

CHEMOPETROL, a.s. Reliability and documentation section	Standard for submitting technical for new machines and devices	N 11 984

The standard is binding for all company units and external companies that order and accept new machines and devices. It does not apply to the Litvínov and Kralupy Refinery unit.

The units are obliged to acquaint with the standard all external companies that conduct these activities for them and for which the standard is also binding.

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1. General stipulations

1.1 Scope of validity

This standard applies to the submission of technical documentation when ordering, accepting and delivering new machines and devices.

2. Terminology

- Supplier - professionally qualified physical person or legal entity, which holds an authorization of the appropriate extent or a trading license for delivering certain items or activities
- Contractor - professionally and technically qualified physical person or legal entity, which holds an authorization of the appropriate extent or a trading

Replaces: N 11 984 from 06 / 98	Standard administrator: Reliability and documentation section	Valid from: 1. 9. 2005
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license for implementing certain things or activities, selected for the given order implementation

- DPD - dedicated pressure devices
- DGD - dedicated gas devices

3. Technical requirements

3.1 Technical documentation must be provided in compliance with Act No. 22/1997 Coll. on the Technical Requirements for Products, and on a change and addition to certain laws, related ČSN and N standards.

4. Technical documentation

4.1 Drawings

4.1.1 The following drawings will be provided:

- a) Main set with a list of individual parts
- b) Partial sets with lists of individual parts
- c) Drawings of spare parts
- d) Foundation plans

4.2 Material documentation

4.2.1 The contractor (supplier) will submit appropriate material certificates for the main parts of the machines, including corresponding documents on thermal processing pursuant to ČSN EN 10204.

4.2.2 The contractor (supplier) will submit appropriate material documentation for the given machines and devices in the extent of the N (TDP) standards, provided technical conditions for individual machine or device types have been prepared.

4.3 Piping parts of machines or devices

The contractor (supplier) will submit appropriate documentation for the piping parts of the given machines or devices in the following extent:

4.3.1 Material certifications for pipes, elbows and flanges

4.3.2 Pipes, elbows, shaped pieces, flanges, bolts, nuts and sealing lenses for an operation overpressure of 32.5 MPa are documented pursuant to the N standards for the given parts.

4.3.3 Used valves should be documented pursuant to ČSN 13 3060-4, Valves for high-pressure devices pursuant to N 11 153.

4.3.4 Prior to assembly, piping parts should be subjected to a pressure (hydraulic) test, using

test pressures that correspond to the appropriate nominal pressures pursuant to ČSN 13 0010.

The contractor (supplier) will submit appropriate certificates on the conducted pressure tests.

4.4 Welding

4.4.1 When welding on the premises of CHEMOPETROL, a.s, the supplier of the given devices and machines must comply with the standards and regulations related to welding (N 15, Regulation 465).

4.4.2 Welding work on pipelines can be only conducted by welders with the appropriate qualification pursuant to the above mentioned regulations. Individual welds must be marked in compliance with the corresponding standards.

4.4.3 Welds controlled by radiation should be appropriately recorded in the given production documentation (number of the given welder's die and image position number).

4.5 For pipeline distribution lines, which do not form a part of the given machines or devices, the stipulations of standard N 11 986 apply.

4.6 Device acceptance protocol

The contractor (supplier) submits the protocols based on the given device type and the specified technical documentation procedures.

4.7 Passports (revision books)

The contractor (supplier) prepares corresponding passports or production documentation pursuant to the given legal regulations for dedicated pressure and gas devices. Final DPD test (acceptance proceedings – construction and 1st pressure test) pursuant to Decree No. 18/79 Coll. and pursuant to Government Directive No. 26/2003 Coll., DGD acceptance proceedings pursuant to decree No. 21/79 Coll. and pursuant to Government Directive No. 22/2003 Coll., is conducted by an authorized person at the facilities of the manufacturer or of the DGD operator.

Note:

Participation of an authorized person in the final DPD test:

- a) For boilers with the construction pressure that exceeds 1.6 MPa
- b) For group A pressure containers with the highest permitted pressure that exceeds 2.5 MPa

4.8 Description of the device function (work procedure)

Includes brief and well arranged description of:

- a) Purpose of the device
- b) Design
- c) Description of the functions and, if necessary, the needed auxiliary sketches

4.9 Operation instruction

Cleaning - cleaning frequency and methods are stated based on the given device character (rinsing, blowing, chemical cleaning, etc.).

4.10 Startup and configuration

It must be explicitly stated how the operators should proceed.

4.11 Machine loading

Based on the device character, the corresponding maximal power output and other parameters that must be complied with in order to prevent overloading or uneven loading (pressure, temperature, raw material intake, etc.) are determined.

4.12 Lubrication manual (regulation)

4.13 Cooling diagram

An illustrative handling diagram will be prepared based on the given device character.

4.14 Heating diagram

An illustrative handling diagram will be prepared based on the given device character.

5. Prescribed inspections

5.1 Prescribed preventive inspections - special regulations will be prepared, provided they arise

from the character of the given structure (operation inspection methods and frequencies for certain parts, such as vibrations of important parts, inspection of the oil level, temperature, sealing, plugs, etc., making sure the device does not become damaged).

5.2 Prescribed repair standards - documentation needed for the repair cycle will be provided (i.e. repairs types and cycles, extent of and information about the lifespan and material fatigue etc.)

5.3 Prescribed repair instructions - the contractor (supplier) will provide documentation for the implementation of the main works that should be considered for individual repair types

5.4 Repair (machine setup) instructions - the contractor (supplier) will provide documentation that is needed for the given setup (repairs), particularly the maximal wear and tear degree prior to a repair (max. play in the bearings, max. ovality of the cylinders, min. wall thickness, etc.), as well as similar information after the repair, resp. for new devices.

5.5 Assembly procedures - the supplier (contractor) will provide documentation necessary for assembly and disassembly.

5.6 Instructions of the supplier (contractor) related to packaging, safety warnings, transport and equipment instructions, assembly and installation, device fastening - will be provided pursuant to standard conduct practices.

5.7 Quality and completeness certificate

5.8 Material sheet (certification)

5.9 For devices, for which corrosion of certain parts can endanger safety, the supplier (contractor) should provide composition and material test certifications or certificates (provided they do not form direct parts of the given material documentation or passports (revision books)).

6. List of quoted and related standards and documents

quoted standards

ČSN 13 3060-4	Industrial valves. Technical regulations. Part 4: Valve documentation
ČSN 13 0010	Pipes and valves. Nominal pressure and operation overpressure values
ČSN EN 10204 (42 0009)	Metal products. Types of inspection documents
N 11 153	Valves for high-pressure devices. TDP
N 11 986	Pipeline distribution networks. Documentation, inspections and acceptance proceedings
Act No. 22/1997 Coll.,	on the Technical Requirements for Products, and on a change and addition to certain laws

Decree No. 18/1979 Coll., which determines dedicated pressure devices and specifies some safety conditions, as amended by later changes and amendments

Government Directive No. 26/2003 Coll., which determines technical requirements for pressure devices

Decree No. 21/1979 Coll., as amended by Decree No. 554/1990 Coll., which determines dedicated gas devices and specifies some safety conditions

Government Directive No. 22/2003 Coll., which determines technical requirements for gas fuel appliances

related standards and regulations

N 11 040	Equipment for machinery products and test and control documentation materials
N 11 152	Seamless steel pipes, used for Vt devices in chemical facilities. TDP
N 11 157	Precise bolts and nuts. TDP
N 11 158	High-pressure pipeline parts. TDP

S 465	Work permits
S 840	Operation documentation. Structure and usage
S 841	Technological regulations and cards
S 842	Operation and technical regulations