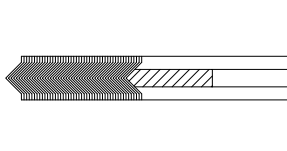


SPIRAL WOUND GASKETS



CF 4000

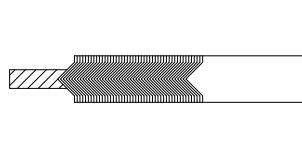
SPRING with inner ring



CF4000 with inner ring is mainly installed on male-female type flanged connections according to standard ASME B16.20 or EN 1514-2. The inner support ring increases blow-out resistance. They can be installed on high-pressure vessels and pipes.

CF 4000

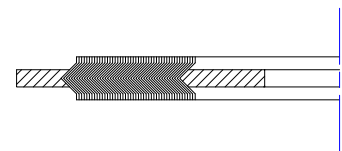
SPRING with outer ring



CF4000 with outer ring is mainly installed on RF type flanged connections (IBC type). The purpose of the outer ring is to centre the gasket inside the bolt circle. They are mainly used on medium-low-pressure pipes and vessels or for hydraulic testing. They can also be ordered to meet standards ASME B16.20 or EN 1514-2 or custom made to your specifications.

CF 4000

SPRING with inner and outer rings



CF4000 with inner and outer rings is mainly installed on RF type flanged connections (IBC type). Because it features both an outer ring and inner ring, this gasket can be used on high-pressure pipelines. They can also be ordered to meet standards ASME B16.20 or EN 1514-2 or custom made to your specifications.
Approvals:
 VDI2200/2440 Ta-Luft; Fire safe API 6FB Third edition

METAL JACKETED GASKETS



Temperature range (°C)	-200/+750	450*
Maximum pressure (bar)	150	40*
Max compression set value (MPa)	200	100*

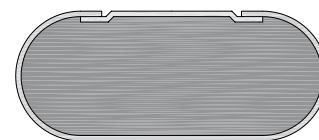
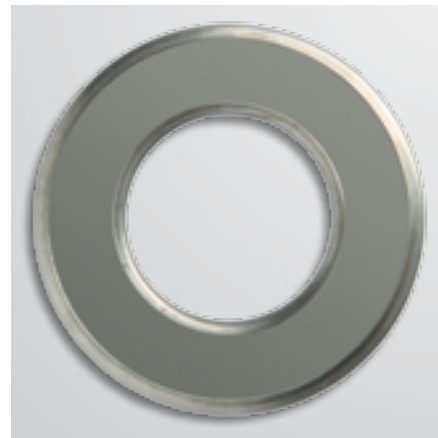
* When dealing with higher values, please contact the technical department

Applications

The series 5000 metal jacketed gaskets are widely used in chemical, petrochemical and refinery industries and are mainly installed on pressure vessels, such as heat exchangers, reactors and columns. To promote sealing on existing equipment, you can order gaskets with 2 layers of adhesive graphite applied on both sealing faces during the final stage of the manufacturing process. Series 5000 gaskets

can also be installed where the equipment's gasket seating features a nubbing (typically encountered in refineries). The gasket can also be ordered with a corrugated inner and outer profile.

CF 5000



Type options

Type IBC for RF flanges
Tongue and groove type
Custom design

Available thicknesses

Standard 3mm.
Other thicknesses available on request.

Manufactured to the following standards

ASME Code (B16.20; B16.47; B16.5)
UNI EN 1514-1
DIN 2690/ 2691

If order information is incomplete, products will be supplied:

In standard sizes according to current national or international standards (ASME or EN)
In 3mm thick version

Filler materials

Material	Maximum temperature	Maximum pressure
Graphite	550 °C	150 bar
Virgin PTFE	250 °C	100 bar
Non-asbestos	400 °C	100 bar
Mica	750 °C	150 bar

Metal materials

Material	Maximum temperature
Fe Armco	450 °C
AISI 304; 316; 316L; 316Ti; 321; 347	550 °C
Alloy 400; 600; 625; 800; 825	600 – 750 °C
Hastelloy C276; B2	450 °C
Titanium Gr.2	350 °C

CF5000 is widely used in the chemical, petrochemical and refinery industry and, more specifically, is installed on heat exchangers, reactors and columns. For installation on heat exchangers, they can be fitted with pass partitions made based on the number and shape of the equipment header's partitions. In addition to their classic circular construction, series 5000 metal jacketed gaskets can also be produced in square, rectangular or oval shapes. These gaskets are mainly made in one piece within the size limitations of commercially available sheet metal; producing larger diameters involves welding.

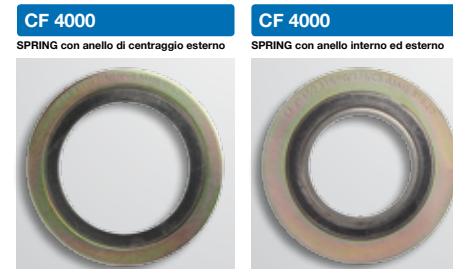
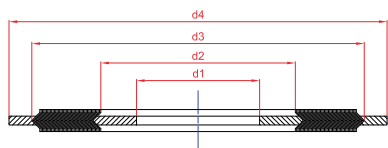


CHRYSSAFIDIS

For sizes and technical data sheets, contact
tec@cfservice.eu

 **4000** for gaskets series 4000

Spiral wound gasket dimensional table for flanges according to Standard ASME B16.20 (ANSI B16.5)



Nominal diameter	Inner ring diameter					Inside gasket diameter					Outside gasket diameter		Centering ring outside diameter						
	d1					d2					d3		d4						
	150-300 lbs	400-600 lbs	900 lbs	1500 lbs	2500 lbs	150-300 lbs	400-600 lbs	900 lbs	1500 lbs	2500 lbs	150-600 lbs	900-2500 lbs	150 lbs	300 lbs	400 lbs	600 lbs	900 lbs	1500 lbs	2500 lbs
1/2	14,22			14,22	14,22	19,05	19,05		19,05	19,05	31,75	31,75	47,75	54,1	///	54,1		63,5	69,85
3/4	20,57			20,57	20,57	25,40	25,40		25,40	25,40	39,62	39,62	57,15	66,8	///	66,8		69,85	76,2
1	26,92			26,92	26,92	31,75	31,75		31,75	31,75	47,75	47,75	66,8	73,15	///	73,15		79,5	85,85
1 1/4	38,10			33,27	33,27	47,75	47,75		39,62	39,62	60,45	60,45	76,2	82,55	///	82,55		88,9	104,9
1 1/2	44,45			41,40	41,40	54,10	54,10		47,75	47,75	69,85	69,85	85,85	95,25	///	95,25		98,55	117,6
2	55,62			52,32	52,32	69,85	69,85		58,67	58,67	85,85	85,85	104,9	111,25	///	111,25		143	146,05
2 1/2	66,54			63,5	63,5	82,55	82,55		69,85	69,85	98,55	98,55	123,95	130,3	///	130,3		165,1	168,4
3	81,02		81,02	81,02	81,02	101,6	101,6	95,25	92,2	92,2	120,65	120,65	136,65	149,35	///	149,35	168,4	174,75	196,85
4	106,42	106,42	106,42	106,42	106,42	127	120,65	120,65	117,6	117,6	149,35	149,35	174,75	181,1	177,8	193,8	206,5	209,55	234,95
5	131,82	131,82	131,82	131,82	131,82	155,7	147,57	147,57	143	143	177,8	177,8	196,85	215,9	212,85	241,85	247,65	254	279,4
6	157,22	157,22	157,22	157,22	157,22	182,62	174,75	174,75	171,45	171,45	209,55	209,55	222,25	250,95	247,65	266,7	289,05	282,7	317,5
8	215,9	209,55	209,55	206,24	200,15	233,42	225,55	222,25	215,9	215,9	263,65	279,4	279,4	308,1	304,8	320,8	358,9	352,55	387,35
10	268,22	260,35	260,35	257,81	247,65	287,27	274,57	276,35	266,7	270	317,5	311,15	339,85	361,95	358,9	400,05	435,1	435,1	476,25
12	317,50	317,50	317,50	314,45	292,10	339,85	327,15	323,85	323,85	317,5	374,65	368,3	409,7	422,4	419,4	457,2	498,6	520,7	549,4
14	349,25	349,25	342,90	339,85	///	371,6	361,95	356,6	361,95	///	406,4	400,05	450,85	485,9	482,6	492,25	520,7	577,85	///
16	400,05	389,89	374,65	368,2	///	422,4	412,75	412,75	406,7	///	463,55	457,2	514,35	539,75	536,7	565,15	574,8	641,35	///
18	449,32	438,15	425,45	425,45	///	474,72	469,9	463,55	463,55	///	527,05	520,7	549,4	596,9	593,85	612,9	638,3	704,85	///
20	500,12	488,25	482,5	476,25	///	525,52	520,7	520,7	514,35	///	577,85	571,5	606,55	654,05	647,7	682,75	598,5	755,65	///
24	603,25	590,55	590,55	577,85	///	628,65	628,65	628,65	615,95	///	685,8	679,5	717,55	774,7	768,35	790,7	838,2	901,7	///

Tolerances:

spiral wound thickness (sealing section): $\pm 0,127\text{mm}$

spiral wound outside diameter (sealing section): from 1/2" to 8" $\pm 0,406\text{mm}$; from 10" to 24" $+1,524\text{mm}/-0,762\text{mm}$

spiral wound inside diameter (sealing section): from 1/2" to 8" $\pm 0,406\text{mm}$; from 10" to 24" $\pm 0,762\text{mm}$

centering ring outside diameter: $\pm 0,762\text{mm}$

ring thickness: $+0,20\text{mm}/-0,00\text{mm}$



CHRYSsafidis

Ring colour table for spiral wound gasket according to Standard ASME B16.20

Material	Abbreviation		Colour code	Example
	Metal part sealing section			
Carbon steel	CRS		Silver	
304 SS	304		Yellow	
304L SS	304 L		No colour	///
309 SS	309		No colour	///
310 SS	310		No colour	///
316L SS	316 L		Green	
317L SS	317 L		Dark Brown	
321 SS	321		Turquoise	
347 SS	347		Blue	
430 SS	430		No colour	///
Titanio	Ti		Purple	
Inconel 600/625	INC 600/INC 625		Gold	
Icoloy 800/825	IN 800/ IN 825		White	
Inconel X750	INX		No colore	///
Hastelloy C276	HAST C		Beige	
Hastelloy B2	HAST B		Light Brown	
Nickel 200	NI		Red	
Zirconium			No colour	///
Monel 400	MON		Orange	

Material	Abbreviation		Colour code	Example
	Insulating material sealing section			
ptfe	PTFE		White	
Graphite	FG		Grey	
Ceramic	CER		Light Green	
Asbestos free	ASB		No colour	///

Marking:

3" 150 SS316/filler graph Spiral Wound Gasket with SS316 inner ring and CS outer ring:
CF 3"150 316/FG/316/CS ASME B16.20

Colour: metallic part green (all the section); Insulating material grey (4 visible strips)

Colore da applicare all'anello esterno:

Su tutte le misure deve essere applicato il colore della parte metallica per tutta la circonferenza in corrispondenza dello spessore dell'anello di centrggio esterno.

Il colore del coibente fino a 1 1/2" deve essere applicato con due strisce visibili a 180°; dal 2" in su deve essere applicato con quattro strisce visibili a 90°.

Spiral wound gaskets weights table

316/FG/CS (weights in grams)							316/FG/316/CS (weights in grams)							316/FG/316/316 (weights in grams)							
DN	150	300	600	900	1500	2500	DN	150	300	400	600	900	1500	2500	DN	150	300	600	900	1500	2500
1/2	31	40	40	62	62	78	1/2	0,034	0,045	0,045	0,045	0,063	0,063	0,077	1/2	35	49	49	66	66	82
3/4	41	61	61	70	70	87	3/4	0,047	0,065	0,067	0,067	0,073	0,074	0,089	3/4	49	70	70	78	78	92
1	51	69	69	87	87	106	1	0,05	0,08	0,076	0,076	0,092	0,095	0,11	1	50	80	76	95	95	110
1 1/4	51	79	79	98	98	155	1 1/4	0,072	0,089	0,089	0,088	0,122	0,122	0,164	1 1/4	71	89	89	108	108	165
1 1/2	79	100	100	113	113	190	1 1/2	0,1	0,12	0,177	0,177	0,132	0,132	0,201	1 1/2	85	112	112	130	130	202
2	100	121	121	291	291	293	2	0,13	0,155	0,154	0,154	0,293	0,293	0,308	2	128	153	153	290	290	310
2 1/2	139	169	169	367	367	387	2 1/2	0,181	0,208	0,208	0,208	0,385	0,385	0,403	2 1/2	190	210	210	386	386	407
3	115	200	100	304	375	500	3	0,2	0,26	0,267	0,267	0,367	0,403	0,539	3	195	250	250	360	360	555
4	239	269	269	444	500	682	4	0,33	0,35	0,349	0,45	0,532	0,569	0,757	4	315	340	420	525	525	525
5	200	365	578	635	705	955	5	0,355	0,485	0,478	0,693	0,744	0,813	1,038	5	335	500	685	742	800	1050
6	220	485	661	882	851	1175	6	0,4	0,635	0,619	0,781	0,987	0,965	1,312	6	390	615	670	978	941	1325
8	320	630	835	1420	1240	1715	8	0,52	0,801	0,838	1	1,493	1,418	1,846	8	450	760	950	1420	1400	1870
10	445	770	1380	1926	1926	2606	10	0,722	0,98	1,055	1,573	2,135	2,135	2,757	10	670	890	1300	1880	1930	2600
12	800	975	1695	2669	2764	3363	12	1,12	1,287	1,346	1,9	2,708	3,082	3,591	12	1080	1208	1710	2727	3140	3665
14	1025	1628	1714	2336	3462	///	14	1,35	1,893	1,912	2,069	2,79	3,831	///	14	1255	1980	2790	4000	///	///
16	1355	1720	2435	2569	4106	///	16	1,73	2,177	2,256	2,8	3,152	4,573	///	16	1590	2085	2665	3145	4675	///
18	1030	1887	2465	2985	4638	///	18	1,66	2,561	2,665	3,05	3,755	5,238	///	18	1340	2350	2840	3640	5290	///
20	1350	2215	3190	3444	5031	///	20	1,95	2,947	2,993	3,766	4,3	5,709	///	20	1620	2720	3585	4185	5760	///
24	1450	3370	3485	5000	7173	///	24	2,5	3,919	4,007	4,585	5,87	7,948	///	24	2060	3635	3735	4380	5900	///