

**Ball-Face
Clean-Break-Couplings
in stainless steel
primarily for applications
in the chemical industry**

Series BF



Series BF

Technical characteristics:

- The quick couplings of the Series BF (ball face) were primarily developed for applications in the chemical industry.
- They can be used for both, non-lubricating (such as demineralized water, process liquids, „dry“ gases, solvents) and lubricating media (such as oils, soap solutions).
- The fitting components are produced in stainless steel 1.4404 and/or 1.4571 (AISI 316 l / 316 ti). The media compatibility results from the characteristics of the stainless steels in combination with the used seal qualities. The seal qualities which can be chosen are FPM and perfluorine elastomers – a part of the used seals is always in PTFE.
- Quick couplings of the BF-Series can be cleaned in an exemplary way due to their adjustable ball face cleansing position.
- Each BF coupling is equipped with an automatic lock and thus has a simple push to connect operation.
- Squirt-free connection and/or disconnection is possible with very little air inclusion and spillage.
- Pressure retaining protection caps (additional sealing system) can be supplied for the self-sealing adaptor in stainless steel 1.4404 and/or 1.4571 (AISI 316 l / 316 ti).

Connection of the coupling:

Self sealing coupling and self sealing adaptor each have the same imperial, female end connection thread.

The plane face at the end of the thread is vertical to the connection thread. Thus flat seals can be inserted between connection thread and fitting provided that these meet the particular working pressure.

Mainly recommended are connection parts to DIN 3852, part 11, screwed end with sealing by soft packing.

In many cases the sealing on the outer diameter of the connection thread with Teflon tape is sufficient in practice.

NPT and UNF threads are also available on request.

Series BF

Technical data:

Type	BF-005	BF-009	BF-012
Working pressure: Connected and disconnected static at 20° C	64 bar* 930 psi	64 bar* 930 psi	64 bar* 930 psi
Working temperatures:	-10° C to +200° C 14° F to 392° F	-10° C to +200° C 14° F to 392° F	-10° C to +200° C 14° F to 392° F
Cv-value: According to DIN IEC 534 – see diagram – Coupling → Adaptor Adaptor → Coupling	0.72 ... 0.81 0.70 ... 0.84	3.37 ... 5.04 3.24 ... 5.11	5.36 ... 8.22 5.65 ... 9.3
Couple forces: without pressure:	70 N approx. 15.4 lbs	110 N approx. 24.2 lbs	160 N approx. 35.2 lbs
Displaced volume: until start of flow Adaptor: Coupling:	ca. 0.02 cm ³ 0.001 cu.in ca. 0.13 cm ³ 0.008 cu.in	ca. 0.12 cm ³ 0.007 cu.in ca. 0.20 cm ³ 0.012 cu.in	ca. 1.60 cm ³ 0.098 cu.in ca. 1.80 cm ³ 0.110 cu.in
Displaced volume: at full couple stroke	ca. 0.75 cm ³ 0.046 cu.in.	ca. 6.20 cm ³ 0.378 cu.in.	ca. 15.8 cm ³ 0.964 cu.in.
Connectable up to increases of pressure: of the adaptor side to: of the coupling side to: Coupling counterpart without pressure and based on 300 N couple force	64 bar / 930 psi 25 bar / 360 psi	12 bar / 175 psi 6 bar / 90 psi	7 bar / 100 psi 3 bar / 44 psi
Inclusion volume during connection:	ca. 0.011 cm ³ 0.001 cu.in	ca. 0.078 cm ³ 0.005 cu.in	ca. 0.125 cm ³ 0.008 cu.in
Theoretical leakage volume during disconnection For incompressible liquids	ca. 0.013 cm ³ 0.001 cu.in	ca. 0.091 cm ³ 0.006 cu.in	ca. 0.150 cm ³ 0.009 cu.in

* Possible restrictions when using prefluorine elastomer seals.
An advice for application is recommended in these cases.

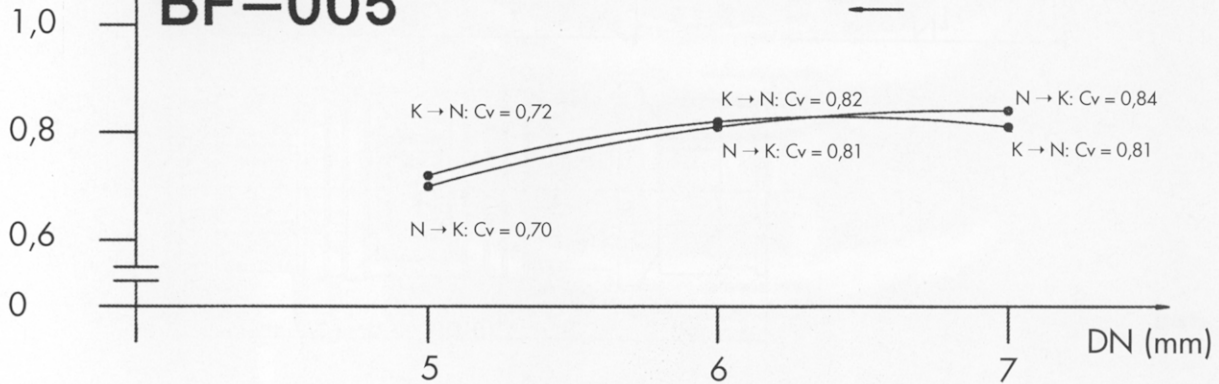
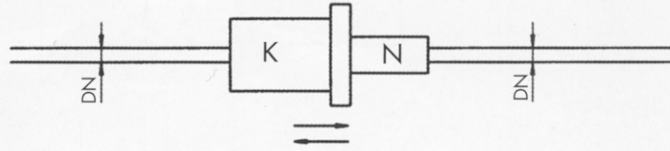
Series BF

Flow coefficient C_v dependant on the bore (internal diameter) of the test line to DIN IEC 534.

(These measured values are valid in the 1st approach for an internal diameter in the end connection place and/or the directly following pipe internal diameter of the following cavity bore).

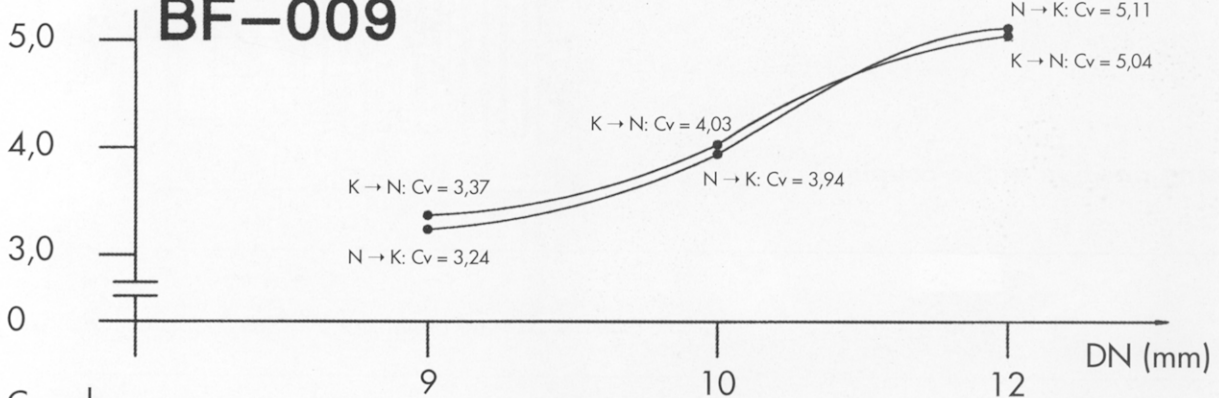
C_v -value

BF-005



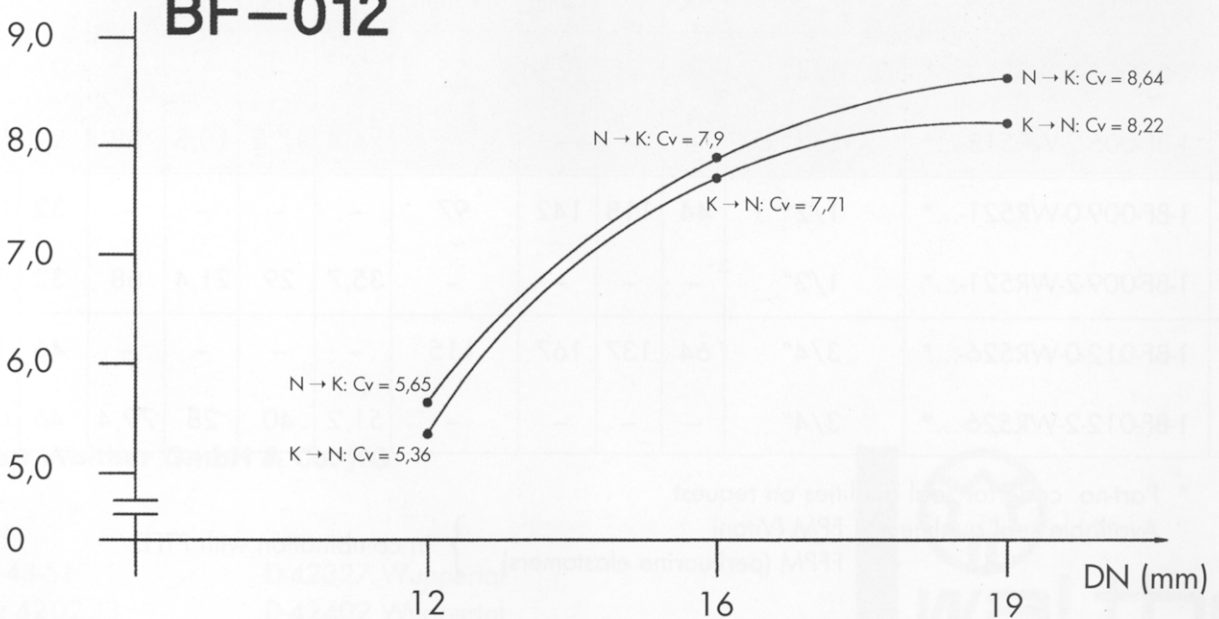
C_v -value

BF-009



C_v -value

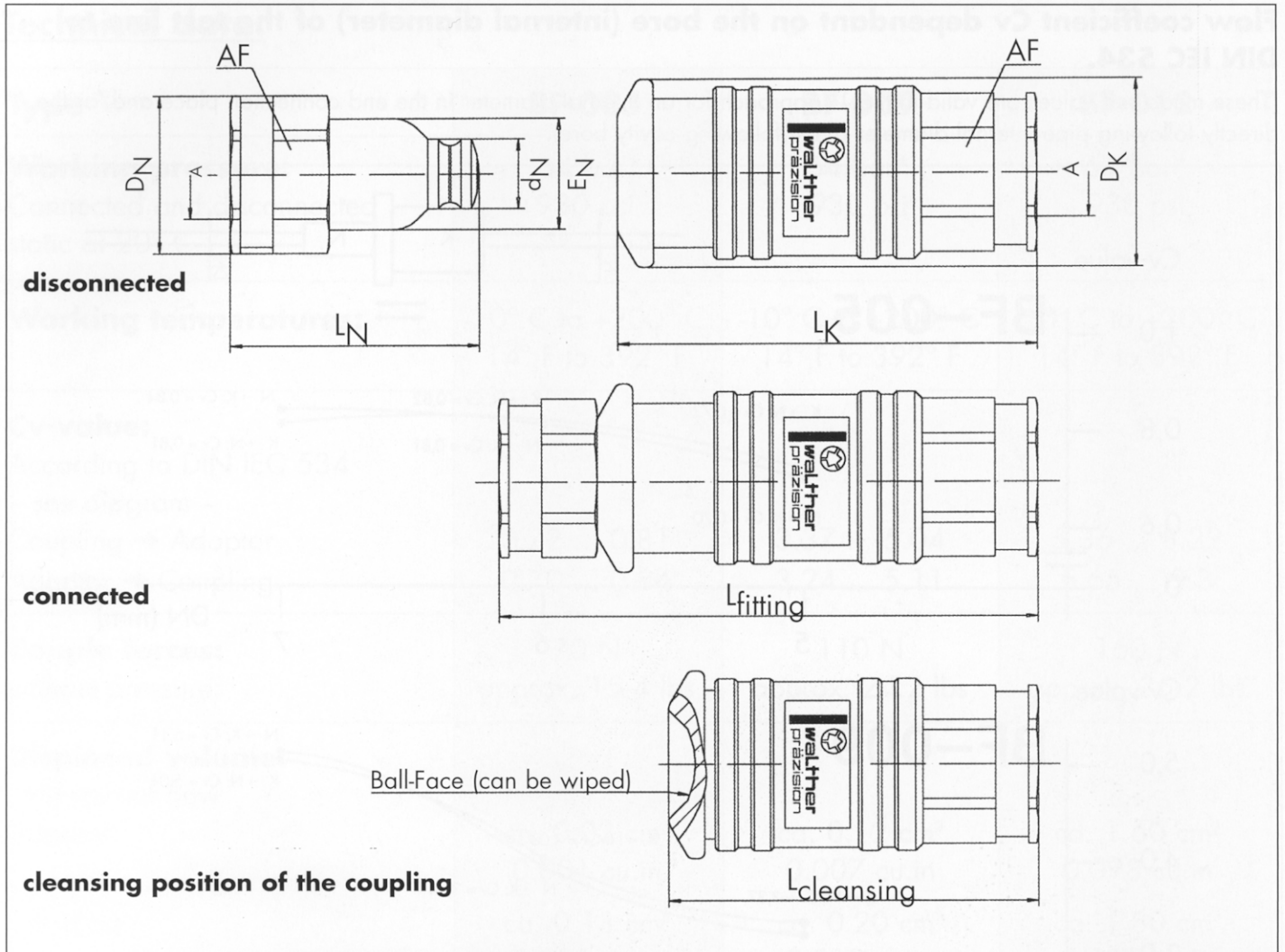
BF-012



K = coupling
N = adaptor

→ flow direction

Series BF



all dimensions in mm

n.b.	part-no.	connection A BSPP end	D _K	L _K	L _{fitting}	L _{cleansing}	D _N	d _N	E _N	L _N	AF	mass (kg)
5	1-BF-005-0-WR513-...*	1/4"	29	64	82,5	55	-	-	-	-	22	0,165
	1-BF-005-2-WR513-...*	1/4"	-	-	-	-	24,4	17,2	10,8	38	22	0,050
9	1-BF-009-0-WR521-...*	1/2"	44	118	142	97	-	-	-	-	32	0,630
	1-BF-009-2-WR521-...*	1/2"	-	-	-	-	35,7	29	21,4	68	32	0,190
12	1-BF-012-0-WR526-...*	3/4"	64	137	167	115	-	-	-	-	46	1,300
	1-BF-012-2-WR526-...*	3/4"	-	-	-	-	51,2	40	28	79,4	46	0,440

* Part-no. code for seal qualities on request

Available seal qualities: FPM (Viton)

FFPM (perfluorine elastomers)

} in combination with PTFE

Seal supply by the customer – on request

More end connections – on request

For each application the best suitable coupling

Series BF

with nominal bores from 5 to 50 mm



BF-005

BF-009

BF-012

BF-025

BF-050

... and more than 300.000 other variations for all applications!



Carl Kurt Walther GmbH & Co. KG

Westfalenstraße 2
PO Box 420444
Phone +49 2129 567-0
Fax +49 2129 567-450

D-42781 Haan
D-42404 Haan
E-Mail: info@walther-praezision.de
Internet: www.walther-praezision.de

