

DEPRAG

Operating Instruction Booklet

Pneumatic Air Motor

67-156

444637 B

Dear Customer:

This tool is the result of more than 70 years of experience in the design and manufacturing of pneumatic tools for the industrial market.

We kindly ask, that you read these operating instructions carefully, so that you will be able to use this tool safely and for many years to come. If

you need additional information, please contact your DEPRAG

Representative, one of our international support offices or us direct at DEPRAG. We will be happy to answer any questions. Please visit our

web site: www.deprag.com

1 Content

1	CONTENT	2
2	SAFETY TIPS	3
2.1.	General Safety Tips	3
2.2.	Owner Obligation.....	4
2.3.	Operator Obligation.....	5
2.4.	Warranty and Liability	5
2.5.	Symbol Description	6
2.6.	Observe Environmental Regulations	8
3	DESIGNATED EQUIPMENT USE.....	8
4	INSTALLATION	9
5	OPERATION	10
6	DISASSEMBLY - ASSEMBLY	11
7	MAINTENANCE AND UPKEEP	12
7.1.	Wear Parts.....	12
7.2.	Trouble Shooting	13
8	DELIVERY CAPACITY	13
8.1.	Spare Parts Drawing.....	14
8.2.	Dimensional Drawing	15
9	STORAGE.....	16
10	TECHNICAL DATA.....	16
11	DISPOSAL	17
12	DECLARATION OF MANUFACTURER.....	18
13	SERVICE LOCATIONS AND AUTHORIZED PARTNERS.....	19

2 Safety Tips

2.1. General Safety Tips



Before operating tool make sure to carefully read and observe this operating instruction.

Generally, the operator of the equipment and/or machinery is responsible for the equipment's perfect condition and operation, while observing all necessary safety regulations. The equipment and/or machinery has been constructed in accordance with the newest stand of the technology, while recognizing all necessary safety-related requirements. Nevertheless, while operating the equipment and/or machinery there is a change of bodily harm to the operator as well as damage to equipment and/or machinery and other property.

Operate the equipment and/or machinery only if equipment/machinery

- Is used for the task it was designed for
- is in perfect working condition and safe to use.

It is important to observe the technical data of the equipment, especially in regards to the environmental temperatures. The designated area of use for this equipment is clearly described in chapter 3 and those requirements have to be observed as well. Prerequisite for the safe conduct and the uninterrupted operation of the equipment, is the knowledge of the basic safety tips and the safety regulations. Additionally, all current regulations for a safe operational area, for accident-prevention guidelines of electrical and mechanical installations, as well as noise suppression demands must be observed. During any maintenance or repair work, a clean work surface is recommended. Also, it is not recommended to either eat or smoke during repair or maintenance. Arbitrary changes made to the equipment, which alters its designated use, voids the warranty and cancels the manufacturers liability.

- The tool is not insulated to protect against an electrical power surge.
- It is not recommended to use this tool in explosive hazardous environments, unless it was specifically designed for such a use.
- During the disconnection or reconnection of the tool from the compressed air, an injury is possible because of a whipping pressure-hose.

The operating-instruction booklet, especially the safety-symbols and safety-tips attached to the equipment or included in the documentation, must be observed at all times by all persons coming in contact with the equipment.

2.2. Owner Obligation

The owner is obligated to only let persons operate the equipment, which

- are familiar with basic work environment safety-rules and accident-prevention regulations. Also, those persons must be instructed in the correct use of the equipment.
- have read and understood all safety- and warning notifications in the Operating Instruction Booklet, as well as all other documentation pertaining to this equipment.
- check and confirm at regular intervals, that a safety-conscious operation is guaranteed.

Only qualified and authorized personnel is allowed to operate, maintain and repair this equipment. A malfunction, which impairs operator safety, must be immediately removed.

2.3. Operator Obligation

Personnel, who is engaged in the operation of the equipment, must always be committed to

- observe the basic safety- and accident prevention regulations,
- read and observe the safety- and warning notifications of this operating-instruction booklet.

2.4. Warranty and Liability

Unless otherwise specified, our “General Sales- and Delivery Conditions” apply. Warranty and liability-claims in regards to persons or equipment damages are invalid, if one or several of the following causes apply:

- Use of the equipment in a non-designated application.
- Improper installation, operation, service or maintenance of the machine.
- Operation of the machine with either defective or removed safety- and protection devices.
- Non-observance of the requirements stated in the operating-instruction booklet, in regards to transportation, storage, mounting, installation, operation, maintenance and service of the equipment.
- Structural change or adjustment on the equipment to a non-designated use.
- Inadequate supervision of wear-parts.
- Improper repair, inspection or maintenance.
- Catastrophic cases because of a war, acts of god or other reasons which are beyond our control.

2.5. Symbol Description



Read and observe the Operating Instruction Booklet, prior to and during operation of tool.



DANGER

Reference to an immediate danger to a person. May lead to heavy injuries or even death, if unobserved!



Waste Oil

Properly recycle environmentally damaging grease, cooling agents or detergents



RECOMMENDATIONS

Important or additional information on the equipment or in the documentation



Use eye-protection or wear safety goggles



Wear hearing-protection



Warning for hand-injuries.

Attention: remove hands from areas, which are marked with this symbol!



There is a danger, that hands may be crushed, seized or otherwise injured.



ESD protected area

Equipment may be damaged or destroyed by an electrostatic discharge.

Maintenance and repair on hydraulic and pneumatic equipment may only be performed by specially trained personnel!



Disconnect equipment from air supply, prior to repair of pneumatic or hydraulic equipment.

Provide regular preventive maintenance on hoses and airlines. Exchange hose lines, even if there is no visible damage! (Observe corresponding requirements of the manufacturer!)

After repair and maintenance, check the following items:

- make sure all detached and re-attached connections are solid.
- confirm that removed covers, screens or filters were re-installed
- During disconnecting or reconnecting of an air-operated equipment, injury may occur due to a whipping air-hose

After conclusion of maintenance or repair and prior to start of operation, make sure to

- Remove all for the maintenance or repair needed materials, tools and other supplies from work-area of the equipment
- Remove leaked liquid or oils
- Make sure all safety-devices on the equipment work perfectly!

2.6. Observe Environmental Regulations



When working on or with the equipment, it is imperative to observe all requirements in regards to waste-disposal and proper recycling.

Especially during installation-, repair or maintenance water damaging agents, such as,

- lubricating grease and –oil
- hydraulic fluid
- cooling agents
- solvent-containing cleaning agents

may not leak into the ground or into the sewage system!

Such materials must be stored, transported, contained and recycled in suitable containers.

3 Designated Equipment Use

The motor is designated to be assembled with another machine.

4 Installation

- Blow out air line and pressure hose, prior to connection it to the tool.
- Make sure, that all air lines have a sufficient cross-section (see technical data) and hoses must be free of bends and kinks. The hose length should not exceed 2 meters.
- All DEPRAG Motors, may be operated either with or without lubricated air. (see paragraph: Maintenance and Upkeep). Best results are achieved, when motor is lubricated with 1 – 2 drops of oil per 1m³. When motor is operated with dry air, a performance reduction of up to 20% occurs and maintenance increases!
- Connect the equipment as follows:
 - a) for standard operation connect to a maintenance unit consisting of filter with condensation reservoir, oiler and pressure regulator. When selecting a maintenance unit, make sure to observe the motor's air consumption requirement (see technical data).

Air Consumption	Thread Size	Part No.
0,05 - 0,5 m ³ /min	G 1/4	820454 A
0,15 – 1,5 m ³ /min	G 1/2	820455 A
0,8 – 4,0 m ³ /min	G 3/4	821608 A

- b) for the use with minimal lubrication connect equipment to a maintenance unit, consisting of Filter with condensation reservoir and Regulator

Air Consumption	Thread Size	Part No.
0,05 - 0,5 m ³ /min	G 1/4	822408 A
0,15 – 0,9 m ³ /min	G 3/8	826981 A
0,5 – 1,5 m ³ /min	G 1/2	822409 A
0,8 – 6,0 m ³ /min	G 3/4	826982 A

Each in connection with a Point-of-Use Oiler (Part No. 378077 A)

- c) For oilfree operation, connect to Filter/Regulator, consisting of Filter with condensation reservoir and Pressure Regulator.

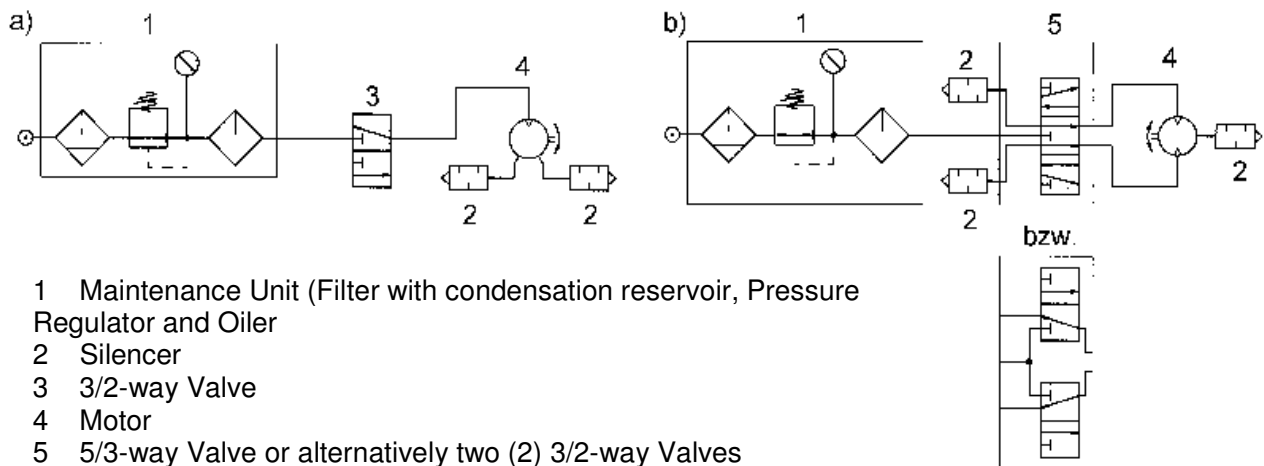
Air Consumption	Thread Size	Part No.
0,05 - 0,5 m ³ /min	G 1/4	822408 A
0,15 – 0,9 m ³ /min	G 3/8	826981 A
0,5 – 1,5 m ³ /min	G 1/2	822409 A
0,8 – 6,0 m ³ /min	G 3/4	826982 A

- Check pressure at directly on the machine. The Regulator needs to be adjusted to an airflow of 6 bar (85 PSI). A higher pressure leads to increased wear and tear. A lower pressure results into reduced power output.

When operating motor with only one turn-direction, connect motor as shown below (a) and if operated with reverse direction as well, see (b). It is important that the port which is not connected to an air-inlet, functions as the exhaust port and has to remain open.

Hinsichtlich der Druckluft-Qualität gem. ISO 8573-1 empfehlen wir:

	KLASSE	RESTÖL mg/m ³	RESTSTAUB Partikel- größe µm	max. Konzen- tration mg/m ³	Drucktau- punkt °C	max. Konzentration g/m ³
Bei geölter Luft	4	5	15	8	+3	6
Bei ungeölter Luft	3	1	5	5	-20	0,88



5 Operation

Connect motor to air supply. The motor starts by remote valve.

6 Disassembly - Assembly

Disassembly: (see Spare Parts Drawing)

ATTENTION



Prior to disassembly, disconnect equipment from air supply! Otherwise, machine starts automatically and an injury may occur.

Only experienced maintenance personnel may assemble or disassemble this equipment.

After repair or maintenance, verify that equipment runs to specification!

Principally, use only DEPRAG original spare parts. Otherwise, a reduction in equipment power-output and an increased maintenance-requirement occurs. If NON-DEPRAG parts are installed, DEPRAG is justified to void any existing warranty and liability obligations.

Special Repair Tools (Optional Equipment)

PART-NO.	NAME	
461811	Pin Wrench	for bearing cover 444577
461466	Key	for gear housing 444586
807416	Speedometer	

7 Maintenance and Upkeep

Testing and maintenance can be provided by Operator, disassembly and re-assembly of the DEPRAG Air Motor should be done by experienced maintenance personnel only. Incorrect assembly or disassembly can lead to injury of an operator and damage of the tool.

The motor requires little maintenance. If the following service rules are observed, the tool will have a long life expectancy and will remain in a safe condition.

- Check tool on a regular basis for external damage.
- Check your maintenance unit on a regular basis, make sure that sufficient oil is in the lubricator (if lubrication is used) and that the adjustment is correct. We recommend for your lubricator DEPRAGOL, part 790081 A.
- After cleaning, the gearing parts have to be greased prior to re-assembly, preferably with Grease, part 807293.
- After assembly fill 2 – 3 drops of DEPRAGOL into the air inlet nipple.
- Grease the gearing, ball, and needle bearing, as well as the o-rings every 500 operating hours, or at least once a year with a suitable grease.
- If motor is used without lubrication, reduce the maintenance requirement to 250 operating hours.
- If motor has not been used for a longer time period, drip a couple drops of Oil into the motor and let the motor run for 5 – 10 seconds.
- If malfunctioning, we recommend sending the motor to DEPRAG.

7.1. Wear Parts

QUANTITY	NAME	PART-No.
5	Vanes	444575/3

7.2. Trouble Shooting

In the case of a malfunction, check and observe all instructions contained in this technical documentation. If necessary, adjust equipment as needed.

Possible faults and their causes are shown below:

Fault	Cause	Solution
Insufficient Power	Worn vanes	Exchange vanes
	Insufficient lubrication	Provide the required air-quality
	No air, Shut-Off valve is closed	Open Shut-Off valve
Machine does not start	No air; shut-off valve is closed.	Open shut-off valve
	Worn vanes or vanes are jammed	Exchange vanes

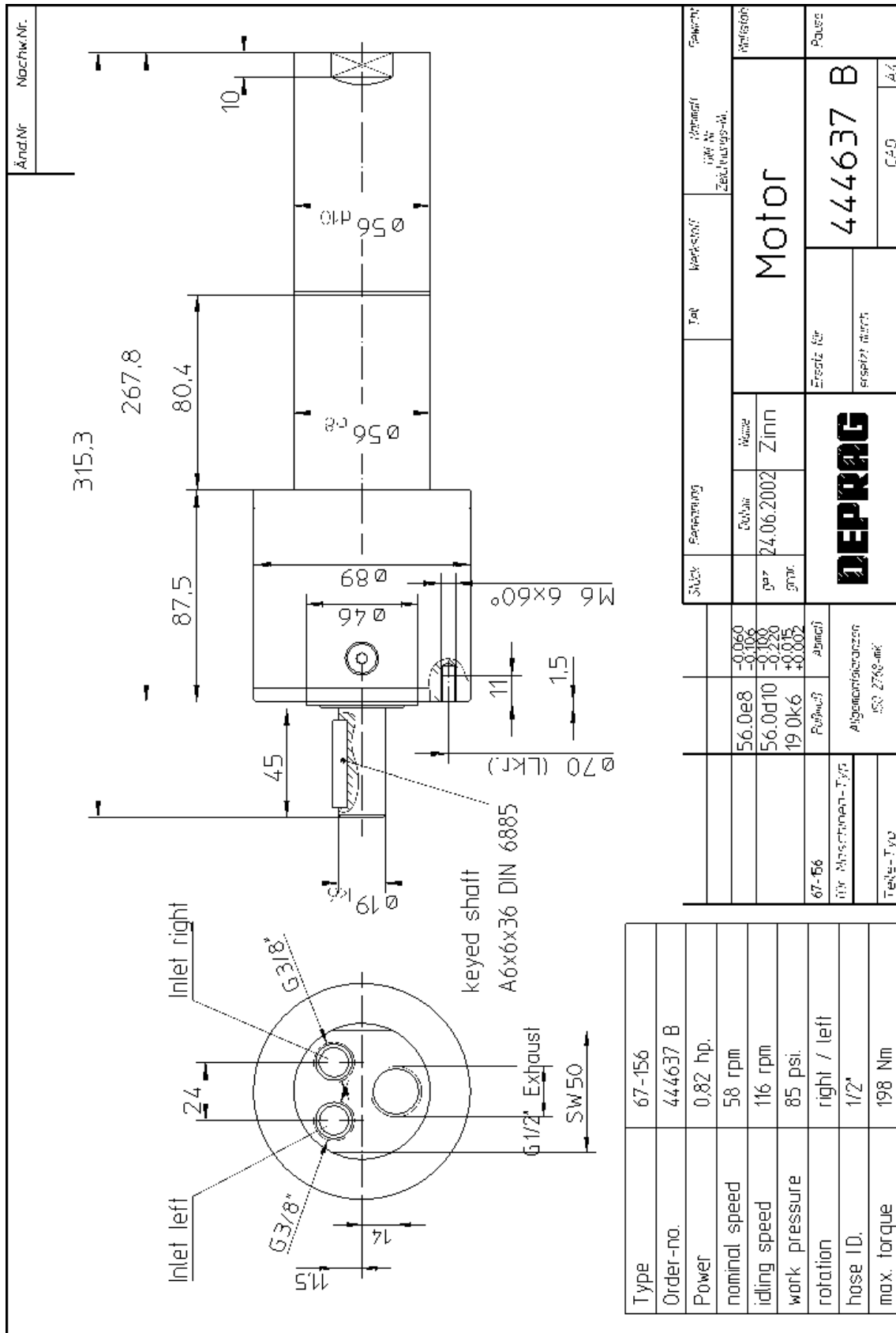
If necessary, send the equipment to DEPRAG.

8 Delivery Capacity

Please check the delivery capacity in regards to its completeness.

QUANTITY	NAME	PART-No.
1	Operating Instruction Booklet	011834E
1	Pneumatic Air Motor	444637 B

8.2. Dimensional Drawing



9 Storage

Unused machines should be stored in a dry, locked area.

10 Technical Data

Manufacturer DEPRAG SCHULZ GMBH u. CO.
Address Kurfürstenring 12 - 18 Postfach 1352
D-92224 Amberg D-92203 Amberg
Phone 09621/371-0
Fax 09621/371-120

Technical Data:

TYPE:	67-156
Order no.	444637 B
Exhaust	G 1/2"
Air Inlet	2 x G 1/8"
Idling Speed (rpm)	116
Air consumption (m ³ /min)	0,3
Power	0,82 hp.
Machine diameter (mm)	89
Length (mm)	315,3
Weight (kg)	6
Hose I.D. (mm)	12

11 Disposal

Unused machines should be stored in a dry, locked area. Observe local and environmental regulations for the separation and recycling of materials.



Recycle waste oil to avoid environmental contamination!

12 Declaration of Manufacturer

EC-Declaration of Manufacturer in accordance with the CE-Machine-Guideline 98/37/EG, appendix II B

DEPRAG SCHULZ GMBH u. CO.
Kurfürstenring 12 – 18 Postfach 1352
D-92204 Amberg D-92203 Amberg

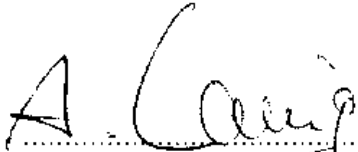
declares, that the construction of

67-156

is designated for the integration into another machine and operation of this other machine is prohibited until it has been confirmed that it confirms with the CE-Machine-Guideline i.d. F.98/37/EG.

used standards
- EN 292

Amberg, 17.10. 2002


Dipl. Ing. (FH) A. Langig
Mr. Design Dept.

13 Service Locations and Authorized Partners

ARGENTINIEN

ERIN s.a.

Av. Constituyentes 5751
RA-1431 Buenos Aires
Tel./Fax: +54 (0) 11 / 4573.1313

AUSTRALIEN

De Rossi Industrial Pty. Ltd.

Unit 1 – 2 / 600 Liverpool Road
Strathfield South, N.S.W. 2136
Tel.: +61 (0)2 / 8732.7200
Fax: +61 (0)2 / 8732.7299
e-mail: sales@derossi.com.au

BELGIEN

Aijkens en Zumpolle B.V.

Postbus 2994
NL-5306 ZG
Brakel/Niederlande
Tel.: +31 (0)4 18 / 67 18 16
Fax: +31 (0)4 18 / 67 32 17
Internet: <http://www.zumpolle.net>
e-mail: info@zumpolle.net

BRASILIEN

METALFEMA Ltda.

Rua Saõ Pedro, 786
Saõ Leopoldo – RS –
BRAZIL
ZIP 93.010-260
Tel.: +55 (0) 51 / 592.4050
Fax: +55 (0) 51 / 590.1856
e-mail: mtfma@zaz.com.br

CHINA, SUZHOU

DEPRAG China

DEPRAG Assembly Technologies Co., Ltd.
No. 5, Xing Han St, Blk. A#06-16
Suzhou 215021, P.R. China
Tel.: +86 (0) 512 – 6767 – 1108
Fax: +86 (0) 512 – 6767 – 1109
e-mail: biz@deprag.com.cn

CHINA, SHANGHAI

Testel Systems Pte Ltd Shanghai Representative Office

Room 1012
Tomson Commercial Building
710 Dong Fang Road
Shanghai 200122, China
Tel.: +86 (0) 21 – 5830-3077
Fax: +86 (0) 21 – 5830-3078
e-mail: testelsh@online.sh.cn

CHINA, SHENZHEN

Testel Systems Pte Ltd Shenzhen High Teck

Industrial Estate Nanshan
Shenzhen 518087, China
Tel.: +86 (0) 755-66-00143
e-mail: testelsh@online.sh.cn

DÄNEMARK

DEPRAG Scandinavia AB

Gap Sundins väg 3
SE-63346 Eskilstuna
Tel.: +45 (0) 98572250
Fax: +45 (0) 98572253
Internet: <http://www.deprag.com>
e-mail: keld.branner@get2net.dk

DEUTSCHLAND

Werk Amberg

Kurfürstenring 12-18,
D-92224 Amberg
Postfach 1352,
D-92203 Amberg
Tel.: +49 (0) 9621 / 3 71-0
Fax: +49 (0) 9621 / 3 71-1 20
Internet: <http://www.deprag.com>
e-mail: info@deprag.de

FINNLAND

Pneumacon OY

Läkkisepäntie 4
FI-00620 Helsinki
Tel.: +358 (0) 9 / 7288.160
Fax: +358 (0) 9 / 7288.1610

FRANKREICH

DEPRAG France

9, rue du Général Frère
F-67500 Haguenau
Tel.: +33 388 / 06.14.17
Fax: +33 388 / 93.01.08
e-mail: depragfrance@evc.net

GRIECHENLAND

D. Panayotidis – J. Tsatsis S.A.

6 Pireos Street – Moschaton-
Athen
Tel.: +30 (0) 1 / 4810.817-8-9
Fax: +30 (0) 1 / 482 96 73

GROSSBRITANNIEN

BALTEC (UK) LTD.

Baltec House, 1 Danehill
Lower Earley
Reading RG6 4UT
Tel.: +44 (0) 1189 / 311 191
Fax: +44 (0) 1189 / 311 103

IRAN

NACCARSON AIR TOOLS Co., Ltd.

Azadi Ave. No. 625
IR-Tehran 14 588
Tel.: +98 (0) 21 / 6006602 + 6015656
Fax: +98 (0) 21 / 6009451

IRLAND

Production Equipment Ltd.

Riverside Commercial Estate
IRL-Galway
Tel.: +353 (0) 91 / 745 100
Fax: +353 (0) 91 / 751 299

ITALIEN

DREX PALLOTTI S.r.l

Via A. Manzoni, 19
I-20090 Vimodrone/Mi
Tel.: +390 02 / 2740 0561 + 0569
Fax: +390 02 / 2740 0607

JAPAN

NIPPON GESCO Ltd.

P.O. Box 255 Kyobashi Tokyo
Ginza Matsuyoshi Bldg.
17 – 8, 7-Chome, Ginza,
Chuo-Ku, Tokyo
Tel.: +81 (0) 3 / 3542.2400
Fax: +81 (0) 3 / 3542.2420

KOREA (Süd)

Handwerkzeuge

DONG WON POWER-TECH.INC.

108-10 Moonjung-Dong
Songpa-Ku
Seaoul, Korea
Tel.: +82 (0) 2 / 409.1344
Fax: +82 (0) 2 / 409.1345

Schraubtechnik

Fatec Co.Ltd.

#903, SUNGLIM B/D 257
CHULSAN-DONG
KWANGMYUNG-CITY,
KYUNGGI-DO
Tel.: +82 (0) 2 / 688.2152
Fax: +82 (0) 2 / 688.2842

KROATIEN

SM AUTOMATIKA D.O.O

Trg i. Kukuljevica 6
HR-ZAGREB 10000
Tel./Fax: +385 (0) 1 / 389.6685

LITAUEN

HIDROTEKA

P.O. Box 572
LT-3028 KAUNAS
Tel.: +370 (0) 7 / 352195
Fax: +370 (0) 7 / 351952
e-mail: hidroteka@post.sonexco.com

LUXEMBURG

Comptoir Technique et Industriel

321, Route d'Arlon
L-8011 Strassen
Tel.: +352 / 31 31 40
Fax: +352 / 31 31 95

MALAYSIA

SEIMITSU Automation & Services Sdn.Bhd.

14, Jalan Berlian 8,
Taman Yayasan Sungai Jarom,
42600 Jenjarom
Selangor Darul Ehsan
Tel.: +60 (0) 3 / 3191.7576 / 7577
Fax: +60 (0) 3 / 3191.7578

NIEDERLANDE

Aijkens en Zumpolle B.V.

Postbus 2994
NL-5306 ZG
Brakel/Niederlande
Tel.: +31 (0) 4 18 / 67 18 16
Fax: +31 (0) 4 18 / 67 32 17
Internet: <http://www.zumpolle.net>
e-mail: info@zumpolle.net

NORWEGEN

TORP FASTENERS

P.O. Box 2953 – Tøyen
N-0608 Oslo
Tel.: +47 (0) 2 / 2681.530
Fax: +47 (0) 2 / 2199.127

ÖSTERREICH

Amersin Olschinsky GmbH

Carlberggasse 45
A-1230 Wien
Tel.: +43 (0)1 / 8 69 87 66
Fax: +43 (0)1 / 8 65 16 97
Internet: <http://www.amersin.at>
e-mail: information@amersin.at

POLEN

TOOL-SERVICE

Odolanska 50
PL-02-562 Warszawa
Tel./Fax: +48 (0) 22 / 845.4430

PORTUGAL

Anibal Pires Lda.

A.P. 23
E.N. 1 – Mourisca do Vouga
P-3750 TROFA AGD
Tel.: +351 (0) 234 / 646.820
Fax: +351 (0) 234 / 646.815
Internet: <http://www.anibalpires.pt>
e-mail: anibalpires@mail.telepac.pt

SCHWEDEN

DEPRAG Scandinavia AB

Gap Sundins Väg 3
S-633 46 Eskilstuna
Tel.: +46 (0) 16-12 61 10
Fax: +46 (0) 16-13 31 88
Internet: <http://www.deprag.se>
e-mail: info@deprag.se

SCHWEIZ

Limatec Automation AG

Schlachthausstrasse 15
CH-2540 Grenchen
Tel.: +41 (0) 32 / 6542904
Fax: +41 (0) 32 / 6542901
Internet: <http://www.limatec.ch>
e-mail: office@limatec.ch

SINGAPUR

Testel Systems Pte Ltd

1200 Depot Road # 04-07/09
Singapore 109675
Tel.: +65 / 271-3688
Fax: +65 / 271-8866
e-mail: testel@pacific.net.sg

SLOWENIEN

MB-NAKLO D.O.O.

Toma Zupana 16
SLO 4202 NAKLO
Tel.: +386 (0) 4 / 277 17 00
Fax: +386 (0) 4 / 277 17 17
e-mail: mb-naklo@siol.net

SPANIEN

ALCOTAN SISTEMASS S.A.

p° de la Direccion, nmro. 95,
local
E-28039 Madrid
Tel.: +349 (0) 1 / 311.17.84 + 311.18.01
Fax: +349 (0) 1 / 311.60.53

Barcelona office:

Passeig de la Mare de Déu del
Coll, 122-124
E-08023 Barcelona
Tel.: +349 (0) 3 / 2 19 77 43

TAIWAN

I HEN MACHINE Co.Ltd.

6F-9, No. 12, Lane 609, Sec. 5
Chung-Hsin Road,
San-Chung City
241 Taipei Hsen
Tel.: +886 (0) 2 / 2999.6766
Fax: +886 (0) 2 / 2999.6236

TSCHECHIEN/SLOWAKEI

DEPRAG CZ a.s.

ul. T.G. Masaryka 113
CZ -50781 Lázně Bělohrad
Tel.: +420 (0) 4 93 / 79 24 11
Fax: +420 (0) 4 93 / 79 25 12
Internet: <http://www.deprag.com>
e-mail: info@deprag.cz

TÜRKEI

YNA MAKINA ELEKTRONIK

Tur. Ins. Ltd. Sti.
Hürriyet Cad. Ugurcan Is
Merkezi No. 20 Kat. 3
Daire: 12
TR-81410 Kartal-Istanbul
Tel.: +90 (0) 216 / 306.7510
Fax: +90 (0) 216 / 306.7512

UNGARN

ADLER '91

Export/Import Kereskedelmi
Tabaré u. 18/B
H-8800 Nagykanizsa
Tel./Fax: +36 (0) 93 / 314 633

Nóniusz Tool Trading House Ltd.

Kőbányai út. 47/6
H-1101 Budapest
Tel.: +36 (0) 1 / 260 030 30
Fax: +36 (0) 1 / 260 060 83
Internet: <http://www.noniusz.hu>
e-mail: noniusz@noniusz.hu

USA, MEXIKO, KANADA

DEPRAG INC.

645 Hembry St. / P.O. Box 1554
Lewisville, TX 75057-4726
Phone: +1 / 972 / 221 – 8731
Fax: +1 / 972 / 221 – 8163
Toll Free: (800) 4 DEPRAG
Internet: <http://www.deprag.com>
e-mail: deprag@depragusa.com

VENEZUELA

Suministros Tecnicos SUMTEC C.A.

Av. Francisco de Mirando, Centro
Plaza
Torre C, Piso 16, Oficina C16 A-B
Urb. Los Palos Grandes
Caracas 1060
Tel.: +58 (0) 212 – 2856410
Fax.: +58 (0) 212 – 2851947

DEPRAG

DEPRAG SCHULZ GMBH u. CO.

Postfach 1352, D-92203 Amberg
Kurfürstenring 12-18, D-92224 Amberg
Telefon (09621) 371-0
Fax (09621) 371-120
Internet: <http://www.deprag.com>
e-mail: info@deprag.de



ZERTIFIZIERT NACH DIN EN ISO 9001