MULTI DIAMETER PUNCH
MDP 38

Operating Manual

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Version 1.3 MDP 38AR
July 2004 English

1 Table of Contents

1 Table of Contents....2
2 Owner Registration....4
3 Important Notices....5
3.1 Safety Notices....5
3.2 Information Content....5
3.3 Sales and Service Address....5
3.4 Safety Instructions....6
3.4.1 Site Selection....6
3.4.2 General Notes on Safety....6
3.4.3 Notes on Safety for Operating Personnel....6
3.4.4 Use for the Intended Purpose....7
3.4.5 Spare Parts....7
3.4.6 Terms of Guarantee....7
4 Warning Labels....8
5 Power Failure Reset Procedure....9
6 Equipment Diagram....10
6.1 Front and Right Hand Side....10
6.2 Rear and Left Hand Side....11
6.3 Punch and Die Holder....12
7 Control Panel (Electrics)....13
8 Control Panel (Pneumatics)....14
9 Operation....15
9.1 Switching Power On....15
9.2 Selecting Punch and Die....15
9.2.1 One Punch and Die size....15
9.2.2 Two Punch and Die sizes....15
9.2.3 Three or more Punch and Die sizes....16
9.3 Placement of Stamper....16
9.4 Punching....16
9.5 Removal of Stamper....17
9.6 Switching Power Off....17
10 Warning Indicators....18

10.1 Guard Warning 18
10.2 Stamper Warning 18
10.3 Punch and Die Warning 18
11 Documentation 19
11.1 Test Certificate 19
11.2 CE Declaration of Conformity 20
11.3 EU Declaration of Conformity 21

2 Owner Registration

TO ENSURE SIBERT INSTRUMENTS SUPPLIES YOU WITH ANY NECESSARY HARDWARE OR DOCUMENTATION UPDATES, PLEASE ENTER YOUR COMPANY DETAILS, DETACH THIS PAGE AND FAX OR POST TO:-

SIBERT INSTRUMENTS
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FAX: **+44 (0) 1483 302699**

EMAIL: **Sales@Sibert.co.uk**

COMPANY NAME: **ADDRESS:** **CONTACT:**	
FAX: **PHONE:** **EMAIL:**	

☐ **I would like to register for a username and password for the Sibert Customer web site (please specify email address above)**

DO NOT WRITE BELOW THIS LINE

MACHINE SERIAL NUMBER	
DATE OF MANUFACTURE	
QA ENGINEER SIGNATURE & STAMP	

3 Important Notices

3.1 Safety Notices

Please do not switch on this equipment unless the operating manual has been fully read and understood. If there is any difficulty in understanding, or a translation is required, please contact the address below:

Ne mettez pas cet équipement sous tension avant d'avoir entièrement lu et compris le manuel d'utilisation. Si vous rencontrez des difficultés de compréhension ou avez besoin d'une traduction, contactez l'adresse suivante:

Bitte schalten Sie die Geräte nicht ein, bevor Sie das Bedienungshandbuch vollständig gelesen und verstanden haben. Wenn dabei Verständnisschwierigkeiten auftreten oder Sie eine Übersetzung benötigen sollten, wenden Sie sich bitte an die nachfolgende Adresse:

Non accendere questa apparecchiatura senza prima avere attentamente letto e compreso il Manuale delle istruzione. In caso di difficoltà di comprensione, o se si richiede una traduzione, si prega di contattare il seguente indirizzo:

Deze apparatuur pas inschkelen als u de handleiding helemaal habt gelezen en begrepen. Mocht er iets zijn dat u niet begrijpt, of mocht u een vertaling nodig hebben, neem dan contact op met het onderstaande adres:

No encienda este equipo antes de haber leido y comprendido El Manual de Funcionamiento correspondiente. Si tuviera aluga dificultad en comprenderlo o necesita una traduccion, sirvase contactar con la direccion siguiente:

3.2 Information Content

All efforts have been made to ensure the accuracy of the information in this manual, however the contents of this manual are subject to change without notice.

Sibert Instruments shall not be liable against any damages or problems arising from the use of options, consumables or spares, other than those supplied or designated by Sibert Instruments.

The above not withstanding, Sibert Instruments can assume no responsibility for any errors in this manual or their consequences.

3.3 Sales and Service Address

SIBERT INSTRUMENTS
CENTRE HOUSE
THE PINES
BROAD STREET
GUILDFORD
SURREY
GU3 3BH
ENGLAND

TEL: +44 (0) 1483 739100 (Sales)
+44 (0) 1483 739110 (Service)
FAX: +44 (0) 1483 302699
EMAIL: Sales@Sibert.co.uk

3.4 Safety Instructions

3.4.1 Site Selection

When selecting the installation site for the equipment and the pertaining components, relevant health and safety procedures should be followed.

Applicable technical and building regulations must also be observed.

The MDP 38 has been tested under "A" weighted continuous sound and does not exceed 70-decibel noise levels.

The MDP 38 has been tested under "C" weighted instantaneous sound and does not exceed 130-decibel noise levels.

The unit must be placed on a suitable level surface offering the system firm support.

Ensure there is sufficient surrounding clearance for maintenance and cleaning operations.

Sibert Instruments recognises the need for and produces a purpose made bench for the MDP 38 accommodating the filter and regulation unit.

Do not deposit any objects in front or on top of the unit.

Hoses and electrical cables must be laid in a manner to prevent tripping and damage.

3.4.2 General Notes on Safety

All persons concerned with the installation, commissioning, operation, maintenance and repair of the system and its components must have read the operating instructions, particularly those on Safety. If necessary, in-house instruction should be provided, specifically taking into account the qualifications of the individual persons.

Prior to commissioning the system, the user must ensure himself that all safety conditions are met.

Both this Operating Manual and the Service Manual should be read before attempting to operate the machine.

Only authorised personnel to carry out maintenance or adjustments to this machine.

The system must be maintained and repaired only by persons who are familiar with the system and have been informed about the potential hazards and possess the necessary qualifications.

The pertinent regulations for prevention of accidents and other generally recognised safety and industrial medical requirements must be observed.

3.4.3 Notes on Safety for Operating Personnel

All working methods are forbidden, which:

- constitute a danger to the life and limb of the user or third parties,
- are detrimental to the system or others,
- are detrimental to the safety and proper function of the system,
- are not in compliance with the specified notes on safety.

No safety devices may be removed or rendered inoperative.

If it should become necessary to remove safety devices for setting, repair and maintenance purposes, the safety devices must be replaced immediately on completion of maintenance or repair works, prior to switching the machine on.

Safety devices must be replaced prior to re-connecting mains supplies.

The generally applicable safety rules and regulations for the prevention of accidents must be observed.

Only those items that can be adjusted or maintained by non-Sibert personnel are to be accessed or adjusted.

Maintenance and repair may only be undertaken when the unit is switched off and disconnected from the mains input supply.

Hazardous voltages are present in this machine
This machine must be earthed

Repair work on hydraulic and pneumatic system, may only be carried out when relevant pressures are zero.

The front guard must be closed during normal punching operation.

When handling nickel Stampers, protective gloves should be worn.

Care should always be taken when handling Punch and Die sets.

3.4.4 Use for the Intended Purpose

This machine is intended solely to punch the inner hole of CD Matrices / Stampers up to a maximum of 0.35mm thickness (for optimum results, a hardness of 200 +/- 10% HV 0.5 is recommended), for a range of sizes up to 38mm and only with the components supplied and approved by Sibert Instruments.

Use for any other than the intended purpose is considered improper. The manufacturer disclaims all liability for any damage resulting from such use; the user/operator is solely liable.

3.4.5 Spare Parts

Use recommended spare parts only. For a list of authorised spare parts please contact Sibert Instruments.

3.4.6 Terms of Guarantee

Use, other than for intended purpose and unauthorised changes or modifications to the unit and its components which are part of the scope of supply of Sibert Instruments, exclude any liability of the Manufacturer for damage caused as a result of such changes or modifications. The warranty/guarantee of the manufacturer is invalidated.

4 Warning Labels

WARNING
DANGER OF INJURY FROM
EDGE OF STAMPER

FOUND ON BASE PLATE ABOVE FRONT ACCESS PANEL

EMERGENCY
STOP

FOUND ON FRONT PANEL

WARNING
THIS EQUIPMENT
MUST BE EARTHED

FOUND ON BASE ADJACENT TO MAINS POWER INLET

DANGER

DO NOT REMOVE COVER UNLESS DISCONNECTED FROM MAINS SUPPLY

FOUND ON ALL REMOVABLE COVERS PROTECTING ELECTRICAL SYSTEMS

5 Power Failure Reset Procedure

If a Punch and Die set has been selected (i.e. the Die set is attached to the Top Die Vacuum Clamp and the Lower Punch is in the Punch Holder) and any of the following conditions occur:-

Emergency Stop

Mains Power Loss

Machine Switched Off in Error

then the following procedure must be undertaken:-

1 Switch off the MDP 38 using Mains Power switch (20) if not already switched off.

2 Pull out the Emergency Stop Button (18) (if this has been operated)

3 Open Front Guard.

4 Remove Stamper (if present on Lower Punch set).

5 Remove Upper Die Set from the top vacuum clamp and locate it over the spigot of the corresponding Lower Punch set on the Punch Holder.

6 Close the Front Guard.

7 Restore Mains power supply to the MDP 38 (if removed).

8 Switch on the MDP 38 using Mains Power switch (20).

9 Press the Reset Button (21).

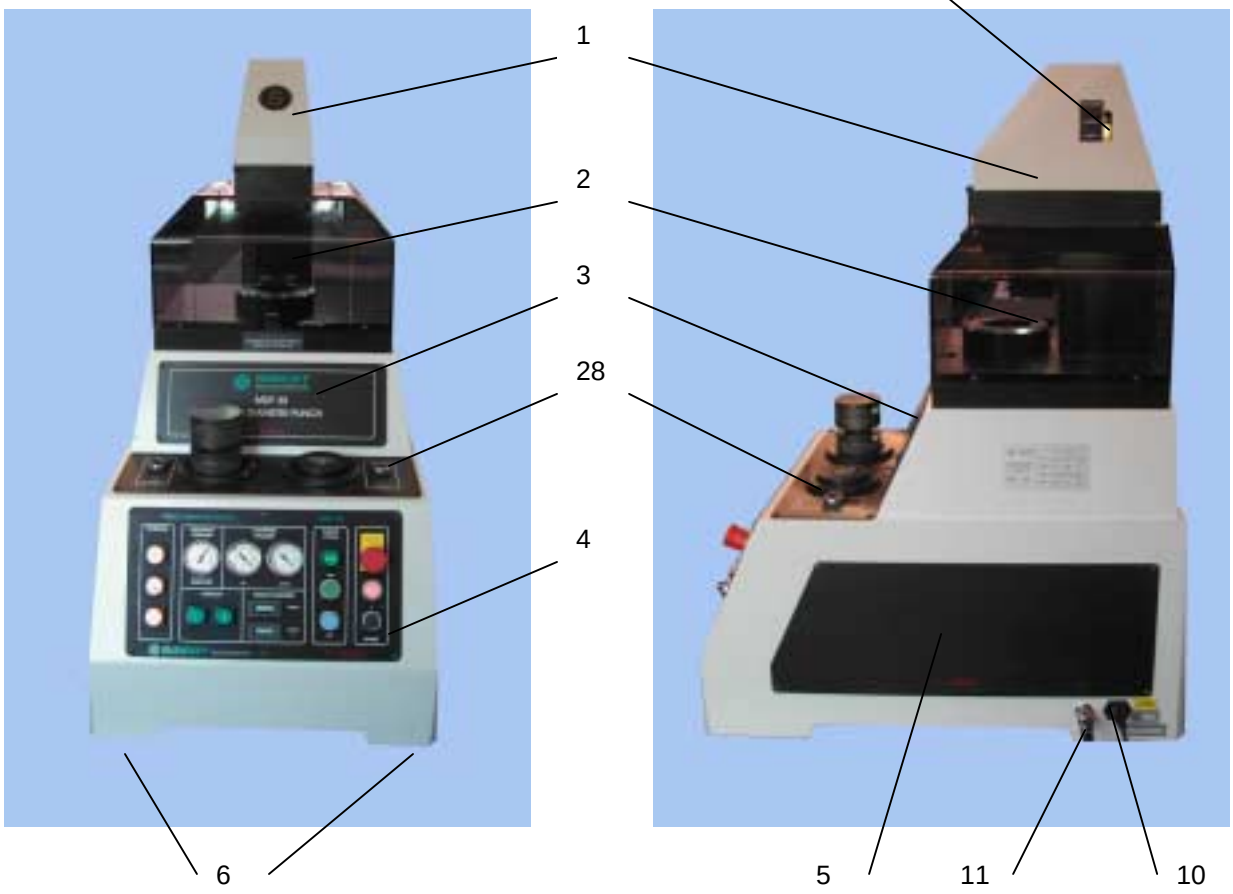
The MDP 38 is now ready for normal use again.

Care should always be taken when handling Punch and Die sets.

When handling Nickel Stampers, protective gloves should be worn.

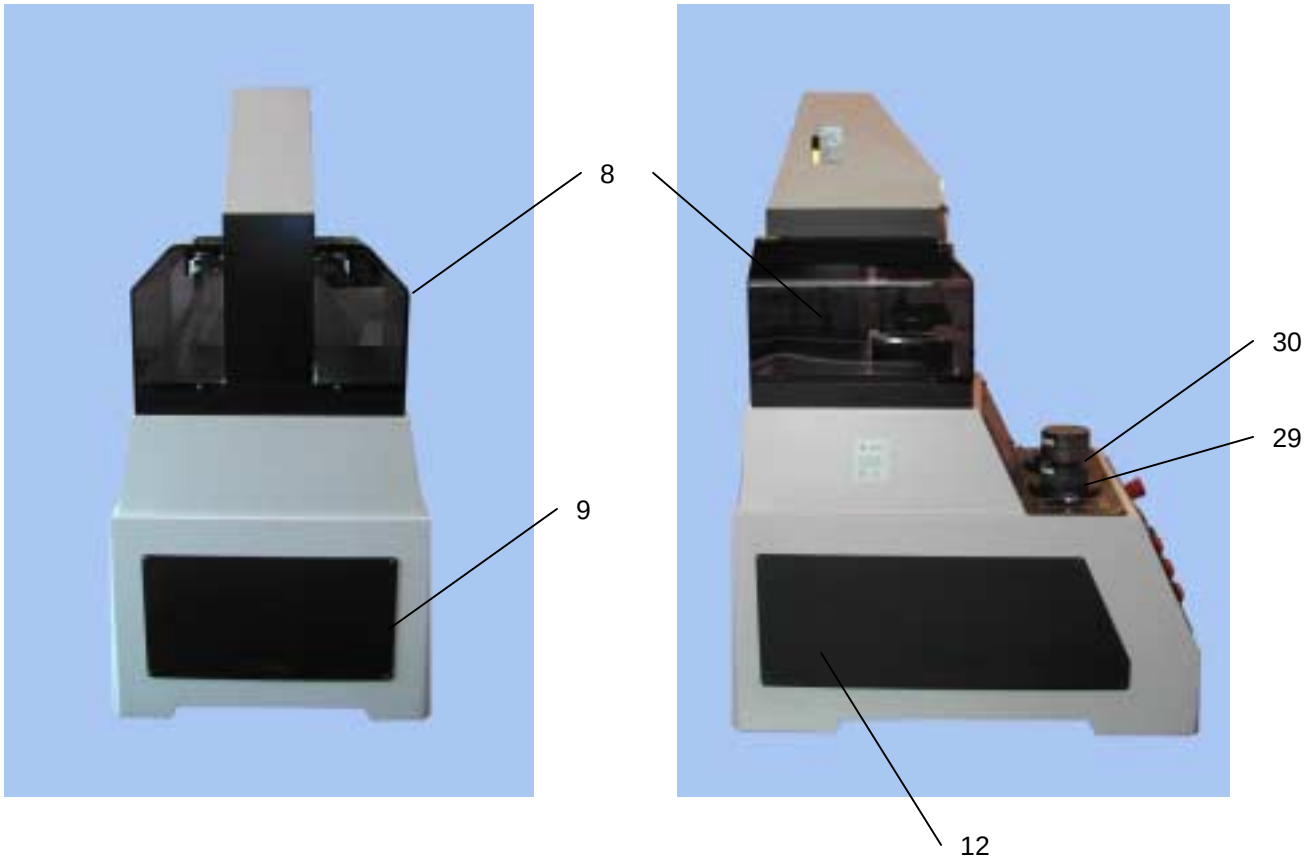
6 Equipment Diagram

6.1 Front and Right Hand Side



1	**Top Cover**
2	**Front Guard**
3	**Access Panel**
4	**Control Panel**
5	**Right Hand Cover Plate (Fuses and Power Supply Unit)**
6	**Anti Vibration Feet**
7	**Oil Level Max. and Min. Indicators**
8	Side Guards
9	Rear Cover Plate (PLC and Manifold)
10	**Mains Power Supply Input**
11	**Pneumatic Mains Supply Input**
12	Left Hand Cover Plate (Hydraulic Booster)
13	Punch Holder
14	Punch and Die
15	Die Vacuum Clamp
28	**Punch and Die Button**
29	Punch and Die Blank
30	Punch and Die Rest

6.2 Rear and Left Hand Side



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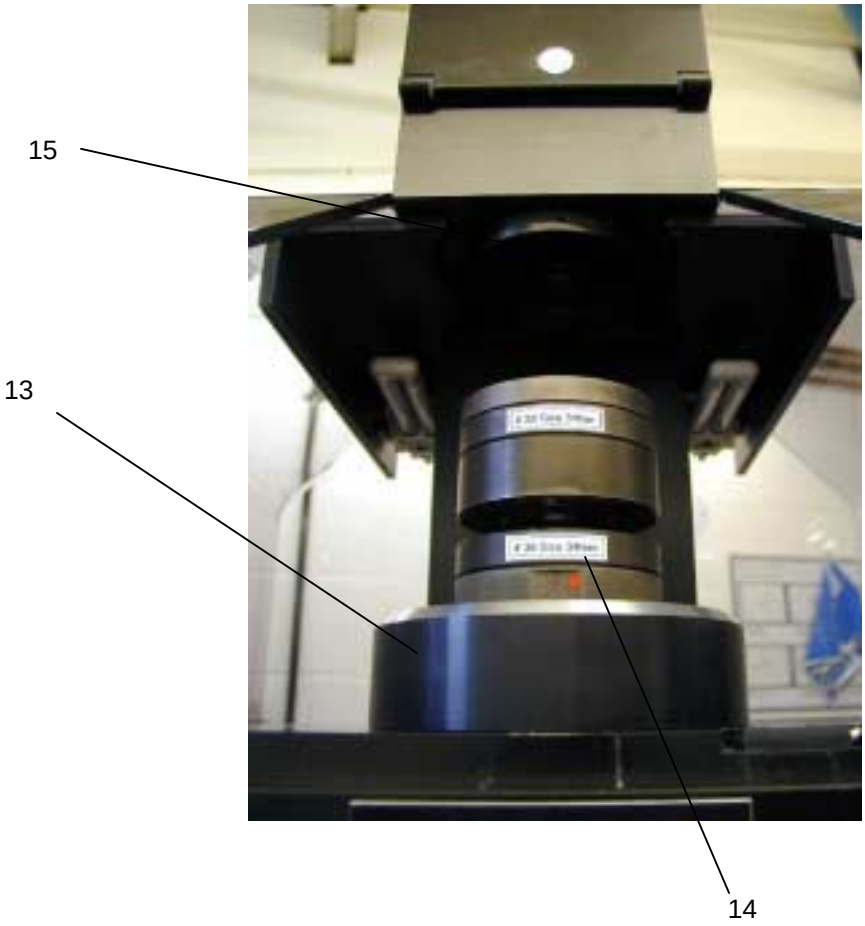
13	Punch Holder
14	Punch and Die
15	Die Vacuum Clamp
28	Punch and Die Button
29	**Punch and Die Blank**
30	**Punch and Die Rest**

6.3 Punch and Die Holder



1	Top Cover
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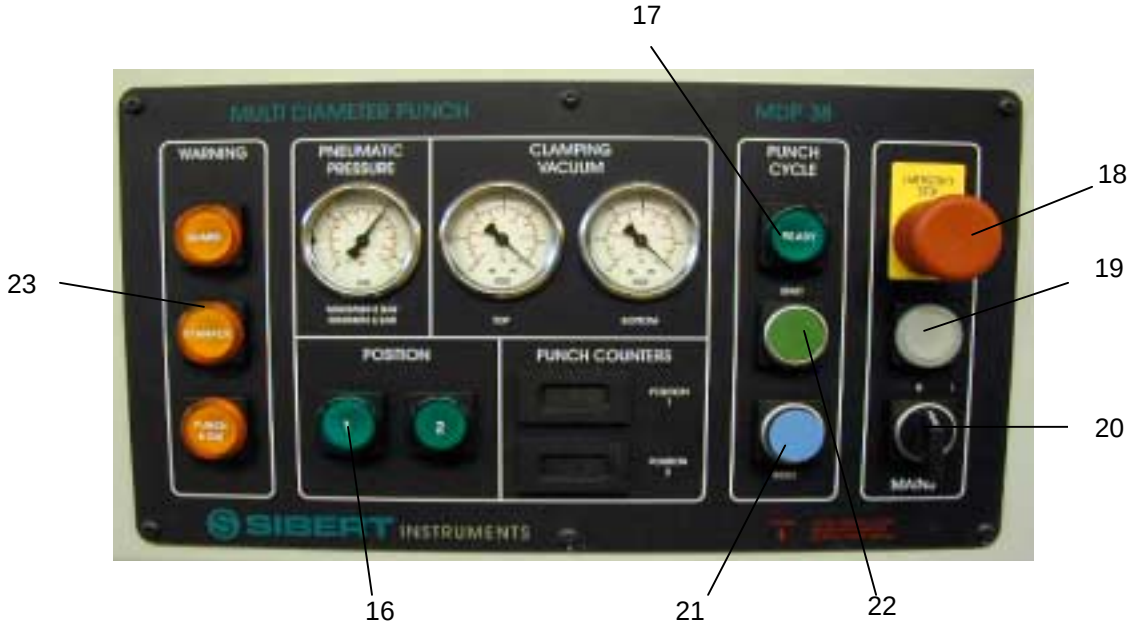
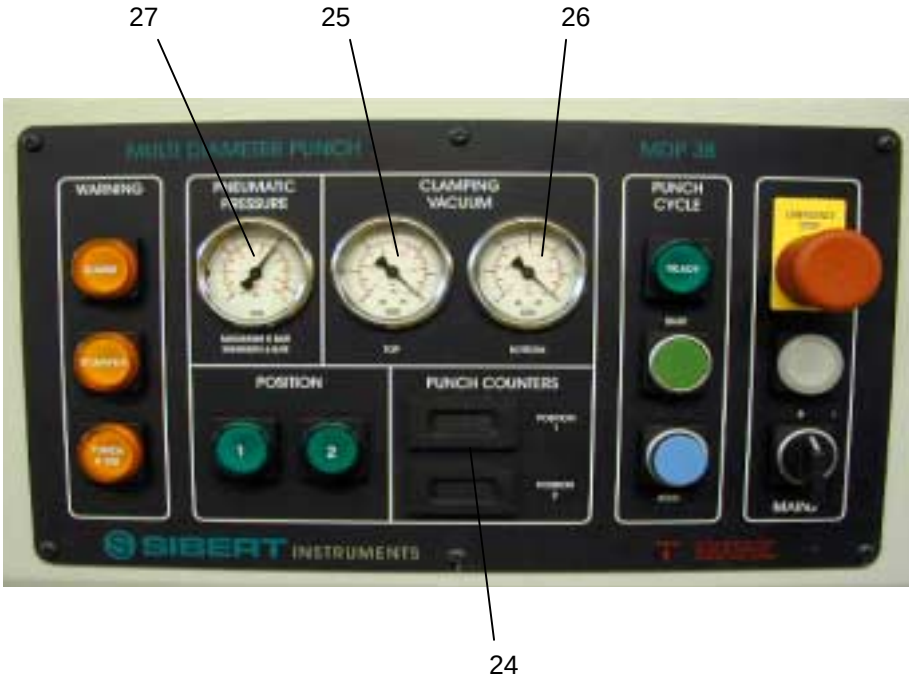
13	**Punch Holder**
14	**Punch and Die**
15	**Die Vacuum Clamp**
28	Punch and Die Button
29	Punch and Die Blank
30	Punch and Die Rest

7 Control Panel (Electrics)



16	Punch Selection Indicators	2 off indicators showing which punching station is currently active.
17	Punch Cycle Ready Indicator	Will illuminate when the selected Punch and Die set is in position and ready for Punching.
18	Emergency Stop Button	The machine can be stopped at any time by **PUSHING** the **EMERGENCY STOP BUTTON**. This will remove both electrical and pneumatic power from the machine. The button must be pulled out to enable the machine to be used again.
	⚠	**See Section 5 - Power Failure Reset Procedure**
19	Mains Power Indicator	Shows that the machine is switched on and the Emergency Stop Button is pulled out.
20	Mains Power Switch	Turns machine on and off provided Emergency Stop Button is pulled out.
21	Reset Button	Replaces the Punch and Die set back onto the Holder if it is no longer needed, provided a Stamper is not present.
22	Start Punch Cycle Button	Begins the punching cycle provided a stamper has been located on the Punch Spigot and the Front Guard is closed.
23	Warning Indicators	Illuminate if one or more safety interlocks or procedures are not correct.

8 Control Panel (Pneumatics)



24	Individual Punch Counters	2 Off Punch Counters showing the quantity of punch operations performed by each individual punching station.
25	Top Clamping Vacuum	Indicates the vacuum in (bar and “Hg) holding the Die set to the Die Vacuum Clamp.
26	Bottom Clamping Vacuum	Indicates the vacuum in (bar and “Hg) holding the Punch set to the Punch shaft.
27	Pneumatic Mains Pressure	Indicates incoming pneumatic mains pressure (bar and psi).

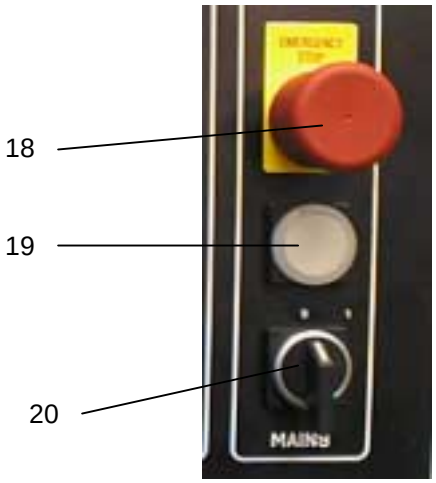
9 Operation

9.1 Switching Power On

The MDP 38 has one mains switch, which will turn on all parts of the machine.

Before operating the Mains On / Off Lever Switch (20) ensure that the Emergency Stop Push Button (18) is pulled out and there is not a Die set on the Top Vacuum Clamp.

See Section 5 - Power Failure Reset Procedure



Turn the Mains On / Off Lever Switch (20) to the ON position. The Mains On Indicator Light (19**)** will illuminate.

Check that the Pneumatic Pressure Gauge (27) is between the specified limits 85-115 psi (6-8 bar).

9.2 Selecting Punch and Die

The front guard must be closed during normal punch selection cycle and punching operation

9.2.1 One Punch and Die size

When using the MDP 38 with one size of Punch and Die, the equipment will be supplied with a spare set. This set should be kept in the carton until required for use, thus avoiding confusion when re-sharpening is required. The Punch and Die blank (29) should be secured into the Punch and Die rest (30).

Manually place the required Punch and Die set onto the Punch Holder (13).

Close the front guard and operate the appropriate Punch and Die button (28) to load the Punch and Die ready for use.

9.2.2 Two Punch and Die sizes

When using the MDP 38 with two sizes of Punch and Die, both sets should be placed in the Punch and Die rest (30) and the corresponding size button fitted **(Note: see Service Manual section 11.2 – Additional or Replacement Punch and Die Sets)**

Manually place the required Punch and Die set onto the Punch Holder (13).

Close the front guard and operate the appropriate Punch and Die button (28) to load the Punch and Die ready for use.

9.2.3 Three or more Punch and Die sizes

Although the MDP was originally intended for use with a maximum of two Punch and Die sizes, it is possible to use any number. Note however, the accurate logging of Punch counts will not be available.

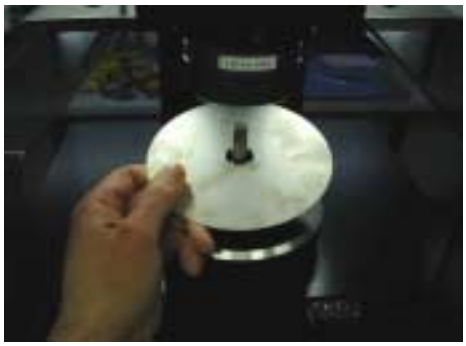
Ensure that one of the Punch and Die rest positions (30) is left vacant to allow the load procedure to be used normally.

Sibert Instruments recognises the need of their Customers and are currently working on a multiple size solution.

9.3 Placement of Stamper

Once in position with the Die set placed on the Top Vacuum Clamp the Punch Cycle Ready light (17) will illuminate, showing that the MDP 38 is ready for a stamper to be placed on the Punch Spigot.

The prepared stamper should now be placed with the **information side down** over the Punch Spigot (and adapter collar if fitted) and the front guard closed.



9.4 Punching

When the Front Guard has been closed the Start Punch Cycle Button (22) can be operated. The Punch set will then be lifted to the Die set and the centre hole will be punched. Once punched, the Punch set will return to its lower position. The corresponding Punch counter will operate at this time.

9.5 Removal of Stamper

The Front Guard can then be opened and the Stamper carefully removed.

Ensure the punched centre waste is lifted out with the Stamper.

Another prepared Stamper can be placed in position ready for punching, if it is required with the same size centre hole.

If a new size centre hole is required the Front Guard should be closed and the other size manually selected (28).

The Punch and Die sets should be replaced in designated rest (30) to maintain accurate logging of Punch counts.

9.6 Switching Power Off

Before the machine is switched off it is very important that a Die set is NOT left on the top Vacuum Clamp Plate.

If a stamper has just been punched, close the Front Guard and the Punch and Die will automatically be replaced in the Holder.

If the current Punch and Die selection has not yet punched, close the Front Guard and operate the Reset Button (21).

Turn the Mains On / Off Lever Switch (20) to the OFF position.

10 Warning Indicators

There are three warning indicators (23) on the left of the Control Panel. These will illuminate and a buzzer will sound if one of the controls has been used out of sequence or a guard is not in place as follows:-

10.1 Guard Warning

Any of the following will activate Warning (23A):-

Any Select Punch Size Button operated when the Front Guard is in the open position.

Start Punching Cycle Button operated when the Front Guard is in the open position.

10.2 Stamper Warning

Any of the following will activate Warning (23B):-

Start Punching Cycle Button operated with no stamper on Punch Spigot.

Attempting to re-punch an existing Stamper.

10.3 Punch and Die Warning

Any of the following will activate Warning (23C): -

Start Punching Cycle Button operated when the Die set is not in position on the Top Vacuum Clamp.

Insufficient Top or Bottom Clamping Vacuum.

Both Punch and Die sets or 1 Punch and Die together with the blank have been removed from the designated Punch mount position.

11 Documentation

11.1 Test Certificate

MDP 38 SERIAL NO:		
CUSTOMER:		
COLOUR:		
	ELECTRICAL	**PNEUMATIC**
SUPPLY / CONSUMPTION:		
FUSE RATING:		
SCHEMATIC DRAWING NUMBER:		
SCHEMATIC ISSUE NUMBER:		
LAYOUT DRAWING NUMBER:		
LAYOUT ISSUE NUMBER:		

	PUNCH AND DIES
PUNCH AND DIE 1 SERIAL NO:	
SIZE:	
MEASURED ID HOLE OF STAMPER:	**mm**
PUNCH AND DIE 2 SERIAL NO:	
SIZE:	
MEASURED ID HOLE OF STAMPER:	**mm**

INSPECTED BY STAMP:	
SIGNED:	
DATE:	

TEST STAMPERS ENCLOSED:	**YES**	**NO**

11.2 CE Declaration of Conformity

DIRECTIVE (89/392/EEC) AMENDED BY (91/368/EEC) AMENDED BY (93/44/EEC)

Name of manufacturer:	Sibert Instruments
Full postal address including country of origin:	Centre House The Pines Broad Street Guildford Surrey
Postcode:	GU3 3BH England
Description of product:	Multi Diameter Punch for increasing the inner diameter hole in CD Matrix Stampers.
Name , type or model, batch or serial number:	MDP 38

Standards used:

BS EN 292-1:1991	BS 4168-7:1982	BS 4278:1984	BS EN 60127
BS EN 292-2:1991	BS 4320:1968	BS EN 13602:2002	BS 2950:1958
BS EN 294:1992	BS 4320:1968	BS 3692:2001	BS 5584:1978
BS EN 418:1992	BS EN 10270-1:2001	BS EN 10270-3:2001	BS EN 61347:2001
BS EN 60204-1:1998	BS 970-1:1996	BS 5378: 1980	BS EN 60921:1991
BS EN 1050:1997	BS EN 485	BS EN 5499-5: 2002	
BS EN 953:1998	BS EN 515:1993	BS EN 954-1:1997	
BS EN 983:1996	BS EN 573:1995	BS EN 982:1996	
BS EN ISO 4762:1998	BS EN 12020-1:2001	BS ISO 6432:1985	
BS 4168-3:1994	BS EN 12020-2:2001	BS ISO 6431:1992	
BS 4168:1994	BS EN 755:1997	BS 5200:1997	
BS EN ISO 7380:1998	BS EN 754		
BS EN ISO 10642:1998	BS 5200:1997		

Place of issue:	Sibert Instruments, Guildford	
Authorised representative	Paul Sibert	Executive Chairman
Name and Position of authorised signatories:	James Gray	Managing Director
	Stephen Knight	Product Manager
	Allan Harvey	Operations Manager
	Ian Locke	Project Manager
	Richard Lewis	QA Supervisor
	David Humm	Chief Inspector
	David Gardner	Purchasing Co-ordinator

Declaration

I declare that as the authorised representative, the above information in relation to the supply/manufacture of this product is in conformity with the stated standards and other related documents following the provisions of 93/44/EEC Directives.

Signature of authorised signatory . . . . . Date . . . . . .

For further information Telephone +44 (0) 1483 739100
Facsimile +44 (0) 1483 302699

11.3 EU Declaration of Conformity

89/336/EEC Electromagnetic Compatibility Directive, amended by 92/31/EEC & 93/68/EEC
72/23EEC Low Voltage Equipment Directive, amended by 93/68/EEC

Name of manufacturer:	Sibert Instruments
Full postal address including country of origin:	Centre House The Pines Broad Street Guildford Surrey
Postcode:	GU3 3BH England
Description of product:	Multi Diameter Punch for increasing the inner diameter hole in CD Matrix Stampers.
Name , type or model, batch or serial number:	MDP 38

Standards applied:

EN 55011:-	1991/MEASUREMENTS IN RADIO INTERFERENCE ON IND. EQUIP./RAD'D. EM.
EN 55011:-	1991/MEASUREMENTS IN RADIO INTERFERENCE ON IND. EQUIP./COND. EM.
BS EN 61000-4-2 (Level 4):-	1995/EMC FOR INDUSTRIAL EQUIPMENT/ELECTROSTATIC DISCHARGE REQ.
BS EN 61000-4-4 (Level 4):-	1995/EMC FOR INDUSTRIAL EQUIPMENT/ELEC. FAST TRANSIENT REQ.

Other standards required:

BS EN 50081-2:-	1994/ ELECTROMAGNETIC COMP. GENERIC EM. STD./IND. ENVIRONMENT.
BS EN 50082-2:-	1995/ ELECTROMAGNETIC COMP. GENERIC IMM. STD./IND. ENVIRONMENT.
BS EN 60204 PT 1:-	1993/M/C SAFETY FOR ELEC. EQUIP./SPEC. FOR GENERAL REQUIREMENTS.

Declaration

The technical documentation required to demonstrate that the product meets the requirements of EMC, which includes the Low Voltage Directive, has been confirmed by the signatory below and is available for inspection by the relevant enforcement authorities. The CE mark was first applied in 1995.

Place of issue:	Sibert Instruments, Guildford	
Authorised representative	Paul Sibert	Executive Chairman
Name and Position of authorised signatories:	James Gray	Managing Director
	Stephen Knight	Product Manager
	Allan Harvey	Operations Manager
	Ian Locke	Project Manager
	Richard Lewis	QA Supervisor
	David Humm	Chief Inspector
	David Gardner	Purchasing Co-ordinator

Signature of authorised signatory . . . . . Date . . . . . .

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