

ESet Vacuum Requirements

How difficult is it to achieve the 15” or 18” of vacuum required to run the eSet™? Most newer tractors and planters are able to achieve these higher vacuum requirements without any problem. The following chart summarizes our experience achieving eSet’s higher vacuum requirements:

No. of Rows per Blower	Age of Tractor (New = hydraulic capacity of 2700+ psi; ie. JD 7000 or 8000)	Need Vacuum Test?	Ok for eSet™?
8 or less	All	No	Yes
12	Old	Yes	Depends on Test
	New	No	Yes
16	Old	--	No
	New	Yes	Depends on Test

To test your vacuum capacity before purchasing eSet™: (If your planter has 8 rows or less per blower you do not need to run this test.)

Full Reading Vacuum Test (most accurate, but requires 20” vacuum gauge or SeedStar monitor)

- Install your John Deere celled corn disk (standard corn or small corn) in each row.
- Use duct tape to tape off vacuum hoses to ¼ of the rows being sourced from each blower (3 rows on a 12 row, 4 rows on a 16 row, etc.)
- Without seed in the hoppers, run your vacuum blower(s) at full flow. The vacuum level achieved will be the maximum you can achieve with eSet™. To ensure optimum performance over all seed sizes you need to achieve 18” of vacuum.

Partial Reading Vacuum Test (allows the use of your standard 15” vacuum gauge)

- Install your John Deere celled corn disk (standard corn or small corn) in each row.
- Without seed in the hoppers, run your vacuum blower(s) at full flow. You need to achieve 16½” of vacuum (which is the needle pegging the 15” gauge) to run eSet™ at 18”.
 - This test is conservative, so if your planter fails this test it is recommended that you perform the above Full Reading Vacuum Test.

If you fail either test, you may remove the factory installed (.172” diameter, black) orifice in the hydraulic control valve (JDpart#A53980) and install a larger (.182” diameter, silver) orifice (JDpart#A53981). This will increase the hydraulic flow to the vacuum blower motor by approximately 15%.

- The above part numbers are for control valves on 1994 planters and after (Control valve #AA38545). Prior to 1994, the orifice is a disk instead of a plug (Control valve AA34009). Order orifice A53088.



Hydraulic Control Valve
(1994-) AA38545



Remove the hand valve assembly with a 1” wrench to gain access to the orifice which is removed with a 3/16” Allen wrench.