



雙軸式螺旋泵浦

Twin Screw Pump CT Series

三錦機器股份有限公司

SUNNY KING MACHINERY CO. LTD



— 高效率、高性能液體輸送解決方案 —



■ 適用於原油管線輸送、油槽裝卸料／油槽輸送、石化工業、石油生產煉製、發電廠、船舶燃油輸送等產業。

產品特點

- ◎ 液體可被壓縮至高壓力作長途輸送。
- ◎ 適用於低和高黏度、無潤滑性以及高壓力、腐蝕性液體輸送。
- ◎ 優異自吸能力，NPSH值低。
- ◎ 多相流體(氣液混合流體)輸送。液體中含氣量最多可處理至80%。
- ◎ 低噪音及低液體脈動。
- ◎ 液體為連續完整流動不受攪拌。
- ◎ 多種軸封安裝選擇。
- ◎ 轉子與轉子間，轉子與機殼間為非接觸狀態，使用壽命優異。
- ◎ 泵浦本體為對稱雙吸式架構，無軸向力
- ◎ 外部式軸承不與製程液體接觸，使用壽命長。軸承易於更換。
- ◎ 外置式軸封設計，易於更換軸封，不必拆卸泵浦本體。
- ◎ 泵浦經客製設計可允許在無液體狀態時轉動。
- ◎ 可輸送含微小顆粒的液體。



FEATURES

- ◎ Fluid can be compressed to high pressure for long distance transportation.
- ◎ Well suitable for handling low and high viscosity, non-lubricant fluid as well as high-pressure and corrosive fluid.
- ◎ Excellent self-priming performance with very good NPSH.
- ◎ Multi-phase fluid (gas/liquid mixtures) can be handled. Liquid containing up to 80% of gas can be handled.
- ◎ Low noise level and low fluid pulsations.
- ◎ Continuous laminar flow without churning fluid.
- ◎ Multiple choices of shaft seal option.
- ◎ No screw-to-screw or screw-to-casing contact; exceptionally long lifespan of the pump.
- ◎ Symmetrical and split-flow body architecture leads no axial force.
- ◎ External bearing design with no contact to media for long life. Easy for replacing bearing.
- ◎ Outboard mechanical seal construction makes seal replacement simple. No need to dismantle pump body.
- ◎ Dry running possible with customized pump modification.
- ◎ Fluid with small grains can be handled.

產業運用 APPLICATIONS

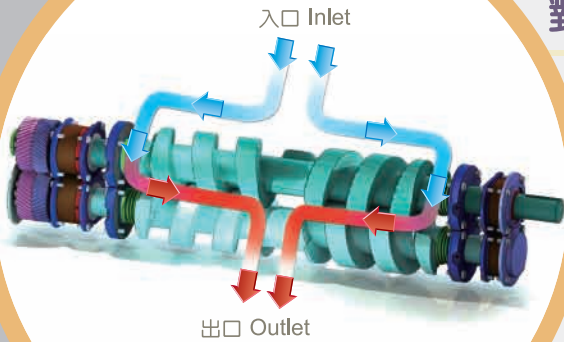
- ◎ 原油輸送
- ◎ 油槽場站裝卸料
- ◎ 石化工業
- ◎ 石油生產煉製
- ◎ 發電廠、船舶燃油輸送
- ◎ Crude oil transfer
- ◎ Tank terminals loading/unloading
- ◎ Petrochemical industry
- ◎ Oil refineries
- ◎ Power plant, ship fuel supply pump

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設計概念 DESIGN CONCEPT

對稱式雙吸架構 Symmetrical and Split-flow Architecture

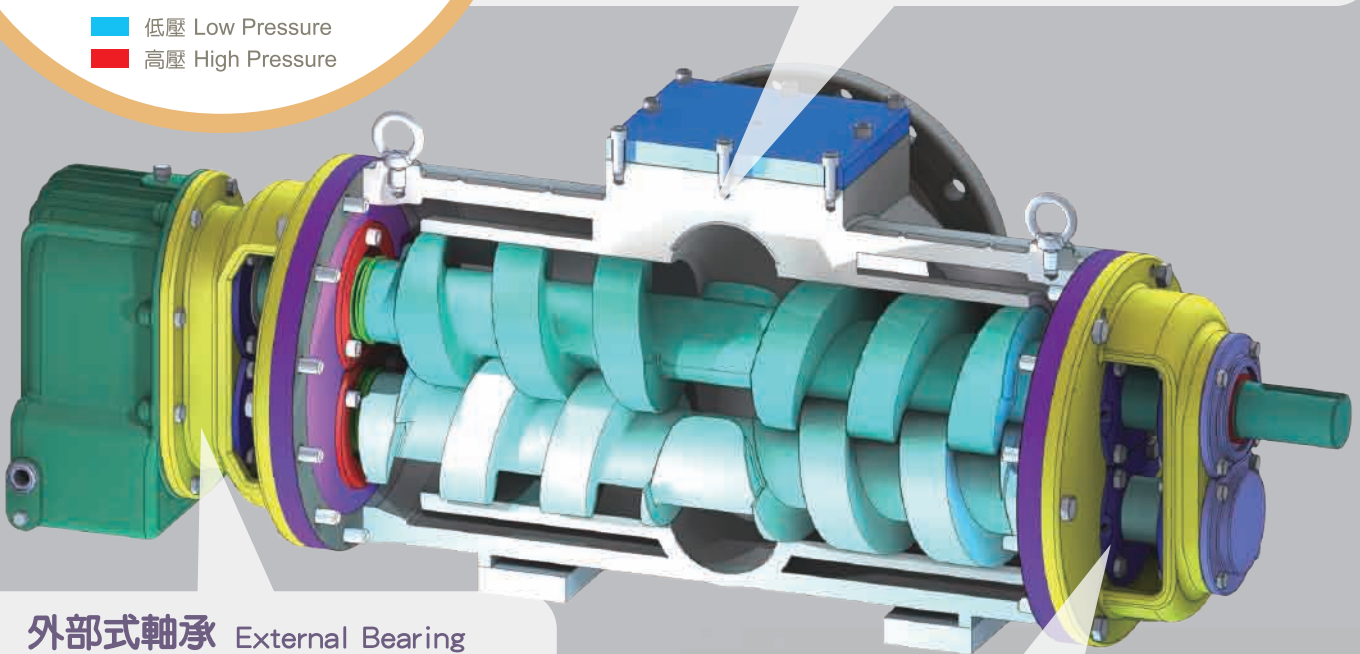


低壓 Low Pressure
高壓 High Pressure

泵浦為對稱式雙吸架構，利用兩對稱反向螺紋轉子使壓力平均從吸入端向轉子中央部位增加。對稱式設計完全抵消了軸向力因此軸承壽命特佳。軸封位於泵浦入口側，不會承受泵浦出口處高壓，因此壽命優異。

The pump is symmetrical and split-flow architecture. The pressure increases evenly from the suction ends to the middle of rotor by employing two rotors having threads of opposed screws. The symmetrical design fully compensates axial forces so that the bearing lifespan is excellent.

The shaft seals are at pump suction sides and do not receive the high pressure of pump outlet so that the shaft seal lifespan is excellent.



外部式軸承 External Bearing

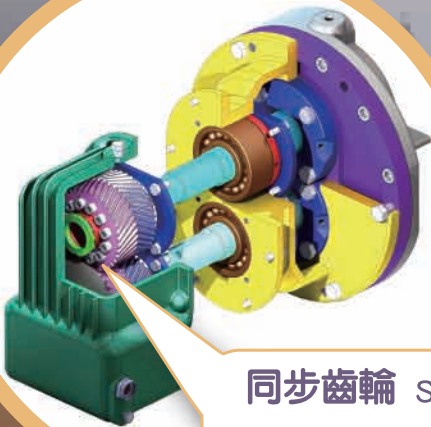
外部式軸承不與製程液體接觸使用壽命長。相當適用於無潤滑性液體或腐蝕性液體且易於更換軸承。

External bearing design has no contact to media for long life. Well suitable for non-lubrication or corrosive fluid and is easy for bearing replacement.

外置式軸封 Outboard Mechanical Seal

外置式機械軸封結構，使工程師可在不拆卸泵浦本體情況下更換軸封。

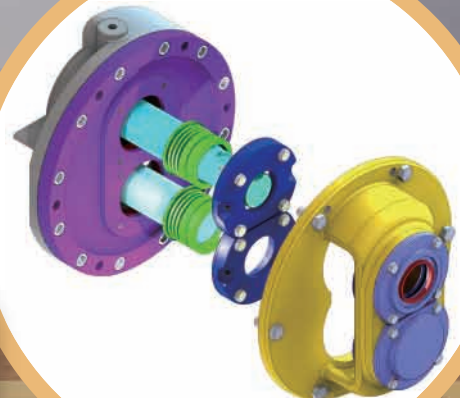
Outboard mechanical seal structure enables engineers to replace seals without dismantling pump body.



同步齒輪 Synchronized Timing Gear

齒輪箱包含主動齒輪及從動齒輪。當主動轉子由馬達驅動，從動轉子以相同速率旋轉，兩轉子間並不互相接觸。轉子無接觸磨耗因此壽命優異。

The gear box consists driving gears and driven gears. As driving screw is turned by motor, the driven screw is turned at the same rate and do not touch each other. No contact abrasion to rotors so that the lifespan is excellent.



泵浦選用裝置

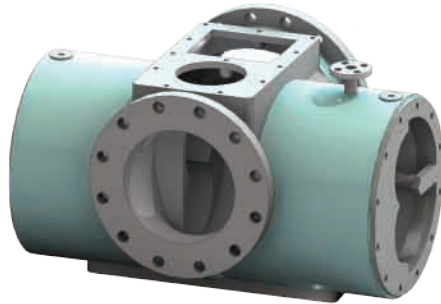
PUMP ACCESSORIES

加熱裝置 Pump Heating Options

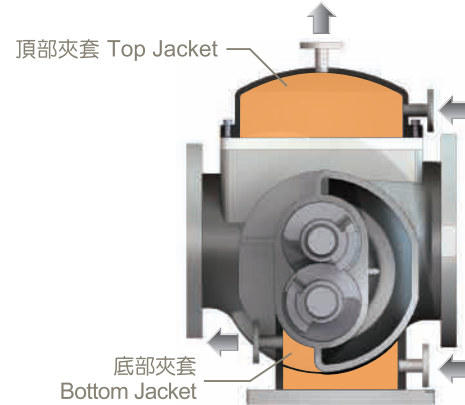
為確保抽取的液體能得到適當加熱，三錦雙軸式螺旋泵浦可視客戶需要安裝三種加熱夾套：

To ensure proper heating for pumped fluid, the Sunny King twin screw pump can be constructed with three different kind of heating jacket by user preference.

本體夾套 Casing Jacket



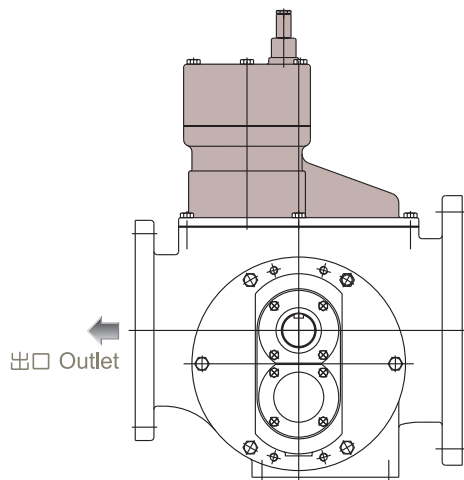
夾套包覆區域 Casing Jacket Area



泵浦安全閥 Pump Safety Valve

當壓力過大時，安全閥可保護泵浦及系統不致損壞。

As pressure is too high, the safety valve can protect pump and system from damage.



機械軸封 Mechanical Seal

標準為EA560型機械軸封。可選用化工單/雙機械軸封、卡式單/雙機械軸封。

The standard mechanical seal is EA560 mechanical seal. Chemical type single/double mechanical seal or cartridge single/double mechanical seal is optional.



軸封沖洗規範 Seal Flush Plans

可選用ANSI/API軸封沖洗以及冷卻規範以符合軸封安裝要求，並可依據客戶特殊需求配置。

ANSI/API seal flush and cooling plans are available and meet seal installation requirements. We can provide other special arrangements of user preference.

產品主要規格

SPECIFICATIONS

輸送	0.2~15 m ³ /min
壓力	標準型達 12 kg/cm ² ，特殊設計可達 50 kg/cm ²
馬力	7.5 ~ 600 HP
流體溫度	0°C~150°C
黏度	0.5 ~ 200,000cp
機設材質	標準材質為鑄鐵。可訂製304、316不鏽鋼
法蘭	標準為 JIS 10KFF，可訂製 ANSI 或 DIN 法蘭

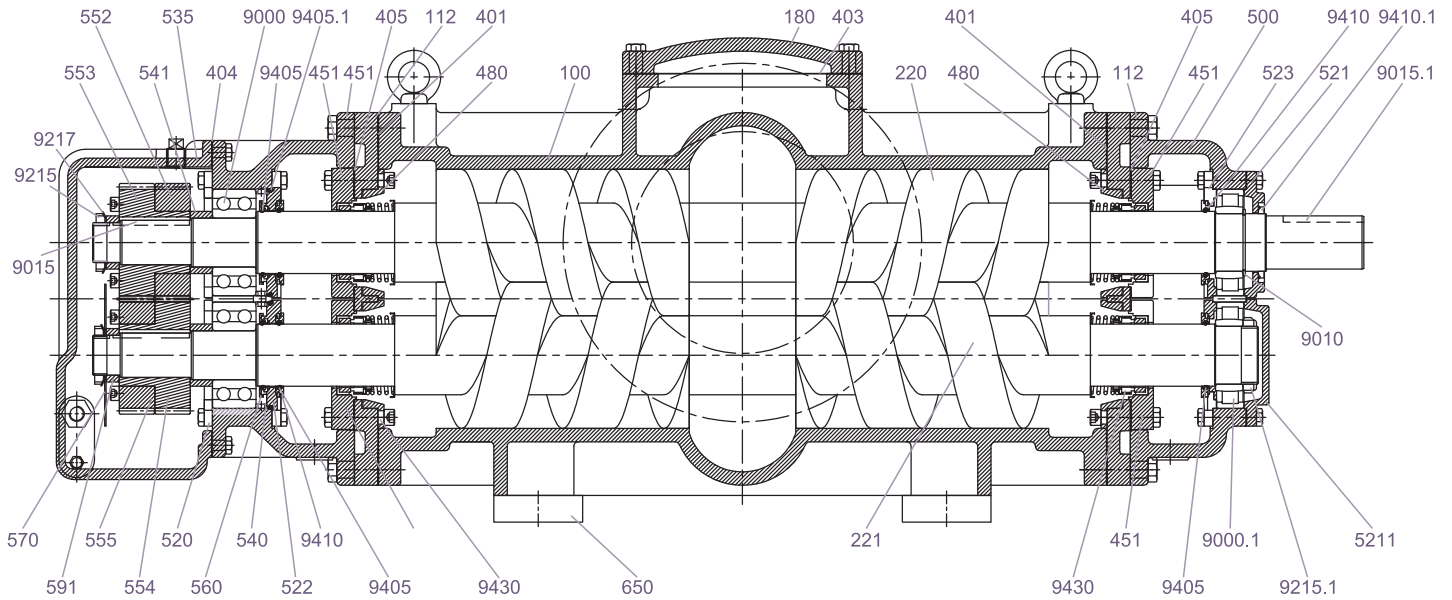
Capacity	0.2 ~ 15 m ³ /min (12 ~ 900 m ³ /hr)
Pressure	Standard type up to 12 kg/cm ² ; special design up to 50 kg/cm ²
HP	7.5 to 600 HP
Liquid temperature	0°C~150°C
Viscosity	0.5 cp ~ 200,000cp
Material	Cast iron for standard material. SUS304/ 316 stainless steels are available.
Flange	JIS 10KFF as standard Optional ANSI or DIN Flange

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內部結構

CONSTRUCTION



編號	零件名稱	PARTS NAME	編號	零件名稱	PARTS NAME
100	機殼	Casing	552	同步主動斜齒輪	Synchronized Helical Timing Gear, Driving
112	中間支座	Adaptor	553	同步主動斜齒輪	Synchronized Helical Timing Gear, Driving
180	機殼蓋	Top Cover	554	同步從動斜齒輪	Synchronized Helical Timing Gear, Driven
220	主動軸	Driving Screw	555	同步從動斜齒輪	Synchronized Helical Timing Gear, Driven
221	從動軸	Driven Screw	560	擋油環	Oil Seal
401	機殼墊片	Gasket, Casing	570	甩油片	Oil Slinger
403	機殼蓋墊片	Gasket, Top Cover	591	齒輪墊圈	Gear Washer
404	齒輪箱墊片	Gasket, Gear Box	650	本體腳座	Pump Foot
405	軸封蓋墊片	Gasket, Shaft Seal Cover	9000	軸承	Bearing
451	軸封蓋	Shaft Seal Cover	9000.1	軸承	Bearing
480	中座中心套環	Center Ring, Adaptor	9010	C扣環	Circlip
500	傳動側軸承座	Bearing Bracket, DR	9015	鍵(齒輪用)	Key, Gear
501	非傳動側軸承座	Bearing Bracket, NDR	9015.1	鍵(聯軸器用)	Key, Coupling
520	非傳動側軸承蓋	Bearing Cover, NDR	9215	軸承固定螺帽	Locknut, Bearing
521	傳動側軸承蓋	Bearing Cover, DR	9215.1	軸承固定螺帽	Locknut, Bearing
5211	傳動側軸承蓋	Bearing Cover, DR	9217	軸承固定墊圈	Lockwasher, Bearing
522	非傳動內側軸承蓋	Inboard Bearing Cover, NDR	9405	O型環	O-Ring
523	傳動內側軸承蓋	Inboard Bearing Cover, DR	9405.1	O型環	O-Ring
535	齒輪箱	Gear Box	9410	迷宮環	Labyrinth Seal
540	軸承背墊	Spacing Ring, Bearing	9410.1	擋水環	Seal Ring
541	軸承背墊	Spacing Ring, Bearing	9430	機械軸封	Mechanical Seal

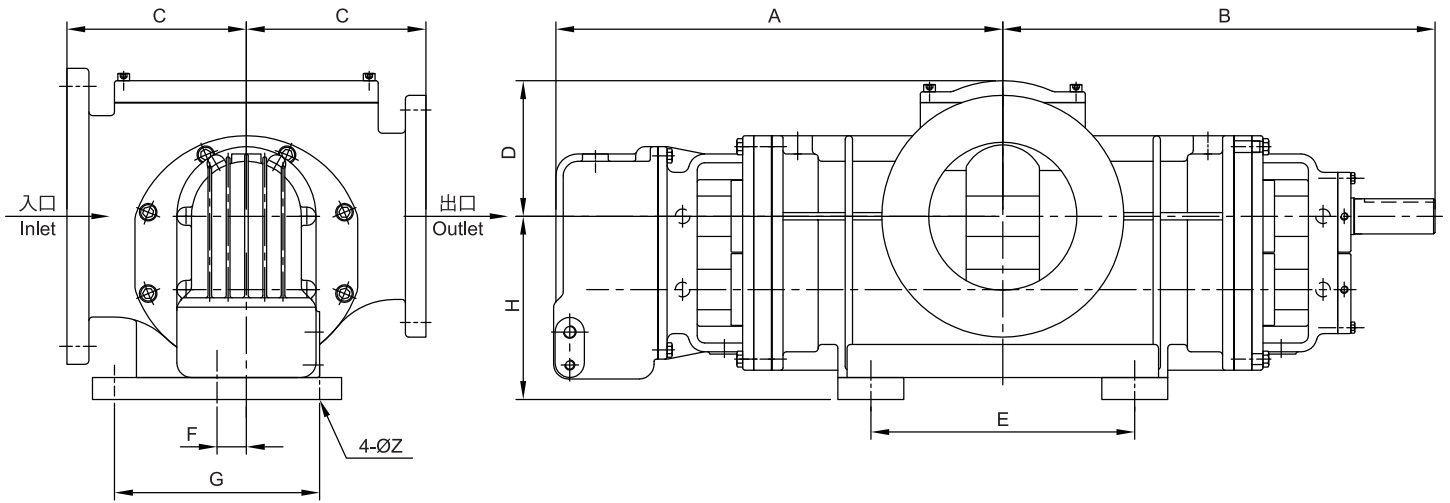
DR=Drive Side NDR=Non-drive Side

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外型尺寸圖

PUMP DIMENSIONS



Dimension in mm

TYPE	Inlet	Outlet	A	B	C	D	E	Frame	HP	F	G	H	Z
CT19	200	150	510	460	200	140	210	132S	7.5	35	210	225	19
								132M	10				
								160M	15				
								160L	20				
								180MC	25、30				
								180LC	40				
CT25	250	200	610	590	245	185	360	160M	15	40	280	250	23
								160L	20				
								180MC	25、30				
								180LC	40				
								200LC	50、60				
								225SC	75				
								250SC	100				
250MC	125												
CT33	300	250	750	700	280	225	460	180LC	40	40	330	315	23
								200LC	50、60				
								225SC	75				
								250SC	100				
								250MC	125				
								280S	150				
								280M	175				
								315S	200、215				
315M	250、270												
CT43	400	300	920	850	360	260	590	225SC	75	50	380	400	27
								250SC	100				
								250MC	125				
								280S	150				
								280M	175				
								315S	200、215				
								315M	250、270				



其他產品：



離心製程泵浦



真空系統



齒輪泵浦

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