

ICS 23.080
CCS J71



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 44683-2024

Glossary of terms for screw pump

螺杆泵名词术语

Issued on: September 29, 2024

Implemented on: September 29, 2024

**Issued by: State Administration for Market Regulation;
Standardization Administration of the PRC**

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part

1. Structure and drafting rules for standardization documents" Drafting. Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents. This document was proposed by the China Machinery Industry Federation. This document is under the jurisdiction of the National Pump Standardization Technical Committee (SAC/TC211). This document was drafted by: Tianjin Pump Machinery Group Co., Ltd., Huangshan Industrial Pump Manufacturing Co., Ltd., Hebei Hengsheng Pump Industry Co., Ltd. Company, Nanjing Industrial Pump Factory, Ningbo Sino-German Screw Pump Manufacturing Co., Ltd. The main drafters of this document are: Gan Zhiqiang, Wang Shaofei, Wang Yang, Wang Xu, Zhu Bin, Zhao Di and Zhang Qinghua. Screw pump terminology

1 Scope

GB/T 44683-2024 is the Chinese glossary of screw pump terminology. Screw pumps, single, twin and triple screw, occupy a particular niche: they move viscous, shear-sensitive and multiphase fluids at high pressure with almost no pulsation, which makes them the pump of choice in oil transfer, lubrication, chemical and food duties, and they are described by a vocabulary that overlaps only partly with that of other rotary pumps. The standard defines the terms by group: the categories of screw pump, the general definitions, the

design and performance terms including the geometry of the screw set, the pitch and lead, the slip, the volumetric and mechanical efficiency and the pressure and speed ratings, the operation and testing terms, the terms describing the conveyed medium, its viscosity, its content of gas and solids and its abrasiveness, the names of the parts, and the terms for the complete pump unit and its ancillaries. For anyone reading Chinese screw pump specifications, curves or test reports, this is the key to the vocabulary. It took effect on 29 September 2024.

This document defines the commonly used terms and related physical quantities and unit codes for screw pumps. This document is intended for understanding and communication between designers, manufacturers, operators and plant builders of progressive cavity pump units.

2 Normative references

This document has no normative references.

3.1 Basic terminology

3.1.1 Rotary pump rotary pump Relying on the rotation of one or more pump working elements, the fluid in each space chamber in the pump is transported from the inlet to the outlet. Type of pump.

3.1.2 Screw pump screw pump The spiral space chamber is formed between the screw (rotor) and the bushing (stator) or the pump body (body and sleeve combined). When they mesh and rotate, they rotate in an axial direction. Replace the rotor pump for conveying fluid.

3.2.1 Classification by structural attributes

3.2.1.1 Single screw pump single screw pump A spiral closed space chamber is formed between a screw (rotor) and an internal threaded bushing (stator). When they mesh and rotate, the A screw pump that delivers fluid alternately from port to port. Note

1. The screw threads are eccentric with respect to the axis of rotation. Note