



# Fluidization Plate

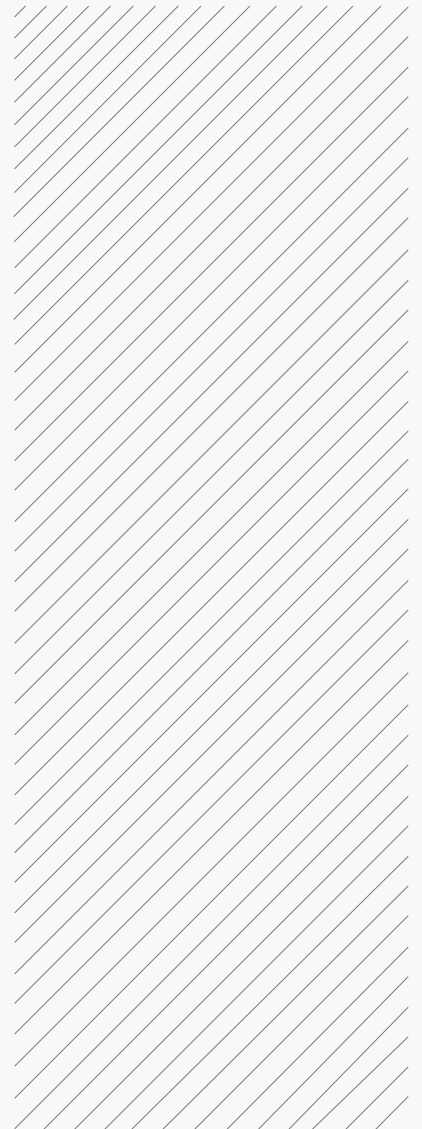
Weave Impossible to Possible



**BOEDON** Industech Limited

[www.boedon.com](http://www.boedon.com) | [sales@boedon.com](mailto:sales@boedon.com)

# BOEDON Brochure



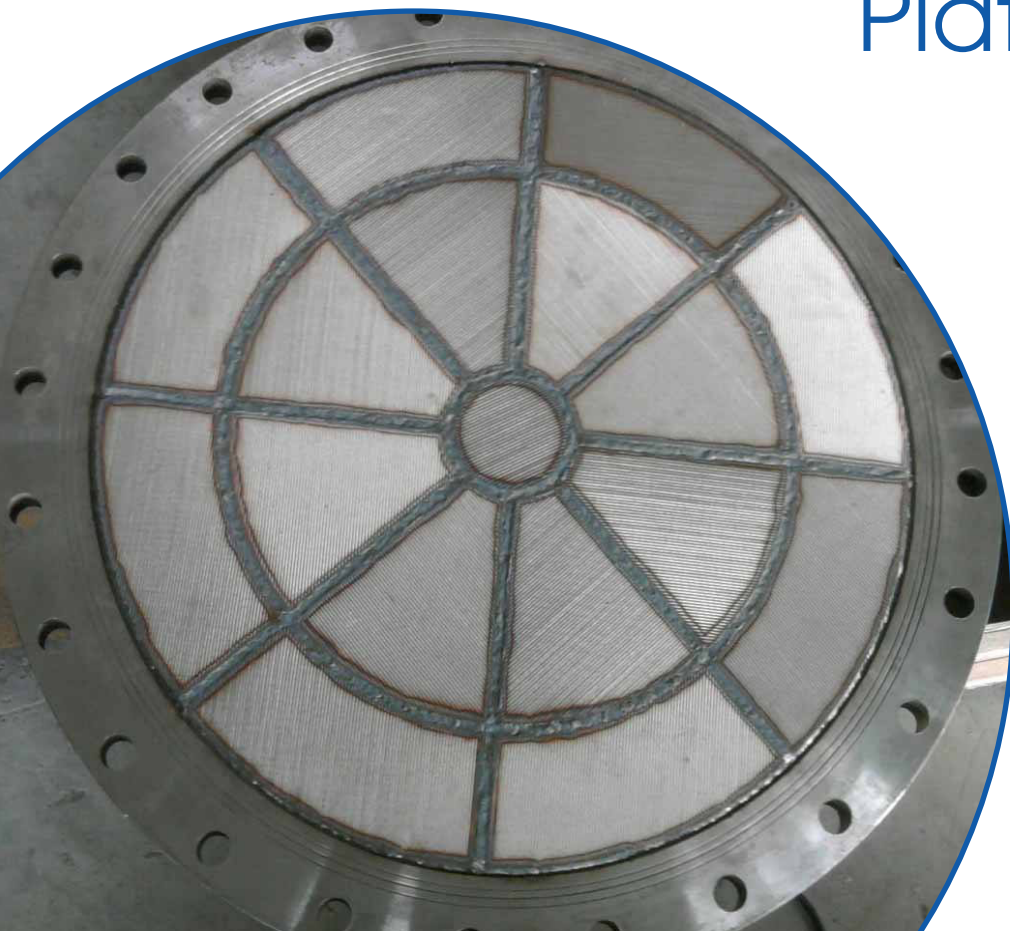


## **We offer customized fluidization plate to meet your pulverized coal transmission demands.**

Fluidization plate, also known as pulverized coal tank fluidization plate, consists of stainless steel sintered filter mesh, fixed frame and flange.

Stainless steel sintered filter mesh is constructed of multiple layers of metal woven mesh after laminating, pressing and vacuum sintering. Square weave wire mesh is generally adopted as the filtration layer to enhance the open area, air permeability and filtration precision of the fluidization plate. Stainless steel sintered filter mesh is also provided with a stainless steel fixed frame to improve its mechanical strength and rigidity, and extend the lifespan of the fluidization plate.

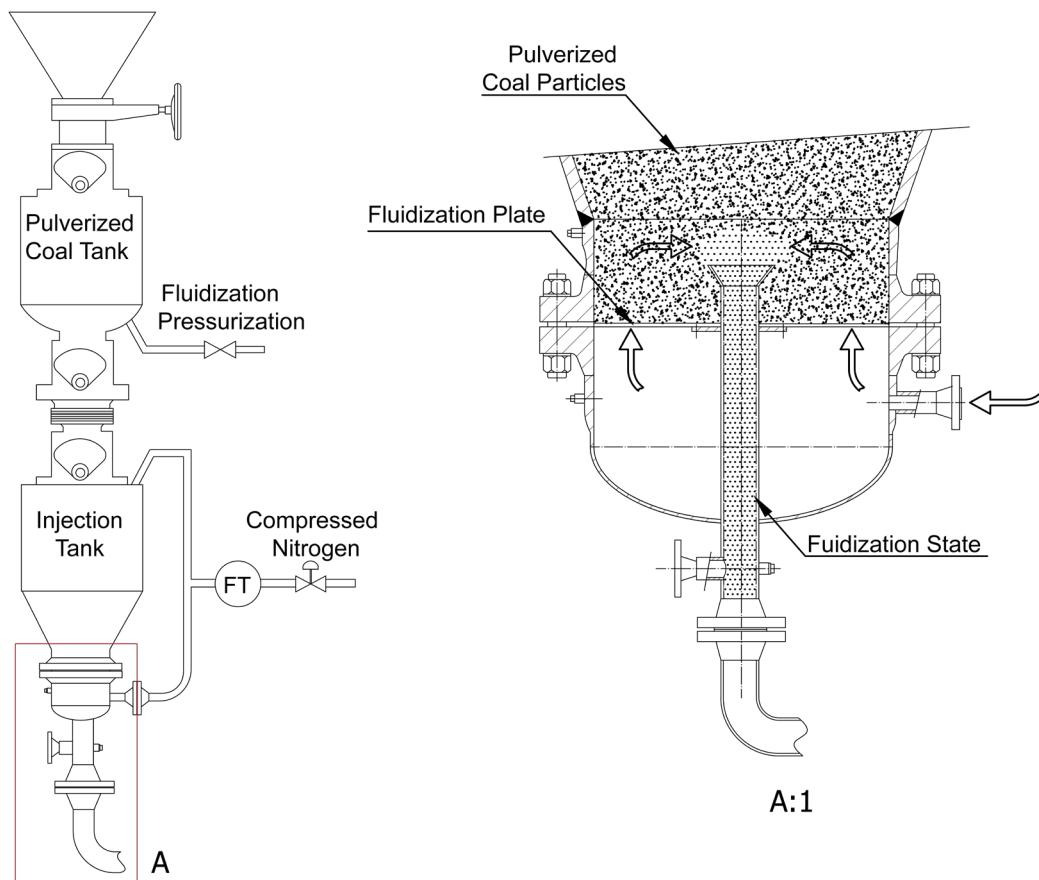
# **Fluidization Plate**



## FLUIDIZATION PLATE

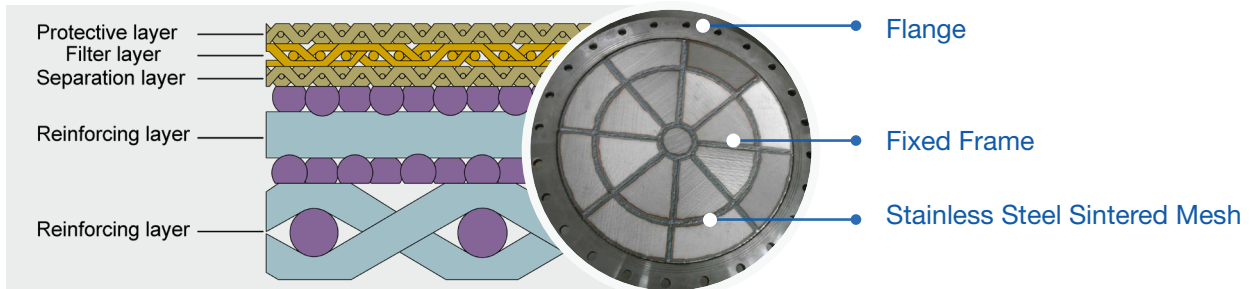
# Working Principle

The pulverized coal in the pulverized coal tank flows towards the injection tank under gravity. At that time, the compressed nitrogen gas blows the flowing down pulverized coal through the pores of the fluidization plate, keeps it fluidizing and the pulverized coal particles are separated from each other. The fluidity of pulverized coal increases consequently to prevent the pulverized coal from caking, lumping and bridging in the injection tank. And then it is conveyed to the distributor through the lower outlet to the coal injection system of the blast furnace.



FLUIDIZATION PLATE

# Structure



FLUIDIZATION PLATE

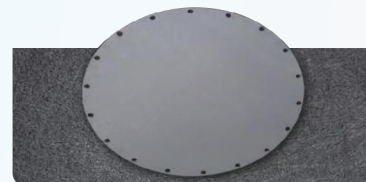
# Category

Fluidization plates are divided into bottom fluidization plates and top fluidization plates by the installation position.

- The bottom fluidization plate is provided with a hole in the center whose size is exactly the same as the outlet, thus facilitating pulverized coal flowing out and ensuring the air-tightness of the fluidized bed. It is generally installed under the outlet.
- The top fluidization plate is not provided with a hole to prevent pulverized coal leakage. It is generally installed above the outlet.



*Bottom fluidization plate*



*Top fluidization plate*

FLUIDIZATION PLATE

# Installation/Fixing Method

We offer fluidization plates in a variety of diameters ranging from 300 mm to 3000 mm to suit to different fluidized bed. Typically, large diameter fluidization plates are directly welded to the fluidized bed while small diameter fluidization plates are fixed to the fluidized bed by tightening the flange.



*Large diameter fluidization plate*



*Small diameter fluidization plate*

## FLUIDIZATION PLATE

# Specification

**Fixed frame & flange material:** stainless steel

**Filter mesh material:** stainless steel sintered mesh; standard material: ss304, ss316L

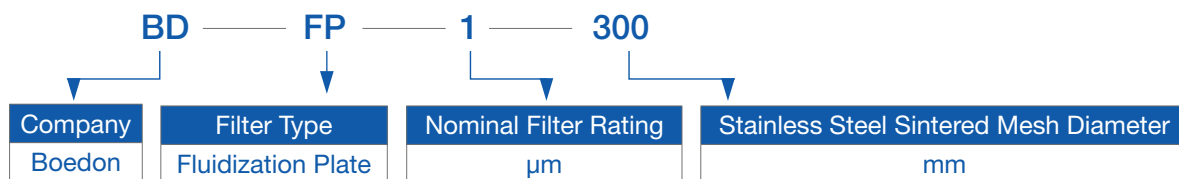
**Diameter:** 300–3000 mm

**Thickness:** 1.7 mm, 2 mm, 3.5 mm, 4 mm, 6 mm, 8 mm

**Max. operating temperature:** 480 °C

**Filter rating:** 1–300 µm

**Porosity:** 70%–85%



Specification of Fluidization Plate

Model	Nominal Filter Rating (µm)	Stainless Steel Sintered Mesh Diameter (mm)	Filter Area (m <sup>2</sup> )
BD-FP-1-300	1	300	70650
BD-FP-1-900	1	900	635850
BD-FP-1-1100	1	1100	949850
BD-FP-1-1500	1	1500	1766250
BD-FP-1-2900	1	2900	6601850
BD-FP-20-300	20	300	70650
BD-FP-20-900	20	900	635850
BD-FP-20-1100	20	1100	949850
BD-FP-20-1500	20	1500	1766250
BD-FP-20-2800	20	2800	6154400
BD-FP-300-300	300	300	70650
BD-FP-300-900	300	900	635850
BD-FP-300-1100	300	1100	949850
BD-FP-300-1500	300	1500	1766250
BD-FP-300-2700	300	2700	5722650

**Notes:** Fluidization plate materials, sizes and filter ratings are customized upon request.

FLUIDIZATION PLATE

# Features & Application

## Features

- Little pulverized coal residue, easy to clean
- Good mass and heat transfer, great fluidization effect, high efficiency, low oxygen consumption
- High porosity, uniform gas distribution, high filtration precision
- No dead zone, allowing pulverized coal to flow freely
- High temperature resistance, corrosion resistance, wide application range
- Avoid equipment breakdown, short circuit and blocking
- High temperature resistance, corrosion resistance, wide application range
- Simple operation, easy installation

## Application



### Iron & Steel

- Blast furnace injection pulverized coal fluidization
- Blast furnace pulverized coal dense phase conveying systems



**BOEDON** Industech Limited

# Weave Impossible to Possible



**E-Mail:** [sales@boedon.com](mailto:sales@boedon.com)

---

[www.boedon.com](http://www.boedon.com)