

BSI

BS 2982 : 1986

UDC 615.472.3

© British Standards Institution. No part of this publication may be photocopied or otherwise reproduced without the prior permission in writing of BSI

---

British Standard Specification for  
**Scalpels with detachable blades**

---

Scalpels à lame détachable – Spécifications

Skalpelle mit auswechselbaren Klingen

British Standards Institution

## Foreword

This second revision of BS 2982 has been prepared under the direction of the Health Care Standards Committee and supersedes the 1974 edition which is withdrawn.

BS 2982 was first published in 1958 and was first revised in 1974. The first revision introduced provisions for scalpel blades made of stainless steel and for sterile packages of blades.

This second revision of BS 2982 introduces amended dimensions for the fittings whereby blades are attached to handles. Two sizes of fitting are specified, namely the small size (no. 3 fitting) and the large size (no. 4 fitting). The revised dimensions are identical to those given in ISO 7740-1985 prepared by Technical Committee 170, Surgical instruments, of the International Organization for Standardization (ISO), and the objective is to ensure that a satisfactory fit is achieved between any combination of blade and handle manufactured in accordance with this British Standard, ISO 7740-1985 or any foreign national standard having the same dimensional requirements.

**WARNING.** It should be noted that attempts to engage or disengage blades and handles that are not both manufactured in accordance with the internationally agreed dimensions, or where the scalpel handle is significantly worn, may place the operator at risk of injury due to sudden freeing or sticking of the blade.

Provision has not been made for the specification of shapes and sizes of blades, which is subject to considerable variation because of the many uses to which this equipment is put.

Attention is drawn to the foreword to BS 5194 : Part 1 : 1985, in which the British Standards relating to surgical instruments are described.

**Compliance with a British Standard does not of itself confer immunity from legal obligations.**

## Contents

	Page
Foreword	Inside front cover
Committees responsible	Back cover
<b>Specification</b>	
1 Scope	2
2 Dimensions of attachment fittings	2
3 Handle	2
4 Blade	2
5 Packaging of handles	4
6 Packaging of blades	4
7 Marking	4
<b>Tables</b>	
1 Dimensions of small size (no. 3) of attachment fitting	2
2 Dimensions of large size (no. 4) of attachment fitting	2
<b>Figures</b>	
1 Detachable blade	3
2 Scalpel handle	3

# Specification

## 1 Scope

This British Standard specifies the dimensions of the small and large sizes of attachment fittings for scalpels with detachable blades, requirements for materials and requirements for the packaging of blades and handles.

NOTE. The titles of the publications referred to in this standard are listed on the inside back cover.

## 2 Dimensions of attachment fittings

The dimensions of attachment fittings shall be in accordance with table 1 and figures 1 and 2 for the small size of fitting and in accordance with table 2 and figures 1 and 2 for the large size of fitting.

## 3 Handle

### 3.1 Hardness

Handles made of metal shall have a Vickers hardness of not less than 140 HV as determined on the face of the head of the handle in accordance with BS 427 : Part 1.

### 3.2 Construction

The handle shall be of one-piece construction.

### 3.3 Groove

The groove in the head of the handle shall permit the

cutting edge of the fitted blade to lie in a plane through the linear axis of the handle.

### 3.4 Finish

The handle shall be free from burrs and sharp or rough edges.

NOTE. The handle may have a matt, polished or other finish, as agreed between the manufacturer and the purchaser.

## 4 Blade

### 4.1 Material

4.1.1 *Carbon steel.* Blades made of carbon steel shall have the following composition:

carbon	1.20 to 1.30 %
silicon	0.10 to 0.35 %
manganese	0.20 to 0.45 %
chromium	0.10 to 0.40 %
sulphur	0.025 % maximum
phosphorus	0.035 % maximum

4.1.2 *Stainless steel.* Blades made of stainless steel shall be made of steel of compositions D, E, F or G in accordance with BS 5194 : Part 1 : 1985.

### 4.2 Thickness

The blade thickness shall be in the range 0.37 mm to 0.42 mm (see figure 1).

NOTE. Blades may be reinforced by thickening the back edge if required.

Table 1. Dimensions of small size (no. 3) of attachment fitting

	Fitting dimensions									
	$\alpha$	<i>c</i>		<i>d</i>		<i>e</i>		<i>f</i>		<i>l</i>
		min.	max.	min.	max.	min.	max.	min.	max.	min.
Blade	$30^\circ \pm 0.5^\circ$	mm 4.50	mm 4.65	mm 17.83	mm 17.90	mm 2.43	mm 2.48	mm 1.18	mm 1.23	mm —
Handle	$30^\circ \pm 0.5^\circ$	4.40	4.50	17.73	17.81	2.31	2.41	1.12	1.17	9.00

Table 2. Dimensions of large size (no. 4) of attachment fitting

	Fitting dimensions									
	$\alpha$	<i>c</i>		<i>d</i>		<i>e</i>		<i>f</i>		<i>l</i>
		min.	max.	min.	max.	min.	max.	min.	max.	min.
Blade	$35^\circ \pm 0.5^\circ$	mm 7.50	mm 7.65	mm 24.20	mm 24.27	mm 3.72	mm 3.77	mm 1.95	mm 2.00	mm —
Handle	$35^\circ \pm 0.5^\circ$	7.40	7.50	24.10	24.18	3.60	3.70	1.88	1.93	13.00