

VOLUCON

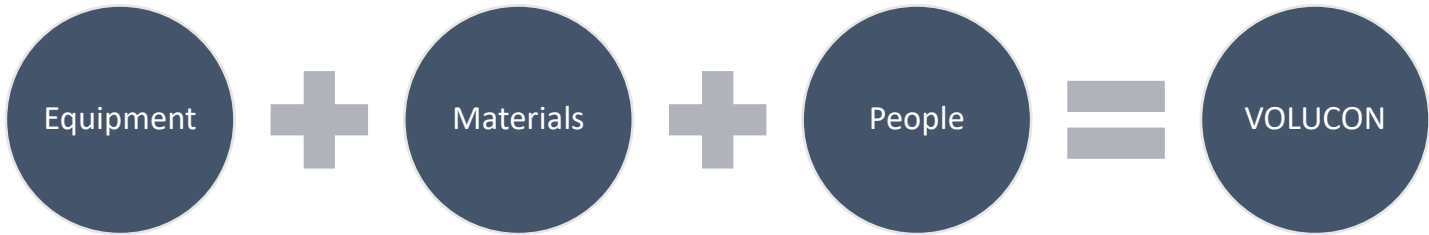
Freedom to build
www.volucon.com
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About us

Volucon's mission is to provide efficient, cost-effective access to high-quality concrete for our customers, regardless of their location or requirements. This gives project proponents and contractors the freedom to build what they want, where they want, when they want it, shifting the construction paradigm.

Our formula of success



Timeline

<p>2015 – Q2 The Startup</p>	<p>2015 – Q4 Complying with Saudi Aramco Standards</p>	<p>2015 – Q4 Saudi Aramco Backing (USD 1,000,000)</p>	<p>2016 – Q2 First Client (Al Manaseer Group - Jordan)</p>
<p>2016 – Q3 Dubai Demo – 40 ton load crosses bridge 3 hours after pouring URH concrete</p>	<p>2016 – Q4 Volucon pours in Saudi Aramco's Al-Wasea Bulk Plant Project</p>	<p>2017 – Q1 Volucon supplies ASTM C-1600 compliant URH and MRH cements to:</p> <ul style="list-style-type: none"> - Highway repair and construction - Runway repair and construction - Rapid build construction <p>Volucon poured URH and MRH concrete which reaches structural strength in 1 hour to 1 Day vs 28 days for normal PCC</p>	<p>2017 – Q4 Volucon supplies the Master Gas System Pipeline project (East/West)</p>

Sample clients and project proponents





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Equipment

Main features

Produce >1,000m³ of concrete per day / per unit and can blend two cementitious materials simultaneously e.g. OPC with GGBFS/micro silica/pozzolans etc to any mix-design

Production as per international standards, conformity to local traffic laws

Ability to use speciality concrete mixes and compress project times

Options include extra cement bin (GGBFS, Flyash, Pozzolan, URH, MRH, etc.) and Glassfiber bins and color bins. Comes standard with 2 ad-mix system

More features

On-site production without disruption

No mobilisation, no barrel trucks, low impact on site

Easier to accommodate project plan (24/7 pouring) with no disruption due to traffic closures. Ready when contractor is ready to pour

Roll and pour ability - Production at a push of a button - 1m³/minute rate - ultimate mobility, zero setup time, zero wastage

Model P95 – Basic config shown



Model P95-50T – Basic config shown



*Additional models and options available, pictures shown are for general illustration purposes only.

	<p>CalTrans – Californian Dept. of Transportation Approved for use in earthquake sensitive locations by Caltrans</p>
	<p>TXDOT – Texas Department of Transportation Approved under ASTM standards C685/C685M – “Specification for Concrete Made by Volumetric Batching and Continuous Mixing.”</p>
	<p>ASTM International – American Society for Testing and Materials ASTM C685 – “Standard Specification for Concrete Made by Volumetric Batching and Continuous Mixing.”</p>
	<p>ACI – American Concrete Institute Guide 304.6R-09 – “Use of Volumetric-Measuring and Continuous-Mixing Concrete Equipment.”</p>
	<p>AASHTO – American Association of State and Highway Transportation Officials AASHTO M 241M/M 241-09 – “Standard Specification for Concrete Made by Volumetric Batching and Continuous Mixing (ASTM Designation: C 685/C 685M-07).”</p>
<p>Other regional approvals</p>	<p>Saudi Aramco and SCECO approved</p>



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Cement

Main features

All variations are ASTM C1600/C1600M – 11 compliant

Type can be selected based on individual project requirements (cost, compressive strength, setting times etc.)

Ability to pour and ready to open for usage in 1 hour to 1 day as needed

Chemical resistant - can be mixed with sea water - easier to work with on site - zero bleeding

More features

Easily workable - only reliable solution for rush jobs and special needs projects

The only true concrete repair - bonds to previously poured concrete both physically and chemically

No cracking, no shrinkage - low heat of hydration

Non-porous, very durable - highly insulating - exceeds normal Portland cement and asphalt



Cement Type				
Time	URH	VRH	MRH	GRH
Compressive Strength, min, MPa [psi]				
90 minutes	21 [3,000]	12 [1,700]	–	–
3 hours	28 [4,100]	15 [2,200]	10 [1,500]	7 [1,000]
6 hours	–	–	14 [2,000]	10 [1,500]
1 day	35 [5,100]	24 [3,500]	17 [2,500]	14 [2,000]
7 days	41 [6,000]	28 [4,100]	28 [4,100]	24 [3,500]
28 days	57 [8,300]	35 [5,100]	31 [4,500]	28 [4,100]
Drying Shrinkage, max %				
7 days	0.06	0.06	0.08	0.10
28 days (air storage)	0.07	0.07	0.09	0.12

Standard Specification for Rapid Hardening Hydraulic Cement – Designation: C1600/C1600M – 11

Packaging and Production

- Supplied in 1 Ton and 2 Ton jumbo bags
- Made per order in UAE and Saudi Arabia
- Can be blended with OPC and inherit its properties
- Volucon advises on mixing, mix-design and all aspects of the design mix



Sample Project Application

Al-Wasea Bulk Plant – Saudi Aramco & Arkad Engineering

Challenge:

To provide Portland cement concrete in a desert remote location to Saudi Aramco standards

Date:

October 2016

Concrete poured:

(Regular) OPC Type II – 2,800 Cubic meters over a large area (180 km)



A multi-use building – Manaseer (Jordan)

Challenge:

To provide concrete in a tough topography (mountain location)

Date:

March 2017

Concrete poured:

(Regular) OPC Type I – 10,000 Cubic meters



East/West Master Gas System Pipeline - Saudi Aramco & Arkad Engineering

Challenge:

To provide concrete in a tough topography (mountain and sand dunes) uninhabited area where no batch plants are nearby and in a linear project layout.

Date:

March 2018 - ongoing

Concrete poured:

(Speciality) OPC concrete with pozzolan blend – over 422 KM 56” under-ground pipeline. Start from Pump Station 07 near Riyadh to Pump Station 11 near Medina.

Major Scope is to Construct the ROW along the pipeline, construction of pipeline, 21 Valve Station, Burn Pits, Black Powder Filtration System, Corrosion Inhibitor Skids, eleven (11) Thrust Bore Road Crossing

