Breakaway couplings ABVM series

The standard breakaway coupling for marine applications

It has been specially developed for marine and offshore applications as well as for use between two hose lines.

The innovative design is characterised by its high resistance to lateral forces that can affect the coupling, causing it to release unintentionally. This is achieved by means of a cylindrical overlap, or tapered overlap, between the two coupling halves.

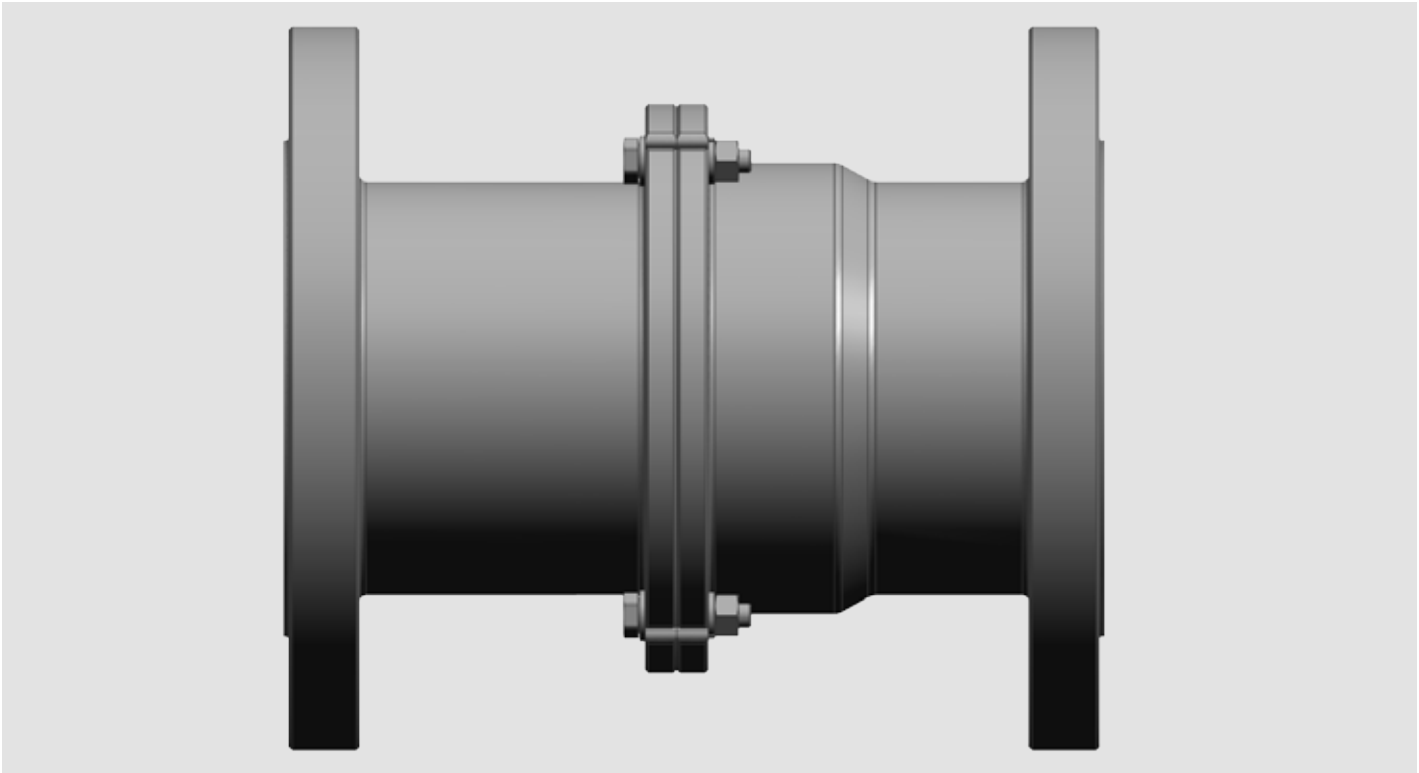
Separation by force limitation

In scenarios where the breakaway coupling is fitted between two hose lines, the ABVM series offers a high degree of resistance to lateral forces such as those that can affect floating hoses in a heavy swell or when hose lines are being coiled.

The marine series breakaway couplings only separate when subjected to an axial load.

After the separation, the valves close and prevent the medium from escaping from the hose and tube side, and in this way protect both humans and the environment.

Costly accidents are thus avoided. Separation occurs in a controlled fashion by means of the breaking pins integrated into the breakaway coupling. These were specially designed for the application.



Separation instead of emergency

Attributes

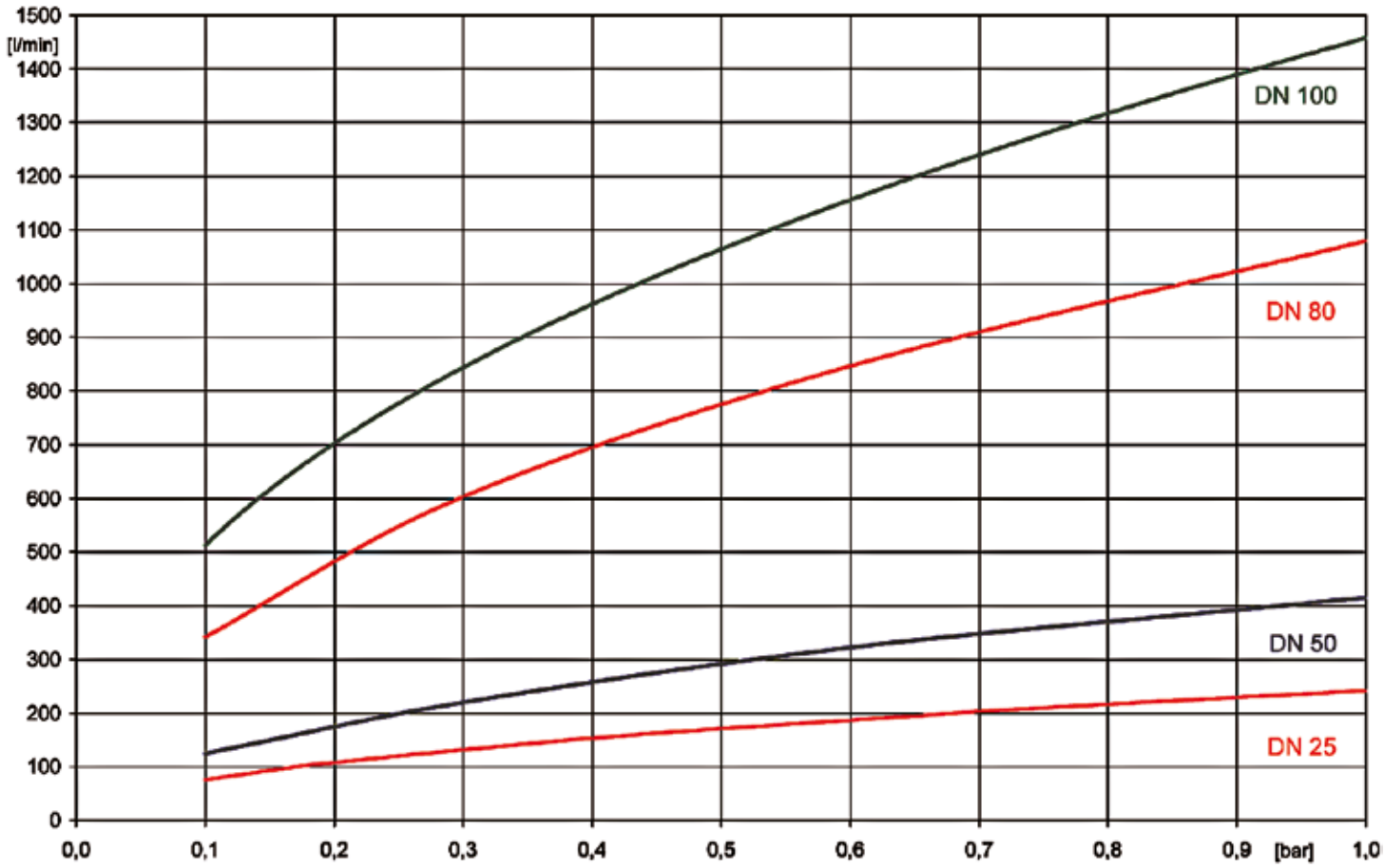
- Resistant to lateral forces
- Fewer parts for safe handling and simple maintenance
- Low amounts of emissions through fast closing valves
- Flow-through possible in both directions

Your benefits at a glance

- High stability when lateral forces act on the coupling
- Controlled separation through breaking pins (different pins for different force ratios available on request)
- No loss of product, which avoids additional costs
- Secure separation when subjected to an axial tensile load
- No weld seams, which means no weak points in the housing

Pressure losses

Throughput Ø



Loss of pressure Δp

Medium Water 20°C

Additional technical information

Technical data

- High-quality sealing materials
  O-ring: FKM
  EPDM
  NBR
  FFKM
- Materials: Stainless steel A4 (1.4571, 1.4408)
  Hastelloy (2.4610, 2.4602, 2.4819)
- Connections: Flange in accordance with EN 1092 or ASME
- Nominal widths: DN 50 to DN 100
- Temperature range: -40 °C to 150 °C
- Pressure area: 0,8 to 25 bar

Triggering forces

Type ABV (DN)	25	50	65	80	100
Triggering force unpressurised [kN]	3,2	10	15	20	30
Triggering force 16 bar [kN]	2,2	7,8	11	14	20
Triggering force 25 bar [kN]	5,4	11,5	14	18,4	28,5
Hose - min. required tensile strength	4,2	13	19,5	26	39

The triggering forces listed above are designed for use on hoses in accordance with EN 12115.
Breaking pins with different triggering forces e.g. for hinged pipe bracket applications available on request.

Dimensions and weights

Type ABVM (DN)	25		50		80			100		
Connection	G 1“	1“NPT	G 2“	2“NPT	G 3“	3“NPT	ASA 150 PSI	G 4“	4“NPT	ASA 150 PSI
D (mm)	77	77	108	108	148	148	190,5	200	200	228,6
L1 (mm)	90,6	86,5	131,5	162,5	90,6	86,5	131,5	162,5		
L2 (mm)	112,5	140,5	123,5	143,5	174,5	202,5	--	202,5	241,5	--
SW	41	41	70	70	100	100	--	125	125	--
Weight* (kg)	1,2	1,4	3	3,3	6,5	7,4	13,5	13	14,2	18,6

*The weight applies to stainless steel only.
Other Dimensions and weights on request.