

PROFESSIONAL  
ENVIRONMENTAL  
PROTECTION  
PRODUCTS

## INFLATABLE RUBBER PIPE PLUGS AND PACKERS FOR SANITARY SEWERS AND STORM DRAINS







## ABOUT US

A division of Savatech d.o.o., the mainstay of the development of rubber manufacturing within the Sava Group. We manufacture and sell rubber products for environmental protection and rescue operations. Our growing division was established thirty years ago and is constantly striving to meet our customer's current and future needs and expectations.

## KNOWLEDGE AND EXPERIENCE

Thirty years of experience and knowledge, investment in new technology, team-work and working closely with our business partners, has enabled us to develop new and exciting products and to continuously improve our existing product range.



## PROFESSIONAL SERVICE

A professional but caring approach, flexibility and quick delivery times combined to provide the ideal service in support of our quality products.



## QUALITY PRODUCTS

When assessing quality of our products we carefully consider a number of criteria including environmental suitability, ease of use, design, safety, reliability, and packaging. Our production facilities are certified to the ISO 9001 and ISO 14001 standards.



## A PARTNER TO RELY ON

We understand the value of long-term business relationships. Our aim is to develop trusting relationships, which foster success and bring benefits to both our partners and ourselves.



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## 1. INFLATABLE RUBBER PIPE PLUGS

### Short commercial pipe plugs PLUGY and PLUGSY

Short commercial pipe plugs can be used anywhere shorter plugs are preferred such as in residential, commercial buildings and factories. Commercial pipe plugs are for pipes from 3/4" to 12" inside diameter.

Single-size plugs are used for one size only.

Multi-size plugs can be used in pipes with a range of several diameters.

PLUGY blocking plugs are used in pipes to stop the flow, or as rear plugs when performing an air test.

PLUGSY bypass plugs have a threaded flow-through (for bypass) to enable the flow of wastewater through the plug. PLUGSY is also used as a front plug when performing line acceptance testing. Line acceptance test accessories are available as additional accessories.

Sava inflatable pipe plugs are made of natural and synthetic rubber compound which exhibit excellent stretching and sealing characteristics.

All commercial plugs come with Shrader type tire valves.



60010 HAND  
FLOOR PUMP  
WITH GAUGE



Oil-resistant rubber compound  
is available (by special order) for  
all pipe plugs.



READ THE OPERATING  
INSTRUCTIONS AND SAFETY  
MANUAL PROVIDED WITH  
EVERY PLUG. FOLLOW ALL  
INSTRUCTIONS. THERE ARE  
IMPORTANT PRECAUTIONS THAT  
ARE NOT INTUITIVELY OBVIOUS  
TO UNTRAINED TECHNICIANS.

78905 16'  
78904 6'  
1/4" ID TIRE VALVE  
EXTENSION HOSE





## PLUGY - Commercial Blocking Plug

## Technical data

Part Number	Type PLUGY USA	Size Usage Range		Required Inflation Pressure	Deflated Plug		Product Weight	Eye Bolt	Tire Valve
		Min. Dia.	Max. Dia.		Diameter	Length			
		inch	inch		inch	inch	lbs.	Thread mm	Port Size
508123	Z1	0.75"	1.3"	36 psi	0.8"	3.9"	0.04 lb.	NA	Vg 8 DIN
60022	Z1.5	1.3"	1.6"	36 psi	1.3"	3.9"	0.15 lb.	NA	R 1/4" BSPT
78582	Z2	1.8"	2"	36 psi	1.8"	4.0"	0.24 lb.	NA	R 1/4" BSPT
78603	Z2-3	1.8"	3"	36 psi	1.8"	4.3"	0.24 lb.	NA	R 1/4" BSPT
76767	Z3	2.8"	3"	36 psi	2.8"	5.1"	1 lb.	NA	R 1/4" BSPT
78604	Z3-4	2.8"	4"	36 psi	2.8"	6.9"	1 lb.	NA	R 1/4" BSPT
76769	Z4	3.4"	4"	36 psi	3.3"	6.9"	1 lb.	NA	R 1/4" BSPT
78605	Z4-6	3.4"	6"	36 psi	3.3"	7.7"	1 lb.	NA	R 1/4" BSPT
76771	Z6	5.6"	6"	36 psi	5.6"	8.7"	3 lbs.	NA	R 1/4" BSPT
78606	Z6-8	5.6"	8"	36 psi	5.6"	9.8"	3 lbs.	NA	R 1/4" BSPT
60616	Z8	6.9"	8"	36 psi	6.9"	10.4"	5 lbs.	6 mm	R 1/4" BSPT
60618	Z10	8.6"	10"	36 psi	8.6"	11.6"	8 lbs.	6 mm	R 1/4" BSPT
60619	Z12	10.8"	12"	36 psi	10.8"	13.2"	15 lbs.	6 mm	R 1/4" BSPT

## PLUGSY - Commercial Bypass Plug

## Technical data

Part Number	Type PLUGSY	Size Usage Range		Required Inflation Pressure	Deflated Plug		Product Weight	Eye Bolt	Tire Valve	Bypass Diameter (Female)
		Min. Dia.	Max. Dia.		Diameter	Length				
		inch	inch		inch	inch	lbs.	Thread mm	Port Size	
78607	S2	1.9"	2"	36 psi	1.8"	4.6"	0.4 lb.	6 mm	Vg8 DIN	1/8" FNPT
76768	S3	2.8"	3"	36 psi	2.8"	4.5"	1 lb.	6 mm	R 1/8"	1/2" FNPT
78614	S3-4	2.8"	4"	36 psi	2.8"	5.1"	1 lb.	6 mm	R 1/8"	1/2" FNPT
76770	S4	3.4"	4"	36 psi	3.3"	6.9"	1 lb.	6 mm	R 1/8"	1/2" FNPT
78609	S4-6	3.4"	6"	36 psi	3.3"	7.7"	2 lb.	6 mm	R 1/8"	1/2" FNPT
76772	S6	5.6"	6"	36 psi	5.6"	8.7"	4 lbs.	6 mm	R 1/8"	1" FNPT
78610	S6-8	5.6"	8"	36 psi	5.6"	9.8"	5 lbs.	6 mm	R 1/8"	1" FNPT
60621	S8	6.9"	8"	36 psi	6.9"	11"	8 lbs.	6 mm	R 1/4"	2" FNPT
60622	S10	8.6"	10"	36 psi	8.6"	14"	12 lbs.	6 mm	R 1/4"	2" FNPT
60623	S12	11"	12"	36 psi	11"	16"	20 lbs.	6 mm	R 1/4"	2" FNPT

## PLUGSY &amp; PLUGSY - \*Back pressure measured in dry iron pipe (PSI)

PLUG Size	Pipe Diameter (inch)								
	1"	1 1/2"	2"	3"	4"	6"	8"	10"	12"
1"	32 PSI								
1 1/2"		32 PSI							
2"			26 PSI						
2"- 3"			29 PSI	22 PSI					
3"				22 PSI					
3"- 4"				24 PSI	17 PSI				
4"					28 PSI				
4"- 6"					28 PSI	23 PSI			
6"						32 PSI			
6"- 8"						32 PSI	20 PSI		
8"							19 PSI		
10"								22 PSI	
12"									26 PSI

\*PLUGS MUST BE MECHANICALLY HELD IN PLACE TO PREVENT SLIPPING WHEN BACK PRESSURE IS PRESENT

## Accessories

Code	Description	Weight lbs
78904	Plug inflation extension hose 0.25"D x 6.6'L	0.4
78905	Plug inflation extension hose 0.25"D x 16'L	1.1
60010	Hand pump, 0 - 86 PSI	1.7

## 1. INFLATABLE RUBBER PIPE PLUGS

### Multi-size 2-stage plugs PLUGY DC



Two-stage pipe plugs can be easily bent and inserted at an angle through the main stack clean-out connection.

Adjust the pressure to 22 PSI to seal the clean-out. Then add more pressure to seal the main stack.

Long plugs are equipped with a supply extension hose, and a chained disk with handle which also prevents the plug from dropping beyond reach in the pipe.

#### PLUGY DC - 2-stage Blocking Plug

##### Technical data

Part Number	Type PLUGY	Size Usage Range		Required Inflation Pressure	Deflated Plug		Rubber Body Length	Product Weight	Tire Valve Thread Size
		Min. Dia.	Max. Dia.		Diameter	Length			
		inch	inch		inch	inch	inch	lbs.	
60073	DC 2"-3"	2"	3"	36 psi	1.6"	22"	19"	1.5 lb.	R 1/4" BSPT
60074	DC 3"-4"	3"	4"	36 psi	2.4"	24"	22"	3 lbs.	R 1/4" BSPT
60075	DC 4"-6"	4"	6"	36 psi	3.1"	32"	30"	4 lbs.	R 1/4" BSPT
60076	DC 6"	6"	6"	36 psi	3.9"	32"	29"	6 lbs.	R 1/4" BSPT

Insert the plug into the wye connection or cleanout tee and align it as shown.



The first stage of the plug inflates at about 22 PSI to prevent backflow out of the pipe cleanout.



The second stage inflates at about 36 PSI to seal the main line. Reverse the procedure to deflate.



# Egg shaped multi-size plugs PLUGY and PLUGSY EI

Egg shaped pipe plugs are designed for egg shaped pipes. For larger sizes, EI Pillow design exhibits the best characteristics for light-weight, even sealing and economical value.

Plugs are also available in five sizes with flow-through for by-passing and line acceptance testing.



## PLUGY EI - Egg Shaped Blocking Plug

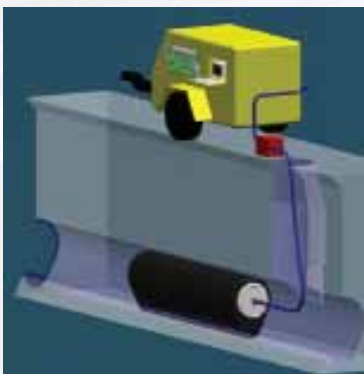
### Technical data

Part Number	Nominal Size USA	Size Usage Range		Required Inflation Pressure  psi	Max. Allowable Back Pressure		Deflated Plug		Product Weight  lbs.	Eye Bolt Thread mm	Inflation Port Thread Size
		Min. Dia.	Max. Dia.		Water Head		Diameter	Length			
		inch	inch		psi	feet	inch	inch			
<b>503485</b>	EI 1	8"/12"	10"/15"	22 psi	7.2 ft	16.4 ft	7.1"x10.4"	24"	16 lbs.	8mm	TIP 26
<b>503486</b>	EI 2	12"/18"	14"/21"	22 psi	7.2 ft	16.4 ft	11x16.3"	28"	33 lbs.	8mm	TIP 26
<b>526694</b>	EI 3-pillow	16"/24"	24"/36"	19 psi	7.2 ft	16.4 ft	26"	71"	47 lbs.	D-rings	2xR1/2"BSPT
<b>519444</b>	EI 4-pillow	28"/42"	32"/48"	13 psi	7.2 ft	16.4 ft	46.5"	91"	86 lbs.	D-rings	2xR1/2"BSPT
<b>519447</b>	EI 5-pillow	36"/54"	40"/60"	12 psi	7.2 ft	16.4 ft	59"	115"	127 lbs.	D-rings	2xR1/2"BSPT

## PLUGSY EI - Egg Shaped Bypass Plug

### Technical data

Part Number	Nominal Size USA	Size Usage Range		Required Inflation Pressure  psi	Max. Allowable Back Pressure		Deflated Plug		Product Weight  lbs.	Eye Bolt Thread mm	Inflation Port Thread Size	Bypass Diameter Female NPT
		Min. Dia.	Max. Dia.		Water Head		Diameter	Length				
		inch	inch		psi	feet	inch	inch				
<b>504158</b>	EI 1	8"/12"	10"/15"	22 psi	7.2 ft	16.4 ft	7.1"x10.4"	24"	9	8mm	TIP 26	2"
<b>504160</b>	EI 2	12"/18"	14"/21"	22 psi	7.2 ft	16.4 ft	11x16.3"	28"	18	8mm	TIP 26	3"
<b>526695</b>	EI 3-pillow	16"/24"	24"/36"	19 psi	7.2 ft	16.4 ft	26"	71"	29	D-rings	2 x R 1/2"	2"
<b>519448</b>	EI 4-pillow	28"/42"	32"/48"	13 psi	7.2 ft	16.4 ft	46.5"	91"	48	D-rings	2 x R 1/2"	2"
<b>519449</b>	EI 5-pillow	36"/54"	40"/60"	12 psi	7.2 ft	16.4 ft	59"	115"	148	D-rings	2 x R 1/2"	2"



EI-3 PILLOW





## 1. INFLATABLE RUBBER PIPE PLUGS

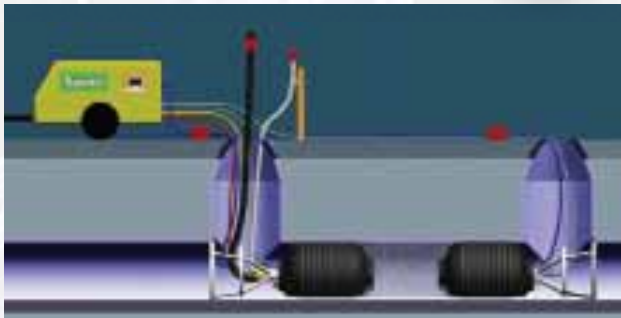
# Municipal multi-size pipe plugs PLUGY and PLUGSY

Sava PLUGY and PLUGSY plugs are ribbed for better grip in the pipe. Special rubber compound and Rayon-Kevlar® reinforcement fibers give these plugs excellent sealing characteristics. Anti-corrosive metal components ensure a long life. Eye-bolts are installed for easy placement and extraction using a \*lift rope/hose. Plugs can be inserted through standard manholes and easily bent into the pipe while deflated.



These multi-size plugs are used for sealing and testing of pipelines. Multi-size plugs can be used on multiple pipe diameters.

All Municipal plugs are equipped with quick-action Industrial Interchange coupler nipples (not shown) for fast inflation and fast deflation.



Oil-resistant rubber compound is available (by special order) in all regular sizes.



**ALWAYS PROVIDE MECHANICAL BRACING SUPPORT TO PREVENT SLIPPING DURING USE AND DURING DEFLATION, WHENEVER BACK PRESSURE IS PRESENT**

### Accessories

Code	Description	Weight (lbs)
60449	R1" Test adapter for air testing	1.1
60450	R2" Test adapter for air testing	1.3
60443	R4" Test adapter for air testing	2.6
60310	Inflation controller with pressure gauge, relief and ball valve; 0-36 psi	1.9
74609	Inflation controller with pressure gauge, relief and ball valve; 0-22 psi	1.9
74653	Inflation controller with pressure gauge, relief and ball valve; 0-15 psi	1.9
60957	16' Poly lift rope/hose	3.7
60958	32' Poly lift rope/hose	4.0
130-6	Telescopic remote placement pole; extends from 8' to 20' (Requires Remote Placement Adapter)	4.4
503403	Remote Placement Adapter for 4"-8" plug	5
503404	Remote Placement Adapter for 6"-12", 8"-16", 12"-21" plugs	5
503407	Remote Placement Adapter for 14"-24", 15"-30" plugs	5

#### \*LIFT ROPE/HOSE



#### INFLATION CONTROLLER



#### REMOTE PLACEMENT ADAPTER



#### TELESCOPIC REMOTE PLACEMENT POLE



#### 60450 2" TEST ADAPTER





**PLUGY - Municipal Blocking Plug****Technical data**

Part Number	Nominal Size USA	Size Usage Range		Required Inflation Pressure psi	Deflated Plug		Product Weight lbs.	Eye Bolt Thread mm	Inflation Port Thread Size
		Min. Dia.	Max. Dia.		Diameter	Length			
		inch	inch		inch	inch			
<b>519423</b>	1.5"-2"	1.5"	2"	36 psi	1.4"	7.7"	0.7 lb.	6 mm	R 1/4" BSPT
<b>519424</b>	3"-6"	2.8"	6"	36 psi	2.7"	13"	1.3 lb.	6 mm	R 1/4" BSPT
<b>60417</b>	4"-8"	4"	8"	36 psi	3.6"	21"	2.4 lbs.	6 mm	R 1/4" BSPT
<b>526850</b>	6"-8"	6"	8"	36 psi	5.6"	15"	4 lbs.	8 mm	R 1/4" BSPT
<b>60418</b>	6"-12"	6"	12"	36 psi	5.6"	15"	4 lbs.	8 mm	R 1/4" BSPT
<b>60419</b>	8"-16"	8"	16"	36 psi	7.6"	25"	7 lbs.	8 mm	R 1/4" BSPT
<b>60599</b>	12"-21"	12"	21"	36 psi	10.7"	27"	14 lbs.	8 mm	R 1/4" BSPT
<b>60422</b>	14"-24"	14"	24"	36 psi	12.7"	34"	19 lbs.	10 mm	R 1/4" BSPT
<b>60606</b>	15"-30"	15"	30"	36 psi	13.5"	43"	24 lbs.	10 mm	R 1/4" BSPT
<b>60425</b>	20"-40"	20"	40"	22 psi	18.6"	47"	39 lbs.	10 mm	R 1/4" BSPT
<b>523941</b>	24"-48"	24"	48"	22 psi	22.6"	60"	86 lbs.	10 mm	R 3/8" BSPT
<b>78959</b>	30"-60"	30"	60"	15 psi	23.6"	91"	161 lbs.	10 mm	R 1/4" BSPT
<b>535881</b>	32"-72"	32"	72"	15 psi	23.6"	117"	231 lbs.	10 mm	R 1/4" BSPT

**PLUGSY - Municipal Bypass Plug****Technical data**

Part Number	Nominal Size USA	Size Usage Range		Required Inflation pressure psi	Deflated Plug		Product Weight lbs.	Eye Bolt Thread mm	Inflation Valve Thread Size	Bypass Diameter (Female)
		Min. Dia.	Max. Dia.		Diameter	Length				
		inch	inch		inch	inch				
<b>526849</b>	3"-6"	2.8"	6"	36 psi	2.7"	13"	1.3 lb.	6 mm	R 1/4" BSPT	1/2"
<b>60429</b>	4"-8"	4"	8"	36 psi	3.6"	21"	6 lbs.	6 mm	R 1/4" BSPT	1"
<b>526851</b>	6"-8"	6"	8"	36 psi	5.6"	15"	8 lbs.	8 mm	R 1/4" BSPT	1"
<b>60432</b>	6"-12"	6"	12"	36 psi	5.6"	15"	9 lbs.	8 mm	R 1/4" BSPT	1"
<b>60434</b>	8"-16"	8"	16"	36 psi	7.6"	25"	16 lbs.	8 mm	R 1/4" BSPT	2"
<b>60630</b>	12"-21"	12"	21"	36 psi	10.7"	27"	26 lbs.	8 mm	R 1/4" BSPT	2"
<b>60440</b>	14"-24"	14"	24"	36 psi	12.7"	34"	33 lbs.	10 mm	R 1/4" BSPT	2"
<b>60632</b>	15"-30"	15"	30"	36 psi	13.5"	43"	42 lbs.	10 mm	R 1/4" BSPT	2"
<b>60442</b>	20"-40"	20"	40"	22 psi	18.6"	47"	69 lbs.	10 mm	R 1/4" BSPT	2"
<b>523942</b>	24"-48"	24"	48"	22 psi	22.6"	60"	120 lbs.	10 mm	R 3/8" BSPT	4"
<b>78960</b>	30"-60"	30"	60"	15 psi	23.6"	91"	190 lbs.	10 mm	R 1/4" BSPT	4"
<b>535882</b>	32"-72"	32"	72"	15 psi	23.6"	117"	231 lbs.	10 mm	R 1/4" BSPT	4"

**PLUGY & PLUGSY - \*back pressure measured in dry iron pipe (PSI)**

Plug Size	Pipe Diameter (inch)																
	1.6"	2.8"	4"	6"	8"	10"	12"	14"	16"	20"	24"	32"	40"	48"	52"	56"	60"
1.5"-2"	28	17															
3"-6"		31	24	18													
4"-8"			31	24	18												
6"-8"				29	21												
6"-12"				31	29	20	17										
8"-16"					31	29	24	17									
12"-21"							29	24	21	17							
14"-24"								30	27	23	18						
15"-30"									29	24	20						
20"-40"										14	11	8	7				
24"-48"											14	10	8	7			
30"-60"												14	12	10	8	7	5
32"-72"													14	14	11	10	8

\*PLUGS MUST BE MECHANICALLY HELD IN PLACE TO PREVENT SLIPPING WHEN BACK PRESSURE IS PRESENT

## 1. INFLATABLE RUBBER PIPE PLUGS

### Protective rubber sleeves



Ten standard sizes of protective sleeves are available. Simply slide the plug into the sleeve before use. Handles on both sides facilitate pulling the sleeve over the plug and can be used to tie the ends to eliminate the sleeve from slipping while installing the plug.

Protective sleeves prevent premature wear and abrasions on the plug surface. Sleeves do not adversely affect the performance or back pressure resistance values of the plugs. They extend the service life of a plug and are especially suitable for frequent users such as rental operations.

Sleeves add weight and thickness to the plug. When sizing plugs, be sure to add the thickness values (listed below) when determining the minimum deflated diameter of the plug with sleeve installed. If the diameter has increased beyond the insertion size necessary size for your pipe, select the next smaller multi-size plug and sleeve.

Part Number	Fits Plug Size inch	Length inch	Thickness mm	Product Weight lbs.
531489	4"-8"	16"	2	1
525342	6"-12"	20"	3	2
515570	8"-16"	24"	4	3
536435	12"-21"	24"	4	5
510395	14"-24"	32"	4	8
510396	15"-30"	39"	4	10
510397	20'-40"	43"	4	12
527496	24"-48"	50"	6	41
510399	30"-60"	81"	6	54
535884	32"-72"	89"	6	65

**Oil-resistant rubber compound is available (by request) in all regular sizes.**



**RELEASE  
BACK PRESSURE  
BEFORE DEFLATING**



**ALWAYS PROVIDE MECHANICAL  
BRACING SUPPORT TO PREVENT  
SLIPPING DURING USE AND  
DURING DEFLATION, WHENEVER  
BACK PRESSURE IS PRESENT**



## High-performance municipal pipe plugs



Use High Performance plugs when higher back-pressures are present or whenever a more robust, heavy-duty, pipe plug is desired. Use High Performance plugs in combination with protective sleeves to get the thickest rubber available for difficult situations.



### PLUGY - High Performance Blocking Plug

#### Technical data

Part Number	Nominal Size USA	Size Usage Range		Required Inflation Pressure psi	Deflated Plug		Product Weight lbs.	Eye Bolt Thread mm	Male Quick Coupling Thread Size
		Min. Dia.	Max. Dia.		Diameter	Length			
		inch	inch		inch	inch			
<b>545456</b>	4"-8"	4"	8"	45 psi	3.6"	21"	3 lbs.	6mm	1/4" BSPT
<b>545457</b>	6"-12"	6"	12"	45 psi	5.6"	23"	5 lbs.	8mm	1/2" BSPT
<b>545458</b>	8"-16"	8"	16"	45 psi	7.6"	25"	7 lbs.	8mm	1/2" BSPT
<b>545460</b>	14"-24"	14"	24"	45 psi	12.7"	34"	19 lbs.	10mm	1/2" BSPT
<b>545464</b>	20"-40"	20"	40"	45 psi	18.6"	47"	38 lbs.	10mm	1/2" BSPT
<b>545465</b>	24"-48"	24"	48"	36 psi	22.6"	59"	86 lbs.	10mm	1/2" BSPT
<b>545467</b>	30"-60"	30"	60"	22 psi	23.6"	91"	93 lbs.	10mm	1/2" BSPT
<b>545783</b>	32"-72"	32"	72"	22 psi	23.6"	118"	232 lbs.	10mm	1/2" BSPT
<b>545785</b>	40"-96"	40"	96"	15 psi	37.8"	158"	706 lbs.	10mm	1/2" BSPT

### PLUGSY - High Performance Bypass Plug

#### Technical data

Part Number	Nominal Size USA	Size Usage Range		Required Inflation pressure psi	Deflated Plug		Product Weight lbs.	Eye Bolt Thread mm	Inflation Valve Thread Size	Bypass Diameter NPT
		Min. Dia.	Max. Dia.		Diameter	Length				
		inch	inch		inch	inch				
<b>545468</b>	4"-8"	4"	8"	45 psi	3.6"	21"	6 lbs.	6mm	1/4" BSPT	1" FNPT
<b>545469</b>	6"-12"	6"	12"	45 psi	5.6"	23"	10 lbs.	8mm	1/2" BSPT	1" FNPT
<b>545470</b>	8"-16"	8"	16"	45 psi	7.6"	25"	14 lbs.	8mm	1/2" BSPT	2" FNPT
<b>545472</b>	14"-24"	14"	24"	45 psi	12.7"	34"	36 lbs.	10mm	1/2" BSPT	2" FNPT
<b>545474</b>	20"-40"	20"	40"	45 psi	18.6"	47"	69 lbs.	10mm	1/2" BSPT	2" FNPT
<b>545475</b>	24"-48"	24"	48"	36 psi	22.6"	59"	102 lbs.	10mm	1/2" BSPT	4"/6"/8" M
<b>545476</b>	30"-60"	30"	60"	22 psi	23.6"	91"	165 lbs.	10mm	1/2" BSPT	4"/6"/8" M
<b>545784</b>	32"-72"	32"	72"	22 psi	23.6"	118"	257 lbs.	10mm	1/2" BSPT	4"/6"/8" M
<b>545787</b>	40"-96"	40"	96"	15 psi	37.8"	158"	750 lbs.	10mm	1/2" BSPT	4"/6"/8" M

### High Performance PLUGY & PLUGSY - Back pressure measured in dry iron pipe (PSI)

Plug Size	Pipe Diameter (inch)																	
	4"	6"	8"	10"	12"	14"	16"	20"	24"	32"	40"	48"	52"	56"	60"	64"	68"	72"
4"-8"	38	30	24															
6"-12"		38	34	26	23													
8"-16"			38	34	30	27	23											
14"-24"						38	36	29	24									
20"-40"								38	36	24	14							
24"-48"									30	27	22	14						
30"-60"										17	16	14	13	11	10			
32"-72"										19	17	16	14	13	11	10	9	7
40"-96"											13	13	13	13	11	11	10	10

\*PLUGS MUST BE MECHANICALLY HELD IN PLACE TO PREVENT SLIPPING WHEN BACK PRESSURE IS PRESENT

## 1. INFLATABLE RUBBER PIPE PLUGS

### Pillow-shaped multi-size plugs

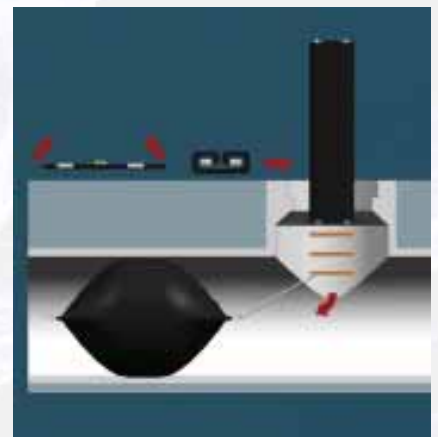
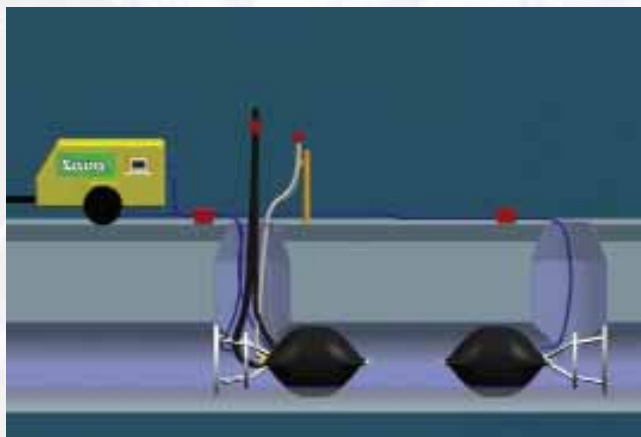
Pillow-shaped plugs can be used in large, round, oval or elliptical pipelines. They seal most all types of pipes (concrete, plastics and iron). Special rubber compound used in Pillow plugs is highly resistant to wear and age related degradation.

Pillow plugs can be folded lengthwise and inserted through standard manholes. Pillow Plugs compliment our cylindrical shaped municipal plugs when applications require special sizes or shapes.

Pillow plugs come with or without 2" flexible bypass flow-through.



**RELEASE  
BACK PRESSURE  
BEFORE  
DEFLATING**





## PLUGY - Pillow Shaped Blocking Plug

### Technical data

Part Number	Nominal Size USA	Size Usage Range		Required Inflation Pressure	Maximum Allowable Back Pressure		Deflated Plug			Product Weight	D-rings	Inflation Port Thread Size FBSPT
		Min. Dia.	Max. Dia.		Air Pressure	Water Head	Diameter	Width	Length			
		inch	inch		psi	psi	inch	inch	inch			
529411	24"-40"	23.6"	40"	15 psi	10 psi	23'	32"	36"	75"	40 lbs.	4x	2 x R 1/2"
529412	32"-48"	31.5"	48"	13 psi	9 psi	20'	31"	50"	91"	64 lbs.	4x	2 x R 1/2"
529413	48"-64"	47"	63"	12 psi	7 psi	16'	47"	74"	112"	112 lbs.	4x	2 x R 1/2"
529414	64"-80"	63"	79"	9 psi	6 psi	13'	63"	99"	146"	189 lbs.	4x	2 x R 1/2"
529491	76"-88"	75"	87"	7 psi	4.3 psi	10'	73"	114"	189"	220 lbs.	6x	2 x R 1/2"

## PLUGSY - Pillow Shaped Bypass Plug

### Technical data

Part Number	Nominal Size USA	Size Usage Range		Required Inflation Pressure	Maximum Allowable Back Pressure		Deflated Plug			Product Weight	D-rings	Inflation Port Thread Size FBSPT	Bypass Diameter (Female)
		Min. Dia.	Max. Dia.		Air Pressure	Water Head	Diameter	Width	Length				
		inch	inch		psi	psi	inch	inch	inch				
529415	24"-40"	23.6"	40"	15 psi	10 psi	23'	32"	36"	75"	51 lbs.	4x	2 x R 1/2"	2" FNPT
529416	32"-48"	31.5"	48"	13 psi	9 psi	20'	31"	50"	91"	75 lbs.	4x	2 x R 1/2"	2" FNPT
529417	48"-64"	47"	63"	12 psi	7 psi	16'	47"	74"	112"	125 lbs.	4x	2 x R 1/2"	2" FNPT
529418	64"-80"	63"	79"	9 psi	6 psi	13'	63"	99"	146"	202 lbs.	4x	2 x R 1/2"	2" FNPT
605491	75"-88"	75"	87"	7 psi	4.3 psi	10'	73"	114"	189"	220 lbs.	6x	2 x R 1/2"	2" FNPT



77682S16, 16 FT X 3/8", YELLOW INFLATION HOSE, NITRILE  
 76683S16, 16 FT X 3/8", RED INFLATION HOSE, NITRILE  
 77679S16, 16 FT X 3/8", BLUE INFLATION HOSE, NITRILE  
 77682S32, 32 FT X 3/8", YELLOW INFLATION HOSE, NITRILE  
 76683S32, 32 FT X 3/8", RED INFLATION HOSE, NITRILE  
 77679S32, 32 FT X 3/8", BLUE INFLATION HOSE, NITRILE



**74653 (15 PSI) CONTROLLER**  
 USE FOR ALL PILLOW PLUGS



### Accessories

Code	Description	Weight (lbs)
74653	15 psi inflation controller with pressure gauge, relief and ball valve	7 lbs.
77678s16	16' Black Nitrile inflation hose (MSHA approved).	5 lbs.
77678s32	32' Black Nitrile inflation hose (MSHA approved).	10 lbs

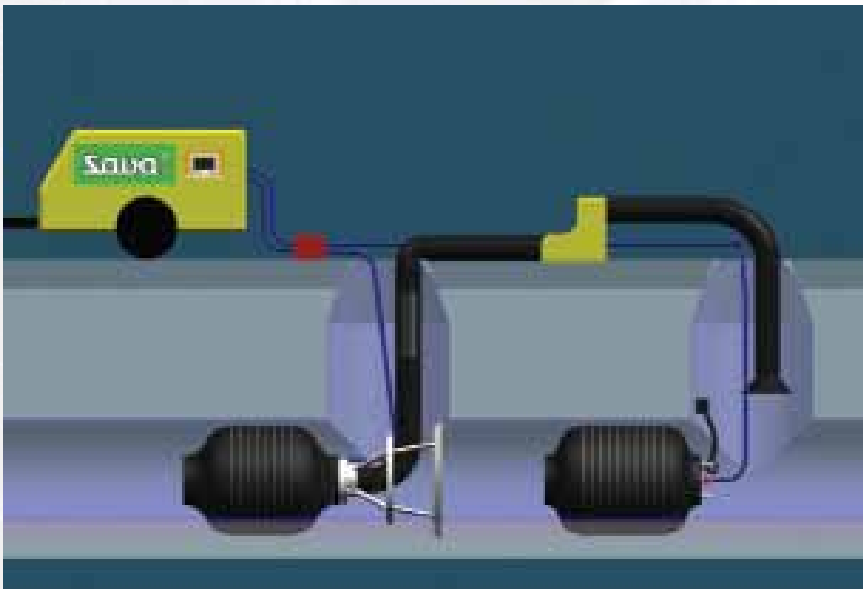
## High-flow bypass multi-size PLUGSY VP

These plugs cover the range from 4" to 72". Larger Flow-through allows high-volume bypass. By-pass plug core is made of PPH (high density Polypropylene) for light weight and high corrosion resistance. Threaded flanges come in several sizes and are replaceable.

All plugs are equipped with quick action couplings for inflation. The number and size of installed eyelet bolts depend on the plug size.



**DEFLATE PLUG  
BEFORE  
REMOVAL**





## PLUGSY VP - High Flow Bypass Plug

## Technical data

Part Number	Nominal Size EU	Size Usage Range		Required Inflation Pressure psi	Deflated Plug		Product Weight lbs.	Eye Bolt Thread mm	Inflation Port Thread Size MBSPT	Bypass Diameter (male MNPT)
		Min. Dia.	Max. Dia.		Diameter	Length				
		inch	inch		inch	inch				
516942	4"-6"	4"	6"	36 lbs.	3.8"	16"	5 lbs.	6mm	6mm hose barb	2" MNPT
516943	6"-10"	6"	10"	29 lbs.	5.7"	22"	11 lbs.	6mm	6mm hose barb	3" (2")
516944	8"-12"	8"	12"	29 lbs.	7.6"	24"	19 lbs.	6mm	6mm hose barb	4" (2")
60967	6"-12"	6"	12"	22 lbs.	5.6"	24"	10 lbs.	8mm	6mm hose barb	2" MNPT
60968	8"-16"	8"	16"	22 lbs.	7.6"	27"	16 lbs.	8mm	6mm hose barb	4" (2")
53539	12"-21"	12"	21"	22 lbs.	10.7"	28"	28 lbs.	10mm	R 1/4" BSPT	6" (4", 2")
60970	14"-24"	14"	24"	22 lbs.	12.7"	36"	44 lbs.	10mm	R 1/4" BSPT	6" (4", 2")
60971	20"-40"	20"	40"	22 lbs.	18.6"	49"	91 lbs.	10mm	R 1/4" BSPT	8" (6", 4", 2")
535873	24"-48"	24"	48"	22 lbs.	22.4"	58"	130 lbs.	12mm	2 x R 1/2"	6" MNPT
535874	24"-48"	24"	48"	22 lbs.	22.4"	58"	146 lbs.	12mm	2 x R 1/2"	8" MNPT
535876	30"-60"	30"	60"	15 lbs.	23.6"	91"	174 lbs.	12mm	2 x R 1/2"	6" MNPT
535878	30"-60"	30"	60"	15 lbs.	23.6"	91"	183 lbs.	12mm	2 x R 1/2"	8" MNPT
535879	32"-72"	32"	72"	15 lbs.	23.6"	91"	267 lbs.	12mm	2 x R 1/2"	6" MNPT
535880	32"-72"	32"	72"	15 lbs.	23.6"	91"	276 lbs.	12mm	2 x R 1/2"	8" MNPT

## PLUGSY VP - \*Backpressure measured in dry iron pipe (PSI)

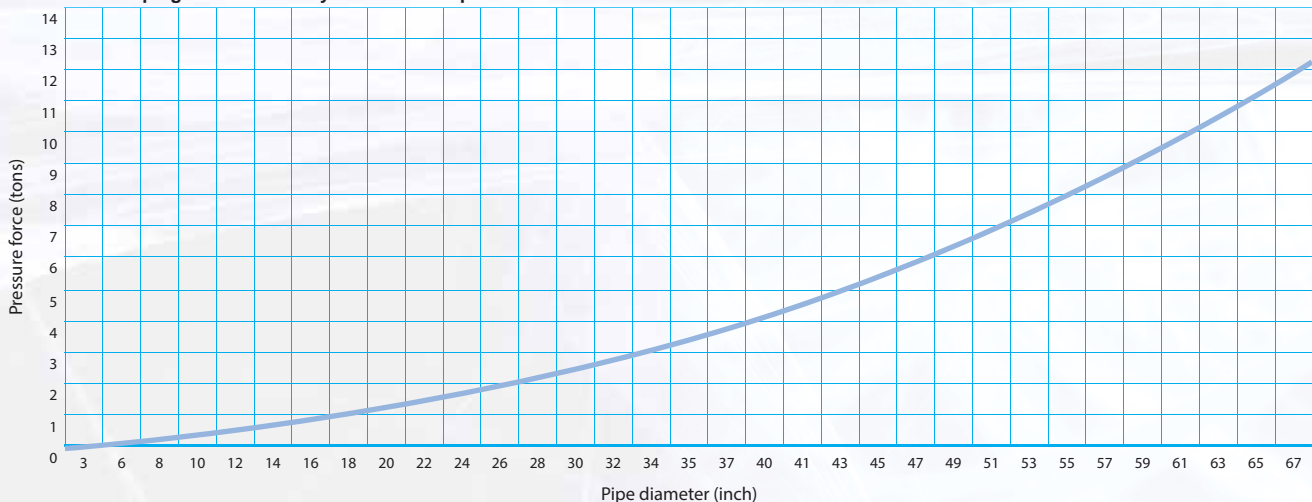
PLUGSY	Pipe Diameter (inch)												
	4"	6"	8"	10"	12"	14"	16"	20"	24"	28"	32"	36"	40"
Plug Size													
4"-6"	14	12											
6"-10"		14	12	9									
8"-12"			14	12	9								
6"-12"		14	12	10	9								
8"-16"			16	13	10	9	9						
12"-21"					14	13	10	7					
14"-24"						13	14	10	8				

\*PLUGS MUST BE MECHANICALLY HELD IN PLACE TO PREVENT SLIPPING WHEN BACK PRESSURE IS PRESENT

PLUGSY	Pipe Diameter (inch)									
	24"	32"	40"	48"	52"	56"	60"	64"	68"	72"
Plug Size										
24"-48"	14	10	9	7						
30"-60"		14	13	10	9	7	6			
32"-72"		14	14	12	10	9	7	7	6	6

\*PLUGS MUST BE MECHANICALLY HELD IN PLACE TO PREVENT SLIPPING WHEN BACK PRESSURE IS PRESENT

## Force in plug as result of only 7.25 PSI back pressure



\*PLUGS MUST BE MECHANICALLY HELD IN PLACE TO PREVENT SLIPPING WHEN BACK PRESSURE IS PRESENT

## 1. INFLATABLE RUBBER PIPE PLUGS

### Manhole pipe plug PLUGSY VJ

501841



The manhole plug is designed specifically for testing and sealing or the top of manholes. Can be used for air pressure test, water head test, vacuum test or smoke test.

Standard accessories compatible with other Sava plugs are available for inflation and testing.

538201  
535889  
535890

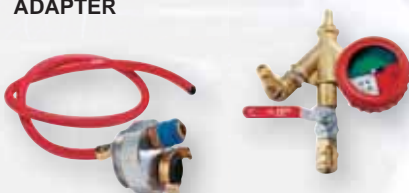


#### PLUGSY - VJ Manhole Testing Bypass Plug

##### Technical data

Type PLUGSY	Part Number	Nominal Size USA	Size Usage Range		Required Inflation Pressure  psi	Deflated Plug		Product Weight  lbs.	Inflation Valve	Bypass Diameter (female)
			Min. Dia.	Max. Dia.		Diameter	Lenght			
			inch	inch		inch	inch			
<b>VJ 600-650</b>	<b>501841</b>	24"-26"	24"	26"	22 lbs.	22"	14"	36 lbs.	R 1/4"	R 2" BSPT
<b>VJ 600</b>	<b>538201</b>	24"	23"	24"	14 lbs.	22.9"	4"	8 lbs.	R 1/4"	R 2" BSPT
<b>VJ 800</b>	<b>535889</b>	32"	30.7"	32"	14 lbs.	30"	4"	11 lbs.	R 1/4"	R 2" BSPT
<b>VJ 1000</b>	<b>535890</b>	40"	38.5"	40"	14 lbs.	38"	4"	15 lbs.	R 1/4"	R 2" BSPT

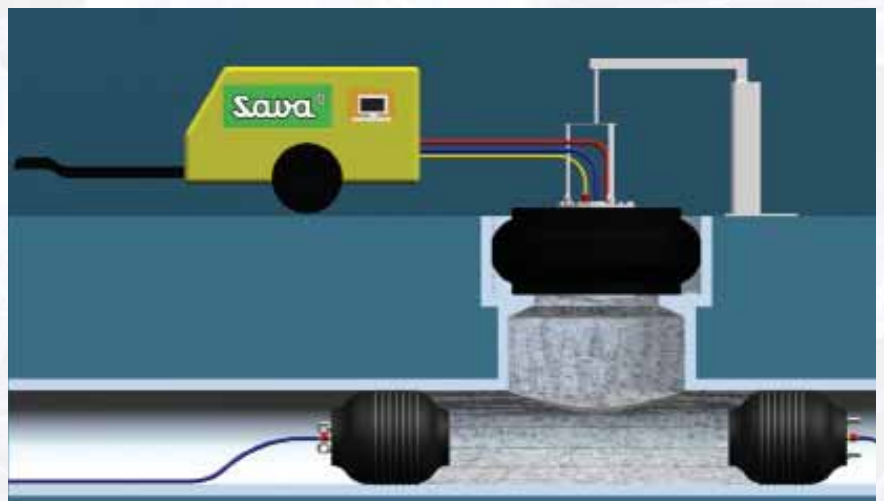
#### 60450 2" TEST ADAPTER



**AIR CONTROLLER**  
74609 (22 PSI)  
74653 (15 PSI)



**NEVER CLEAN RUBBER PLUGS  
WITH SOLVENTS OR OTHER  
AGGRESSIVE AGENTS**





# High pressure 85-175 PSI multi-size plugs **PLUGY HP**



High pressure plugs are reinforced with Kevlar® cord. 173 PSI inflation pressure can hold back 144 PSI back pressure or 332 ft. head pressure.

Five sizes of plugs are available for both 86 PSI and 173 PSI inflation pressures. All plugs are equipped with eye-bolts for lifting as well as quick action couplings for fast inflation and deflation.

## PLUGY - 86 PSI High Pressure Blocking Plug

### Technical data

Part Number	Nominal Size USA	Size Usage Range		Required Inflation Pressure	MAX Allow. Back Pressure Air Pressure	Deflated Plug		Product Weight	Eye Bolt Thread mm	Inflation Port Thread Size
		Min. Dia.	Max. Dia.			Diameter	Length			
		inch	inch			inch	inch			
<b>60887</b>	4"-6"	4"	6"	86 psi	43 psi	3.6"	21"	3 lbs.	6mm	R 1/4" BSPT
<b>60907</b>	6"-8"	6"	8"	86 psi	43 psi	5.6"	23"	5 lbs.	8mm	R 1/4" BSPT
<b>60908</b>	8"-12"	8"	12"	86 psi	43 psi	7.6"	25"	7 lbs.	8mm	R 1/4" BSPT
<b>60909</b>	14"-20"	14"	20"	86 psi	43 psi	12.7"	35"	20 lbs.	8mm	R 1/4" BSPT
<b>60924</b>	20"-24"	20"	24"	86 psi	43 psi	18.6"	47"	40 lbs.	10mm	R 1/4" BSPT

## PLUGY -173 PSS High Pressure Blocking Plug

### Technical data

Part Number	Nominal Size EU	Size Usage Range		Required Inflation Pressure	MAX Allow. Back Pressure	Deflated Plug		Product Weight	Eye Bolt Thread mm	Inflation Port Thread Size
		Min. Dia.	Max. Dia.			Diameter	Length			
		inch	inch			inch	inch			
<b>518561</b>	4"-5"	4"	5"	173 psi	144 psi	3.6"	21"	4 lbs.	6mm	R 1/4" BSPT
<b>518562</b>	6"	6"	6"	173 psi	144 psi	5.6"	23"	6 lbs.	8mm	R 1/4" BSPT
<b>518563</b>	8"-10"	8"	10"	173 psi	144 psi	7.6"	25"	10 lbs.	8mm	R 1/4" BSPT
<b>518564</b>	12"-14"	12"	14"	173 psi	144 psi	10.9"	27"	18 lbs.	8mm	R 1/4" BSPT
<b>518565</b>	16"	16"	16"	173 psi	144 psi	12.7"	34"	26 lbs.	10mm	R 1/4" BSPT
<b>518566</b>	20"	20"	20"	173 psi	144 psi	18.6"	47"	53 lbs.	10mm	R 1/4" BSPT

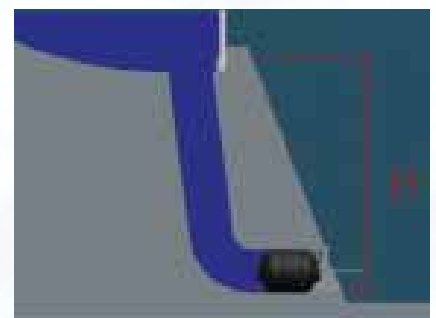


**PLUG MUST REMAIN COMPLETELY INSIDE THE PIPE WHILE INFLATED**

**\*60958  
LIFT ROPE/HOSE**



**INFLATION CONTROLLER**



## 1. INFLATABLE RUBBER PIPE PLUGS

# Very high pressure 435 PSI multi-size plugs **PLUGY HP**

Requests for higher back pressure rates especially for small pipe diameters lead Sava to design and manufacture four different sizes of high pressure inflatable plugs. Plugs are used for sealing and testing of pipeline tightness with air or water. All plugs are steel reinforced, having all stainless steel metal parts.



### PLUGY VJ- 435 PSI Very High Pressure Blocking plug

#### Technical data

Code Bypass plugs	Dimension	Size usage range	Required Inflation Pressure	*Back pressure	Total length	Rubber Sleeve Length	Weight
		inch	psi	psi	inch	inch	lbs.
<b>538625</b>	Ø 2"x16"	2.1"-3"	435 psi	230 psi	24"	16"	3 lbs.
<b>533837</b>	Ø 3"x16"	3"-4"	435 psi	230 psi	24"	16"	8 lbs.
<b>533838</b>	Ø 3.5x16"	4"-6"	435 psi	230 psi	24"	16"	13 lbs.
<b>533839</b>	Ø 5"x16"	6"-8"	435 psi	230 psi	25"	16"	25 lbs.

### PLUGSY VJ- 435 PSI Very High Pressure Bypass plug

#### Technical data

Code Bypass plugs	Dimension	Size usage range	Required Inflation Pressure	*Back Pressure	Flow through	Bypass	Total length	Rubber Sleeve Length	Weight
		inch	psi	psi	inch	FNPT	inch	inch	lbs.
<b>537553</b>	Ø 2"x16"	2.1"-3"	435 psi	230 psi	0.4"	3/8"	24"	16"	8 lbs.
<b>537661</b>	Ø 3"x16"	3"-4"	435 psi	230 psi	0.6"	1/2"	24"	16"	13 lbs.
<b>537323</b>	Ø 3.5x16"	4"-6"	435 psi	230 psi	.75"	3/4"	24"	16"	20 lbs.
<b>537672</b>	Ø 5"x16"	6"-8"	435 psi	230 psi	1"	1"	25"	16"	34 lbs.

\*PLUGS MUST BE MECHANICALLY HELD IN PLACE TO PREVENT SLIPPING WHEN BACK PRESSURE IS PRESENT



**VENT BACK PRESSURE  
BEFORE DEFLATING PLUG**

# Elliptical multi-size plugs PLUGY G and PLUGSY GM



These plugs are used for sealing and testing of liquid pipelines and gas pipelines. Elliptical plugs can be installed into any pipe even if it has a restricted (smaller) inlet. Elliptical plugs are very flexible and easy to insert.

Six different dimensions cover a multi-size range from 2 inches to 20 inches.

Elliptical plugs are noted for their resistance to relatively high back pressures (15 PSI), and a long service life.

All metal parts are made of stainless and non-sparking materials.

There are two types of gas plugs available: a sealing plug and a bypass plug with flow-through.

Elliptical plugs can be made with oil and fuel resistant rubber compound.

## PLUGY G - Elliptical Shaped Blocking plug

### Technical data

Part Number	Nominal Size USA	Size Usage Range		Required Inflation Pressure	MAX Allow. Back Pressure	Deflated Plug		Opening for Insertion Diameter	Product Weight	Inflation Port Thread Size
		Min. Dia.	Max. Dia.			Diameter	Length			
		inch	inch			inch	inch			
511807	2"-3"	1.8"	3"	44 psi	15 psi	1.8"	11"	1.4"	0.6 lbs.	R 1/4"BSPT
511808	3"-5"	2.9"	5"	36 psi	15 psi	2.9"	14"	1.6"	0.37 lbs.	R 1/4"BSPT
511809	4"-6"	3.9"	6"	29 psi	15 psi	3.9"	17"	1.8"	0.56 lbs.	R 3/8"BSPT
511810	6"-8"	5.6"	8"	29 psi	15 psi	5.6"	20"	2"	0.78 lbs.	R 3/8"BSPT
511811	8"-12"	7.7"	12"	29 psi	15 psi	7.7"	28"	2.7"	1.25 lbs.	R 3/8"BSPT
519420	13"-20"	12.1"	20"	22 psi	12 psi	12.1"	37"	3.5"	1.45 lbs.	R 3/8"BSPT

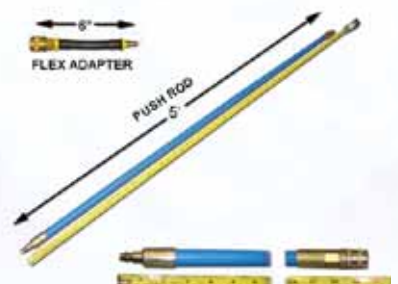
## PLUGSY GM - Elliptical Shaped Bypass plug

### Technical data

Part Number	Nominal Size USA	Size Usage Range		Required Inflation Pressure	MAX Allow. Back Pressure	Deflated Plug		Opening for Insertion	Product Weight	Inflation Port Thread Size	Bypass Diameter (Female)
		Min. Dia.	Max. Dia.			Diameter	Length				
		inch	inch			psi	psi				inch
511812	2"-3"	1.8"	3"	44 psi	15 psi	1.8"	19"	1.4"	0.3 lbs.	R 1/4"	5mm
511813	3"-5"	2.9"	5"	36 psi	15 psi	2.9"	22"	1.6"	1.8 lbs.	R 1/4"	5mm
511814	4"-6"	3.9"	6"	29 psi	15 psi	3.9"	25"	1.8"	2.2 lbs.	R 3/8"	7mm
511815	6"-8"	5.6"	8"	29 psi	15 psi	5.6"	30"	2"	2.6 lbs.	R 3/8"	7mm
511816	8"-12"	7.7"	12"	29 psi	15 psi	7.7"	41"	2.7"	3.8 lbs.	R 3/8"	7mm
519421	13"-20"	12.1"	20"	22 psi	12 psi	12.1	50"	3.5"	4.2 lbs.	R 3/8"	7mm



### INFLATION CONTROLLER





## Flexible packers

Flexible carrier packers are suitable for repair of damaged pipeline sections and joints.

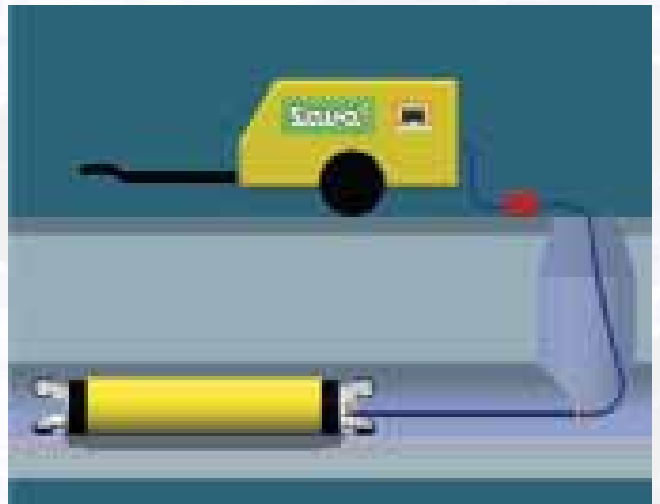
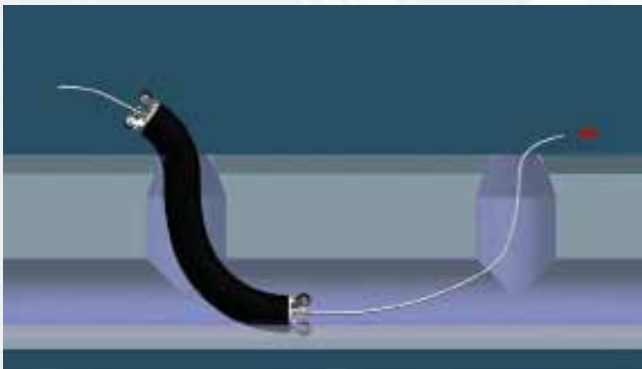
Sava packers are made of special cord-reinforced rubber which provides excellent stretching and wear characteristics.

On each end of the packer there are three wheels attached at an angle of 120°. The wheels are fully adjustable for different pipe diameters. All Sava Flex packers have a flow-through, bypass except for 4" to 6" multi-size packer.

Packers are very flexible and can be bent 90° to easily insert into pipes from the manhole. They are available in a variety of sizes to use for pipe diameters from 4" to 48". Packer lengths ranges from 24 inches to 16 feet.



**ALWAYS CHOOSE  
THE PROPER SIZE  
PACKER FOR THE  
PIPE DIAMETER**



## FLEXIBLE PACKERS

## Technical data

Part Number	Nominal Size USA		Size Usage Range		Required Inflation Pressure	Product Weight	Deflated Packer		Bypass Diameter Female	Rubber Body Length
			Min. Dia.	Max. Dia.			Length	Diameter		
	diameter	length ft.	inch	inch			inch	inch		inch
78214	4"-6"	3.3'	3.9"	6"	36 psi	4.6 lbs.	43"	2.6"	None	39.4"
78266	4"-6"	6.6'	3.9"	6"	36 psi	7.7 lbs.	78"	2.6"	None	74.8"
78218	4"-6"	8.2'	3.9"	6"	36 psi	7.9 lbs.	102"	2.6"	None	98.4"
78231	4"-6"	9.8'	3.9"	6"	36 psi	9.3 lbs.	122"	2.6"	None	118.1"
78244	4"-6"	13.1'	3.9"	6"	36 psi	11 lbs.	161"	2.6"	None	157.5"
78283	4"-6"	16.4'	3.9"	6"	36 psi	13 lbs.	197"	2.6"	None	192.9"
77240	6"-10"	3.3'	5.8"	10"	29 psi	18 lbs.	48"	4.4"	2"	39.4"
77614	6"-10"	6.6'	5.8"	10"	29 psi	24 lbs.	84"	4.4"	2"	74.8"
60846	6"-10"	8.2'	5.8"	10"	29 psi	28 lbs.	107"	4.4"	2"	98.4"
60497	6"-10"	9.8'	5.8"	10"	29 psi	30 lbs.	127"	4.4"	2"	118.1"
60556	6"-10"	13.1'	5.8"	10"	29 psi	38 lbs.	166"	4.4"	2"	157.5"
60585	6"-10"	16.4'	5.8"	10"	29 psi	45 lbs.	202"	4.4"	2"	192.9"
77241	12"-16"	3.3'	11.6"	16"	22 psi	43 lbs.	54"	8.4"	3"	44.1"
77680	12"-16"	6.6'	11.6"	16"	22 psi	53 lbs.	93"	8.4"	3"	83.5"
60525	12"-16"	8.2'	11.6"	16"	22 psi	55 lbs.	111"	8.4"	3"	103.1"
60587	12"-16"	9.8'	11.6"	16"	22 psi	58 lbs.	130"	8.4"	3"	122.8"
60593	12"-16"	13.1'	11.6"	16"	22 psi	69 lbs.	168"	8.4"	3"	162.2"
60594	12"-16"	16.4'	11.6"	16"	22 psi	79 lbs.	200"	8.4"	3"	192.1"
77242	18"-24"	3.3'	17.3"	24"	18 psi	73 lbs.	54"	13.6"	3"	44.1"
78718	18"-24"	6.6'	17.3"	24"	18 psi	91 lbs.	89"	13.6"	3"	79.5"
60526	18"-24"	8.2'	17.3"	24"	18 psi	101 lbs.	110"	13.6"	3"	103.1"
78860	18"-24"	9.8'	17.3"	24"	18 psi	108 lbs.	121"	13.6"	3"	113.4"
65027	24"-32"	3.3'	23"	32"	15 psi	80 lbs.	73"	16"	3"	63.8"
60120	24"-32"	6.6'	23"	32"	15 psi	89 lbs.	89"	16"	3"	79.5"
60527	24"-32"	8.2'	23"	32"	15 psi	101 lbs.	110"	16"	3"	103.1"
60598	24"-32"	9.8'	23"	32"	15 psi	108 lbs.	121"	16"	3"	113.4"
78015	32"-40"	4.9'	30.7"	40"	15 psi	140 lbs.	70"	21.1"	3"	60.6"
79186	40"-48"	6.6'	38.5"	48"	15 psi	154 lbs.	86"	21.1"	3"	77.2"

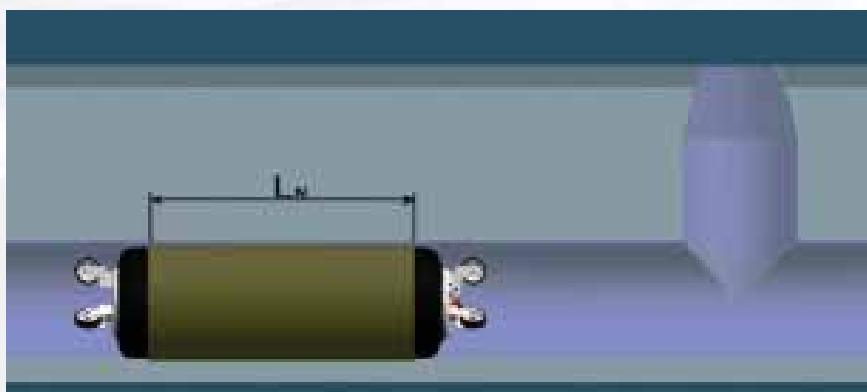
## How to calculate the contact area of the packer

## Flex packers

Size	
4"-6":	$L_n = L_g - (\pi * (D - (d - .59))/2) - 5.51$
6"-10":	$L_n = L_g - (\pi * (D - (d - .87))/2) - 7.09$
12"-16", 18"-24", 24"-32":	$L_n = L_g - (\pi * (D - (d - .98))/2) - 2.36$
32"-40", 40"-48":	$L_n = L_g - (\pi * (D - (d - .59))/2) - 8.27$

## Legend

$L_n$	... contact length (inch)
$L_g$	... packer rubber body length (sleeve) (inch)
$D$	... pipeline diameter, for which contact length is calculated (inch)
$d$	... deflated packer diameter (inch)



## LONG PACKERS

### LONG PACKERS

Long packers are distinguished for the most economical construction. Quick action couplings are installed on both ends as well as two eyelet bolts on each side for attaching a lift rope.

These packers do not come with wheels or by-pass.

Long packers are for use in pipes with diameter 8" to 32". The effective packer length is between 40" and 16 feet. See page 24 for actual contact area/length specifications.



**ALWAYS PROTECT THE PACKER FROM  
CHEMICALS WITH A PROTECTIVE  
MEMBRANE OR SAVA APPROVED  
LUBRICATING GREASE**

### LONG PACKERS

#### Technical data

Part Number	Nominal Size		Size Usage Range		Required Inflation Pressure	Product Weight	Deflated Packer		Rubber Body Length
			Min. Dia.	Max. Dia.			Length	Diameter	
	USA	Length ft.	inch	inch			inch	inch	inch
78256	8"-12"	4.9'	8"	12"	22 psi	10 lbs.	63"	5.7"	59.1"
67042	8"-12"	6.5'	8"	12"	22 psi	12 lbs.	84"	5.7"	78.7"
78257	8"-12"	8.2'	8"	12"	22 psi	13 lbs.	103"	5.7"	98.4"
77386	8"-12"	9.8'	8"	12"	22 psi	15 lbs.	122"	5.7"	118.1"
78258	8"-12"	13.1'	8"	12"	22 psi	18 lbs.	162"	5.7"	157.5"
77237	8"-12"	16.3'	8"	12"	22 psi	21 lbs.	197"	5.7"	192.9"
78259	12"-16"	4.9'	12"	16"	22 psi	20 lbs.	63"	9.6"	59.1"
77925	12"-16"	6.5'	12"	16"	22 psi	23 lbs.	83"	9.6"	78.7"
77926	12"-16"	8.2'	12"	16"	22 psi	25 lbs.	103"	9.6"	98.4"
78260	12"-16"	9.8'	12"	16"	22 psi	28 lbs.	122"	9.6"	118.1"
78261	12"-16"	13.1'	12"	16"	22 psi	32 lbs.	162"	9.6"	157.5"
78262	12"-16"	16.3'	12"	16"	22 psi	37 lbs.	197"	9.6"	192.9"
78263	16"-20"	4.9'	16"	20"	15 psi	39 lbs.	65"	13.4"	59.1"
77553	16"-20"	6.5'	16"	20"	15 psi	42 lbs.	85"	13.4"	78.7"
77239	16"-20"	8.2'	16"	20"	15 psi	46 lbs.	105"	13.4"	98.4"
78264	16"-20"	9.8'	16"	20"	15 psi	50 lbs.	121"	13.4"	118.1"
78265	16"-20"	13.1'	16"	20"	15 psi	63 lbs.	164"	13.4"	157.5"
77238	16"-20"	16.3'	16"	20"	15 psi	72 lbs.	199"	13.4"	192.9"
60179	20"-24"	4.9'	20"	24"	12 psi	54 lbs.	65"	15.9"	59.1"
67040	20"-24"	6.5'	20"	24"	12 psi	60 lbs.	85"	15.9"	78.7"
60190	20"-24"	8.2'	20"	24"	12 psi	66 lbs.	105"	15.9"	98.4"
70072	20"-24"	9.8'	20"	24"	12 psi	74 lbs.	124"	15.9"	118.1"
70218	20"-24"	13.1'	20"	24"	12 psi	83 lbs.	164"	15.9"	157.5"
70066	20"-24"	16.3'	20"	24"	12 psi	93 lbs.	199"	15.9"	192.9"
60758	24"-32"	4.9'	24"	32"	9 psi	85 lbs.	65"	21.1"	59.1"
60759	24"-32"	6.5'	24"	32"	9 psi	94 lbs.	81"	21.1"	78.7"
60760	24"-32"	8.2'	24"	32"	9 psi	101 lbs.	105"	21.1"	98.4"
60761	24"-32"	9.8'	24"	32"	9 psi	108 lbs.	124"	21.1"	118.1"
60763	24"-32"	13.1'	24"	32"	9 psi	124 lbs.	163"	21.1"	157.5"
60764	24"-32"	16.3'	24"	32"	9 psi	139 lbs.	199"	21.1"	192.9"



## Lateral packers

**PACKER HP-K**



Sava lateral packers are suitable for repairs of pipes with smaller diameters, especially in residential and commercial buildings. These packers are rounded on both ends in order to simplify handling and slipping past bends. They are equipped with quick couplings and eyelet bolts. Five standard diameters in various lengths are available.

See page 24 for contact area/length specifications.

### LATERAL PACKERS

#### Technical data

Part Number	Nominal Size		Size Usage Range		Required Inflation Pressure	Product Weight	Deflated Packer		Bypass	Rubber Body Length
			Min. Dia.	Max. Dia.			Length	Diameter		
	USA	ft.	inch	inch			inch	inch		inch
529897	1.5"-2"	2.3'	1.5"	3"	36 psi	1 lbs.	30"	1"	none	27"
530785	1.5"-2"	3.2'	2"	3"	36 psi	1 lbs.	41"	1"	none	39"
530786	1.5"-2"	4.8'	2"	3"	36 psi	2 lbs.	61"	1"	none	58"
530787	1.5"-2"	6.4'	2"	3"	36 psi	2 lbs.	80"	1"	none	77"
542187	2"-3"	2.3'	2"	3"	44 psi	2 lbs.	30"	1.2"	none	27"
281246	2"-3"	3.2'	2"	3"	44 psi	2 lbs.	41"	1.2"	none	39"
543422	2"-3"	4.8'	2"	3"	44 psi	3 lbs.	61"	1.2"	none	58"
543423	2"-3"	6.4'	2"	3"	44 psi	4 lbs.	80"	1.2"	none	77"
543423	2"-3"	9.6"	2"	3"	44 psi	5 lbs.	118"	1.2"	none	116"
60052	3"-4"	2.0"	3"	4"	36 psi	1 lbs.	28"	1.8"	none	23"
60053	3"-4"	3.2'	3"	4"	36 psi	1 lbs.	43"	1.8"	none	39"
60059	3"-4"	4.8'	3"	4"	36 psi	2 lbs.	63"	1.8"	none	58"
60060	3"-4"	6.4'	3"	4"	36 psi	2 lbs.	82"	1.8"	none	77"
60061	3"-4"	9.6	3"	4"	36 psi	3 lbs.	120"	1.8"	none	116
60069	3"-4"	12.8'	3"	4"	36 psi	3 lbs.	159"	1.8"	none	154
60081	3"-4"	16'	3"	4"	36 psi	5 lbs.	193"	1.8"	none	189
60307	4"-6"	2.0'	4"	6"	36 psi	3 lbs.	28"	2.5"	none	23"
60308	4"-6"	3.2'	4"	6"	36 psi	3 lbs.	43"	2.5"	none	39"
60309	4"-6"	4.8'	4"	6"	36 psi	4 lbs.	63"	2.5"	none	58"
60311	4"-6"	6.4'	4"	6"	36 psi	5 lbs.	82"	2.5"	none	77"
60461	4"-6"	9.6'	4"	6"	36 psi	6 lbs.	120"	2.5"	none	116"
60492	4"-6"	12.8'	4"	6"	36 psi	8 lbs.	159"	2.5"	none	154"
60298	4"-6"	16'	4"	6"	36 psi	10 lbs.	193"	2.5"	none	189"
60314	6"-8"	2.0"	6"	8"	36 psi	3 lbs.	28"	3.3"	none	23"
60330	6"-8"	3.2'	6"	8"	36 psi	4 lbs.	43"	3.3"	none	39"
60331	6"-8"	4.8'	6"	8"	36 psi	5 lbs.	63"	3.3"	none	58"
60343	6"-8"	6.4'	6"	8"	36 psi	6 lbs.	82"	3.3"	none	77"
60516	15-20	9.6	6"	8"	36 psi	9 lbs.	120"	3.3"	none	116"
60955	6"-8"	12.8'	6"	8"	36 psi	11 lbs.	159"	3.3"	none	154"
60005	6"-8"	16'	6"	8"	36 psi	13 lbs.	193"	3.3"	none	189"

## Packer HP-T90°

Superior rubber compounds and advanced design allows for repairs of 45°, 60° and 90° degree angles.



### PACKER HP-T90°

#### Technical data

Part Number	Nominal Size		Size Usage Range		Required Inflation Pressure	Product Weight	Deflated Packer		Contact Area depends on diam.		Rubber Body Length
			Min. Dia.	Max. Dia.			Length	Diameter	From	To	
	USA	ft.	inch	inch			psi	lbs.	inch	inch	
525957	2.8"-3.1"	3.3"	2.8"	3.1"	29 psi	3 lbs.	45"	1.8"	31.5"	29.5"	39.4"
525960	4"-5"	3.3"	4"	5"	29 psi	5 lbs.	45"	2.6"	31.5"	29.5"	39.4"
525963	6"-6.5"	3.3"	6"	6.5"	29 psi	8 lbs.	45"	3.3"	31.5"	29.5"	39.4"
525959	7"-8"	3.3"	7"	8"	29 psi	13 lbs.	45"	4.1"	31.5"	29.5"	39.4"

### How to calculate the contact area/length of Long packers and Lateral packers

#### Long packers

Size

$$L_n = L_g - (\pi * (D - (d - 0.59))/2) - 8.27$$

#### Lateral packers

Size

$$2.8"-3.1" \quad L_n = L_g - (\pi * (D - (d - 0.59))/2) - 4.73$$

$$4"-5" \quad L_n = L_g - (\pi * (D - (d - 0.59))/2) - 5.51$$

$$6"-6.5" \quad L_n = L_g - (\pi * (D - (d - 0.59))/2) - 7.09$$

#### Legend

- $L_n$  ... contact length (inches)
- $L_g$  ... packer rubber body length (sleeve) (inches)
- $D$  ... pipeline diameter, for which contact length is calculated (inches)
- $d$  ... deflated packer diameter (inches)



**ALWAYS PROTECT  
THE PACKER  
AGAINST  
CHEMICALS**

## Short packers

Short packers have a replaceable double-layer rubber sleeve mounted on a PPH (Polypropylene) cylinder. All other parts installed on the packer are made of corrosion resistant materials.

On each side of the packer three wheels are attached. Wheels are fully adjustable for different pipe diameters.

The effective packer length is 24 inches therefore they are suitable for repair of pipeline joints or repair of shorter pipeline sections along with insertion of stainless steel liner shells.



### SHORT PACKERS

#### Technical data

Part Number	Nominal Size	Size Usage Range		Required Inflation Pressure psi	Product Weight lbs.	Deflated Packer		Bypass Diameter	Rubber Body Length
		Min. Dia.	Max. Dia.			Length	Diameter		
		inch	inch			inch	inch		inch
76646	6"-8"	6"	8"	29 psi	14 lbs.	38"	4.5"	3"	31.5"
76647	10"-12"	10"	12"	29 psi	28 lbs.	40"	8.1"	6"	31.5"
76821	12"-14"	12"	14"	22 psi	38 lbs.	40"	9.8"	8"	31.5"
76648	14"-16"	14"	16"	22 psi	43 lbs.	40"	12"	10"	31.5"
76649	18"-20"	18"	20"	22 psi	66 lbs.	40"	15"	12"	31.5"
78247	24"-28"	24"	28"	15 psi	111 lbs.	47"	18.3"	15"	31.5"

### How to calculate the contact area/length of the packer

#### Short packers

Size

$$L_n = L_g - (\pi * (D - (d - 0.98))/4) - 3.15$$

#### Legend

- $L_n$  ... contact length (inch)
- $L_g$  ... packer rubber body length (sleeve) (inch)
- $D$  ... pipeline diameter, for which contact length is calculated (inch)
- $d$  ... deflated packer diameter (inch)



**FOLLOW  
INSTRUCTIONS  
FOR ADJUSTING  
WHEELS**



## Custom engineered products



Engineering services are available for custom solutions.

Sava is primarily an engineered rubber products manufacturer. Heavy duty inflatable products are our specialty. If you can conceive it, we may be able to build it. Give us your requirements, plans or ideas and let us show you what we can do for you.

[tony@savatech.com](mailto:tony@savatech.com)

+386-760-0706 ph

+386-760-0706 fx

## 1. LIMITED WARRANTY

1.1 The Manufacturer warrants for twelve (12) months following the date of delivery all Pneumatic pipe plugs and packers (hereafter referred to as Products) to be free from defects in material and workmanship. If any of the Products are found to be defective, such Product will, at Manufacturer's costs and its discretion be replaced or repaired.

1.2. The main purpose of Article 1.1. (Warranty) shall be to provide the Buyer with free repair and replacement of defective goods on condition that the Manufacturer acknowledges the Buyer's claim as justified. Such assurance is deemed to fulfil its essential purpose as long as the Manufacturer is willing and able to repair or replace defective goods and when the product is not functioning in line with the representations in the technical specifications.

1.3. Products, which may be sold by the Manufacturer but are not manufactured by it are not subject to this warranty and are sold exclusively with warranties, if any, by their original manufacturer.

1.4 The Manufacturer's warranty does not apply to any Products, which have been subject to misuse, mishandling, misapplication, neglect (including but not limited to use of unauthorized components or attachments), or if adjustment or repair have been performed by anyone other than the Manufacturer or one of its authorised agents.

1.5 Any claim by the Buyer with reference to the Products shall be deemed waived by the Buyer, unless submitted in writing to the Manufacturer within the earlier of (I) eight (8) days following the date Buyer discovered any defect, or (II) twelve (12) months following the date of delivery.

## 2. LIMITATION OF LIABILITY

2.1 If within a term stipulated in Article 1.5 the Manufacturer is submitted a justified claim according to the provisions thereof, then the Manufacturer may either:

- 2.1.1 repair the Product;
- 2.1.2 replace those components of the Product, which are of poor quality;
- 2.1.3 replace the Product, if repair is not possible; or
- 2.1.4 return the purchase money for the Product or its component of poor quality;

After performing any of the above the Manufacturer is free from any other liabilities whatsoever towards the Buyer.

2.2 The Manufacturer use its own discretion to decide on the way of eliminating defects on the Product quoted in Articles 2.1.1 to 2.1.4 and pays thereby regard of the faultless functionality of the objected Product.

## 3. DISCLAIMER OF CONSEQUENTIAL DAMAGES

3.1 The Manufacturer's warranty is subject to the following conditions:

- 3.1.1 The Manufacturer shall not be held liable for any deficiencies in Products manufactured according to drawings, project drafts or specifications provided by the Buyer;
- 3.1.2 The Manufacturer shall not be held liable for any deficiencies resulting from ordinary wear and tear, intentional damage, neglect, abnormal operating conditions, non-observing the Manufacturer's instructions (whether oral or written), misuse and change and repairs of Products without the Manufacturer's approval;
- 3.1.3 The Manufacturer shall not be held liable if the purchase money has not been completely paid within the agreed term;

3.2 Manufacturer shall neither be held liable to the Buyer nor

considered to violate the contract, if it is in delay at performing or fulfilling any obligations whatsoever that it has as the Manufacturer in connection with the Products, or if such a delay or non-fulfilment results from a reason, on which the Manufacturer has no influence. Without limiting the above mentioned, the following is considered the reason, on which the Manufacturer has no influence:

- 3.2.1 Force Majeure, explosion, flood, storm, fire or accident;
- 3.2.2 war or threat of war, sabotage, insurrection, riots or requisition;
- 3.2.3 all laws, restrictions, regulations, by-laws, prohibitions or any other measures by the governmental, parliamentary or local bodies;
- 3.2.4 import and export regulations or embargo;
- 3.2.5 strikes, lock-outs or other industrial measures or trade disputes (if including Manufacturer's employees or third party);
- 3.2.6 difficulties with supply of raw materials, work force, fuel, parts or machinery;
- 3.2.7 power blackout, break of machinery.

## 4. DEFECTIVE PRODUCTS POLICY

4.1 To obtain performance under this warranty, any products suspected of having a manufacturing defect in materials or workmanship may be returned freight prepaid for inspection to:

Savatech Corp.  
413 Oak Place, Bldg. 5J  
Port Orange Florida 32127  
386-760-0706  
Call for additional warranty claim instructions.

The Manufacturer obliges itself to decide upon the justification of the claim within forty-five (45) days following the date the Manufacturer receives such a claim. The Manufacturer's decision is final.

## 5. CUSTOMER TRANSPORTATION REIMBURSEMENT

5.1 Whenever the Manufacturer repairs or replaces the product at its expense or returns the purchase price, the Manufacturer will reimburse the dealer or the Buyer (depending on each case) by a credit note, the same surface freight amount the distributor or the Buyer had when returning the Product to the Manufacturer.

## 6. GENERAL

6.1 The foregoing warranty is in lieu of all other warranties expressed or implied, including those of merchantability or fitness for any purpose not expressly set forth herein.

6.2 No statement or assurance of the Manufacturer, by words of action, other than as set forth herein shall constitute a warranty. The rules of UN Convention on contracts for the international sale of goods shall not apply.

# MATERIALS AND TABLE OF RESISTANCE

## TABLE OF CHEMICAL RESISTANCE

Product type	Rubber	Reinforcement Cord	Metal Components
Rubber pipe plug, and rehabilitation packers	A	None, Rayon, Kevlar cord	Aluminium, steel, brass, hot galvanized iron
Rubber pipe plugs (Neoprene, oil resistant)	B	Rayon, Kevlar cord	Brass

## TABLE OF RESISTANCE

Chemical	Conc %	Temp °C (°F)	A	B
Acetone		RT	0	-
Acetylene			+	+
Ammonium Hydroxide	10%	RT	+	+
	conc	RT	+	0
Aniline		RT	0	-
		100°C (212°F)	-	-
Benzene		RT	-	-
Boric Acid	10%	100°C (212°F)	+	+
Brake Fluid (Vegetable)		50°C (122°F)	+	-
Butanol		50°C (122°F)	+	+
		100°C (212°F)	-	+
Butyric Acid		RT		-
Calcium Hydroxide		100°C (212°F)	+	0
Calcium Hypochlorite	15%	RT	+	-
Chloric Acid	20%	RT		-
Diesel Oil			-	+
Ethanol		50°C (122°F)	+	+
Ether		RT	-	0
Formaldehyde	40%	RT	+	+
	40%	70°C (158°F)		-
Glycerol (Glycerine)		100°C (212°F)	+	+
Hexanol		RT	+	0
Hydrogen Peroxide	30%	RT	-	-
	90%	RT	-	-
Kerosene		70°C (158°F)	-	+
Methanol		50°C (122°F)	+	+
Methyl Chloride			-	-
Milk			+	+
Mineral Oil No. 1		100°C (212°F)	-	+
Mineral Oil No. 2		100°C (212°F)	-	+
Mineral Oil No. 3		100°C (212°F)	-	+
Naphtha		RT	-	+
Natural Gas			-	+
Nitric Acid Diluted	10%	50°C (122°F)	0	0
Ozone	50 pphm	40°C (104°F)	-	-
Phenol		100°C (212°F)	-	-
Phosphoric Acid	60%	50°C (122°F)	0	-
Propanol		50°C (122°F)	+	0
Sodium Hydroxide	12%	100°C (212°F)	+	+
	25%	100°C (212°F)	+	-
Sodium Hypochlorite	10%	50°C (122°F)	0	-
Sulfur Hexafluoride				-
	10%	100°C (212°F)	+	-
	20%	RT	+	+
Sulfuric Acid	50%	100°C (212°F)	+	+
	60%	100°C (212°F)	-	-
	75%	100°C (212°F)	-	-
	96%	RT	-	-
Toluene		RT	-	-

+ Resistant, 0 Conditionally resistant, - non-resistant



SAVATECH



**BUREAU VERITAS**  
Certification

## Certification

Awarded to

### SAVATECH d.o.o.

**PROGRAM ENVIRONMENTAL PROTECTION PRODUCTS**  
ŠKOFJELOŠKA CESTA 6, 4000 KRANJ, SLOVENIJA

Bureau Veritas Certification certify that the Management System of the above organization has been audited and found to be in accordance with the requirements of the management system standards detailed below

Standards

---

**ISO 9001:2008**

---

Permitted Exclusion(s)

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7.5.4 Customer property

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Scope of supply

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**DESIGN/DEVELOPMENT, PRODUCTION AND SALES OF ENVIRONMENTAL PROTECTION PRODUCTS: INFLATABLE PIPE PLUGS, INFLATABLE PACKERS, LIFTING BAGS, AIR CRAFT LIFTING BAGS, LEAK SEALING BAGS, TANKS, INFLATABLE SHELTERS, RESCUE WALKWAY, INFLATABLE STRETCHER, DECONTAMINATION UNITS, INFLATABLE DAMS, OIL BOOMS, PRODUCTS FOR RESCUE OPERATION, INFLATABLE TAILOR MADE PRODUCTS**

*Original Approval Date: 22/11/1999*

*Subject to the continued satisfactory operation of the organization's management System, this certificate is valid until: 18/12/2011*

*To check this certificate validity please call +386 1 47 57 670.  
Further clarifications regarding the scope of this certificate and the applicability of the management system requirements may be obtained consulting the organization.*

Certificate number: SL12409Q/G

Date: 01/04/2009





Bureau Veritas Certification  
using the accreditation  
certificate number 9509

CERTIFICATION AUTHORITY: Bureau Veritas Certification, s.r.o., Olbrachtova 1, 140 00 Praha 4, Czech Republic  
MANAGING OFFICE: Bureau Veritas Certification, Ljubljanska cesta 49a, 1000 Ljubljana, Slovenia

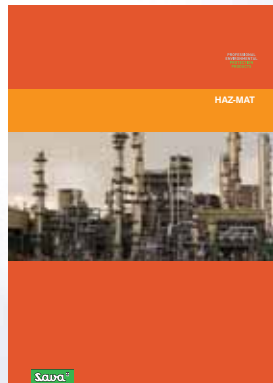


# ABOUT US



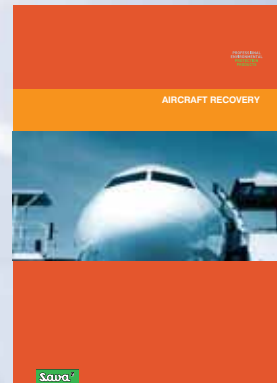
## RESCUE

Low, medium and high-pressure lifting bags, inflatable stretchers, rescue walkways, inflatable tents.



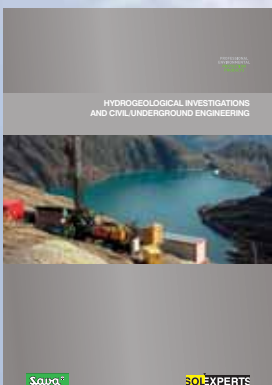
## HAZ-MAT

Pneumatic pipe plugs, leak sealing bags, decontamination, tanks.



## AIRCRAFT RECOVERY

Aircraft recovery lifting bags



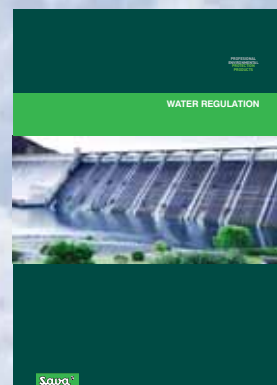
## HYDROGEOLOGICAL INVESTIGATIONS AND CIVIL/ UNDERGROUND ENGINEERING

High pressure packers



## OFF SHORE

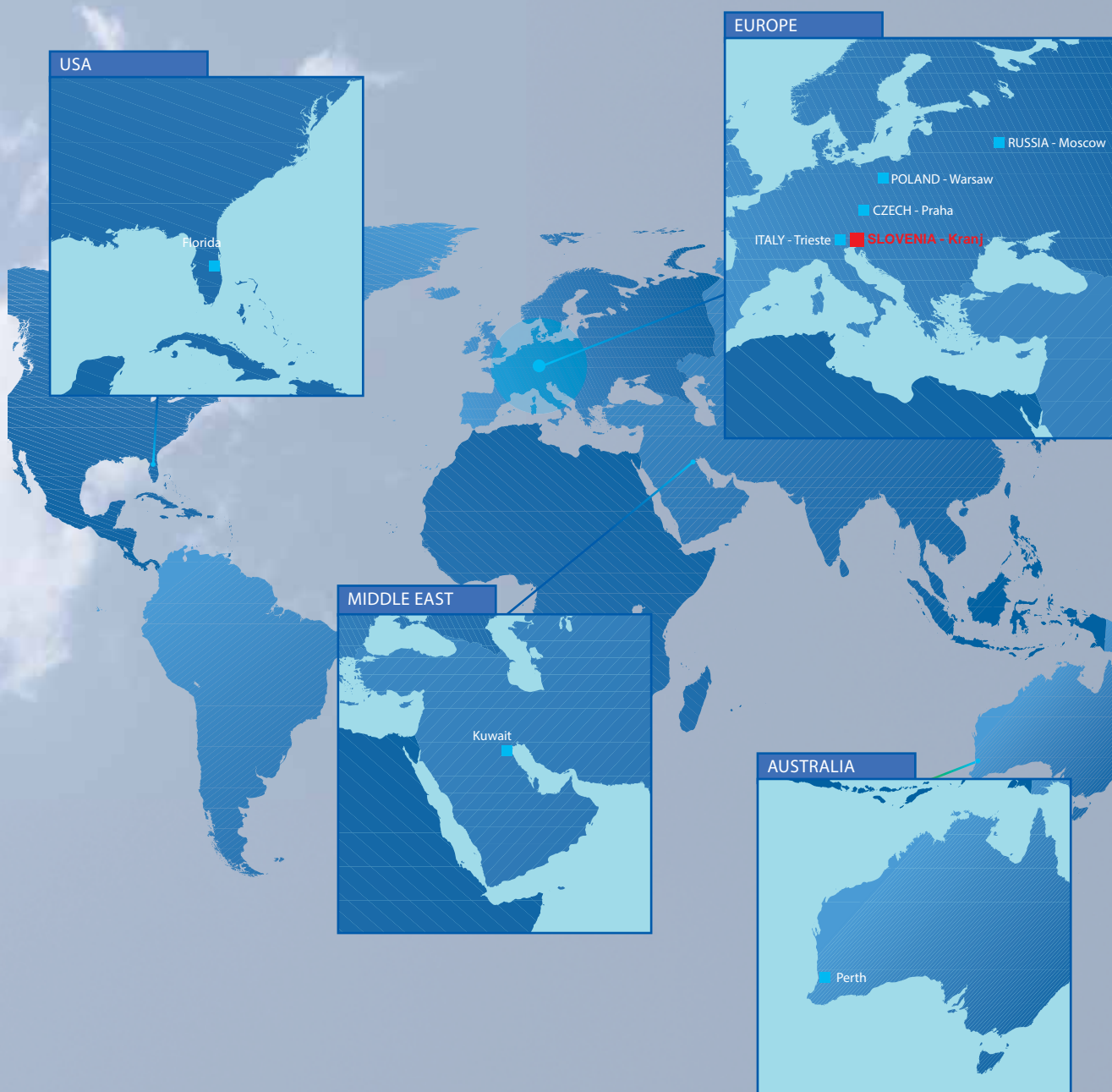
Oil booms



## WATER FLOW MANAGEMENT

Rubber dams

# FOREIGN TRADE NETWORK



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