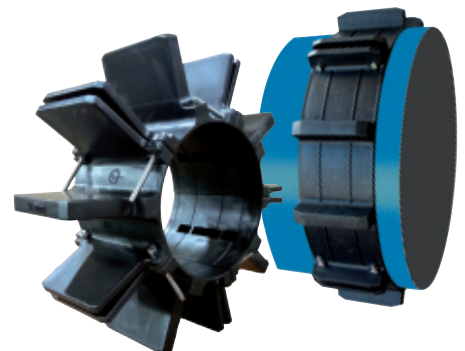




Pipeline Accessories

**A**NODE  
ENGINEERING

## Bolted Casing Spacers 4 pipes



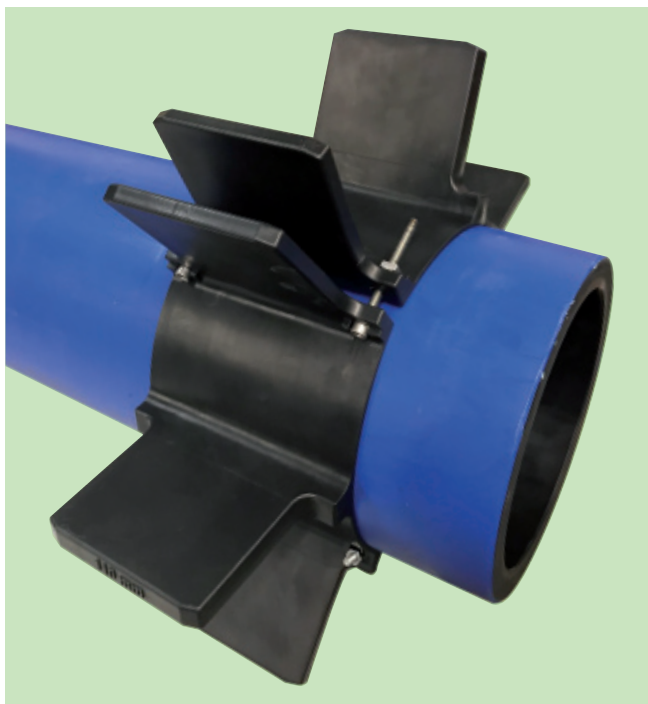
# Casing Spacer 4 pipes - Type KAS for pipeline cased crossings



KAS-1 short element



KAS-2 standard element



- **Perfect for pipe OD 98 - 380 mm**
- Casing spacer with bolted connection
- **Innovative skid design**
- **Bolts outside of the skids, easy to mount**
- Fast assembly by easy bolt connection
- Bolts – stainless steel with inner hex head
- High durability
- UV stabilized
- Material polypropylene black
- Square nuts for optimized mounting
- **Available skid heights: 20, 36, 50, 75, 90, 110 mm**
- Width 150 mm
- Electrical strength > 10 kV/mm
- Operating temperature -10°C up to +50°C

Maximum static load	kg / ring
Skid height 25, 36 und 50 mm	750
Skid height 75, 90 und 100 mm	500

Maximum loads are under static conditions. Dynamic forces need to be considered individually.

OD carrier pipe in mm		Number of elements		Bolts	max. distance recommended
min.	max.	KAS-1	KAS-2	Number/Size	
98	130	3		6 M6 x 70	2
130	172	4		8 M6 x 70	2
173	210	5		10 M6 x 70	2
211	228		3	6 M6 x 70	2
229	260	1	3	8 M6 x 70	2
261	300		4	8 M6 x 70	1,5
301	345	1	4	10 M6 x 70	1,5
346	380		5	10 M6 x 70	1,5

The 4 pipes warranty for KMS casing spacers only applies to faulty material. Checking the suitability of the product for the individual application is solely the responsibility of the user.

# Casing Spacer 4 pipes - Type KAS

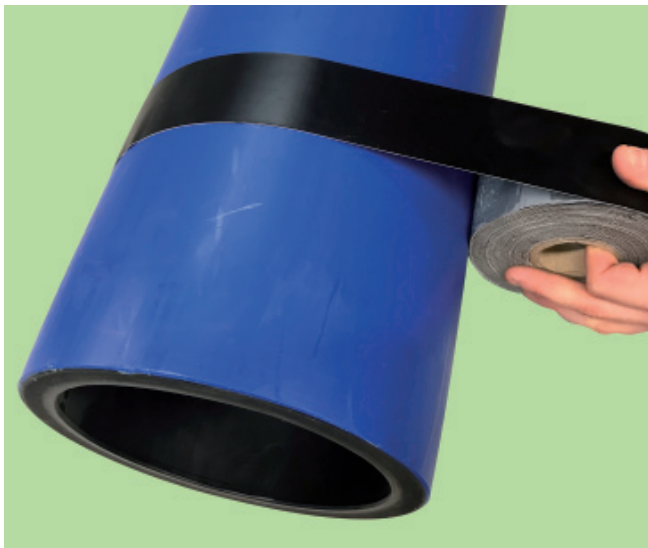
## Assembly instructions

Before joining the elements choose the number of elements and bolts acc. to our selection tables.

1. In the first step join the elements with the attached bolts. Do not close the ring at this stage. Put nuts only on the end of the bolts.  
4 pipes anti-slide tape provides best possible hold of rings on smooth pipe surfaces like PE, PP, PVC, steel or ductile iron.

2. For assembly, put the ring around the pipe and connect the last bolts. Now tighten all bolts evenly. Make sure there is an even gap between the elements when finished.
3. When tightening (**max. 8 Nm**) the square nuts should sit in the cavity of the spacer. Depending on the pipe dimension, it may not be necessary to close the gaps completely.

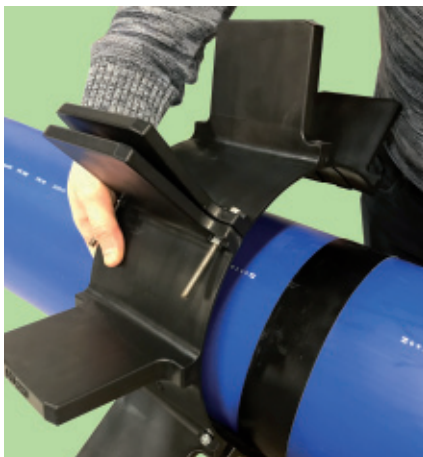
### 1. Anti-slide tape



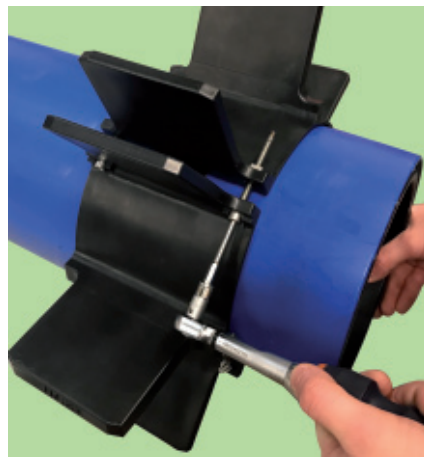
### 2. Connect elements with bolts



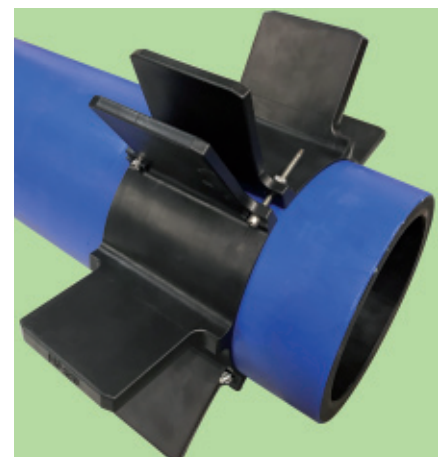
### 3. Apply ring



### 4. Tighten bolts evenly



### Fully assembled ring





# Casing Spacer 4 pipes - Type KMS for pipeline cased crossings



Type KMS-1 standard element



Type KMS-1.5 extra long element



- Perfect for pipe OD 400 - 1200 mm
- Spacers with bolted connections
- Innovative skid design
- Less elements per ring due to **extra long KMS 1.5 version**
- Fast assembly due to less elements
- Material **polypropylene** black
- High durability
- UV stabilized
- Bolts – stainless steel with inner hex head
- Square nuts for optimized mounting
- **Available skid heights 25, 36, 50, 75, 100 and 125 mm**
- Width 160 mm
- Electrical strength > 10 kV/mm
- Operating temperature -10°C up to +50°C



Pipe size		OD carrier pipe in mm		Number of elements		Bolts	max. distance recommended
DN	Inch	min.	max.	KMS-1	KMS-1.5	Number/Size	
400	16	400	430	4		8 M8 x 70	2
450	18	450	480	3	1	8 M8 x 70	2
500	20	500	538	5		10 M8 x 70	2
550	22	550	585	4	1	10 M8 x 70	2
600	24	600	628		4	8 M8 x 70	2
		629	649	6		12 M8 x 70	2
650	26	650	680	2	3	10 M8 x 70	2
		680	699	5	1	12 M8 x 70	2
700	28	700	732	1	4	10 M8 x 70	2
		732	750	7		14 M8 x 70	2
750	30	751	780		5	10 M8 x 70	2
		780	799	6	1	14 M8 x 70	2
800	32	800	835	2	4	12 M8 x 70	2
		835	850	8		16 M8 x 70	1.8
850	34	851	880	1	5	12 M8 x 70	1.8
		880	900	7	1	16 M8 x 70	1.8
900	36	901	951		6	12 M8 x 70	1.8
950	38	952	1000	2	5	14 M8 x 70	1.8
1000	40	1001	1050	1	6	14 M8 x 70	1.5
1050	42	1051	1100		7	14 M8 x 70	1.5
1100	44	1101	1150	2	6	16 M8 x 70	1.5
1150	46	1151	1200	1	7	16 M8 x 70	1.5
1200	48	1201	1249		8	16 M8 x 70	1.5

Maximum static load	kg / ring
Skid height 25, 36, 50 und 75 mm	2000
Skid height 100 und 125 mm	1000

Maximum loads are under static conditions. Dynamic forces need to be considered individually.



The 4 pipes warranty for KMS casing spacers only applies to faulty material. Checking the suitability of the product for the individual application is solely the responsibility of the user.

# Casing Spacer 4 pipes - Type KMS

## Assembly instructions

Before joining the elements choose the number of elements and bolts acc. to our selection tables.

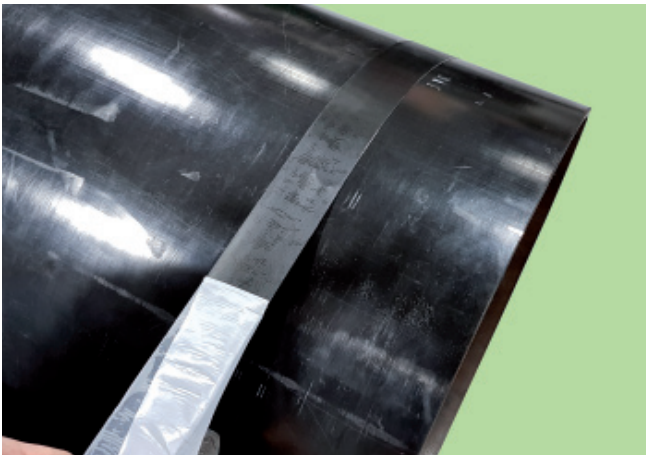
1. In the first step join the elements with the attached bolts. Do not close the ring at this stage. Put nuts only on the end of the bolts.  
4 pipes anti-slide tape provides best possible hold of rings on smooth pipe surfaces like PE, PP, PVC, steel or ductile iron.

2. For assembly, put the ring around the pipe and connect the last bolts. Now tighten all bolts evenly. Make sure there is an even gap between the elements when finished.
3. When tightening (**max. 8 Nm**) the square nuts should sit in the cavity of the spacer. Depending on the pipe dimension, it may not be necessary to close the gaps completely.

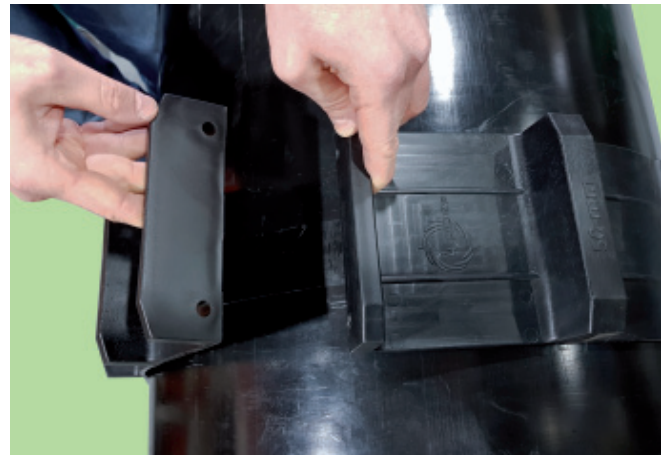
### 1. Preassembly acc. to selection table



### 2. Anti-slide tape



### 3. Apply ring



### 4. Connect bolts



### 5. Tighten bolts evenly



### Fully assembled ring

