

INFORMATION SHEET

To be read in conjunction with the Expansion Bellows Data Sheets.

Description of Unit

C-SAP	Single axial pipe end
C-SAF	Single axial flanged
CE-SAF(S)	Single axial flanged. short movement. (Far east standard)
CE-SAF(L)	Single axial flanged. long movement. (Far east standard)
C-SAFS	Single axial van-stone flanged.
C-STF	Single axial tied flanged
C-SHF	Single hinged flanged
C-SGF	Single gimbal flanged
C-DAP	Double axial pipe end
C-DAF	Double axial flanged
C-DTF	Double axial tied flanged
C-DHF	Double axial hinged flanged
C-DGF	Double gimbal flanged
CR-SAF	Rubber single sphere flanged
CR-SAFM	Rubber single sphere flanged
CR-SAFS	Rubber single sphere flanged
CR-DAF	Rubber double sphere flanged
CR-DAP	Rubber double sphere with pipe unions

Temperature/Pressure	
Temperature	Factor
120 ^o C	1.0
200 ^o C	0.68
300 ^o C	0.64
400 ^o C	0.6
500 ^o C	0.58
600 ^o C	0.55

DERIVATION OF PART /CATALOGUE NUMBERS

Example:

C-SAP/0050/1/16. Single axial pipe end unit, of 50 mm nominal bore, with a single sleeve suitable for a working pressure of 16 bar.

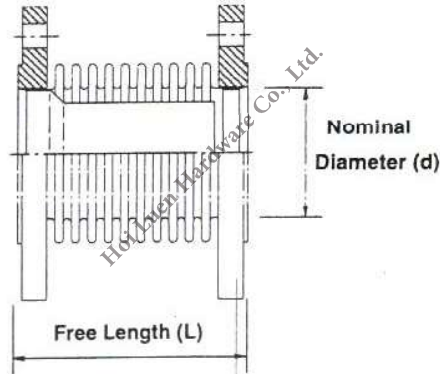
Part/catalogue Number. Description of bellows.	Nominal diameter mm	Non sleeved = 0 Single sleeved = 1 Telescopic sleeve = 2	Working pressure rating.	Normal working pressure ratings	
				2.5 bar (diesel exhaust applications)	16 bar
C-SAP	0050	1	16	25 bar	
				Higher pressure ratings can be provided. Please contact John Cardwell Ltd. technical sales office.	

TEMPERATURE/PRESSURE CORRELATION FACTORS

All standard John Cardwell stainless steel expansion bellows are designed for a normal duty of up to 120^o C. For temperatures in excess of this figure, please refer to the temperature/pressure relationship chart and in cases of doubt, please contact John Cardwell Ltd. technical sales office.

JOHN CARDWELL LIMITED

SAF Single Axial Flanged (single sleeve) [Far East Standard-Long Movement]



Dia. mm 'd'	Length mm 'L'	Part Number	Effective area Cm ²	Rated axial mvt.		Con	Spring rate		
				+/- mm	Total Movement		6 bar N/mm	16 bar N/mm	25 bar N/mm
15	185	C-SAF/0015/0/bar	7.1	12	24		28	28	---
20	185	C-SAF/0020/0/bar	7.1	12	24		28	28	---
25	195	C-SAF/0025/0/bar	9.9	15	30		62	62	---
32	195	C-SAF/0032/0/bar	14.5	15	30		59	59	---
40	200	C-SAF/0040/0/bar	22.0	15	30		70	70	---
50	208	C-SAF/0050/1/bar	37	25	50	13	27	86	395
65	208	C-SAF/0065/1/bar	56	25	50	13	35	109	241
80	208	C-SAF/0080/1/bar	75	25	50	13	71	265	513
100	208	C-SAF/0100/1/bar	118	25	50	13	92	345	598
125	314	C-SAF/0125/1/bar	187	38	76	14	64	276	731
150	314	C-SAF/0150/1/bar	261	38	76	14	76	332	861
200	352	C-SAF/0200/1/bar	441	50	100	14	64	347	880
250	352	C-SAF/0250/1/bar	665	50	100	14	89	444	1097
300	352	C-SAF/0300/1/bar	918	50	100	14	210	500	1301
350	354	C-SAF/0350/1/bar	1200	40	80				
400	354	C-SAF/0400/1/bar	1530	40	80				
450	354	C-SAF/0450/1/bar	1929	40	80				
500	360	C-SAF/0500/1/bar	2342	40	80				
550	360	C-SAF/0550/1/bar	2895	64	128				
600	360	C-SAF/0600/1/bar	3394	64	128				
650	360	C-SAF/0650/1/bar	3431	64	128				
700	360	C-SAF/0700/1/bar	4561	64	128				
750	360	C-SAF/0750/1/bar	5187	64	128				
800	360	C-SAF/0800/1/bar	5822	64	128				
850	360	C-SAF/0850/1/bar	6007	64	128				
900	360	C-SAF/0900/1/bar	7317	64	128				
950	360	C-SAF/0950/1/bar	7620	64	128				
1000	360	C-SAF/1000/1/bar	8936	64	128				

For further information about these sizes of expansion joints, please contact technical sales department.

- ❖ Far Eastern standard long movement bellows.
- ❖ To specify pressure rating, add pressure (bar) as a suffix to part number above.
For example, CEL-SAF/0100/1/bar for 16 bar use becomes CEL-SAF/0100/1/16.
- ❖ Standard material – BS 1449.321 St/St. Alternative materials available depending upon the application.
- ❖ Units can be designed for other movements, pressures and temperatures.
- ❖ All units are designed in accordance with EJMA, BS 6129.
- ❖ Company quality system operates in accordance with ISO 9001.