

```
<?xml version="1.0" encoding="UTF-8"?>
<enderio:recipes xmlns:enderio="http://enderio.com/recipes" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://enderio.com/recipes recipes.xsd ">
```

```
<!--
```

These are the built-in recipes. You cannot change this file, it is a reference for you only and will be generated every time the game starts.

To make changes to the recipes, copy the recipes you want to change to a file in the 'user' folder. To disable a recipe, add an attribute "disabled" and set it to true, e.g.: <recipe name="Gear" disabled="true" />

You can also disable all built-in recipes with the setting "loadCoreRecipes" in the Ender IO config file, so that only your files in the 'user' folder will be loaded. Please be advised that a number of recipes are absolutely needed, so you will have to copy those over into a 'user' file for the game to load.

Item specifications can reference an alias, an ore dictionary name, a block or an item. You can force the type by prefixing the value with "oredict:", "block:" or "item:". Recipes that have items that cannot be found in-game are either skipped or an error, depending on their "required" attribute.

More information on the syntax can be found in the recipes.xsd file. An XML editor will display that as tooltips when editing this file.

```
-->
```

```
<!-- recipes Ender IO needs -->

<recipe name="Simple SAG Mill" required="true">
    <crafting>
        <grid size="3x3">
            <item name="itemFlint" /><item name="itemFlint" /><item name="itemFlint" />
            <item name="IRON" /><item name="SIMPLE_CHASSIS"/><item name="IRON" />
            <item name="GEAR_STONE" /><item name="minecraft:piston" /><item name="
GEAR_STONE" />
        </grid>
        <output name="enderio:block_simple_sag_mill" />
    </crafting>
</recipe>

<recipe name="SAG Mill" required="true">
    <crafting>
        <grid size="3x3">
            <item name="itemFlint" /><item name="itemFlint" /><item name="itemFlint" />
            <item name="ingotDarkSteel" /><item name="CHASSIS" /><item name="
ingotDarkSteel" />
            <item name="GEAR_DARKSTEEL" /><item name="minecraft:piston" /><item name="
GEAR_DARKSTEEL" />
        </grid>
        <output name="enderio:block_sag_mill" />
    </crafting>
</recipe>

<recipe name="SAG Mill, Upgrade" required="true">
    <crafting upgrade="true">
        <grid size="3x2">
            <item name="ingotDarkSteel" /><item name="enderio:block_simple_sag_mill"
/><item name="ingotDarkSteel" />
            <item name="GEAR_DARKSTEEL" /><item name="CHASSIS" /><item name="
GEAR_DARKSTEEL" />
        </grid>
        <output name="enderio:block_sag_mill" />
    </crafting>
</recipe>
```

```

<recipe name="Enhanced SAG Mill" required="true">
    <crafting>
        <grid size="3x3">
            <item name="itemFlint" /><item name="itemFlint" /><item name="itemFlint" />
            <item name="ingotEndSteel" /><item name="ENHANCED_CHASSIS" /><item name="
ingotEndSteel" />
            <item name="GEAR_VIBRANT" /><item name="minecraft:piston" /><item name="
GEAR_VIBRANT" />
        </grid>
        <output name="enderio:block_enhanced_sag_mill" />
    </crafting>
</recipe>

<recipe name="Enhanced SAG Mill, Upgrade" required="true">
    <crafting upgrade="true">
        <grid size="3x2">
            <item name="ingotEndSteel"/><item name="enderio:block_sag_mill" /><item name="
ingotEndSteel" />
            <item name="GEAR_VIBRANT" /><item name="ENHANCED_CHASSIS" /><item name="
GEAR_VIBRANT" />
        </grid>
        <output name="enderio:block_enhanced_sag_mill" />
    </crafting>
</recipe>

<recipe name="Sagmill: Silicon" required="true">
    <sagmilling energy="720">
        <input name="oredict:sand" />
        <output name="itemSilicon" chance="0.5" />
    </sagmilling>
</recipe>

<recipe name="Sagmill: Coal" required="true">
    <sagmilling energy="2400">
        <input name="minecraft:coal:0" />
        <output name="dustCoal" />
        <output name="dustCoal" chance="0.1" />
        <output name="dustSulfur" chance="0.1" required="false" />
    </sagmilling>
</recipe>

<recipe name="Sagmill: Coal Block" required="true">
    <sagmilling energy="2400">
        <input name="blockCoal" />
        <output name="dustCoal" amount="9" />
    </sagmilling>
</recipe>

<recipe name="Sagmill: Ender Pearl" required="true">
    <sagmilling energy="1600" bonus="none">
        <input name="oredict:enderpearl" />
        <output name="nuggetEnderpearl" amount="9" />
    </sagmilling>
</recipe>

<recipe name="Sagmill: Ender Dust" required="false">
    <sagmilling energy="800" bonus="none">
        <input name="dustEnderPearl" />
        <output name="nuggetEnderpearl" amount="9" />
    </sagmilling>
</recipe>

<recipe name="Ender Dust" required="false">
    <crafting>
        <grid>
            <item name="nuggetEnderpearl"/><item name="nuggetEnderpearl"/><item name="
nuggetEnderpearl" />

```

```
<item name="nuggetEnderpearl"/><item name="nuggetEnderpearl"/><item name="nuggetEnderpearl"/>
    <item name="nuggetEnderpearl"/><item name="nuggetEnderpearl"/><item name="nuggetEnderpearl"/>
</grid>
<output name="dustEnderPearl" /><!-- AE2 -->
</crafting>
</recipe>

<recipe name="Sagmill: Pulsating Powder" required="true">
<sagmilling energy="1600" bonus="none">
<input name="itemPulsatingCrystal"/>
<output name="itemPulsatingPowder" />
</sagmilling>
</recipe>

<recipe name="Sagmill: Vibrant Powder" required="true">
<sagmilling energy="1600" bonus="none">
<input name="itemVibrantCrystal"/>
<output name="itemVibrantPowder" />
</sagmilling>
</recipe>

<recipe name="Sagmill: EnderCrystal Powder" required="true">
<sagmilling energy="1600" bonus="none">
<input name="itemEnderCrystal"/>
<output name="itemEnderCrystalPowder" />
</sagmilling>
</recipe>

<recipe name="Sagmill: Precient Powder" required="true">
<sagmilling energy="1600" bonus="none">
<input name="itemPrecientCrystal"/>
<output name="itemPrecientPowder" />
</sagmilling>
</recipe>

<recipe name="Sagmill: Obsidian" required="true">
<sagmilling energy="4000">
<input name="minecraft:obsidian"/>
<output name="POWDER_OBSIDIAN" amount="4" />
</sagmilling>
</recipe>

<recipe name="Quartz Dust">
<sagmilling bonus="chance_only" energy="2400">
<input name="gemQuartz"/>
<output name="POWDER_QUARTZ" />
<output name="POWDER_QUARTZ" chance=".1"/>
</sagmilling>
</recipe>

<recipe name="Lapis Dust">
<sagmilling bonus="none" energy="2400">
<input name="gemLapis"/>
<output name="dustLapis" />
</sagmilling>
</recipe>

<recipe name="Lapis Block Dust">
<sagmilling bonus="none" energy="3600">
<input name="blockLapis"/>
<output name="dustLapis" amount="9" />
</sagmilling>
</recipe>

<recipe name="Sagmill: Infinity Dust" required="true">
<sagmilling energy="30000" bonus="chance_only">
```

```
<input name="dustBedrock" />
<output name="enderio:block_infinity_fog" />
</sagmilling>
</recipe>

</enderio:recipes>
```