

# LINE OF MANUAL SURVEYORS

**MAINTENANCE AND INSTRUCTION MANUAL** 

#### **GENERAL DESCRIPTION**

The surveyor is the ideal manual instrument for use at any planning stage on models in dental laboratories. It allows the Technician to: determine the path of insertion, position the attachments, layout reference points, survey the prosthesis, locate the anchorage position of clasps.

## **DESCRIPTION AND OPERATION OF THE TWO ARMS**

The two surveying arms articulate on the one central column or can be locked in any position. The arm joint moves on selflubricating ferrules and can be both frictioned and locked by means of the knob (15).

# DESCRIPTION AND OPERATION OF THE MODEL-HOLDER BASE

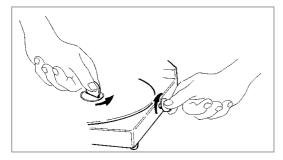
The model-holder can freely slide on the working plane or be locked in place according to different requirements. To lock it firmly, simply let the spring pin (turn the knob - 23)

come out from the working plane, then introduce the longitudinal guide (36) of the modelholder and turn the same knob (23) rightwards.

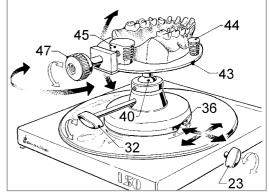
If your are working with the model-holder locked in place, we recommend to tighten it as near as possible to the central axis of the working plane in order to guarantee that even under stress no vibrations are originated.

The model-holder plate (43) is assembled on a ball (40), it can rotate up to 360° and it can be tilted up to a maximum of 30° allowing to restore the chewing conditions; the proper knob (32) must be accurately tightened to lock it firmly in place

The new model positioning system allows a wider stroke and a safer locking. When turning the knob (47) righwards, the pressure element (46) recedes, whereas it goes forward if the knob is turned leftwards and it locks the model against the fixed push rods (44); for smaller pieces, it is possible to let the complete locking system slide forward along the transverse slots (loosen



the upper screws and close them in the new position).

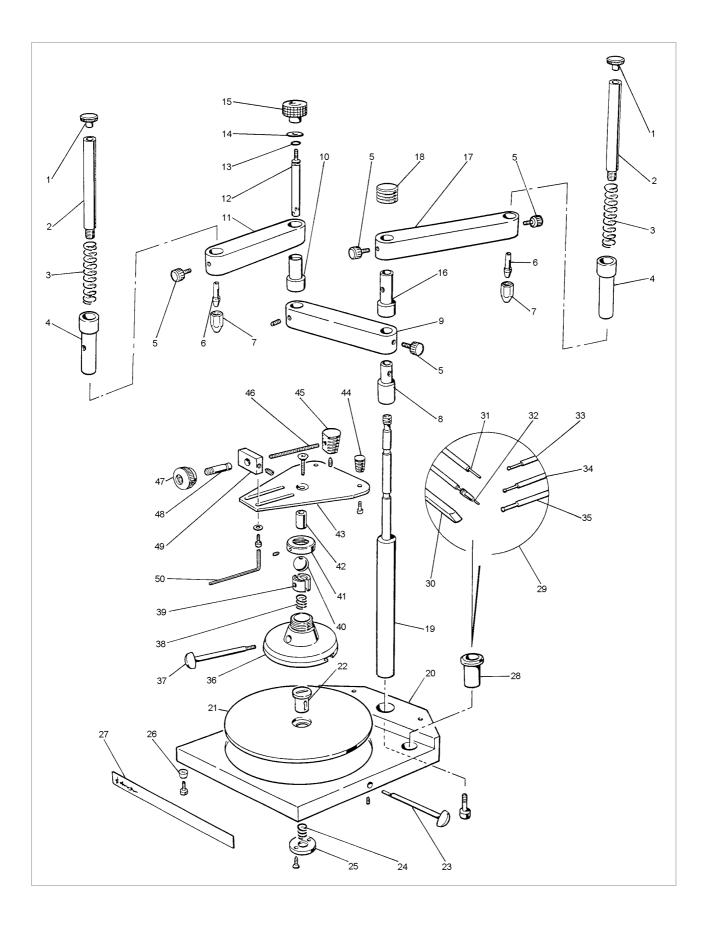


Should you need to work with the free model-holder, you will have to tighten the locking pin to the base, utilizing for that purpose a coin to lower the pin, turn it rightwards and fix it with the knob (23).



# SPARE-PART LIST

N°   CODE   DESCRIPTION     1   RP009   KNOB     2   RP010   PLIERS HOLDING ROD     3   RP013   STEM SPRING     4    BUSHING FOR PLIERS HOLDING ROD     5   NVT151   M 4x10 KNOB     6   RP012   CHUCK PLIERS Ø 3,0      RP040   CHUCK PLIERS Ø 2,5      RP035   CHUCK PLIERS Ø 2,1 (UPON REQUEST)     7   RP011   PLIERS LOCKING NUT     8    BUSHING ON COLUMN (DOUBLE-JOINT ARM)     9    REAR HORIZONTAL AXIS     10    BUSHING ON JOINT     11    FRONT HORIZONTAL AXIS     12    ROTATION AXIS     13   NPOR109   OR RING     14   R1009   SHOULDER WASHER     15   NVT147   M6 FEMALE INDENTED KNOB     16    BUSHING ON COLUMN (FIXED ARM)     17    FIXED ARM     18   RP052   TAP ON COLUMN     19    CALIBRATED AND GROUND STAINLESS STEEL COLUMN	
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29     RP505     SET OF TOOLS       30     RP030     WAX KNIFE	
30 RP030 WAX KNIFE	
31 RP034 ANALISING ROD	
32 NVV040 CARBON MARKER	
33 RP031 GAUGE FOR UNDERCUTS -0,25 mm	
34 <b>RP032</b> GAUGE FOR UNDERCUTS -0,50 mm	
35 <b>RP033</b> GAUGE FOR UNDERCUTS -0,75 mm	
36 MODEL-HOLDER BASE	
37 RP507 ARTICULATED JOINT LOCKING ROD	
38 RP017 MODEL-HOLDER SPRING	
39 RP016 LOCKING CLAMP	
40 RP018 ARTICULATED JOINT SPHERE	
41 RP019 ADJUSTMENT RING NUT	
42 RP042 SPACER	
43 MODEL-HOLDER PLATE	
44 RI027 PUSH ROD ON PLATE	
45 RI021 MODEL LOCKING PIN	
46 RI023 SET-SCREW	
47 RI042 MODEL-HOLDER KNOB	
48 RI022 GUIDE FOR SCREW	
49 RI024N GUIDE SUPPORT	
50 NVT201 HEXAGONAL KEY-WRENCH NO. 3	
RP502N MODEL-HOLDER COMPLETE	
RP511 FIXED ARM COMPLETE	
RP512 DOUBLE-JOINT ARM COMPLETE	



# **DESCRIPTION OF STANDARD ACCESSORIES**

The tools are stored in a specific support (28) as follows:

one graphite pencil-holder, one analysing rod, three undercut gauges (0,25 - 0,50 - 0,75), one wax trimming tool which can be heated to remove the wax in excess.

One collet diameter 3,0 mm is assembled on the chuck rod and a second collet diameter 2,5 mm is attached to the manual.

#### MAINTENANCE

To assure optimum performance of the instrument, it is simply sufficient to clean accurately any sliding components and lubricate them.

It is also possible to dismantle any single component by referring to the enclosed plan.

## TECHNICAL REFERENCE REGULATIONS AND TEST PROCEDURES

Every instrument is mass-manufactured by DENTALFARM in compliance with technical and safety rules in force, as provided for by the 2006/42 EEC Community Directive on Machinery.

This unit is not classified as AEE (electric and electronic device, whose correct operation depends on electric currents and electromagnetic fields), so the Directive 2002/96 CE does not apply.

## **TECHNICAL SPECIFICATIONS**

Model	Main features	Height mm	Weight Kg
Α	Fitted with one rigid arm for the horizontal rotation	310	3,9
<i>,</i> ,	(ideal for positioning attachments)		(4,2)
B	Fitted with one jointed arm with pantograph movement	310	4,1
	(ideal for general surveying)		(4,4)
С	Fitted with two arms to carry out both of the above	310	4,4
	operations on one model		(4,7)

# **DENTALFARM S.r.I.**

Via Susa, 9/a - 10138 TORINO - ITALY

 TECHNICAL-COMMERCIAL SERVICE - (+39) 011/4346588
AFTER-SALE SERVICE - 011/4346632
FAX 011/ 4346366 - E-mail: info@dentalfarm.it Website: www.dentalfarm.it

