

The filter plate assemblies, along with the spacer rings and sealing gaskets, are mounted on a vertical, hollow shaft. The filter plates are keyed to the filter shaft. This assembly forms the filter nest. Filtration areas from 0.1m<sup>2</sup> to 100m<sup>2</sup> are possible depending on the vessel diameter and the number of filter plates stacked on the filter shaft. In Type R FUNDA filters the bottom of the shaft fits over a spigot mounted near the bottom of the filter vessel.

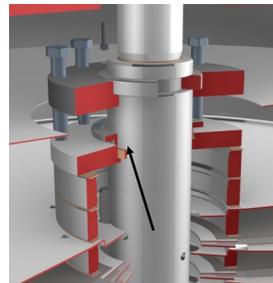
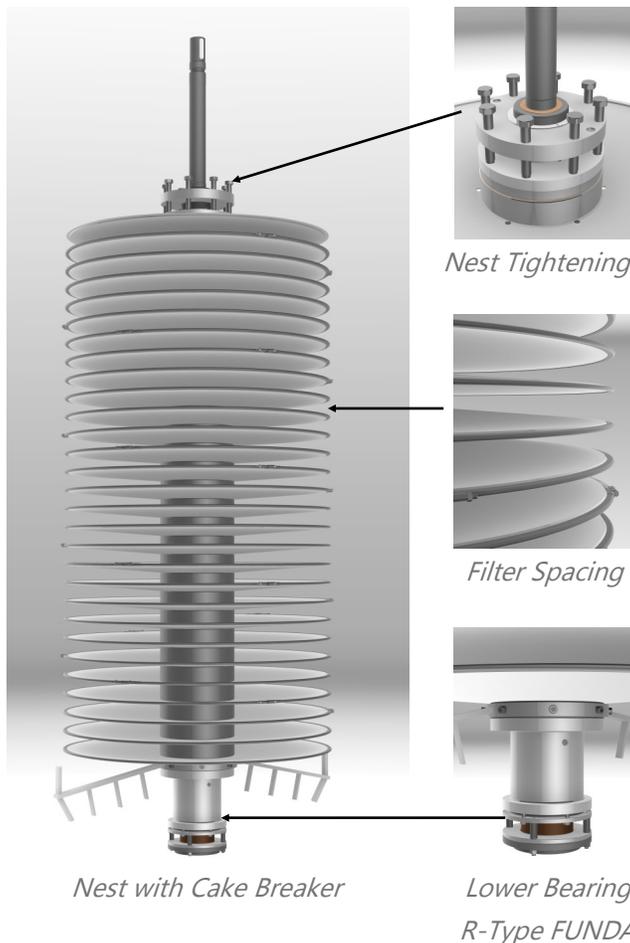
## Filter Nest Configurations

### Distribution Plate

All filter plates in a given vessel are the same and are stacked and spaced uniformly. All except the top most plate which is a distribution plate that has no screen. This plate is used during heel filtration. At the end of filtration some slurry remains in the bottom of the vessel below the lowest filter plate. To recover this slurry it can be drained from the filter and pumped to the top of the filter where it re-enters through a nozzle positioned above the distribution plate. The slurry then gently cascades from the distribution plate to the filter plates below where it gets filtered. This plate is standard on all FUNDA filters.

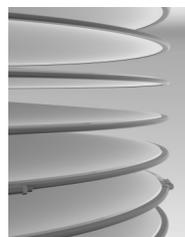
### Nest Tightening

A seal flange is placed on top of the top-most spacer ring. Above the seal flange is a tightening ring. The ring sits below a two piece retainer that fits in a groove on the shaft. Bolts in the tightening ring push against the seal flange. As they are tightened they push down on the seal flange because upward motion of the tightening ring is prevented by the retainer. Tightening the nest in this way applies pressure to the spacer ring gaskets and keeps the filter screens taut.



*Nest Tightening*

*Stuffing Box with Packing*



*Filter Spacing*

### Plate Spacing

Filter plates are stacked on the filter shaft and spaced evenly by precisely machined spacer rings. As the rings are installed they fit a step on the filter plates which correctly centers them on the shaft. Depending on process requirements, plate spacing can range from 20 to 120mm. Flat gaskets or o-rings are used to seal the spacer rings.

### Cake Breaker

On Type R FUNDA filters a cake breaker can be installed at the bottom of the filter nest. This aids cake discharge when the material does not flow smoothly and tends to bridge preventing natural flow. The cake breaker rotates with the filter nest breaking up cake clumps as it turns.