

BIDSF C7-A3

C7-A3 ERECTION OF THE NEW LARGE CAPACITY F&D FACILITY NPP V1

TECHNICAL SPECIFICATIONS OF THE EQUIPMENTS

APPENDIX No. 1

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1. INTRODUCTION

This document contains the technical parameters of the facilities for which is intended to be used in the project BIDSF C7 - A3.

Document is attached to the EIA Report in accordance with Article 31 of Act No. 24/2006 Coll. on assessing the environmental influences and on alternations of, and amendments to, some acts, as amended by later legislation for project BIDSF C7-A3 „Erection of the new large capacity F&D facility NPP V1“.

2. LIST OF EQUIPMENT

Chap.	Name	Quant.	Type	SO/DPS
1.	Equipments for segmentation			
1.01	Self-Tightening Tube Saw „Guillotine“	2 ks	Portable	DPS 73.1:V1
1.02	Orbital Cutter for Pipes	2 ks	Portable	DPS 73.1:V1
1.03	Hydraulic Shears	2 ks	Portable	DPS 73.1:V1
1.04	Cable Saw	1 ks	Portable	DPS 73.1:V1
1.05	Power Nibbler	1 ks	Portable	DPS 73.1:V1
1.06	Angular Grinding Devices	3 ks	Portable	DPS 73.1:V1
1.07	Electrical-Hydraulic Cable Cutter	2 ks	Portable	DPS 73.1:V1
1.08	Plasma Arc Cutting Device	1 ks	Portable	DPS 73.1:V1
1.09	Flame Cutting Device	1 ks	Portable	DPS 73.1:V1
2.	Equipments for fragmentation			
2.01	Hydraulic Band Saw for Transverse Cutting	1 ks	Stationary	DPS 73.1:V1
2.02	Hydraulic Band Saw for Lengthwise Cutting	1 ks	Stationary	DPS 73.1:V1
2.03	Stationary Hydraulic Shears	1 ks	Stationary	DPS 73.1:V1
2.04	Hydraulic Band Saw up to 1000 mm	1 ks	Stationary	DPS 73.1:V1
2.05	Plasma Arc Cutting Device	1 ks	Stationary	DPS 73.1:V1
2.06	Flame Cutting Device	1 ks	Stationary	DPS 73.1:V1
3.	Equipments for decontamination			
3.1	Decontamination Line Equipment			
3.1.01	DL Electrochemical Baths	2 ks	Stationary	DPS 73.2:V1
3.1.02	DL Ultrasonic Baths	2 ks	Stationary	DPS 73.2:V1
3.1.03	DL Rinsing Bath (Bath for Super High-Pressure Water Pump)	1 ks	Stationary	DPS 73.2:V1
3.1.04	DL Other Equipment	1 ks	Stationary	DPS 73.2:V1
3.2.	Dry mechanical-abrasive blasting equipment			
3.2.01	Suspended blasting device	2 ks	Stationary	DPS 73.2:V1
3.2.02	Manual abrasive blasting cabin	1 ks	Stationary	DPS 73.2:V1

Chap.	Name	Quant.	Type	SO/DPS
4.	Equipments for Construction Surface Decontamination			
4.01	Super High-Pressure Water Pump	1 ks	Portable	DPS 73.2:V1
4.02	Floor Shaving Device	1 ks	Portable	DPS 73.2:V1
4.03	Foam Generator	1 ks	Portable	DPS 73.2:V1
4.04	Breaker Hammer	1 ks	Portable	DPS 73.2:V1
4.05	Angular Grinding Devices	5 ks	Portable	DPS 73.2:V1
5.	Handling equipment			
5.01	Front high-lift accumulator trucks	2 ks	Portable	PS 73:V1
5.02	Low lift accumulator trucks	2 ks	Portable	PS 73:V1
5.03	Electric stair climber sack truck	1 ks	Portable	PS 73:V1
5.04	Manipulator of transport containers	1 ks	Portable	PS 73:V1
5.05	Handling Platform	1 ks	Portable	PS 73:V1
5.06	Overhead crane	1 ks	Stationary	PS 73:V1
5.07	Crane scales	5 ks	Portable	PS 73:V1
5.08	Hoists	4 ks	Portable	PS 73:V1

3. SPECIFICATIONS FOR SEGMENTATION EQUIPMENTS

3.1 Self-Tightening Tube Saw „Guillotine“

Purpose and description :

Automatic self-tightening tube saw with remote control and hydraulic drive and feed, for mechanical (non thermal) cutting of pipes, supports and other material.



Fig. 1 Example of self tightening tube saws „guillotine“

For the smaller diameters of piping will be supply the Super C hydraulic drive reciprocating pipe saw designed to cut solids, multi-stranded casing strings and nested materials from 2" to 12" (DN50-300 or 5 to 30 cm) with choice of horizontal or vertical mounting.

For bigger diameters of piping will be supplied super D Autoclamp hydraulic drive reciprocating pipe saw designed to cut solids, multi-stranded casing strings and nested materials from 10" to 24" (DN250-600 or 25 to 61 cm) or up to 22" (DN550 or 56 cm) on ductile pipe, with a choice of horizontal or vertical mounting.

General engineering characteristic:

Diameter of cut piping :	(1) 50 to 300 mm (2) 250 to 600 mm
Propulsion:	electrical or compressed air
Type:	Portable equipment
Installation Requirements:	Not required
Requirements for Media :	power supply (2 kW) or compressed air (6 bar, 1,4 m ³ .min ⁻¹)

3.2 Orbital Cutter for Pipes

Purpose and description :

The equipment consist of two different devices for different pipe diameters cut. Equipment will be used for mechanical (non-thermal) cutting of piping, as the cutting tool moves around the outside circumference of a segmented component. The cutting device will be automatic, self-tightening with remote control.



Fig. 2 Orbital Cutter for Pipes

General engineering characteristic:

Diameter of cut piping :	(1) 350 to 510 mm (2) 200 to 510 mm
Propulsion:	electrical, compressed air
Type:	Portable equipment
Installation Requirements:	Not required
Requirements for Media :	power supply (3 kW), compressed air (6,2 bar, 1,7m ³ .min ⁻¹)

3.3 Hydraulic Shears

Purpose and description :

Equipment will be used for shearing metal materials and electrical cables. The device will include the source of the pressurized oil and pressure hoses.

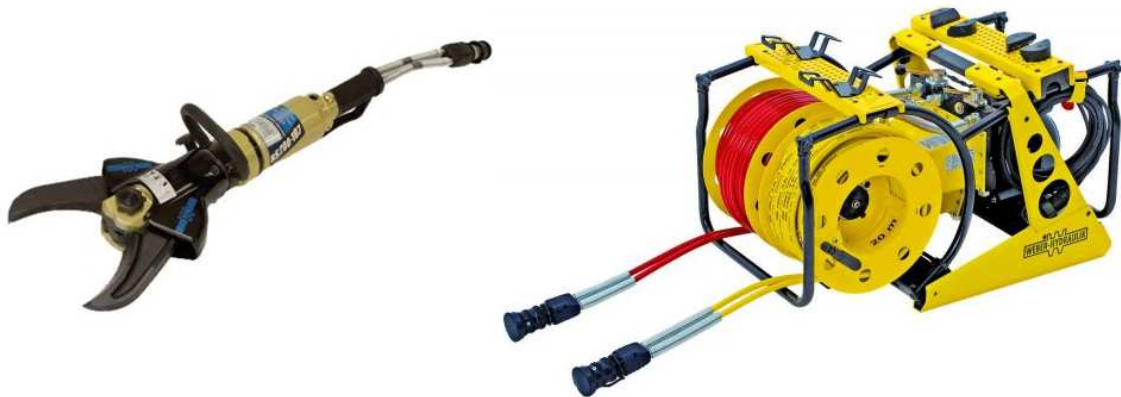


Fig. 3 Hydraulic Shears

Max. grip	(1) 210 mm, (2) 260 mm
Max. Shearing power:	400 kN
Max. shearing profile:	φ 40 mm, 40x40 mm, I 120 mm
Propulsion:	Hydraulic Unit
Type:	Portable equipment
Installation Requirements:	Not required
Requirements for Media :	power supply (5,5 kW)

3.4 Cable Saw

Purpose and description :

Equipment cable saw will be used for horizontal as well as perpendicular cutting of oversized components (e.g. cylindrical tanks), piping and reinforced concrete (up to 2 m thick).



Fig. 4 Example of mobile cable saw

General engineering characteristic:

Length of diamond cable:	to 15 m
Cutting speeds:	20 and 25 m.s ⁻¹
Weight:	150 kg
Type:	Portable equipment
Installation Requirements:	Not required
Requirements for Media:	power supply 20 kW

3.5 Power Nibbler

Purpose and description :

Hand-held electrical equipment will be used for shearing of metal materials with minimal distortion, removing small bits of metal.



Fig. 5 Example of power nibbler

The device can handle cuts over edges, weld seams and doubled sheets. With the two-speed drive, it is possible to work with a maximal sheet thickness of 10 mm at low speed. In second gear, the nibbler works through the sheet faster and can handle a material thickness of 8 mm or lower. The grip can be mounted in two different positions, allowing you to adapt to the task at hand.

General engineering characteristic:

Weight:	max. 15 kg
Thickness of shearing material:	max. 10 mm
Propulsion:	electrical
Type:	Portable equipment
Installation Requirements:	not required
Requirements for Media :	power supply (2 kW)

3.6 Angular Grinding Devices

Purpose and description :

Manual electrical equipment will be used for cutting of low contaminated thin-walled metal materials. The equipment to be provided will be with air exhaust.

The angular grinding device is a light angle grinder with a powerful engine with high power reserves. It has a constant electronics, motor protection against overload for motor protection against overheating under heavy loads, easy exchange of discs thanks to the arrest of the spindle, the settlement of safety cover without the tools.



Fig. 6 Example of angular grinding diveces

General engineering characteristic:

Grinding disk diameter	max. 230 mm
Weight of tool	max. 5 kg
Propulsion:	electrical; 2,2 KW
Type:	Portable equipment
Installation Requirements:	connection to the mobile exhaust and filtering system
Requirements for Media :	power supply

3.7 Electrical-Hydraulic Cable Cutter

Purpose and description :

Hand equipment will be used for shearing of copper and aluminum cables without armoured cladding. The shearing head will rotate 360°. The cutter will be equipped with a two-stage hydraulic system with an electrical control.



Fig. 7 Example of electrical hydraulic cable cutter

General engineering characteristic:

Shearing power:	50 kN
Max. diameter of sheared cables	φ 48 mm
Shearing time:	10-24 sec. (depending on the cable size)
Propulsion:	battery 12 V and fixed connection to power supply 230 V
Weight:	max. 5 kg
Type:	Portable equipment
Installation Requirements:	Not required
Requirements for Media :	power supply 230 V

3.8 Plasma Arc Cutting Device with mobile exhaust and filtering system

3.8.1 Plasma Arc Cutting Device

Purpose and description :

This equipment will be used for thermal cutting of low contaminated components made of stainless steel (if there is no possibility of using mechanical methods. Main parts of the equipment are plasma cutting source generator with burner for cutting.



Fig. 8 Example of Plasma Arc Cutting Device

General engineering characteristic:

Thickness of cut material:	10 to 50 mm
Plasma source:	20 to 160 A
Weight:	150 kg
Type:	Portable equipment
Installation Requirements:	Not required
Requirements for Media :	power supply (3x400V, 25 kVA), compressed air (6 bar, 0,23 m ³ .min ⁻¹)

3.8.2 Mobile exhaust and filtering system

Purpose and description :

Mobile exhausting and filtering system suitable for high volumes of all the type of non explosive dust and dry particles originated also from plasma cutting. The filtration is provided by the means the polyester cartridge. The filter is equipped with the alarm of saturation.



Fig. 9 Example of exhaust and filtering system

General engineering characteristic:

Dimensions:	cca 1170x790x790 mm
Weight:	cca 169 kg
Exhaust power of the ventilator:	cca 2500 m ³ /h
Alarm of filter saturation:	audible and visual
Motor:	cca 1,1 kW
Type:	Portable equipment
Installation Requirements:	Not required
Requirements for Media :	Power supply

3.9 Flame Cutting Device

Purpose and description :

This equipment will be used for thermal cutting of low contaminated equipment made of stainless steel (if there is no possibility of using mechanical methods). The equipment will be able to cut objects developing heat min. 5500 °C. The equipment will be able to cut all metal materials including armour.

General engineering characteristic:

Thickness of cut material:	10 to 120 mm
Type:	Portable equipment
Installation Requirements:	not required
Requirements for Media :	pressure cylinders with technical gases, the possibility of connection to the existing air exhaust system

4. SPECIFICATIONS FOR FRAGMENTATION EQUIPMENT

4.1 Hydraulic Band Saw for Transverse Cutting

Purpose and description :

This device is designed for transverse fragmentation of different kinds of metal materials, e.g. pipes, sectional steel, materials with high firmness and hardness, up to a diameter of 500 mm. Equipment operates in semi-automatic mode.



Fig. 10 Hydraulic Band Saw for Transverse Cutting

General engineering characteristic:

Cut length:	4 to 620 mm
Cutting speed:	0 to 200 mm.min ⁻¹
Type:	Stationary equipment
Installation Requirements:	constructional modifications , the creation of a separate workstation
Requirements for Media :	power supply (400V/50Hz, 5 kW), connection to existing air exhaust system through the filtration unit

4.2 Hydraulic Band Saw for Lengthwise Cutting

Purpose and description :

This device will be designed for the lengthwise fragmentation of different kinds of metal materials, e.g. pipes, sectional steel, materials with high firmness and hardness, up to a diameter of 500 mm. Equipment operates in semi-automatic mode .



Fig. 11 Hydraulic Band Saw for Lengthwise Cutting

General engineering characteristic:

Cut length:	4 to 620 mm
Cutting speed:	0 to 200 mm.min ⁻¹
Type:	Stationary equipment
Installation Requirements:	constructional modifications , the creation of a separate workstation
Requirements for Media :	Power supply (5 kW), connection to existing air exhaust system through the filtration unit

4.3 Stationary Hydraulic Shears

Purpose and description :

This equipment will be used for shearing of sectional steel. The proposed hydraulic shear are alligator shears suitable for very productive cutting of metal material of bigger dimensions



Fig. 12 Example of Stationary Hydraulic Shears

General engineering characteristic:

Length of shearing knives:	1 000 mm
Max. shearing grip:	580 mm
Max. force:	3100 kN
Weight :	3300 kg

Type:	Stationary equipment
Installation Requirements:	constructional modifications , the creation of a separate workstation
Requirements for Media :	power supply (11 kW), connection to existing air exhaust system through the filtration unit

4.4 Hydraulic Band Saw up to 1000 mm

Purpose and description :

This device is designed for transverse fragmentation of different kinds of metal materials, e.g. bars, pipes, sectional steel, materials with high firmness and hardness, up to a diameter of 1000 mm. Equipment operates in semi-automatic mode .

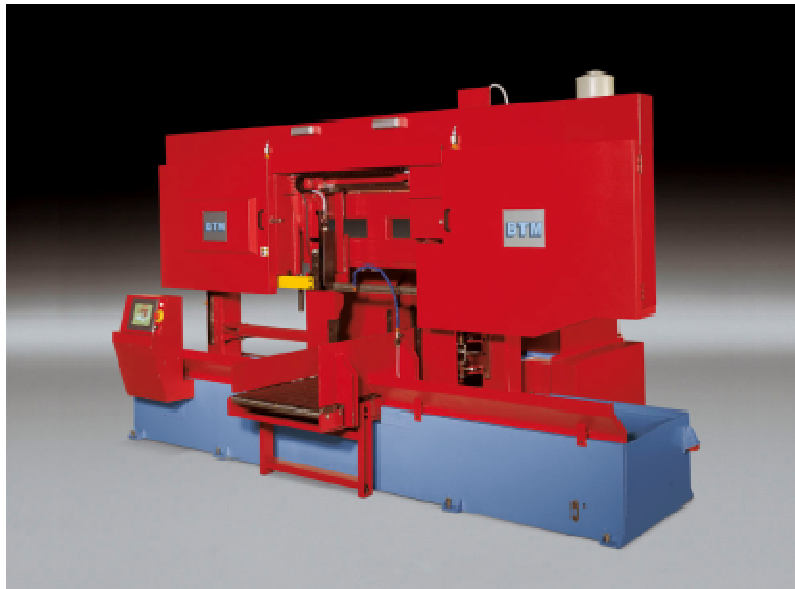


Fig. 13 Example of Hydraulic Band Saw

General engineering characteristic:

Cut length:	5 to 1000 mm
Cutting speed:	12 - 70 m.min ⁻¹
Weight of machinery:	do 12000 kg
Type:	Stationary equipment
Installation Requirements:	constructional modifications , the creation of a separate workstation
Requirements for Media :	power supply (25 kW), connection to existing air exhaust system through the filtration unit

4.5 Plasma Arc Cutting Device

Purpose and description :

This equipment will be used for thermal cutting of low contaminated components made of stainless steel (if there is no possibility of using mechanical methods). Similar equipment is used for segmentation in section 3.8.

General engineering characteristic:

Hrúbka rezaného materiálu:	10 to 50 mm
Rezací prúd:	20 to 160 A, infinitely adjustable
Weight	150 kg
Type:	Stationary equipment
Installation Requirements:	Constructional modifications
Requirements for Media :	power supply (3x400V, 25 kVA), compressed air (6 bar, 0,23 m ³ .min ⁻¹) connection to existing air exhaust system through the filtration unit

4.6 Flame Cutting Device

Purpose and description :

This equipment will be used for thermal cutting of low contaminated equipment made of stainless steel (if there is no possibility of using mechanical methods). The equipment will be able to cut objects developing heat min. 5500 °C. The equipment will be able to cut all metal materials including armour. Similar equipment is used for segmentation in section 3.9.

General engineering characteristic:

Hrúbka rezaného materiálu:	10 to 120 mm
Type:	Stationary equipment
Installation Requirements:	Constructional modifications
Requirements for Media :	pressure cylinders with technical gases, connection to existing air exhaust system through the filtration unit

5. EQUIPMENTS FOR DECONTAMINATION

5.1 Decontamination Line equipment

5.1.1 DL Electrochemical Baths

Purpose and description :

DL Electrochemical Baths with a source of direct electrical current will be used to elimination contamination on surfaces dismantled and fragmented pieces, parts of the contaminated equipment and also for the safe collection and transport of produced secondround liquid radioactive waste for further processing. Titanium baskets are used to store decontaminated objects , and transport them to the correct position electrochemical decontamination bath. The bottom of the bath will be sloped toward the drain.

General engineering characteristic:

Dimensions bath :	1300 x 2400 x 1000 mm
Dimensions Ti basket:	600 x 1800 x 600 mm
Load capacity basket:	400 kg
Flow Coole:	Autonomous cooling system
Effective volume of the bath:	cca 2,5 m ³
Decontamination cycle length:	30 – 45 minutes
Construction material :	tr. 17 248.4 (AISI 304L)

Type:	Stationary equipment
Installation Requirements:	constructional modifications room, connection to existing air exhaust system through the filtration unit, connection with the tank for preparation of concentrates, preparation of the decontamination solutions and special canalisation
Requirements for Media :	water supply (0,6 MPa), power supply (90 kW)

5.1.2 DL Ultrasonic Baths

Purpose and description :

Ultrasonic decontamination bath, including ultrasonic generators will be used for the purification of materials from lowfixed contamination using ultrasonic after previous electrochemical decontamination. To store the decontaminated objects and transport them into the correct position UZ decontamination bath will serve the same titanium baskets. The bottom of the bath will be sloped toward the drain.

General engineering characteristic:

Dimensions bath:	1300 x 2400 x 1000 mm
Dimensions Ti basket:	600 x 1800 x 600 mm
Load capacity baskets:	400 kg
Effective volume of the bath:	cca 2,5 m ³

Decontamination cycle length:	30 – 45 minutes
Construction material:	tr. 17 248.4 (AISI 304L)
Ultrasonic generators	20 pcs per each bath
Ultrasonic emitters	20 pcs (up to 40 kHz)
Type:	Stationary equipment
Installation Requirements:	constructional modifications room, connection to existing air exhaust system through the filtration unit, connection with the tank for preparation of concentrates, preparation of the decontamination solutions and special canalisation.
Requirements for Media :	water supply (0,6 MPa), power supply (30 kW),

5.1.3 DL Rinsing Bath

Purpose and description :

After electrochemical and ultrasound decontamination, the basket containing metallic waste will be shifted to the hot water rinsing bath for satisfactory washing of material and removal of residual contaminated material and decontamination solutions. The rinsing bath will be provided and installed together with the corresponding water jet. The bottom of the bath will be sloped toward the drain.

General engineering characteristic:

Dimensions bath:	1300 x 2400 x 1000 mm
Vysokotlakový ostrek:	2 MPa
Dimensions Ti basket:	600 x 1800 x 600 mm
Effective volume of the bath:	cca 2,5 m ³
Water pump:	2,5 MPa, 0,5 m ³ .hod ⁻¹
Construction material:	tr. 17 248.4 (AISI 304L)

Type:	Stationary equipment
Installation Requirements:	constructional modifications miestnosti, connection to existing air exhaust system through the filtration unit, connection with the tank for preparation of concentrates, preparation of the decontamination solutions and special canalisation.
Requirements for Media :	water supply (0,6 MPa) - (demineralized water for the preparation of solutions, water for rinsing, cooling water for cooling baths), power supply (max. 1 kW),

5.1.4 DL Other Equipments

The decontamination line is other equipments:

• Baskets for transport and correct positioning of items in decontamination baths	7 ks
• Tank for solutions preparation	1 ks
• Tank for pre-treatment of used solutions	1 ks
• Handling desk	1 ks
• Pumps for pumping of working fluids	8 ks

5.1.5 Auxiliaries Equipments

Crane track: for handling of the titanium baskets above the space of decontamination line will be installed the crane track for serving line personnel. Lifting equipment will be locally controlled so that the operator has one hand free to guide the raised load in the baths space.

5.2 Dry mechanical-abrasive blasting equipment

5.2.1 Suspended blasting device

Purpose and description :

The device is intended for blasting components, which are loosely placed into a suspended, shifting and simultaneously rotating device. Blasting is carried out by steel grit and spinning wheels. Blasting will result in perfectly clean surfaces of materials, everywhere on the materials. The blasted abrasive medium will fall through a perforation into a collecting cone, from where it will be conveyed into the cleaner for abrasives and finally returned into the abrasives storage bin. The device will be connected to its own exhaust and recovery devices, which will empty into the existing exhaust system. The exhaust and recovery devices will be equipped with a tight discharge device for discharging dust and worn grit directly into a 200 l MEVA collecting barrel.



Fig. 14 Suspended blasting device

General engineering characteristic:

Load capacity basket:	cca 500 kg
Weight jednotlivých kusov:	do 150 kg
Decontamination cycle length:	cca 30 minutes
Blasting media recycling:	Yes

Type:	Stationary equipment
Installation Requirements:	constructional modifications , prívod médií, connection to existing air exhaust system through the filtration unit
Requirements for Media :	power supply (max. 30 kW), compressed air (0,6 MPa)

5.2.2 Manual abrasive blasting cabin

Purpose and description :

The cabin will be used for manual blast cleaning of large and thick objects, that are minimally contaminated surface. The cabin will be with antiabrasive modification of surface. The cabin will be with built-in self-cleaning dust filters (the filter bags will be provided) and also with an automatic system for recovering and recycling abrasive material after the separation of dusts deriving from the blasting process. The abrasive media will not be toxic and it will not cause any materials to detonate or generate dust explosions.

As a part of the cabin will be a sanitary unit for contamination control of the body surface.



Fig. 15 Manual abrasive blasting cabin

General engineering characteristic:

Dimensions cabin:	cca 8 000 x 5 000 x 6 000 mm
Number of guns:	3
Type:	Stationary equipment
Installation Requirements:	constructional modifications, media feed, connection to existing air exhaust system through the filtration unit
Requirements for Media :	power supply (400V/50Hz, 20 kW), compressed air (0,8 MPa, 400 m ³ .hod ⁻¹ for 1 gun)

6. CONSTRUCTION SURFACES DECONTAMINATION EQUIPMENT

6.1 Super High-Pressure Water Pump

Purpose and description :

The high-pressure water pump is provided with jetting-suction accessories and including a vacuum unit and exhaustion and filtration system. The equipment will be used for cleaning (shaving) of contaminated concrete floors and walls.



Fig. 16

General engineering characteristic:

Design pressure:	cca 250 MPa
Driving unit:	Diesel cca 50-60 kW
Type:	Portable equipment
Installation Requirements:	media feed, connection to air exhaust system
Requirements for Media :	supply demineralized water (0.6 MPa)

6.2 Floor Shaving Device

Purpose and description :

A device will be used for the decontamination of the concrete floors by dry shaving method, including any embedded metals from floors, ceilings and curved surfaces. The equipment will be provided with exhaustion and filtration systems so as to enable that the removed material be exhausted and captured in filtration unit.



Fig. 17 Floor Shaving Device

General engineering characteristic:

Layer thickness:	2 mm
Depth control accuracy:	1 mm
Width of shaving heads:	300 and 150 mm
Production rate:	2 to 7 m ² /h
Type:	Portable equipment
Installation Requirements:	Not required
Requirements for Media :	power supply (3 kW), connection to existing air exhaust system through the filtration unit

6.3 Foam Generator

Purpose and description :

Foam Generator will be used for the decontamination of complicated building surfaces covered by a protective paint, contaminated by dust particles and oils and for other places where the high pressure water jetting cannot be applied. The device will be equipped with a wet vacuum unit and with foam-breaking accessory.



Fig. 18 Foam Generator and Vacuum unit

General engineering characteristic:

Reservoir volume:	20 dm ³
Inlet air pressure:	max. 0,6 MPa
Air consumption:	do 10 m ³ .hod ⁻¹
Type:	Portable equipment
Installation Requirements:	not required
Requirements for Media :	power supply (max. 1 kW), compressed air (6 bar, 10 m ³ .hod ⁻¹)

6.4 Angular Grinding Devices

Purpose and description :

Hand devices will be designed for the decontamination of the floors, walls, and ceilings of the rooms (covered by protective paints) by the dry abrasion (shaving). The equipment will be provided with air exhaustion. The removed material will be exhausted and captured in a filtering unit.

General engineering characteristic:

Work output / work shift: 6 - 10 m² per work shift (layer thickness 2 mm)

Type:	Portable equipment
Installation Requirements:	Not required
Requirements for Media :	power supply (2,5 kW), connection to existing air exhaust system through the filtration unit

6.5 Breaker Hammer

Purpose and description :

Equipment will be used for decontamination of the concrete floors and walls by dry cut-out, in areas where contamination will penetrated deeply into the concrete surface, increasing the decontamination possibilities and reducing significantly the workload for the operators.

General engineering characteristic:

Impact energy :	20 J
Impact frequency	up to 2200 b/m
Weight	max, 12 kg
Input power:	1600 W

Type:	Portable equipment
Installation Requirements:	not required
Requirements for Media :	power supply (1,6 kW), cut-out material will be exhausted and captured in filtering unit.

7. SPECIFICATIONS FOR AUXILIARY AND HANDLING EQUIPMENT

7.1 High-lift truck

Purpose and description :

Equipment is designed for the transport of materials in the workplace fragmentation and decontamination in of transport containers and steel drums with volume 200 dm³.

General engineering characteristic:

Load capacity:	2500 kg
Lifting height:	3300 mm
Propulsion	Electrical battery



Type:	Portable equipment
Installation Requirements:	not required
Requirements for Media :	Electrical battery charging

7.2 Low lift accumulator truck

Purpose and description :

Equipment is designed for the transport of materials in the workplace fragmentation and decontamination in of transport containers and steel drums with volume 200 dm³.

General engineering characteristic:

Load capacity:	1600 kg
Lifting height :	2344 mm
Propulsion:	Electrical battery

Type:	Portable equipment
Installation Requirements:	not required
Requirements for Media :	Electrical battery charging



7.3 Electric stair climber sack truck

Purpose and description :

Equipment is designed for the transport of materials in the workplace fragmentation and decontamination in of transport containers and steel drums with volume 200 dm³.

General engineering characteristic:

Load capacity:	to 550 kg
Height:	1524 mm
Propulsion:	Electrical battery
Type:	Portable equipment
Installation Requirements:	Not required
Requirements for Media:	Electrical charging batteries,



7.4 Manipulator

Purpose and description :

Equipment will be designated for the charging and withdrawal of transport containers into/from the new lift to be installed. By the forklift truck the container with fragmented material will be put on the manipulator, and manipulator will supply horizontal movement of the container to the cabin of the lift.

General engineering characteristic:

Load capacity:	700 kg
Type:	Portable equipment

7.5 Handling Platform

Purpose and description :

The equipment will be designated for transportation of containers and other material in the workstation.

General engineering characteristic:

Load capacity: 1000 kg
Upward stroke: min. 1 m

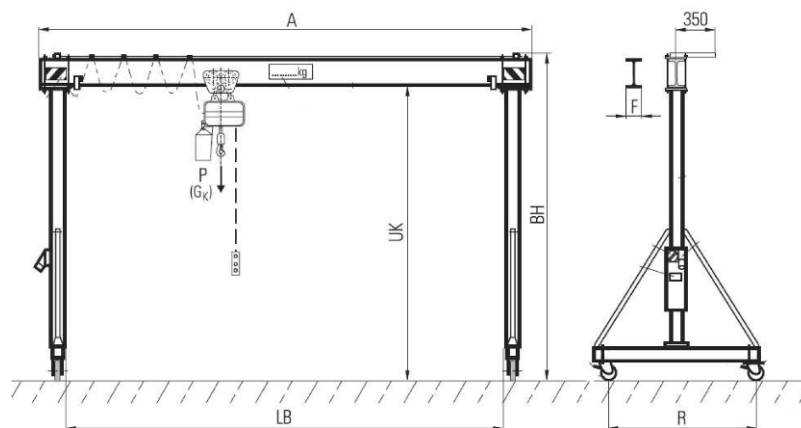
Type: Portable equipment
Installation Requirements: Not required
Requirements for Media : Electrical battery charging



7.6 Overhead crane

Purpose and description :

The crane will enable waste transport within the reactor hall and to the train corridor under this hall. The crane will include a self-supporting mobile structure (wheels).



General engineering characteristic:

Load capacity: 2000 kg
Width: 2000 mm
Length of the structure: 7500 mm

Type: Portable equipment
Installation Requirements: Not required
Requirements for Media : Power supply (1,5 kW),

7.7 Crane scales

Purpose and description :

They are designed for the weight check of the processed material.

General engineering characteristic:

weighing capacity: 1000 kg

Type: Portable equipment

Installation Requirements: Not required



7.8 Hoists

Purpose and description :

To locations, where it is not effective to use available handling means, will provide suitable hoists and gripping means in order to ensure the functionality of all equipments.

There will be 4 other handling means. Two pieces of these devices for handling the material at band saw places. The other two pieces will be placed at the places with thermal cutting devices.