

#### **Filtration Done Right**



## **Physical Treatment Processes**

- Gravity Sand Filtration
- Membrane Filtration
- Pressurised Sand Filtration



## Points to be considered

1. Capital cost



2. Construction period (Order to commissioing)



3. Operatability, maintenance and associated

costs



## Pressurised Sand Filtration and Capital Cost

- Reduced civil requirement (excavation, concrete works, consultancy fees, months of maintaining a site establishment, etc.)
- Only one pumpset to feed, transfer and backwash filters (No backwash pumps and airscour units)
- Smaller plant footprint and all associated infrastructure



## Pressurised Sand Filtration and Construction Period

- Civil, Mechanical and Electrical work can take place at the same time and be put together on site
- Standard pre-designed units reduces engineering and design time.
- Some filter sizes can be pre-assembled and connected on site. Skid mounted design saves time.



# Pressurised Sand Filtration and Operation and Maintenance

- Single filter units can be taken out of operation without having a big impact on quality or production.
- Sand vs membrane replacement cost.
- Low power consumption and operational costs due to the use of only one pumpset
- No risk to hazardous chemicals and environmental impact as no chemical backwash/cleaning is required.



## Summary

Evaluation	Gravity Filtration	Membrane Filtration	Pressurised Filtration
Capital Cost	High	Medium	Low
Project Time Frame	Long	Short	Medium
Maintenance cost	Medium	High	Low
Installed Power	Medium	High	Low
Chemicals required	Dissinfection	CEB, CIP, Dissinfection	Dissinfeciton
Water quality	Good	Very Good	Good

#### **Contact Us**



Hemcro Hennie Cronje Managing Director Jaco Horn Director Tel: +27 (0)12 653-0777 Cell: +27 (0)83 629 5128 Email:

hennie@hemcro.co.za Website: www.hemcro.co.za Physical Address: 2 Bell Crescent, Hennopspark Centurion 0172 Republic of South Africa