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

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Six degree of freedom external fixator

六自由度外固定支架

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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 of Standardization Documents" Drafting. Please note that some of the contents of this document may involve patents. The issuing agency of this document is not responsible for identifying patents. This document was proposed by the

Ministry of Civil Affairs of the People's Republic of China. This document is under the jurisdiction of the National Standardization Technical Committee for Rehabilitation and Special Equipment for the Disabled (SAC/TC148). Drafting organizations of this document. National Rehabilitation Aids Research Center, Hebei University of Technology, Beijing Jingbo Modern Prosthetic Orthotics Technology Co., Ltd., Shanghai Kangding Medical Equipment Co., Ltd., Shandong Juntai Ande Medical Technology Co., Ltd. The main drafters of this document. Chen Jianwen, Guo Yue, Sun Hao, Liu Hongbo, Liu Fugang, Liu Fabo, Liu Junling, Wang Liting, Zhai Zhangbo. Six degrees of freedom external fixation bracket

1 Scope

GB/Z 40988-2021 is the Chinese national standard on six degree of freedom external fixator, in the field of health care technology. The /Z suffix marks it as a guiding technical document: it does not prescribe requirements that can be certified against, but sets out the technique, the method or the state of the art that the standards bodies recommend following. It was issued on 26 November 2021 by the State Administration for Market Regulation; Standardization Administration of China. As a guiding technical document it carries no separate date of entry into force: it applies from publication. Classification: ICS 11.040.40, CCS C30. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This document specifies the requirements, test methods, inspection rules, markings, and storage of the six-degree-of-freedom external fixation bracket. This document applies to six-degree-of-freedom external fixation brackets, and does not involve other types of external fixation brackets.

2 Normative references

The content of the following documents constitutes an indispensable clause of this document through normative references in the text. Among them, dated quotations Only the version corresponding to the date is applicable to this document; for undated reference documents, the latest version (including all amendments) is applicable to This document.

GB/T 1220 stainless steel rod

GB/T 2965 Titanium and titanium alloy bars

GB/T 3191 Aluminum and aluminum alloy extruded bars

GB/T 3280 stainless steel cold-rolled steel plate and strip

GB/T 3621 Titanium and titanium alloy sheet

GB/T 3880.2 General Industrial Aluminum and Aluminum Alloy Plates and Strips Part

3 Terms and definitions

The following terms and definitions apply to this document.

3.1 External fixator It is assembled from rods, rings, hinges and other structures made of metal or other materials. The main structure is located outside the body and is connected to the bone structure through metal spicules. A device connected to maintain the stability of the bone structure or adjust it.

3.2 It is assembled from a fixed ring with fixed holes, sliding grooves and other structures, and 6 adjusting rods with scales and adjustable lengths through connecting joints. The relative position of the fixed ring can be adjusted in the three-dimensional space by adjusting the different lengths of the 6 adjusting rods.

Note. See Figure A.1 of Appendix A.

3.3 Fixed ring Ring or partial ring with fixed hole or groove position.