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GAMES

ANIME

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TV

VIDEO

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M ▾   GA ▾   MI ▾

MI ▾   WI ▾

quickly as a furnace but cannot smelt anything else. It also serves as an armorer's job site block.

View **all renders**

Renewable	Yes
Stackable	Yes (64)
Tool	
Blast resistance	3.5
Hardness	3.5
Luminous	Yes (13) (when active)
Transparent	Partial (when active)
Flammable	No
Catches fire from lava	No

Contents

FANDOM

Q

FAN
CENTRAL
BETA

GAMES

ANIME

MOVIES

TV

VIDEO

WIKIS

START A
WIKI

Obtaining

Breaking

A blast furnace can be picked up using any pickaxe. If mined without a pickaxe, it does not drop.

Blast furnaces drop their contents when broken.

Block	Blast Furnace
Hardness	3.5
Tool	
Breaking time[A]	
Default	17.5
Wooden	2.65
Stone	1.35
Iron	0.9
Diamond	0.7
Netherite	0.6
Golden	0.45

1. Times are for unenchanted tools as wielded by players with no status effects, measured in seconds. For more information, see Breaking § Speed.

Usage

Blast furnaces can be pushed by pistons.[*Bedrock Edition only*]

Smelting

Main article: Smelting

Blast furnaces are similar to furnaces, but can smelt only raw ore, ore blocks and tools/armor made of iron, gold or chainmail. Blast furnaces serve as the counterpart to smokers, which are used mainly to cook food faster. Smelting equipment yields one iron or gold nugget from their respective materials. Once an item and a fuel are placed into

The GUI for the blast furnace, same as the ordinary furnace's.

the blast furnace, the block state changes to `lit` and the item is smelted twice as fast as a regular furnace. Fuel is also used at double the rate of regular furnaces, so the number of items smelted per fuel stays the same. The product can then be collected by using the output. Like normal furnaces, a hopper can be used to feed items into a blast furnace and can also pick up items from it.

Changing profession

If a village has a blast furnace that has not been claimed by a villager, any nearby villager who has not chosen a job site block has a chance to change their profession to armorer.

Light source

Blast furnaces emit a light level of 13 when active, similar to normal furnaces.

Custom name

By default, the interface of a blast furnace is labeled "Blast Furnace", but this name can be customized by naming it in an anvil before placing it, or by changing the `CustomName` tag using the `/data` command.[*Java Edition only*]

Lock

drum" sounds.

Sounds

Generic

Java Edition:

Sound	Subtitles	Source	Description	Resource location	Translation key	Volume	Pitch	[Collapse] Attenuation distance
	Block broken	Blocks	Once the block has broken	`block` `.stone` `.break`	`subtitles` `.block` `.generic` `.break`	1.0	0.8	16
	Block placed	Blocks	When the block is placed	`block` `.stone` `.place`	`subtitles` `.block` `.generic` `.place`	1.0	0.8	16
	Block breaking	Blocks	While the block is in the process of being broken	`block` `.stone` `.hit`	`subtitles` `.block` `.generic` `.hit`	0.25	0.5	16
	None[sound 1]	*Entity-Dependent*	Falling on the block with fall damage	`block` `.stone` `.fall`	*None*[sound 1]	0.5	0.75	16
	Footsteps	*Entity-Dependent*	Walking on the block	`block` `.stone` `.step`	`subtitles` `.block` `.generic` `.footsteps`	0.15	1.0	16

1. MC-177082

Bedrock Edition:

Sound	Source	Description	Resource location	Volume	[Collapse] Pitch
	Blocks	Once the block has broken	`dig` `.stone`	1.0	0.8–1.0
	Blocks	When the block is placed	`dig` `.stone`	1.0	0.8–1.0
	Blocks	While the block is in the process of being broken	`hit` `.stone`	0.37	0.5

Unique

Java Edition:

Sound	Subtitles	Source	Description	Resource location	Translation key	Volume	Pitch	[Collapse] Attenuation distance
	Blast furnace crackles	Blocks	Randomly while lit	`block .blastfurnace .fire_crackle` [sound 1]	`subtitles.block .blastfurnace .fire_crackle` [sound 1]	1.0	1.0	16
	Armorer works	Friendly Creatures	Randomly while an armorer is working	`entity.villager .work_armorer`	`subtitles.entity .villager .work_armorer`	1.0	0.8-1.2	16
	Chest locked[sound 2]	Blocks	When a player attempts to open a blast furnace locked using the **Lock** tag	`block.chest .locked` [sound 2]	`subtitles.block .chest .locked` [sound 2]	1.0	1.0	16

1. MC-179832
2. MC-98316 — Wrong subtitles caused by missing distinction

Bedrock Edition:

Sound	Source	Description	Resource location	Volume	[Collapse] Pitch
	Blocks	Randomly while lit	`block .blastfurnace .fire_crackle`	3.0	0.6
	Blocks	Randomly while an armorer is working	`block .blastfurnace .fire_crackle`	3.0	0.6

Data values

ID

Java Edition:

Name	Identifier	Form	Translation key
Blast Furnace	`blast_furnace`	Block & Item	`block.minecraft.blast_furnace`

block			Item[i 4]		

1. ID of block's direct item form, which is used in savegame files and addons.
2. Available with `/give` command.
3. The block's direct item form has the same id as the block.
4. Unavailable with `/give` command

Name	Savegame ID
Block entity	`BlastFurnace`

Block states

See also: Block states

Java Edition:

Name	Default value	Allowed values	Description
facing	`north`	`east` `north` `south` `west`	The direction the blast furnace's opening faces. The opposite from the direction the player faces while placing the blast furnace.
lit	`false`	`false` `true`	If the blast furnace is lit.

Bedrock Edition:

Name	Metadata Bits	Default value	Allowed values	Values for Metadata Bits	Description
facing_direction (Deprecated)	`0x1` `0x2` `0x4`	`3`	`2` `3` `4` `5`	`2` `3` `4` `5`	The direction the blast furnace's opening faces. • 2: facing north • 3: facing south • 4: facing west • 5: facing east

FANDOM

Q

FAN
CENTRAL
BETA

GAMES

ANIME

MOVIES

TV

VIDEO

WIKIS

START A
WIKI

				direction the player faces while placing the blast furnace.

Block data

A blast furnace has a block entity associated with it that holds additional data about the block.

Java Edition:

> *See also: Block entity format*

Block entity data

Tags common to all block entities

⌐ **BurnTime**: Number of ticks left before the current fuel runs out.

⌐ **CookTime**: Number of ticks the item has been smelting for. The item finishes smelting when this value reaches 200 (10 seconds). Is reset to 0 if BurnTime reaches 0.

⌐ **CookTimeTotal**: Number of ticks It takes for the item to be smelted.

⌐ **CustomName**: Optional. The name of this container in JSON text component, which appears in its GUI where the default name ordinarily appears.

⌐ **Items**: List of items in this container.

  └ : An item in the blast furnace, including the slot tag:

  Slot 0: The item(s) being smelted.

  Slot 1: The item(s) to use as the next fuel source.

  Slot 2: The item(s) in the result slot.

Tags common to all items

⌐ **Lock**: Optional. When not blank, prevents the container from being opened unless the opener is holding an item whose name matches this string.

⌐ **RecipesUsed**: Recipes that have been used since the last time a recipe result item was manually removed from the GUI. Used to calculate experience given to the player when taking out the resulting item.

  └ *recipe ID*: How many times this specific recipe has been used. The *recipe ID* is the identifier of the smelting recipe, as a resource location, as used in the `/recipe` command.

Bedrock Edition:

> See Bedrock Edition level format/Block entity format.

History

		18w50a		desert and taiga villages.
				Blast furnaces are now functional and craftable.
		19w03a		Sounds have been added for blast furnaces.
		19w11a		Blast furnaces now serve as armorer villagers' job site block.
1.16		20w06a		Added ancient debris, which can be smelted in blast furnaces.
1.17		21w14a		Added raw metals, which can be smelted in blast furnaces.
1.20		23w12a		Blast furnaces now generate in trail ruins.
Bedrock Edition				
1.9.0		beta 1.9.0.2		Added blast furnaces.
1.10.0		beta 1.10.0.3		A crafting recipe has been added for the blast furnace.
				Blast furnaces now generate in the new village armorer houses.
1.11.0		beta 1.11.0.1		Blast furnaces are now functional.
1.20.30		beta 1.20.30.20		Blast furnaces now use the `minecraft:cardinal_direction` block state instead of `facing_direction`.
Legacy Console Edition				
		1.91			Added blast furnaces.

Lit blast furnace "item"

The following content is transcluded from Technical blocks/Lit Blast Furnace.

Bedrock Edition
? Lit blast furnaces exist as an item.

Appearances

Bedrock Edition	
?	Lit blast furnaces use this model.

Names

Bedrock Edition

- ? - ?: `tile.lit_blast_furnace.name`
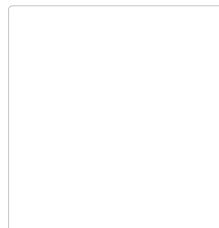
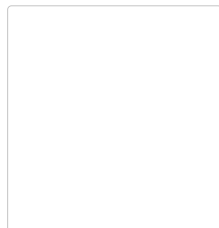Facing south   Facing south, lit
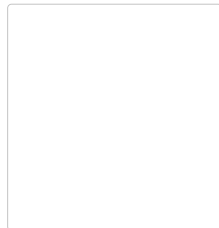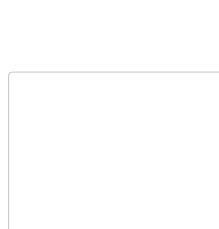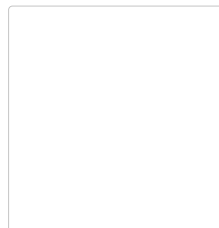

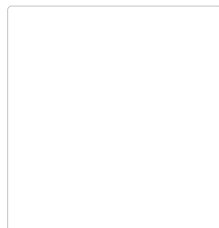Facing west   Facing north
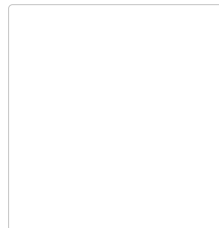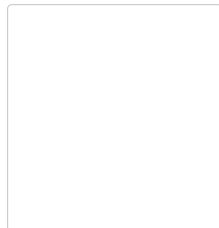
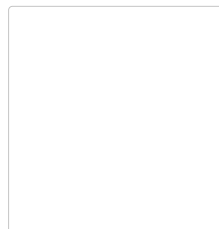Facing east   Facing east, lit

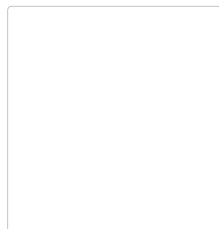### Bedrock Edition

Facing south   Facing south, lit
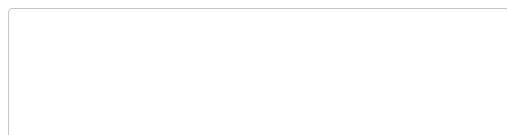
Facing west   Facing north

Facing east   Facing east, lit

Screenshots

0empty%20or%20resolution%20in%20%281%2C%202%2C%206%2
9%29%20and%20%28summary%20~%20%22Blast%20Furnace%22%2
9%20order%20by%20resolution%20desc).

See also

- Furnace
- Smoker

References

External Links

- Block of the Week: Blast Furnace (https://www.minecraft.net/en-us/article/block-week--blast-furnace) – Minecraft.net on September 10, 2020

Blocks	[Collapse]
Natural	[Expand]
Biota	[Expand]
Building	[Expand]
Utility	[Collapse]

Interactable	Anvil (Chipped Damaged) Barrel Beacon Brewing Stand Cartography Table Chest (Ender) Chiseled Bookshelf Crafting Table Enchanting Table Fletching Table Furnace (**Blast** Smoker) Grindstone Lectern Loom Shulker Box Sign (Hanging) Smithing Table Stonecutter
Utilizable	Banners Beehive Beds Bell Cake (with Candle) Campfire (Soul) Cauldron (Lava Powder Snow Water) Composter Conduit End Gateway End Portal End Portal Frame Farmland Flower Pot Frosted Ice Heads Item Frame (Glow) Jukebox Ladder Lodestone Monster Spawner Nether Portal

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GAMES

ANIME

MOVIES

TV

VIDEO

WIKIS

START A
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	(Comparator Repeater
	Lamp Torch) Slime Block
	Target Trapped Chest
	Tripwire Hook (Tripwire)
Education Edition only	Border Chalkboard
	Allow Compound Creator
	Colored Torches Deny
BE & *edu* only	Element Constructor Heat Block
	Lab Table Material Reducer
	Underwater TNT
	Underwater Torch

Creative only	**[Expand]**
Commands only	**[Expand]**
Unimplemented	**[Expand]**
Unused	**[Expand]**
Joke features	**[Expand]**
Removed	**[Expand]**

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ANIME

MOVIES

TV

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