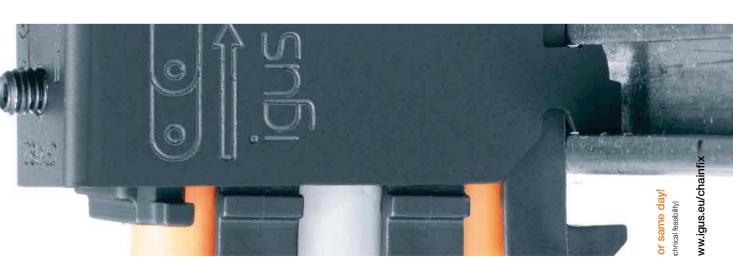




# chainfix strain-relief systems | Overview

Clamps, saddles and bases  CPX Single, double, triple standard clamps  CPXL* Single, double, triple standard clamps  CPXL* Single, double, triple standard clamps  CPXL* Single, double, triple standard clamps  Clamp elements - saddles and bases  Chainfix Multi-Clamps*  Standard C-profiles part no. CF.92.42. (to be integrated into C-profiles part no. CF.92.42. (to be integrated into C-profiles part no. CF.92.52. With increased retention force (standard C-profiles part no. CF.92.52. With increased retention force (c-profiles part no. CF.92.52. With increased retention force (standard C-profiles part no. CF.92.52. With increased retention force (c-profiles part no. CF.92.42. (to be integrated into C-profiles part no. CF.92.42. (to be integrated into C-profiles part no. CF.92.42. (to be integrated into C-profiles part no. CF.92.42. (to be integrated into CF.92.62. With increased retention force (c-able tienwarps plates as single part "Series 3000" + cable Option 13. Tienwarp plates as single part "Series 3000" + cable cable tienwarps as single part "Series 3000" + cable option 2. Tienwarp plates with clip-on connection for the C-profiles option 3. Integrated strain relief for E2 e-tubes - Series R  Option 2. Tienwarp plates for fixed crossbars  Option 1: for all e-chains® with C-profiles and also suitable for essembly in the KWA mounting brackets  Option 2. Cip-on strain relief for opening crossbars  Strain relief separators - with integrated teeth  Separator with integrated strain relief -	Clamps, saddles and bases  CFX* Single, double, triple standard clamps  CFX* Single, double, triple clamps with wide base for maximum tensile forces  CFX* Single, double, triple clamps with wide base for maximum tensile forces  CFX* Single, double, triple clamps with wide base for maximum tensile forces  CFX* Single, double, triple clamps with wide base for maximum tensile forces  CFX* Single, double, triple clamps with viple sand bases  Chainfix Multi-Clamps*  Standard C-profiles and C-profiles for heavy-duty applications  Standard C-profiles part no. CF.92.42. (to be integrated into KMA!)  C-profiles part no. CF.92.52. With increased retention force (assembly outside e-chain*)  C-profiles part no. CF.92.52. With increased retention force (assembly outside e-chain*)  C-profiles part no. CF.92.52. With increased retention force (assembly outside e-chain*)  C-profiles part no. CF.92.52. With increased retention force (assembly outside e-chain*)  C-profiles part no. CF.92.52. With increased retention force (assembly outside e-chain*)  C-profiles part no. CF.92.52. With increased retention force (assembly outside e-chain*)  C-profiles part no. CF.92.52. With increased retention force (assembly outside e-chain*)  C-profiles part no. CF.92.52. With increased retention force (assembly outside e-chain*)  Option 18: Tewrap plates as single part "Series 2000" + cable tiewraps  Cable tiewraps as single part "Series 3000" + cable tiewraps  Option 18: Tewrap plates  Option 2: Tewrap plates for fixed crossbars  Option 3: Integrated strain relief for E2 e-tubes - Series R  Option 3: Integrated strain relief for E2 e-tubes - Series R  Option 4: Tewrap plates for fixed crossbars  Sile strength, modular clip-on strrain relief  P Page 766  P Page 766	o [mm] 6-42 6-42 6-42 6-42 6-12 9 Page 756  max. 36  Page 760  Page 760
CFA" Single, double, trip CFA" Single, double, trip CFA" Single, double, trip CFA" Single, double, trip Clamp elements - saddle chainfix Mutti-Clamps* C-profiles an Standard C-profiles an Standard C-profiles an Standard C-profiles an Standard C-profiles as C-profiles part no. CF-9; Chainfix tiewrap plates Option 18: Tiewrap plates Cable tiewraps as single Tiewrap plates, with clip-on con Chainfix tiewrap plates Option 2: Tiewrap plates Option 3: Integrated stra Option 1: for all e-chains for assembly in the KMA Option 2: Clip-on strain r Strain relief separators - with inthe Garate Chainfix strain relief sep	ble standard clamps ble clamps with wide base for maximum tensile forces es and bases art no. CF.92.42. (to be integrated into KMAl) 2.52. With increased retention force (assembly outs) w or clip mounted se as single part "Series 2000" + cable tiewraps es as single part "Series 3000" + cable tiewraps se part nnection for the C-profile s with clip-on connection for the C-profile sin relief for E2 e-tubes - Series R s for opening crossbars odular clip-on strain relief	6-42 6-42 6-42 6-12 Page 756 max. 36 Page 760
C-profiles  Standard C-profiles an Standard C-profiles part no. CF.99  Universal tiewrap clamps, screw C-profiles part no. CF.99  Universal tiewrap clamps, screw Option 14: Tewrap plates Option 14: Tewrap plates Cable tiewraps as single Tiewrap plates Option 2: Tewrap plates Option 3: Integrated stranger option 1: for all e-chains for assembly in the KMA Option 2: Clip-on strain relief separators - with integrated Separator with integrated Separator with integrated	ble clamps with wide base for maximum tensile forces es and bases art no. CF.92.42. (to be integrated into KMAl) 2.52. With increased retention force (assembly outs) w or clip mounted se as single part "Series 2000" + cable tiewraps es as single part "Series 3000" + cable tiewraps spart nnection for the C-profile s with clip-on connection for the C-profile in relief for E2 e-tubes - Series R s for opening crossbars odular clip-on strain relief	6-42 6-42 6-12 Page 756 side e-chain®)   max. 36   Page 760
Clamp elements - saddle chainfix Multi-Clamps*  C-profiles  Standard C-profiles an Standard C-profiles an Standard C-profiles part no. CF.99  C-profiles par	les and bases  art no. CF:92-42. (to be integrated into KMAI) 2.52. With increased retention force (assembly outs)  as as single part "Series 2000" + cable tiewraps  es as single part "Series 2000" + cable tiewraps  es as single part "Series 3000" + cable tiewraps  s part  nnection for the C-profile  s with clip-on connection for the C-profile  in relief for E2 e-tubes - Series R  s for fixed crossbars  odular clip-on strain relief	6-42 6-12 Page 756 Page 758   Page 768 Page 760
C-profiles  Standard C-profiles an Standard C-profiles an Standard C-profiles part no. CF.92  Universal tiewrap clamps, screw chainfix tiewrap plates Option 1A: Tiewrap plates Cable tiewraps as single Tiewrap plates option 2: Clip-on strain relief separators - with integrated separators - with integrate Separators - with integrate Separator with integrated Separator with integrated Separator with integrated	ard C-profiles for heavy-duty applications art no. CF.92.42. (to be integrated into KMAI) 2.52. With increased retention force (assembly outs)  w or clip mounted  se as single part "Series 2000" + cable tiewraps es as single part "Series 3000" + cable tiewraps part nnection for the C-profile s with clip-on connection for the C-profile ain relief for E2 e-tubes - Series R s for opening crossbars  odular clip-on strain relief	e-12 6-12 side e-chain®)  Page 758    max. 36   Page 760   Page 760
C-profiles  Standard C-profiles an Standard C-profiles an Standard C-profiles par C-profiles part no. CF-97  Universal tiewrap clamps, screw chainfix tiewrap plates Option 18: Tiewrap plates Option 18: Tiewrap plates Option 18: Tiewrap plates Option 2: Tiewrap plates Option 3: Integrated stra Option 5: Tiewrap plates Option 5: Cilp-on strain relief separators - with integrated Chainfix strain relief separator with integrated Separator with integrated	ard C-profiles for heavy-duty applications art no. CF:92.42. (to be integrated into KMAI) 2.52. With increased retention force (assembly outs)  w or clip mounted se as single part "Series 2000" + cable tiewraps es as single part "Series 3000" + cable tiewraps se part nnection for the C-profile sin relief for E2 e-tubes - Series R s for fixed crossbars s for opening crossbars odular clip-on strain relief	Page 758  Page 758  p Page 768  p Page 760  Page 760
Standard C-profiles an Standard C-profiles an Standard C-profiles part no. CF.99  Universal tiewrap clamps, screw chainfix tiewrap plates Option 18: Tiewrap plates Option 18: Tiewrap plates Cable tiewraps as single Cable tiewraps as single Cable tiewrap plates Option 2: Tiewrap plates Option 2: Tiewrap plates Option 3: Integrated strangth, mc chainfix clips Option 1: for all e-chains for assembly in the KWA Option 2: Clip-on strain relief separators - with integrated separators - with integrated stanch option 2: Clip-on strain relief separator with integrated separator with integrate	ard C-profiles for heavy-duty applications ard no. CF.92.42. (to be integrated into KMAI) 2.52. With increased retention force (assembly outs)  w or clip mounted  se as single part "Series 2000" + cable tiewraps es as single part "Series 3000" + cable tiewraps spart  nnection for the C-profile sin relief for E2 e-tubes - Series R for fixed crossbars s for opening crossbars  odular clip-on strain relief	Page 756  Page 758  p [mm]  p Page 760  Page 760
Standard C-profiles an Standard C-profiles par C-profiles par no. CF.93 C-profiles part no. CF.93 C-prion 1A: Tiewrap plates C-prion 1B: Tiewrap plates C-prion 1B: Tiewrap plates C-prion 2B: Tiewrap plates C-prion 3B: Integrated stranger option 3B: Tiewrap plates C-prion 3B: Tiewrap plates C-prion 4B: Tiewrap plates C-prion 5B: Tiewrap plates C-pri	ard C-profiles for heavy-duty applications art no. CF-92-42. (to be integrated into KMAI) 2.52. With increased retention force (assembly outs)  w or clip mounted  w or clip mounted  se as single part "Series 2000" + cable tiewraps  es as single part "Series 3000" + cable tiewraps  p part  nnection for the C-profile  s with clip-on connection for the C-profile ain relief for E2 e-tubes - Series R  s for fixed crossbars  odular clip-on strain relief	side e-chain®)  Page 758  o [mm]  Page 760
Chainfix tiewrap plates Chainfix tiewrap plates Option 1A: Tiewrap plates Option 1B: Tiewrap plates Cable tiewraps as single Cable tiewraps as single Cable tiewraps plates Option 2: Tiewrap plates Option 3: Integrated stractory plates Option 4: Tiewrap plates Option 5: Tiewrap plates Option 4: Tiewrap plates Option 5: Tiewrap plates Option 6: Tiewrap plates Option 6: Tiewrap plates Option 7: Tiewrap plates Option 6: Tiewrap plates Option 7: T	w or clip mounted  sea single part "Series 2000" + cable tiewraps es as single part "Series 3000" + cable tiewraps es part  nnection for the C-profile swith clip-on connection for the C-profile in relief for E2 e-tubes - Series R s for fixed crossbars odular clip-on strain relief	Page 758  o [mm]  Page 760  Page 762
chainfix tiewrap plates Option 1A: Tiewrap plates Option 1B: Tiewrap plates Cable tiewraps as single Cable tiewraps as single Cable tiewrap plates Cable tiewrap plates Option 2: Tiewrap plates Option 3: Integrated strace Option 4: Tiewrap plates Option 5: Tiewrap plates Option 5: Tiewrap plates Option 5: Tiewrap plates Option 1: for all e-chains for assembly in the KWA Option 2: Olip-on strain r Strain relief separators - with integrate Chainfix strain relief sep	se as single part "Series 2000" + cable tiewraps es as single part "Series 3000" + cable tiewraps part  nnection for the C-profile  s with clip-on connection for the C-profile ain relief for E2 e-tubes - Series R  s for fixed crossbars  s for opening crossbars  odular clip-on strain relief	o [mm]  Page 760  Page 762
Option 14: Tiewrap platte Cable tiewraps as single Cable tiewrap plates so single Cable tiewrap plates Chion 2: Tiewrap plates Option 2: Tiewrap plates Option 3: Integrated stra Option 3: Integrated stra Option 5: Tiewrap plates Option 2: Clip-on strain relief separators - with integrate separators chains integrate separator in the KWAA Option 2: Clip-on strain relief separator with integrate separator with integrated	es as single part "Series 2000" + cable tiewraps es as single part "Series 3000" + cable tiewraps part "nection for the C-profile  s with clip-on connection for the C-profile in relief for E2 e-tubes - Series R in relief for E2 e-tubes - Series R for fixed crossbars for opening crossbars  odular clip-on strain relief	max. 36     ▶ Page 760
Cable tiewraps as single Tiewrap plates, with clip-on con chainfix tiewrap plates Option 2: Tewrap plates Option 3: Integrated stra Option 4: Tewrap plates Option 5: Tewrap plates Option 5: Tewrap plates Option 1: for all e-chains for assembly in the KMA Option 2: Clip-on strain r Strain relief separators - with integrate Separators - with integrate	es as single part "Series 3000" + cable tiewraps part  **Threction for the C-profile  **S with clip-on connection for the C-profile ain relief for E2 e-tubes - Series R  **S for fixed crossbars  **S for opening crossbars  **Ddular clip-on strain relief	■ Page 760  Page 762
Cable trewraps as single  Tiewrap plates, with clip-on con chainfix tiewrap plates Option 2: Tlewrap plates Option 3: Integrated stra Option 3: Integrated stra Option 5: Tlewrap plates Option 5: Tlewrap plates Option 1: for all e-chains for assembly in the KMA Option 2: Clip-on strain relief separators - with integrate Strain relief separators - with integrated Separator with integrated	Inection for the C-profile  s with clip-on connection for the C-profile ain relief for E2 e-tubes - Series R s for fixed crossbars s for opening crossbars  odular clip-on strain relief	Page 760  Page 762  Page 762
chainfix tiewrap plates Option 2: Tewrap plates Option 3: Inegrated stra- Option 3: Inegrated stra- Option 4: Tewrap plates Option 5: Tewrap plates Option 5: Tewrap plates Option 5: Tewrap plates Option 1: for all e-chains for assembly in the KWA Option 2: Clip-on strain r Option 2: Clip-on strain r Strain relief separators - with integrate Chainfix strain relief separators - with integrates	s with clip-on connection for the C-profile ain relief for E2 e-tubes - Series R s for fixed crossbars s for opening crossbars	Page 762
chainfix tiewrap plates Option 2: Tiewrap plates Option 3: Integrated stra Option 4: Tiewrap plates Option 5: Tiewrap plates Option 5: Tiewrap plates Option 5: Tiewrap plates Option 1: for all e-chains for assembly in the KWA Option 2: Clip-on strain r Strain relief separators - with integrate Chainfix strain relief separator with integrate or	s with clip-on connection for the C-profile in relief for E2 e-tubes - Series R for fixed crossbars s for opening crossbars odular clip-on strain relief	<b>▶</b> Page 762
Option 2: Tiewrap plates Option 3: Integrated stra Option 4: Tiewrap plates Option 5: Tiewrap plates Option 2: Oilp-on strain relief separators - with integrates Chainfix strain relief separators - with integrates	s with clip-on connection for the C-profile ain relief for E2 e-tubes - Series R s for fixed crossbars s for opening crossbars  odular clip-on strain relief	► Page 762
Option 3: Integrated stra Option 4: Tiewrap plates Option 5: Tiewrap plates Option 5: Tiewrap plates Option 5: Tiewrap plates Option 1: for all e-chains for assembly in the KWA Option 2: Clip-on strain relief separators - with int Chainfix strain relief separator with integrated	ain relief for E2 e-tubes - Series R s for fixed crossbars s for opening crossbars odular clip-on strain relief	► Page 762
Option 4: Ilewrap plates Option 5: Tlewrap plates Option 5: Tlewrap plates Option 5: Tlewrap plates Chainfix clips Option 1: for all e-chains for assembly in the KWA Option 2: Olip-on strain relief separators - with int Chainfix strain relief separatory with integrated	s for tixed crossbars s for opening crossbars odular clip-on strain relief	► Page 762
Clips - High tensile strength, mc chainfix clips Option 1: for all e-chains for assembly in the KMA Option 2: Clip-on strain relief separators - with int Chainfix strain relief separator chainfix strain relief separator chainfix strain relief separator chainfix strain relief separator with integrated	odular clip-on strain relief	► Page 762
Clips - High tensile strength, mo chainfix clips Option 1: for all e-chains for assembly in the KMA Option 2: Clip-on strain r Strain relief separators - with int chainfix strain relief sel	odular clip-on strain relief	▶ Page 762 ø [mm]
chainfix clips Option 1: for all e-chains for assembly in the KMA Option 2: Clip-on strain relief separators - with int chainfix strain relief se		[mm] ø
Option 1: for all e-chains for assembly in the KWA Option 2: Clip-on strain relief separators - with int oran in chainfix strain relief sel		
Strain relief separators - with int chain in Separators - with int chainfix strain relief sel	Option 1: for all e-chains® with C-profiles and also suitable	4-24
Strain relief separators - with int chain relief separatory - with int chainfix strain relief sel	A mounting brackets	
Strain relief separators - with int chain relief se chainfix strain relief se	relief for opening crossbars	4-24
chainfix strain relief se	tegrated teeth	▶ Page 764
Separator with integrated	parator	
for easy strain relief with cable ties	cable ties	
Nuggets - for top hat rail and C-profile	-profile	► Page 766
chainfix nuclets		ø [mm]
Y		
Option 1: simple and universal cable fixation, for diameter with Ø 20 mm and Ø 30 mm	ilversal cable tixation, mm and Ø 30 mm	OS VI
Option 2: Fastening thro	Option 2: Fastening through clipping onto standard top hat rail	> 20
Strain relief blocks - special strain reliefs for hoses	ain reliefs for hoses	▶ Page 767
Blocks		ø [mm]
Conventional iqus® block	Conventional iquis® blocks - strain relief for hoses	4.3-14
CFB bolymer strain relief connector system.	f connector system.	2
for many cables in a confined space	nfined space	
*Standard material: galvanised steel. Also available as stainless steel-version (material stainless steel: 1.4301/AISI 304)	version (material stainless steel: 1,4301/AISI 304)	





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For e-tubes <sup>2)</sup>														5850.Z 30XX.Z																										
For triflex <sup>®2)</sup>	E33X.XX.2 33X.XX																																							des
ates Cross bar®							2050.Z	2050.Z*	30XX.ZS*						1000	3850.ZS	3850.ZS	45XX.ZS 45XX.ZS	45XX.ZS			2050.7	3850.ZS	3850.ZS	45XX.25		3850.ZS	3850.ZS	45XX.ZS	45XX.ZS	3850.ZS	45XX.ZS 45XX.ZS	3850.ZS				3850.ZS	3850.ZS	45XX.ZS	45XX.25  1) you'll find on subsequent pages
chainfix tiewrap plates for Fixed crossbara bara		2050.Z				2050.Z	2050.Z	1	30XX.Z																															-      1) you'  1
Clip-on for C-profile <sup>2)</sup>							30XX.ZC	30XX.ZC	30XX.ZC 30XX.ZC							30XX.ZC	30XX.ZC	30XX.ZC 30XX.ZC					30XX.ZC	30XX.ZC	30XX.2C		30XX.ZC	30XX.ZC	30XX.ZC	30XX.ZC	30XX.ZC	30XX.ZC 30XX.ZC	30XX.ZC				30XX.ZC	30XX.ZC	30XX.ZC	SUAA.∠LU thain®
Single part 3000°			30XX.ZB 30XX.ZB				30XX.ZB	30XX.ZB	30XX.ZB							30XX.ZB	30XX.ZB	30XX.ZB 30XX.ZB	30XX.ZB	30XX.ZB			30XX.ZB	30XX.ZB				30XX.ZB	30XX.ZB	30XX.ZB	SUAA.LD relief for selected e-c									
Single part 2000 <sup>3</sup> Single part 3000 <sup>9</sup>		20XX.ZB		20XX ZB	20XX.ZB	20XX.ZB	ZUVV.ZD			20XX.ZB	20XX.ZB		20XX.ZB		25,000	20XX.2B						20XX 7B	77.77											20XX.ZB	20XX.ZB	20XX.ZB				SUXX.ZB SU
Strain relief separator <sup>2)</sup>				2117	7:1:15	2020.Z	262.Z	1	301.Z 34501.Z			1585.01.Z	481.ZR		T2103.Z	78.2 / 28.21						T2103.Z												E6.29.02.Z	E6.35.02.Z	E6.40.02.Z				luc
Nugget"							×	×	× ×							×	:×:	××					×	××	<		×	××	<×	×	××	×				×	××	×	×>	A C-profile-host optic
chainfix Clip Crossbars <sup>1)</sup>																		××	×	×	<			>	<×	×		>	<×	×	>	××							×>	A A conting brackets with C-profile-host option!



HENNLICH -ŽIJEME TECHNIKOU

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s.eu/chainfix

**HENNLICH** -

ŽIJEME TECHNIKOU

CFB strain relief connector system E4, E6, for all KMA*	Polymer metal mounting bracket  Cost-effective, space- Cost-effective, fast strain  Cost-effective, space- Cost-effective, fast strain  Cost-effective, fast strain  Cost-effective, fast strain  Cost-effective, fast strain  Saving strain relief, ideal strain relief with many applications with medium  with confined space for confined space cables in confined spaces.  Cocelerations. For stacked requirements at medium requirements. For populations with high accelerations.  Also applications with medium accelerations and loads, same diameters.  Also applications with medium accelerations and loads, available as single parts accelerations. For smaller e.g. machine tools.  Cabinets, etc.  Cabinets, etc.  Cabinets, etc.  Cabinets, etc.  Cabinets at medium accelerations and loads, and automation.	No limitation	  +	+	•••	yes (special fabrication)	high to very high
Strain relief separators E2/000, E2	Paymer metal mounting backet  Cost-effective, fast strain Combination of separator Space-saving, modular relief for simple applications and strain relief, ideal strain relief with many with confined space for confined space cables in confined spaces. requirements at medium requirements. For For applications with high accelerations. Also applications with medium accelerations and loads, available as single parts accelerations. For smaller e.g. machine tools. for rigid linings, such as in cable diameter. Ideal for eabinets, etc.  and automation.	Under high loads	+	ı	•••	yes	high
Nuggets Strain relief nuggets For all KMAs* with	Polymer metal mounting bracket Polymer metal mounting bracket  Cost-effective, space- Cost-effective, fast strain combination saving strain relief for many relief for simple applications and strain applications with medium with confined space for confinacelerations. For stacked requirements at medium requirements.  Cables, or cables with the accelerations.  Also applications variable as single parts accelerations. for rigid linings, such as in cable diamet cabinets, etc.  And automatic	Under high loads	I +	ı	•••	yes	high
Clips for C-profile or clip-on E4, E6, for all KMA*	Polymer metal mounting bracket  Cost-effective, space- Saving strain relief for many relief for simple ap applications with medium with confined accelerations. For stacked requirements at cables, or cables with the accelerations.  Same diameters.  available as sing for rigid linings, as cabinets, etc.	Under high loads	I +	I +	•••	yes	medium
Tiewrap plates screwed, clip-on easychain®, E2/000,	for high Standard for many tions, loads and applications with ing applications. medium acceleration. In cables, large For unsupported, gliding, stacked cables, hanging and standing gravels, cranes, applications in general machine tools, machinery and machine speed, hydraulic tools. For cables next to If modularity is each other. Also available as single parts, for example for cabinets, etc.	For large cable diameters	+	I	•••	yes	high
, for all KMA*	atal mounting bracket  I for high Standard for tions, loads and applications ing applications. medium accurv cables, large for unsupported 3 stacked cables. hanging and 3 travels, cranes, applications in machine tools, machinery and speed, hydraulic tools. For cables If modularity is each other. Also as single parts, for cabinets, etc.	ation	+	++	•••	yes	to very high

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s.eu/chainfix

For the following

igus® series

# chainfix strain relief | Clamps

# Product range and materials

Steel clamp: clamp and screw black painted steel
 Stainless steel clamp: clamp and screw: blank (material 1.4301/AISI 304)

• C-profiles: steel (material galvanised steel) or stainless steel (material 1,4301/AISI 304) available

stacker saddle (material igumid G)

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**ŽIJEME TECHNIKOU** 

Stacker elements: bottom saddle and

2400/2500/2450/2480 2600/2700/2650/2680

■ E4.32/H4.32/R4.32

■ 3400/3500/3450/3480

● E4.56/H4.56/R4.56 ● E4.80/H4.80/R4.80

14040/14140/18840

E4/light

14240/14340

14550/14650/19050 15050/15150/19850 15250/15350

380/390/R780400/410/R880 280/290/R770 E4/00

2828/2928/R7728 3838/3938/R7838 4040/4140/R8840

E4/4

5050/5150/R9850

E6.52 / R6.52 E6.62 ● E6.40

● E6.80L ● E6.80

KMA mounting bracket with ir C-profile and chainfix clamps

Save both time and space during installation of igus® chainfix clamps

# Installation height

If the e-chain® glides on itself for long travels, the screw heads of the strain relief at the fixed end of the e-chain® must have a distance of at least 10 mm below the top of the e-chain®. As a consequence of this, many strain relief elements described here may not be suitable for use at the fixed end on gliding e-chains®. For unsupported e-chains® these strain relief elements can be used safely.



Excellent durability for dynamic applications

■ The cables should ideally be fixed at both ends of the e-chain®.

When using chainfix clamps on C-profiles in the mounting bracket for the Series: E4.32/H4.32/R4.32, 280/290 R770, 2828/2928/ R7728 a shortened bottom saddle must be used. For shortened bottom saddles supplement part no. with index "K" = Example:

d preassembled strain relief

Part no. CFX12.1K e-chain®

### Please note!

The minimum should be to be fixed at the moving end of the

or heavy-duty applications with C-profile host-option!)

e-chain®

ables within the strain relief ncreases the reliability

proves the clamp's stability

stacker elements:

rs or same day!

chnical feasibility)

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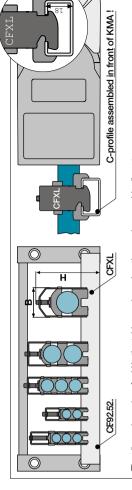
s.eu/chainfix

space saving d installation

x installation direction

> host-option

# chainfix strain relief| Optional | CFXL clamps



The dimensions given for H in the tables are based on the maximum cable diameter. Cables with smaller diameters may result in lower overall clamp housing heights. Tightening torque 1.5 Nm for CFXL clamps

**CFXL** | Clamps with wide base for increased holding power Suitable for C-profiles CF.92.52.XX - C-profile assembled in front of KMA! NO KMA-integration!

,	,		ò						
Part no.	Part no.	Ø	ç <b>∆</b>	I	ø B+² H Partno.	Part no.	Ø	<del>г</del>	I
steel	stainless steel*	[mm] [mm] [mm]	E E	mm]	steel	stainless steel*	[mm]	<u>_</u>	[mm]
CFXL12.1	<b>CFXL12.1 CFXL12.1.E</b> 06 - 12 16 60	06 - 12	16	09		<b>CFXL26.1 CFXL26.1.E</b> 22 - 26 30	22 - 26	33	73
CFXL14.1	CFXL14.1 CFXL14.1.E 12 - 14 18	12 - 14	8	26	CFXL30.1	CFXL30.1 CFXL30.1.E 26 - 30 34	26 - 30	34	27
CFXL16.1	CFXL16.1 CFXL16.1.E 14 - 16 20	14 - 16	20	28	CFXL34.1	CFXL34.1 CFXL34.1.E 30 - 34 38	30 - 3	4 38	8
CFXL18.1	CFXL18.1 CFXL18.1.E 16 - 18 22	16 - 18	22	8	CFXL38.1	CFXL38.1 CFXL38.1.E 34 - 38 42	34 - 38	3 42	82
CFXL20.1	CFXL20.1 CFXL20.1.E 18 - 20 24	18 - 20	24	62	CFXL42.1	CFXL42.1 CFXL42.1.E 38 - 42 46 89	38 - 42	2 46	89
CFXL22.1	CFXL22.1 CFXL22.1.E 20 - 22 26 64	20 - 22	26	64		*Material stainless steel: 1,4301/AISI 304	ss steel:	1.4301//	VISI 30

CFXL - [	CFXL - Double clamp housing, incl. bottom and stacker saddles	snoy di	ing,	incl.	bottom	and stacker	saddl	Se
Part no.	Part no.	Ø	$\mathbf{B}^{7}$	I	B <sup>+2</sup> H Part no.	Part no.	Ø	$\mathbf{B}^{7}$
steel	stainless steel*	[mm] [mm] steel	[mm]	[mm]	steel	stainless steel*	[mm]	[mm]
CFXL12.2	CFXL12.2 CFXL12.2.E 06 - 12 16 78 CFXL22.2 CFXL22.2.E 20 - 22 26	06 - 12	16	28	CFXL22.2	CFXL22.2.E	20 - 22	56
CFXL14.2	CFXL14.2 CFXL14.2.E 12 - 14 18 80	12 - 14	199	88	CFXL26.2	CFXL26.2 CFXL26.2.E 22 - 26 30	22 - 26	99
CFXL16.2	CFXL16.2 CFXL16.2.E 14 - 16 20	14 - 16	20	84	CFXL30.2	CFXL30.2 CFXL30.2.E 26 - 30 34	26 - 30	34
CFXL18.2	CFXL18.2 CFXL18.2.E 16 - 18 22	16 - 18	22	98	CFXL34.2	CFXL34.2 CFXL34.2.E 30 - 34 38	30 - 34	38
CFXL20.2	<b>CFXL20.2 CFXL20.2.E</b> 18 - 20 24	18 - 20	24	92				
						000		4,700

90 109 117 125

22 26 30 34

steel: 1.4301/AISI 304

[mm] 88 1115 123

Part no. Part no.	Part no.	Ø	д В	H A	Part no. Part no.	Part no.	Ø	а Д	I
steel	stainless steel*	[mm] [mm] [mm]	[mm]	[mm]	steel	stainless steel*	[mm] [mm] [mm]	[mm]	<u>Ē</u>
CFXL12.3	ı	06 - 12	16	106	06 - 12 16 106 CFXL18.3	ı	16 - 18 22	22	114
<b>CFXL14.3</b>	ı	12 - 14 18 102	18	102	CFXL20.3	ı	18 - 20 24	24	120
CFXL16.3	1	14 - 16	20	108	14 - 16 20 108 CFXL22.3	ı	20 - 22 26	56	126

Suitable C-profiles for CFXL clamps part no. CF.92.52. ▶ Page 732

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.. ► Page 732

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steel: 1.4301/AISI 304



**ŽIJEME TECHNIKOU** 

a diameter.sights. Tightening torque 1.5Nm for CFX clamps.

ed into KMA with C-profile-option!

C-profile can be integrated into KMA!

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addles

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### ents b ö **HENNLICH** -**ŽIJEME TECHNIKOU**

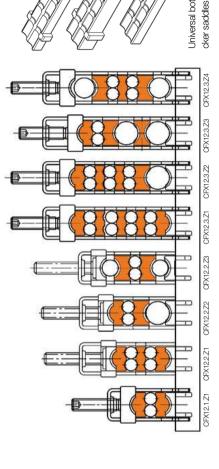
# Characteristics of igus® chainfix multi-clamps

- Now more flexible options of the proven chainfix strain relief elements with more components
  - Universal strain relief more assembly options
    Saves both time and space during installation
    Compact and modular
    For small outer diameters



CFX12 | Multi-clamps, universal strain relief

single part



nd triple clamps as single part

Part no.		Part no. stacker	Part no. stacker saddles - single parts	ts	For cables Ø
series					max. [mm]
CFX12.1.Z1	X (2-piece)	ı	1 1	. 1	9
CFX12.2.Z1	X (2-piece)	X (1-piece)	ı	ı	9
CFX12.2.Z2	X (1-piece)	ı	X (1-piece)	ı	6 + 12
CFX12.2.Z3	ı	ı	X (2-piece)	ı	8+9
CFX12.3.Z1	X (2-piece)	X (3-piece)	ı	ı	9
CFX12.3.Z2	X (1-piece)	X (2-piece)	X (1-piece)	ı	6+12
CFX12.3.Z3	X (1-piece)	ı	X (1-piece)	X (1-piece)	6+12
CFX12.3.Z4	ı	X (1-piece)	X (2-piece)	ı	6+10

Standard material: galvanised steel. For the stainless steel version (material 1.4301/AISI 304) supplement part no. with Index

"E" = example: part no. CFX.12.3.Z1.E

22 - 26 26 - 30 30 - 34 34 - 38 38 - 42 Cable Ø [mm] CD.30.C\* CD.26.C\* saddle CDXX stacker saddle CD26 Part no. bottom saddle CG26 CG30 CG34 CG38 CG42 30.X 34.X 42.X 38.X

tracket for Series E4.32/H4.32/R4.32, 280/290/ used. For shortened bottom saddles supplement

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clamps as single part

# chainfix strain relief | Testing methods

LIN-TECH



igus® test: Comparison of three different strain reliefs - Result: Triple tensile strength of igus  $^{\! \otimes}$ chainfix clamps compared to conventional



products.









# Fensile strength tests with chainflex® cables

Tensile strength tests of igus® clamps with

cable tiewraps

# gus® tensile strength test with CFX clamps

## igus® strain relief devices are tested under real conditions, taking various parameters into account

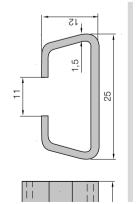
oil, or at different ambient temperatures. The interaction of chainfix systems with different jacket materials of cables and hoses of course plays a big role in the in-house tests. **Detailed information about the tests: chainfix strain relief parameter overview ▶ Page 724** Whether under the influence of fluids like water or

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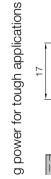
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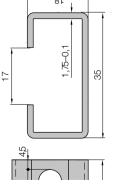












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### **HENNLICH-**ŽIJEME TECHNIKOU

# Characteristics of igus® chainfix tiewrap plates - Series 3000 Option 1B.: Tiewrap plates as individual parts

- Available as individual component
  Screwed on KMA\* with C-profile (\*polymer metal mounting bracket)
  Can be clipped onto the mounting bracket
  Single part for the manufacturing of switchgear cabinets or for the assembly of machines
  - Accessory for igus<sup>®</sup> e-chain systems<sup>®</sup>

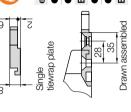
Series 3000 | Tiewrap plate as single part

For the following

igus® series

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I			
ı	3100		
H	ZB		
ı			
ı			



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1400/1500/1450/1480 2400/2500/2450/2480

200/Z200 easychain<sup>®</sup>

Single Jewrap plate

E2/000

**E2 e-tubes** ● R117/R118

Drawn assembled

25

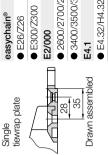
● R48

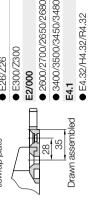
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2

For the following

igus® series





	35	Drawn assembled	
	l		

● E300/Z300	E2/000	<ul><li>2600/2700/2650/268</li></ul>	<ul><li>3400/3500/3450/348</li></ul>	E4.1	<ul><li>E4.32/H4.32/R4.32</li></ul>	● E4.42/H4.42/R4.42	<ul><li>E4.56/H4.56/R4.56</li></ul>	
_		28%	₹ 93	Drawn assembled				

1	pelqu
28	Drawn assembled

Drawn assembled	
-----------------	--

	28 35 35	Drawn assembled
-	-	

	35	Drawn assembled	
2,8			

	28 35	Drawn assembled
2,8	-	

	288	Drawn assembled	
2,8			

	35	Drawn assembled
2,9	√ -	

	28	35	Drawn assembled	
7'0	_			

	Drawn as	
(2)		

<u> </u>		728	Drawn assembled	
	-			

- - - -		32 78	Drawn assembled	
2,8	-			

3 8	Drawn assen	
	<del>]</del>	Ī

	- S8 - S8 - S8	35 Drawn assemble	
2,8	9		
	7		

Dim. C
Dim. B
Dim. A
n Number

n Number	Dim. A	Dim. B	Dim. C	Š
of teeth	[mm]	[mm]	[mm]	-
Ω	20	30	ı	
7	75	22	1	
10	100	80	1	
Ξ	115	92	ı	
12	125	105	1	
15	150	130	1	
17	175	155	1	
20	200	180	06	
22	225	205	102.5	
25	250	230	115	

3115.ZB 3125.ZB 3150.ZB 3175.ZB

3100.ZB 3075.ZB

■ E6.29/R6.29

● E6.35 ● E6.40

● 220 (2050.Z)

● E4.28

Centre bore - = no / + = yes

E4/00 E4.1

3050.ZB

14040/14140/18840 14240/14340 14550/14650/19050 15050/15150/19850

E4/light

280/290/R770 380/390/R780 400/410/R880 600/601/R608

15250/15350

E4.80/H4.80/R4.80

ntre bore 10 / + = yes

8 340

## Cable tiewraps

3200.ZB 3225.ZB 3250.ZB

Pull force resistance [N]	222 N
Maximum Ø	36
Width x length [mm]	4.8 × 150
Cable tiewraps (100-piece bag)	CFB.001

4040/4140/R8840 5050/5150/R9850

2828/2928/R7728 3838/3938/R7828

**=**4/4



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E6.62E6.80L / E6.80

►6.52/R6.52

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se resistance [N]

222 N

### **HENNLICH** -ŽIJEME TECHNIKOU

# Characteristics of igus® chainfix tiewrap plates Option 4: For fixed crossbars or option 5: For opening crossbar. Can be clipped onto fixed and opening crossbars

- In case of many harnessed cables
  Dual level strain relief
  If the KMA is too small for the C-profile
  Easy to assemble without any screws
  - Accessory for igus<sup>®</sup> e-chain systems<sup>®</sup>







### Tip

For the following igus<sup>®</sup> series ► See table

# Option 4 | Tiewrap plate for fixed crossbars

For all mounting brackets with C-profile!

profile

For series	E/Z200, 2400/2500, 2600/2700	3400/3500	3400/3500
Width Number [mm] of teeth	9	5	7
Width [mm]	09	20	74
Part no.	2050.Z	3050.Z	3075.Z



For the following	igus <sup>®</sup> series ▶ See table
S	

# Option 5 | Tiewrap plate for opening crossbars

Part no.	Width [mm]	Width Number [mm] of teeth	For series
2050.Z	09	9	E4/H4/R4.28, 220, 2650
3035.ZS	35	ო	3400/3500
3050.ZS	20	Ŋ	3400/3500
3075.ZS	75	7	3400/3500
3850.ZS	48	Ŋ	E4/H4/R4.32, E4/H4/R4.42, 280/290/R770,
			380/390/R780,2828/2928/R7728,
			3838/3938/R7838, 14240/14340,
			15250/15350, E6.52, E6.62
4550.ZS	48	Ŋ	E4/H4/R4.56, E4/H4/R4.80, 400/410/R880,
			4040/4140/R8840, 5050/5150/R9850,
			14040/14140/18840,14550/14650/19050,
			15050/15150/19850, E6.80L, E6.80, 1640/1608
4575.ZS	74	7	E4/H4/R4.56, E4/H4/R4.80, 400/410/R880,
			4040/4140/R8840, 5050/5150/R9850,
			14040/14140/18840, 14550/14650/19050,
			15050/15150/19850, E6.80L, E6.80,1640/1608

For the following igus<sup>®</sup> series ► See table



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## LIN-TECH

### **HENNLICH-**ŽIJEME TECHNIKOU

# Characteristics of igus® chainfix clips

- Option 2: Clip-on strain relief for opening crossbars

  Available for all igus® e-chains® with opening crossbars

- Polymer, for cable diameters from 8 mm to 12 mm
  Quick assembly without any tools
  2 to 3 layers on top of one another possible
  Each layer can be detached and changed later on



## ing

For the follow	igus® series
E	

For the	igus® s	
le l		

Dim. D

Dim. B Dim. C [mm]

Dim. A [mm] 23.7

Part no. clamp

ø Cable [mm]

Clamp - Part no. CFC-XX-M

For all mounting brackets with C-profile!

9

[mm] 24

CFC-12-M

08 - 12 mm

Option 2 | Clip-on strain relief for opening crossbars

igus® series	E4.1	<ul><li>E4.56/H4.56/R4.56</li></ul>	● E4.80/H4.80/R4.80	● 1640	● 840	E4/light	● 14040/14140	14550/14650
	Dim. E	[mm]	36					

	15050/15150	+ E4/00	● 400/410	● 640	E4/4	● 4040/4140	• 5050/5150	E6	● E6.80L
<b>∀</b>									

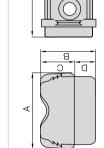
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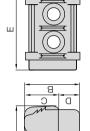
Bottom part - Part no. CFC-XX-B	t - Part no.	CFC-XX	e .			
ø Cable [mm]	Part no.	Dim. A	Dim. A Dim. B	Dim. C	Dim. D	Dim. E
	2					
08 - 12 mm	CFC-12-B	23.8	21	13	ω	38

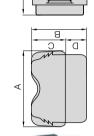
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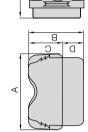
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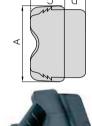
● E6.80













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36 42 45 50

unassembled 1585.01.Z assembled 1586.01.Z

R157/R158

E2 e-tubes

1400/1500 E2/000 e-chains®

embled 21.1.Z.1

R167/R168

E2 e-tubes

TITI

2120.Z

led 2020.Z

E2/000 e-chains®

تائے

2400/2500

nbled **1685.01.Z** 

pelguess

Strain relief separators | Product range overview





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### ● E4.28/R4.28 R157/R158 ■ R167/R168 3450/3480 **E6.1** ● E61.29 ● E6.29 ● E6.40 E4.21 ● T3.29 ● E6.35 R48 Dim. D 6.5 0 0 4 9 ∞ ∞ 9 9 9 0 4 ï. 9 15

E6/E6.1 e-chains® unassembled E6.29.02.Z assembled E6.29.12.Z

ambled **34501.Z** bled **34511.Z** 

E2/000 e-tubes

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Ш

3450/3480

E6.29/E61.29

unassembled E6.29.02.Z assembled E6.29.12.Z

T3 e-chains®

301.Z 311.Z

E2/000 e-chains®

Ш

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3400/3500

T3.29

unassembled T2103.Z assembled T2113.Z

E4.1 e-chains®

רנ 000

262.Z 263.Z

E2/000 e-chains®

2600/2700

E4.21

482.ZR nbled 481.ZR

palguages

E2 e-tubes

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> oled 2020.ZR 2120.ZR

For the following igus® series

1400/1500

S

2600/2700 3400/3500

2450/2480

pelques

2450/2480 E2/000 e-tubes

unassembled E6.40.02.Z assembled E6.40.12.Z

**E6.4**0 E6 e-chains<sup>®</sup>

J0000000(

28.ZT 28.ZT.1

R4.28 E4.1 e-tubes

**₽** 

unassembled E6.35.02.Z

E6.35 E6 e-chains<sup>®</sup>

food

E4.1 e-chains®

28.Z 28.Z.1

f separators are

r at the first or n® link. For an te strain relief e assembled

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Characteristics of the special strain relief system for hoses

Modular, space-saving system

igus® blocks

No hose damage
Combination of hoses and cables possible
Hose diameters from 4.3 14 mm
Easy to assemble without any screws and tools

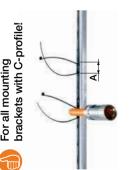
Adjustable to any e-chain<sup>®</sup> filling

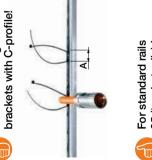
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### **HENNLICH-ŽIJEME TECHNIKOU**

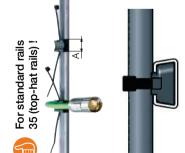
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# Block | Strain relief for hoses

Please contact us!

Width Width [mm]	4 - 12 27.5	3-6 27.5	2 27.5	5 55.0	2 27.5	2 27.5	1 27.5	Width	ate [mm]	75	<b>2,5</b> 102.5	130	<b>.5</b> 185	2 212.5	<b>o</b> 240	295 295					
Hose Ø	4.3	9	0	6	10	12	41	Part no.	cover plate	CFS P75	CFS P102,5	CFS P130	CFS P185	CFS P212	CFS P240	CFS PD295	Height	[mm]	16	12	!
Part no. block modules	CFS 4,3	CFS 6	CFS 9	CFS 55,9	CFS 10	CFS 12	CFS 14	Part no.	base plate	CFS U75	CFS U102,5	CFS U130	CFS U185	CFS U212	CFS U240	CFS U295	Part no.	spacer	CFS D 16	CFS D 12	

Grid-dimensions modules B = 27.5 mm, H = 16 mm

Base plate

Spacers

OCover plate

fitted on top of each in module CFS 4.3 and 2 hoses can be fitted directly on top of each other in one notch using module CFS 6. The modules have a width of 27.5 tersunkhead screws. The exception is module CFS 55.9 which ofers the capacity for  $5 \times 9$  mm hoses ith twice the width. The base plate and cover plate are available in woths ranging from 75 to 240mm. The height of the spacers and modules is mm, are inserted into the base plate and then fastened in position with M4 coun-16mm. Several layers can be installed directly above one another.

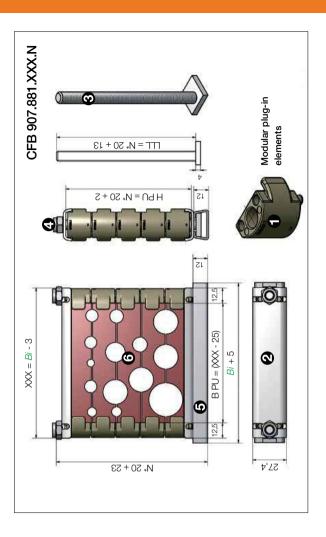


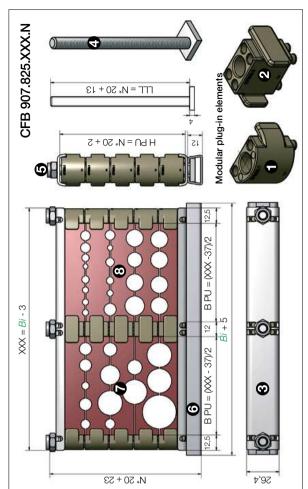
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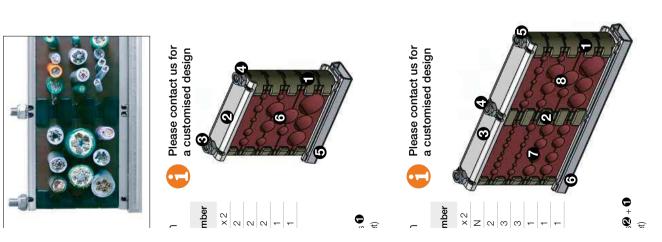


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**HENNLICH-**ŽIJEME TECHNIKOU

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