

BEGG COUSLAND ENVIROTEC LTD.

CANDLE FILTER MIST ELIMINATORS

1. GLASS FIBRE BED OPTIONS

A. BROWNIAN DIFFUSION MIST ELIMINATORS

COLLECTION MECHANISMS : BROWNIAN DIFFUSION + INTERCEPTION + COALESCENCE + IMPACTION

TGW15	Glass Fibre	Smallest Fibre Dia. Possible	Hanging or Standing Type
SELECTION CRITERIA	Very High Efficiency Mist Removal	Invisible stack emission <20mg/m ³	Optimum Outlet Protection
DESIGN CRITERIA	100% removal >1μ >98% removal <1μ	150-250mm H ₂ O Pressure Loss	< 0.2 m/sec Bed Velocity

TGW16	Glass Fibre	Smallest Fibre Dia. Possible	Hanging or Standing Type
SELECTION CRITERIA	Highest Efficiency Mist Removal	Invisible stack emission 10mg/m ³	Extreme Outlet Protection
DESIGN CRITERIA	100% removal >1μ >99% removal <1μ	250-300mm H ₂ O Pressure Loss	< 0.12 m/sec Bed Velocity

B14W	Wound Rope Glass Fibre	Small Fibre Dia.	Hanging or Standing Type
SELECTION CRITERIA	Very High Efficiency Mist Removal	Range of Bed Thicknesses (50/63/75)	Optimum Outlet Protection
DESIGN CRITERIA	100% removal >1μ or >3μ 99% removal <1μ or <3μ	150-250mm H ₂ O Pressure Loss	< 0.25 m/sec Bed Velocity

B14	Glass Fibre	Small Fibre Dia.	Hanging or Standing Type
SELECTION CRITERIA	High Efficiency Mist Removal	Limited Pressure Loss	Limit of Installation Space
DESIGN CRITERIA	100% removal >3μ 99% removal <3μ	150-250mm H ₂ O Pressure Loss	< 0.25 m/sec Bed Velocity

B. MEDIUM VELOCITY MIST ELIMINATORS

COLLECTION MECHANISMS : INTERCEPTION + COALESCENCE + IMPACTION

B12	Glass Fibre	Small Fibre Dia.	Standing Type or HT2 Type Only
SELECTION CRITERIA	Low Fine Mist Content in Gas	Limited Pressure Loss	Limited Installation Space
DESIGN CRITERIA	100% removal >3 μ 95% removal 1-3 μ 80% removal <1 μ	150-250mm H ₂ O Pressure Loss	< 0.5 m/sec Bed Velocity

C. HIGH VELOCITY MIST ELIMINATORS

COLLECTION MECHANISMS : IMPACTION + INTERCEPTION + COALESCENCE

G25	Glass Fibre	Medium Fibre Dia.	Standing Type Only
SELECTION CRITERIA	High Gas Volume per Filter	Mainly Droplet Removal Needed	Very Limited Installation Space
DESIGN CRITERIA	100% removal >3 μ 90% removal 1-3 μ 70% removal <1 μ	100-200mm H ₂ O Pressure Loss	0.8 - 2.5 m/sec Bed Velocity

G35	Glass Fibre	Coarse Fibre Dias.	Standing Type Only
SELECTION CRITERIA	High Gas Volume per Filter	Mainly Droplet Removal Needed	Blockage Risk by Solids
DESIGN CRITERIA	100% removal >3 μ 80% removal 1-3 μ	100-200mm H ₂ O Pressure Loss	1.0 - 2.5 m/sec Bed Velocity

G35K	Glass Fibre	Co-knitted wire 316L / 310 / Alloy 20	Standing Type Only
SELECTION CRITERIA	High Gas Volume per Filter	Re-entrainment risk at high load	Frequent Solids Blockage
DESIGN CRITERIA	100% removal >3 μ 75% removal 1-3 μ	100-180mm H ₂ O Pressure Loss	1.0 - 2.5 m/sec Bed Velocity

HTP	Glass Fibre	Co-knitted wire 316L / 310 / Alloy 20	Polygon Bolted Panel Filters
SELECTION CRITERIA	High Gas Volume per Panel	Mainly Droplet Removal Needed	Blockage Risk by Solids
DESIGN CRITERIA	Select G35 Efficiencies (above) or Select G35K Efficiencies (above)	100-200mm H ₂ O Pressure Loss	1.0 - 2.5 m/sec Bed Velocity

2. NON-GLASS FIBRE BED OPTIONS

A. BROWNIAN DIFFUSION MIST ELIMINATORS

COLLECTION MECHANISMS : BROWNIAN DIFFUSION + INTERCEPTION + COALESCENCE + IMPACTION

A.1 POLYPROPYLENE FIBRE

PP13.5	Polypropylene Fibre	Small Fibre Dias.	Hanging or Standing Type
SELECTION CRITERIA	High Efficiency Mist Removal	Alkaline Process Conditions	Fluorine (HF) Present
DESIGN CRITERIA	100% removal >3μ 95% removal 1 - 3μ 90% removal <1μ	150-250mm H ₂ O Pressure Loss	< 0.20 m/sec Bed Velocity

A.2 POLYESTER FIBRE

PT12	Polyester (Terylene) Fibre	Small Fibre Dias.	Hanging or Standing Type
SELECTION CRITERIA	High Efficiency Mist Removal	Wet Chlorine / Alkaline Process	Fluorine (HF) Present
DESIGN CRITERIA	100% removal >3μ 95% removal 1 - 3μ 90% removal <1μ	150-250mm H ₂ O Pressure Loss	< 0.20 m/sec Bed Velocity

A.3 CARBON FIBRE

C14	Carbon Fibre	Smallest Fibre Dia. Mat	Hanging or Standing Type
SELECTION CRITERIA	Very High Efficiency Mist Removal	Invisible stack emission <20mg/m ³	Fluorine (HF) Present
DESIGN CRITERIA	100% removal >3μ >99% removal <3μ	120-250mm H ₂ O Pressure Loss	< 0.2 m/sec Bed Velocity

B. MEDIUM VELOCITY MIST ELIMINATORS

COLLECTION MECHANISMS : INTERCEPTION + COALESCENCE + IMPACTION + LIMITED BROWNIAN DIFFUSION

B.1 P.T.F.E. FIBRE

T80.35	P.T.F.E. Fibre	Small Fibre Dia.	Standing Type
SELECTION CRITERIA	High Efficiency Mist Removal	Hot Alkaline Process	Fluorine (HF) Present
DESIGN CRITERIA	100% removal >3μ 95% removal 1 - 3μ 80% removal <1μ	120-250mm H ₂ O Pressure Loss	0.3 – 0.5 m/sec Bed Velocity