



# Accessories for Lift Industry

Lift Buffers

Guide Shoes

Guide Shoe Inserts

Rail Lubricators

Oil Collectors

Rope Suspension Springs

Cable Suspensions

Rope Pulleys

Profiled Rollers and Door Guide Rollers

Step and Chain Rollers

The new generation  
of lift buffers series S  
of AUTAN® HE

ACLA  
DE 51065 KOELN  
44 208 17053401  
123321/M  
300400L1  
CE 0044  
14.08.2017  
0130250414082017123321



Type tested  
acc. to EN 81-20/50

Dimension Lists/Technical Sheets

# Certified quality by TÜV



In-house dynamical test bench

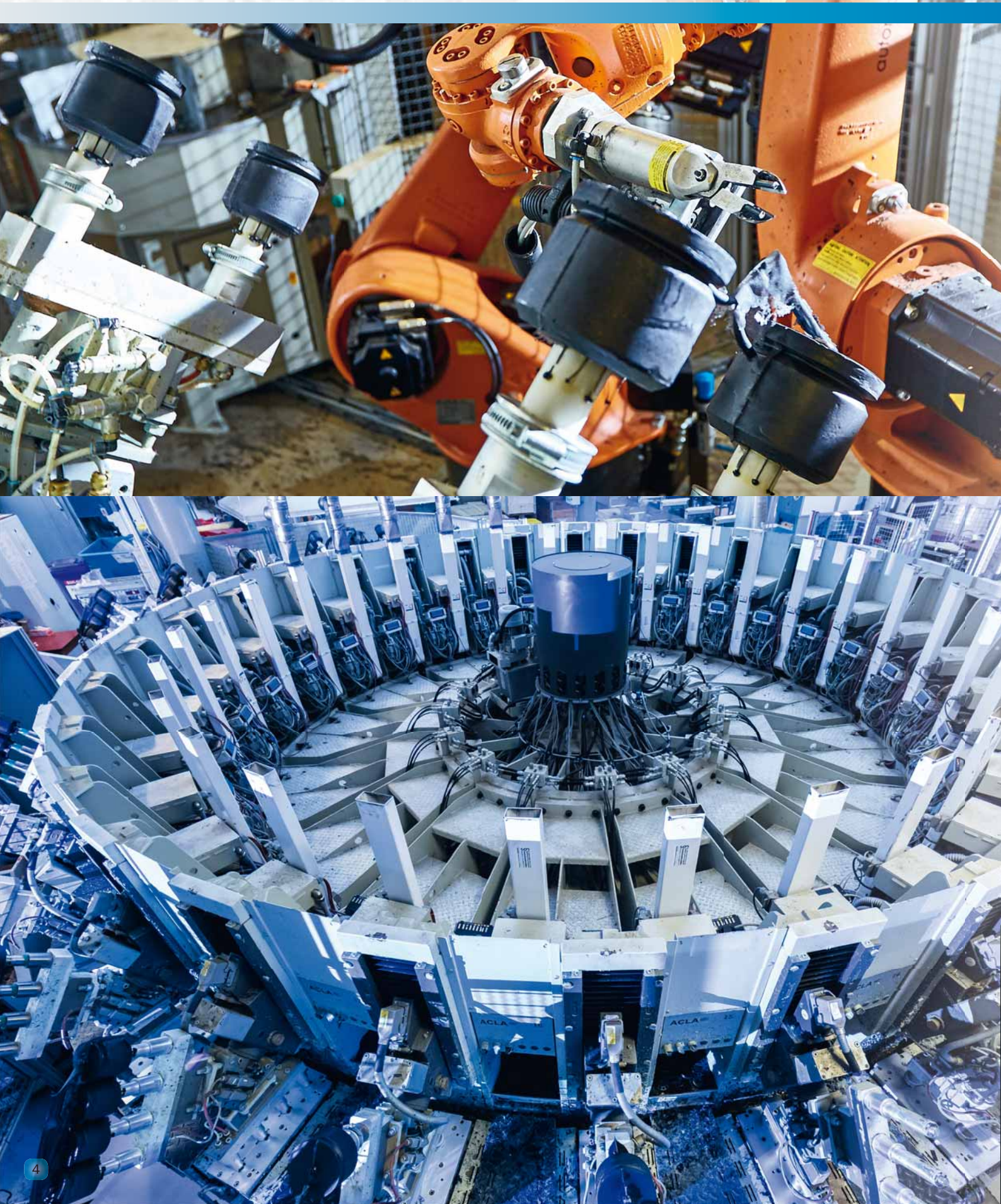
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# State-of-the-art machinery equipment

ACLA - a conception for reliable quality in lift engineering



## ACLA moulded parts: at home in the world of elevators

As one of the leading European manufacturers of high-grade technical polyurethane elastomer parts, ACLA-WERKE have offered a high grade product program for the lift industry for many years. The intensive cooperation with leading global elevator manufacturers has led to special components which are customized and adapted to the requirements of the lift industry.

Besides the high quality level and reliability of the components the ACLA product range is distinguished by functional and maintenance-free designs. Constant quality control and customer oriented research and development make sure that all articles are state-of-the-art.

## Safety by high-tech

In lift engineering safety is the top concern. Therefore ACLA applies only high-grade materials which secure a maximum of reliability in daily service.

As manufacturers and PUR-processing specialist for approx. 60 years in conjunction with a highly efficient quality control system ACLA-WERKE have got the necessary know-how to assure a top level quality standard.

Our in-house test bench enables us to proceed with innovations that meet our customers' requirements. The new generation of lift buffers of AUTAN HE has already been certified acc. to EN 81-20/50 since 2015.

## Number "1" in guiding

The ACLA product range for rail guidance is conceived in modular design leaving many options of use and economical application. The well approved ACLA guide shoes and inserts as well as the various rail lubricators develop compact units offering optimal operational performance with a minimum size ratio. The broad ACLA program for guide shoes, guide shoe inserts and lubricators offers the adequate technical and economical answer to any installation situation.

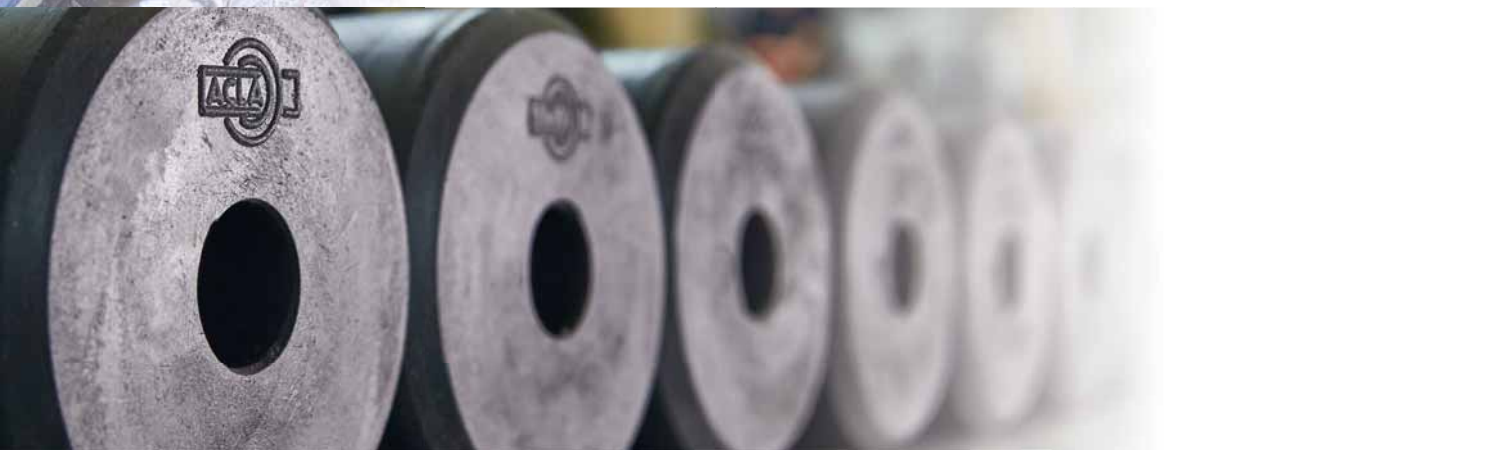
## Innovation for excellence in ride quality and enhanced security level serving elevator manufacturers

Numerous product developments and enhancements over the past years, i.e. guide shoe inserts with highly extended ride comfort or special executions of PU lift buffers, account for the increased efficiency and reliability of modern elevators throughout the world.

The most recent and state of the art production techniques and a process adapted as well to small batch series as to mass production enables ACLA-WERKE to fulfill all market requirements of elevator industry.



ACLA-Werke GMBH are certified since 1993 for the scope "Design, production and sale of technical articles of polyurethane elastomers". From January 2004 on this certification is carried out by DEKRA.



## High grade materials for the elevator industry

### Material competence at the highest stage

As manufacturer of various elastomers with an in-house R & D for compositions and and its 60 years of experience in processing and manufacturing ACLA-WERKE are in a position to fulfill the top quality requirements of the lift industry with its customized products.

For the various requirements in lift industry ACLA-WERKE applies different materials with different specific compositions which are tailored to particular needs of elevator industry.

This page gives a review of the main homogeneous and cellular polyurethane elastomers as well as highly tensile thermoplastic materials which are applied in the elevator industry.

More detailed information on specific properties of ACLA compositions can be provided upon request.

Material	Brief description	Main properties (extract)	Preferred field of application in lift engineering
<b>Homogeneous polyurethane elastomers</b>			
<b>ACLATHAN</b>	High grade NDI-based PUR elastomer in shore hardnesses ranging from 65 to 95 Shore A	<ul style="list-style-type: none"> <li>extremely wear- and tear resistant</li> <li>high tear propagation resistance</li> <li>high dynamic load bearing capacity</li> <li>low compression set and high damping ability</li> <li>good resistance against mineral oils, grease and petrol</li> </ul>	Guide shoes/type VS, guide shoe inserts, clamping elements for oil collectors, profiled- and door guide rollers, chain- and step rollers
<b>ACLATHAN-KH</b>	TPU- based PUR elastomer with shore hardnesses ranging up to 96 Shore A	<ul style="list-style-type: none"> <li>high elasticity for a wide temperature range</li> <li>good wear- and tear resistance</li> <li>good damping ability</li> <li>noise-absorbing</li> <li>good resistance against mineral oils, grease and petrol</li> </ul>	Guide shoes/type VS, guide shoe inserts,
<b>ACLATHAN-KH black</b>	TPU- based PUR elastomer	<ul style="list-style-type: none"> <li>good damping ability</li> <li>good wear resistance</li> <li>good resistance against mineral oils, grease and petrol</li> </ul>	Gliding elements
<b>Cellular polyurethane elastomers</b>			
<b>AUTAN</b>	Highly elastic cellular PUR elastomer with a density up to approx. 460 kg/m <sup>3</sup>	<ul style="list-style-type: none"> <li>high stability level</li> <li>excellent vibration damping features</li> <li>good resistance against mineral oils, grease and petrol</li> </ul>	Lift buffers according to EN-81, damping inserts for guide shoes, noise-isolation material
<b>AUTAN HE</b>	Highly elastic cellular PUR elastomer with a density up to approx. 600 kg/m <sup>3</sup>	<ul style="list-style-type: none"> <li>excellent stability level</li> <li>excellent vibration damping features</li> <li>good resistance against mineral oils, grease and petrol</li> </ul>	Lift buffers according to DIN EN 81-20/50
<b>High tensile materials</b>			
<b>ACLAMID</b>	Special polymer with high Young's modulus	<ul style="list-style-type: none"> <li>high mechanical strength</li> <li>good gliding and running properties</li> <li>low rolling resistance</li> <li>small deformation</li> <li>good medium resistance</li> </ul>	Guide shoes/type VS, guide shoe inserts, flat and round cable suspensions, rope pulleys, profiled- and door guide rollers, chain- and step rollers
<b>ACLASYN GR</b> <b>ACLASYN MWG 10 sw</b>	Thermoplastic material with especially modified physical and chemical properties	<ul style="list-style-type: none"> <li>excellent gliding properties</li> <li>excellent wear resistance</li> <li>good medium resistance</li> </ul>	Guide shoes/type VS, guide shoe inserts, gliding elements

ACLATHAN®, ACLACELL®, AUTAN®, EUTHAN® are registered trade marks of ACLA-WERKE GMBH, Cologne.



## ACLA Guide Shoes, type VS

- installation height 60, 80 and 100 mm
- completely made of ACLATHAN, ACLATHAN-KH, ACLAMID or ACLASYN GR
- for rail widths of 4 - 7 mm

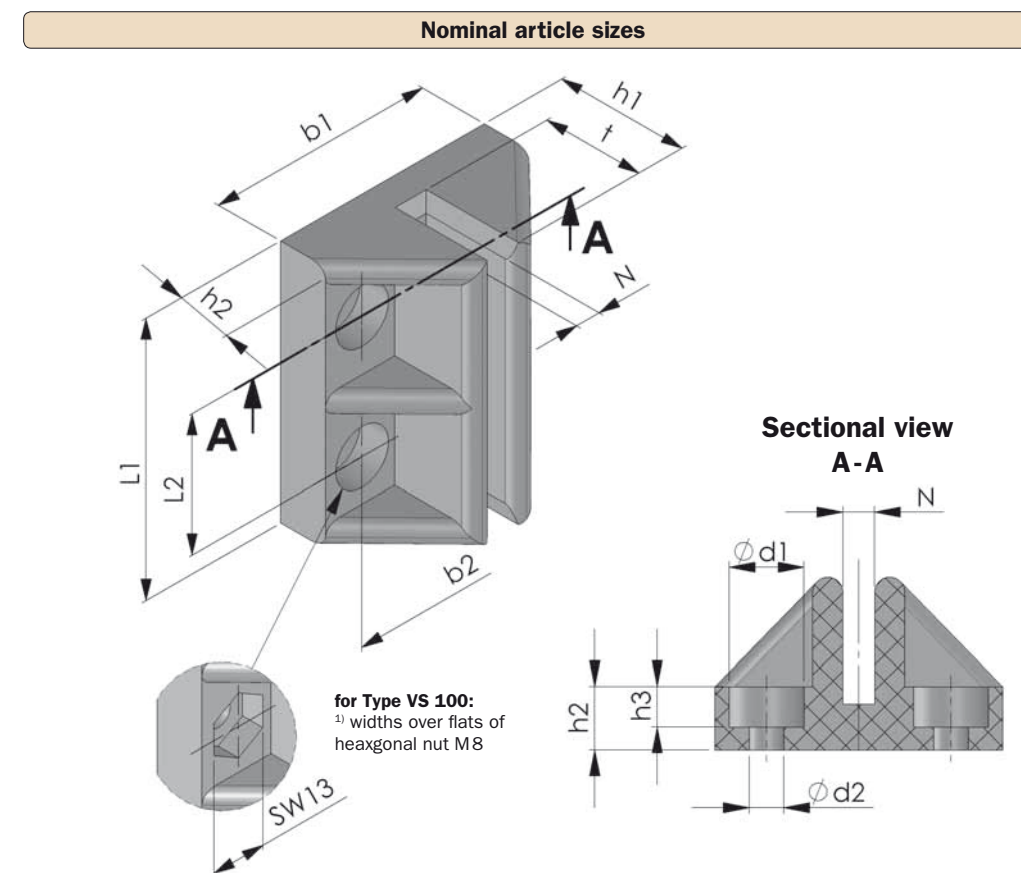
### Completely made of plastic material

ACLA guide shoes type VS are completely manufactured of the high-quality homogeneous polyurethane elastomer ACLATHAN/ACLATHAN-KH, the high-duty special polyamid ACLAMID or ACLASYN GR with special gliding abilities.

### Advantages for the users and operational possibilities

Small sizes, low weight and functional design (separate guide shoe inserts are not required) are especially interesting for light weight lifts like small goods and food lifts.

The excellent abrasion resistance and elasticity of the material as well as the outstanding damping properties and the good sliding ability result in a silent running as well as economical and reliable operation.



### Materials for ACLA guide shoes, type VS

#### ACLASYN GR



i.e.  
VS 60/art. no. 200 239

#### ACLATHAN-KH



i.e.  
VS 60/art. no. 200 017

#### ACLATHAN



i.e.  
VS 80/art. no. 200 123

#### ACLAMID



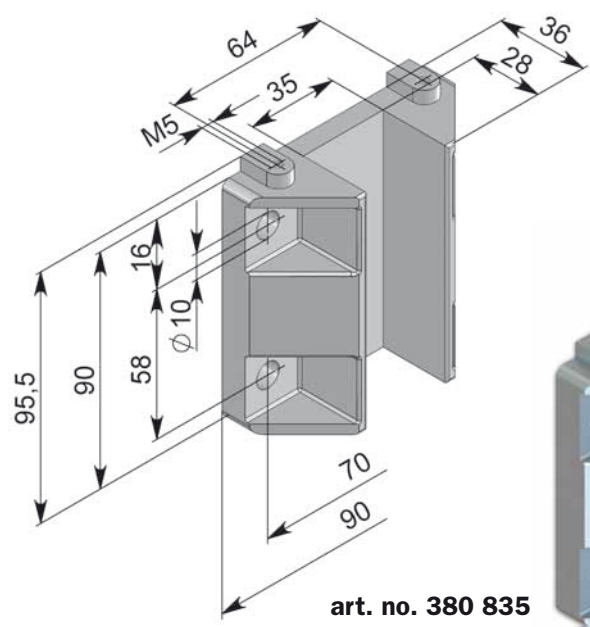
i.e.  
VS 100/art. no. 200 194

### article numbers for ACLA guide shoes, type VS

for rail widths	N	art. no	type	material	L <sub>1</sub>	L <sub>2</sub>	b <sub>1</sub>	b <sub>2</sub>	h <sub>1</sub>	h <sub>2</sub>	h <sub>3</sub>	t	d <sub>1</sub>	d <sub>2</sub>
5	5,5	200 017	VS 60	ACLATHAN-KH	60	30	50	32	30	11	7	22	13	6
5	5,5	200 239	VS 60	ACLASYN GR	60	30	50	32	30	11	7	22	13	6
5	5,5	200 123	VS 80	ACLATHAN	80	37,5	60	40	26	11	7	20	13	6,5
5,5	6	200 194	VS 100	ACLAMID	100	60	75	42	35	12	6	25	13	8,5
6	6,5	200 109	VS 100	ACLATHAN-KH	100	60	75	42	35	12	6	25	13 <sup>1)</sup>	8,5
6	6,5	200 271	VS 100	ACLASYN GR	100	60	75	42	35	12	6	25	13 <sup>1)</sup>	8,5
7	7,5	200 137	VS 80	ACLATHAN	80	37,5	60	40	26	11	7	20	13 <sup>1)</sup>	6,5
7	7,5	200 320	VS 60	ACLASYN GR	60	30	50	32	30	11	7	22	13	6
7	7,5	200 318	VS 60	ACLATHAN-KH	60	30	50	32	30	11	7	22	13	6

## ACLA Guide Shoe, type HSMKK

- installation height 95,5 mm (with insert 98,5 mm)
- undamped and damped guide shoe inserts for rail widths of 9 and 16 mm
- rail lubricator AK 2 is appropriate
- lead time and related items upon request

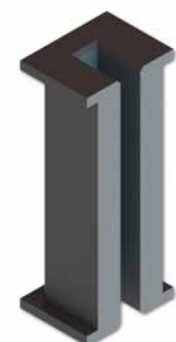


art. no. 380 835

### The advantages of the ACLA guide shoe, type HSMKK

- functional design
  - low weight by use of light metal alloy base
  - excellent stability and durability
  - minimum space occupied
  - easy to maintain in combination with ACLA guide shoe inserts and ACLA rail lubricator AK 2
- ACLA guide shoe HSMKK is especially designed for guide shoe inserts "with collar"

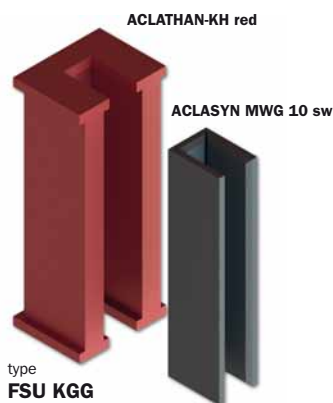
### Appropriate guide shoe inserts (with collar) for ACLA guide shoe HSMKK - undamped -



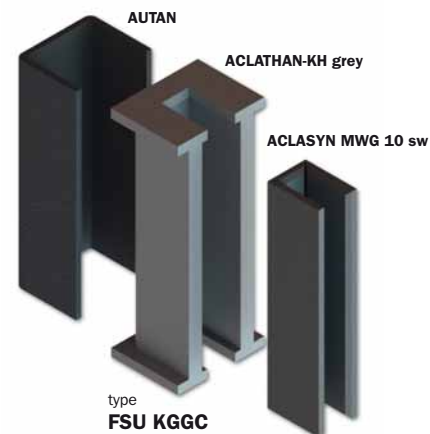
type  
FSU K

ACLATHAN-KH black  
or  
ACLASYN MWG 10 sw

### Appropriate guide shoe inserts (with collar) for ACLA guide shoe HSMKK - damped -



type  
FSU KGG



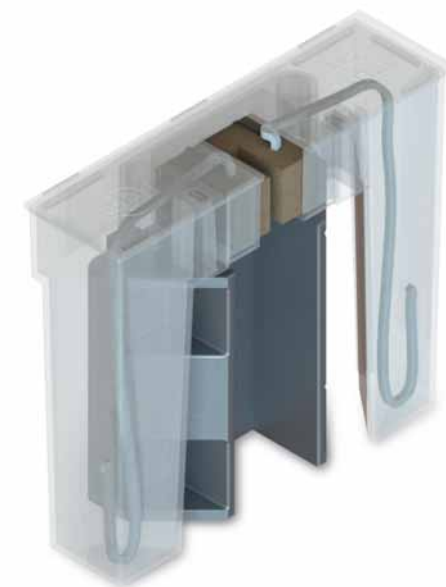
type  
FSU KGGC



type  
FSU KGC

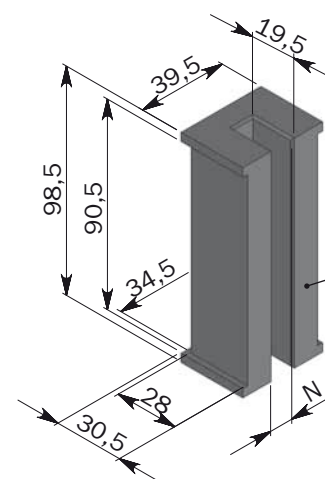
## Appropriate ACLA rail lubricator for guide shoe HSMKK

(for detailed information on ACLA rail lubricators, please see page 33)



Rail lubricator AK 2  
art. no. 90 323.05

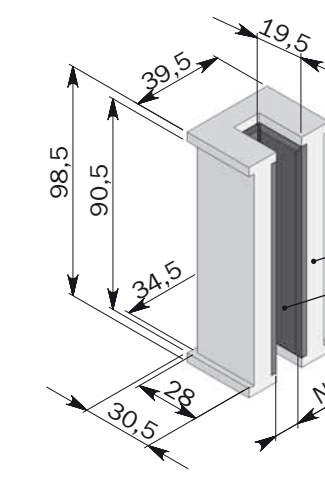
### Undamped guide shoe type FSU K



ACLATHAN-KH black (1)  
or  
ACLASYN MWG 10 sw (2)

rail width N	article no.
9 mm	200 356 (1)
9 mm	200 356.04 (2)
16 mm	200 357 (1)
16 mm	200 357.04 (2)

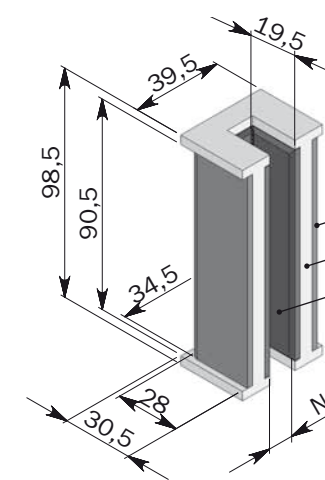
### Damped guide shoe type FSU KGG



ACLATHAN-KH red  
ACLASYN MWG 10 sw

rail width N	article no.
9 mm	200 356.03
16 mm	200 357.03

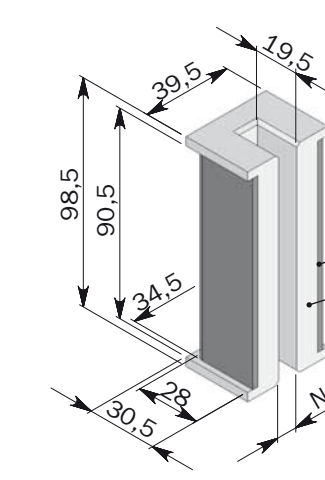
### Damped guide shoe type FSU KGGC



AUTAN  
ACLATHAN-KH grey  
ACLASYN MWG 10 sw

rail width N	article no.
9 mm	200 356.02
16 mm	200 357.02

### Damped guide shoe type FSU KGC

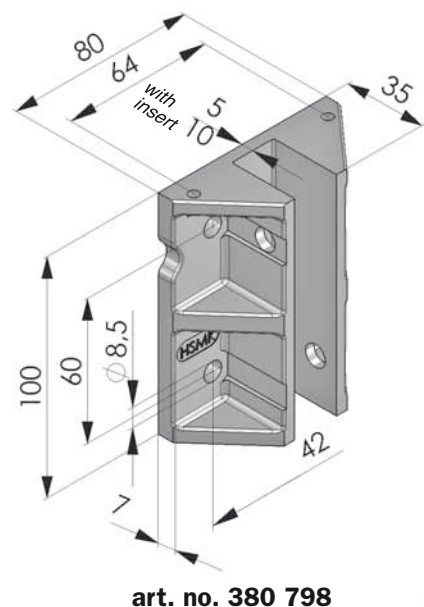


AUTAN  
ACLATHAN-KH grey

rail width N	article no.
9 mm	200 356.01
16 mm	200 357.01

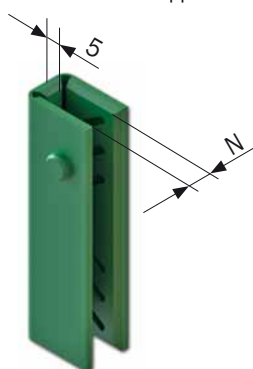
## ACLA Guide Shoe, type HSMK

- installation height 100 mm
- undamped and damped guide shoe inserts for rail widths of 5 - 10 mm
- rail lubricators AK 2 and AK 4 are appropriate



### The advantages of the ACLA guide shoe, type HSMK

- functional design
- low weight by use of light metal alloy base
- excellent stability and durability
- minimum space occupied
- can be used in a variable way in combination with ACLA guide shoe inserts for different rail widths
- easy to maintain in combination with ACLA guide shoe inserts and ACLA rail lubricators
- ideal for CTW applications



### Appropriate ACLA rail lubricators for guide shoe HSMK

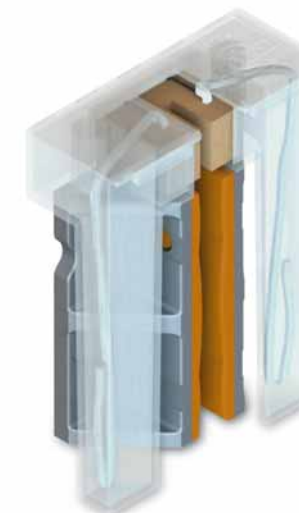
(for detailed information on ACLA rail lubricators, please see page 33)



#### Rail lubricator AK 2 art. no. 90 323

**Mounting instructions:**  
To compensate the overlap on the backside (3 mm) between lubricator and guide shoe a distance plate should be used.

ACLA guide shoe HSMK, mounted with lubricator AK 2 and damped guide shoe insert, type FSUGG (ACLATHAN-KH red/ ACLASYN MWG 10 sw)



#### Rail lubricator AK 4 art. no. 90 337.01

**Mounting instructions:**  
To compensate the overlap on the backside (4 mm) between lubricator and guide shoe a distance plate should be used.

ACLA guide shoe HSMK, mounted with lubricator AK 4 and undamped guide shoe insert, type FSU convex (ACLATHAN)

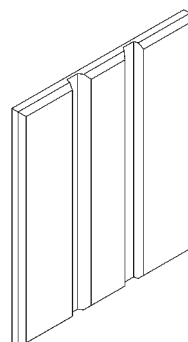
### Appropriate guide shoe inserts for ACLA guide shoe HSMK - undamped -

U-profile type



type  
FSU convex

hinged types



type  
FSF plain



type  
FSF with grooves

### Complete guide shoe HSMKG with guide shoe insert, type FSFG



Damped guide shoe HSMKG with cellular layer of AUTAN combined with insert of ACLASYN MWG 10 sw.

With excellent noise- and vibration damping properties.

rail width N	article no.
5 mm	380 819.05
9 mm	380 820.05

### Complete guide shoe HSMKGG with guide shoe insert, type FSUGG



Damped guide shoe HSMKGG with combined insert of ACLATHAN-KH red and ACLASYN MWG 10 sw.

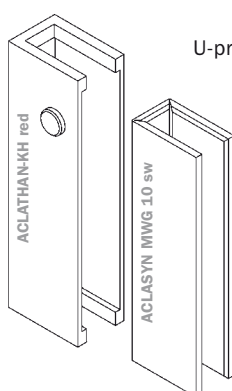
With excellent noise- and vibration damping properties.

rail width N	article no.
5 mm	380 819.06
9 mm	380 820.06

patent protected

### Appropriate guide shoe inserts for ACLA guide shoe HSMK - damped -

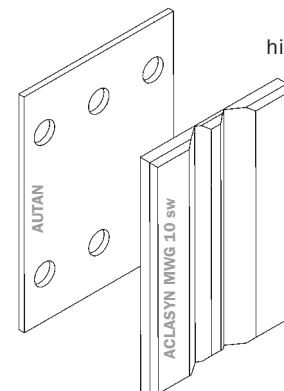
U-profile type



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type  
FSUGG

hinged type



type  
FSFG

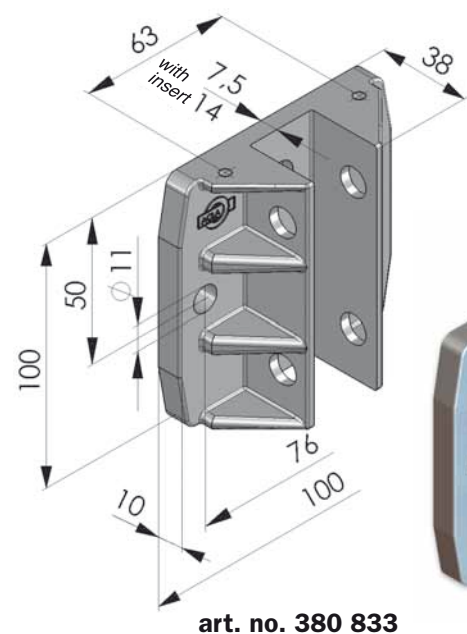
### article numbers for HSMK guide shoe inserts

insert type	material*	for rail width N				
		5 mm	6 mm	8 mm	9 mm	10 mm
undamped	FSU convex	200 011			200 020	
	FSF plain	200 180	200 255	200 237	200 181	
	FSF with grooves	200 286.04			200 290.04	200 307.04
damped	FSFG	200 289.05			200 291.05	—
	FSUGG	200 289.06			200 291.06	—

\*Characteristics and description of ACLA materials, please see page 6

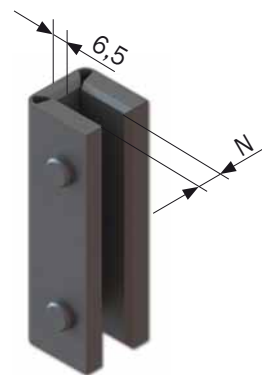
## ACLA Guide Shoe, type HSMKW

- installation height 100 mm
- undamped and damped guide shoe inserts for rail widths of 8 - 16 mm
- rail lubricators AK 2 and AK 4 are appropriate



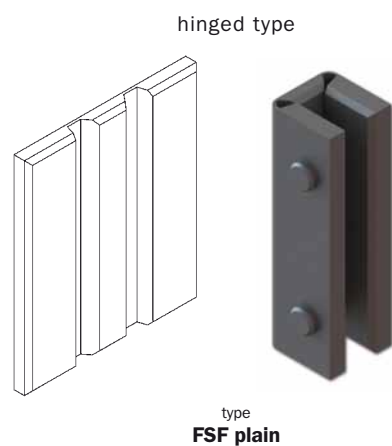
### The advantages of the ACLA guide shoe, type HSMKW

- functional design
- low weight by use of light metal alloy base
- excellent stability and durability
- minimum space occupied
- can be used in a variable way in combination with ACLA guide shoe inserts for different rail widths
- easy to maintain in combination with ACLA guide shoe inserts and ACLA rail lubricators

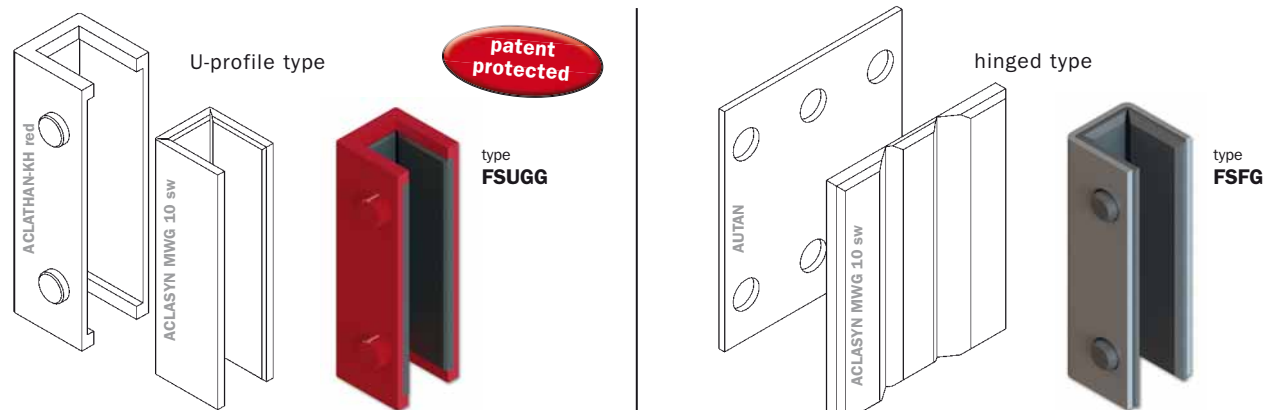


art. no. 380 833

### Appropriate guide shoe inserts for ACLA guide shoe HSMKW - undamped --



### Appropriate guide shoe inserts for ACLA guide shoe HSMKW - damped -



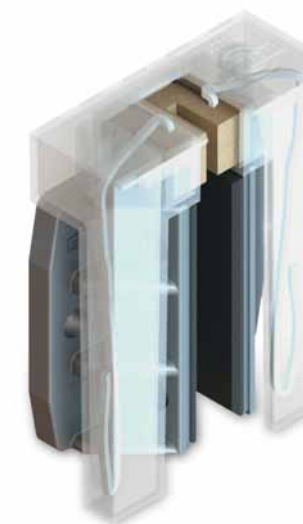
### Appropriate ACLA rail lubricators for guide shoe HSMKW

(for detailed information on ACLA rail lubricators, please see page 33)



Rail lubricator AK 2  
art. no. 90 323.05

ACLA guide shoe HSMKW, mounted with lubricator AK 2 and damped guide shoe insert, type FSUGG (ACLATHAN KH red/ ACLASYN MWG 10 sw)



Rail lubricator AK 4  
art. no. 90 337

ACLA guide shoe HSMKW, mounted with lubricator AK 4 and damped guide shoe insert, type FSF plain (AUTAN/ ACLASYN MWG 10 sw)

### Complete guide shoe HSMKW with guide shoe insert, type FSFG



Damped guide shoe HSMKW with cellular layer of AUTAN combined and with insert of ACLASYN MWG 10 sw.

With excellent noise- and vibration damping properties.

rail width N	article no.
8 mm	380 846.05
9 mm	380 842.05
10 mm	380 836.05
16 mm	380 837.05

### Complete guide shoe HSMKW with guide shoe insert, type FSUGG



Damped guide shoe HSMKW with combined insert of ACLATHAN KH red and ACLASYN MWG 10 sw.

With excellent noise- and vibration damping properties.

patent protected

rail width N	article no.
9 mm	380 842.08
10 mm	380 836.08
16 mm	380 837.08

### article numbers for HSMKW guide shoe inserts

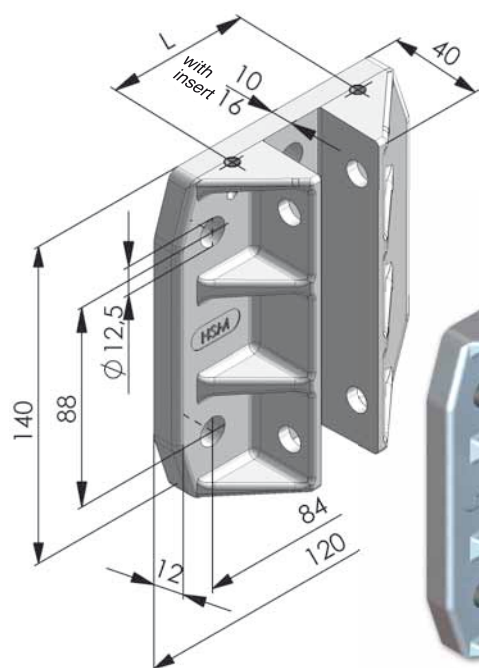
insert type	material*	for rail width N		
		9 mm	10 mm	16 mm
undamped	FSF plain	200 345.01	200 346.01	200 347.01
damped	FSFG	200 345.05	200 346.05	200 347.05
	FSUGG	200 345.06	200 346.06	200 347.06

\*Characteristics and description of ACLA materials, please see page 6



## ACLA Guide Shoe, type HSM

- installation height 140 mm
- undamped and damped guide shoe inserts for rail widths of 5 - 20 mm
- rail lubricators AK 2 and AK 10 are appropriate



### The advantages of the ACLA guide shoe, type HSM

- functional design
- low weight by use of light metal alloy base
- excellent stability and durability
- minimum space occupied
- can be used in a variable way in combination with ACLA guide shoe inserts for all rail widths
- easy to maintain in combination with ACLA guide shoe inserts and ACLA rail lubricators

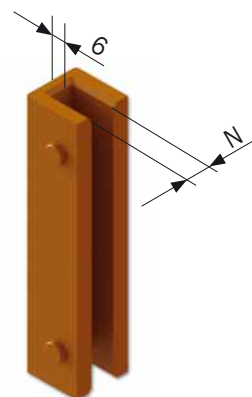
### art. nos./types ACLA guide shoe HSM

**art. no. 380 001** (L = 64 mm)  
2 bores for tapping screw M5

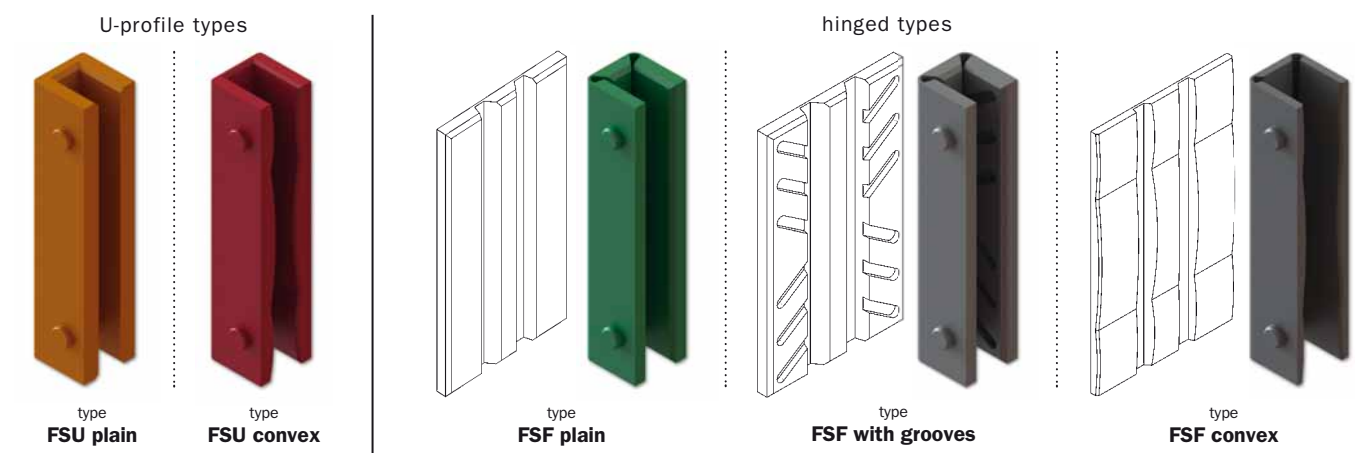
**art. no. 380 810** (L = 64 mm)  
2 bores for threaded screw M6

**art. no. 380 187** (L = 61,5 mm)  
2 bores for tapping screw M6

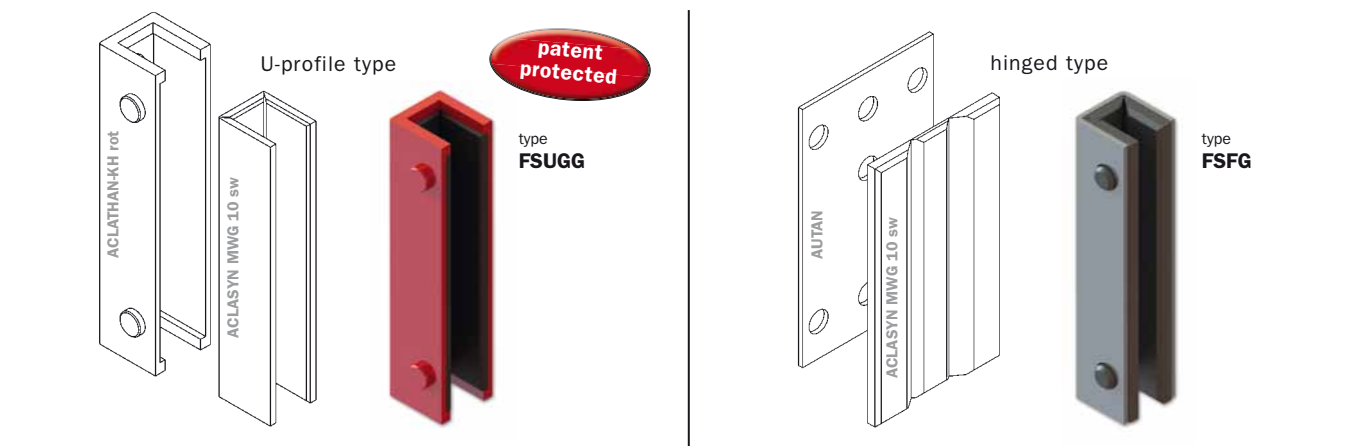
**art. no. 380 187.01** (L = 61,5 mm)  
2 bores for threaded screw M6



### Appropriate guide shoe inserts for ACLA guide shoe HSM - undamped -



### Appropriate guide shoe inserts for ACLA guide shoe HSM - damped -



### Appropriate ACLA rail lubricators for guide shoe HSM

(for detailed information on ACLA rail lubricators, please see page 33)



#### Rail lubricator AK 2

**art. no. 90 323**  
(for art. no. 380 001)

**art. no. 90 323.03**  
(for art. no. 380 810)

ACLA guide shoe HSM,  
mounted with lubricator AK 2  
and damped guide shoe insert,  
type FSUGG (ACLATHAN-KH red/  
ACLASYN MWG 10 sw)



#### Rail lubricator AK 10 art. no. 90 021

ACLA guide shoe HSM,  
mounted with lubricator AK 10  
and undamped guide shoe insert,  
type FSF convex (ACLASYN GR)

### Complete guide shoe HSMG

with guide shoe insert, type FSFG



Damped guide shoe HSMG  
with cellular layer of AUTAN combined  
and with insert of ACLASYN MWG 10 sw.

With excellent noise- and vibration  
damping properties.

rail width N	article no.
9 mm	380 817.05
10 mm	380 809.05
14 mm	380 818.05
16 mm	380 808.05

### Complete guide shoe HSMGG

with guide shoe insert, type FSUGG



Damped guide shoe HSMGG  
with combined insert of ACLATHAN-KH  
red and ACLASYN MWG 10 sw.

With excellent noise- and vibration  
damping properties.

patent  
protected

rail width N	article no.
9 mm	380 817.06
10 mm	380 809.06
14 mm	380 818.06
16 mm	380 808.06

### article numbers for HSM guide shoe inserts

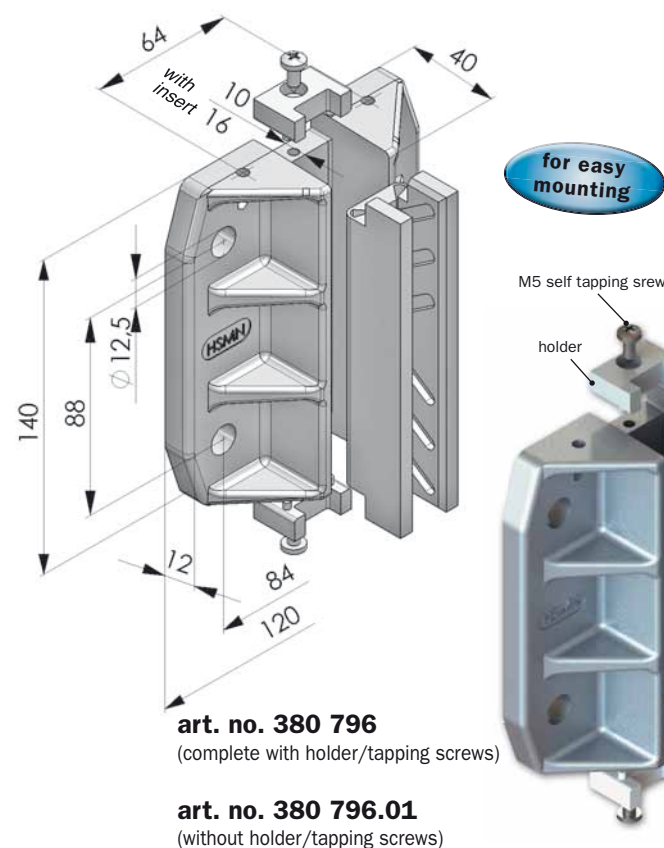
insert type	material*	for rail width N													
		5 mm	6 mm	8 mm	9 mm	10 mm	12 mm	14 mm	15 mm	16 mm	19 mm	20 mm			
undamped	FSU plain		200 003				200 006								
	FSU convex		200 012		200 013		200 014	200 015							
	FSF plain	ACLATHAN-KH	200 182			200 169	200 005		200 168	200 235	200 166				
		ACLAMID	200 176												
		ACLASYN GR	200 230												200 321
	ACLASYN MWG 10 sw					200 292.04	200 284.04					200 285.04	200 298.04		
					200 018										
	FSF with grooves	ACLATHAN-KH				200 225			200 206		200 208				
		ACLAMID				200 228	200 251		200 204		200 226				
		ACLASYN GR													
FSF convex	ACLATHAN-KH						200 288			200 016					
	ACLASYN GR						200 305			200 227					
damped	FSFG				200 306.05	200 293.05		200 295.05		200 296.05					
	FSUGG				200 306.06	200 293.06		200 295.06		200 296.06					

\*Characteristics and description of ACLA materials, please see page 6



## ACLA Guide Shoe, type HSMN (for easy mounting)

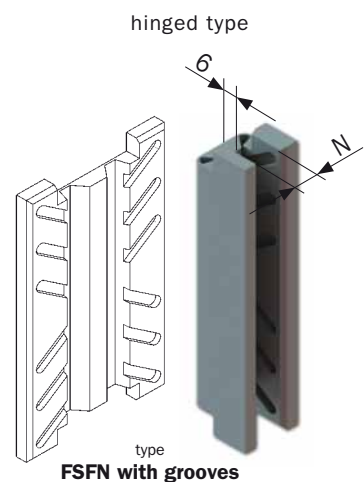
- installation height 140 mm
- guide shoe inserts for rail widths of 5 - 16 mm
- rail lubricators AK 2 and AK 10 are appropriate



### The advantages of the ACLA guide shoe, type HSMN

- functional design
- low weight by use of light metal alloy base
- excellent stability and durability
- sizes as per standard type HSM, however designed for the assembly of the ACLA guide shoe inserts FSFN for easy mounting
- inserts can be replaced without dismantling the guide shoe
- the symmetrical design of the insert allows an easy mounting and dismantling and saves adjustment work when replacing it
- minimum space occupied
- can be used in a variable way in combination with ACLA guide shoe inserts for all rail widths
- easy to maintain in combination with ACLA guide shoe inserts and ACLA rail lubricators

### Appropriate guide shoe insert for ACLA guide shoe HSMN - undamped -



article numbers for HSMN guide shoe inserts							
insert type	material*	for rail width N					
		5 mm	8 mm	9 mm	10 mm	14 mm	16 mm
undamped FSFN with grooves	ACLATHAN-KH		200 018.01				
undamped FSFN with grooves	ACLAMID	200 176.01		200 225.01		200 206.01	200 208.01
undamped FSFN with grooves	ACLASYN GR	200 230.01		200 228.01	200 251.01	200 204.01	200 226.01
undamped FSFN plain	ACLASYN MWG 10 sw		200 428.02	200 228.02	200 251.02		200 226.02

\*Characteristics and description of ACLA materials, please see page 6

### Appropriate ACLA rail lubricators for guide shoe HSMN

(for detailed information on ACLA rail lubricators, please see page 33)



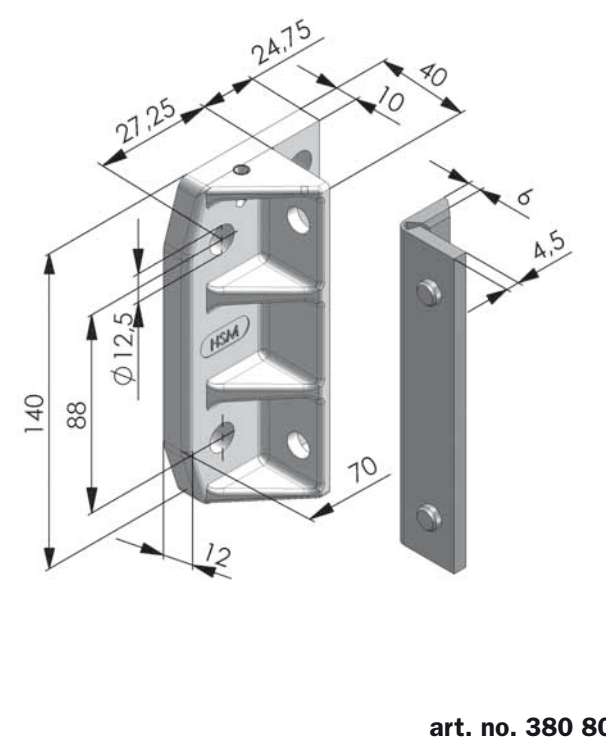
ACLA guide shoe HSMN, mounted with lubricator AK 2 and undamped guide shoe insert, type FSFN with grooves (ACLATHAN-KH)



ACLA guide shoe HSMN, mounted with lubricator AK 10 and undamped guide shoe insert, type FSFN with grooves (ACLAMID)

## ACLA Guide Shoe, type HSM half

- installation height 120 mm and 140 mm
- for rail widths of 5 - 19 mm



### The advantages of the ACLA guide shoe, type/half

- installation height 140 mm
- space-saving construction for narrow mounting situations
- low weight by use of light metal alloy base
- excellent stability and durability

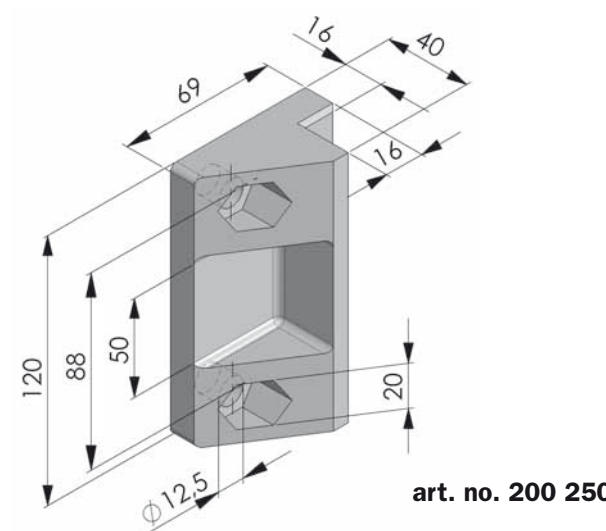


Appropriate guide shoe inserts, type FSF (hinged/undamped) see table

article numbers for HSM/half guide shoe inserts			
insert type	material*		
undamped FSF plain	ACLATHAN-KH	200 433	
undamped FSF with grooves	ACLAMID	200 434	
undamped FSF with grooves	ACLASYN GR	200 269	
undamped FSF plain	ACLASYN MWG 10 sw	200 301.04	

\*Characteristics and description of ACLA materials, please see page 6

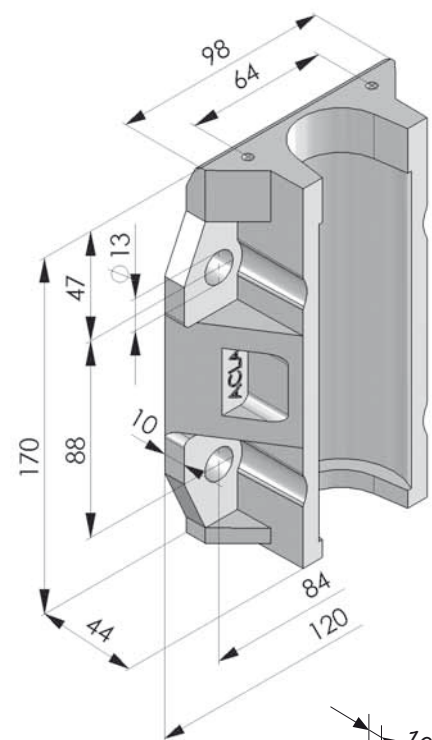
### Guide shoe HSM/half of ACLASYN GR



- installation height 120 mm
- completely made of ACLASYN GR
- can be used for rail widths from 5 to 16 mm without any additional insert

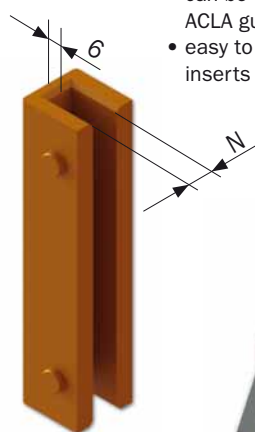
## ACLA Guide Shoe, type SHS (Elastic Guide Shoe)

- installation height 170 mm
- guide shoe inserts for rail widths of 5 - 20 mm
- rail lubricators AK 2 and AK 5 are appropriate



### The advantages of the ACLA guide shoe, type SHS

- functional design
- low weight by use of light metal alloy base
- excellent stability and durability
- Compact guide shoe with excellent properties as to shock absorption
- Rail joints and misalignments are absorbed by the high elasticity of the entire construction
- ACLA guide shoe inserts are embedded in a highly elastic cellular or homogeneous intermediate layer
- the assembly of the insert and cushion is possible without using a tool
- can be used in a variable way in combination with ACLA guide shoe inserts for all rail widths
- easy to maintain in combination with ACLA guide shoe inserts and ACLA rail lubricators

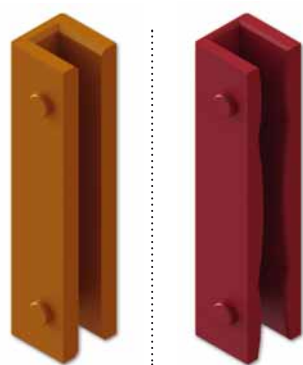


art. no. 380 812



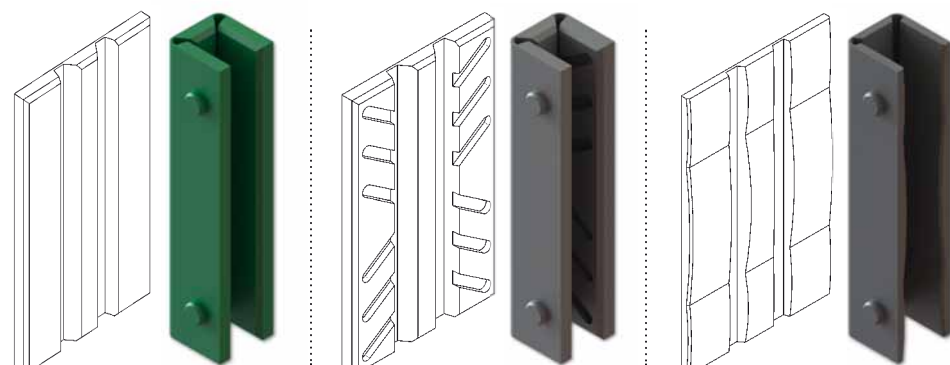
### Appropriate guide shoe inserts for ACLA guide shoe SHS - undamped -

U-profile types



type FSU plain      type FSU convex

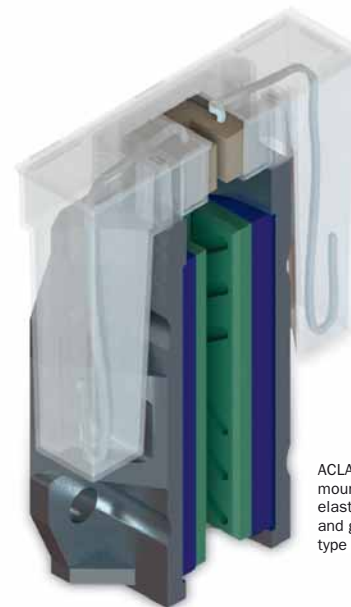
hinged types



type FSF plain      type FSF with grooves      type FSF convex

### Appropriate ACLA rail lubricators for guide shoe SHS

(for detailed information on ACLA rail lubricators, please see page 33)



Rail lubricator AK 2  
art. no. 90 323

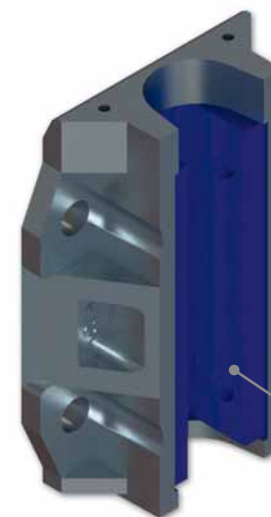
ACLA guide shoe SHS, mounted with lubricator AK 2, elastic cushion/homogeneous and guide shoe insert, type FSF with grooves (ACLAMID)



Rail lubricator AK 5  
art. no. 90 314

ACLA guide shoe SHS, mounted with lubricator AK 5, elastic cushion/cellular and guide shoe insert, type FSF convex (ACLASYN GR)

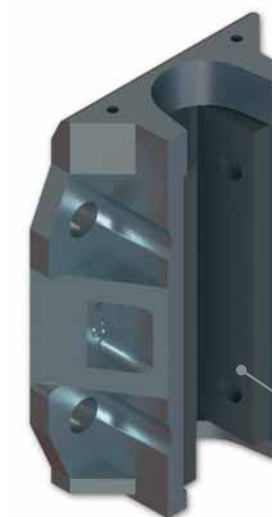
### Complete guide shoe SHS with elastic cushion/homogeneous



Complete elastic guide shoe  
art. no. 380 795  
(= guide shoe + elastic cushion/homogeneous)

highly elastic cushion homogeneous  
art. no. 196 673.N

### Complete guide shoe SHS with elastic cushion/cellular



Complete elastic guide shoe  
art. no. 380 787  
(= guide shoe + elastic cushion/cellular)

highly elastic cushion cellular  
art. no. 310 196

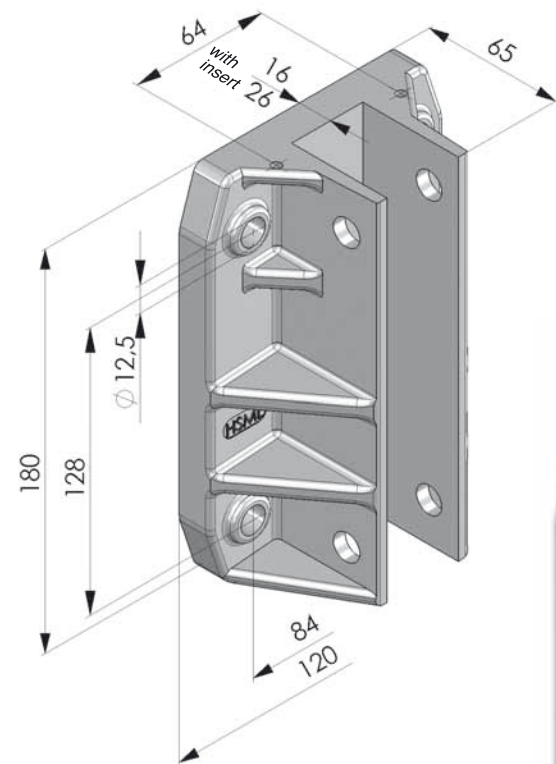
### article numbers for SHS guide shoe inserts

insert type	material*	for rail width N												
		5 mm	6 mm	8 mm	9 mm	10 mm	12 mm	13 mm	14 mm	15 mm	16 mm	19 mm	20 mm	
FSU plain	ACLATHAN		200 003				200 006	200 007						
FSU convex	ACLATHAN		200 012		200 013		200 014		200 015					
FSF plain	ACLATHAN	200 182			200 169				200 168	200 235	200 166			
	ACLAMID	200 176												
	ACLASYN GR	200 230				200 005				200 260			200 321	
FSF with grooves	ACLASYN MWG 10 sw				200 292.04	200 284.04			200 294.04		200 285.04	200 298.04		
	ACLATHAN-KH			200 018										
	ACLAMID				200 225				200 206		200 208			
FSF convex	ACLASYN GR				200 228	200 251			200 204		200 226			
	ACLATHAN					200 288					200 016			
	ACLASYN GR					200 305					200 227			

\*Characteristics and description of ACLA materials, please see page 6

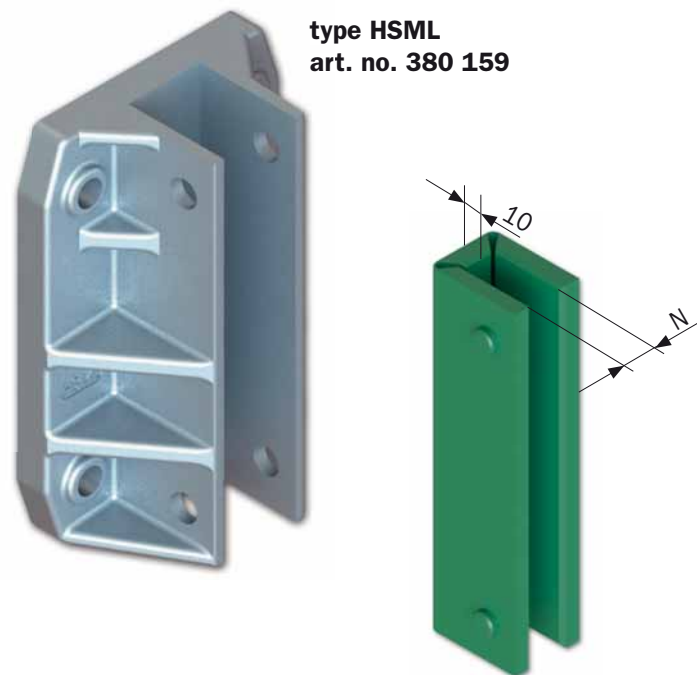
## ACLA Guide Shoe, type HSML and HSMLS

- installation height
- guide shoe inserts for rail widths of 14 - 29 mm
- rail lubricators AK 2 and AK 10 are appropriate



### The advantages of the ACLA guide shoe, type HSML

- functional design
- low weight by use of light metal alloy base
- excellent stability and durability
- minimum space occupied
- can be used in a variable way in combination with ACLA guide shoe inserts for rail widths from 14 to 29 mm
- easy to maintain in combination with ACLA guide shoe inserts and ACLA rail lubricators



type HSML  
art. no. 380 159

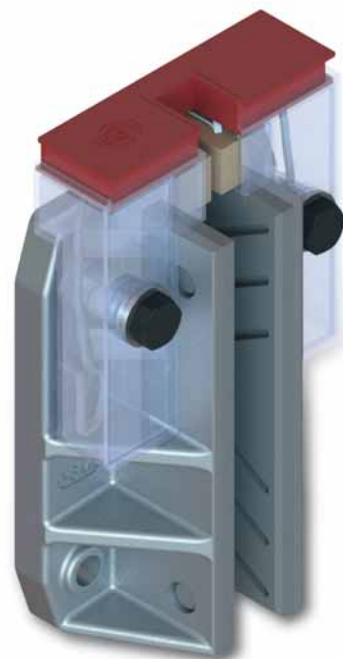
### Appropriate ACLA rail lubricators for guide shoe HSML

(for detailed information on ACLA rail lubricators, please see page 33)



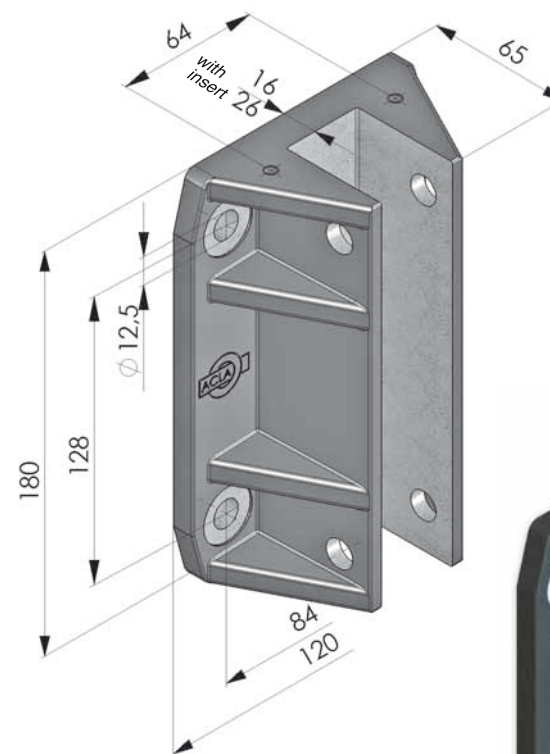
Rail lubricator AK 2  
art. no. 90 323

ACLA guide shoe HSML,  
mounted with lubricator AK 2  
and undamped guide shoe insert,  
type FSF with groove  
(ACLAMID).



Rail lubricator AK 10  
art. no. 90 021

ACLA guide shoe HSML,  
mounted with lubricator AK 10  
and undamped guide shoe insert,  
type FSF with grooves  
(ACLASYN GR).



type HSMLS  
art. no. 380 834  
Special design for high load lifts  
with improved breaking force  
in comparison to type HSML.

Breaking force: 240 kN

### Appropriate ACLA rail lubricator for guide shoe HSMLS

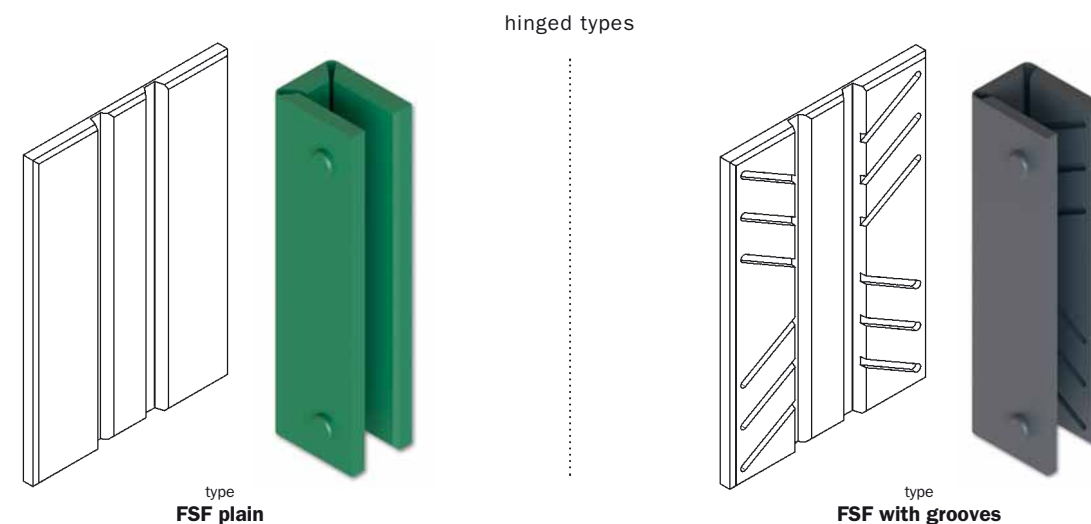
(for detailed information on ACLA rail lubricators, please see page 33)



Rail lubricator AK 2  
art. no. 90 323.03

ACLA guide shoe HSMLS,  
mounted with lubricator AK 2  
and undamped guide shoe insert,  
type FSF with grooves  
(ACLAMID).

### Appropriate guide shoe inserts for ACLA guide shoe HSML and HSMLS - undamped -



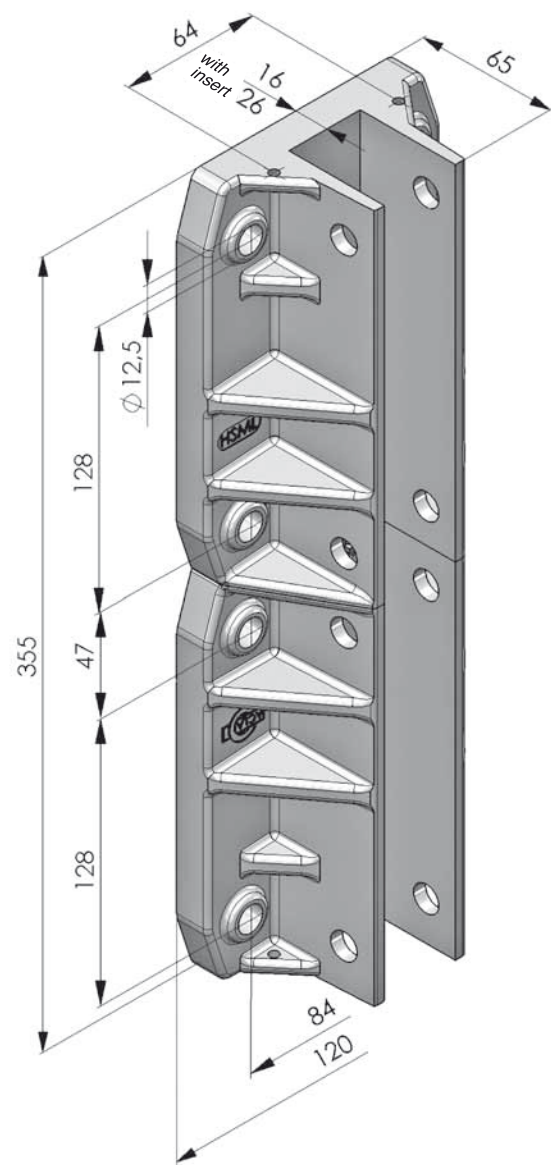
### article numbers for HSML and HSMLS guide shoe insert

insert type	material*	for rail width N				
		14 mm	16 mm	19 mm	24 mm	29 mm
undamped FSF plain	ACLATHAN-KH	200 198	200 171			
	ACLAMID	200 195				200 242
	ACLASYN GR	200 238			200 267	200 263
	ACLASYN MWG 10 sw		200 297.04	200 299.04		
undamped FSF with grooves	ACLAMID		200 207			
	ACLASYN GR		200 229	200 266		

\*Characteristics and description of ACLA materials, please see page 6

## ACLA Guide Shoe, type HSMXL

- installation height 355 mm
- guide shoe inserts for rail widths o 14 - 29 mm
- rail lubricators AK 2 and AK 10 are appropriate

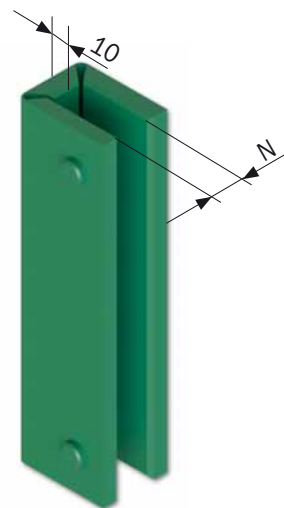


### The advantages of the ACLA guide shoe, type HSMXL

- special design for high load and rucksack lifts
- low weight by use of light metal alloy base
- excellent stability and durability
- minimum space occupied
- can be used in a variable way in combination with ACLA guide shoe inserts for rail widths from 14 to 29 mm
  - easy to maintain in combination with ACLA guide shoe inserts and ACLA rail lubricators



art. no. 380 799



### Appropriate ACLA rail lubricators for guide shoe HSMXL

(for detailed information on ACLA rail lubricators, please see page 33)



Rail lubricator AK 2  
art. no. 90 323

ACLA guide shoe HSMXL,  
mounted with lubricator AK 2  
and undamped guide shoe insert,  
type FSF with grooves  
(ACLATHAN-KH).

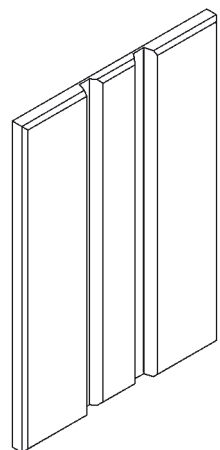


Rail lubricator AK 10  
art. no. 90 021

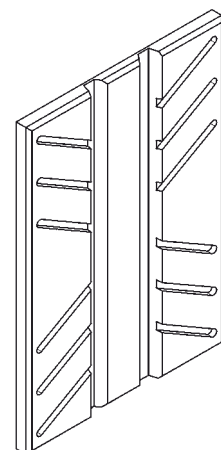
ACLA guide shoe HSMXL,  
mounted with lubricator AK 10  
and undamped guide shoe insert,  
type FSF with grooves  
(ACLASYN GR).

### Appropriate guide shoe inserts for ACLA guide shoe HSMXL - undamped -

hinged types



type  
FSF plain



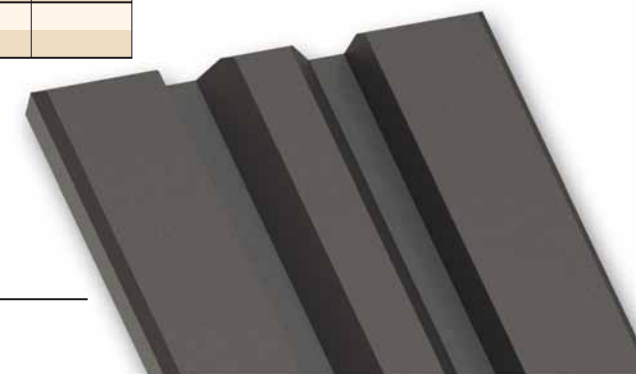
type  
FSF with grooves



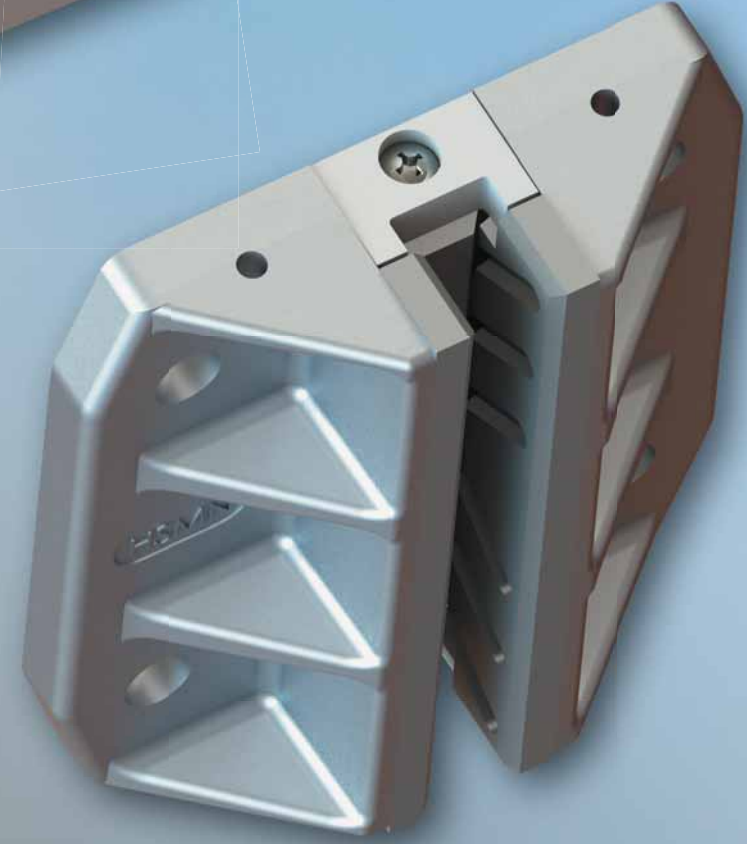
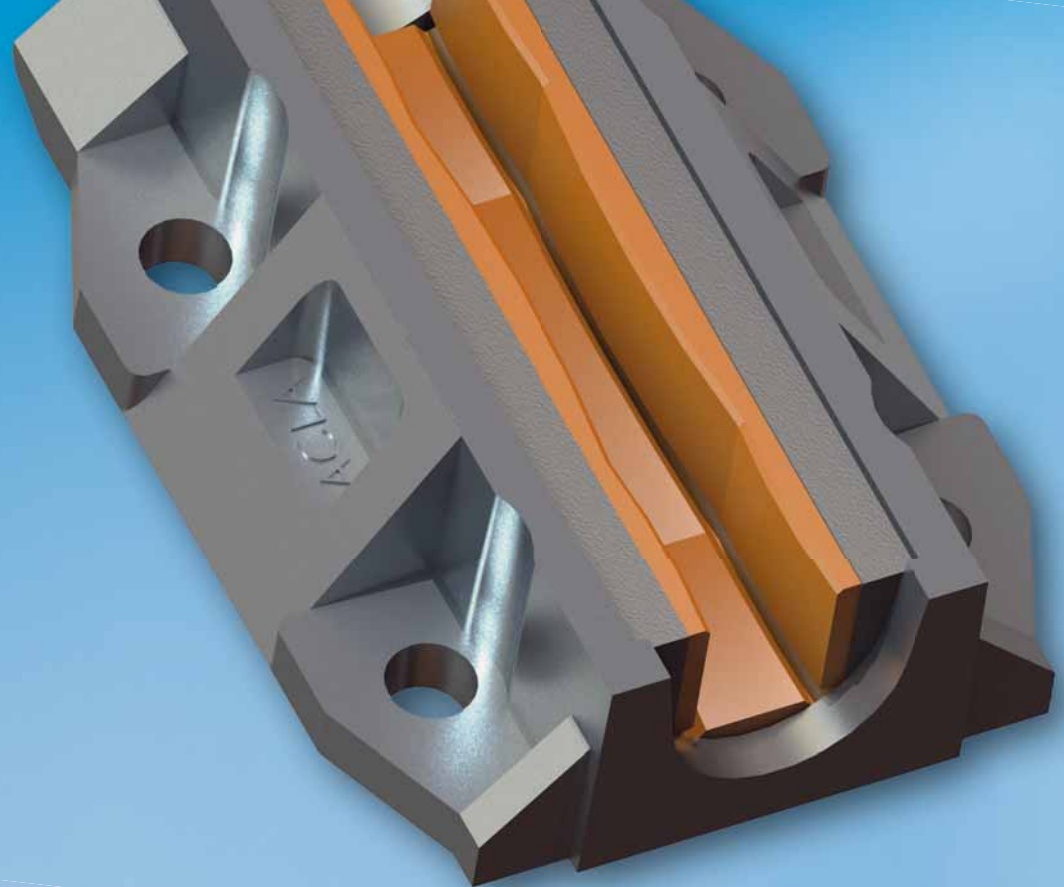
### article numbers for HSMXL guide shoe inserts HSMXL needs two guide shoe inserts each

insert type	material*	for rail width N				
		14 mm	16 mm	19 mm	24 mm	29 mm
undamped FSF plain	ACLATHAN-KH					
	ACLAMID					
	ACLASYN GR			200 266.01		200 263.01
undamped FSF with grooves	ACLASYN MWG 10 sw			200 300.04		
	ACLAMID					
	ACLASYN GR		200 229.01			

\*Characteristics and description of ACLA materials, please see page 6

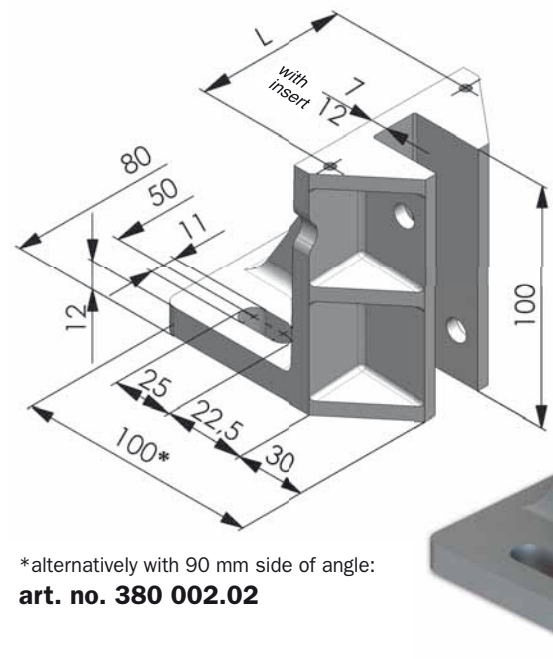


**ACLA Guide Shoes:**  
Appropriate solutions for any construction requirement



## ACLA Angled Guide Shoe, type WSMK

- installation height 100 mm
- undamped and damped guide shoe inserts for rail widths of 5 - 10 mm
- rail lubricators AK 2, AK 4, AK 5 and AK 10 are appropriate



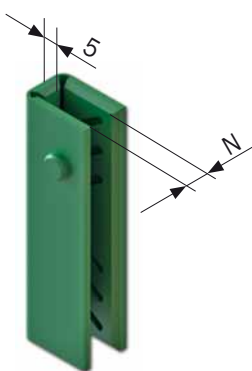
\*alternatively with 90 mm side of angle:  
**art. no. 380 002.02**

### The advantages of the ACLA guide shoe, type WSMK

- functional design
- low weight by use of light metal alloy base
- excellent stability and durability
- minimum space occupied
- can be used in a variable way in combination with ACLA guide shoe inserts for different rail widths
- easy to maintain in combination with ACLA guide shoe inserts and ACLA rail lubricators

**art. no. 380 208**  
special manufacturing  
(L = 61,5 mm)

**art. no. 380 002**  
(L = 64 mm)



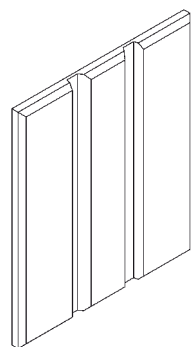
### Appropriate guide shoe inserts for ACLA guide shoe WSMK - undamped -

U-profile type

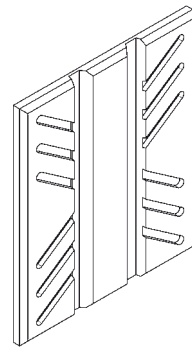


type  
**FSU convex**

hinged types



type  
**FSF plain**

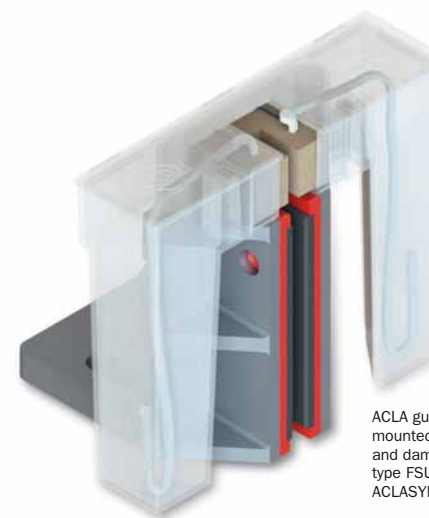


type  
**FSF with grooves**



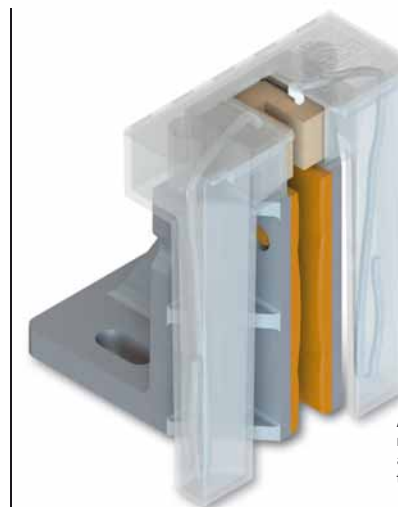
### Appropriate ACLA rail lubricators for guide shoe WSMK

(for detailed information on ACLA rail lubricators, please see page 33)



**Rail lubricator AK 2**  
**art. no. 90 323**

ACLA guide shoe WSMK,  
mounted with lubricator AK 2  
and damped guide shoe insert  
type FSUGG (ACLATHAN-KH red/  
ACLASYN MWG 10 sw)

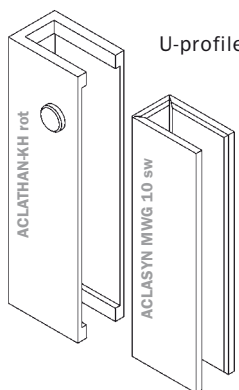


**Rail lubricator AK 4**  
**art. no. 90 337.01**  
(for WSMK / art.no. 380 002)

ACLA guide shoe WSMK,  
mounted with lubricator AK 4  
and undamped guide shoe insert,  
type FSU convex (ACLATHAN)

### Appropriate guide shoe inserts for ACLA guide shoe WSMK - damped -

U-profile type

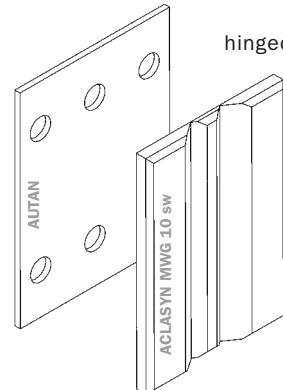


patent  
protected

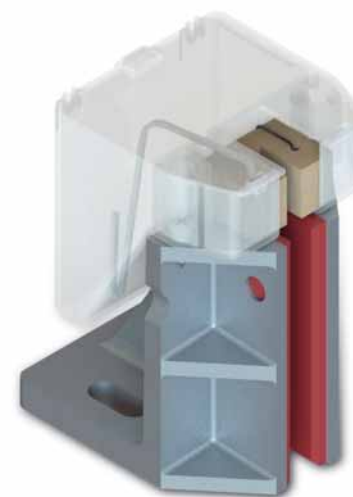


type  
**FSUGG**

hinged type



type  
**FSFG**



**Rail lubricator AK 5**  
**art. no. 90 314**  
(for WSMK / art.no. 380 002)

ACLA guide shoe WSMK,  
mounted with lubricator AK 5  
and undamped guide shoe insert,  
type FSF plain (ACLATHAN)



**Rail lubricator AK 10**  
**art. no. 90 021**

ACLA guide shoe WSMK,  
mounted with lubricator AK 10  
and undamped guide shoe insert,  
type FSF with grooves (ACLAMID)

### article numbers for WSMK guide shoe inserts

insert type	material*	for rail width N					
		5 mm	6 mm	8 mm	9 mm	10 mm	
undamped	FSU convex	ACLATHAN	200 011			200 020	
	FSF plain	ACLATHAN	200 180	200 255	200 237	200 181	
		ACLASYN MWG 10 sw	200 286.04			200 290.04	200 307.04
damped	FSFG	ACLATHAN					
		ACLAMID	200 245			200 247	
		ACLASYN GR	200 246			200 248	
undamped	FSUGG	ACLASYN MWG 10 sw with cellular layer	200 289.05			200 291.05	—
		ACLASYN MWG 10 sw with ACLATHAN-KH layer	200 289.06			200 291.06	—

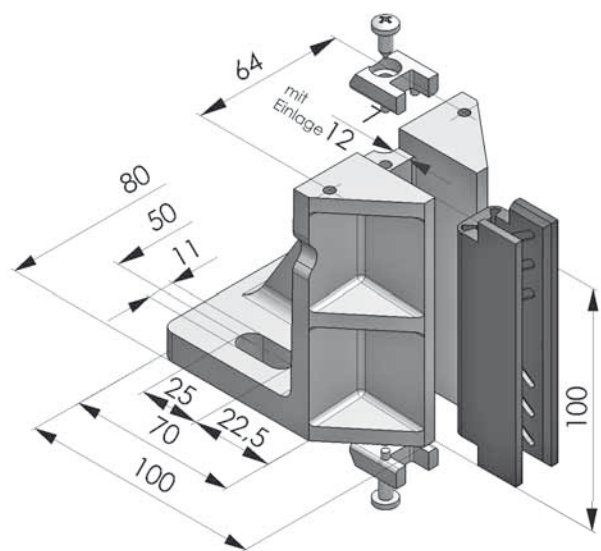
\*Characteristics and description of ACLA materials, please see page 6

## ACLA Angled Guide Shoe, type WSMKN (for easy mounting)

- installation height 100 mm
- undamped guide shoe inserts for rail widths of 5 - 9 mm
- rail lubricators AK 2, AK 4, AK 5 and AK 10 are appropriate

### The advantages of the ACLA guide shoe, type WSMKN

- functional design
- low weight by use of light metal alloy base
- excellent stability and durability
- sizes as per standard type HSM, however designed for the assembly of the ACLA guide shoe inserts FSFN for easy mounting
- inserts can be replaced without dismantling the guide shoe
- the symmetrical design of the insert allows an easy mounting and dismounting and saves adjustment work when replacing it
- minimum space occupied
- can be used in a variable way in combination with ACLA guide shoe inserts for different rail widths
- easy to maintain in combination with ACLA guide shoe inserts and ACLA rail lubricators



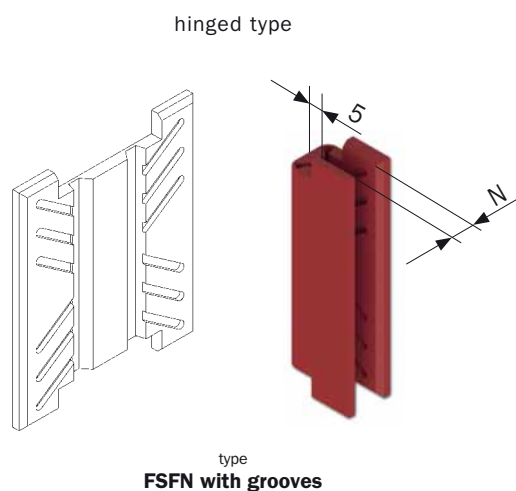
M5 self tapping screw

holder

for easy mounting

art. no. 380 797  
(complete with holder/tapping screws)

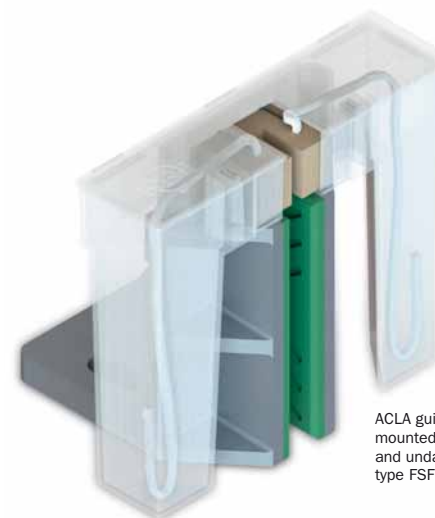
### Appropriate guide shoe inserts for ACLA guide shoe WSMKN - undamped -



type  
FSFN with grooves

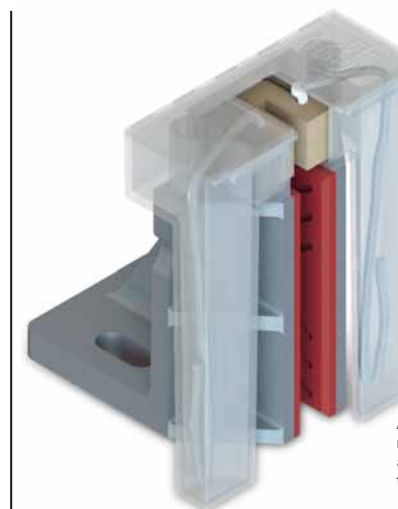
### Appropriate ACLA rail lubricators for guide shoe WSMKN

(for detailed information on ACLA rail lubricators, please see page 33)



Rail lubricator AK 2  
art. no. 90 323

ACLA guide shoe WSMKN,  
mounted with lubricator AK 2  
and undamped guide shoe insert,  
type FSFN with grooves (ACLAMID)



Rail lubricator AK 4  
art. no. 90 337.01

ACLA guide shoe WSMKN,  
mounted with lubricator AK 4  
and undamped guide shoe insert,  
type FSFN with grooves (ACLATHAN-KH)



Rail lubricator AK 5  
art. no. 90 314

ACLA guide shoe WSMKN,  
mounted with lubricator AK 5  
and undamped guide shoe insert,  
type FSFN with grooves (ACLASYN GR)



Rail lubricator AK 10  
art. no. 90 021

ACLA guide shoe WSMKN,  
mounted with lubricator AK 10  
and undamped guide shoe insert,  
type FSFN with grooves (ACLATHAN-KH)

### article numbers for WSMKN guide shoe inserts

insert type	material*	for rail width N		
		5 mm	8 mm	9 mm
undamped FSFN with grooves	ACLATHAN-KH		200 237.01	
	ACLAMID	200 245.01		200 247.01
	ACLASYN GR	200 246.01		200 248.01

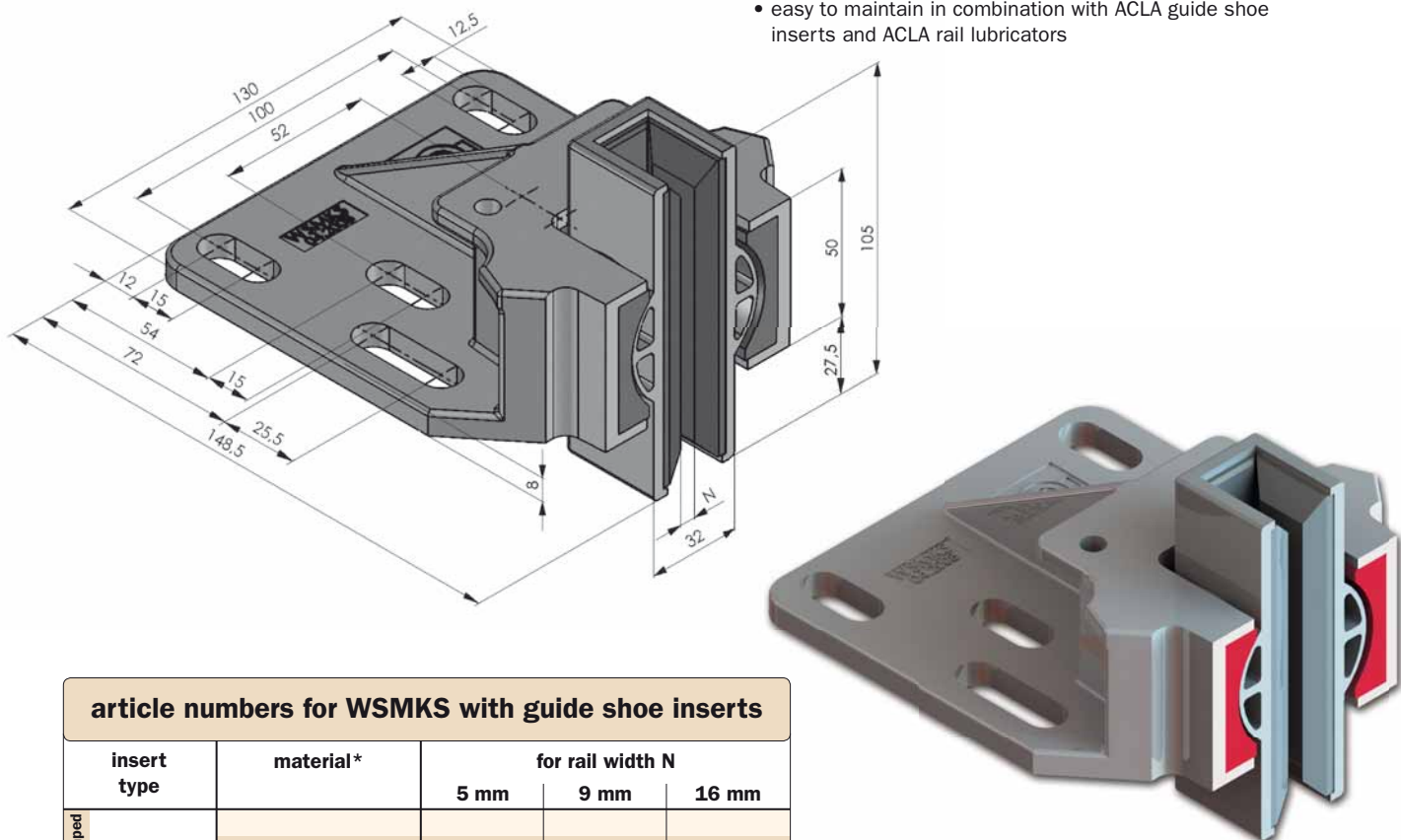
\*Characteristics and description of ACLA materials, please see page 6

## ACLA Angled Guide Shoe, type WSMKS

- installation height 105 mm
- damped guide shoe
- guide shoe inserts for rail widths of 5, 9 and 16 mm
- rail lubricator AK 2 is appropriate

### The advantages of the ACLA guide shoe, type WSMKS

- functional design
- low weight by use of light metal alloy base
- excellent stability and durability
- gedämpfte Ausführung durch hochelastische Zwischenlage
- minimum space occupied
- corrects angle errors
- easy to maintain in combination with ACLA guide shoe inserts and ACLA rail lubricators

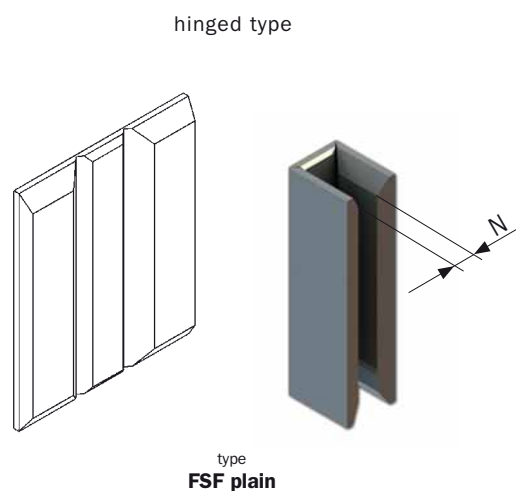


### article numbers for WSMKS with guide shoe inserts

insert type	material*	for rail width N		
		5 mm	9 mm	16 mm
undamped FSF glatt	ACLASYN MWG 10 sw	380 843.06	380 838.06	380 839.06

\*Characteristics and description of ACLA materials, please see page 6

### Appropriate guide shoe inserts for ACLA guide shoe WSMKS - undamped -

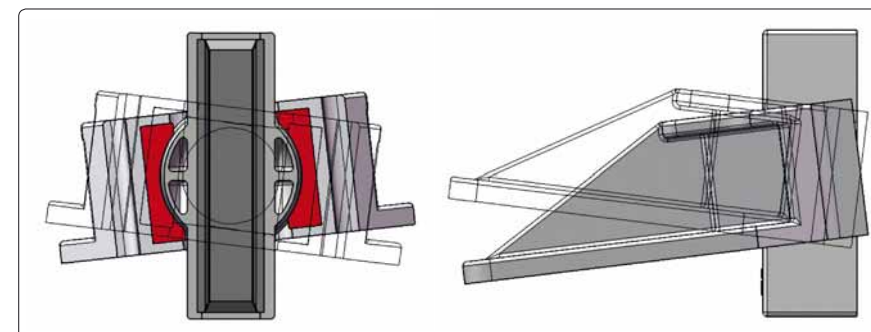
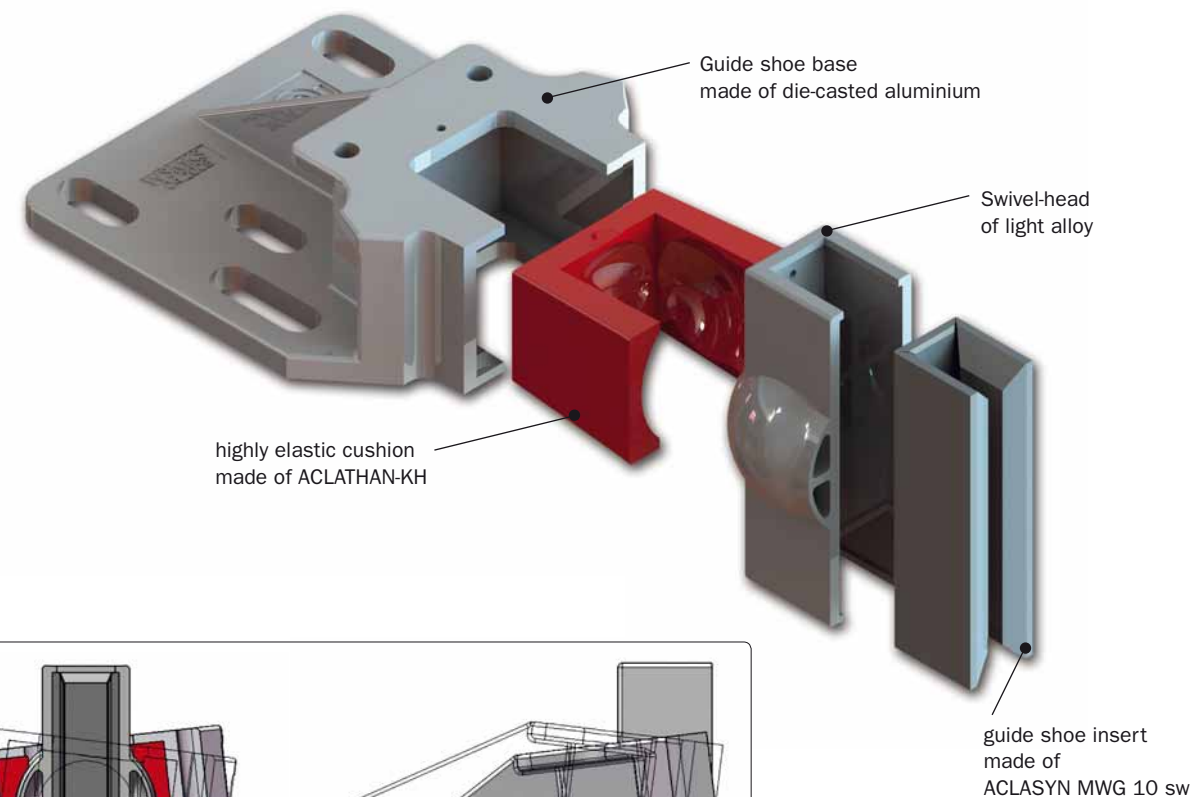


### article numbers for WSMKS guide shoe inserts

insert type	material*	for rail width N		
		5 mm	9 mm	16 mm
undamped FSF plain	ACLASYN MWG 10 sw	200 375.04	200 369.04	200 370.04

\*Characteristics and description of ACLA materials, please see page 6

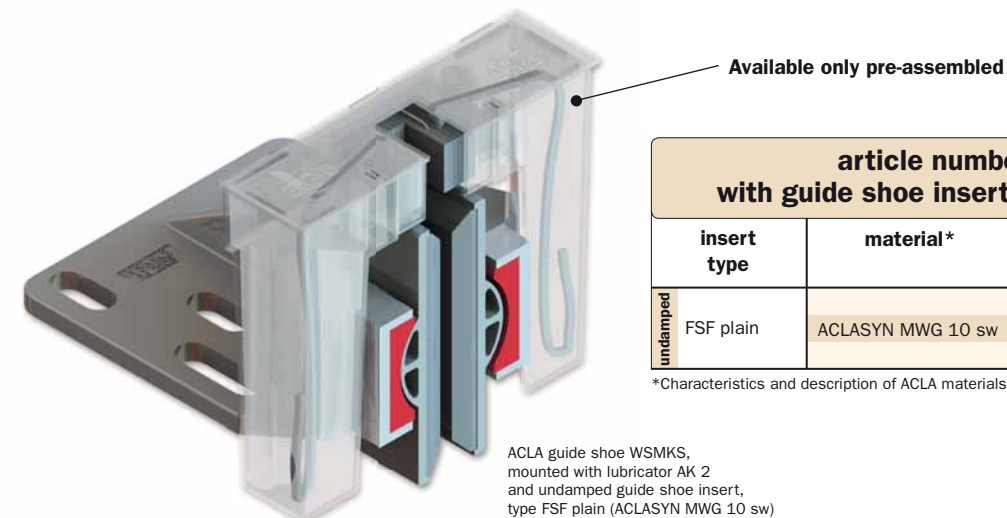
### Setting and functional principle of ACLA guide shoe, type WSMKS



The well-conceived construction of ACLA guide shoes WSMKS allows to correct horizontal and vertical angle errors.

### Appropriate ACLA rail lubricators for guide shoe WSMKS

(for detailed information on ACLA rail lubricators, please see page 33)



### article numbers for WSMKS with guide shoe insert and rail lubricator AK 2

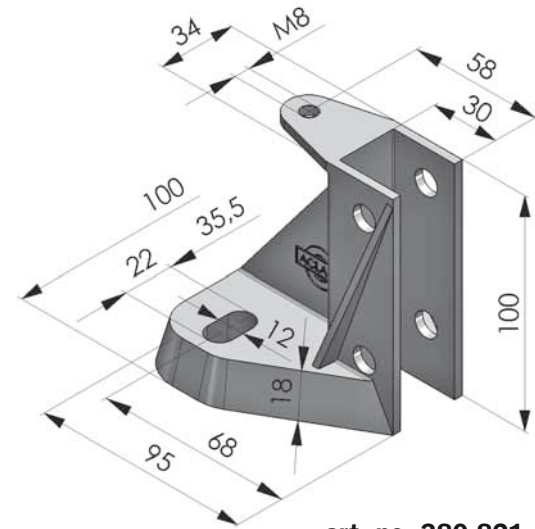
insert type	material*	for rail width N		
		5 mm	9 mm	16 mm
undamped FSF plain	ACLASYN MWG 10 sw	380 843.01	380 838.01	380 839.01

\*Characteristics and description of ACLA materials, please see page 6



## ACLA Angled Guide Shoe, type WSMKW

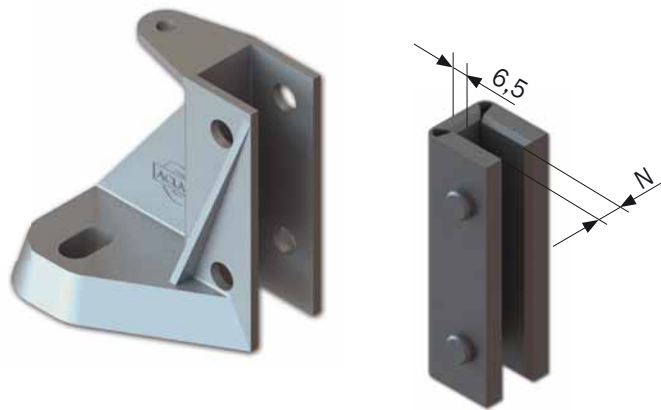
- installation height 100 mm
- undamped guide shoe inserts for rail widths from 5 to 16 mm



art. no. 380 821

### The advantages of the ACLA guide shoe, type WSMKW

- functional design
- low weight by use of light metal alloy base
- excellent stability and durability
- minimum space occupied
- can be used in a variable way in combination with ACLA guide shoe inserts for different rail widths
- easy to maintain in combination with ACLA guide shoe inserts



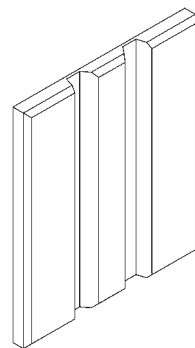
### Appropriate guide shoe insert for ACLA guide shoe WSMKW - undamped -

U-profile type

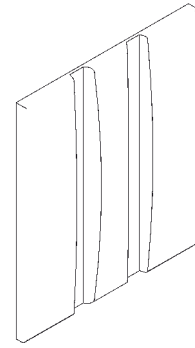


type FSU convex

hinged types



type FSF plain



type FSF convex

### article numbers for WSMKW guide shoe inserts

insert type	material*	for rail width N						
		5 mm	6 mm	8 mm	9 mm	10 mm	14 mm	16 mm
FSU convex	ACLATHAN-KH	200 125						
FSF plain	ACLATHAN-KH	200 213						
FSF plain	ACLASYN MWG 10 sw					200 308.04		200 309.04
FSF convex	ACLATHAN-KH		200 212	200 211	200 233	200 210	200 236	200 209

\*Characteristics and description of ACLA materials, please see page 6

### Complete guide shoe WSMKW with guide shoe insert, type FSF plain

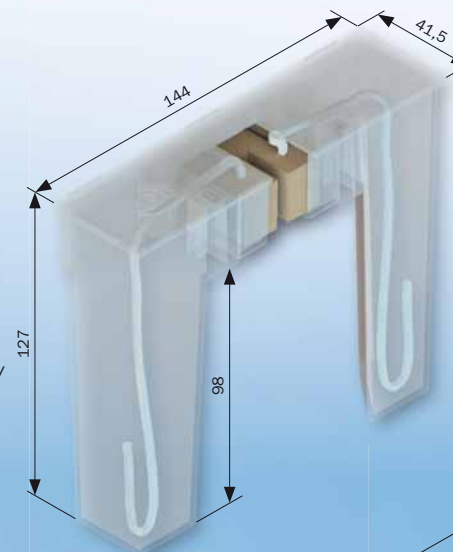
rail width N	article no.
10 mm	380 840
16 mm	380 841



## ACLA Rail Lubricators overview

### Advantages of the ACLA rail lubricators

- all-purpose usable for all popular rail widths by selfadjusting felt jaws
- constant feed of lubricant by capillary action of selected felt and wick quality
- low oil consumption
- can be filled from both sides/ from the top
- friendly to the environment since dripping oil in the shaft base is avoided
- minimum space occupied in combination with ACLA guide shoes
- low weight
- easy and fast mounting on the ACLA guide shoes
- good accessibility to the oil tank by means of the hinged cover
- easy oil level check on account of the transparent body
- no additional maintenance



### Rail Lubricator AK 2

- for rail widths up to 30 mm
- max. filling level = 80 ml
- weight approx. 100 g

#### art. no. 90 323

(for rail widths up to 16 mm/fixation with tapping screw Ø5 x 16 mm)

#### art. no. 90 323.03

(for rail widths up to 16 mm/fixation M6 x 10 mm)

#### art. no. 90 323.05

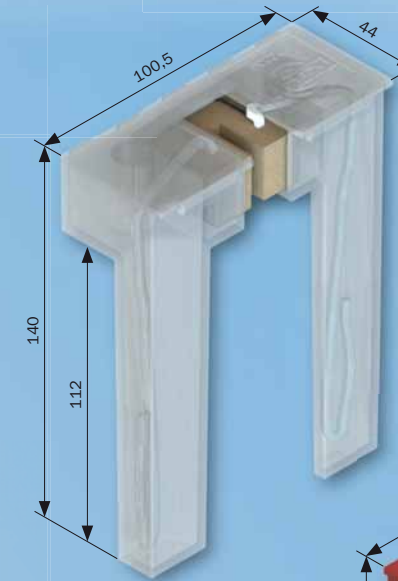
(for rail widths up to 16 mm/fixation M5 x 16 mm)

#### art. no. 90 323.01

(for rail widths from 19 to 24 mm/fixation with tapping screw Ø5 x 16 mm)

#### art. no. 90 323.02

(for rail widths from 28 to 30 mm/fixation with tapping screw Ø5 x 16 mm)



### Rail Lubricator AK 4

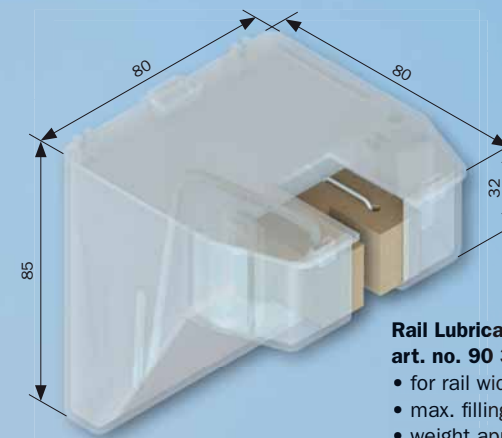
- for rail widths from 9 to 16 mm
- max. filling level = 40 ml
- weight approx. 90 g

#### art. no. 90 337

(fixation M5 x 6 mm)

#### art. no. 90 337.01

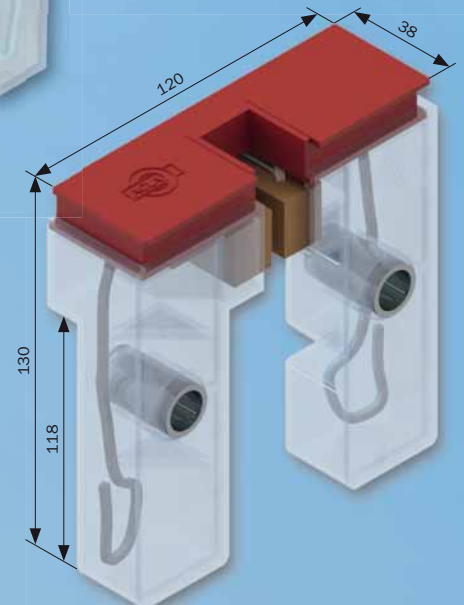
(fixation with tapping screw Ø5 x 16 mm)



### Rail Lubricator AK 5

#### art. no. 90 314

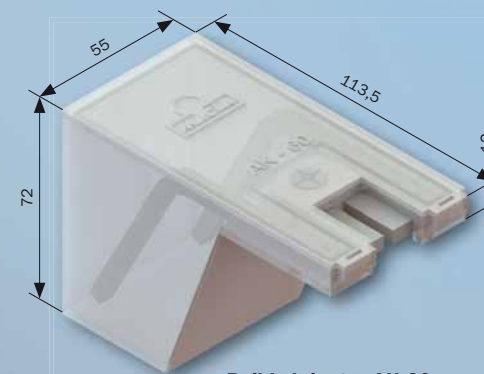
- for rail widths up to 20 mm
- max. filling level = 100 ml
- weight approx. 100 g



### Rail Lubricator AK 10

#### art. no. 90 021

- for rail widths up to 20 mm
- max. filling level = 110 ml
- weight approx. 175 g



### Rail Lubricator AK 60

#### art. no. 90 335

- for rail widths from 5 to 16 mm
- max. filling level = 100 ml
- weight approx. 75 g



### Rail Lubricator AK 1

- max. filling level = 140 ml
- weight approx. 60 g

#### art. no. 90 327.01

(for rail widths from 5 to 10 mm)

#### art. no. 90 327.04

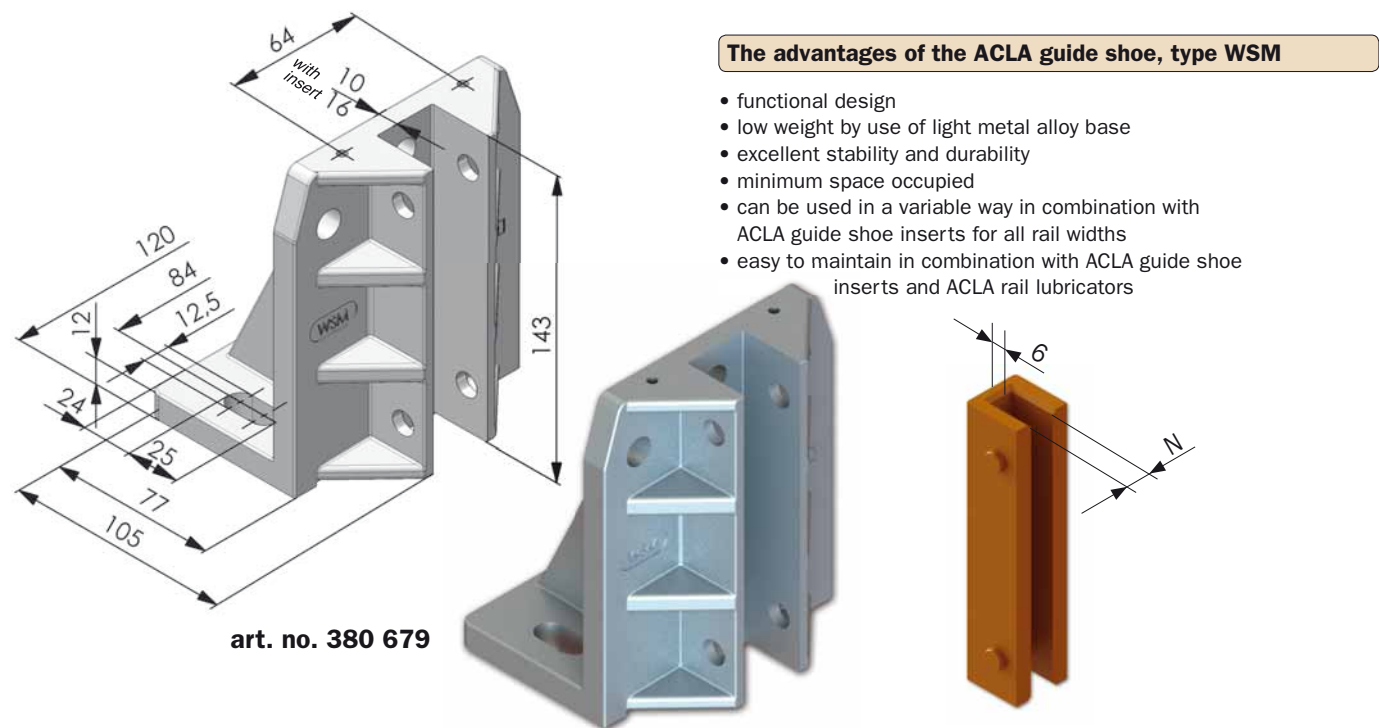
(for rail width 16 mm)

### Recommended lubricants:

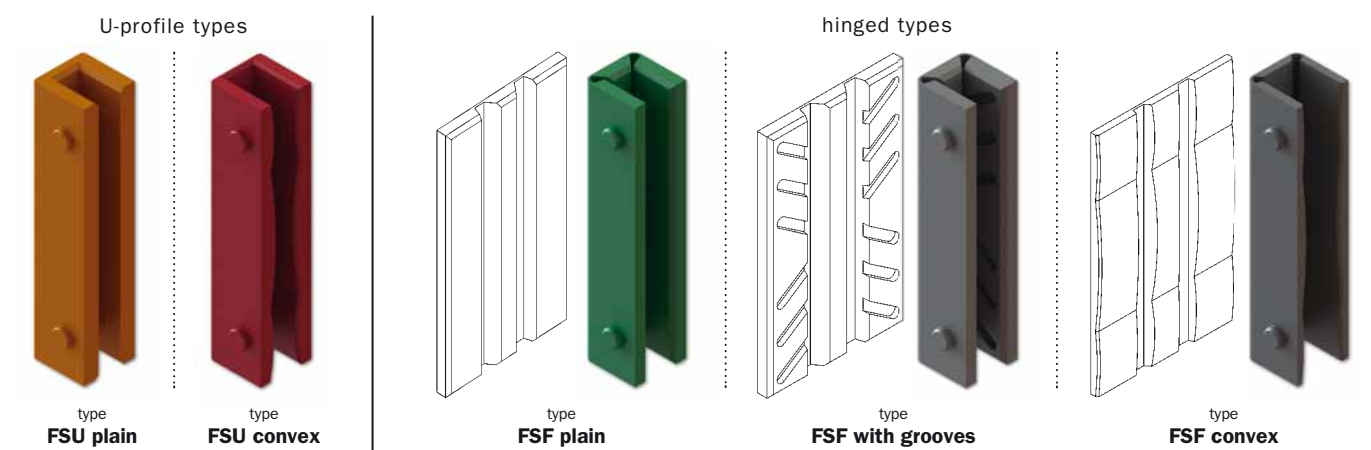
Gear or machine oil.  
Kinematical viscosity  
60 - 80 mm<sup>2</sup>/s, 40°C  
corresponding to  
ISO VG 68

## ACLA Angled Guide Shoe, type WSM

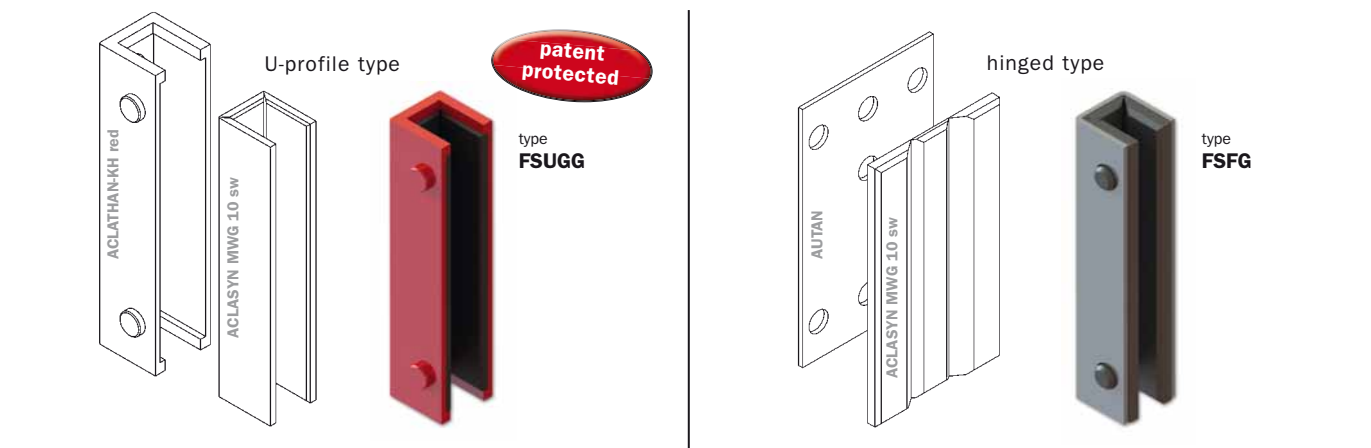
- installation height 143 mm
- undamped and damped guide shoe inserts for rail widths of 5 - 20 mm
- rail lubricators AK 2, AK 5 and AK 10 are appropriate



### Appropriate guide shoe inserts for ACLA guide shoe WSM - undamped -



### Appropriate guide shoe inserts for ACLA guide shoe WSM - damped -



### Appropriate ACLA rail lubricators for guide shoe WSM

(for detailed information on ACLA rail lubricators, please see page 33)

Rail lubricator AK 2  
art. no. 90 323



ACLA guide shoe WSM, mounted with lubricator AK 2 and undamped guide shoe insert, type FSU plain (ACLATHAN)

Rail lubricator AK 10  
art. no. 90 021



ACLA guide shoe WSM, mounted with lubricator AK 10 and undamped guide shoe insert, type FSF with grooves (ACLAMID)

Rail lubricator AK 5  
art. no. 90 314



ACLA guide shoe WSM, mounted with lubricator AK 5 undamped guide shoe insert, type FSF convex (ACLASYN GR)

### article numbers for WSM guide shoe inserts

insert type	material*	for rail width N													
		5 mm	6 mm	8 mm	9 mm	10 mm	12 mm	14 mm	15 mm	16 mm	19 mm	20 mm			
undamped	FSU plain		200 003				200 006								
	FSU convex		200 012		200 013		200 014	200 015							
	FSF plain	ACLATHAN-KH	200 182			200 169	200 005		200 168	200 235	200 166				
		ACLAMID	200 176							200 260				200 321	
		ACLASYN MWG 10 sw	200 230				200 292.04	200 284.04				200 285.04	200 298.04		
	FSF with grooves	ACLATHAN-KH			200 018										
		ACLAMID				200 225			200 206		200 208				
	FSF convex	ACLASYN GR				200 228	200 251		200 204		200 226				
		ACLATHAN-KH						200 288			200 016				
	damped	ACLASYN GR						200 305			200 227				
FSFG					200 306.05	200 293.05		200 295.05		200 296.05					
	FSUGG				200 306.06	200 293.06		200 295.06		200 296.06					

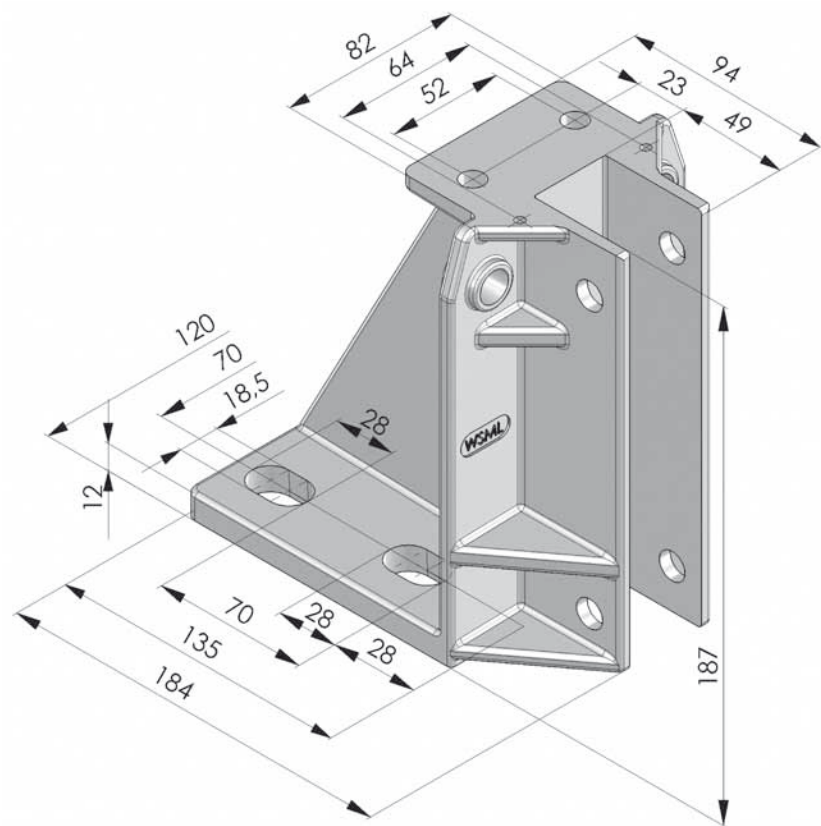
\*Characteristics and description of ACLA materials, please see page 6

## ACLA Angled Guide Shoe, type WSML

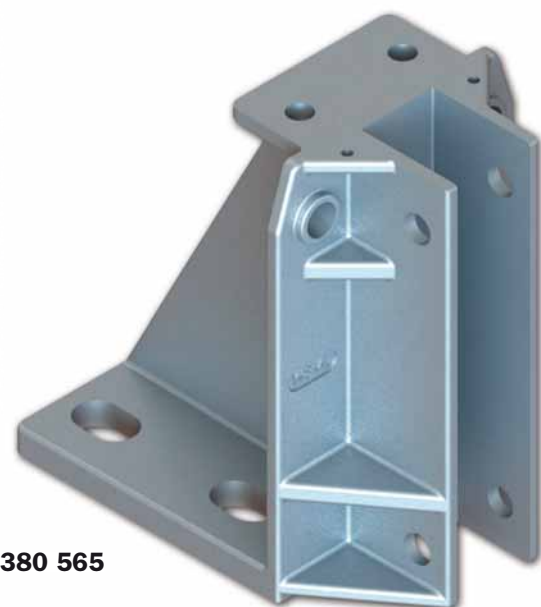
- installation height 187 mm
- guide shoe inserts for rail widths of 14 - 29 mm
- rail lubricators AK 2 and AK 10 are appropriate

### The advantages of the ACLA guide shoe, type WSML

- functional design
- low weight by use of light metal alloy base
- excellent stability and durability
- minimum space occupied
- can be used in a variable way in combination with ACLA guide shoe inserts for rail widths from 14 to 29 mm
- easy to maintain in combination with ACLA guide shoe inserts and ACLA rail lubricators

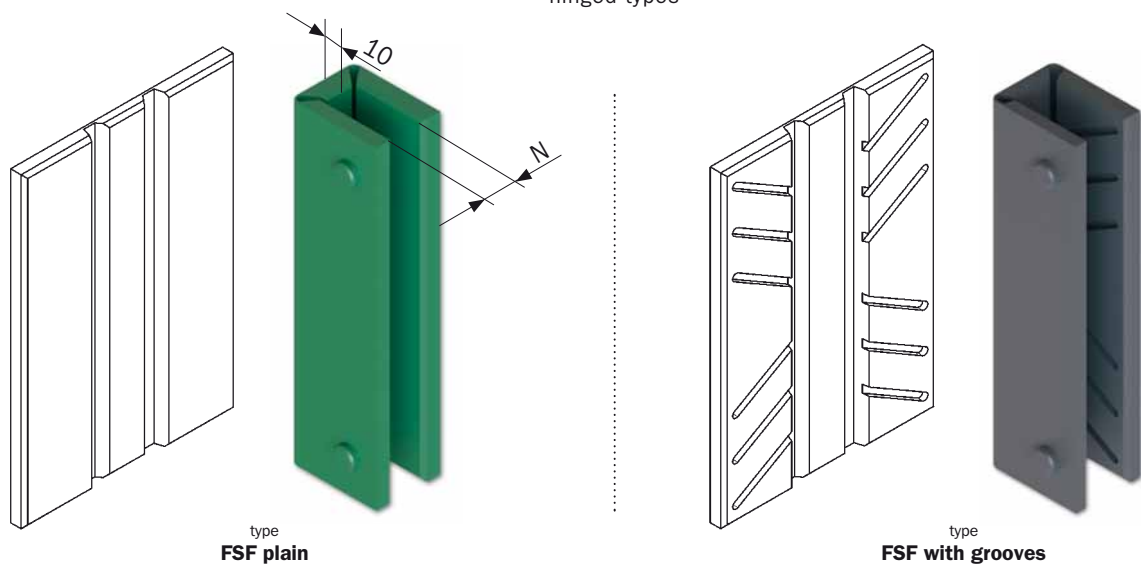


art. no 380 565



### Appropriate guide shoe inserts for ACLA guide shoe WSML - undamped -

hinged types



type  
FSF plain

type  
FSF with grooves

### Appropriate ACLA rail lubricators for guide shoe WSML

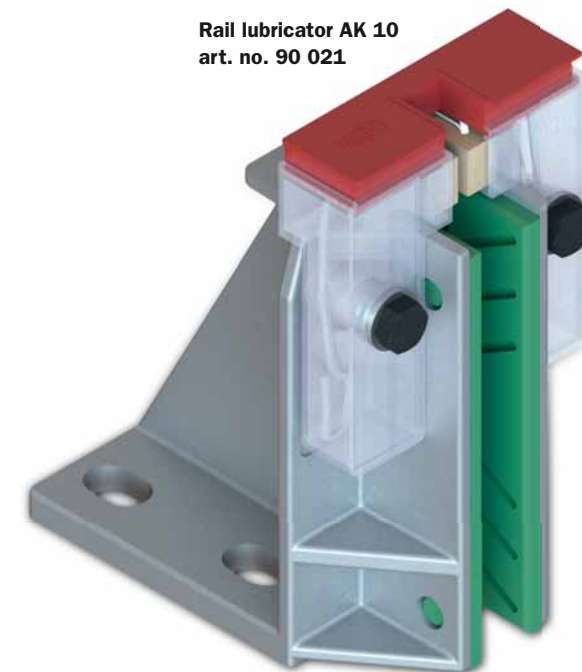
(for detailed information on ACLA rail lubricators, please see page 33)

Rail lubricator AK 2  
art. no. 90 323



ACLA guide shoe WSML,  
mounted with lubricator AK 2  
and undamped guide shoe insert,  
type FSF with grooves  
(ACLASYN GR).

Rail lubricator AK 10  
art. no. 90 021

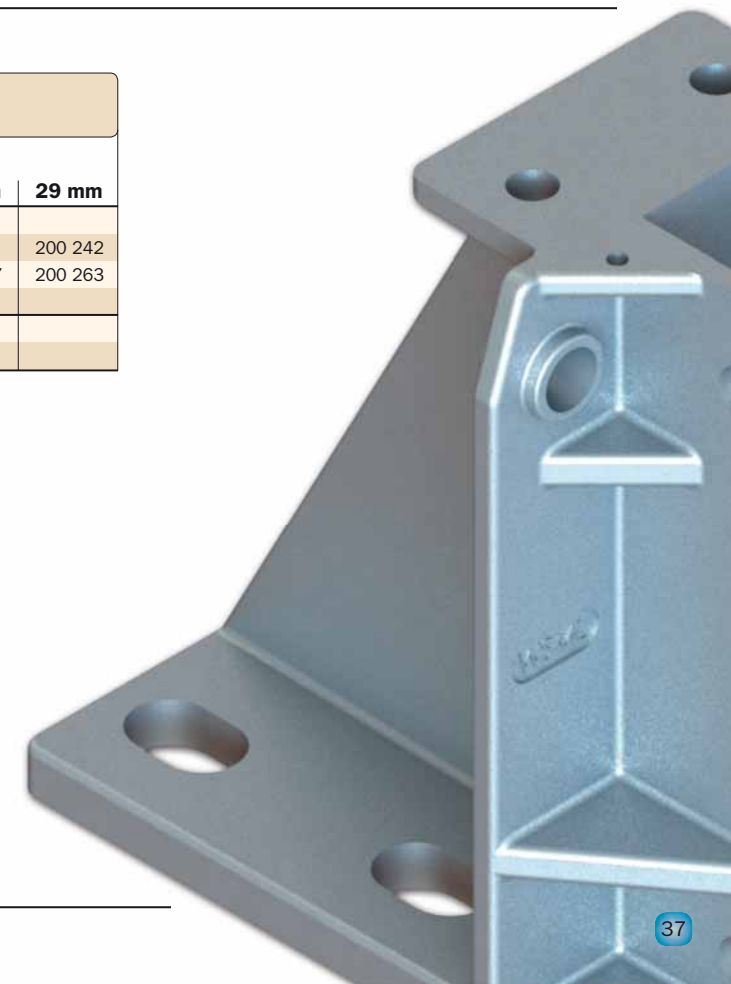


ACLA guide shoe WSML,  
mounted with lubricator AK 10  
and undamped guide shoe insert,  
type FSF with grooves  
(ACLAMID).

### article numbers for WSML guide shoe inserts

insert type	material*	for rail width N				
		14 mm	16 mm	19 mm	24 mm	29 mm
undamped FSF plain	ACLATHAN-KH	200 198	200 171			200 242
	ACLAMID	200 195				200 263
	ACLASYN GR	200 238			200 267	200 263
undamped FSF with grooves	ACLASYN MWG 10 sw		200 297.04	200 299.04		
	ACLAMID		200 207			
	ACLASYN GR		200 229	200 266		

\*Characteristics and description of ACLA materials, please see page 6

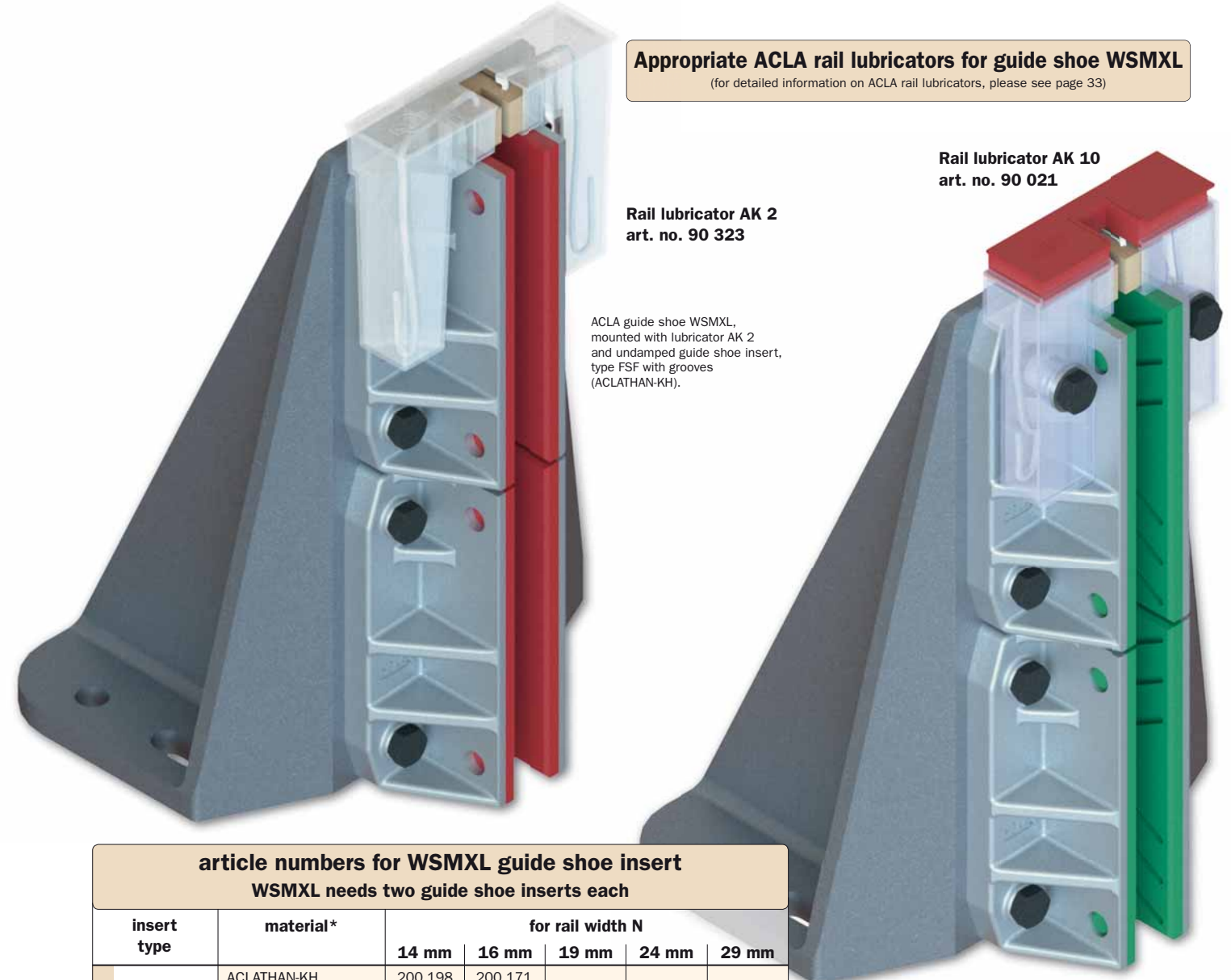
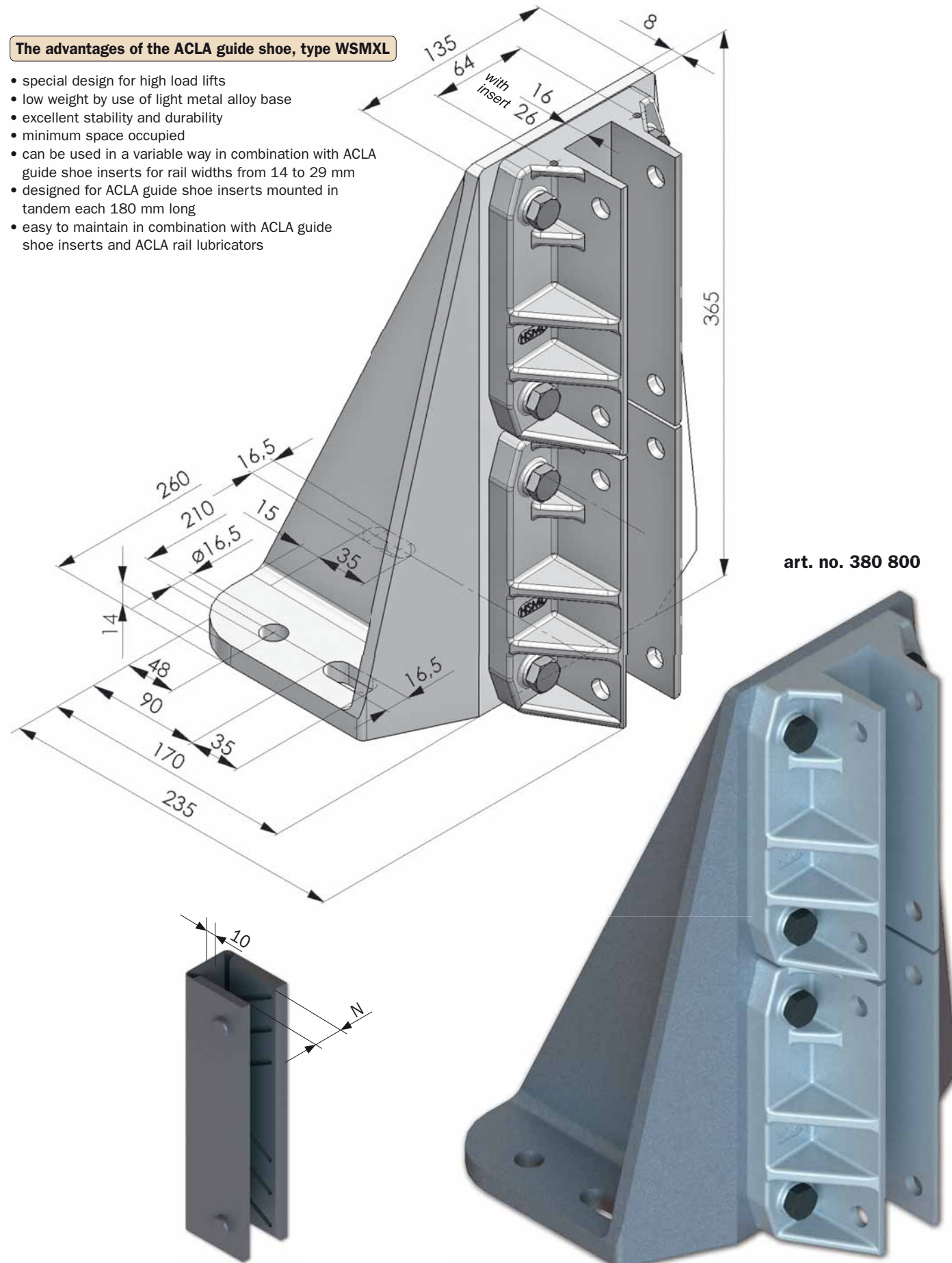


## ACLA Angled Guide Shoe, type WSMXL

- installation height 365 mm
- guide shoe inserts for rail widths of 14 - 29 mm
- rail lubricators AK 2 and AK 10 are appropriate

### The advantages of the ACLA guide shoe, type WSMXL

- special design for high load lifts
- low weight by use of light metal alloy base
- excellent stability and durability
- minimum space occupied
- can be used in a variable way in combination with ACLA guide shoe inserts for rail widths from 14 to 29 mm
- designed for ACLA guide shoe inserts mounted in tandem each 180 mm long
- easy to maintain in combination with ACLA guide shoe inserts and ACLA rail lubricators



**Appropriate ACLA rail lubricators for guide shoe WSMXL**  
(for detailed information on ACLA rail lubricators, please see page 33)

**Rail lubricator AK 2**  
art. no. 90 323

**Rail lubricator AK 10**  
art. no. 90 021

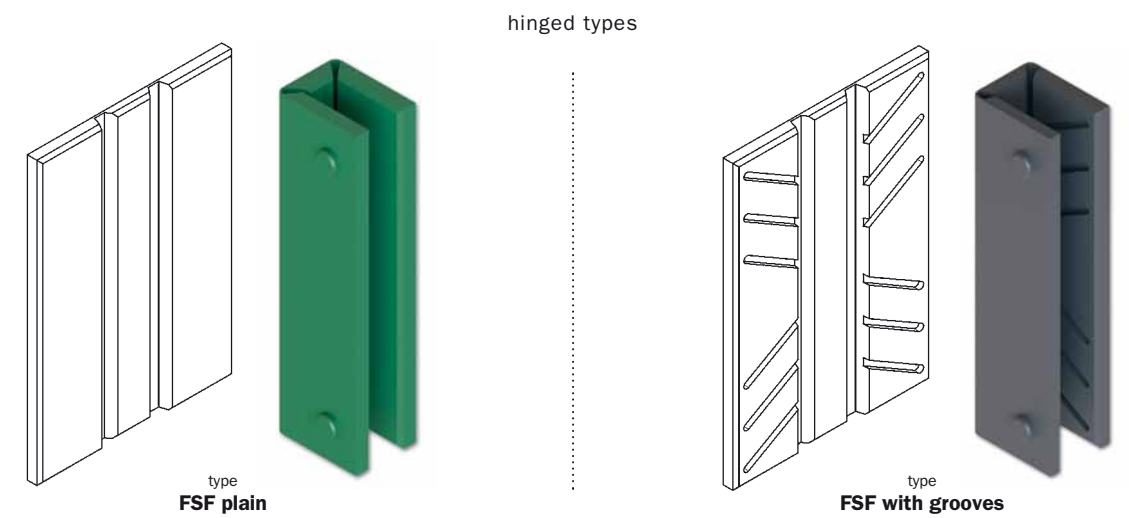
ACLA guide shoe WSMXL,  
mounted with lubricator AK 2  
and undamped guide shoe insert,  
type FSF with grooves  
(ACLATHAN-KH).

ACLA guide shoe WSMXL,  
mounted with lubricator AK 10  
and undamped guide shoe insert,  
type FSF with grooves  
(ACLAMID).

article numbers for WSMXL guide shoe insert						
WSMXL needs two guide shoe inserts each						
insert type	material*	for rail width N				
		14 mm	16 mm	19 mm	24 mm	29 mm
undamped FSF glatt	ACLATHAN-KH	200 198	200 171			
	ACLAMID	200 195				200 242
	ACLASYN GR	200 238			200 267	200 263
undamped FSF with grooves	ACLASYN MWG 10 sw		200 297.04	200 299.04		
	ACLAMID		200 207			
	ACLASYN GR		200 229	200 266		

\*Characteristics and description of ACLA materials, please see page 6

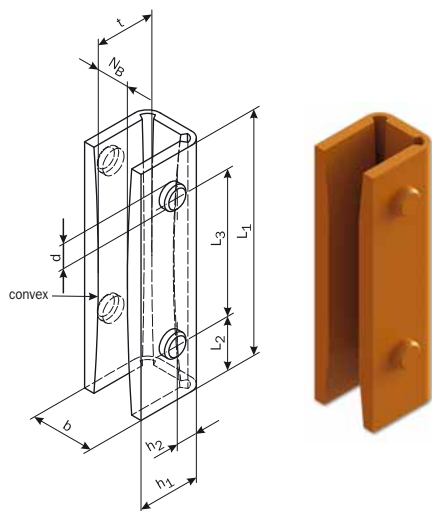
### Appropriate guide shoe inserts for ACLA guide shoe WSMXL - undamped -



## Guide Shoe Inserts “Special Profiles” of ACLATHAN® /ACLATHAN®-KH

- for installation height from 45 mm up to 260 mm as U-profile and hinged types available
- complementary program for a wide range of guide shoes in use in elevator industry
- for rail widths from 5 mm to 18 mm

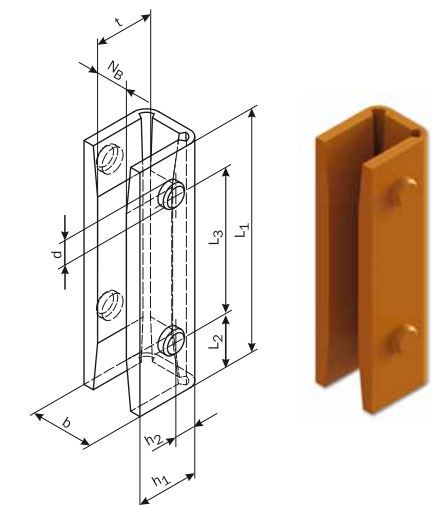
### Profile 1 (hinged type/U-profile)



for nominal rail width “N”	art. no.	L <sub>1</sub>	b	N/N <sub>B</sub>	h <sub>1</sub>	h <sub>2</sub>	t	L <sub>2</sub>	L <sub>3</sub>	d
5 mm	200125	100	26,5	5,3	30	16	25	25	60	10
6 mm *)	200 212	100	26,5	6,3	30	16	25	25	60	10
8 mm *)	200 211	100	26,5	8,3	30	16	25	25	60	10
9 mm *)	200 233	100	26,5	9,3	30	16	25	25	60	10
10 mm *)	200 210	100	26,5	10,4	30	16	25	25	60	10
14 mm *)	200 236	100	26,5	14,3	30	16	25	25	60	10
16 mm *)	200 209	100	26,5	16,3	30	16	25	25	60	10
6 mm	200 133	110	29	6	26	16	20	13	84	9
8 mm	200 132	110	29	8,3	26	16	20	13	84	9
10 mm	200 193	110	29	10,4	26	16	20	13	84	9
12 mm	200 134	110	29	12,3	26	16	20	13	84	9
10 mm	200 144	150	23	10,6	35	18	29	25	100	10
13 mm	200 135	150	23	13,6	35	18	29	25	100	10
16 mm	200 191	150	30	16,6	35	18	29	25	100	10

\*) = hinged executions; all other profiles = U-profile

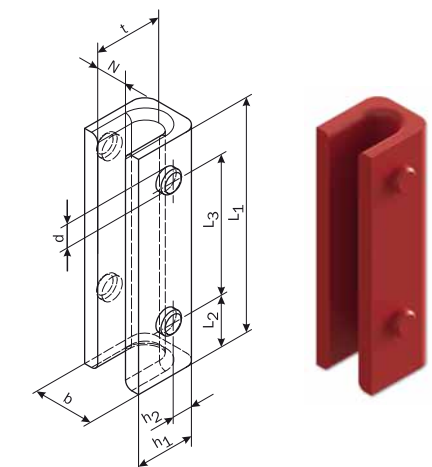
### Profile 2 (hinged type/U-profile)



for nominal rail width “N”	art. no.	L <sub>1</sub>	b	N/N <sub>B</sub>	h <sub>1</sub>	h <sub>2</sub>	t	L <sub>2</sub>	L <sub>3</sub>	d
5 mm *)	200213	100	26,5	5,6	30	16	25	25	60	10
6 mm *)	200 148	100	23	6,6	35	18	29	15	70	10
10 mm *)	200 128	100	23	10,6	35	18	30	15	70	10
14 mm *)	200 391	150	23	14,6	35	18	30	25	100	10
16 mm	200 141	150	30	16,6	45	25	39	25	100	10

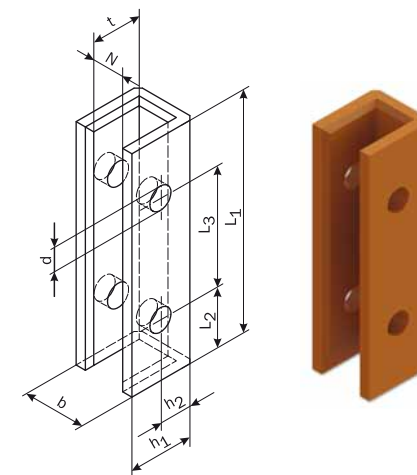
\*) = hinged executions; all other profiles = U-profile

### Profile 3 (U-profile)



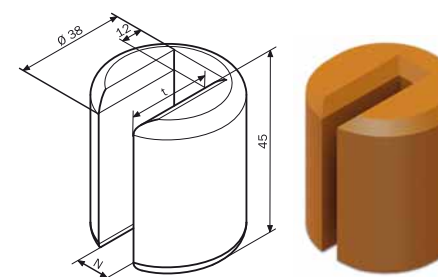
for nominal rail width “N”	art. no.	L <sub>1</sub>	b	N/N <sub>B</sub>	h <sub>1</sub>	h <sub>2</sub>	t	L <sub>2</sub>	L <sub>3</sub>	d
9 mm	200118	100	23	9,6	35	18	29	15	70	10

### Profile 4 (U-profile)



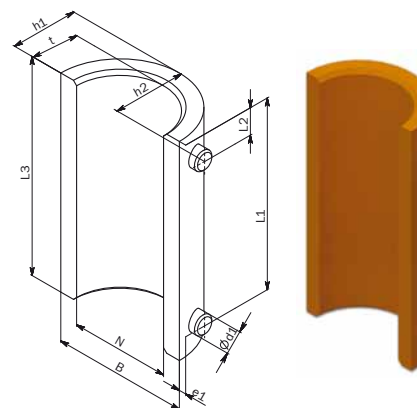
for nominal rail width “N”	art. no.	L <sub>1</sub>	b	N/N <sub>B</sub>	h <sub>1</sub>	h <sub>2</sub>	t	L <sub>2</sub>	L <sub>3</sub>	d
5 mm	200114	146	29	5,7	26	16	20	31	84	9,1
9 mm	200 119	146	29	9,1	26	16	20	31	84	9,1
10 mm	200 120	146	29	10,1	26	16	20	31	84	9,1
16 mm	200 139	146	29	16,1	26	16	20	31	84	9,1
10 mm	200 110	176	29	10,2	26	16	20	46	84	9,1
16 mm	200 122	176	29	16,1	26	16	20	46	84	9,1
14 mm	200 174	216	29	14,1	26	16	20	43	130	9,1
16 mm	200 112	216	29	16,1	26	16	20	43	130	9,1
16 mm	200 136	260	29	16,1	35	21	30	45	170	9,1

### Profile 6 (guide shoe insert, round)



for nominal rail width “N”	art. no.	L <sub>1</sub>	Ø	N	t					
5 mm	200252	45	38	5	26					
9 mm	200183	45	38	9	26					
16 mm	200186	45	38	16	26					

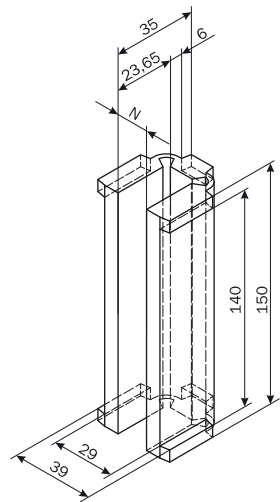
### Profile 7 (guide shoe insert, round)



for nominal rail width “N”	art. no.	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	d <sub>1</sub>	e <sub>1</sub>	h <sub>1</sub>	h <sub>2</sub>	b	N/N <sub>B</sub>	t
Ø 30 mm	200348	95	15	120	10	4	21	11	42	30	15
Ø 45 mm	200349	105	15	120	11	4	30	18	60	45	22,5
Ø 50 mm	200350	105	15	120	11	4	30	18	60	50	25
Ø 55 mm	200351	105	15	120	11	4	37,5	25,5	75	55	27,5
Ø 60 mm	200352	105	15	120	11	4	37,5	25,5	75	60	30

# Guide Shoe Inserts "Special Profiles", Sliding Inserts and Rail Guides of ACLATHAN®, ACLASYN® MWG 10 sw, ACLASYN® GR and ACLAMID®

Guide shoe insert (hinged type/U-profile)



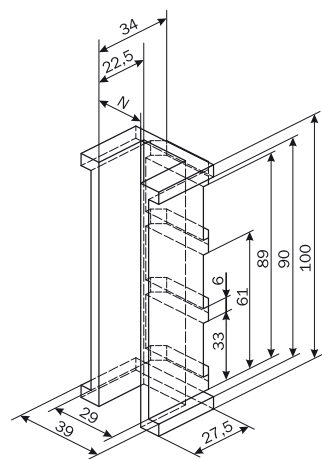
material:  
ACLATHAN



Article list

nominal rail width "N"	N [mm]	art. no.
8 mm	8,5	200 278
9 mm	9,5	200 279
10 mm	10,5	200 280
12 mm	12,5	200 281
14 mm	14,5	200 282
16 mm	16,5	200 283

Guide shoe insert (U-profile)

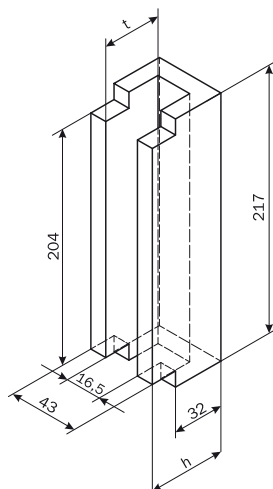


material:  
ACLATHAN black

Article list

nominal rail width "N"	N [mm]	art. no.
6 mm	6	200 273
10 mm	10	200 274
16 mm	16	200 275
21 mm	21	200 276

Guide shoe insert (U-profile)

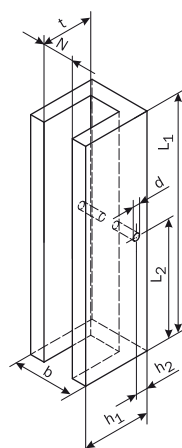


material:  
ACLASYN MWG 10 sw

Article list

h [mm]	t [mm]	art. no.
61	56	400 316
38	33	400 317

Guide shoe insert (U-profile)



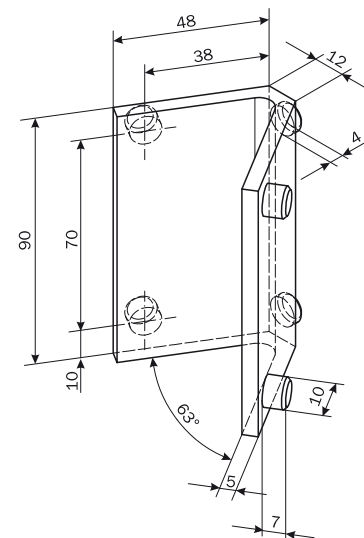
material:  
ACLATHAN



Article list

nominal rail width "N"	N [mm]	art. no.	L <sub>1</sub>	L <sub>2</sub>	b	h <sub>1</sub>	h <sub>2</sub>	t	d
5 mm	5,5	200 106	60,5	30	19	22	12	16	6,5
7 mm	7,5	200 231	60,5	30	19	22	12	16	6,5
11 mm	11,2	400 314	127		28	28,6		22,6	
16 mm	16,2	400 313	127		28	28,6		22,6	
9 mm	9,2	200 303	140	70	29	30	3	24	3
16 mm	16,5	200 304	140	70	29	30	3	24	3

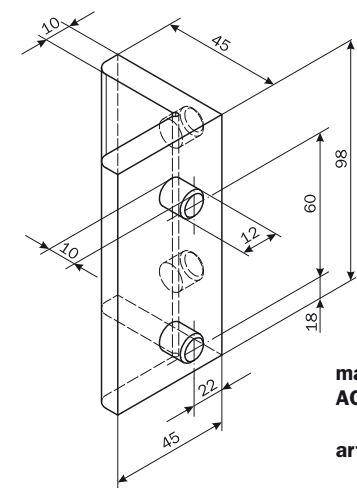
Guide shoe insert (angled profile)



material:  
ACLATHAN  
art. no. 200 310



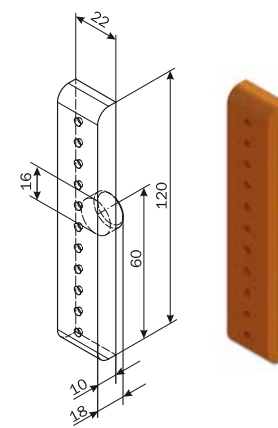
Guide shoe insert (angled profile)



material:  
ACLATHAN  
art. no. 200 113



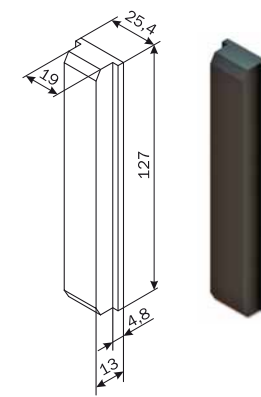
Sliding insert



material: ACLATHAN  
art. no. 200 277



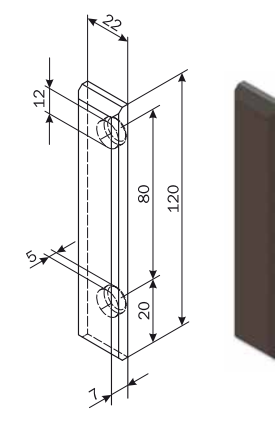
Sliding insert



material: ACLASYN MWG 10 sw  
art. no. 200 311



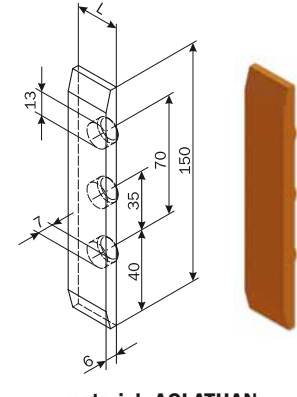
Sliding insert



material: ACLASYN GR  
art. no. 200 312



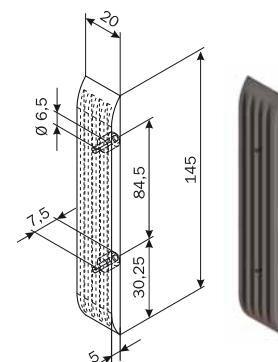
Sliding insert



material: ACLATHAN  
art. no. 200 313 (L = 19 mm)  
art. no. 200 315 (L = 30 mm)



Sliding insert

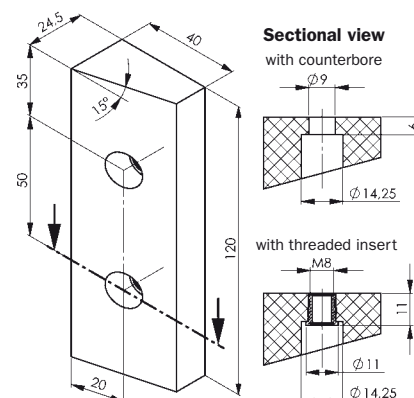


material: ACLASYN GR  
art. no. 200 314

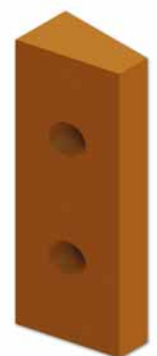
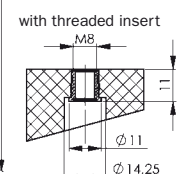
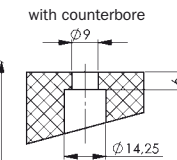


Rail guides

The ACLA rail guide's application is as a gliding element. By means of the slope the distance to the rail can be adjusted. According to different requirements of application the rail guide is available in 3 different materials.



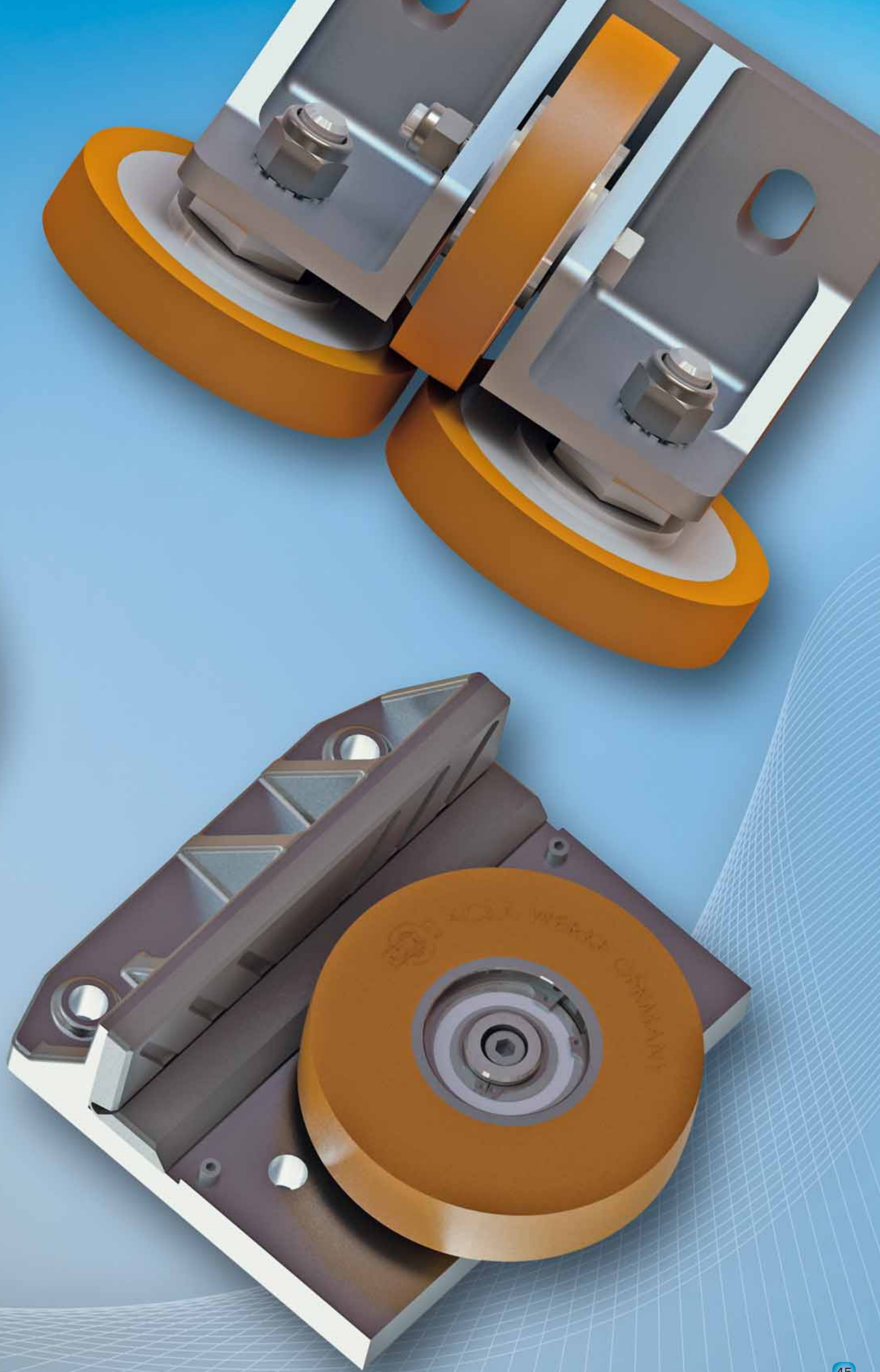
Sectional view



articles / material	ACLASYN GR	ACLAMID	ACLATHAN
with counterbore for M8 hexagon bolt	art.no. 90 321	art.no. 90 313	art.no. 193 543
with M8 threaded insert	art.no. 90 321.02	art.no. 90 313.01	

**ACLA roller guides:  
well conceived construction to the detail**

Detailed information on our ACLA roller guide program can be taken from our separate brochure „Roller Guides for Lift Engineering“



## Oil Collector AT with Clamping Elements of ACLATHAN®

- for rail widths from 5 up to 16 mm using the appropriate clamping elements
- no leakages at all sealing surfaces
- fast assembly without tools

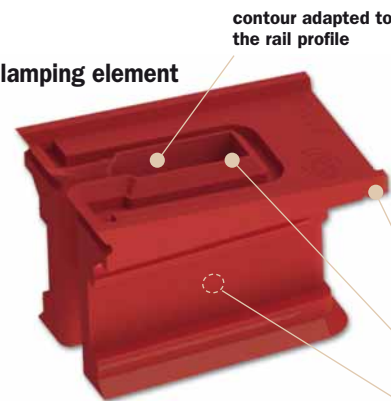
### Advantages of the ACLA Oil collector AT

- On account of the functional construction of the clamping element the sealing of the rail profile is assured up to the rail base
- The clamping element and oil collector are made of an oil and fracture resistant material with high thermal stability
- The clamping element is deliverable for all rail types
- No leakages at all sealing surfaces
- The seal lip of the clamping element prevents creeping oil
- The snap cams of the oil collector prevent an unintended slipping from the clamping element and can be slightly lifted for removal
- By means of slipping the oil collector onto the rail a secure clamping effect is achieved
- Fast assembly and emptying without tools or other auxiliary means
- Easy oil level check

### The correct clamping element for any rail

The clamping elements for the ACLA Oil Collector AT are manufactured of the polyurethane elastomer ACLATHAN and are especially distinguished by their good oil resistance, breaking strength and thermal stability.

### Clamping element



contour adapted to the rail profile

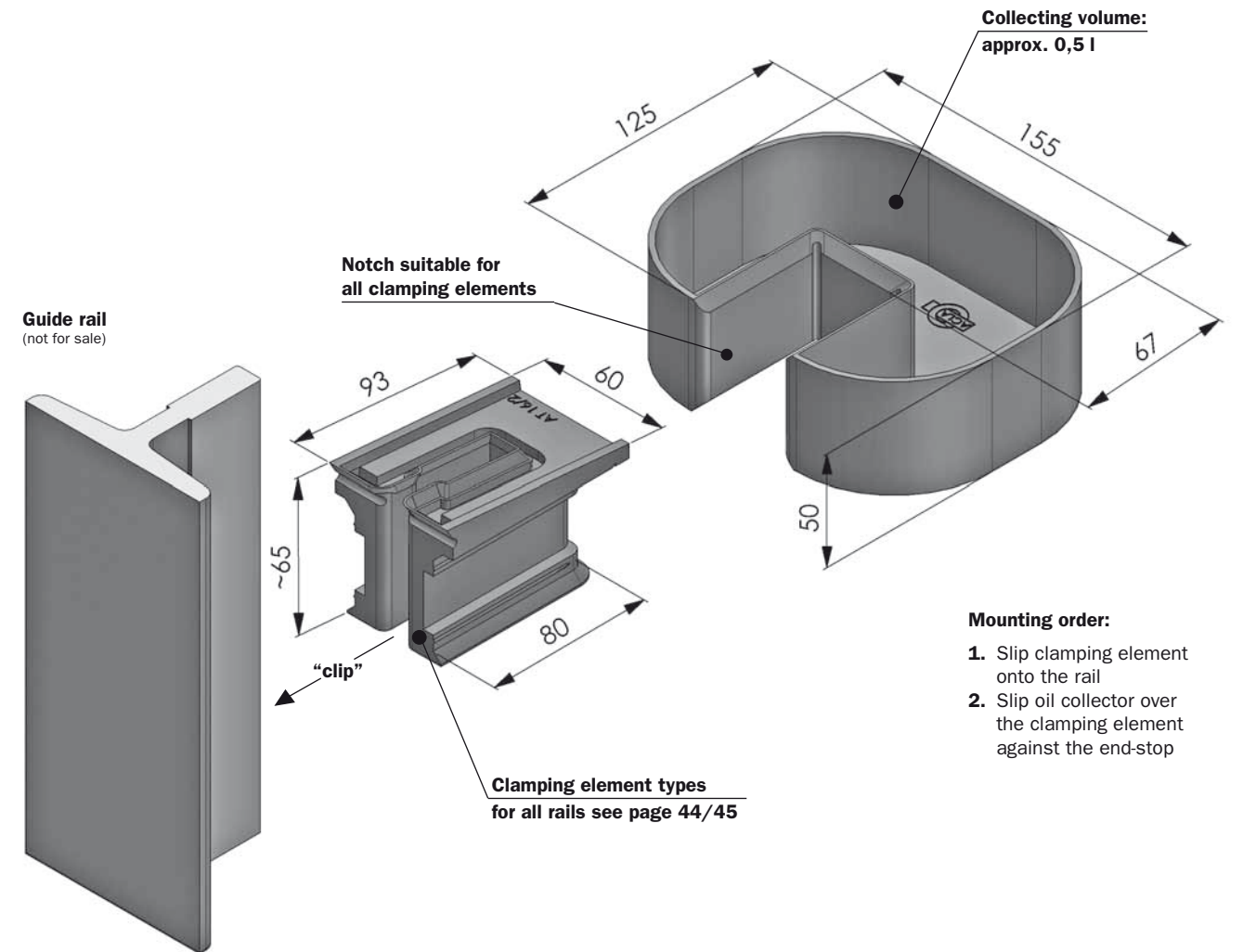
### Oli collector AT art. no. 70 316



please lift oil dripping edge when removing the oil collector AT sealing edge for running and foot area of the rail

if necessary drill cross hole for locking-pin. Pin length max. 35 mm

For all popular rail types suitable clamping elements are deliverable (see pages 44/45). In case of dimensional discrepancies of the contours a compensation by means of sealing material is necessary.



Oil collector Universal

Oil collector MB

Oil collector AT

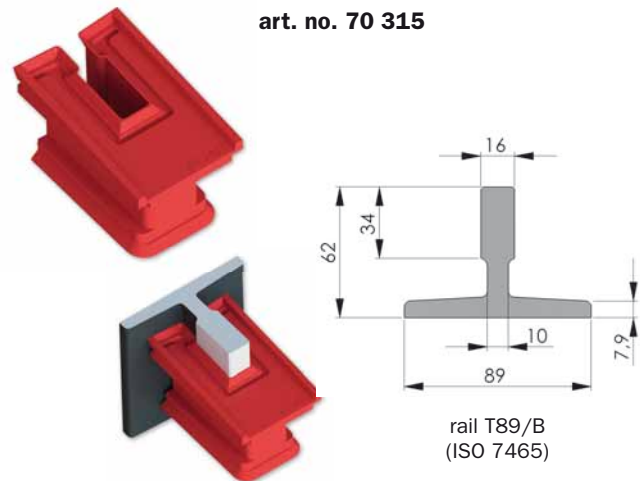
Oil collector Variable



# Clamping Elements of ACLATHAN®

Clamping element AT 16/1  
for rail T89/B as per ISO 7465

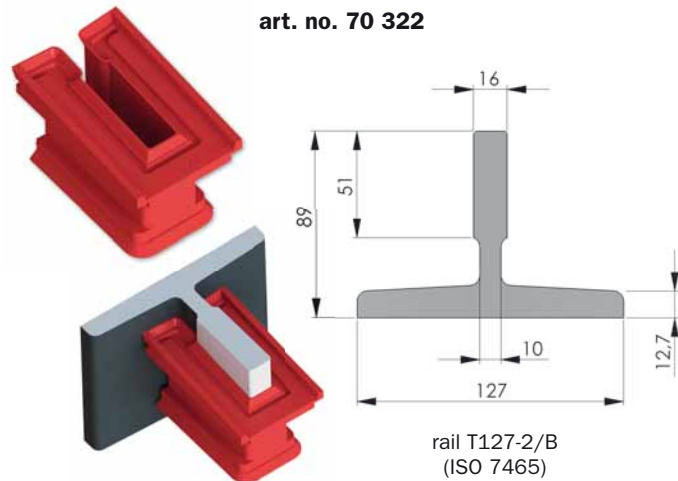
art. no. 70 315



rail T89/B  
(ISO 7465)

Clamping element AT 16/2  
for rail T127-2/B as per ISO 7465

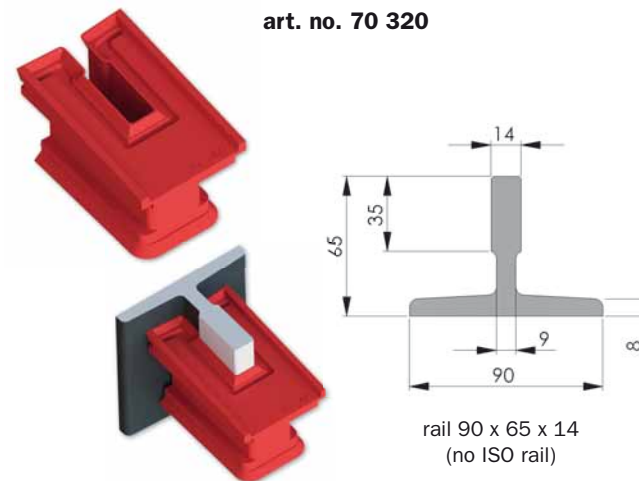
art. no. 70 322



rail T127-2/B  
(ISO 7465)

Clamping element AT 14/1  
for rail 90,0 x 65,0 x 14,0 mm

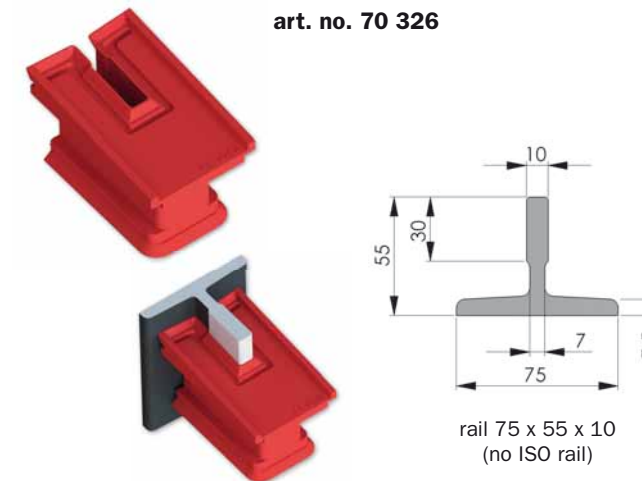
art. no. 70 320



rail 90 x 65 x 14  
(no ISO rail)

Clamping element AT 10/2  
for rail 75,0 x 55,0 x 10,0 mm

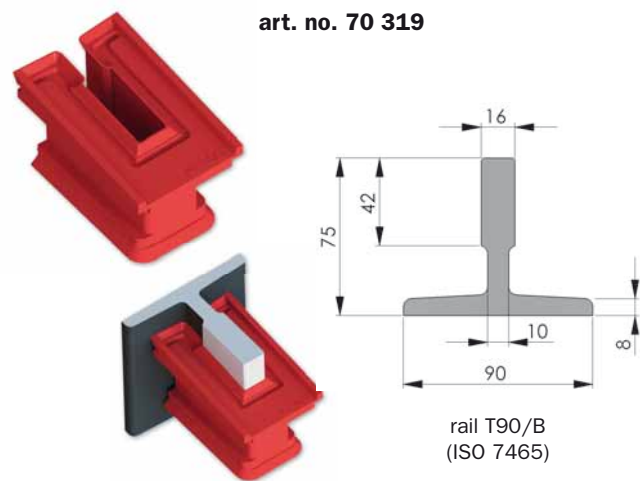
art. no. 70 326



rail 75 x 55 x 10  
(no ISO rail)

Clamping element AT 16/3  
for rail T90/B as per ISO 7465

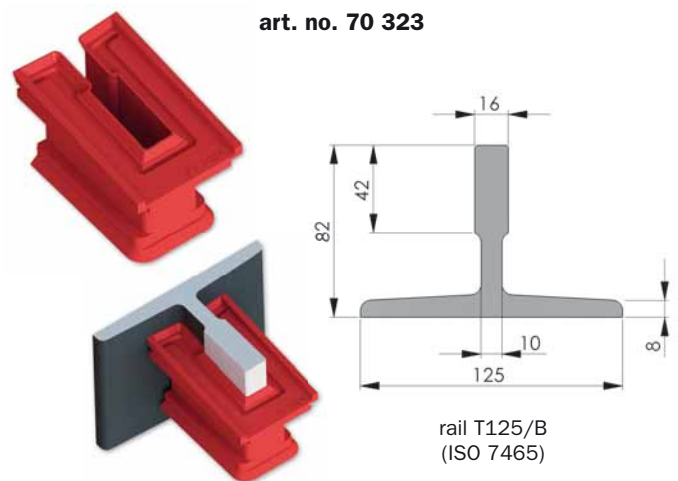
art. no. 70 319



rail T90/B  
(ISO 7465)

Clamping element AT 16/4  
for rail T125/B as per ISO 7465

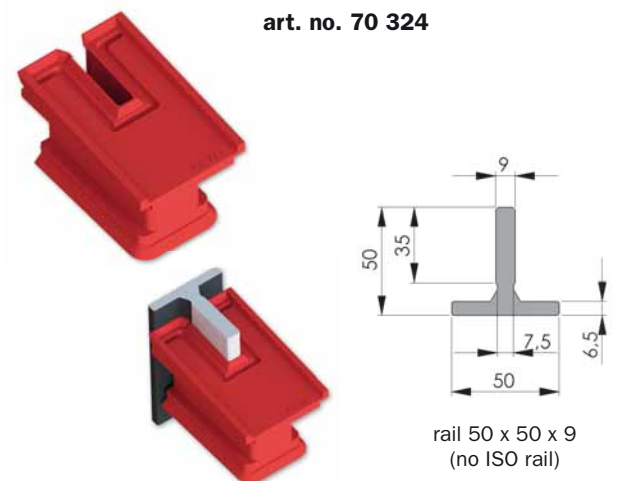
art. no. 70 323



rail T125/B  
(ISO 7465)

Clamping element AT 9/1  
for rail 50,0 x 50,0 x 9,0 mm

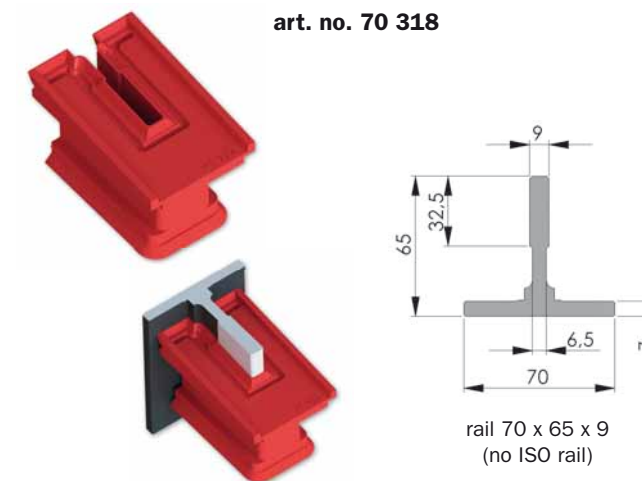
art. no. 70 324



rail 50 x 50 x 9  
(no ISO rail)

Clamping element AT 9/2  
for rail T70-1/A/B as per ISO 7465

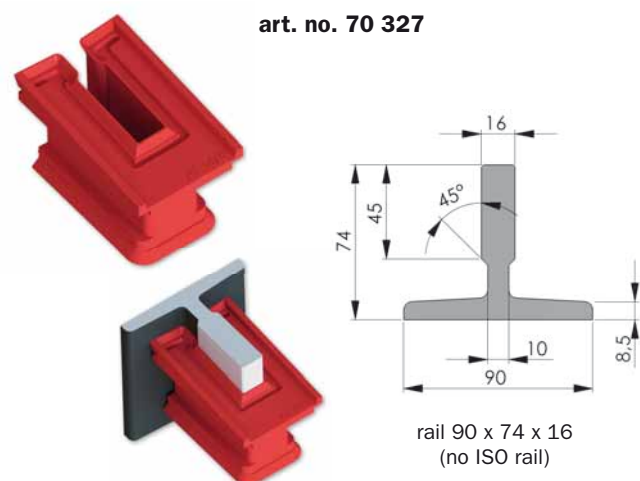
art. no. 70 318



rail 70 x 65 x 9  
(no ISO rail)

Clamping element AT 16/5  
for rail 90,0 x 74,0 x 16,0 mm

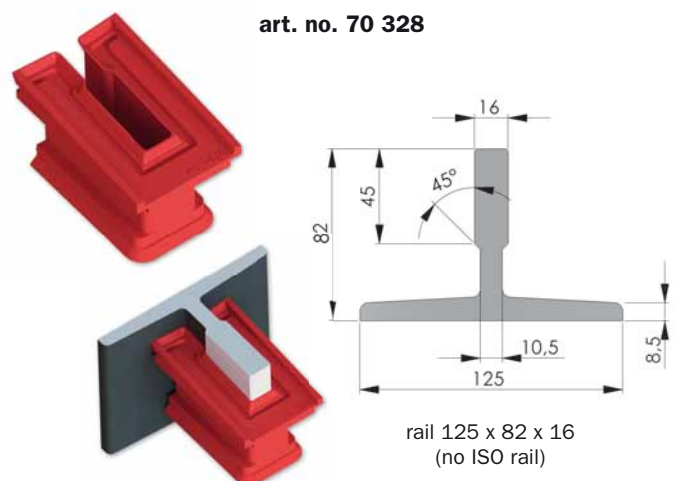
art. no. 70 327



rail 90 x 74 x 16  
(no ISO rail)

Clamping element AT 16/6  
for rail 125,0 x 82,0 x 16,0 mm

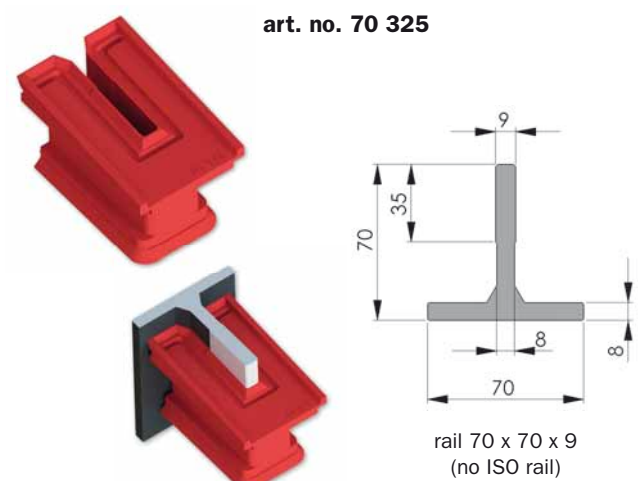
art. no. 70 328



rail 125 x 82 x 16  
(no ISO rail)

Clamping element AT 9/3  
for rail 70,0 x 70,0 x 9,0 mm

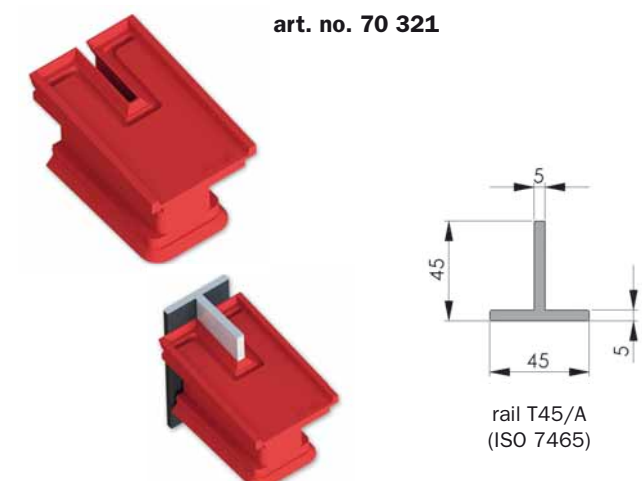
art. no. 70 325



rail 70 x 70 x 9  
(no ISO rail)

Clamping element AT 5/1  
for rail T45/A as per ISO 7465

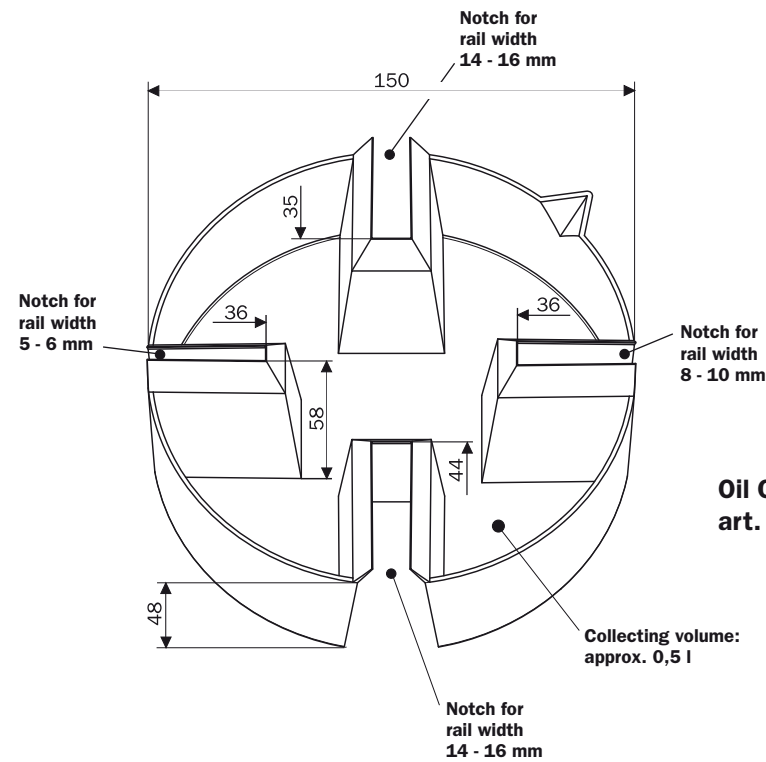
art. no. 70 321



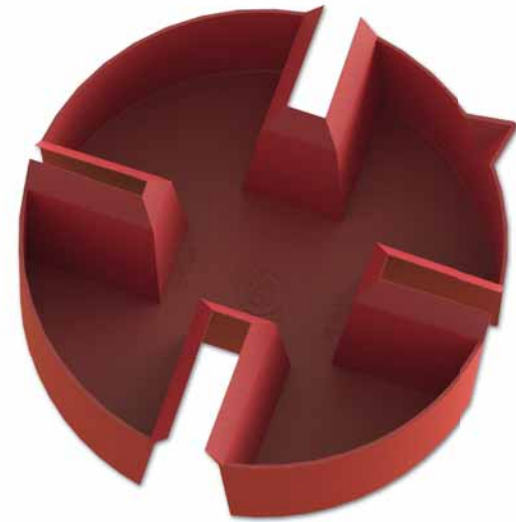
rail T45/A  
(ISO 7465)

## Oil Collector "Universal"

- for rail widths up to 16 mm
- simple assembly without tools



**Oil Collector**  
art. no. 70 369.01



### The advantages of the ACLA Oil Collector "Universal"

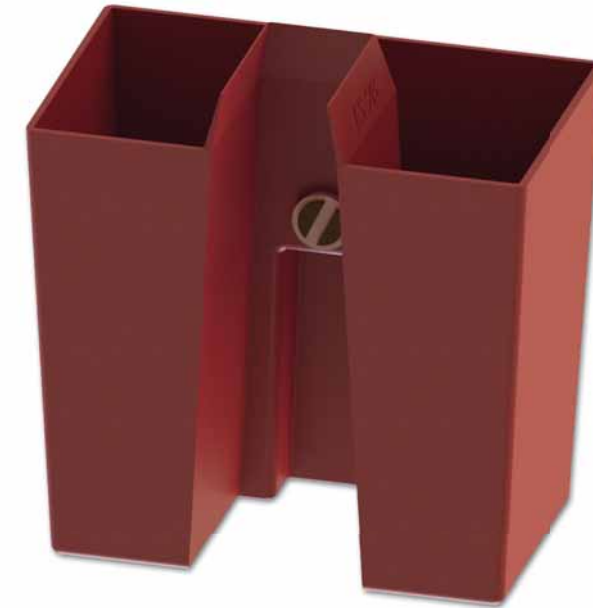
- The Oil Collector is made of an oil and fracture resistant material with high thermal stability
- Fast assembly and emptying without any tools or other auxiliary means

## Oil Collector MB (with magnetic fastener)

- Executions for rail width 5, 10, 16, 19 and 28 mm
- Simple assembly with magnetic fastener

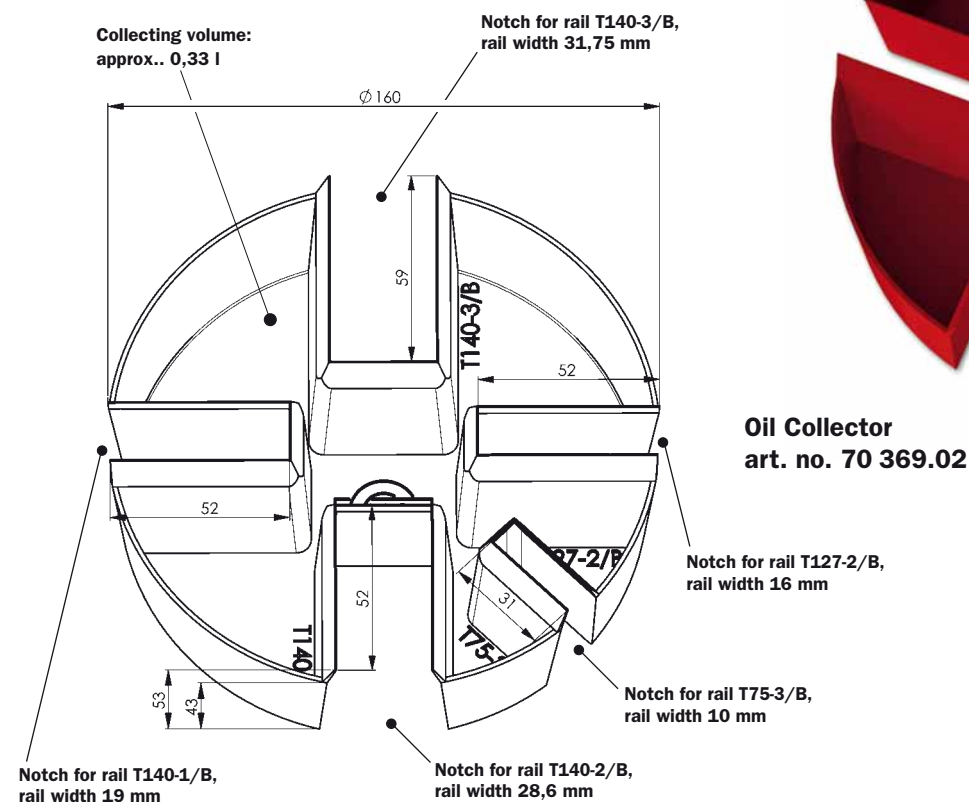
### The advantages of the ACLA Oil Collector MB (with magnetic fastener)

- The Oil Collector is made of an oil and fracture resistant material with high thermal stability
- Simple assembly at any position of your choice by means of magnetic fastener
- Also available without magnetic fastener

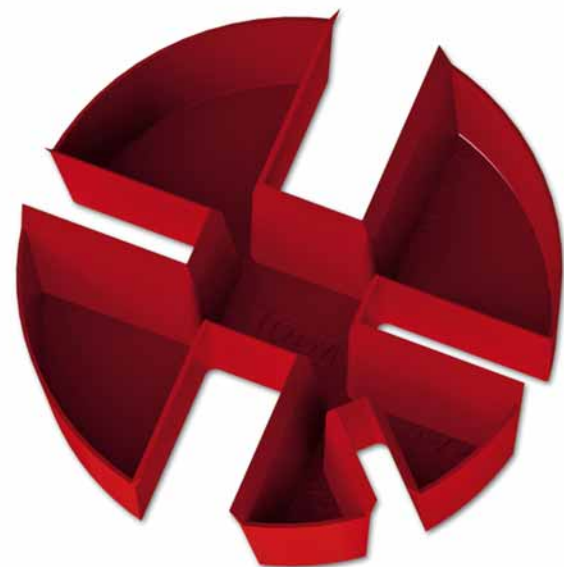


## Oil Collector „Variable“

- for rail widths up to 31,75 mm
- simple assembly without any tools or accessories

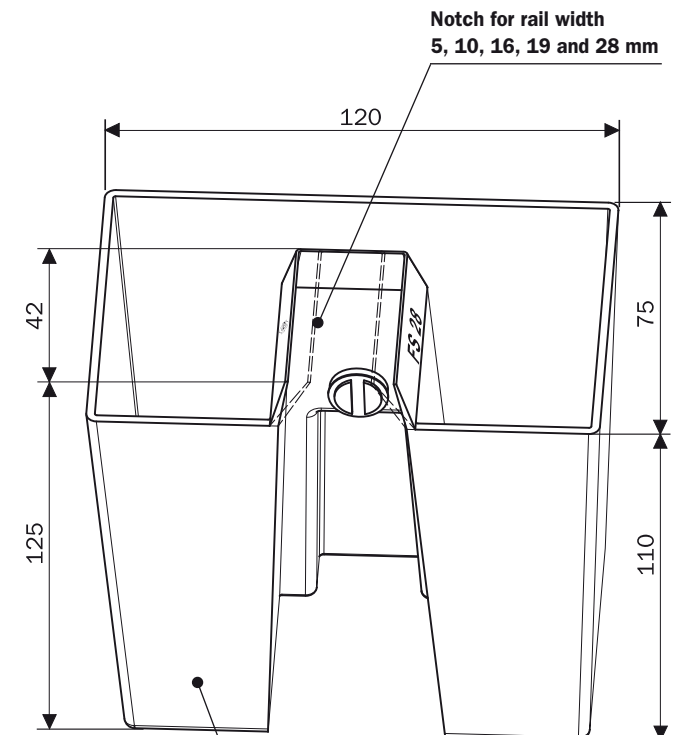


**Oil Collector**  
art. no. 70 369.02



### The advantages of the ACLA Oil Collector „Variable“

- The Oil Collector is made of an oil and fracture resistant material with high thermal stability
- Fast assembly and emptying without any tools or other auxiliary means



### article numbers for Oil Collector MB

rail width	art. no.
5 mm	70 449.05
10 mm	70 449.10
16 mm	70 449.16
19 mm	70 449.19
28 mm	70 449.28

# Lift Buffers of AUTAN®

• Four types for different installation situations

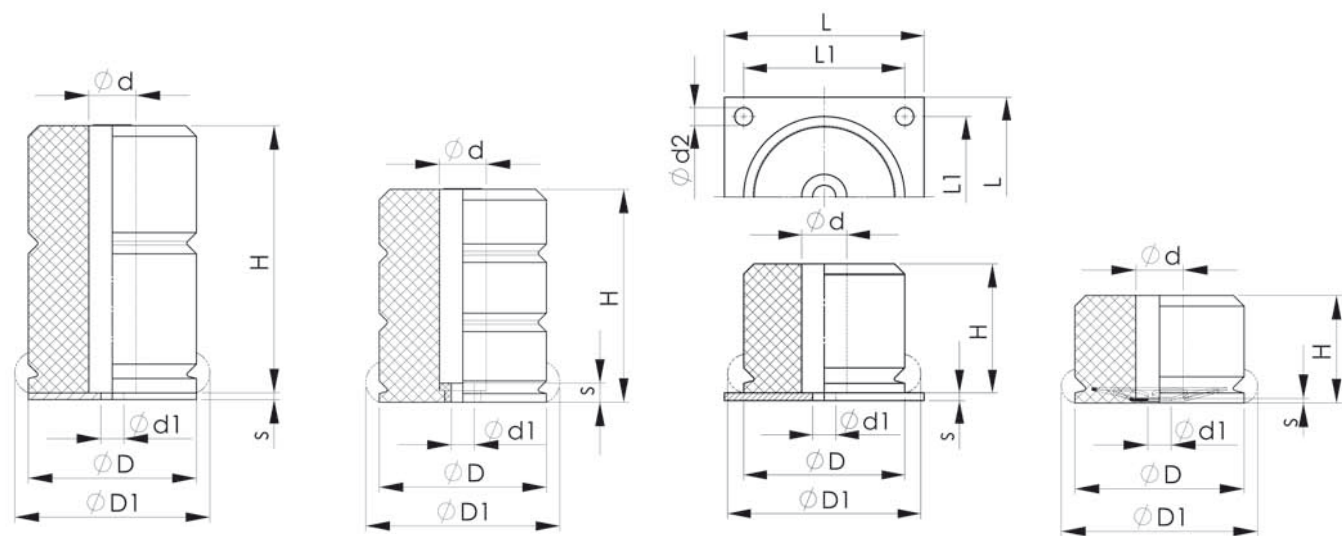
Without CE mark  
only for  
replacement business

- type A**  
With round steel plate and central bore. The buffer is fixed by a bolt.
- type B**  
Without steel plate, but with central plastic bushing (PA).
- type C**  
With square steel plate and four fixing holes or one central bore. Fixing is possible by means of four or one central bolt.
- type D**  
With foamed-in steel plate (2 mm). The height of the inner fixation is 12 mm less than in type B.



type A      type B      type C      type D

### Nominal article sizes



d2 = 4 x 14 up to L = 155  
 = 4 x 18 for L = 180 and L = 205  
 = 4 x 21 for L = 260

# Manufacturer's Declaration by ACLA for Lift Buffers of AUTAN®



ACLA-WERKE GMBH · Frankfurter Str. 142-190 · 51065 Köln · Germany

**ACLA-WERKE GMBH**  
 Frankfurter Str. 142-190  
 51065 Köln  
 Germany  
 Tel. ++49 (0) 221/69998-0  
 Fax ++49 (0) 221/697121  
 e-mail: info@acla-werke.de  
 Internet: www.acla-werke.de

Gegründet 1829  
 Commerzbank AG, Köln  
 (BLZ 37080040)  
 Konto 3732393  
 IBAN: DE68 3708 0040  
 0373 2393 00  
 SWIFT: DRESDEFF370

Postbank Köln  
 (BLZ 37010050)  
 Konto 2112 500  
 IBAN: DE64 3701 0050  
 0002 1125 00  
 SWIFT: PBNKDEFF

Ust.-Id.-Nr.:  
 DE 811 221 882  
 St.-Nr.: 218 5701 0042  
 Zoll-Nr.: 3062953  
 Erfüllungsort und  
 Gerichtsstand für  
 beide Teile: Köln

Ihr Zeichen      Ihre Schreiben vom      Unser Zeichen      Durchwahl  
 (02 21) 69998.

Köln-Mülheim  
 Datum  
 01.09.2017

## Herstellereklärung Manufacturer's Declaration / Déclaration du producteur

Wir bescheinigen, dass der Puffer mit der Art. Nr. 300xxxZ technisch dem Puffer entspricht, der bis 31.08.2017 unter der Art.Nr. 300xxx vertrieben wurde.

Der Anwender ist verpflichtet dafür Sorge zu tragen, dass der Puffer unter Berücksichtigung der geltenden Richtlinien, Gesetze und Normen verwendet wird. Als Hersteller bescheinigen wir nur die technische Übereinstimmung. Die Verantwortung für die bestimmungsgerechte Verwendung trägt allein der Kunde.

We certify that the buffer with part number 300xxxZ fully corresponds in technical respect with that buffer which was sold under ref.no. 300xxxx until 31.08.2017.

The user is obliged to ensure that the buffer is used subject to the applicable directives, laws and standards. We, as manufacturer, do only certify the technical conformity. The proper use is the sole responsibility of the customer.

Nous certifions que le tampon amortisseur réf. 300xxxZ correspond techniquement à notre amortisseur réf. 300xxxx que nous avons vendu en stricte jusqu'au 31.08.2017.

L'utilisateur doit s'assurer que le tampon sera utilisé selon les directives, les lois et les règlements applicables.

De notre part, en tant que fabricant, nous ne certifions que la conformité technique. La responsabilité de l'utilisation correcte est portée à part entière par le client.

Mit freundlichen Grüßen / Yours faithfully / Sincères Salutations

**ACLA-WERKE GMBH**

POLYURETHAN-  
ELASTOMERE,  
homogen und zellig

ACLATHAN®, ACLAN®,  
GRIPHTAN®, Vulkollan®,  
ACLACELL®, AUTAN®

EUTHAN®,  
ACLAMID®,  
ACLASYN®

ACLAIT® HARTGEWEBE-  
UND HARTPAPIER-  
ERZEUGNISSE

GIESS-, PRESS-, SPRITZ-,  
GUSS- und mechanisch  
bearbeitete Teile

Vulkollan® =  
eingetrag. Warenzeichen  
der Bayer AG

As from 01.09.2017 only buffers with CE marks acc. to EN 81-20/50 may be supplied. AUTAN buffers are not certified as per EN 81-20/50 and are not allowed to be sold with CE mark. These AUTAN buffers can only be sold without CE mark and accompanied by a manufacturer's declaration. AUTAN buffers without CE mark correspond in technical terms to the previous version. The previous six-digit art.no. is marked with affix „Z“. Ideally, AUTAN buffers should be exchanged against AUTAN HE buffers acc. to EN 81-20/50 considering the new application ranges and, where necessary, differences in size. Notified body admission is essential.

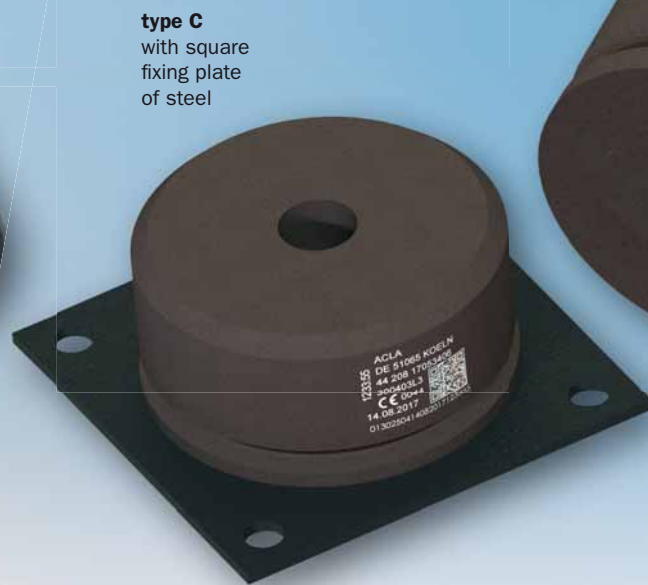
# New Generation Lift Buffers of AUTAN® HE

**EN 81-20/50**  
Test Type Certificate available

Legal  
requirement  
as from 09/2017



**type A**  
with round  
fixing plate  
of steel



**type C**  
with square  
fixing plate  
of steel

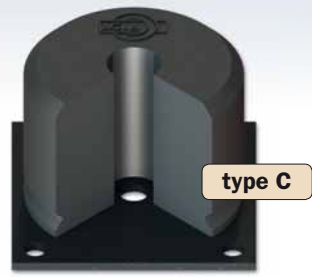


**type D**  
with integrated  
steel plate

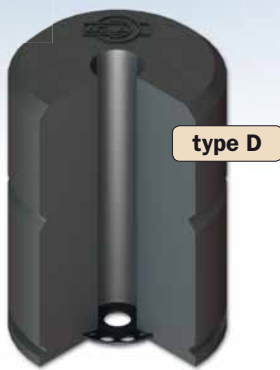


**type A**

**Nominal article sizes**



**type C**



**type D**

\*Data for ØD1 on request

## Lift Buffers of AUTAN® HE certified as per EN 81-20/50 and Lift Directive 2014/33/EU

**The ACLA safety product on the latest state-of-the art**

We ensure planning certainty for all your future lift projects basing on the applicable standard EN 81-20/50 and lift directive 2014/33/EU. All offered buffers are type-tested according to the current regulations.

All buffers of series S comply with the important mounting height of 80 mm.

**Maintenance 4.0 integrated**

Important product data is digitally marked on each ACLA lift buffer of AUTAN HE.

The following table is an overview of our delivery program incl. the admissible application ranges.

Putting the focus on the optimisation of manufacturing technology our lift buffers of AUTAN HE series S offer extended application ranges as to min. and max. loads.



Type-examination certificates and declarations of conformity can be downloaded from our website "www.acla-werke.de".

**Series S of AUTAN® HE:  
widened application range  
at min. and max. loads!**

### Delivery program and application ranges for lift buffers type A, C and D of AUTAN® HE acc. to EN 81-20/50 at nominal speeds up to 1,0 m/s

Product range	size D x H	type	art. no.	Type-examination certificates registration number	Admissible range in [kg]				sizes										
					up to v = 0,63 m/s		up to v = 1,0 m/s		D	d	d1	H	s	L	L1	d2			
					m <sub>min</sub>	m <sub>max</sub>	m <sub>min</sub>	m <sub>max</sub>											
Series S	80 x 80	A	300400L1	44 208 17053401	140	1650	230	750	80	36	17,0	80	5	6	100	80	11		
		C	300400L3															17,2	2
		D	300400L4																
	100 x 80	A	300401L1	44 208 17053403	240	3500	350	1200	100	36	17,0	80	5	6	130	100	14		
		C	300401L3															17,2	2
		D	300401L4																
	100 x 80	A	300401M1	44 208 17053402	200	2100	250	950	100	36	17,0	80	5	6	130	100	14		
		C	300401M3															17,2	2
		D	300401M4																
	125 x 80	A	300402L1	44 208 17053404	450	5500	620	1900	125	36	17,0	80	5	6	155	125	14		
		C	300402L3															17,2	2
		D	300402L4																
140 x 80	A	300419L1	44 208 17053405	450	6500	700	2300	140	36	17,0	80	6	6	180	140	18			
	C	300419L3															17,2	2	
	D	300419L4																	
165 x 80	A	300403L1	44 208 17053406	600	9400	1000	2800	165	36	17,0	80	5	6	205	165	18			
	C	300403L3															17,2	2	
	D	300403L4																	
220 x 80	A	300404L1	44 208 17053407	1000	9400	1400	5500	220	36	17,0	80	5	6	260	220	21			
	C	300404L3															17,2	2	
	D	300404L4																	
81 x 120	A	300335A1	44 208 12019089-001	-	-	230	900	81	36	17,0	120	5	6	100	80	11			
	C	300335A3															17,2	2	
	D	300335A4																	
101 x 163	A	300405A1	44 208 12019092-001	-	-	300	1600	101	36	17,0	163	5	6	130	100	14			
	C	300405A3															17,2	2	
	D	300405A4																	
129 x 103	A	300178A1	44 208 12019094-001	-	-	600	2100	129	36	17,0	103	5	6	155	125	14			
	C	300178A3															17,2	2	
	D	300178A4																	
142 x 101	A	300183A1	44 208 12019096-001	-	-	700	2200	142	36	17,0	101	6	6	180	140	18			
	C	300183A3															17,2	2	
	D	300183A4																	

# Lift Buffers of AUTAN® HE: New types 2017

**Enhanced security as to fixing**  
We were now able to widen our delivery program for lift buffers of AUTAN HE from 3 to 5 buffer types by extensive application- and field tests as well as optimized production methods in our serial production.

Both of our new patent protected\* buffer types „AD“ and „CD“ show best results in practical use by their significantly improved fixing security.

Provided that the recommended maintenance intervals are kept,

separations of the buffer from the steel plate can be excluded under normal service conditions.

Technical information and type-examination certificates of these new lift buffer types of AUTAN HE will be submitted on demand.

## Every millimetre counts!

Expansion and deflection of ACLA buffers of AUTAN® HE

**Technology advantage in favour of construction**

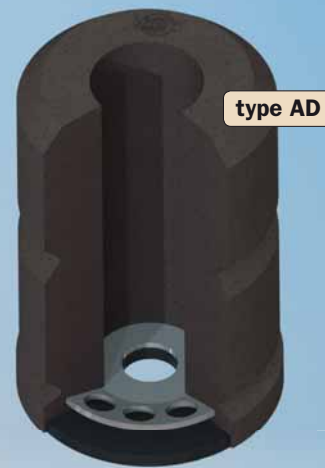
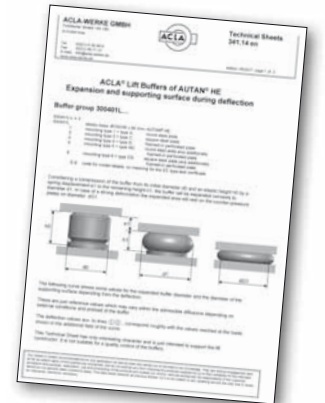
The high-grade PUR material AUTAN HE used for our ACLA lift buffers offers a clear technical advantage to the lift manufacturer in relation to construction:

The actual deflection of most buffer types of AUTAN HE is significantly less the value of 90% of the initial foam height required by the applicable standard. Thus total construction heights can be reduced in a cost-efficient manner.

Upon request, we will send you our „Technical Sheets 341“ giving detailed information about the expansion and deflection at the min. and max. loads. They may serve as a support in lift configuration and approval.

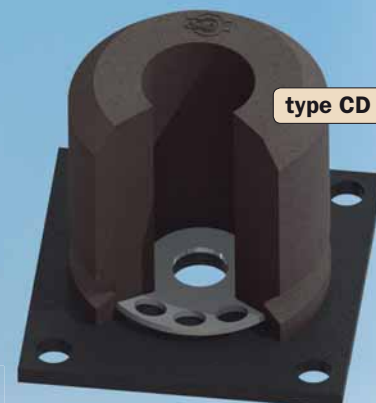
Please contact us for more information.

The below diagram gives you a first impression of this important issue to the constructor.



type AD

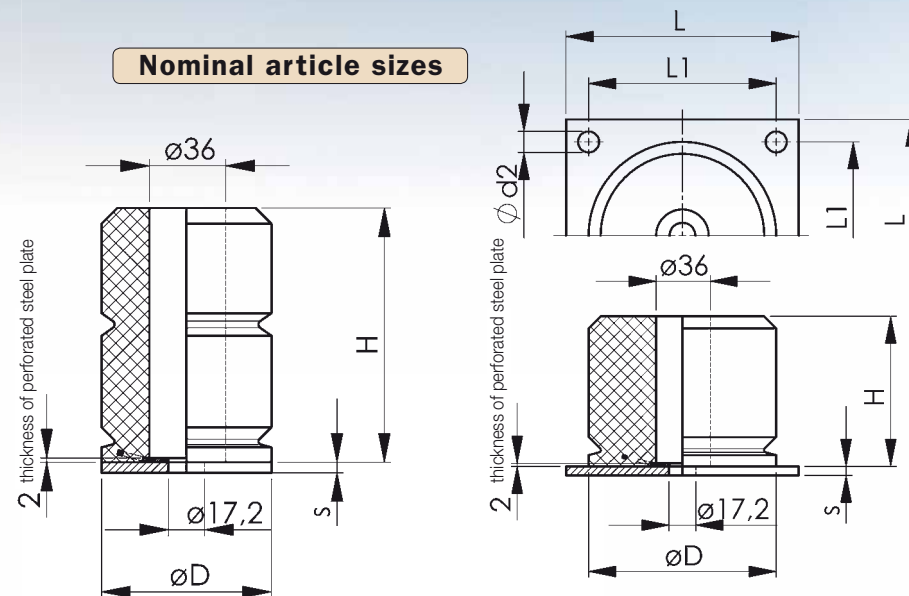
with round steel plate + foamed-in perforated steel plate



type CD

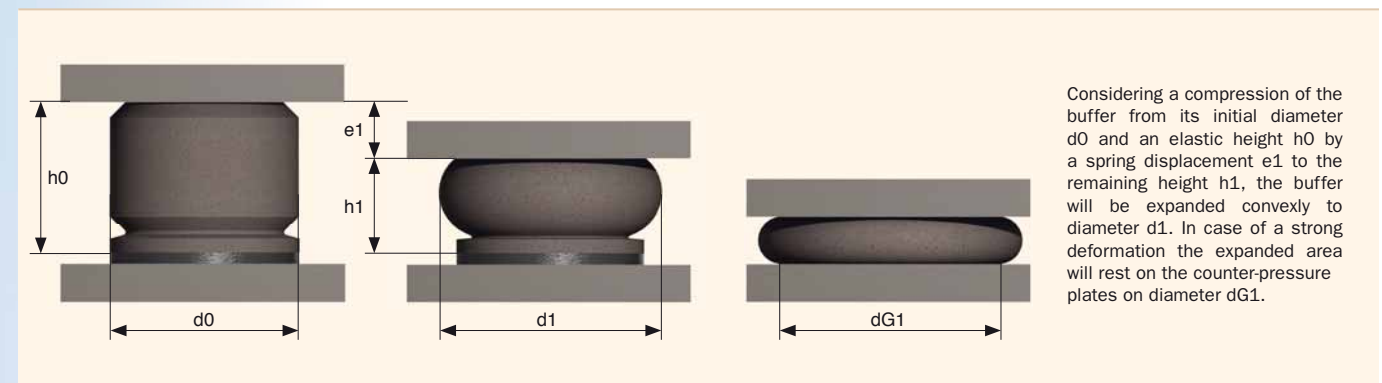
with square steel plate + foamed-in perforated steel plate

**Nominal article sizes**



**Delivery program**

sizes type AD			sizes type CD					
D	H	s	D	H	s	L	L1	d2
80	80	5	80	80	6	100	80	11
100	80	5	100	80	6	130	100	14
125	80	5	125	80	6	155	125	14
140	80	6	140	80	6	180	140	18
165	80	5	165	80	6	205	165	18
220	80	5	220	80	6	260	220	21



Considering a compression of the buffer from its initial diameter  $d_0$  and an elastic height  $h_0$  by a spring displacement  $e_1$  to the remaining height  $h_1$ , the buffer will be expanded convexly to diameter  $d_1$ . In case of a strong deformation the expanded area will rest on the counter-pressure plates on diameter  $d_{G1}$ .



\*status as at September 2017: patent protection has been applied

# ACLA's Manufacturers Competence starts with the processing of raw materials

## Rope Suspension Springs of AUTAN®

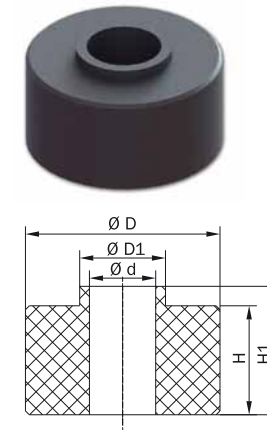
### Excellent damping properties

Rope Suspension springs of AUTAN are designed for the compensation of the rope length. On account of the excellent damping properties of the polyurethane elastomer AUTAN high compression of the spring can be achieved with low article height and transverse expansion. AUTAN is highly resistant against wear and tear as well as mineral oils and grease. The springs can be easily mounted and keep their natural stability for a long time. The permanent deformation as per DIN 53 572 at 20° C (68° F) is lower than 3%.

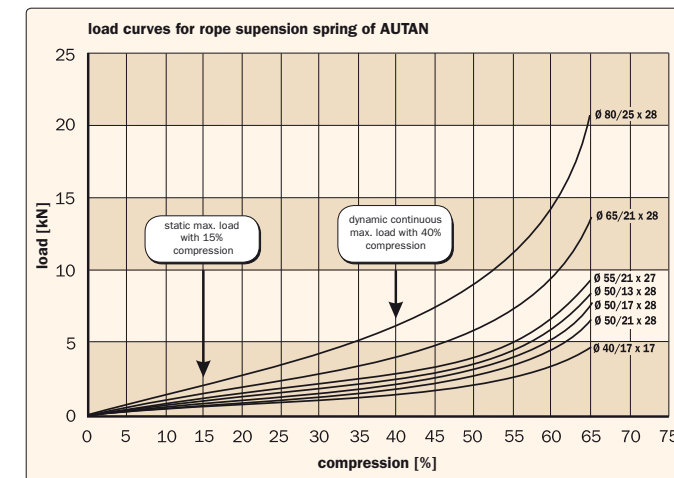
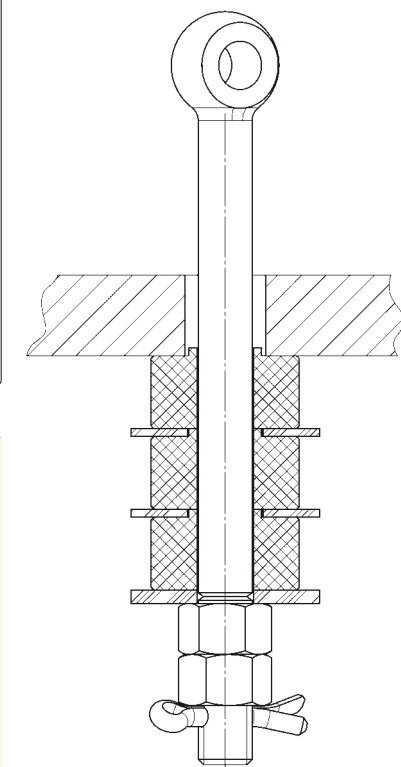
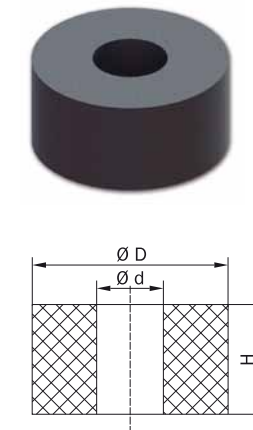
### Important operation instructions:

- In case of multilayer mounting we recommend the use of steel separators with an O.D. of 1,4 x D.
- The dynamic continuous load is admissible up to 40% of the length H.
- The max. static continuous load is admissible up to 15% of the length H.
- With shock loads the max. compression should not exceed 76% of length H. Overloads change the compression curve.
- The replacement of the product is necessary in this case.
- With mounting side by side a drilling center of 1,5 x D is admissible.
- After 5 years the elasticity should be checked.

Rope suspension spring with collar

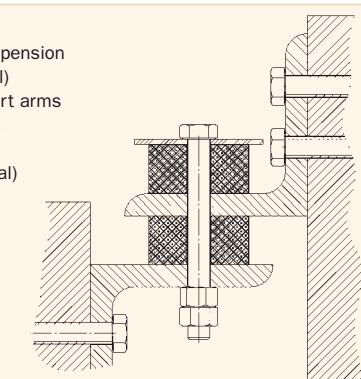


Rope suspension spring without collar



### Further range of application:

- Buffer and counterbuffer suspension
- Machine suspension (general)
- Suspension for torque support arms
- Suspension for Compressors
- Engine suspension
- Mounting Suspension (general)



Size table/article numbers for rope suspension springs of AUTAN

art. no.	331287.01	331288.01	331289.01	331290.01	331291.01	331292.01	331293.01	331294.01	331419.01	331295.01	331296.01
Ø D	40	50	50	55	65	80	50	50	50	65	80
Ø D1	27	22	22	27	27	27					
Ø d	17	13	17	21	21	25	13	17	21	21	25
H	17	28	28	27	28	28	28	28	28	28	28
H1	20	33	33	30	33	33					

Tolerances as per DIN ISO 2768-1 cK

# Flat and Round Cable Suspensions of ACLAMID® /yellow and nature

The material ACLAMID offers the best quality for the functioning of cable suspensions

The ACLA flat cable and round cable suspensions are made of ACLAMID/PA6 with colour yellow or nature, a special polymer with a high Young's modulus.

The material ACLAMID/PA6 has got many advantages which are ideal for the application as cable suspensions:

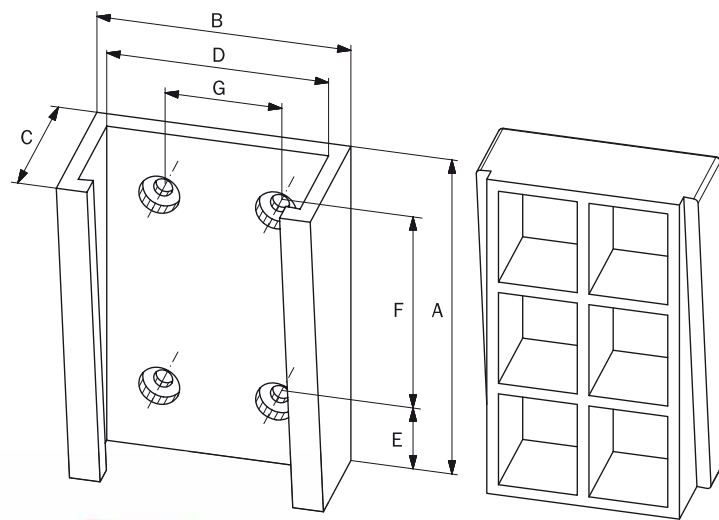
- small deformation
- high stability
- temperature range from -20° C to +80° C (-4° F to +176° F)
- good resistance against various agents

## Flat cable suspension including screws and tap bolts

**Application:**  
for 1 to 3 flat cables,  
max. allover cable size  
75 x 18 mm

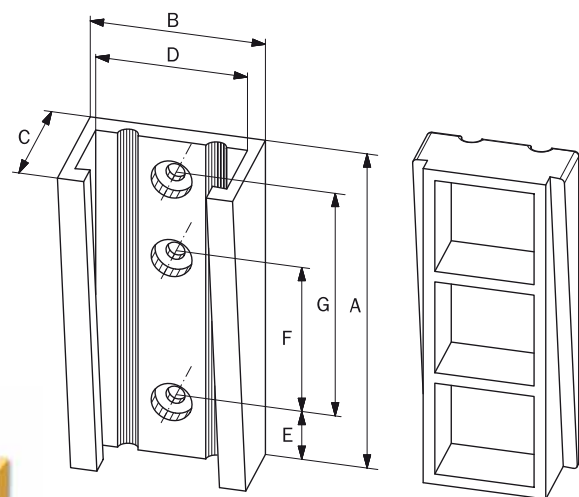


(colour may vary in final execution)



art. no. 90 325

nominal size	dimensions art. no. 90 325
A	120
B	87
C	52
D	76
E	23,5
F	73
G	40



art. no 90 326

nominal size	dimensions art. no. 90 326
A	102
B	61
C	43
D	52
E	14
F	43
G	74

## Round and flat Cable Suspension including screws and tap bolts

**Application:**  
for 1 to 3 flat cables, max. allover cable size 50 x 15 mm and for cables with an O.D. of 7 to 10 mm



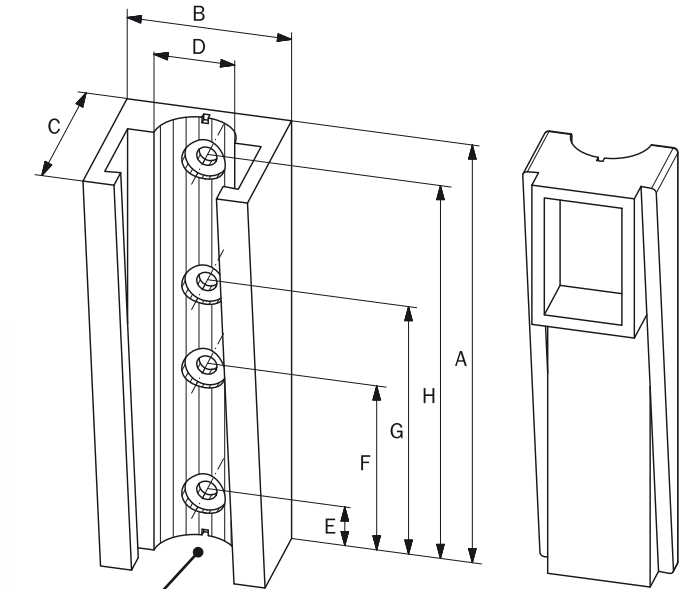
## Article range and nominal sizes

### Round cable suspension

**Application:**  
for cables with an O.D. of 6 to 26 mm



art. no 90 328.01



for cables of O.D. from 21 to 26 mm

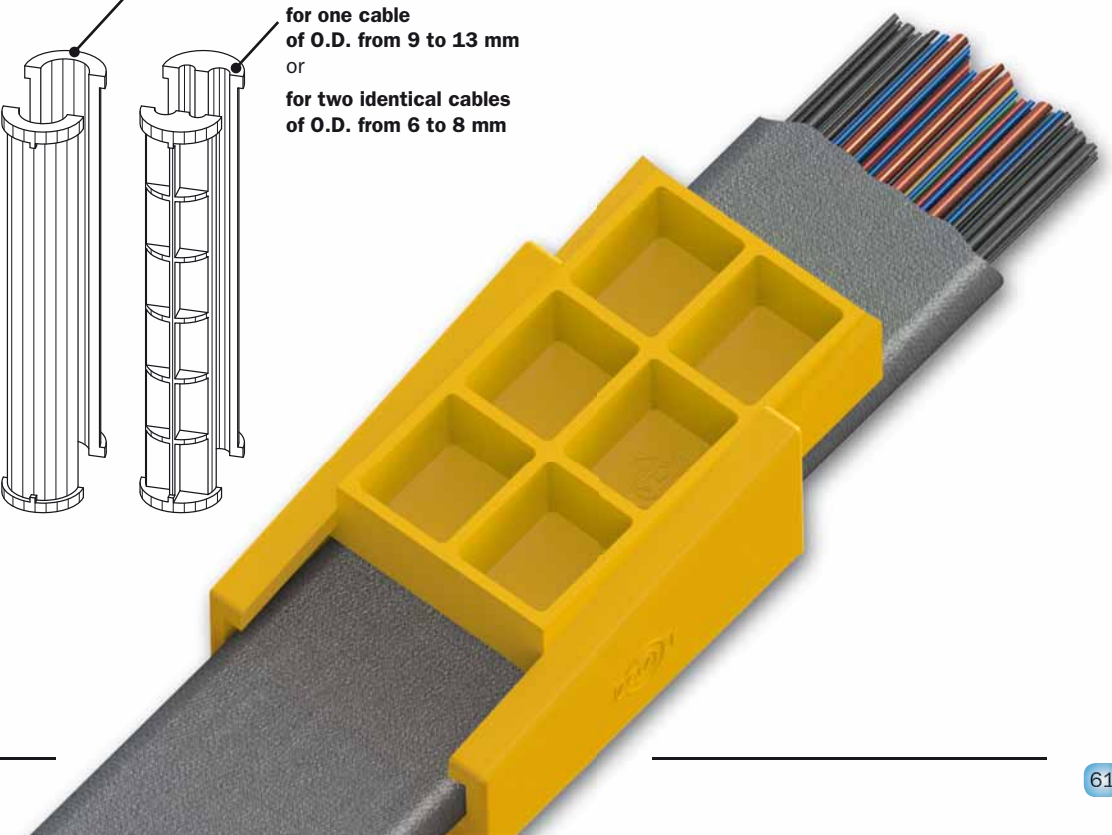
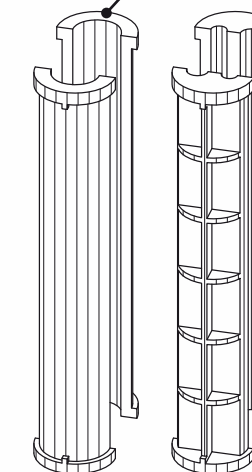
nominal size	dimensions art. no. 90 328.01
A	151
B	51
C	53
D	26
E	17
F	61
G	91
H	134



inserts

for cables of O.D. from 14 to 20 mm

for one cable of O.D. from 9 to 13 mm or  
for two identical cables of O.D. from 6 to 8 mm



# Rope Pulleys of ACLAMID®

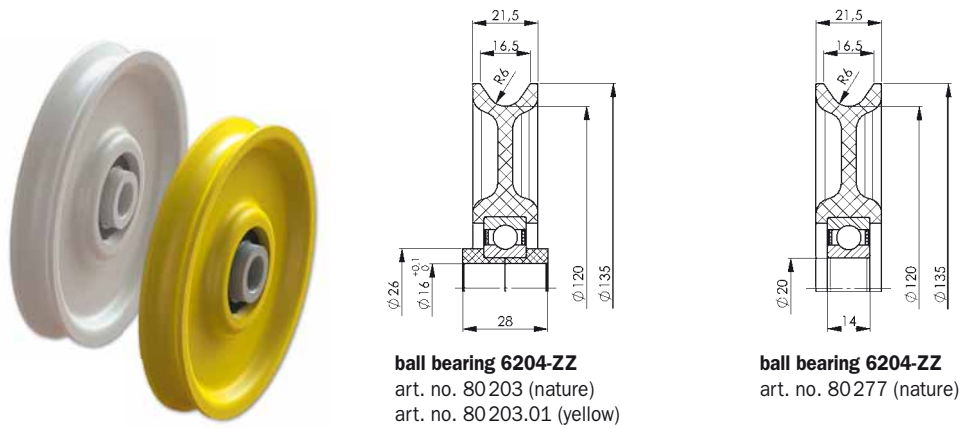
## Construction of the rollers

Roller body of ACLAMID (special polyamide) with ball bearings as per DIN.

## Important properties of ACLAMID

- special polyamide with high Young's modulus
- more silent running than steel pulleys
- low rolling friction
- high natural stability
- temperature range from -20° C to +80° C (-4° F to +176° F)

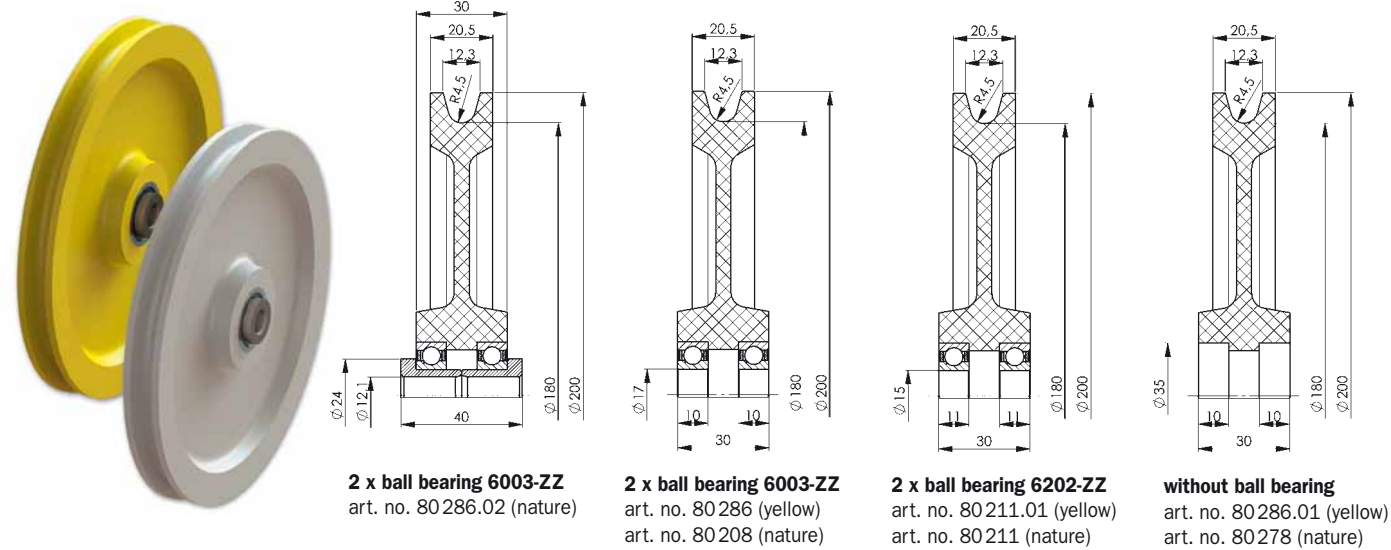
### Rope pulley Ø 135 mm with R6 (type PA L)



ball bearing 6204-ZZ  
art. no. 80203 (nature)  
art. no. 80203.01 (yellow)

ball bearing 6204-ZZ  
art. no. 80277 (nature)

### Rope pulley Ø 200 mm with R4,5 (type PA LL)



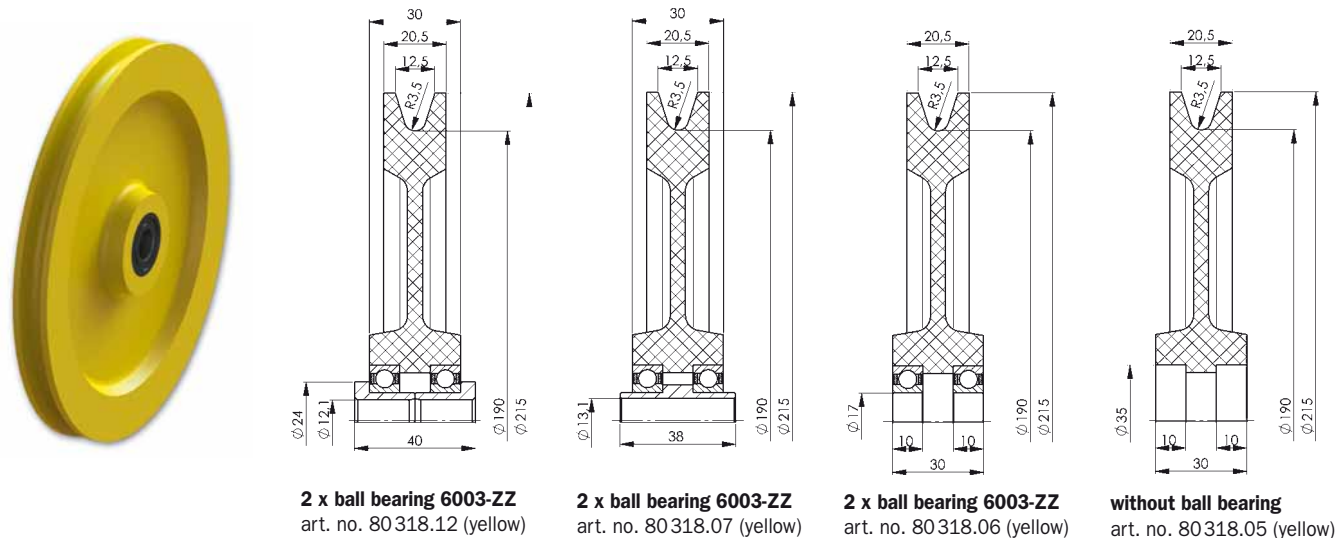
2 x ball bearing 6003-ZZ  
art. no. 80286.02 (nature)

2 x ball bearing 6003-ZZ  
art. no. 80286 (yellow)  
art. no. 80208 (nature)

2 x ball bearing 6202-ZZ  
art. no. 80211.01 (yellow)  
art. no. 80211 (nature)

without ball bearing  
art. no. 80286.01 (yellow)  
art. no. 80278 (nature)

### Rope pulley Ø 215 mm with R3,5 (type PA LL)



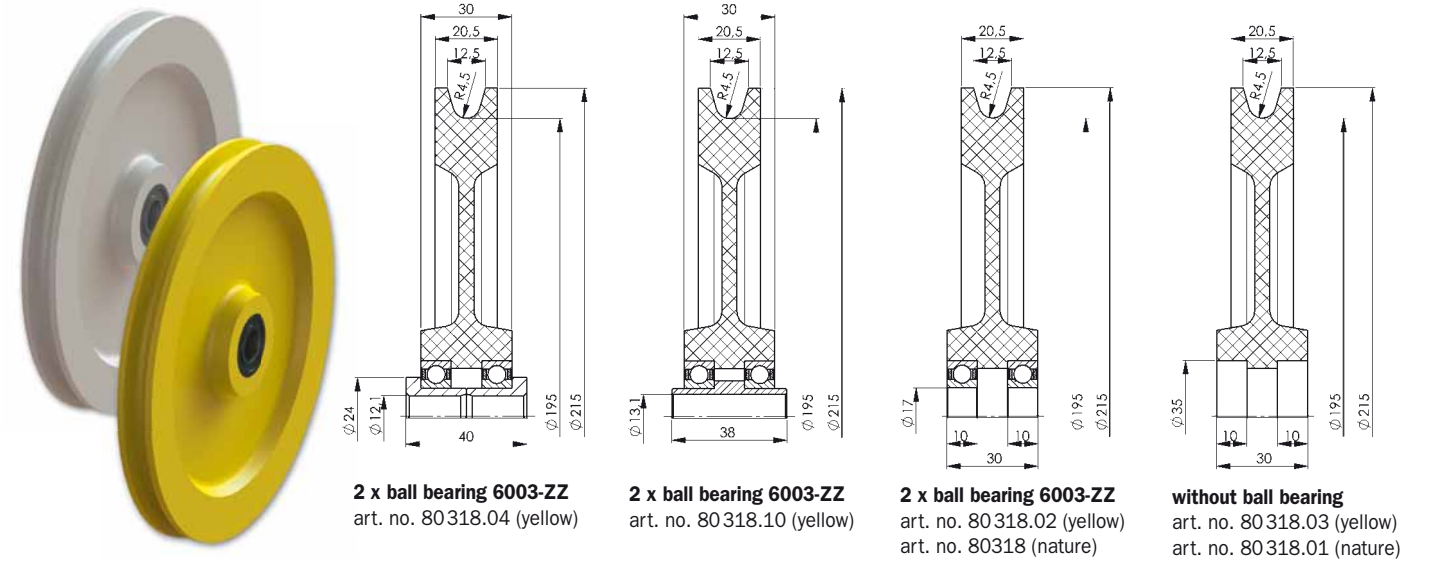
2 x ball bearing 6003-ZZ  
art. no. 80318.12 (yellow)

2 x ball bearing 6003-ZZ  
art. no. 80318.07 (yellow)

2 x ball bearing 6003-ZZ  
art. no. 80318.06 (yellow)

without ball bearing  
art. no. 80318.05 (yellow)

### Rope pulley Ø 215 mm with R4,5 (type PA LL)



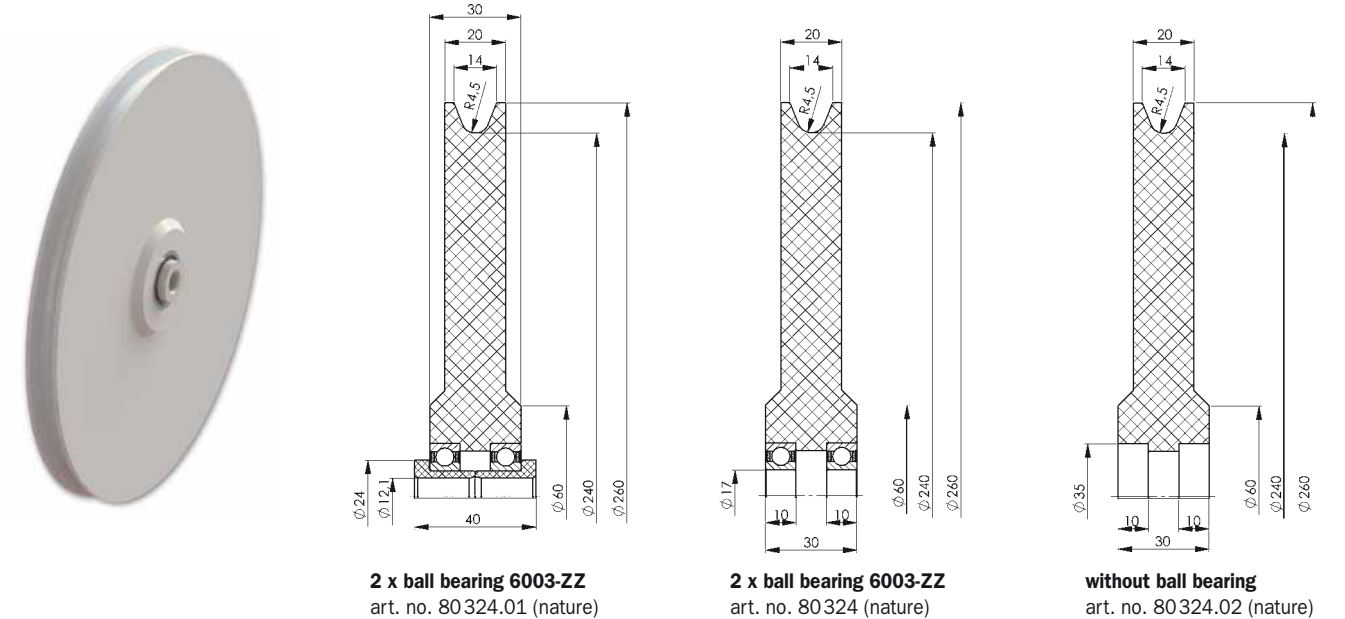
2 x ball bearing 6003-ZZ  
art. no. 80318.04 (yellow)

2 x ball bearing 6003-ZZ  
art. no. 80318.10 (yellow)

2 x ball bearing 6003-ZZ  
art. no. 80318.02 (yellow)  
art. no. 80318 (nature)

without ball bearing  
art. no. 80318.03 (yellow)  
art. no. 80318.01 (nature)

### Rope pulley Ø 260 mm with R4,5 (type PA LL)

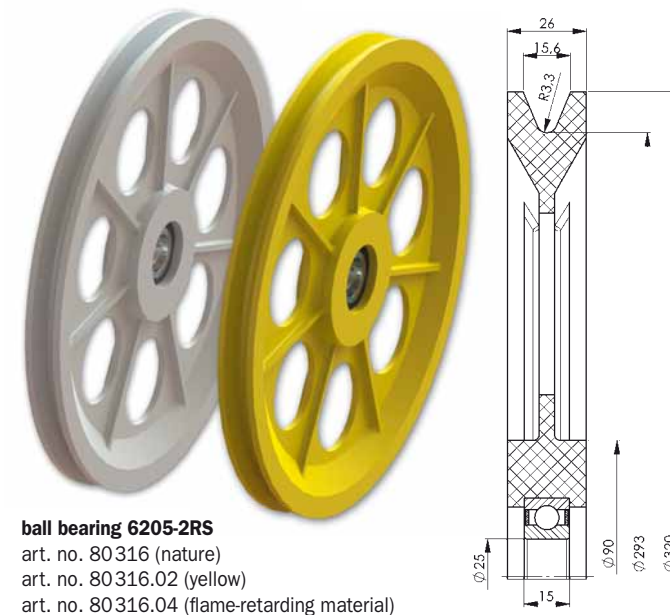


2 x ball bearing 6003-ZZ  
art. no. 80324.01 (nature)

2 x ball bearing 6003-ZZ  
art. no. 80324 (nature)

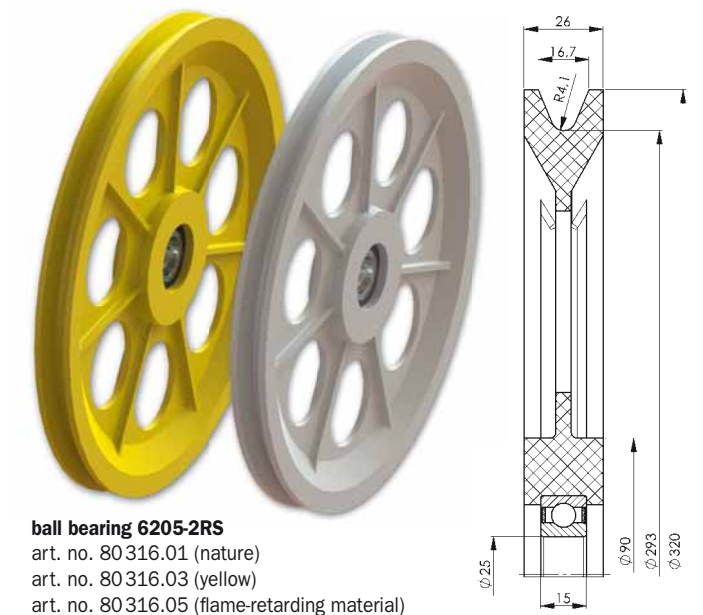
without ball bearing  
art. no. 80324.02 (nature)

### Rope pulley Ø 320 mm with R3,3 (type PA L)



ball bearing 6205-2RS  
art. no. 80316 (nature)  
art. no. 80316.02 (yellow)  
art. no. 80316.04 (flame-retarding material)

### Rope pulley Ø 320 mm with R4,1 (type PA L)



ball bearing 6205-2RS  
art. no. 80316.01 (nature)  
art. no. 80316.03 (yellow)  
art. no. 80316.05 (flame-retarding material)



# Profiled Rollers and Door Guide Rollers of ACLAMID®/Pa NL or ACLATHAN®/Pu NL

### Tyres

**type Pa NL:**  
special polymer  
(i.e. ACLAMID)  
with high Young's modulus

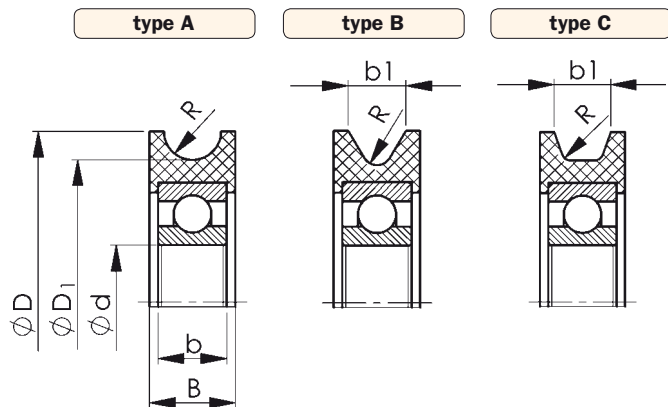
**type Pu NL:**  
polyurethane-elastomers  
in different hardnesses

### Properties

- low rolling resistance
- small deformation
- high surface pressure
- silent running compared with steel rollers

### Nominal article sizes/executions

executions without axle (diagrammatic sketches)



### Legend

- <sup>1)</sup>  $\varnothing d$  can be modified by means of bushes
- <sup>2)</sup> roller with 2 grooves

**Remarks:** The contours of the grooves can be adapted by machining as per drawing or sample.

D	D <sub>1</sub>	d <sup>1)</sup>	B	b	b <sub>1</sub>	R	type	designation	bearing	art. no./Pu NL	art. no./Pa NL
44	38	12	16	8		5,15	A	44/38 x 16	6001-ZZ		80 119
50	40	10	13	9		5	A	50/40 x 13	6200-ZZ		80 205
50	40,5	10	13	9		5	A	50/40,5 x 13	6200-ZZ	60 234	
50	40	10	13	9	5	1,5	B	50/40 x 13	6200-ZZ		80 224
51	46	15	18	11		10,5	A	51/46/15 x 18/11	6202-ZZ		80 206.01
53	46,8	10	8/10	8	3,5	1,6	B	53/46,8 x 10/8	6000-ZZ		80 315
55	43	12	20	10	14,5	3	B	55/43 x 20	6201-ZZ		80 109
56	44	8	21	7	17	2	C	56/44 x 21	608-RS	60 028	80 130
60	46	15	24	11		10	A	56/15 x 24	6202-ZZ		80 102
60	54	15	20	11	11	1	C	60/15 x 20	6202-ZZ		80 328
61	53,5	8	10	7	4,7	1,75	B	61/53,5 x 10	608-ZZ		80 321
62	44	8	16	7	7,1		C	62/44 x 16	608-ZZ		80 308
65	55	12	16	10	9,3	4,5	B	65/55 x 16	6201-ZZ	60 309	
65	55	12	21	10	9,9	4,5	A <sup>2)</sup>	65/55 x 21	6201-ZZ	60 310	
					5,1	1,6	A <sup>2)</sup>				
65	56,8	10	8/10	8	3,7	1,6	B	65/57 x 10	6000-ZZ		80 263
65	57	25	12	12	3,6	1,6	B	65/57 x 12	6005-ZZ		80 142
68	50	12	17	10	9,5		C	68/50 x 17	6201-ZZ		80 113
68	60	17	20	14		8	A	68/60 x 20	6303-ZZ		80 126
70	62	17	20	12		12	A	70/62 x 20	6203-ZZ		80 219
70	60	10	26	9	11		C <sup>2)</sup>	70/60/57 x 26	6200-ZZ		80 153
65	57				3,6	1,6	B <sup>2)</sup>				
70	60	10	17	9	12	6	B	70/60 x 17	6200-ZZ	60 312.01	
70	60	10	17	9	11	0,5	C	70/60 x 17	6200-ZZ		80 154
70	60	17	17	12	11	0,5	C	70/60 x 17	6203-ZZ		80 145
70	60	17	17	14		5,5	A	70/16 x 17	6303-ZZ	60 047	
70	63	15	15	11		7	A	70/63 x 15	6202-ZZ		80 310
75	67	17	20	14		6	A	75/67 x 20	6303-ZZ		80 001
78	70	12	12	8	5,5	2	B	78/70 x 12	6001-ZZ		80 101
84	76,8	20	16	12	2x4,5	2x1,7	B <sup>2)</sup>	84/77 x 16	6004-ZZ		80 204
90	76	14	20/26	10		5,5	A	90/76 x 20	6003-ZZ		80 264 (with bushing)
90	76	17	20	10		5,5	A	90/76 x 20	6003-ZZ		80 117
90	76	17	20	10		8	A	90/76 x 20	6003-ZZ		80 117.01
90	80	17	20	14	10		C	90/80 x 20	6303-2RS		80 232
90	80	17	20	14	15		C	90/80 x 20	6303-2RS		80 232.01
95	85	17	20	12		5,5	A	95/85 x 20	6203-ZZ		80 239

Dimensions in mm. Further dimensions, other thermoplastic materials and special executions on request.

# Step and Chain Rollers of ACLATHAN®

### Tyres

**type Pu L:**  
polyurethane elastomer,  
approx. 90 to 95 Shore A

**type Pu St L:**  
polyurethane elastomer,  
approx. 94 Shore A

**type Pu Pa L:**  
polyurethane elastomer,  
approx. 90 to 95 Shore A

**type Pu Al L (1) and Pu Al L (2):**  
polyurethane elastomer,  
approx. 94 Shore A

### Properties

- extremely abrasion resistant
- resilient
- silent running
- no chalking
- temperature range  
-30° C to +80° C  
(-72° F to +176° F)

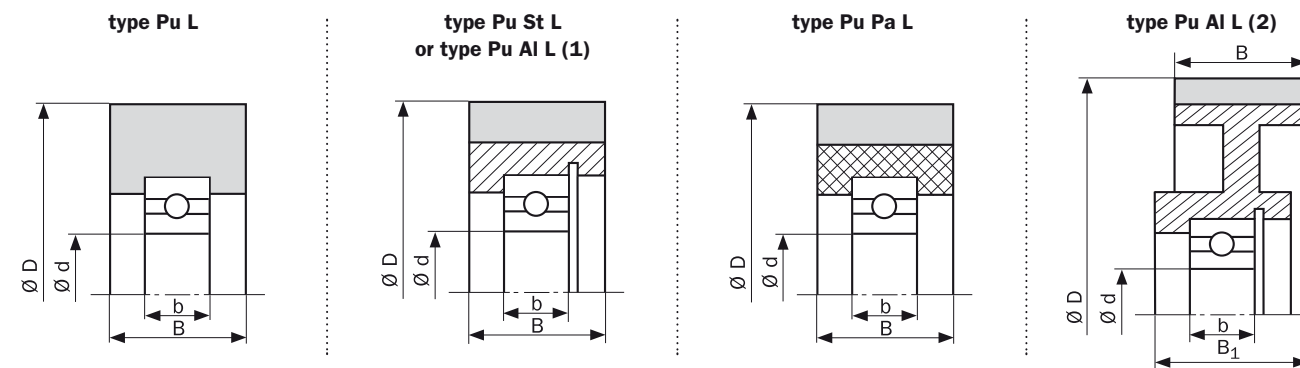
### Legend

- Pu = polyurethane
- Pa = polymer (i.e. ACLAMID)
- St = steel
- Al = aluminium
- L = bearing

### Executions



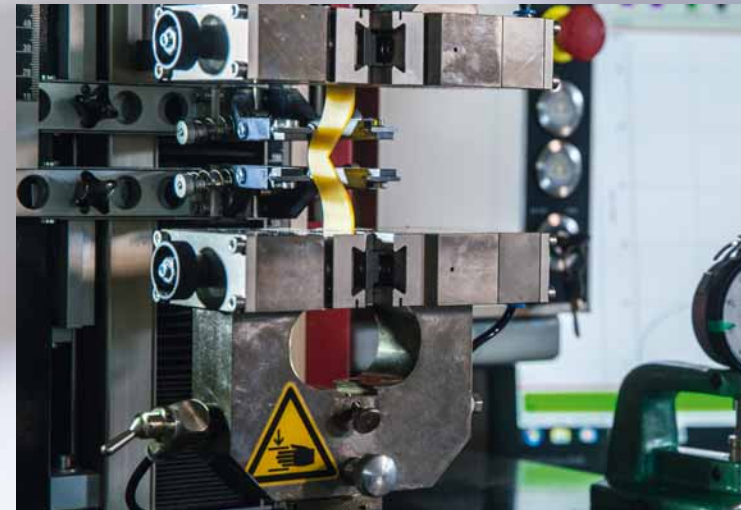
### Nominal article sizes/executions (diagrammatic sketches)

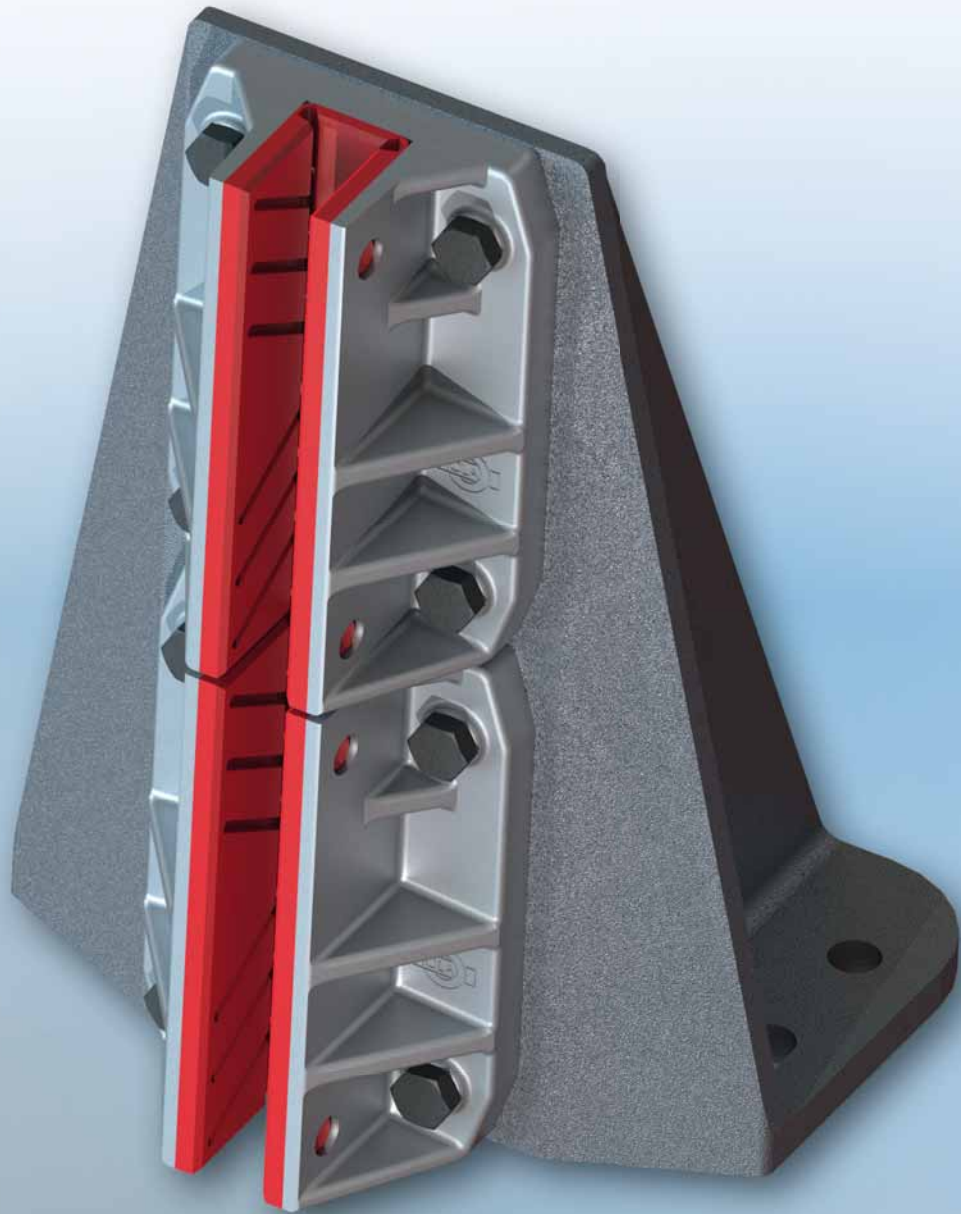
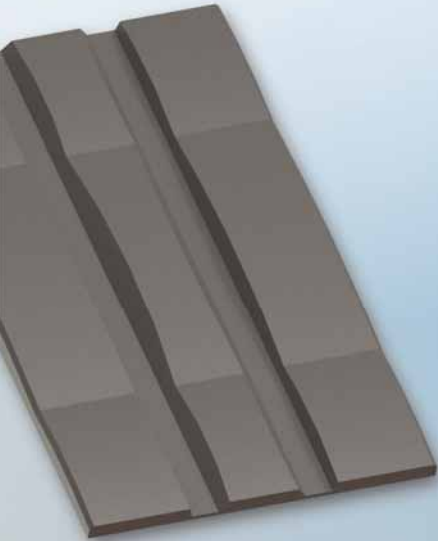


D	d	B	B <sub>1</sub>	b	designation	execution	tyre	bearing	type	art. no.
70	20	25		14	70/20 x 25	cylindrical	ACLATHAN-KH-92	6204-2RS	Pu L	60 304
70	20	25		14	70/20 x 25	cylindrical	ACLATHAN-KH-87	6204-2RS	Pu L	60 303
75	20	24		14	75/20 x 24	cylindrical	ACLATHAN	6204-2RS	Pu St L	141 715
75	20	24		14	75/20 x 24	cylindrical	ACLATHAN	6204-ZZ	Pu Al L (1)	142 984
75	20	28		14	75/20 x 28	cylindrical	ACLATHAN	6204-ZZ	Pu Al L (1)	142 985
76	20	25		14	76/20 x 25	cylindrical	ACLATHAN-KH	6204-ZZ	Pu Pa L	60 217
76	20	25		14	76/20 x 25	cylindrical	ACLATHAN-KH	6204-ZZ	Pu Pa L	60 043
76,2	17	21,5		12	76,2/17 x 21,5	cylindrical	ACLATHAN-KH	6203-2RS	Pu L	60 308
76,2	25	25		15	76,2/25 x 25	cylindrical	ACLATHAN	6205-2RS	Pu St L	141 005
76,2	25	30		15	76,2/25 x 30	cylindrical	ACLATHAN	6205-ZZ	Pu St L	141 068
80	17	25		10	80/17 x 25	cylindrical	ACLATHAN	6003-ZZ	Pu St L	140 647
80	20	25		12	80/20 x 25	cylindrical	ACLATHAN-KH	6004-ZZ	Pu Pa L	60 009
80	20	25		12	80/20 x 25	cylindrical	ACLATHAN-KH	6004-2RS	Pu Pa L	60 183
80	25	25		15	80/25 x 25	cylindrical	ACLATHAN-KH	6205-2RS	Pu Pa L	60 184
80	25	25		15	80/25 x 25	cylindrical	ACLATHAN	6205-ZZ	Pu St L	140 420
100	20	25		14	100/20 x 25	cylindrical	ACLATHAN	6204-2RS	Pu Pa L	141 436
100	20	25		14	100/20 x 25	cylindrical	ACLATHAN-N	6204-2RS	Pu Pa L	142 440.N
100	20	25		15	100/20 x 25	convex R50	ACLATHAN	6304-2RS	Pu St L	141 546
100	20	30		14	100/20 x 30	cylindrical	ACLATHAN	6204-ZZ	Pu Al L (1)	142 983
100	25	20		15	100/25 x 20	cylindrical	ACLATHAN	6205-ZZ	Pu St L	140 423
120	25	30		15	120/25 x 30	convex R200	ACLATHAN	6205-2RS	Pu St L	140 773.06
120	25	35		15	120/25 x 35	cylindrical	ACLATHAN-KH	6205-2RS	Pu Pa L	60 181
130	17	20		12	130/17 x 20	cylindrical	ACLATHAN	6203-ZZ	Pu Pa L	60 019
140	20	28	30	15	140/20 x 30	cylindrical	ACLATHAN	6304-ZZ	Pu Al L (2)	141 216

Dimensions in mm. Further dimensions, other thermoplastic materials and special executions on request.

# An ACLA brand means processing know-how





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Dimensions in mm. We reserve the right to change sizes. Further dimensions and special types on request. Our verbal or written recommendations for any application as well as tests are carried out to the best of our knowledge. They are without engagement also as far as patent rights of third parties are concerned, and do not exempt you from checking the products supplied by us to their suitability for the intended procedure and purpose. Application, use and processing of the products are outside our control, and are exclusively the responsibility of the customer. Moreover our general sales conditions apply.

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