

# VETTER SEALING BAGS

## 1.5 bar (21.75 psi)

(TYPE 80/140 (32/54); 1 bar/14.5 psi)



Vetter Sealing Bags are used to run standard leakproof tests on sewer pipes. They are quickly inflated to plug sewers to keep out toxic liquids leaking from tanks or boilers, or polluted water run off

from fire-fighting operations. They keep the sewer system ecologically clean by guarding it against the inflow of hazardous liquids.

Available in a range of variants, they solve many sealing needs, guarding sewers against pollution as well as preventing them emitting obnoxious odours or poisonous gas into the air.

## APPLICATIONS:

Keeping liquid pollutants out of gullies and sewer pipes after accidents with hazardous materials

Preventing groundwater pollution

Damming environmentally dangerous liquids for subsequent safe disposal

Damming and controlled drainage of hazardous liquids (with Bypass Adaptor and shut-off valve)

Sealing filler pipes on road and rail tankers

Damming fire-extinguishing water

Setting-up pump sumps

Leakproof-testing of newly laid or repaired sewer pipes with water-pressure to DIN 4033 (which stipulates water-pressure tests at 0.5 bar/ 7.25 psi [5 mWH] to assess leakage loss)

Leakproof-testing also with compressed-air or vacuum

Diverting waste water around a pipe section during repairs

Repairing and checking pipe sections

Plugging a pipe-end to prevent backflow during flooding, sewer inspection, cleaning, maintenance and repairs

Safety-first equipment for fire brigades, the chemical industry, construction companies, refineries.

## SIZES:

7 sizes for pipe diameters from 10 to 140 cm (4 to 55 in.)

## ADVANTAGES:

Fast sealing of drains and gullies to prevent inflow of toxic liquids, or outflow of polluting liquids and vapours

Basic Sealing Bags can be used with different adaptors: With test adaptors for leakproof tests on sewers, with bypass adaptors for diversion of liquids in sewers

Thanks to optimum expandability and design, only five Sealing Bags are required to plug even non-standard, round pipe diameters from 10 to 140 cm (4 to 55 in.), only three Test Bags are required for pipe diameters from 10 to 120 cm (4 to 47 in.)

Sealing Bags 1.5 bar (21.75 psi) withstand backpressure of at least 5 mWH in sewers and gullies

They prevent untreated sewage seeping into the ground and polluting groundwater

Simple and reliable in use, long life and economical

Large apertures (for diverting effluent or introducing water for leakproof testing)

Quickly inflated

Maximum working pressure of only 1.5 bar (21.75 psi), allowing safe use even in ageing sewers no longer possessing their original strength

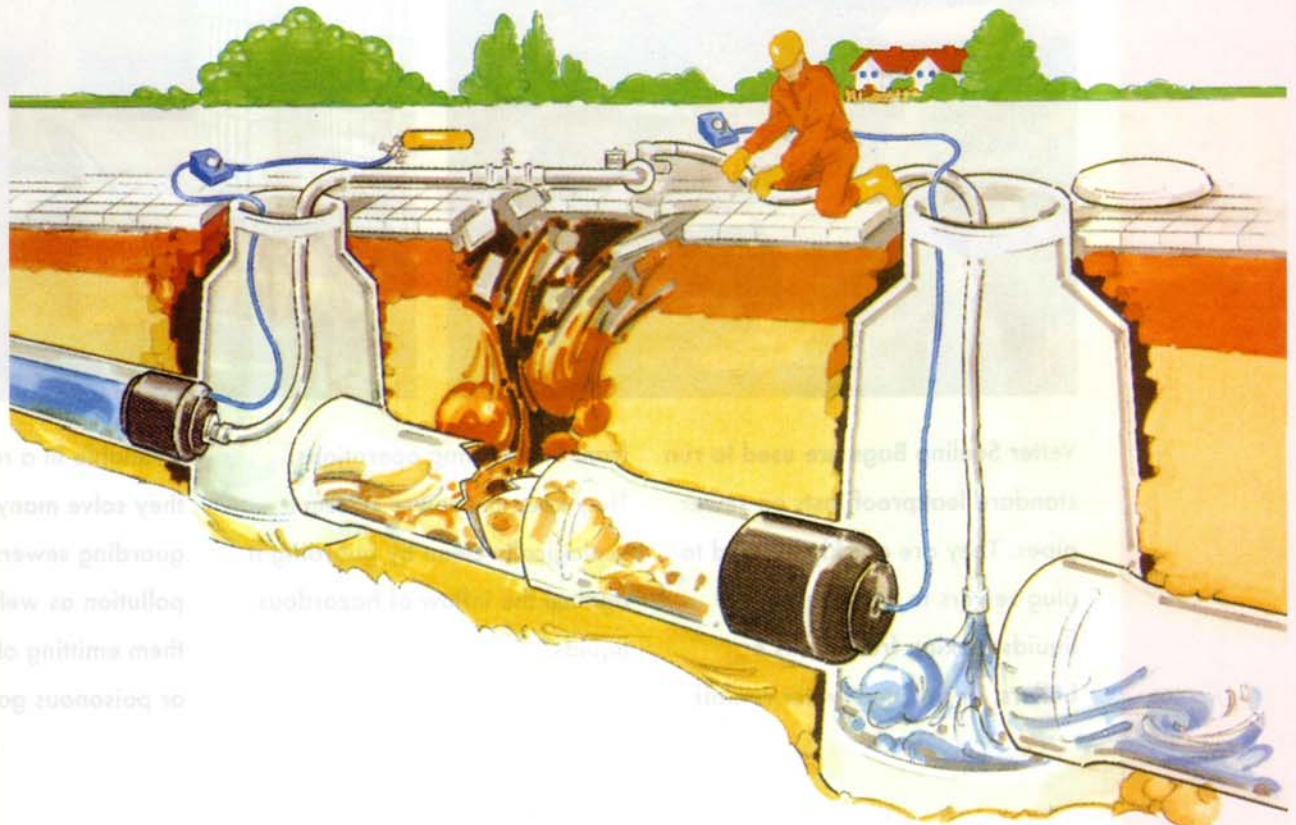
Withstand backpressure of at least 0.5 bar/14.5 psi (5 mWH) in each maximum permissible pipe diameter

Test Bags with floating bleeder hose

Quick change from test adaptor to bypass adaptor for larger through-flow opening (PDK 50/80 [FT 20/ 32], PDK 50/120 [FT 20/47] are standard-equipped with bypass connection)

Crease-free, unlike glued bags, and dense sealing surfaces, no diffusion and no leakage at joints

The bags can be repaired, provided their reinforcement is undamaged - though repairs may change their elasticity and leak resistance





## SAFETY:

Labelled with brief operating instructions

All bags are tested at 1.3 times their maximum allowable working pressure

Backpressure-tested at 0.5 bar/14.5 psi (5 mWH) at each maximum permissible pipe diameter

Controller positioned at a safe distance of at least 10 m (32.8 ft.) - well away from hazardous materials

The bags can be deflated from outside sewer networks from a distance of 10 m (32.8 ft.)

Single fitting controller 1.5 bar (21.75 psi), with 1 safety valve, 1 pressure gauge and stop valve to prevent inadvertent over-inflation

Test Bags with high-strength inner pipe for easy bracing

Optimum operating safety through large contact surface even in the largest pipe diameters, through optimum design of bag surface and low 1.5 bar (21.75 psi) working pressure

## MATERIAL: A

Robust rubber material

Resistant to most chemicals  
(Consult list of resistance values)

Heat-resistant to 90°C/194°F  
(short term) and 85°C/185°F  
(long term)

Highly elastic - up to 100 %

Multi-layer construction with fabric  
reinforcement

Fabric reinforcement permits  
expansion of bag diameter but not  
bag length

Test Bag inner pipes made from  
highly impact-proof polyethylene

## AIR SOURCES:

Compressed-air cylinders 200 or  
300 bar (3,000 or 4,500 psi)

Compressed-air mains

Truck tyre inflator

Hand and foot-operated pump

Compressor

## ACCESSORIES:

Pressure regulator 200/300 bar  
(3,000/4,500 psi) with  
finger-tight connector

Dual connector 200 bar (3,000 psi)

Dual connector 300 bar (4,500 psi)

Dual fitting controller

Single fitting controller

Inflation hose 10 m (32.8 ft.),  
10 mm (0.4 in.) internal diameter

Inflation and safety hose 10 m  
(32.8 ft.)

Adaptor set

Vacuum adaptor 1.5 bar (21.75 psi)

Tethering line 5 m (16.4 ft.)

Bypass adaptor

Test and measuring hose 6 m  
(19.6 ft.)

Shut-off unit, Storz C (= 2" dia.)  
for testing watertightness

Fittings for compressed-air or  
vacuum tests

Leakproof-testing of newly-laid or  
repaired sewer pipes with water  
pressure as in DIN 4033

**Leakproof water-pressure test**  
as specified in DIN 4033

## Equipment for pipe diameters from 10 to 20 cm (4 to 8 in.)

- 2 Basic Test Sealing Bags  
Type PDK 10/20 (FT 4/8)
- 2 Test Bag adaptors
- 2 Test and measuring hoses  
6 m (19.6 ft.), 25 mm  
(1 in.) internal diameter
- 2 Storz D connectors/nipple
- 2 Inflation hoses 10 m  
(32.8 ft.), blue
- 1 Single fitting controller  
1.5 bar (21.75 psi)



## Equipment for pipe diameters from 20 to 50 cm (8 to 20 in.)

- 2 Basic Test Bags  
Type PDK 20/50  
(FT 8/20)
- 2 Test Bag adaptors
- 2 Test and measuring hoses,  
6 m (19.6 ft.), 25 mm  
(1 in.) internal diameter
- 2 Shut-off units Size C
- 2 Inflation hoses 10 m  
(32.8 ft.), blue
- 1 Single fitting controller  
1.5 bar (21.75 psi)
- 2 Sets of bracing supports



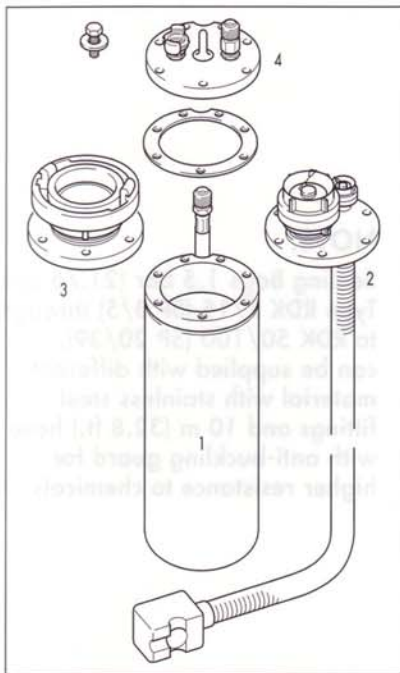
## Equipment for pipe diameters from 50 to 120 cm (20 to 47 in.) (or from 50 to 80 cm (20 to 30 in.) - bag length only 62 cm (24 in.), for narrow shafts

- 2 Test Sealing Bags with  
inner core  
Type PDK 50/120  
(FT 20/47) or PDK 50/80  
(FT 20/32) or FT 20/32)
- 2 Test and measuring hoses,  
6 m (19.6 ft.), 50 mm  
(2 in.) internal diameter
- 2 Shut-off units Size C
- 2 Inflation hoses 10 m  
(32.8 ft.), blue
- 1 Single fitting controller  
1.5 bar (21.75 psi)



## COMPRESSED-AIR TEST

(for larger pipe diameters)  
according to EN 1610



- 1 Basic Test Sealing Bag Type PDK 20/50
- 2 Test Bag adaptor
- 3 Bypass-Adaptor for PDK 20/50
- 4 Compressed-air adaptor

### Equipment for pipe diameters from 20 to 50 cm (8 to 20 in.)

- 1 Basic Test Sealing Bag Type PDK 20/50 (FT 8/20)
- 1 Compressed-air adaptor with claw coupling and quick-action coupling
- 1 Single fitting controller 0.3 bar (4.4 psi) with claw coupling (to fill the pipe)
- 1 Inflation hose 5 m (16.4 ft.) long, 19 mm (3/4") internal dia., claw coupling
- 1 Measuring hose 0.3 bar (4.4 psi), 10 m (32.8 ft.) long, with nipple and pressure gauge (for pressure test on pipe)
- 1 Sealing Bag Type RDK 20/40 (SP 8/16)
- 1 Sealing Bag Type RDK 30/60 (SP 12/24)
- 2 Inflation hoses 10 m (32.8 ft.), blue
- 1 Single fitting controller 1.5 bar (21.75 psi) (to inflate the bags)
- 1 Set of bracing supports



### Equipment for pipe diameters from 50 to 80 cm (20 to 32 in.) for narrow shafts

- 1 Test Sealing Bag Type PDK 50/80 (FT 20/32)
- 1 Adaptor C Storz coupling with claw coupling
- 1 Adaptor C Storz coupling with quick-action coupling
- 1 Single fitting controller 0.3 bar (4.4 psi) with claw coupling (to fill the pipe)
- 1 Inflation hose 5 m (16.4 ft.) long, 19 mm (3/4") internal dia., claw coupling (to fill the pipe)
- 1 Measuring hose 0.3 bar (4.4 psi), 10 m (32.8 ft.) long, with nipple and pressure gauge (for pressure test on pipe)
- 1 Sealing Bag Type RDK 50/100 (SP 20/39)
- 3 Inflation hoses 10 m (32.8 ft.), blue
- 1 Dual fitting controller 1.5 bar (21.75 psi) (to inflate the bags)



### Equipment for pipe diameters from 50 to 120 cm (20 to 47 in.)

- 2 Test Bags Type PDK 50/120
- 1 Adaptor C Storz coupling with claw coupling
- 1 Adaptor C Storz coupling with quick-action couplin
- 1 Single fitting controller 0.3 bar (4.35 psi) claw coupling (to fill the pipe)
- 1 Inflation hose 5 m (16.4 ft.) long, 19 mm (3/4") internal dia., claw coupling (to fill the pipe)
- 1 Measuring hose 0.3 bar (4.4 psi), 10 m (32.8 ft.) long, with nipple and pressure gauge (for pressure test on pipe)
- 2 Inflation hoses 10 m (32.8 ft.), blue
- 1 Single fitting controller 1.5 bar/ 21.75 psi (to inflate the bags)



If Test Sealing Bags are already available, only the following accessories are required for compressed-air tests:

**Set of accessories for compressed-air tests with PDK 20/50 (FT 8/20)**

Art.-No.: 141 50 00  
consisting of:

- Compressed-air adaptor with claw coupling and quick-action coupling
- Single fitting controller 0.3 bar (4.4 psi), with claw coupling
- Inflation hose 5 m (16.4 ft.) long, 19 mm (3/4") i.d., claw coupling
- Measuring hose 0.3 bar (4.4 psi), 10 m (32.8 ft.) long with nipple and pressure gauge



**Set of accessories for compressed-air tests with PDK 50/80 (FT 20/32) and PDK 50/120 (FT 20/47)**

Art.-No.: 141 60 00  
consisting of:

- Adaptor C Storz coupling with claw coupling
- Adaptor C Storz coupling with quick-action coupling
- Single fitting controller 0.3 bar (4.4 psi) with claw coupling
- Inflation hose 5 m (16.4 ft.) long, 19 mm (3/4") i.d., claw coupling  
114 03 000
- Measuring hose 0.3 bar (4.4 psi), 10 m (32.8 ft.) long with nipple and pressure gauge



**NOTE:**

Sealing Bags 1.5 bar (21.75 psi), Type RDK 7/15 (SP 3/5) through to RDK 50/100 (SP 20/39), can be supplied with different material with stainless steel fittings and 10 m (32.8 ft.) hose with anti-buckling guard for higher resistance to chemicals.

**TECHNICAL DATA:**

Type	RDK 7/15	RDK 10/20	RDK 20/40	RDK 30/60	RDK 50/100	RDK 60/120	RDK 80/140	PDK 10/20	PDK 20/50	PDK 50/80	PDK 50/120	PDK 60/120
(USA)	(SP 3/5)	(SP 4/8)	(SP 8/16)	(SP 12/24)	(SP 20/39)	(SP 23/47)	(SP 32/54)	(FT 4/8)	(FT 8/20)	(FT 20/32)	(FT 20/47)	(FT 23/47)
	Pipe Sealing Bags							Test Sealing Bags				
Art.-No.	148 27 000	148 10 000	148 11 000	148 12 000	148 14 000	148 35 000	148 28 000	148 20 000	148 21 000	148 31 000	148 33 000	148 36 000
- Test adaptor								145 03 000	143 03 000	included	included	included
- Pipe adaptor								145 04 000	143 04 000	included	included	included
Pipe diameter												
min.-max.	7 - 15	10 - 20	20 - 40	30 - 60	50 - 100	59 - 120	80 - 140	10 - 20	20 - 50	50 - 80	50 - 120	59 - 120
	in.	3 - 5	4 - 8	8 - 16	12 - 24	20 - 39	23 - 47	4 - 8	8 - 20	20 - 32	20 - 47	23 - 47
Working pressure												
max.	bar (psi)	1.5 (21.75)	1.5 (21.75)	1.5 (21.75)	1.5 (21.75)	1.5 (21.75)	1.5 (21.75)	1.0 (14.5)	1.5 (21.75)	1.5 (21.75)	1.5 (21.75)	1.5 (21.75)
Test pressure	bar (psi)	1.95 (28.5)	1.95 (28.5)	1.95 (28.5)	1.95 (28.5)	1.95 (28.5)	1.95 (28.5)	1.3 (19)	1.95 (28.5)	1.95 (28.5)	1.95 (28.5)	1.95 (28.5)
Backpressure	mWH (psi)	5 (7.25)	5 (7.25)	5 (7.25)	5 (7.25)	5 (7.25)	5 (7.25)	5 (7.25)	5 (7.25)	5 (7.25)	5 (7.25)	5 (7.25)
Cylinder length	cm (in.)	30 (12)	51 (20)	51 (20)	73.5 (29)	111 (44)	132 (51)	181 (71)	48.5 (19)	55 (22)	56.5 (22.9)	90 (35)
Total length	cm	35	57	57	78	117	137	186	55.5/60	67/74.5	62	94
	(in.)	(14)	(22.5)	(22.5)	(31)	(44)	(46)	(73)	(21.9/23.6)	(26/29.3)	(24.4)	(37)
Diameter	cm (in.)	6.8 (2.7)	9 (3.6)	19.5 (7.7)	29.5 (11.7)	45 (17.8)	58 (22.8)	78.5 (30.9)	9.7 (3.8)	19.5 (7.7)	45 (17.8)	58 (22.8)
Nominal content	l (cu. ft.)	3.8 (0.13)	11.5 (0.4)	44.8 (1.58)	156 (5.51)	610 (21.6)	990 (35)	1,250 (44)	9 (0.3)	63 (2.2)	124 (4.3)	568 (20)
Air requirement	l (cu. ft.)	9.5 (0.3)	28.8 (1.0)	112 (4.0)	315 (11)	1,525 (54)	2,475 (87.5)	2,500 (110)	203 (7.2)	158 (5.6)	310 (10.9)	1,420 (50)
Weight	kg	0.5	1.2	3.1	7	17	25	41	2.8/2.7	9/8.3	30	42.5
	(lbs)	(1.1)	(2.6)	(6.8)	(15.4)	(37.5)	(55)	(90)	(6.2/6)	(19.8/18.3)	(66.1)	(93.7)