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# Delivery Specifications

# Technical Documentation

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## Delivery Specifications Technical Documentation

### Change index

Change			Changed sections	Description of change	Author	Checked by
No.	Date	Version				
1	2007-10-15	1.0	all	Initial compilation	A. Vöcking	-
2	2007-11-20	1.1	all	Correction to content	A. Vöcking	F. Eiterig C. Heemann
3	2007-11-28	1.2	5, 7, 9, 10	Final correction to content	A. Vöcking	U. Weber C. Heemann
4	2008-02-07	1.3	7 (H10)	Correction to content	A. Vöcking	F. Eiterig
5	2008-12-18	2.0	1, 5, 7, 7 (H7), 9, 10	Section 1: Amendment regarding of final customer/operating company Section 5: Amendment regarding national language Section 7: Correction to content, amendment, replacement of DIN EN 1050 in No. H7 Section 9: Addition of link to LVTD Section 10: Deleted without replacement	A. Vöcking	F. Eiterig U. Weber C. Heemann

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## Delivery Specifications Technical Documentation

### 1. Area of applicability

The specifications described in this document apply specifically to the version and delivery of technical documentation of the machine/equipment. They supplement all other technical equipment and delivery specifications of the Wheelabrator Group GmbH. With the placement of an order, the currently valid laws, standards, guidelines and recognised technological regulations become binding for the contractor.

Requirement specifications and/or delivery specifications of the final customer/operating company of the machine/facility take precedence over equipment specifications and delivery specifications of Wheelabrator Group GmbH.

### 2. General requirements

The technical documentation for the machine/equipment must comply with the basic requirements of the EC Machinery Directive (Directive 98/37/EC) including Appendix 1 as well as the relevant standards, e.g. ISO/IEC/EN.

The EC Declaration of Conformity as per Article 8 of the EC Machinery Directive is an element of the scope of delivery and the machine/equipment must be provided with the CE marking. If only partial components are delivered, the manufacturer's declaration is sufficient.

For machines/equipment in accordance with Appendix IV of the EC Machinery Directive that are not built, or only in part, according to harmonised standards, an EC Type Approval certificate must be submitted.

### 3. Version

The technical documentation must always be provided in paper form (hard copy) and in electronic form on a data carrier. The following mandatory specifications must be observed:

- All documentation in paper form must be delivered in DIN A4 folders. All folders must have a table of contents with the date of the edition and folder no. 1 contains a general index. The folders must be numbered consecutively and marked on the spine with the Wheelabrator Group Comm. No.
- All documents must be supplied completely in electronic form on data carriers. The directory structure on the data carriers usually corresponds to the table of contents of the documentation in paper form. Unless other file formats are specified (MS Word, MS Excel, AutoCAD, EPLAN, etc.), the required documentation must be provided in Adobe PDF format (Portable Document Format). All electronic data must be unprotected and freely accessible.
- The electronic form of the technical documentation must be provided on CD-ROM or DVD-ROM data carriers (standard format ISO 9660, ISO 9660 + Joliet or ISO 9660:1999). Other types of data carrier (diskettes, DATs, etc.), including delivery by e-mail, must be approved by the orderer in advance. All data carriers must be provided with the Wheelabrator Group Comm. No. and the date of the edition.

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### 4. Scope and time of delivery

The scope (number) and time of delivery of the technical documentation can be obtained from the order. If the order contains no information on the delivery date, the documents must be delivered together with the machine/equipment at the latest.

### 5. Language

The technical documentation must always be provided in German and in the language of the country of use (national language). The national language version basically applies to all kinds of software annotation (PLC, CNC etc.), including signs on the machine/equipment. Details of this and any special regulations that may exist are noted on the order.

If the purchase order contains no information on the language of the country of use, a written enquiry is to be made at the purchasing department of Wheelabrator Group GmbH.

### 6. Changes and rebuilding

All changes made during manufacturing, installation, assembly, commissioning and trial operation at the customer's or at the operating company of the machine/device must be incorporated without delay by the contractor in the relevant technical documentation. Upon completion, a new edition of the technical documentation incl. details for revision management must be delivered.

The final technical documentation must correspond to the state of the machine/equipment at the time of acceptance, or after completion of the trial operation (as-built documentation).

If it emerges at later time, which may also be after the warranty period has elapsed, that the documents prepared by the contractor do not comply with the object of delivery, the contractor undertakes to bear the cost of any resultant correction to the object of delivery or replacement of the technical documents.

### 7. Content and structure

The following list shows which documents the contractor has to provide to the orderer. This list makes no claim to completeness and is value-free.

The contractor is obliged to provide all documents relevant to/necessary for his scope of delivery. The documents, which are not named at this point, must be specified separately in the order confirmation. The contractor is responsible (where applicable) for the integration and co-ordination of documentation for his subcontractors.

## Delivery Specifications Technical Documentation

The technical documentation is divided into the following subject areas:

### A. Safety

No.	Documents
A01	Energy layout
A02	Sketch of the mains connections and EMERGENCY-STOP areas
A03	All static and dynamic calculations and drawings (foundations, steel beam construction, load specifications, drive units etc.)

### B. Operation, maintenance and repair, training

No.	Documents
B01	<b>Operating Instructions, incl. operation, setting and maintenance instructions according to DIN EN 62079</b> The Operating Instructions must contain detailed, logical and comprehensive instructions for operating personnel on operation, maintenance and repair including detailed information on troubleshooting/fault elimination for the machine/equipment and comply with the minimum requirements according to Appendix I, Section 1.7.4 of the EC Machinery Directive.
B02	<b>Maintenance schedule (control book)</b> The maintenance schedule must contain information on preventive maintenance.
B03	<b>Spare parts catalogue (spare and wear parts lists)</b> All spare and wear parts lists must contain the name of the manufacturers, address, model designation, order number, parts number and DIN standard. Illustrations required for spare part identification, e.g. drawings, exploded drawings, photos, sketches or other illustrations, must also be provided (if necessary, in a separate section).
B04	<b>Information on environmental-friendly utilisation/disposal</b> of operating and auxiliary materials, replacement parts and all accumulated/separated substances.
B05	<b>Training documents</b> If training is provided for operating personnel of the machine/equipment, corresponding training documents must also be supplied. Details can be obtained from the order.
B06	<b>Data sheets on the filter media used</b>

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### C. Drawings

No.	Documents
C01	Installation diagrams
C02	Foundation diagrams
C03	Earthing diagrams
C04	Pneumatics diagrams
C05	Hydraulics diagrams
C06	Overview drawings (incl. illustration of the on-site location of sensors, actuators, etc.)
C07	Pipe diagrams incl. fittings (material and medium)
C08	Grating diagrams (incl. position specifications of individual gratings)
C09	Sound insulation drawings (incl. position specifications of individual elements)
C10	Assembly drawings

### D. Transport, installation and assembly instructions

No.	Documents
D01	Information on correct transport, installation (incl. specifications on size and weight of individual components)
D02	Assembly instructions with exact positioning of all components to be assembled (incl. assembly sequence schedule)

### E. Electrical system

No.	Documents
E01	Circuit diagram
E02	Terminal diagram
E03	Parts list (list of appliances) with all components with exact order designation and procurement addresses
E04	Cable diagram
E05	Switch cabinet layout, operating panels

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No.	Documents
E06	<b>Sketch of the switch cabinet layout with dimensional specifications, equipment identifiers etc.</b>
E07	<b>Sketch of the control and drive concept</b> (manufacturer and model)
E08	<b>Sketch of the communication systems</b> (bus systems, interfaces)

### F. Software (original data)

The software prepared for the machine/equipment must be documented with detailed and comprehensible comments and supplied additionally and separately on data carriers in accordance with section "3. Version".

No.	Documents
F01	<b>Operating panel / HMI</b>
F02	<b>PLC program (software) and software printout</b> preferably in CFC or LD form, incl. new-line character list, cross reference list and hardware description
F03	<b>CNC / NC</b> (parts programs, e.g. according to DIN 66025)
F04	<b>Drive technology</b> (e.g. drive parameters, safety parameters)
F05	<b>Machine-specific software</b>

### G. Machine setting data

No.	Documents
G01	<b>All reproducible initial operation settings, setting parameters</b> (e.g. pressures, flow rates, slide settings, parameter lists for electrical systems, workpiece-specific data)
G02	<b>Setting specifications for all system components</b> with unique assignment to the individual components
G03	<b>Initial operation record</b> in original (stamp / signature)

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### H. Certificates and attestation in original (stamp / signature)

No.	Documents
H01	EC Declaration of Conformity in accordance with the EC Machinery Directive
H02	Manufacturer's Declaration in accordance with the EC Machinery Directive
H03	EC Declaration of Conformity for pressure vessels in accordance with the Pressure Equipment Directive
H04	EC Type Approval Certificate
H05	Explosion protection certificates in accordance with the ATEX Directive with specifications on temperature stability, explosive area classification and resistance to solvents
H06	Certification on the setting of safety valves
H07	Hazard analysis of the supplied machine/equipment (based on DIN EN ISO 12100-1, DIN EN ISO 12100-2, DIN EN ISO 13849-1 and DIN EN ISO 14121-1)
H08	Hazard analysis for pressure vessel groups (systems in accordance with Pressure Equipment Directive)
H09	Safety data sheets in accordance with the Ordinance on Hazardous Substances (GefStoffV)
H10	Certification of electrical system in accordance with BGV A3 (regulations for occupational health and safety)
H11	Noise measurement record according to DIN 45635
H12	Measurement record of electrical equipment according to DIN EN 60204-1
H13	Test certificate from BZT (Federal Communications Commission), TÜV (Technical Inspection Agency), etc.
H14	Document of compliance with regard to accumulated/separated materials/substances
H15	PTB Certificates of Conformity (National Metrology Institute)
H16	GOST Certificates of Conformity
H17	Measurement record for lighting

All the specified certificates and attestations are to be supplied in the required number/language even if the delivered equipment or components are not subject to the EC Machinery Directive.

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### 8. Specifications on delivery note and delivery address

The delivery note for technical documentation must contain the Wheelabrator Group Comm. No., the individual order numbers and the exact designations of the documents in clear text with an unambiguous reference to the subject areas listed in the structure (see section "Content and structure"). The delivery note must be prepared in German.

**The documents listed in these specifications must be forwarded separately by post to the following address:**

Wheelabrator Group GmbH  
Technical Documentation  
Heinrich-Schlick-Straße 2  
D-48629 Metelen

Telephone: +49 (0) 25 56 / 88-0

Fax: +49 (0) 25 56 / 88-150

E-mail: [dokumentation@wheelabratorgroup.de](mailto:dokumentation@wheelabratorgroup.de)

### 9. Final provisions

All documents constitute a prerequisite for handover (acceptance) of the machine/equipment ready for use. Ready-for-use handover (acceptance) depends on the existence of these documents.

With the acceptance of the order, the contractor is obliged to apply the provisions named in these specifications and to meet the requirements derived therefrom. If they are not fulfilled, the order shall be deemed incorrectly performed. We reserve the right to claim for damages as a result of incorrect performance.

All changes to the scope of delivery/service, including exceptions to these specifications, require written authorisation from Wheelabrator Group GmbH.

We draw attention to the fact that as a rule software/hardware designations and the brand names of any companies cited in these delivery specifications are subject to trademark, patent or brand protection.

The current version of these delivery specifications is available on our web server in German and in English and can be downloaded at the following links:

German: <http://www.wheelabratorgroup.com/downloads/supplierinfo/WG-LVTD-DEU.pdf>

English: <http://www.wheelabratorgroup.com/downloads/supplierinfo/WG-LVTD-ENG.pdf>