

# DEPRAG

## Operating Instruction Booklet

### E-Torque-Wrench

**MS7DMS-W**  
**MS25DMS-W**

**388050 A**  
**388050 C**

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](http://www.deprag.com)

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## 2 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 *Designated Equipment Use* 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.

## 2.1. Owner Obligation

The owner is obliged to only let persons operate the equipment, who

- are familiar with basic work environment safety rules and accident-preventing 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.

## 2.2. Operator Obligation

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

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

## 2.3. 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.

## 2.4. 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 serious injuries or even death, if unobserved!



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

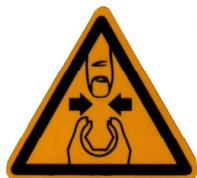


Wear hearing protection



Warning for hand-injuries.

Attention: Keep away your hands from areas, which are marked with this symbol!



There is the 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!

## 2.5. 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

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

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

## 2.6. General Technical Measuring-Information



NOTE:

The Transducer (measuring platform/Dynamometer) has to be positioned on a solid base, which does not allow any movement.

At that time the transducer should be free of external forces or vibrations (such as the distortion of the measuring platform resulting from incorrect installation or binding exhaust hose).

After each start-signal, the charge amplifier will reset and perform a zero calibration. External forces, momentum, or vibration can distort the torque measurement.

### TERMINOLOGY:

<b>Measuring Value:</b>	Submitted torque from transducer
<b>Calibration Value:</b>	Sensitivity of transducer i.e. C1000

For quality assurance and to provide necessary documentation and records during a quality audit, we recommend the calibration and certification of this equipment every 12-months.

For our torque-measuring instruments and torque-sensors as well as complete measuring cells, we offer calibration services directly from DEPRAG.

We are always available for inquiries; please do not hesitate to contact us!

### **3 Designated Equipment Use**

The E-Torque-Wrench has been solely designed and manufactured for the industrial measuring of torque values, using strain-gauge transducers (designated use).

### **4 DMS-Bridge**

The electrical resistance of each gauge changes with deformation. The cause of the deformation can be strength, pressure, torque, movement, angle, etc. The resistance of a deformed strain gauge is composed by its base-resistance  $R$  (unloaded) and the resistance-alteration caused by the deformation  $\Delta R$ .

## 5 Connection and Installation of a E-Torque-Wrench



**Attention:**

All with sealing wax secured screws may not be opened – this will void the warranty!!

1. Input calibration value, i.e. 1000 (engraved on the e-torque-wrench) into the measuring electronic according to the instructions.
2. Connect e-torque-wrench with measuring electronic (without load), using cable 385410 A/B (optional equipment).
3. Install accessories, such as screwplate, bit- or socket-adapter to the e-torque-wrench.

All E-Torque-Wrenches are intended for the connection to our torque measuring instrument DME25DMS (see leaflet D 3020).

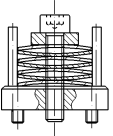
For quality control, we offer for all measuring platforms the corresponding calibration certificates.

## 6 Technical Data

<b>DEPRAG</b>	Maßblatt	390941
		07.06.2002

### Drehmomentschlüssel

Typ: MS7DMS-W    Bestell Nr.: 388050 A  
 Typ: MS25DMS-W    Bestell Nr.: 388050 C

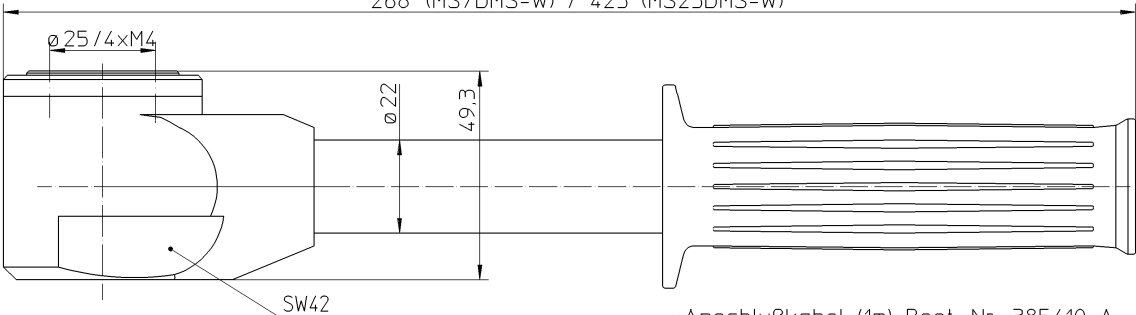


- \* Schraubplatte M3 Bestell-Nr. 120425 B
- M4 Bestell-Nr. 120426 B
- M5 Bestell-Nr. 120427 B
- M6 Bestell-Nr. 120428 C
- M8 Bestell-Nr. 120439 C

} siehe auch Druckschrift 3320

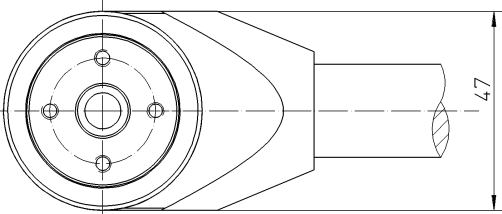
- \* Steckschlüsselaufnahme nach DIN 3121 1/2\*  
  Best. Nr. 120488 A
- \* Klingenaufnahme nach DIN 3126 1/4\*  
  Best. Nr. 120489 A

268 (MS7DMS-W) / 423 (MS25DMS-W)



SW42

- \*Anschlußkabel (1m) Best. Nr. 385410 A
- \*Anschlußkabel (2m) Best. Nr. 385410 B
- \*Anschlußkabel (3m) Best. Nr. 385410 C




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\* ist Zubehör auf besondere Bestellung.  
siehe auch Druckschrift 3020 bzw. 3022

Technische Daten:	MS7DMS-W	MS25DMS-W
Meßbereich	+/- (1-7) Nm	+/- (4-25) Nm
Speisespannung	5V DC	5V DC
zul.Überlastung	100%	100%
Genauigkeitsklasse	1	1
Arbeitstemperaturbereich	0...+60°C	0...+60°C
Temperaturkoeffizient d. Kennwertes	0,01%/K	0,01%/K
Temperaturkoeffizient d. Nullsignales	0,02%/K	0,02%/K
Empfindlichkeit	1,8 mV/V	1,8 mV/V
Anschlußstecker	4-polig	4-polig
Gewicht	0,5 kg	0,7 kg

\*Messelektronik Typ DME25DMS Best.Nr.: 385409 A



Zertifiziert nach DIN EN ISO 9001

## DEPRAG

DEPRAG SCHULZ GMBH u. CO.  
Postfach 1352, D-92203 Amberg

techn. Änderungen vorbehalten  
07.06.2002 RH

<b>MODEL No. (ANGLE DESIGN)</b>	<b>MS7DMS-W</b>	<b>MS25DMS-W</b>
<b>PART No.</b>	<b>388050 A</b>	<b>388050</b>
<b>Measuring range (Nm)</b>	$\pm 1$ to $\pm 7$	$\pm 4$ to $\pm 25$
<b>Supply Voltage (DC) (V)</b>	5	
<b>Overload (%)</b>	100	
<b>Accuracy Class</b>	1	
<b>Operating Temperature (°C)</b>	0 to +60	
<b>Temperature coefficient of the nominal value (% / K)</b>	0,01	
<b>Temperature coefficient of the zero signal (% / K)</b>	0,02	
<b>Connector Plug</b>	4-polig	
<b>Weight (kg)</b>	0,5	0,7

## 7 Accessories are optional equipment (see Picture)

ACCESSORIES - OPTIONAL EQUIPMENT FOR	MS7DMS-W	MS25DMS-W
<b>Electronic Torquemeter DME25DMS</b> (Leaflet 3022) Part No.	385409 A	
<b>Connection Cable</b> Part No.	1m 385410 A	2m 385410 B
<b>Screwplate M3</b> <sup>2</sup> ( Part No.	120425 B	
<b>Screwplate M4</b> <sup>2</sup> ( Part No.	120426 B	
<b>Screwplate M5</b> <sup>2</sup> ( Part No.	120427 B	120427 B
<b>Screwplate M6</b> <sup>2</sup> ( Part No.	-	120428 C
<b>Screwplate M8</b> <sup>2</sup> ( Part No.	-	120439 C
<b>Bit Adapter</b> <sup>2</sup> ( (DIN 3121 F6,3 (1/4")) Part No.	120489 A	
<b>Socket Adapter</b> <sup>2</sup> ( (DIN3121E12,5 (1/2")) Part No.	120488 A	
<b>Factory Calibration (on special request – optional):</b> This service includes the testing, calibration and certification of equipment to be traceable to national norms in accordance with DIN EN ISO 9001.		

<sup>1</sup>( to connect transducer to measuring instrument

<sup>2</sup>( please select bits according to leaflet D3320

## 8 Delivery Capacity

Please check the delivery capacity in regards to its completeness.

QUANTITY	NAME	PART No.
1	Operating Instruction Booklet	011721 EN
1	E-Torque-Wrench	388050 A/C

## 9 Storage

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

## 10 Disposal

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

## 11 Conformity Declaration

### EC-Conformity Declaration according to the EC-Machine-Guidelines 98/37/EC, Amendment IIA

We,

DEPRAG SCHULZ GMBH & CO.  
PO Box 1352  
D-92203 Amberg

hereby confirm, that the design of the  
E-Torque-Wrench

**MS7DMS-W**  
**MP25DMS-W**


conforms to the following, relevant regulation:

- EC-Machine-Guidelines, Version 98/37/EC, Amendment No. 1 and No. 2.2.

Applicable Standard:

- EN 292

Amberg, 27.01. 2004

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

## 12 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.

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Strathfield South, N.S.W. 2136  
Tel.: +61 (0)2 / 8732.7200  
Fax: +61 (0)2 / 8732.7299  
e-mail: [sales@derossi.com.au](mailto:sales@derossi.com.au)

### BELGIEN

#### Aijkens en Zumpolle B.V.

Postbus 29  
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](mailto:info@zumpolle.net)

### BRASILIEN

#### METALFEMA Ltda.

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Saõ Leopoldo – RS –  
BRAZIL  
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Fax: +55 (0) 51 / 590.1856  
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### CHINA, SUZHOU

#### DEPRAG China

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#### Werk Amberg

Kurfürstenring 12-18,  
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D-92203 Amberg  
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Fax: +49 (0) 9621 / 3 71-1 20  
Internet: <http://www.deprag.com>  
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### ESTLAND

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Fax: +358 (0) 9 / 7288.1610  
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e-mail: [info@pneumacon.fi](mailto:info@pneumacon.fi)  
e-mail: [harry.lindroos@pneumacon.fi](mailto:harry.lindroos@pneumacon.fi)

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e-mail: [depragfrance@evc.net](mailto:depragfrance@evc.net)

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#### 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

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Honiley, Kenilworth  
Warwickshire CV8 1NP  
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Fax: +44 (0) 1926 485481  
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#### 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  
e-mail: [sales@productionequipment.ie](mailto:sales@productionequipment.ie)

### 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  
e-mail: [pallotti@drex.com](mailto:pallotti@drex.com)

### 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  
e-mail: [mail@gesco.co.jp](mailto:mail@gesco.co.jp)

### KOREA (Süd)

#### Handwerkzeuge

#### DONG WON POWER-TECH. INC.

108-10 Moonjung-Dong  
Songpa-Ku  
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Technology Fatec Co.Ltd.**  
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Kwangmyung-City,  
Kyunggi-Do  
Tel.: +82 (0) 2 / 2 688.2152  
Fax: +82 (0) 2 / 2 688.2842  
e-mail: [fatec@chollian.net](mailto:fatec@chollian.net)  
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### KROATIEN

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e-mail: [info@sm-automatika.hr](mailto:info@sm-automatika.hr)

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Fax: +370 (0) 37 / 351952  
e-mail: [hidroteka@hidroteka.lt](mailto:hidroteka@hidroteka.lt)

## LUXEMBURG

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Penang, MALAYSIA  
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Fax: +352 / 31 31 95

## MALAYSIA

**FI INNOVATION ENTERPRISE**  
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Penang, MALAYSIA  
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Fax: +60/4/ 866.0785  
e-mail: [farisfi@tm.net.my](mailto:farisfi@tm.net.my)

## NIEDERLANDE

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Fax: +31 (0) 4 18 / 67 32 17  
Internet: <http://www.zumpolle.net>  
e-mail: [info@zumpolle.net](mailto:info@zumpolle.net)

## NORWEGEN

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SE-63346 Eskilstuna  
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## ÖSTERREICH

**Amersin Olschinsky GmbH**  
Carlberggasse 45  
A-1230 Wien  
Tel.: +43 (0)1 / 8 69 87 66  
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Internet: <http://www.amersin.at>  
e-mail: [information@amersin.at](mailto:information@amersin.at)

## POLEN

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CH-2540 Grenchen  
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Fax: +41 (0) 32 / 6542901  
Internet: <http://www.limattec.ch>  
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