**GT New Horizons**

# Ore Drilling Plant

**Ore Drilling Plant** is a multiblock structure that comes in four tiers, beginning at EV, and will mine both small and regular ores and replace them with cobblestone when supplied with Drilling Fluid and power. The Ore Drilling Plant provides roughly three times as much crushed ore per block of ore versus regular processing and comes with a fortune bonus for small ores that starts at four and goes up by one for each tier of the Ore Drilling Plant.

A fully formed Ore Drilling Plant

## Construction

The base of the drill is a 3x3 of solid blocks. The controller has to be centered on one side, and any hatches and busses go on the same layer. A pillar of three Machine Casings is added to the center of the 3x3 base, then each side of it gets a three block tall pillar of Frame Boxes. Finally a fifth three-tall pillar of Frame Boxes is placed on the top of the Machine Case pillar.

**Requires:**

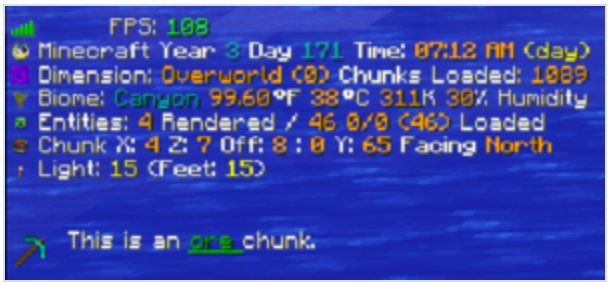
- 1 Controller; Ore Drilling Plant
- 1 Input Hatch
- 1 Maintenance Hatch
- 1-2 Energy Hatch
- 0-1 Input Bus, optional (If more than 64 Mining Pipes are needed)
- 1 Output Bus
- 5-7 Machine Casings
- 15 Frame Boxes

The tier of Energy Hatch and type of Machine Casing/Frame Box depends on the tier of Fluid Drilling Rig. Make sure to read the tooltip to determine the specific requirements and shape. It's advisable to keep the Void Mode set to 'nothing' in the Machine Controller and remember to cover the Rig in dimensions where it rains, both of the water and meteor variety. A Long Distance item Pipeline can be used to cheaply transport items over distances greater than four chunks.

## Prospecting for Ores

Gregtech modifies the way in which ores spawn compared to vanilla. Ores are concentrated in veins of related materials with a varying rarity, The types of veins that can be found depends on the dimension and each vein has a specific height range in which it will spawn. Small ores look different from regular ores and generally match the type of ore in the nearby vein. It is however possible to find small ores of different materials, even ones that can't be found within that dimension, dispersed among veins.

In order to find these veins it is best to look for an Ore chunk, these spawn in a fixed grid around the world and are easiest to find using the InGame Info XML tooltip which will show whenever the player is inside an ore chunk. To determine the type of vein thats present inside that ore chunk, mine down until a block of ore (not small ore!) is found and right click on it to register the vein. A Prospector's Scanner can also be used on any stone-type block to register all veins within the Scanner's range. Registered veins will be visible through JourneyMap's Ore Overlay.



InGame Info XML displays when the player is inside an ore chunk

For more information on ore generation, veins and prospecting check Ore Generation.

# Usage

The Ore Drilling Plant consumes 2000L of Drilling Fluid per operation in order to run and performs many operations to fully clear its area of ore. It is therefore recommended to ensure a steady supply of Drilling Fluid. This can be done either through the use of tanks, Magic Mirrors or by making the Drilling Fluid on site by combining Water Cells, Lubricant and Stone Dust inside a Mixer and feeding this directly to the drill.

## Range

When determining a spot to put down the drill the range should be taken into consideration. While the controller displays its radius in blocks it sets the center of this radius as the chunk corner closest to the controller and not the controller block itself. Due to this behaviour this guide will refer to the radius of the drill in chunks rather than blocks, with each chunk being equivalent to 16 blocks.

In order to properly visualise this the tier 1 Ore Drilling Plant will be used as an example. This drill has a radius of 3 chunks, therefore its total coverare is a 6x6 chunk area. The image on the right shows Journeymap's Ore Overlay, in this example a drill is build on the white waypoint. Because of its location the closest chunk corner to the drill is the blue dot, this dot will then be the center of the drill's total coverage which is displayed by the red border.

The maximum radius and total covered area of the different tiers of drills are as follows:

Drill Range in chunks

| Tier | Radius | Covered Area |
|---|---|---|
| 1 | 3 | 6x6 |
| 2 | 4 | 8x8 |
| 3 | 6 | 12x12 |
| 4 | 9 | 18x18 |

Example of the range of a Tier 1 Ore Drilling Plant

The radius of the drill can be configured either by using a screwdriver on the controller or through the controller's interface and can be adjusted from a radius of 1 chunk up to the drill's maximum radius.

## Operation

In order to function the Ore Drilling Plant must be provided with Mining Pipes in either the slot inside the controller or via an Input Bus. The Ore Drilling Plant comes with build in chunk loading of its working area and therefore only the chunk that the drill itself occupies needs to be chunkloaded, automatic chunkloading can be toggled by using a Soldering Iron on the controller or through a button in the controller's interface. Once Started the drill will extend a Mining Pipe down one height level and then mine all ores on that height level within its range. Once all ores at its current height level are mined it will proceed to the next until the mining pipe hits either bedrock or the void, at this point it will retract its Mining Pipes and deposit them into the Output Bus.

Any ore block mined, both small and regular ones, will be replaced by cobblestone by default, this behaviour can be turned off by using Wire Cutters on the controller or through the controller's interface.

Per operation the Ore Drilling Plant will either mine an ore block in its radius or extend its Mining Pipe. The Ore Drilling Plant can be overclocked and for each tier above its minimum requirement the base processing time is divided by 2. The base processing time per operation differs per tier and is as follows:

Base ticks per operation

| Tier | Base Value |
|---|---|
| 1 | 240 |
| 2 | 100 |
| 3 | 40 |
| 4 | 15 |

## Power Consumption

The tier 1 Ore Drilling plant has MV as a minimum hatch tier requirement, each following tier of the drill will increase the minimum hatch tier by one.

Contrary to the Oil/Gas/Fluid Drilling Rig, which is similar in construction, the Ore Drilling Plant does accept 2 energy hatches and can therefore also be overclocked in this way.

The Ore Drilling Plant only consumes $\frac{3}{8}$ of an Amp worth of power based on its power tier. because energy hatches accept 2 amps it is therefore possible to feed an Ore Drilling Plant with 2 amps worth of power of the previous power tier. If providing a source that generates an amp worth of the same power as the power tier of the drill the excess energy generation can also be used to run the aforementioned Drilling Fluid mixer setup if this method of supply is chosen.

**Gregtech GTNH Edition** [Collapse]

**Blocks** [Collapse]

| | | |
|---|---|---|
| Generators | Block | Combustion generator • Gas turbine • Steam turbine • Magic energy converter • Magic energy absorber • Lightning rod • Naquadah reactor • Plasma generator |
| | Multiblock | Large steam turbine • Large HP steam turbine • Large gas turbine • Large plasma generator • Combustion engine • Extreme combustion engine |
| Machines | Utility | Transformer • Locker • Battery Buffer • Battery Charger |
| | Processing | Alloy Smelter • Assembling Machine • Bending Machine • Canning Machine • Compressor • Cutting Machine • Electric Furnace • Extractor • Extruder • Lathe • Macerator • Microwave • Printer • Recycler • Scanner • Wiremill • Centrifuge • Electrolyzer • Thermal Centrifuge • Ore Washing Plant • Packager • Unpackager • Chemical Reactor • Fluid Canner • Rock Breaker • Disassembler • Mass Fabricator • Amplifabricator • Replicator • Brewery • Fermenter • Fluid Extractor • Fluid Solidifier • Distillery • Chemical Bath • Polarizer • Electromagnetic Separator • Autoclave • Mixer • Precision Laser Engraver • Forming Press • Forge Hammer • Fluid Heater • Slicing Machine • Sifting Machine • Arc Furnace • Plasma Arc Furnace • Electric Oven • Circuit Assembling Machine |
| | Steam | Small Coal Boiler • High Pressure Coal Boiler • High Pressure Lava Boiler • Steam Furnace • High Pressure furnace • Simple Solar boiler • High Pressure Solar boiler • Steam Macerator • High Pressure Macerator • Steam Extractor • High Pressure Extractor • Steam Forge Hammer • High Pressure Forge Hammer • Steam Compressor • High Pressure Compressor • Steam Alloy Smelter • High Pressure Alloy Smelter |
| | Automation | Chest Buffer • Item Filter • Type Filter • Regulator • Super Buffer • Item Distributor • Recipe Filter |
| | Fusion | Fusion Control Computer • Fusion Coil Block • Fusion Machine Casing |
| Multiblocks | Machines | Bricked Blast Furnace • Oil/Gas/Fluid Drilling Rig • Concrete Backfiller • Infinite Oil/Gas/Fluid Drilling Rig • Electric Blast Furnace • Implosion Compressor • Vacuum Freezer • Multi Smelter • Distillation Tower • Large Boiler • Large Heat Exchanger • Charcoal Pile Igniter • Ore Drilling Plant • Pyrolyse Oven • Oil Cracking Unit • Large Chemical Reactor • Assembly Line • Cleanroom • Processing Array |
| | Parts | Dynamo Hatch • Energy Hatch • Input Hatch • Output Hatch • Input Bus • Output Bus • Maintenance Hatch • Auto Maintenance Hatch • Muffler Hatch • Data Access Hatch • Advanced Data Access Hatch |

| | |
|---|---|
| Transport | Wires • Cables • Fluid Pipes • Item Pipes • Microwave Energy Transmitter • Long Distance Fluid Pipeline • Long Distance Item Pipeline • Stocking Input Bus (ME) • Stocking Input Hatch (ME) • Advanced Stocking Input Bus (ME) • Advanced Stocking Input Hatch (ME) |
| Storage | Super Tank • Super Chest • Quantum Tank • Quantum Chest |
| Building | Granite • Concrete • Marble • Basalt • Yellow stripes block • Hazard sign block |
| Other | Teleporter • Pump • Monster Repellator • Seismic Prospector • Miner • Materials • Ores |
| GTNH Coremod | Electric Air Filter • Turbo Charger • Name Remover |
| GTNH lanthanides | Digester • Dissolution tank |
| KekzTech | Solid-oxide Fuel Cell • T.F.F.T • Lapotronic Supercapacitor • T.F.F.T Multi I/O Hatch |
| Galaxy Space | Dyson Swarm Ground Unit • Planetary Gas Siphon |
| Electro magic tools | Large Essentia Generator • Research Completer |
| Hydro dam | Hydro Dam • Hydro Pump • Hydro Turbine |
| Removed | Bronze Plated Blast Furnace |

**Items** [Collapse]

| | | |
|---|---|---|
| Tools | | Meta-tools • Portable scanner • Debug scanner • Match • Match box • Lighter • Platinum Lighter • Sonictron • Prospector's scanner • Braintech aerospace advanced reinforced duct tape FAL-84 • Cover copy/paste tool • Turbines |
| Organics | | Crops • Drinks • Food |
| Circuits | | Silicon boueles • Wafers • Integrated circuits (IC) • Circuitry components • Circuits (tiered) • Circuit boards • Data orb • Data stick |
| Batteries | | Battery hull • Acid battery • Mercury battery • Cadmium battery • Lithium battery • Sodium battery • Sunnarium battery • Naquadria battery • Plasma battery • Neutronium battery • Infinity battery • Lapotronic energy orb • Lapotronic energy orb cluster • Zero point module • Ultimate battery • Really ultimate battery • Tantalum capacitor • Energy module • Energy cluster |
| Nuclear Control | | Gregtech sensor card • Gregtech sensor kit |
| Containers | | Cell • Empty crate • Glass Arrow Head • Regular arrow • Light arrow • Plastic fluid can • Spray can • Empty thermos can • Large fluid cell • Volumetric flask |
| Configuration | | Programmed circuit • Schematics • Empty shape plate • Molds • Extruder shapes • Slicer blades |
| Upgrades | | Muffler upgrade • Lock upgrade |
| Redstone | | Redstone transmitter • Redstone receiver |
| Covers | Tiered covers | Electric motor • Electric pump • Steam valve • Conveyor module • Electric piston • Robot arm • Fluid regulator • Fluid filter cover • Field generator • Emitter • Sensor • |
| | Covers | Machine controller cover • Activity detector cover • Fluid detector cover • Item detector cover • Energy detector cover • Player detector cover • Computer monitor cover • Crafting table cover • Drain module cover • Needs maintenance cover • Shutter cover • Solar panels • Item filter cover (export) • Item filter cover (import) |
| Colors | | Dyes • Spraycans |
| Nuclear | | Coolant cells • Fuel rods • Iridium neutron reflector • 1G Neutronium heat capacitor |
| | | Dust • Nuggets • Ingots • Plates • Gems • Rod • Lens • Round • Bolt • Screw • Ring • Foil • |

| | |
|---|---|
| **Miscellaneous** | Diamond sawblade • Diamond grinding head • Tungsten grinding head • Iridium alloy ingot • Printed pages • Coins • Planks • Book • Iron minecart wheels • Steel minecart wheels • Heavy duty alloy ingot • Gelled toluene • Super fuel binder • Magic super fuel binder • Quantum eye • Quantum star • Gravi star • Compressed fireclay • Firebrick • Glass fiber |
| **Removed/Not ingame** | Bronze plated blast furnace • Integrated circuit • Item filter • Enchanted page • Enchanted pages • Magic paper • Punch card • Punched card • The holy planks of sengir • Serious bug block • Microwave oven manual • Printer manual v2.0 • Punch card manual v0.0 |