

Knowledgebases Quick Reference Guide

Components:

- Handling
- Painting
- Insulation
- Material

Piping Components

- Pipe supports
- Hydrostatic testing

Fitting & Flange Components

- Flange connections
- Welds
- X-Ray & Gamma testing
- Heat Treatment

Valve Components

- Flange connections

Activities:

- Prefabrication
- Field installation
- Dismount
- Supply

Disciplines:

- Piping
- Insulation
- Painting

Ranges:

- Pipe diameters ½" - 24"
- Insulation thickness 30 -> 140 mm

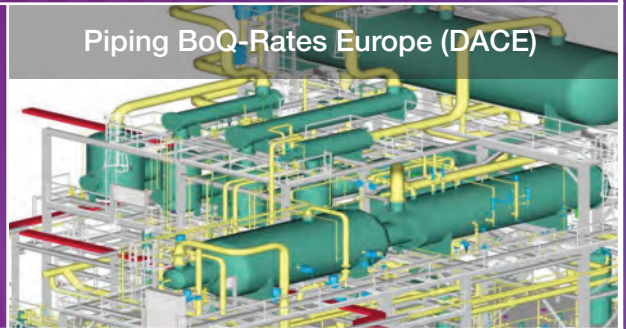
Materials:

- CS, Stainless Steel
- Duplex, Alloy 20
- Hastelloy, Titanium

Labour rates:

- Fitter & Welder
- NDT tester
- Assistant tester
- Insulation worker
- Painter, Grit Blaster

Piping BoQ-Rates Europe (DACE)



Components:

- Pipe
- Fittings
- Flanges
- Valves
- Handling
- Welds
- Pipe supports
- Flange connections
- Hydrostatic testing
- X-Ray & Gamma
- Painting
- Insulation
- Heat Treatment

Ranges:

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Activities:

- Prefabrication
- Field installation
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Disciplines:

- Piping
- Insulation
- Painting

Materials:

- Carbon Steel
- Stainless Steel
- Duplex
- Alloy 20
- Hastelloy
- Titanium

Labour rates:

- Fitter & Welder
- NDT tester
- Assistant tester
- Insulation worker
- Painter
- Grit Blaster

Piping Composites Europe (DACE)



Components:

- Agitators & Mixers
- Blenders
- Classifiers
- Columns & Internals
- Compressors
- Conveyors
- Cooling Towers
- Crushers & Grinders
- Crystallizers
- Drives
- Dryers
- Dust collectors
- Ejectors

- Evaporators
- Fans
- Filters
- Heat Exchangers
- Heaters
- Mechanical Separators
- Pelletizers
- Pumps
- Reactors
- Refrigeration
- Screens
- Tanks
- Thickeners
- Turbines

- Pressure vessels

Equipment installation:

- Columns
- Compressors
- Equipment unload
- Heat exchangers
- Package units
- Pumps
- Tray's
- Vessels

Activities:

- Installation
- Supply

Process Equipment Europe



Components:

- Pipes
- PWHT
- Stress relief
- Fittings
- Flanges
- Valves
- Welds
- Cutting
- Cutting thread
- Bending pipe
- Connections
- Threaded Connections
- Supporting (incl. Supply)

- Hydrostatic testing
- Pneumatic testing
- X-Ray & Gamma testing
- Magnetic testing
- Penetrant testing
- Ultrasonic testing

Activities:

- Prefabrication
- Field installation
- Dismount

Sizes:

- 1/8" - 48" (Testing 36")
- 0-40Kg

Materials:

- Carbon Steel
- Stainless Steel
- Duplex

Labour rates:

- Fitter & Welder
- NDT tester
- Gamma tester
- Assistant tester
- Ultrasonic tester
- Magnetic tester
- Penetrant tester

Piping Installation Europe (DACE)



Components:

- Pipe
- Elbows
- Reducers
- O-lets
- Caps
- Tees
- Flanges
- Welding neck flanges
- Blind flanges
- Ball Valves
- Butterfly Valves
- Check Valves
- Gate & Globe Valves

Sizes:

- Diameter ½" - 48"
- Wall thickness Schedule 5 - XXS
- Rating (pounds) 50# - 2500#

Activities:

- Supply Seamless
- Supply Welded

Materials:

- Carbon Steel
- Low Temperature Carbon Steel
- Stainless Steel 304/316
- Duplex

Piping Supply Europe



Components:

- Tempory accommodation
- Dumping cost
- Sheet piling & Dockboards
- Piling
- Excavation & Deposit
- Floors
- Foundations
- Walls & Finishing
- Wallsystems
- Stairs & Ladders
- Roof sheets & Floors
- Superstructure
- Doors, Windows

- Innerdoors, -Casings & Glass
- Roof openings
- Finishing
- HVAC
- Power supply & Lighting
- Communication
- Lightning protection
- Fire detection & Fire fighting
- Elevators
- Window cleaning facilities
- Toilets
- Retaining walls
- Environmental Soil analysis
- Shelters & Bicycle sheds

- Fences, Gates & Barriers
- Gardening, Paving
- Drainage incl. installation
- Earthworks & Sewers

Activities:

- Installation
- Removal
- Demolition
- Re-instate
- Supply
- Rental

Labour rate:

- Civil Worker

Civil Europe



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Knowledgebases Quick Reference Guide

Components:

- Carriers
- Installation vessels
- Crane vessels
- Reel S-lay vessels
- Welded S-lay vessels
- J-lay vessels
- Reel J-lay vessels
- Welded J-lay vessels
- Rock dumpers
- Subsea trenching
- Tugs and barges
- Non destructive examination

- Non destructive testing for pipeline installation
- Pile monitoring
- Pipeline welding
- Positioning
- QC personnel
- Remote operated vehicles
- Scaffolding
- Weather forecasting

Activities:

- Pipe laying
- Transportation activities
- Installation activities
- Subsea trenching
- Subsea installation
- Rock dumping

Ranges:

- Pipe 6" – 42"



Offshore

Components:

- UNP
- INP
- IPE
- HE-A
- HE-B
- HE-M
- Equal L
- Equal T
- Unequal L
- Unequal T
- Strips
- Plates
- Floors

- Railings
- Ladders
- Stairs

Activities:

- Installation
- Supply
- Painting

Labour rate:

- Steel Worker



Structural Europe

Components:

- Sub distribution Panels
- Control panel
- Panel equipment
- Generator units
- Static supply units
- Battery & Charger units
- Power rectifier
- Cables H.V. & L.V.
- Cable Trays & Racks
- Motor Control centers
- L.V. motors
- Variable speed drives
- Lighting Systems & Fixtures

- Transformers
- Switches & H.V. switchgear
- Socket outlets
- Junction boxes
- Heat tracing system
- Earthing
- Identification material
- Control systems
- Logic systems
- Flow & Level instruments
- Pressure instruments
- Temperature instruments
- Control valves
- Analytical equipment

Field equipment

- Fire detection
- Alarm panels
- Testing & pre-commissioning

Activities:

- Installation
- Removal
- Demolition
- Re-instate
- Supply

Labour rates:

- Electrical Fitter
- Instrumentation Fitter



Electrical & Instrumentation Europe (DACE)

Components:

- Pipes
- Fittings
- Flanges
- Valves
- Equipment

Activities:

- Erection of new insulation & sheeting
- Removal of existing insulation & sheeting
- Erection of existing insulation & sheeting
- Prefabrication of new sheeting
- Coating & Wrapping
- Supply

Ranges:

- Diameter ½" - 48"
- Insulation thickness 30mm - 140mm

Types:

- Hot insulation
- Cold insulation

Labour rate:

- Insulation Worker



Insulation Europe (DACE)

Components:

- Pipes
- Fittings
- Flanges
- Valves
- Welds

Activities:

- Prefabrication
- Field installation
- St2 -St3 Surface preparation
- SA1-SA3 Surface preparation
- Painting
- Supply

Systems:

- +20 up to +120 °C
- +120 up to +200 °C
- +200 up to +450 °C

Materials:

- Carbon Steel
- Stainless Steel

Labour rates:

- Painter
- Grit Blaster



Painting Europe (DACE)

Components:

- Basic scaffold
- Independent scaffold
- Birdcage scaffold
- Aluminium scaffold
- Scaffold tent
- Mobile tower scaffold
- Frost protection
- Ladders
- Stairs
- Wooden decking
- Steel grid floor
- Tarpaulin cover
- Wind permeable net

- Shrink foil
- Protective framework
- Safety bar
- Safety fence
- Open web girder
- Ground clamp

Activities:

- Installation
- Removal
- Rental

Labour rate:

- Scaffolder



Scaffolding Europe (DACE)



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