



# OPERATING MANUAL BDC-44

## VERSION 1.1

**EC DECLARATION OF CONFORMITY**

in accordance with Appendix II sub A of Directive 2006/42/EC

**BLASTRAC B.V.**

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The Netherlands

We declare under our sole responsibility that the machine as described below conforms with the Health and Safety requirements of the European Directive for machine Safety.

In case of changes to the machine without our written authorization this declaration loses its validity.

**Model: Blastrac**      **BDC-44**      **Serial number:**      **xxxxx**

1. satisfies the conditions set out in the Machine Directive (Directive 2006/42/EC); Low voltage directive (2006/95/EC, as last amended; EMC directive 2004/108/EC, as last amended)
2. satisfies the following harmonized standards:  
NEN-EN 292-1, NEN-EN 60335-1, NEN-EN 60335-2-69, NEN-EN 55014, NEN-EN 55014-2 and NEN-EN 61000-3-2

Nieuwegein 08-12-2013

  
Michiel Kalisvaart



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## 1. Introduction

It is important that all persons who are working or maintaining this machine read the manual carefully and understand it fully.

Keep this manual near to the machine, so it can always be consulted.

Only authorized and trained personnel may operate this machine.

## 2. Machine description

The Blastrac dust collector BDC-44 can only be used for dry cleaning.

It should **only be** used for removing **not-inflammable dust or substances**.

The BDC-44 must **not** be used for **carcinogenic or asbestos substances**.

The machine is designed for usage in conditions according to classification **M** (see below).

Classification acc. standard EN 60335-2-69 – Annexe AA	
Class	Designation
L	(Low risk ) for separating dust with an exposure limit value of over 1 mg/m <sup>3</sup> , depending on the volume occupied.
M (BDC-44)	(Medium risk) for separating dust with an exposure limit value of over 0,1 mg/m <sup>3</sup> , depending on the volume occupied.
H	(High risk) for separating al dust with an exposure limit value lower than 0,1 mg/m <sup>3</sup> , depending on the volume occupied. Including carcinogenic and pathogenic dusts.

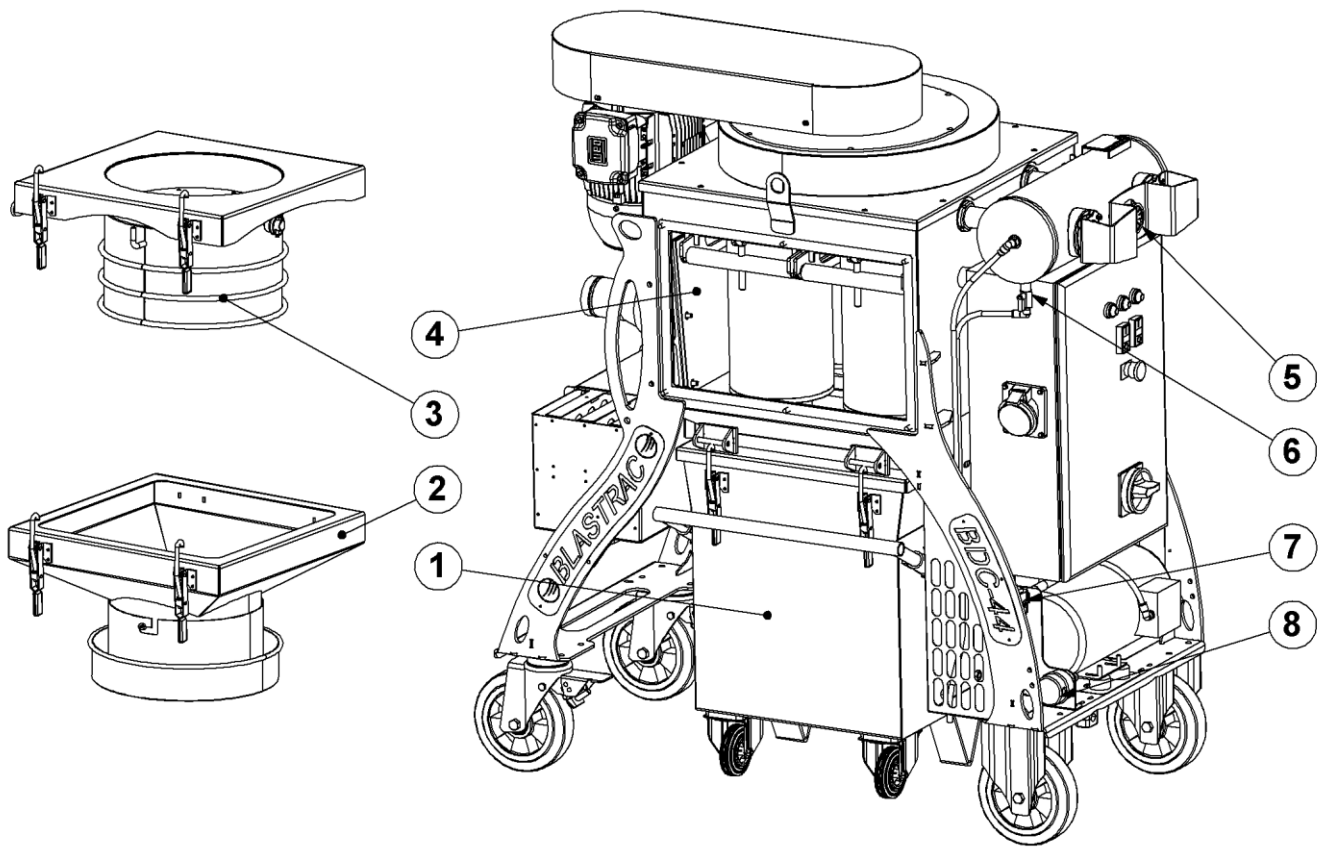
Dust emissions into the environment	
Class	Value of performance
L	Retains at least 99,1 % of particles measuring $\geq 3 \mu\text{m}$
M	Retains at least 99,9 % of particles measuring $\geq 3 \mu\text{m}$
H	Class H13 HEPA filter in accordance with EN1822

### Application

The BDC-44 is especially designed to be used in combination with Blastrac machines.

And can also be used with every other type of machine.

Contact Blastrac B.V. for the correct execution and combinations.



1	Dust bin kit
2	Longo pack kit
3	Big bag kit
4	Rubber impact plate
5	Manometer, shows the pressure of the air tank. The pulse to clean the filters must be given at 5 – 5.5 bar.
6	Drain valve. Open regular to remove water from the air tank.
7	Pressure valve, must be set on 5 - 5.5 bar
8	Air filter compressor



### 3. Safety

Before operating the machine, the personnel must be familiar with the safety instructions given in this manual. Keep this manual near to the machine, so that it may always be consulted.

#### Safety precautions – general

- It should **only** be used for removing **not-inflammable dust or substances**.
- The unit should not be used near flammable gasses or substances.
- The BDC-44 must **not** be applied for **carcinogenic or asbestos substances**.
- Do not use the unit when it is damaged.
- Do not use damaged extension cables.
- Do not pull the power supply cable over sharp edges, fold the cable or clamp it.
- Never use this machine for sucking water or liquids.
- Acids, acetone or solvents can damage the machine.
- During a standstill of the machine, pull out the plug and turn main switch.
- Don't pull out the power supply cable out by the wire, but by the connector.
- Use only original Blastrac parts.
- The dust collector must be yearly overhauled by a skilled technician.

#### Safety precautions – with regard to transport

- When transporting the dust collector do so in such a manner that damage due to the effects of the use of force or incorrect loading and unloading is avoided.
- Before the dust collector is removed from the hazardous zone, take precautions to prevent dust from escaping.

#### Safety precautions – with regard to maintenance

- To allow the user to carry out maintenance operations, the dust collector must be disassembled, cleaned and inspected as far as reasonably possible, without causing hazards for the maintenance staff or other people.
- The suitable precautions include decontamination before disassembling the dust collector, adequate filtered ventilation of the exhaust air from the room in which it is disassembled, cleaning of the maintenance area and suitable personal protection.
- The external parts of the dust collector must be decontaminated by cleaning and vacuuming methods, de-dusted before being taken out from the hazardous zone. All parts of the dust collector must be considered as contaminated when they are removed from the hazardous zone and appropriate actions must be taken to prevent dust from dispersing.
- When maintenance or repair procedures are carried out, all the contaminated elements that cannot be properly cleaned, must be destroyed.
- These elements must be disposed of in sealed bags according to the applicable regulations and in accordance with the local laws governing the disposal of such material.
- This procedure must also be followed when the filters have to be disposed.
- Compartments that are not dust-tight must be opened with suitable tools and thoroughly cleaned.



## Safety regulations

The following sticker is placed on the machine.



Meanings of these symbols are:

- Ear protection is obliged
- Safety glasses with lateral protection are obliged
- CE-mark on this machine
- Safety shoes obliged
- Consult the manual before operating the machine

Personnel must tie back long hair and not wear loose clothing or jewelry including rings.

Wear gloves and dust mask during operating the machine.

- Persons who are not operating the machine must not be permitted to stay in the surrounding area of the machine.
- Don't change anything on the machine. Use always cables which are approved and safety earthed (extend) cables. The machine is always equipped with an earthed connection, do not change this and use always earthed cables with an earthed plug.
- Connect the main power supply cable to an installation with an earth leakage circuit breaker.
- Inspect and test the electrical components regularly. The electrical components have to satisfy to the requirements which apply to these components.
- Always call a skilled electrician or your distributor when you have questions about the safety of the electrical components.
- Work on electrical equipment or operating materials may only be undertaken by a skilled electrician or by trained persons under the guidance and supervision of a skilled electrician as well as in accordance with the electrical engineering regulations.
- Pull out the main plug during inspections and repair operations on the machine and turn main switch.
- Never operate the machine when the surface is wet.
- Never use the machine in the rain.

## 4. Before operation

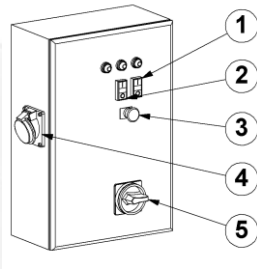
Before using the machine it is essential to inspect the machine.

It is not permitted to use the machine if the machine safety is not according to the checkpoints below.

### Checkpoints of electrical safety

- Use only extension cables for extending the main cable that are sized and marked in accordance with the overall power consumption of the machine.
- Electrical cables must be rolled entirely off of the reels.
- Any damage to electric cables is not permitted
- Use an electrical power supply connection with earth connection.
- The main switch of the machine should be put to 'Off' before connecting to the power supply.

## 5. Operation



1	Compressor ON/OFF
2	Fan motor ON/OFF
3	Emergency shut down
4	Power socket
5	Power ON/OFF – main switch

### Starting / stopping the machine

- Connect the dust hose to the machine.
- Connect the dust collector to the power supply.
- Switch on the main switch.
- Switch on first the compressor.
- Secondly switch on the fan motor.
- Carry out these actions in opposite sequence to stop the machine.

### Work with the machine

- Regularly check the contents of the dust-bin.
- Regularly open the drain valve to remove water from the air tank.

### Interrupting work

- When temporarily interrupting the work (1/2 hour – 1 hour), turn off the fan unit only. Pulse cleaning of the filter system will continue and will increase the life-time of the filter cartridges.
- During a longer stand still of the dust collector, first switch off the fan unit. Let the pulse cleaning cycle run for +/- 5 minutes. Switch off the compressor unit and Main-switch.
- Disconnect the power-supply cable.
- Prevent unauthorized persons from getting access to the dust collector or take measurements to prevent unauthorized working with the equipment.





## 6. Maintenance

Pay attention to Chapter 3 "**Safety**" during maintenance and repair works.

Failures due to inadequate or incorrect maintenance may generate very **high repair costs** and long standstill periods of the dust collector. **Regular** maintenance therefore is imperative.

Operational safety and service life of the dust collector depend, among other things, on proper maintenance.

The following table shows recommendations about time, inspection and maintenance for the normal use of the dust collector.

Operating hours/ time period	Inspection points, maintenance instructions
12 h after repairing	Check all accessible screw connections for tight seat.
Daily and prior to starting work	Check all safety devices working adequate. Check the function of the residual current operated device. Check the hose connections for tightness and fixed seat. Check the hose to the filter for damages. Make sure that the dust bin of the filter is emptied Check the electric connections for sediments of dirt or foreign bodies. Check the electric motors for dirt and other contaminants.
Annually	Full overhaul and cleaning of the complete dust collector.

The time indications are based on uninterrupted operation. When the indicated number of working hours is not achieved during the corresponding period, the period can be extended. However a full overhaul must be carried out at least once a year.

Due to different working conditions it can't be foreseen how frequently inspections for wear check's, inspection, maintenance and repair works ought to be carried out. Prepare a suitable inspection schedule considering your own working conditions and experience.

Our specialists will be happy to assist you with more advice.

**Prior to any repair works on the dust collector and its drives, secure the dust collector against unintentional switching on. Put the dust collector to its safety off position. Also make sure there is no air pressure on the pulse system.**

**Follow additional operating and maintenance of OEM if included during your service and maintenance work.**

### Further is advised:

Store the cleaned and dry machine in a dry and humid free room. Protect the electrical motors from moisture, heat, dust and shocks.

All repair work must to be done by qualified Blastrac personnel, this to guarantee a safe and reliable machine.

Any guarantee on the machine is expired when:

- Non original Blastrac parts have been used
- Repair work is not done by qualified Blastrac personnel
- Changes, add on's or conversions are undertaken without written permission of Blastrac BV



### Filter replacement

By mounting new filter cartridges pay attention that their gasket at the upper side lies firm at the sheet steel of the filter chamber. A tilt of the filter cartridge result in leakage and they suction contaminants in the clean part and consequently blow them backwards in the outer air.

### Pulse system

The dust collector is provided with an air pulse cleaning system which increases the life of the filter cartridges. The system works by use of pressurized air, built up by a compressor. The air is leaded through a water separator to the pulse system. The cooled air passes a control valve, which regulates the systems pressure, and then builds up pressure in the pulse tank.

Normally the pressure in the system is 5 – 5.5 bar. The safety valve mounted on the compressor is activated at approximately 10 bar.

This provision is to ensure that when there is a defect in the Control valve, the pressure in the pulse tank remains within safe limits.

If the pressure of 5 bar is not reached, it is possible that there is a leakage in the pneumatic circuit or the air filter of the compressor is dirty.

When there is pressure but the pulse system does not function, there might be a problem in the electrical system which controls the pulsing system. Check the wiring and the PLC-settings.



Advised is to take contact with Blastrac Support in order to prevent operational problems.

### Compressor

Replacement or cleaning of the air filter of the compressor (item 11 page 5) is depending on the environment in which the dust collector is operating.

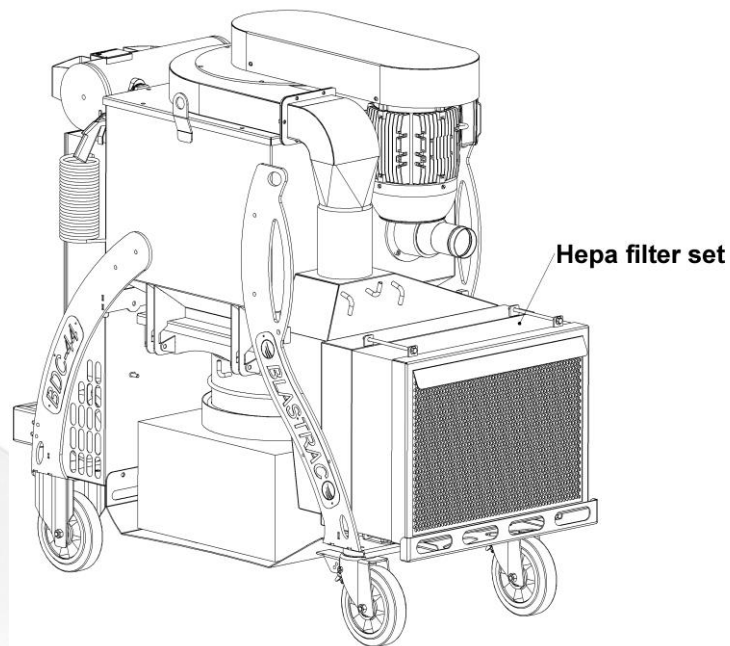
Advised is to take contact with Blastrac support in order to prevent operational problems.

## 7. Special option

For request we have got advanced option for work were is necessary to use special equipment.

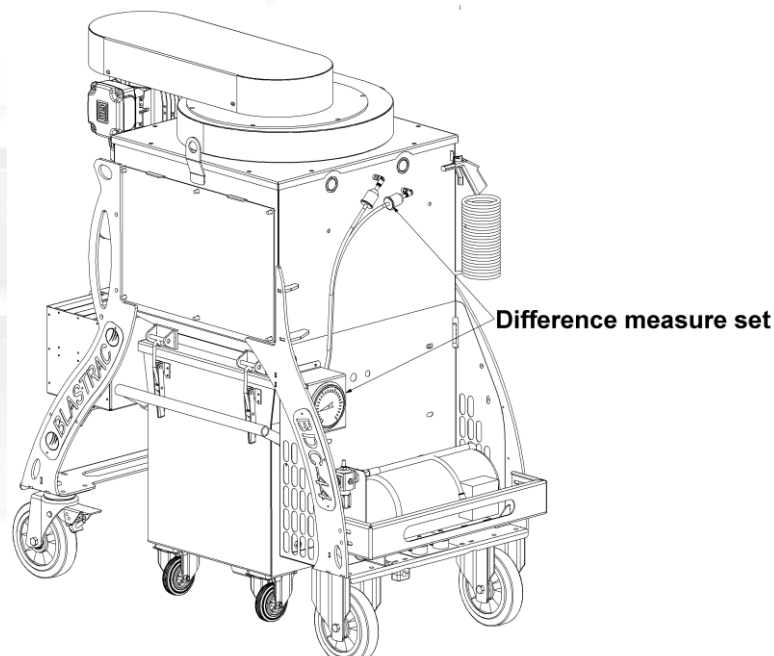
### 7.1 Hepa filter

Task of this option is keep more clean air at work by the use of high class hepa filter. Applied by us filters have high filtration efficiency starting from just 99,95%.



### 7.2 Difference vacuum gauge

A vacuum gauge measures the difference between the under pressure above the filters and inner filter house. So the higher the difference pressure are, the worse the filter is working. This readout indicates the need to replace filters.



## 8. Technical data

	<b>BDC-44 3x230 volt</b>	<b>BDC-44 3x400 volt</b>
Power consumption	6,3 kW IE3	5,5 kW IE3
Electrical consumption	3x 230 Volt IE3	3x 400 Volt
Frequency	60 Hz	50 Hz
Amperage connection	60 Ampere	5 pole / 32 Ampere
Supply cable	4 x 16mm <sup>2</sup> (15m)	4 x 6mm <sup>2</sup> (15m)
Available plug connections	5 pole / 60 Ampere	5 pole / 32 Ampere
Air flow (with 15m hose 5" and medium shot blaster)	752m <sup>3</sup> /hr	
Air flow without hose	1500m <sup>3</sup> /hr	
Vacuum	61 mbar	
Dust hose connection	Ø76mm / Ø102mm / Ø127 mm	
Dust bin capacity	100L	
Longo pack capacity	25L	
Dust bag	67,5L	
Length	1294mm	
Width	666mm	
Height	1430mm	
Weight	297kg	

Design and specifications are subject to change without notice by Blastrac B.V.



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## Product Warranty

### Standard Equipment Products:

Blastrac warrants its Blastrac Standard Equipment Products against defects in quality of material and workmanship, under normal and proper use for a period of **1 Year** from the date of delivery, as noted on the returned warranty registration card, or, in the case of **Rental Fleet Machines, 180 Days** from the date of assignment to Rental Fleet. This warranty is non-transferable and is extended to machines purchased and entered into the normal service of surface preparation by a recognized professional or qualified contractor. Blastrac makes this warranty only to the buyer who purchases the products directly from Blastrac or its Authorized Distributor. This warranty does not include expendable parts such as, but not limited to, blades, blast wheels, wear plates, liners, seals, and electrical components. All purchased parts utilized in the manufacture will be honored to the original manufacturer's specified warranty.

If the buyer does not return the warranty card or register the product online at [www.blastrac.com](http://www.blastrac.com) within 30 days after taking delivery of Blastrac Standard Equipment Products, the warranty period is limited to 6 months from the date of delivery noted on shipping receipt.

### Hand Tool Products:

Blastrac warrants its BLASTRAC Hand Tool Products, including hand grinders and accessories, against defects in material and workmanship under normal and proper use for a period of **90 days** from the date of delivery or, in the case of Rental Fleet Machines, from the date of assignment to a Rental Fleet. Blastrac makes this warranty only to the buyer who purchases the products directly from Blastrac or its authorized distributor. This warranty does not include expendable parts such as blades.

If the buyer does not return the warranty card, or register online at [www.blastrac.com](http://www.blastrac.com) within 15 days after taking delivery of Blastrac Hand Tool Products, the warranty period is limited to 30 days from the date of delivery noted on shipping receipt.

## WARRANTY TERMS AND CONDITIONS:

1. Blastrac's obligation under this warranty is limited to the replacement or repair, at Blastrac's option, of products and does not include, labor, the cost of transportation, loss of operating time, or normal maintenance services.
2. This warranty does not apply to failure occurring as a result of abuse, misuse, negligence, corrosion, erosion, normal wear and tear, alterations or modifications made to products without the express written consent of Blastrac.
3. The buyer must submit all warranty claims no later than thirty (30) days after buyer becomes aware of the basis for any such claim, or should have become aware of the basis for any such claim in the exercise of reasonable diligence.

To return parts for warranty consideration, please call Blastrac Customer Service at **800-256-3440**. Your customer service representative will obtain the necessary information to complete the Blastrac Returned Merchandise Authorization (RMA) Form. Blastrac will then send the RMA form to the customer authorizing the return of the parts for warranty evaluation. The parts must be received within sixty (60) days following the RMA origination date or the warranty claim will be denied. Once the parts are received they will be evaluated for warranty.

If the customer cannot wait for the evaluation/replacement of the parts during this process, the customer must issue a new purchase order to Blastrac for the replacement parts before they can be shipped. Once the evaluation process is complete and parts are deemed a valid warranty claim, a credit will be issued against this invoice.

**4.** The buyer may not return Blastrac products without written authorization to do so through a Blastrac RMA.

**5.** Blastrac reserves the right to inspect and determine the scope of its warranty responsibilities for any returned Blastrac products.

**6.** Blastrac makes no warranty with respect to accessories it does not manufacture, including but not limited to, engines, motors, batteries, tires and all other parts. See component manufacture warranty.

**7.** Blastrac reserves the right to make product changes or improvements without prior notice and without undertaking any obligation for such changes or improvements on previously sold products.

**8.** The above warranty conditions can only be altered by Blastrac. Blastrac must confirm alterations in writing for each specific transaction.

**9.** Blastrac reserves the right to modify this warranty for used or demo products on an individual transaction basis. Blastrac will include warranty modifications on its invoices for used or demo products.

**10.** BLASTRAC DOES NOT AUTHORIZE ANY PERSON, REPRESENTATIVE, SERVICE OR SALES OUTLET TO MAKE ANY WARRANTY DIFFERENT FROM THIS PRODUCT WARRANTY.

**11.** EXCEPT FOR ITS PRODUCT REPAIR OR REPLACEMENT OBLGATIONS DESCRIBED IN THIS PRODUCT WARRANTY, UNDER NO CIRCUMSTANCES SHALL BLASTRAC BE LIABLE TO THE BUYER, OR ANY OTHER PERSON, FOR ANY DIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THE BLASTRAC PRODUCT, OR FOR ANY SPECIAL OR CONSEQUENTIAL DAMAGES OF ANY CHARACTER, INCLUDING WITHOUT LIMITATIONS, DAMAGES FOR ANY LOSS OF GOODWILL, WORK STOPPAGE, OR ANY AND ALL OTHER COMMERCIAL DAMAGES OR LOSSES.

**12.** BLASTRAC MAKES NO OTHER PRODUCT WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.



# IMPORTANT!

## TO THE DELIVERING DISTRIBUTOR OR END USER

To ensure the proper warranty coverage is extended to the owner of this machine, fill in the necessary information below **COMPLETELY** and **ACCURATELY** and retain for your records. **Go to [www.blastrac.com](http://www.blastrac.com) and register online.** Click on the Register icon in the left column of the homepage, and fill out the product registration form with the same information that will be recorded here.

**The warranty period will start upon the delivery date of the machine.**

The distributor or the end user must provide the machine warranty information when the machine is delivered. Registration of the machine will extend the warranty period from the recorded delivery date entered with product registration. **Failure to comply will make any and all warranties on the equipment void after 6 months.**

### OWNER/END USER'S REFERENCE INFORMATION

Delivery Date _____	Machine Model No. _____
Delivering Distributor's Name and Address _____	Machine Serial No. _____
_____	Modifications _____
_____	_____
_____	_____
_____	_____
_____	_____

Signature of Delivering Distributor's Representative

Blastrac is a registered trademark of Blastrac,NA  
Fold and Detach Here if Mailing

## Warranty Registration

**IMPORTANT!** To ensure that your Blastrac® machine is covered under warranty, please provide the information recorded here by registering online at [blastrac.com](http://blastrac.com), or complete this page and fax to 866-485-1046, or if you prefer, detach and mail to:

**Blastrac, 13201 North Santa Fe Avenue, Oklahoma City, OK 73114-9901**

(Please print legibly)

Company \_\_\_\_\_

Address \_\_\_\_\_

City, State, & Zip \_\_\_\_\_

Telephone No. \_\_\_\_\_ Contact Person \_\_\_\_\_

Date of Purchase \_\_\_\_\_ Date Received \_\_\_\_\_

Machine Model No. \_\_\_\_\_ Serial No. \_\_\_\_\_

Distributor Name \_\_\_\_\_

End User Name \_\_\_\_\_

End User E-mail \_\_\_\_\_



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