



公司製造能力與品管流程 / Manufacturing Capabilities and Quality Assurance

■ 產品製造能力 / Manufactural Capability

鵬宇國際股份有限公司成立於1989年
Panew Company Limited was established in 1989.
總製造面積 / Manufacturing Floor Area : 6600 m²
天車最大載重 / Bridge Crane Capacity : 10 tons

天車掛載最大高度 / Max. Hook Height : 5 m
L 線自動焊接 / Automatic Welding of Bellows L-line : 0.1 ~ mm
銲接品質 / Welding Qualifications : GTAW, FCAW, SMAW, PAW
壓床最大噸數 / Max. Ability of Press Machine : 1000 tons

■ 產品測試能力 / Testing Capability

耐壓檢測 / Hydro Testing
爆破檢測 / Burst Testing
彈性系數檢測 / Spring Rate Testing
作動量檢測 / Deflection Testing

疲勞檢測 / Fatigue Testing
有限元素分析 / Finite Element Analysis
材質分析 / Material Analysis
硬度檢測 / Hardness Testing

抗拉強度檢測 / Tensile Strength Testing
斷裂伸長率檢測 / Elongation Testing
老化檢測 / Heat Resistance Testing
覆土檢測 / Deep soil Covering Testing

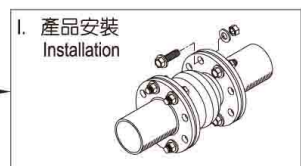
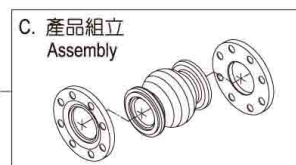
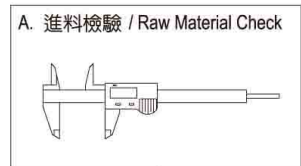
■ 橡膠伸縮接頭型式 / Types of Rubber Expansion Joints & Connectors

- | | |
|---|--|
| 1. 弧型伸縮接頭 / Spool Type Exp. Joint : $\Phi 2'' \sim \Phi 96''$ | 4. 管牙式撓性接頭 / Screwed Type Rubber Hose: $\Phi 1/4'' \sim \Phi 2''$ |
| 2. 異徑型伸縮接頭 / Reducer Type Exp. Joint : $\Phi 2'' \sim \Phi 18''$ | 5. 球型防震接頭 / Spherical Type Pump Connector : $\Phi 2'' \sim \Phi 18''$ |
| 3. 法蘭式橡膠管接頭 / Flanged Type Rubber Hose. $\Phi 1-1/2'' \sim \Phi 96''$ | □法蘭式 / Flanged : $\Phi 1'' \sim \Phi 24''$ □由任式 / Union : $\Phi 3/4'' \sim \Phi 3''$ |

■ 品質保證 / Quality Assurance



鵬宇國際股份有限公司之品質系統，已取得ISO 9001品質系統認證 - 每項產品於出廠前，均經100%嚴格品質檢測。
Panew's Quality Assurance system has been certified to ISO 9001 and each product must be passed 100% qualified test before delivery.

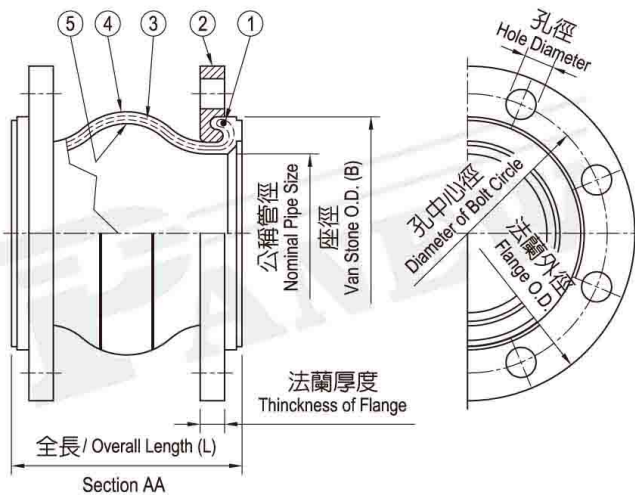
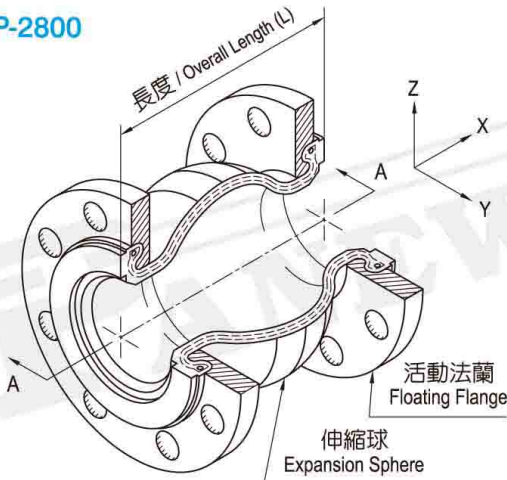


P-2800 單球橡膠防震/撓性接頭



Single Sphere Flanged / Rubber Pump Connector

□ P-2800



※結構組合 (Construction)

項次 Item	配件名稱 Parts	標準材料 Std. Material	選用材料 Option Material
1.	加強鋼索 (Wire Ring)	C.S.	S.S.
2.	法蘭 (Flange)	SS-400 (Galv.)	SUS-304 / 316
3.	加強層 (Reinforcing Layer)	Nylon	---
4.	外膠層 (External Rubber)	EPDM / EPR	#
5.	內膠層 (Internal Rubber)	EPDM / EPR	#
6.*	固定耳 (Lug)	SS-400 (Galv.)	SUS-304 / 316
7.*	限制螺桿 (Limit Rods)	SS-400 (Galv.)	SUS-304 / 316

Neoprene, Natural Rubber, Nitrile, CSM, Butyl.....etc.

* 使用於無管錨系統 (Used for the unanchored system.)

@ 法蘭標準規格 (Flange Standard): JIS-10K

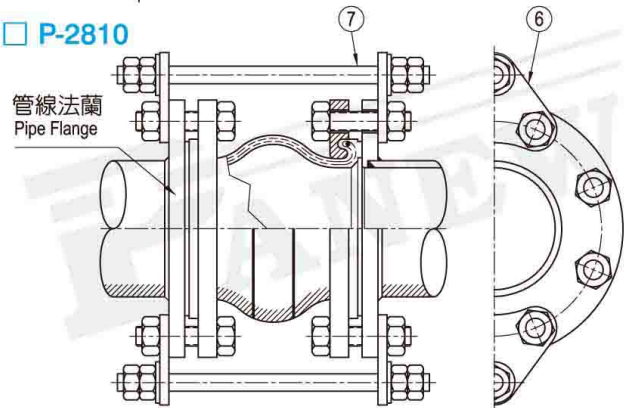
其餘規格亦可依實際需求選用, 如 ANSI, DIN, BS ...etc.

Other standard flanges are available, like ANSI, DIN, BS ...etc.

@ 本產品依 FSA 規範設計生產, 產品壽命於最大作動量與表定使用溫度時, 達 50000 次以上。

Our products are designed and manufactured according to FSA. The max. cycles life of the products exceed 50000 cycles in the condition of max. movement and tabulated temperature.

□ P-2810



□ P-2800 性能規格表 (Specification)

※ 適用溫度範圍 / Temperature Range : 5°C - 115°C

※ 下表所示壓力以 70°C 為基準 / The pressure rating tabulated below is based on 70°C.

公稱管徑 N.D.	規格尺寸 (Product Specification)					變位量 (Movement)				工作壓力		單品重量 Weight/pc (Ref.)
	產品全長 Overall Length / L		有效面積 Eff. Area	彈性系數 Spring Rate	軸向伸張 Axial Ext.	軸向壓縮 Axial Com.	側向 Lateral	角度 Angular	最大正壓 Max. Pw	負壓 Vacuum		
mm	inch	mm	inch	cm ²	kg/mm	ΔXe (mm)	ΔXc (mm)	ΔY/Z (mm)	Δθ (degree)	kg/cm ² (psig)	cm-Hg	kg/pc
25	1	95	3.7	18.9	3.6	4	8	8	15	16.0 (228)	66	2.7
32	1-1/4	95	3.7	25.8	4.5	4	8	8	15	16.0 (228)	66	3.3
40	1-1/2	95	3.7	31.5	5.4	4	8	8	15	16.0 (228)	66	3.5
50	2	105	4.1	43.3	7.2	5	8	8	15	16.0 (228)	66	4.2
65	2-1/2	115	4.5	66.7	9.0	6	12	10	15	16.0 (228)	66	5.8
80	3	130	5.1	87.5	10.8	6	12	10	15	16.0 (228)	66	6.0
100	4	135	5.3	139.2	14.4	10	18	12	15	16.0 (228)	66	7.3
125	5	170	6.7	203.3	14.9	10	18	12	15	16.0 (228)	66	11.0
150	6	180	7.1	283.8	17.9	10	18	12	10	16.0 (228)	66	14.4
200	8	205	8.1	451.1	19.9	14	25	22	10	16.0 (228)	66	17.4
250	10	240	9.4	689.1	25.0	14	25	22	10	16.0 (228)	66	26.7
300	12	260	10.2	944.3	29.9	14	25	22	10	16.0 (228)	66	29.0
350	14	265	10.4	1172.0	26.1	16	25	22	8	10.0 (150)	51	38.0
400	16	265	10.4	1498.5	29.9	16	25	22	8	8.8 (125)	51	59.7
450	18	265	10.4	1905.8	33.7	16	25	22	8	8.8 (125)	38	64.4
500	20	265	10.4	2324.3	37.4	16	25	22	5	8.8 (125)	38	73.2
550	22	265	10.4	2774.9	41.2	16	25	22	5	8.1 (115)	38	93.1
600	24	260	10.2	3265.4	44.9	16	25	22	5	8.1 (115)	38	104.6

※ 上表所示產品重量, 以 JIS-10K / SS-400 為準。

The weights of the products tabulated above are based on JIS-10K / SS-400 flanges.

※ 上表所示彈性系數僅供參考。

The spring rate tabulated above are for reference only.

P-2800 單球橡膠防震/撓性接頭



Single Sphere Flanged / Rubber Pump Connector

□ P-2820 性能規格表 (Specification)

※適用溫度範圍 / Temperature Range : 5°C ~ 115°C

※下表所示壓力以70°C為基準 / The pressure rating tabulated below is based on 70°C.

公稱管徑 N.D.		規格尺寸 (Product Specification)				變位量 (Movement)				工作壓力		單品重量 Weight/pc (Ref.)
		產品全長 Overall Length / L		有效面積 Eff. Area	彈性系數 Spring Rate	軸向伸張 Axial Ext.	軸向壓縮 Axial Com.	側向 Lateral	角度 Angular	最大正壓 Max. Pw	負壓 Vacuum	
mm	inch	mm	inch	cm ²	kg/mm	ΔXe(mm)	ΔXc(mm)	ΔY/Z(mm)	Δθ(degree)	kg/cm ² (psig)	cm-Hg	kg/pc
25	1	152	6.0	18.9	2.5	9.5	12.7	12.7	15	16.0 (228)	66	2.4
32	1-1/4	152	6.0	25.8	3.1	9.5	12.7	12.7	15	16.0 (228)	66	3.0
40	1-1/2	152	6.0	31.5	3.8	9.5	12.7	12.7	15	16.0 (228)	66	3.4
50	2	152	6.0	43.3	5.5	9.5	12.7	12.7	15	16.0 (228)	66	5.1
65	2-1/2	152	6.0	66.7	7.5	9.5	12.7	12.7	15	16.0 (228)	66	7.9
80	3	152	6.0	87.5	10.2	9.5	12.7	12.7	14	16.0 (228)	66	9.0
100	4	152	6.0	139.2	14.1	9.5	15.9	12.7	14	16.0 (228)	66	11.9
125	5	152	6.0	203.3	16.7	9.5	15.9	12.7	11	16.0 (228)	66	13.2
150	6	152	6.0	283.8	21.2	9.5	15.9	12.7	9	16.0 (228)	66	15.7
200	8	152	6.0	451.1	26.8	9.5	15.9	12.7	8	16.0 (228)	66	24.5
250	10	203	8.0	689.1	29.5	12.7	15.9	19.1	7	16.0 (228)	66	33.0
300	12	203	8.0	944.3	38.2	12.7	19.1	19.1	6	16.0 (228)	66	49.5
350	14	203	8.0	1172.0	34.1	12.7	19.1	19.1	5	10.0 (150)	51	66.5
400	16	203	8.0	1498.5	39.0	12.7	19.1	19.1	4	8.8 (125)	51	83.3
450	18	203	8.0	1905.8	43.9	12.7	19.1	19.1	4	8.8 (125)	38	90.4
500	20	203	8.0	2324.3	48.8	12.7	19.1	19.1	3	8.8 (125)	38	114.3
550	22	254	10.0	2774.9	42.9	12.7	19.1	19.1	3	8.1 (115)	38	138.3
600	24	254	10.0	3265.4	44.9	12.7	19.1	19.1	3	8.1 (115)	38	161.3

※上表所示產品重量，以 ANSI-150# / SS-400 為準。

The weights of the products tabulated above are based on ANSI-150# / SS-400 flanges.

※上表所示彈性系數僅供參考。

The spring rate tabulated above are for reference only.

□ P-2840 性能規格表 (Specification)

※適用溫度範圍 / Temperature Range : 5°C ~ 115°C

※下表所示壓力以70°C為基準 / The pressure rating tabulated below is based on 70°C.

公稱管徑 N.D.		規格尺寸 (Product Specification)				變位量 (Movement)				工作壓力		單品重量 Weight/pc (Ref.)
		產品全長 Overall Length / L		有效面積 Eff. Area	彈性系數 Spring Rate	軸向伸張 Axial Ext.	軸向壓縮 Axial Com.	側向 Lateral	角度 Angular	最大正壓 Max. Pw	負壓 Vacuum	
mm	inch	mm	inch	cm ²	kg/mm	ΔXe(mm)	ΔXc(mm)	ΔY/Z(mm)	Δθ(degree)	kg/cm ² (psig)	cm-Hg	kg/pc
25	1	130	5.1	18.9	4.7	9	12	12	15	16.0 (228)	66	2.9
32	1-1/4	130	5.1	25.8	5.9	9	12	12	15	16.0 (228)	66	3.9
40	1-1/2	130	5.1	31.5	7.1	9	12	12	15	16.0 (228)	66	4.4
50	2	130	5.1	43.3	9.5	9	12	12	15	16.0 (228)	66	5.6
65	2-1/2	130	5.1	66.7	11.9	9	12	12	13	16.0 (228)	66	6.9
80	3	130	5.1	87.5	14.2	9	12	12	12	16.0 (228)	66	8.4
100	4	130	5.1	139.2	19.0	9	14	14	12	16.0 (228)	66	9.3
125	5	130	5.1	203.3	23.6	9	14	14	10	16.0 (228)	66	12.3
150	6	130	5.1	283.8	28.3	9	14	14	8	16.0 (228)	66	15.0
200	8	130	5.1	451.1	31.5	9	14	14	7	16.0 (228)	66	21.0
250	10	130	5.1	689.1	39.4	9	14	14	5	16.0 (228)	66	27.6
300	12	130	5.1	944.3	47.2	9	16	16	4	16.0 (228)	66	32.1

※上表所示產品重量，以 DIN PN-10 / SS-400 為準。

The weights of the products tabulated above are based on DIN PN-10 / SS-400 flanges.

※上表所示彈性系數僅供參考。

The spring rate tabulated above are for reference only.

※ 型號說明 (Model No.)

鵬宇國際股份有限公司 / Panew Company Limited

可撓性防震接頭 / Flexible Pump Connector

波紋管型式 → 6. 弧型橡膠伸縮接頭

- 0. 單弧 / Single Arch
- 1. 單弧+螺桿 / Single Arch+Limit Rods
- 2. 雙弧 / Double Arch
- 3. 雙弧+螺桿 / Double Arch+Limit Rods
- 4. 三弧 / Triple Arch
- 5. 三弧+螺桿 / Triple Arch+Limit Rods
- 6. 多弧 / Multiple Arch
- 7. 多弧+螺桿 / Multiple Arch+Limit Rods
- 8. 漸縮式 / Reducer

7. 橡膠軟管接頭

- 0. 法蘭式橡膠軟管 / Flanged Rubber Hose (低壓 / Low Press.)
- 2. 法蘭式橡膠軟管 / Flanged Rubber Hose (中壓 / Medium Press.)
- 3. 法蘭式橡膠軟管 / Flanged Rubber Hose (高壓 / High Press.)
- 5. 壓接橡膠軟管 / Clamped Rubber Hose (高壓 / High Press.)

8. 球型橡膠接頭

- 0. 單球 / Single Sphere / JIS
- 1. 單球+螺桿 / Single Sphere+Limit Rods
- 2. 單球 / Single Sphere / ANSI
- 3. 單球+螺桿 / Single Sphere+Limit Rods
- 4. 單球 / Single Sphere / DIN
- 5. 單球+螺桿 / Single Sphere+Limit Rods
- 6. 雙球 / Twin Sphere
- 7. 雙球+螺桿 / Twin Sphere+Limit Rods
- 8. 雙球由任牙口式 / Twin Sphere Screwed Union Ends
- 9. 雙球法蘭牙口式 / Twin Sphere Screwed Flange Ends

9. PTFE撓性接頭

- 1. Type I
- 2. Type III
- 3. Type IV
- 4. Type V
- 5. Type VI

※詳細規格說明，請聯繫業務人員。
Please contact sales for more information.

端部接頭材質 / Material of End Fitting

- 0. SS-400 (Galv.)
- 1. SUS-304
- 2. SUS-316
- 4. 其它 / Others
- 9. SS-400 (噴漆 / Painted)

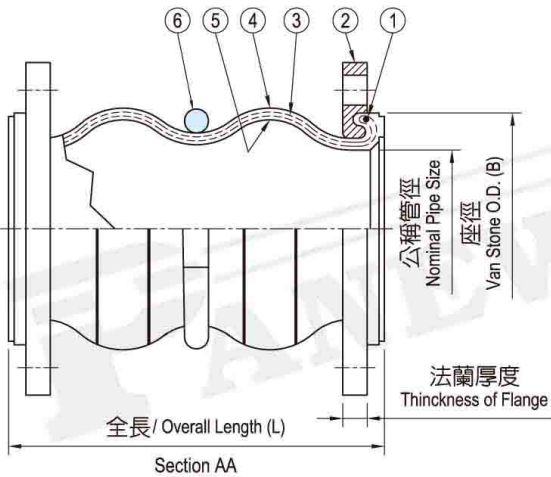
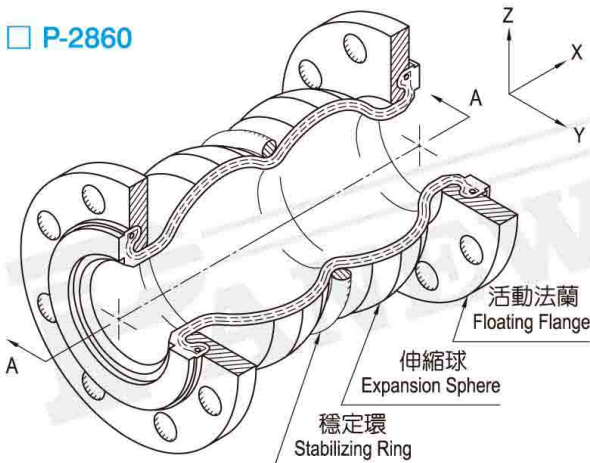
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P-2860 雙球法蘭式橡膠防震/撓性接頭



Twin Sphere Flanged / Rubber Pump Connector

□ P-2860



※結構組合 (Construction)

項次 Item	配件名稱 Parts	標準材料 Std. Material	選用材料 Optional Material
1.	加強鋼索(Wire Ring)	C.S.	S.S.
2.	法蘭(Flange)	SS-400(Galv.)	SUS-304 / 316
3.	加強層(Reinforcing Layer)	Nylon	---
4.	外膠層(External Rubber)	EPDM / EPR	#
5.	內膠層(Internal Rubber)	EPDM / EPR	#
6.	穩定環(Stabilizing Ring)	SS-400(Galv.)	SUS-304
7.*	固定耳(Lug)	SS-400(Galv.)	SUS-304 / 316
8.*	限制螺桿(Limit Rods)	SS-400(Galv.)	SUS-304 / 316

Neoprene, Natural Rubber, Nitrile, CSM, Butyl.....etc.

*使用於無管錨系統 (Used for the unanchored system.)

@法蘭標準規格 (Flange Standard): JIS-10K

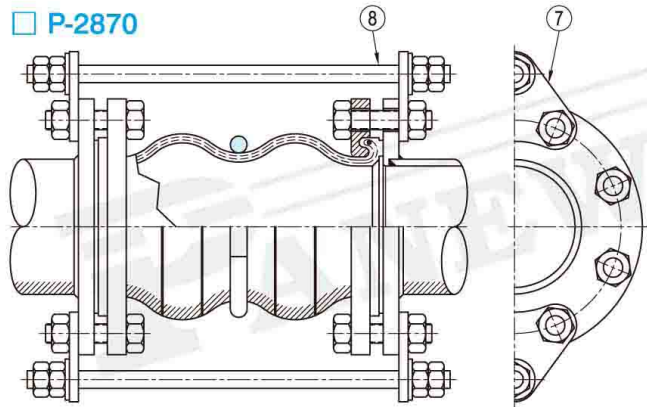
其餘規格亦可依實際需求選用, 如ANSI, DIN, BS ...等。

Other standard flanges are available, like ANSI, DIN, BS ...etc.

@本產品依FSA規範設計生產, 產品壽命於最大作動量與表定使用溫度時, 達50000次以上。

Our products are designed and manufactured according to FSA. The max. cycles life of the products exceed 50000 cycles in the condition of max. movement and tabulated temperature.

□ P-2870



□ P-2860 性能規格表 (Specification)

※適用溫度範圍 / Temperature Range : 5°C ~ 115°C

※下表所示壓力以70°C為基準 / The pressure rating tabulated below is based on 70°C.

公稱管徑 N.D.		規格尺寸 (Product Specification)				變位量 (Movement)				工作壓力		單品重量 Weight/pc (Ref.)
		產品全長 Overall Length / L		有效面積 Eff. Area	彈性系數 Spring Rate	軸向伸張 Axial Ext.	軸向壓縮 Axial Com.	側向 Lateral	角度 Angular	最大正壓 Max. Pw	負壓 Vacuum	
mm	inch	mm	inch	cm ²	kg/mm	ΔXe(mm)	ΔXc(mm)	ΔY/Z(mm)	Δθ(degree)	kg/cm ² (psig)	cm-Hg	kg/pc
25	1	175	6.9	18.9	2.1	30	53	45	45	16.0 (228)	66	3.0
32	1-1/4	175	6.9	25.8	2.6	30	53	45	45	16.0 (228)	66	3.6
40	1-1/2	175	6.9	31.5	3.2	30	53	45	45	16.0 (228)	66	3.8
50	2	175	6.9	43.3	4.2	30	53	45	45	16.0 (228)	66	4.5
65	2-1/2	175	6.9	66.7	5.3	30	53	45	43	16.0 (228)	66	6.2
80	3	175	6.9	87.5	6.3	30	53	45	38	16.0 (228)	66	6.5
100	4	225	8.9	139.2	8.4	35	53	40	34	16.0 (228)	66	8.0
125	5	225	8.9	203.3	10.5	35	53	40	29	16.0 (228)	66	11.8
150	6	225	8.9	283.8	12.6	35	53	40	25	16.0 (228)	66	15.4
200	8	325	12.8	451.1	13.9	35	65	35	19	16.0 (228)	66	18.7
250	10	325	12.8	689.1	17.5	35	65	35	15	16.0 (228)	51	28.4
300	12	325	12.8	944.3	20.9	35	65	35	13	16.0 (228)	51	31.0
350	14	350	13.8	1172.0	18.3	30	50	30	12	10.0 (150)	51	40.3
400	16	350	13.8	1498.5	20.9	30	50	30	10	8.8 (125)	25	62.4
450	18	350	13.8	1905.8	23.6	30	50	30	9	8.8 (125)	25	67.4
500	20	350	13.8	2324.3	26.2	30	50	30	8	8.8 (125)	25	76.5
550	22	350	13.8	2774.9	28.8	30	50	30	8	8.1 (115)	25	96.8
600	24	350	13.8	3265.4	31.4	30	50	30	7	8.1 (115)	25	108.6

※上表所示產品重量, 以JIS-10K / SS-400為準。

The weights of the products tabulated above are based on JIS-10K / SS-400 flanges.

※上表所示彈性系數僅供參考。

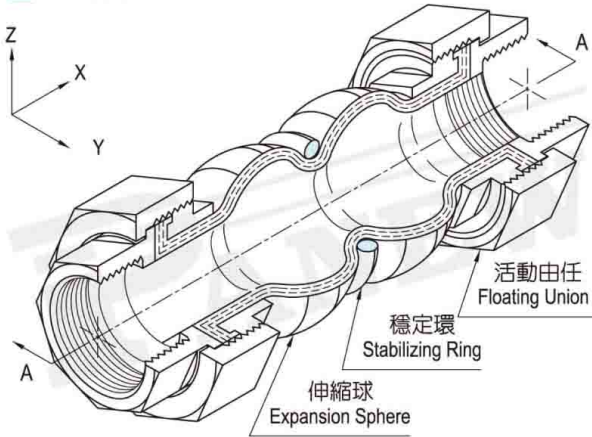
The spring rate tabulated above are for reference only.

P-2880 雙球牙口式橡膠撓性接頭



Twin Sphere Screwed Flexible Connector

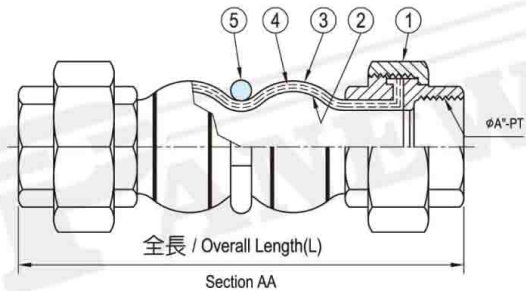
□ P-2880



※結構組合 (Construction)

項次 Item	配件名稱 Parts	標準材料 Std. Material	選用材料 Optional Material
1.	由任(Union)	FCD(Galv.)	S.S.
2.	內膠層(Internal Rubber)	EPDM / EPR	#
3.	外膠層(External Rubber)	EPDM / EPR	#
4.	加強層(Reinforcing Layer)	Nylon	---
5.	穩定環(Stabilizing Ring)	SS-400(Galv.)	---

Neoprene, Natural Rubber, Nitrile, CSM, Butyl.....etc.



□ P-2880 性能規格表(Specification)

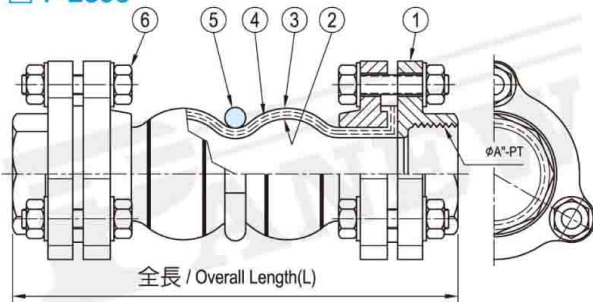
※適用溫度範圍 / Temperature Range : 5°C ~ 115°C.

※下表所示壓力以70°C為基準 / The pressure rating tabulated below is based on 70°C.

公稱管徑 N.D. φA"		規格尺寸 (Product Specification)				變位置 (Movement)				工作壓力		單品重量
		產品全長		有效長(Ref.)	有效面積	軸向伸張	軸向壓縮	側向	角度	最大正壓	負壓	Weight/pc (Ref.)
mm	inch	mm	inch	mm	cm ²	ΔXe(mm)	ΔXc(mm)	ΔY/Z(mm)	Δθ(degree)	kg/cm ² (psig)	cm-Hg	kg/pc
20	3/4	203	8.0	75	12.0	6	22	22	36	10.0 (150)	66	0.9
25	1	210	8.3	75	18.9	6	22	22	30	10.0 (150)	66	1.1
32	1-1/4	210	8.3	75	25.8	6	22	22	27	10.0 (150)	66	1.5
40	1-1/2	210	8.3	75	31.5	6	22	22	25	10.0 (150)	66	2.1
50	2	220	8.7	70	43.3	6	22	22	21	10.0 (150)	66	2.7
65	2-1/2	230	9.1	65	66.7	6	22	22	13	10.0 (150)	66	4.1
80	3	230	9.1	65	87.5	6	22	22	12	10.0 (150)	66	5.0

※上表單品重量僅供參考
(The unit weight is for reference only.)

□ P-2895



※結構組合 (Construction)

項次 Item	配件名稱 Parts	標準材料 Std. Material	選用材料 Optional Material
1.	牙接法蘭(Screwed Flanges)	FCD	S.S.
2.	內膠層(Internal Rubber)	EPDM / EPR	SUS-304 / 316
3.	外膠層(External Rubber)	EPDM / EPR	---
4.	加強層(Reinforcing Layer)	Nylon	#
5.	穩定環(Stabilizing Ring)	SS-400(Galv.)	---
6.	固定螺栓(Fasteners)	SS-400(Galv.)	SUS-304

Neoprene, Natural Rubber, Nitrile, CSM, Butyl.....etc.

□ P-2895 性能規格表(Specification)

※適用溫度範圍 / Temperature Range : 5°C ~ 115°C

※下表所示壓力以70°C為基準 / The pressure rating tabulated below is based on 70°C.

公稱管徑 N.D. φA"		規格尺寸 (Product Specification)				變位置 (Movement)				工作壓力		單品重量
		產品全長		有效長(Ref.)	有效面積	軸向伸張	軸向壓縮	側向	角度	最大正壓	負壓	Weight/pc (Ref.)
mm	inch	mm	inch	mm	cm ²	ΔXe(mm)	ΔXc(mm)	ΔY/Z(mm)	Δθ(degree)	kg/cm ² (psig)	cm-Hg	kg/pc
20	3/4	190	7.5	75	12.0	6	22	22	36	16.0 (228)	66	1.8
25	1	204	8.0	75	18.9	6	22	22	30	16.0 (228)	66	2.4
32	1-1/4	210	8.3	75	25.8	6	22	22	27	16.0 (228)	66	3.0
40	1-1/2	210	8.3	75	31.5	6	22	22	25	16.0 (228)	66	3.3
50	2	215	8.5	70	43.3	6	22	22	21	16.0 (228)	66	4.2

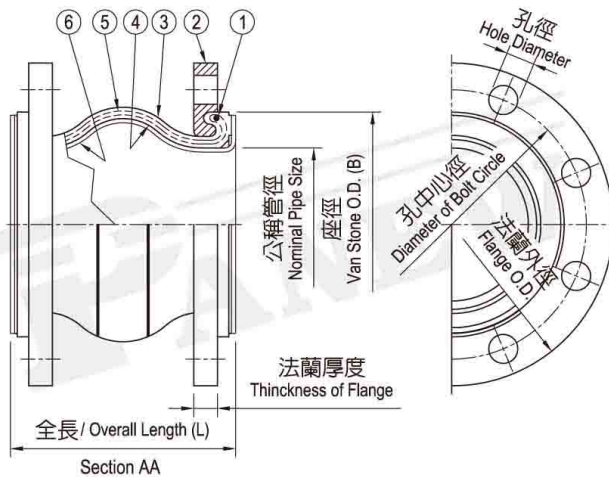
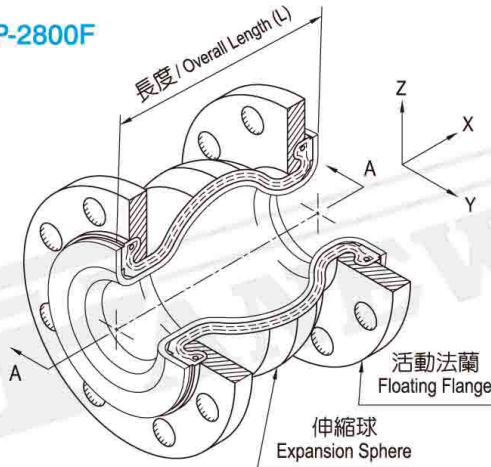
※上表單品重量僅供參考
(The unit weight is for reference only.)

P-2800F 內襯PTFE單球橡膠防震/撓性接頭



PTFE Lining / Single Sphere Flanged / Rubber Pump Connector.

□ P-2800F



※結構組合 (Construction)

項次 Item	配件名稱 Parts	標準材料 Std. Material	選用材料 Optional Material
1.	加強鋼索(Wire Ring)	C.S.	S.S.
2.	法蘭(Flange)	SS-400(Galv.)	SUS-304 / 316
3.	外膠層(External Rubber)	EPDM / EPR	#
4.	內膠層(Internal Rubber)	EPDM / EPR	#
5.	加強層(Reinforcing Layer)	Nylon	---
6.	內襯層(Lining Tube)	PTFE	---
7.*	固定耳(Lug)	SS-400(Galv.)	SUS-304 / 316
8.*	限制螺桿(Limit Rods)	SS-400(Galv.)	SUS-304 / 316

Neoprene, Natural Rubber, Nitrile, CSM, Butyl....etc.

* 使用於無管錨系統(Used for the unanchored system.)

@法蘭標準規格(Flange Standard): JIS-10K

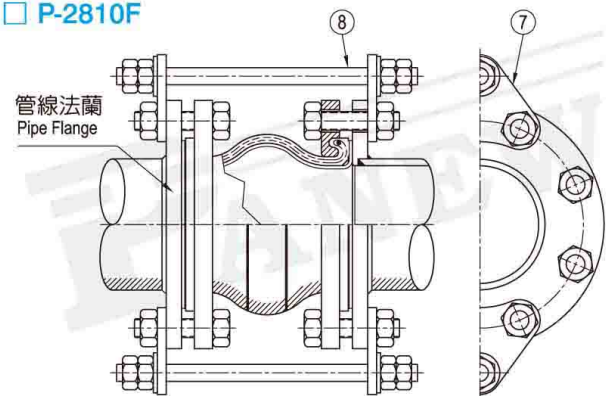
其餘規格亦可依實際需求選用，如ANSI, DIN, BS ...等。

Other standard flanges are available, like ANSI, DIN, BS ...etc.

@本產品依FSA規範設計生產，產品壽命於最大作動量與表定使用溫度時，達50000次以上。

Our products are designed and manufactured according to FSA. The max. cycles life of the products exceed 50000 cycles in the condition of max. movement and tabulated temperature.

□ P-2810F



□ P-2800F 性能規格表(Specification)

※適用溫度範圍 / Temperature Range : 5°C ~ 115°C

※下表所示壓力以70°C為基準 / The pressure rating tabulated below is based on 70°C.

公稱管徑 N.D.		規格尺寸 (Product Specification)				變位量 (Movement)				工作壓力		單品重量 Weight/pc kg/pc
		產品全長 Overall Length / L		有效面積 Eff. Area	彈性系數 Spring Rate	軸向伸張 Axial Ext.	軸向壓縮 Axial Com.	側向 Lateral	角度 Angular	最大正壓 Max. Pw	負壓 Vacuum	
mm	inch	mm	inch	cm ²	kg/mm	ΔXe(mm)	ΔXc(mm)	ΔY/Z(mm)	Δθ(degree)	kg/cm ² (psig)	cm-Hg	
25	1	100	3.9	18.9	3.0	4	8	8	15	16.0 (228)	66	3.0
32	1-1/4	100	3.9	25.8	3.8	4	8	8	15	16.0 (228)	66	3.6
40	1-1/2	100	3.9	31.5	4.5	4	8	8	15	16.0 (228)	66	3.8
50	2	110	4.3	43.3	6.0	5	8	8	15	16.0 (228)	66	4.5
65	2-1/2	120	4.7	66.7	7.5	6	12	10	15	16.0 (228)	66	6.2
80	3	140	5.5	87.5	9.0	6	12	10	15	16.0 (228)	66	6.5
100	4	155	6.1	139.2	12.0	10	18	12	15	16.0 (228)	66	8.0
125	5	170	6.7	203.3	14.9	10	18	12	15	16.0 (228)	66	11.8
150	6	185	7.3	283.8	17.9	10	18	12	10	16.0 (228)	66	15.4
200	8	195	7.7	451.1	19.9	14	25	22	10	16.0 (228)	66	18.7
250	10	235	9.3	689.1	25.0	14	25	22	10	16.0 (228)	51	28.4
300	12	250	9.8	944.3	29.9	14	25	22	10	16.0 (228)	51	31.0
350	14	265	10.4	1172.0	26.1	16	25	22	8	10.0 (150)	51	40.3
400	16	265	10.4	1498.5	29.9	16	25	22	8	8.8 (125)	25	62.4
450	18	265	10.4	1905.8	33.7	16	25	22	8	8.8 (125)	25	67.4
500	20	265	10.4	2324.3	37.4	16	25	22	5	8.8 (125)	25	76.5
550	22	265	10.4	2774.9	41.2	16	25	22	5	8.1 (115)	25	96.8
600	24	265	10.4	3265.4	44.9	16	25	22	5	8.1 (115)	25	108.6

※上表所示產品重量，以JIS-10K / SS-400為準。

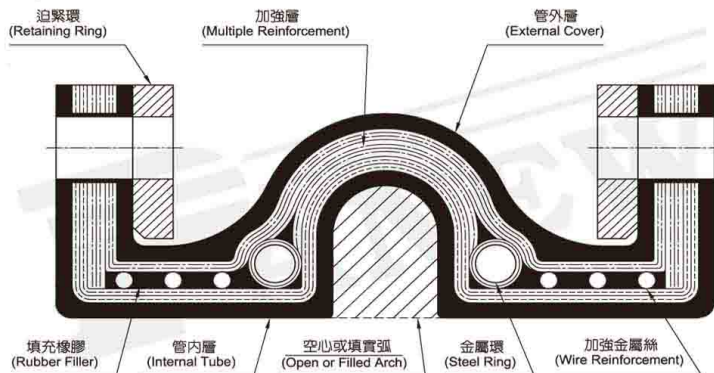
The weights of the products tabulated above are based on JIS-10K / SS-400 flanges.

※上表所示彈性系數僅供參考。

The spring rate tabulated above are for reference only.

※結構組合 (Construction)

Open Arch Filled Arch



※優越性 (Advantages)

1. 伸縮接頭長度可極短化 (Minimal Face-to-Face Dimensions)
2. 重量輕 (Lightweight)
3. 低作動力 (Low Movement forces Required)
4. 低疲勞因素作用 (Reduced Fatigue Factor)
5. 低熱量流失 (Reduced Heat Loss)
6. 抗腐蝕與抗侵蝕性強 (Corrosion, Erosion Resistant)
7. 無需安裝墊片 (No Gaskets)
8. 隔絕噪音 (Acoustical Impedance)
9. 高壓力脈波承受性能 (Greater Shock Resistance)

※功能特性 (Functions)

A. 減少振動 (Reduce Vibration)

橡膠伸縮接頭可有效抑制因離心式泵與風扇葉片震動頻率所產生之不可預期擾流，並降低震動傳輸率，進而保護周邊設備免於震動之不利影響。

Rubber expansion joints dampen undesirable disturbances caused by centrifugal pump and fan blade frequency. It reduce transmission of vibration and protect equipment from the adverse effects of vibration.

B. 減輕噪音傳送 (Dampen Sound Transmission)

藉由伸縮接頭之橡膠接合面與金屬法蘭接合之結構，可降低噪音之傳送率，相較於金屬結構，厚壁之橡膠伸縮接頭產品可大幅降低噪音之傳送率。

Dampen transmission of sound because of the steel-rubber interface of joints and mating flanges. Thick-wall products compared with their metallic counterparts, reduce considerably the transmission of sound.

C. 吸收側向、扭轉、旋轉變位量 (Compensate Lateral, Torsional and Angular Movements)

橡膠伸縮接頭可有效吸收因疲勞、負載應力、支撐基礎之鬆弛與設定所產生之側向、扭轉、旋轉角度變位量，並進而避免損壞與非預期性之停機發生。

Compensate for lateral, torsional and angular movements due to wear, load stresses, relaxation and settling of supporting foundations- preventing damage and undue downtime of plant operations.

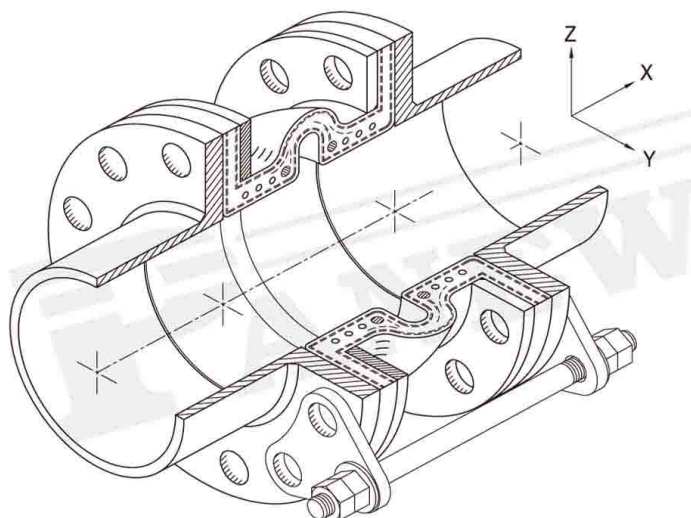
D. 吸收軸向變位量 (Compensate Axial Movements)

橡膠伸縮接頭可有效吸收因溫度變化或液體脈衝效應所導致之管線膨脹與收縮位移，其功能如同螺旋狀彈簧，可吸收軸向變位量。

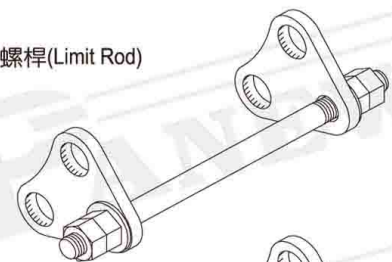
Expansion and contraction movements due to the thermal changes or hydraulic surge effects are compensated for with strategically located rubber expansion joints. It act as helix springs, compensating for axial movements.

※限制/控制螺桿組件(Limit / Control Unit Assemblies)

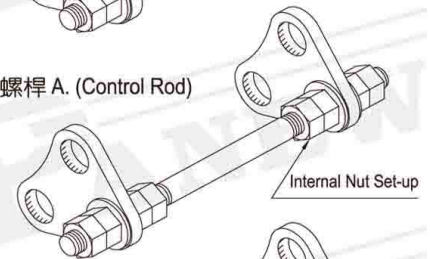
1. 當管鉗設置不良或強度不足時，必須加裝限制 / 控制螺桿組件。
Control unit must be used if piping is not properly anchored.
2. 需確認泵端法蘭後面空間足以安裝三角耳、螺帽、華司與螺桿。
Make sure that there is sufficient clearance behind the pump flange, not only for the plates, but also for the nuts, bolts and washers.



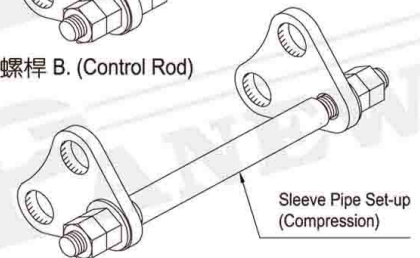
限制螺桿(Limit Rod)



控制螺桿 A. (Control Rod)



控制螺桿 B. (Control Rod)

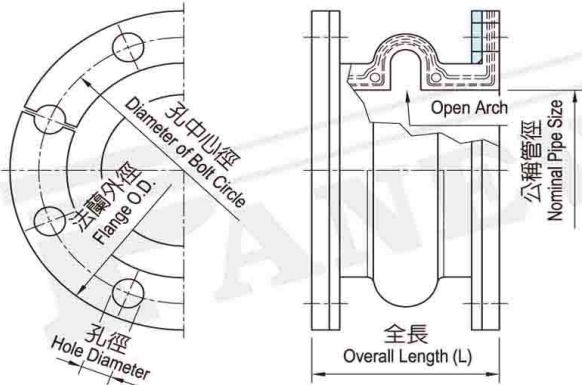


P-2600 單弧橡膠伸縮/可撓管接頭

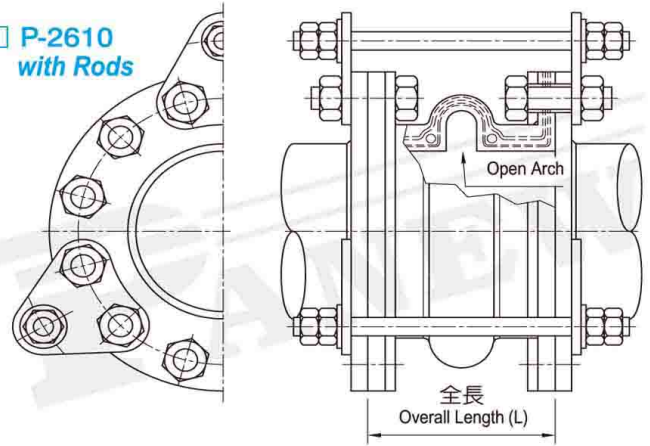


Single Arch Rubber Expansion Joint / Flexible Connector

□ P-2600 / without Rods



□ P-2610 with Rods



□ P-2600 性能規格表(Specification)

※適用溫度範圍 / Temperature Range : 5 °C ~ 115°C ※最大負壓 / Max. Negative Pressure : 66 cm-Hg
 ※下表所示壓力以70°C為基準 / The pressure rating tabulated below is based on 70°C.

公稱管徑 N.D.		產品最小全長 Min. Overall Length (L)		有效面積 Effective Area (Ref.)	彈性系數 Stiffness (Ref.)	變位量(Movement)					最大 工作壓力 Max. Pw	單位重量 (Ref.) Unit Weight
						軸向伸張 Axial Ext.	軸向壓縮 Axial Com.	側向(±) Lateral (±)	彎曲角度 Angular (±)	扭轉角度 Torsional		
mm	inch	mm	inch	cm ²	kg/mm	ΔXe(mm)	ΔXc(mm)	ΔY/Z(mm)	Δθ(degree)	Δθ(degree)	kg/cm ²	kg/pc
50	2	152	6	54	7.6	6.0	11.0	13.0	14.5	3.0	11.5	3.8
65	2-1/2	152	6	75	9.5	6.0	11.0	13.0	11.5	3.0	11.5	5.5
80	3	152	6	100	11.4	6.0	11.0	13.0	10.0	3.0	11.5	6.0
100	4	152	6	138	15.2	6.0	11.0	13.0	7.5	3.0	11.5	7.5
125	5	152	6	196	18.9	6.0	11.0	13.0	6.0	3.0	10.0	11.0
150	6	152	6	263	22.7	6.0	11.0	13.0	5.5	3.0	10.0	14.4
200	8	152	6	506	25.2	10.0	18.0	13.0	5.0	3.0	10.0	18.7
250	10	203	8	725	31.6	10.0	18.0	13.0	4.5	3.0	10.0	31.1
300	12	203	8	984	37.8	10.0	18.0	13.0	3.8	3.0	10.0	36.7
350	14	203	8	1281	33.1	10.0	18.0	13.0	3.3	2.0	6.5	45.6
400	16	203	8	1618	37.8	10.0	18.0	13.0	2.8	2.0	5.0	62.4
450	18	203	8	1995	42.6	10.0	18.0	13.0	2.5	1.0	5.0	79.2
500	20	203	8	2489	47.3	11.0	21.0	13.0	2.5	1.0	5.0	90.8
550	22	254	10	2951	52.1	11.0	21.0	13.0	2.3	1.0	5.0	121.5
600	24	254	10	3452	56.8	11.0	21.0	13.0	2.0	1.0	5.0	131.1
650	26	254	10	4094	54.7	13.0	24.0	13.0	2.0	1.0	5.0	145.5
700	28	254	10	4680	58.9	13.0	24.0	13.0	2.0	1.0	4.0	161.2
750	30	254	10	5306	63.2	13.0	24.0	13.0	2.0	1.0	4.0	187.1
800	32	254	10	5972	67.4	13.0	24.0	13.0	1.8	1.0	4.0	197.9
850	34	254	10	6676	71.5	13.0	24.0	13.0	1.8	1.0	4.0	208.9
900	36	254	10	7420	75.7	13.0	24.0	13.0	1.5	1.0	4.0	227.3
950	38	254	10	8203	80.0	13.0	24.0	13.0	1.5	1.0	4.0	254.4
1000	40	254	10	9025	84.2	13.0	24.0	13.0	1.5	1.0	4.0	270.8
1050	42	305	12	10046	79.6	14.0	27.0	13.0	1.5	1.0	4.0	321.9
1100	44	305	12	10954	83.4	14.0	27.0	13.0	1.5	1.0	4.0	335.4
1150	46	305	12	11901	87.0	14.0	27.0	13.0	1.3	1.0	4.0	371.2
1200	48	305	12	12888	90.9	14.0	27.0	13.0	1.3	1.0	4.0	397.3
1250	50	305	12	13913	94.7	14.0	27.0	13.0	1.3	1.0	4.0	506.5
1300	52	305	12	14978	98.5	14.0	27.0	13.0	1.3	1.0	4.0	---
1350	54	305	12	16083	102.3	14.0	27.0	13.0	1.3	1.0	4.0	487.0
1400	56	305	12	17226	106.6	14.0	27.0	13.0	1.3	1.0	4.0	---
1450	58	305	12	18409	109.9	14.0	27.0	13.0	1.0	1.0	4.0	---
1500	60	305	12	19631	113.7	14.0	27.0	13.0	1.0	0.5	4.0	574.7
1650	66	305	12	23533	125.0	14.0	27.0	13.0	1.0	0.5	3.5	---
1800	72	305	12	27788	136.4	14.0	27.0	13.0	0.9	0.5	3.5	---
1950	78	305	12	32397	147.8	14.0	27.0	13.0	0.9	0.5	3.5	---
2100	84	305	12	37359	159.2	14.0	27.0	13.0	0.8	0.5	3.5	---
2250	90	305	12	42675	170.6	14.0	27.0	13.0	0.7	0.5	3.5	---
2400	96	305	12	48344	181.9	14.0	27.0	13.0	0.7	0.5	3.5	---

※上表所示產品參考重量，以 JIS-10K / SS-400 為準。
 The reference weights of the products tabulated above are based on JIS-10K / SS-400 flanges.

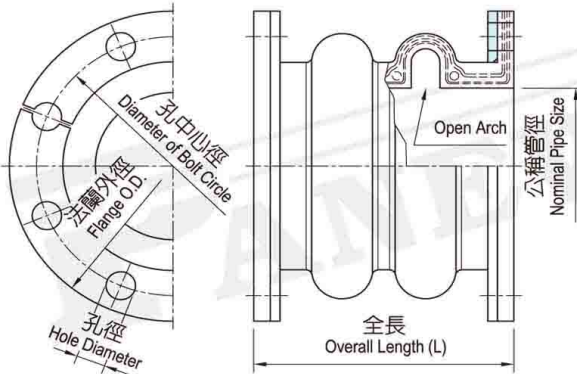
※上表所示彈性系數僅供參考。
 The stiffness tabulated above are for reference only.

P-2620 雙弧橡膠伸縮/可撓管接頭

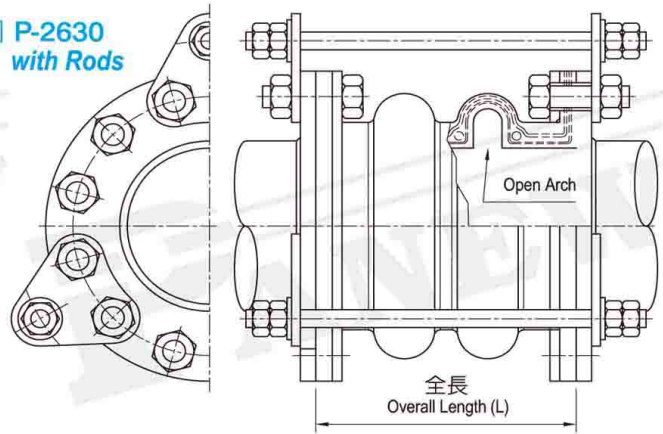


Double Arch Rubber Expansion Joint / Flexible Connector

□ P-2620 / without Rods



□ P-2630 with Rods



□ P-2620 性能規格表(Specification)

※適用溫度範圍 / Temperature Range : 5°C ~ 115°C ※最大負壓 / Max. Negative Pressure : 66 cm-Hg
 ※下表所示壓力以70°C 為基準 / The pressure rating tabulated below is based on 70°C .

公稱管徑 N.D.		產品最小全長 Min. Overall Length (L)		有效面積 Effective Area (Ref.)	彈性系數 Stiffness (Ref.)	變位量(Movement)					最大 工作壓力 Max. Pw	單位重量 (Ref.) Unit Weight
						軸向伸張 Axial Ext.	軸向壓縮 Axial Com.	側向 Lateral (±)	彎曲角度 Angular (±)	扭轉角度 Torsional		
mm	inch	mm	inch	cm ²	kg/mm	ΔXe(mm)	ΔXc(mm)	ΔY/Z(mm)	Δθ(degree)	Δθ(degree)	kg/cm ²	kg/pc
50	2	254	10	54	3.6	11.0	21.0	25.5	22.8	3.9	11.5	4.2
65	2-1/2	254	10	75	4.5	11.0	21.0	25.5	18.0	3.9	11.5	6.2
80	3	254	10	100	5.4	11.0	21.0	25.5	14.8	3.9	11.5	6.8
100	4	254	10	138	7.2	11.0	21.0	25.5	11.9	3.9	11.5	8.7
125	5	254	10	196	9.0	11.0	21.0	25.5	9.6	3.9	10.0	12.6
150	6	254	10	263	10.8	11.0	21.0	25.5	8.0	3.9	10.0	16.5
200	8	254	10	506	12.0	16.0	32.0	25.5	9.1	3.9	10.0	21.9
250	10	305	12	725	15.0	16.0	32.0	32.0	7.3	3.7	10.0	35.8
300	12	305	12	984	18.0	16.0	32.0	32.0	6.1	3.7	10.0	42.9
350	14	305	12	1281	15.8	16.0	32.0	32.0	5.3	2.5	6.5	53.3
400	16	305	12	1618	18.0	16.0	32.0	32.0	4.6	2.5	5.0	72.5
450	18	305	12	1995	20.3	16.0	32.0	32.0	4.1	1.3	5.0	91.8
500	20	305	12	2489	22.5	17.0	35.0	32.0	4.1	1.3	5.0	106.2
550	22	356	14	2951	24.8	17.0	35.0	32.0	3.7	1.2	5.0	136.8
600	24	356	14	3452	27.0	17.0	35.0	32.0	3.4	1.2	5.0	147.3
650	26	356	14	4094	26.0	19.0	38.0	32.0	3.4	1.2	5.0	163.3
700	28	356	14	4680	28.0	19.0	38.0	32.0	3.2	1.2	4.0	180.9
750	30	356	14	5306	30.1	19.0	38.0	32.0	3.0	1.2	4.0	208.3
800	32	356	14	5972	32.1	19.0	38.0	32.0	2.8	1.2	4.0	219.8
850	34	356	14	6676	34.0	19.0	38.0	32.0	2.6	1.2	4.0	232.7
900	36	356	14	7420	36.0	19.0	38.0	32.0	2.5	1.2	4.0	252.6
950	38	356	14	8203	38.1	19.0	38.0	32.0	2.3	1.2	4.0	277.3
1000	40	356	14	9025	40.1	19.0	38.0	32.0	2.2	1.2	4.0	295.6
1050	42	406	16	10046	37.9	20.0	42.0	38.0	2.3	1.2	4.0	347.5
1100	44	406	16	10954	39.7	20.0	42.0	38.0	2.2	1.2	4.0	363.0
1150	46	406	16	11901	41.4	20.0	42.0	38.0	2.1	1.2	4.0	398.0
1200	48	406	16	12888	43.3	20.0	42.0	38.0	2.1	1.2	4.0	426.0
1250	50	406	16	13913	45.1	20.0	42.0	38.0	2.0	1.2	4.0	525.7
1300	52	406	16	14978	46.9	20.0	42.0	38.0	1.9	1.2	4.0	---
1350	54	406	16	16083	48.7	20.0	42.0	38.0	1.8	1.2	4.0	510.5
1400	56	406	16	17226	50.8	20.0	42.0	38.0	1.8	1.2	4.0	---
1450	58	406	16	18409	52.3	20.0	42.0	38.0	1.7	1.2	4.0	---
1500	60	406	16	19631	54.1	20.0	42.0	38.0	1.7	0.6	4.0	599.6
1650	66	406	16	23533	59.5	20.0	42.0	38.0	1.5	0.6	3.5	---
1800	72	406	16	27788	65.0	20.0	42.0	38.0	1.4	0.6	3.5	---
1950	78	406	16	32397	70.4	20.0	42.0	38.0	1.3	0.6	3.5	---
2100	84	406	16	37359	75.8	20.0	42.0	38.0	1.2	0.6	3.5	---
2250	90	406	16	42675	81.2	20.0	42.0	38.0	1.1	0.6	3.5	---
2400	96	406	16	48344	86.6	20.0	42.0	38.0	1.1	0.6	3.5	---

※上表所示產品參考重量，以 JIS-10K / SS-400 為準。
 The reference weights of the products tabulated above are based on JIS-10K / SS-400 flanges.

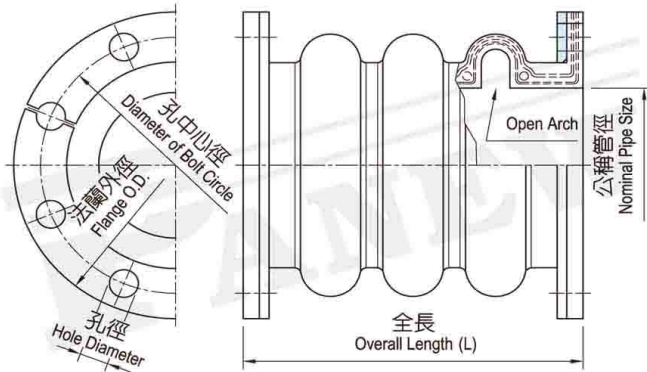
※上表所示彈性系數僅供參考。
 The stiffness tabulated above are for reference only.

P-2640 三弧橡膠伸縮/可撓管接頭

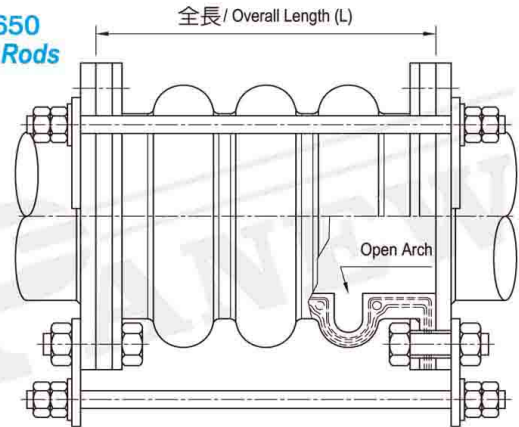


Triple Arch Rubber Expansion Joint / Flexible Connector

□ P-2640 / without Rods



□ P-2650 with Rods



□ P-2640 性能規格表(Specification)

※適用溫度範圍 / Temperature Range : 5°C ~ 115°C ※最大負壓 / Max. Negative Pressure : 66 cm-Hg
 ※下表所示壓力以70°C為基準 / The pressure rating tabulated below is based on 70°C.

公稱管徑 N.D.		產品最小全長 Min. Overall Length (L)		有效面積 Effective Area (Ref.) cm ²	彈性系數 Stiffness (Ref.) kg/mm	變位量(Movement)					最大 工作壓力 Max. Pw kg/cm ²	單位重量 Unit Weight (Ref.) kg/pc
mm	inch	mm	inch			軸向伸張 Axial Ext. ΔXe(mm)	軸向壓縮 Axial Com. ΔXc(mm)	側向 Lateral (±) ΔY/Z(mm)	彎曲角度 Angular (±) Δθ(degree)	扭轉角度 Torsional Δθ(degree)		
50	2	356	14	54	2.5	17.0	30.0	38.0	31.0	4.6	11.5	4.8
65	2-1/2	356	14	75	3.1	17.0	30.0	38.0	24.8	4.6	11.5	7.2
80	3	356	14	100	3.7	17.0	30.0	38.0	20.6	4.6	11.5	8.0
100	4	356	14	138	4.9	17.0	30.0	38.0	16.7	4.6	11.5	10.4
125	5	356	14	196	6.1	17.0	30.0	38.0	13.5	4.6	10.0	14.8
150	6	356	14	263	7.3	17.0	30.0	38.0	11.4	4.6	10.0	19.3
200	8	356	14	506	8.1	25.0	50.0	38.0	14.1	4.6	10.0	26.2
250	10	406	16	725	10.2	25.0	50.0	46.0	11.4	4.3	10.0	41.8
300	12	406	16	984	12.2	25.0	50.0	46.0	9.5	4.3	10.0	50.8
350	14	406	16	1281	10.7	25.0	50.0	46.0	8.2	2.9	6.5	62.8
400	16	406	16	1618	12.2	25.0	50.0	46.0	7.2	2.9	5.0	85.0
450	18	406	16	1995	13.7	25.0	50.0	46.0	6.4	1.5	5.0	107.6
500	20	406	16	2489	15.3	28.0	56.0	46.0	6.4	1.5	5.0	124.8
550	22	457	18	2951	16.8	28.0	56.0	46.0	5.9	1.4	5.0	157.2
600	24	457	18	3452	18.3	28.0	56.0	46.0	5.4	1.4	5.0	169.7
650	26	457	18	4094	17.6	35.0	65.0	46.0	5.8	1.4	5.0	187.5
700	28	457	18	4680	19.0	35.0	65.0	46.0	5.4	1.4	4.0	207.1
750	30	457	18	5306	20.4	35.0	65.0	46.0	5.0	1.4	4.0	236.4
800	32	457	18	5972	21.7	35.0	65.0	46.0	4.7	1.4	4.0	249.8
850	34	457	18	6676	23.1	35.0	65.0	46.0	4.4	1.4	4.0	264.6
900	36	457	18	7420	24.4	35.0	65.0	46.0	4.2	1.4	4.0	286.4
950	38	457	18	8203	25.8	35.0	65.0	46.0	4.0	1.4	4.0	313.0
1000	40	457	18	9025	27.2	35.0	65.0	46.0	3.8	1.4	4.0	333.2
1050	42	508	20	10046	25.7	37.0	75.0	55.0	4.1	1.3	4.0	387.5
1100	44	508	20	10954	26.9	37.0	75.0	55.0	4.0	1.3	4.0	404.9
1150	46	508	20	11901	28.1	37.0	75.0	55.0	3.8	1.3	4.0	441.8
1200	48	508	20	12888	29.3	37.0	75.0	55.0	3.6	1.3	4.0	471.7
1250	50	508	20	13913	30.5	37.0	75.0	55.0	3.5	1.3	4.0	573.4
1300	52	508	20	14978	31.8	37.0	75.0	55.0	3.4	1.3	4.0	---
1350	54	508	20	16083	33.0	37.0	75.0	55.0	3.2	1.3	4.0	562.0
1400	56	508	20	17226	34.4	37.0	75.0	55.0	3.1	1.3	4.0	---
1450	58	508	20	18409	35.5	37.0	75.0	55.0	3.0	1.3	4.0	---
1500	60	508	20	19631	36.7	37.0	75.0	55.0	2.9	1.3	4.0	656.9
1650	66	508	20	23533	40.3	37.0	75.0	55.0	2.7	1.3	3.5	---
1800	72	508	20	27788	44.0	37.0	75.0	55.0	2.4	1.3	3.5	---
1950	78	508	20	32397	47.7	37.0	75.0	55.0	2.3	1.3	3.5	---
2100	84	508	20	37359	51.4	37.0	75.0	55.0	2.1	1.3	3.5	---
2250	90	508	20	42675	55.1	37.0	75.0	55.0	2.0	1.3	3.5	---
2400	96	508	20	48344	58.7	37.0	75.0	55.0	1.8	1.3	3.5	---

※上表所示產品參考重量，以 JIS-10K / SS-400 為準。
 The reference weights of the products tabulated above are based on JIS-10K / SS-400 flanges.

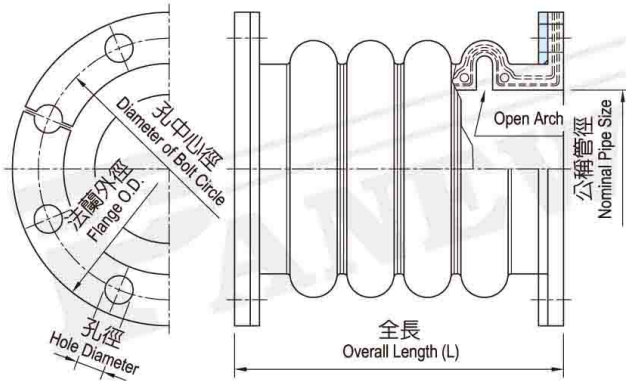
※上表所示彈性系數僅供參考。
 The stiffness tabulated above are for reference only.

P-2660 多弧橡膠伸縮/可撓管接頭

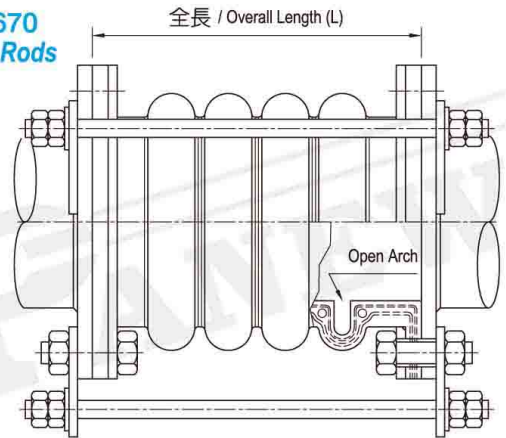


Multiple Arch Rubber Expansion Joint / Flexible Connector

□ P-2660 / without Rods



□ P-2670 with Rods



□ P-2660 性能規格表(Specification)

※適用溫度範圍 / Temperature Range : 5°C ~ 115°C ※最大負壓 / Max. Negative Pressure : 66 cm-Hg
 ※下表所示壓力以70°C為基準 / The pressure rating tabulated below is based on 70°C.

公稱管徑 N.D.		產品最小全長 Min. Overall Length (L)		有效面積 Effective Area (Ref.) cm ²	彈性系數 Stiffness (Ref.) kg/mm	變位量(Movement)					最大 工作壓力 Max. Pw kg/cm ²	單位重量 (Ref.) kg/pc
mm	inch	mm	inch			軸向伸張 Axial Ext. ΔXe(mm)	軸向壓縮 Axial Com. ΔXc(mm)	側向 Lateral (±) ΔY/Z(mm)	彎曲角度 Angular (±) Δθ(degree)	扭轉角度 Torsional Δθ(degree)		
50	2	457	18	54	1.9	25.0	42.0	51.0	40.1	5.3	11.5	5.3
65	2-1/2	457	18	75	2.3	25.0	42.0	51.0	32.9	5.3	11.5	8.1
80	3	457	18	100	2.8	25.0	42.0	51.0	27.7	5.3	11.5	9.1
100	4	457	18	138	3.7	25.0	42.0	51.0	22.8	5.3	11.5	12.0
125	5	457	18	196	4.6	25.0	42.0	51.0	18.6	5.3	10.0	17.0
150	6	457	18	263	5.5	25.0	42.0	51.0	15.7	5.3	10.0	22.1
200	8	457	18	506	6.1	37.0	68.0	51.0	18.8	5.3	10.0	30.5
250	10	508	20	725	7.7	37.0	68.0	63.5	15.3	4.9	10.0	47.8
300	12	508	20	984	9.2	37.0	68.0	63.5	12.8	4.9	10.0	58.8
350	14	508	20	1281	8.1	37.0	68.0	63.5	11.0	3.3	6.5	72.5
400	16	508	20	1618	9.2	37.0	68.0	63.5	9.7	3.3	5.0	97.6
450	18	508	20	1995	10.4	37.0	68.0	63.5	8.6	1.7	5.0	123.5
500	20	508	20	2489	11.5	43.0	80.0	63.5	9.1	1.7	5.0	143.5
550	22	559	22	2951	12.7	43.0	80.0	63.5	8.3	1.6	5.0	177.9
600	24	559	22	3452	13.9	43.0	80.0	63.5	7.6	1.6	5.0	192.3
650	26	559	22	4094	13.3	38.0	80.0	63.5	7.1	1.6	5.0	212.0
700	28	559	22	4680	14.4	38.0	80.0	63.5	6.6	1.6	4.0	233.5
750	30	559	22	5306	15.4	38.0	0.0	63.5	0.0	1.6	4.0	264.7
800	32	559	22	5972	16.4	38.0	80.0	63.5	5.8	1.6	4.0	280.1
850	34	559	22	6676	17.4	38.0	80.0	63.5	5.4	1.6	4.0	296.9
900	36	559	22	7420	18.5	38.0	80.0	63.5	5.1	1.6	4.0	320.6
950	38	559	22	8203	19.5	38.0	80.0	63.5	4.9	1.6	4.0	349.1
1000	40	559	22	9025	20.5	38.0	80.0	63.5	4.6	1.6	4.0	371.2
1050	42	610	24	10046	19.4	54.0	100.0	76.0	5.5	1.5	4.0	427.4
1100	44	610	24	10954	20.3	54.0	100.0	76.0	5.2	1.5	4.0	446.8
1150	46	610	24	11901	21.2	54.0	100.0	76.0	5.0	1.5	4.0	485.6
1200	48	610	24	12888	22.2	54.0	100.0	76.0	4.8	1.5	4.0	517.5
1250	50	610	24	13913	23.1	54.0	100.0	76.0	4.6	1.5	4.0	621.0
1300	52	610	24	14978	24.0	54.0	100.0	76.0	4.4	1.5	4.0	---
1350	54	610	24	16083	25.0	54.0	100.0	76.0	4.3	1.5	4.0	613.5
1400	56	610	24	17226	26.0	54.0	100.0	76.0	4.1	1.5	4.0	---
1450	58	610	24	18409	26.8	54.0	100.0	76.0	4.0	1.5	4.0	---
1500	60	610	24	19631	27.7	54.0	100.0	76.0	3.9	1.5	4.0	714.2
1650	66	610	24	23533	30.5	54.0	100.0	76.0	3.5	1.5	3.5	---
1800	72	610	24	27788	33.3	54.0	100.0	76.0	3.2	1.5	3.5	---
1950	78	610	24	32397	36.0	54.0	100.0	76.0	3.0	1.5	3.5	---
2100	84	610	24	37359	38.8	54.0	100.0	76.0	2.8	1.5	3.5	---
2250	90	610	24	42675	41.6	54.0	100.0	76.0	2.6	1.5	3.5	---
2400	96	610	24	48344	44.4	54.0	100.0	76.0	2.4	1.5	3.5	---

※上表所示產品參考重量，以 JIS-10K / SS-400 為準。
 The reference weights of the products tabulated above are based on JIS-10K / SS-400 flanges.

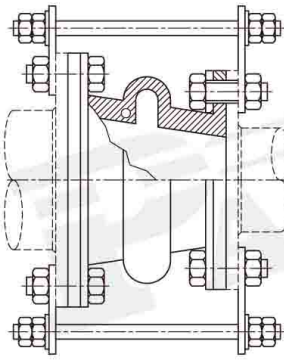
※上表所示彈性系數僅供參考。
 The stiffness tabulated above are for reference only.

P-2680 法蘭式異徑橡膠撓性接頭

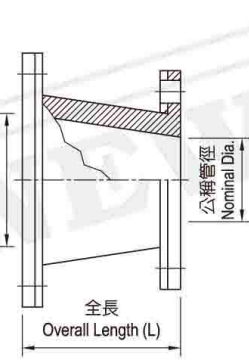


Concentric or Eccentric Reducer Rubber Expansion Joint / Flexible Connector

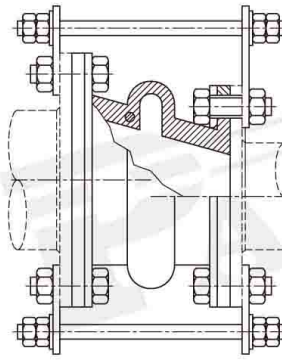
□ P-2680CA



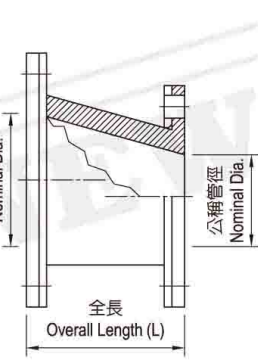
□ P-2680CN



□ P-2680EA



□ P-2680EN



□ P-2680 性能規格表(Specification)

※適用溫度範圍 / Temperature Range : 5°C ~ 115°C

※最大負壓 / Max. Negative Pressure : 66 cm-Hg

※下表所示壓力以70°C為基準 / The pressure rating tabulated below is based on 70°C.

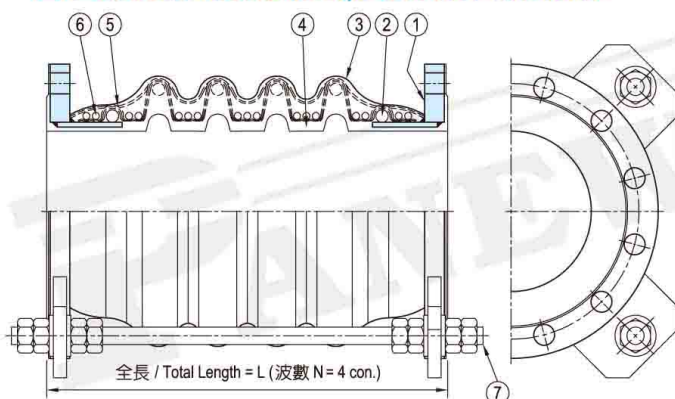
端部管徑 Nominal Diameter		產品最小全長 Min. Overall Length (L)		□ 弧空心型-變位量(Open Arch Movement)					□ 弧實心型-變位量(Filled Arch Movement)					最大 工作壓力 Max. Pw
Large End	Small End	inch	mm	軸向伸張 Axial Ext.	軸向壓縮 Axial Com.	側向 Lateral (±)	彎曲角度 Angular (±)	扭轉角度 Torsional	軸向伸張 Axial Ext.	軸向壓縮 Axial Com.	側向 Lateral (±)	彎曲角度 Angular (±)	扭轉角度 Torsional	kg/cm ²
inch	inch	inch	mm	ΔXe(mm)	ΔXc(mm)	ΔY/Z(mm)	Δθa(deg.)	Δθt(deg.)	ΔXe(mm)	ΔXc(mm)	ΔY/Z(mm)	Δθa(deg.)	Δθt(deg.)	
2	1	6	152	6.5	12.5	12.5	18.4	3.0	3.2	6.5	7.6	9.5	1.8	14.0
2	1-1/2	6	152	6.5	12.5	12.5	15.9	3.0	3.2	6.5	7.6	8.1	1.8	14.0
2-1/2	1-1/2	6	152	6.5	12.5	12.5	14.1	3.0	3.2	6.5	7.6	7.2	1.8	14.0
2-1/2	2	6	152	6.5	12.5	12.5	12.5	3.0	3.2	6.5	7.6	6.4	1.8	14.0
3	1-1/2	6	152	6.5	12.5	12.5	12.5	3.0	3.2	6.5	7.6	6.4	1.8	14.0
3	2	6	152	6.5	12.5	12.5	11.3	3.0	3.2	6.5	7.6	5.7	1.8	14.0
3	2-1/2	6	152	6.5	12.5	12.5	10.3	3.0	3.2	6.5	7.6	5.2	1.8	14.0
4	2	6	152	6.5	12.5	12.5	9.5	3.0	3.2	6.5	7.6	4.8	1.8	14.0
4	2	7	178	6.5	12.5	12.5	9.5	3.0	3.2	6.5	7.6	4.8	1.8	14.0
4	2-1/2	6	152	6.5	12.5	12.5	8.8	3.0	3.2	6.5	7.6	4.4	1.8	14.0
4	2-1/2	7	178	6.5	12.5	12.5	8.8	3.0	3.2	6.5	7.6	4.4	1.8	14.0
4	3	6	152	6.5	12.5	12.5	8.2	3.0	3.2	6.5	7.6	4.1	1.8	14.0
4	3	7	178	6.5	12.5	12.5	8.2	3.0	3.2	6.5	7.6	4.1	1.8	14.0
5	3	6	152	6.5	12.5	12.5	7.1	3.0	3.2	6.5	7.6	3.6	1.8	13.4
5	4	6	152	6.5	12.5	12.5	6.4	3.0	3.2	6.5	7.6	3.2	1.8	13.4
5	4	8	203	6.5	12.5	12.5	6.4	3.0	3.2	6.5	7.6	3.2	1.8	13.4
6	2	8	203	6.5	12.5	12.5	7.1	3.0	3.2	6.5	7.6	3.6	1.8	13.4
6	2-1/2	9	229	6.5	12.5	12.5	6.7	3.0	3.2	6.5	7.6	3.4	1.8	13.4
6	3	6	152	6.5	12.5	12.5	6.4	3.0	3.2	6.5	7.6	3.2	1.8	13.4
6	3	9	229	6.5	12.5	12.5	6.4	3.0	3.2	6.5	7.6	3.2	1.8	13.4
6	4	6	152	6.5	12.5	12.5	5.7	3.0	3.2	6.5	7.6	2.9	1.8	13.4
6	4	8	203	6.5	12.5	12.5	5.7	3.0	3.2	6.5	7.6	2.9	1.8	13.4
6	4	9	229	6.5	12.5	12.5	5.7	3.0	3.2	6.5	7.6	2.9	1.8	13.4
6	5	6	152	6.5	12.5	12.5	5.2	3.0	3.2	6.5	7.6	2.6	1.8	13.4
6	5	9	229	6.5	12.5	12.5	5.2	3.0	3.2	6.5	7.6	2.6	1.8	13.4
8	3	6	152	9.5	19.0	12.5	5.8	3.0	4.8	9.5	7.6	3.9	1.8	13.4
8	4	6	152	9.5	19.0	12.5	7.1	3.0	4.8	9.5	7.6	3.6	1.8	13.4
8	4	8	203	9.5	19.0	12.5	7.1	3.0	4.8	9.5	7.6	3.6	1.8	13.4
8	4	11	279	9.5	19.0	12.5	7.1	3.0	4.8	9.5	7.6	3.6	1.8	13.4
8	5	6	152	9.5	19.0	12.5	6.6	3.0	4.8	9.5	7.6	3.3	1.8	13.4
8	5	11	279	9.5	19.0	12.5	6.6	3.0	4.8	9.5	7.6	3.3	1.8	13.4
8	6	6	152	9.5	19.0	12.5	6.1	3.0	4.8	9.5	7.6	3.1	1.8	13.4
8	6	11	279	9.5	19.0	12.5	6.1	3.0	4.8	9.5	7.6	3.1	1.8	13.4
10	5	8	203	9.5	19.0	12.5	5.7	3.0	4.8	9.5	7.6	2.9	1.8	13.4
10	6	8	203	9.5	19.0	12.5	5.3	3.0	4.8	9.5	7.6	2.8	1.8	13.4
10	6	12	305	9.5	19.0	12.5	5.3	3.0	4.8	9.5	7.6	2.8	1.8	13.4
10	8	6	152	9.5	19.0	12.5	4.8	3.0	4.8	9.5	7.6	2.4	1.8	13.4
10	8	8	203	9.5	19.0	12.5	4.8	3.0	4.8	9.5	7.6	2.4	1.8	13.4
10	8	12	305	9.5	19.0	12.5	4.8	3.0	4.8	9.5	7.6	2.4	1.8	13.4
12	6	8	203	9.5	19.0	12.5	4.8	3.0	4.8	9.5	7.6	2.4	1.8	13.4
12	6	14	356	9.5	19.0	12.5	4.8	3.0	4.8	9.5	7.6	2.4	1.8	13.4
12	8	6	152	9.5	19.0	12.5	4.3	3.0	4.8	9.5	7.6	2.2	1.8	13.4
12	8	8	203	9.5	19.0	12.5	4.3	3.0	4.8	9.5	7.6	2.2	1.8	13.4
12	8	14	356	9.5	19.0	12.5	4.3	3.0	4.8	9.5	7.6	2.2	1.8	13.4
12	10	8	203	9.5	19.0	12.5	3.9	3.0	4.8	9.5	7.6	1.9	1.8	13.4
12	10	14	356	9.5	19.0	12.5	3.9	3.0	4.8	9.5	7.6	1.9	1.8	13.4
14	8	8	203	9.5	19.0	12.5	3.9	2.0	4.8	9.5	7.6	1.9	1.2	9.1
14	10	8	203	9.5	19.0	12.5	3.6	2.0	4.8	9.5	7.6	1.8	1.2	9.1
14	12	8	203	9.5	19.0	12.5	3.3	2.0	4.8	9.5	7.6	1.7	1.2	9.1
16	10	8	203	9.5	19.0	12.5	3.3	2.0	4.8	9.5	7.6	1.7	1.2	7.7
16	12	8	203	9.5	19.0	12.5	3.1	2.0	4.8	9.5	7.6	1.5	1.2	7.7
16	14	8	203	9.5	19.0	12.5	2.9	2.0	4.8	9.5	7.6	1.4	1.2	7.7
18	12	8	203	9.5	19.0	12.5	2.9	1.0	4.8	9.5	7.6	1.4	0.6	7.7
18	14	8	203	9.5	19.0	12.5	2.7	1.0	4.8	9.5	7.6	1.3	0.6	7.7
18	16	8	203	9.5	19.0	12.5	2.6	1.0	4.8	9.5	7.6	1.2	0.6	7.7

P-2600R 橡膠可撓管 (覆土加強型)



Arch Type Rubber Expansion Joint (Available for burried Installation)

□ P-2660R / without Rods, P-2670R / with Rods

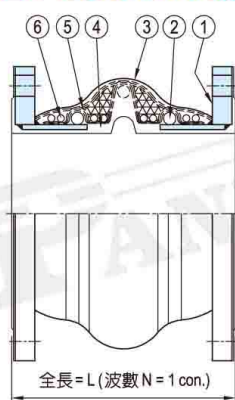


※結構組合 (Construction)

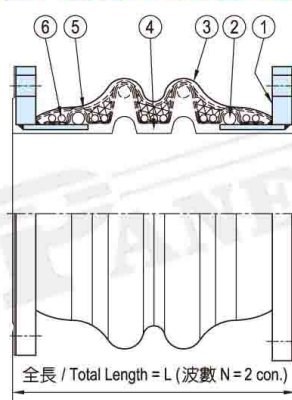
項次 Item	配件名稱 Parts	標準材料 Std. Material	選用材料 Optional Material
1.	法蘭(Flange)	SS-400(Galv.)	SUS-304 / 316
2.	加強鋼環(Steel Ring)	C.S.	S.S.
3.	外膠層(External Rubber)	EPDM / EPR	#
4.	內膠層(Internal Rubber)	EPDM / EPR	#
5.	加強層(Reinforcing Layer)	Nylon	---
6.	鋼絲(Steel Wire)	SS-400	---
7.*	控制螺桿(Control Rods)	SS-400(Galv.)	SUS-304 / 316

Neoprene, Natural Rubber, Nitrile, CSM, Butyl....etc.
* 使用於無管錨系統(Used for the unanchored system.)
@ 法蘭規格可依實際需求選用，如JIS, ANSI, DIN, BS...等。
Flanges are available against your request, like ANSI, DIN, BS...etc.

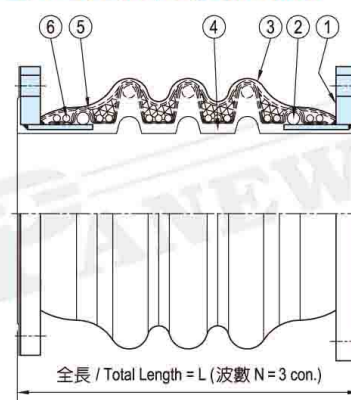
□ P-2600R / without Rods



□ P-2620R / without Rods



□ P-2640R / without Rods



□ 性能規格表(Specification)

※適用溫度範圍 / Temperature Range : 5°C ~ 115°C
※ ΔX_e : 軸向伸長量, ΔX_c : 軸向壓縮量, ΔY : 側向變位量, $\Delta \theta$: 角變位量。

公稱管徑 N.D.	P-2640R 規格 (Specification)							P-2660R 規格 (Specification)							工作壓力等級							
	長度		作動量 (Movement) / N=3					長度		作動量 (Movement) / N=5					壓力等級		負壓 Vacuum					
	L		ΔX_e	ΔX_c	ΔY	$\Delta \theta$	L		ΔX_e	ΔX_c	ΔY	$\Delta \theta$	ΔX_e	ΔX_c	ΔY	$\Delta \theta$		Pw Grade	Vacuum			
mm	inch	mm	mm	mm	mm	(deg.)	mm	mm	mm	mm	mm	(deg.)	mm	mm	mm	(deg.)	mm	mm	mm	(deg.)	kg/cm ²	cm-Hg
100	4	500	50	25	100	20.0	750	70	35	200	20	80	40	200	20	5	10	66				
125	5	500	50	25	100	18.0	750	70	35	200	20	80	40	200	20	5	10	66				
150	6	500	50	25	100	18.0	750	70	35	200	20	80	40	200	20	5	10	66				
200	8	500	50	25	100	14.0	750	70	35	200	20	80	40	200	20	5	10	66				
250	10	500	50	25	100	12.0	750	70	35	200	20	80	40	200	20	5	10	66				
300	12	500	50	25	100	10.0	750	70	35	200	16	80	40	200	16	5	10	66				
350	14	500	50	25	100	8.0	750	70	35	200	14	80	40	200	14	5	10	66				
400	16	550	60	30	100	7.0	850	90	40	200	14	100	50	200	14	5	10	66				
450	18	550	60	30	100	6.0	850	90	40	200	12	100	50	200	12	5	10	66				
500	20	550	60	30	100	6.0	850	90	40	200	12	100	50	200	12	5	10	66				
550	22	750	80	40	100	5.0	1000	110	50	200	12	120	60	200	12	5	10	66				
600	24	750	80	40	100	4.0	1000	110	50	200	10	120	60	200	10	5	10	66				
650	26	750	80	40	100	4.0	1000	110	50	200	8	120	60	200	8	5	10	66				
700	28	750	80	40	100	4.0	1000	110	50	200	8	120	60	200	8	5	10	66				
750	30	750	80	40	100	4.0	1000	110	50	200	8	120	60	200	8	5	10	66				
800	32	750	80	40	100	4.0	1000	110	50	200	8	120	60	200	8	5	10	66				
850	34	750	80	40	100	4.0	1000	110	60	200	8	120	70	200	8	5	10	66				
900	36	750	80	40	100	4.0	1000	110	60	200	8	120	70	200	8	5	10	66				
1000	40	1000	100	50	100	4.0	1200	130	60	200	5	140	70	200	6	5	10	66				
1100	44	1000	100	50	100	4.0	1200	130	60	200	5	140	70	200	6	5	10	51				
1200	48	1000	100	50	100	3.0	1200	130	60	200	5	140	70	200	6	5	10	51				
1350	52	1000	100	50	100	3.0	1200	130	60	200	5	140	70	200	5	5	10	51				
1500	60	1000	100	50	100	3.0	1200	130	60	200	5	140	70	200	5	5	10	51				
1600	60	1000	100	50	100	2.0	1400	130	60	200	4	140	70	200	4	5	10	51				

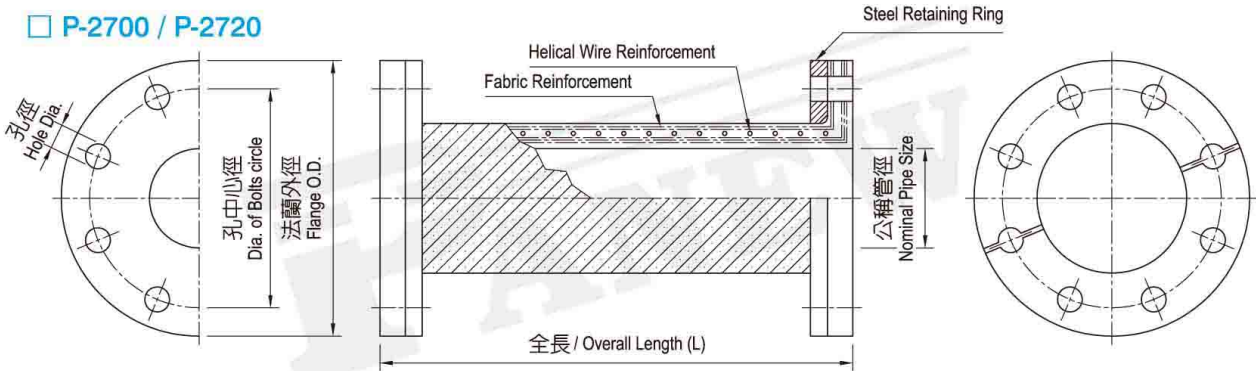
※上表所示產品長度規格均為標準品，其餘規格可依需求訂製。
The specifications of the products tabulated above are standard, we can also deliver product against your request.

P-2700系列-法蘭式橡膠軟管接頭



Flanged Type Rubber Hose Connector

□ P-2700 / P-2720



□ P-2700 / 2720 性能規格表(Specification)

※適用溫度範圍 / Temperature Range : 5°C ~ 115°C

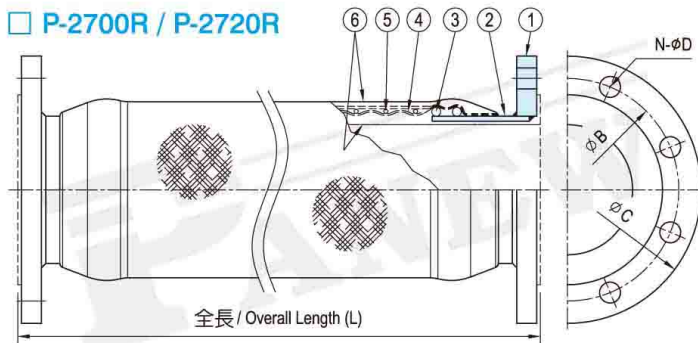
※下表所示壓力以70°C為基準 / The pressure tabulated below is based on 70°C.

公稱管徑 N.D.		# 產品全長 Overall Length (L)		有效面積 Effective Area cm ²	變位量(Movement)				P-2700	P-2720	最大負壓 Max. Neg. Pressure	單品重量 Weight/pc (P-2700)
mm	inch	mm	inch		軸向伸張 Axial Ext. ΔXe(mm)	軸向壓縮 Axial Com. ΔXc(mm)	側向 Lateral (±) ΔY/Z(mm)	彎曲角度 Angular (±) Δθ(degree)	最大工作壓力 Max. Pw	kg/cm ²		
50	2	305	12	20.3	5	5	25.0	10.0	6.0	10.0	66	2.5
65	2-1/2	305	12	31.7	5	5	25.0	10.0	6.0	10.0	66	3.1
80	3	460	18	45.6	6	6	25.0	10.0	6.0	10.0	66	4.8
100	4	460	18	81.1	6	6	25.0	10.0	6.0	10.0	66	6.6
125	5	460	18	126.7	6	6	20.0	8.0	6.0	10.0	66	7.5
150	6	460	18	182.4	6	6	20.0	8.0	6.0	10.0	66	9.0
200	8	610	24	324.3	8	8	20.0	8.0	6.0	10.0	66	16.2
250	10	610	24	506.7	8	8	15.0	8.0	6.0	10.0	66	22.1
300	12	610	24	729.6	8	8	15.0	6.0	6.0	10.0	66	30.2
350	14	610	24	993.1	8	8	15.0	6.0	6.0	10.0	66	49.0
400	16	610	24	1297.2	8	8	15.0	6.0	6.0	10.0	66	69.5

#上表所示產品重量以 JIS-10K為準，長度為標準長，亦可依客戶實際需求訂制。

The unit weights are based on JIS-10K. The overall lengths tabulated above are the standards, we can also deliver any length against your request.

□ P-2700R / P-2720R



※結構組合 (Construction)

項次 Item	配件名稱 Parts	標準材料 Std. Material	選用材料 Option
1.	法蘭(Flange)	SS-400	S.S.
2.	端管(End Pipe)	SS-400	---
3.	鋼環(Steel Ring)	SS-400	---
4.	加強層(Rein. Layer)	Nylon	---
5.	鋼絲(Steel Wire)	C.S.	---
6.	內外膠層(Rubber)	EPDM / EPR	#

Neoprene, Natural Rubber, Nitrile, CSM, Butyl.....etc.

□ P-2700R / 2720R 性能規格表(Specification)

※適用溫度範圍 / Temperature Range : 5°C ~ 115°C

※下表所示壓力以70°C為基準 / The pressure tabulated below is based on 70°C.

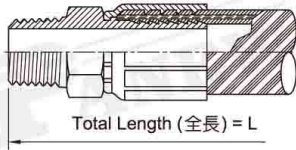
公稱管徑 N.D.		產品全長 Overall Length (L)		軟管尺寸規格 (Hose Spec.)			彎曲半徑(Bend Radius)		P-2700R	P-2720R	最大負壓 Max. Neg. Pressure	單位重量 Weight/m (P-2720R)
mm	inch	Min.	Max.	外徑 O.D.φ	內徑 I.D.φ	有效面積 Effective Area cm ²	靜態 Static mm	動態 Flexing mm	最大工作壓力 Max. Pw	kg/cm ²		
100	4	0.8	30	138	100	78	510	707	10.0	16.0	66	5.0
125	5	0.8	30	163	125	122	710	986	10.0	16.0	66	9.5
150	6	0.8	30	190	150	176	817	1135	10.0	16.0	66	15.0
200	8	1.0	30	242	200	314	1085	1507	10.0	16.0	66	19.0
250	10	1.0	30	296	254	506	1178	1637	10.0	16.0	66	23.5
300	12	1.0	30	347	300	706	1289	1790	10.0	16.0	66	29.0
350	14	1.2	30	392	350	962	1527	2122	10.0	16.0	66	35.0
400	16	1.2	15	446	400	1256	1718	2387	10.0	16.0	66	42.0
450	18	1.4	15	496	450	1590	1964	2728	10.0	16.0	66	50.0
500	20	1.4	15	559	500	1963	2170	3015	10.0	16.0	66	82.0
550	22	1.5	15	609	550	2375	2578	3580	10.0	16.0	66	90.0
600	24	1.5	15	666	590	2734	2578	3580	10.0	16.0	66	120.0

Other Type Rubber Connector

※ 壓接橡胶管接头(High Pressure Rubber Hose)

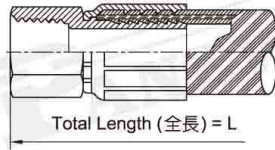
□ P-2750A

適用口徑 / Available Size : $\phi 1/4'' \sim \phi 2''$



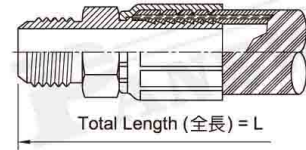
□ P-2750B

適用口徑 / Available Size : $\phi 1/4'' \sim \phi 2''$



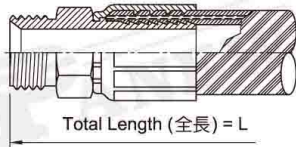
□ P-2750C

適用口徑 / Available Size : $\phi 1/4'' \sim \phi 2''$



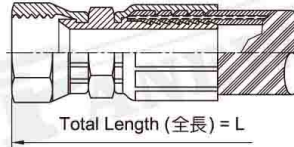
□ P-2750D

適用口徑 / Available Size : $\phi 1/4'' \sim \phi 2''$



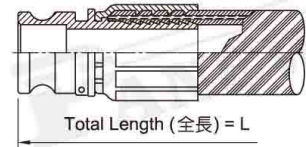
□ P-2750E

適用口徑 / Available Size : $\phi 1/4'' \sim \phi 2''$



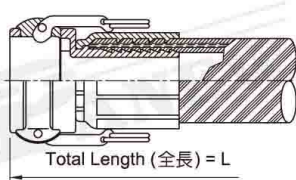
□ P-2750F

適用口徑 / Available Size : $\phi 1/2'' \sim \phi 6''$



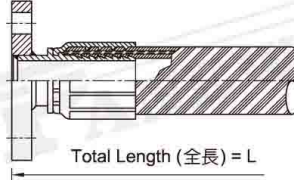
□ P-2750G

適用口徑 / Available Size : $\phi 1/2'' \sim \phi 6''$



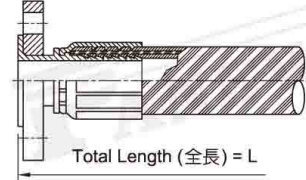
□ P-2750H

適用口徑 / Available Size : $\phi 1/2'' \sim \phi 6''$



□ P-2750I

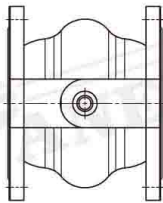
適用口徑 / Available Size : $\phi 1/2'' \sim \phi 6''$



※ 其它橡胶伸縮接头(Other Type Rubber Connector)

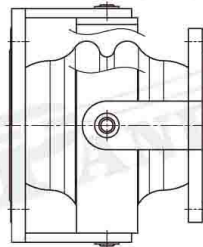
□ P-2600HS 單式絞鍊式伸縮接头

Single / Hinged Type Exp. Joint



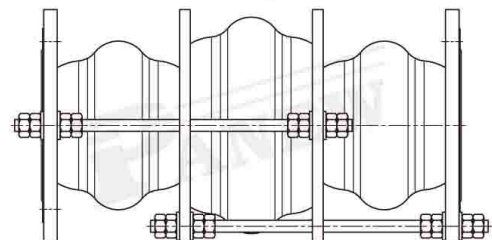
□ P-2620GS 單式平衡環式伸縮接头

Single / Gimbal Type Exp. Joint



□ P-2600PI 直線壓力平衡式伸縮接头

In-Line / Pressure Balanced Type Exp. Joint



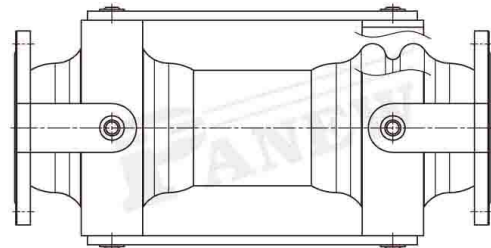
□ P-2600HU 側向絞鍊式伸縮接头

Universal / Hinged Type Exp. Joint



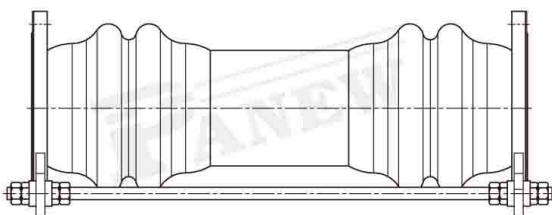
□ P-2620GU 萬向平衡環式伸縮接头

Universal / Gimbal Type Exp. Joint



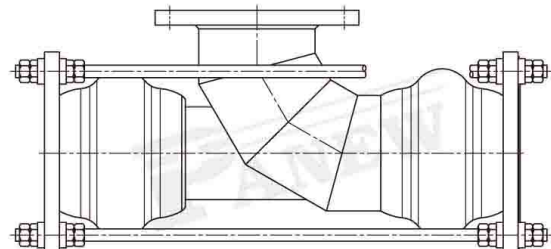
□ P-2620U 萬向式伸縮接头

Universal Type Exp. Joint



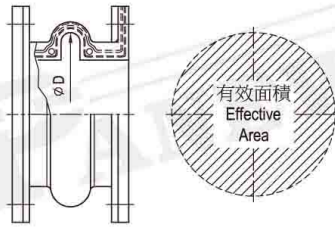
□ P-2600PL, L型壓力平衡式伸縮接头

L-Type / Pressure Balanced Exp. Joint



Installation and Piping Arrangement

1. 內推壓力(Pressure Thrust Force)



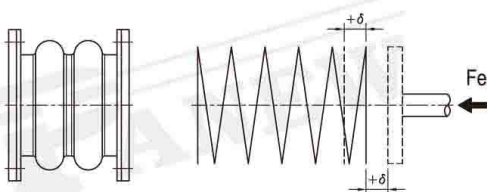
圖一 (Fig.1)

如圖一 (As Fig.1)

$$F_p = \frac{\pi}{4} * D^2 * P$$

D : 橡膠接頭最大內徑(Max. I.D. of the Rubber Joint)
P : 系統管內壓力(Inner pressure of the system)

2. 彈性力(Spring Force)



圖二 (Fig.2)

如圖二 (As Fig.2)

$$F_e = K_e * \delta$$

Ke : 彈性系數(Spring Rate)
δ : 作動量(Movement)

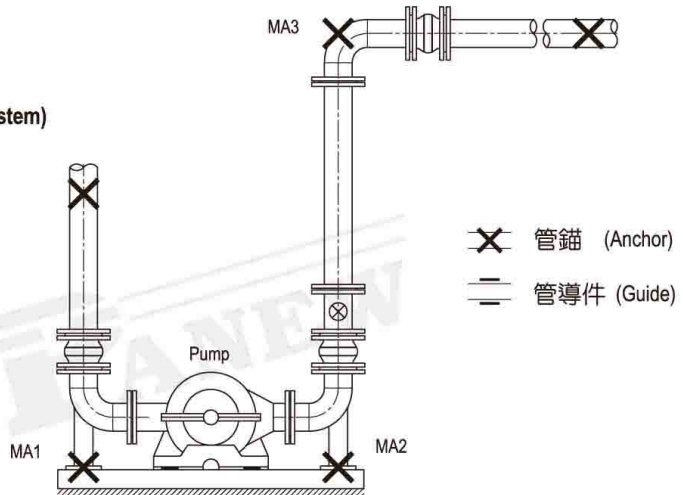
3. 有管錨系統之撓性接頭安裝與作用力分析 (Installation & Reaction force analysis for anchored system)

如圖三 (As Fig. 3)

管錨所承受之總推力
Reaction Forces acting on the anchor point :

$$F_m = W_n + F_p + F_e$$

Fp : 內壓推力 (Pressure Thrust Force)
Fe : 彈性力 (Spring Reaction Force)
Fm : 管錨承受力
(Reaction Force acting on the anchor point)
Wn : 管設備+流體重量 (Piping weight with fluid)



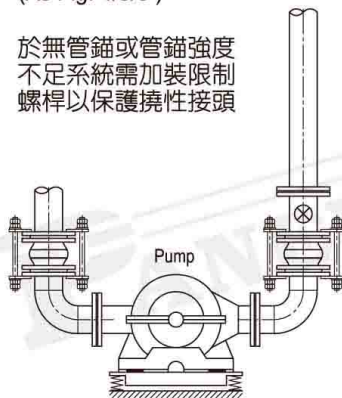
圖三 (Fig.3)

4. 無管錨系統之撓性接頭安裝 (Installation for unanchored system)

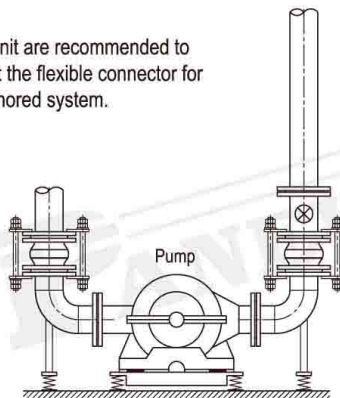
如圖四/五/六
(As Fig. 4/5/6)

於無管錨或管錨強度不足系統需加裝限制螺桿以保護撓性接頭

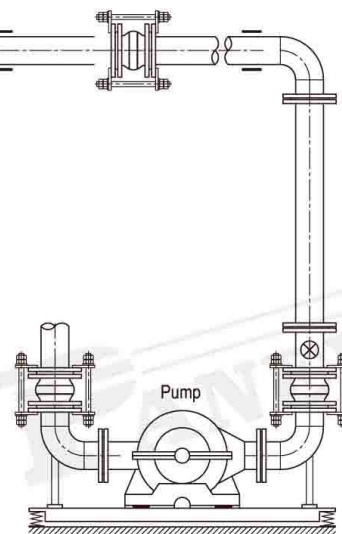
Limit unit are recommended to protect the flexible connector for unanchored system.



圖四 (Fig. 4)



圖五 (Fig. 5)



圖六 (Fig. 6)

Installation and Maintenance of Rubber Joint

※安裝注意事項 (Installation Guide)

1.1 伸縮接頭檢查 / Inspection of Expansion Joint :

拆除伸縮接頭外保護/運輸包裝，檢查伸縮接頭內部、外部和法蘭面是否有切口或鑿痕，並檢查管線法蘭是否有粗糙/受損情形。
Remove Expansion Joint from protective / shipping packaging. Check the interior, exterior and flange faces of the expansion joint for cuts or gouges. Inspect the mating flanges for roughness and damage.

1.2 管錨配置檢查 / Anchoring, Alignment Check :

檢查現場系統有無適當設計管錨、支撐與管導件，如無：控制螺桿需配置用以吸收因安裝伸縮接頭產生之內壓推力。
Review the system to ensure that the anchors, supports and alignment guides are properly designed. If the system is not properly anchored and / or guided, Control rods should be used. In addition, the anchors and / or guides should be designed to withstand the thrust forces generated by the Exp. Joint.

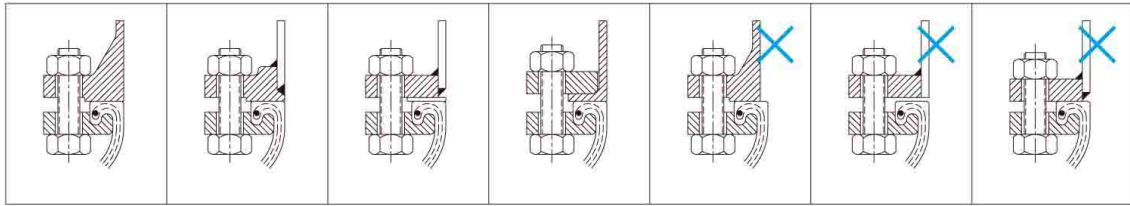
1.3 管線法蘭對齊 / Align Pipe Flanges :

管線法蘭面於無需過度推力下，可定位並確保軸線對齊在 1/8 inch (3 mm) 以內。
Position pipe flange faces to insure axes are aligned to within 1/8 inch (3 mm) without using excessive force.

2. 伸縮接頭安裝 / Installation :

A. 確認管線法蘭迫合面平整無損傷並符合下表圖示規範。

Examine the pipe flange faces for roughness and damage. Make sure the mating condition are qualified as below figures.



B. 於迫合膠面上塗抹一層薄薄的非石油基潤滑劑(例如肥皂水)，以便於日後安裝或拆卸；關於安裝，請參閱製造商之安裝手冊說明。
Apply a thin layer of non-petroleum based lubricant, such as soapy water to the rubber flange for ease of installation or removal at a later date. Refer to the manufacturers' installation manual / instructions for any installation requirements.

C. 使用對角十字螺絲上緊模式將每個螺絲上緊扭矩，直到達下表的建議值。

Torque each bolt to full torque with the crossbolt pattern until the values given in the table below are reached.

□ P-2800系列 - 球型橡膠接頭螺絲上緊扭矩一覽表
Nominal Bolt Torque of Sphere Rubber Pump Connector.

□徑 / Pipe Size		螺栓扭矩 / Bolt Torque	
in.	mm	ft - lbs	N - m
1" ~ 1-1/4"	25 ~ 32	30 ~ 45	40 ~ 60
1-1/2" ~ 2"	40 ~ 50	30 ~ 45	40 ~ 60
2-1/2"	65	35 ~ 50	47 ~ 68
3" ~ 5"	80 ~ 125	45 ~ 60	60 ~ 80
6" ~ 8"	150 ~ 200	50 ~ 65	68 ~ 88
10" ~ 12"	250 ~ 300	55 ~ 75	75 ~ 100
14" ~ 16"	350 ~ 400	60 ~ 80	80 ~ 110
18" ~ 20"	450 ~ 500	70 ~ 95	95 ~ 120
22" ~ 24"	550 ~ 600	80 ~ 100	110 ~ 135

□ P-2600系列 - 弧型橡膠接頭螺絲上緊扭矩一覽表
Nominal Bolt Torque of Arch Rubber Expansion Joint.

□徑 / Pipe Size		螺栓扭矩 / Bolt Torque	
in.	mm	ft - lbs	N - m
1" ~ 2"	25 ~ 50	30 ~ 50	40 ~ 68
2-1/2" ~ 5"	65 ~ 125	50 ~ 70	68 ~ 95
6" ~ 8"	150 ~ 200	90 ~ 120	120 ~ 160
10" ~ 12"	250 ~ 300	110 ~ 140	150 ~ 190
14" ~ 16"	350 ~ 400	130 ~ 160	175 ~ 215
18" ~ 24"	450 ~ 600	150 ~ 200	200 ~ 270
26" ~ 40"	650 ~ 1000	200 ~ 300	270 ~ 410
42" ~ 54"	1050 ~ 1350	300 ~ 400	410 ~ 540
60" ~ 72"	1500 ~ 1800	400 ~ 500	540 ~ 680

注意：法蘭螺栓應於系統運作約一周後需重新上緊，並在此後定期檢查。

Note: The Flange Bolts should be retightened after about one week of operation and checked periodically, thereafter.

3. 伸縮接頭維護 / Maintenance :

A. 應定期檢查並重新上緊螺絲以確保伸縮接頭運作與安裝持續正確。在陽光充足或類似沙漠之條件下，建議設置一個覆蓋結構或定期重複塗覆紫外線防護塗料。

The expansion joint should be inspected periodically to ensure proper operation and installation. Periodically retorquer bolts. In full sun or desert-like conditions, set a cover or periodic recoating of the UV protective paint is recommended.

B. 如在伸縮接頭附近有焊接需求，應使用焊毯或保護罩保護伸縮接頭。

If welding is to occur in the vicinity of the expansion joint, a welding blanket or protective cover should be used to protect the expansion joint.

C. 於一個相對乾燥、黑暗、涼爽 (27°C以下) 倉庫是較佳的儲放空間。應避免在臭氧產生設備附近儲放。將法蘭面朝下儲放於托盤或木製平台上。此外不可將其他重物壓置於伸縮接頭上方。如果必須於室外儲放，伸縮接頭應放置於木製平台上，不得與地面接觸並蓋上防水布。

Ideal storage is a warehouse with a relatively dry, dark, cool location (under 27°C). Storage near ozone producing equipment should be avoided. Store flange face down on a pallet or wooden platform. Do not store other heavy items on top of an expansion joint. If storage must be outdoors, the expansion joints should be placed on wooden platforms and should not be in contact with the ground. Cover with a tarpaulin.

※橡膠伸縮接頭正確安裝尺寸圖示 / Correct installation range of Rubber Expansion Joint.

