Stunning Pigs with a B&D Stunner

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For pigs larger than 200 pounds, extend wand tips to assure correct stun wand contact

Extended tips with extra star wheels. Stainless steel star wheels (spurs) conduct better than carbon steel
Wand extensions and star wheels (spurs) are now available from Best and Donovan.

Wand extensions, Part # 9600017 and additional stainless steel star wheels (spurs) Part # 9603900 are available from Best and Donovan.
The extended wand tips and extra star wheels (spurs) assure correct stun wand contact with brain

Locate wand as close to the ear as possible, in the thin crevice. Note that this wand has two sets of star wheels for small and large pigs

Longer, wider wand tips help to facilitate secure contact on the head of larger pigs
It is best to restrain the pig, during stunning to prevent stun wand slips or pig falling.

- Insulated swing gate and wall to restrain the animal during stun.
- Restraining the pig during stun can assure an effective stun. Wooden gate is non-conductive.
Insulate the stun box to prevent grounding during stun.

- Truck rubber mats on floor and wall. Coated metal gate.
- Plastic lining in stun box area to insulate electrical current.
At startup: Inspect and test the wand, prior to use

Turn on the stunner. Press the stunner button to test wand

Observe wand for electrical shorts. Service if necessary
Select the Correct Voltage for the size and weight of the pig

**Model ‘ES’ Stunner settings**

<table>
<thead>
<tr>
<th>Hog Weight (lbs.)</th>
<th>Voltage</th>
</tr>
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<tbody>
<tr>
<td>100 to 250</td>
<td>360</td>
</tr>
<tr>
<td>250 to 350</td>
<td>400</td>
</tr>
<tr>
<td>350 to 500</td>
<td>420</td>
</tr>
<tr>
<td>500 to 650</td>
<td>460</td>
</tr>
<tr>
<td>650 to 800</td>
<td>520</td>
</tr>
<tr>
<td>800 to 1200</td>
<td>580</td>
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</tbody>
</table>

**Best and Donovan recommended voltages**
Prior to stunning, be sure the head and heart of each pig is wet.

- Automatic shower in holding pen
- It is best to wet hogs prior to entry in the stun box area
Stun the head for a minimum of 3 seconds

Place wand as close to the ear as possible

Target the pocket of the ear to assure that the brain is stunned
Check the eye to assure that the pig is insensible before stunning the heart.

Inspect the eye of the pig, but do not touch it. There should be no natural blinking.

If the pig is still sensible, re-stun the head before stunning the heart.
Stun the heart for a minimum of 3 seconds

Stun the heart of the pig

Target placement of the wand contacts behind the arm pit and on the chest
Check the eye to assure that the pig is insensible before hoisting and before bleeding.

Inspect the eye of the pig, there should be no natural blinking. You can wave a hand in front of the eye and look for “tracking or movement”.

Do not touch the eye, as corneal reflex may still be present on an electrically stunned pig.
In electrically stunned pigs, gasping is a sign of a dying brain.

Agonal gasping occurs when the pig’s mouth opens and closes and the head jerks slightly (like a fish out of water).

Rapid seizure blinking and nystagmus (eye vibration) can also occur in electrically stunned animals.
Signs of Return to Sensibility
(Beginning to regain consciousness)

- Eye is focused and pig is blinking naturally
- Rhythmic breathing: Sides are moving up and down
Signs of Sensibility (Fully Conscious)

Vocalization

Righting Reflex: The pig tries to lift its head and right itself
<table>
<thead>
<tr>
<th>Event</th>
<th>Average Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corneal reflex (touch eye)</td>
<td>42 sec</td>
</tr>
<tr>
<td>Rhythmic breathing</td>
<td>68 sec</td>
</tr>
<tr>
<td>Excitation</td>
<td>76 sec</td>
</tr>
<tr>
<td>Nystagmus (vibrating eye)</td>
<td>86 sec</td>
</tr>
<tr>
<td>Spontaneous natural blinking (don't touch)</td>
<td>93 sec</td>
</tr>
<tr>
<td>Conscious movement (Righting Reflex)</td>
<td>171 sec</td>
</tr>
<tr>
<td>Attempt to stand up</td>
<td>387 sec</td>
</tr>
</tbody>
</table>

*These events are very variable.*

Danish Meat Research Institute, Holst (2001)

**CO2 return to sensibility sequence.**
Re-stun (if necessary) before bleeding (captive bolt)

Correct location for captive bolt or free bullet stunning of a pig

Correct bolt location and angle to show brain destruction
Re-stun if necessary before bleeding (electrical)

If the pig is still sensible, re-stun the head first

Then re-stun the heart
Bleeding should be rapid with a large volume

For head/heart stun, target to bleed the pig within 30 seconds, with a maximum of 60 seconds between stun and bleed.

Good Bleed

If a large volume of blood does not appear, re-stick the pig

Weak bleed
Routinely clean the stun wand, approximately every 5 pigs

Unplug the stun wand prior to cleaning

Use a steel brush or a green pad to clean the wand
Smoking indicates poor stun wand conductivity, immediately clean the stun wand contacts.

Smoking indicates poor conductivity.

Use a steel brush or a green pad to clean the wand.
After production, clean the stun wand and store the stunner and wand in a clean, dry location away from the plant floor.

Do not store the stunner on the plant floor.

Store equipment in a dry location when not in use.
Follow manufacturer’s recommendations for equipment maintenance
For more information

www.bestanddonovan.com/stunner/stunner.htm

1-800-553-BEST (2378) Ext. 3737

Best and Donovan Webpage

www.voogdconsulting.com

www.grandin.com

Dr. Temple Grandin’s Webpage

Voogd Consulting, Inc. Webpage contains information about head/heart stunning of pigs