



## Pipeline in the liquor recovery process

### Reliable

Reliable operation despite extreme process conditions

### Cost effective

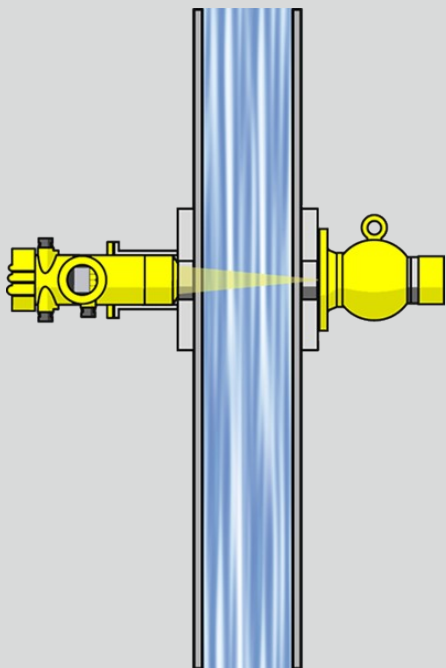
Density measurement from the outside, without invasive changes to the pipe

### User friendly

Optimized for the application, long-term maintenance-free measurement

### Density measurement in liquor recovery

The black liquor resulting from pulp cooking is regenerated and fed back into the digester. Liquor regeneration comprises several process steps. The processes take place at high temperatures and pressures; the media are aggressive and sometimes abrasive. Density measurement of the liquor in the pipelines is required for eco-friendly and energy-efficient process control.



### MINITRAC 31

Density measurement with radiation for energy-efficient liquor regeneration

- Enables automation of liquor regeneration process
- Non-contact measurement right through the vessel wall
- Maintenance-free operation



### VEGASOURCE 31

The source holder serves as a housing for the radiation capsule and protects it from external influences

- Minimal space requirements and simple mounting
- Operational reliability and safety with pneumatic shutter on the source holder
- Optimum shielding allows use without a restricted access area



#### MINITRAC 31

Measuring range - Distance

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Process temperature

-40 ... 60 °C

Process pressure

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Accuracy

0.1 %

Materials, wetted parts

No wetted material

Seal material

no media contact

Housing material

Aluminium

Stainless steel (precision casting)

Protection rating

IP66/IP67

Output

Profibus PA

Foundation Fieldbus

4 ... 20 mA/HART - four-wire

Ambient temperature

-40 ... 60 °C

#### VEGASOURCE 31

Ambient temperature

-20 ... 80 °C