



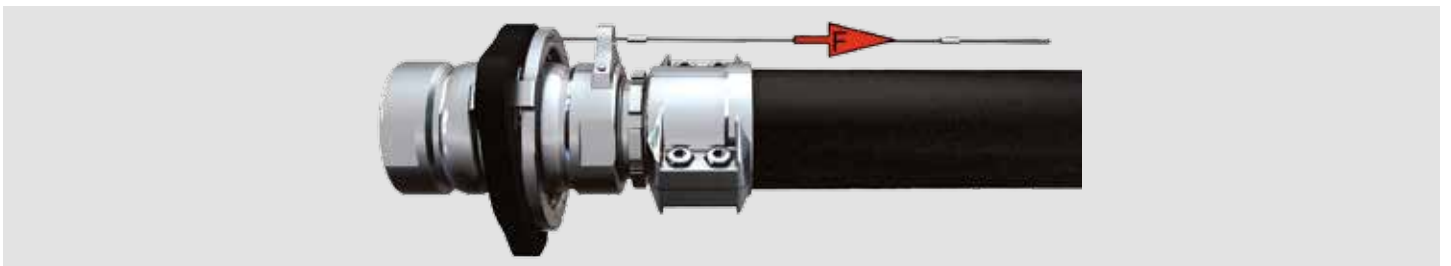
Breakaway couplings ABV-S series

The standard breakaway coupling with control cable

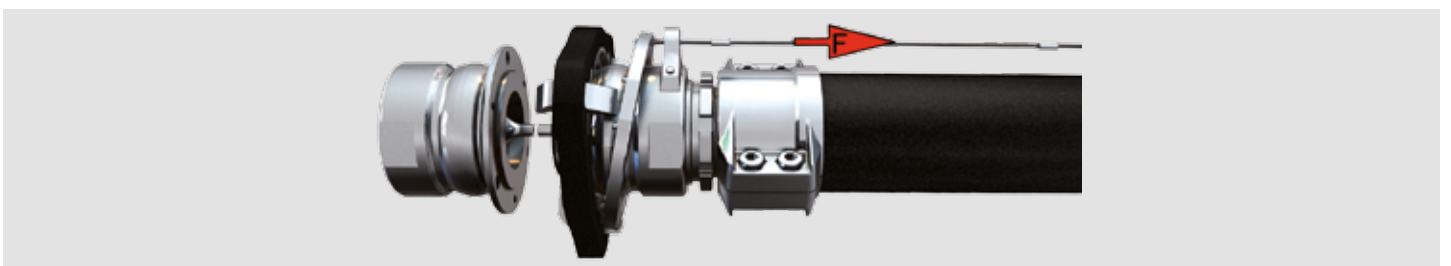
The ABV-S breakaway coupling for safe loading of liquids on road, rail and shipping. It is used to mechanically separate product lines during refuelling or unloading operations, thus protecting the lines from damage.

Release cord as a safety cord

The traditional breakaway couplings are not for use everywhere. That's because breaking pins require the breakaway forces to be transferred by the hose, which inevitably results in tolerance and design problems at higher nominal widths and/or pressures. The system with cable triggering has a lower threshold and easier to dose. And it is activated not just when the load is really heavy, but simply by means of travel limitation. Even low cable forces are sufficient to release the ABV-S. In this case, no loose components are lost. The ABV-S can easily be reassembled on the spot to create a functional safety system.



ABV-S series before emergency separation.



ABV-S series after emergency separation.

Separation without consequences

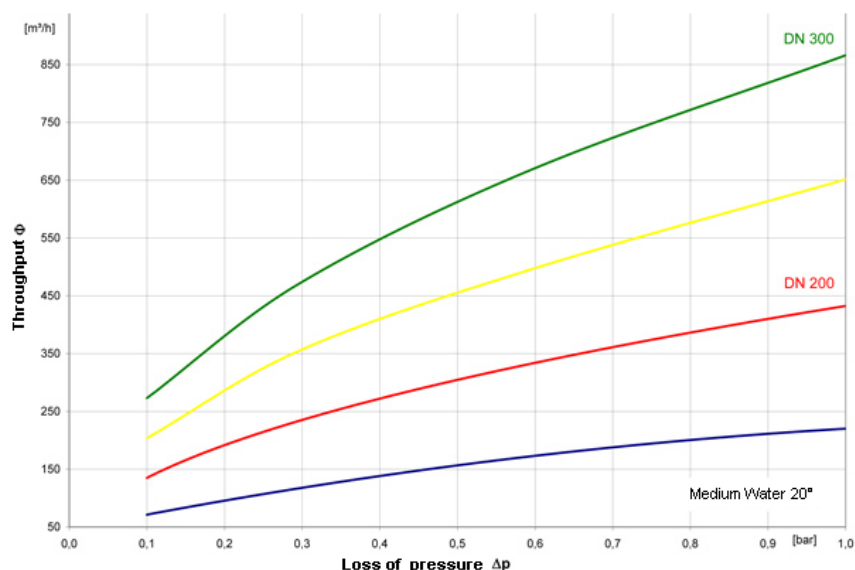
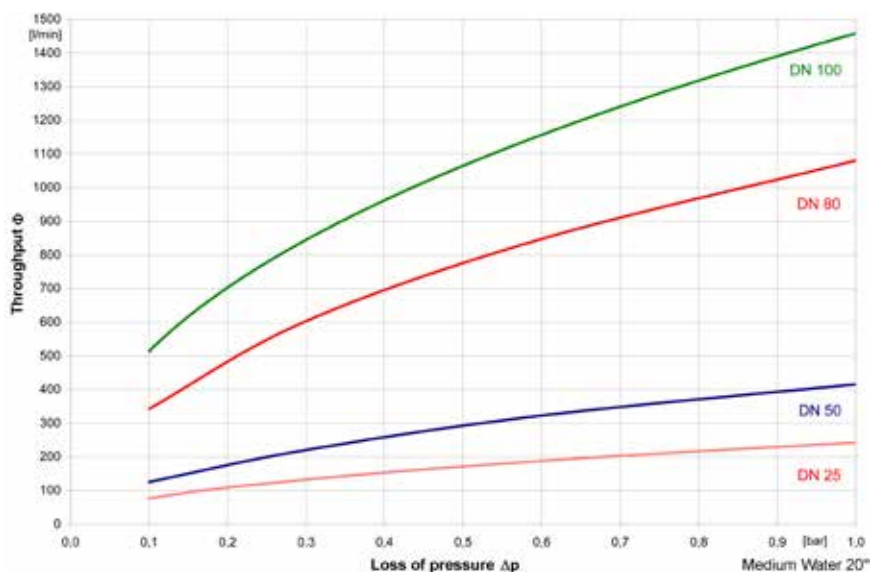
The release cord principle

For example, at a loading station equipped with a hose loading arm, the "release cord" is attached at a suitable point by means of a load cable anchor. In case of an emergency, the coupling "detects" when things reach a critical point. It then disconnects the line – preventing damage to the hose, coupling, vehicle and loading facilities. At both sectioning points, the valves in the safety couplings abruptly close so that no medium can escape.

Your benefits at a glance

- No action of force on the hose line or system components
- Compact construction
- High quality and safety thanks to the use of TÜV-approved materials
- Easy to maintain
- Simple to reassemble after separation
- Not sensitive to lateral forces
- Lubricant-free moving components

Pressure losses



Additional technical information

Technical data

- Safe triggering at angles up to 90°
-
- High-quality sealing materials
 - O-ring: NBR
EPDM
FFKM
 - threaded seal: PUR
PTFE
-
- Materials: Stainless steel
Hastelloy
E-CTFE coating for aggressive media
-
- Connection: 1" bis 4" female thread BSP or NPT
flange in accordance with EN 1092 or ASME
-
- Nominal widths: DN 25 to DN 300
-
- Temperature range: -40 °C to 150 °C
-
- Pressure stages: 0,8 to 25 bar
DN 300: 0,8 to 10 bar

Approvals/certificates

- Approved acc. to WHG § 19, by DIBT
(German Institute for Building Technology)
-
- ATEX Zone 1 approved
-
- TA Luft (German Clean Air Act) approved
-
- After testing by BAM (Federal Institute for Materials
Research and Testing)
-
- EC type examination

Triggering forces

Type ABV-S (DN)	25-1"	50-2"	80-3"	100-4"
Triggering force 25 bar [kN] At 0° triggering angle	0,4	0,3	0,5	1,5
Triggering force 25 bar [kN] At 90° triggering angle	0,5	0,6	0,9	1,8

Type ABV-S (DN)	150-6"	200-8"	300-12" (bei PN 10!)
Triggering force 25 bar [kN] At 0° triggering angle	2,4	3,0	3,0
Triggering force 25 bar [kN] At 90° triggering angle	4,9	6,3	--

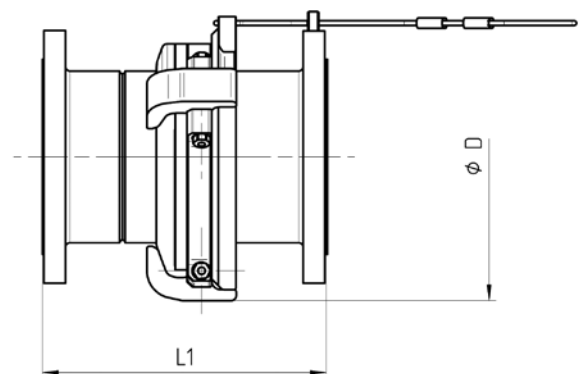
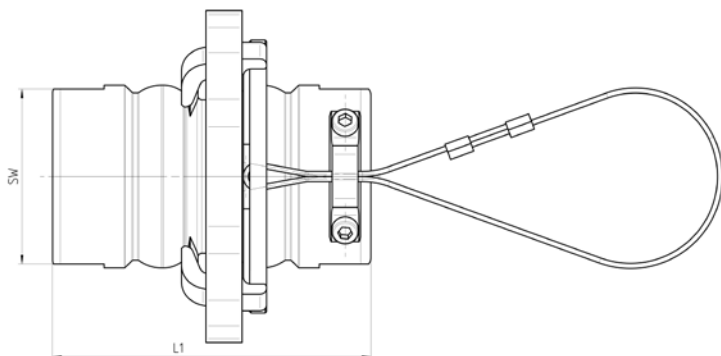
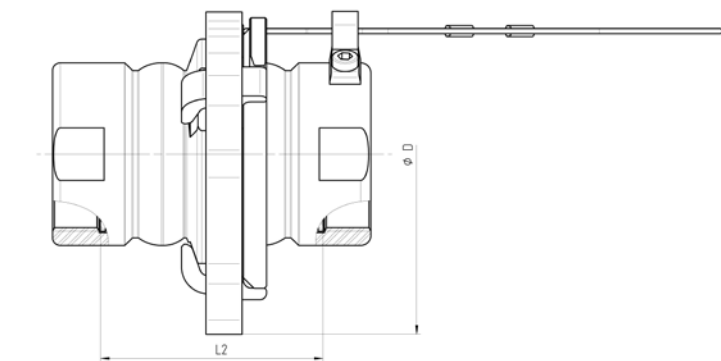
Additional technical information

Dimensions and weights

Type ABV-S (DN)	25		50		80		100		150
Connection	G 1"	1"NPT	G 2"	2"NPT	G 3"	3"NPT	G 4"	4"NPT	Flansch PN10/16
D (mm)	100	100	140	140	210	210	275	275	314
L1 (mm)	112,5	140,5	123,5	143,5	174,5	202,5	208,5	242,5	307
L2 (mm)	90,5	105,8	86,5	105,1	131,5	141,5	165,5	176,5	--
SW	41	41	67	67	100	100	125	125	--
Weight* (kg)	1,1	1,3	2,5	2,8	7,4	8,4	13,8	15,1	51,5

Type ABV-S (DN)	150			200					300
Connection	Flansch PN25/40	ASA 150 PSI	ASA 300 PSI	Flansch PN10	Flansch PN16	Flansch PN25	ASA 150 PSI	ASA 300 PSI	Flansch PN10
D (mm)	339	314	337,5	417,5	417,5	417,5	417,5	417,5	592
L1 (mm)	315	314	389,2	364	364	404	373	373	600
L2 (mm)	--	--	--	--	--	--	--	--	--
SW	--	--	--	--	--	--	--	--	--
Weight* (kg)	57,3	53,3	72,3	98,4	98,1	108,7	102,3	130	266

*The weight applies to stainless steel only.



In use



The references

Bominflot Tanklager GmbH, Kiel

Reference 

Bominflot Bunkergesellschaft für Mineralöle mbH & Co. KG, storage tanks in Kiel

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