



Date Edition Designation Page **2025-10-14 5 TKM 1(32)**

Lubrication systems – instructions for selecting and procuring systems

Information inside square brackets ([...]) in this document refers to local regulations.

Scope

This standard is intended to serve as a guideline for the selection and procurement of lubrication systems. The aim is to provide the user with a safe lubrication system that offers high availability and low maintenance costs.

SSG 3400E provides technical provisions that are to be fulfilled by the lubrication system regarding function, safety, reliability, the environment, energy efficiency and documentation. The standard covers both consuming and circulating systems.

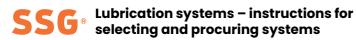
The Purchaser's technical prerequisites for the delivery, to be used in the case of quotation requests and the procurement of lubrication systems, are stated in Appendix 1 – "Lubrication system - technical specifications".

Variants or choices of lubricants are not covered in this standard.

Changes since the previous edition

This edition differs from the previous edition in that:

- Terminology such as "the Purchaser's own standard" and "plant standard" has been standardised as "the Purchaser's local quidelines".
- Texts have been consolidated to better harmonise with the intended object or stage of procurements.
- Superseded standards and national references have been replaced by current editions.
- Dimensioning for piping and clamps has been updated.
- Requirements have been introduced for cleaning pipes and filling with grease during installation.
- New section on fluorocarbon rubber seals has been added.
- The previous section 1.6.1.1, which included a requirement for a return pipe, has been moved to a new chapter, 3.2.
- Requirements for efficiency classes for engines have been added.
- Requirements for control signals shall now follow the Purchaser's local guidelines.
- A new chapter on lubricators has been added.
- Standards on labelling and complementary pipeline standards have been added.



SSG 3400E

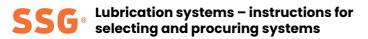
Date **2025-10-14**

Edition **5**

Designation Page **2 (32)**

Contents

1	Related documents	3
2	General provisions 2.1 General	
	2.2 Recommendations for procurement	
	2.3 Work environment	
	2.4 Environment	
	2.5 Safety	
	2.5.1 Noise levels	
	2.5.2 Maintenance	
	2.6 Scope of delivery	5
	2.7 System design – general	
	2.7.1 Piping design	6
	2.7.1.1 Piping	
	2.7.1.2 Pipe fittings	
	2.7.1.3 Pipe clamps	
	2.7.1.4 Installation of piping system	
	2.7.1.5 Hose assemblies	
	2.7.1.6 Hose connections	10
	2.7.1.7 Specific sealing requirement2.8 Marking and identification	
	2.8.1 Components	
	2.8.2 Components and hose assemblies within a system	! !
	2.8.3 Ports and conductors	
	2.8.4 Valve control	
	2.8.5 Internal devices	
	2.8.6 Direction of pumps and motor shaft rotation	12
	2.8.7 Function plate	12
3	Oil circulation system	13
	3.1 Design and dimensioning	
	3.2 Return pipe	13
	3.3 Design and location	
	3.4 Installation	
	3.5 Pumps and motors	
	3.5.1 Installation	
	3.5.2 Couplings and mountings	
	3.5.3 Rotational speed	
	3.6 Filtration	
	3.6.1 Dimensioning	
	3.7 Return strainer	
	3.8 Breather filter	
	3.9 Water separation	
	3.10 Measuring and monitoring equipment	
	3.10.1 Test points	
	3.10.2 Pressure gauges	
	3.10.3 Pressure sensors and pressure switches	
	3.10.4 Temperature sensing	
	3.11 Cooling/heating	18
	3.11.1 Cooling	
	3.11.2 Heating	
	3.12 Water content	
	3.12.1 Sight glass and oil level sensors	
	3.13 Oil tank	
	3.13.1 Design	
	3.13.2 Spillages	
	3.13.3 Cap	
	3.13.5 Maintenance	
	0.10.0 IVIGII ILOI IGI IOO	6



SSG 3400E

Date **2025-10-14** Edition **5** Designation Page **TKM 3 (32)**

	3.13.6 Corrosion protection	22
4	Consuming systems 4.1 Overview – consuming systems 4.1.1 Lubricators	22
	4.2 Design and dimensioning	
	4.2.1 Dual-line systems – supplement	
	4.2.2.1 Design.	
	4.2.2.2 Pressure gauges	
	4.2.2.3 Pressure sensors and pressure switches	
	4.2.3 Pumps	24
	4.2.4 Filtration	
	4.2.5 Design and location	
	4.2.6 Installation	
5	Manual lubrication	25
6	Documentation	26
	6.1 General requirements	
	6.2 Final information for systems on stationary industrial mo	
	ery	
7	Inspection, testing, training	
	7.1 Technical performance	
	7.2 Standards and official requirements	
	7.3 Leak testing	
	7.4 Inspections	
	7.6 Testing	
	7.6.1 Welded pipes	
	7.6.2 Accumulators	
	7.6.3 Protocols	29
	7.7 Documentation	29
	7.8 Training	
	7.8.1 Training materials	
	7.8.2 Theoretical Training	
	7.8.3 Practical training	20
	7.8.4 Trainers	30
8		30

Appendix 1: Lubrication system - technical specifications Appendix 2: Schematic diagram - lubrication system

1 Related documents

- See the country specific National Electrical Safety Board regarding legislation and regulations that apply to a specific electrical regulatory area. For Sweden, see the National Electrical Safety Board, www.elsakerhetsverket.se.
- Commission Regulation (EU) 2019/1781 laying down ecodesign requirements for electric motors and variable speed drives.