



## Use Work Modes To Boost Productivity, Reduce Costs

Today's excavators come with a variety of selectable work modes to match engine speed and pump flow to the application. Selecting the proper mode ensures the operator has the appropriate power and controllability for the task at hand — all without burning more fuel than necessary. Too often, however, operators have a tendency to jump directly into the highest mode, regardless of task. The presumption can be that higher rpm equates to more productivity, yet that's not always the case. Constantly running at the highest mode not only burns unnecessary fuel, but it can result in speeds that only the most skilled operators are equipped to handle effectively.

With some simple tips and changes to operator behavior, you can see a positive impact to your operation's bottom line.

Volvo excavators feature nine total settings within four work modes — Idle (I), Fine (F), General (G) and Heavy (H). Selection of the mode during operation — perhaps more so than any other feature — offers the greatest potential for saved fuel, saved time and gained productivity, when used properly.

### **Idle (I) minimizes fuel consumption**

- **What is it?**  
The "I" Mode has two settings that allow the engine to run at low rpms when the machine is not actively working.
- **When should I use it?**  
The lower of the two settings runs at 800 rpm, offering the best possible fuel efficiency short of the machine being off, which should be used as often as possible when not actively working. The higher "I" setting runs at 1,000 rpm, which still offers excellent fuel efficiency but allows for quicker warmup times as compared to the lowest setting.
- **What is the benefit to me?**  
The lower the rpm, the lower the fuel consumption and the greater cost savings. Volvo

excavators also offer an auto idle function, which can be set to automatically switch to “I” mode after a predetermined amount of time, which helps simplify cost-saving potential for the operator.

### **Fine (F) provides precise control**

- **What is it?**  
The “F” Mode has two settings — each providing a lower pump flow for increased controllability, while still providing high boost pressure and full power.
- **When should I use it?**  
The lower of the two settings is ideal for fine finish work such as grading, whereas the higher setting provides full power and slightly higher pump flow for the perfect balance between speed and controllability. The higher setting is ideal for scenarios that require speed, precision and power, such as setting large pipes or culverts in a trench.
- **What’s my benefit?**  
When used properly, the “F” mode ensures higher productivity and quality of work through increased precision.

### **General (G) dials in exact power**

- **What is it?**  
With four settings ranging from 1,400 rpm to 1,700 rpm, the “G” Mode allows the operator to choose a setting that achieves the task at hand with the least amount of fuel consumption.
- **When should I use it?**  
The “G” Mode is excellent for general digging and excavation, and it allows the operator to find the perfect balance between power and fuel efficiency.
- **What’s my benefit?**  
It’s estimated that going down even two settings within “G” mode can reduce fuel consumption by up to 10 percent. Training operators to scale back will not only save on operating cost, but will also reduce stress on the engine and lead to longer machine life.

### **Heavy (H) boasts brute force**

- **What is it?**  
The “H” Mode offers one setting in which the engine runs at 1,900 rpm.
- **When should I use it?**  
The “H” Mode is strictly for tasks that require maximum machine power and speed such as heavy truck loading and digging in extremely hard terrain at maximum depths. Fuel consumption is higher than any other mode and should only be used when absolutely necessary to accomplish the task at hand.
- **What’s my benefit?**  
Your operators have access to extremely impressive power as needed but can scale back to save on fuel during normal operations.

### **The Volvo Ex Factor**

Volvo engines are designed to achieve the highest torque at the lowest possible rpm, which is what results in the best performance at the lowest possible fuel consumption. And as such, Volvo

work modes are a little different than what is offered by competitors — we believe they're better. The torque curve of our excavator differs from the torque curve of competitive machines. Specifically, Volvo machines are able to achieve maximum torque at an impressively low 1,400 rpm. Since Volvo work modes control both rpm and pump speed (as opposed to just rpm), our "F" Mode is able to achieve maximum power and controllability simultaneously. Many competitive models are designed with torque and rpm operating on a one-to-one ratio, which means getting maximum power also requires running at maximum throttle at all times. This is the reason why Volvo is able to be a leader in fuel efficiency while offering some of the most impressive power and controllability across all size classes. This is what sets us apart. This is the Volvo Ex Factor.