

PROCHEM

ul. Powązkowska 44C, 01-797 Warszawa
Phone.: (48 22) 32 60 100
www.prochem.com.pl

DETAILED DESIGN STAGE 1 DELIVERY SCOPE OF FINAL DOCUMENTATION

Project No. 130008
DOC. No. E1E2_00U07002REW0

INVESTOR:

SODA POLSKA CIECH S.A.
88-101 INOWROCŁAW, UL. FABRYCZNA 4

INVESTMENT:

INTENSIFICATION OF SODIUM CARBONATE PRODUCTION OUTPUT BY
200,000 TONNES/YEAR AT SODA CIECH PLANT IN INOWROCŁAW

FACILITY:

A1.12 – LIME KILNS

Function	Title, full name	Licence no.	Date	Signature
Designer	Paweł Czapla, Eng.	n/a	Sept 2013	<i>signature</i>
Chief Designer	Zdzisław Rokita, Eng.	n/a	Sept 2013	<i>signature</i>
Verified by	Józef Włoczewski, Eng.	n/a	Sept 2013	<i>signature</i>
Project Manager	Cezary Gąsiorowski, Eng.	n/a	Sept 2013	<i>signature</i>

Warsaw, September 2013

1. Documentation for approval

The workshop documentation shall be provided by the supplier to the ORDERING PARTY for approval with respect to its compliance with the assumptions. If indispensable changes are required, the documentation shall be returned for completion. Once the documentation has been completed, the Supplier shall once again provide it to the ORDERING PARTY for verification. Production of a given apparatus commences after the ORDERING PARTY's written consent is received, provided that potential comments are taken into account.

2. List of required documents

2.1 The package should contain:

- List of contents
- Delivery date
- Technical description and parameters
- Data on materials for elements subject to pressure (certificates)
- List of main measurements of apparatus elements
- Test results of welds
- Confirmation that the recommended heat treatment has been performed
- Supplier's report on performed tests
- Arrangement drawing with cross-sections, details and descriptions
- Drawings with information about apparatus components
- Strength calculations
- Certificates for safety valves in the apparatus (if applicable)
- List of measuring instruments delivered with the apparatus
- Anti-corrosion protection of external surfaces
- Transport handles, repair handles
- Handles for fixing processing pipes (ref. to columns)
- Reinforcement plates on the apparatus, fixing elements for:
 - Thermal insulation
 - Clamps
 - Earthing
- Drawings of the internal equipment
- Specifications of foundation screws or fixing screws with caps (provided with sample books)
- Shims to be used under apparatuses (part of delivery)
- Operation and maintenance documentation
- Documentation for bearing structures, service bridges, ladders, stairs delivered with apparatuses
- Electrical diagrams, measurements and automation diagrams

2.2. Requirements for the documentation developed by the Supplier

The Supplier should provide the ORDERING PARTY with 4 copies + 1 copy on CD, and for DESIGNER's apparatus design – one copy + 1 copy on CD, of the final documentation for the delivered apparatus. At the same time the Supplier shall provide the ORDERING PARTY with final documentation on an electronic storage medium in the form of pdf, dxf or dwg files (1 copy). In addition to that, the as-built workshop documentation should be provided in an electronic form.

The documentation shall be in Polish.

The design documentation shall have – in addition to the list of studies – a statement of the dispenser Supplier stating that it has been made in compliance with the Contract and binding regulations and standards. The list and the statement are an integral part of the object of the delivery.

2.3. Order of the final documentation

CONVEYORS
VOLUME 1 (MC)
DESIGN DOCUMENTATION
LIST OF CONTENTS

Title page

Table of contents

Section 1

Process Design Contractor Data Sheet

Section 2

Operation Manual, as per PED 97/23/EC

Section 3

Assembly manual

Commissioning manual

User manual which shall contain:

- Components and subcomponents cleaning method
- Information about fast disassembly of components and subcomponents for cleaning
- Recommended agents for cleaning the surface of elements made of acid-resistant steel and surfaces protected with an anti-corrosion layer (list of cleaning agents should be approved by the investor at the stage of technical talks)

Section 4

List of documents*¹

- Reference drawing
- Detailed drawings
- Name plate
- Transport drawings

Section 5

List of parts*²

List of spare parts for the commissioning period

List of spare parts for the guarantee period

Section 6

Miscellaneous*³

Section 7

Reserve*³

Section 8

Reserve*³

COMMENTS

- a. All documents should have the as-built status (sealed as AS-BUILT)
- b. Documents should be arranged for each apparatus separately. The documents should be arranged in Sections. The Sections should be separated by numbering pages.
- c. If a Section contains no document, a page shall be placed with a note "NOT APPLICABLE"

*1 The list of documents should contain:

- Section number
- Document title
- Drawing number of the Licensor
- Factory drawing number (of the product)
- Revision number

*2 If any single drawing exists, it should be attached here. The document which is not a separate study should be assigned to the drawing or leading document by adding: "See Section, drawing no. ..."

*3 Here additional sections may be added.

VOLUME 2 (MDR)
CONTROL DOCUMENTATION
LIST OF DOCUMENTS

Title page

Section 1

- Manufacturer's licences ¹⁾
- Certificates of typical control actions¹⁾

And additionally, if these are available

- EC – conformity declaration with European Directive 94/9/EC (ATEX)
- Explosion protection certificates Ex

Section 2

In-company and suppliers' audit plan

Section 3

List of used materials/list of references

Certificate of material

Section 4

Tests

Sample plate control results

Material chemical analysis report

Reports from all other tests and controls

Section 5

Welding technology

Welding Procedure Specification (WPS)

Certificate of welding materials

Welding Performance Record (WPR)

Section 6

As built drawings (pressure bearing parts)²⁾

- Arrangement drawing ²⁾
- Detailed drawings²⁾

Copy or photo of name plate

Section 7

Miscellaneous³⁾

Section 8

Reserve³⁾

Section 9

Reserve³⁾

COMMENTS

- 1) One copy should be provided and marked as original (with seals)
- 2) Certified (sealed) document by a notified body
- 3) Additional documents may be added here

ABBREVIATIONS

HT – Hydro Test

LT – Leak Test

MC – Mechanical Catalogue
MDR – Manufacture's Data Report
MT – Magnetic Particle Test
NB – Notified Body
NDE – Non-Destructive Examination
PED – Pressure Equipment Directive
PMI – Positive Material Identification
PQR – Procedure Qualification Report
PT – Dye Penetration Test
PTB – Phisikalisch – Technische Bundesanstalt (Germany)
PWHT – Post Weld Heat Treatment
RT – Radiographic Examination
TPI – Third Party Inspection
UT – Ultrasonic Examination
WPR – Welder Performance Record
WPS – Welding Procedure Specification