

CEMENTING SERVICE



Range of activity

- Designing cementing works with Landmark Opticem and Schlumberger CamCade simulator software
- Preparation of cement works and projects
- Elaborating, developing and testing of cement slurries compositions
- Casing cementing service and remedia cementing service
- Pumping services: pressure tests, DFIT, FIT, formation test, well-killing pumping etc.

- Monitoring and recording of cementing and pumping jobs
- Setting of cement plugs, liner hangers and mechanical plugs
- Pipeline pressure integration test
- Pumping jobs
- The pumping units are also design to perform any pumping, testing, packer – bridge plug and liner hanger service with pressure rate up to 105 MPa and with the continuous pumping rate as low as 50 l/min

EQUIPMENT

Cementing Service is ready to deliver 9 complete cementing sets to perform the cementing job at the same time in 9 different locations.

The complete cementing unit package is capable to mix on fly and pump the slurry volume up to 100m³ and supplemented with additional equipment the slurry volume can be easily increased to more than 250m³.

Standard cementing unit package consists of:

- HP double triplex pump unit
- Batch Mixer V-30
- Bulk Cement trailer 26T
- 2 Bulk Cement silos
- Bulk Cement silo truck
- Auxiliary pumping unit if necessary



Cementing Service: specification of equipment

Double pump triplex cementing unit TCP 1040 Enerflow

Chassis: Trailer PEERLESS CH-38-2A
Engine: Deck Caterpillar C-13 500KM (372kW)
Deck Caterpillar C-13 500KM (372kW)
Deck Caterpillar C-9 350KM (261kW)
Transmission: Deck I Allison 4100
Deck II Allison 4100
Triplex pump: I 4.5 TWS 600S plunger 4 1/2" 434 bar
II 3.5 TWS 600S plunger 3 1/2" 717 bar
Max. pumping rate: 2.5 m³/min
Cement Mixer: Slurry Chief
Displacement tanks: 2x15,725 BBL (2x2500l)
Max. working pressure: 10 000 PSI (71,7 Mpa)
Max. discharge Manifold: 15 000 PSI (105 Mpa)

Double pump triplex cementing unit CPT600D

Chassis: Scania HZ420 8x6
Engine: Road Caterpillar C-12 455KM (334kW)
Deck Caterpillar C-12 455KM (334kW)
Transmission: Road Allison HT750 DR
Deck Allison HT750 DR
Triplex pump: SPM TWS 600S plunger 3 1/2"
SPM TWS 600S plunger 4 1/2"
Max. pumping rate: 3.4 m³/min
Cement Mixer: TEM CAM
Displacement tanks: 2x10BBL (2x1590l)
Max. working pressure: 10 400 PSI (72 Mpa)
Max. discharge Manifold: 15 000 PSI (105 Mpa)

Double pump triplex cementing unit CTP311

Chassis: Peterbilt 362 6x4
Engine: Road Caterpillar 3176 325KM (242kW) 2100 Rpm
Deck Caterpillar 3176 325KM (242kW) 2100 Rpm
Transmission: Road Allison HT750 DR
Deck Allison HT750 DR
Triplex pump: Front Dowell TGO plunger 3 3/4" 689 bar
Read Dowell THO plunger 5" 379 bar
Max. pumping rate: 2.55 m³/min
Cement mixer: Slurry Chief Schlumberger
Displacement tanks: 2x10BBL (2x1590l)
Max. working pressure: 10 000 PSI (70 Mpa)
Max. discharge Manifold: 15 000 PSI (105 Mpa)

Double pump triplex cementing unit Sk750

Chassis: MAN TGS 41.480 8x6
Engine: Road Deutz 2015TDC 560KM (412kW)
Deck Deutz 2015TDC 560KM (412kW)
Transmission: Road Allison 4700 FS
Deck Allison 4700 FS
Triplex pump: MSI TI600 plunger 3 1/2"
MSI TI600 plunger 4 1/2"
Max. pumping rate: 2.7 m³/min
Cement mixer: Schlumberger style Venturie nozzle with diffuser
Displacement tanks: 2x10BBL (2x1590l)
Max. working pressure: 10 500 PSI (72,4 Mpa)
Max. discharge Manifold: 15 000 PSI (105 Mpa)

EQUIPMENT

Cementing Service: specification of equipment

Double pump triplex pumping unit Angelika 1100

Chassis: MAN TGS 41.480 8x6
Engine: Road Deutz 2015TDC 560KM (412kW)
Deck Deutz 2015TDC 560KM (412kW)
Transmission: Road Allison 4700 FS
Deck Allison 4700 FS
Triplex pump: MSI TI600 plunger 2 3/4"
MSI TI600 plunger 4 1/2"
Max. pumping rate: 2.1 m³/min
Cement mixer: none
Displacement tanks: 2x10BBL (2x1590l)
Max. working pressure: 15 000 PSI (103 MPa)
Max. discharge Manifold: 15 000 PSI (105 MPa)

Single pump triplex cementing unit Ht400

Chassis: MAN 6x4 322KM
Engine: Detroit V8/92 470KM (345kW)
Transmission: Allison CLT 754
Triplex pump: HT400 plunger 4 1/2"
Max. pumping rate: 1.4 m³/min
Cement mixer: Schlumberger style Venturie nozzle with diffuser
Displacement tanks: 1x30BBL (1x5000l), 2x10BBL (2x1590l)
Max. working pressure: 8 700 PSI (60 MPa)
Max. discharge Manifold: 8 700 PSI (60 MPa)

Batch Mixer V-30 m³

Chassis: Trailer
Engine: Caterpillar 3176 275bKM 2100Rpm
Slurry Pump: Dowell RA 5 x 6
Blending Tank: 30 cu.m. (10 cu. m + 20 cu. m)
Slurry mixing system: Venturie nozzle system with diffuser
Paddles: High energy three paddles system
Compressor - Gardner Denver: 195 ft³/min, 30PSI (92l/s, 0.2 Mpa)

Double pump triplex pumping unit Mb750

Chassis: Naczepa Wille
Engine: Road Caterpillar C-15 580KM (433kW)
Deck Caterpillar C-15 580KM (433kW)
Transmission: Road Allison CLT 5960/4
Deck Allison CLT 5960/4
Triplex pump: MSI TI600 plunger 2 3/4"
MSI TI600 plunger 4 1/2"
Max. pumping rate: 2.1 m³/min
Cement mixer: none
Displacement tanks: 1x30BBL (1x5000l)
Max. working pressure: 13 900 PSI (98 MPa)
Max. discharge Manifold: 15 000 PSI (105 MPa)

Single pump triplex pumping unit MSI SPT1600

Chassis: IVECO 8x6 302KM
Engine: Detroit V8/92T 470KM (345kW)
Transmission: Allison HT 750 DRD
Triplex pump: MSI TI600 plunger 4 1/2"
Max. pumping rate: 1.4 m³/min
Cement mixer: none
Displacement tanks: 2x10BBL (2x1590l)
Max. working pressure: 6 300 PSI (43,3 MPa)
Max. discharge Manifold: 6 300 PSI (43,3 MPa)

Batch Mixer V-30 m³

Chassis: Trailer Wille / Lecitrailer
Engine: Caterpillar C-9.3 350bKM
Slurry Pump: Gardner Denver 6x5x11 / Double Life 6x5x11
Blending Tank: 30 cu.m. (10 cu. m + 20 cu. m)
Slurry mixing system: dysza z dyfuzorem Venturie
Paddles: High energy three paddles system
Compressor - Gardner Denver: 195 ft³/min, 30PSI (92l/s, 0.2 MPa)

CEMENT PLANTS

EXALO has two cement plants, which include:

- 4 cement silos 40T capacity each
- Mixing system with 7,8 cum capacity with tension type weight scale – to mix the cement with dry cement additives
- Trailer mounted silo with 26T capacity – to transport cement or dry cement mixtures



Design support by Opticem and Camcade software:

- Integrated wellbore simulation program
- Dynamic modeling with minimum data entry
- Centralizer design flexibility
- Complete flexibility in fluid section
- The fluid rheology and physics parameters data profiles
- Calculates and simulates ECD, pumping pressures, free fall, rates etc.

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