

**If Bends have to Adapt Themselves...**

**KALFLEX Bends are Both Flexible and Wear Resistant**

The problem is well known. Rigid piping systems cannot be used to connect components that move due to vibrations, thermal expansion or as a result of intended movements. Normally, the available solutions are expensive.

Kalenborn offers a new answer to this problem: KALFLEX – the flexible bend that is easily installed with normal flanging.

The core elements of the system are abrasion resistant segments that fit into each other. The segments are capable of moving in relation to each other, providing the desired flexibility.

The segments are enclosed in a rubber jacket containing a fabric insert, producing the needed stability and tightness.

Available sizes range from 20 to 150 mm ID, covering pipe sizes used in many pneumatic conveying systems.

This new system allows a variety of flange and coupling connections, ensuring rapid and easy installation.

**Technical data**

- Nominal diameters 20-150 mm
- Max. temperature 180° C/356° F
- Pressure up to 10 bars
- Flexible radius and angle positions
- Flanges per DIN 2642 / EN 1092-1, types 02 and 32/33

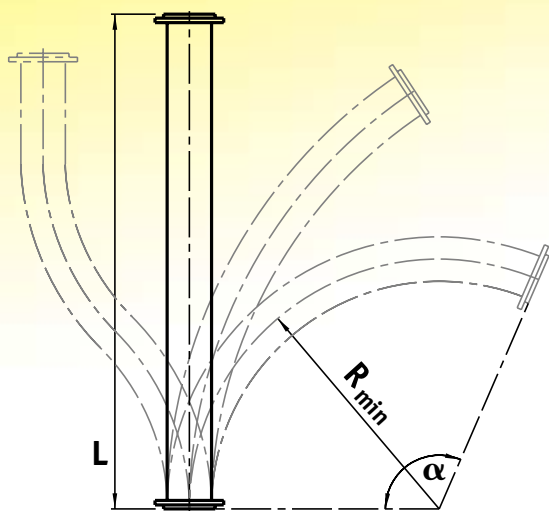
**Advantages Offered by KALFLEX**

- Flexible and adaptable
- Highly wear resistant
- Easy to install
- Well suited for spare parts program
- Extensive practical experience



Flexible but Wear Resistant:

# KALMETALL-C or KALOCER Ensure High Wear Resistance of Bends



$$\alpha = \frac{L \times 360}{R \times 2 \times \pi} = \frac{L}{R} \times 57,3$$

## KALMETALL-C, Wear Resistant Hard Cast

The wear resistant KALMETALL-C segments used in KALFLEX bends are castings. The KALMETALL-C can be optimized by varying the material selection to the specific requirements of the application. KALMETALL-C offers resistance against wear caused by impact and sliding abrasion.

## KALOCER, when Wear is Extreme

The segments can also be made of KALOCER high alumina ceramics, useful in cases of extreme sliding abrasion. Diameters are available from 50-100 mm. When KALOCER linings are used, the collars are made of KALMETALL-C and the flanges are made of steel to provide the strength needed.

Choose from the list of standard flexible bends in KALMETALL-C (M) or KALOCER (C)

Other dimensions and lengths available on request

Type	Dimensions						Weight					
	Pipe Diameter ID mm	Length			Radius R <sub>min</sub> mm	Flange* and collar** Nominal bore mm	M L <sub>min</sub> kg	C	M L <sub>max</sub> kg	C	M Per step kg	C
		L <sub>min</sub> mm	L <sub>max</sub> mm	Step mm								
M	20	210	1510	50	250	25	4,7		12,5		0,3	
M	25	210	1510	50	250	32	5,9		15,8		0,38	
M	32	288	1548	70	300	40	7,5		20,1		0,7	
M	40	285	1558	67	350	50	10,3		31,2		1,1	
M/C	50	284	2070	94	459	65	13,6	13,2	44	36,0	1,6	1,2
M/C	65	345	2055	95	600	80	17,1	16,3	54,9	39,7	2,1	1,3
M/C	80	345	2530	95	800	100	19,9	19,0	79,7	58,1	2,6	1,7
M/C	100	365	2550	95	1000	125	26,5	25,5	102,4	78,4	3,3	2,3
M	125	500	2590	95	1200	150	34,7		128,2		4,25	
M	150	509	2542	107	1400	175***	48,5		153		5,5	

\* Flange dimensions as defined in EN 1092-1/02/DN\_\_\_\_\_/ PN 10 (DIN 2642 - DN\_\_\_\_\_-PN 10)

\*\* Collar dimensions as defined in EN 1092-1/32A/DN\_\_\_\_\_/ PN 10 (DIN 2642 - DN\_\_\_\_\_-PN 10)

\*\*\* Dimensions as defined in DIN 2576