

# Festec® Flange Spreader

Proven - Quick - Simple - Safe

Large gap or zero gap, the patented  
Festec® Flange Spreader spreads  
them all

- easy to use
- requires no large investments
- safe to handle
- extremely long lasting  
top-quality product

Model registered under no. 5773-00  
Patent application no. 8400898  
Manufactured and tested according  
procedures of the Dutch Metal  
Research institute T.N.O.

**TNO**



In short, the Festec® Flange Spreader replaces conventional methods and is a must for mechanical plant maintenance technicians.

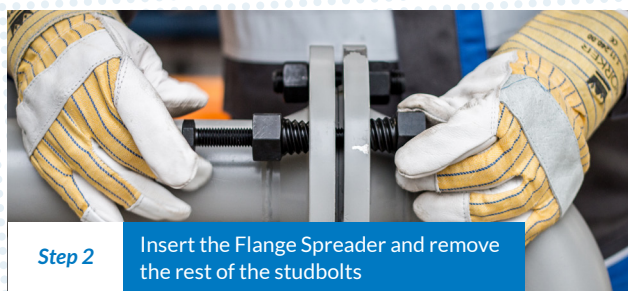
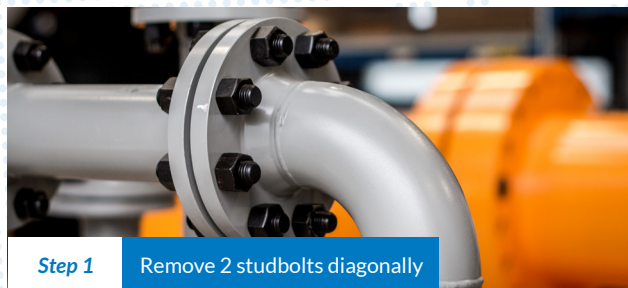
Where other tools or methods might be too big, impractical or even cannot be used, the Festec® Flange Spreader always fits in bolted flange joints.



## Compact and practical tool

The Festec Flange Spreader will fit in every toolbox due to its handy size and low weight. It is not much larger than a studbolt and requires mostly the same heavy duty spanner as used on the nuts of the studbolts in the flange joint to be separated.

The long press bolts of the Festec® Flange Spreader enables a wide opening of the flange connection and thus a thorough cleaning and inspection of the packing faces. Even flange joints without a gap can be spread safely. If used properly the Festec® Flange Spreader helps to avoid the risk of damaging the packing faces.



## Applications

The Festec® Flange Spreader can be used to

- replace a gasket, orifice plate, ring joint or lens ring
- fit a blind flange
- clean or inspect packing faces
- open joints on turbines, pumps, covers of heat exchangers, filters etc.

The Festec® Flange Spreader can be used on flanges according to ANSI, DIN, API and SP standards. For the right choice of size is referred to the selection table or the technical specification chart.

The part of the Festec® Flange Spreader with the press bolt can also be used for levelling heavy machinery.

## References

The Festec® Flange Spreader is used successfully by thousands of customers worldwide, such as refineries, (petro-)chemical and pharmaceutical industries, (nuclear) power-plants, paper- and steel-mills, food- and luxury industries, shipbuilding and offshore industry etc. as well as their contractors.



## Using the Festec® Flange-Spreader

A set of the Festec® Flange Spreader consists of 2 units. Each unit consists of 1 plug with a press bolt inside and 1 counter plug. A flange connection can only be opened safely by using 1 set per flange joint to be spread.

After the stud bolts have been removed diagonally from 2 opposite bolt-holes in the flange connection to be spread, the 4 plugs of the Festec® Flange-Spreader are screwed right and tight into these holes. The plugs have to be tightened properly by means of heavy duty spanners with a torque of at least 700 Nm. Even heavy torque equipment might be used for tightening the plugs securely. A higher torque results in a higher spreading capacity of the Festec® Flange Spreader.

If mounted and tightened properly, a safe spreading capacity up to 10 tonnes can be achieved (depends on which type of Festec® Flange Spreader is used).

After the press bolts of the Festec® Flange Spreader have been turned until they touch against the counter plugs, the other studbolts in the flange joint are removed or loosened.

Now the flange connection can be pressed open wide and safely with the aid of the evenly forcing press bolts.

Due to the high forces applied, it is recommended to use anti-seize paste both on the top as well as on the tread of the press bolts.

### TIP

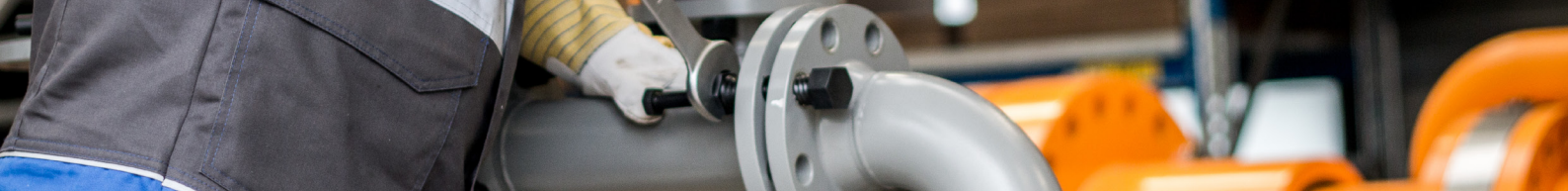


After use the Festec® Flange Spreader should be cleaned and greased properly.

### TIP



The Festec® Flange Spreader should not be used on cast-iron flanges.

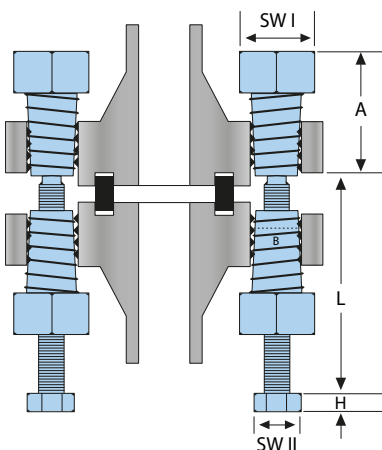


## Technical information - Festec® Flange Spreader

### selection table

Part number	for DIN flanges										for ANSI (ASA) flanges									
	spreading force	B mm	DIN 2631 2641	DIN 2632 2642	DIN 2633	DIN 2634 2655	DIN 2635 2656	DIN 2636	DIN 2637	DIN 2638	B		150 lbs	300 lbs	400 lbs	600 lbs	900 lbs	1500 lbs	2500 lbs	
			DN 6	DN 10	DN 16	DN 25	DN 40	DN 64	DN 100	DN 160	mm	inch								
FFS-22	10T (100kN)	14	32 - 65	10 - 25	10 - 25	10 - 25	10 - 25	10 - 15	10 - 15	10 - 15	15,9	5/8	1/2", 3/4" 1", 1 1/4" 1 1/2"	1/2"	1/2"	1/2"				
FFS-27	10T (100kN)	18	80 - 250	32 - 125	32 - 125	32 - 80	32 - 80	25	25	25	19,1	3/4	2", 2 1/2" 3", 3 1/2" 4"	3/4", 1" 1 1/4", 2" 1 1/4"	3/4", 1" 1 1/4", 2" 1 1/4"					
FFS-32	8,5T (85kN)	23	300 - 500	150 - 350	150 - 200	100	100	32 - 80	32 - 40	40	22,2	7/8	5" 6" 8"	1 1/2", 2 1/2" 3", 3 1/2" 4", 5", 6"	1 1/2" 2 1/2" 1/2" 3"	1 1/2" 2 1/2" 1/2" 3"	1/2" 3/4"	1/2" 3/4"	1/2" 3/4"	
FFS-36	7,5T (75kN)	27	600	400 - 500	250 - 300	125 - 200	125 - 150	100	50 - 80	50 - 80	25,4	1	10" 12"	8"	3 1/2", 4" 5", 6"	3 1/2" 4"	1", 1 1/4" 2", 3"	1", 1 1/4" 2"	1"	
FFS-41	7T (70kN)	30		600	400	250 - 300	175 - 200	125	100	100	28,6	1 1/8	14" 16"	10"	8"	5" 6"	1 1/2" 2 1/2"	1 1/2" 2 1/2"	1 1/4" 2"	
FFS-46	6T (60kN)	33			500	350	250 - 300	150 - 175	125 - 175	125 - 150	31,8	1 1/4	18" 20"	12" 14"	10"	8"	4" 6"	3"	1 1/2" 2 1/2"	
FFS-50	6T (60kN)	36			600	400 - 500	350	200 - 300	200	175 - 200	34,9	1 3/8	24"	16", 18" 20"		10" 12"	5"	4"	3"	
FFS-55	5,5T (55kN)	39				600	400	350	250		38,1	1 1/2				14"	8", 10" 12"	6"		
FFS-60	4,5T (45kN)	42					500	400	300	250 - 300	41,3	1 5/8		24"		16"	14"	5"	4"	
FFS-65	4T (40kN)	48							350		44,5 48,0	1 3/4 1 7/8				18" 20"	16"	8"	5"	

### technical specification chart



Part number	SW I		SW II		H		L		A		B	
	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
FFS-22	22	7/8	13	1/2	5	3/16	85	3 3/8	34	1 5/16	14 - 15,9	5/8
FFS-27	27	1 1/16	17	11/16	7	1/4	100	3 15/16	47	1 7/8	18 - 19,1	3/4
FFS-32	32	1 1/4	22	7/8	9	3/8	110	4 5/16	50	1 15/16	22,2 - 23	7/8
FFS-36	36	1 7/16	24	15/16	11	7/16	130	5 1/8	56	2 3/16	25,4 - 27	1
FFS-41	41	1 5/8	27	1 1/16	12	1/2	140	5 1/2	64	2 1/2	28,6 - 30	1 1/8
FFS-46	46	1 13/16	30	1 3/16	13	1/2	200	7 7/8	73	2 3/4	31,8 - 33	1 1/4
FFS-50	50	1 15/16	30	1 3/16	13	1/2	200	7 7/8	73	2 3/4	34,9 - 36	1 3/8
FFS-55	55	2 3/16	32	1 1/4	14	9/16	225	8 7/8	73	2 3/4	38,1 - 39	1 1/2
FFS-60	60	2 3/8	32	1 1/4	14	9/16	225	8 7/8	77	3 1/16	41,3 - 42	1 5/8
FFS-65	65	2 9/16	32	1 1/4	14	9/16	225	8 7/8	77	3 1/16	44,5 - 48	1 3/4 - 1 7/8

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