

Appendix A

Views of New Machine

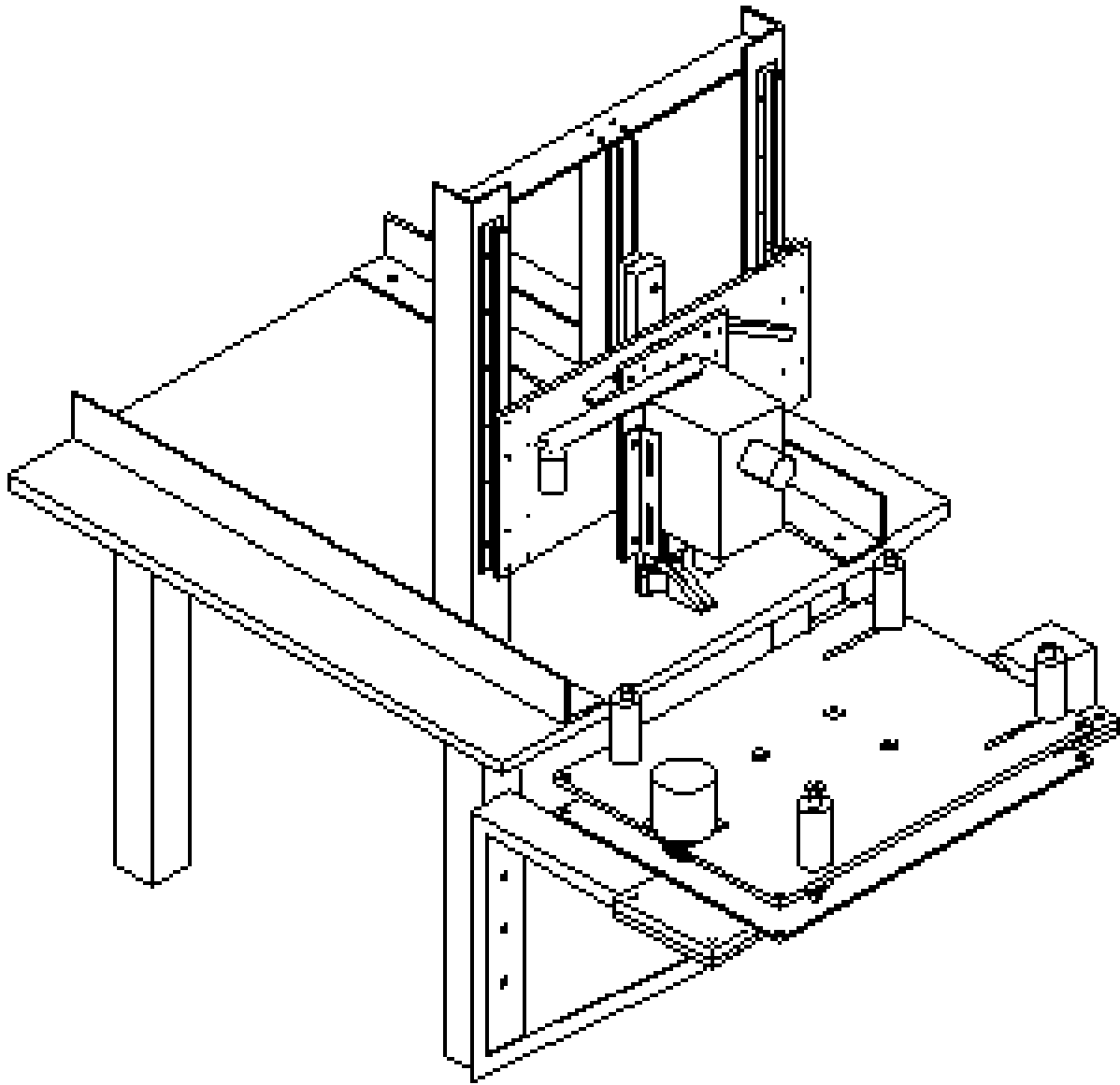


Figure A.1 Overview of New Rig

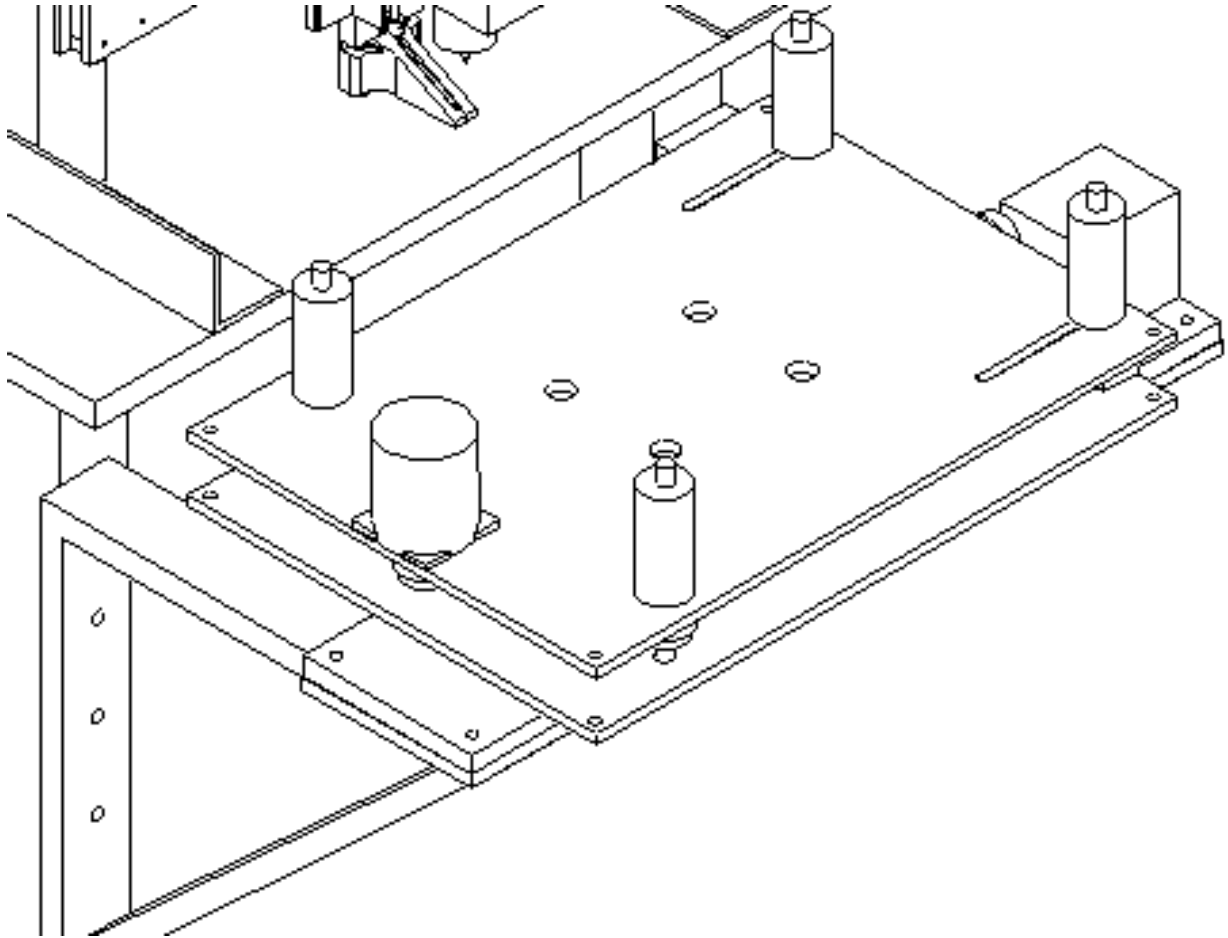


Figure A.2 Board Feeding System

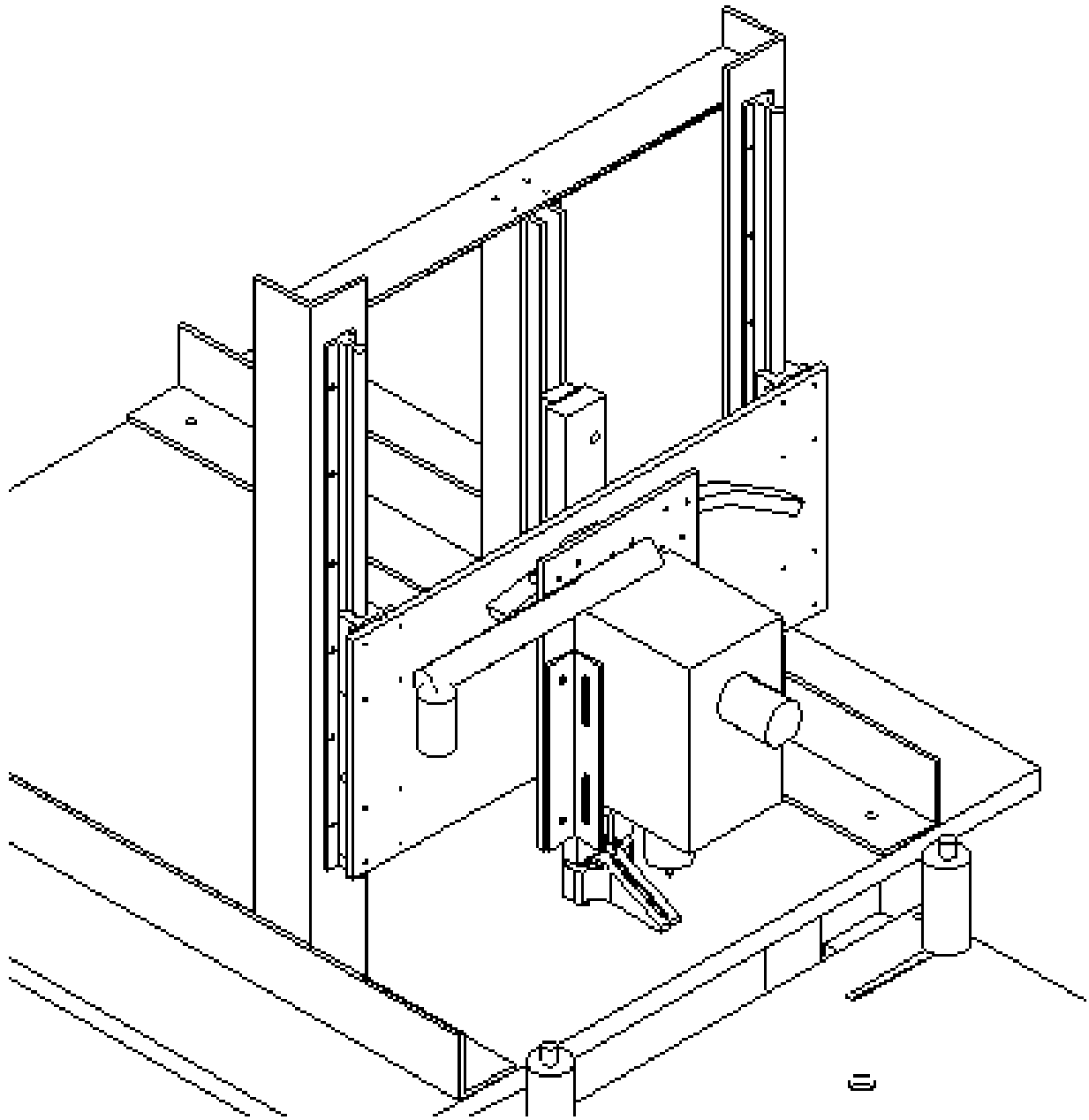


Figure A.3 Linear Force and Angular Off-Set System

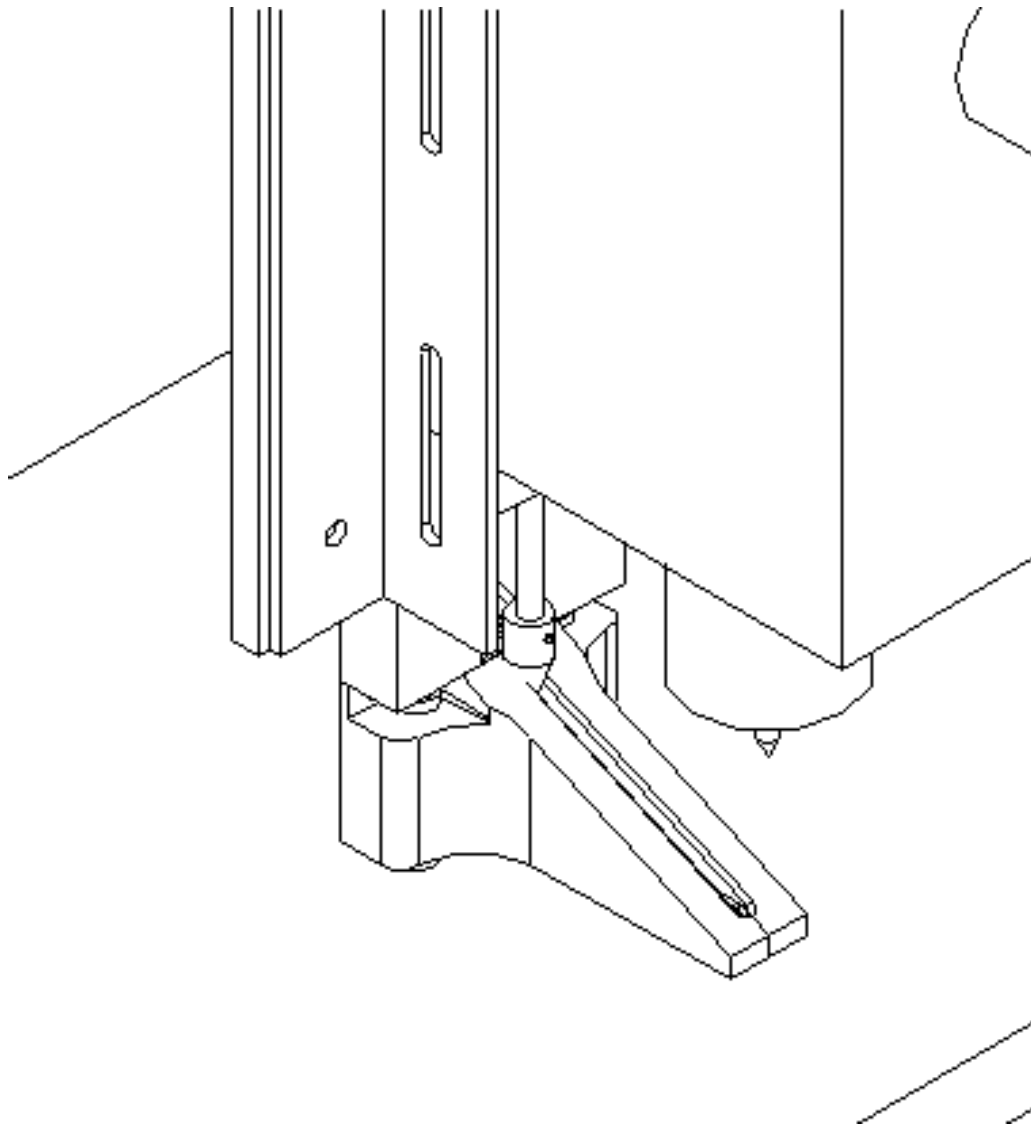


Figure A.4 Screw Feeding and Alignment Mechanism

Appendix B

Images of Sectioned Bit

Section Cut: 10/1000 Inch



New



1/4 Life



1/2 Life

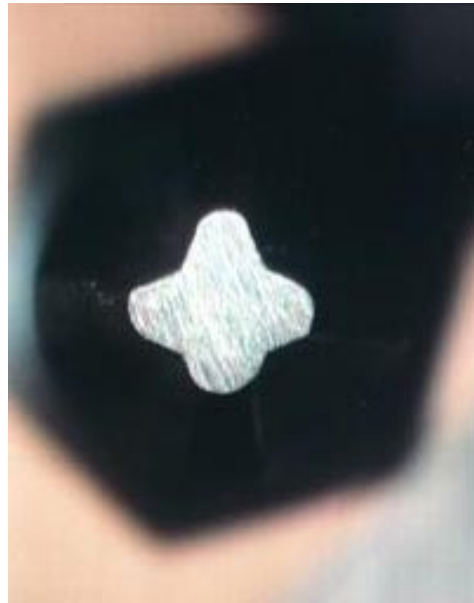


Full Life

Section Cut: 20/1000



New



1/4 Life



1/2 Life

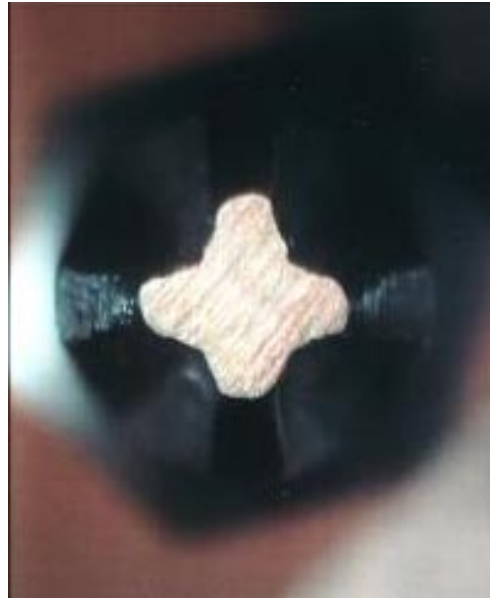


Full Life

Section Cut: 30/1000



New



1/4 Life



1/2 Life



Full Life

Section Cut: 40/1000



New



1/2 Life



1/2 Life



Full Life

Section Cut: 50/1000



New



1/4 Life



1/2 Life



Full Life

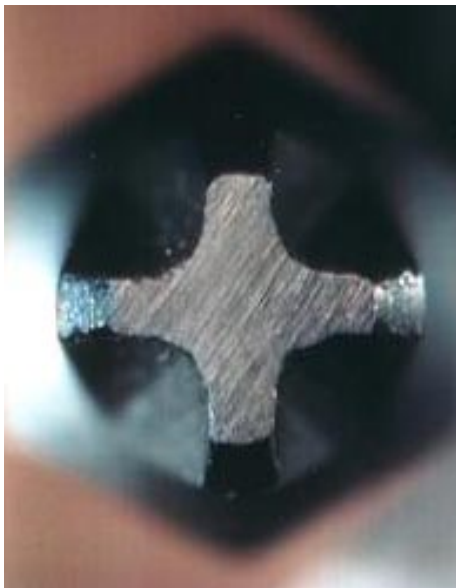
Section Cut: 60/1000



New



1/4 Life



1/2 Life



Full Life

Appendix C

Vendors for Laser Digitizing System

3D Scanners Ltd

South Bank Technopark
90 London Road
London SE1 6LN
United Kingdom

Tel: +44 171 922 8822
Fax: +44 171 922 8899

www.3dscanners.com

CGI
Capture Geometry Inside

15161 Technology Drive
Eden Prairie, MN 55344

Tel: (800) 207-4318
(612) 937-2005
Fax: (612) 937-3018

cgi@reverse-eng.com
www.reverse-eng.com

Cyber Optics Corporation

5900 Golden Hills Drive
Minneapolis MN 55416

Tel: (800) 746-6315
(612) 542-5000
Fax: (612) 542-5100

info@cyberoptics.com
www.cyberoptics.com

Digi-Botics Inc

2800 Longhorn Blvd., Ste. 104
Austin, Texas 78758

Tel: (512) 832-6544
Fax: (512) 832-1163

sales@digibotics
www.digibotics

LDI

Laser Design Inc

9401 James Ave. South
Suite 162
Minneapolis, MN 55431

Tel: (612) 884-9648
Fax: (612) 884-9653

www.laserdesign.com

SMX CORP

Spacial MetriX Corporation

222 Gale Lane
Kennett Square
Pennsylvania 19348

Tel: (610) 444-2300
Fax: (610) 444-2323

www.smxcorp.com