



DUNGBUSTER®

INSTALLATION AND MAINTENANCE INSTRUCTIONS



DUNGBUSTER® AUTOMATIC YARD CLEANING SYSTEM

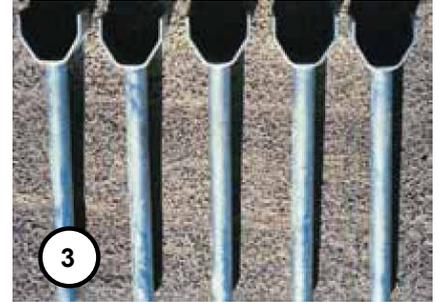
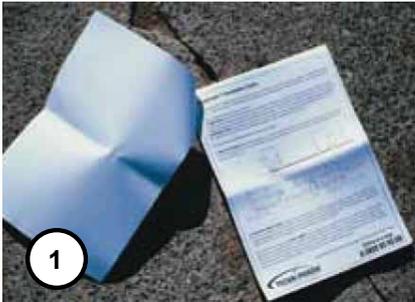
Installation on an existing backing gate

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DUNGBUSTER - Installation componentry checklist

DUNGBUSTER® COMPONENTS

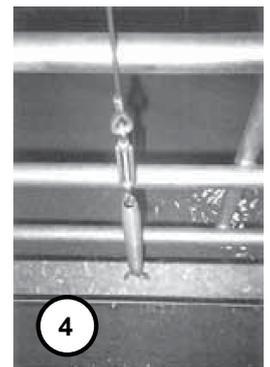
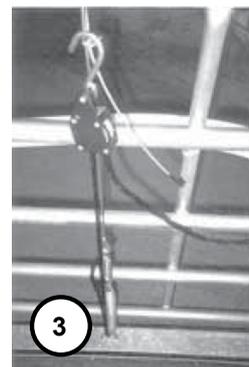
1. **Full Dungbuster® instructions** with photos and easy to follow guidelines
2. **Bolts and nuts** for blade savers or bar lifters.
3. **Dungbuster® Uprights with saddle:** 2 per bar. Sleeved 42mm, steel, galv pipes which attach to gates with U bolts.
4. **Dungbuster® U bolts** for the attachment of the sleeves to the gate. 2 per sleeve. If you need more for say a 50mm pipe gate please order (4 per sleeve).
5. **Dungbuster® U bends and hose clips** to interlink the bars.
6. **End plug.** 1 per system unless you have a 4 bar system in which case you need two end plugs.
7. **Filter.** One per system unless you have a 4 bar system in which case you need 2 filters. Available for purchase separately.
8. **Motor saddles.**
9. **Cable and hose ties.**
10. **Dungbuster® bar** with replaceable blades fitted.



DUNGBUSTER® OPTIONAL ITEMS

1. Transformer
2. Dungbuster® Solenoid
3. Lifting Device
4. Blade Saver

(1 & 2 for use only with electrical drive units)



DUNGBUSTER - Installation Guide

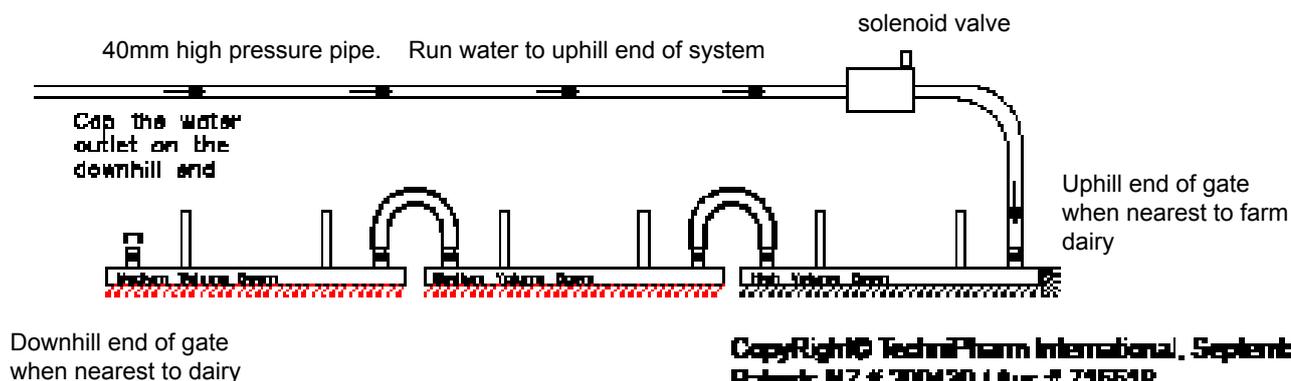
Dungbuster® Installation Guide

The Dungbuster® is quick and easy to install to most electrically or water driven backing gates. It is important to have a fairly clean water supply.

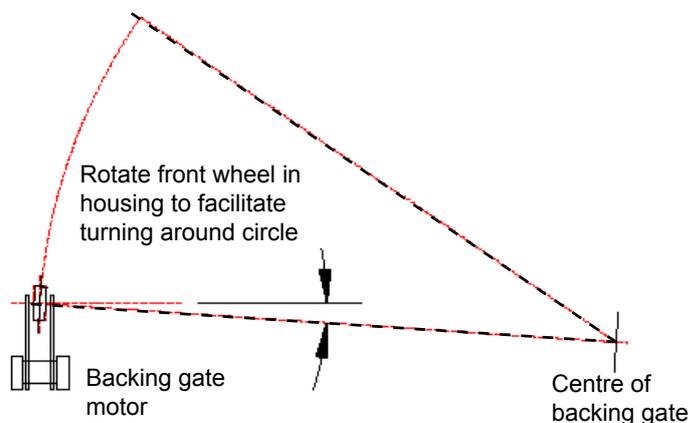
The Dungbuster® bars come in two types:

- High volume bars** - which has larger jets giving a higher volume of water flow. This bar is intended to be used on the uphill side of the gate when the gate is nearest to the entry to the farm dairy. The high volume bars can be identified by the brass spray nozzle mounted horizontally on the inlet end. None of the other ends have spray nozzles installed.
- Medium volume bars** - which has smaller jets, economising water, yet ensuring correct cleaning of the concrete. The medium volume bars can be identified as neither of the ends have spray nozzles.

For installation of your Dungbuster® Automatic Yard Washing System follow this procedure: or alternatively the 10 step visual guide starting on page 6.

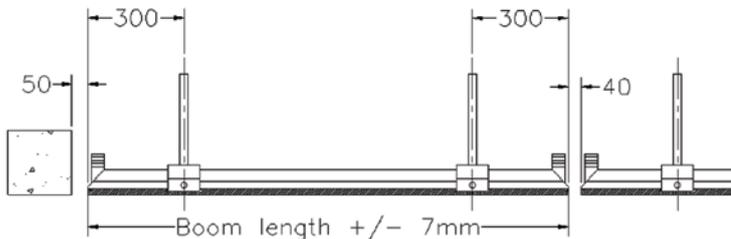


- Before installation assess the gradient of your yard, which way does it slope nearest to the dairy? Now lay the **bars** out as shown right. Ensure that all the jets are pointing in the direction of the water flow (when the gate is nearest to the farm dairy).
- Take the drive unit apart and install the **motor saddles**. Remove the wheels and saddles from your backing gate gear box and attach the new saddles then reassemble. Place grease on all threads during assembly to ensure that the motor may be serviced in the future. Note that there is play in the front bolt holes so that you can rotate the front wheel slightly allowing it to follow the arc required as the backing gate goes round. Angle the wheel correctly then tighten the bolts, as shown in the diagram on the right.



DUNGBUSTER - Installation Guide

3. Mount the **uprights** onto the bars. Slide the long bolts through the plastic grommets in the **uprights** and through the holes predrilled in the **bars**. The holes are approximately 300mm from each end.



4. Now locate the **bars** under the backing gate and slide the 800mm sleeved pipes over the tubes protruding from the DungBuster® bars. Use the **U bolts** provided to fix the pipes to the backing gate. (see below)



Normal U-Bolt attachment
of slider pipe to backing gate.

Packed U-Bolt attachment
of slider pipe to backing gate.

To ensure that the individual bar sections move freely in a vertical direction leave at least 50mm clearance between the box section of the bar and the bottom of the sleeved pipes. This clearance allows the bar to follow the irregularities of the concrete surface. If the backing gate is not square it may be necessary to pack the **U bolt** (as shown below) to ensure that the DungBuster® bars move freely up and down. An extra backing plate has been provided for this purpose.

5. Attach the rubber U pipes provided between the bars (as shown above) and tighten the hose clamps. One of the hoesetails will have a bung pre installed, this is normally in the outlet end of a low volume bar. This bung may be moved by loosening but not undoing the nut and pulling the metal washer up then carefully picking the o ring out and removing the rest of the assembly. Reverse this procedure to insert the bung into another hoesetail.
6. If you are using an electrically driven backing gate, locate the **solenoid valve** as near to the entry into the high volume **bar** as practical but ensure that it is high enough on the backing gate to prevent damage from the cows. You will need to get a registered electrician to install the electrical connection. The **solenoid valve** has a 24VAC coil which can be connected with a suitable **transformer** to the phases on the backing gate. There is often sufficient room in the backing gate drive motor housing to mount the **transformer**. Tell the electrician what you need before he comes out so that he can bring the necessary components with him. Note: a suitable transformer

is available from TechniPharm. Solenoids: You can use a 40mm solenoid for up to 3 bars after this you need the larger 50 mm units to allow enough water through the unit.

7. Pipe the water from the yard wash down pump to the backing gate. It is important that the water is piped to the highest end of the **bar** first to ensure maximum pressure and flow at this end. Place bung with O ring in the outlet on the downhill end and tighten nut.
8. Check that your DungBuster® is working correctly by running the backing gate over the full length of the yard. Ensure that it moves up and down freely and does not stick on any uneven pieces of concrete. On some yards it is necessary to grind sharp concrete edges so that the gate does not get stuck as the bars pass over the edges. Best performance is achieved when the water supply is activated while the backing gate motor is functioning and shut off when the backing gate is stationary.
9. Some yard surfaces wear the **blades** quicker than normal, in particular very rough concrete and farms with pumice races. If you find that your **blades** are wearing too quickly then a special **blade saver** is available.*
10. Cleaning. From time to time the jets on the DungBuster® may block up with silt etc. The best way to clear them is with a water blaster. Lift the bar off the ground and blast water into the holes in the reverse direction to the water flow out the jets. A special elbow adapter is available from TechniPharm to allow you to do this without dismantling the bars from the backing gate. Should the bars become completely blocked it is possible to re-drill them - contact Technipharm for more details. Do not just drill holes as you may compromise the effectiveness of the bar. It is also recommended that you check the **filter case and mesh** from time to time. TechniPharm International Limited guarantees* your DungBuster® against any defects in workmanship or materials for a period of one year from purchase.

11. The inline Dungbuster® filter. One filter is required per system (under 10m bar length). If you have a 4 bar system you will need 2 filters. It is a permanent insurance against bars blocking up. To clean simply remove the cartridge and wash the filter.

Filter Installation: Install the filter(s) on a per section basis i.e. one filter in line for the first one/twobars and one for the second part as shown. We will send the correct end stops / U bends when 'two filter' orders are placed. Feed to the filter from the mainline. Install the filters as close as possible to the inlet (rather than somewhere back in the shed.)



* If filters are placed together ensure they are placed parallel not in series.

* This guarantee is limited to replacement, repair or refund of the purchase price at the manufacturers discretion. We welcome your feedback, if you have any suggestions on how to improve this product please write to: TechniPharm International Ltd, P.O. Box 959, Rotorua.

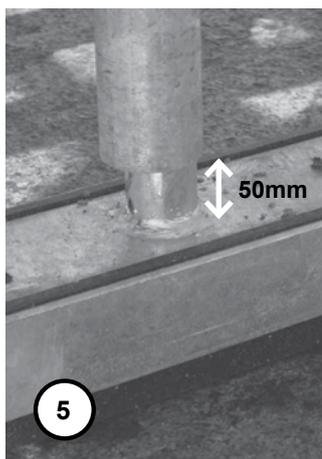
INSTALLING DUNGBUSTER® ON YOUR EXISTING GATE - a 10 step visual guide

Installation of the Dungbuster® system on your existing gate

1. Lay out the components making sure that you have them all. This picture shows the existing backing gate the Dungbuster® bar with replaceable blades and the motor saddle.
2. Take the drive unit apart and install the motor saddle.
3. Jack up the gate and make sure that it is stable.



4. One of the hosetails will have a bung pre installed. This can be removed and reinstalled into another hosetail if required. Place bung with O ring in the outlet on the downhill end and tighten nut. Be aware of the nib wall nozzle.
5. Lay the Dungbuster bars® under the backing gate and slide the 800mm sleeved pipes over the tubes protruding from the DungBuster® bars. Use the **U bolts** provided to fix the pipes to the backing gate. Sleeved pipes need 50mm* play (see pic 5) to enable the bar to run freeley and over the contour of the yard.
6. Fix the u bends onto the bar with hose clips. This connects the bars together.



7. The Dungbuster® bars fixed to the backing gate.
8. A **filter** is required to ensure problem free running. One 40mm **filter** is required for a **Dungbuster®** system where the length of the **Dungbuster® bars** are 10m and under. In a Dungbuster® set up where the bar is longer than 10m two **filters** are required. If this is an electrical gate system the **filter** should be fitted before the **solenoid** and fitted parallel.
9. If you are using an electrically driven backing gate, fit the **solenoid valve** making sure that it is high enough on the backing gate to prevent damage from the cows. The 24v transformer should be installed and connected by a qualified electrician.



INSTALLING DUNGBUSTER® ON YOUR EXISTING GATE - 10 steps to success



10

10. Close up of the end nozzle.



11

11. Dungbuster® System complete.



System shown with additional built in yard drain channel.



Centre drain.



Dual water driven gates.

Installation can be completed in less than 3 hours - in between milkings.

EXAMPLES OF DUNGBUSTER® IN A RECTANGULAR YARD

Examples of Dungbuster® in a rectangular yard

When you install a Dungbuster® in a rectangular yard it is important that the “drag” hose has a free path which allows it to be dragged from the rear of the yard to the front and back again. (This is different with the Reporoa High Gate system).

This is the best achieved by having an outer yard path or concrete strip (see photo 3). If the draghose is within the yard it can be damaged more easily due to the cows standing on it.

A camlock coupling allows the drag hose to be coupled on at the end of the yard at the time milking starts and all cows are in the yard. At the end of milking the hose can be disconnected and the gate can reverse back ready for next milking.

Blade savers (see page 9) and or lifting devices will reduce blade wear, longer sleeves can be supplied in the event the gate is not close enough to the ground.



Photo 1: Dungbuster® on a rectangular yard gate.

Photo 2: A perfectly clean yard with no effort.

Photo 3: Note the side nozzle to clean nib wall.

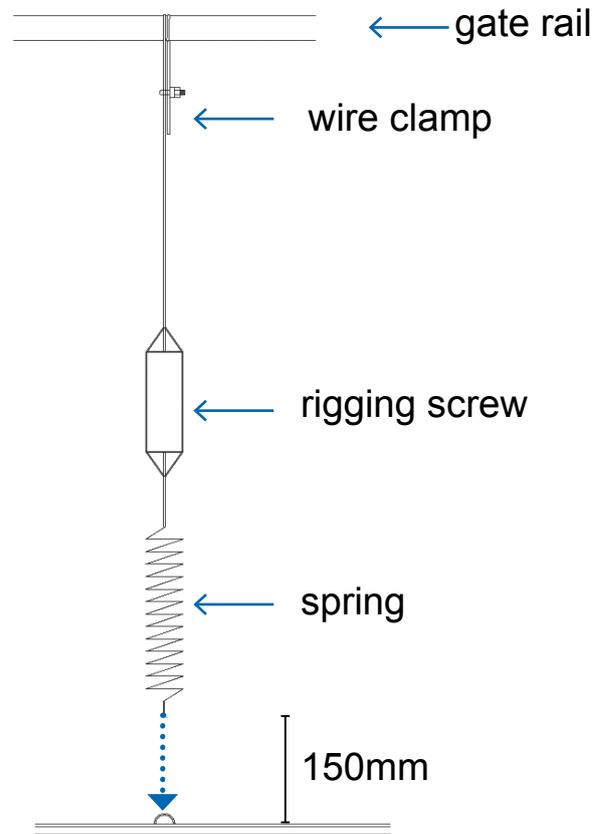
Photo 4: Dungbuster® operating in a rectangular yard pre-wetting the yard.

DUNGBUSTER® Blade Saver Installation

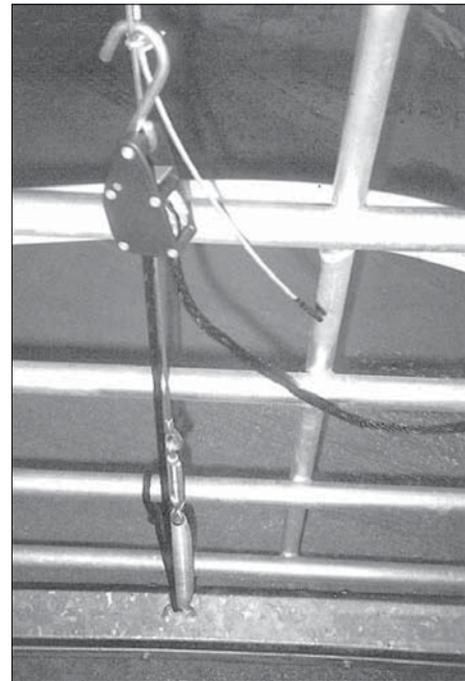
Dungbuster® Blade Saver Installation

(For uneven or very rough yards)

1. Fully unwind the rigging screw
2. Attach the free end of the wire to the top end of the gate, by wrapping the wire around and using the wire clamp provided. Lightly tighten the wire clamp so that the rigging screw is directly above the central lifting eye of the DungBuster® bar.
3. With the spring hooked on to the rigging screw there should be a further 150mm space between the rigging screw and the DungBuster® lifting eye.
4. Stretch the spring and hook it over the lifting eye on the DungBuster®. Be careful to ensure that you will not get hurt should the spring slip.
5. Adjust the rigging screw to give the desired tension- typically about half of it's adjustment.



Blade Saver installed on Dungbuster®



Blade Saver plus lifting device installed on Dungbuster®

NOTES: