

perma STAR - Questions and hands-on exercises



Euerdorf, 2013/03/18

Experts in lubrication solutions

perma

Agenda

- Calculation and setting of discharge time (STAR VARIO, TIME or IMPULSE)
- General questions on perma STAR CONTROL IMPULSE
- What to consider before you install the lubricator

1. A roller bearing needs 4 cc of lubricant per day. We want to use the LC unit M120.

What is the correct setting?

calculation :

120 cc volume / 4 cc = 30 days

➔ setting time 1 month, STAR LC M120



2. A roller bearing needs 1.2 cc of lubricant per week.

Which size of LC unit can be used and what is the correct setting?

calculation:

1,2 cc/week * 52 weeks = 62,4 cc per year

➔ setting time 12 months, STAR LC S60



**3. A roller bearing requires 14cc of lubricant every 500 operating hours.
An external power supply should be used.**

- a) Select the appropriate product.
- b) Select the right setting for a 250cc LC unit.
The machine runs 5 days per week for 8 hours each working day.

STAR CONTROL TIME

= 14 cc / 500 h
= 0.028 cc/h
= 2.8 cc per 100 h

Amount of discharge in cc (1 cc ≈ 0.9 g Lubricant)
per 100 operating hours

Code switch LC unit	Dip switches 3+4 "VOL" of the 4-way code switch			Discharge period
	Vol. S60	Vol. M120	Vol. L250	
	8.33	16.67	34.72	≈ 1 Month at continuous operation
	2.78	5.56	11.57	≈ 3 Months at continuous operation
	1.39	2.78	5.79	≈ 6 Months at continuous operation
	0.69	1.39	2.89	≈ 12 Months at continuous operation





Dip switches 1+2
"TIME" of the
4-way code switch

**3. A roller bearing requires 14cc of lubricant every 500 operating hours.
An external power supply should be used.**

- c) perma STAR CONTROL TIME with LC 250 cc has been in operation for some time.
Change the discharge amount from 14 cc to 28 cc per 500 hours .

= 28 cc / 500 h
= 0.056 cc/h
= 5.6 cc per 100 h

Amount of discharge in cc (1 cc ≈ 0.9 g Lubricant)
per 100 operating hours

Code switch LC unit	Vol. S60	Vol. M120	Vol. L250	Dip switches 3+4 "VOL" of the 4-way code switch Discharge period
 Time	8.33	16.67	34.72	△ 1 Month at continuous operation
 Time	2.78	5.56	11.57	△ 3 Months at continuous operation
 Time	1.39	2.78	5.79	△ 6 Months at continuous operation
 Time	0.69	1.39	2.89	△ 12 Months at continuous operation

Dip switches 1+2
"TIME" of the
4-way code switch

4. A sliding bearing requires a lubrication impulse of 0.5 cc every 8 hours.

a) Which lubrication system should be selected?

perma STAR CONTROL IMPULSE

- immediately supplies the lubrication point with oil or grease
- machine-controlled system
- feedback signal to PLC possible

b) What power supply is necessary and how long must it be interrupted in between discharge impulses?

- As soon as power (15 to 30 V DC) is supplied, perma STAR CONTROL IMPULSE will discharge the set amount once.
Power must be applied at least until this discharge has taken place (about 2 minutes).
- In order to get another discharge cycle, the power must be interrupted for at least 15 seconds and then supplied again.

5. What must be considered before installing a perma STAR to lubricate a bearing with grease?

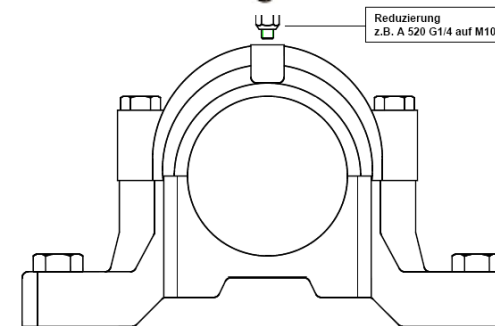
- What is the ambient temperature?
- Was the correct lubricant selected?
- Did you calculate the correct grease amount?
- Are the dip switch settings correct?
- Check the application for vibration. Does it require an additional bracket?

1 2 3 4
 Time Vol.

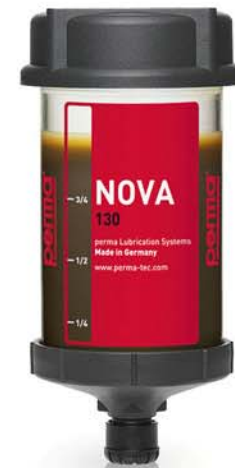
<i>ambient temperature</i> min. -10°C / max. 50°C
<i>bearing temperature</i> max. 130°C ➡ SF01
<i>e.g. 4 g/day ➡</i> <i>1 month with LC 120</i>



- Does the application require a reducer or other accessories?
- Are all accessories pre-lubricated with lubricant?



Thank you for your attention!



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