated concrete.
 ³) 1 kN ≈ 100 kg.

Wall plugs Thorsman TP™

	Туре	Colour	Dimensions Ø/L (mm)	Qty per package	EAN code	Ref. No.
	Double-expand loads dominate plasterboard. Material: Polye	. Suitable for concrete, si	olug, colour coded for easy tone, low-density concrete	size identification.	To be used in applicatio ollow bricks and blocks,	ns where shear solid bricks and
	Plugs on spru	e of ten				
****	TP0	White	5.5/16.5	100	7315881000005	1000009
****	TP1	Yellow	5.5/22	100	7315881001002	1001007
****	TP2	Red	5.5/35	100	7315881003006	1003003
****	TP2B	Brown	8/40	100	7315881005000	1005008
****	TP3	Blue	10/45	10	3606480621539	IMT48002
****	TP14	Grey	14/70	10	3606480335037	IMT38063
	TP16	Orange	16/80	10	3606480335044	IMT38064
	Single plugs					
	ТР0	White	5.5/16.5	500	7315881000012	1000017
11	TP1	Yellow	5.5/22	500 100	7315881001026 7315880100003	1001023 1001025
And the second	TP2	Red	5.5/35	250	7315881003013	1003011
	TP 6x30	Red	6/30	100 250	7315881003020 7315880100010	1003020 1003029
01	TP2B	Brown	8/40	100	7315881005017	1005016
	TP3	Blue	10/45	100	3606480619489	IMT48000
	TP4	Green	12/60	50	3606480619496	IMT48001

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Wall plugs Thorsman TP™

Ran	ge, bulk						
		Туре	Colour	Dimensions Ø/L (mm)	Qty per package	EAN code	Ref. No.
			. Suitable for concrete, so bulk package.	olug, colour coded for easy ttone, low-density concrete			
		Bulk/carton					
	1	TP0	White	5.5/16.5	20000	7315881000708	1000708
	13	TP1	Yellow	5.5/22	20000	7315881001705	1001700
	A CONTRACTOR OF THE PARTY OF TH	TP2	Red	5.5/35	14000	7315881003709	1003706
		Bulk/bag					
	11	TP1	Yellow	5.5/22	50000	7315881001804	1001809
	A CONTRACTOR OF THE PARTY OF TH	TP2	Red	5.5/35	20000	7315881003808	1003805
		TP 6x30	Red	6/30	20000	7315881003815	1003815
	11	TP2B	Brown	8/40	16000	7315881005802	1005800
	1	TP3	Blue	10/45	5000	7315881006809	1006808
		TP4	Green	12/60	2500	7315881007806	1007806

High performance plugs Thorsman Grepi TPH





Description

The TPH Grepi plug range includes high-performance wall plugs for demanding installations.

The nylon plug has a soft outer skin made of thermoplastic rubber. This outer skin acts as a shock absorber and also greatly improves the performance of the plugs in low-density concrete and softer brick materials.

The range consists of two different plug lengths, both with a diameter of Ø10 mm. The long plug with a length of 110 mm is suitable for through installation, whereas the short plug with a length of 67 mm is suitable for regular plug installation.

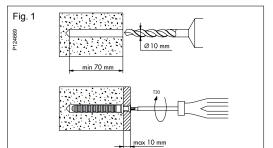
Both plugs are provided with a specially designed acid-proof C5M screw. 72 or 115 mm long. The short plug is also available without screw. All screws have a Torx T30 recess.

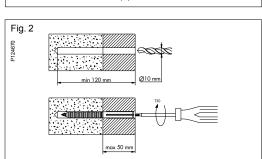
The plugs are suitable for concrete, stone, low-density concrete, expanded clay (Leca), hollow blocks, hollow bricks and solid bricks.

- High load values
- Easy to install
- Self-centering design of the screw
- Varying temperature range
- Shock-absorbing design
- Soft outer thermoplastic skin prevents rotation
- Acid proof C5M stainless steel screw with Torx T30 recess

Material data

Material	PA6 (Polyamide 6) with TPR (Thermoplastic rubber)
outer	skin
Temperature range	From -20 to +60°C.





Installation

We recommend the use of a hammer drill bit in concrete, but in low-density concrete a regular drill bit should be used. Clean the hole before inserting the plug. TPH Grepi plugs can be used both as a regular plug (see Fig. 1) and for through installation (see Fig. 2). The screw installs manually or with a cordless screw-driver using a T30 bit.

Fig. 1:

- Minimum drill depth 70 mm when using the short 72 mm screw and an object of maximum 10 mm thickness. Adjust the drill depth accordingly if the object is thinner than 10 mm.
- Minimum drill depth 70 mm when using the long 115 mm screw and an object of maximum 45 mm thickness. Adjust the drill depth accordingly if the object is thinner than 45 mm.

Fig. 2:

Through installation: The drill depth plus the thickness of the object must be minimum 120 mm.

	Technical data					Recommended load 1)				
	Type Plug Ø x plug length	Drill Ø	Min. drill depth	Min. drill depth	Max. thickness of fixture	Concrete (C25		ity ²⁾ concrete (500 I expanded clay	
	mm	mm	mm	mm	mm	Pull-out	Shear	Pull-out	Shear	
IMT39081	TPH-10x67WS	10	70		10	0.8	1.0	0.6	0.7	
IMT39082	TPH-10x67WS	10	70		10	0.8	1.0	0.6	0.7	
IMT39083	TPH-10x67WLS	10	70		45	0.8	0.3	0.6	0.3	
IMT39084	TPH-10x67	10	70		-	-	-	-	-	
IMT39085	TPH-10x110WS	10		120	50	0.8	0.3	0.6	0.3	
IMT39086	TPH-10x110WS	10		120	50	0.8	0.3	0.6	0.3	

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¹⁾ Safety factor for pull-out load 3 and shear load 2.5.
²⁾ Low-density concrete might also be called lightweight or aerated concrete.

High performance plugs Thorsman Grepi TPH

Ran	ige							
		Туре	Screw length (mm)	Colour	Dimensions Ø/length (mm)	Qty per package	EAN code	Ref. No.
		Plug with screw						
P117749		High-performance Material: PA/TPR.	plug with specia	Illy designed acid-	proof C5M screw. Suita	able for regular	plug installations.	
	- 1 TO 1 T	TPH-10x67WS	72	Green/black	Ø10/67	4	3606480302145	IMT39081
	1	TPH-10x67WS	72	Green/black	Ø10/67	20	3606480302152	IMT39082
		TPH-10x67WLS	115	Green/black	Ø10/67	20	3606480302169	IMT39083
P117750		High-performance Material: PA/TPR.	plug with specia	Ily designed acid-	proof C5M screw. Suita	able for through	-installations.	
	A	TPH-10x110WS	115	Green/black	Ø10/110	4	3606480302183	IMT39085
	Alexander of the second	TPH-10x110WS	115	Green/black	Ø10/110	20	3606480302190	IMT39086
		Plug without scre	w					
P 117748		High-performance Material: PA/TPR.	plug without scr	ew. Suitable for re	gular plug installations	5.		
	() 3 3 3 5 C	TPH-10x67	_	Green/black	Ø10/67	20	3606480302176	IMT39084

Nail plugs Thorsman TPS





Description

Thorsman TPS is a range of nail plugs for all types of through installation.

All types of through installation, such as electrical trunking, switches, battens and cable clamps.

Suitable for concrete, stone, low-density concrete, expanded clay, hollow blocks and bricks, solid bricks and plasterboard.

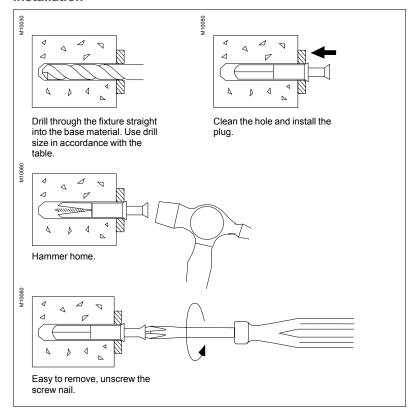
Benefits

- Removable hammer-in fixing
- Fast installation
- Powerful expansion high load values
- Complete range for electrical installations
- Through fixing

Material and operative data

Plug	PA (polyamide)
Screw nail	Steel, electroplated
Temperature range	From -40° to +80°C

Installation



25

Technical data (1 kN approx. 100 kg)											
Туре	Plug	Screw nail		Max. thickness	Recommende	d Ioad Shear/p	ull-out¹)				
Drill Ø/max. fixture thickness x plug length mm	Ø mm	Ø mm	including fixture mm	of fixture mm	Concrete C25 kN	Solid brick kN	Low-density ²⁾ concrete (500 grade) and expanded clay, kN				
TPS-4/5x25	4	2.5	30	5	0.15/0.05	0.15/0.05	_				
TPS-4/15x35	4	2.5	40	15	0.15/0.05	0.15/0.05	_				
TPS-5/5x35	5	3	42	5	0.3/0.1	0.3/0.1	<u> </u>				
TPS-5/20x50	5	3	57	20	0.3/0.1	0.3/0.1	<u> </u>				
TPS-6/5x35	6	3.5	42	5	0.4/0.2	0.4/0.2	0.1/0.07				
TPS-6/20x50	6	3.5	57	20	0.4/0.2	0.4/0.2	0.1/0.07				

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¹⁾ Safety factor 4.5 for shear and 6 for pull-out load. ²⁾ Low-density concrete might also be called lightweight or aerated concrete.

Nail plugs Thorsman TPS

TPS-4/15x35 Clear Ø7/55 100 7315881149353 1149350 TPS-5/5x35 Clear Ø10/60 100 7315881149605 1149608 TPS-5/20x50 Clear Ø10/75 100 7315881149704 1149707 TPS-6/5x35 Clear Ø10/60 100 7315881150007 1150002			Туре	Colour	Dimensions Ø/Length (mm)	Qty per package	EAN code	Ref. No.
TPS-4/15x35 Clear Ø7/55 100 7315881149353 1149350 TPS-5/5x35 Clear Ø10/60 100 7315881149605 1149608 TPS-5/20x50 Clear Ø10/75 100 7315881149704 1149707 TPS-6/5x35 Clear Ø10/60 100 7315881150007 1150002			frames. Suitable for coplasterboard.	ncrete, stone, low-den				
TPS-4/15x35 Clear Ø//55 100 /315881149353 1149350 TPS-5/5x35 Clear Ø10/60 100 7315881149605 1149608 TPS-5/20x50 Clear Ø10/75 100 7315881149704 1149707 TPS-6/5x35 Clear Ø10/60 100 7315881150007 1150002	3		TPS-4/5x25	Clear	Ø7/45	100	7315881149308	IMT114930
TPS-5/20x50 Clear Ø10/75 100 7315881149704 1149707 TPS-6/5x35 Clear Ø10/60 100 7315881150007 1150002		S-milions.	TPS-4/15x35	Clear	Ø7/55	100	7315881149353	1149350
TPS-6/5x35 Clear Ø10/60 100 7315881150007 1150002		0	TPS-5/5x35	Clear	Ø10/60	100	7315881149605	1149608
	704	B-	TPS-5/20x50	Clear	Ø10/75	100	7315881149704	1149707
TPS-6/20x50 Clear Ø10/75 100 7315880100027 1150051	P125	C - management)	TPS-6/5x35	Clear	Ø10/60	100	7315881150007	1150002
		0	TPS-6/20x50	Clear	Ø10/75	100	7315880100027	1150051

Clip plugs Thorsman TCP



Description

Thorsman TCP is a range of clip plugs for the installation of cable clips and nails.

Applications

Installations of TC clips, TKK/APK clamps and nails.

Suitable for concrete, stone, low-density concrete, expanded clay, solid bricks and plasterboard.

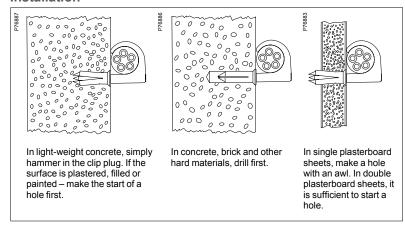
Benefits

• Permits nailing of clips and clamps in masonry materials

Material and operative data

Material	PS (polystyrene, impact-resistant)
Temperature range	From -40° to +70°C

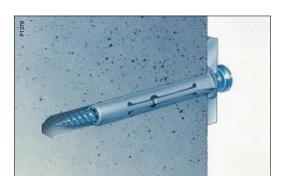
Installation



Range	•							
		Туре	Drill Ø	Colour	Dimensions Ø/Length (mm)	Qty per package	EAN code	Ref. No.
		and plasterbo		of cable clips and	I nails. Suitable for concre	ete, stone, low-de	ensity concrete, expanded	clay, solid bricks
P125428	1	TCP-0	5.5	White	7.5/18	100	7315881140008	1140003
P60845		TCP-1	5.5	Yellow	7.5/25	100	7315881141005	1141001

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Universal plugs Thorsman QUICKI™ TPN





Thorsman QUICKI TPN is a range of universal wall plugs with fully threaded screws for all types of building material.

Applications

TPN can be used in most situations where shear loads are dominating. Suitable for concrete, natural stone, low-density concrete 500 (not in porous low-density concrete 400-450), expanded clay, hollow blocks and bricks, solid bricks and plasterboard.

Benefits

- Universal fixing providing great expansion and secure fixing in all building materials
- Both fixing and screw included in the package
- Fully threaded screw even thin objects can be fixed
- · Two sizes cover all situations



Material and operative data

Material	Fixing: Modified PA (polyamide)
	Screw: Steel, hardened and bright galvanized
Temperature range	From -20° to +80°C

Range						
	Type	Colour	Dimensions Ø/Length (mm)	Qty per package	EAN code	Ref. No.
P77796		lug including fully threaded scre crete 500 (not in porous low-der				



Material: PA (polyamide) and steel.

TPN-6x35	Grey	6/35	25	7315881051007	1051007
TPN-8x50	Grey	8/50	25	7315881052004	1052004

Technical d	Technical data (1 kN approx. 100 kg)											
Туре	Screw size	Drill	Min. drill									
Ø x length	ØxL		depth	thickness of fixture	thickness	Concrete C25	Low-density ²⁾ con-crete 500 and	Plasterboard	Plasterboard 2x13=26 mm			
mm	mm	Ømm	mm	mm	mm	N	ex-panded clay, N	N	N			
TPN-6x35	4x50	6	50	16	9	500/100	200/60	180/60	260/80			
TPN-8x50	5x60	8	60	12	3	600/150	250/80	200/60	350/140			

¹⁾Safety factor 4.5 for shear and 6 for pull-out load. ²⁾Low-density concrete might also be called lightweight or aerated concrete.

Plugs

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Cable ties and bands

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Cable ties Thorsman Cintura™



Description

Cable ties are used to bundle up and fix cables, conduits and tubing.

There are two types of Thorsman Cintura cable ties available;

- 1. Made of clear polyamide, only for indoor use.
- 2. Made of UV-stabilized black polyamide, for outdoor use.

Benefits

- The cable ties are self-locking. They cannot be opened and re-sealed.
- The cable ties have smooth rounded edges for easier handling and safer installation.
- The bent rounded tip allows easier insertion through the head of the cable tie.
- · Documented quality.
- · Halogen-free.

Material & operative data

Material	PA (Polyamide) 6.6, halogen-free				
Colour	Clear				
Material	PA (Polyamide) 6.6 UV-stabilized, halogen-free				
Colour	Black				
Product standard	IEC 62275				
Melting point	250°C				
Hot wire test (NF C 20-455)	650°C / 30 s				
Flammability properties	Self-extinguishing acc. to UL 94 class V-2				
Temperature range	-40°C - +85°C				
Resistance to chemical ageroil products chlorinated	Good resistance to: Organic bases/acids solvents				
	Limited resistance to: Acids No resistance to: Phenol				

Cable ties Thorsman Cintura™

ge Cable ties	Туре	Colour	Dimensions	Qty per	EAN code	Internal	Ref. No.
	.,,,,,		w/l (mm)	package		ID-No.	
	Cable ties						
	Cable tie for safe and fast c irrespective of storage cond Material: PA 6.6.		bles, conduits and tubi	ng. Delivered in a	sealed packaging to	ensure perfor	mance,
	Cable tie width 2.5						
1	Max. clamping Ø 18 mm	Clear Black	2.5/100	1000	3606480199554 3606480199561	20062123 20062124	ENN469 ENN469
		Clear Black	2.5/100	100	7315882400026 7315882400033	10001136 10001137	2400 026 2400 033
1	Max. clamping Ø 30 mm	Clear Black	2.5/120	1000	3606480199578 3606480199585	20062125 20062126	ENN469 ENN469
	Max. clamping Ø 50 mm	Clear Black	2.5/200	1000	3606480199615 3606480199622	20062129 20062130	ENN469 ENN469
	Cable tie width 3.6						
	Max. clamping Ø 33 mm	Clear Black	3.6/140	1000	3606480199653 3606480199660	20062133 20062134	ENN469
	Max. clamping Ø 35 mm	Clear Black	3.6/150	100	7315882400064 7315882400071	10001138 10001139	2400 064 2400 071
	Max. clamping Ø 50 mm	Clear	3.6/200	1000	3606480199691	20062137	ENN469
		Clear Black	3.6/200	100	7315882400149 7315882400156	10001146 10001147	2400 149 2400 156
	Max. clamping Ø 76 mm	Clear Black	3.6/295	100	3606480199707 3606480199714	20062138 20062139	ENN469 ENN469
	Max. clamping Ø 102 mm	Clear	3.6/370	100	3606480199721	20062140	ENN469
	Cable tie width 4.6						
	Max. clamping Ø 50 mm	Clear Black	4.6/200	100	7315882400101 7315882400118	10001142 10001143	2400 101 2400 118
	Cable tie width 4.8	01	4.04400	4000	0000400400==0	00000440	
	Max. clamping Ø 43 mm	Clear Black	4.8/188	1000	3606480199752 3606480199769	20062143 20062144	ENN469 ENN469
	Max. clamping Ø 50 mm	Clear Black	4.8/200	1000	3606480199790 3606480199806	20062147 20062148	ENN469 ENN469
	Max. clamping Ø 60 mm	Clear Black	4.8/250	100	3606480199813 3606480199820	20062149 20062150	ENN469 ENN469
		Clear Black	4.8/250	100	7332418021135 7332418021142	20064089 20064090	2400 123 2400 124
	Max. clamping Ø 76 mm	Clear Black	4.8/300	100	3606480199851 3606480199868	20062153 20062154	ENN469 ENN469
		Clear Black	4.8/300	100	7315882400187 7315882400194	10001150 10001151	2400 18 2400 19
	Max. clamping Ø 102 mm	Clear Black	4.8/368	100	3606480199875 3606480199882	20062155 20062156	ENN469 ENN469
		Clear Black	4.8/370	100	7315882400248 7315882400255	10001152 10001153	2400 24 2400 25
	Cable tie width 7.6						
	Max. clamping Ø 76 mm	Black	7.6/297	100	3606480199943	20062162	ENN469
	Max. clamping Ø 102 mm	Clear Black	7.6/368	100	3606480199950 3606480199967	20062163 20062164	ENN469 ENN469
	Max. clamping Ø 105 mm	Clear Black	7.6/380	100	7315882400286 7315882400293	10001154 10001155	2400 286 2400 293
	Cable tie width 9.0						
	Max. clamping Ø 120 mm	Black	9/430	100	3606480199981	20062166	ENN469
	Max. clamping Ø 140 mm	Clear Black	9/530	100	3606480199998 3606480200007	20062167 20062168	ENN469 ENN469
	Max. clamping Ø 228 mm	Black	9/775	100	3606480200014	20062169	ENN469

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Cable ties Thorsman Cintura™

		Туре	Colour	Dimensions w/l (mm)	Qty per package	EAN code	Internal ID-No.	Ref. No.
		Identification ties						
		Identification tie with marke performance, irrespective o Material: PA 6.6.			s, conduits and tub	oing. Delivered in a s	ealed packagi	ng to ensure
		Max. clamping Ø 18 mm, marker size 20x9	Clear	2.5/110	100	3295150462205	20064017	ENN4622
4		Max. clamping Ø 18 mm, marker size 25x8	Clear	2.5/100	100	3295150462229	20064018	ENN46222
F121328		Max. clamping Ø 43 mm, marker size 23x13	Clear	4.8/220	100	3295150462250	20064019	ENN46225
Ran	ige Accessories							
Ran	ige Accessories	Self-adhesive bases						
Ran	ge Accessories	Self-adhesive bases Self-adhesive base for the f screw-fix option. Material: PA 6.6.	ixing of cable	ties. The base for max	. tie width 4.8 mm	is both self-adhesive	and has an a	dditional
	age Accessories	Self-adhesive base for the f screw-fix option.	ixing of cable	ties. The base for max	. tie width 4.8 mm	is both self-adhesive 3295150461048	and has an a	
770 71 1	age Accessories	Self-adhesive base for the f screw-fix option. Material: PA 6.6.						ENN46104
F12132/	age Accessories	Self-adhesive base for the f screw-fix option. Material: PA 6.6. For max. tie width 3.6 mm	Clear	19/19/6	100	3295150461048	20064015	ENN46104
12020 7121321	age Accessories	Self-adhesive base for the f screw-fix option. Material: PA 6.6. For max. tie width 3.6 mm	Clear	19/19/6 26.5/26.5/8	100	3295150461048	20064015	ENN46104
	age Accessories	Self-adhesive base for the f screw-fix option. Material: PA 6.6. For max. tie width 3.6 mm For max. tie width 4.8 mm Cradle Cradle for the fixing of cable	Clear	19/19/6 26.5/26.5/8	100	3295150461048	20064015	ENN46104
750 71 1 0350 71 1	age Accessories	Self-adhesive base for the f screw-fix option. Material: PA 6.6. For max. tie width 3.6 mm For max. tie width 4.8 mm Cradle Cradle for the fixing of cable Material: PA 6.6.	Clear Clear	19/19/6 26.5/26.5/8 with screw or rivet.	100	3295150461048 3295150461055	20064015	ENN46104
Ran 17817.14 97817.14 08817.14 18967.14	ige Accessories	Self-adhesive base for the f screw-fix option. Material: PA 6.6. For max. tie width 3.6 mm For max. tie width 4.8 mm Cradle Cradle for the fixing of cable Material: PA 6.6. For max. tie width 7.8 mm	Clear Clear eties. Fixed w	19/19/6 26.5/26.5/8 with screw or rivet. 22.2/15.9/9.7	100	3295150461048 3295150461055 3295150461093	20064015	ENN46105

Fixing bands Thorsman TUB™, TPG,TUB



Description

Fixing band for pendulum suspension, clamping, bracing, etc. in electrical, building and heating/water/sanitation installations.

The range includes three different types of band.

TGB Galvanized band

Cold-rolled and galvanized steel band with closely punched holes for easy installation.

TPG Galvanized plastic coated band

Cold-rolled and galvanized steel band, coated with white PVC plastic. Closely punched holes for easy installation.

TUB Plastic-enclosed universal band

Cold-rolled and galvanized steel band, enclosed with UV-stabilized PELD, polyethylene. The plastic encloses the whole band and also fills out the punched holes. This means that no humidity can come through at the screw passages, which makes the band very resistant to corrosion.

Benefits

- · Wide range
- Can support anything from lightweight to heavy installations
- Can handle most installation situations in all types of environment
- Corrosion-resistant
- Easy to cut and shape
- Fire-resistant

Material and operative data

material and ope	iative data						
TGB	Material	Cold-rolled, galvanized steel					
	Temp. are	Temp. area –40°C to +100°C					
	Not suitab	le for outdoor use					
TPG	Material	Cold-rolled, galvanized steel					
		PVC plastic coating, white					
	Temp.area	a –40°C to +60°C					
	Not suitab	le for outdoor use					
TUB	Material	Cold-rolled, galvanized steel					
		UV-stabilized, self-extinguishing PELD					
		(polyethylene)					
	Temp.area	a –40°C to +60°C					
	Suitable fo	or outdoor use					

Technical data	l de la companya de		
Туре	Surface coating ¹⁾	Hole dim, mm	Practical loading capacity kN ²⁾
TGB-12x0.7	Zn 20	Ø 2.5/5	1.2
TGB-20x0.7	Zn 20	Ø 3.5/4.5/6.5/8.5	1.8
TGB-20x1	Zn 20	Ø 3.5/7	2.5
TGB-25x2	Zn 20	Ø 4/8	7.0
TPG-12	Zn 20 + PVC	Ø 2.5/5	1.0
TPG-20	Zn 20 + PVC	Ø 3.5/7	2.8
TUB-8	Zn 20 + PELD	☐ 5.5x5.5	0.4
TUB-12	Zn 20 + PELD	☐ 6x6	1.0

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Surface coating explanations: • Zn 20 = 20 μ m zinc per side • PELD = Polyethylene, low density, UV-stabilized and self-extinguishing • PVC = Polyvinyl chloride plastic, 100 μ m per side Safety factor 1.8 for breaking load.

Fixing bandsThorsman TGB™, TPG, TUB

Range								
	Туре	Colour	Dimensions w/t mm	Length m/roll	Qty per package	EAN code	Internal ID-No.	Ref. No.
	TGB							
126077	Cold-rolled and ga Material: Galvaniz							
Concorda S	TGB-12x0.7	_	12.7/0.7	10	1	7315882705114	10001219	2705 110
000	TGB-20x0.7	_	20/0.7	25	1	7315882705312	10001220	2705 310
CONTRACTOR OF STREET	TGB-20x1	_	20/1	10	1	7315882705329	10001221	2705 320
0,000,000	TGB-25x2	_	25/2	10	1	7315882705428	10001223	2705 420

Cold-rolled and galvanized steel band, coated with white PVC plastic. Closely punched holes for easy installation. Material: Plastic coated, galvanized steel band, steel SS 1151-10.

TPG-12	White	12.7/0.6	10	1	7315882740016	10001226	2740 017	
TPG-20	White	20/1	10	1	7315882741013	10001227	2741 015	



TUB

Cold-rolled and galvanized steel band, encased with UV-stabilized PELD, polyethylene. The plastic encases the whole band and also fills out the punched holes. Very resistant to corrosion.

Material: Plastic encased, galvanized steel band, mild steel SS 1151-10.

		,						
TUB-8	White	9/2.5	10	1	7315882703011	10001206	2703 015	
TUB-12	White Grey	14/2.5	10	1	7315882704018 7315882704025	10001209 10001210	2704 013 2704 021	

Cable ties and bands



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	Adjustable plastic clamps Thorsman TSK and PFSK	52 52
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10	Stainless steel clamps Thorsman TKS	54 54







Description

The Thorsman TC clip range includes a wide range of clips in various designs and dimensions, colours, nails and packages, intended for the installation of round and flat cables. The packages of the clips are provided with colour pictures of the correct product.

Clips in corrosivity category TC-C5M have a nail of acid-resistant stainless steel and can be used in extra tough environments.

The TCD type is intended for the installation of two flat cables side by side. The clips are made of impact-resistant, UV-stabilized polypropylene.

Cable capacity

Cable dimensions according to each type name respectively. A minus (-) in the name states clips for round cables, (x) states clips for flat cables.

	-4-			4 -
IVI	ate	rial	aa	ıτa

Material	Clip: impact resistant, U'	V-stabilized PP (polypropyl-			
	ene), halogen-free.				
	Nails:				
		 Hardened and electro- 			
plated steel, zinc coating	g (5 µm).	 Acid-proof stainless 			
steel acc. to AISI 316, co	orrosivity	category C5M.			
Colours	Colour	NCS-No.			
	White	0500			
	Grey	5402-Y			
	Light grey	2502-Y			
	Black	9500			
	Brown	9005-Y20R			
	Red	1090-Y90R			
Operative data					
Tomporatura rango	40°C to ±00°C				

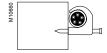
Temperature range	–40°C to +80°C.	
Temperature range	Installation:	–20°C / +50°C
	In operation:	–40°C / +80°C

Standards and certificates

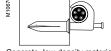
Standards and regulations Building and Planning (BBR)

- Building regulations issued by National Board of Housing,
- Nail of acid-proof stainless steel: AISI 316

Mounting instruction



Wood and compressed board: Nail in. Thick nails in brick joints.



Concrete, low-density materials, brick, etc: Use TCP clip plugs. Hammer the clip plug into low-density concrete without predrilling. Not for thick nails.



Plasterboard: Use TCP clip plugs. Make a hole in single plasterboard sheets with an awl. The start of a hole is sufficient in double plasterboard sheets.

ranț	ge Round clips	Туре	Colour	Dimensions	Qty per	EAN code	Ref. No.
	II 	.764		Nail Ø/A/B (mm)	package		
	0 11 A			allations of round cables, ma	inly for indoor use.		
		TC 2-3	or FF, Hall OF Harde	neu anu electropiateu steel.			
29	•	TC 2-3	Clear	1.4/15/11	100	7315882001001	2001 008
P79667		TC 3-5	J.501		.00		_00.000
		TC 3-5	Clear	1.2/20/15	100	7315882011000	2011 005
	-	-	White	-	-	7315882011017	2011 017
			Grey Black			7315882011024 7315882011031	2011 021 2011 030
		TC 4-6	V			3.230=011001	_0.1000
		TC 4-6	Clear	1.4/20/14	100	7315882015107	2015 105
			White			7315882015114	2015 110
		TC 5-7	Grey			7315882015121	2015 121
		TC 5-7	Clear	1.2/20/12	100	7315882021009	2021 004
		100-1	White	1.44UI14	100	7315882021016	2021 012
			Grey			7315882021023	2021 020
			Black Light grey			7315882021047 7332418021227	2021 046 2021 995
		TC 5-7	Clear	2.0/25/17	100	7315880032267	2022 009
			White			7315882022013	2022 010
			Black Grey			7315880030577 7315882022037	2022 029 2022 030
			Light grey			3606480376023	IMT49000
		TC 7-10					
P79670	T	TC 7-10	White	1.6/25/16	100	7315882032012	2032 019
Ğ	L		Grey Light grey			7315882032029 7315882032036	2032 027 2032 035
			Black			7315882032043	2032 043
			Brown	10/05/5		7315882032104	2032 100
		TC 7-10	White Light grey	1.6/30/21	100	7315882033019 7315882033033	2033 017 2033 033
		TC 7-10	Light grey White	2.0/25/16	100	7315882033033	2033 033
			Black	2.0.20/10		7315880029113	2032 041
			Red Brown			7315880029137 7315882032098	2032 061 2032 091
			Brown Light grey			7315882032098 3606480376030	2032 091 IMT49001
		TC 8-12	3 0 .7				
P79656	T	TC 8-12	White	2.0/30/19	100	7315882041205	2041 200
P	1		Light grey Black			7315882041212 7315882041243	2041 218 2041 240
			Grey			7315882041243 7315882041250	2041 240 2041 259
			Brown			7315882041267	2041 267
		TC 8-12	Light grey	2.0/35/24	100	7315882041274	2041 274
		TC 8-12	White	2.0/45/34	100	7315882041281	2041 283
e	_	TC 10-14	/A/I=:4 -	2.0/20/47	400	7245000040044	0040 545
P79655 P79661	T	TC 10-14	White Grey	2.0/30/17	100	7315882042011 7315882042028	2042 018 2042 026
- u			Light grey			7315882042035	2042 034
		TO 45 1	Black	0.0/05/65		7315882042042	2042 042
		TC 10-14	White Light grey	2.0/35/22	100	7315882043018 7315882043032	2043 016 2043 032
		TC 10-14	White	2.0/45/32	100	7315882045012	2045 012
		TC 10-14	White	2.5/30/17	100	7315880029021	2042 011
			Grey	· · ·	- -	7315880029151	2042 021
		TO 4 : 4 :	Black			7315880029168	2042 041
æ		TC 14-20	\\\ /_:# -	2.0/25/40	400	7245000050040	00=0.01=
P79658	T	TC 14-20	White Grey	2.0/35/18	100	7315882052010 7315882052027	2052 017 2052 025
-	L		Light grey			7315882052034	2052 023
		TC 14-20	Black	2.0/45/28	100	7315882052058	2052 058
			White Light grey			7315882053017 7315882053031	2053 015 2053 031
		TC 14-20	White	2.5/35/18	100	7315882033031	2052 011
		. 5 . 1 20	Black			7315880029212	2052 051
			Light grey			3606480376047	IMT49002
		TC 18-22	140.77	0.5/45/05	50	704500000000	0000
		TC 18-22	White Light grey	2.5/45/25	50	7315882060008 7315882060022	2060 002 2060 028
			Black			7315882060138	2060 028
		TC 18-22	Black	2.5/55/35	50	7315882060145	2060 143
							

		Туре	Colour	Dimensions	Qty per	EAN code	Ref. No
	@ B B B B B B B B B	Plastic clip includ	ling nail-for insta	Nail Ø/A/B (mm) allations of round cables, mai	package inly for indoor use		
	T			ned and electroplated steel.	,		
		TC 22-26					
	L	TC 22-26	White Light grey Black	2.5/45/21	50	7315882070007 7315882070021 7315882070137	2070 0 2070 0 2070 1
		TC 22-26	Black	2.5/55/31	50	7315882070144	2070 1
			White Light grey			7315882070205 7315882070212	2070 2 2070 2
		Round clips in o	corrosivity cate	gory C5M			
		for tough environ	ments.	allations of round cables, for i	indoor or outdoor us	se. Corrosivity category C5M	I. Especially sui
			<u> </u>	roof stainless steel.	100	7245002240025	2240.0
	Ī	TC-C5M 5-7 TC-C5M 7-10	Black White	1.2/20/12 1.6/25/16	100	7315882240035 7315882240042	2240 0 2240 0
		10-03W17-10	Black	1.0/20/10	100	7315882240059	2240 0
	1000	TC-C5M 8-12	White	2.0/30/19	100	7315882240066	2240 0
		TC-C5M 10-14	White Black	2.0/30/17	100	7315882240080 7315882240097	2240 0 2240 0
	T	TC-C5M 14-20	White	2.0/35/18	100	7315882240103	2240 0
	L	10 00W 14 20	Black	2.0/00/10	100	7315882240110	2240 1
		TC-C5M 14-20	Light grey	2.0/45/28	100	7332418016643	2240 1
		TC-C5M 18-22	Grey	2.5/45/25	50	7315882240158	2240 1
		TC-C5M 22-26	Grey	2.5/45/21	50	7315882240189	2240 1
g	e Flat clips						
				allations of flat cables, mainly			
		·	PP and hall of ha	rdened and electroplated ste	eei.		
	_	TC 2x4 TC 2x4	Clear	1.4/15/11	100	7315882101008	2101 0
	1	TC 3x5	Cleai	1.4/13/11	100	7313002101000	21010
		TC 3x5	Clear	1.2/20/15	100	7315882106003	2106 0
		TC 4x6	Olcui	1.2/20/10	100	7010002100000	21000
		TC 4x6	Clear	1.4/20/14	100	7315882111007	2111 0
		TC 5x8					
		TC 5x8	White	2.0/25/18	100	7315882116026	2116 0
			Grey			7315882116019	2116 0
		TC 6x10					
	TT	TC 6x10	White Grey	2.0/25/17	100	7315882126018 7315882126025	2126 0 2126 0
		TC 7x14	Oley			7313002120023	21200
			White	2.0/25/16	100	7315880042075	2131 0
		IC:/x14		2.0/20/10		1010000012010	
	AA	TC 7x14 TC 7x14	White	2.5/25/16		7315882131012	
	77	TC 7x14	White Grey	2.5/25/16	100	7315882131012 7315882131029	2131 0 2131 0
	A	TC 7x14		2.5/25/16			2131 0 2131 0
	99	TC 7x14	Grey Light grey		100	7315882131029 7315882131036	2131 0 2131 0 2131 0
	99	TC 7x14 TC 9x18 TC 9x18	Grey Light grey White	2.0/30/18	100	7315882131029 7315882131036 7315880042082	2131 0 2131 0 2131 0 2136 0
		TC 7x14	Grey Light grey		100	7315882131029 7315882131036	2131 0 2131 0 2131 0 2136 0 2136 0
		TC 7x14 TC 9x18 TC 9x18	Grey Light grey White	2.0/30/18	100	7315882131029 7315882131036 7315880042082 7315882136017	2131 0 2131 0 2131 0 2136 0 2136 0
		TC 7x14 TC 9x18 TC 9x18 TC 9x18	Grey Light grey White	2.0/30/18	100	7315882131029 7315882131036 7315880042082 7315882136017	2131 0 2131 0 2131 0 2136 0 2136 0
		TC 7x14 TC 9x18 TC 9x18 TC 9x18 TC 11x22	Grey Light grey White White Grey	2.0/30/18 2.5/30/18 2.5/35/20	100 100 100	7315882131029 7315882131036 7315880042082 7315882136017 7315882136024	2131 0 2131 0 2131 0 2136 0 2136 0
		TC 7x14 TC 9x18 TC 9x18 TC 9x18 TC 11x22 TC 11x22 Flat clips in correction of the cough environment Material: Clip of the cough environment of th	Grey Light grey White White Grey White rosivity categoling nail, for instants.	2.0/30/18 2.5/30/18 2.5/35/20	100 100 100 50 oor or outdoor use.	7315882131029 7315882131036 7315880042082 7315882136017 7315882136024 7315882137014 Corrosivity category C5M. E	2131 0 2131 0 2131 0 2136 0 2136 0 2137 0
		TC 7x14 TC 9x18 TC 9x18 TC 9x18 TC 11x22 TC 11x22 Flat clips in corr Plastic clip include tough environme	Grey Light grey White White Grey White rosivity categoling nail, for instants.	2.0/30/18 2.5/30/18 2.5/35/20 ry C5M allations of flat cables, for indi	100 100 100 50 oor or outdoor use.	7315882131029 7315882131036 7315880042082 7315882136017 7315882136024 7315882137014	2131 0 2131 0 2131 0 2136 0 2136 0 2137 0
		TC 7x14 TC 9x18 TC 9x18 TC 9x18 TC 11x22 TC 11x22 Flat clips in correction of the cough environment Material: Clip of the cough environment of th	White White Grey White Grey White rosivity categoring nail, for instants. PP, nail of harder White	2.0/30/18 2.5/30/18 2.5/35/20 ry C5M allations of flat cables, for indired and Fe/Zn electroplated	100 100 100 50 oor or outdoor use.	7315882131029 7315882131036 7315880042082 7315882136017 7315882136024 7315882137014 Corrosivity category C5M. E	2131 0 2131 0 2131 0 2136 0 2136 0 2137 0
		TC 7x14 TC 9x18 TC 9x18 TC 9x18 TC 11x22 TC 11x22 Flat clips in corr Plastic clip include tough environme Material: Clip of It TC-C5M 6x9 Flat clips for two Plastic clip included Material: Clip of It Material: C	White White Grey White Grey White Orosivity categoring nail, for instance P, nail of harder White Cocables Uning nail. For instance	2.0/30/18 2.5/30/18 2.5/35/20 ry C5M allations of flat cables, for indired and Fe/Zn electroplated	100 100 100 50 coor or outdoor use. steel. 100 anainly for indoor use	7315882131029 7315882131036 7315880042082 7315882136017 7315882136024 7315882137014 Corrosivity category C5M. E	2131 0 2131 0 2131 0 2136 0 2136 0 2137 0
		TC 7x14 TC 9x18 TC 9x18 TC 9x18 TC 11x22 TC 11x22 Flat clips in corr Plastic clip include tough environme Material: Clip of fr TC-C5M 6x9 Flat clips for two Plastic clip include Material: Clip of fr TCD 5x8	Grey Light grey White White Grey White rosivity categor ling nail, for instants. PP, nail of harder White cables ling nail. For instants	2.0/30/18 2.5/30/18 2.5/35/20 ry C5M allations of flat cables, for indined and Fe/Zn electroplated 1.6/25/17 callations of two flat cables, mirdened and electroplated stering the stering stering and electroplated stering stering and electroplated stering	100 100 50 coor or outdoor use. steel. 100 nainly for indoor usesel.	7315882131029 7315882131036 7315880042082 7315882136017 7315882136024 7315882137014 Corrosivity category C5M. E	2131 0 2131 0 2131 0 2136 0 2136 0 2137 0 2137 0 (specially suited
		TC 7x14 TC 9x18 TC 9x18 TC 9x18 TC 11x22 TC 11x22 Flat clips in corr Plastic clip include tough environme Material: Clip of It TC-C5M 6x9 Flat clips for two Plastic clip included Material: Clip of It Material: C	White White Grey White Grey White Orosivity categoring nail, for instance P, nail of harder White Cocables Uning nail. For instance	2.0/30/18 2.5/30/18 2.5/35/20 ry C5M allations of flat cables, for indicated and Fe/Zn electroplated 1.6/25/17	100 100 100 50 coor or outdoor use. steel. 100 anainly for indoor use	7315882131029 7315882131036 7315880042082 7315882136017 7315882136024 7315882137014 Corrosivity category C5M. E	2131 0 2131 0 2131 0 2136 0 2136 0 2137 0

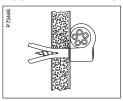
Rang	e Round clips, b	oulk					
		Туре	Colour	Dimensions Nail Ø/A/B (mm)	Qty per package	EAN code	Ref. No.
	Ø			allation of round cables in inc ned and electroplated steel.	loor use. In bulk pa	ickage.	
		TC 3-5					
3	Ī	TC 3-5	White Clear	1.2/20/15	2000 5000	7315882201098 7315882011208	2201 090 2011 208
		TC 5-7					
		TC 5-7	White Clear Black	1.2/20/12	2500 2500 2500	7315882021085 7315882021702 7332418021159	2021 087 2021 706 2021 710
		TC 7-10					
	Ī	TC 7-10	White Black	1.6/25/16	2500 2500	7315882032715 7332418021234	2032 712 2032 740
		TC 7-10	White	1.6/30/21	2000	7332418021166	2203 080
		TC 8-12					
	T	TC 8-12	White	2.0/30/19	1000	7315882041700	2041 700
		TC 10-14					
		TC 10-14	Light grey White	2.0/30/17	1250 1000	7315882042080 7315882042714	2042 083 2042 71
		TC 10-14	White	2.0/35/22	1000	7332418021180	2205 08
	Ī	TC 10-14 TC 14-20	White	2.0/45/32	1000	7332418021173	2205 07
		TC 14-20	Light grey	2.0/35/18	400	7315882052065	2052 06
		TC 14-20	White	2.0/35/18	500	7315882206093	2206 09
		TC 14-20	White	2.0/45/28	500	7332418021197	2206 08
ang	e Flat clips, bulk	(
		Material: Clip of		allation of flat cables in indoo ardened and electroplated st		age.	
		TC 2x4	0.1	4 444=444		70.45000404045	
	Ī	TC 2x4 TC 3x5	Clear	1.4/15/11	5000	7315882101015	2101 01
		TC 3x5	Clear	1.2/20/15	5000	7315882106706	2106 70
		TC 3x5	Bronze	1.2/20/15	5000	7315882106720	2106 72
		TC 3x5	Black	1.2/20/15	5000	7332418021241	2106 99
		TC 3x5	White	1.2/20/15	5000	7332418021258	2106 99
		TC 4x6					
		TC 4x6	Clear	1.4/20/14	25000	7315882111014	2111 01
	T	TC 5x8					
		TC 5x8	White	2.0/25/18	30000	7315882116194	2116 19
	T	TC 6x10					
		TC 6x10	White	2.0/25/17	2000	7315882126711	2126 71
		package.		allation of flat cables in indoo	r or outdoor use. E	specially suited for tough envi	ronments. In bulk
		TC 6x9					
		TC-C5M 6x9	White	1.6/25/17	2000	7332418018364	2121 20

Screw clips Thorsman TCS™

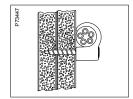




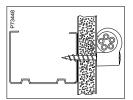
Application examples



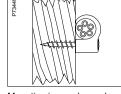
Mounting in single 13 mm plasterboard. Use plastic plug TP1 yellow.



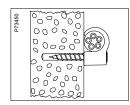
Mounting in double 13 mm plasterboard. The length of the screw of TCS-C3 14-18, 18-22 and 22-26 is adjusted so as not to pass through both boards, in order to facilitate the mounting of conduits from the inside of the wall.



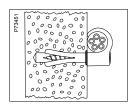
Mounting in a single 13 mm plasterboard with a metal bar behind, metal thickness 0.56 mm.



Mounting in wood, wood board materials, plywood.



Mounting in concrete and bricks. Drill a \emptyset 4 mm hole, approx. 30 mm deep. Drive the screw direct in the drilled hole.



Mounting in low-density concrete. Use plastic plug TP1 yellow. In low-density concrete of higher density than 600, no pre-drilling or plugs are needed.

Description

The screw fixing clips TCS-C3 and TCS-C5M can be used both for indoor and outdoor applications. TCS-C5M is the obvious choice in harsh environments.

Both TCS-C3 and TCS-C5M consist of a clip in impact-resistant polypropylene with high UV-resistance. C3 is provided with an electroplated steel screw, whereas C5M is provided with an acid-proof stainless steel screw. The screw has a high pitch for quick installation and a sharp point, and the head is cross-slotted of either type Phillips 2 or of type T20. It penetrates directly into most materials. In concrete and bricks it only needs a 4 mm

The C3 T20 screw is specially suited for high torque applications like hard wood and concrete.

Applications

The clip can be fitted without drilling in double and single plasterboard, wood, board materials and low-density concrete with high density. It is also suitable for hard materials like concrete or bricks.

Benefits

- Type-approved
- Corrosion-classified screws
- High UV-resistance
- Can withstand high impact together with extremes of heat, cold and acids. C5M suitable for extra harsh environments.
- · Documented quality
- Pre-mounted screw with high pitch and Phillips PH2 or T20 head for quick and secure installation with with cordless driver
- Direct fixing in suitable materials without the use of wall plugs.
- Excellent function when installing cables or conduits on plasterboard with an underlying sheet steel frame
- Excellent function when installing rigid cables bent at small bending radii, for example around external corners.
- The screw length of TCS 14-18, 18-22 and 22-26 is adapted so as not to pass through a double 13 mm plasterboard (not C5M)
- · Wide range of clips in several colours
- · Flexible design one size fits multiple cable dimensions
- · Durable and recyclable packaging

Material data

Material data		
Clip	Material: Impac	t resistant, UV-stabilized PP (polypropylene)
	Colours:	White NCS S 0500-N
		Black NCS S 9000-N
		Grey NCS S 4502-Y
		Light grey NCS S 2502-Y
Screw	Material:	TCS-C3 Electroplated steel (Fe/Zn),
corro-		sivity category C3
		TCS-C5M Acid-proof
stainless steel, corro-		sivity category C5M
Operative data		
Temperature range	Installation:	–20°C / +50°C
	In operation:	-40°C / +80°C

Screw clips Thorsman TCS™

	Туре	Colour	Dimensions A/B/Ø (mm)	Qty per package	EAN code	Ref. No.
	Screw C3 with PH head	d	, ,			
*11-	Plastic clip with screw, in surface treatment acc. to Material: PP/Steel.				ceilings, with or without wall ips 2. For round cables.	olug. Screw with
	TCS-C3 7-10 For 7-10 mm cables	White Light grey Grey	32/23/5	100	7315880109945 7315880109938 7315882190002	2190 00 ² 2190 00 ² 2190 00 ⁴
	TCS-C3 8-12 For 8-12 mm cables	White Black Light grey Grey	32/21/5	100	7332418015875 7332418015929 7332418015851 7332418015868	2190 01; 2190 01; 2190 00; 2190 01;
	TCS-C3 10-14 For 10-14 mm cables	White Black Light grey Grey	38/26/5	100	7315880109839 7315882190026 7315880109822 7315880109815	2190 02 2190 02 2190 02 2190 02
Dress	TCS-C3 14-18 For 14-18 mm cables	White Black Light grey Grey	38/23/5	100	7315880109860 7315882190033 7315880109853 7315880109846	2190 03 2190 03 2190 03 2190 03
i)	TCS-C3 18-22 For 18-22 mm cables	White Black Light grey Grey	41/23/5	50	7315880109891 7315882190040 7315880109884 7315880109877	2190 04 2190 04 2190 04 2190 04 2190 04
	TCS-C3 22-26 For 22-26 mm cables	White Black Light grey Grey	45/23/5	50	7315880109921 7315882190057 7315880109914 7315880109907	2190 05 2190 05 2190 05 2190 05
	Screw C3 with T20 hea				. 5 . 5 5 5 5 1 0 0 0 0 7	2100 00
	Plastic clip with screw, in surface treatment acc. to Material: PP/Steel.				ceilings, with or without wall For round cables.	olug. Screw with
Till the same of t	TCS-X-C3 7-10 For 7-10 mm cables	White Light grey	32/23/5	100	7332418019507 7332418019491	2191 00 2191 00
	TCS-X-C3 8-12 For 8-12 mm cables	White Black Light grey	32/21/5	100	7332418019538 7332418019514 7332418019521	2191 01 2191 01 2191 02
	TCS-X-C3 10-14 For 10-14 mm cables	White Black Light grey	38/26/5	100	7332418019392 7332418019378 7332418019385	2191 02 2191 03 2191 03
	TCS-X-C3 14-18 For 14-18 mm cables	White Black Light grey	38/23/5	100	7332418019422 7332418019408 7332418019415	2191 04 2191 04 2191 05
	TCS-X-C3 18-22 For 18-22 mm cables	White Black Light grey	41/23/5	50	7332418019453 7332418019439 7332418019446	2191 05 2191 06 2191 06
	TCS-X-C3 22-26 For 22-26 mm cables	White Black Light grey	45/23/5	50	7332418019484 7332418019460 7332418019477	2191 07 2191 07 2191 08
	Screw C5M with PH he					
		c. to corrosivity c	lass C5M and cross-s		ceilings, with or without wall perfections. Phillips 2. For round cables.	
T	TCS-C5M 7-10 For 7-10 mm cables	White	32/24/5	100	7332418020732	2191 50
	TCS-C5M 8-12 For 8-12 mm cables	Light grey White	32/21/5	100	7332418020688 7332418020749	2191 50- 2191 51
Ī	TCS-C5M 10-14 For 10-14 mm cables	Black Light grey White	32/21/5	100	7332418020640 7332418020695 7332418020756	2191 500 2191 500 2191 51
Ŋ	TCS-C5M 14-18 For 14-18 mm cables	Black Light grey White	41/26/5	100	7332418020657 7332418020701 7332418020763	2191 50 2191 50 2191 51
	TCS-C5M 18-22 For 18-22 mm cables	Black Light grey White	41/23/5	50	7332418020664 7332418020718 7332418020770	2191 50 2191 50 2191 51
	TCS-C5M 22-26 For 22-26 mm cables	Black Light grey White	41/20/5	50	7332418020671 7332418020725 7332418020787	2191 50 2191 50 2191 51

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Metal clamps & Mounting tools

Thorsman KLEMMI™ TKK/APK



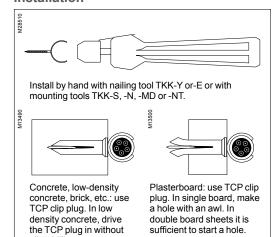






Installation

pilot drilling.



Description clamps

TKK/APK powder-coated metal clamps are intended for surface mounted installations of round and flat electric cables.

The powder coating provides very good resistance to corrosion and mechanical influence, and good resistance to heat and sunlight.

For some cable dimensions the clamp is available with various lengths of nail and with a thicker screw-nail.

The clamps are packed in cartons provided with a clear colour coding

Plugs of type TCP can be used together with the clamps.

- Excellent outdoor durability thanks to very good resistance to heat and sunlight
- Good resistance to corrosion and mechanical influence
- Flexible, thin material, powder coated in the colour of the cable, giving a very neat installation without projecting parts

Material data

matorial data				
Strap	Steel SIS 1151 Z200, electroplated (Fe/Zn 10)			
Surface	Powder coated with polyester varnish, layer thickness 120–160 µm			
Colour	White NCS 0502-Y			
Nail, screw	Steel SIS 1151 Z275, electroplated (Fe/Zn 7)			
Plug	PEHD (polythene)			
Operative data				
Temperature range	From -40° to +250°C			
Suitable outdoors resist-	Yes. Excellent outdoor durability thanks to very good ance to heat and sunlight.			

Description tools

Mounting tools for Klemmi clamps TKK/APK.

Handles with exchangeable heads

- TKK-MD, ergonomic handle with optional adjustment of the angle of the head to the handle. Supplied with three exchangeable heads.
- TKK-N, simple straight handle providing easy accessibility where space is limited. Supplied with three exchangeable heads.

For both handles there are four easily exchangeable heads covering our whole range of TKK/APK clamps.

The head gives a very good control of the clamp. On the side of the head there is a clear marking to show which clamp size the head is intended for.

Handle for round clamps

TKK-S, the same handle as TKK-N but in black colour. Supplied with one mounting head for round cables.

Nailing tools

- TKK-E is a simple tool for the nailing of clamp sizes 6x9, 7–10 and 10–14. The narrow end of the tool is suitable for 6x9 and 7–10 and the thicker end for 10-14.
- TKK-Y has a clamp holder with spring action, shaped as pincers, and an adjustable mandrel. TKK-Y can handle all dimensions in the TKK/APK range.

Material data

TKK-Y	Handle	Black PA6 (polyamide) with 30% glass-fibre				
	Pincers	Black acetaldehyde resin (POM)				
	Impact mar	Impact mandrel Hardened steel				
	Nut	Electroplated brass				
TKK-E	Material	PA6 (polyamide)				
	Colour	Red NCS 2080 R				
TKK-N, -MD, -NT and -S	Handle	PA, glass-fibre reinforced				
	Head	Die-cast zinc				
	Mandrels, s	springs and sleeves Steel				
	Colour	 Blue NCS 6040-R80B (TKK-N, -MD, 				
-NT)		Black (TKK-S)				

Metal clamps & Mounting tools Thorsman KLEMMI™ TKK/APK

	e Clamps				-		
		Туре	Nail ØxL	Dimensions A/B (mm)	Qty per package	EAN code	Ref. No
		Clamps for indoor and outd Material: Powder coated, el Colour: White.			cables.		
		Clamps for round cables					
	-e	TKK/APK 4-6 18	1.6x18	6/7	100	7315882366100	2366 10
		TKK/APK 5-7 18 TKK/APK 5-7 25	1.6x18 1.6x25	7.5/7 7.5/7	100 100	7315882366209 7315882366230	2366 20 2366 23
	-6	TKK/APK 7-10 18 TKK/APK 7-10 18 bulk	2.1x18 2.1x18	10/8 10/8	100 5000	7315882367015 7315880061588	2367 0° 2367 0°
	-	TKK/APK 7-10 25 TKK/APK 7-10 25 bulk TKK/APK 7-10 screw 25	2.1x25 2.1x25 2.7x25	10/8 10/8 10/8	100 5000 100	7315882369019 7315882369002 7315882375010	2369 0 ⁻ 2369 0 ⁻ 2375 0 ⁻
		TKK/APK 7-10 40	2.1x40	10/8	100	7315882369026	2369 0
	-6	TKK/APK 8-12 18 TKK/APK 8-12 25 TKK/APK 8-12 40	2.1x18 2.1x25 2.1x40	11/9 11/9 11/9	100 100 100	7315882369200 7315882369231 7315882369262	2369 20 2369 20 2369 20
		TKK/APK 8-12 screw 25	2.7x25	11/9	100	7315882369316	2369 3
	-0	TKK/APK 10-14 25 TKK/APK 10-14 screw 25 TKK/APK 10-14 40	2.1x25 2.7x25 2.1x40	13/10 13/10 13/10	100 100 50	7315882371012 7315882377014 7315880101574	2371 0 2377 0 2371 0
		TKK/APK 14-20 25 TKK/APK 14-20 screw 25	2.1x25 2.7x25	17/12 17/12	50 50	7315882373016 7315882379018	2373 0 2379 0
	-6	TKK/APK 14-20 sciew 25 TKK/APK 14-20 40	2.7x25 2.1x40	17/12	50	7315882373023	2379 0
		Clamps for flat cables					
	-6	TKK/APK 6x9 18 TKK/APK 6x9 18 bulk TKK/APK 6x9 25	2.1x18 2.1x18 2.1x25	9/8 9/8 9/8	100 5000 100	7315882380007 7315882380014 7315882380052	2380 0 2380 0 2380 0
		TKK/APK 6x9 25 bulk TKK/APK 6x9 screw 25	2.1x25 2.7x25	9/8 9/8	5000 100	7315882380069 7315882380113	2380 0 2380 1
	-6	TKK/APK 6x12 25	2.1x25	10/10	100	7315882380151	2380 1
na	e Tools						
3		Туре	Colour	Dimensions A/B/C (mm)	Qty per package	EAN code	Ref. No
		Mounting tools		, ,			
			or the clamp of without mou	dimensions 7-10, 8-12, 10-1		include three exchangeable The head of TKK-MD can be	
		TKK-N	Blue	30/27/135	1	7315882360030	2360 0
		TKK-S	Black	30/27/135	1	7315880084808	2360 0
		TKK-MD	Blue	68/30/165	1	7315880052555	2360 0

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Metal clamps & Mounting tools Thorsman KLEMMI™ TKK/APK

	Туре	Colour	Dimensions A/B/C (mm)	Qty per package	EAN code	Internal ID-No.	Ref. No
	Exchangeable heads						
	Exchangeable head for TKI Material: Die-cast zinc, stee		ools, suitable for TKK-N, TKI	K-MD and va	arious sizes of clamps	, see below.	
	TKK-SH1 For TKK/APK 4-6	_	14/10/50	1	7315880052562	10001062	2360 04
	TKK-SH2 For TKK/APK 7-10, 6x9	_	16/13/52	1	7315880052579	10001063	2360 04
F	TKK-SH3 For TKK/APK 10-14, 6x12	_	18/15/52	1	7315880052586	10001064	2360 04
	TKK-SH4 For TKK/APK 5-7, 8-12, 14-20	_	20/16/52	1	7315880052593	10001065	2360 04
	Nailing tools						
	Tool with spring-action clam Material: PA6, POM, steel, I		adjustable mandrel. Suitab	le for all dim	ensions in the TKK/AF	PK range.	
	TKK-Y	Black	Ø28/—/140	1	7315882360009	10001057	2360 00
	Simple tool for nailing of TK Material: PA6.	K/APK clamp	os. Suitable for TKK/APK 7-	10, 10-14 an	nd 6x9.		
	TKKE	Red	12/13/66	1000	7315880036203	10001058	2360 02

Metal clampsThorsman FASTIS™ TFK









Description

The metal clamp range FASTIS TFK is intended for use when fixing cables and conduits.

The clamp has a bent part to hold the cable/conduit and one or two integrated nails to fix it.

TFK clamps are available with white plastic-coating or in electroplated steel, in the latter case only in the bigger sizes Ø16 and Ø20 mm. The plastic-coated clamps are in corrosivity category C4, whereas the electroplated steel clamps are in category C2.

The one-nailed clamps need specially adapted mounting tools to hold the clamp and the cable in position when driving the clamp in, the two-nailed clamps only need a hammer.

Applications

The clamps are suitable for stationary installations of cables and conduits in wood or wood-based materials, indoors as well as outdoors. Typical are visible installations in houses and flats. The long-nailed clamps are used when nailing through board materials and thin panels into the underlying wooden framework.

The one-nail clamps are mainly to be used in corners and transitions between floor and wall, wall and ceiling, wall and wall, and on skirting-boards. The clamps with two nails are used on walls and ceilings without support from a corner. In solid wood material, only clamps with short nails should be used.

The clamps are mainly intended for cables of EKRK type for the Swedish market, and of PR type for the Norwegian market. The two-nail clamp sizes 16 and 20 mm are specially suited for flexible or rigid conduits, often in concealed installations.

Benefits

- · Neat and slim installations.
- Impact-resistant polyamide (Rilsan®) plastic-coating.
- White plastic-coating well suited to the colour of the cable.
- Plastic-coated clamps in corrosivity category C4.
- Electroplated steel clamps in corrosivity category C2.

Standards and regulations

- Corrosivity category C2 in accordance with ISO 4042.
- Corrosivity category C4 in accordance with SS-EN ISO 12944-2.

Certificates

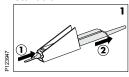
C4 classified clamps	SITAC1) Technical Approval of corrosion protection,
No.	0035/04

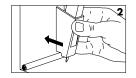
¹⁾ Swedish Institute for Technical Approval in Construction

Material and Operative data

Material	Hardened steel	
Surface treatment:	Plastic-coating MaxiCoat Rilsan® PA11	
Colour	White	
Material	Hardened and electroplated	
Material	PP and electroplated steel	
From -40°C to +150	°C	
	Surface treatment: Colour Material Material	

Installation







Metal clamps Thorsman FASTIS™ TFK

Range Clamps, plastic-coated



71.	Dimensions A/B/C (mm)	Qty per package	EAN code	Ref. No.
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Clamp with one nail for round cables

Clamp with one nail, intended for use in stationary installations of round cables. Mounted with mounting tool TFK-F1 (TFK-C4 8-9) or TFK-F2 (TFK-C4 10-11) and a hammer. The steel clamp is plastic-coated for corrosion resistance and impact protection. In solid wood, use only clamps with 16 mm nail. Corrosivity category C4.

Material: Hardened steel, plastic-coated.

125899

TFK-C4 8-9 16 mm nail	White	25/16/3	100	7332418016834	2150 010
TFK-C4 8-9 25 mm nail	White	34/25/3.5	100	7332418016841	2150 015
TFK-C4 10-11 16 mm nail	White	27/16/3	100	7332418016728	2150 020
TFK-C4 10-11	White	36/25/3.5	100	7332418016735	2150 025

Clamp with two nails for round cables

Clamp with two nails, intended for use in stationary installations of round cables. Mounted with a hammer. The steel clamp is plastic-coated for corrosion resistance and impact protection. Corrosivity category C4. Material: Hardened steel, plastic-coated.

TFK-C4 8-9 16 mm nail	White	26/16/3	100	7332418016827	2150 030
TFK-C4 10-11	White	27/16/3	100	7332418016711	2150 035

Clamp with one nail for flat cables

Clamp with one nail, intended for use in stationary installations of flat cables. Mounted with mounting tool TFK-F3 and a hammer. The steel clamp is plastic-coated for corrosion resistance and impact protection. In solid wood, use only the clamp with 16 mm nail. Corrosivity category C4.

Material: Hardened steel, plastic-coated.

TFK-C4 6x9/10 16 mm nail	White	23/16/3	100	7332418016803	2150 085
TFK-C4 6x9/10 25 mm nail	White	32/25/3.5	100	7332418016810	2150 090

Clamp with two nails for flat cables

Clamp with two nails, intended for use in stationary installations of flat cables. Mounted with a hammer. The steel clamp is plastic-coated for corrosion resistance and impact protection. Corrosivity category C4.

Material: Hardened steel. plastic-coated.

TFK-C4 6x9 16 mm nail	White	23/16/3	100	7332418016797	2150 095
TFK-C4 6x10	White	23/16/3	100	7332418016780	2150 110

Mounting too

Mounting tool marked with one groove, for TFK-C4 8-9 clamps with one nail for round cables. A strong magnet holds the clamp in a steady position. To be used together with a hammer.

Material: PP/Electroplated steel.

IFK-F1	Green/black	120/16/30	1 /3	002410021200	2150 126
Mounting tool marked with	two grooves, f	or TFK-C4 1	10-11 clamps with one nail for rou	und cables. A strong magnet h	nolds the

clamp in a steady position.	Γο be used together with a hammer	•	
Material: PP/Electroplated s	steel.		



clamp in a steady position. To be used together with a hammer.

Material: PP/Electroplated steel.

TFK-F3 Green/black 120/18/36 1 7332418021579 **2150 128**

Range Clamps, electroplated

Clamp with two nails for round cables or conduits

P126907



Clamp with two nails, intended for use in stationary installations of round cables or conduits. Mounted with a hammer. The steel clamp is electroplated. In solid wood, use only the clamps with 16 mm and 20 mm nails. Corrosivity category C2. Material: Hardened steel, electroplated.

TFK 16 16 mm nail	_	33/16/3	50	7332418016865	2150 060
TFK 16 25 mm nail	_	42/25/3	50	7332418016872	2150 065
TFK 20 20 mm nail	_	41/20/3	50	7332418016889	2150 070
TFK 20 28 mm nail	_	49/28/3	50	7332418016896	2150 075

Plastic clamps Thorsman TK



Description

Plastic clamps for round and flat cables/conduits.

Applications

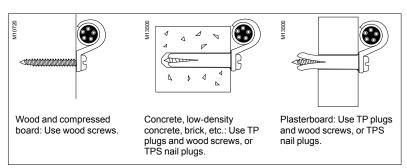
Installations in wood is done by using wood screw. For installations in concrete, brick, plasterboard, etc., use TP plugs and wood screws, or TPS nail plugs.

Benefits

- Flexible each size can be used for several cable/conduit sizes
- · Can withstand high impact, together with extremes of heat, cold and acid
- Broad range

Material data

Material	Impact resistant polypropylene (PP)
Temperature range	From -40° to +80°C



Technical data						
Type Cable Ø mm	Required screw No.	Suitable plug Plug	Nail plug			
TK 3-5	6	TP0, TP1, TP2	TPS-4			
TK 5-7	6	TP0, TP1, TP2	TPS-4			
TK 7-10	6	TP0, TP1, TP2	TPS-4			
TK 10-14	6-8	TP0, TP1, TP2	TPS-4			
TK 14-20	8-10	TP0, TP1, TP2	TPS-5			
TK 20-26	8-10	TP0, TP1, TP2	TPS-5			
TK 6x9	6	TP0, TP1, TP2	TPS-4			

		Туре	Colour	Dimensions A/B/C (mm)	Qty per package	EAN code	Ref. No.
		Plastic clamp for round and concrete, brick, plasterboa Material: PP(polypropylen	rd, etc., use TP	onduits. Installation in woo	od is done by	using wood screws. For installationgs.	ns in
		TK 3-5	White	6/15/9	100	7315882300012	2300 010
		TK 5-7	White	8/18/9	100	7315882301019	2301 01
		TK 7-10	White Grey	11/20/9	100	7315882302016 7315882302023	2302 010 2302 024
	-	TK 10-14	White Grey	14/27/13	100	7315882303013 7315882303020	2303 014 2303 02
	-	TK 14-20	White Grey	19/35/14	100	7315882304010 7315882304027	2304 01 2304 02
	-	TK 20-26	White	25/47/15	50	7315882305017	2305 01
	-	TK 6x9	White	19.5/9/7	100	7315882310103	2310 10

Adjustable plastic clamps Thorsman TSK and PFSK



Description

Adjustable plastic clamps for banks of electric cables.

Applications

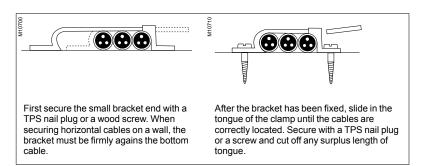
Intended to secure banks of electric cables. Installations in wood is done by using wood screws. For installations in concrete, brick, plasterboard, etc., use TP plugs and wood screws, or TPS nail plugs.

Benefits

- Flexible each size can be used for several cables of the same size
- One clamp can take 2-5 parallel cables
- · Quick and easy to install
- · Can withstand high impact, together with extremes of heat, cold and acid

Material data

Material	TSK:	Polypropylene (PP)
	PFSK:	Polyamide (PA)
	Nail:	Hardened zinc plated steel
Temperature range	From -40° to +80°C	



Technical data							
Type Cable Ø mm	No. of cables	Required screw No.	Suitable plug Plug	Nail plug			
TSK 7-10	2-5	6	TP0, TP1, TP2	TPS-4			
TSK 10-14	2-5	6-8	TP0, TP1, TP2	TPS-5			
TSK 14-20	2-5	8-10	TP0, TP1, TP2	TPS-5			
PFSK 10-14	2-5	_	TCP0	_			

Range							
		Туре	Colour	Dimensions A/B/C (mm)	Qty per package	EAN code	Ref. No.
		Clamp for screw in	stallation				
		Adjustable plastic cla Material: PP(polypro		ure banks of electric cables.	. For screw n	nounting.	
	-0.	TSK 7-10	White	10/11/65	100	7315882330019	2330 017
!	1	TSK 10-14	White	14/16/85	50	7315882332013	2332 013
	3	TSK 14-20	White	17/20/120	50	7315882334017	2334 019
		Clamp for nail insta	Illation				
	,	Adjustable plastic cla Material: PA(polyan		ure banks of electric cables.	. For nail mo	unting, including nail.	
		PFSK 10-14	White	16/31/72	50	7315882333430	2333 433

Cable wings Thorsman Cable wing





Description

The Cable Wing fixing clip can be used both for indoor and outdoor applications.

The Cable Wing is available both as a single clip for cable installation on one side only and as a double clip for cable/conduit installation on both

Both types are made of polyamide with high UV-resistance and durability. The Cable Wing is either provided with a nail-plug for quick installation in concrete/brick or is supplied without plug if for example a screw installation is preferred.

Benefits

- Fast installation with a hammer when using the nail plug
- Installs directly in suitable materials. In concrete and brick it is recommended to use a nail-plug.
- Nail plug installation means that the Cable Wing can be adjusted or even removed and re-used
- High UV-resistance
- · Halogen-free
- Can withstand high impact together with extremes of heat and cold
- Documented quality
- $\bullet\,$ Can be installed before adding cables, i.e. cables can easily be fixed or removed after installation of the clip
- Flexible design one size fits multiple cable/conduit dimensions
- · Recyclable packaging

Technical and Material data

Material	Cable wing, nail plug:	PA (polyamide)
	Screw nail:	Steel with electro-plated zinc sur-
face		treatment
Cable capacity	Maximum diameter 12	mm.
		Maximum capacity 6 cables per
side.		
Colour	Dark grey	
Temperature range	From -20 to + 60°C	
Recommended load	30 N	

	Туре	Colour	Dimensions A/B/C (mm)	Qty per package	EAN code	Ref. No.
	Cable wing, double					
	Cable wing, double. Ind Material: PA.	lended for cable/co	onduit installation on both s	sides. Availab	le with or without nail-plug.	
	With nail-plug	Dark grey	23/20/230	25	3606480217227	IMT39080
	Without nail-plug	Dark grey	23/20/230	10	3606480217210	IMT39079
	Cable wing, single					
	Cable wing, single. Inde Material: PA.	ended for cable ins	tallation on one side. Avail	able with or v	vithout nail plug.	
	With nail-plug	Dark grey	20/20/130	25	3606480217203	IMT39078
	Without nail-plug	Dark grey	20/20/130	10	3606480217197	IMT39077

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Stainless steel clamps

Thorsman TKS





The TKS range includes screw clamps intended for use in installations of cables and pipes/conduits. The range is available either in stainless steel in corrosivity category C4, or in acid-proof stainless steel in category C5M (a selected range). The products in the C5M range are marked TKS.

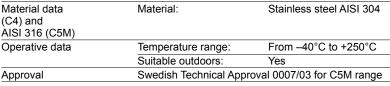
The screw clamp is available in four different designs:

- TKS-ER with two fixing holes, for mounting of one pipe or cable, both C4 and C5M
- TKS-DR with two fixing holes, for mounting of two parallel cables or pipes of the same diameter, both C4 and C5M.
- TKS-KR with one fixing hole, for mounting of one pipe or cable, both C4 and C5M.
- TKS-MR with one fixing hole, for mounting of one pipe or cable, only C4. Made of extra thick material.

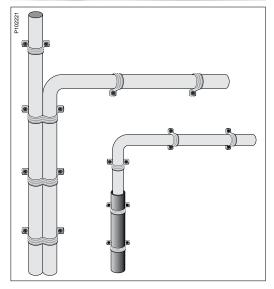
Benefits

- · Long lasting installations
- · Broad range
- · Not influenced by UV light
- · Clamps with two mounting holes for heavy installations
- · C5M range for harsh environments
- Type approval for C5M range









Stainless steel clamps Thorsman TKS

nge, category		-							
	Туре	Dimensions A/B/C (mm)	Qty per package	EAN code	Ref. No.				
	•	ne cable, two fixing holes			_				
	Steel clamp, single, for Material: Stainless ste	or installation of one pipe or cable. eel.	With two oval 8	x5 mm fixing holes. Corrosivity ca	tegory C4.				
	TKS-ER 16	16/47/15	100	7315882390402	2390 400				
	TKS-ER 20	20/58/15	100	7315880108092	2390 40				
	TKS-ER 22	22/58/15	100	7315882390419	2390 410				
	TKS-ER 25	25/64/15	100	7315880107941	2390 41				
	TKS-ER 30	30/69/15	100	7315882390426	2390 42				
	TKS-ER 32	32/73/15	50	7315880107958	2390 42				
	TKS-ER 40	40/76/15	50	7315882390433	2390 43				
	TKS-ER 50	50/85/15	50	7315880107965	2390 43				
	Screw clamps for or	ne cable, one fixing hole							
_	Steel clamp, single, for Material: Stainless ste	or installation of one pipe or cable. eel.	With one 8x5 m	m oval fixing hole. Corrosivity cat	egory C4.				
3	TKS-KR 8	8/25/12	100	7315882390501	2390 50				
	TKS-KR 9	9/26/12	100	7315880107989	2390 50				
	TKS-KR 10	10/26/15	100	7315882390518	2390 51				
	TKS-KR 11	11/28/15	100	7315880107996	2390 51				
	TKS-KR 12	12/30/15	100	7315882390525	2390 52				
	TKS-KR 14	14/31/15	100	7315880108009	2390 52				
	TKS-KR 16	16/34/15	100	7315882390532	2390 53				
	TKS-KR 18	18/36/15	100	7315880108016	2390 53				
	TKS-KR 20	20/39/15	100	7315882390549	2390 54				
	TKS-KR 6x9	6/26/15	100	7315880108023	2390 54				
	TKS-KR 6x10	6/22/15	100	7315882390556	2390 55				
-		Steel clamp, single, for installation of one pipe or cable. With one Ø 7 mm fixing hole. Made of extra thick material, suitable for heavy-duty installations. Corrosivity category C4.							
	TKS-MR 6	6/23/15	100	7315882390594	2390 59				
	TKS-MR 7	7/23/15	100	7315882390600	2390 60				
	TKS-MR 8	8/25/12	100	7315880108030	2390 60				
	TKS-MR 9	9/25/12	100	7315882390617	2390 61				
	TKS-MR 10	10/27/15	100	7315880108047	2390 61				
	TKS-MR 11	11/28/15	100	7315882390624	2390 62				
	TKS-MR 12	12/29/15	100	7315880108054	2390 62				
	TKS-MR 13	13/30/15	100	7315882390631	2390 63				
	TKS-MR 14	14/31/15	100	7315880108061	2390 63				
	TKS-MR 16	16/33/15	100	7315882390648	2390 64				
	TKS-MR 18	18/36/15	100	7315880108078	2390 64				
	TKS-MR 20	20/38/15	100	7315882390655	2390 65				
	TKS-MR 22	22/39/15	100	7315880108085	2390 65				
	TKS-MR 24	24/44/20	100	7315882390662	2390 66				
	Screw clamps for tw Steel clamp, double, Corrosivity category (Material: Stainless str	for installation of two parallel pipes C4.	or cables of the	same diameter. With two oval 8x	5 mm fixing holes.				
	TKS-DR 10	10/51/15	100	7315882390471	2390 47				
	TKS-DR 12	12/53/15	100	7315882390488	2390 480				
	TKS-DR 16	16/64/15	100	7315880107972	2390 48				
	TKS-DR 20	20/71/15	100	7315882390495	2390 490				

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Stainless steel clamps Thorsman TKS

Rar	nge, category C5M								
		Туре	Dimensions A/B/C (mm)	Qty per package	EAN code	Ref. No.			
		Screw clamps for one cable, two fixing holes							
P102712	100	Steel clamp, single, for i Corrosivity category C5 Material: Stainless steel	М.	With two oval 8x	5 mm fixing holes. Suitable for ma	rine applications.			
		TKS-ER-C5M 16	16/47/15	100	7332418018944	2390 401			
		TKS-ER-C5M 20	20/58/15	100	7332418018951	2390 406			
		TKS-ER-C5M 25	25/64/15	50	7332418018968	2390 416			
		TKS-ER-C5M 32	32/73/15	50	7332418018975	2390 426			
		Screw clamps for one	cable, one fixing hole						
P101913		Steel clamp, single, for i Corrosivity category C5 Material: Stainless steel	М.	With one 8x5 mi	m oval fixing hole. Suitable for mar	ine applications.			
		TKS-KR-C5M 9	9/26/12	100	7332418019026	2390 570			
		TKS-KR-C5M 10	10/26/15	100	7332418018982	2390 511			
		TKS-KR-C5M 12	12/30/15	100	7332418018999	2390 521			
		TKS-KR-C5M 16	16/34/15	100	7332418019002	2390 531			
		TKS-KR-C5M 20	20/39/15	100	7332418019019	2390 541			
		Screw clamps for two	cables						
P102713	1 1 6		ications. Corrosivity category C		same diameter. With two oval 8x5	mm fixing holes.			
		TKS-DR-C5M 10	10/51/15	100	7332418018913	2390 476			
		TKS-DR-C5M 12	12/53/15	100	7332418018920	2390 481			
		TKS-DR-C5M 16	16/64/15	100	7332418018937	2390 486			
		Installation screw							
P81316	(A)	most materials — metal	studwork, cabinets, wood, plug ications. Corrosivity category C	s. Fastened with	eep-pitch thread. Fully threaded. V Phillips screw-driver or power driv				
	_	TSC-C5M	4.2x25	100	7315883782268	3782 260			

100

7315880115137

4.2x32

3782 265

Clips and clamps

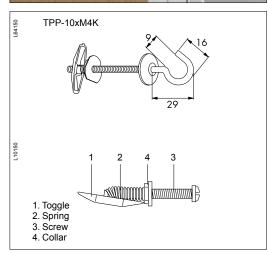


	Cavity fixing Thorsman PLATTI™ TPP	60 60
The same of the sa	Thorsman DUO-MAX™ TSP	62
City of the second	Thorsman MONO-MAX™ TMM	64
	Thorsman TMX	65
The both way	Thorsman TPD	66
The state of the s	Thorsman THW	67

Cavity fixing Thorsman PLATTI™ TPP







Description

PLATTI TPP is a cavity fixing consisting of a toggle and a collar, united by a spring and a screw or hook.

Application

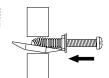
For installations in board materials ranging from a thickness of 10 to 35 mm. Also suitable for ceiling installations.

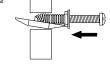
Benefits

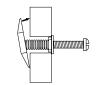
- Captive fixing
- No special tool needed for the installation
- Large metal toggle withstands humidity, heat and heavy loads
- Suitable for ceiling installations
- High load values
- Fire-resistant
- Easy to remove cut off the spring

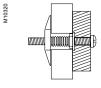
Material data

Material	Toggle, collar	Zinc	
	Screw, hook		Electroplated steel
	Spring	Steel	









Drill a hole in accordance with the table below. Fix the toggle in the collar and push the cavity fixing in with the aid of the screw

Push the screw until the springloaded bar flips over.

Remove the screw and mount the fixture

Screw size	Drill Ø mm	Board thickness			Practical loading capacity, shear/pull-out load, N*		
		mm	13 mm	2x13 mm	13 mm	2x13 mm	
M4x55	10	10-30	37 mm	24 mm	400/160	600/220	
M4x50	10	10-26	_	_	— /160	— /220	
M5x65	13	10-35	47 mm	34 mm	500/170	800/340	
	M4x55 M4x50	size mm M4x55 10 M4x50 10	size mm thickness mm M4x55 10 10-30 M4x50 10 10-26	size mm thickness mm for board 13 mm M4x55 10 10-30 37 mm M4x50 10 10-26 —	size mm thickness mm for board thickness 13 mm 2x13 mm M4x55 10 10-30 37 mm 24 mm M4x50 10 10-26 — —	size mm thickness mm for board thickness 13 mm shear/pull-cal 13 mm M4x55 10 10-30 37 mm 24 mm 400/160 M4x50 10 10-26 — — -/ 160	

^{*} Safety factor 2.5 for shear and 3 for pull-out load.

Cavity fixing Thorsman PLATTI™ TPP

	Туре	Screw size	Qty per package	EAN code	Ref. No.
	Cavity fixing with	screw			
P	used in 10-26 mm			r mounting in walls and ceilings mad	le of board material. Can
9	TPP-10xM4S	Screw M4 x 55	25	7315881200009	1200 005
	TPP-13xM5S	Screw M5 x 60	25	7315881200405	1200 401
	Cavity fixing with	n hook			
~	 used in 10-26 mm 			mounting in walls and ceilings made	e of board material. Can b
	TPP-10xM4K	Hook M4 x 50	25	7315881200207	1200 203
	Cavity fixing with	screw, bulk			
_	Like the above wit	h screw but in bulk pack	age.		
	TPP-10xM4S	Screw M4 x 55	1500	7315881200023	1200 023
•	TPP-13xM5S	Screw M5 x 60	1000	7315881200412	1200 412
	Cavity fixing with	hook, bulk			
	Like the above wit	h hook but in bulk packa	ige.		
~	TPP-10xM4K	Hook M4 x 50	1000	7315881200221	1200 221
	Cavity fixing, bul	k			
	Like the above but	t without screw or hook a	and in bulk package.		
	TPP-13xM5		1000	7315881200443	1200 443

Cavity fixing Thorsman DUO-MAX™ TSP





DUO-MAX TSP is a plastic cavity fixing for high load values. TSP is provided with a pre-assembled screw or hook.

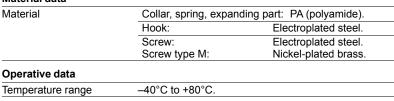
Application

For installations in board materials ranging from a thickness of 3 to 35 mm.TSP of type M has a nickel-plated brass screw for installations in for instance wet rooms.

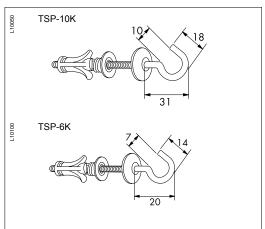
Benefits

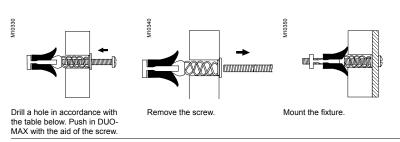
- · Captive fixing
- · No special tool needed for the installation
- · Pre-assembled screw or hook
- Ready-to-mount very fast installation
- · High load values
- Corrosion resistant
- Easy to remove cut off the spring











Technical data											
Туре	Screw size	Drill Ø mm	Board thickness	Max. fixture board thick	thickness in iness	Practical I	oacing capacity, leet	N* 2x13 mm s	sheet		
			mm	13 mm	2x13 mm	Shear	Pull-out	Shear	Pull-out		
TSP-6/50	M3x50	6	3-26	20 mm	7 mm	180	70	240	90		
TSP-6K	M3x40	6	3-20	_	_	180	70	_	_		
TSP-10/50	M5x50	10	3-20	12 mm	_	250	75	_	_		
TSP-10/65	M5x65	10	3-35	25 mm	12 mm	250	75	400	150		
TSP-10/75	M5x75	10	3-40	37 mm	24 mm	250	75	400	150		
TSP-10/75M	M5x75	10	3-38	34 mm	21 mm	250	75	400	150		
TSP-10K	M5x60	10	3-28	_	_	250	75	400	150		

^{*} Safety factor 4.5 for shear and 6 for pull-out load.

Cavity fixing Thorsman DUO-MAX™ TSP

	Туре	Colour	Dimensions B A/B (mm)	Qty per package	EAN code	Ref. No.
	Cavity fixing v	vith screw				
	plasterboard a	nd in other board m	with screw. Installed without spaterials. Type M in stainless may be electroplated steel. Type M wi	aterial (nickel-pl	ated brass) for instance for w	
	TSP-6/50	Red/white	52/11	25	7315881240005	1240 00
	TSP-10/50	Blue/white	54/20	25	7315881244003	1244 00
	TSP-10/65	Blue/white	68/20	25	7315881248001	1248 00
	TSP-10/75 TSP-10/75M	Blue/white	77/20	25	7315881249008 7315881250004	1249 00 1250 00
	Cavity fixing v	vith hook				
					e used for installations in one	or several layers
-	plasterboard a	nd in other board m		25	7315881241002	
	plasterboard at Material: PA (p	nd in other board molyamide). Hook of	aterials. electroplated steel.			1241 00
-	plasterboard at Material: PA (pr TSP-6K TSP-10K	nd in other board molyamide). Hook of Red/white	aterials. electroplated steel. 60/11	25	7315881241002	1241 00
	plasterboard at Material: PA (po TSP-6K TSP-10K	nd in other board molyamide). Hook of Red/white Blue/white	electroplated steel. 60/11 93/20	25	7315881241002	1241 00
	plasterboard at Material: PA (po TSP-6K TSP-10K	nd in other board molyamide). Hook of Red/white Blue/white	electroplated steel. 60/11 93/20	25	7315881241002	1241 00 1253 00
	plasterboard at Material: PA (properties) TSP-6K TSP-10K Cavity fixing value the above	nd in other board molyamide). Hook of Red/white Blue/white with screw, bulk but in bulk packag	electroplated steel. 60/11 93/20	25 25	7315881241002 7315881253005	1241 00 1253 00 1240 70 1244 70
	plasterboard at Material: PA (properties of the Park Park Park Park Park Park Park Park	nd in other board molyamide). Hook of Red/white Blue/white with screw, bulk but in bulk packag Red/white	electroplated steel. 60/11 93/20 e. 52/11	25 25 6000	7315881241002 7315881253005 7315881240708	1241 00 1253 00 1240 70 1244 70
	plasterboard at Material: PA (properties of the properties of the plants	nd in other board molyamide). Hook of Red/white Blue/white with screw, bulk but in bulk packag Red/white Blue/white	electroplated steel. 60/11 93/20 e. 52/11 54/20	25 25 6000 2500	7315881241002 7315881253005 7315881240708 7315881244706	1241 00 1253 00 1240 70 1244 70
	plasterboard at Material: PA (processing particular) TSP-6K TSP-10K Cavity fixing value the above TSP-6/50 TSP-10/50 TSP-10/75 Cavity fixing value	nd in other board molyamide). Hook of Red/white Blue/white with screw, bulk but in bulk packag Red/white Blue/white Blue/white Blue/white	electroplated steel. 60/11 93/20 e. 52/11 54/20 77/20	25 25 6000 2500	7315881241002 7315881253005 7315881240708 7315881244706	1241 00 1253 00 1240 70

Cavity fixing Thorsman MONO-MAX™ TMM





Description

MONO-MAX TMM is a plastic cavity fixing for lightweight installations in plasterboard. Supplied without screw.

Application

For installations in board materials ranging from 3 to 26 mm thickness.

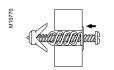
Benefits

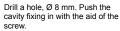
- · Captive without screw
- No special tool needed for the installation
- Requires only 15 mm of cavity space behind the board
- Small drill hole 8 mm
- Easy to remove cut off the spring

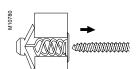
Material data

Material	PA (polyamide)	
Operative data		
Temperature range	–40°C to +80°C.	

Mounting instruction







When the wings are gripping, remove the screw.



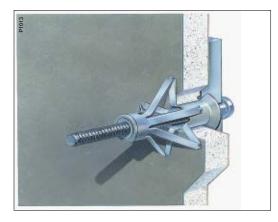
Mount the fixture.

Type	Rec. wood screw	Drill Ø mm	Board thickness, mm	Max. fixture thickness	Practical loading capacity, shear/pull-out load, N*
TMM-8x26	No. 8	8	3-26	Determined by screw length	200/60

^{*} Safety factor 4.5 for shear and 6 for pull-out load.

Range							
		Туре	Colour	Dim. mm	Qty per package	EAN code	Ref. No.
		Cavity fixing v	vithout screw				
P125429	and the	Cavity fixing wi Material: PA (p		htweight installations in	board materials.		
	1111	TMM-8x26	White	26/13/16	100	7315881206025	1206 028

Cavity fixing Thorsman TMX



Description

TMX steel cavity fixing is intended for heavy loads. It is expanded with the aid of the installation tool or simply by tightening the screw with a screw-driver.

Application

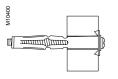
For installations in various types of board up to a thickness of 44 mm, like plaster, plywood and particle boards, but also for board materials like plastic, sheet metal and laminate.

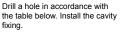
Benefits

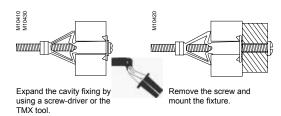
- Captive fixing stays fixed even when the screw is not tightened
- · Anti-rotation design
- · Pre-assembled screw
- High load values
- Fire-resistant

Material data

Material cavity fixing	Expanding part:	Electroplated sheet metal
	Screw:	Electroplated steel
Material mounting tool	Steel and plastic.	
Operative data		
Temperature range	–40°C to +80°C.	







Туре			Max fixture thickness	Practical loa	ding capacity, N*		
		mm		Min-max mm	mm	Shear load	Pull-out load
TMX-4E	M4	40	8	5-15	18	200	140
TMX-4D	M4	50	8	16-26	18	400	160
TMX-5E	M5	57	10	6-13	24	400	160
TMX-5D	M5	70	10	12-32	20	600	200
TMX-6E	M6	57	12	3-16	25	450	180
TMX-6D	M6	70	12	12-32	20	700	280

^{*} Safety factor 2.5 for shear and 3 for pull-out load.

		Туре	Screw	Dimensions Ø/L (mm)	Qty per package	EAN code	Ref. No.
		Cavity fixing	with screw				
			ncluding fully threatroplated steel.	aded screw with combi-he	ead and Phillips cro	ss-slot.	
		TMX-4E	M4	14/47	100	7315881260027	1260 025
6	No. of Concession, Name of Street, or other Persons, Name of Street, or ot	TMX-4D	M4	14/62	50	7315881260065	1260 066
		TMX-5E	M5	16/62	50	7315881260102	1260 108
(d)		TMX-5D	M5	16/74	50	7315881260126	1260 124
C	-	TMX-6E	M6	18/62	50	7315881260140	1260 140
C)		TMX-6D	M6	18/74	50	7315881260164	1260 165
		Installation t	ool				
4		Installation to Material: Stee	ol for cavity fixing el, plastic.	TMX.			
		TMX-T	_	100/250/32	1	7315881265046	1265 040

Cavity fixing Thorsman TPD





Description

TPD self-drilling cavity fixing is intended for lightweight installations in plasterboard.

Application

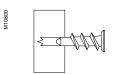
For installations in plasterboard from a thickness of 9 mm, independent of the insulation behind. Not suitable for ceiling installations.

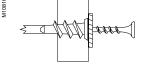
Benefits

- Self-drilling preferably installed with a cordless screwdriver Pozidriv (PZ) 2 without pre-drilling
- Wood screw 4.5x35 with 8 mm head and cross-slot Pozidriv 2 (TPD-Metal)
- For plasterboards from a thickness of 9 mm, including multiple sheet thicknesses (TPD-Metal)
- Fire resistant (TPD-Metal)
- · Screw with high pitch, easy and fast (TPD-Metal)

Material data

Material	TPD-Metal Zinc TPD-Nylon PA (polyamide), glass fibre reinforced		
	Screw	Electroplated steel (TPD-Metal)	
Operative data			
Temperature range	−40°C to	+80°C.	





Screw the TPD into the plaster-

Mount the fixture by screwing the screw into the TPD.

Туре	Screw size mm	Board thickness mm	Max. fixture thickness mm	Practical loading capacity, shear/pull-out load in 13 mm board, N*
TPD-Metal	4.5x35	min. 9	26	270/80
TPD-Nylon	4.5x35	min. 9	12	190/50

^{*} Safety factor 2.5 for shear and 3 for pull-out load (TPD-Metal). Safety factor 4.5 for shear and 6 for pull-out load (TPD-Nylon).

Rang	je							
		Туре	Screw size	Colour	Dim. Ø/L mm	Qty per package	EAN code	Ref. No.
		Cavity fixing, zi	nc					
P89047	0.000		ightweight installat lectroplated steel s		board, including	wood screw with	n cross-slot Pozidriv 2.	
	Demining.	TPD-Metal	4.5x35	_	13/37	100 25	7315880114291 7315881220120	1220 104 1220 120
		Cavity fixing, PA	A					
P131450	The Committee		ightweight installat yamide), glass fibre				s-slot.	
	Game	TPD-Nylon	_	White	13/37	100	7315881220014	1220 010

Cavity fixing Thorsman THW





Description THW

THW metal cavity fixing including screw is excellent for installations in plasterboard materials. The shape of THW prevents it from rotating. No pre-drilling needed, just hammer in.

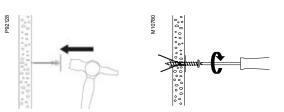
Application

For lightweight installations in board materials ranging from 6 to 13 mm thickness, excellent for porous and thin materials.

- No pre-drilling needed
- Screw with sharp point, Phillips PH2
- Fire-resistant
- Easy to remove
- Leaves a very small hole in plasterboard when removed

Material data

Material steel	Cavity fixing	Yellow-chromated
	Screw	Electroplated steel
Operative data		
Temperature range	–40°C to +80°C.	



Hammer the cavity fixing in place. No pre-drilling needed.

Mount the fixture with the included Phillips PH2 screw (cross-recessed).

Technical data

Туре	Screw	Board thickness mm	Max. fixture thickness mm	Practical loading capacity, shear/pull-out, N*
THW 4.2x38	4.2x38	6-13	16	100/100

^{*} Safety factor 2.5 for shear and 3 for pull-out load.

Range							
	Туре	Screw size	Colour	Dim. mm	Qty per package	EAN code	Ref. No.
	Cavity fixing in	cluding screw					
P91678		luding screw. The yellow-chromated				re-drilling needed, just hammer	in.
(Day	THW 4.2x38	4.2x38	_	10/30/12	50	7315881260171	1260 170

LSB02788EN.indd Life Is On



Organization	Concrete screws Thorsman MULTI-MONTI MMS	70 70
Shapping.	Universal screws Thorsman TEL and TEL-C5M	73 73
0	Thorsman TGS	74
	Self-tapping screws Thorsman TGE and TSE	75 75

	Self-tapping screws Thorsman TSS and TSB	75
	Collar screws Thorsman TST	77 77
	Installation screws Thorsman TSC and TSC-C5M	78 78
The state of the s	Thorsman TSF and TSI	79
The state of the s	Thorsman TMP-C3 and TFT	80
	Metric screws Thorsman MRX	81 81
	Through bolts Thorsman TEX	82 82
	Wedge brass anchors Thorsman TMA Thorsman TSA	85 85 86
	Universal anchors Thorsman SEVENHOOK™ SVH	87 87

Concrete screws

Thorsman MULTI-MONTI MMS





Description

The Thorsman range of concrete screws includes hardened steel screws for direct installation in hammer drilled holes in solid, hard materials like concrete and solid bricks. The concrete screws can be used in indoor or outdoor applications.

For outdoor applications, electroplated Protect 4 screws (C4) are specially suitable. Acid-proof stainless steel screws (C5M) are available for extreme

The range also includes a mounting tool for the eye screw, magnetic socket drivers for hexagon head screws and a screw bit T30.

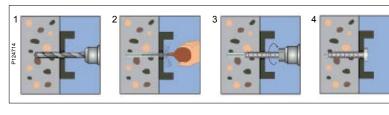
Suitable for assembly of wall trunking and cable ladder brackets in concrete and solid bricks. Used directly without plastic plug.

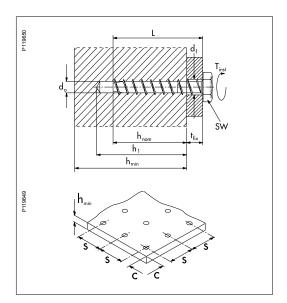
- · Low stress induction allows installation close to concrete or brick edge.
- Captive fixing.
- Corrosion resistant.
- Fast installation.
- Removable.
- Different head types for different applications.

Technical and material data

Material	Hardened steel, electroplated. Also available in Protect 4 C4 and acid-proof stainless steel C5M.
Standards	ETA 05/0010, ETA 05/0011, DIBt no. Z-21.1-1503.

Installation





Technical information

		mm	mm	mm	mm	mm	mm	mm	Nm
MMS-P 5x30		30	1	T25	6	35	4	30	8
MMS-P 5x50		50	15	T25	6	40	4	35	8
MMS-P 6x30	<i>annn</i>	30	1	T30	7	35	5	30	12
MMS-P 7.5x45 ¹⁾		45	1	13	9	55	6	45	20
MMS-MS 7.5x45 ¹⁾		45	1	13	9	55	6	45	20
MMS-S 6x40		40	5	10	7	45	5	35	12
MMS-S 6x50 ¹⁾		50	5	10	7	55	5	45	12
MMS-S 6x60 ¹⁾		60	15	10	7	55	5	45	12
MMS-S 7.5x35	O∄ <i></i>	35	1	13	9	40	6	35	20
MMS-S 7.5x40]	40	5	13	9	45	6	35	20
MMS-S 7.5x50 ¹⁾		50	5	13	9	55	6	45	20
MMS-S 10x60 ¹⁾		60	5	16	12	65	8	55	50
MMS-S 7.5x50/65 ³⁾		50	5	13	9	70	6	45	20
MMS-S 10x70/85 ²⁾³⁾	OB	70	5	16	12	75	8	65	50
MMS-MF 6x40		40	5	10	7	45	5	35	12
MMS-MF 6x50 ¹⁾	@ rd	50	5	10	7	55	5	45	12
MMS-MF 6x60 ¹⁾	⊘ ∄ <i>mmm</i>	60	15	10	7	55	5	45	12
MMS-MF 7.5x50 ¹⁾		50	5	13	9	55	6	45	20
MMS-MF 7.5x70 ²⁾		70	5	13	9	75	6	65	20
MMS-R 6x40	∮ <u></u>	40	5	-	7	50	5	40	12
MMS-I 7.5x60 ²⁾		60	5	13	9	65	6	55	20

- 1) DIBt Zulassung Nr. Z-21.1-1503 2) ETA 05/0010
- 3) Acid-proof stainless steel A4

L t SW d h Ød h T

Concrete screws Thorsman MULTI-MONTI MMS

nge Screws										
	Туре	Dimensions Øxlength (mm)	Qty per package	EAN code	Internal ID-No.	Ref. No.				
	With pan head									
Caralle de la companya del la companya de la compan	Concrete screw with pan head. Recess T-20, T-30 or T-40. Suitable for concrete and solid brick materials. Mounting with cordless screwdriver or wrench. Material: Steel, electroplated.									
	MMS-P Recess T-20	5x30	200	3606480214509	20062416	IMT38040				
	MMS-P Recess T-20	5x50	200	3606480214516	20062417	IMT38041				
	MMS-P Recess T-30	6x30	100	3606480214431	20062409	IMT38033				
	MMS-P Recess T-40	7.5x45	100	3606480214448	20062410	IMT38034				
	With flange head									
And the same of th	Concrete screw with flar screwdriver or wrench. Material: Steel, electropi	nge head 17 mm. Recess ated.	T-30. Suitable for	concrete and solid brick	materials. Mount	ting with cordless				
	MMS-MS	7.5x45	50	3606480214479	20062413	IMT38037				
	With hexagon head, wa	asher enclosed								
(Chianasasasas	Concrete screw with hex screwdriver or wrench. Material: Steel, electropi	ragon head. Washer enclated.	osed. Suitable for	concrete and solid brick	materials. Mount	ting with cordless				
	MMS-S Wrench width 10 mm	7.5x35	100	3606480214370	20062403	IMT38027				
	MMS-S Wrench width 13 mm	10x60	50	3606480214400	20062406	IMT38030				
	With hexagon head, wa	asher enclosed								
Caracana and a second	Concrete screw with hex Mounting with cordless s Material: Steel, electrop		osed. Wrench wic	dth 8 mm. Suitable for co	ncrete and solid b	rick materials.				
0	MMS-S	6x40	100	3606480214523	20062418	IMT38042				
	MMS-S	6x50	100	3606480214486	20062414	IMT38038				
	MMS-S	6x60	100	3606480214493	20062415	IMT38039				
Charles	Concrete screw with hex Mounting with cordless s Material: Steel, electropi		osed. Wrench wid	dth 10 mm. Suitable for co	oncrete and solid	brick materials.				
130	MMS-S	7.5x40	100	3606480214387	20062404	IMT38028				
	MMS-S	7.5x50	50	3606480214394	20062405	IMT38029				
	With hexagon head, C4	1 washer enclosed								
Characterists	Concrete screw with hex	kagon head. Washer encl screwdriver or wrench. Co			oncrete and solid	brick materials.				
	MMS-S	10x60	50	3606480214530	20062419	IMT38043				
	With hexagon head Ci	SM								
~~~	screwdriver or wrench. O	agon head. Wrench widt Corrosivity class C5M.		e for concrete and solid b	rick materials. Mo	ounting with cordle				
Carried and	Concrete screw with hex screwdriver or wrench.	agon head. Wrench widt		e for concrete and solid b 3606480214424	rick materials. Mo	ounting with cordle				
Desirements.	Concrete screw with hex screwdriver or wrench. (Material: Stainless steel	agon head. Wrench widt Corrosivity class C5M. AISI316, phosphated ste 10x70/85	el (function tip).							
Orania de la constitución de la	Concrete screw with hex screwdriver or wrench. Control Material: Stainless steel MMS-S  With hexagon head, was Concrete screw with hexagon head with cordless series.	agon head. Wrench widt Corrosivity class C5M. AISI316, phosphated ste 10x70/85	el (function tip).  25  osed. Wrench wich orrosivity class C5	3606480214424 dth 13 mm. Suitable for c	20062408	IMT38032				
Orania de	Concrete screw with hex screwdriver or wrench. Control Material: Stainless steel MMS-S  With hexagon head, was Concrete screw with hexagon head with cordless series.	kagon head. Wrench widt Corrosivity class C5M. AISI316, phosphated ste 10x70/85 asher enclosed, C5M kagon head. Washer enclosed	el (function tip).  25  osed. Wrench wich orrosivity class C5	3606480214424 dth 13 mm. Suitable for c	20062408	IMT38032				
Oraciona de la constitución de l	Concrete screw with her screwdriver or wrench. Control Material: Stainless steel MMS-S  With hexagon head, was Concrete screw with hexagon head; with cordless sometimes and the stainless steel Material: Stainless steel	agon head. Wrench widt Corrosivity class C5M. AISI316, phosphated ste 10x70/85  asher enclosed, C5M agon head. Washer enclosed wrench. Co AISI316, phosphated ste 7.5x50/65	el (function tip).  25  osed. Wrench wich orrosivity class C5 el (function tip).	3606480214424 dth 13 mm. Suitable for co	20062408 oncrete and solid	IMT38032 brick materials.				
Organization of the last of th	Concrete screw with her screwdriver or wrench. C Material: Stainless steel MMS-S  With hexagon head, was Concrete screw with hex Mounting with cordless s Material: Stainless steel MMS-S  With hexagon head and	kagon head. Wrench widt Corrosivity class C5M. AISI316, phosphated ste 10x70/85  Asher enclosed, C5M kagon head. Washer enclosed or wrench. Co AISI316, phosphated ste 7.5x50/65  d combined washer kagon head and combine cerewdriver or wrench.	el (function tip).  25  osed. Wrench wicorrosivity class C5 el (function tip).  50	3606480214424 dth 13 mm. Suitable for co 5M. 3606480214417	20062408  concrete and solid  20062407	IMT38032 brick materials. IMT38031				
Orania de la constitución de la	Concrete screw with her screwdriver or wrench. Content Stainless steel MMS-S  With hexagon head, with hexagon with hexagon head with cordless sometimes. Stainless steel MMS-S  With hexagon head and Concrete screw with hexagon hexago	kagon head. Wrench widt Corrosivity class C5M. AISI316, phosphated ste 10x70/85  Asher enclosed, C5M kagon head. Washer enclosed or wrench. Co AISI316, phosphated ste 7.5x50/65  d combined washer kagon head and combine cerewdriver or wrench.	el (function tip).  25  osed. Wrench wicorrosivity class C5 el (function tip).  50	3606480214424 dth 13 mm. Suitable for co 5M. 3606480214417	20062408  concrete and solid  20062407	IMT38032 brick materials. IMT38031				
Orania de la constitución de la	Concrete screw with her screwdriver or wrench. Communication Material: Stainless steel MMS-S  With hexagon head, with hexagon with hexagon head and Concrete screw with hexagon	agon head. Wrench widt Corrosivity class C5M. AISI316, phosphated ste 10x70/85  asher enclosed, C5M agon head. Washer encl screwdriver or wrench. Ca AISI316, phosphated ste 7.5x50/65  d combined washer agon head and combine screwdriver or wrench. ated.	el (function tip).  25  osed. Wrench wich prosivity class C5 el (function tip).  50  d washer. Wrench	3606480214424 dth 13 mm. Suitable for com. 3606480214417	20062408  concrete and solid  20062407  r concrete and so	IMT38032 brick materials. IMT38031				

# Concrete screws Thorsman MULTI-MONTI MMS

Ran	ige screws						
		Туре	Dimensions Øxlength (mm)	Qty per package	EAN code	Internal ID-No.	Ref. No.
		With hexagon head and o	combined washer				
P117751	Cara di	Concrete screw with hexage Mounting with cordless scr Material: Steel, electroplate	ewdriver or wrench.	d washer. Wrenc	h width 10 mm. Suitable f	or concrete and s	solid brick materials.
	The second second	MMS-MF	7.5x50	50	3606480214608	20062426	IMT38050
		MMS-MF	7.5x70	50	3606480214615	20062427	IMT38051
		With hexagon head and	combined washer, C4				
P117751	Control of the latest	Concrete screw with hexag Mounting with cordless scr Material: Steel, electroplat	ewdriver or wrench. Co			r concrete and so	olid brick materials.
		MMS-MF	6x40	100	3606480214547	20062420	IMT38044
		MMS-MF	6x60	50	3606480214554	20062421	IMT38045
P117751	Granding the second	Concrete screw with hexag Mounting with cordless scr Material: Steel, electroplat	ewdriver or wrench. Co			or concrete and s	solid brick materials.
		MMS-MF	7.5x50	50	3606480214561	20062422	IMT38046
		Eye screw					
P117756	Control of the last	Concrete eye screw. Suita Material: Steel, electroplat		lid brick materials	s. Mounting with cordless	screwdriver or w	rench.
		MMS-R	6x40	100	3606480214462	20062412	IMT38036
		With hexagon head					
P117753	Translation of the last of the	Concrete screw with hexag for concrete and solid brick Material: Steel, electroplat	materials. Mounting w			8/M10. Wrench v	vidth 13 mm. Suitable
	-	MMS-I	7.5x60	25	3606480214455	20062411	IMT38035
Ran	ige tool, sockets ar	nd bits					
		Mounting tool					
P117760		Mounting tool for concrete Material: Steel, electroplat					
_	-	Mounting tool	16x40	1	3606480214622	20062428	IMT38052
		Magnetic socket drivers					
		Mounting tool with magnet Material: Steel.	for hexagon head scre	ews.			
P117761	Common Co	10x45 for 10 mm screws	10x45	1	3606480214639	20062429	IMT38053
P117759		13x55 for 13 mm screws	13x45	1	3606480214646	20062430	IMT38054
	_	Screw bit					
P117758		Screw bit T30, for use with Material: Steel.	an extension socket.				
_		T30 Bits x25	6.25x25	2	3606480214653	20062431	IMT38055

Anchor size			MMS-5		MMS-6			MMS-7.5			MMS-10	)
Max. recommended tension load of a single anchor without edge influence												
Cracked concrete C 20/25		kN	no	1.8	no	1.7	2.7	no	2.6	3.8	3.6	4.9
Non-cracked concrete C 20	)/25	kN	1.9	2.6	1.9	2.4	3.8	2.2	3.7	5.3	5.0	6.8
Max. recommended shea	r load of a	a single a	nchor with	out edge ir	fluence							
Cracked concrete C 20/25		kN	no	2.0	no	1.5	3.1	no	2.4	3.4	4.5	7.9
Non-cracked concrete C 20	)/25	kN	no	2.0	no	2.1	3.1	1.9	3.4	3.4	6.3	7.9
Max. recommended bend	ing load	of a singl	e anchor									
		Nm	no	no	no	5.1	5.1	9.4	9.4	9.4	18.7	18.7
Dimensions of the concre	ete memb	er and in	stallation d	lata								
Embedment	h _{nom} ≥	mm	30	35	30	35	45	35	45	55	55	65/75
Min. spacing	S _{min} =	mm	35	35	40	40	40	40	40	40	50	50
Min. edge distance	C _{min} =	mm	35	35	40	40	40	40	40	40	50	50
Thickness of the concrete	h _{min} =	mm	_	_	_	100	100	100		•	120	

# Universal screws

## Thorsman TEL and TEL-C5M



## Description

Universal screw (electrician's screw) with panhead and Phillips PH2 recess. Available both in hardened, electroplated steel in corrosivity class C2 and in acid-proof stainless steel in corrosivity class C5M.

## **Applications**

Suitable for wood, wood fibreboard and plasterboard, and together with plugs. Not for use in load bearing timber structures.

## Benefits, general

- Documented quality
- High pitch much faster than conventional wood screws
- Extra sharp point no hole notch necessary in soft materials
- Fully threaded works well in thin materials
- · Specially designed for electricians' needs
- Durable packaging

## Benefits TEL-C5M

- Type-approved in category C5M
- Corrosion-classified in category C5M for installations in harsh environments

## Technical data

Material TEL	Hardened, electroplated steel
Material TEL-C5M	Acid-proof stainless steel AISI 316
Standards and regulations	<ul> <li>Corrosivity category C5M in accordance with SS-EN</li> </ul>
ISO	12944-2
	<ul> <li>Construction Regulations issued by the</li> </ul>
National Board of	Housing, Building and Planning (BKR)

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		Туре	Dimension Ø x L (mm)	Qty per package	EAN code	Internal ID-No.	Ref. No.		
		Universal screw TEI	_						
		Universal screw with panhead, Phillips PH2 recess. Single thread, sharp point. Fully threaded. Specially designed for electricians' needs. Suitable for wood, wood fibreboard, plasterboard, and together with plugs. Not for use in load bearing timber structures.  Material: Hardened, electroplated steel.							
5	Outstanding.	TEL	4.4x21	100	3606480330377	20064000	IMT3805		
P126134			4.4x25	100	3606480330384	20064001	IMT3805		
			4.4x35	100	3606480330391	20064002	IMT3805		
			4.4x45	100	3606480330407	20064003	IMT3805		
	Basis Salahan		4.4x58	100	3606480330414	20064004	IMT3806		
	9		4.4x69	100	3606480330421	20063999	IMT3806		
		Universal screw TEI	C5M						
		TEL-C5M	4.4x21	100	7315883760150	20051469	3760150		
	@-e22277		4.4x25	100	7315880115144	20051470	376015		

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4.4x35

3760160

20051471

# **Universal screws**

## **Thorsman TGS**



## Description

Universal screw with panhead and Phillips PH2 recess.

## **Applications**

Suitable for wood, wood fibreboard and plasterboard, and together with plugs. Not for use in load bearing timber structures.

## Benefits

- Documented quality
- Twin thread fast and easy installation
- High pitch much faster than conventional wood screws
   Extra sharp point no hole notch necessary in soft materials
- Fully threaded works well in thin materials
- Durable packaging

## **Technical data**

Material	Hardened, electroplated steel	

		Туре	Dimension Ø x L (mm)	Qty per package	EAN code	Internal ID-No.	Ref. No.
		Universal screw TG	s				
			panhead, Phillips PH2 rec ler with plugs. Not for use i electroplated steel.				nd wood
91.19	A CANADA	TGS-3,5x19	3.5x19	100	7315883709814	20033269	3709810
7	Please.	TGS-3,5x32	3.5x32	100	7315880054825	20033273	3709815
20		TGS-4,2x13	4.2x13	100	7315883709838	20033274	3709830
	E Beetter	TGS-4,2x16	4.2x16	100	7315880055235	20033275	3709835
		TGS-4,2x19	4.2x19	100	7315883709845	20033276	3709840
	Constitution of the last	TGS-4,2x25	4.2x25	100 1000	7315880054832 7332418020077	20033277 20060181	3709845 3709846
		TGS-4,2x31	4.2x32	100	7315883709852	20033278	3709850
		TGS-4,2x38	4.2x38	100	7315880054849	20033279	3709855
	AND DESCRIPTION OF THE PARTY OF	TGS-4,2x45	4.2x45	100	7315883709869	20033280	3709860
	A service of the serv	TGS-4,2x65	4.2x65	100	7315880054856	20033281	3709865

# **Self-tapping screws**Thorsman TGE and TSE



## **Description TGE**

Self-tapping screw with panhead and Phillips PH2 recess.

### Applications

Suitable for installations of sheet metal without pilot drilling, maximum 2x1.5 mm.

## **Benefits**

- · Documented quality
- Penetrates 2x1.5 mm sheet metal without pilot drilling
- Single thread for optimum drilling capacity
- Fully threaded works well in thin materials
- Durable packaging

## Technical data

Material Hardened, electroplated steel	
----------------------------------------	--

	Туре	Dimension Ø x L (mm)	Qty per package	EAN code	Internal ID-No.	Ref. No
	Self-tapping screw	TGE				
	pilot drilling, maximu Material: Hardened, TGE 3,5x11		100	7315883709715	20034538	370971
R. Berry	TGE 4,2x16	4.2x16	100	7315883709722	20034539	370972
	TGE 4,2x19	4.2x19	100	7315883709739	20034540	370973
				7045000700740	20034541	370974
The state of the s	TGE 4,2x25	4.2x25	100	7315883709746	20034341	3/09/4
& American	TGE 4,2x25 TGE 4,2x32	4.2x25 4.2x32	100	7315883709746	20034541	37097



## **Description TSE**

Self-tapping screw with large thin head and Phillips PH2 recess.

## **Applications**

Suitable for the fixing of sheet metal to sheet metal, maximum 2x1.5 mm.

## Benefits

- · Documented quality
- Drill point and self-tapping thread for installation in steel or sheet metal
- Penetrates 2x1.5 mm sheet metal without pilot drilling
- Extra broad head, 11.2 mm good function in thin and soft materials
- Fully threaded works well in thin materials
- Durable packaging

## Technical data

	Material	Hardened, electroplated steel
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Rang	e						
		Туре	Dimension Ø x L (mm)	Qty per package	EAN code	Internal ID-No.	Ref. No.
		Self-tapping screw	TSE				
P126173 P126175	Fire		m 2x1.5 mm. TSE-4,2x13 a		ead. Fully threaded. Suital	ble for the fixing o	f sheet metal to
	Demining to the	TSE-4,2x13	4.2x13	100 1000	7315883782619 7332418020176	20034504 20060188	3782610 3782611
	3 Property	TSE-4,2x31	4.2x31	100	7315883782626	20034505	3782620

# **Self-tapping screws**Thorsman TSS and TSB



## **Description TSS**

Self-tapping screw with panhead and Phillips PH1 recess.

## **Applications**

Suitable for the fixing of sheet metal to sheet metal, maximum 2x1.5 mm.

## **Benefits**

- Documented quality
- Drill point and self-tapping thread for installation in steel or sheet metal
- Penetrates 2x1.5 mm sheet metal without pilot drilling
- Extra broad head, 11.2 mm good function in thin and soft materials
- Fully threaded works well in thin materials
- · Durable packaging

## **Technical data**

Material	Hardened, electroplated steel

Range							
		Туре	Dimension Ø x L (mm)	Qty per package	EAN code	Internal ID-No.	Ref. No.
		Self-tapping screw	TSS				
P81320	<b>District</b>	Screw with panhead metal, maximum 2x1 Material: Hardened,	.5 mm.	oint. Single thread.	Fully threaded. Suitable for	the fixing of shee	t metal to sheet
		TSS	2.9x9.5	500	3606480330438	20064005	IMT38062



## **Description TSB**

Self-tapping collar screw with 1/4" hexagon head and Phillips PH2 recess.

Suitable for sheet steel, maximum 2x1.5 mm.

- · Documented quality
- Self-tapping screw with drill point to penetrate steel or metal
- Collar Ø 8.3 mm with the function of a small washer
- Penetrates 2x1.5 mm sheet metal without pilot drilling
- Fully threaded works well in thin materials
- Works well together with magnetic sockets TST-V 9x100 and TST-V 10x45, and long Phillips bits PH 2x110, in confined spaces
- Durable packaging

## Technical data

Material	Hardened, electroplated steel	
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	Туре	Dimension Ø x L (mm)	Qty per package	EAN code	Internal ID-No.	Ref. No.
	Self-tapping collar	screw TSB				
		" hexagon head, Phillips Pł . TSB-4,2x19 also in big-pa electroplated steel.		Single thread. Fully threa	ded. Suitable for s	sheet steel,
A TOWN	TSB-3,5x13	3.5x13	100	7315883780615	10002002	3780610
The state of the s	TSB-3,5x19	3.5x19	100	7315880047421	10002003	3780615
	TSB-3,5x25	3.5x25	100	7315883780622	10002004	3780620
A married	TSB-4,2x13	4.2x13	100	7315883780714	10002007	3780710
(Aller)	TSB-4,2x19	4.2x19	100 1000	7315880047445 7332418020121	10002008 20060184	3780715 3780716
The state of the s	TSB-4,2x25	4.2x25	100	7315883780721	10002009	3780720
A Persentent of the last of th	TSB-4,2x32	4.2x32	100	7315880047452	10002010	378072
1	TSB-4.2x38	4.2x38	100	7315883780738	10002011	3780730

# Collar screws Thorsman TST



## **Description**

Collar screw with 1/4" hexagon head and Phillips PH2 recess.

Suitable for wood and wood fibreboard, sheet steel, and together with plugs.

## Benefits

- Documented quality
- Extra sharp-pointed, self-tapping screw
- Twin steep-pitch thread fast and easy running
   Collar Ø 8.3-10,1 mm with the function of a small washer
- Penetrates 2x0,9 mm sheet metal without pilot drilling
- Fully threaded works well in thin materials
- Works well together with magnetic sockets TST-V 9x100 and TST-V 10x45, and long Phillips bits PH 2x110, in confined spaces
- Durable packaging

## Technical data

Material Hardened, electropiated steel	Material	Hardened, electroplated steel
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Ran	ige						
		Туре	Dimension Ø x L (mm)	Qty per package	EAN code	Internal ID-No.	Ref. No.
		Collar screw TST					
			" hexagon head, Phillips Ph ther with plugs. TST-4,2x19 electroplated steel.			for wood and woo	od fibreboard,
76142		TST-4,2x13	4.2x13	100	7315880044406	10001990	3780210
7	Officer.	TST-4,2x19	4.2x19	100 1000	7315880044413 7332418020091	10001991 20060192	3780215 3780216
	Brown or a	TST-4,2x25	4.2x25	100 1000	7315880044420 7332418020107	10001992 20060193	3780220 3780221
		TST-4,2x32	4.2x32	100	7315880044437	10001993	3780225
2	O STATE OF THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN	TST-4,2x38	4.2x38	100	7315880044444	10001994	3780230
1	Parent .	TST-4,2x51	4.2x51	100	7315880044451	10001995	3780235
P126	P. Jan.	TST-4,2x51	4.2x51	100	7315880044451	10001995	

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# Installation screws

## Thorsman TSC and TSC-C5M



## **Description**

Collar screw with large thin head and Phillips PH2 recess.

## **Applications**

Works in most materials – metal studwork, cabinets, wood, plugs.

## Benefits, general

- Documented quality
- Extra sharp-pointed screw with self-tapping thread
- Twin steep-pitch thread fast and easy running
- Penetrates 2x0.9 mm sheet metal without pilot drilling (not TSC-C5M)
- Extra broad head, 11.2 mm good function in thin and soft materials
- Works in most materials sheet metal studwork, cabinets, wood, plugs
- · Durable packaging

## Benefits, TSC-C5M

- Type-approved in category C5M
- Corrosion-classified in category C5M for installations in harsh environments

## Technical data

Material TSC	Hardened, electroplated steel
Material TSC-C5M	Acid-proof stainless steel AISI 316
Standards and regulations	Corrosivity category C5M in accordance with SS-EN
ISO	12944-2
	<ul> <li>Construction Regulations issued by the</li> </ul>
National Board of	Housing, Building and Planning (BKR)

Rar	nge						
		Туре	Dimension Ø x L (mm)	Qty per package	EAN code	Internal ID-No.	Ref. No.
		Installation screw TSC					
			uitable when jointing two ets, wood, plugs. TSC-4	o metal sheets togeth	2x13, 4,2x25, 4x2x31 fully ler, maximum thickness 2x 25 also in big-pack.		
P126159		TSC-4,2x13 Fully threaded	4.2x13	100 1000	7315883782015 7332418020138	20034493 20060185	3782010 3782011
	To Patrician	TSC-4,2x25 Fully threaded	4.2x25	100 1000	7315883782022 7332418020145	20034494 20060186	3782020 3782021
	The state of the s	TSC-4,2x31 Fully threaded	4.2x31	100	7315883782039	20034495	3782030
0010714	(F)	TSC-4,2x45 Part-threaded	4.2x45	100	7315883782046	20034497	3782040
		TSC-4,2x65 Part-threaded	4.2x65	100	7315883782053	20034498	3782050
		TSC-4,2x85 Part-threaded	4.2x85	50	7315883782060	20034499	3782060
	<b>6</b> P		kness 2x0.9 mm. Works		ed, sharp point. Suitable w netal studwork, cabinets, v		netal sheets
		TSC-FB 4,2x14	4.2x14	100	3606480507403	20076702	IMT37331
		Installation screw TSC	-C5M				
200	Q. Francisco		kness 2x0.9 mm. Works		ead. Fully threaded. Suital metal studwork, cabinets,		
		TSC-C5M-4,2x25	4.2x25	100	7315883782268	20051467	3782260
		TSC-C5M-4,2x32	4.2x32	100	7315880115137	20051468	3782265

# **Installation screws**

## Thorsman TSF and TSI



## **Description TSF**

Installation screw with raised countersunk head and Phillips PH2 recess.

### Applications

Suitable for mounting directly into plasterboard.

## **Benefits**

- Documented quality
- Extra sharp-pointed screw with wood screw thread
- Installs directly into plasterboard
- Fully threaded works well in thin materials
- · Durable packaging

## **Technical data**

Material	Hardened, electroplated steel

		Туре	Dimension Ø x L (mm)	Qty per package	EAN code	Internal ID-No.	Ref. No.
		Installation screw T	SF				
				a, Phillips PH2 recess	<ul> <li>Fully threaded. Suitable for</li> </ul>	or mounting direct	iy into
0 64	نائي. نائي	plasterboard. TSF-4, Material: Hardened,	8x25 also in big-pack. electroplated steel.		•		
126172	Profesion.	plasterboard. TSF-4,	8x25 also in big-pack.	100 1000	7315883782428 7332418020169	20033449 20060189	3782420 3782421
P126172	Constitution .	plasterboard. TSF-4, Material: Hardened, TSF-4,8x25	8x25 also in big-pack. electroplated steel.	100	7315883782428	20033449	3782420



## **Description TSI**

Installation screw with countersunk head and Phillips PH2 recess.

## Applications

Suitable for mounting of plasterboard panels to steel and timber studwork.

## Benefits

- Documented quality
- Extra sharp-pointed screw with steep-pitch thread for fast mounting
- Penetrates 0.7 mm sheet metal without pilot drilling
- Countersunk head easy to conceal in the plasterboard
- Fully threaded works well in thin materials
- Durable packaging

## **Technical data**

Material	Hardened, electroplated steel	
----------	-------------------------------	--

Rang	je						
		Туре	Dimension Ø x L (mm)	Qty per package	EAN code	Internal ID-No.	Ref. No.
		Installation screw 1	'SI				
		Screw with counters studwork. Also in big Material: Hardened,		ess. Suitable for mour	nting of plasterboard panel	s to steel and timb	er
P126176 P126178	W 155 F.	TSI-3,9x32	3.9x32	100 1000	7315883782817 7332418020183	20033454 20060190	3782810 3782811
	* Andrick Control of the	TSI-3,9x41	3.9x41	100 1000	7315883782824 7332418020190	20033455 20060191	3782820 3782821

## Installation screws

## Thorsman TMP-C3 and TFT



## **Description TMP-C3**

Installation screw with raised countersunk head and Phillips PH2 recess. Corrosivity category C3.

### **Applications**

Suitable for direct use in plasterboard and for 4 mm drilled holes in concrete and bricks.

## **Benefits**

- · Documented quality
- Type-approved
- Corrosion classified in category C3
- Raised countersunk head
- Fully threaded works well in thin materials
- Durable packaging

## **Technical data**

Material	Hardened, electroplated steel
Standards and regulations	Corrosivity category C3 in Accordance with SS-EN
ISO	12944-2

		Туре	Dimension Ø x L (mm)	Qty per package	EAN code	Internal ID-No.	Ref. No.
		Installation screw TM	` '	1			
38			mm drilled holes in conci		ess. Sharp point, fully three sivity category C3.	20051496	3764010
P126139	Carriega	TMP-C3-5,0x32	5.0x32	100	7315880115113	20051497	3764015
	Restrictive of the same	TMP-C3-5,0x38	5.0x38	100	7315883764028	20051498	3764020
	Elegent.	TMP-C3-5,0x41	5.0x41	100	7315880115120	20051499	3764025
	_	TMP-C3-5.0x45	5.0x45	100	7315883764035	20051500	3764030





## **Description TFT-IS**

Installation screw with insulated cup washer and cross-slotted head with Phillips PH2 recess.

## **Applications**

Provided with an insulating cup washer for screw-head protection when installing single-insulated wires in for instance trunking.

## Benefits

- Documented quality
- Works in many different materials, such as wood, plasterboard, concrete, bricks (pre-drill a Ø 4 mm hole), sheet metal studwork
- Fully threaded works well in thin materials
- · Allows for single-insulated wires to be installed in e.g. trunking
- Durable packaging

## **Technical data**

Material	Screw: Hardened, electroplated steel
	Cup washer: PD transparent

Range

Type Dimension Qty per EAN code Internal Ref. No. | D-No. | ID-No. | ID-No.

99119



Installation screw with cross-slotted head type PH2. Sharp point, fully threaded. High pitch for quick mounting. Provided with a transparent cup washer for screw-head protection. To be used when installing single-insulated wire in for instance trunking. Material: Hardened steel, electroplated, and PP.

TFT-IS 5x32	5x32	100	7332418018203	20057379	4020210

# Metric screws

## Thorsman MRX



## Description

Screw with metric thread and panhead with Phillips PH2 recess. Hexagon nut with metric thread, round washer.

## **Applications**

Suitable for assembly and mounting of components.

## Benefits

- · Documented quality
- Range M3–M8 with screw, nut and washer
- Metric screw with panhead and Phillips PH2 recess
- Durable packaging

## Technical data

roommour auta			
Material	Screw:	Electroplated steel 4.8	
	Nut:	Electroplated steel 6.8	
	Washer:	Electroplated steel	
Standards	Screw:	ISO 7045	
	Nut:	ISO 4032	
	Washer:	DIN 125A	

ge		Туре	Dimension	Qty per	EAN code	Internal	Ref. No.
		.,,,,	Ø x L (mm)	package	0000	ID-No.	
		Metric screw MRX	(				
		cross-point screwd Material: Electropla	thread and panhead, Phillip Iriver or power screwdriver. ated steel 4.8.	s PH2 recess. Suitable	e for assembly and mountin	ng of components.	Mounting w
	0	MRX-M3x25	3x25	100	7315883702013	20039868	370201
	P	MRX-M3x45	3x45	100	7315883702020	20039869	370202
		MRX-M4x25	4x25	100	7315883702044	20039870	370204
n _e	and the same of th	MRX-M4x50	4x50	100	7315883702051	20039871	370205
30		MRX-M5x25	5x25	100	7315883702075	20039872	370207
,	-	MRX-M5x50	5x50	100	7315883702082	20039873	370208
- (	S. James	MRX-M6x25	6x25	100	7315883702105	20039874	370210
4		MRX-M6x50	6x50	100	7315883702112	20039875	370211
		MRX-M8x25	8x25	100	7315883702136	20039876	370213
		MRX-M8x50	8x50	50	7315883702143	20039877	370214
			Dimension (mm)				
		Nut M6M					
		Hexagon nut with r Material: Electropla	metric thread, suitable for so ated steel 6.8.	crew MRX.			
		M6M-M3	M3	100	7315883702266	20039878	370226
		M6M-M4	M4	100	7315880054870	20039879	370226
		M6M-M5	M5	100	7315883702273	20039880	370227
		M6M-M6	M6	100	7315880054887	20039881	370227
		M6M-M8	M8	100	7315883702280	20039882	370228
			Dimension Inner Ø/Outer Ø/t (n	nm)			
		Washer RB					
		Round washer, sui Material: Electropla	table for screw MRX. ated steel.				
		RB3,2	3.2/7/0.5	100	7315883702211	20039883	370221
		RB4,3	4.3/9/0.8	100	7315880054894	20039884	370221
		RB5,3	5.3/10/1.0	100	7315883702228	20039885	370222
		RB6,4	6.4/12/1.6	100	7315880054900	20039886	370222
		RB8,4	8.4/16/1.6	100	7315883702235	20039887	370223

# Through bolts

## Thorsman TEX



## **Description**

The Thorsman range of TEX through bolts includes bolts for indoor as well as outdoor applications. They are intended for installations in both concrete and natural rock materials.

The steel bolts with electroplated zinc are suitable mainly for indoor applications, the hot-dipped zinc and acid-proof stainless steel bolts are to be used in outdoor or extreme environments.

### **Benefits**

- · Fast installation with hammer and wrench
- Installs directly in concrete and natural rock materials
- · No need for a clean drilled hole
- · Documented quality
- · High-quality anchor
- · Fast-grip design, a few turns on the nut sets the anchor

## **Material data**

Material steel bolt	Steel		
Surface treatments	• Electroplated zinc 5 μm, C2		
	<ul> <li>Hot-dipped zinc size M6 25 µm, C3</li> </ul>		
	<ul> <li>Hot-dipped zinc other sizes 45 μm, C3</li> </ul>		
Material stainless bolt and	clips Acid-proof stainless steel AISI 316, C5M		
Temperature range	From –20°C to +60°C		
Annessal			

### Approva

SP SITAC No. SC0268-10

### **Technical information**

Safety classes: source BKR (Swedish institute "Boverkets Konstruktionsregler"), section 2:115, first-second paragraphs.

## Concrete strength

Insta	Installation information, table 1										
Dim. TEX	L (mm)	Ø D (mm)	A (mm)	T max. (mm)	B (mm)	M (Nm)	Edge distance (mm)				
M6 x	40	6	37	3	28*	8	60				
M6 x	70	6	67	26	35*	8	60				
M8 x	50	8	48	5	35*	23	80				
M8 x	95	8	93	30	55	23	80				
M10 x	80	10	57	7	40	35	100				
M10 x	105	10	102	22	70	35	100				
M12 x	85	12	82	10	60	55	120				
M12 x	125	12	122	30	80	55	120				
M12 x	125		122	30	80						

 $^{^{\}star}$  Installation depth smaller than 40 mm only allowed in safety class 1.

The minimum allowed concrete strength for table values is C20/25.

## Edge distance and c/c installation distance between through bolts

The recommended edge distance is stated in table 1 for the various dimensions. Close to a corner the minimum edge distance needs to be multiplied by 3 (C in the second picture). The distance between two through bolts installed in formation should be the stated edge distance multiplied by 2 (S in the second picture).

## Smallest thickness of the concrete construction

The thickness of the concrete construction must be at least the stated installation depth multiplied by 1.5 and must not be less than 100 mm.

## Drilling

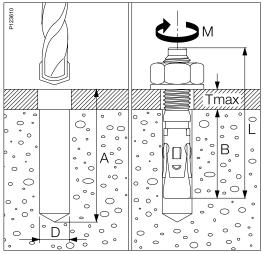
Drill the hole with a hammer drill of the same diameter as the through bolt being installed.

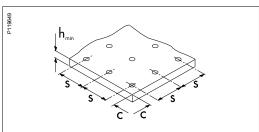
## Installation depth

For minimum installation depth, see table 1.

## Inetallation

The through bolt should be installed with a torque wrench according to values in table 1. The through bolt needs to be clean and it should not be greased or oiled prior to installation.





# Through bolts Thorsman TEX

### Corrosion

All steel fixings must have a protection against corrosion in order to stay safe over a long time.

Electroplated steel is suitable for indoor and protected outdoor use, called C2 in this Technical leaflet.

Hot-dip galvanized steel is suitable for outdoor applications, called C3 or C4 in this Technical leaflet, depending on the thickness of the zinc layer. Acid proof stainless steel is suitable for aggressive indoor and outdoor environments, called C5M in this Technical leaflet.

### Atmospheric corrosivity categories and examples of typical environments

Corrosivity category	Examples of typical environment (informative only)	ts in a temperate climate
	Outdoors	Indoors
C1 very low	-	Heated buildings with clean atmospheres, e.g. offices, shops, schools, hotels.
C2 low	Atmospheres with low level of pollution. Mostly rural areas.	Unheated buildings where condensation may occur, e.g. depots, sports halls, multi-storey car parks.
C3 medium	Urban and industrial atmospheres, moderate sulphur dioxide pollution. Coastal areas with low salinity.	Production rooms with high humidity and some air pollution, e.g. food-processing plants, laundries, breweries, dairies.
C4 high	Industrial areas and coastal areas with moderate salinity.	Chemical plants, swimming-baths, coastal ship- and boat yards, car-washs.
C5-I very high (industrial)	Industrial areas with high humidity and aggressive atmosphere.	Buildings in areas with almost permanent condensation and with high pollution.
C5-M very high (marine)	Coastal and offshore areas with high salinity.	Buildings in areas with almost permanent condensation and with high pollution.

### Choice of product per corrosivity/safety classification, table 2 Corrosivity classification Safety classification C1 Electroplated Electroplated C2 Hot-dip galvanized Hot-dip galvanized СЗ Hot-dip galvanized* Hot-dip galvanized* C4 Stainless steel A4 Stainless steel A4 C5-I Stainless steel A4 Stainless steel A4 C5-M Stainless steel A4 Stainless steel A4

^{*} Not applicable for size M6 (25 µm hot-dip galv.). Choose size M8, M10 or M12 (45 µm hot-dip galv.).

Pull-out load, table 3 Design resistance and practical loading capacity. Concrete strength C20/25.										
Dim.	Installation depth	Serviceability limit state	Ultimate lim Safety cl 1	it state Safety cl 2	Practical loading capacity	Accidental actions				
	(mm)	(kN)	(kN)	(kN)	(kN)	(kN)				
M6	28	4.5	2.8	2.5	2.1	5.6				
M8	35	8.7	4.5	4.1	3.4	9.0				
	55	9.0	5.9	5.3	4.4	11.7				
M10	40	9.9	5.2	4.7	3.9	10.3				
	70	16.2	10.6	9.6	8.0	21.1				
M12	60	20.4	10.7	9.7	8.1	21.4				
M12	80	20.7	15.0	13.6	11.4	30.0				

Shear load, table 4 Design resistance and practical loading capacity. Concrete strength C20/25.										
Dimension	Installation Ultimate depth Safety c		nate limit state ty cl 1 Safety cl 2 l		Accidental actions					
	(mm)	(kN)	(kN)	(kN)	(kN)					
M6	28	2.9	2.6	2.2	5.7					
M8	35	6.4	5.8	4.8	12.7					
M10	40	9.8	8.9	7.4	19.5					
M12	60	14.3	13.0	10.8	28.6					

# Through bolts Thorsman TEX

D							
Range		Туре	Dimensions Ø x length (mm)	Qty per package	EAN code	Internal ID-No.	Ref. No.
		Corrosivity class C2					
		Through bolt including nut and wa design, the bolt is set with a few to Material: Steel, electroplated zinc	urns of the nut.	door installatio	ns in concrete or natu	ral rock materia	I. Fast-grip
745		TEX-C2 M6x40	M6x40	100	3606480214660	20062374	IMT38005
P117745	- Comment	TEX-C2 M6x70	M6x70	100	3606480214677	20062375	IMT38006
		TEX-C2 M8x50	M8x50	100	3606480214684	20062376	IMT38007
		TEX-C2 M8x95	M8x95	50	3606480214691	20062377	IMT38008
		TEX-C2 M10x60	M10x60	50	3606480214707	20062378	IMT38009
		TEX-C2 M10x105	M10x105	25	3606480214714	20062379	IMT38010
		TEX-C2 M12x85	M12x85	25	3606480214721	20062380	IMT38011
		TEX-C2 M12x125	M12x125	25	3606480214738	20062381	IMT38012
		Corrosivity class C3					
		Through bolt including nut and wa extreme indoor environments. Fa Material: Steel, hot-dipped zinc.				I, outdoors as w	rell as in
744	ക്ക	TEX-C3 M6x40	M6x40	100	3606480214745	20062382	IMT38013
P117744	Section 10	TEX-C3 M6x70	M6x70	100	3606480214752	20062383	IMT38014
		TEX-C3 M8x50	M8x50	100	3606480214769	20062384	IMT38015
		TEX-C3 M8x95	M8x95	50	3606480214776	20062385	IMT38016
		TEX-C3 M10x60	M10x60	50	3606480214783	20062386	IMT38017
		TEX-C3 M10x105	M10x105	25	3606480214790	20062387	IMT38018
		TEX-C3 M12x85	M12x85	25	3606480214806	20062388	IMT38019
		TEX-C3 M12x125	M12x125	25	3606480214813	20062389	IMT38020
		Corrosivity class C5M					
		Through bolt including nut and wa extreme indoor environments. Fa Material: Stainless steel, acid-pro	st-grip design, the bolt is set			l, outdoors as w	rell as in
746		TEX-C5M M6x40	M6x40	100	3606480214820	20062390	IMT38021
P117746	The state of the s	TEX-C5M M6x70	M6x70	100	3606480214837	20062391	IMT38022
	Section 1	TEX-C5M M8x50	M8x50	100	3606480214844	20062392	IMT38023
		TEX-C5M M8x95	M8x95	50	3606480214851	20062393	IMT38024
		TEX-C5M M10x60	M10x60	50	3606480214868	20062394	IMT38025
		TEX-C5M M10x105	M10x105	25	3606480214875	20062395	IMT38026

# Wedge brass anchors Thorsman TMA



## Description

Brass anchor with metric fixing point.

## **Applications**

Wherever a fixing point flush with the surface is needed, in either ceiling, wall or floor surfaces. Suitable for concrete, stone, solid bricks and other solid materials.

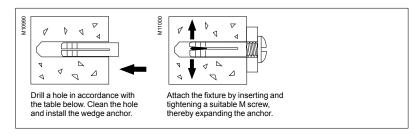
## **Benefits**

- Captive fixing
- · No projecting parts
- Shallow installation depth
- No special tools required
- Corrosion-resistant

## Material data

Material Brass

## Installation



Technical data (1 l	kN approx. 100 kg	)		
Type Inside thread x L mm	Drill Ø mm	Min. hole depth mm	Min. screw penetration depth ¹⁾ mm	Recommended load ²⁾ Shear/Pull-out in concrete 25 N/mm ² kN
TMA-M6x24	8	27	24	1.5/0.65
TMA-M8x30	10	34	30	2.0/1.1
TMA-M10x34	12	38	34	2.5/1.6

Range							
		Туре	Dimensions Ø x length (mm)	Qty per package	EAN code	Internal ID-No.	Ref. No.
		Wedge brass anchor with metric fixing concrete, stone, solid bricks and othe Material: Brass.		herever a fixi	ng point flush with the	surface is need	ed. Suitable for
9624		TMA-M6x24	M6x24	100	7315882820107	10001250	2820108
P 78	AND DESCRIPTION OF THE PARTY OF	TMA-M8x30	M8x30	100	7315882820121	10001251	2820124
		TMA-M10x34	M10x34	50	7315882820145	10001252	2820140

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¹⁾ For full expansion. ²⁾ Safety factor 2.5 for shear and 3 for pull-out load.

# Wedge steel anchors Thorsman TSA



## **Description**

Steel anchor with metric fixing point.

## **Applications**

Wherever a fixing point flush with the surface is needed, in either ceiling, wall or floor surfaces. Suitable for concrete, stone, solid bricks and blocks.

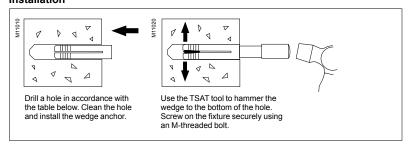
## **Benefits**

- Captive fixing
- No projecting parts
- · Shallow installation depth
- · Withstands aggressive environments
- High load values
- Fireproof

## **Material data**

Material Electroplated steel, yellow chromated

## Installation

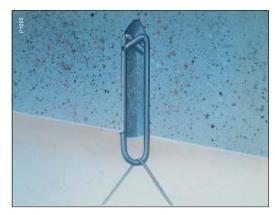


Technical data	(1 kN approx. 1	00 kg)				
Type Inside thread x L mm	Ø/min. hole depth mm	Thread diameter	Inside thread length mm	Min. distance to edge mm	Min. c/c distance	Max. recommended load ¹⁾ kN
TSA-M6x25	8/25	M6	11	70	70	1.7
TSA-M8x30	10/30	M8	15	90	90	2.8
TSA-M10x40	12/40	M10	18	120	120	4.2
TSA-M12x50	15/50	M12	21	150	150	7.4

 $^{^{1)}\}mbox{Pull-out}$  in 30 N/mm 2  concrete. Safety factor 5 included.

ge						
	Туре	Dimensions Ø x length (mm)	Qty per package	EAN code	Internal ID-No.	Ref. No.
	Anchor					
		metric fixing point. High load value le for concrete, stone, solid bricks eel, yellow chromated.		nded for use whereve	r a fixing point fl	ush with the
	TSA-M6x25	M6x25	100	7315882810108	10001236	2810109
	TSA-M8x30	M8x30	100	7315882810122	10001237	281012
	TSA-M10x40	M10x40	50	7315882810146	10001238	2810141
	TSA-M12x50	M12x50	50	7315882810160	10001239	2810166
	Hammer tool					
	Hammer tool for the above Material: Steel.	e wedge steel anchors.				
	TSAT-M6	10/140	1	7315882810900	10001242	2810901
	TSAT-M8	15/215	1	7315882810924	10001243	2810927
THE REAL PROPERTY.	TSAT-M10	16/230	1	7315882810948	10001244	281094

# **Universal anchors** Thorsman SEVENHOOK™ SVH



## Description

Stainless steel universal anchor.

## **Applications**

For fittings close to the ceiling (with locking tab) and to suspend false ceiling fittings, pipework and ventilation equipment. Suitable for concrete, natural stone, solid bricks and sheet metal.

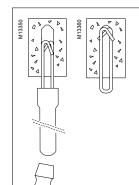
## **Benefits**

- No material fatigue
- Fire-classified and vibration resistant
- Corrosion-resistant
- Simple, secure fitting grips immediately after driving in
- Minimal drilling depth 30 mm

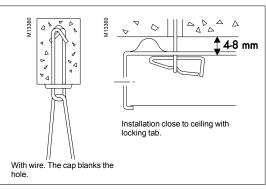
## Material data

Material	Anchor:	Acid-proof stainless steel wire, AISI 316
	Setting tool	: Steel, pre-galvanized
	Locking tab	: Stainless steel AISI 304

## Installation



Drill a hole in accordance with the table Drill a hole in accordance with the table below. Drive in SEVENHOOK using the setting tool to get the right depth. Done! The short, stiff wire-ends efficiently grip the sides of the hole, giving a srong, secure fixing. Temporary installation of cables, hoses, etc. Drill slightly deeper (approx. 50 mm) and when the job is finished, drive SEVENHOOK into the hole.



Technical data (1 kN approx. 100 kg)							
Туре	Drill size	Opening for wire, tie,	Smallest drilling and	Practical loading ca	pacity 1)		
	Ø mm	hanger Ø mm	insertion depth mm	Concrete C25 kN	Solid brick kN		
SVH-E1	8	6.5	30	1.0	0.5		
SVH-E2	8	6.5	30	1.0	0.5		

¹⁾ Safety factor 3 for pull-out load.

Туре	Dimensions W x L (mm)	Qty per package	EAN code	Internal ID-No.	Ref. No.				
Universal anchor	,	1							
ventilation equipment. S\	anchor. Intended for fittings close VH-E1 includes 100 white caps to concrete, natural stone, solid brick AISI 316.	blank the drilled h	ole and one setting to						
SVH-E1	14/50	100	7321677818709	20066613	781870				
SVH-E2	14/50	500	7321677818716	20066622	781871				
Locking tab									
	fittings close to the ceiling (max. 4 I horizontally to counter downward AISI 304.			ceiling). For hea	vier fittings				
SVH-L	11/30	25	7321677818723	20066092	781872				
Setting tool			Setting tool for a correct installation depth of the universal anchor.  Material: Steel, pre-galvanized.						
Setting tool for a correct i		anchor.							

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Drills and bits

# **Contents**

		g
		5

Hammer drill bits Thorsman THB	<b>90</b> 90
Screw bits & Magnetic sockets Thorsman PH, TST-V	<b>91</b> 91

# Hammer drill bits

# Thorsman THB



## Description

Hammer drill bits for electro-pneumatic rotary-hammer drilling machines with SDS taper. Suitable for use in concrete, brick, stone and rock.

- Special quality chrome vanadium steel
- · SDS shank fits a wide range of hammer drilling machines
- · Wide range including long drill bits

## **Standards**

In accordance with DIN 50049-3.1 A.

## Material data

High quality tungsten carbide tip with chrome vanadium steel shaft.

Range								
	Type ØxL mm	Drilling depth mm	Qty per package	EAN code	Ref. No.			
	Hammer drill bits intended for use in electro-pneumatic, rotary hammer-drilling machines with SDS taper. Suitab brick, stone and rock. Material: Tungsten carbide tip, chrome vanadium steel shaft.							
046	THB 4x110	50	1	5018934947693	1788868A			
P89049	THB 5x110	50	1	5018934947716	1788926A			
The state of the s	THB 5x160	100	1	5018934947723	1788934A			
	THB 5.5x110	50	1	5018934947747	1788975A			
	THB 5.5x160	100	1	5018934947754	1788989A			
	THB 6x110	50	1	5018934947778	1789023A			
	THB 6x160	100	1	5018934947761	1789016A			
	THB 6.5x110	50	1	5018934947785	1789028A			
	THB 6.5x160	100	1	5018934947792	1789030A			
	THB 7x110	50	1	5018934947808	1789052A			
	THB 7x160	100	1	5018934947815	1789054A			
	THB 8x110	50	1	5018934947822	1789080A			
	THB 8x160	100	1	5018934947839	1789108A			
	THB 8x210	150	1	5018934947846	1789116A			
	THB 8x260	200	1	5018934947853	1789120A			
	THB 10x160	100	1	5018934947860	1789153A			
	THB 10x210	150	1	5018934947877	1789165A			
	THB 10x450	400	1	5018934947884	1789195A			
	THB 12x160	100	1	5018934947907	1789252A			
	THB 12x210	150	1	5018934947914	1789272A			
	THB 12x250	200	1	5018934947921	1789304A			
	THB 12x450	400	1	5018934947945	1789319A			
	THB 12x600	550	1	5018934947952	1789323A			
	THB 14x150	100	1	5018934947969	1789350A			
	THB 14x200	150	1	5018934947976	1789352A			
	THB 14x450	400	1	5018934947990	1789410A			
	THB 14x600	550	1	5018934948003	1789414A			
	THB 16x150	100	1	5018934948010	1789440A			
	THB 16x200	150	1	5018934948027	1789450A			
	THB 16x300	250	1	5018934948034	1789455A			
	THB 16x450	400	1	5018934948041	1789470A			
	THB 16x600	550	1	5018934948058	1789481A			
	THB 18x450	400	1	5018934948065	1789485A			
	THB 20x450	400	1	5018934948072	1789500A			
	THB 20x600	550	1	5018934948089	1789510A			
	THB 22x450	400	1	5018934948096	1789520A			
	THB 25x450	400	1	5018934948102	1789570A			

# **Screw bits & Magnetic sockets** Thorsman PH, TST-V



## Description

The Thorsman range of screw bits is adapted to the screw range with either Phillips cross recess or Torx. All bits are hexagonal with 1/4" drive end. Three lengths are available: 25 mm, 50 mm and 110 mm. The long bits are well suited for access in tight spaces. Hardened steel provides good strength durability and fit.

- · Bit range adapted to the Thorsman screw range
- Standard 1/4" hexagon drive end
- · Phillips cross recess or Torx
- · Long bit for access in tight spaces
- · Hardened steel for good strength durability and fit

Two 1/4" sockets suit all Thorsman 1/4" hexagon-head collar screws. The long holder is extra thin to facilitate access in tight spaces. Hardened steel provides good strength durability and fit.

## Benefits

- Suit all Thorsman 1/4" hexagon-head collar screws
- · Standard 1/4" hexagon drive end
- · Thin and long magnetic socket for access in tight spaces
- · Hardened steel for good strength durability and fit

### **Standards**

ISO 1173-1975

**DIN 3126** 

## Material data

Hardened steel (special hardening process).

	Туре	Dimensions Hexagon x L	Qty per package	EAN code	Ref. No.
	Phillips, for use with a	n extension socket			
	1/4" hexagon drive end, Material: Hardened stee		Phillips cross reces	sed screws. To be used togeth	er with an extension so
	PH 2x25	1/4"x25	2	7315881772056	1772 054
	PH 2x25 reduced	1/4"x25	2	7315880056294	1772 052
	Phillips, for use with a	screw-driver			
	1/4" hexagon drive end, with a screw-driver. Material: Hardened stee	· ·	spectively. Suitable	for Philllips cross recessed scre	ews. To be used togeth
1	<b>PH 2x50</b> 50 mm	1/4"x50	2	7315880055273	1772 056
	PH 2x110 110 mm for tight spaces	1/4"x110	2	7315880055297	1772 058
	Torx, for use with an ex	rtension socket			
	1/4" hexagon drive end, Material: Hardened stee		Torx T10 or T20 scr	rews. To be used together with	an extension socket.
	T20x25 For T20 screws	1/4"x25	2	7315880115175	1720 036
	Torx, for use with a scr	ew-driver			
1	1/4" hexagon drive end, Material: Hardened stee		table for Torx T10 or	T20 screws. To be used togeth	ner with a screw-driver
	T20x50 For T20 screws	1/4"x50	2	7315880115182	1720 038
	T20x110 For T20 screws	1/4"x110	2	7315881720040	1720 040

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# Screw bits & Magnetic sockets Thorsman PH, TST-V

### Range Magnetic sockets Ref. No. Type Internal **Dimensions** Qty per **EAN** code ØxL hexagon package 1/4" hexagon drive end, lengths 45 and 100 mm respectively. Internal hexagon with magnet. Suitable for collar screws with a 1/4" hexagon head. To be used together with a screw-driver. Material: Hardened steel. TST-V 10x45 P91677 7315880055259 1772 125 10x45 45 mm TST-V 9x100 1/4" 9x100 1 7315881772124 1772 120 100 mm for tight spaces

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Schneider

## Drills and bits



# Glands and grommets

# **Contents**



Cable grommet
Thorsman TET™
Material: EDDM and CD

# Cable grommet Thorsman TET™





## **Description**

TET grommets are available in two different materials, Ethylene/propylene (EPDM) rubber and Chloroprene (CR) rubber. They are intended for completely dust and watertight sealing of cables, conduits and pipes, for example in cars, aeroplanes, ships, electrical and hydraulic equipment, enclosed apparatus and light fittings. Both materials are weather and temperature resistant and can be used both indoors and outdoors.

- Fast installation seals without tightening of the grommet
- · Permits vibration in cables, conduits and pipes without detracting from the seal
- The sealing diaphragm is punctured only when the cable is drawn through acts as a blind plug and is ready for installation
- Approved for installation in ships
- Each size has a very wide sealing range.
- High degree of protection IP67

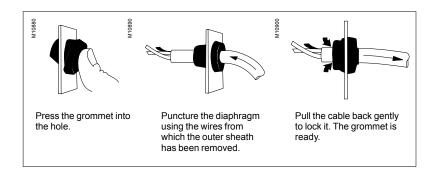
## **Approvals**

Approved by Lloyds Register of Shipping, Det Norske Veritas for marine and offshore use, and the Swedish, Norwegian, Danish and Finnish national approval boards for watertight penetration.

## Degree of protection

IP67 in accordance with IEC.

## Installation



# Cable grommet Thorsman TET™

Range								
		Туре	Colour	Dimensions Ø/B mm	Hole¹) Ø mm	Qty per package	EAN code	Ref. No.
		Grommets, EPDM	l					
P60848		Grommet suitable f and watertight cabl Material: EPDM rul	e and pipe inle	oles in material with a thic ts.	ckness from 1 to	o 4 mm, TET 3-5 f	or 0.5 to 3 mm. For cor	mpletely dust
		TET 3-5	Grey	20/13	12.5 ²⁾	50	3606480163784	IMT36179
		TET 5-7	Grey	21/18	16	50	3606480163791	IMT36180
		TET 7-10	Grey	24/20	19	50	3606480398834	IMT37303
		TET 10-14	Grey	28/22	23	50	3606480398872	IMT37307
		TET 14-20	Grey	35/25	29	50	3606480398919	IMT37311
		TET 20-26	Grey	46/30	38	25	3606480398940	IMT37314
		TET 26-35	Grey	58/35	48	25	3606480398971	IMT37317
		Metric grommets,	EPDM					
P60848	48	Grommet suitable f cable and pipe inle Material: EPDM rul	ts.	netric thread in material v	vith a thickness	from 1 to 4 mm. F	For completely dust and	d watertight
		TET M7-10	Grey	25/20	M20	50	3606480163807	IMT36181
		TET M10-14	Grey	29/22	M25	50	3606480163814	IMT36182
		TET M14-20	Grey	37.5/25	M32	50	3606480163821	IMT36183
		TET M20-26	Grey	48/30	M40	25	3606480163838	IMT36184
		TET M26-35	Grey	60/35	M50	25	3606480163845	IMT36185
		Grommets, CR						
P60849	44	Grommet suitable f and watertight cabl Material: Chloropre	e and pipe inle	oles in material with a thic ts.	ckness from 1 to	o 4 mm, TET 3-5 f	or 0.5 to 3 mm. For cor	mpletely dust
		TET 3-5C	Black	20/13	12.52)	50	3606480398803	IMT37300
		TET 5-7C	Black	21/18	16	50	3606480399008	IMT37320
		TET 7-10C	Black	24/20	19	50	3606480398841	IMT37304
		TET 10-14C	Black	28/22	23	50	3606480398889	IMT37308
		TET 14-20C	Black	35/25	29	50	3606480398926	IMT37312
		TET 20-26C	Black	46/30	38	25	3606480398957	IMT37315
		TET 26-35C	Black	58/35	48	25	3606480398988	IMT37318
		Metric grommets,	CR					
P60849	44	Grommet suitable f cable and pipe inle Material: Chloropre	ts.	netric thread in material v	vith a thickness	from 1 to 4 mm. F	For completely dust and	d watertight
		TET M7-10C	Black	25/20	M20	50	3606480163739	IMT36174
		TET M10-14C	Black	29/22	M25	50	3606480163777	IMT36178
		TET M14-20C	Black	37.5/25	M32	50	3606480163760	IMT36177

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TET M20-26C

TET M26-35C

Black

Black

48/30

60/35

M40

M50

25

25

3606480163753

3606480163746

IMT36176

IMT36175

# Cable grommet Thorsman TET™

## Range, bulk

## Grommets, EPDM

Grommet suitable for untapped holes in material with a thickness from 1 to 4 mm, TET 3-5 for 0.5 to 3 mm. For completely dust and watertight cable and pipe inlets.

Material: EPDM rubber.

Material. Er Divi	rabbor.					
TET 3-5	Grey	20/13	12.5 ²⁾	5000	3606480398810	IMT37301
TET 5-7	Grey	21/18	16	4000	3606480399015	IMT37321
TET 7-10	Grey	24/20	19	2500	3606480398858	IMT37305
TET 10-14	Grey	28/22	23	1700	3606480398896	IMT37309
TET 14-20	Grey	35/25	29	1000	3606480398933	IMT37313
TET 20-26	Grey	46/30	38	425	3606480398964	IMT37316
TET 26-35	Grev	58/35	48	250	3606480398995	IMT37319

## Grommets, CR

Grommet suitable for untapped holes in material with a thickness from 1 to 4 mm, TET 3-5 for 0.5 to 3 mm. For completely dust and watertight cable and pipe inlets. Material: Chloroprene (CR).

TET 3-5C	Black	

TET 3-5C	Black	20/13	12.52)	5000	3606480398827	IMT37302
TET 5-7C	Black	21/18	16	4000	3606480399022	IMT37322
TET 7-10C	Black	24/20	19	2500	3606480398865	IMT37306
TET 10-14C	Black	28/22	23	1700	3606480398902	IMT37310

¹⁾ Tolerance if material thickness is more than 2 mm = +1/-0 mm Tolerance if material thickness is less than 2 mm = ±1 mm







²⁾ Tolerance ±0.5 mm

## Cable grommet Material: EPDM and CR

## **Material data**

Material **FPDM** 

Ethylene/propylene rubber

Colour Grey Halogen-free Yes 1.35 g/cm³ Density 60–65° shore A Hardness

Weather resistance Weather and temperature resistant. Can be used both indoors and outdoors

Temperature resistance For continuous use between -40°C and +100°C

(cf.natural rubber +70°C). Slightly higher temperature for short periods (+130°C for about one hour).

After 72 hours at +100°C. Thermal aging Change in properties: Hardness +5° SH (+11%)

Breaking point -18% Elongation at break -26%

Fire properties Non self-extinguishing

Combustion rate 2 cm/min approx.

Chemical resistance

at -20°C

Oil resistance

Normally resistant to:

- Detergents
- Strongly oxidizing chemicals such as:
- Ammonia
- · Dilute phosphoric acid Dilute chromic acid
- · Dilute nitric acid
- · Dilute hydrochloric acid
- · Dilute sulphuric acid
- Others, e.g.:Developer
- Glycol
- Cooling fluid (emulsion)

Slightly affected by:

· Concentrated acids at room temperature

Not resistant to mineral oils, but withstands minor splashing such as that occurring in engine compart-

ments of vehicles, etc.

Chloroprene rubber

Black

No

1.38 g/cm³ 60-62° shore A

Weather and temperature resistant.

Can be used both indoors and outdoors.

For continuous use between -25°C and +95°C. Slightly higher temperature for short periods.

After 72 hours at +100°C. Change in properties:

Hardness +6° SH (+10%) Breaking point -8% Elongation at break -16% After 72 hours at +125°C. Change in properties:

Hardness +13° SH (+13%) Breaking point -12% Elongation at break -35%

Self-extinguishing.

Tested to IEC standard. Approved for installation in ships in accordance with IEC Publ. No. 92-1 (1964). Electrical installations in ships, Part 1 General requirements.

Normally resistant to:

- · Aliphatic hydrocarbons
- Alkalis
- Alcohols
- Dilute acids

Slightly affected by:

- Acetone
- Ammonia
- Freon
- Glycol
- Sodium hydroxide

Good resistance to mineral oils. The effect of other petroleum products, such as solvents, lubricating grease and wax, is insignificant. Should not be used in direct contact with petrol (gasoline)

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Being based on laboratory tests, all information should be regarded for guidance only. Temperature, duration of exposure, concentrations, etc., severely affect the properties.



**Terminals** 

# **Contents**

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	Twist wire connectors Thorsman TORIX™,T6/T16	<b>102</b> 102
-	Push-in terminal	103

# Twist wire connectors

# Thorsman TORIX™,T6/T16





## **Description**

TORIX T6 twist-on wire connector is intended for connection of all kinds and combinations of wire.

The connector is provided with a test hole at the top, making it easy to quickly test the connection with ordinary testing instruments.

### **Applications**

TORIX T6 is approved for connection of all kinds of wire from 0.5 mm² co 12.5 mm².

## **Benefits**

- · Test hole on top for quick and easy voltage testing
- Hexagon spanner flats for power screwdriver with 1/4" fitting
- Ergonomically shaped wings
- · No need to twist the stripped wires
- Can be screwed off and re-used on the same or a larger wire area
- · One product for all connections

## **Technical data**

Material	PA (polyamide)
Approvals	For 440 V acc. to IEC standard 685-2-4
	SEMKO, NEMKO, DEMKO, FIMKO (the Swedish,
Nor-	wegian, Danish and Finnish Electrical
Boards for Testing and	Approval of Electrical Equipment and Certification)

## Installation





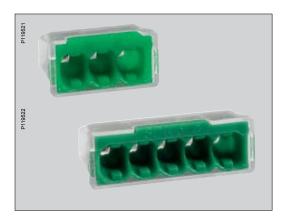
The wires are stripped about 15 mm and lined up. There is no need to twist them.  $\,$ 

Capacity			
Туре	Total area	Conductor area mm²	No. of conductors
TORIX T6 12.5	12.5	0.51)	2–10
		0.75	2–10
		1.0	2–10
		1.5	2–8
		2.5	2–5
		4.0	2–3
		6.0	2

¹⁾ Not for 2x0.5 mm² RK.

Range						
	Туре	Colour	Dimensions A/B/C (mm) 8	Qty per package	EAN code	Ref. No.
	Twist-on connect	or				
P4804			all kinds and combinations of wi g of the connection with ordinary			of the
9	TORIX T6	Red	20/14/28	100	7315883000218	3000 210
	Twist-on connect	or, bulk				
	Same as the above	e but in bulk package.				
	TORIX T6	Red	20/14/28	6000	7315883000225	3000 225

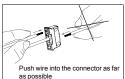
## **Push-in terminal**



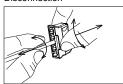
## Wire stripping length







Disconnection





## **Description**

The Thorsman push-in terminals are intended for use as floating termination in most applications. They are very well adapted to high temperature

The terminals are certified for use with both European and American cable types. They have a large clamping range, 0.5–2.5 mm² for solid and 1.5–2.5 mm² for rigid stranded conductors. These sizes can also be used in the same terminal.

## **Applications**

Clamping range	0.5 mm ² – 2.5 mm ²	solid wires
	1.5 mm ² – 2.5 mm ²	rigid stranded wires
	AWG 20 – 14	
Wire stripping length	8 – 9 mm	
Clamping points	3 clamping points	IMT36344
	5 clamping points	IMT36345
Voltage measurement	Hole for test equipm	ent

## **Benefits**

- Fast installation
- High working temperature, approved for 90°C in Europe and 105°C in
- Approvals for both European and American standards
- · With a test hole for easy voltage checking
- · Large clamping range
- Easy to plug in high pull-out force
- Highly transparent viewing window for visual inspection of the clamping points means greater safety and reliability during installation Mounting instruction printed on the package (three languages)

## **Technical and Material data**

Material	Housing	PC (polycarbonate)
	Cover	PA (polyamide)
	Insert	Copper
	Spring	Stainless steel
Colour spec.	Green	RAL 6024-HR
Nominal voltage	Europe	450 V
	USA	600 V
Nominal current	Europe	24 A
	USA	33 A
Max. ambient temperature	Europe	+90°C
	USA	+105°C
Degree of protection	IP20	
Approvals	VDE, UL, ENEC, ÖV	E
	,, _,,	

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Rang	je						
		Туре	Colour	Dimensions A/B/C (mm)	Qty per package	EAN code	Ref. No.
		Push-in terminal with the product is UL-approved Material: PC, PA, coppe	l	approved for an ambient temper	ature of 90°C in Eu	rope and 105°C in the l	JS. The
P119521		With three entries	Green	8.9/15.7/17.2	100	3606480199479	IMT36344
P119522	-	With five entries	Green	8.9/15.7/26	100	3606480199486	IMT36345

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# Reference number overview

1000.005	0040044	0400.040	0000 045	47 0704 004
1200 005 61	2042 041 41	2190 043 45	2369 015	
1200 023 61	2042 042 41	2190 044 45	2369 020	
1200 203 61	2042 083 43	2190 051 45	2369 200	
1200 221 61	2042 711	2190 052 45	2369 231	
1200 401 61	2043 016 41	2190 053 45	2369 262	
1200 412 61	2043 032 41	2190 054 45	2369 310	47 2740 017
1200 443 61	2045 012 41	2191 000 45	2371 011	
1206 028 64	2052 011 41	2191 005 45	2371 013	47 3000 210
1220 010 66	2052 017 41	2191 010 45	2373 017	
1220 104 66	2052 025 41	2191 015 45	2373 020	47 3782 260
1220 120 66	2052 033 41	2191 020 45	2375 012	47 3782 265
1240 001 63	2052 051 41	2191 025 45	2377 018	47 781870
1240 704 63	2052 058 41	2191 030 45	2379 014	47 781871
1241 009 63	2052 066	2191 035 45	2380 004	
1244 003 63	2053 015 41	2191 040 45	2380 010	47 781873
1244 706 63	2053 031 41	2191 045 45	2380 053	47 100000921
1248 004 63	2060 002 41	2191 050 45	2380 060	47 100001721
1249 002 63	2060 028 41	2191 055 45	2380 110	47 100070822
1249 507 63	2060 135 41	2191 060 45	2380 152	47 1001007
1250 000 63	2060 143 41	2191 065 45	2390 400	
1253 004 63	2070 001	2191 070 45	2390 401	
1253 509 63	2070 027 42	2191 075 45	2390 405	
1260 025 65	2070 134	2191 080 45	2390 406	
1260 066 65	2070 142	2191 500 45	2390 410	
1260 108 65	2070 209 42	2191 501 45	2390 415	
1260 124 65	2070 217	2191 502 45	2390 416	
1260 140 65	2101 004	2191 503 45	2390 420	
1260 165 65	2101 015	2191 504	2390 425	
1260 170 67	2106 003	2191 505	2390 426	
1265 040 65	2106 706	2191 506 45	2390 430	
1720 036 91	2106 720	2191 507 45	2390 435	
1720 038 91	2106 994	2191 508 45	2390 475	
1720 040 91	2106 995	2191 509 45	2390 476	
1772 052	2111 003	2191 510	2390 480	
1772 054	2111 011	2191 511	2390 481	
1772 056	2116 010	2191 512 45	2390 485	
1772 058	2116 028	2191 513 45	2390 486	
1772 120	2116 192	2191 514	2390 490	
1772 125	2121 204	2201 090	2390 500	
2001 008	2126 019	2203 080	2390 505	
2011 005	2126 027	2205 070	2390 510	
2011 017	2126 711	2205 080	2390 511	
2011 021	2131 010	2206 080	2390 515	
2011 030	2131 019	2206 090	2390 520	
2011 208	2131 027	2230 972	2390 521	
2015 105	2131 036	2240 04	2390 525	
2015 103	2136 010	2240 030	2390 530	
2015 110	2136 018	2240 050	2390 531	
2021 004	2136 026	2240 065	2390 535	
	2137 014	2240 085	2390 540	
2021 012	2141 026	2240 090	2390 541	
		2240 105	2390 545	
2021 046	2146 025	2240 115	2390 550	
2021 706	2150 015 50	2240 120	2390 570	
2021 710	2150 020 50 2150 025 50	2240 150	2390 595	
2022 009	2150 025		2390 600	
		2300 010		
2022 010	2150 035 50	2301 018	2390 610	
2022 029	2150 060 50 2150 065 50	2302 016	2390 615	
	2150 070 50	2302 024	2390 625	
2032 011	2150 070 50	2303 022	2390 630	
2032 027	2150 075 50	2304 012 51	2390 635	
2032 035	2150 090 50	2304 020 51	2390 640	
2032 041	2150 095 50	2305 019 51	2390 645	
2032 043	2150 110 50	2310 100	2390 650	
2032 061	2150 126 50	2330 017	2390 655	
2032 091	2150 127 50	2332 013	2390 660	
	2150 128 50	2333 433	2400 026	
	2 130 120			
2032 100		2224 010 52		33 1790/110/ 00
2032 712 43	2190 001 45	2334 019	2400 033	
2032 712	2190 001	2360 009 48	2400 064	33 1789414A 90
2032 712       43         2032 740       43         2033 017       41	2190 001       .45         2190 003       .45         2190 004       .45	2360 009	2400 064	33 1789414A 90 33 1789440A 90
2032 712       43         2032 740       43         2033 017       41         2033 033       41	2190 001       .45         2190 003       .45         2190 004       .45         2190 009       .45	2360 009        .48         2360 018        .47         2360 020       .48	2400 064	33 1789414A90 33 1789440A90 33 1789450A90
2032 712 43 2032 740 43 2033 017 41 2033 033 41 2041 200 41	2190 001       45         2190 003       45         2190 004       45         2190 009       45         2190 011       45	2360 009	2400 064	33       1789414A       .90         33       1789440A       .90         33       1789450A       .90         33       1789455A       .90
2032 712     43       2032 740     43       2033 017     41       2033 033     41       2041 200     41       2041 218     41	2190 001       45         2190 003       45         2190 004       45         2190 009       45         2190 011       45         2190 013       45	2360 009       48         2360 018       47         2360 020       48         2360 025       47         2360 030       47	2400 064	33     1789414A     .90       33     1789440A     .90       33     1789450A     .90       33     1789455A     .90       33     1789470A     .90
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