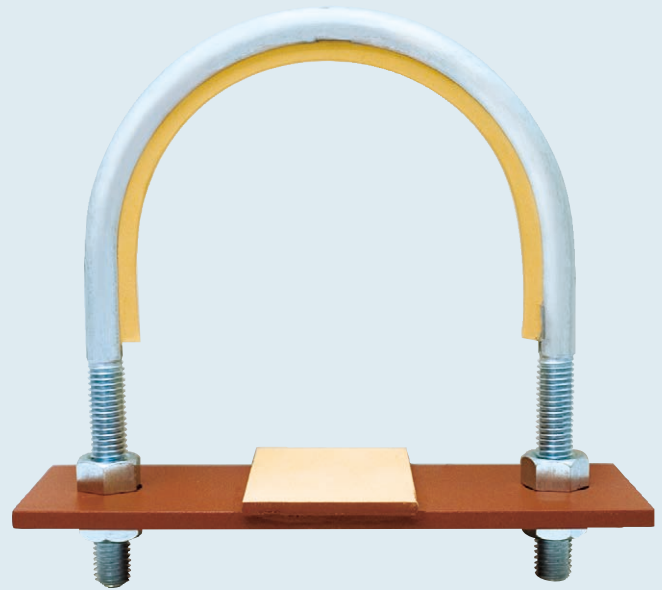


PILLAR Slide Bearing Series PILAFLON™ U-Bolt & Pad

PILLAR

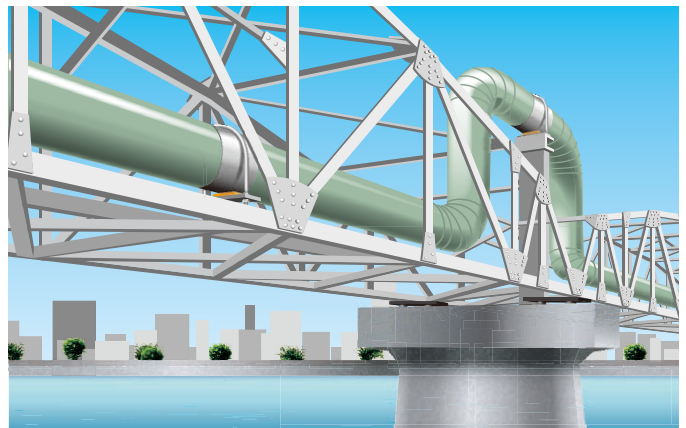
Fluorocarbon polymers allow pipes to expand and contract smoothly



Various types of pipes for water supply, gas supply, various plants, large oil tankers, and other applications expand and contract according to changes in fluid temperature, outdoor air temperature, or other environmental changes. Use of conventional U-bolts and support materials cause undesirable situations such as deformation or distortion on bases or cracks on pipes, as well as electrolytic corrosion, fire, and other dangerous problems. PILAFLON U-bolts and pads prevent these problems.

* PILAFLON is our trademark of molded products made of polytetrafluoroethylene (PTFE, PTFE containing filler).

■ Installation example



■ Features

- PILAFLON (bearing material) with self-lubricating capabilities and low coefficient of friction allows pipes to expand and contract smoothly.
- PILAFLON (bearing material) provides excellent weather resistance, load capacity, wear resistance, chemical resistance, and heat resistance.
- PILAFLON (bearing material) for use above the ground provides electrical insulation to prevent electrolytic corrosion, and PILAFLON (bearing material) for use on ships provides electrical conductivity to prevent fire.
- The standard material of the metal part is SS400. SUS304 or SUS316 can also be used as the material.

■ Structure

- The PILAFLON U-bolt is manufactured by cutting a groove on the inner circumference side of a metal U-bolt and mounting PILAFLON squared material containing a filler.
- The PILAFLON pad is manufactured by firmly attaching a PILAFLON bearing containing a filler to a metal plate, and it is used with a PILAFLON U-bolt as a set.



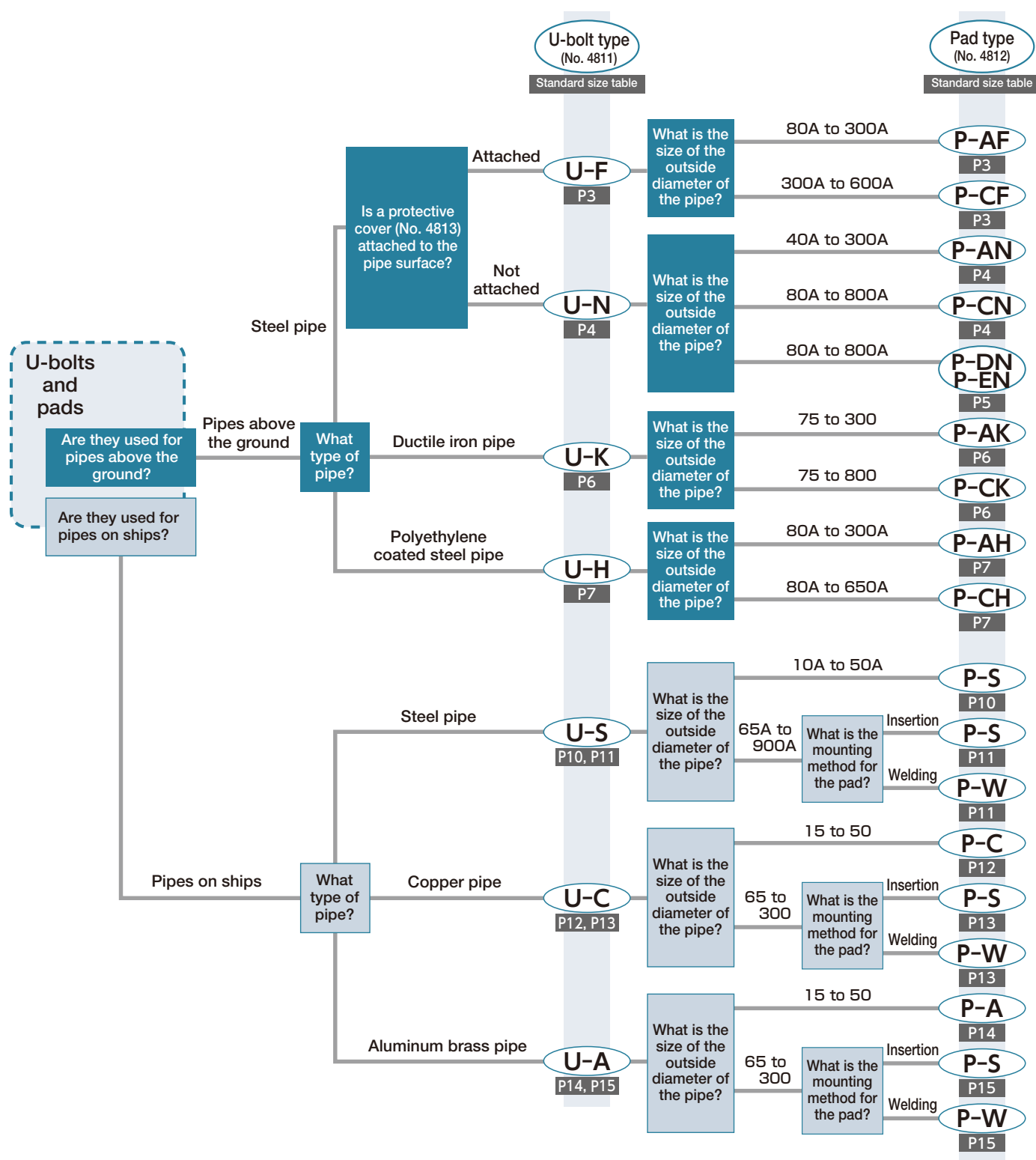
For pipes above the ground: Electrically insulated (PILAFLON G4)



For pipes on ships: Electrically conducted (PILAFLON R3)

NIPPON PILLAR PACKING CO., LTD.

Selection chart for PILAFLON U-bolts and pads



Special application

- For fiber optic cable conduit pipes

U-bolt and pad for fiber optic cable conduit pipes (No. 4811 and No. 4812) • • • • • P9

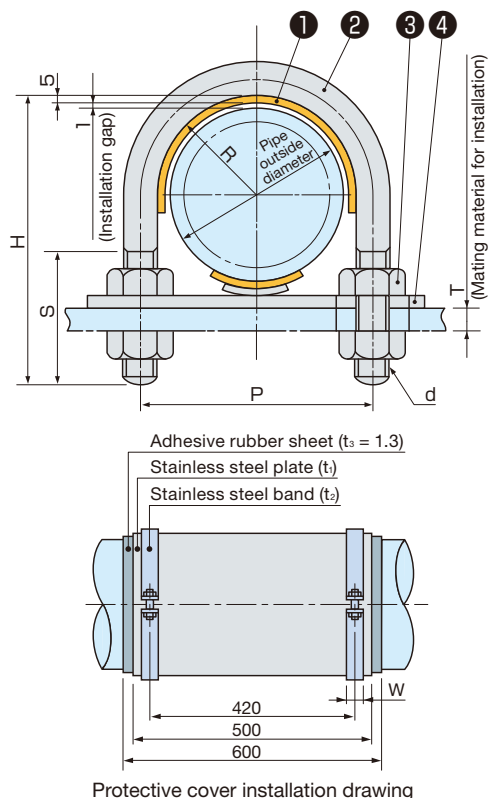
PILAFLON U-Bolt & Pad

F type For steel pipes above the ground (Protective cover support type)

- * The protective cover is optional. If this cover is needed, please specify so separately.
When ordering a U-bolt and pad as a set, please specify "Equipped with protective cover."
- * The PILAFLON U-bolt (U-F type) and PILAFLON pad (P-AF or P-CF type) are sold as a set.
- * The steel material portions must be finish-coated after installation.



PILAFLON U-bolt U-F type



Protective cover installation drawing

No.	Part name	Material	Remarks
1	Bearing	PILAFLON	G4
2	U-bolt	SS400	Electrogalvanized
3	Hexagon nut	SS400	Electrogalvanized
4	PILAFLON pad	See below	P-AF or P-CF type

U-bolt size table (with protective cover)

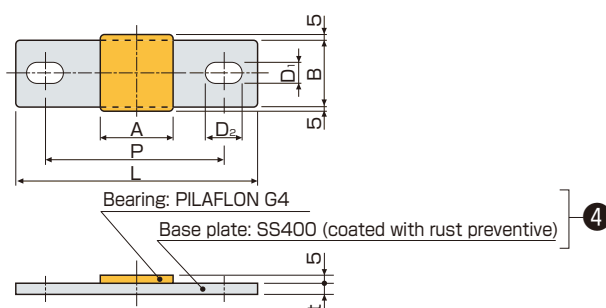
Unit: mm

Model	Pipe outside diameter	R	P	H	d	S	t ₁	t ₂	W	T (Max.)		Applicable pads	
										P-AF	P-CF	P-AF	P-CF
U-F-80	92.5	53.0	118	140	M12	65	0.4	*2	*2	15	—	○	
U-F-100	117.7	65.5	143	170	M12	65	0.4	*2	*2	20	—	○	
U-F-150	168.6	91.5	199	230	M16	70	0.4	*2	*2	25	—	○	
U-F-200	219.7	117.0	254	290	M20	85	0.4	0.6	20	29	—	○	
U-F-250	270.8	143.0	306	345	M20	100	0.4	0.6	20	33	—	○	
U-F-300	322.3	169.0	362	400	M24	100	0.6	0.6	20	29	17	○	○
U-F-350	359.4	188.0	400	440	M24	100	0.6	0.6	20	—	20		○
U-F-400	410.2	213.5	451	490	M24	100	0.6	0.6	20	—	19		○
U-F-450	461.0	239.0	502	545	M24	100	0.6	0.6	20	—	24		○
U-F-500	511.8	264.5	553	595	M24	100	0.6	0.6	20	—	23		○
U-F-550	562.6	290.5	611	680	M30	115	0.6	0.6	20	—	20		○
U-F-600	613.4	316.0	662	700	M30	115	0.6	0.6	20	—	20		○

*1: The pipe outside diameter includes the protective cover thickness.

*2: Stainless steel bands for pipes with a nominal size of 150A or less must be prepared by customers.

PILAFLON pad P-AF type

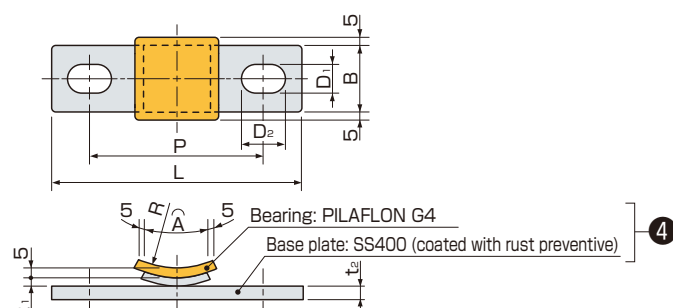


Pad size table

Unit: mm

Model	Applicable pipe nominal size	L	P	A	B	D ₁	D ₂	t
P-AF-80	80A	160	118	45	50	14	20	6
P-AF-100	100A	190	143	50	65	14	20	6
P-AF-150	150A	265	199	60	65	18	25	6
P-AF-200	200A	330	254	75	85	22	29	6
P-AF-250	250A	385	306	75	85	22	29	6
P-AF-300	300A	460	362	95	85	26	33	9

PILAFLON pad P-CF type



Pad size table

Unit: mm

Model	Applicable pipe nominal size	L	P	A	B	D ₁	D ₂	R	t ₁	t ₂
P-CF-300	300A	440	362	85	50	26	33	161.2	9	12
P-CF-350	350A	480	400	95	50	26	33	179.7	9	12
P-CF-400	400A	530	451	120	50	26	33	205.1	9	12
P-CF-450	450A	590	502	125	65	26	33	230.5	9	12
P-CF-500	500A	640	553	140	65	26	33	255.9	9	12
P-CF-550	550A	720	611	155	65	32	39	281.3	9	12
P-CF-600	600A	780	662	170	65	32	39	306.7	9	12

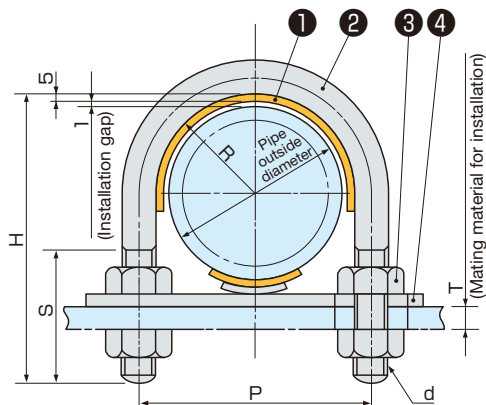
PILAFLO U-Bolt & Pad

N type For steel pipes above the ground

* The PILAFLO U-bolt (U-N type) and PILAFLO pad (P-AN, P-CN, P-DN, or P-EN type) are sold as a set.
* The steel material portions must be finish-coated after installation.



PILAFLO U-bolt U-N type

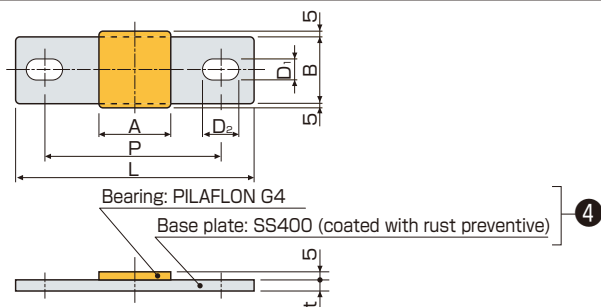


No.	Part name	Material	Remarks
1	Bearing	PILAFLO	G4
2	U-bolt	SS400	Electrogalvanized
3	Hexagon nut	SS400	Electrogalvanized
4	PILAFLO pad	See below See the next page	P-AN or P-CN type P-DN or P-EN type

U-bolt size table

Model	Pipe outside diameter	R	P	H	d	S	T (Max.)		Applicable pads	
							P-AN	P-CN P-DN P-EN	P-AN	P-CN P-DN P-EN
U-N- 40	48.6	30.0	72	90	M12	50	9	—	○	—
U-N- 50	60.5	36.0	84	105	M12	55	12	—	○	—
U-N- 65	76.3	45.0	102	120	M12	55	11	—	○	—
U-N- 80	89.1	51.5	115	140	M12	65	18	9	○	○
U-N-100	114.3	64.5	141	170	M12	65	23	14	○	○
U-N-125	139.8	77.0	170	200	M16	75	24	15	○	○
U-N-150	165.2	90.0	196	230	M16	75	28	19	○	○
U-N-200	216.3	116.0	252	290	M20	90	33	24	○	○
U-N-250	267.4	141.5	303	345	M20	100	37	28	○	○
U-N-300	318.5	167.5	359	400	M24	100	33	21	○	○
U-N-350	355.6	186.5	397	440	M24	100	—	24	—	○
U-N-400	406.4	212.0	448	490	M24	100	—	23	—	○
U-N-450	457.2	237.5	499	545	M24	100	—	27	—	○
U-N-500	508.0	263.0	550	595	M24	100	—	27	—	○
U-N-550	558.8	288.5	607	650	M30	115	—	24	—	○
U-N-600	609.6	314.0	658	700	M30	115	—	23	—	○
U-N-650	660.4	340.0	710	750	M30	115	—	23	—	○
U-N-700	711.2	366.0	762	800	M30	115	—	22	—	○
U-N-750	762.0	391.0	812	850	M30	115	—	21	—	○
U-N-800	812.8	417.0	870	910	M36	130	—	24	—	○

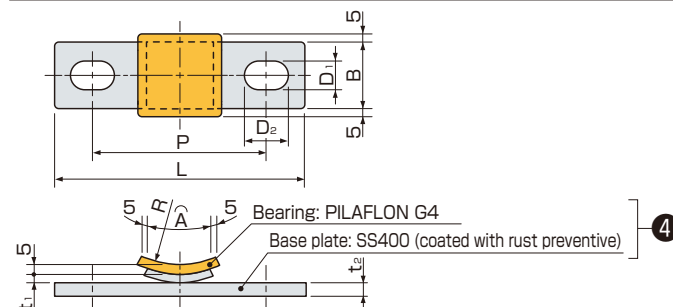
PILAFLO pad P-AN type



Pad size table

Model	Applicable pipe nominal size	L	P	A	B	D ₁	D ₂	t
P-AN- 40	40A	115	72	30	40	14	20	6
P-AN- 50	50A	125	84	40	40	14	20	6
P-AN- 65	65A	145	102	40	40	14	20	6
P-AN- 80	80A	160	115	45	50	14	20	6
P-AN-100	100A	190	141	50	65	14	20	6
P-AN-125	125A	240	170	55	65	18	25	6
P-AN-150	150A	265	196	60	65	18	25	6
P-AN-200	200A	330	252	75	85	22	29	6
P-AN-250	250A	385	303	75	85	22	29	6
P-AN-300	300A	460	359	95	85	26	33	9

PILAFLO pad P-CN type

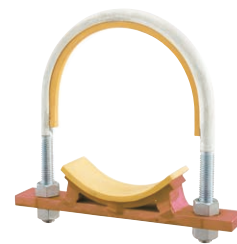


Pad size table

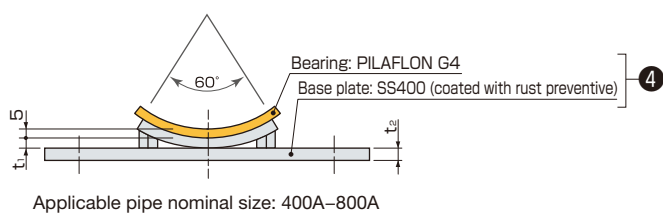
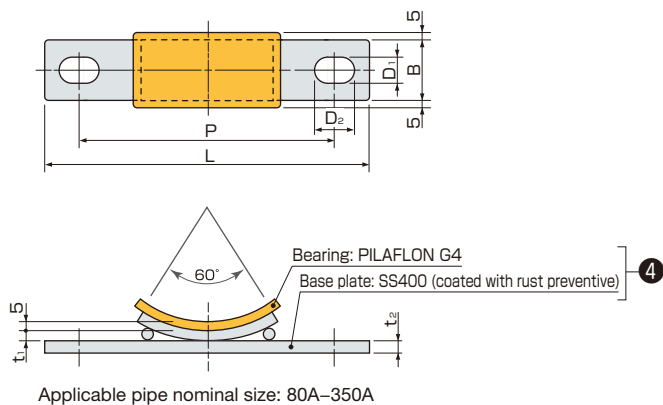
Model	Applicable pipe nominal size	L	P	A	B	D ₁	D ₂	R	t ₁	t ₂
P-CN- 80	80A	160	115	30	30	14	20	44.6	6	9
P-CN-100	100A	190	141	35	30	14	20	57.2	6	9
P-CN-125	125A	240	170	40	40	18	25	69.9	6	9
P-CN-150	150A	265	196	50	40	18	25	82.6	6	9
P-CN-200	200A	330	252	60	40	22	29	108.2	6	9
P-CN-250	250A	385	303	75	50	22	29	133.7	6	9
P-CN-300	300A	440	359	85	50	26	33	159.3	9	12
P-CN-350	350A	480	397	95	50	26	33	177.8	9	12
P-CN-400	400A	530	448	120	50	26	33	203.2	9	12
P-CN-450	450A	580	499	130	65	26	33	228.6	9	12
P-CN-500	500A	640	550	140	65	26	33	254.0	9	12
P-CN-550	550A	730	607	150	65	32	39	279.4	9	12
P-CN-600	600A	780	658	170	65	32	39	304.8	9	12
P-CN-650	650A	830	710	180	75	32	39	330.2	9	12
P-CN-700	700A	890	762	185	75	32	39	355.6	9	12
P-CN-750	750A	940	812	185	75	32	39	381.0	9	12
P-CN-800	800A	1010	870	215	85	38	45	406.4	9	12

N type For steel pipes above the ground

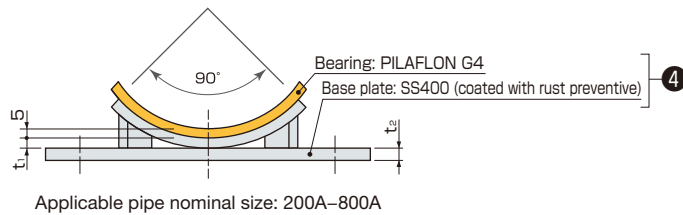
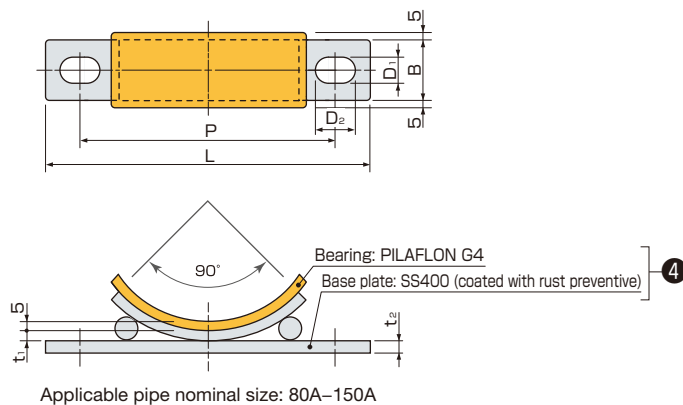
* The PILAFLON U-bolt (U-N type) and PILAFLON pad (P-AN, P-CN, P-DN, or P-EN type) are sold as a set.
* The steel material portions must be finish-coated after installation.



PILAFLON pad P-DN type



PILAFLON pad P-EN type



Pad size table

Unit: mm

Model	Applicable pipe nominal size	L	P	A	B	D ₁	D ₂	R	t ₁	t ₂
P-DN- 80	80A	160	115	55	30	14	20	44.6	6	9
P-DN-100	100A	190	141	68	30	14	20	57.2	6	9
P-DN-125	125A	240	170	82	40	18	25	69.9	6	9
P-DN-150	150A	265	196	95	40	18	25	82.6	6	9
P-DN-200	200A	330	252	122	40	22	29	108.2	6	9
P-DN-250	250A	385	303	148	50	22	29	133.7	6	9
P-DN-300	300A	440	359	177	50	26	33	159.3	9	12
P-DN-350	350A	480	397	196	50	26	33	177.8	9	12
P-DN-400	400A	530	448	223	50	26	33	203.2	9	12
P-DN-450	450A	580	499	249	65	26	33	228.6	9	12
P-DN-500	500A	640	550	276	65	26	33	254.0	9	12
P-DN-550	550A	730	607	302	65	32	39	279.4	9	12
P-DN-600	600A	780	658	329	65	32	39	304.8	9	12
P-DN-650	650A	830	710	356	75	32	39	330.2	9	12
P-DN-700	700A	890	762	382	75	32	39	355.6	9	12
P-DN-750	750A	940	812	409	75	32	39	381.0	9	12
P-DN-800	800A	1010	870	436	85	38	45	406.4	9	12

Pad size table

Unit: mm

Model	Applicable pipe nominal size	L	P	A	B	D ₁	D ₂	R	t ₁	t ₂
P-EN- 80	80A	160	115	83	30	14	20	44.6	6	9
P-EN-100	100A	190	141	102	30	14	20	57.2	6	9
P-EN-125	125A	240	170	122	40	18	25	69.9	6	9
P-EN-150	150A	265	196	142	40	18	25	82.6	6	9
P-EN-200	200A	330	252	182	40	22	29	108.2	6	9
P-EN-250	250A	385	303	223	50	22	29	133.7	6	9
P-EN-300	300A	440	359	265	50	26	33	159.3	9	12
P-EN-350	350A	480	397	294	50	26	33	177.8	9	12
P-EN-400	400A	530	448	334	50	26	33	203.2	9	12
P-EN-450	450A	580	499	374	65	26	33	228.6	9	12
P-EN-500	500A	640	550	414	65	26	33	254.0	9	12
P-EN-550	550A	730	607	454	65	32	39	279.4	9	12
P-EN-600	600A	780	658	494	65	32	39	304.8	9	12
P-EN-650	650A	830	710	533	75	32	39	330.2	9	12
P-EN-700	700A	890	762	573	75	32	39	355.6	9	12
P-EN-750	750A	940	812	613	75	32	39	381.0	9	12
P-EN-800	800A	1010	870	653	85	38	45	406.4	9	12

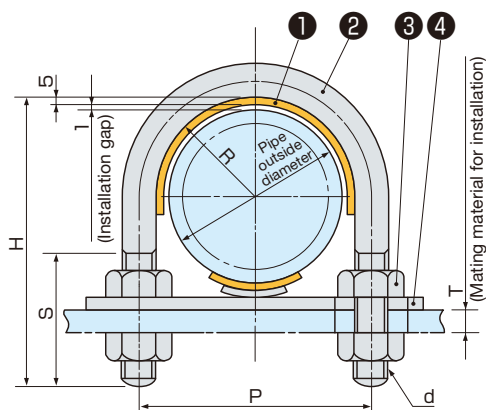
PILAFLON U-Bolt & Pad

K type For ductile iron pipes above the ground

* The PILAFLON U-bolt (U-K type) and PILAFLON pad (P-AK or P-CK type) are sold as a set.
* The steel material portions must be finish-coated after installation.



PILAFLON U-bolt U-K type



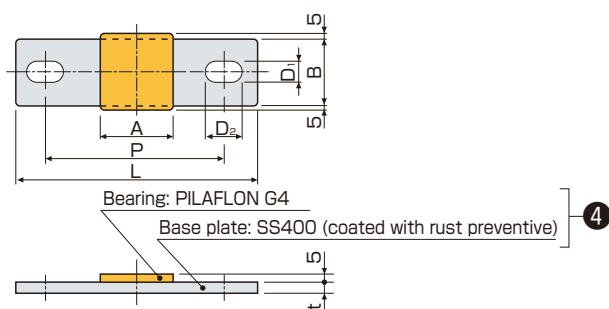
No.	Part name	Material	Remarks
1	Bearing	PILAFLON	G4
2	U-bolt	SS400	Electrogalvanized
3	Hexagon nut	SS400	Electrogalvanized
4	PILAFLON pad	See below	P-AK or P-CK type

U-bolt size table

Unit: mm

Model	Pipe outside diameter	R	P	H	d	S	T (Max.)		Applicable pads	
							P-AK	P-CK	P-AK	P-CK
U-K-75	93.0	54.0	120	150	M12	65	24	15	○	○
U-K-100	118.0	66.5	145	175	M12	65	24	15	○	○
U-K-150	169.0	92.0	200	235	M16	80	30	21	○	○
U-K-200	220.0	117.5	255	295	M20	90	34	25	○	○
U-K-250	271.6	143.5	307	350	M20	100	37	28	○	○
U-K-300	322.8	169.0	362	405	M24	100	34	22	○	○
U-K-350	374.0	195.0	414	460	M24	100	—	26	○	○
U-K-400	425.6	221.0	466	510	M24	100	—	24	○	○
U-K-450	476.8	247.0	518	565	M24	100	—	28	○	○
U-K-500	528.0	272.0	568	615	M24	100	—	27	○	○
U-K-600	630.8	324.0	678	720	M30	115	—	22	○	○
U-K-700	733.0	375.0	780	825	M30	115	—	25	○	○
U-K-800	836.0	427.0	890	935	M36	130	—	26	○	○

PILAFLON pad P-AK type

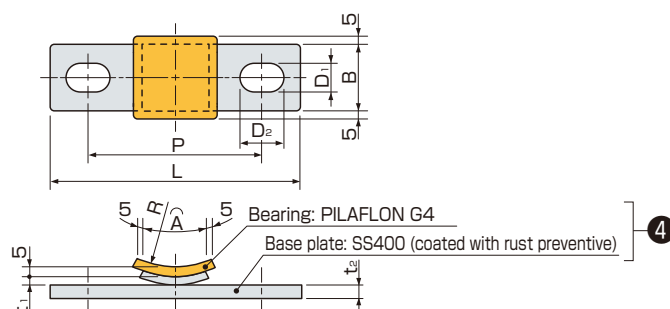


Pad size table

Unit: mm

Model	Applicable pipe nominal size	L	P	A	B	D ₁	D ₂	t
P-AK-75	75	170	120	45	50	14	20	6
P-AK-100	100	195	145	50	65	14	20	6
P-AK-150	150	265	200	60	65	18	25	6
P-AK-200	200	335	255	75	85	22	29	6
P-AK-250	250	390	307	75	85	22	29	6
P-AK-300	300	460	362	95	85	26	33	9

PILAFLON pad P-CK type



Pad size table

Unit: mm

Model	Applicable pipe nominal size	L	P	A	B	D ₁	D ₂	R	t ₁	t ₂
P-CK-75	75	170	120	30	30	14	20	46.5	6	9
P-CK-100	100	195	145	35	30	14	20	59.0	6	9
P-CK-150	150	265	200	50	40	18	25	84.5	6	9
P-CK-200	200	335	255	60	40	22	29	110.0	6	9
P-CK-250	250	390	307	75	50	22	29	135.8	6	9
P-CK-300	300	460	362	85	50	26	33	161.4	9	12
P-CK-350	350	510	414	95	50	26	33	187.0	9	12
P-CK-400	400	565	466	120	50	26	33	212.8	9	12
P-CK-450	450	615	518	130	65	26	33	238.4	9	12
P-CK-500	500	665	568	140	65	26	33	264.0	9	12
P-CK-600	600	800	678	170	65	32	39	315.4	9	12
P-CK-700	700	900	780	185	75	32	39	366.5	9	12
P-CK-800	800	1035	890	215	85	38	45	418.0	9	12

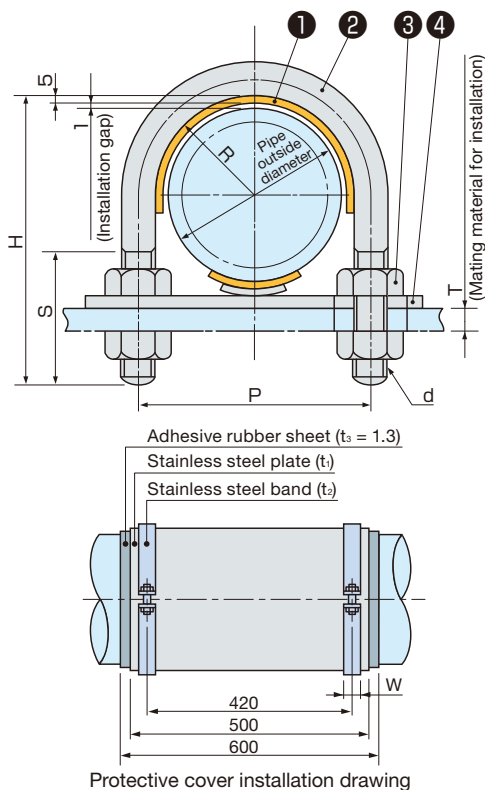
PILAFLON U-Bolt & Pad

H type For polyethylene coated steel pipes above the ground (Protective cover support type)

- * The surfaces of polyethylene coated steel pipes are lined with polyethylene. Therefore, the protective cover support type, which allows a lining protection cover to be mounted on the pipe, is provided as a standard feature.
- * The protective cover is optional. Therefore, when ordering a U-bolt and pad as a set, please specify "Equipped with protective cover."
- * The PILAFLON U-bolt (U-H type) and PILAFLON pad (P-AH or P-CH type) are sold as a set.
- * The steel material portions must be finish-coated after installation.



PILAFLON U-bolt U-H type



Protective cover installation drawing

No.	Part name	Material	Remarks
1	Bearing	PILAFLON	G4
2	U-bolt	SS400	Electrogalvanized
3	Hexagon nut	SS400	Electrogalvanized
4	PILAFLON pad	See below	P-AH or P-CH type

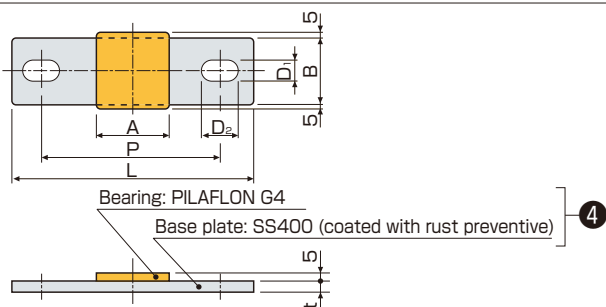
U-bolt size table (with protective cover)

Model	Pipe outside diameter	R	P	H	d	S	t ₁	t ₂	W	T (Max.)				Applicable pads	
										P-AH	P-CH	P-AH	P-CH		
U-H-80	97.1	55.5	123	150	M12	65	0.4	*2	*2	20	11	○	○		
U-H-90	109.6	62.0	136	165	M12	65	0.4	*2	*2	23	14	○	○		
U-H-100	123.1	68.5	149	180	M12	65	0.4	*2	*2	24	15	○	○		
U-H-125	148.6	81.5	179	205	M16	70	0.4	*2	*2	20	11	○	○		
U-H-150	174.6	94.5	205	235	M16	75	0.4	*2	*2	24	15	○	○		
U-H-200	226.9	121.0	262	290	M20	85	0.4	0.6	20	22	13	○	○		
U-H-250	278.8	147.0	314	345	M20	100	0.4	0.6	20	25	16	○	○		
U-H-300	330.5	173.5	371	410	M24	100	0.6	0.6	20	31	19	○	○		
U-H-350	368.4	192.5	409	445	M24	100	0.6	0.6	20	-	16		○		
U-H-400	419.2	218.0	460	495	M24	100	0.6	0.6	20	-	15		○		
U-H-450	470.4	244.0	512	550	M24	100	0.6	0.6	20	-	19		○		
U-H-500	521.2	269.5	563	600	M24	100	0.6	0.6	20	-	18		○		
U-H-550	572.0	295.5	621	655	M30	115	0.6	0.6	20	-	16		○		
U-H-600	622.8	321.0	672	705	M30	115	0.6	0.6	20	-	15		○		
U-H-650	673.6	346.5	723	760	M30	115	0.6	0.6	20	-	19		○		

*1: The pipe outside diameter includes the protective cover thickness.

*2: Stainless steel bands for pipes with a nominal size of 150A or less must be prepared by customers.

PILAFLON pad P-AH type

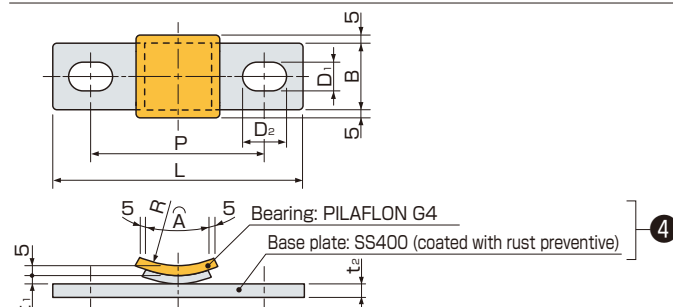


Pad size table

Model	Applicable pipe nominal size	L	P	A	B	D ₁	D ₂	t
P-AH-80	80A	170	123	45	50	14	20	6
P-AH-90	90A	180	136	50	65	14	20	6
P-AH-100	100A	200	149	50	65	14	20	6
P-AH-125	125A	240	179	55	65	18	25	6
P-AH-150	150A	270	205	60	65	18	25	6
P-AH-200	200A	330	262	75	85	22	29	6
P-AH-250	250A	390	314	75	85	22	29	6
P-AH-300	300A	460	371	95	85	26	33	9

Unit: mm

PILAFLON pad P-CH type



Pad size table

Model	Applicable pipe nominal size	L	P	A	B	D ₁	D ₂	R	t ₁	t ₂
P-CH-80	80A	170	123	30	30	14	20	48.6	6	9
P-CH-90	90A	180	136	35	30	14	20	54.8	6	9
P-CH-100	100A	200	149	35	30	14	20	61.6	6	9
P-CH-125	125A	240	179	45	40	18	25	74.3	6	9
P-CH-150	150A	270	205	50	40	18	25	87.3	6	9
P-CH-200	200A	330	262	65	40	22	29	113.5	6	9
P-CH-250	250A	390	314	80	50	22	29	139.4	6	9
P-CH-300	300A	460	371	90	50	26	33	165.3	9	12
P-CH-350	350A	490	409	100	50	26	33	184.2	9	12
P-CH-400	400A	540	460	120	50	26	33	209.6	9	12
P-CH-450	450A	600	512	130	65	26	33	235.2	9	12
P-CH-500	500A	650	563	140	65	26	33	260.6	9	12
P-CH-550	550A	720	621	155	65	32	39	286.0	9	12
P-CH-600	600A	770	672	170	65	32	39	311.4	9	12
P-CH-650	650A	830	723	180	75	32	39	336.8	9	12

Unit: mm

■ Selecting a PILAFLON pad (Reference)

The support load of the PILAFLON pad differs according to the type or size.

The installation span and the number of installation positions (supports) must be considered according to the pipe size, pipe weight, pipe length, and other factors.

Therefore, the span length (installation span) of the PILAFLON pad to be used for pipes above the ground must not exceed the maximum value determined by the type and pipe size in the table below.

(This is just an example of PILAFLON pads for steel pipes.)

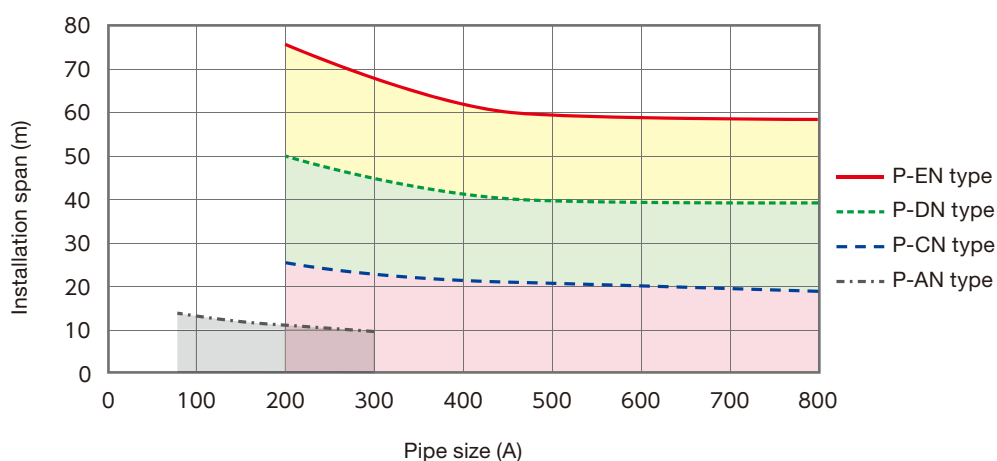
Maximum installation span for each PILAFLON pad type
(when the pipe is filled with water)

Unit: m

Pipe size	P-AN type	P-CN type	P-DN type	P-EN type
80A	13.8	—	—	—
100A	15.3	—	—	—
125A	13.8	—	—	—
150A	11.9	—	—	—
200A	12.6	25.2	50.3	75.5
250A	10.5	27.1	52.5	78.8
300A	9.2	22.4	46.3	69.5
350A	—	21.9	45.1	67.6
400A	—	22.5	41.0	61.6
450A	—	25.3	48.9	73.3
500A	—	22.7	45.2	67.9
600A	—	20.3	39.3	58.9
700A	—	19.4	40.0	60.0
800A	—	19.1	39.4	59.1

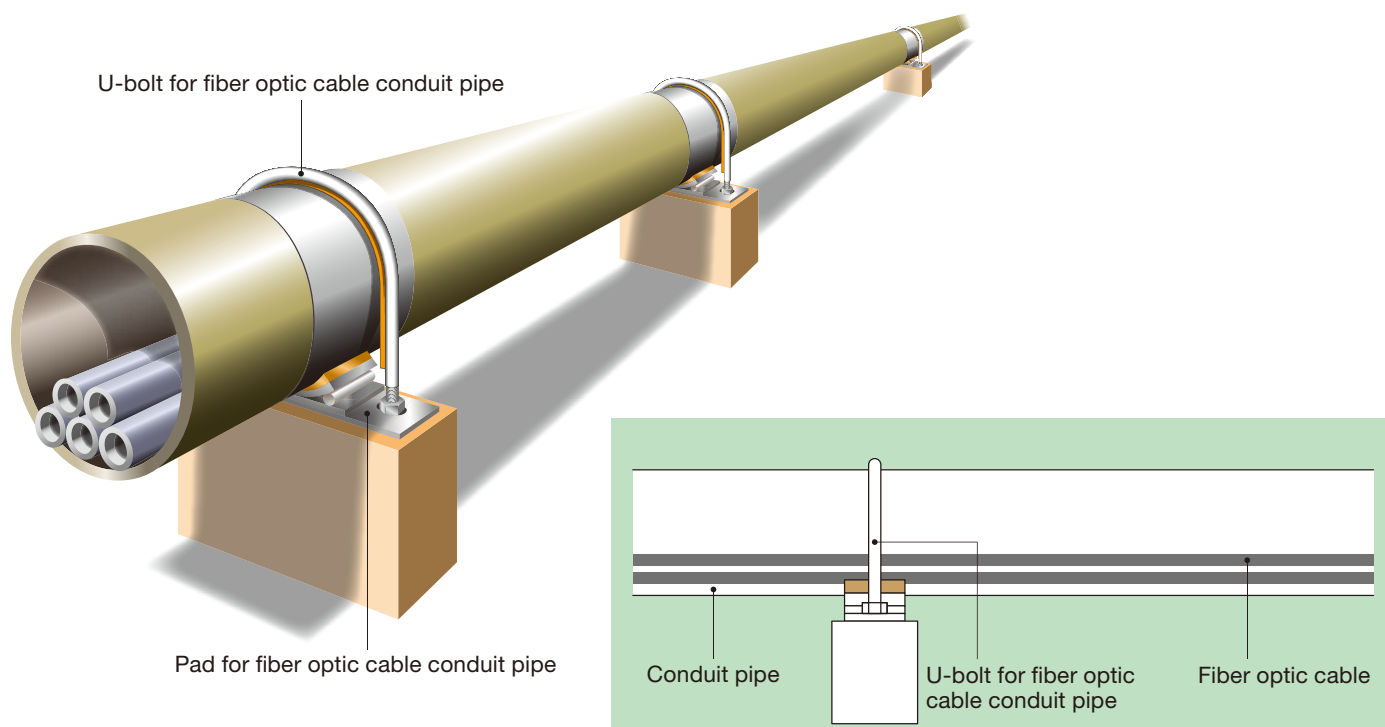
As a guide for the maximum installation span for each PILAFLON pad type, see the graph below for reference.

However, even if the usage conditions fall within the maximum installation span, if there is a concern that the pipe may shake from side to side due to wind, please specify the P-EN type, which is a safety type.



U-bolts and pads for fiber optic cable conduit pipes

Pipe reliability and safety can be enhanced by absorbing the expansion and contraction of the fiber optic cable conduit pipe through which fiber optic cables are routed in order to prevent deformation, distortion, damage, and other problems with the bases.



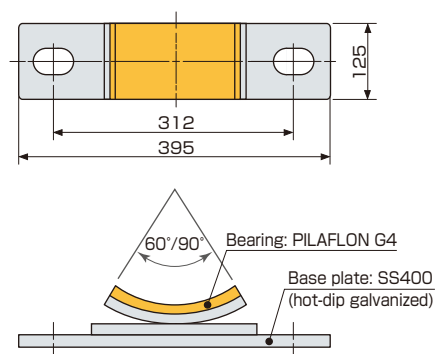
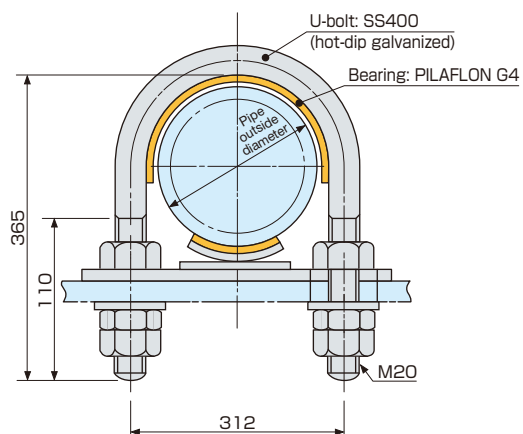
Standard model

* We also handle special sizes.

(Example)

U-bolt (250A)

PILAFLON pad Pipe support angle of 60°/90°

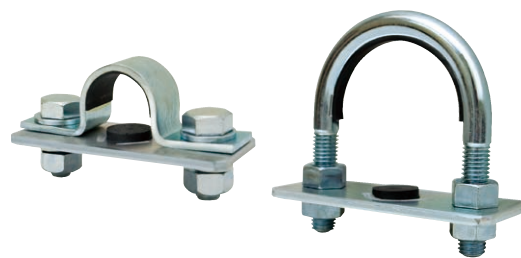


PILAFLON U-Bolt & Pad

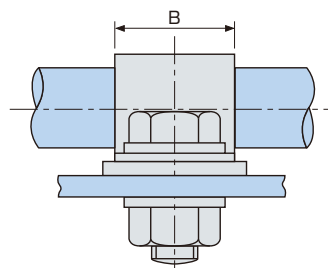
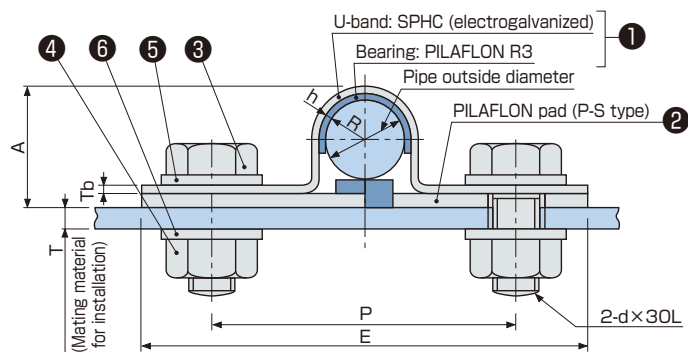
S type For steel pipes on ships

Applicable pipe nominal size: 10A to 50A

* The PILAFLON U-band/bolt (U-S type) and PILAFLON pad (P-S type) are sold as a set.



PILAFLON U-band U-S type



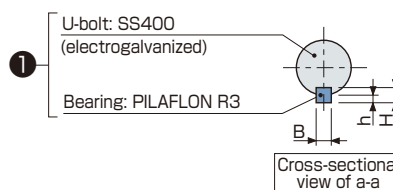
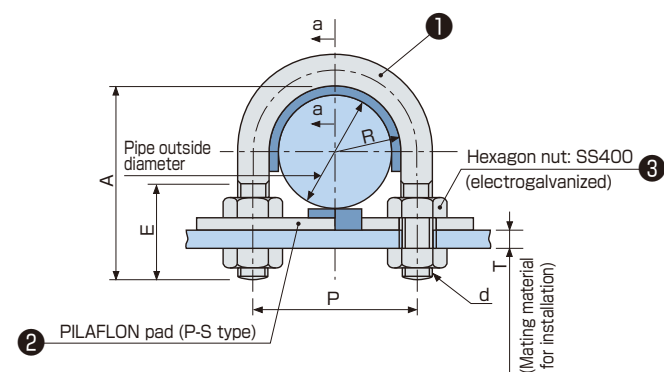
No.	Part name	Material	Remarks
3	Hexagon head bolt	SS400	Electrogalvanized
4	Hexagon nut	SS400	Electrogalvanized
5	Washer	SS400	Electrogalvanized
6	Spring washer	Spring steel	Electrogalvanized

U-band size table

Unit: mm

Model	Pipe outside diameter	R	P	d	A	Tb	T	B	h	Applicable pad
U-S-10	17.3	9.0	65	M10	25.9	1.6	5	20	1	P-S-10
U-S-15	21.7	11.5	70	M10	30.3	1.6	5	20	1	P-S-15
U-S-20	27.2	15.0	75	M12	38.9	3.2	5	25	1	P-S-20
U-S-25	34.0	18.5	85	M12	45.7	3.2	5	25	1	P-S-25

PILAFLON U-bolt U-S type

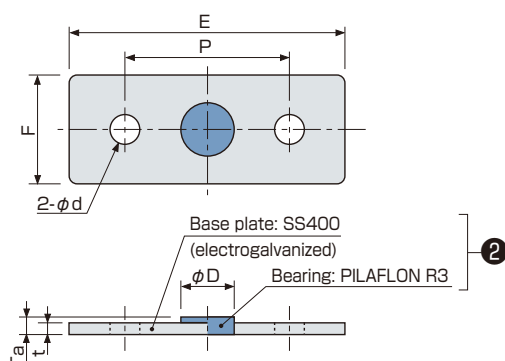


U-bolt size table

Unit: mm

Model	Pipe outside diameter	R	P	d	E	A	T	B	H	h	Applicable pad
U-S-32	42.7	25	62	M12	40	71	6	5	5	2	P-S-32
U-S-40	48.6	27	66	M12	40	78	6	5	5	2	P-S-40
U-S-50	60.5	33	78	M12	40	90	6	5	5	2	P-S-50

PILAFLON pad P-S type



Pad size table

Unit: mm

Model	D	E	F	d	Ta	t	P
P-S-10	12	95	25	12	6.0	3.2	65
P-S-15	12	100	25	12	6.0	3.2	70
P-S-20	20	105	45	14	7.5	4.5	75
P-S-25	20	115	45	14	7.5	4.5	85
P-S-32	20	90	45	14	7.5	4.5	62
P-S-40	20	100	45	14	7.5	4.5	66
P-S-50	20	110	45	14	7.5	4.5	78

PILAFLON U-Bolt & Pad

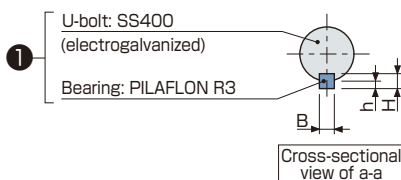
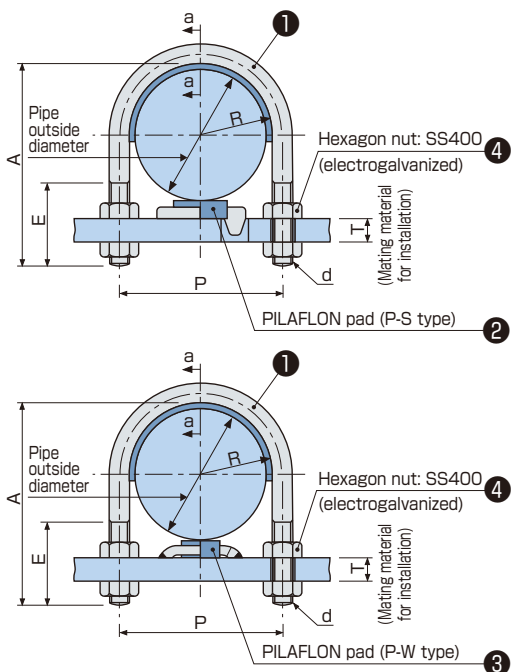
S type For steel pipes on ships

Applicable pipe nominal size: 65A to 900A

* The PILAFLON U-bolt (U-S type) and PILAFLON pad (P-S or P-W type) are sold separately.
When ordering PILAFLON pads, please specify P-S or P-W type.



PILAFLON U-bolt U-S type

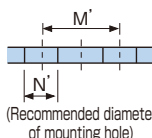
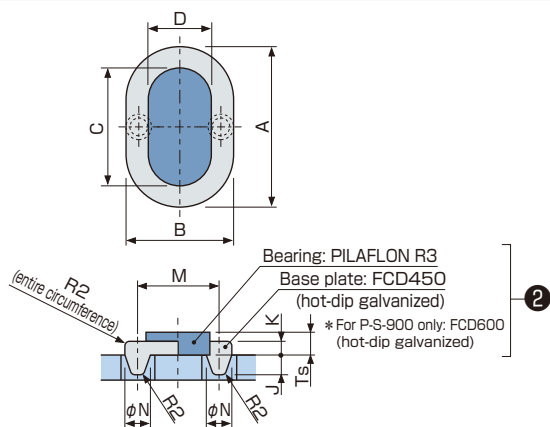


U-bolt size table

Model	Pipe outside diameter	R	P	d	E	A	T	B	H	h	Applicable pad
U-S- 65	76.3	42	96	M12	55	114	10	6	6	3	P-W-80 or P-S-300
U-S- 80	89.1	48	108	M12	55	127	10	6	6	3	P-W-80 or P-S-300
U-S-100	114.3	61	138	M16	55	164	15	6	6	3	P-W-300 or P-S-300
U-S-125	139.8	74	164	M16	55	189	15	6	6	3	P-W-300 or P-S-300
U-S-150	165.2	87	190	M16	55	214	15	6	6	3	P-W-300 or P-S-300
U-S-200	216.3	113	246	M20	65	270	15	6	6	3	P-W-300 or P-S-300
U-S-250	267.4	139	298	M20	65	321	15	6	6	3	P-W-300 or P-S-300
U-S-300	318.5	165	354	M24	80	377	15	7	6	3	P-W-300 or P-S-300
U-S-350	355.6	183	390	M24	80	417	15	7	6	3	P-W-700 or P-S-700
U-S-400	406.4	209	442	M24	80	468	15	8	6	3	P-W-700 or P-S-700
U-S-450	457.2	235	500	M30	100	525	15	8	6	3	P-W-700 or P-S-700
U-S-500	508.0	261	552	M30	100	576	15	8	6	3	P-W-700 or P-S-700
U-S-550	558.8	286	602	M30	100	626	15	8	6	3	P-W-700 or P-S-700
U-S-600	609.6	313	662	M36	120	684	15	10	8	3	P-W-700 or P-S-700
U-S-650	660.4	338	712	M36	120	734	15	10	8	3	P-W-700 or P-S-700
U-S-700	711.2	363	762	M36	120	785	15	10	8	3	P-W-700 or P-S-700
U-S-750	762.0	389	814	M36	120	839	15	10	8	3	P-W-900 or P-S-900
U-S-800	812.8	415	872	M42	130	896	15	12	10	3	P-W-900 or P-S-900
U-S-850	863.6	441	924	M42	130	947	15	12	10	3	P-W-900 or P-S-900
U-S-900	914.4	466	974	M42	130	998	15	12	10	3	P-W-900 or P-S-900

Unit: mm

PILAFLON pad P-S type



(Recommended diameter of mounting hole)

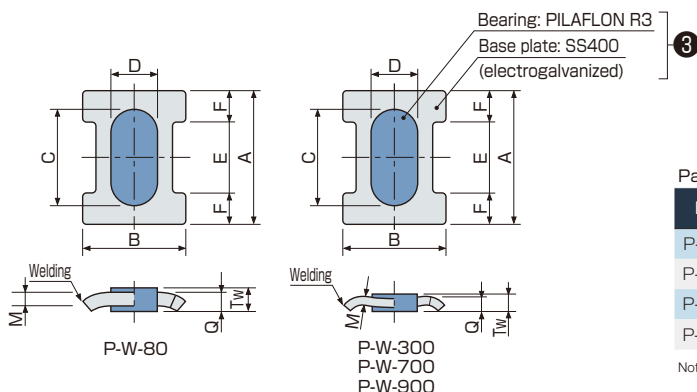
Pad size table

Model	Applicable pipe nominal size	A	B	C	D	Ts	J	K	M	N	M'	N'
P-S-300	65A to 300A	75	50	55	30	10	10	6	38	12.5	38	16
P-S-700	350A to 700A	98	78	70	50	10	12	6	62	17	62	21
P-S-900	750A to 900A	128	108	100	80	13	12	8	92	17	92	21

Unit: mm

Note: For high-temperature pipes (above 120°C), increase the pipe size by one level.
(However, when the applicable pipe nominal size is 65A or 80A, there is no need to increase the pipe size.)

PILAFLON pad P-W type



Pad size table

Model	Applicable pipe nominal size	A	B	C	D	E	F	Tw	M	Q
P-W- 80	65A to 80A	50	40	36	18	26	12	9	5	7
P-W-300	100A to 300A	75	70	55	30	35	20	12	6	10
P-W-700	350A to 700A	90	120	70	50	40	25	15	6	12
P-W-900	750A to 900A	130	180	100	80	60	35	18	6	15

Unit: mm

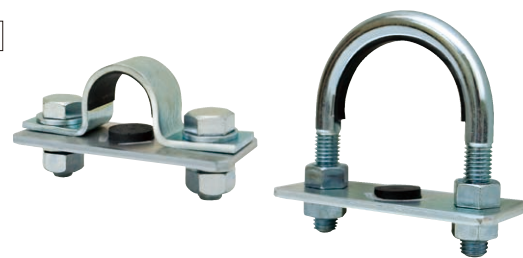
Note: For high-temperature pipes (above 120°C), increase the pipe size by one level.

PILAFLON U-Bolt & Pad

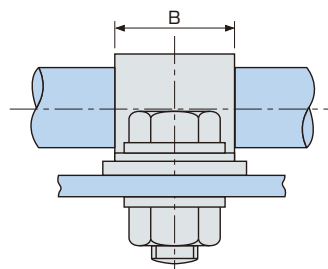
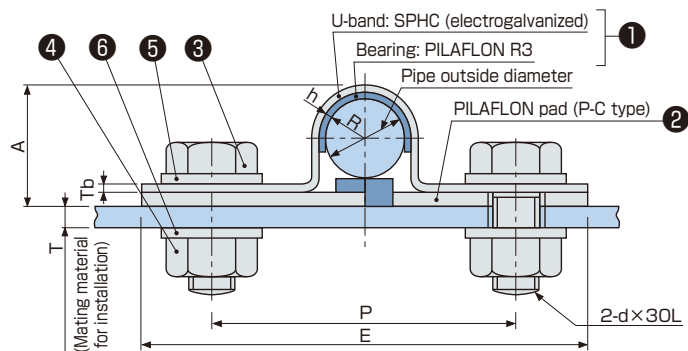
C type For copper pipes on ships

Applicable pipe nominal size: 15 to 50

* The PILAFLON U-band/bolt (U-C type) and PILAFLON pad (P-C type) are sold as a set.



PILAFLON U-band U-C type



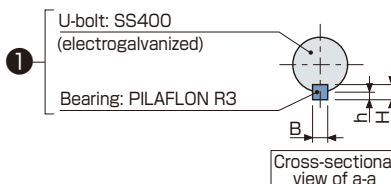
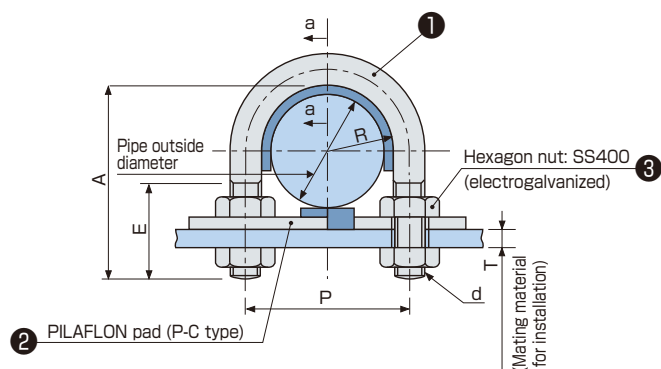
No.	Part name	Material	Remarks
3	Hexagon head bolt	SS400	Electrogalvanized
4	Hexagon nut	SS400	Electrogalvanized
5	Washer	SS400	Electrogalvanized
6	Spring washer	Spring steel	Electrogalvanized

U-band size table

Unit: mm

Model	Pipe outside diameter	R	P	d	A	Tb	T	B	h	Applicable pad
U-C-15	20	11.5	70	M10	28.6	1.6	5	20	1	P-C-15
U-C-20	25	14.0	75	M12	36.7	3.2	5	25	1	P-C-20
U-C-25	30	16.5	85	M12	41.7	3.2	5	25	1	P-C-25

PILAFLON U-bolt U-C type

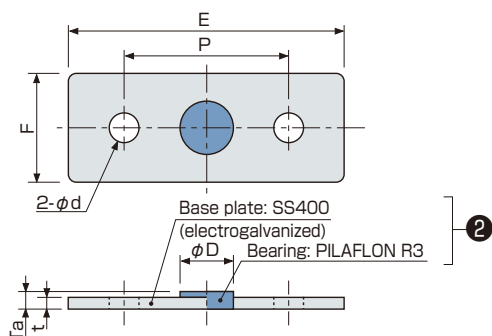


U-bolt size table

Unit: mm

Model	Pipe outside diameter	R	P	d	E	A	T	B	H	h	Applicable pad
U-C-32	40	23	58	M12	40	70	6	5	5	2	P-C-32
U-C-40	45	25.5	63	M12	40	75	6	5	5	2	P-C-40
U-C-45	50	28	68	M12	40	80	6	5	5	2	P-C-45
U-C-50	55	30.5	73	M12	40	85	6	5	5	2	P-C-50

PILAFLON pad P-C type



Pad size table

Unit: mm

Model	D	E	F	d	Ta	t	P
P-C-15	12	100	25	12	6.0	3.2	70
P-C-20	20	105	45	14	7.5	4.5	75
P-C-25	20	115	45	14	7.5	4.5	85
P-C-32	20	90	45	14	7.5	4.5	58
P-C-40	20	90	45	14	7.5	4.5	63
P-C-45	20	110	45	14	7.5	4.5	68
P-C-50	20	110	45	14	7.5	4.5	73

PILAFLON U-Bolt & Pad

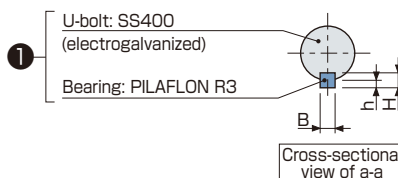
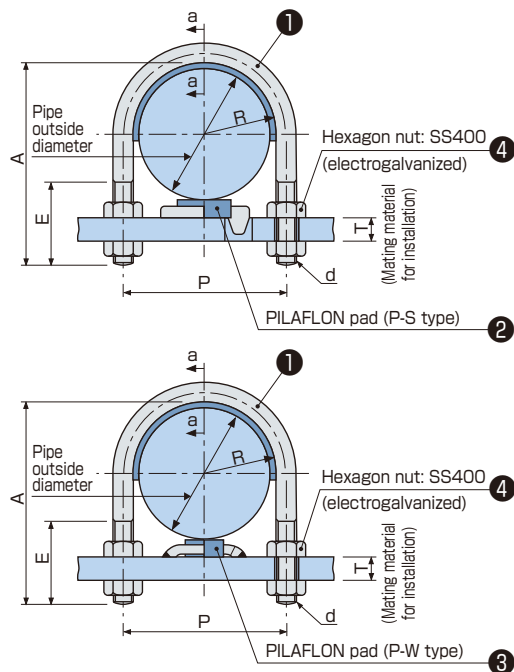
C type For copper pipes on ships

Applicable pipe nominal size: 65 to 300

* The PILAFLON U-bolt (U-C type) and PILAFLON pad (P-S or P-W type) are sold separately.
When ordering PILAFLON pads, please specify P-S or P-W type.



PILAFLON U-bolt U-C type

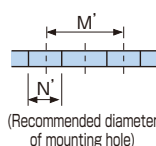
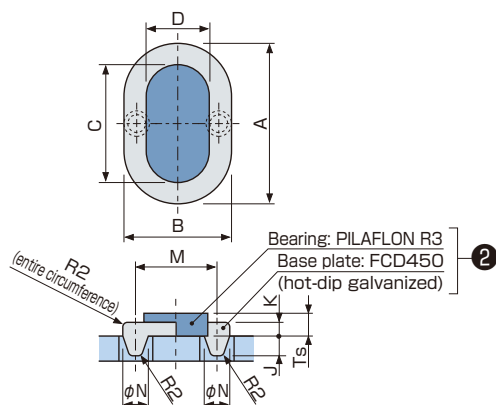


U-bolt size table

Unit: mm

Model	Pipe outside diameter	R	P	d	E	A	T	B	H	h	Applicable pad
U-C- 65	75	42	96	M12	50	110	6	6	6	3	P-W-80 or P-S-300
U-C- 80	85	48	108	M12	50	120	6	6	6	3	P-W-80 or P-S-300
U-C- 90	100	56	124	M12	50	135	6	6	6	3	P-W-80 or P-S-300
U-C-100	110	61	138	M16	55	154	8	6	6	3	P-W-300 or P-S-300
U-C-125	140	76	168	M16	55	184	8	6	6	3	P-W-300 or P-S-300
U-C-150	160	86	188	M16	55	204	8	6	6	3	P-W-300 or P-S-300
U-C-150F	170	91	198	M16	55	214	8	6	6	3	P-W-300 or P-S-300
U-C-200	210	111	242	M20	60	260	9	6	6	3	P-W-300 or P-S-300
U-C-250	260	137	294	M20	60	310	9	6	6	3	P-W-300 or P-S-300
U-C-250F	270	142	304	M20	60	320	9	6	6	3	P-W-300 or P-S-300
U-C-300	310	162	348	M24	70	366	10	7	6	3	P-W-300 or P-S-300

PILAFLON pad P-S type



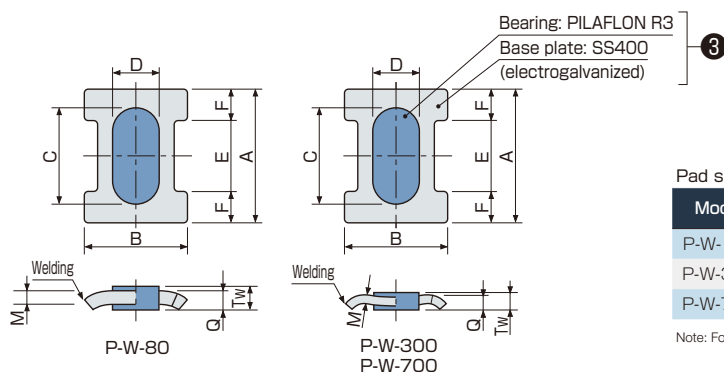
Pad size table

Unit: mm

Model	Applicable pipe nominal size	A	B	C	D	Ts	J	K	M	N	M'	N'
P-S-300	65 to 300	75	50	55	30	10	10	6	38	12.5	38	16
P-S-700	350 to 700	98	78	70	50	10	12	6	62	17	62	21

Note: For high-temperature pipes (above 120°C), increase the pipe size by one level.
(However, when the applicable pipe nominal size is between 65 and 90, there is no need to increase the pipe size.)

PILAFLON pad P-W type



Pad size table

Unit: mm

Model	Applicable pipe nominal size	A	B	C	D	E	F	Tw	M	Q
P-W- 80	65 to 90	50	40	36	18	26	12	9	5	7
P-W-300	100 to 300	75	70	55	30	35	20	12	6	10
P-W-700	350 to 700	90	120	70	50	40	25	15	6	12

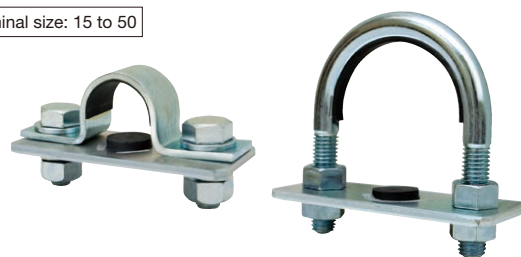
Note: For high-temperature pipes (above 120°C), increase the pipe size by one level.

PILAFLON U-Bolt & Pad

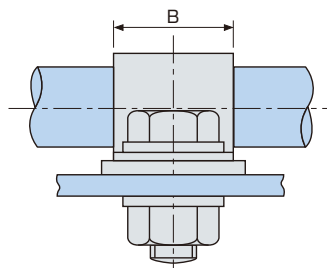
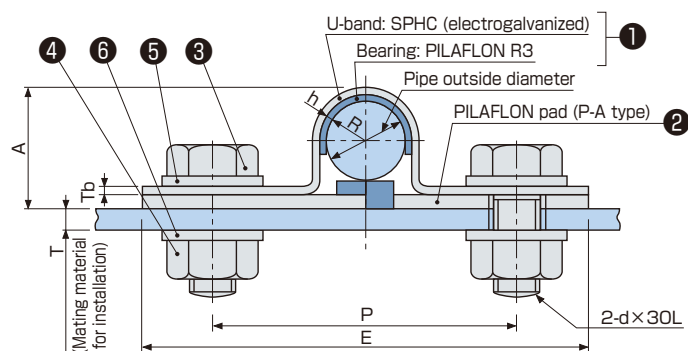
A type For aluminum brass pipes on ships

Applicable pipe nominal size: 15 to 50

* The PILAFLON U-band/bolt (U-A type) and PILAFLON pad (P-A type) are sold as a set.



PILAFLON U-band U-A type



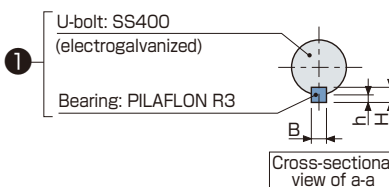
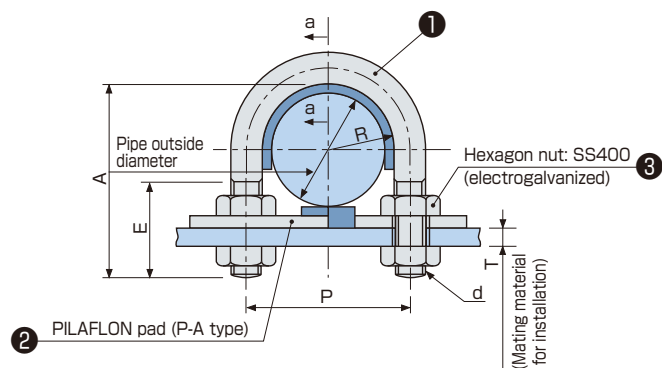
No.	Part name	Material	Remarks
3	Hexagon head bolt	SS400	Electrogalvanized
4	Hexagon nut	SS400	Electrogalvanized
5	Washer	SS400	Electrogalvanized
6	Spring washer	Spring steel	Electrogalvanized

U-band size table

Unit: mm

Model	Pipe outside diameter	R	P	d	A	Tb	T	B	h	Applicable pad
U-A-15	15.1	8.0	65	M10	23.7	1.6	5	20	1	P-A-15
U-A-20	21.5	11.5	70	M10	30.1	1.6	5	20	1	P-A-20
U-A-25	28.2	15.0	75	M12	39.9	3.2	5	25	1	P-A-25
U-A-32	34.6	18.5	85	M12	46.3	3.2	5	25	1	P-A-32

PILAFLON U-bolt U-A type

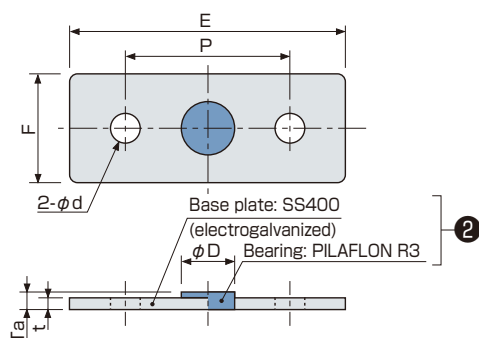


U-bolt size table

Unit: mm

Model	Pipe outside diameter	R	P	d	E	A	T	B	H	h	Applicable pad
U-A-40	40.9	23.5	59	M12	40	70	6	5	5	2	P-A-40
U-A-50	54.1	30	72	M12	40	84	6	5	5	2	P-A-50

PILAFLON pad P-A type



Pad size table

Unit: mm

Model	D	E	F	d	Ta	t	P
P-A-15	12	95	25	12	6.0	3.2	65
P-A-20	12	100	25	12	6.0	3.2	70
P-A-25	20	105	45	14	7.5	4.5	75
P-A-32	20	115	45	14	7.5	4.5	85
P-A-40	20	90	45	14	7.5	4.5	59
P-A-50	20	100	45	14	7.5	4.5	72

PILAFLON U-Bolt & Pad

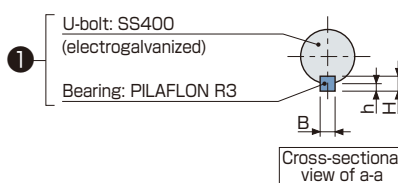
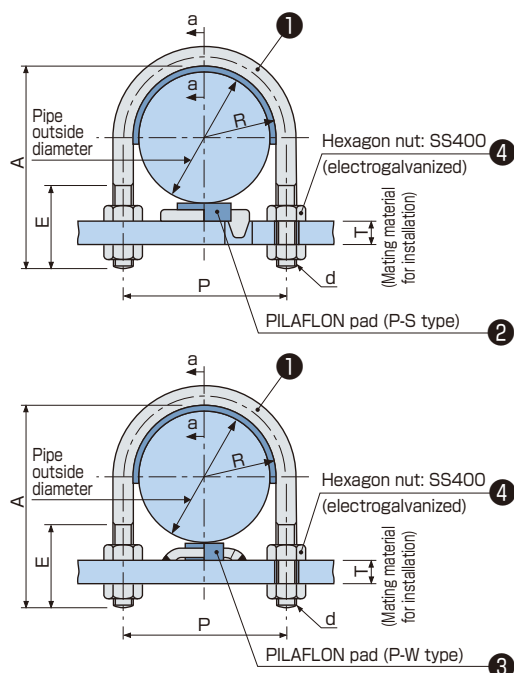
A type For aluminum brass pipes on ships

Applicable pipe nominal size: 65 to 300

* The PILAFLON U-bolt (U-A type) and PILAFLON pad (P-S or P-W type) are sold separately.
When ordering PILAFLON pads, please specify P-S or P-W type.



PILAFLON U-bolt U-A type

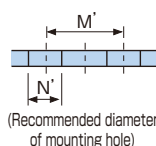
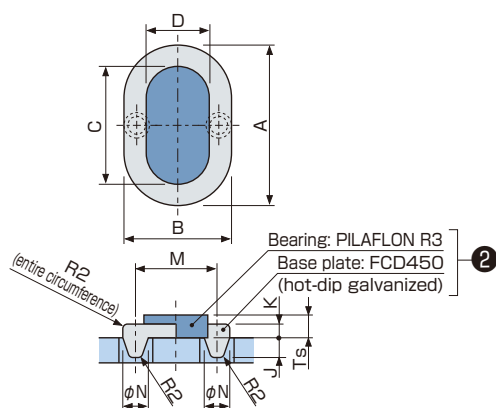


U-bolt size table

Unit: mm

Model	Pipe outside diameter	R	P	d	E	A	T	B	H	h	Applicable pad
U-A- 65	66.8	38	88	M12	50	102	6	6	6	3	P-W-80 or P-S-300
U-A- 80	80.0	46	104	M12	50	115	6	6	6	3	P-W-80 or P-S-300
U-A- 90	93.0	52	116	M12	50	128	6	6	6	3	P-W-80 or P-S-300
U-A-100	106.3	59	134	M16	55	150	6	6	6	3	P-W-300 or P-S-300
U-A-125	131.7	72	160	M16	55	176	8	6	6	3	P-W-300 or P-S-300
U-A-150	157.7	85	186	M16	55	202	8	6	6	3	P-W-300 or P-S-300
U-A-175	183.1	98	212	M16	55	227	8	6	6	3	P-W-300 or P-S-300
U-A-200	208.5	110	240	M20	60	259	9	6	6	3	P-W-300 or P-S-300
U-A-225	234.5	124	268	M20	60	285	9	6	6	3	P-W-300 or P-S-300
U-A-250	260.5	137	294	M20	60	310	9	6	6	3	P-W-300 or P-S-300
U-A-300	312.1	163	350	M24	70	371	10	7	6	3	P-W-700 or P-S-700

PILAFLON pad P-S type



(Recommended diameter of mounting hole)

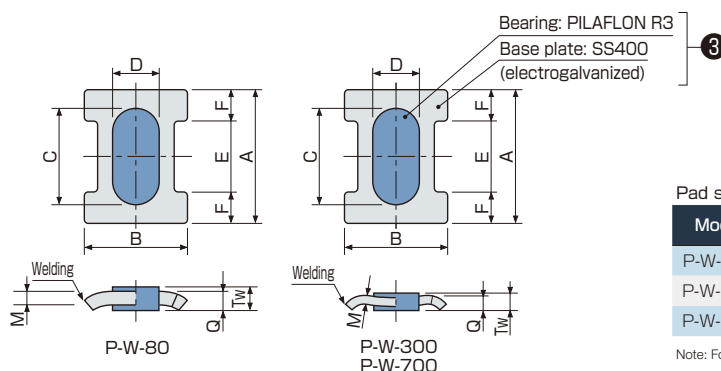
Pad size table

Unit: mm

Model	Applicable pipe nominal size	A	B	C	D	Ts	J	K	M	N	M'	N'
P-S-300	65 to 250	75	50	55	30	10	10	6	38	12.5	38	16
P-S-700	300	98	78	70	50	10	12	6	62	17	62	21

Note: For high-temperature pipes (above 120°C), increase the pipe size by one level.
(However, when the applicable pipe nominal size is between 65 and 90, there is no need to increase the pipe size.)

PILAFLON pad P-W type



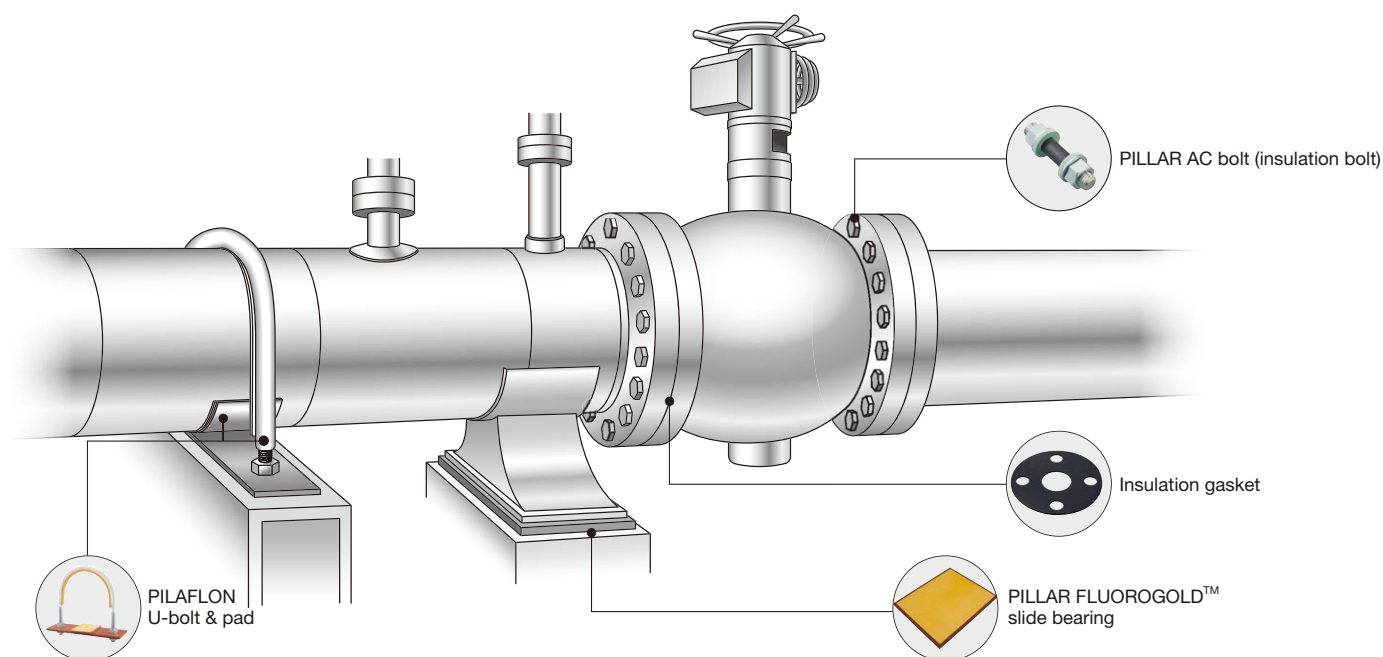
Pad size table

Unit: mm

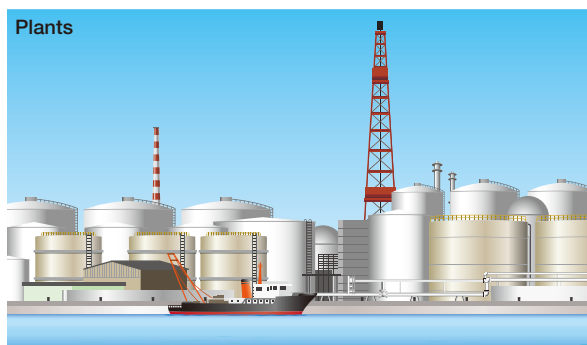
Model	Applicable pipe nominal size	A	B	C	D	E	F	Tw	M	Q
P-W- 80	65 to 90	50	40	36	18	26	12	9	5	7
P-W-300	100 to 250	75	70	55	30	35	20	12	6	10
P-W-700	300	90	120	70	50	40	25	15	6	12

Note: For high-temperature pipes (above 120°C), increase the pipe size by one level.

PILLAR insulation material series to prevent electrolytic corrosion on pipes and equipment



- PILLAR AC bolts (insulation bolts), insulation gaskets, PILAFLON U-bolts and pads, and PILLAR FLUOROGOLD slide bearing can be used to electrically insulate equipment and pipelines such as gas, oil, and water pipelines, contributing to electrolytic corrosion prevention.
- PILAFLON U-bolts and pads and PILLAR FLUOROGOLD slide bearing absorb relative displacement occurring on various types of pipes and equipment (such as displacement caused by thermal expansion and contraction and displacement caused by earthquakes and windstorms) by allowing smooth sliding on the supporting section, thereby enhancing safety on the joining section.



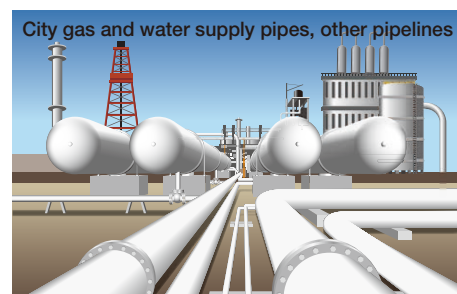
Seawater pipes, condensers, tanks, heat exchangers, hot water boilers, oxygen equipment, etc. in power plants, steel mills, and petroleum plants



To ballast line



Port facilities, tunnels, subways, bridges, etc.



City gas and water supply pipes, other pipelines



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<https://www3.pillar.co.jp/en/product/>



**Safety
precaution**

- When using this product, please use correctly and pay sufficient attention to safety.

* Please understand that this catalog may change without prior notice.
* The values shown on this catalog are reference values, not guaranteed values.