



Correct relubrication **reduces chain wear** and considerably extends the **service life** of a chain: More than two thirds of all chain failures can be avoided with proper relubrication!

**Economical, clean and highly efficient:** The new iwis CLA minimum quantity lubrication system employs a special applicator to precisely dose small quantities of lubricant onto the chain. The compact pump can be controlled using either a PLC or a manual timer switch, which makes it an ideal candidate for integration into both new and existing systems.

The highly efficient iwis CLA lubrication system is one of the **most sustainable chain lubrication systems** on the market!





## **Chain Lubrication Application (CLA)**

iwis's new, fully automatic CLA lubrication system for chain drives acts as a highly efficient minimum quantity lubrication system. The applicator, which is made from an extremely resistant material, acts as a reservoir via which small quantities of lubricant are continuously delivered to the chain at the precise locations where it is actually needed. This prevents the operating chain from sometimes not being supplied with enough lubricant and also prevents unnecessarily large volumes of oil from being dispensed onto the chain and its environment.

The applicators are available in standard dimensions as well as in custom variants.

## Highlights of the CLA lubrication system

- Clean, precise minimum quantity lubrication
- Resilient, long-life applicators
- Lubricant is dosed to the applicators at regular intervals.
   Here, it is buffered and constantly applied to the chain in small quantities
- Economical dosing saves valuable lubricant and protects the environment
- High-performance lubricants for long-lasting lubrication and low consumption
- Simple to install and take into operation
- Can be retrofitted to existing systems easily

The CLA pumps can be operated using time control (TC version) or can be simply integrated in the machine's PLC (PC version).

The **compact size** simplifies the task of retrofitting the device in existing plant and machinery. Thanks to a pump pressure of **up** to **70 bar**, the distributors are able to supply up to **16 lubrication points** with lubricant. With the aid of the capillary effect, the lubricant is cleany being delivered to the chain.

## Highlights of the CLA compact pump

- Compact and powerful with max. 70 bar pump pressure
- Capacity of 400 ml lubricant oil
- Simple and fast to refill with oil
- Error messages issued when lubrication is interrupted: Filling level empty, hydraulic overload due to blocked hoses etc. and over- or undervoltage in the unit
- Remote status monitoring possible

## Safe operation for people, machines and chains:

- Hoses are not constantly pressurized, so no risk of injury from damaged hoses
- Lubricant empty: Pump reports low oil level
- Overload: Excessive back pressure is detected, for instance if a hose is kinked
- Status messages on operating the pump are displayed directly on the pump (TC version) or reported to the PLC (PC version)

Fill in our CLA project planning form and you will receive a chain relubrication system that is tailored to your application!



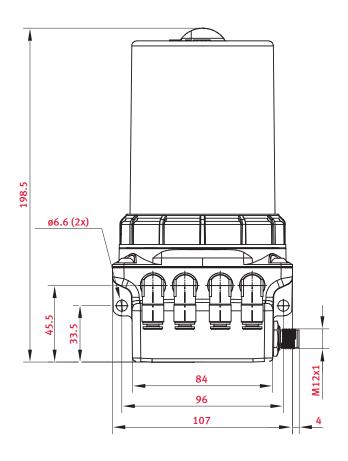
## iwis CLA lubrication pump

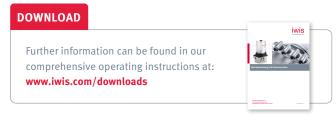
## **Properties:**

## Device:

Dimensions	111 x 198.5 x 108 mm (W x H x D)
Weight (empty)	Approx. 1450 g
Fitting	2x holes for M6 screws
Installation orientation	Vertical
Operating temperature	-15°C to +60°C
Protection class	IP54
Hydraulic elements:	
Lubricant volume	Real: 500 ml, software: 400 ml*
Lubricant	Oil, 68 cSt up to 2500 cSt
Max. delivery pressure	70 bar
Delivery volume	0.15 cm³ per stroke
Electrical elements:	
Operating voltage	24 V
Connector	M12 x 1, 4-pole
Power consumption	At 24 V DC Imax = 350 mA
Filling level monitoring	Integrated, reed switch
Pressure monitoring	Integrated, electronic
Error message	LCD (time-controlled variant only), PLC

<sup>\*</sup> The implemented software uses 400 ml as a basis for calculation as the unit is generally not completely filled. Note: M12x4 cable is not included in the standard scope of delivery





## The following models of the iwis CLA lubrication pumps are available:

	Pulse-controlled via machine's PLC (PC)					
CLA lubrication pump	1A 1PK 400 ml	2A 1PK 400 ml	2A 2PK 400 ml	3A 2PK 400 ml	4A 2PK 400 ml	2A 1PK 400 ml
Pump outlets	1	2	2	3	4	2
Max. lubrication points with splitter	4	8	8	12	16	8
Different lubrication volumes	1	1	2	2	2	1
Item number	40014911	40014912	40014914	40014915	40014916	40014917

Whereas the pulse-controlled variant of the CLA lubrication pump is controlled by different signal lengths from the machine's PLC, the time-controlled variant allows you to set two different modes using a display on the unit itself: -Et- mode defines the emptying time of the 400 ml within the set time period (e.g. 6 months). In this case, the pauses between the pump strokes are calculated automatically and distributed evenly over the time period. Alternatively, -h mode- can be used to set how often the pump is to deliver lubricant within a given period. For instance, three pump strokes every two hours. One pump stroke always corresponds to 0.15 cm³ of lubricant, allowing dosing to be tailored to the current application. For further details, refer to the CLA Operating Instructions.



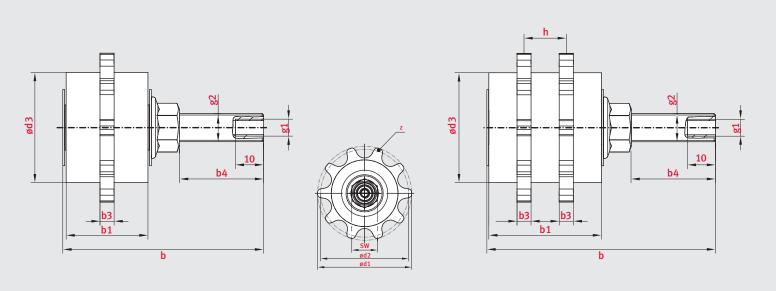
## Simplex CLA applicator with straight axis

## Dimensions

Designation	<b>b1</b> mm	<b>d1</b> mm	<b>d2</b> mm	<b>d3</b> mm	<b>b</b> mm	<b>b3</b> mm	<b>b4</b> mm	g1	g2	<b>SW</b> mm	Z
CLA applicator 08A/B-1 pinion M10 z12	29	53	49.1	39	71.2	5	30.0	M6	M10	15	12
CLA applicator 10A/B-1 pinion M10 z10	29	55	51.4	39	71.2	5	30.0	M6	M10	15	10
CLA applicator 12A/B-1 pinion M10 z8	29	55	49.8	36	71.2	5	30.0	M6	M10	15	8
CLA applicator 16A/B-1 pinion M10 z8	40	75	66.4	48	81.2	10	30.0	M6	M10	15	8
CLA applicator 20A/B-1 pinion M16 z8	50	90	83.0	59	116.4	10	49.1	M10x1	M16	24	8
CLA applicator 24A/B-1 pinion M16 z10	60	138	123.3	93	126.4	20	49.1	M10x1	M16	24	10
CLA applicator 28A/B-1 pinion M16 z8	80	140	116.2	81	146.4	20	49.1	M10x1	M16	24	8
CLA applicator 32A/B-1 pinion M16 z8	80	150	132.8	93	146.4	20	49.1	M10x1	M16	24	8

# **Duplex CLA applicator with straight axis Dimensions**

Designation	<b>b1</b> mm	<b>d1</b> mm	<b>d2</b> mm	<b>d3</b> mm	<b>b</b> mm	<b>b3</b> mm	<b>b4</b> mm	g1	g2	<b>h</b> mm	<b>SW</b> mm	Z
CLA applicator 08A/B-2 pinion M10 z12	40	53	49.1	39	81.2	5	30.0	M6	M10	15	15	12
CLA applicator 10A/B-2 pinion M10 z10	40	55	51.4	39	81.2	5	30.0	M6	M10	15	15	10
CLA applicator 12A/B-2 pinion M10 z8	44	55	49.8	36	86.2	5	30.0	M6	M10	15	15	8
CLA applicator 16A/B-2 pinion M16 z8	80	75	66.4	48	146.4	10	49.1	M10x1	M16	30	24	8
CLA applicator 20A/B-2 pinion M16 z8	80	90	83.0	59	146.4	10	49.1	M10x1	M16	30	24	8
CLA applicator 24A/B-2 pinion M16 z10	100	138	123.3	93	166.4	10	49.1	M10x1	M16	50	24	10
CLA applicator 28A/B-2 pinion M16 z8	130	140	116.2	81	196.4	10	49.1	M10x1	M16	70	24	8
CLA applicator 32A/B-2 pinion M16 z8	130	150	132.8	93	196.4	10	49.1	M10x1	M16	70	24	8



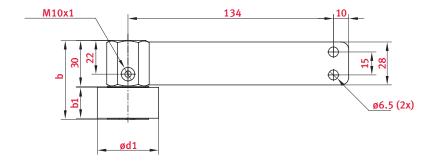
Applicators for triplex chains and a wide range of special designs for special chains available on request. To connect the applicator, you will need a hose connector (thread size g1).

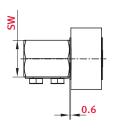


CLA applicator roller on steel spring sheet For special size chains or for slow to medium speeds.

Designation	<b>b</b> mm	<b>b1</b> mm	<b>d1</b> mm	<b>t*</b> mm	Hose connector
CLA applicator roller D40 B20 steel spring sheet	51.4	20	40	0.8	M10x1
CLA applicator roller D40 B24 steel spring sheet	55.4	24	40	0.8	M10x1
CLA applicator roller D40 B30 steel spring sheet	61.4	30	40	0.8	M10x1
CLA applicator roller D40 B40 steel spring sheet	71.4	40	40	0.8	M10x1
CLA applicator roller D40 B45 steel spring sheet	76.4	45	40	0.8	M10x1
CLA applicator roller D65 B50 steel spring sheet	81.4	50	65	0.8	M10x1

<sup>\*</sup> steel spring sheet thickness





# Matching hose connector M6 (for straight axis only, thread size g1)

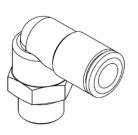
Designation	Item number
CLA tube connector, straight M6	40012136
CLA tube connector, 90° M6	40012139

## Matching hose connectors M10x1

Designation	Item number
CLA tube connector, straight M10x1	40012138
CLA tube connector, 90° M10x1	40012141



CLA hose connector, straight



CLA hose connector, 90°









# CLA accessories – the right lubrication system matched to your individual needs

In addition to the CLA pump, iwis also supplies the corresponding **connecting elements** and **hoses** to form a set that is perfectly matched to the application in question. A number of suitable **splitters** and **progressive distributors** of different designs are available to allow lubrication of multiple locations. Contact us to support you in designing and dimensioning your ideal system.

# **CLA** high-performance lubricants

Two lubricants – ideal for use with the iwis CLA lubrication system and perfectly suited for the relubrication of chains. Optimum penetration behaviour and effective protection against wear for a long service life of the chains.

## iwis CLA Oil HP

- High-performance oil with PTFE for outstanding wear and corrosion protection properties
- Highly effective additives for outstanding flow properties combined with high adhesion due to its high viscosity
- Ideally suited even for fast-running chain drives

## iwis CLA Oil Food

- Low-viscosity, high-performance lubricant offering outstanding wear protection with NSF-H1 food grade approval
- Carefully selected additives allow the lubricant to penetrate perfectly into the chain joints
- The extremely resistant, high-adhesion lubricant also has excellent noise-reducing properties

Colour	White
Viscosity at 40 °C	2,500 mm <sup>2</sup> /s
Density at +15 °C	0.92 g/cm <sup>3</sup>
Temperature range	-10 °C to +80 °C
Container	5-litre cannister

Colour	Yellowish, clear
Viscosity at 40 °C	141 mm²/s
Density at +15 °C	0.867 g/cm <sup>3</sup>
Temperature range	15 °C to + 120 °C
Container	5-litre cannister





# Project planning form for the CLA lubrication system

We would be happy to help you choose the right pump and accessories for your application:

What application and sector is the lubrication system to be used in?
What are the ambient conditions? (temperature, contact with external agents, outdoor)
Details about the chain
Type, pitch, strands and width (e.g. roller chain 16B-2 w=68 mm, accumulating chain M127 SFS w=11 mm)
Does the chain have attachments? Yes No
Details about the chain drive Chain speeds (m/s):
Special considerations (axis alignment, cyclical or reversible operation, prolonged idle times)
Construction of the chain drive (axis offsets, deflections). Diagrams/drawings
Number of chains and (total) length of each
Number and positions of current lubrication points (if known)
Lengths of the lines from the pump to each lubrication position (please consult us in the case of lengths >25 m per line)
Lengths of the lines from the pump to each tubheation position (prease consult as in the case of lengths 22) in per line)
Details about the iwis CLA lubrication pump and the lubricant
Is a specific lubricant to be used? If so, which one?
(Warning! Checking for compatibility may take some time)
Pump control? Time-controlled or Pulse-controlled (PLC integration)



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