

# ***K-FLEX K-FIX TYPE O***



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In the past, simple wood block or dowel inserts were normally used with pipe insulation protection shields to support insulation at hanger locations, but things have changed. With increasing environment concerns, like mold and mildew problems, and a greater emphasis on green building, engineers are taking a close look at their support systems to choose the most efficient. In addition, newer specifications call for colder piping system for chilled water and other cold lines, which has created the need for a wider array of pipe insulation support systems than currently offered by manufacturers.

## K-FLEX K-FIX TYPE O ► TECHNICAL SPECIFICATIONS

### K-FLEX K-FIX TYPE O

K-Fix Type O the innovation pipe insulation support, which engineered designed to meet MSS Standard SP-69 (Manufacturers standardization society of the Valve and Fitting Industry, Inc.) Each set of K-Fix Type O is preformed to fir the O.D of the pipe.

High density and compressive strength of conventional pipe support insulation does not necessarily deliver the best condensation control. High density and compressive strength are also prone to crack at load bearing point. K-Fix Type O density is designed to withstand the weight of the pipe, valves, flanges and fluid media inside without compressing the K-Fix Type O thickness. K-Fix Type O compressive strenght is engineered to meet the recommended spacing between supports and extend the life expectancy of the system

### TECHNICAL DATA

<i>Property</i>	<i>Value/Assessment</i>	<i>Special Remark</i>
<b>Density</b>	100 to 120 kg/m <sup>3</sup>	
<b>Recommend Pipe Size</b>	Up to 24 inch (DN600)	
<b>Temperature Range</b>	Max. service temperature: +120°C Min. service temperature: -200°C	
<b>Thermal Conductivity</b>	$\lambda \leq / \geq 0.025$ W/(m.K) 0.17 Btu-in/hr.ft.°F	Tested according to ASTM C518
<b>Compressive Strength</b>	Perpendicular 20 kg/cm <sup>2</sup>	Tested according to ASTM D1621
<b>Water Absorption by Wt.</b>	< 1%	Tested according to ASTM D209
<b>Water Vapor Permeability</b>	Polyurethane: 2 Perm - inch Elastomeric Foam: 0.1 Perm - inch	Tested according to ASTM E96
<b>Close Cell Content</b>	Min 92%	
<b>Flammability</b>	Class V-0 Self Extinguishing	Tested according to UL 94 Tested according to ASTM D635
<b>Environmental Aspect</b>	Non CFC / HCFC material	

For temperatures below -50 °C please contact our Customer Service Center to request for the corresponding technical information.

The reaction to fire classification is valid on metal or solid, mineral surfaces.

Further documents such as test certificates, approvals and the like can be requested using the registration number given.

**K-FLEX** reserves the right to change data and technical requirements without notice.

### MATERIAL

<i>Property</i>	<i>K-Fix Type O</i>		<i>Other Materials</i>		
	<i>Moulded Foam</i>	<i>Wood Block</i>	<i>Phenolic Foam</i>	<i>PVC Pipe Half Cut</i>	<i>PU (Sliced Foam)</i>
<b>Material</b>	Closed Cell PU foam	Hard Wood	Phenolic foam	PVC injection	Semi open cell PU foam
<b>Condensation Control</b>	Very good	Poor	Poor	Poor	Medium
<b>Density</b>	100 to 120 kg/m <sup>3</sup>	400 to 800 kg/m <sup>3</sup>	80 to 160 kg/m <sup>3</sup>	1400 kg/m <sup>3</sup>	150 to 250 kg/m <sup>3</sup>
<b>Thermal Conductivity</b>	0.021 W/m.K	0.17 W/m.K	0.6 W/m.K	0.15 W/m.K	0.28 W/m.K
<b>Compressive Strength</b>	15 to 20 kg/cm <sup>2</sup>	100 to 1000 kg/cm <sup>2</sup>	Easy to crack	550 to 890 kg/cm <sup>2</sup>	Too stiff and more likely to crack
<b>Fire Performance</b>	Self extinguish	Flammable	Self extinguish	Melt & Drip	Self extinguish
<b>Service Temperature</b>	-200 to 120°C	0 to 120°C	-180 to 125°C	<60°C	-200 to 80°C
<b>Installation</b>	Easy & Fast	Difficult & Slow	Easy & Fast	Difficult & Slow	Easy & Fast
<b>Price</b>	Economical	High	High	Low	Medium

## PRODUCT RANGE ▶ K-FIX TYPE O

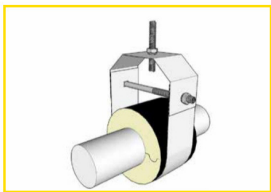
Steel	Copper	K-Fix Type O	Length	Thickness					
				mm (inch)	13 mm (1/2")	19 mm (3/4")	25 mm (1")	32 mm (1 1/4")	38 mm (1 1/2")
-	3/8" (10)	10	50	KF-13x010	KF-19x010	-	-	-	-
-	1/2" (12)	12	50	KF-13x012	KF-19x012	-	-	-	-
-	5/8" (15)	15	50	KF-13x015	KF-19x015	KF-25x015	-	-	-
-	3/4" (20)	20	50	KF-13x020	KF-19x020	KF-25x020	KF-32x020	KF-38x020	KF-50x020
1/2" (15)	7/8" (22)	22	50	KF-13x022	KF-19x022	KF-25x022	KF-32x022	KF-38x022	KF-50x022
3/4" (20)	1 1/8" (28)	28	50	KF-13x028	KF-19x028	KF-25x028	KF-32x028	KF-38x028	KF-50x028
1" (25)	1 3/8" (35)	35	50	KF-13x035	KF-19x035	KF-25x035	KF-32x035	KF-38x035	KF-50x035
1 1/4" (32)	1 5/8" (42)	42	50	KF-13x042	KF-19x042	KF-25x042	KF-32x042	KF-38x042	KF-50x042
1 1/2" (40)	-	48	50	KF-13x048	KF-19x048	KF-25x048	KF-32x048	KF-38x048	KF-50x048
-	2 1/8" (54)	54	50	KF-13x054	KF-19x054	KF-25x054	KF-32x054	KF-38x054	KF-50x054
2" (50)	-	60	50	KF-13x060	KF-19x060	KF-25x060	KF-32x060	KF-38x060	KF-50x060
-	2 5/8" (67)	67	50	KF-13x067	KF-19x067	KF-25x067	KF-32x067	KF-38x067	KF-50x067
-	-	73	50	KF-13x073	KF-19x073	KF-25x073	KF-32x073	KF-38x073	KF-50x073
2 1/2" (65)	-	76	50	KF-13x076	KF-19x076	KF-25x076	KF-32x076	KF-38x076	KF-50x076
3" (80)	-	89	50	KF-13x089	KF-19x089	KF-25x089	KF-32x089	KF-38x089	KF-50x089
4" (100)	-	114	50	KF-13x114	KF-19x114	KF-25x114	KF-32x114	KF-38x114	KF-50x114
5" (125)	-	140	50	-	KF-19x140	KF-25x140	KF-32x140	KF-38x140	KF-50x140
6" (150)	-	168	50	-	KF-19x168	KF-25x168	KF-32x168	KF-38x168	KF-50x168
8" (200)	-	219	75	-	KF-19x219	KF-25x219	KF-32x219	KF-38x219	KF-50x219
10" (250)	-	273	75	-	KF-19x273	KF-25x273	KF-32x273	KF-38x273	KF-50x273
12" (300)	-	324	75	-	KF-19x324	KF-25x324	KF-32x324	KF-38x324	KF-50x324
14" (350)	-	355	75	-	KF-19x355	KF-25x355	KF-32x355	KF-38x355	KF-50x355
16" (400)	-	406	75	-	KF-19x406	KF-25x406	KF-32x406	KF-38x406	KF-50x406
18" (457)	-	457	100	-	KF-19x457	KF-25x457	KF-32x457	KF-38x457	KF-50x457
20" (500)	-	510	100	-	KF-19x510	KF-25x510	KF-32x510	KF-38x510	KF-50x510
24" (600)	-	609	100	-	-	-	KF-32x609	KF-38x609	KF-50x609
30" (750)	-	762	250	-	-	-	KF-32x762	-	KF-50x762
34" (850)	-	863	250	-	-	-	KF-32x863	-	KF-50x863

For enquiries of other sizes, please contact [kflexmktg@kflex.com.my](mailto:kflexmktg@kflex.com.my)

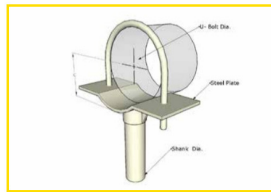
**RECOMMENDED SPACING**

NPS	DN	K-Fix Type O	Wt. per ft. Empty Pipe"		Wt. per ft. Fully Flooded"		Hanger Spacing, ft. per meter acc. to MSS-SP-69					
							Standard Steel Pipe				Copper	
							Water		Steam		Water	
Inch	mm	mm	lb	kg	lb	kg	ft	m	ft	m	ft	m
1/2"	15	22	0.85	0.39	0.98	0.44	7	2	8	2	5	2
3/4"	20	28	1.13	0.51	1.36	0.62	7	2	9	3	5	2
1"	25	35	1.68	0.76	2.05	0.93	7	2	9	3	6	2
1 1/4"	32	42	2.27	1.03	2.92	1.32	7	2	9	3	6	2
1 1/2"	40	48	2.72	1.23	3.6	1.63	9	3	12	4	8	2
2"	50	60	3.65	1.66	5.11	2.32	10	3	13	4	8	2
2 1/2"	65	76	5.79	2.63	7.87	3.57	11	3	14	4	9	3
3"	80	89	7.58	3.44	10.8	4.90	12	4	15	5	10	3
4"	100	114	10.8	4.90	16.3	7.39	14	4	17	5	12	4
5"	125	140	14.6	6.62	23.3	10.57	16	5	19	6	13	4
6"	150	168	18.9	8.57	31.5	14.29	17	5	21	6	14	4
8"	200	219	28.6	12.97	50.3	22.82	19	6	24	7	16	5
10"	250	273	40.5	18.37	74.7	33.88	20	6	24	7	18	5
12"	300	324	53.5	24.27	102.2	46.36	20	6	24	7	19	6
14"	350	355	63.4	28.76	122.2	55.43	20	6	24	7	-	-
16"	400	406	82.8	37.56	159.5	72.35	20	6	24	7	-	-
18"	450	457	104.7	47.49	201.8	91.53	20	6	24	7	-	-
20"	500	510	123.1	55.84	243.9	110.63	20	6	24	7	-	-
24"	600	609	164.9	74.84	337.6	153.13	24	7	27	8	-	-
30"	750	762	231.1	104.84	503.5	228.38	24	7	27	8	-	-
34"	850	863	281.8	127.84	630.2	285.88	27	8	31	9	-	-

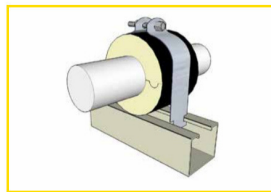
**APPLICATIONS**



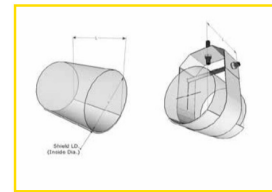
▶ With Clevis Pipe Hanger



▶ With U-Bolt and Pipe Support



▶ With Pipe Support Element



▶ With Pipe Shield

K-FLEX K-FIX TYPE O\_V3\_0724