

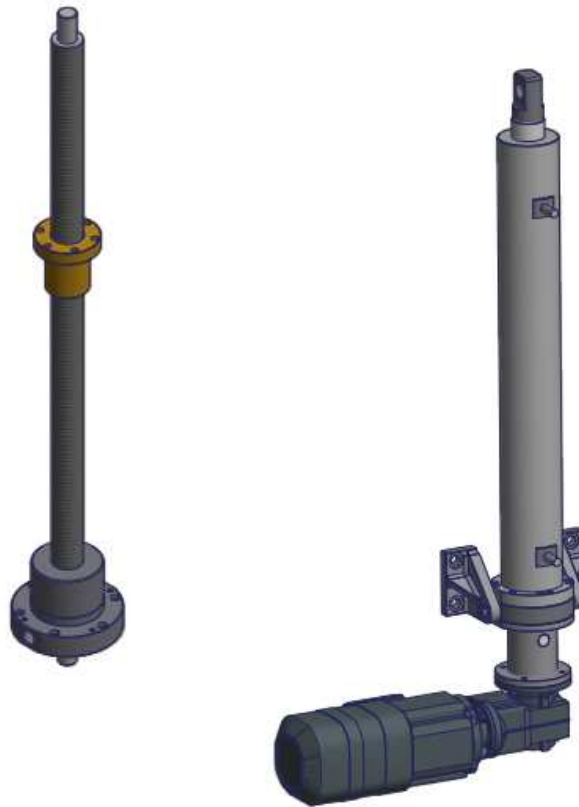
# Operating instruction

# Assembly instruction

## Electromechanical screw ram

### ALS

### ALSR



Type	Drawing No
ALS 10 / ALSR 10	17.3.1
ALS 25 / ALSR 25	17.3.2
ALS 50 / ALSR 50	17.3.3
ALS 100 / ALSR 100	17.3.4

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These operating instructions describe the Pfaff-silberblau Electromechanical screw ram ALS and ALSR series. Please refer to our order confirmation or worm gear screw jack compendium for details on the layout, design and permissible operating conditions for the drives. Always observe and follow these operating instructions when using the equipment.

Read the operating instructions carefully before commissioning!

Observe the safety instructions!

Store document!

	Practical information
	Warning against a general hazard. Risk of injury due to neglect.
	Warning against electrical voltage. Severe risk of injury due to neglect.
	Information on the safety screw jacks
	Danger of explosion
	Important information for use in spaces with explosion hazards
	Important information
	Assembly and setting information
	Disposal

### 1. Intended use

Mechanical screw ram ALS and ALSR are incomplete machines and are intended for installation in complete machines or for assembly with several machines into a system.

They are drive elements that are employed for converting rotational movement into longitudinal movement and for reducing speed or converting torque.

The drive systems may only be used for the designated purpose.

They may be used only under the application conditions specified in the operating instructions, in the technical documentation or in the order confirmation.



Operation outside the respective performance limitations / ambient conditions is not permitted.

Not suitable for use in explosive-atmosphere zones.

Not suitable for use in aggressive environments, if not constructed especially for these applications.

Modifications to the screw jacks as well as the attachment of additional devices are only permitted with our express and written authorisation.

Pay attention to the technical data and functional description!

### 1.1 ALS; ALSR with safety devices for lifting platforms

in accordance with DIN EN 1570-1:2015-01; DIN EN 280:2014-02, DIN EN 1756, DIN EN 1493:2011-02  
Screw jacks with safety devices such as limited pitch angle – safety nut, speed monitoring and/or wear monitoring are designed or constructed according to the requirements of the applicable standard –  
DIN EN 1570-1:2015-01 - Lifting tables  
DIN EN 280:2014-02 - Elevating work platforms  
DIN EN 1493:2011-02 – Vehicle lifts  
DIN 56950-1:2012-05 – Event technology technical installations –  
designed for installation in machines in accordance with the applicable standards.

The manufacturer of the complete system checks that the product in combination with the complete machine is in conformity. The manufacturer of the complete system is responsible for conducting the risk assessment for the complete system. The information in our operating instructions must be integrated in the instructions for the complete machine.  
Required prototype tests (experts' examinations) need to be carried out under the responsibility of the manufacturer of the complete machine.

### 1.2 Technical Data

#### 1.2.1 Trapezoidal-thread spindle


size ALS-ALSR		10	25	50		100	
max tension/ pressure load Fdyn	[kN]	12,5	25	50		100	
Spindle		Tr 24x5	Tr 30 x 6	Tr 40 x 7	Tr 50 x 8	Tr 70 x 12	Tr 80 x14
Lift per full turn of worm	[mm]	5	6	7	8	12	14
Max. input performance at 20% intermittent duty/hour	[kW]	0,75	1,1	1,5	2,2	4,0	5,5
Max. input performance at 10% intermittent duty/hour	[kW]	1,1	1,5	2,0	3,0	5,5	7,5
Total efficiency factor	[%]	34,4	35	32,5	30,5	31,5	32,5
Base weight	[kg]	4,5	10	25		35	
Additional weight per 100 mm ALS	[kg]	0,35	0,5	0,8	1,2	2,5	3
Additional weight per 100 mm ALSR	[kg]	1,3	2,2	4	4,5	9	9,5

## 1.2.2 Ball spindle

Size ALS-ALSR		10	25	50	100
max tension/pressure load Fdyn	[kN]	12,5	25	50	100
Spindle		Ku 25 x 5/10	Ku 32 x 10/20	Ku 40 x 10/20	Ku 63 x 10/20
Static load capacity	[kN]	33,8	99/50	170/85	300/219
Dynamic load capacity	[kN]	16,9	44/22,5	79/48	163/75
Lift per full turn of worm	[mm]	5/10	10/20	10/20	20
Total efficiency factor	[%]	78	75	75	75
Base weight	[kg]	4,5	10	25	35
Additional weight per 100 mm ALS	[kg]	0,4	0,5	1	2,5
Additional weight per 100 mm ALSR	[kg]	1,3	2,2	4,2	9

## 2 Accident prevention guide

Observe the relevant instructions, regulations, and standards in the country of use. In Germany, these are currently:

		Rules and regulations
EC machinery directive		2006/42/EC
Machine safety		DIN EN ISO 12100:2010
Lift devices		DIN EN 1494:2009-05
	Lifting tables	DIN EN 1570-1:2015-01
	Elevating work platforms	DIN EN 280:2014-02
	Loading platforms	DIN EN 1756
	Vehicle lifts	DIN EN 1493:2011-02
	Stages and studios	BGV C1
	Stage mechanics, safety equipment	DIN 56950-1:2012-05

### 3 Safety Instructions

Operation, installation and maintenance may only be carried out by qualified personnel. The responsible operator must be authorised in writing.



It is **forbidden** to transport people or to stay in the danger area of devices not designed for this purpose.

**Exception:** Screw jacks with safety features with corresponding intended use as described in Chapter 0 in the framework of the corresponding product standard.



Not suitable for use in explosive atmospheres!

Never reach into moving parts. Cover them or cut off access to them.

Do not remove or disable the safety devices.

The operational and safety limit switches must ensure that the lifting process is safely stopped at the end positions.

To prevent contact with rotating/moving parts, attach protective covers (such as bellows, shaft caps) or make those areas of the machine inaccessible.



Travelling nut must be fastened on-site or be turn-secured or equipped with the optional torsional lock (max. screw torque according to the technical documents). The construction must be able to bear the screw torque securely.

Ball thread spindles and multi-gear trapezoidal thread spindles are not self-locking. An appropriate brake device needs to be integrated into the system.

In the standard version, the ALS does not have any protection against unintended skimming of the travelling nut driving out the screw. A protection against skimming needs to be realised either on site or by mechanical end stops.

No lateral forces on the screw.

## 4 Receipt of goods, storage, transport

### 4.1 Receipt of goods



Startup with defective screw ram is forbidden.

Immediately check if the contents of delivery correspond with the shipping documents upon receipt. No other warranties can be approved for subsequent defect claims.



Claims on defects and incompleteness are to be made immediately at Pfaff-silberblau.



Claims on perceivable damages due to transport are to be reported to the transport company immediately.



Small parts such as limit switches are usually delivered unattached and packed individually.

### 4.2 Transport



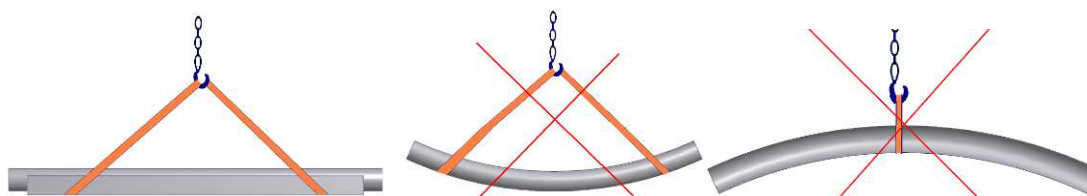
Lift / transport the screw jack by the appropriate hoisting points.

Pay attention to the attachment parts. No person is to stand under suspended loads.

Use hoisting gear in good condition.



Keep long screws from getting warped. Support screw by appropriate means.



### 4.3 Storage

<b>Storage period &lt; 3 years</b>	Check corrosion protection; renew or repair, if necessary. Check lubrication of moveable machinery, relubricate if necessary. Check oil level of gears; refill, if necessary.
<b>Storage period &gt; 3 years</b>	Check corrosion protection; renew or repair, if necessary. Check lubrication of moveable machinery, relubricate if necessary. Clean spindle and grease with fresh lubricant along the whole length. Drain gear oil, and fill gear unit with the prescribed oil quantity and quality. Regrease for grease lubrication.

## 5 Assembly

Inspecting the used screw jacks for compliance with the technical requirements.

**Add-on construction, supporting structure and groundwork is designed for the maximum forces.**

Protect screws from soiling during transport, assembly, construction and storage.

Screws need to be protected during operation against soiling, e.g. by bellows, coils or on-site covers.



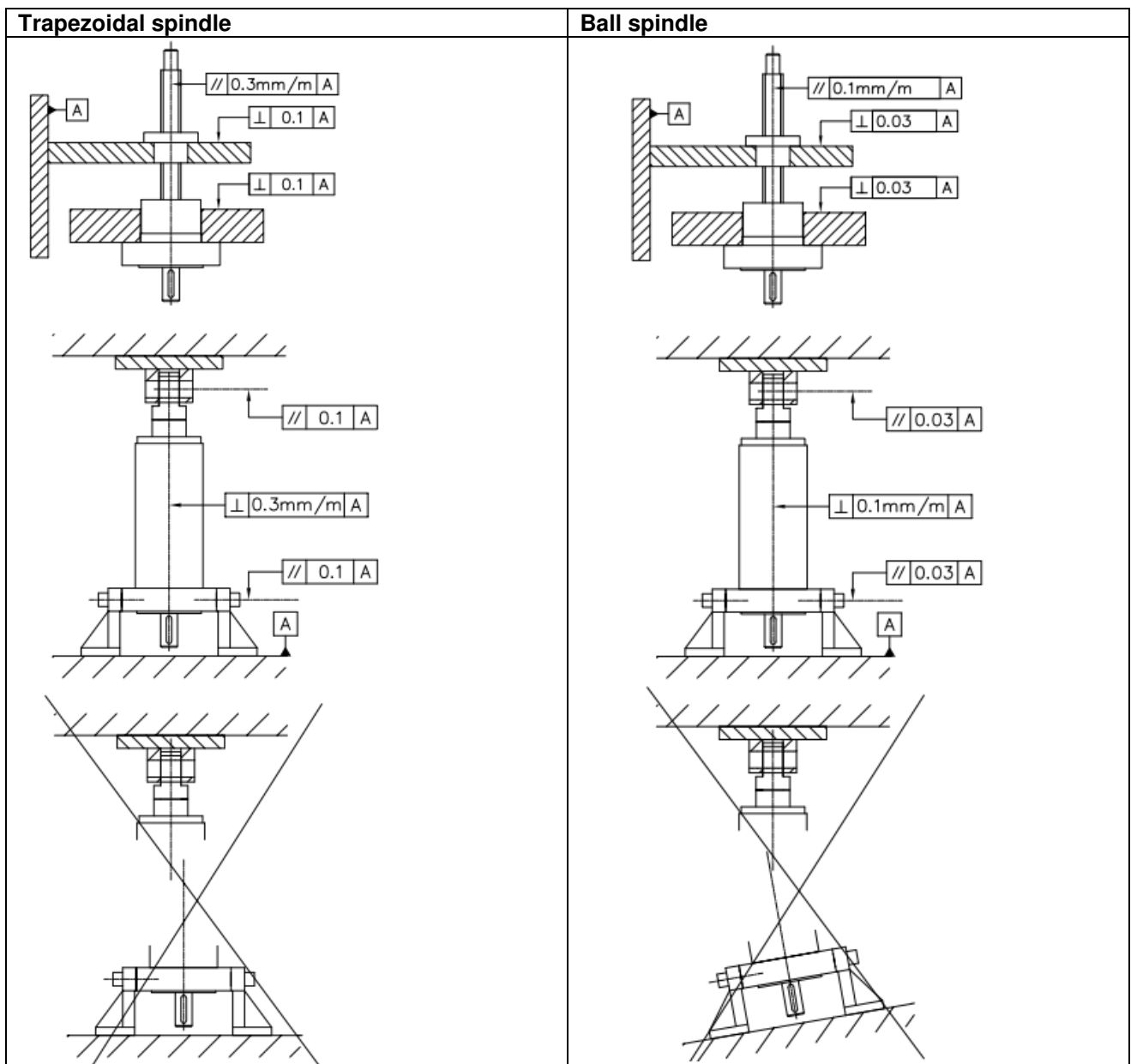
On worm gear screw jacks with oil lubrication, check the oil level, refill if necessary, insert bleed plug, pull pin at bleed plug.

If necessary, mount and set limit switch.

Avoid misalignment and angular offset.

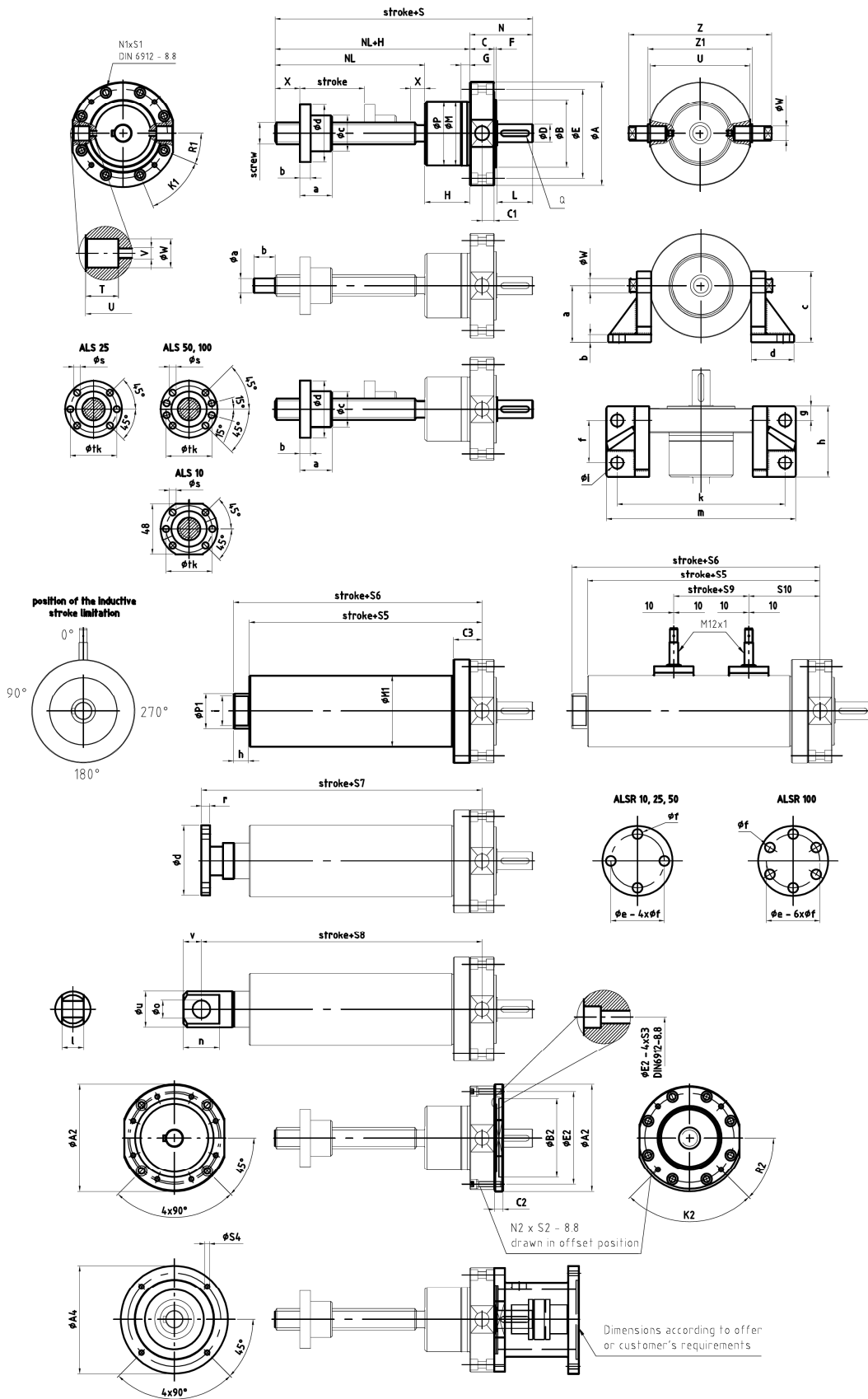
Provide movable load support points if necessary.

Distortions increase power consumption and reduce the service life!





5.1 Mounting Dimensions





Spindle	ALS 10 - ALSR 10			ALS 25 - ALSR 25			ALS 50 - ALSR 50				ALS 100 - ALSR 100			
	Tr	Ku		Tr	Ku		Tr		Ku		Tr	Ku		
	24x5	25x5	25x10	30x6	32x10	32x20	40x7	50x8	40x10	40x20	70x12	80x14	63x10	63x20
Ø A	100			145			175				250			
Ø B j6	60			95			110				180			
C	24			34			38				52			
C 1	12			17			19				26			
C 3	30			40			47				61			
Ø D j6	16			25			30				40			
E ± 0,2	82			125			155				215			
F	2			3			4				5			
G	16			13			15				26			
H	56			63			85				111			
h	20			40			62				54			
i	M 33x2			M 42x2			M 60x2				M 95x3			
K 1	8x45°			8x45°			6x60°				8x45°			
K 2	4x90°			4x90°			6x60°				4x90°			
L	40			50			60				90			
Ø M f7	60			90			115				150			
Ø M 1	70			100			130				170			
N	68			88			106				150			
NL / Stroke	+85	+91	+96	+85	+130	+170	+120	+176	+191		+205	+216	+250	
Ø P	59,5			89,5			114				149			
Ø P 1	40			50			70				110			
Q	5 x 5 x 20			8 x 7 x 40			8 x 7 x 50				12 x 8 x 80			
R 1	22,5°			22,5°			30°				22,5°			
R 2	45°			45°			15°				45°			
s	124			151			191				261			
S 1	M6- DIN 912/8.8			M8			M8				M12			
S 2	M6-DIN 912/8.8			M8			M8				M12			
S 5	225			276			336				486			
S 6	245			298			374				514			
T	10			23			25				42			
U	90			140 -0,3			170 -0,3				240 -0,4			
V	M6			M8			M10				M12x1			
Ø W H7	16			20			25				35			
X	20			20	40	60	30	50	70		40	50	70	
<b>Travelling nut</b>														
a	45	51	56	45	50		60	76	51		125	116	110	
b	10			15	12		18	14			30		20	
Ø c	35 h9	40 g6		50 h9	50 g6		70 h9	63 g6			120 h9		95 g6	
Ø d	50	62		80			87	93			155		135	
q		48												
Ø s	-	6,6		-	9		-	9			-		13,5	
Ø tk	-	51		-	65		-	78			-		115	
<b>Head I</b>														
Ø a	15 j6			20 j6			30 j6				50 k6			
b	24			30			50				60			
<b>Head II</b>														
T														
Ø d	72			98			122				182			
Ø e	50			75			85				135			
Ø f	9			14			17				26			
r	10			12			18				25			
<b>Head IV</b>														
T2														
l -0,2	25			30			40				75			
n	40			50			70				120			
Ø o H7	20			25			35				60			
u	40			50			65				110			
v	20			25			35				60			

## 6 Initial operation

Always observe and follow these operating instructions when using the equipment.

Any use other than the intended use is prohibited.

Commissioning may only be performed by authorised personnel.

Check lubrication level.

Check limit switches.



Pay attention to the proper polarization of the electrical installation the the motor's sense of direction.

Put lift unit into operation without a load. (1x lifting 1x lower)

Operate intermittently, gradually increasing the load.

During initial operation, constantly control the operating temperature, the motor's current consumption.

After 5 hours of operation, check that the screws are tight. Retighten where necessary.

Monitor the lubrication film and the screw temperature during the run-in phase. Rapid lubrication consumption and excessive temperature indicate undue lateral forces even if the power-on time and the maximum power specifications are complied with.

## 7 Options

### 7.1 ALS with safety nut(Option)



The screw ram jacks can be equipped with a long safety nut, and an electric nut breakage monitoring system for lifting tables acc. to EN 1570, lift work platforms acc. to EN 280, car hoists acc. to EN 1493 and stages and studios acc. to BGV C1/DIN56950.



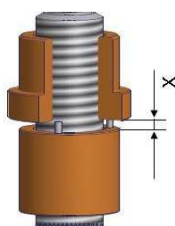
The manufacturer is responsible for the risk assessment of the entire system.

Feature	Description
<b>Safety nut</b>	To protect against falling of the load in case of wear of the carrying nut.
<b>Visual wear indicator</b>	For monitoring the wear of the carrying nut
<b>Electrical nut breakage monitoring</b>	For monitoring the carrying nut for breakage
<b>Self-locking/self-braking spindle option</b>	On lift devices in which secure braking, even when the connection elements fail, are required, screw ram jacks with self-locking or self-braking screws are required.
<b>Load monitor option</b>	Electronic load monitor for performance control of the drives



Self-locking of braking needs to be inspected individually, taking the total system into account. Depending on lift speed and positioning precision, additional brake(s) is/are necessary.

#### 7.1.1 Safety nut (wear indicator)




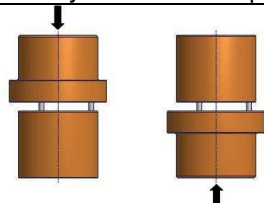
Principle: With increasing wear, the gap X reduces (documentation see 8.1.3)

Once the wear limit has been reached, the safety limit switch is activated. The switch signals need to be processed by the controller according to the requirements of the respective product standards.

**Only possible with trapezoidal thread screws or buttress thread screws.**

### 7.1.2 Assembly of safety nut

 **Pay attention to the installation position and force directions (pull/push)**  
The safety nut has to be placed subsequently in the load direction of the travelling nut.



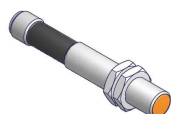
1 Wear indication ring  
➔ = Load direction

### 7.2 Safety-trap nut (optional with Ku screws)



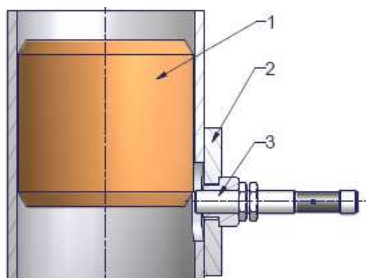
If the Ku nut malfunctions, the Ku screw sets onto the thread of the trap nut. As a result, the power requirement of the drive motors is increased. The unit needs to be switched off by the controller or otherwise by a load monitor.

### 7.3 Induktive lift limitation (Option)



The fixing device of the proximity switch is set to the nominal stroke and has an adjustment of each  $\pm 10$  mm.

IFM 216; Connection thread M12x1.



- 1 Travelling nut
- 2 Fixing plate
- 3 Inductive proximity switch

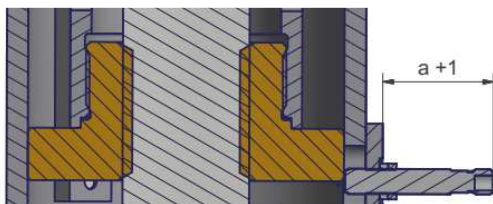
#### 7.3.1 Technical data

Type		IFM 216
Material No		192019981
Output function		NC
Operating tension	[V]	10...60 DC
Current rating	[mA]	200
Voltage drop/max. Load	[V]	<2,5 (100mA)
Leakage current	[mA]	0,5
Housing material		Stainless steel
Environmental temperature	[°C]	-40...85
Protection		IP 67
Sensing range		4 mm flush mountable

### 7.3.2 Cable socket

Type	Form	Connection	MatNo
EVC161	Straight	2 m Cable	40004227
E11509	90° offset	Wireable (4-pole)	40010252

### 7.3.3 Montage Induktive Endschalter



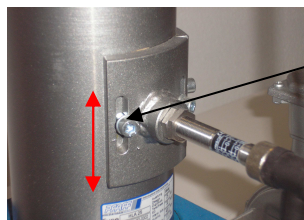
Bring travelling nut in position (retracted lift position)  
screw inductive limit switch in  
dimension to rear edge  $a+1$  mm,  
Secure the pulse generator by tightening the hexagon nut.  
Pay attention that the generator is not distorted!

ALSR	Dimension a [mm]
ALSR 10	53,5
ALSR 25	53,5
ALSR 50	55,8
ALSR 100	52



If the generator projects over the wall thickness, the generator be damaged and sheared-off parts of the generator must be removed from the tube.

**Max. tightening torque is 7Nm!**



4

#### Adjusting the switch point:

Loosen screws (4).

Slide the holding plate up or down

Tighten screws. Observe the tightening torques!

### 7.4 Anti turn device (option)

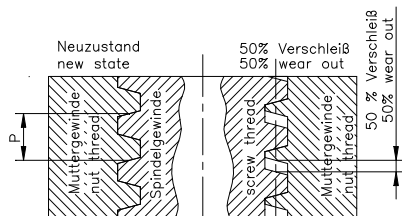
The ALSR is optional deliverable with an anti turn device.

## 8 Maintenance and inspection

	Regular (at least 1x per year) inspection/maintenance must be performed by a qualified person (in acc. with TRBS 1203-1) <sup>5</sup> contracted by the operator. All tests and modifications must be documented (e.g. machine file, inspection log).
	Power must be turned off before maintenance and inspection of the unit.
	Observe to the pertinent safety regulations during maintenance and inspection. Support the load.

### 8.1 ALS with trapezoidal thread

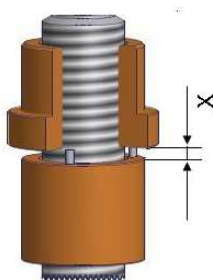
<b>regularly</b>	The bearing housing is completely enclosed and provided with lifetime lubrication. Therefore, they are maintenance-free.
<b>annually</b>	Grease the spindle. The intervals are subject to the prevailing operating conditions and the duty cycles of the screw jack. In case of doubts please arrange greasing cycles together with our engineering department.  Clean the spindle from old grease and re-grease.  To ensure safe operation, the screw jacks are to be examined for wear of the threads in the worm wheel at least once a year. If the wear has reached about 50% (=P/4), the worm wheel has to be replaced immediately.



#### 8.1.1 ALS with safety nut (Option)



For utilisation in systems according to EN 280, EN1570, EN1593; DIN 56950  
In accordance with BetrSichV, lifting equipment must undergo an examination by an authorised person in intervals (at least 1x per year) specified by the owner (TRBS 1203).<sup>6</sup>



#### Safety test:

Check the wear in the screw jacks (dimension x) of the translation thread in the travelling nut. Prompt replacement of the carry nut and safety nuts is required if the wear limit has been reached (dimension X).

Wear limit = X - max. wear

<sup>5</sup> We recommend having this check performed by the service department of CMCO.

<sup>6</sup> We recommend that Columbus McKinnon Engineered Products performs this inspection.

### 8.1.2 Wear limits

<b>Tr screw</b>	14x4	18x4	18x6	20x4	22x5		30x6
<b>Max. wear [mm]</b>	1,0	1,0	1,5	1,0	1,3		1,5

<b>Tr screw</b>	35x8	40x7	40x8	50x9	58x12	60x9	60x12
<b>Max. wear [mm]</b>	2	1,6	2	2,3	3,0	2,3	3,0

<b>Tr screw</b>	65x12	70x12	80x10	70x10	220x28	90x16	100x10
<b>Max. wear [mm]</b>	3,0	3,0	2,5	2,5	7,0	4,0	2,5

<b>Tr screw</b>	100x16	120x14	120x16	140x20	160x20	190x24	
<b>Max. wear [mm]</b>	4,0	3,5	4,0	5,0	5,0	6,0	

Wear limits of special pitches upon request or otherwise in operating instructions specific for the order.

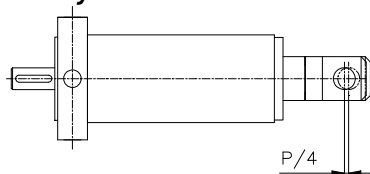
### 8.1.3 Record for measuring the wear

We recommend recording the new condition and the results from measuring the wear (dimension X).

	ALS 1	ALS 2	ALS 3	ALS 4	Signature
New condition Dimension X					
Measuring the wear on _____					
Measuring the wear on _____					
Measuring the wear on _____					

### 8.2 ALSR with trapezoidal thread

**annually**



Check the wear on the nut:

If the axial backlash on the pushing tube in unloaded state is more than  $P/4$  the nut must be replaced

<p><b>every 3 years or after 1000 operating hours</b></p>	<p>1.link head 2.dowel pin 3.pushing tube 4.shaft tube 5.travelling nut 6.spindle 7.bearing housing 8.screws</p>	<ol style="list-style-type: none"> <li>1. Drive ALSR into the extended lift position</li> <li>2. Screw off the head type II or type IV</li> <li>3. Loosen the shaft tube via the screws</li> <li>4. Pull off the shaft tube</li> <li>5. Clean the spindle and lubricate it on its entire length.</li> <li>6. Clean the shaft tube inside and re-grease it.</li> <li>7. Clean the travelling nut at the outer diameter and re-grease it.</li> <li>8. Push the shaft tube over the pushing tube and the travelling nut and tighten the screws</li> <li>9. Mount the head type II or IV again.</li> </ol>
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### 8.3 ALS with ball bearing spindle

<p><b>annually</b></p>	<p>The bearing housing is completely enclosed and provided with lifetime lubrication. Therefore, they are maintenance-free. Clean the spindle from old grease and re-grease via the lubricating hole at the travelling nut.</p>
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### 8.4 ALSR with ball bearing spindle

<p><b>every 3 years</b></p>	<p>The bearing housing is completely enclosed and provided with lifetime lubrication. Therefore, they are maintenance-free. Clean the spindle and the shaft tube from old grease and re-grease. Grease the travelling nut via the lubricating hole. Access to the spindle and the travelling nut see Chapter 8.2</p>
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## 9 Lubricants

Ambient temp	Trapezoidal-thread	Ball thread
-30 bis 0	SKF LGLT 2	ASONIC HQ 72-102
-15 up to +80	Klüberplex GE 11-680	Klüber Stabutherm GH 461
< +80bis max +180	Fuchs Lubritech Urethyn E/M 2	ASONIC HQ 72-102



Waste lubricants must be disposed according to the legal regulations

## 10 Standstill



- Protect all parts of the installation / screw jacks against corrosion before placing out of service.
- Disconnect the power supply from the installation.
- No access to the installation for unauthorised people.

## 11 Re-Operation



- Before re-operation, visually check all parts of the installation.
- Check lubrication status of all parts of the installation.
- A test run must be performed.

## 12 Placing out of Service



When placing out of service the parts of the installation / screw jacks have to be disposed according to the legal regulations respectively recycled!

13 Einbauerklärung / Declaration of incorporation / Déclaration d'incorporation

<b>für unvollständige Maschinen im Sinne der EG-Maschinenrichtlinie 2006/42/EG, Anhang II, Nr. 1B</b>	<b>for incomplete machines according to EC machine directive 2006/42/EC, Annex II, No. 1B</b>	<b>pour machines incomplètes conformément à la directive européenne relative aux machines 2006/42/CE, annexe II, n° 1B</b>
<b>Axiallagersystem ALS; ALS –Ku; ALSR; ALSR-Ku</b>	<b>Electromechanical screw ram ALS; ALS –Ku; ALSR; ALSR-Ku</b>	<b>Vérins linéaires avec butée axiale intégrée ALS; ALS –Ku; ALSR; ALSR-Ku</b>
<b>Antriebselement zum Einbau in eine Maschine</b>	<b>Actuator element for assembly in a machine</b>	<b>Propulsif élément pour assemblée dans une machine</b>
ist eine unvollständige Maschine nach Artikel 2g und ausschließlich zum Einbau in eine Maschine oder zum Zusammenbau mit anderen Maschinen oder Ausrüstung vorgesehen.	is an incomplete machine according to Article 2 g and has been designed exclusively for installation in a machine or for assembly with other machines or equipment.	est une machine incomplète selon l'article 2g et a été conçue uniquement pour être montée dans une machine ou à être assemblée avec d'autres machines ou équipement.
Folgende grundlegenden Sicherheits- und Gesundheitsschutzanforderungen gemäß Anhang I dieser Richtlinie kommen zur Anwendung und wurden eingehalten 1.1.2; 1.1.3; 1.1.5; 1.3.2; 1.3.3; 1.3.4; 1.3.7; 1.3.9; 1.5.2; 1.7.3; 1.7.4; 4.1.2.6	The following basic health and safety requirements in Annex I to this Directive are applicable and have been observed 1.1.2; 1.1.3; 1.1.5; 1.3.2; 1.3.3; 1.3.4; 1.3.7; 1.3.9; 1.5.2; 1.7.3; 1.7.4; 4.1.2.6	Les exigences suivantes de sécurité et relatives à la santé, conformes à l'annexe I de cette directive, ont été appliquées et respectées 1.1.2; 1.1.3; 1.1.5; 1.3.2; 1.3.3; 1.3.4; 1.3.7; 1.3.9; 1.5.2; 1.7.3; 1.7.4; 4.1.2.6
Die speziellen technischen Unterlagen gemäß Anhang VII B wurden erstellt und sie werden der zuständigen nationalen Behörde auf Verlangen in elektronischer Form übermittelt	The special technical documentation referred to in Annex VII B has been prepared and will be forwarded to the competent national authority, upon request in electronic form	La documentation technique spéciale conforme à l'annexe VII B a été préparée et sera transmise aux autorités nationales compétentes, également sous forme électronique, si nécessaire.
Diese unvollständige Maschine ist in Übereinstimmung mit den Bestimmungen der folgenden EG Richtlinien	This incomplete machine is in compliance with the provisions of the following EC directives	Cette machine incomplète est conforme aux dispositions des directives européennes suivantes
Angewendete harmonisierte Normen, insbesondere:	Applied harmonised standards, in particular: <b>EN 1494:2000; EN ISO 12100:2010</b>	Normes harmonisées utilisées, en particulier :
Angewendete nationale Normen und technische Spezifikationen, insbesondere:	Applied national technical standards and specifications, in particular: <b>BGV D8;</b>	Normes et spécifications techniques nationales qui ont été utilisées, notamment
Diese unvollständige Maschine darf erst dann in Betrieb genommen werden, wenn festgestellt wurde, dass die Maschine, in die diese unvollständige Maschine eingebaut werden soll, den Bestimmungen der EG-Maschinenrichtlinie entspricht	This incomplete machine may only be put into operation if it has been determined that the machine into which this incomplete machine will be installed complies with the provisions of the EC machine directive	Cette machine incomplète ne doit être mise en service que lorsqu'il a été déterminé, que la machine dans laquelle cette machine incomplète doit être montée, est conforme aux dispositions de la directive européenne relative aux machines

Ort/Datum Kissing, 01.08.2019

**CUMCO**  
COLUMBUS MCKINNON Engineered Products GmbH  
Am Silberpark 2-8, 86438 Kissing, Germany  
www.pfaffsilberblau.com  
Ulrich Hintermeier  
Director operations

Der Unterzeichnende ist bevollmächtigt die technischen Unterlagen gemäß Anhang VII A zusammenzustellen und der zuständigen Behörde auf Verlangen zu übermitteln.	The undersigned is authorised to prepare the technical documentation referred to in Annex VII A and submit it to the responsible authorities on request.	Le signataire est habilité à réunir la documentation technique spéciale conforme à l'annexe VII A et à la transmettre aux autorités compétentes si nécessaire.
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<b>für unvollständige Maschinen im Sinne der EG-Maschinenrichtlinie 2006/42/EG, Anhang II, Nr. 1B</b>	<b>for incomplete machines according to EC machine directive 2006/42/EC, Annex II, No. 1B</b>	<b>pour machines incomplètes conformément à la directive européenne relative aux machines 2006/42/CE, annexe II, n° 1B</b>
<b>Axiallagersystem ALS; ALS –Ku; ALSR; ALSR-Ku mit Sicherheitseinrichtungen</b>	<b>Electromechanical screw ram ALS; ALS –Ku; ALSR; ALSR-Ku with safety devices</b>	<b>Vérins linéaires avec butée axiale intégrée ALS; ALS –Ku; ALSR; ALSR-Ku avec équipement de sûreté</b>
<b>Antriebselement zum Einbau in Hubtische, Hebebühnen, Hubarbeitsbühnen oder Fahrzeughebebühnen</b>	<b>Actuator element for assembly in lifting tables, lifting platforms, working platforms or vehicle lifting platforms</b>	<b>Propulsif élément pour installation dans table de levage, plateforme élévatrice, plateforme de travail, plateforme de levage pour véhicule</b>
ist eine unvollständige Maschine nach Artikel 2g und ausschließlich zum Einbau in eine Maschine oder zum Zusammenbau mit anderen Maschinen oder Ausrüstung vorgesehen.	is an incomplete machine according to Article 2 g and has been designed exclusively for installation in a machine or for assembly with other machines or equipment.	est une machine incomplète selon l'article 2g et a été conçue uniquement pour être montée dans une machine ou à être assemblée avec d'autres machines ou équipement.
Folgende grundlegenden Sicherheits- und Gesundheitsschutzanforderungen gemäß Anhang I dieser Richtlinie kommen zur Anwendung und wurden eingehalten 1.1.2; 1.1.3; 1.1.5; 1.3.2; 1.3.3; 1.3.4; 1.3.7; 1.3.9; 1.5.2; 1.7.3; 1.7.4; 4.1.2.6	The following basic health and safety requirements in Annex I to this Directive are applicable and have been observed 1.1.2; 1.1.3; 1.1.5; 1.3.2; 1.3.3; 1.3.4; 1.3.7; 1.3.9; 1.5.2; 1.7.3; 1.7.4; 4.1.2.6	Les exigences suivantes de sécurité et relatives à la santé, conformes à l'annexe I de cette directive, ont été appliquées et respectées 1.1.2; 1.1.3; 1.1.5; 1.3.2; 1.3.3; 1.3.4; 1.3.7; 1.3.9; 1.5.2; 1.7.3; 1.7.4; 4.1.2.6
Die speziellen technischen Unterlagen gemäß Anhang VII B wurden erstellt und sie werden der zuständigen nationalen Behörde auf Verlangen in elektronischer Form übermittelt	The special technical documentation referred to in Annex VII B has been prepared and will be forwarded to the competent national authority, upon request in electronic form	La documentation technique spéciale conforme à l'annexe VII B a été préparée et sera transmise aux autorités nationales compétentes, également sous forme électronique, si nécessaire.
Diese unvollständige Maschine ist in Übereinstimmung mit den Bestimmungen der folgenden EG Richtlinien	This incomplete machine is in compliance with the provisions of the following EC directives	Cette machine incomplète est conforme aux dispositions des directives européennes suivantes
Angewendete harmonisierte Normen, insbesondere: <b>DIN EN ISO 12100:2010; DIN EN 1494:2000; EN1570; EN280; EN1756; EN1493</b>	Applied harmonised standards, in particular:	Normes harmonisées utilisées, en particulier :
Angewendete nationale Normen und technische Spezifikationen, insbesondere:	Applied national technical standards and specifications, in particular:	Normes et spécifications techniques nationales qui ont été utilisées, notamment
Diese unvollständige Maschine darf erst dann in Betrieb genommen werden, wenn festgestellt wurde, dass die Maschine, in die diese unvollständige Maschine eingebaut werden soll, den Bestimmungen der EG-Maschinenrichtlinie entspricht	This incomplete machine may only be put into operation if it has been determined that the machine into which this incomplete machine will be installed complies with the provisions of the EC machine directive	Cette machine incomplète ne doit être mise en service que lorsqu'il a été déterminé, que la machine dans laquelle cette machine incomplète doit être montée, est conforme aux dispositions de la directive européenne relative aux machines

Ort/Datum Kissing, 01.08.2019



**CALCO**  
COLUMBUS McKINNON Engineered Products GmbH  
Am Silberpark 2-8, 86438 Kissing, Germany  
www.pfaff-silberblau.com

Ulrich Hintermeier  
Director operations

Der Unterzeichnende ist bevollmächtigt die technischen Unterlagen gemäß Anhang VII A zusammenzustellen und der der zuständigen Behörde auf Verlangen zu übermitteln.	The undersigned is authorised to prepare the technical documentation referred to in Annex VII A and submit it to the responsible authorities on request.	Le signataire est habilité à réunir la documentation technique spéciale conforme à l'annexe VII A et à la transmettre aux autorités compétentes si nécessaire.
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