

Belt Maintenance Equipment - Belt Lacing <750kN/m



mato Catalogue 2022-LD

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MATO GmbH & Co KG, Main Production Facility and Administration Headquarters, Mülheim a.M., Germany

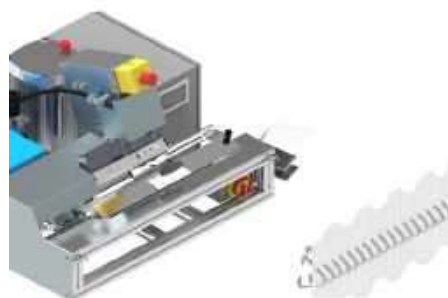
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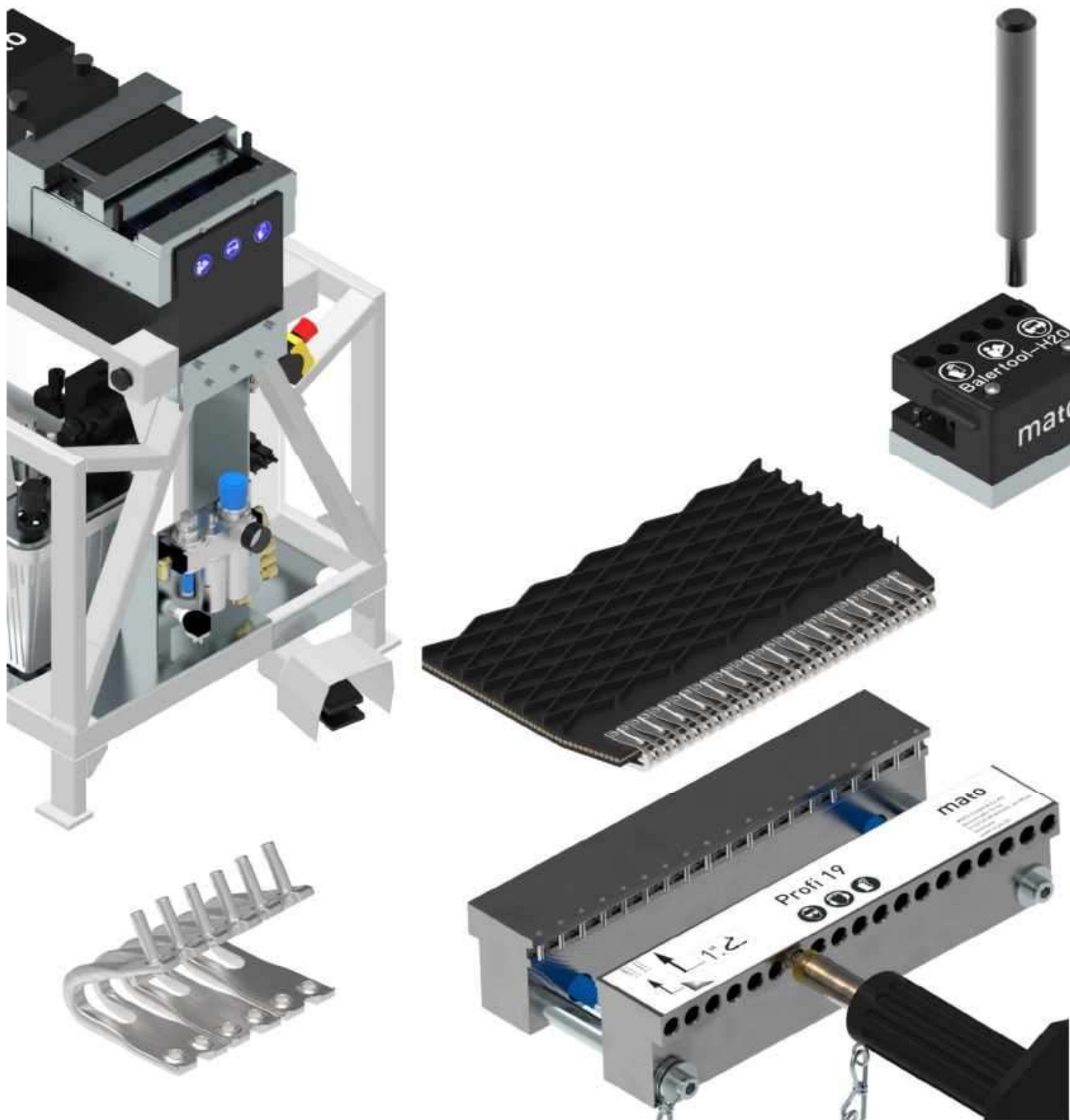
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Please Note : Pictures may differ from original product.

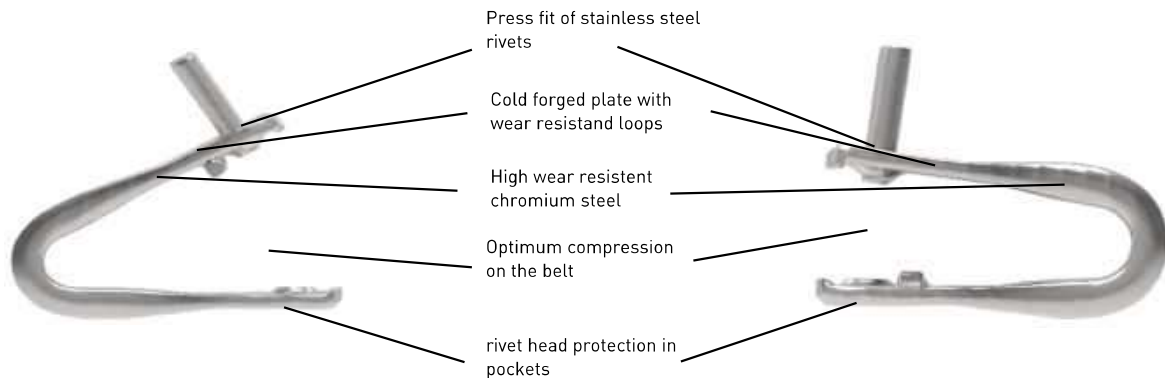
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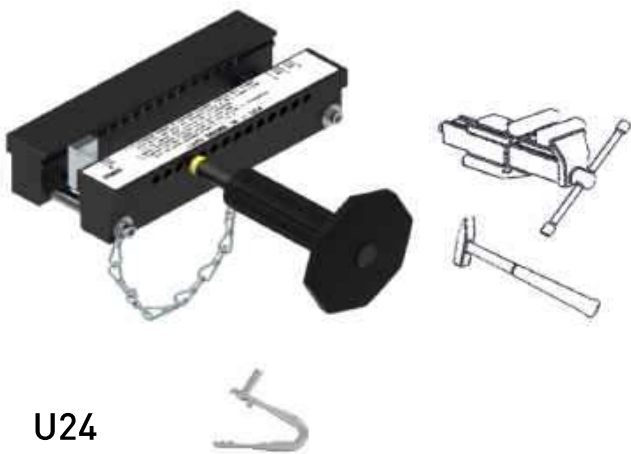
The High Performance Fasteners U24 and H24 have been developed for very high wear applications such as spliced belts used in Round Balers. They are proven to be the highest performing splice on the market due to high strength and long splice life and will perform equally well in other applications.

Note:

The U24 fastener is suitable for belts in the range of 4 - 7 mm thickness.
The H24 fastener is only suitable for belts in the range of 5 - 6 mm thickness.



The U24 is installed in the belt using a vice lacer and the H24 is installed using a hammer lacer. The MATO fastener features resulting in high durability are highlighted below. The method of installation of the U24 and H24 fasteners are two separate systems described below.



U24

High Performance Fastener U24
(Vice installation with Vice Lacer)

The U24 fastener is designed specially to be installed with a vice tool as seen above.

The rivets can be installed using a hammer and hand punch or alternatively with a pneumatic hammer and punch.

For volume lacing a pneumatic-hydraulic Vice Lacer (Power-Vice 25) is available. For even higher volume lacing an automatic state of the art electro hydraulic (HEM) lacing machine is available.



H24

High Performance Fastener H24
(Hammer Lacer is required)

With this system there is no requirement for a vice at the work place. The MATO hammer lacer just requires a flat level base for installation. The fasteners are slightly pre-bent for ease of installation.

The lacer can be used for multi step lacing for wider belts or alternatively the hammer lacer is offered in different widths.

The MATO Connecting Pins are aligned in design and material composition to the MATO Fasteners.

Choosing the right Connecting Pin is an important contribution to reach the optimum performance of the splice in your application.

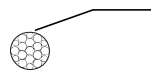
	U24AS	U24BS	U24CS	Belt Width (mm)	Fastener Strip Length (mm)	Number of Fasteners	Connecting Pin Length (mm)
Hammer Installed Fasteners for "Bench Vice Lacers"				100 - 110	76,5	7	88
Hammerinstalled Fasteners without "Bench Vice"	-	H24BS 	-	111 - 121	87,5	8	99
	K1	K2	K2	122 - 132	98,5	9	110
	O1K	O2K	O2K	133 - 143	109,5	10	121
	T1F	T2F	T2F	144 - 154	120,5	11	132
Belt Strength (kN/m)	Up to 520	Up to 520	Up to 520	155 - 165	131,5	12	143
Min. Pulley Ø (mm)	75	75	75	166 - 176	142,5	13	154
Belt Thickness (mm)	4 - 5	5 - 6	6 - 7	177 - 187	153,5	14	165
				188 - 198	164,5	15	176
				199 - 209	175,5	16	187
				210 - 220	186,5	17	198
				221 - 231	197,5	18	209
				232 - 242	208,5	19	220
				243 - 253	219,5	20	231
				254 - 264	230,5	21	242
				265 - 275	241,5	22	253
				276 - 286	252,5	23	264
				287 - 297	263,5	24	275
				298 - 308	274,5	25	286
				309 - 319	285,5	26	297
				320 - 330	296,5	27	308
				331 - 341	307,5	28	319
				342 - 352	318,5	29	330
				353 - 363	329,5	30	341
				364 - 374	340,5	31	352
				375 - 385	351,5	32	363

Connecting Pins	High Tension Application	Troughing	Flexibility	No Troughing	Rust Resistant	Chemical Resistant	Wear Properties	Magnetic
K1 / K2	●●●○○	●●●○○	●●●●○	●●●○○	●●●○○	○○○○○	●●○○○	yes
O1K / O2K*	●●●●○	●●●●○	●●●●○	●●●●○	●●●●○	●○○○○	●●●○○	yes
T1F / T2F*	●●●●●	○○○○○	●○○○○	●●●●●	○○○○○	○○○○○	●●●●●	yes

poor ○○○○○

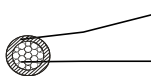
excellent ●●●●●

K1 / K2



High Tensile Galvanized Steel Cable

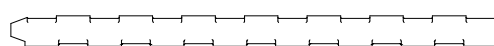
O1K / O2K



Wrap : Special Steel

Core : Stainless Chromium-Nickel Cable

T1F / T2F



Notched Spring Steel

Belt Width mm	Description	Order No.	PU
Belt Fastener U24AS, without Connecting Pin			
Belt thickness 4.0-5.0			
188-198	U24AS/12-15	41 114 24 05	12
221-231	U24AS/10-18	41 114 24 13	10
Belt Fastener U24BS, without Connecting Pin			
Belt thickness 5.0-6.0			
120-130	U24BS/12-9	41 129 60 89	12
155-165	U24BS/12-12	41 114 24 14	12
166-176	U24BS/12-13	41 129 60 50	12
177-187	U24BS/12-14	41 114 23 99	12
188-198	U24BS/12-15	41 114 24 01	12
210-220	U24BS/10-17	41 129 59 37	10
221-231	U24BS/10-18	41 114 24 15	10
232-250	U24BS/8-20	41 129 69 16	8
276-286	U24BS/8-23	41 129 59 15	8
298-308	U24BS/8-25	41 114 24 16	8
364-374	U24BS/8-31	41 114 24 17	8
375-385	U24BS/8-32	41 129 59 40	8
Belt Fastener U24CS, without Connecting Pin			
Belt thickness 6.0-7.0			
188-198	U24CS/12-15	41 114 24 06	12
210-220	U24CS/10-17	41 129 61 20	10
221-231	U24CS/10-18	41 114 59 16	10
276-286	U24CS/8-23	41 129 69 22	8
Belt Fastener U24AS, with Connecting Pin T1F (Dia. 3.0 mm)			
Belt thickness 4.0-5.0			
155-165	U24AS/12-12/T1F142	41 114 24 35	12+
188-198	U24AS/12-15/T1F175	41 114 24 02	12+
Belt Fastener U24BS, with Connecting Pin T2F (Dia. 3.4 mm)			
Belt thickness 5.0-6.0			
100-110	U24BS/12-07/T2F088	41 114 92 20	12+
111-121	U24BS/12-08/T2F099	41 114 92 21	12+
122-132	U24BS/12-09/T2F110	41 129 59 90	12+
133-143	U24BS/12-10/T2F121	41 114 92 22	12+
144-154	U24BS/12-11/T2F132	41 114 92 23	12+
155-165	U24BS/12-12/T2F143	41 114 24 09	12+
166-176	U24BS/12-13/T2F154	41 114 60 50	12+
177-187	U24BS/12-14/T2F165	41 114 23 98	12+
188-198	U24BS/12-15/T2F176	41 114 24 00	12+
199-209	U24BS/10-16/T2F187	41 114 92 24	10+
210-220	U24BS/10-17/T2F198	41 129 60 55	10+
221-231	U24BS/10-18/T2F209	41 114 24 07	10+
232-242	U24BS/10-19/T2F220	41 114 92 25	10+
243-253	U24BS/8-20/T2F231	41 129 59 95	8+
254-264	U24BS/8-21/T2F242	41 114 92 26	8+
265-275	U24BS/8-22/T2F253	41 114 92 27	8+
276-286	U24BS/8-23/T2F264	41 114 24 18	8+
287-297	U24BS/8-24/T2F275	41 114 92 28	8+
298-308	U24BS/8-25/T2F286	41 114 24 19	8+
309-319	U24BS/8-26/T2F297	41 114 92 29	8+
320-330	U24BS/8-27/T2F308	41 114 92 30	8+
331-341	U24BS/8-28/T2F319	41 114 92 31	8+
342-352	U24BS/8-29/T2F330	41 114 92 32	8+
353-363	U24BS/8-30/T2F341	41 114 92 33	8+



Rivets: **Stainless Steel 304**
Plate Material: **Chromium Steel 430**

- High compression in the belt
- Rivets are press fit rivets in the plate.
- Cold forged plate and loops for highest strengths
- High wear resistance and long life properties

- Min. Pulley Diameter 75mm
- Belt Strength up to 520 kN/m

Packing Units :
e.g. PU 10 includes 10 strips of fasteners.
Strip length can easily be shortened.



Material of Connecting Pin:
Notched Spring Steel

Fasteners: as described above

Packing Units:
e.g. PU 10+ includes 10 strips of fasteners
+ 5 connecting pins.
Strip length can easily be shortened.

Belt Width mm	Description	Order No.	PU
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Belt Fastener U24BS, with Connecting Pin T2F (Dia. 3.4 mm)

Belt thickness 5.0-6.0

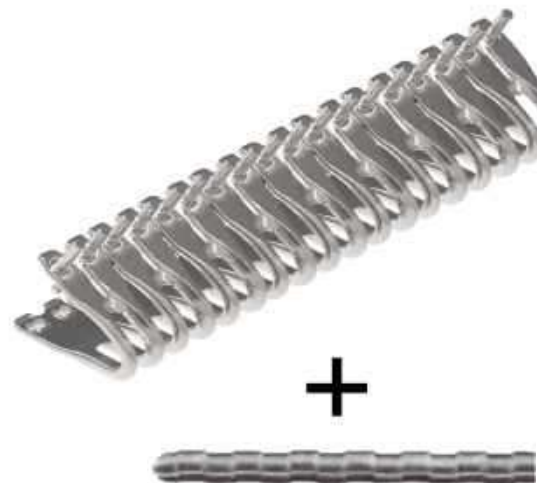
364-374	U24BS/8-31/T2F352	41 114 24 20	8+
375-385	U24BS/8-32/T2F363	41 129 59 41	8+

Rivets: **Stainless Steel 304**
Plate Material: **Chromium Steel 430**

Belt Fastener U24CS, with Connecting Pin T2F (Dia. 3.4 mm)

Belt thickness 6.0-7.0

100-110	U24CS/12-07/T2F088	41 114 92 40	12+
111-121	U24CS/12-08/T2F099	41 114 92 41	12+
122-132	U24CS/12-09/T2F110	41 114 92 42	12+
133-143	U24CS/12-10/T2F121	41 114 92 43	12+
144-154	U24CS/12-11/T2F132	41 114 92 44	12+
155-165	U24CS/12-12/T2F143	41 114 92 45	12+
166-176	U24CS/12-13/T2F154	41 114 92 46	12+
177-187	U24CS/12-14/T2F165	41 114 92 47	12+
188-198	U24CS/12-15/T2F176	41 114 24 03	12+
199-209	U24CS/10-16/T2F187	41 114 92 48	10+
210-220	U24CS/10-17/T2F198	41 114 60 56	10+
221-231	U24CS/10-18/T2F209	41 129 59 10	10+
232-242	U24CS/10-19/T2F220	41 114 92 49	10+
243-253	U24CS/8-20/T2F231	41 114 92 50	8+
254-264	U24CS/8-21/T2F242	41 114 92 51	8+
265-275	U24CS/8-22/T2F253	41 114 92 52	8+
276-286	U24CS/8-23/T2F264	41 129 69 10	8+
287-297	U24CS/8-24/T2F275	41 114 92 53	8+
298-308	U24CS/8-25/T2F286	41 114 92 54	8+
309-319	U24CS/8-26/T2F297	41 114 92 55	8+
320-330	U24CS/8-27/T2F308	41 114 92 56	8+
331-341	U24CS/8-28/T2F319	41 114 92 57	8+
342-352	U24CS/8-29/T2F330	41 114 92 58	8+
353-363	U24CS/8-30/T2F341	41 114 92 59	8+
364-374	U24CS/8-31/T2F352	41 114 92 60	8+
375-385	U24CS/8-32/T2F363	41 114 92 61	8+



Material of Connecting Pin:
Notched Spring Steel

- High compression in the belt
- Rivets are press fit rivets in the plate.
- Cold forged plate and loops for highest strengths
- High wear resistance and long life properties

- Min. Pulley Diameter 75mm
- Belt Strength up to 520 kN/m

Packing Units:

e.g. PU 10+ includes 10 strips of fasteners
+ 5 connecting pins.
Strip length can easily be shortened.

Description	Width	Order No.
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U24 Vice Lacer Profi

Every Vice Lacer is supplied with a hand punch. The lacers are designed to be used in a bench vice, Profi 5-55 will hold 5 hooks at a time and the Profi 19-209 will hold 19 hooks at a time etc. For example: If you want to install a splice with 17 fasteners (187 mm), the installation is made in four steps using the Profi 5-55 and in one step, using the Profi 19-209.

Profi 5-55 55 mm **41 129 58 82**
incl. Punch

Profi 19-209 209 mm **41 129 58 17**
incl. Punch and prepared for mounting an optional Rivet Flattening Bar

Profi 25-275 275 mm **41 129 58 49**
incl. Punch and prepared for mounting an optional Rivet Flattening Bar

Punch U24 **41 129 58 25**
(Spare)

Hammer 05 **44 121 02 03**
(500g, for U24-Splices)

Vice Lacer Profi 19-209



Punch

Accessories for Vice Lacer

A Rivet Flattening Bar can be mounted to the Profi19 and Profi 25 optionally. This way, the rivet heads can be flattened after the installation with the Vice Lacer.

Rivet Flattening Bar 19 RS **41 129 80 08**
for Profi 19

Rivet Flattening Bar 25 RS **41 129 80 07**
for Profi 25



Hydraulic Installation Units U24 / pneumatic drive

Installation Unit POWERVICE 25 replaces the conventional Vice by means of a pneumatically driven Hydraulic Power Pack (minimum 4 bar air pressure necessary). Belt Fasteners U24 are pressed onto the belt directly during the pneumatic closing movement. Then the rivets can be punched using a Pneumatic Hammer. The splice is completed by pivoting the Rivet Flattening Bar and by repeated punching with the Pneumatic Hammer. This installation tool can hold up to 25 Fastener segments (275 mm strip length).

POWER-VICE 25-275 275 mm **41 129 58 18**
(Pneumatic-Hydraulic Installation)



For processing bigger quantities, we can offer hydraulic lacers (HEM) as well. Please feel free to ask us.

Description

Order No.

U24 Belt Lacing Kit

Profi 19 Installation Set U24

41 129 58 30

Profi Belt Lacing Set consists of:

- Vice Lacer Profi 19
- Belt Skiver 18 Pro (skiving depth adjustable)
- Pneumatic Hammer with Punch
- Tool box

