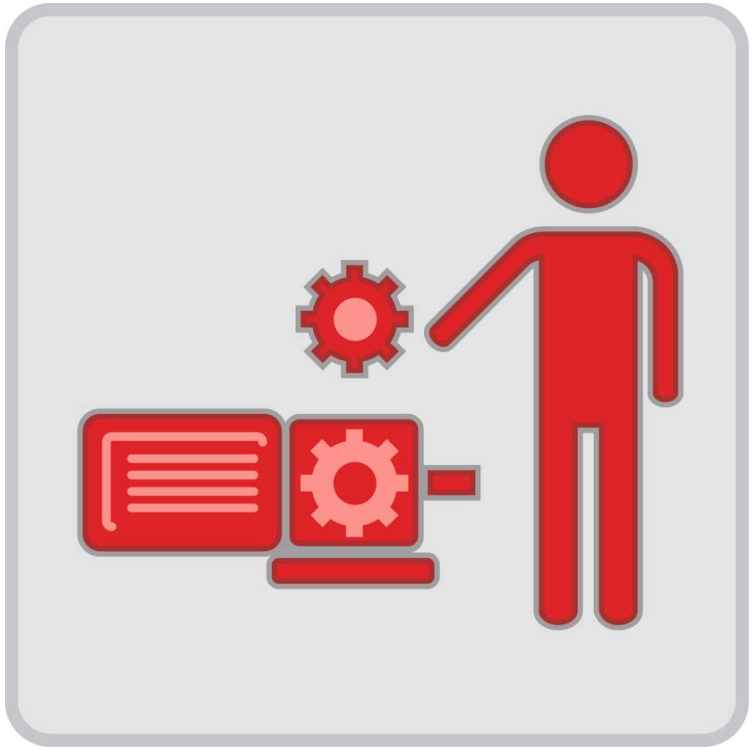
SEW EURODRIVE SERVICE

SEW Gear Reducers

Service and Maintenance



Objectives

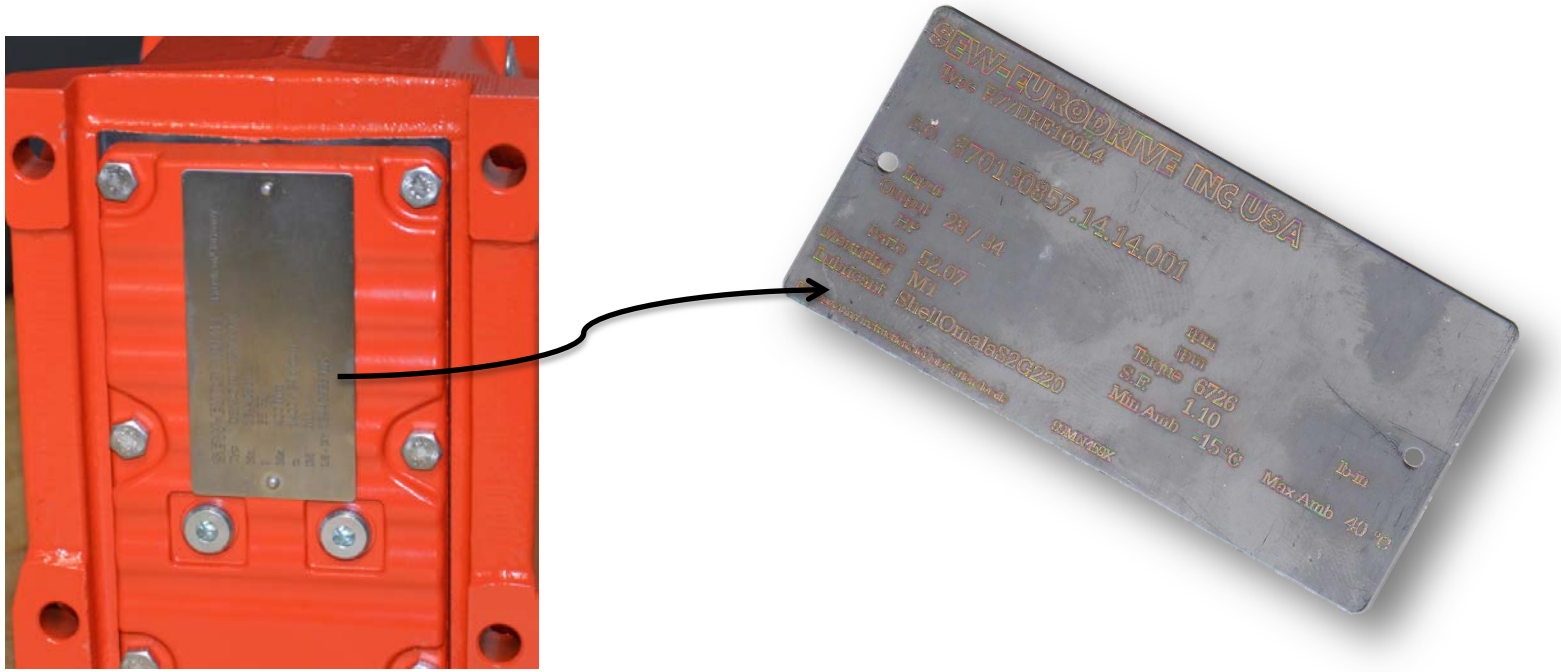
- Upon completion of this presentation, you will be able to accomplish the following –

  - Understand reducer nameplate information
  - Comprehend reducer mounting positions
  - Basic Service and Maintenance Principles

Nameplate Information

SEW Nameplates –

- Reducer nameplate contains Reducer Data
- Typically mounted on the reducer inspection cover



Nameplate Information

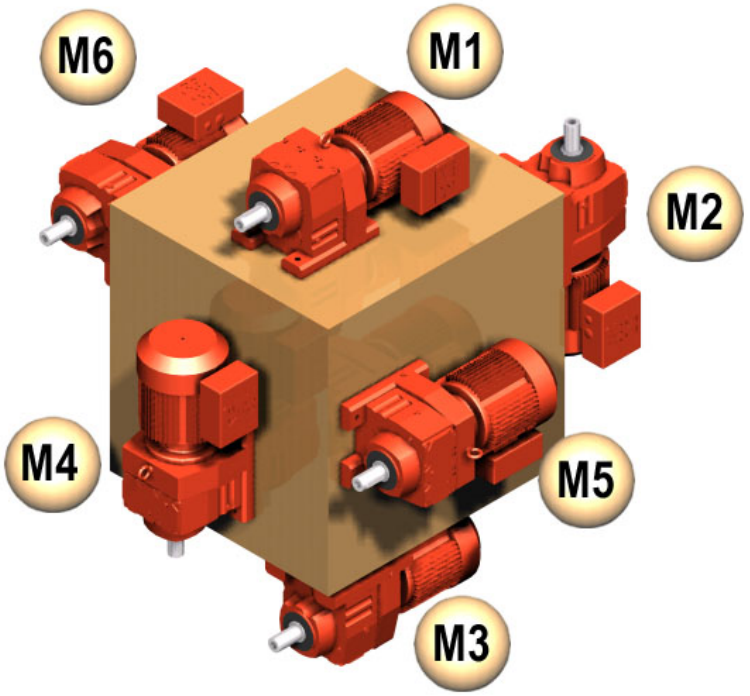
Motor Nameplates

- Type
- SO Number
- Mounting Position
- Lubrication

Mounting Positions

There are six standard mounting positions for gear reducers –

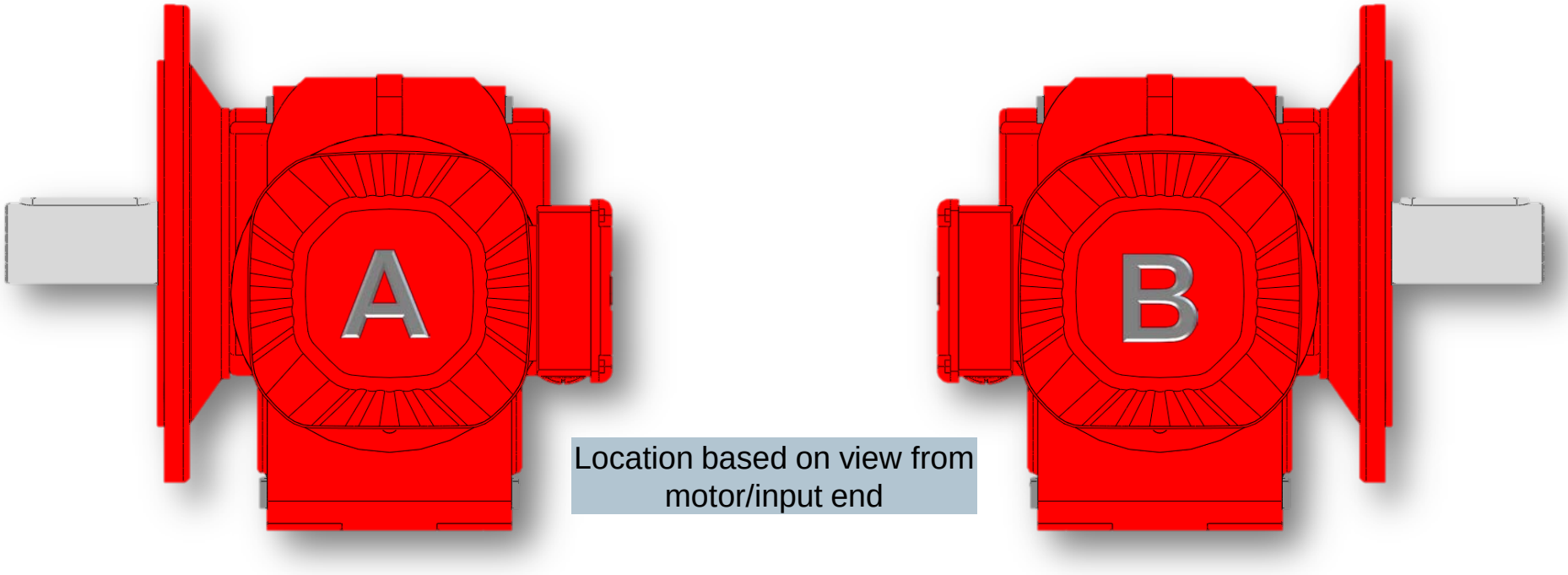
- M1
- M2
- M3
- M4
- M5
- M6



M1 is the default mounting position

Mounting Positions – Shafts/Flanges

There are two locations for gear reducer shafts and flanges –

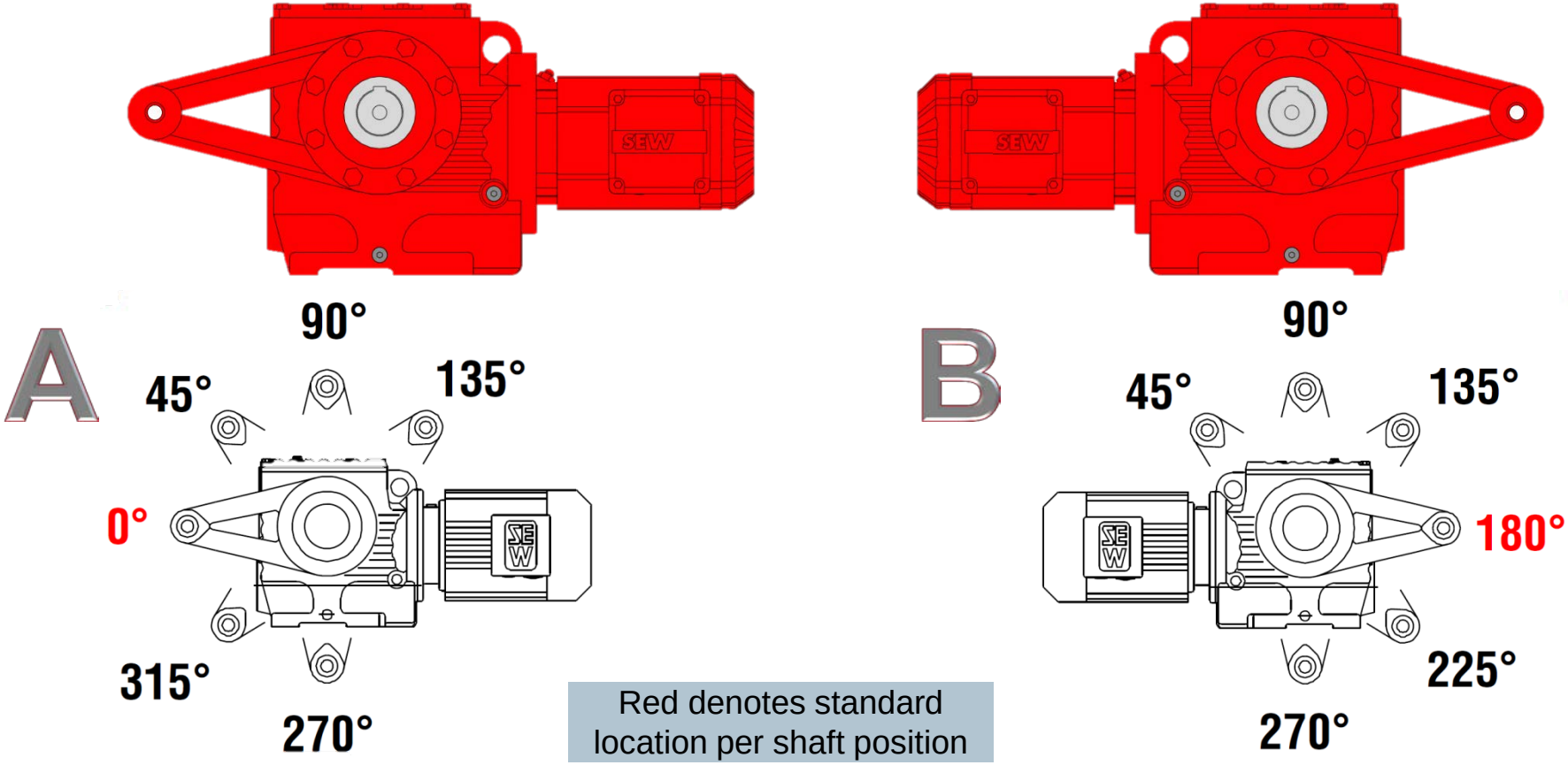


Location based on view from motor/input end

A is the default mounting position

Mounting Positions – Torque Arms

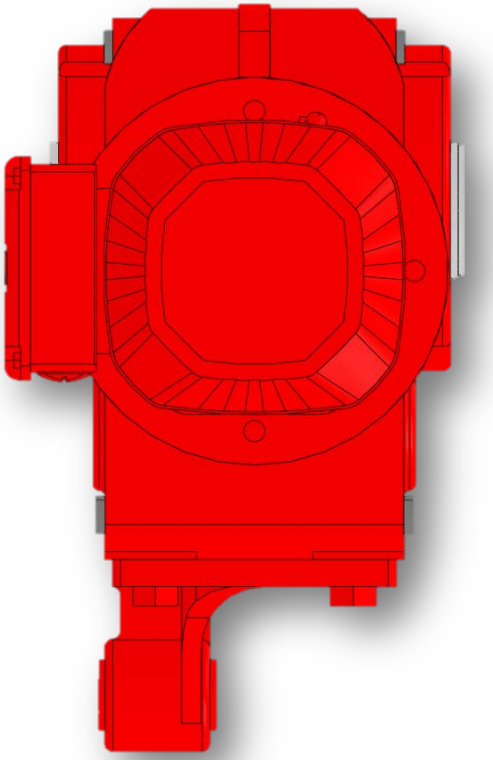
S – series Worm Bevel



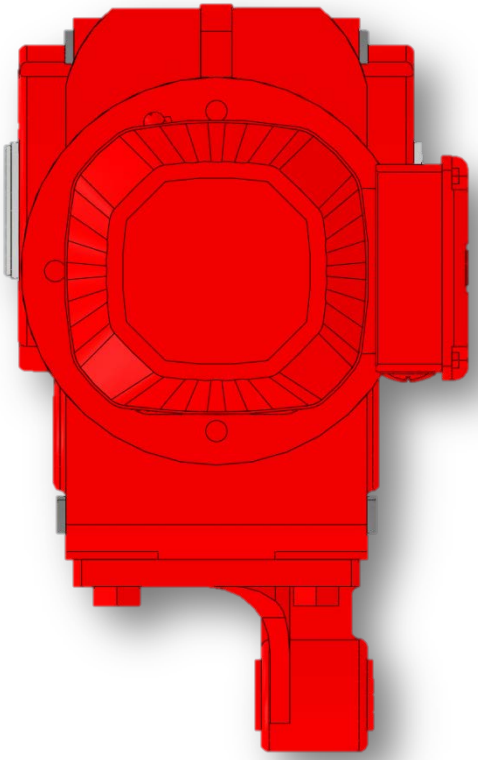
Mounting Positions – Torque Arms

K – 7 series Helical Bevel

A

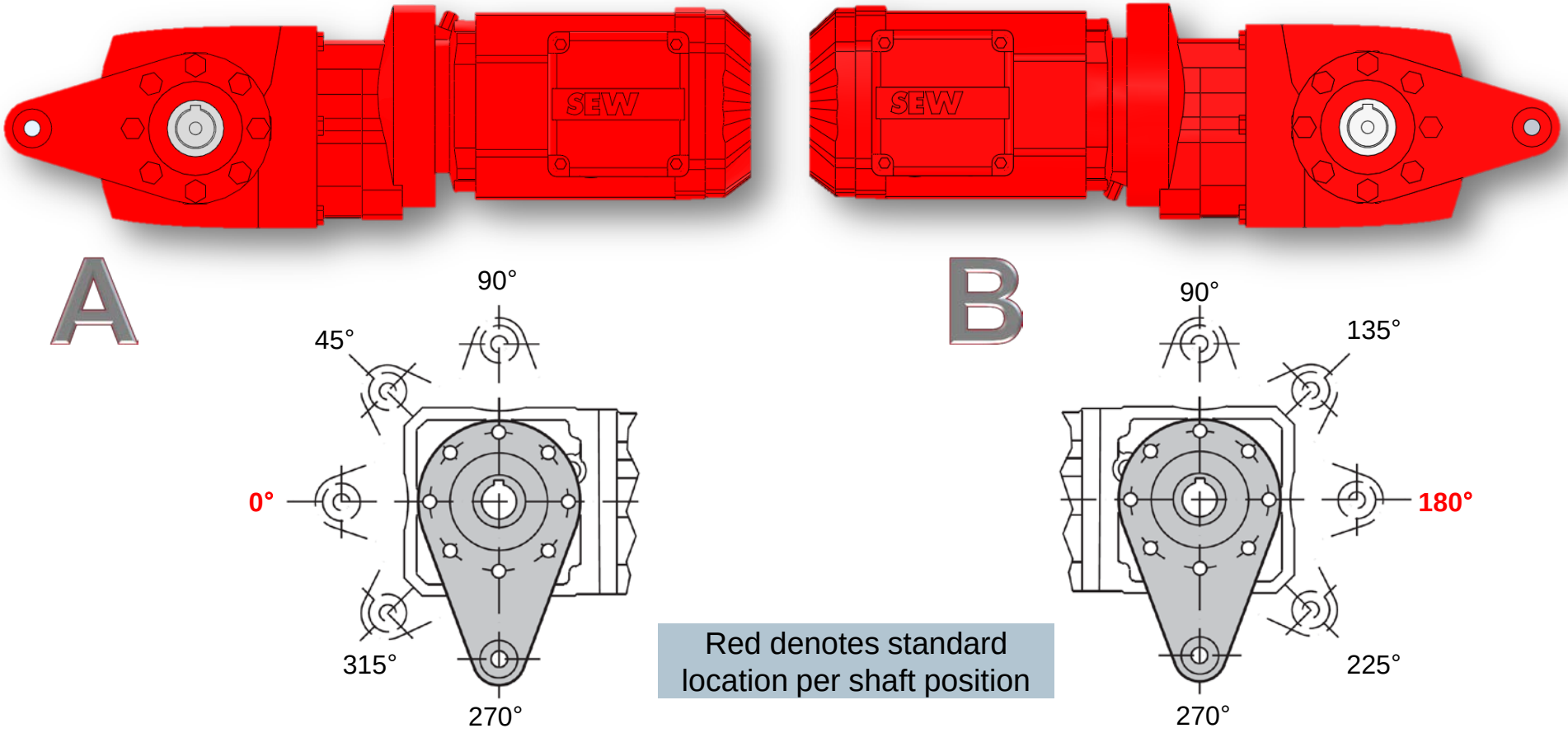


B



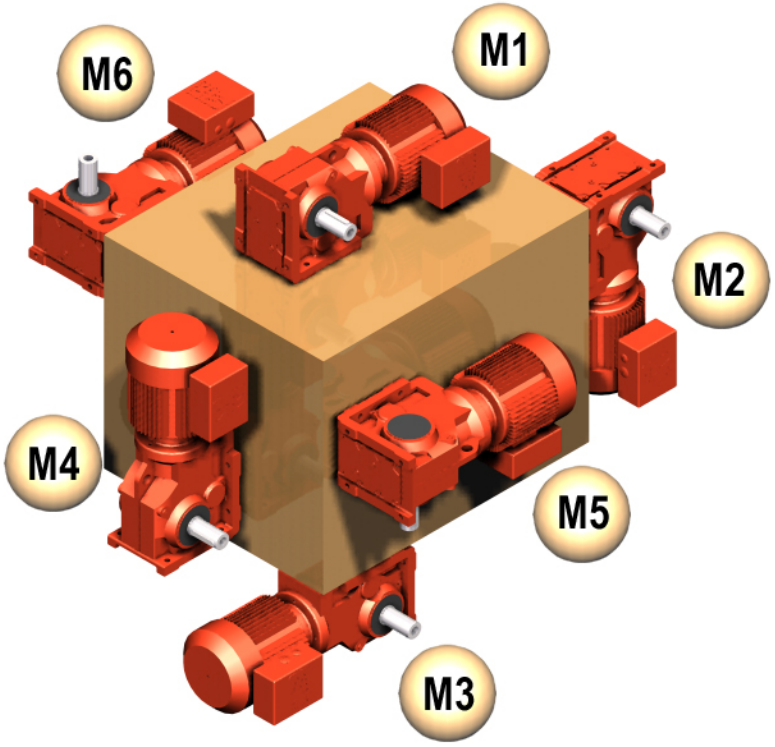
Mounting Positions – Torque Arms

K – 9 series Helical Bevel and Spiroplan® W gear units



Mounting Positions

- Mounting positions effect the following –
  - Oil quantity
  - Bearing lubrication
  - Breather location
  - Drain location
  - Oil level location

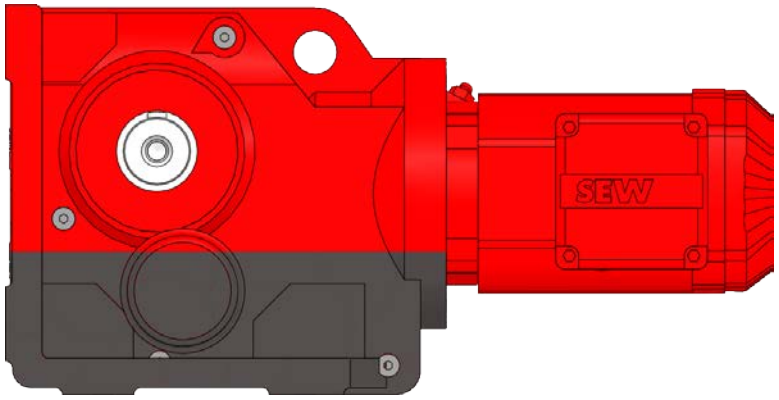


Mounting Positions – Oil Quantity

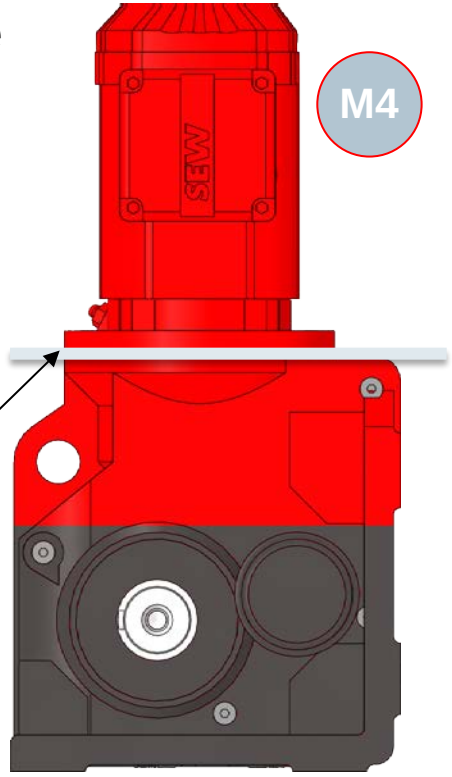
- SEW reducers typically ship with oil and the amount is based on the final mounting position
- Installing a reducer filled with oil in a position different than the position listed on the name plate will result in reducer failure

M1

The reducer on the right will fail if the oil amount is not adjusted to reflect the new position



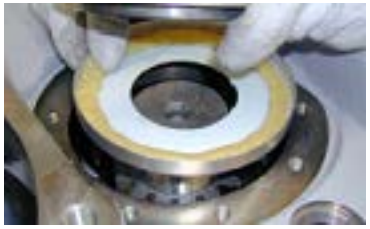
M4



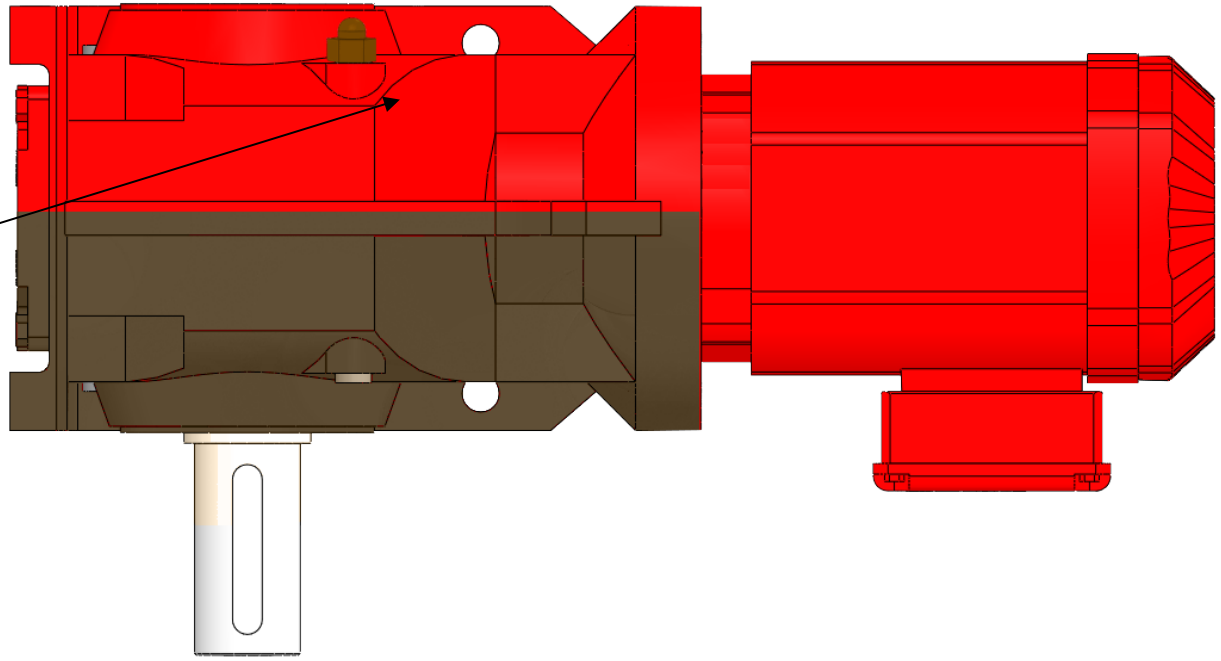
Correct oil level is here for M4

Mounting Positions – Bearing Lubrication

- If a unit is not built for M5 or M6 then it cannot be mounted in those positions due to the special construction of an included shield ring

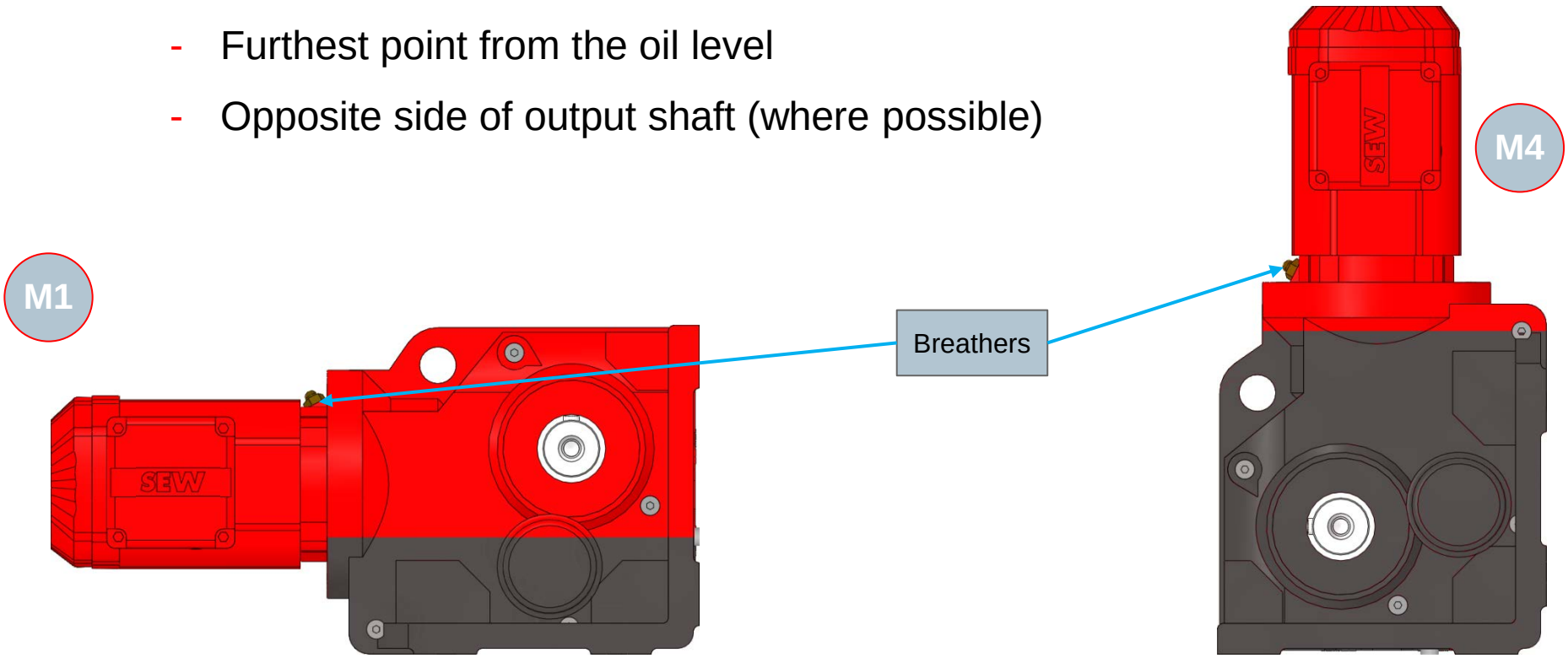


Shield ring required for M5A and M6B because oil level does not reach the bearing



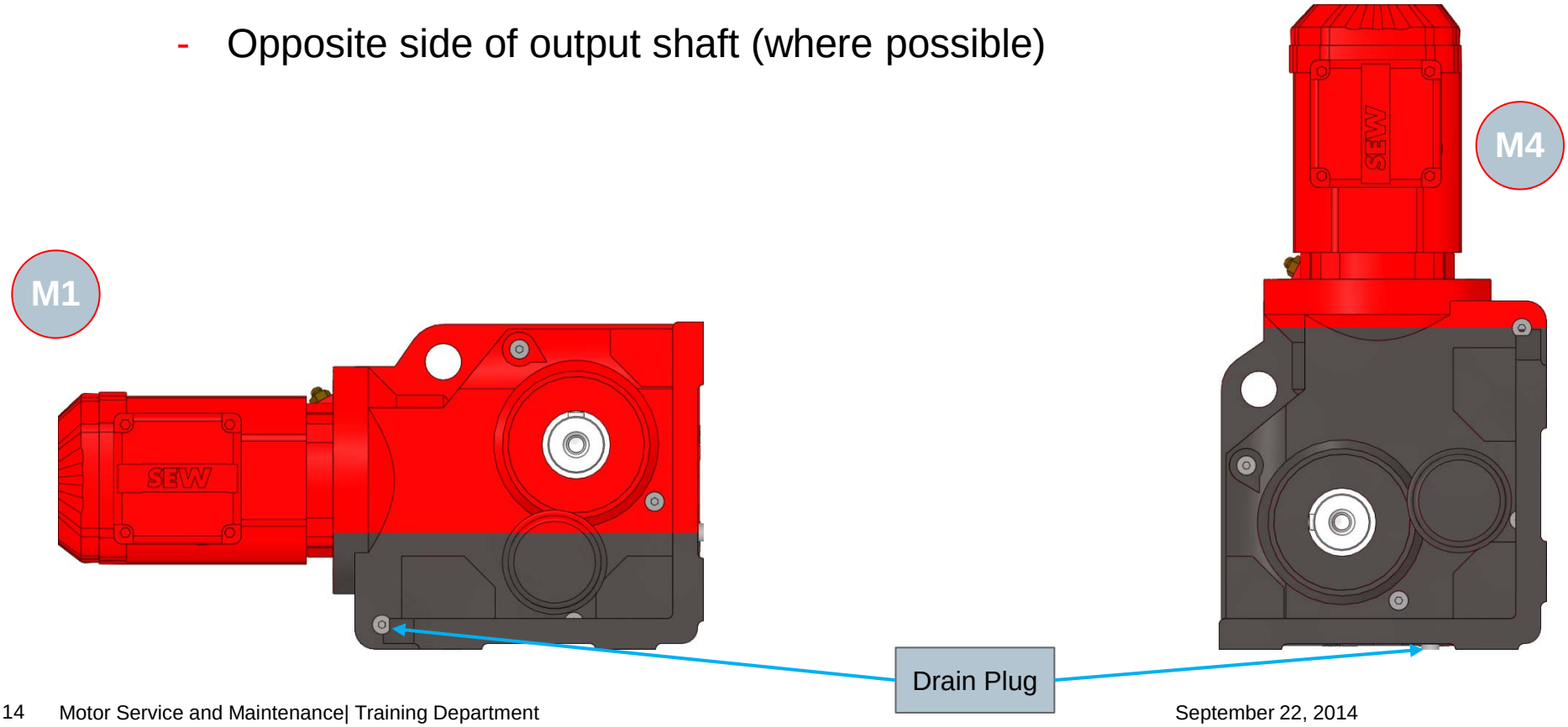
Mounting Positions – Breather Location

- Breathers are installed based on the following considerations –
  - Highest point of gear reducer
  - Furthest point from the oil level
  - Opposite side of output shaft (where possible)



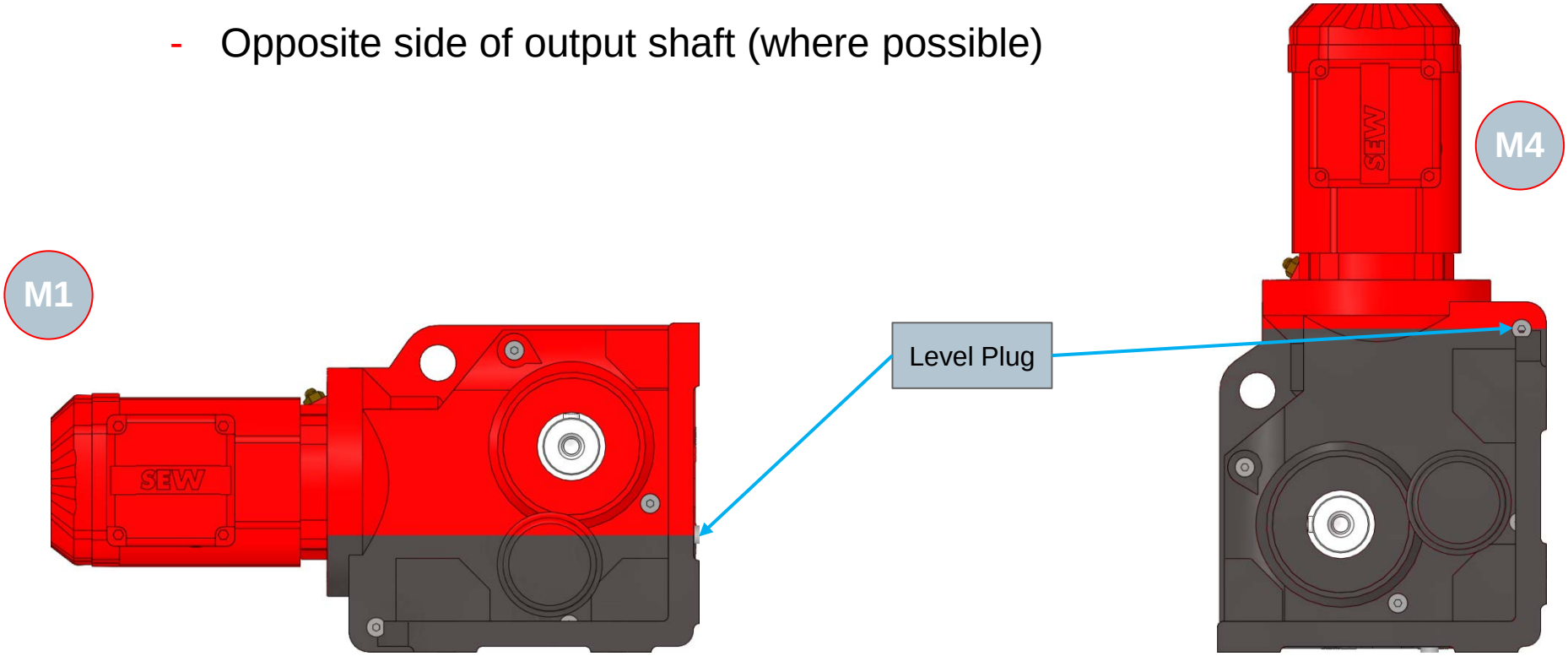
Mounting Positions – Drain Location

- Drain plugs are installed based on the following considerations –
  - Lowest point of gear reducer
  - Opposite side of output shaft (where possible)



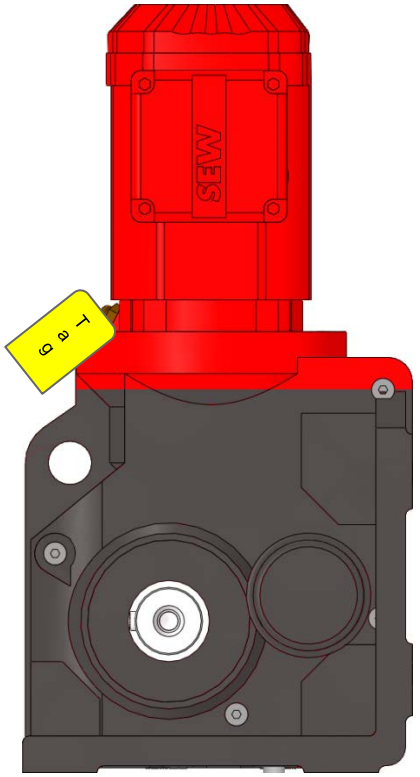
Mounting Positions – Oil Level Location

- Oil level plugs are installed based on the following considerations –
  - At the oil level
  - Opposite side of output shaft (where possible)



Maintenance – Breathers

- Breathers allow the internal pressure of the reducer to equalize with the external atmosphere
  - Always completely remove the rubber tab before placing the reducer into service
  - Leaks will occur if the rubber tab is not completely removed

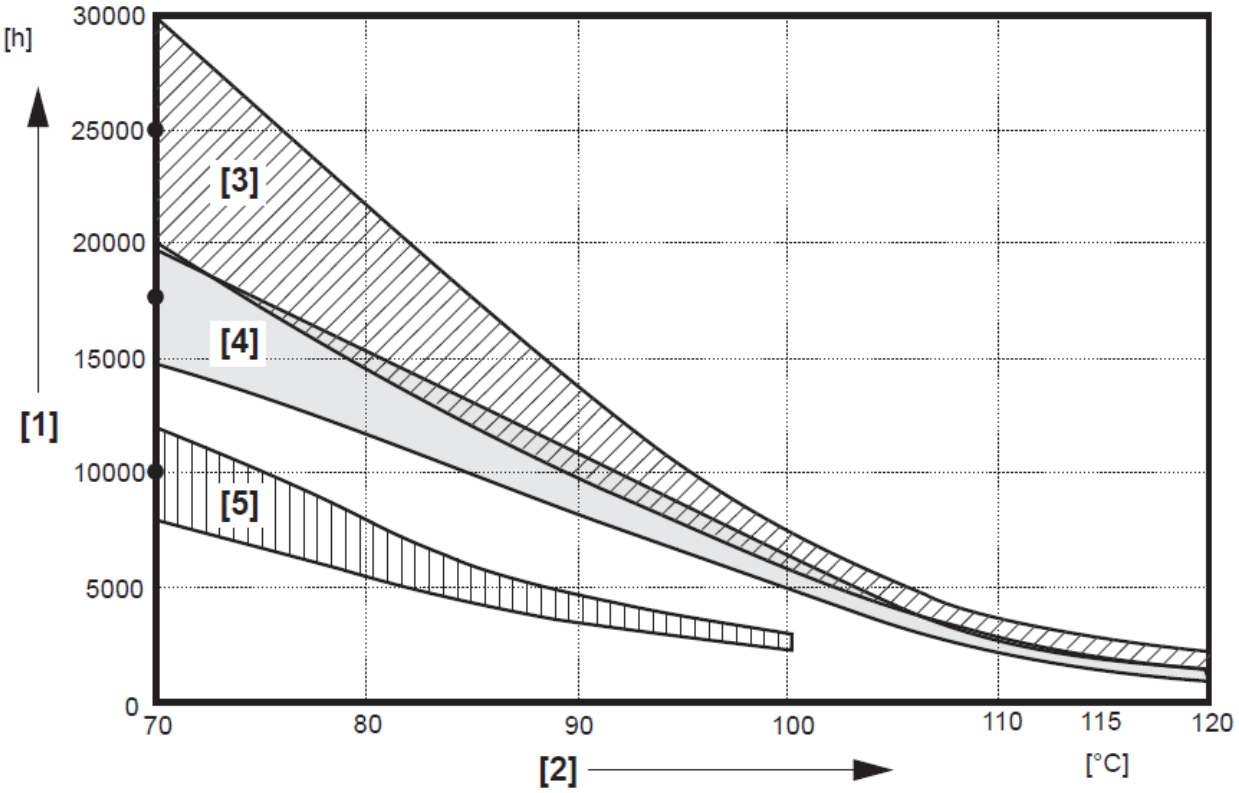


Maintenance – Inspection

- Every 3,000 hours of operation, at least every 6 months
  - Check oil and oil level
  - Check running noise for possible bearing damage
  - Visual inspection of the seals for leakage
  - For gear units with a torque arm: Check and replace the rubber buffers, if necessary

Maintenance – Inspection

- Oil life



[1] Operating hours
[2] Sustained oil bath temperature
- Average value per oil type at 70 °C

[3] CLP PG
[4] CLP HC / HCE
[5] CLP / HLP / E

Maintenance – Inspection
Purchase of Lubricants

The following information outlines channels through which customers may purchase our standard lubricants. It is separated by vendor.

Shell:

Shell's industrial lubricant website allows customers to find a local distributor based on zip code or state.

http://www.shell.us/products-services/solutions-for-businesses/business-lubricants-tpkg/distributor-locator.html

Fuchs:

Fuchs can be contacted directly through the information below. If the customer does not currently have an account with Fuchs they will still be able to make a purchase using a credit card.

Email: cassida@fuchs.com

Phone: +1 708 333 8900

Website: www.cassida-lubricants.com

Fax: +1 330 998 7052

Klüber:

Klüber can be contacted directly through the information below and will allow direct purchase. Klüber also has national agreements with many industrial supply houses such as Kaman, Applied, and Motion. Customers may be able to obtain some products locally through this network.

Klüber Lubrication North America L.P.

32 Industrial Drive

Londonderry, NH 03053

Phone:603-647-4104

Fax:603-647-4106

Email: info@us.kluber.com

http://www.klueber.com/us/en/

Conclusion

By taking just a few moments you can head off any potential problems that could lead to expensive downtime and repairs.

For more details on the maintenance of your reducers please click on the following link –

Operating Instructions

To view our other maintenance of SEW mechanical products presentations, please click on the following link –

Maintenance Presentations