

Fluidized Sand Filters

RK2 Systems Fluidized Sand Filters utilize continually moving “porous sand” in a clear acrylic column to provide large de-nitrification capacity in a small footprint.

These proven Bio filters have a distinct advantage over other types of Bio filters as 100% of the media surface area is utilized in the de-nitrification process. They are capable of being placed inline in a low pressure system and maintain a constant flow rate with virtually no maintenance.

Specifically engineered PH compatible medias allow RK2 Systems FSF filters to be used in either marine or freshwater applications.

Coupled to an Ozone equipped Protein Fractionator, they create a complete Aquatic Life Support System.

Innovation and quality are built into every RK2 Aquatic Life Support product.

Contact an RK2 Systems professional for specific applications and quotations.

Fluidized Beds Include:

- Fresh or Seawater media
- Check valve and flow pumps with union connectors
- Media restarts automatically with water flow

RK75 FSF FLUIDIZED SAND FILTER

FLUIDIZED SAND FILTER:
70 GPM, 10" DIA x 80" HT
265 LPM, 254m DIA x 2.3m HT
2 CU. FT. MEDIA CAP. (67 CU LITER)

SCALE:
NOT TO SCALE

DISCHARGE: 2" SCH40 UNION (SOC)

HDPE MOLDED COVER WITH EPDM GASKET

VESSEL: 10" DIA, 250" CLEAR ACRYLIC.

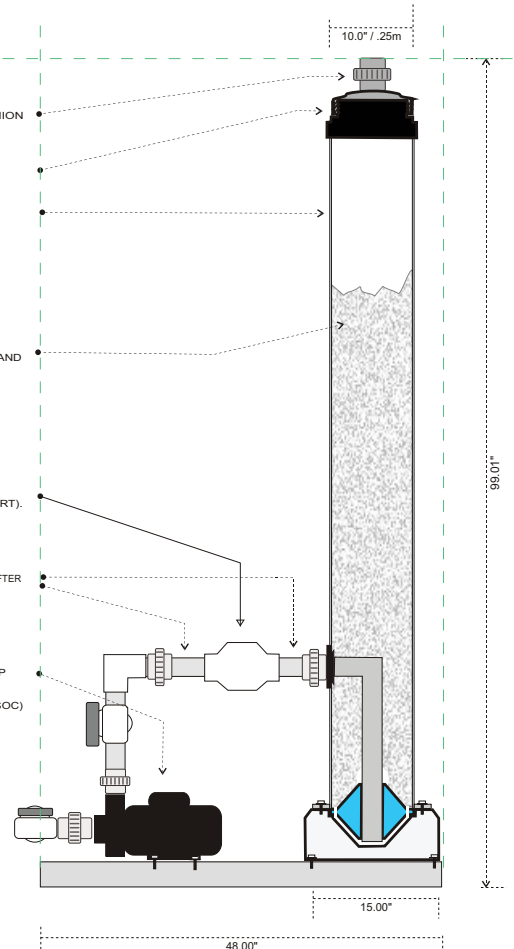
MEDIA: CALCIFIED ALGAE AND DRIED CORAL, FLUIDIZED MINIMUM 100%.

CLEAR PVC CHECK VALVE WITH UNIONS. (STOCK PART).

CLEAR PVC PIPE BEFORE AND AFTER CHECK VALVE.

PUMP: 115/230V 3.0/1.5 AMP TEFC 1PH.

INTAKE: 2" SCH40 UNION (SOC)



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FLUIDIZED SAND FILTERS (FSF)

| FSF Filters | | | |
|--------------------|-----------------------------|---|-------------------|
| MODELS | DIAMETER x HEIGHT | MEDIA CAPACITY HEIGHT DRY | FLOW RATE |
| RK10-FSF | 6" x 72" 15 cm x 180 cm | 30 lbs. / 14 kgs. .5 cu. ft. 24" / 60 cm | 13 gpm 50 lpm |
| RK40-FSF | 8" x 90" 20 cm x 230 cm | 75 lbs. / 34 kgs. 1.2 cu. ft. 36" / 90 cm | 40 gpm 150 lpm |
| RK75-FSF | 10" x 90" 25 cm x 230 cm | 125 lbs. / 57 kgs. 2 cu. ft. 36" / 90 cm | 70 gpm 265 lpm |

Specifications

Surface Area

10,000 sq. meter per cubic meter

30,754 sq. ft. per cubic foot

Weight is approximately 50lbs. per cu. ft.

Nitrification Process Capacities

16 grams ammonia (NH₄) per kilo per 24 hours

1 kilo protein converts to 160 grams ammonia (approximate)

100 kilos livestock = 1 kilo protein (approximate)

10 kilos fluidized sand*—capacity = 100 kilos livestock

**Two to threefold required for stable system parameters*

Ozone

Strict monitoring and control of ozone dosage is necessary to prevent formation of free stable oxidants in synthetic seawater and bromine compounds in natural seawater. ORP values at no time should exceed 450mv.

Dry mix sea salts must be completely dissolved before exposure to ozone.

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Quality Water