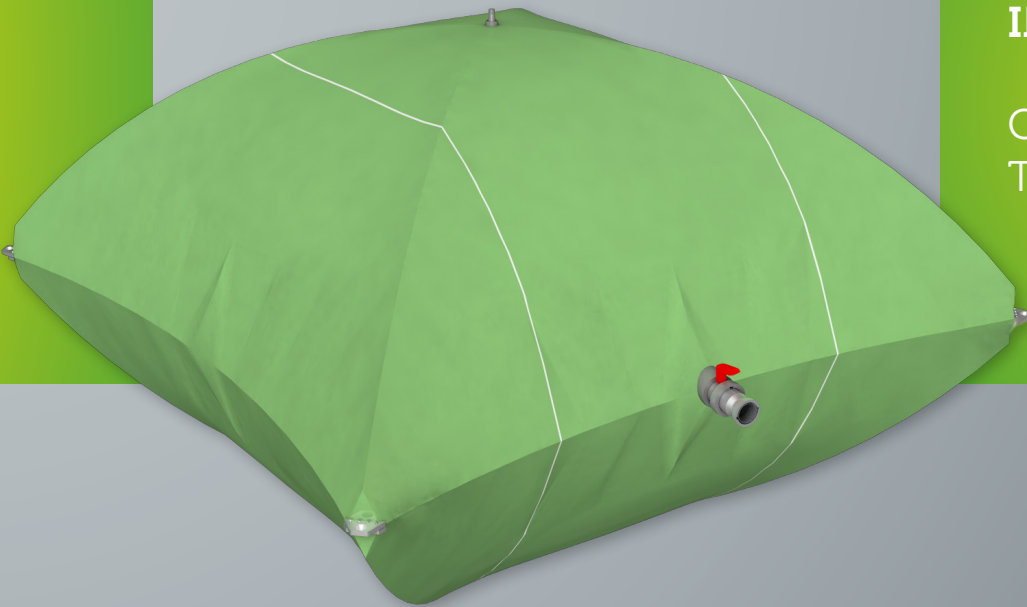


**PROFESSIONAL ENVIRONMENTAL
PROTECTION PRODUCTS**

INSTRUCTION FOR USE

CLOSED RUBBER
TANKS



Sawa 

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1. IDENTIFICATION

1.1. TYPE OF PRODUCT

Closed rubber tank: ZR type

1.2. MANUFACTURER



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2. PRODUCT DESCRIPTION

The SAVATECH closed rubber tank is a flexible tank of a rectangular shape, which gets pillow-shaped when filled. It is made of polyester fabric, which is rubber-coated on both sides. The material used for rubber-coating is synthetic rubber (NBR/PVC), which is resistant to oil, mineral oils, chemicals, industrial water, oil products, acids, bases and weather influences. It is equipped with a connection for air venting and one or several connections for filling and emptying of the tank.

2.1. BASIC FUNCTIONS AND AREA OF APPLICATION

The SAVATECH closed rubber tank is suitable for storage and decanting of various liquids such as oil products, dirty and clean water and, to a limited extent, also for the materials listed in the chemical resistance tables below (Table 1 and Table 2).

The SAVATECH closed rubber tanks are not suitable for storage of drinking water.

Table 1: The materials to which the rubber tank is resistant

Material	Concentration %	Temperature °C
Acetylene		
Ammonium Hydroxide	10	RT*
Boric Acid	10	100
Butanol		50
Butanol		100
Diesel Oil		
Ethanol		50
Formaldehyde	40	RT*
Glycerol (Glycerine)		100
Hydrogen Peroxide	30	RT*
Kerosene		70
Methanol		50
Milk		
Mineral Oil No. 1		100
Mineral Oil No. 2		100
Mineral Oil No. 3		100
Naphtha		RT*
Natural Gas		
Sodium Hydroxide	12	100
Sulfur Hexafluoride		
Sulfuric Acid	20	RT*

* Room temperature

Table 2: The materials to which the rubber tank is conditionally resistant

Material	Concentration %	Temperature °C
Acetone		RT*
Aniline		RT*
Aniline		100
Benzene		RT*
Brake Fluid (Vegetable)		50
Butyric Acid		RT*
Calcium Hypochlorite	15	RT*
Chloric Acid	20	RT*
Formaldehyde	40	70
Gasoline		RT*
Hydrogen Peroxide	90	RT*
Methyl Chlorid		
Ozone	50 pphm	40
Phenol		100
Phosphoric Acid	60	50
Sodium Hydroxide	25	100
Sodium Hypochlorite	10	50
Sulfuric Acid	10	100
Sulfuric Acid	50	100
Sulfuric Acid	60	100
Sulfuric Acid	75	100
Sulfuric Acid	96	RT*
Tolulene		RT*

* Room temperature

2.2. BASIC DATA

Table 3: Technical data

Type	Part Number	Capacity		Weight	Dimension					Valve	
		m ³	US gallon		Empty		Full			Inflation	Vent
				Length	Width	Length	Width	Height			
				kg	m	m	m	m	m		
ZR 250	530702	0,25	75	5,07	1,30	1,10	1,10	0,90	0,35	R1"	R1"
ZR 500	59652	0,5	150	7,37	1,60	1,30	1,30	1,00	0,50	R1"	R1"
ZR 800	530703	0,8	200	10,20	1,80	1,60	1,46	1,26	0,60	R1"	R1"
ZR 1000	59653	1	250	11,48	2,18	1,50	1,9	1,3	0,60	R2"	R2"
ZR 1500	530704	1,5	400	15,30	2,40	1,80	2,03	1,43	0,65	R2"	R2"
ZR 2000	63360	2	500	17,71	2,50	2,00	2,04	1,54	0,80	R2"	R2"
ZR 2500	530705	2,5	650	20,26	2,60	2,20	2,09	1,69	0,90	R2"	R2"
ZR 3000	51095	3	800	22,81	2,80	2,30	2,23	1,73	1,00	R2"	R2"
ZR 4000	530706	4	1000	28,69	3,00	2,70	2,43	2,13	1,00	R2"	R2"
ZR 5000	74037	5	1350	34,01	3,20	3,00	2,57	2,37	1,10	R2"	R2"
ZR 6000	530727	6	1600	37,20	3,50	3,00	2,87	2,37	1,10	R2"	R2"
ZR 8000	530707	8	2000	47,11	3,80	3,50	3,17	2,87	1,10	R2"	R2"
ZR 10000	60783	10	2500	53,84	4,00	3,80	3,37	3,17	1,10	R2"	R2"
ZR 12000	530708	12	3000	60,93	4,30	4,00	3,62	3,32	1,20	R2"	R2"
ZR 15000	530709	15	4000	74,64	4,90	4,30	4,22	3,52	1,20	R2"	R2"
ZR 20000	530710	20	5250	92,00	5,30	4,90	4,56	4,16	1,30	R2"	R2"
ZR 25000	530711	25	6500	133,77	5,70	5,30	4,96	4,56	1,30	2 x R2"	R2"
ZR 30000	530712	30	8000	153,96	6,10	5,70	5,36	4,96	1,30	2 x R2"	R2"
ZR 35000	530713	35	9250	170,17	6,30	6,10	5,50	5,30	1,40	2 x R2"	R2"
ZR 40000	530714	40	10500	186,91	6,70	6,30	5,90	5,50	1,40	2 x R2"	R2"
ZR 45000	530715	45	12000	207,67	7,00	6,70	6,20	5,90	1,40	2 x R2"	R2"
ZR 50000	530716	50	13000	219,54	7,40	6,70	6,54	5,84	1,50	2 x R2"	R2"
ZR 60000	530717	60	16000	255,58	7,80	7,40	6,94	6,54	1,50	2 x R2"	R2"
ZR 70000	530718	70	18500	288,35	8,80	7,40	7,94	6,54	1,50	2 x R2"	R2"
ZR 80000	530719	80	21000	311,73	8,80	8,00	7,89	7,09	1,60	2 x R2"	R2"
ZR 100000	530720	100	26000	389,66	10,00	8,80	9,09	7,89	1,60	2 x R2 1/2"	R2"
ZR 125000	530721	125	32500	487,08	11,00	10,00	10,09	9,09	1,60	2 x R2 1/2"	R2"
ZR 150000	530722	150	40000	531,36	12,00	10,00	11,03	9,03	1,70	2 x R2 1/2"	R2"
ZR 200000	530723	200	50000	730,62	16,50	10,00	15,53	9,03	1,70	2 x R2 1/2"	R2"

The dimensions of different capacity rubber tanks and size of filling valves may be different due to customer request, but the height of full tanks should always stay the same.

2.3. ENVIRONMENTAL CONDITIONS AND RESTRICTIONS OF USE



Rubber tanks are suitable for use in the temperature range from -30 to +70 °C. In the temperature range below -30 °C, but not below -40 °C, and above +70 °C, but not above +90 °C, their use is limited to 24 hours maximum.



The standard type of SAVATECH closed tanks is NOT suitable for use in potentially explosive atmospheres. Such atmospheres require special types of SAVATECH closed tanks. Further information on these types is available from the manufacturer.

2.4. SAFETY AND PERSONAL PROTECTIVE EQUIPMENT



The facility or the surface, where the closed tanks are placed, should be closed or suitably secured.



Unauthorised persons are strictly prohibited to access the rubber tank.



Carefully read the instructions before use.

When working with rubber tanks, the following personal protective equipment should be used:

- Protective footwear
- Safety helmet
- Protective goggles
- Protective gloves
- Protective footwear



3. DEFINITIONS

Closed rubber tank: a flexible tank for storing, collecting or decanting of liquids.

Bearing surface: the surface of a full tank in contact with the base.

Drain valve: a valve for emptying and filling of the tank.

Maximum height: maximum height of the filled tank.

Tank capacity: the volume of liquid that can be filled in the tank.

Carrying handles: a rubberised textile band, which is vulcanised on the tank's edges for relocating the empty tank.

Flange: a metal piece mounted on the rubber tank, where valves or couplings for filling and emptying of the tank are installed.

Vulcanisation flange: a flange vulcanised on the rubber tank.

Mounting flange: a flange screwed on the rubber tank; the inner part of the flange is usually aluminium, whereas the outer is aluminium or stainless steel.

Ball valve: a valve with a spherical disc for sealing. It controls filling and emptying of the tank; the valve is either metal (brass, stainless steel) or PVC.

Hose system: a system of hoses that connects several closed tanks and enables their simultaneous filling or emptying.

Safety relief valve: a spring-operated PVC valve; valve dia. 60 mm. The valve is equipped with a return spring and mounted on the top of the tank; it begins to reduce pressure in the rubber tank if pressure exceeds 60 mbar. The valve is integrated as standard equipment in the tanks up to the type ZR 10000.

Air vent: an opening on the top of the tank, where the air vent in the form of a hose or a hose with a cap is mounted during the filling of the tank.

4. PREPARATION OF PRODUCT FOR USE

4.1. TRANSPORT AND STORING

Tanks are folded and packed in cardboard packaging or a special transport bag. When transported, they should be placed either vertically or horizontally. It is prohibited to walk on the tank with hobnailed boots. Tanks should be stored in a dark and dry place at temperatures from -30 °C to +50 °C.

4.2. SAFETY PRECAUTIONS BEFORE USE



Carefully read the instructions before use.

4.3. REMOVAL OF PACKAGING

Do not use sharp objects such as knives, screwdrivers and similar, for removal of packaging, as SAVATECH closed rubber tanks could get damaged.

4.4. DISPOSAL OF PACKAGING



Packaging is made of entirely recyclable cardboard; therefore it should not be disposed of but deposited in waste bins for recycled paper or cardboard packaging.

4.5. STORAGE AND PROTECTION OF A PRODUCT NOT IN USE

Tanks should be stored in a dark and dry space at temperatures between -30 °C and +50 °C. We recommend storing tanks in cardboard packaging or a transport bag to minimise the negative environmental influences on the product during storage.

4.6. LOCATION OF INSTRUCTIONS

Brief instructions and the manufacturer's test report are enclosed to every SAVATECH closed rubber tank.



Instructions and periodic test reports should be kept throughout the service life of SAVATECH tanks.

5. INSTRUCTIONS FOR OPERATION

5.1. RECOMMENDATIONS FOR SAFE AND EFFICIENT USE



Non-compliance with the instructions can result in various injuries and environmental pollution, which is why you should carefully read the instruction for use.



- Never fill the tank, which is set on an uneven – inclined surface, since the filled liquid could overflow and cause pollution. The permissible angle of surface incline is 5° , however, in such a case, the tank may not be filled to its maximum height.
- Never exceed the maximum filling height of the tank.
- Never place the tank on sharp objects (sharp stones, etc.) as it could get damaged.
- It is not allowed to transport a filled tank, unless a special transport tank is used, which is filled when already placed on a truck bed and properly fixed before transport.
- Smoking and an open fire are forbidden during using the tank.
- Close the drain valve on the bottom of the tank before filling the tank from the top.
- The carrying handles are intended solely for moving an empty tank.
- If the tank will be exposed to the sun for more than 2 days, cover it with a protective tarp.

5.1.1. TEST PRESSURE

The pressure in the SAVATECH rubber tanks may never exceed 100 mbar. Also during a leak test, the tank may be filled only to the maximum pressure of 100 mbar. It is not allowed to fill the tank with flammable gases. Tanks up to inclusive of capacity 10,000 l are filled until reaching the pressure of safety relief valve, meaning the filling should be discontinued when the valve begins to release air.

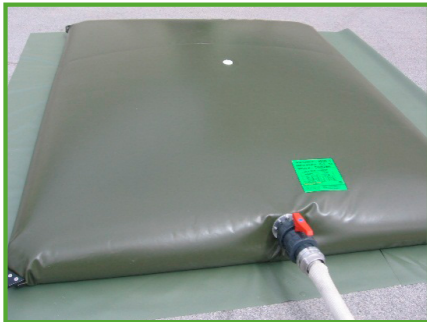


Fig. 5.1: Safety relief valve on the tank up to 10,000 l

Test the closed tank by filling it with air to the maximum pressure 60 mbar (the surface of the filled tank feels stiff). Use soapy water to test air tightness of the repaired surfaces or the spots and surfaces, where leaks could appear (around the mounted flanges and safety relief valves). If testing larger tanks (capacity exceeding 10,000 l), the venting flange on the top of the tank should be properly closed with a cap tightened or equipped with a suitable blind coupling.



Fig. 5.2: Air tightness test with soapy water

5.1.2. CARRYING THE TANK

Tanks are carried around packed in a special transport bag or cardboard packaging.



Fig. 5.3.a: Tank folded in a roll



Fig. 5.3.b: Tank packed in a transport bag

Note that the tank should be carried by the following number of persons:

- Up to ZR 3000: one person.
- Up to ZR 8000: minimum two persons.
- Up to ZR 12000: minimum three persons.
- Up to ZR 20000: minimum four persons.

The tanks larger than ZR 20000 should be transported on suitable means of transport.

5.1.3. WORKING ENVIRONMENT

MEDIA TEMPERATURE IN THE TANK



The temperature of liquids in the closed rubber tank may not exceed +70 °C.

LIGHTING OF THE WORKING PLACE



It is dangerous to work in the dark, even though the positioning of the SAVATECH closed rubber tank is a simple procedure. Provide enough light and make sure that working place is not in the dark or in the shadow. We recommend using additional lighting also during the day when visibility is poor due to shading. Never use an open fire for lighting in the dark.

PRESENCE OF AUTHORISED PERSONS



Only qualified persons are allowed to prepare the closed rubber tank. Other persons should keep away from the area of preparation. Where people or the environment could be exposed to additional hazards, such as outbreak of fire due to leakage of fuel or other hazardous liquids, the professional personnel should introduce additional measures to minimise such risks.

FIRE AREAS



It is allowed to use the SAVATECH closed rubber tanks in a fire area only after the contact temperature between the tank and the surface drops under 55°C.

5.1.4. PLACING THE TANK

5.1.4.1. Before placing

The surface where the tank will be placed should be as smooth (no bumps) and horizontal as possible. The angle of surface incline may not exceed 5°. Clean the surface of all sharp objects that could damage the tank.



Fig. 5.4: Place the tank on a maximum possible horizontal and smooth surface

We recommend using a protective pad to protect the tank.



Fig. 5.5: Protective pad under the rubber tank

If liquids are stored in the tank for a longer period of time, we recommend using a protective spill containment berm – a mobile decanting unit. Instead of in the protective berm, the tank may also be placed in a purpose-built hole with a level bottom, which should be covered with a protective pad before placing the tank. This is of particular importance when hazardous substances are stored, especially in larger capacity tanks.

The spill containment berm and rubber pad are integrated in the accessories. Please contact the manufacturer Savatech d.o.o. in the

case of an order.

5.1.4.2. Placing the closed rubber tank

1. Bring or transport the rubber tank to the prepared area (see 5.1.2. Carrying the tank).



Fig. 5.6: Place the closed rubber tank on the prepared surface

2. Unfold the tank and smooth out any creases.



Fig. 5.7: Straighten up the closed rubber tank over the surface

3. Unscrew the cap of the venting flange and tighten or mount the air vent. The tanks of capacity larger than 10,000 l are equipped with a mounting air vent. The type of the enclosed mounting air vent depends on customer or legal requirements. If no special requirements are defined, a threaded air vent with a hose is enclosed to the tank. Tanks up to capacity of 10,000 l are equipped with a safety relief valve.



Fig. 5.8: Threaded air vent with a hose



Fig. 5.9: Air vent with a cap mounted on a camlock coupling



Fig. 5.10: Tanks of capacity up to 10,000 l with a safety relief valve

4. Connect the supply hose to the valve.



Fig. 5.11: Tank with the connected supply hose

5.1.5. FILLING THE CLOSED TANK

The tank may be filled only with the liquids permitted and listed in the Tables 1 and 2, Chapter 2.1. When the tank is properly prepared and connected as defined under item 4, Chapter 5.1.4.2, connect the supply hose to the hydrant, pump, cistern or any other source of liquid. Before filling the tank of capacity exceeding 10,000 l, make sure that the air vent is correctly tightened or mounted. Then open the valve on the tank and begin to fill the tank.



Fig. 5.12: Filling of the tank

Fill the tank up to the allowed maximum filling height (Table 3). Measure the filling height by means of a lath, which is held horizontally at the highest point of the filled tank, and use a tape measure to read the height of the filled tank from the ground to the lath's edge.



Fig. 5.13: Measure the filled tank from the ground to the lath's edge using a tape measure

Then close the valve, remove the hose and mount the blind coupling.



If the tank is filled with hazardous liquids, prevent any spills during hose demounting. Hazardous liquids should be properly intercepted in a mobile intercepting unit or a spill containment berm, and the requirements defined for the specific hazardous liquids should be complied with, respectively.



Fig. 5.14: Filled tank

5.2. UNEXPECTED SITUATIONS



If the tank leaks, IMMEDIATELY plug up the leak by using an improvised plug, a rag or similar improvised means. Prevent spilling of hazardous liquids into sewers or watercourses. Pump the liquids to another suitable vessel.

Table 4: Unexpected situations

Unexpected situation	Consequence	Procedure
The SAVATECH closed rubber tank begins to leak.	Unexpected discharge of liquid from the tank.	<p>Plug up the leak by means of improvised plugs, rags or similar improvised means.</p> <p>Prevent spilling of hazardous liquids into sewers or watercourses.</p> <p>Pump the liquid to other another suitable vessel.</p>
The SAVATECH closed rubber tank is excessively filled, its height exceeds the filling height specified for the rubber tank.	Uncontrolled discharge of liquids from the tank, through the safety relief valve on the top of the tank.	<p>Prevent spilling of hazardous liquids into sewers or watercourses.</p> <p>Pump the liquid to another suitable vessel until the tank lowers to the specified height.</p> <p>The pressure in the filled tank drops accordingly.</p>

5.3. ACCESSORIES

See Table 5 for accessories. Further information is available from the seller or on the seller's website

Table 5: Accessories

502605	Tank repair set
	Storz couplings on the valve of the tank
	PVC transport bag
	Protective pad
	Protective tarp
	Supply hose, pressure, 10 m
	Supply hose, suction, 2m
	Flame arrester
	Liquid pump
	Measuring system for pumped liquid
	Measuring set for tank's height: tape measure and lath
	Pressure test: a plug with a coupling for mounting on the filling valve, supply hose (5m) for connection to the compressor, corresponding pressure reducing valve with a pressure gauge for measuring pressure in the tank.

5.4. DISPOSAL OF WASTE MATERIAL



Destroyed or damaged products or products whose service life has expired should be withdrawn from service. Since SAVATECH rubber tanks are not an ordinary waste but a reusable one, waste classification according to the valid local regulations applies

The product is partly recyclable.

5.5. BRIEF INSTRUCTIONS



See the last page of the Instructions for brief instructions on using the SAVATECH rubber tanks. We suggest that you copy, laminate and attach this page to the SAVATECH rubber tanks to make it always available to users.

6. MAINTENANCE AND CLEANING

6.1. SAFETY PRECAUTIONS



Use protective goggles, gloves, footwear and safety helmet when cleaning the SAVATECH rubber tanks.

6.2. CLEANING

Clean the tank after every use. Clean it on the outside and the inside with some warm water and a mild detergent. If the tank is exposed to corrosive, aggressive or health hazardous substances, handle the cleaning fluid as instructed by the producer. Do not use sharp objects for dirt removal from the tanks' surface.

After the tank is cleaned, rinse it with clean water.

Let the tank dry in the air.



Never dry the tank in a drier or near other heat sources.

6.3. PREVENTIVE MAINTENANCE

6.3.1. CHECK-UP INTERVALS

Test	Check-up interval	Performed by	Procedure
Visual test after use	After every use	Operator	Completely empty the tank, clean and dry it (Chapter 6.2.), and check it visually (Chapter 6.3.2.) .
Visual supervision of tank leaking during use	Daily	Operator	Visual check for leaks on the SAVATECH closed rubber tank.
Preventive check-up during storage	Every 18 months	Operator	Every 18 months, unpack and unfold the tank on a suitable surface free from sharp particles. Check it visually. If a leak is suspected, fill the tank with clean water and check for leaks. Then clean the tank with a cloth. Fold the dried tank and store it in a box, transport bag or a case.
Tightness test	Every 5, 7 and 9 years	A person qualified for operating the SAVATECH closed rubber tanks	Fill in the tank with air until it reaches the maximum pressure of 100 mbar. Check for leaks by using a pressure gauge and soapy water (Chapter 5.1.1.).
Periodic visual test	Every 5, 7 and 9 years	A person qualified for operating the SAVATECH closed rubber tanks.	

6.3.2. VISUAL CHECK-UP OF SAVATECH CLOSED RUBBER TANKS

Check for cuts and worn-out surfaces where leaks could appear. Mark the identified damage or fault and glue a patch from the repair kit on the damaged spot.
 Check if other parts of the tank are properly tightened and undamaged. Replace the damaged parts.
 Follow the Table 6 for suitability of the closed rubber tanks.

Table 6: Classification of faults

CRACKS	Cracks wide up to 0.8 mm and deep up to 0.3 mm with a visible bottom and up to 100 mm long, are acceptable if their position does not affect the properties and safe use of the product; otherwise, cracks are not acceptable.
SEPARATION BETWEEN THE PLYS	Visible separations between the plies are not acceptable. If a blister or a void appears in the textile of the tank, discard the tank.
WEAR & TEAR – ABRASION OF MATERIAL	If visible signs of abrasion due to rubbing against a rough surface (concrete, asphalt, etc.) appear on the tank's surface, such abrasion is not problematic unless the carrying armature of rubber-coated textile is visible. If it is visible, repair or dispose of the tank.
FILLING CONNECTION	It may not be broken or cut; its thread may not be damaged.
DAMAGED THREAD	If the connecting piece is not suitable or its thread is damaged, dispose of the tank or replace the flange.
TORN CARRYING HANDLES	Torn carrying handles are not considered a serious fault; if required, glue them.
CHANGED COLOUR OF THE MATERIAL	If longer exposed to the sun, the nuance of tank's material may change. This is not considered a serious fault and represents no risk to safe use. If rubber tanks are exposed to a strong sun during use, cover them with a protective tarp.



COMPLETE THE PERIODIC TEST REPORT.

6.4. SERVICE LIFE

Closed rubber tanks have a service life of 15 years. The year of manufacture is marked on the label.



The SAVATECH closed rubber tanks are made of rubber and thus subject to natural ageing process. Although a visual inspection shows that the SAVATECH tank is still in good condition, it should be put out of operation after 15 years, because the material construction could hide signs of ageing.

6.5. TROUBLESHOOTING

DAMAGED VALVES AND FLANGES

Damaged valves and flanges could be replaced. Use a suitable key to loosen the valve. Tighten a new valve or flange in the same way.



If you should experience a problem you cannot solve, contact the nearest authorised manufacturer's representative or the manufacturer.

7. WARRANTY CONDITIONS

7.1. GENERAL CONDITIONS

- 7.1.1. These warranty conditions apply as of 30.6.2014 for Environmental protection and rescue programme products, manufactured by Savatech (Products). If any provision of this warranty conditions would be contrary to any mandatory legal provisions in any particular jurisdiction, such provision shall apply to a maximum extent as provided for by such mandatory legal provisions.
- 7.1.2. Products which may be sold by Savatech Environmental protection and rescue programme but are not manufactured by it are not covered by this warranty and are sold exclusively with warranties, if any, by their original manufacturer.

7.2. MANAGEMENT OF THE PRODUCTS

- 7.2.1. In order to claim a remedy pursuant to this warranty, purchaser must conform to instructions for management of the Products which are available on:

www.savatech.com/Manuals/index.htm

www.savatech.eu/environmental-protection-and-rescue/manuals

7.3. WARRANTY

- 7.3.1. Savatech warrants to the purchaser that for the period of twelve (12) months as of delivery of the Products, such Products shall be free from defects in material and workmanship, subject to normal and management of the Products, including, among others, proper storage. For high pressure lifting bags, the warranty period amounts to thirty-six (36) months.
- 7.3.2. This warranty shall be in lieu of any other warranties, express or implied, including, but not limited to, any warranty of merchantability of fitness for a particular purpose.

7.4. EXCLUSION OF WARRANTY

- 7.4.1. Warranty shall be excluded in cases where the Products have not been used for the ordinary purpose or have been subject to abnormal conditions such as, but not limited to misuse, mishandling (such as, but not limited to, cuts, tears, vandalism, fire, wilful destruction, improper installation and/or improper maintenance, misapplication), use of unauthorized components or attachments or if adjustments or repairs have been performed by anyone other than Savatech or its authorized agents.
- 7.4.2. Warranty shall also be excluded and Savatech shall not be held liable in case of force majeure circumstances, such as, but not limited to:
- war or threat of war, sabotage, insurrection, riots or requisition;
 - all laws, restrictions, regulations, by-laws, prohibitions or any other measures by the governmental, parliamentary or local bodies;
 - import and export regulations or embargo;
 - strikes, lock-outs or other industrial measures or trade disputes (if including Manufacturer's employees or third party);
 - difficulties with supply of raw materials, work force, fuel, parts or machinery;
 - power blackout, break of machinery.
- 7.4.3. Savatech shall not be held liable for any deficiencies in Products manufactured according to drawings, designs, project drafts and/or specifications provided by the purchaser.
- 7.4.4. Ordinary wear and tear is not covered by this warranty.

7.5. MAKING A WARRANTY CLAIM

- 7.5.1. Purchaser is obliged to take delivery of the Products and perform an ordinary inspection of the Product upon delivery.
- 7.5.2. Any claim by the purchaser with reference to the Products shall be deemed waived unless submitted in writing to Savatech within the earlier of (I) eight days as of the discovery of the defect, or (II) twelve months as of the date of delivery of the Products or thirty-six (36) months as of delivery of high pressure lifting bags. Discovery of the defect is deemed to have occurred when a defect could have reasonably been detected by the purchaser.

-
- 7.5.3. Claim must at least contain the following data:
- part number,
 - serial number,
 - description of defect,
 - and must be substantiated by adequate evidence, such as pictures... Upon request, Savatech must be allowed to inspect the Product.
- 7.5.4. To obtain performance under this warranty, any products suspected of having a manufacturing defect in materials or workmanship shall be returned freight prepaid for inspection to SAVATECH d.o.o., Environmental protection and rescue programme, Škofjeloška c. 6, 4000 Kranj, Slovenia.

7.6. REMEDIES

- 7.6.1. Savatech shall decide on a claim within forty -five days after receiving a complete documentation and Product pursuant to art 5.
- 7.6.2. Providing Savatech acknowledges the claim as justified, it shall, at its discretion, either:
- repair the Product,
 - replace those components of the Product which are defective,
 - replace the Product, if repair is not possible or reasonable,
 - reimburse the consideration for the Product or its components which are defective.
- 7.6.3. Whenever Savatech repairs or replaces the Product at its expense or reimburses the purchase price, it shall reimburse the distributor or the purchaser (depending on each case), with a credit note, the same surface freight amount the distributor or the Buyer had when returning the Product to the Manufacturer.
- 7.6.4. Remedies pursuant to this article 6 shall constitute the sole and exclusive remedy in the event of a breach of warranty. For the avoidance of doubt, Savatech shall not be liable for any incidental, consequential and/or non-pecuniary damages or damages having a comparable effect.

7.7. CLOSING PROVISIONS

- 7.7.1. No statement or action by Savatech, whether express or implied, other than set forth herein, shall constitute a warranty.

8. ENCLOSURES

8.1. BRIEF INSTRUCTIONS ON USING THE SAVATECH CLOSED RUBBER TANKS

Step 1



PROCEDURE

Determine a suitable place for setting up the SAVATECH closed rubber tank.
Bring the SAVATECH closed rubber tank and supply hoses to the place of use.

WARNING

Never fill the SAVATECH closed rubber tank, which is set on an uneven – inclined surface. The maximum permissible angle of surface incline is 5°. The carrying handles on the SAVATECH closed rubber tank are intended solely for moving an empty tank.

Step 2



PROCEDURE

Cover the surface with a protective pad.

Step 3



PROCEDURE

Spread the SAVATECH closed rubber tank on the protective pad.

WARNING

Never place the SAVATECH closed rubber tank on sharp objects.

Step 4



PROCEDURE

Connect supply hoses.

WARNING

Check whether filling connections are mounted correctly.

Step 5



PROCEDURE

Begin to fill the SAVATECH closed rubber tank.

WARNING

Use a lath and a tape measure to check how high or full the tank is.

Step 6



PROCEDURE

Close the filling valves and disconnect the supply source.

WARNING

Use a lath and a tape measure to check how high or full the tank is.

Step 7



PROCEDURE

Cover the SAVATECH closed rubber tank with a protective tarp if required.

WARNING

If the SAVATECH closed rubber tank will be exposed to the sun for more than 2 days, cover it with a protective tarp.

Step 8

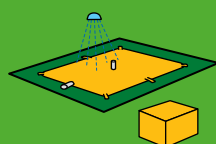
PROCEDURE

Storage of liquids in the SAVATECH closed rubber tank.

WARNING

It is not allowed to carry the filled SAVATECH closed rubber tank around.

Step 9



PROCEDURE

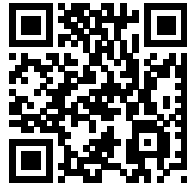
After every use clean and store the SAVATECH closed rubber tank as instructed.

WARNING

Follow the instructions for cleaning and storing of the SAVATECH closed rubber tank.



Non-compliance with the instructions for use can result in various injuries. Carefully read the instructions before use.



www.savatech.com/Manuals/index.htm www.savatech.eu/environmental-protection-and-rescue/manuals



PERSONAL PROTECTIVE EQUIPMENT: Always wear personal protective equipment when working with SAVATECH closed rubber tanks. Fire fighters and rescue team members shall wear a complete protective gear specified for their work. Other users shall wear protective helmet, protective goggles and gloves, as well as protective footwear.



TEMPERATURE RANGE: Rubber tanks are suitable for use in the temperature range from -30 to +70 °C. In the temperature range below -30 °C, but not below -40 °C, and above +70 °C, but not above +90 °C, their use is limited to 24 hours maximum



The standard version of SAVATECH closed rubber tanks is NOT suitable for use in potentially explosive atmospheres.



Smoking and an open fire are forbidden during using the SAVATECH closed rubber tank.

CHOOSING A SUITABLE SAVATECH CLOSED RUBBER TANK:

For choosing a suitable SAVATECH closed rubber tank, consider the technical data given in the tables as well as on the tanks' labels.

8.2. INSTRUCTIONS FOR REPAIRS – GLUING OF TANKS

Instructions for repairs (gluing) apply to the following products:

CLOSED TANKS

Closed PVC tank for drinking water



Closed PVC tank for drinking water



Closed PVC tank for dirty water



Closed rubber tank for dirty water, diesel fuel, chemicals, etc.



Closed rubber tank for dirty water, diesel fuel, chemicals, etc.



Closed transport rubber tank for dirty water, diesel fuel, chemicals



Instructions for repairs (gluing) apply to the following products:

OPEN TANKS

Self-supporting rubber tanks for dirty water, diesel fuel, chemicals, etc.



Self-supporting rubber tank for dirty water, diesel fuel, chemicals, etc.



Self-supporting pyramid-shaped rubber tank for dirty water, diesel fuel, chemicals, etc.



Self-supporting pyramid-shaped rubber tank for dirty water, diesel fuel, chemicals, etc.



Mobile decanting rubber unit for dirty water, diesel fuel, chemicals, etc.



Mobile decanting rubber unit for dirty water, diesel fuel, chemicals, etc.



Only qualified personnel may repair the tank since repairs incorporate handling with flammable volatile liquids and substances. Repairs shall be carried out in a well-ventilated space, on a suitably large, even and smooth surface away from sparking tools or an open fire. Carry out repairs - gluing of tanks only if the weather is dry, otherwise carry out repairs indoor. Air humidity could namely compromise the quality of the glued joint. It is mandatory to wear means of personal protection to assure safety at work



Repair kit includes (code 502605):

- Suitable patches (3 pieces 188x240 mm; 3 pieces 120 mm; 3 pieces 96 mm; 3 pieces 80 mm).
- Abrasive grinding paper of granulation 120.
- Instructions for repairs.



Fig. 8.1: Repair kit

Materials and tools needed at repairs:

- Suitable patches.
- Scissors or OLFA knife.
- Ballpoint pen or felt-tip pen.
- Abrasive grinding paper of granulation 120.
- Cotton cloth for wiping.
- Brush 30 mm wide.
- Roller or a metal piece with round, smooth edges.
- Acetone.
- Suitable glue with hardener:
 - For gluing PVC tanks: suitable polyurethane glue (e.g. Neostik PU –F20) with a corresponding hardener.
 - For gluing rubber tanks: suitable polychloroprene adhesive (SC-2000) with a corresponding hardener.

MARKING

First, locate the damaged area on the tank. Fill in the closed tank with air and use soapy water to pinpoint the leak. In the case of open tanks, observe the tank to detect damage. If no leaks are found, fill the open tank with water and locate the damaged area. Then empty the tank and dry the damaged area well. Glue only after the surface is completely dry.

The repair kit contains repair patches. Choose the size of the patch which exactly fits the size of the hole. If the hole is larger, cut a patch of suitable size out of the enclosed material. The patch shall be large enough to reach at least 2 cm over the edges of the damage on the tank.



Fig. 8.2: Choose a suitably large patch

Place the repair patch over the hole and mark the area to be ground.

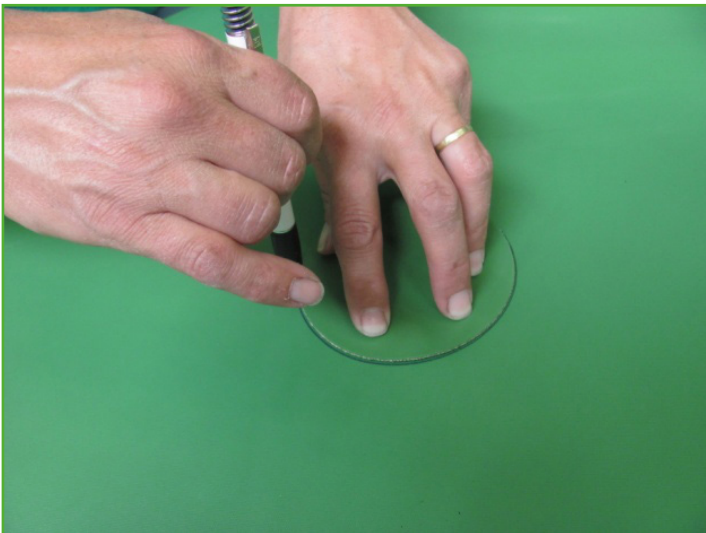


Fig. 8.3: Mark the area to be ground on the tank

GRINDING

Lightly grind the marked areas on the tank and the repair patch with the grinding paper. Grind until the surface to be glued turns slightly rough. Grind just before the gluing procedure.

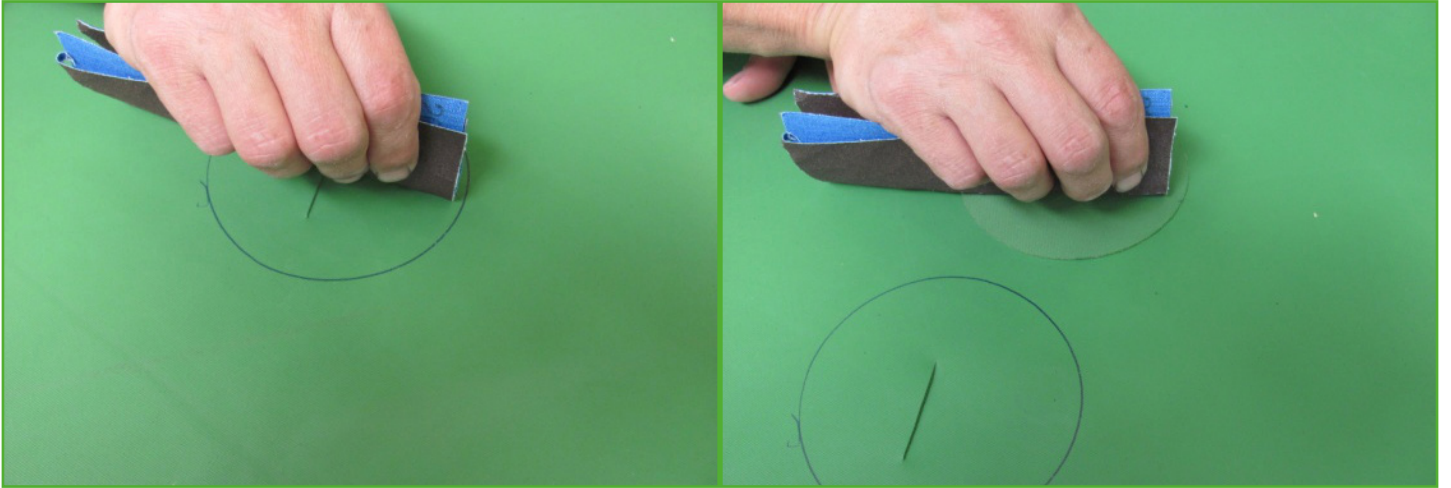


Fig. 8.4: Grind the area to be glued on the tank and the repair patch Use a cloth for removing the dust from the ground area.



Fig. 8.5: Clean the glued area

Degrease the area to be glued with acetone: dip a cotton cloth in acetone and wipe off the gluing area on the tank and the repair patch.



Fig. 8.6: Clean the area to be glued with acetone

Apply the glue only after making sure the area to be glued is dry.

GLUING

Mix a suitable amount of glue with hardener in a specified proportion (See the instructions for the use of glue!) and mix well. Allow 5 to 10 minutes for the glue and hardener to bond.

Apply a thin layer of glue on the area to be glued on both the tank and the repair patch with a brush.

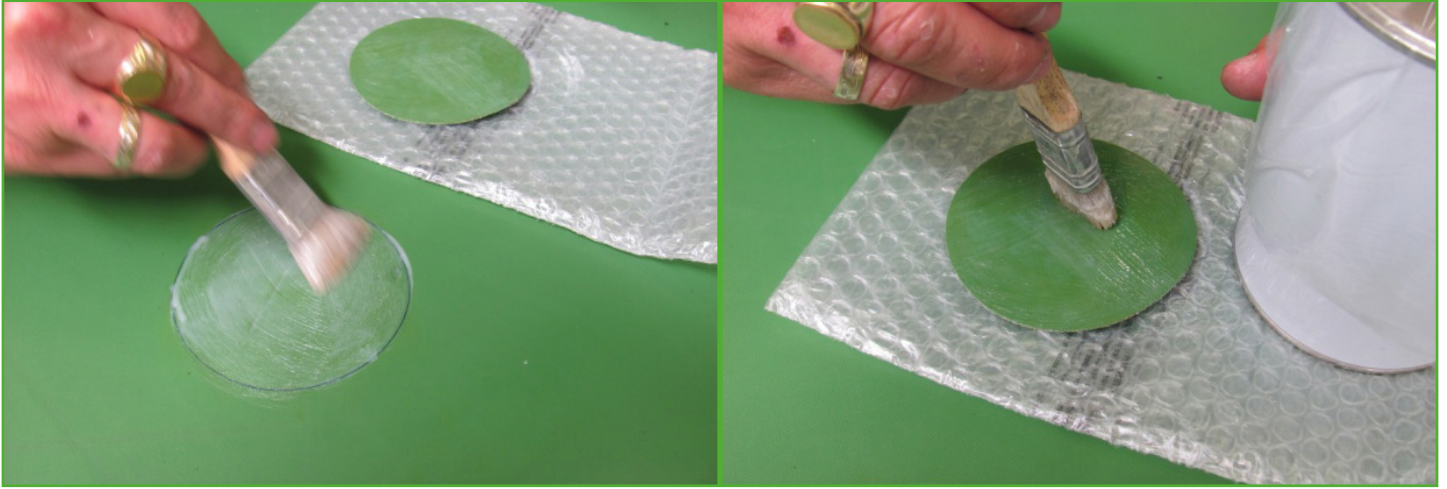


Fig. 8.7: Glue application

Wait until the glue gets almost dry (still slightly sticky if touched) and repeat the procedure twice. When the glue is almost dry (still slightly sticky if touched), press the repair patch on the tank. Note! The repair patch shall exactly fit the coated section on the tank.

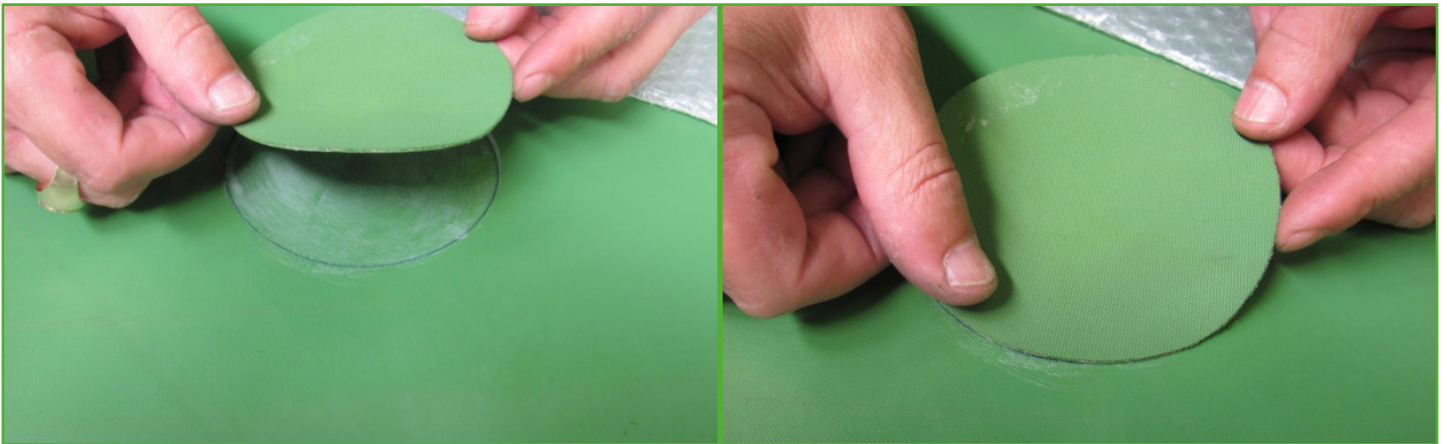


Fig. 8.8: Press the coated repair patch on the damaged and coated area of the tank

After both surfaces bond together, press the patch on the tank by means of a roller or a round metal piece.

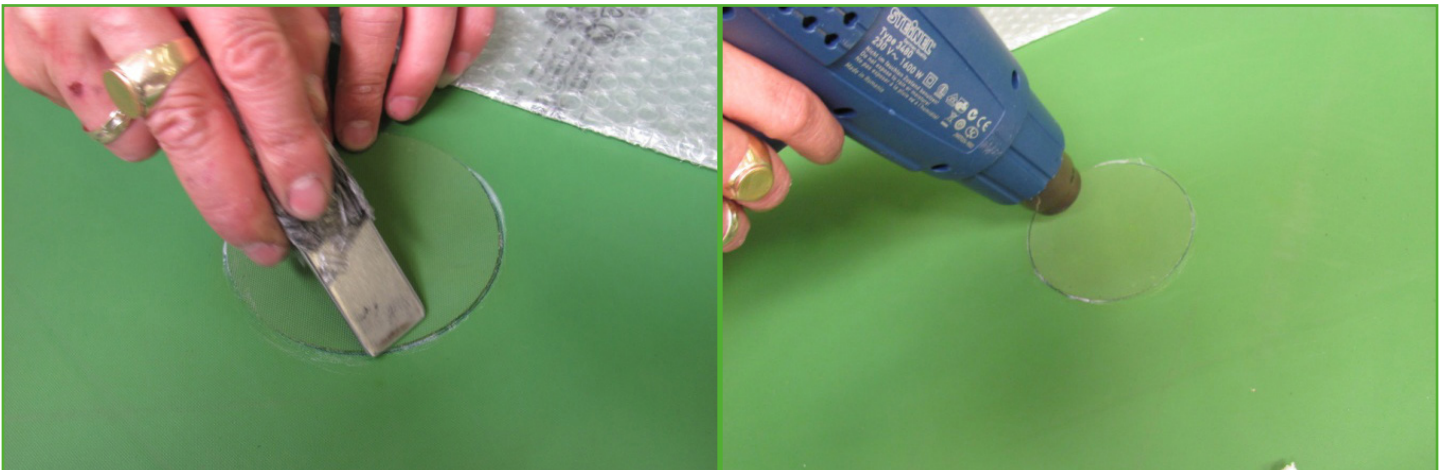


Fig. 8.9: Press and warm up the glued surface

The gluing procedure can be accelerated by warming up the glued surface up to a temperature of 70°C. When gluing PVC tanks, it is mandatory to warm up the surface, since the increased temperature (70°C) activates the Neostik PU –F20 glue. Do not warm up the surface for more than 1 minute.

Allow at least 24 hours for the glue to dry, after which test the repaired tank.

Test the closed tank by filling it with air to the maximum pressure 60 mbar (the surface of the filled tank feels stiff). Use soapy water to test air tightness of the repaired surfaces or the spots and surfaces, where leaks could appear (around the mounted flanges and safety relief valves). If testing larger tanks of capacity exceeding 10,000 l, the venting flange on the top of the tank should be properly closed with a cap tightened or equipped with a suitable blind coupling.



Fig. 8.10: Test of the repaired closed tank

Test the open tank by filling it with water and check whether the repaired surface seals.



Fig. 8.11: Test of the repaired open tank

If any leaks on the repaired surface are detected, pull off the glued patch, at which you can use a pair of tongs or warm up the patch with a hair-dryer, and repeat the gluing procedure.

If you detect leaks on other components of the tank (flange, ball valve, safety relief valve, couplings, and similar), screw them tightly by means of suitable tools. If these elements are faulty or damaged, replace them.



Savatech, d.o.o.

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8.3. PERIODIC TEST REPORT FOR TANKS

PERIODIC TEST REPORT FOR TANKS			
TANK :	 litres	
TYPE:		
SERIAL NO.:		
YEARS FROM PURCHASE DATE	5	7	9
A. Tightness test			
tank	<input type="checkbox"/> OK	<input type="checkbox"/> OK	<input type="checkbox"/> OK
valve and other mounting components	<input type="checkbox"/> OK	<input type="checkbox"/> OK	<input type="checkbox"/> OK
B. Visual test			
No surface irregularities	<input type="checkbox"/> OK	<input type="checkbox"/> OK	<input type="checkbox"/> OK
No irregularities on the edges	<input type="checkbox"/> OK	<input type="checkbox"/> OK	<input type="checkbox"/> OK
No irregularities on the filling or venting connection	<input type="checkbox"/> OK	<input type="checkbox"/> OK	<input type="checkbox"/> OK
APPROVED	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO
Check-up date			
Checked by			

The logo for Sava, featuring the word "Sava" in a stylized, white, rounded font with a small square icon containing a stylized 'S' to the right. The logo is set against a dark green rectangular background.

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