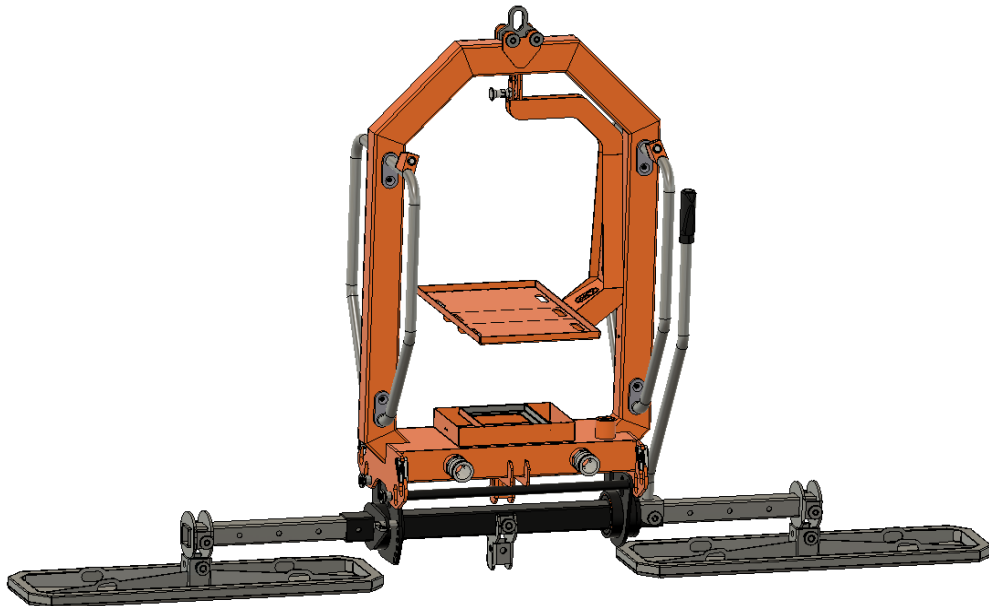


## OPERATOR'S MANUAL

# FROG600



MANUFACTURER:  
CATCHSHIFT Sp. z  
o.o.  
ul. Przemysłowa 2  
64-200 Wolsztyn  
NIP (Tax Identification Number): 9231720420  
REGON (National Business  
Registry Number):  
369338871 POLAND  
T: +48 68 347 58 57  
E: [kontakt@catchshift.com](mailto:kontakt@catchshift.com)

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## 1 Overview

The purpose of this operator's manual is to ensure safe and efficient operation of the machine. It contains safety guidelines that must be observed under all circumstances. The persons operating the machine must have the complete operator's manual and follow the information and guidelines included in the manual.

## 2 Safety

### 2.1 Definitions

**Operator:** The person operating or using the vacuum device.

**Load:** The object moved with the vacuum device.

**Permissible working load:** Maximum weight of the load that can be safely moved by the vacuum device.

**Latching on:** The suspended load latching onto the suction cup as a result of starting the valve.

**Latching off:** Releasing the load by adding air into the suction cup as a result of starting the valve.

**Service technician:** The specialist responsible for inspection, maintenance and repairs of the vacuum lifter.

**Load factor:** The ratio of the maximum design load ratio that can be lifted with the device to the safe working load indicated on the device.

**Test factor:** The ratio of the load used for the vacuum lifter static test to the safe working load indicated on the device.

**Static test:** A test as part of which the vacuum lifter should withstand a static force with the value of twice the permissible working load without permanent deformation and no visible damage after removing the force.

**Holding time test:** A (non-porous) load with the value of permissible working load is lifted after positioning the suction cup vertically. The vacuum pump is then switched off with the main switch. In this state, the vacuum lifter holds the load for 1 second.

**Load lifting height:** The working height when lifting and moving the load should not exceed 180 cm above ground level. The lower it is, the safer it is for the operating staff.



**IT IS PROHIBITED TO PUT ARMS OR LEGS UNDER A SUSPENDED LOAD.**

## **2.2 General safety guidelines**

- At the time of handover this machine is compliant with the current state of the art and is considered to be safe to operate.
- The machine can pose a hazard to people and other devices and may also be damaged if:
  - it is operated by unqualified personnel
  - it is used incorrectly
- A visual inspection of the machine should be performed at least once a day for any visible external damage and the proper operation of safety and protective devices should be controlled.
- If any faults, unusual noises or other changes in machine operation are observed, the operator is required to immediately turn off the machine and report it to an authorized service technician.
- Maintaining order at the workstation is an important factor contributing to safe work; work areas should be cleaned from grease, oil and unnecessary elements.
- It is prohibited to install additional equipment or introduce modifications and alterations to the machine. However, if a machine modification is required, contact the manufacturer.
- Every machine user must follow all safety guidelines, regulations, recommendations, workstation instructions and OH&S rules. The user is required to share the above-mentioned information with the person using the machine in order to prevent damaging the device and ensure safe operation.
- **Using a power supply equipped with a circuit breaker is mandatory.**
- **Only grounded extension cords (with an additional protective conductor) are allowed.**

## **2.3 Specific safety guidelines**

The following safety guidelines must be observed under all circumstances:

- The device can only be used by trained personnel.
- All works related to device inspections and maintenance must be performed by authorized service technicians only.

**Every person operating or using the device must carefully review this manual, understand it and follow its contents under all circumstances.**

- The device is intended to be used outdoors and indoors at air temperatures between 0°C and +40°C and at temperatures between -10°C and 0°C using extreme caution.
- It is prohibited to use the machine outdoors during rainfall or snowfall.
- The device is not intended for operation in special purpose rooms, such as explosion risk rooms (ATEX), etc.
- Before commencing any service works, turn off the device and disconnect it from the mains power supply.
- Stop using the machine immediately if the nature of the work performed may lead to damaging the machine or other devices and pose any hazard to people.

The user is required to perform the following actions:

- report introducing any changes that have direct or indirect impact on operational safety to a Catchshift representative;
- only use the device when it is fully operational;
- continuously inspect the device for visible damage and missing equipment and immediately report any changes when gripping loads other than the ones the device is intended for;
- it is prohibited to introduce changes that could impact device operational safety. Catchshift shall not be responsible for the consequences of any such changes,
- use only genuine spare parts from the manufacturer. Catchshift shall not be responsible for device operational safety if parts from other manufacturers are used.
- in case of sudden vacuum drop in the system, put the moved load down immediately or secure it otherwise against falling off the suction cups.



**IT IS PROHIBITED FOR ANY PERSON TO BE UNDER THE MOVED LOAD!  
IT IS PROHIBITED TO PUT EXTREMITIES (ARMS AND LEGS)  
UNDER THE MOVED LOAD!**

The safety guidelines listed above are merely a supplement to local occupational health and safety regulations.

## **2.4 User safety measures**

Rules for following safety measures:

- The cleanliness and transparency of workplace surroundings must be ensured through appropriate internal site instructions and inspections.

- Installation, initial activation, maintenance, repairs and other works and tampering with the machine can only be performed by qualified service technicians.

Special attention must be paid to:

- technical data and information on permissible use of the machine and its equipment;
- general and specific local building and safety regulations;
- using personal protection equipment;
- professional use of tools, transport, lifting and supporting equipment;
  
- specific hazards resulting from using the machine in unusual conditions that have not been mentioned in the operator's manual and have not been clearly prohibited, e.g. the use at facilities employing disabled personnel whose physical and mental capacity has not been accounted for in general standards. In such situations it is necessary to consult the manufacturing facility and the relevant professional associations;
- use separation tape, construction fences or similar elements to fence off the construction site.
- If the load protrudes beyond the outline of the dedicated grips, ensure safe load handling with a dedicated rope or hook.

#### **Hazards to humans and the natural environment:**

- Risk of tripping caused by: any scattered packaging material, tools, machines and their accessories.
- Risk of getting stuck, crushed or dying caused by: the machine falling over or dropping the machine during setup, dropping the machine due to the use of improper transport measures and lifting equipment and their accessories, technical faults or human errors.
- Risk of load detachment from the suction cup.

#### **Protection measures and rules of conduct**

- The works can only be performed by authorized personnel and in accordance with the information included in the operator's manual.
- Use the required personal protection equipment.
- Use only the appropriate measures for transport, lifting and setting up.
- Always keep your body and extremities away from the hazard zone.
- Unauthorized persons should stay away from the hazard zone.



**Lifting is prohibited if the pressure gauge indicator is in the red field and the vacuum pump does not work!**

If the pressure gauge indicator is in the red field and the vacuum pump does not work, put down the lifted load as quickly as possible.

**In order to ensure safe device operation:**

- The operator should have and use hearing protection equipment.
- When lifting, the operator should remain at such a distance from the device so that they are able to hear and see its operation.
- The device operator should remain in constant contact with the second operator, using previously agreed understandable methods of communication.

**Safety precautions for working at temperatures between -10°C and 0°C.**

- In order to ensure proper friction between the suction cup and the load, both the suction cup surface and the load suction surface must be dry and clean. For this purpose, moisture, snow and ice must be removed.

**2.5 Safety pictograms**

All safety guidelines have a uniform structure:



<b>Pictogram</b>	(describes hazard type)
<b>Signal word</b>	(describes hazard level)
<b>Guideline text</b>	(describes the hazard and informs how it can be avoided)

**Safety guidelines near the machine**



<b>Warning!</b>
CAUTION: Electrical equipment!



Use hand protection



CAUTION: Risk of getting hands trapped



CAUTION: Protect your head



CAUTION: Use hearing protection

All safety guidelines near the machine need to be legible and must be replaced if necessary.



## 2.6 Intended use

The **FROG600** vacuum device, taking into consideration the lifter mass, is intended for lifting concrete elements with lifting equipment etc. Maximum permissible load is 600 kg.

### CAUTION!

- only use under the working conditions determined in this operator's manual,
- use only within the applicable performance limits.



Intended use also involves:

- following all the guidelines from the operator's manual,
- performing inspection and maintenance works.

Any use of the device beyond the above-mentioned guidelines is considered to be non-intended. It is especially unacceptable to use the machine:

- with flammable, combustible or explosive materials;
- with aggressive, infectious or toxic materials;
- with any otherwise hazardous materials;
- during rainfall or snowfall;
- with living organisms and materials that cannot be processed without violating statutory provisions, generally accepted rules of conduct and good morals.

It is especially prohibited to use damaged suction cups. Any violation of **intended use** excludes the liability of the manufacturer for consequential damages. The entire associated risk is borne by the operator/user responsible for following the intended use.

## 2.7 User, qualified personnel

### User

The user is every natural and legal person who uses the machine or on whose orders the machine is used. The user must ensure that:

- all applicable regulations, guidelines and statutory acts are followed;
- the device is operated only by qualified and instructed personnel;
- the personnel has access to the operator's manual during the performance of works;
- training is confirmed in writing;
- personnel in training only works with the machine under the supervision of an experienced person;
- all protection devices are regularly inspected.

### Qualified personnel

Persons	Operator	Foreman	Service
<b>Activity</b>			
Packing, transport	x	x	x
First start		x	x
Operation	x		x
Fault identification	x	x	x
Removing mechanical faults		x	x
Removing electrical faults			x
Regulation, preparation	x		x
Maintenance	x		x
Small repairs		x	x
Shutdown, storage		x	x

Qualified personnel are persons who, based on their knowledge, proper education, experience and training in terms of standards and rules regarding the use of the machine, as well as their knowledge of OH&S regulations and working conditions, have been designated by the responsible person to ensure safe operation of the machine, to ensure proper functioning of the device by removing any problems that could pose a hazard to users.

### 3 Fighting fire

#### Fighting fires caused by the product.

- Depending on the product, the user must determine by themselves the appropriate actions to fight fire, smoke and harmful substances.

### 4 Transport, shipment



#### **Danger!**

The machine may be dropped during transport.

This may result in the most severe crushing injuries and death.

The machine should only be transported slowly at the lowest height possible with the use of sufficiently strong means of transport.

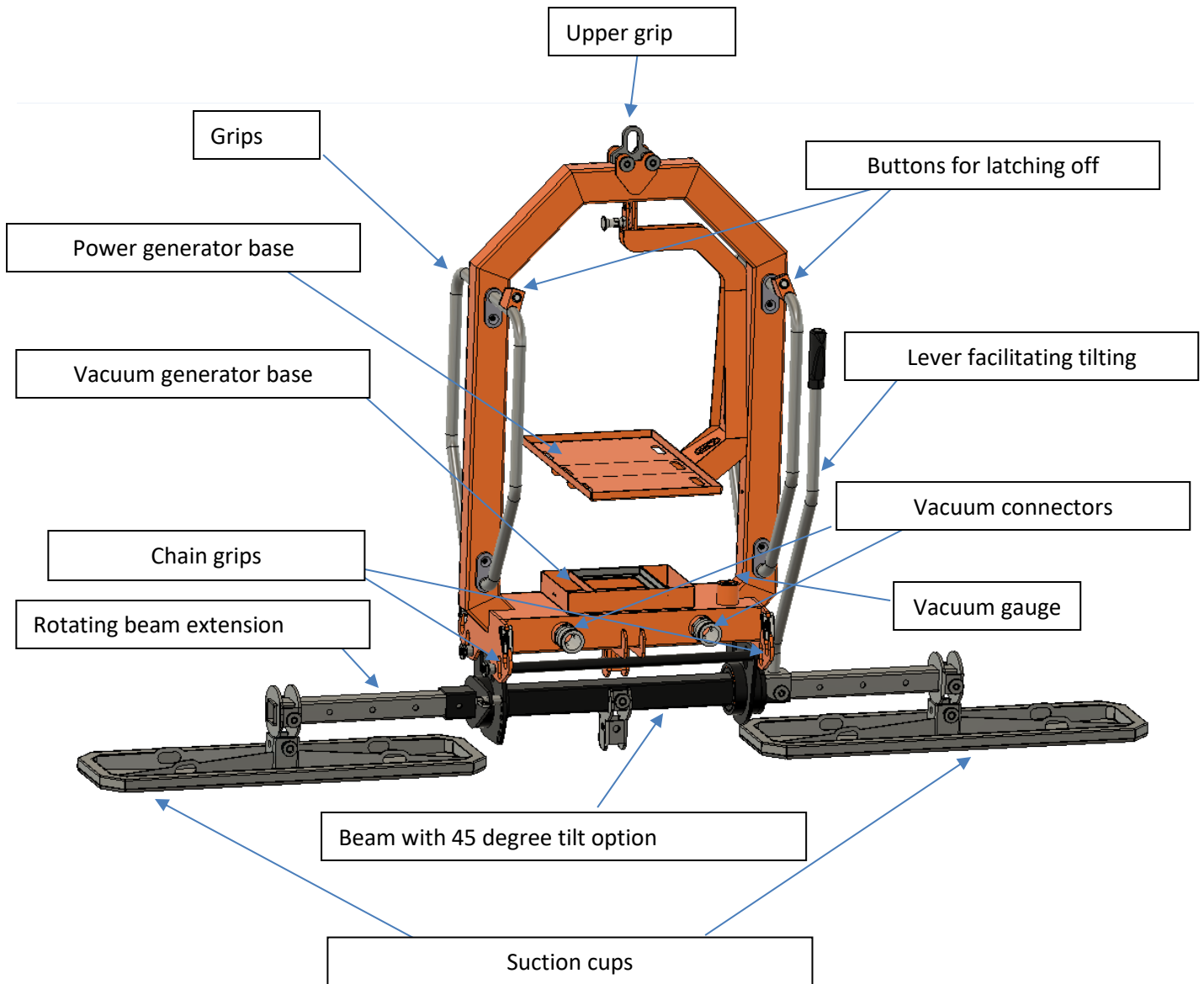
(⇒ Refer to technical data: weight and external dimensions of the machine) Please follow the OH&S regulations for applicable lifting equipment, loading and gripping elements!

#### **Before transport**

- Shut down the device.
- Fold the device into the transport position
- Pack any loose equipment separately
- Secure against weather conditions
- Place the device on a transport frame or pallet

**Transport with forklifts or manual lift trucks with sufficient load capacity.**

## 5 Device description – structure and function



## 5.1 Activities before starting work

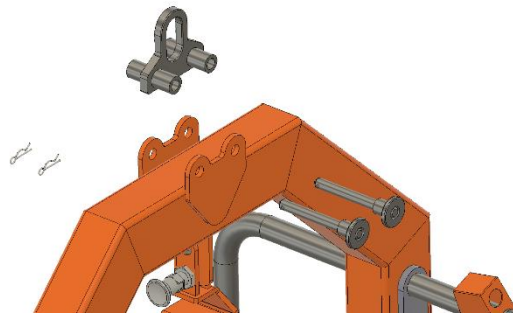
The device is delivered ready for direct start-up with an electric cable and a 110 V plug. Before start-up, check the device for completeness and any damage that may have occurred during transport. Before starting work:

1. check the machine for completeness;
2. prepare a proper stock of prefabricates for laying;
3. check if the weight of prefabricates does not exceed the load bearing capacity of the device according to the material specification.

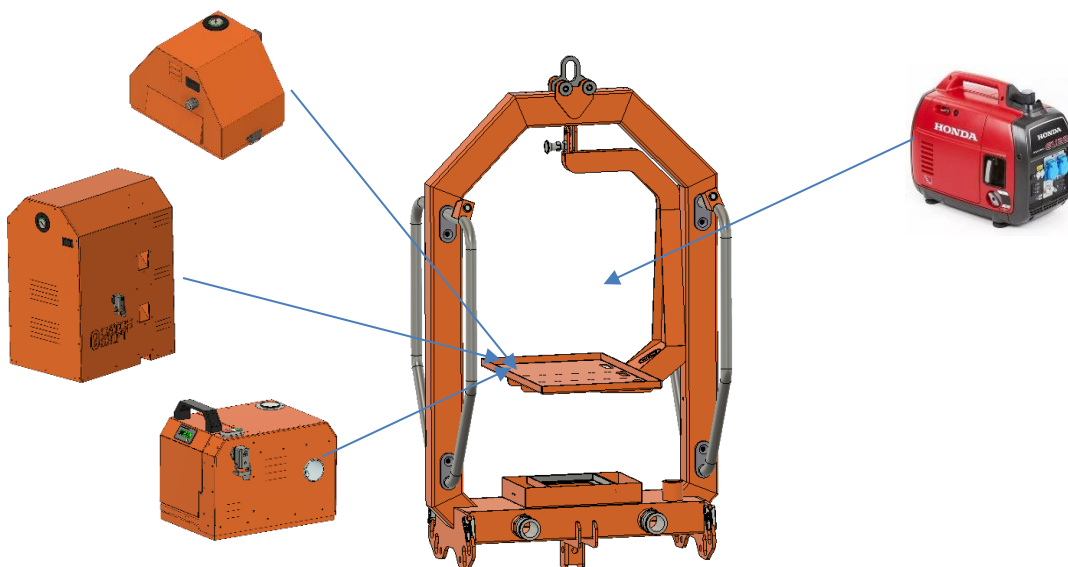
## 5.2 Operation algorithm

Before commencing work, select the appropriate accessories depending on the load to be lifted and the vacuum generating unit used.

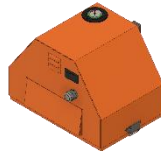
1. Install the upper grip of the machine, secure it with two pins and lynchpins.



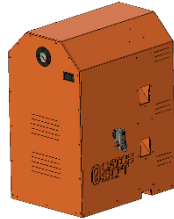
2. Ensure that the machine or its elements do not have any cracks/damage.
3. Install the appropriate vacuum generating unit in the Frog600 base and any power generator to power the vacuum generator.



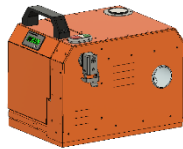
- a) Mickey100/155 is a single-turbine vacuum generator supplied from the 110 V grid or a power generator suspended on the Frog600 machine, used for less permeable loads.



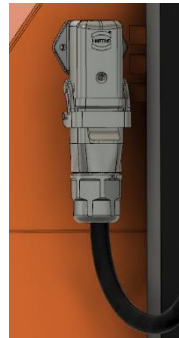
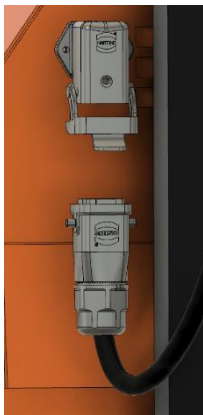
- b) Mickey-tower is a triple-turbine vacuum generator supplied from the 3 × 110 V grid, used for more permeable loads.



- c) e-Mickey is a single-turbine vacuum generator powered with its own replaceable batteries, used for low-permeable loads where there is no access to other power supply sources.



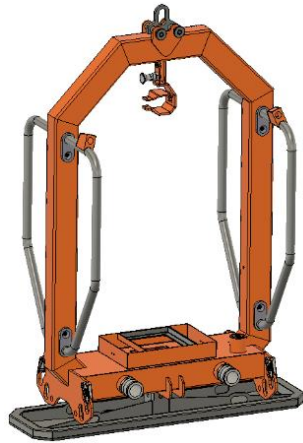
4. Connect the grip control connector to the machine (unless it is already connected).



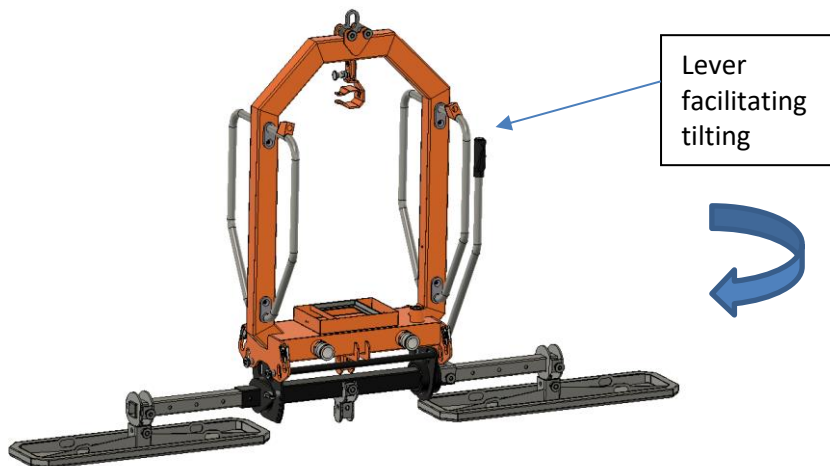
5. Install the appropriate suction cup directly beneath the machine or a beam allowing for installing a larger number of suction cups depending on the load specification.

There is also an option to install both the suction cup and the beam on chain slings.

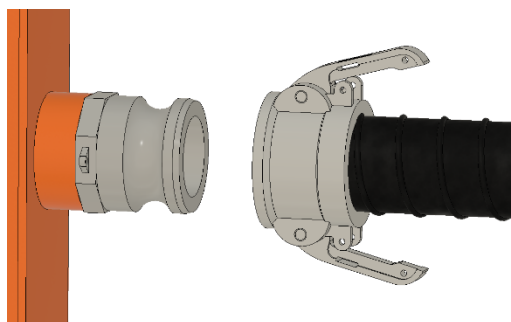
- a) Installing the suction cup directly beneath the machine.



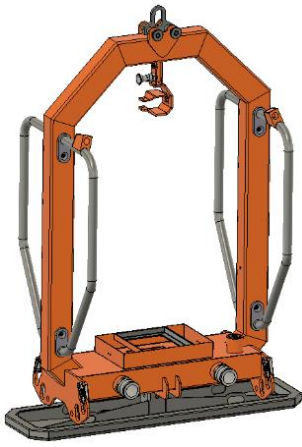
- b) Installing a larger number of suction cups using the beam; the beam also allows for tilting the load up to 45°



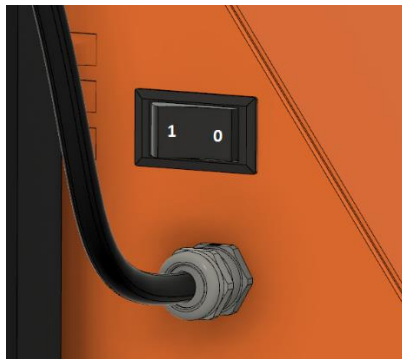
6. Connect the vacuum connector to the machine socket and secure it properly. If the load is highly permeable and the pressure gauge needle enters the red field, it will be required to connect a second hose supplying vacuum to the suction cup to improve flow.



7. Place the device on the element to be lifted.



8. Start the vacuum generator installed on the Frog600 machine.



9. Immediately after starting, the machine will latch onto the lifted material.

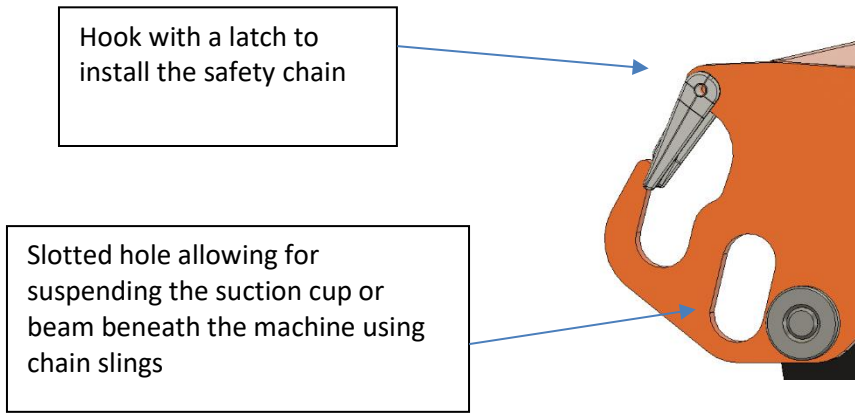
10. Check the pressure gauge at the top of the machine.

If the pressure gauge needle is in the green field, you may attempt to lift the load; do not proceed otherwise.



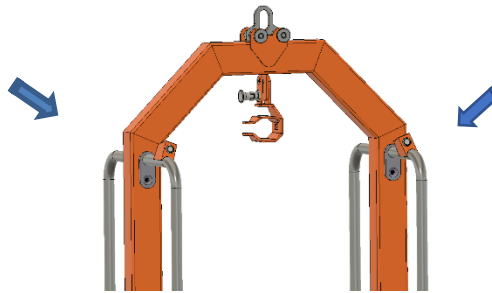
11. Lift the load to a low height and attach the proper safety chains, using 4 hooks with a latch available on the Frog600 machine.





12. Move the load to its destination, lower it above the installation site to a low height. Remove safety chains and lower the load onto the destination.

13. Pressing the control buttons at the same time will cause the machine to latch off from the load and turn off

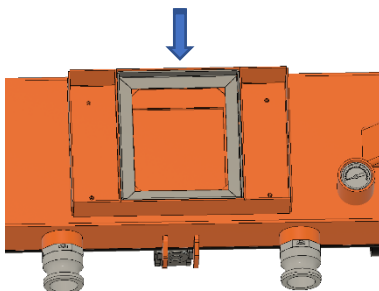


14. After lifting the machine, release the buttons and place the suction cup on the next load. Press the control buttons again to start the machine.

15. After finishing the work, turn off the power supply with the power supply button on the installed vacuum generator.

16. Unplug the power cable (turn of the power generator, if applicable).

17. After finishing the work, clean the strainer by removing the previously installed vacuum generator.



18. Place the machine on the stand, do not leave it on the suction cup, as it may lead to suction cup seal deformation.

**Do not leave the machine turned on and latched onto an item if you are not using it!!**

1. Keep in mind that the transported load can never be lifted without additional protection in the form of a chain.
2. The load safety chain must fit tightly against the transported load.  
The safety chain can never dangle loosely underneath the load!

## 6 Operation

### Operating personnel (operator and foreman)

- Only instructed personnel, familiar with safety regulations
- ⇒ see chapter “User, qualified personnel”.

### Maintenance tasks:

Only specialists with the proper technical training (operator, foreman) can perform inspection and maintenance activities. Contact **Catchshift Sp. z o.o.** or an authorized service facility for repairs and annual servicing. Only use original spare parts. These are to be obtained from **Catchshift Sp. z o.o.**, which ensures their appropriate properties and high quality. It is prohibited to modify the device, as it may have a negative impact on work safety during use.



**If the above-mentioned guidelines are not followed, reliable and safe device operation cannot be guaranteed. CATCHSHIFT Sp. z o.o. shall not be liable in such cases.**

### **Periodical inspections and tests.**

The activities and intervals between maintenance activities presented below

constitute the minimum scope. It is recommended to perform these activities more often, if the circumstances require that, e.g. in case of heavy use resulting in higher wear, corrosion or damage.

### **EVERYDAY**

- a) Check the suction cup seal for wear and tear (replace if necessary).
- b) Check vacuum system tightness.
- c) Check lifting grip mechanical condition.
- d) Check pressure gauge functioning.
- e) Clean the filter.

### **ONCE A YEAR**

**Caution! It is recommended that annual servicing be performed by Catchshift Sp. z o.o.**

- a) All monthly maintenance plan activities.
- b) Perform a static test.
- c) Correct pressure gauge indications.
- d) Correct control buttons indications.
- e) Replacement of the sealing profile between the machine and the suction cup.
- f) Power and control cables condition.
- g) Filter replacement.
- h) Detailed inspection of other machine elements.

Obligatory inspections must also be performed. In this respect, follow the regulations of the country where the device is used. The device does not have any moving parts that would require lubrication.

Never use solvents, gasoline or other chemicals to clean the rubber part of the suction cup.

Inspections and repairs should be documented in writing. Use the forms attached as appendices to this manual:

- Inspection and maintenance certificate.
- Maintenance history.

## **6.1 Methods for checking device functioning**

### **Static test**

With the cup positioned horizontally, a non-porous load with a mass two times larger than the permissible working load is lifted.

The load must hold and after removing it, the device should not have any visible permanent deformations.

## 6.2 Inspection and maintenance certificate

Device number: .....

Type: ..... User:

.....

Inspection / maintenance performed by: .....

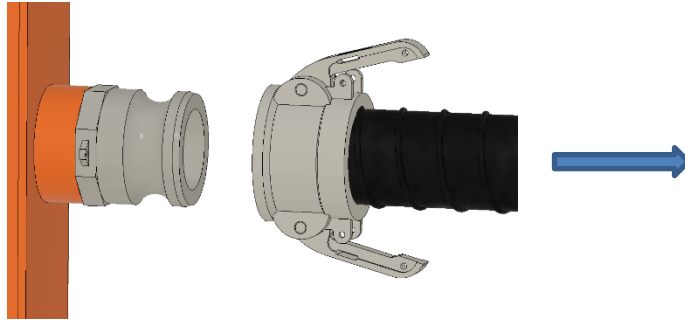
No.	Device	Description of activities	Limit value	Everyday	Every	Every	
1	Suction cup	Sealing profile inspected for cracks and wear		x	x	x	
		Sealing profile replaced – as required					
2	Mechanical elements	Check the lifting grip and pins		x	x	x	
		Check the condition of pin safety attachments		x	x	x	
3	Filter	Cleaning according to the manual		x	x	x	
4	Tests	Static load test	2x working load			x	
		Check the suction cup seal for wear and tear (replace if necessary).		x			
		Check vacuum system tightness.		x			
		Check lifting grip mechanical condition.		x			
		Check pressure gauge functioning.		x			
		Clean the filter.		x			
		All daily maintenance plan activities.				x	
		Perform a static test.					x
		Correct pressure gauge indications.					x
		Correct control buttons indications.					x
		Replacement of the sealing profile between the machine and					x
		Power and control cables condition.					x
		Filter replacement.					x
		Detailed inspection of other machine elements.					x

Signature:

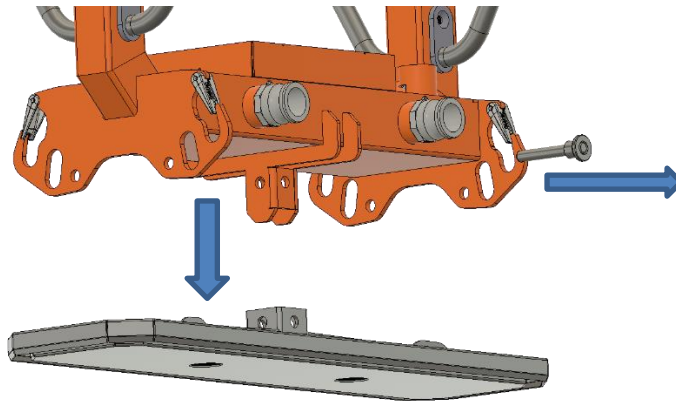
Date:

### 6.3 Replacing / Installing the suction cup

1. Disconnect the vacuum hose from the machine

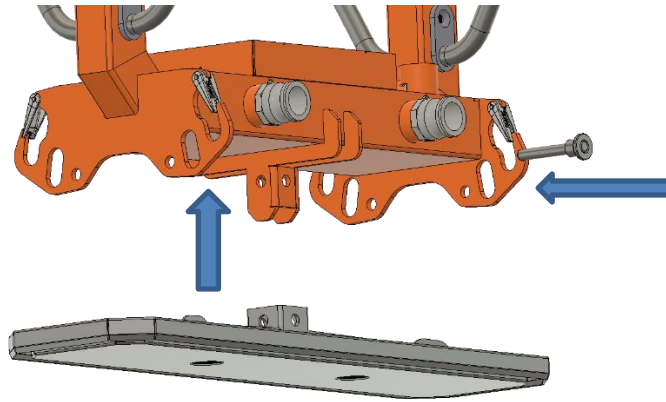


2. Unlock the pin and remove the suction cup

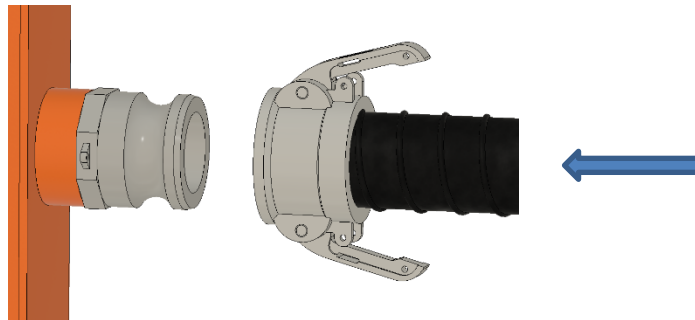


3. Put away the currently used suction cup
4. Check the seal condition before installing a new suction cup

5. Install the suction cup onto the machine and attach the pin

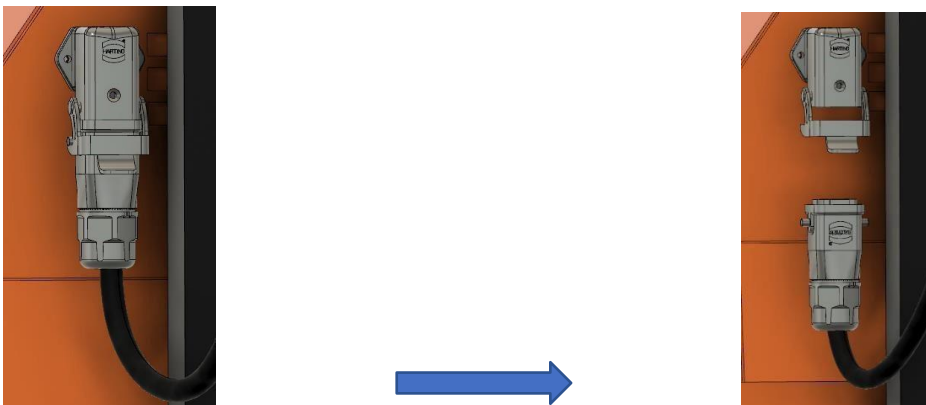


6. Attach the vacuum connector to the machine

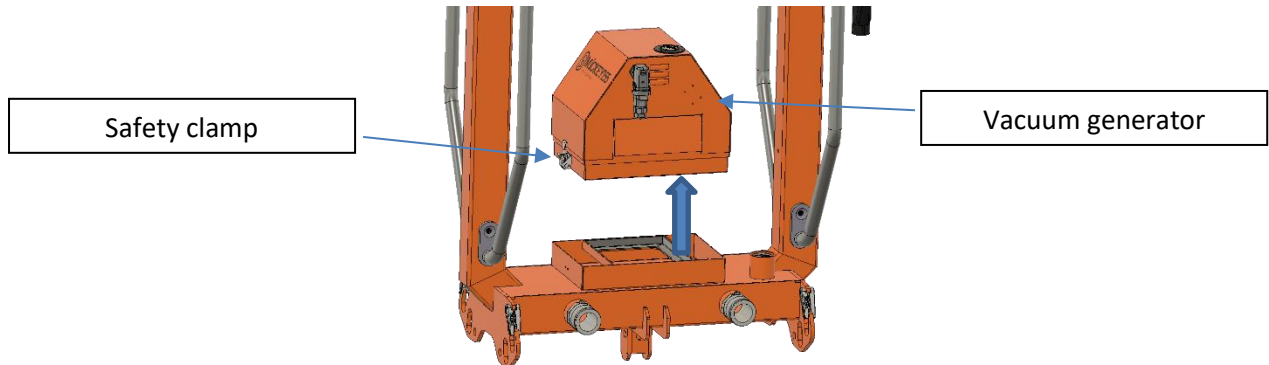


## 6.4 Filter cleaning

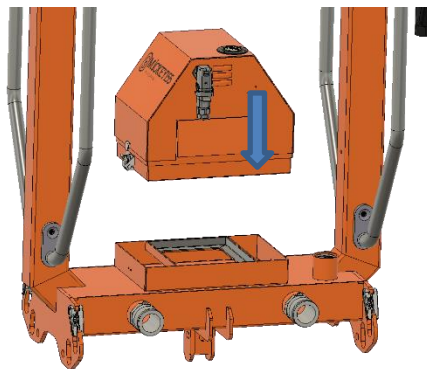
1. Disconnect the machine from the power supply.
2. Disconnect the control connector.



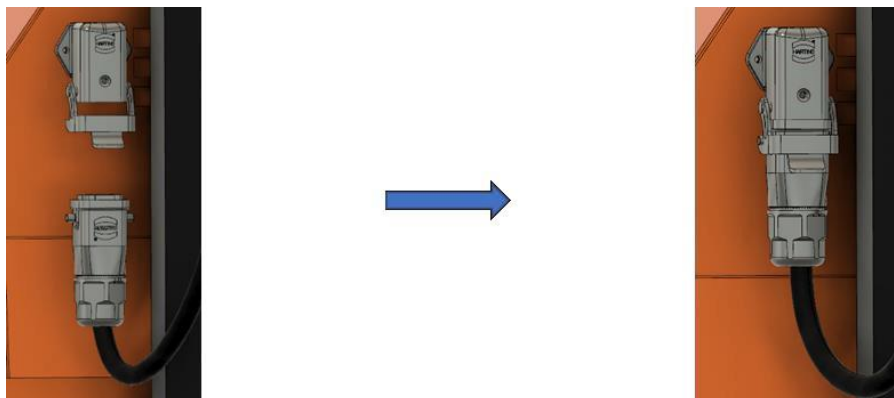
3. Unclip the mounting clamps of the vacuum generator, remove it from the Frog600 device and put away in a safe place.



4. Clean a soiled filter with pressurized air.  
All ventilation holes should be cleaned with pressurized air as well, as any remaining dust may stick to the turbine, which in turn may damage it. Systematic cleaning will ensure that all electrical and mechanical elements are in the best condition and the failure rate of these elements is decreased.
5. Install and secure the vacuum generator with the clamps



6. Attach the control connector and start the machine





7. Check whether the machine operates properly and whether the vacuum indicator is in the green field after latching onto a concrete surface.



## 6.2 Spare parts

1. Length of seals for suction cups:
  - 34 × 34 cm (80 kg) suction cup, seal length 125 cm,
  - 40 × 40 cm (120 kg) suction cup, seal length 150 cm,
  - 45 × 45 cm (155 kg) suction cup, seal length 170 cm,
  - 35 × 65 cm (155 kg) suction cup, seal length 190 cm,
  - 10 × 90 cm (55 kg) suction cup, seal length 191.2 cm,
  - 15 × 90 cm (100 kg) suction cup, seal length 199.6 cm,
  - 18 × 30 cm (38 kg) suction cup, seal length 85.6 cm,
  - 35 × 90 cm (255 kg) suction cup, seal length 250 cm,
  - 50 × 65 cm (255 kg) suction cup, seal length 235 cm,
- filter

## 7 Identification and removal of faults

### 7.1 Mechanical faults

#### Operating personnel

Only instructed personnel, familiar with safety regulations; ⇒ see chapter “User, qualified personnel”

Fault	Possible causes	Fault removal
Device not operational	Damaged fuse	Replace fuse
	Incorrectly inserted plug	Insert the plug correctly into the socket
Insufficient vacuum level – pressure gauge indicator in the red field	Damaged suction cup seal	Replace the seal
	Load surface is too porous	Move the load in a different manner
	Decreased vacuum turbine efficiency	Replace the vacuum turbine.

Faults can only be removed by an authorized service facility. If the fault cause cannot be determined, inform the technical services. The machine or device must always be handled with care. The machine needs to be thoroughly cleaned after the work is finished in order to ensure efficient and seamless operation.

### 7.2 Cleaning

The machine should always be cleaned after the work is finished.

Clean a soiled filter with pressurized air.

All ventilation holes should be cleaned with pressurized air as well, as any remaining dust may stick to the turbine, which in turn may damage it. Systematic cleaning will ensure that all electrical and mechanical elements are in the best condition and the failure rate of these elements is decreased.

## 8 Shutdown, storage

#### Operating personnel

- Only instructed personnel, familiar with safety regulations  
⇒ see chapter “User, qualified personnel”

#### Shutdown

- Shutdown the machine by unplugging the power cable from the socket

## Storage conditions

Storage period up to one year	Environment conditions similar to	No need to perform any special actions
	High air humidity Aggressive air contents	Anti-corrosive protection necessary Airtight packaging
Storage period over one year	All environment conditions	Anti-corrosive protection necessary Airtight packaging

## 9 Disposal

### Operating personnel

- Only instructed personnel, familiar with safety regulations
  - ⇒ see chapter “User, qualified personnel”
  - ⇒ see chapter “Transport, shipment”

What?		Where?
Transport materials	Pallets	Dispose in accordance with the applicable statutory provisions
	Packaging	Plastic for recycling or waste
Lubricants	Oils, grease	Dispose in accordance with the applicable statutory provisions
Structural parts	Steel Aluminum Drives Insulation materials	Dispose divided by material type

It is prohibited to dispose of tools, machine parts or the machine with regular household waste. These elements need to be disposed at a dedicated facility for electronic waste disposal and recycling. Electronic waste (waste electrical and electronic equipment) includes broken, unnecessary electrical and electronic equipment that have not used for a long time, powered by electricity or batteries – broken computers, toys and electronic gadgets, old washing machines, refrigerators and used fluorescent tubes. They are classified as hazardous waste because they contain toxic substances.

## 10 Technical specification

Parameter	FROG600
Device weight	52 kg
Voltage	Depending on the vacuum generator used
Motor power	as above
Vacuum delivery	as above
Noise level	as above
Load dimensions	1000 x 500 mm
Lifting capacity	600 kg
Transport type	Horizontal, 45° tilt
Maximum vacuum	-0.3 bar – 0.4 bar
Overall dimensions – operation	Appendix

## 11 Appendices

- 1 Circuit diagram
- 2 Equipment.
- 3 Device dimensions

CATCHSHIFT Sp. z o.o.  
ul. Przemysłowa 2  
64-200 Wolsztyn

ul. Przemysłowa 2, 64-200 Wolsztyn

Client  
name:

**CATCHSHIFT Sp. z o.o**

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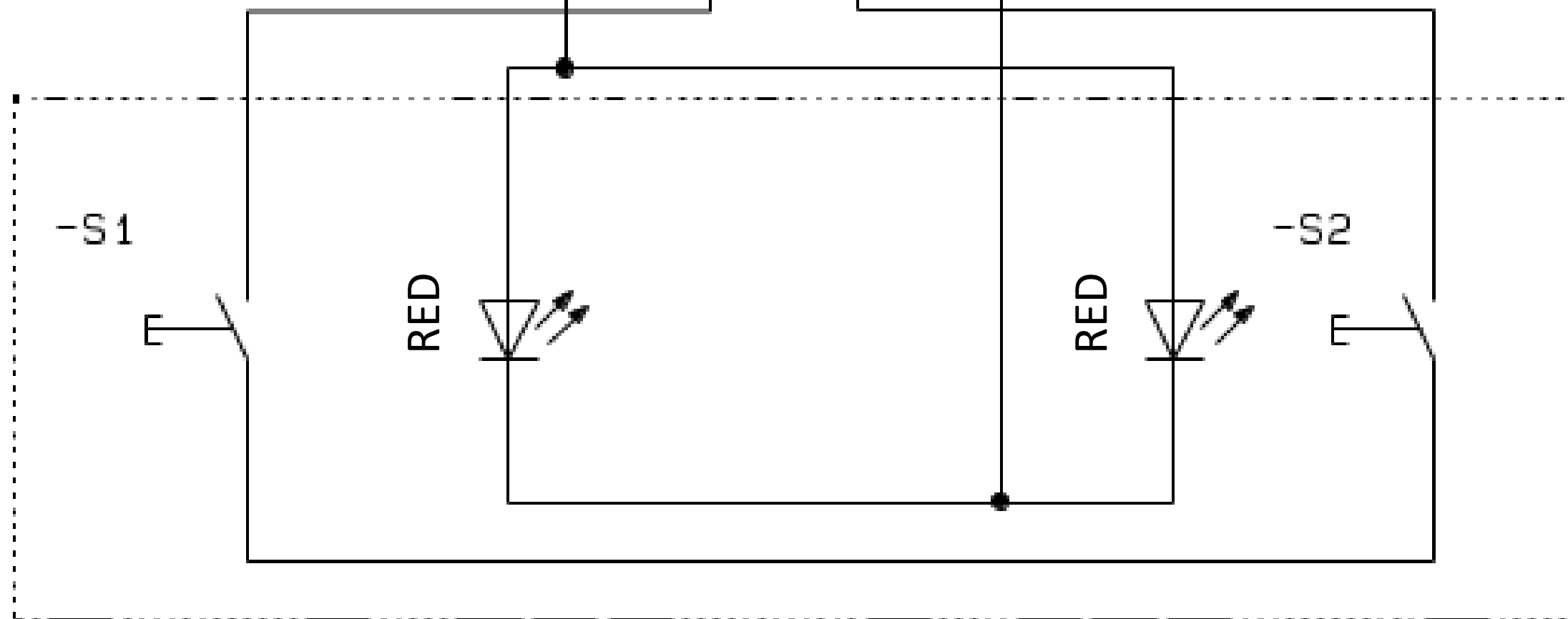
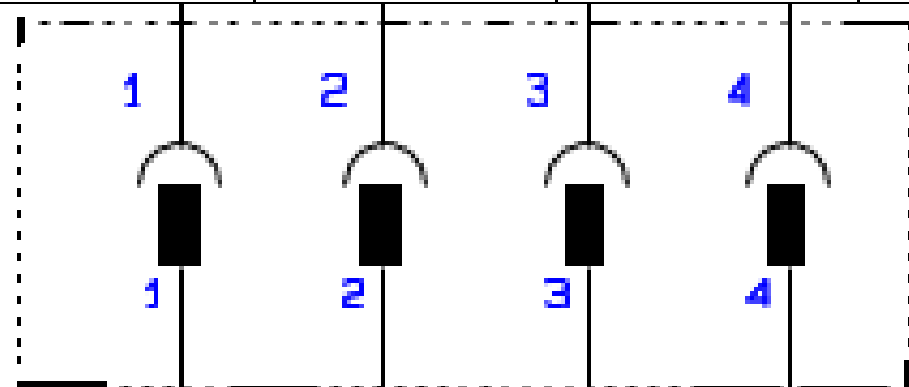
Project name:

**FROG600 paving machine**

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Design Engineer: Przemysław Toś

-X100  
HARTING  
connector



OPERATOR PANEL FOR CLOSING THE DAMPER

OPERATOR PANEL FOR CLOSING THE DAMPER

**Listings**

**Listing  
for the part**

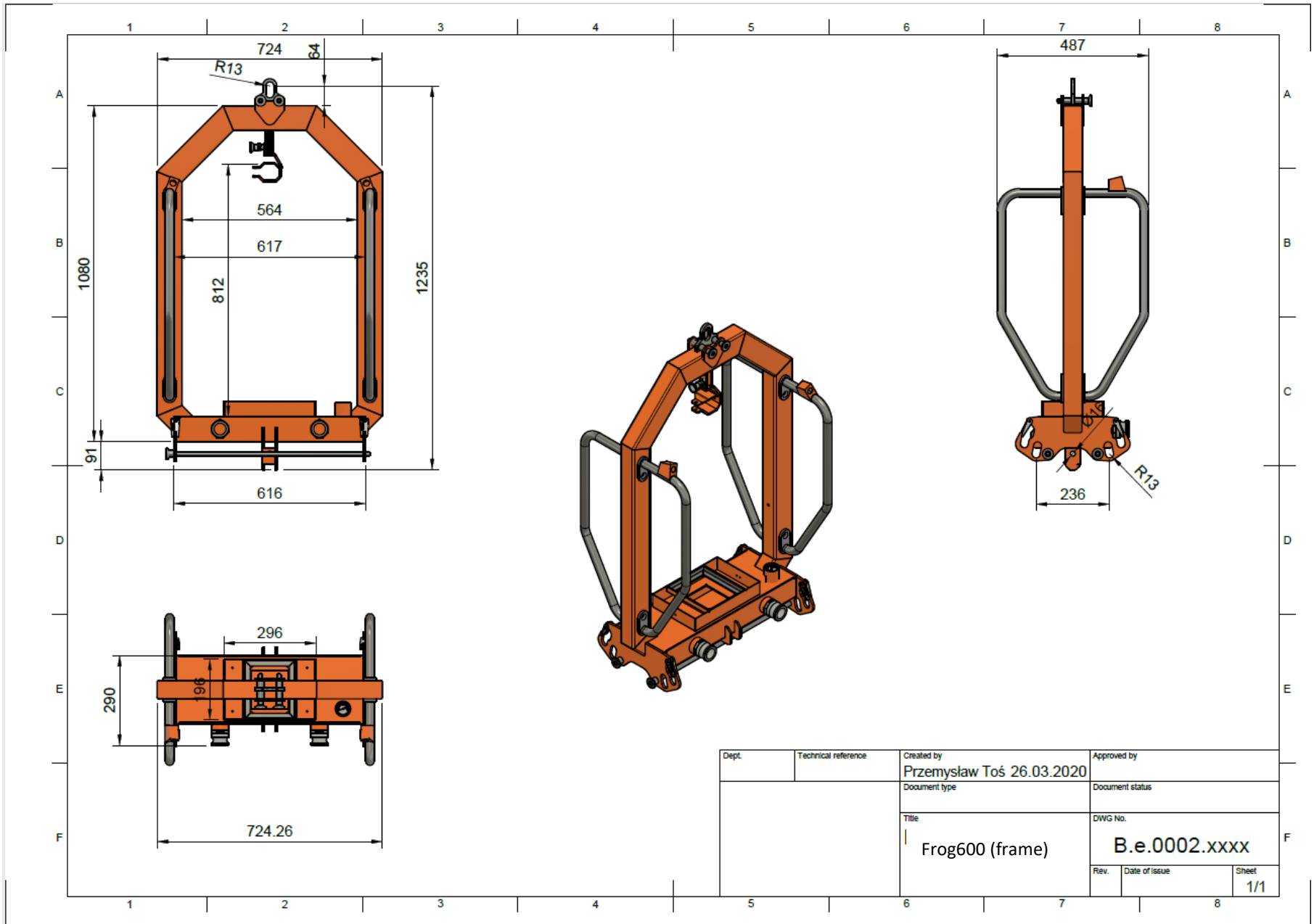
No.	Quantity	Article no.	Manufacturer	Unit price	Value
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2	2	Vandal-proof button	-S1/S2 LA128-19A 250V_5A_LED_24V		

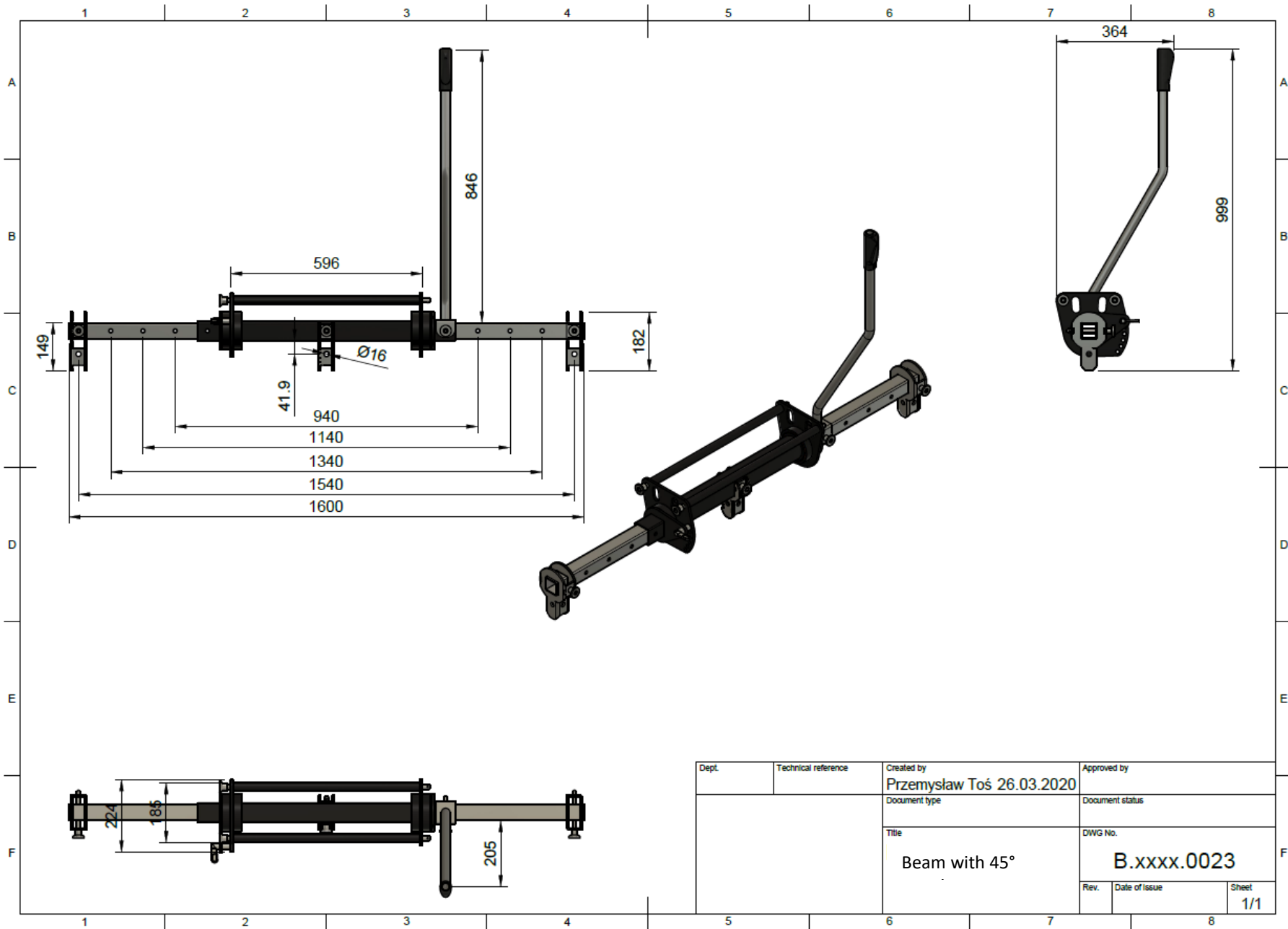
PCSCHMATIC

CATCHSHIFT Sp. z o.o ul. Przemysłowa 2 64-200 Wolsztyn	<b>Design name:</b> Frog600 paving machine	<b>Title:</b>	<b>Design rev.:</b>	<b>Page</b>	<b>Parts</b>
	Customer: CATCHSHIFT Sp. z o.o				
	Page Title: Parts listing	Fig. no.:	Page revision:	Previous	1
	File name: CatShift100.11.07.18	Structure (design/page): /	Last printout: 11.07.20	Next page	
	Page reference: Description:	Approved (initial/date): /	Last change: 22.03.20	Number of pages:	1



# 12 Device dimensions

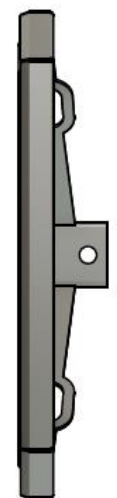
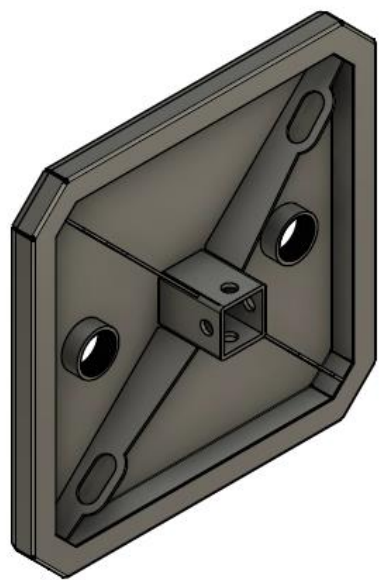
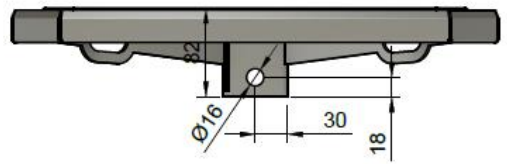
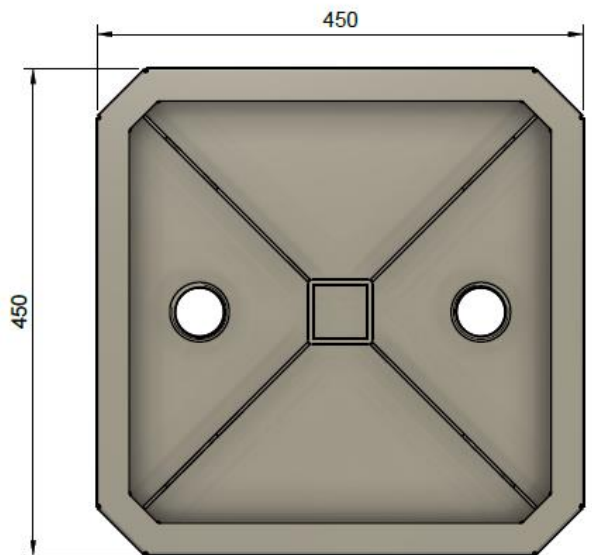




Dept.	Technical reference	Created by <b>Przemysław Toś 26.03.2020</b>	Approved by
		Document type	Document status
		Title <b>Beam with 45°</b>	DWG No. <b>B.xxxx.0023</b>
		Rev.	Date of issue
		Sheet <b>1/1</b>	

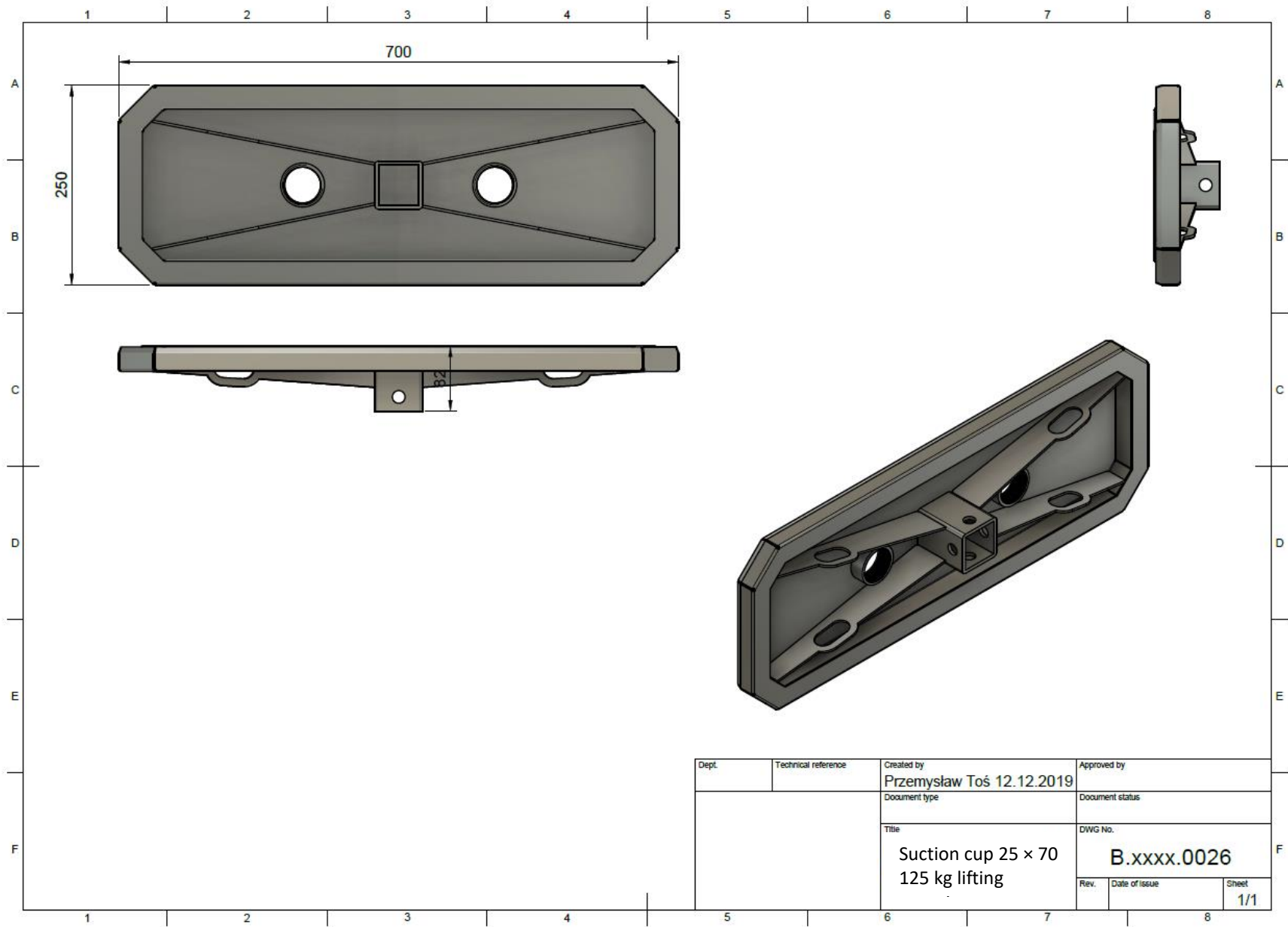
1 2 3 4 5 6 7 8

A  
B  
C  
D  
E  
F

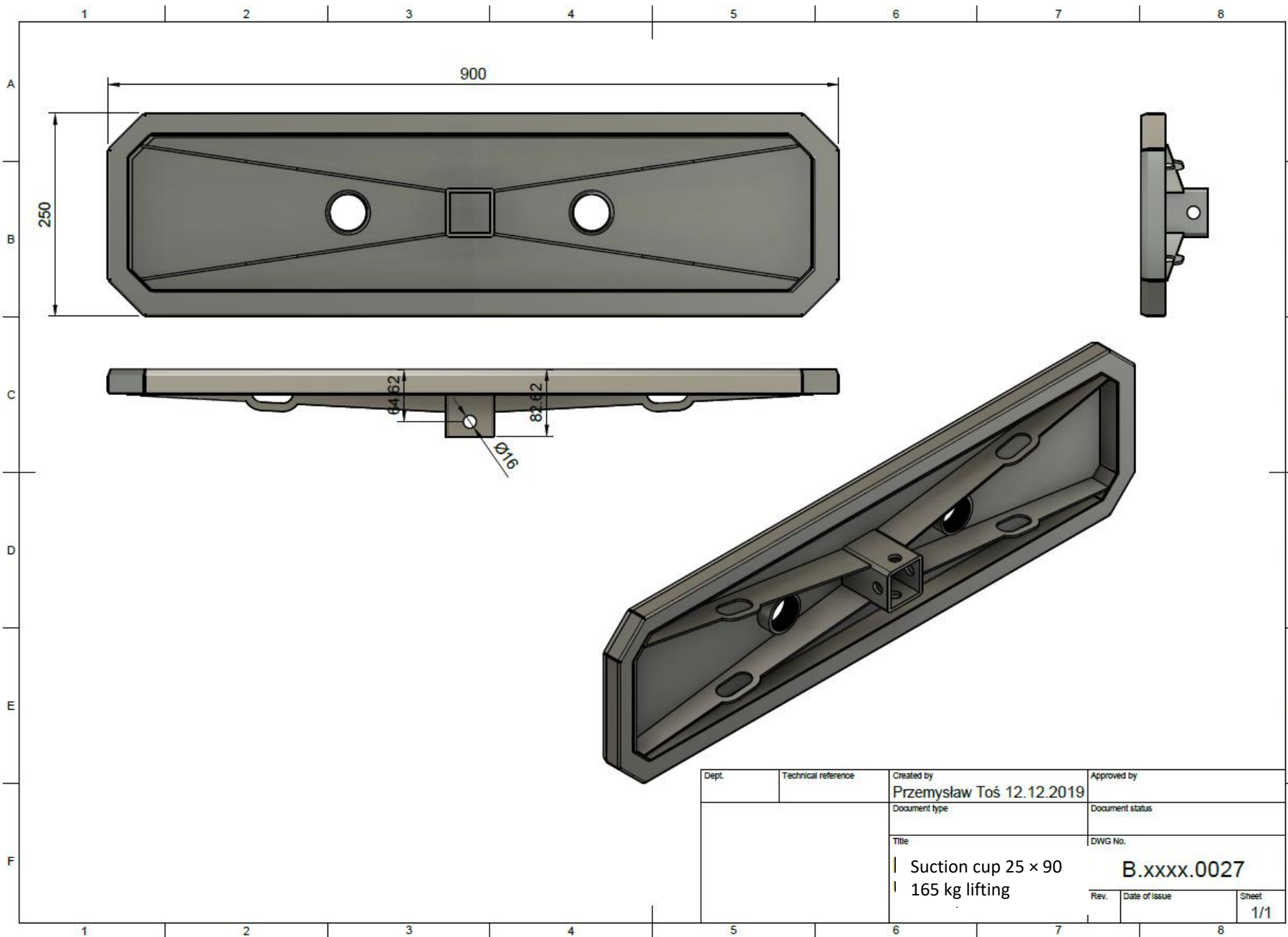


Dept.	Technical reference	Created by Przemysław Toś 12.12.2019	Approved by
		Document type	Document status
		Title Suction cup 45 × 45 156 kg lifting	DWG No. B.xxxx.0029
		Rev.	Date of issue
			Sheet 1/1

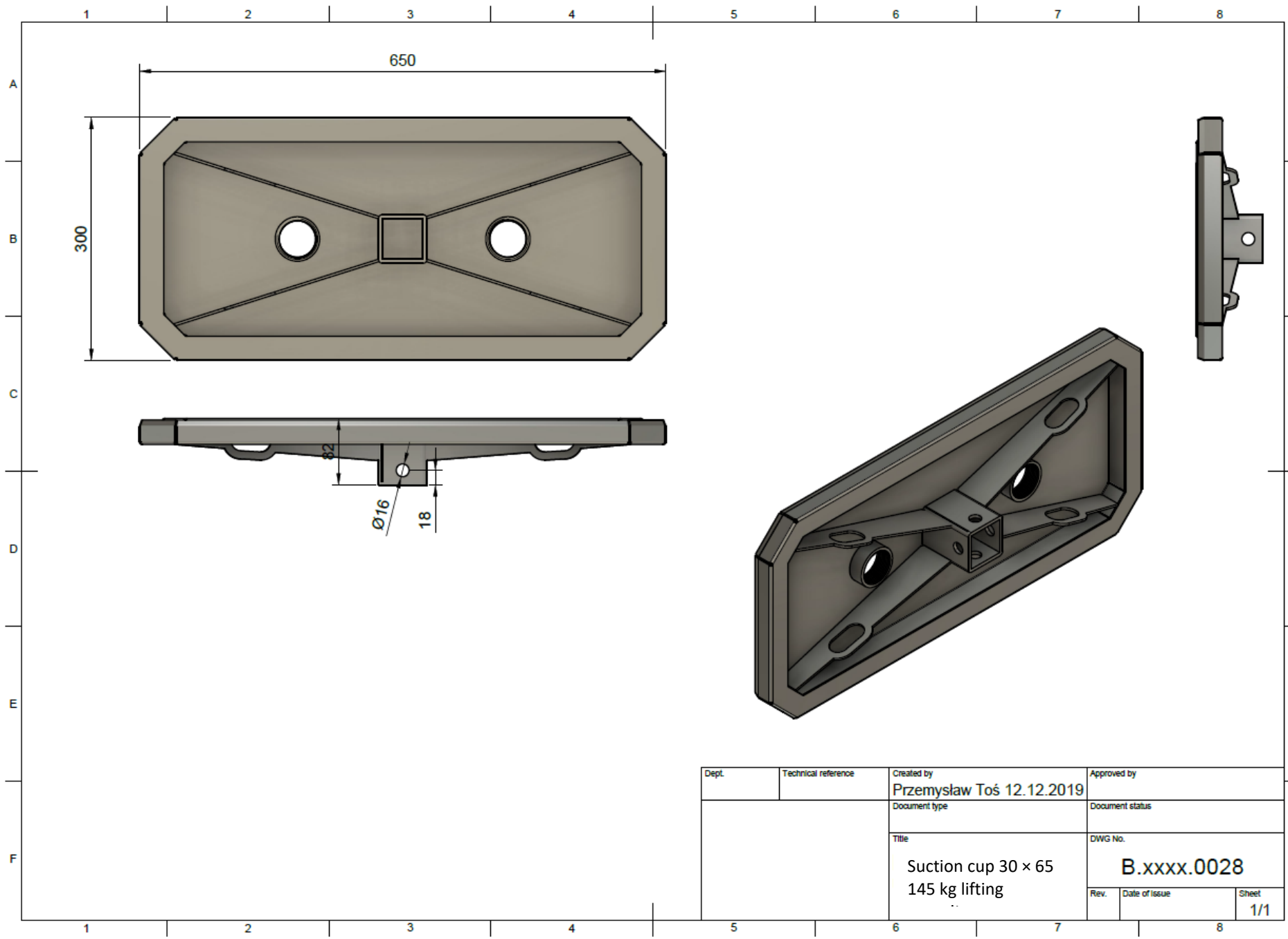
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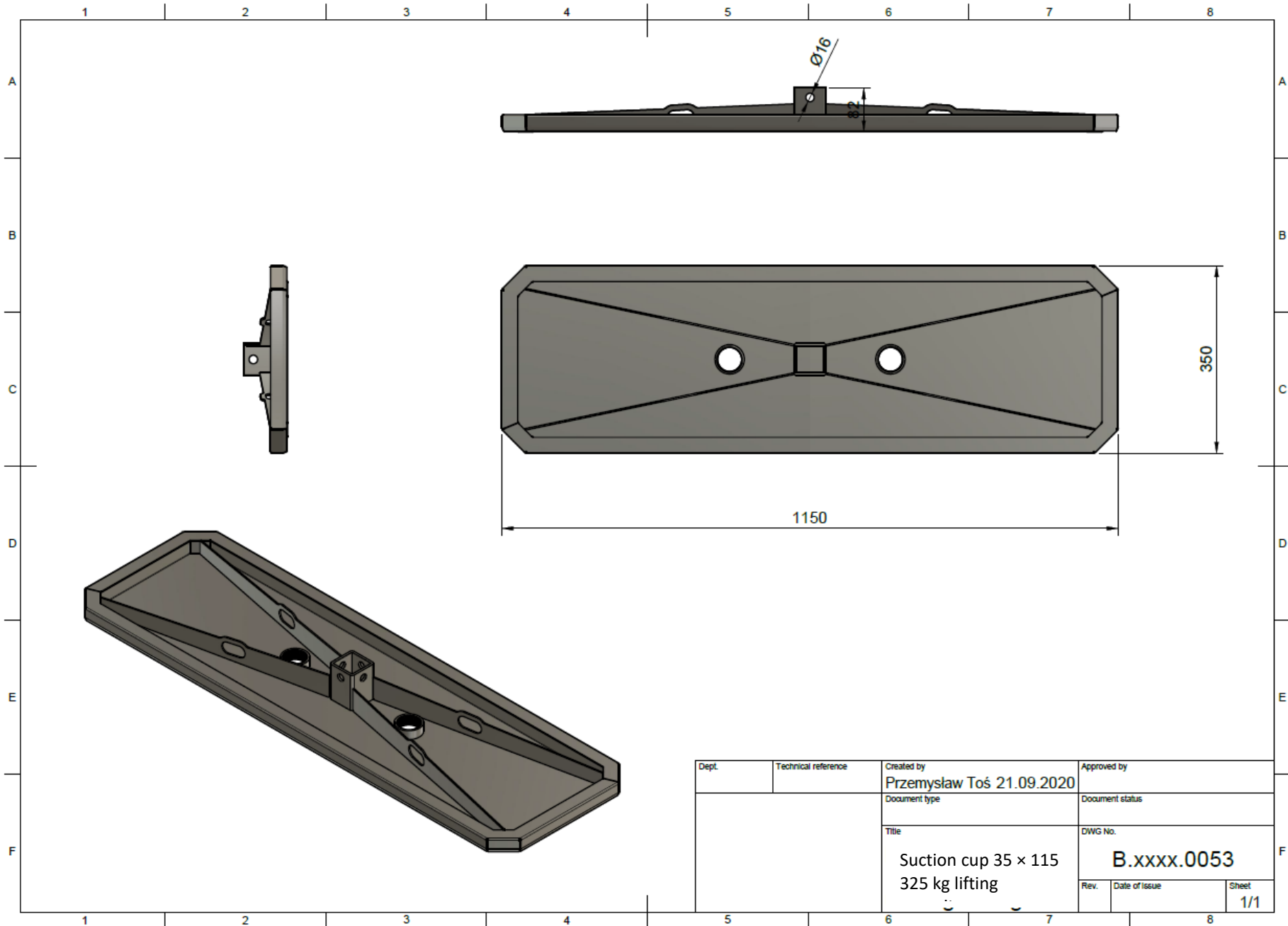
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		Document type	Document status
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		Rev.	Date of issue
			Sheet 1/1



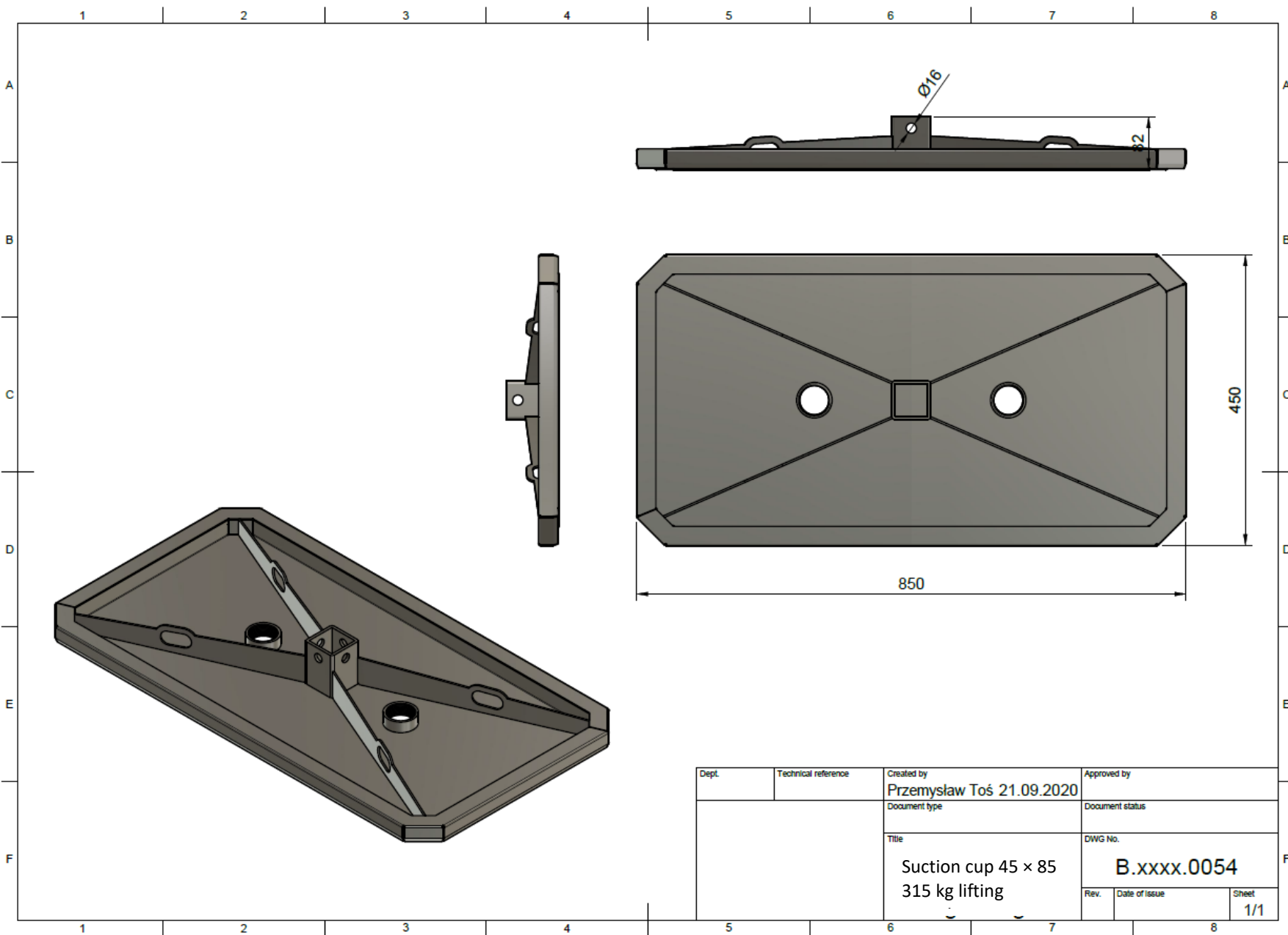
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		Document type	Document status
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		Rev.	Date of issue
			Sheet <b>1/1</b>



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		Document type	Document status
		Title <b>Suction cup 30 × 65 145 kg lifting</b>	DWG No. <b>B.xxxx.0028</b>
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		Document type	Document status
		Title <b>Suction cup 35 × 115 325 kg lifting</b>	DWG No. <b>B.xxxx.0053</b>
		Rev.	Date of issue
			Sheet <b>1/1</b>



Dept.	Technical reference	Created by <b>Przemysław Toś 21.09.2020</b>	Approved by
		Document type	Document status
		Title <b>Suction cup 45 × 85 315 kg lifting</b>	DWG No. <b>B.xxxx.0054</b>
		Rev.	Date of issue
			Sheet <b>1/1</b>





**MANUFACTURER:**

**CATCHSHIFT Sp. z o. o.**

Wielkopolskie Voivodeship

ul. Przemysłowa 2

64-200 Wolsztyn

Tel. +48 68 347 58 57

E-mail: [kontakt@catchshift.com](mailto:kontakt@catchshift.com)

NIP (Tax Identification Number):

9231720420

We hereby state that:

## FROG600 paving machine

The delivered version was designed, constructed and manufactured in accordance with:

- MACHINERY DIRECTIVE 2006/42/EC
  - DESIGN DOCUMENTATION NO. Frog600-V2\_F\_x
- and the applicable harmonized standards:

PN-EN 13155	Cranes. Safety. Non-fixed load lifting attachments
PN-EN 13557	Cranes. Controls and control stations
PN-84/M-84702	Hoisting machines – Special purpose lifting clamps and grabs – General requirements and tests
PN-EN 12100	Safety of machinery – General principles for design –Risk assessment and risk reduction.
PN EN 60204-32	Safety of machinery - Electrical equipment of machines - Part 32: Requirements for hoisting machines
PN EN 13849-1	Safety of machinery – Safety related parts of control systems – Part 1: General principles for design

This EC Declaration of Conformity is invalidated if the mechanical, electrical or electronic systems, controller(s) or software is altered or retrofitted in any way. The person responsible for drafting the technical documentation is **Krzysztof Jokiel**

WOLSZTYN .....



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