



Barriers

In environmental and civil applications in many cases a need to block a waterflow is faced, in order to avoid groundwater spreading of pollutants or be able to create a so called polder construction.

Cofra has various barrier solutions available. Some of these make use of HDPE membranes, resistant to a wide range of chemicals. Other are based on cement bentonite walls installed with a trencher. Sometimes we combine these techniques. Our barriers can be installed horizontal, on a slope or even vertical over 30 meters of depth. Cofra solutions focus on separation, not on structural strength.

A special type of barrier is our vertical sand barrier, blocking the sand transport (not the waterflow) when backwards erosion in dykes, also known as piping, is a risk.

Our solutions

- Liners
- Geolock (vertical HDPE barrier)
- Trenched techniques
- Vertical sand barrier





Cofra

Cofra is an innovative contractor specializing in ground improvement techniques and membrane constructions. Innovation, professionalism and customer focus are embedded in our DNA. Thanks to our high level of experience and expertise we can provide in house the entire process from design to implementation. All based on the Cofra ‘Way of working’ in which quality and safety are key values. Cofra, as well as sister company Geotechnics, joined in 2006 Royal Boskalis Westminster, leading dredging and marine experts. Cofra’s markets are infrastructure, dredging, mining, construction, waste management, flood protection, environmental and warehousing.

For further information about the consolidation segment and other Cofra techniques see our website

www.cofra.com

SEGMENT	CONSOLIDATION	COMPACTION	ELEMENTS	BARRIERS
PURPOSE	<ul style="list-style-type: none"> - Accelerate settlement - Increase strength of subsoil - Reduce residual settlement 	<ul style="list-style-type: none"> - Increase density - Increase bearing capacity - Increase safety against liquefaction 	<ul style="list-style-type: none"> - Transfer load to bearing strata - Increase bearing capacity - Increase safety against liquefaction - Reduce residual settlements 	<ul style="list-style-type: none"> - Obstruct waterflow - Obstruct sediment erosion - Non-structural elements - Prevent spreading pollution
ACTIVITIES	<ul style="list-style-type: none"> - Prefabricated Vertical Drains (PVD) - Vacuum Consolidation (BeauDrain) 	<ul style="list-style-type: none"> - Cofra high impact Roller Compaction (CRC) - Cofra Dynamic Compaction (CDC) - Dynamic Compaction (DC) - Cofra Vibro Compaction (CVC) 	<ul style="list-style-type: none"> - Geotextile Encased Columns (GEC) - Cofra Stone Columns (CSC) - Dynamic Replacement (DR) - Concrete columns (AuGeo) 	<ul style="list-style-type: none"> - HDPE vertical barrier (up to 30m depth) (Geolock) - Vertical Sand Barrier (anti piping) (VZG) - Trenched MIP walls - Trenched liner barrier (up to 5m depth) - Liners
MARKETS	<ul style="list-style-type: none"> - Infra (roads, railroads, airports, ports) - Dredging (Reclamations, breakwaters) - Mining (Tailing ponds) - Construction (Housing and industrial estates) 	<ul style="list-style-type: none"> - Infra (roads, railroads, airports, ports) - Dredging (Reclamations, breakwaters) - Mining (roads, remediation) - Construction (Housing and industrial estates) 	<ul style="list-style-type: none"> - Infra (roads, railroads, airports, ports) - Dredging (Reclamations, breakwaters) - Construction (Housing and industrial estates) 	<ul style="list-style-type: none"> - Waste management (landfills) - Mining (Tailing ponds) - Infra (Aqueducts) - Flood protection (anti piping) - Environmental