



DESIGN CRITERIA SHEET
FOR
BLOWBACK SYSTEM

Memtec America Corporation
1750 Memtec Drive
DeLand, FL 32724-2045 USA
Telephone: (904) 822-8000
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CUSTOMER: Royal Oak Mines, Inc DATE: _____
RFQ#/S.O.#: _____ REV: _____ CONTACT: Brian Cross

HOUSING:

INSIDE DIAMETER: _____ OVERALL LENGTH: _____

☐ DOWN FLOW DESIGN ☐ UP FLOW DESIGN

DESIGN PRESSURE: _____ DESIGN TEMPERATURE: _____

DELTA P BETWEEN SHELL SIDE AND BLOWBACK SIDE: _____

NUMBER OF SECTIONS: _____

BAFFLES: ☐ YES ☐ NO

INLET/OUTLET FLANGE SIZE AND RATING: _____

SANDWICH TUBE SHEET: ☐ YES ☐ NO

☐ DESIGN AND FABRICATE PER ASME

☐ WITH "U" STAMP ☐ WITHOUT "U" STAMP

☐ DESIGN PER MEMTEC STANDARDS

AREA CLASSIFICATION: ☐ HAZARDOUS ☐ SAFE

COMMENTS: _____

PLEASE RETURN TO:

Kiran. Emmi

Applications Engineer

904-822-8040 [Fax]

904-822-8000 [Phone]



TO: Mr. Brian Cross.

Call me if you have any questions.

Regards Kiran. Emm

**DESIGN CRITERIA SHEET
FOR
BLOWBACK SYSTEM**

Memtec America Corporation
1750 Memtec Dr.
DeLand, FL 32724-2040 USA
Telephone: 904 822-8100
Fax: 904 822-8101

Page 1 of 2

CUSTOMER: Royal Oak Mines Inc

DATE: _____

RFQ#/S.O.#: _____ REV: _____

CONTACT: Mr. Brian Cross

END USER: _____

PHONE: 403-669-3733PREPARED BY: Brian CrossFAX: 403-920-2627**PROCESS CONDITIONS**

FLUID: _____

DESIGN FLOW RATE: _____

DESIGN TEMPERATURE: _____ DESIGN PRESSURE: _____

SPECIFIC GRAVITY @ DESIGN CONDITIONS: _____

VISCOSITY @ DESIGN CONDITIONS: _____

PARTICULATE LOADING: _____ FILTRATION LEVEL: _____

BLOWBACK CONDITIONS

FLUID: _____ DENSITY @ OPERATING CONDITIONS: _____

GAS PRESSURE: MIN/MAX _____ NORMAL _____

GAS TEMPERATURE: MIN/MAX _____ NORMAL _____

DESIGN CRITERIAELEMENTS: ☐ METAL BAGS ☐ BLOWBACK ELEMENTS☐ IDENTICAL TO P/N _____ EXCEPT AS SPECIFIED BELOW

OUTSIDE DIAMETER: _____ OVERALL LENGTH: _____

DELTA P RATING: _____ (OUTSIDE TO INSIDE)

ADAPTER _____ INTERNAL HEX ☐ YES ☐ NOELEMENT RETAINING PIN: ☐ YES ☐ NO

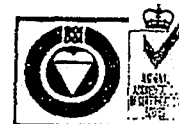
MEDIA DESIGNATOR: _____

MATERIAL OF CONSTRUCTION:

MEDIA: _____

ADAPTER: _____

ELEMENT HARDWARE: _____



1000+°F TEMPERATURE APPLICATIONS FOR
PALL SELF CLEANING BLOWBACK FILTER SYSTEMS

SHALE OIL RECOVERY - Retort off-gas clean up at Gulf R&D Pittsburgh. Gulf is using Hastelloy X filter elements at 1400°F. Exxon, Baytown, Texas is using Inconel filters for their 1100°F off-gas temperature.

CATALYST ACTIVATOR FILTERS for licensees of the Unipol and Phillips Polyethylene Process use Hastelloy X elements at 1600 - 1750°F. Pall has more than twenty installations worldwide.

BIO-MASS GASIFICATION - HIGH PRESSURE - 310S porous stainless steel filters for the Bio-Syn Project in Quebec, Canada. Pall supplied not only the filter and ceramic housing, but also the heating system and the fail-safe instrumentation to prevent the build up of tars on the filter elements. The design temperature is 1400°F at 265 PSIG.

In addition, Pall has Hastelloy X filters operating at 800°C on the pressurized gas system for Studsvik Engineering Teknik in Nvskoting, Sweden. These filters have more than 1000 hours' service.

BIO-MASS GASIFICATION - LOW PRESSURE - Pall is working with Gasification Systems Limited in New Hampshire for low pressure gasifier systems suitable for lumber mills. The typical temperature is 1000°F. The filters consist of our 304 stainless steel sintered wire mesh.

OEM's - Pall is working with the several OEM's who manufacture fluid bed processing equipment. We have sold SST, Inconel 600, and Hastelloy X filters for applications up to 1650°F.

GOLD ROASTING - Amax is using our 310 stainless steel filters at 1100°F to capture fines from their fluidized roasting bed. The process involves oxidizing gold ore by driving off the sulfur. 310 SST was chosen for its resistance to sulfidation.

FLUID CAT CRACKING - Amoco has successfully used Pall Inconel 600 to filter the 1100°F regenerator flue gas (CO and CO₂) in a pilot plant study for several years. These elements held up well, even in the presence of some SO₂ and SO₃.

NUCLEAR FUEL PROCESSING - General Atomics is using our Hastelloy X elements at approximately 1800°F in a proprietary process.