



HEAVY INDUSTRY
**OUR LUBRICATION SOLUTIONS
TAILORED TO YOUR NEEDS**
benefits of automatic lubrication



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With You

1

REVIEW OF APPLICATION/EQUIPMENT TYPE

4 MAIN APPLICATIONS TO FOCUS ON:

Electric motor lubrication

Points to check:

- Motor manufacturer's recommendations
- Motor speed
- Grease trap / escape port design, access and condition
- Bearing types
- Historical lubrication practices
- Requirements for safe access
- Desired service schedule
- Location of lubrication points on bearing housings



Industry: **mining**

Application: **electric motor bearings**

Lubrication system: **NTN-SNR DRIVE BOOSTER**

Installation solution: **remote beam clamp mount**

Fan bearing and seal lubrication

Points to check:

- Bearing types & speeds
- Seal types
- Characteristics of recommended lubricant
- Operating conditions
- Historical lubrication practices
- Requirements for safe access
- Desired service schedule
- Location of grease entry points on bearing housings



Industry: **power plant**

Application: **fan / blower bearings**

Lubrication system: **NTN-SNR DRIVE BOOSTER**

Installation solution: **remote beam clamp mount**

Slurry pump lubrication

Points to check:

- Pump manufacturer's recommendations
- Seal types
- Characteristics of recommended lubricant
- Typical bearing operating temperatures
- Operating conditions
- Bearing types, lubrication points and grease migration directions
- Historical lubrication practices
- Desired service schedule
- Wash down procedures
- Requirements for safe access



Industry: **quarry**

Application: **slurry pump**

Lubrication system: **NTN-SNR DRIVE BOOSTER**

Installation solution: **remote beam clamp mount**

Conveyor pulley bearing lubrication

Points to check:

- Bearing types & speeds
- Seal types
- Characteristics of recommended lubricant
- Operating conditions
- Historical lubrication practices
- Requirements for safe access
- Desired service schedule
- Location of lubrication points on bearing housings



Industry: **quarry**

Application: **conveyor bearing / seal (hybrid solution)**

Lubrication system: **NTN-SNR DRIVE BOOSTER**

Installation solution: **remote beam clamp mount**

2

CHOICE OF INSTALLATION METHOD

REMOTE INSTALLATION DECISION MAKING

In many cases, it is safer to install remote mount lubrication systems as access can't be free from hazards while machinery is operating.

A “**YES**” to any of the questions indicates that remote mounting is likely to be required.

1. Is it necessary to remove protective guards or safety cages to access the lubrication point?
2. Is it difficult or unsafe-to-access the lubrication point while equipment is running?
3. Is the lubrication point subject to severe vibration or high temperatures which may damage the lubrication system?
4. Is it necessary to get permits to access lubrication points such as those in confined spaces or located at heights?
5. Is the lubrication point exposed to excessive amounts of water, process materials or impact from solid material?

NO > Direct mounting		YES > Remote mounting	
			
			
<p>Common mounting - DRIVE BOOSTER ACCESSORIES</p> <p>A 1 x Reducer G1/8 male x G1/4 female 1 x Reducer M6 male x G1/4 female 1 x Reducer M8x1 male x G1/4 female 1 x Reducer M10x1 male x G1/4 female</p> <p>B 1 x Extension 45 mm G1/4 male x G1/4 female</p> <p>C 1 x Angle 45° or 90° G1/4 male x G1/4 female</p> <p>D 1 x Support flange LUBER PROTECTION BASE G1/4 male x G1/4 female</p>	<p>Common mounting - READY BOOSTER ACCESSORIES</p> <p>A 1 x Reducer G1/8 male x G1/4 female 1 x Reducer M6 male x G1/4 female 1 x Reducer M8x1 male x G1/4 female 1 x Reducer M10x1 male x G1/4 female</p> <p>B 1 x Extension 45 mm G1/4 male x G1/4 female</p> <p>C 1 x Angle 45° or 90° G1/4 male x G1/4 female</p> <p>D 1 x Support flange LUBER READY PROTECTION BASE G1/4 male x G1/4 female</p>	<p>Standard duty INSTALLATION KITS</p> <p>They are highly versatile and can be adapted for attachment to beam sections or square mesh safety cages.</p>	<p>Heavy duty INSTALLATION KITS</p> <p>They have been specifically designed for use in operational areas which are subject to regular wash down and water impact, such as the conditions found in coal handling preparation plants.</p>

3

CHOICE OF LUBRICATION SOLUTION AND LUBRICANT POINT

CHOICE OF SINGLE-POINT LUBRICATION SYSTEM			
	READY 	SMART 	DRIVE 
			
	-20° to 60°C	-20° to 60°C	-10° to 60°C
	Max 5 Bar	Max 6 Bar	6 Bar
	60 / 125 cm ³	125 cm ³	120 / 250 cm ³
	1, 2, 3... 12 months at +20 °C / UNIVERSAL+ without counter pressure	1, 2, 3... 12 months independent of operating temperature	1, 2, 3... 12 months independent of operating temperature and counter pressure
	< 2 meter hose extension at +20 °C with lubricant UNIVERSAL+, hose iØ 9.5 mm		< 5 meter hose extension at +20 °C with lubricant UNIVERSAL+, hose iØ 9.5 mm
	IP 68	IP 65	IP 65
	CE Ex	CE Ex	CE

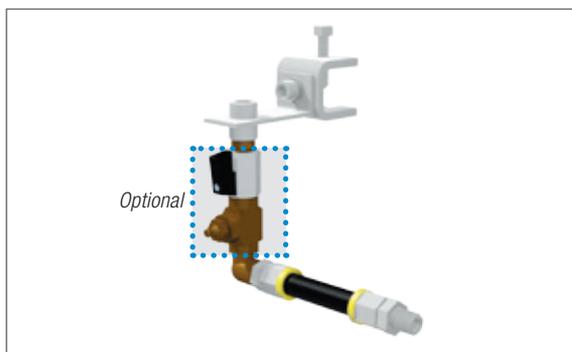
FOR YOUR APPLICATION				
0 limited suitability + suitable ++ very suitable	 conveyors	 electric motors	 pumps	 blowers / fans
READY 	+	+	+	+
SMART 	0	+	0	+
DRIVE 	++	++	++	++
Regular load GREASES (high speed greases)				
Shell Gadus S2 V100 2 (Alvania RL 2) *		•		•
Shell Gadus S5 T100 2 (Stamina RLS 2) *		•		•
ExxonMobil MOBIL POLYREX EM*		•		•
Castrol Spheerol AP 2*		•		•
NTN SNR LUB UNIVERSAL+		•		•
Multipurpose GREASES (extreme pressure greases)				
NTN SNR LUB HEAVY DUTY+	•		•	
Shell Gadus S3 V220C 2 (Albida EP 2) *	•		•	

* Grease available on demand only. MOQ will apply



4 SELECTION OF THE INSTALLATION KIT

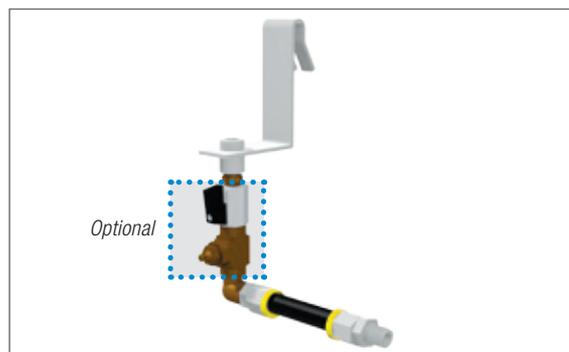
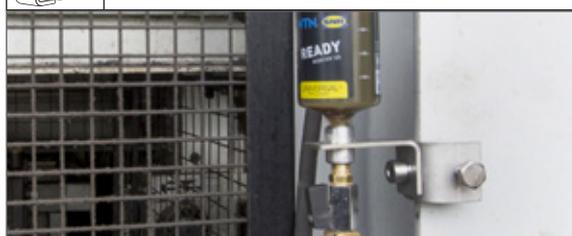
STANDARD DUTY KITS



Installation kit standard duty beam clamp mount

READY / SMART BOOSTER
1-point beam clamp mount incl. 1 m hose

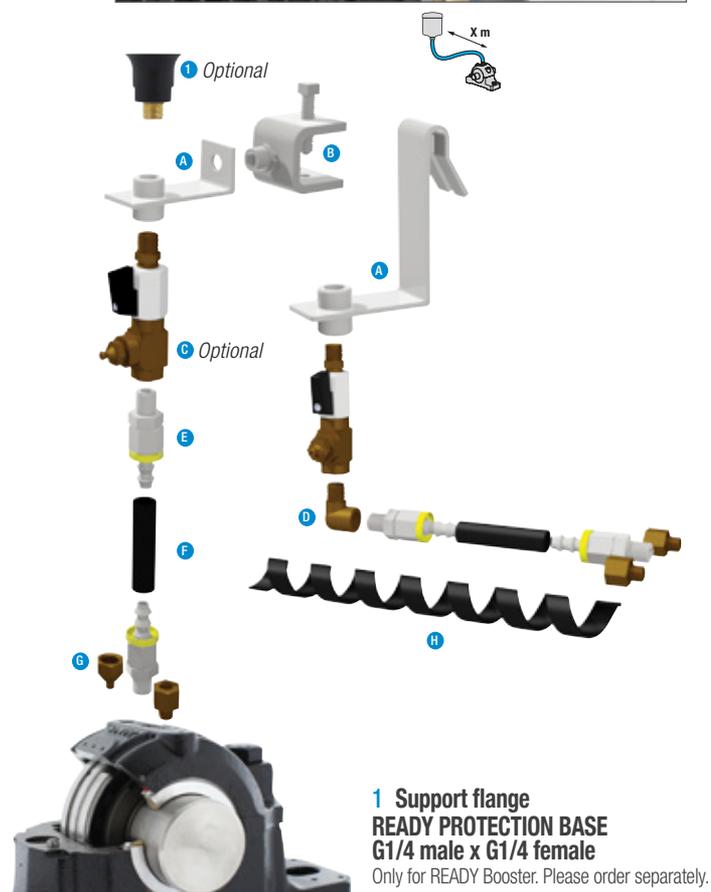
 30 mm	LUBER SDKIT 1P 30 mm BEAM CLAMP
 65 mm	LUBER SDKIT 1P 65 mm BEAM CLAMP



Installation kit standard duty cage hanger mount

READY / SMART BOOSTER
1-point cage hanger mount incl. 1 m hose

LUBER SDKIT 1P CAGE HANGER	
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1 Support flange
READY PROTECTION BASE
G1/4 male x G1/4 female
Only for READY Booster. Please order separately.

A Brackets

Compact stainless steel brackets. Can be easily attached to square cage mesh using a hook attachment design or to beam sections using beam clamps.

B Beam clamp

Easy-to-use beam clamps, supplied with case hardened cup head set screws and stainless steel assembly screws. **30 or 65 mm available.**

C Purge connection with manual valve G1/4 (optional)

Used for convenient additions of supplementary grease, line purging and grease blockage cleaning.
LUBER PURGE w MANUAL VALVE

D Angle 90° R1/4 male x G1/4 female

E Hose connector G1/4 male

For hose iØ 9.5 mm. Two included per lubrication point.

F Heavy Duty hose

Supplied with iØ 9.5 mm : 1 m per lubrication point is included.

G Reducing adapter

Three reducers R1/8, R1/4 and M10x1 included for each lubrication point.

H Hose spiral guard

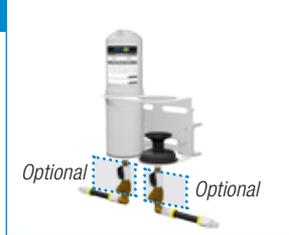
4'

SELECTION OF THE INSTALLATION KIT HEAVY DUTY KITS

INSTALLATION KIT HEAVY DUTY BEAM CLAMP MOUNT



1 point beam clamp mount for DRIVE BOOSTER.
incl. 2 m hose

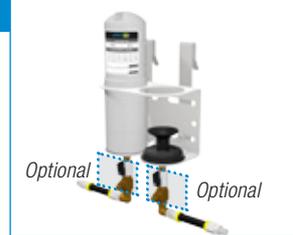


2 points beam clamp mount for DRIVE BOOSTER.
incl. 4 m hose

INSTALLATION KIT HEAVY DUTY CAGE HANGER MOUNT



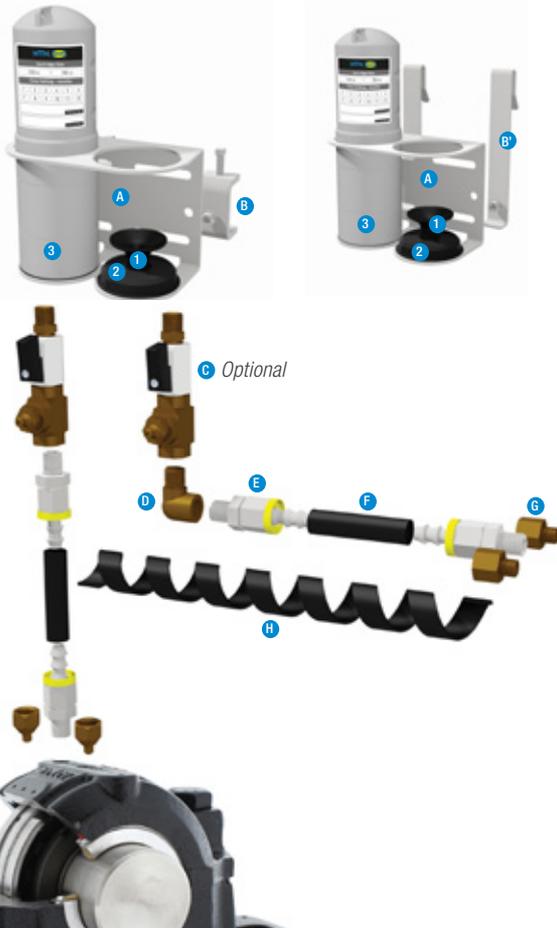
1 point cage hanger mount for DRIVE BOOSTER.
incl. 2 m hose



2 points cage hanger mount for DRIVE BOOSTER.
incl. 4 m hose

LUBER HDKIT 1P 30 mm BEAM CLAMP	 30 mm	LUBER HDKIT 2P 30 mm BEAM CLAMP
LUBER HDKIT 1P 65 mm BEAM CLAMP	 65 mm	LUBER HDKIT 2P 65 mm BEAM CLAMP

LUBER HDKIT 1P CAGE HANGER	LUBER HDKIT 2P CAGE HANGER
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A Brackets incl.

1. Support flange DRIVE
2. Cover clip for protection cap
3. Protection cap DRIVE BOOSTER Heavy Duty 250 (plastic)

Compact stainless steel brackets. Can be easily attached to square cage mesh using a hook attachment design or to beam sections using beam clamps.

B Beam clamp

Easy-to-use beam clamps supplied with case hardened cup head set screws and stainless steel assembly screws. **30 or 65 mm available.**

B' Cage hanger arm (stainless steel)

C Purge connection with manual valve G1/4 (optional)

Used for convenient additions of supplementary grease, line purging and grease blockage cleaning.

LUBER PURGE w MANUAL VALVE

D Angle 90° R1/4 male x G1/4 female

E Hose connector G1/4 male

For hose iØ 9.5 mm . Two included per lubrication point.

F Heavy Duty hose

Supplied with iØ 9.5 mm hose 2 m per point.

G Reducing adapter

Three reducers R1/8, R1/4 and M10x1 included for each lubrication point.

H Hose spiral guard

HEAVY INDUSTRY: OUR LUBRICATION SOLUTIONS TAILORED TO YOUR NEEDS

BENEFITS OF AUTOMATIC LUBRICATION

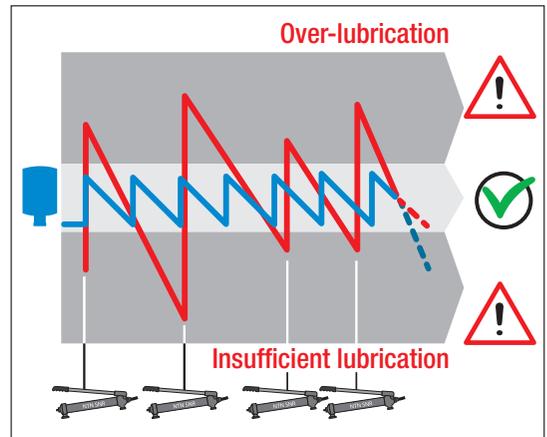
Only appropriate lubrication can guarantee the optimal operation of bearings and the related mechanical assembly.
55% of premature bearing failures are caused by inappropriate lubrication.

Too much grease

- Increase in operating temperature
- Degradation of grease with high speed bearings
- use of fresh grease not optimized
- Possibility to damage contact type seals

Too little grease

- Premature wear
- Under-lubrication leads to accelerated degradation of remaining grease
- Risk of contamination entry due to lack of lubricant purge



The automatic lubricator can be used to ensure the constant and regular lubrication of your bearings. The lubricator is easy to integrate and can be used to optimize lubrication without any need to modify your installations.

WHY AND WHERE DO WE NEED AUTOMATIC LUBRICATORS

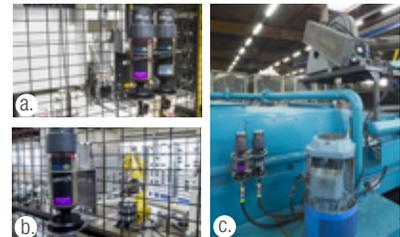
1) Prevention of bearing contamination

- Pump seal purging
- Conveyor pulley bearing re-lubrication & seal purging
- Lubrication of bearing & seal purging at the same time



2) Improvement in safety & efficiency

- Remotely mounted lubrication system used for a conveyor pulley where the bearings are mounted behind a guard thereby avoiding unnecessary access
- Automatically relubricate equipment in confined spaces or at excess height where a permit may be required
- Remotely mounted lubrication systems at ground level for difficult to access equipment such as large electric motors, fans and pumps



Safety gain: Improve safety by avoiding the need to lift, handle cages or guards, to perform work at heights, or within confined spaces by providing safe to access locations for the lubricators.

Efficiency gain: Save time which would otherwise be required during shutdowns for permits, isolations, equipment preparation and other time consuming requirements.

REVIEW & SELECTION PROCEDURE

4 SIMPLE STEPS TO CHOOSE THE RIGHT LUBRICATION SOLUTION

1
Review of the application or equipment type

2
Choice of installation method

3
Choice of lubrication solution and lubricant type

4 **4'**
Selection of the installation kit



HEAVY INDUSTRY OUR LUBRICATION SOLUTIONS

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