

ICS 91.220
CCS P 97



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

GB/T 25638.2-2025

**Building construction machinery and equipment - Concrete
pumps - Part 2: Procedure for examination of technical
parameters**

建筑施工机械与设备 混凝土泵 第2部分：技术参数的检验程序
(English Translation)

Issued on: August 29, 2025

Implemented on: March 1, 2026

**Issued by: State Administration for Market Regulation, National
Standardization Administration**

Table of Contents

Preface	
Introduction	
1 Scope	
2 Normative references	
3 Terms and Definitions	
4 Performance test items	
5 Machine Parameters	
5.1 Total mass of the machine	
5.2 Overall dimensions	
6 Pumping performance	
6.1 Piston pump	
6.2 Extrusion pump	
7 Hopper loading height	
7.1 Measurement conditions	
7.2 Measuring equipment and accuracy requirements	
7.3 Measurement process	
8 Cleaning Pump Performance	
8.1 Measurement conditions	
8.2 Measuring equipment and accuracy requirements	
8.3 Measurement process	
9 Concrete placing boom performance	
9.1 Measurement conditions	
9.2 Measuring equipment and accuracy requirements	
9.3 Measurement process	
10 Outrigger Performance	
10.1 Outrigger span	
10.2 Maximum load of outriggers	
10.3 Outrigger Movement Speed	
10.4 Outrigger hydraulic system pressure	
Appendix A (Informative) Calculation Example of Maximum Theoretical Delivery Volume and Delivery Pressure of Extrusion Pumps	
A.1 Single roller extrusion pump	

A.2 Double roller extrusion pump

Reference

Figure 1 Schematic diagram of concrete pump mass measurement

Figure 2 Schematic diagram of plane definition

Figure 3 Schematic diagram of the dimensions of a concrete pump truck

Figure 4 Schematic diagram of the dimensions of a truck-mounted concrete pump

Figure 5 Schematic diagram of the dimensions of the trailer concrete pump

Figure 6 Schematic diagram of actual delivery volume test system

Figure 7 Schematic diagram of the delivery pressure measurement system

Figure 8 Schematic diagram of hopper loading height

Figure 9 Schematic diagram of cloth radius

Figure 10 Schematic diagram of cloth height

Figure 11 Schematic diagram of arm section length

Figure 12 Schematic diagram of the fabric arm operating area

Figure 13 Schematic diagram of cloth arm expansion (retraction) movement

Figure 14 Schematic diagram of the rotary motion of the fabric arm

Figure 15 Schematic diagram of the rotation angle of the fabric arm

Figure 16 Schematic diagram of pressure measurement of the fabric arm system

Figure 17 Schematic diagram of outrigger span

Figure 18 Schematic diagram of load loading on the fabric arm

Figure 19 Schematic diagram of leg swing

Figure 20 Schematic diagram of horizontal extension of outriggers

Figure 21 Schematic diagram of the vertical cylinder extension of the outrigger

Figure A.1 Extrusion pump---single roller extrusion pump

Figure A.2 Extrusion pump---double roller extrusion pump

Table 1 Concrete pump quality measurement record

Table 2 Concrete pump truck overall dimensions measurement record

Table 3 Vehicle-mounted concrete pump overall dimensions measurement record

Table 4 Measurement record of trailer concrete pump dimensions

Table 5 Recommended concrete mix ratio

Table 6 Pipeline size record

Table 7 Concrete pump actual delivery volume measurement record

Table 8 Concrete pump delivery pressure measurement record

Table 9 Concrete pump pumping performance measurement record

Table 10 Single roller extrusion pump measurement record

Table 11 Double roller extrusion pump measurement record

Table 12 Concrete pump hopper loading height measurement record

Table 13 Concrete pump cleaning pump measurement record

Table 14 Measurement record of fabric arm performance

Table 15 Concrete pump leg span measurement record

Table 16 Maximum load measurement record of outriggers

Table 17 Outrigger speed and pressure measurement records

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.

This document is Part 2 of GB/T 25638 "Construction Machinery and Equipment Concrete Pumps". GB/T 25638 has been published.

The following parts.

--- Part 1: Terminology and commercial specifications;

--- Part 2: Verification procedures for technical parameters.

This document is modified to adopt ISO 21573-2:2020 "Construction machinery and equipment concrete pumps Part 2: Verification of technical parameters the technical differences between this document and ISO 21573-2:2020 and their reasons are as follows.

--- Changed the measurement conditions and calculation formula of the total mass of the whole machine to 65kg for the quasi-passenger mass (see 5.1.1, 5.1.3.2) to match the occupant quality requirements in GB/T 12534 are consistent;

--- Changed the formula of the total mass of the concrete pump and adjusted the driver's weight to meet my country's technical requirements [see 5.1.3.2 in the public Formula (1)];

--- Added the requirement for the piston pump's pumping performance test condition at an altitude of < .2000m (see 6.1.1.2) to adapt to my country's technical requirements;

--- Added the basic composition of materials and aggregate gradation range in the preparation of piston pump pumping performance test to adapt to my country's concrete technology Technical requirements (see 6.1.1.4);

--- Changed the material requirements for sand in the recommended concrete mix ratio table to natural sand and machine-made sand, and the material requirements for stone were combined with the requirements for aggregate particles.

The diameter requirements are as follows (see Table 5) to adapt to my country's technical requirements and increase operability.

The following editorial changes have been made to this document.

---Adjusted the order of some formulas and added formula numbers;

--- Added introductory words for some items;

---Added references.

Introduction

GB/T 25638 "Construction machinery and equipment - Concrete pumps" is intended to consist of two parts.

--- Part 1: Terminology and commercial specifications. The purpose is to unify and standardize the terminology and commercial specifications of concrete pumps.

--- Part 2: Inspection procedures for technical parameters. The purpose is to standardize the inspection procedures and requirements for the technical parameters of concrete pumps.

This document is helpful to guide the performance testing of concrete pumping equipment produced by various manufacturers in my country, and effectively improve the performance of concrete pumps in my country.

The competitiveness and brand influence of our equipment in the global market.

Construction machinery and equipment concrete pumps Part 2: Verification procedures for technical parameters

1 Scope

This document specifies the inspection procedures for the technical parameters of piston concrete pumps and extrusion concrete pumps as defined in GB/T 25638.1.

and requirements.

This document applies to mobile (with or without placing boom) and stationary concrete pumps.

2 Normative references

The contents of the following documents constitute the essential clauses of this document through normative references in this document.

For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version