

Mondi Štětí a.s.

STANDARD

Part 13.01.07

DOSING STATIONS

Mondi Štětí a.s.	STANDARD 13.01.07	Page: 1/12
-------------------------	--------------------------	-------------------

STANDARD

Part 13.01.07

DOSING STATIONS

Worked out by:
Name:
Position:

Verified by:
Name:
Position:

Approved by:
Name:
Position:

Signed by:

Signed by:

Signed by: i

Version: 1	Valid from: 18.1.2018
-------------------	------------------------------

Mondi Štětí a.s.	STANDARD 13.01.07	Page: 2/12
-------------------------	--------------------------	-------------------

TABLE OF CONTENTS

	Page
1 General	3
2 Selection of place	3
3 Safety facilities of place	3
4 Piping and hoses	5
5 Manufacturing of dosing stations	6
6 Manufacturing of mother – daughter container systems	7
7 Identification of piping for chemicals and dosing stations	8
8 Acceptance of equipment	9
9 Safety data sheet, operating instructions, warning label	9
10 Operating the equipment	9
11 Dosing equipment dismantling	10
12 Deviations from Mondi standards	11

Mondi Štětí a.s.	STANDARD 13.01.07	Page: 3/12
-------------------------	--------------------------	-------------------

1 General

Mondi company provides the supplier of the equipment for dosing and transport of chemicals with the Mondi standard „Dosing stations “ as early as upon the supplier selection process or upon placing the order:

The requirements given in the items 4 (manufacturing of piping and hoses), 5 (manufacturing of the dosing stations), 6 (manufacturing of the mother – daughter container system), 8 (acceptance of equipment) and 10.1 (maintenance and inspection of the safety equipment) have to be met on the side of the supplier.

2 Selection of place

2.1 Emergency exists, roads and escape ways

When selecting a place, it is necessary to take into account the fact that stations and vehicles on roads and escape ways or emergency exits represent a high safety risk. If possible, the stations and equipment should be placed outside the emergency exits, escape ways and roads.

If this is not possible, then the shut downed tanks/ stations have to be secured against any damage and rolling over by vehicles (e.g. carts). Any obstacles on the escape ways and emergency exists should certainly be prevented.

2.2 Place allocation

Allocation of the precise place for supplier is done by the person responsible for project with the approval of the person responsible for the equipment operation with the use of the particular layout drawing.

3 Safety facilities of place

3.1 Ventilation and exhaustion

Depending on the environs, special attention has to be paid to proper ventilation or exhaust of the working place in order to ensure the micro-climatic parameters.

Mondi Štětí a.s.	STANDARD 13.01.07	Page: 4/12
-------------------------	--------------------------	-------------------

3.2 Sorbent binding agent for chemicals (with hazardous substances and substances that are dangerous to water)

With the tanks for chemicals that contain hazardous substances (identified with the warning sign, or danger class), it is necessary to prepare a suitable sorbent binding agent for emergency cases. The precise location of this agent has to be identified on the layout drawing or emergency plan.

3.3 Fire extinguishing facilities

Should any special fire extinguishing facilities be needed for fire extinguishing (e.g. powder, foam ...) then these have to be available in the vicinity of the working material or equipment. The precise place for the suitable fire extinguishing facility (fire extinguishing equipment) has to be identified in the fire protection layout drawing.

3.4 Safety showers, eyes rinsing equipment

In cases of mordant substances handling, the safety shower including eyes rinsing equipment has to be in the vicinity of the workplace. See Mondi standard No. 13-01-09.

3.5 Emergency detention basins (used with hazardous substances and substances dangerous to water)

The tanks for chemicals that contain hazardous substances (identified with the warning sign or particular danger class) have to be stored over the emergency detention basins with the sufficient volume and resistance against the dangerous substances being stored.

3.6 Channels

It is necessary to make sure that even in the worst instances no hazardous substances, substances endangering water or any other substances that, under the public sewage system operational manual, have not specified as waste water, may get into the sewage system of the channels that empty into the public sewage system or to rivers or underground water.

Mondi Štětí a.s.	STANDARD 13.01.07	Page: 5/12
-------------------------	--------------------------	-------------------

4 Piping and hoses

4.1 Piping network

The layout drawing of placing the existing piping has to be given to supplier in a form of the layout drawing. The piping for chemicals must not pass in the vicinity of the high voltage network. As for the passages, pavements and roads, it is necessary that the network is fitted on the clamping equipment and that it does not represent any danger for vehicles (e.g. fork lift trucks).

The hose piping may be inserted into the protection hoses or clamp it by means of suitable clamps, however, never on the cable foot bridges or cable channels.

4.2 Manufacturing of piping and hoses

Piping, piping connections, piping clamps and supports have to be made of the stable materials (corresponding with the working substance).

The dosage piping transferring the hazardous substances have to be identified with the label put within the sufficiently short distances and identified according to the particular hazardous features (See the Item 7).

4.2.1 Pressure piping

With the hazardous substances, it is necessary to use suitable hoses for chemicals (see Mondi standard No. 13.01.08, „Hoses for Chemicals“). The connection point is allowed only with the hoses longer than 40 m. Moreover, the point has to be sufficiently secured (e.g. shrink hose, alarm equipment used for cracks, joint).

4.2.2. Suction piping

The permanent consumption of the working material via open hood has to be prevented. If, due to the product character, the off take is possible only from the upper part (e.g. with possible deposits on the bottom), the opening has to be covered and hose clamped.

Mondi Štětí a.s.	STANDARD 13.01.07	Page: 6/12
-------------------------	--------------------------	-------------------

5 Manufacturing of dosing stations

5.1 Piping and hoses

Piping and hoses on the dosing stations have to be manufactured according to the Item 4.

5.2 Flow and functionality inspection

In order to control the flow and it that is possible, Mondi should connect the equipment to the control system.

In any case, it is necessary to specify the suitable strategy for the inspection of functionality (control of flow, pressure sensor, regular checks done by personnel etc.) with the approval of the project manager and a person responsible for the operation).

5.3 Air-relief hoses

The air-relief hoses have to be clamped and then led back to either to container or to the detention tank. (This regulation does not apply for the substances which cannot be fed backwards due to the safety reasons e.g. hydrogen peroxide with which the air-relief socket mouths into the free air).

5.4 Dosing pump

Dosing pumps have to be, if their size allows so, placed into a suitable cabinet, cover etc. If it is possible, the dosing pumps have to be placed over the detention tank.

5.5 Main switch

The dosing equipment has to be equipped with main switch that allows emergency switching off.

5.6 Earthing

All the parts of earthing have to be connected to earth according to the valid regulations.

Mondi Štětí a.s.	STANDARD 13.01.07	Page: 7/12
-------------------------	--------------------------	-------------------

6 Manufacturing of mother – daughter container systems

6.1 Chemicals stability

In general, all the parts of the mother-daughter system that are in contact with the environs have to comprise of the material that is sufficiently resistant to working substance.

6.2 Stable base

The mother-daughter container has to stand on a stable base area that is adapted to its size in order to prevent any slipping and tilting over of the container.

6.3 Indication of level height

The mother-daughter container has to be equipped with the level sensing that is protected against any damages.

6.4 Mother – daughter connection

6.4 1 Coupling connections

When connecting the mother and daughter containers, it is important that only lever couplings are used. These have to be mounted in such a way that they are accessible any time. The connections on the mother containers have to be protected against any damages.

6.4.2 Hoses

Only circle, corrugated hoses - PTFE NDL may be used for hoses.

6.4.3 Connection

Hose has to be either directly fixed to coupling or screwed to coupling by means of the screw armature (see Mondi standard No.13.01.08 „Hoses for Chemicals“).

Material for particular piping parts will be determined by supplier depending on the environs.

All the parts are available from e.g. Haberkom company. See standard No.13.01.08.

Version: 00	Valid from: 18.1.2018
--------------------	------------------------------

Mondi Štětí a.s.	STANDARD 13.01.07	Page: 8/12
------------------	--------------------------	------------

6.4.4 Mother container height

The height of 1.4 m is taken as a standard (normative) value for the mother container (exclusive detention tank).

7 Identification of piping for chemicals and dosing stations

All the piping for chemicals, dosing stations and dosage places have to be identified with the labels under Mondi standard No. 13.01.03 and 13.01.04.

7.1 Sticker with symbol

The following stickers are being used:

- Warning symbols
- Safety equipment symbols

7.2 Types of labels and label information

7.2.1 Label for dosing station

1. Identification of the dosing station
2. In the brackets, number of the equipment from API Pro system
3. Identification of the working material (general identification, not name of the product as such)
4. Identification of the place where the working material is transported (dosage place)
5. Symbol(s) of danger, in cases of hazardous substance
6. Symbol(s) for necessary equipment

At each dosing station, there has to be also operating instructions (DIN A4-laminated) for the particular substance.

7.2.2 Label for dosage places

1. Warning: „**Dosing place**”
2. Identification of the working material (general identification, not name of the product as such)
3. Identification of the dosage place
7. Symbol(s) of danger, in cases of hazardous substance
4. Symbol(s) for necessary equipment

Version: 00	Valid from: 18.1.2018
--------------------	------------------------------

Mondi Štětí a.s.	STANDARD 13.01.07	Page: 9/12
-------------------------	--------------------------	-------------------

7.2.3 Label for piping

1. Label under Mondi standards No. 13.01.03 and 13.01.04.
2. Symbol(s) of danger, in cases of hazardous substance

8 Acceptance of equipment

Prior to putting the equipment into operation, the equipment including all the parts of the equipment have to be accepted by a person responsible for a project (including observation of Mondi standards) in terms of safety. Any defects will be recorded in writing, stating the person responsible and dates of elimination of defects.

9 Safety data sheet, operating instructions, warning label

Prior to putting the equipment into operation, the person responsible for project submits the safety data sheet to particular personnel responsible for placing these data sheets at specific working place defined by the management of Mondi responsible for the environment and occupational safety in the area of tanks for chemicals environmental. Moreover, the person responsible for the projects performs training of operators with the written record kept on this.

Moreover, on all the tanks for hazardous substances that are located within the production area (on the mother-daughter containers, dosing stations and on the shut-downed back up containers) a label with the minimum size of DIN A4 has to be placed. This label has particular signs for danger that are easily spotted in cases of emergency or break.

10 Operating the equipment

10.1 Maintenance and inspection of the safety equipment

Generally speaking, the equipment for dosing and transport of chemicals has to be maintained in such a manner that the function of the specific safety equipment is clearly ensured. The service company responsible for the equipment on a twice-a-year basis performs tests on functionality of the safety equipment (done in a form of written record).

Hoses for chemicals will be replaced by the supplier each year (the date of the last exchange is recorded visibly on the label placed on the dosing pump or on hose).

Version: 00	Valid from: 18.1.2018
--------------------	------------------------------

Mondi Štětí a.s.	STANDARD 13.01.07	Page: 10/12
-------------------------	--------------------------	--------------------

10.2 Authorization / training

Personnel may handle hazardous substances or perform the maintenance works on the stations with the hazardous substances on condition of proper education (the training on hazardous substances). Under the legal regulations, this training is performed once a year with a written record written on this.

10.3 Supplementation of sorbent agent

It is necessary to ensure that sorbent agents, stored in the vicinity of the dosing station, are, after their usage, immediately supplemented sorbent binding agent.

10.4 Cleaning of tanks and inspection

Collection tanks have to be kept clean. Those collection tanks that are not equipped with the leakage control have to be inspected on a daily basis. In case of emergency (medium has leaked), it is necessary to inform superior personnel (it is necessary to inform also the management of Mondi dealing with the issues of environment) and organize together disposal and consequent damage elimination (e.g. pumping over the leaked medium into tank and cleaning of tank as well as elimination of the leakage cause).

10.5 Tank openings

In general, tanks have to be kept closed in order to prevent any unwanted load with smell and hazardous substances (with the exception of the venting equipment that has a stink trap e.g. water one).

11 Dosing equipment dismantling

If the dosing equipment is no longer used, the person responsible for operation will check whether there are any plans to use it or not in future.

If not, the person responsible for operation will initiate its dismantling.

If, up to the period of its dismantling, the equipment have been operated by the supplier, it is him who is in charge of its dismantling. If the equipment was operated by Mondi a.s., it is the person responsible for its operation that is in charge of dismantling.

Version: 00	Valid from: 18.1.2018
--------------------	------------------------------

Mondi Štětí a.s.	STANDARD 13.01.07	Page: 11/12
-------------------------	--------------------------	--------------------

12 Deviations from Mondi standards

Any deviations from Mondi standards (e.g. with the testing equipment) are possible only after clarifying the testing terms together with the responsible head of operations and only upon a written agreement and within specified scope of time.