DUAL VERTICAL GATE FILTER (DVGF) SYSTEM FOR CONTINUOUS CASTING

BPF SYSTEM IDEAL FOR CONTINUOUS CASTING

This filter system features the exclusive Metaullics Bonded Particle Filter (BPF®) media in a configuration ideally suited for continuous casting. The system offers a small footprint, continuity of filtration during long casting campaigns through the use of a single, or two interchangeable (shuttled) filters. In conjunction with an efficiently performing degassing system upstream, approximately 200–300 tons filter life is possible with a 6 grit filter element.

The Bonded Particle Filter media itself is especially suitable for continuous casting application. High strength and durability at operating temperatures, and long-life integrity is provided by bonding hard silicon carbide particles with a highly molten-aluminium resistant ceramic binder. High thermal conductivity and a complex internal structure assist in achieving excellent thermal stability and a high level of filtration efficiency over an extended lifetime.

THE DUAL VERTICAL GATE FILTER (DVGF) SYSTEM

The system consists of a refractory lined base and a heated cover. The heating system provides preheat as well as holding and/or increasing temperature as required.

ADVANTAGES

- Easier and faster filter changeout for quicker turn-a-round and improved productivity
- Enhanced product quality with Bonded Particle Filter (BPF®)
- Extended filter life capability
- Improved thermal stability—minimal temperature fluctuation
- Continuous running capability
- Small footprint

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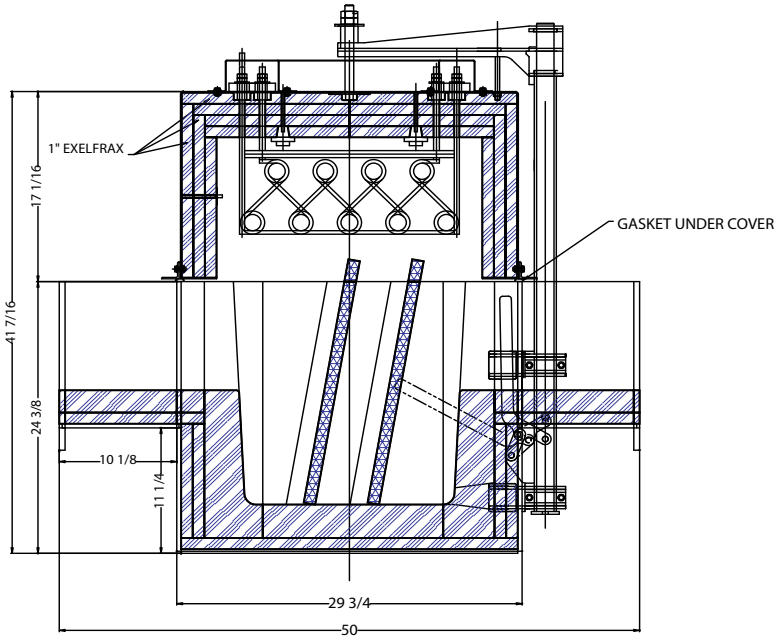

BONDED PARTICLE FILTER SPECIFICATION

BPF 6, 8, 10, 12 grit filter grades available. These grades provide performance corresponding well to typical ceramic foam filter grades employed in continuous casting.

The DVGF is designed to accommodate up to 200 kg/min flow capability depending on filter grade. Anticipated filter lifetimes will be shorter with finer filter grades.

SYSTEM PARAMETERS

Base

- 29 ¾″ (756 mm) L (excluding inlet/outlet)
- 60″ (1524 mm) overall L
- 36 ¾″ (933 mm) W
- 47 7/16 (1205 mm) H
- 1/8″ (3 mm) steel shell
- Hardface refractory, tapered (Matrisil SR)
- 1″ microporous board and 1″ Wollite insulation backup
- Inlet/outlet configuration to customer requirements
- Houses one or two 24″ T x 22″ B x 22″ H x 1″ thick (609.6 mm x 558.8 mm x 558.8 mm x 25.4 mm) tapered BPF filter plates

Heated Lid

- 19kW electric heater housed in 2300°C (4172°F) insulating board and Exelfrax material
- Nine ceramic heater elements (Kanthal Nikrothal)
- 110/220 15 amp single-phase control transformer
- Melt and control thermocouples
- Lift and rotate lid pivot post with safety lock
- Athena temperature controller
- Wall mount control panel

Bonded Particle Filter production is governed by ISO 9001:2000 compliance.

Note: The physical and chemical properties listed represent typical, average values obtained in accordance with accepted test methods and are subject to normal manufacturing variations. They are supplied as a technical service and are subject to change without notice.

Product Type: 124

Commodity Code: 05004

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