EZ-CLAMP

Rotary Joints

高品質 高速旋轉接頭
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公司简介

EZ-CLAMP COMPANY LTD. 專業生產各類型旋轉接頭以符合工業界不同需求，秉持『誠信負責，品質至上，以客為尊，永續經營』的理念，以多角化經營，不斷開發一系列新型旋轉接頭及新市場，不斷創新研發深孔加工機種，使產品多元化，對顧客提升產能，降低生產成本，提高產品附加價值均具正面意義。

現代科技的日新月異及分秒必爭的社會趨勢下，"EZ-CLAMP"多年來不斷創新技術並積極研發、生產一系列旋轉接頭規格精確，超高品質，目前現有產品之性能，以及提供合理價位，合乎業者需求，減低生產業者之產品設備成本，並能提高工作效率。

展望未來，產業競爭激烈，技術革新月異，今後"EZ-CLAMP"努力的方向，將投注更大的人力物力在研究發展部門外，以期待開發更好性能的旋轉接頭和深孔加工機高科技之產品及設備，進而提升業者對"EZ-CLAMP"產品的信心，而最終的目的就是為了能滿足您在旋轉接頭及深孔機系統需求，也期望能在產業界的發展繼續略盡棉薄之力。

Brief introduction of the company

EZ-CLAMP COMOANY LTD. specializes in producing all kinds of rotary connectors to meet the different demands in the industry. Taking responsibility, quality, respect for the customers, and permanent management, the company continually develops a series of new rotary connectors and markets with multi-angle management and ceaselessly innovates and develops deep-hole processing machines, which makes the products multi-variation. And it is positive to promote the production capacity, to reduce the production cost and to increase the added value of the products.

With fast changing modern technology and under the trends that every second must account, the EZ-CLAMP has ceaselessly innovated the technology and actively developed and produced a series of rotary connectors with precise specification, first grade quality and the performance of the existing products and provides reasonable price which can meet the demand of the field, reduce the product equipment cost of the manufacturers and improve the work efficiency.

Looking forward to the future, the competition is fierce and the technology reform is changing with each passing day. The next target of the EZ-CLAMP is to plunge more manpower and material resource into the research and development department to develop rotary connectors with better performance and more products and equipment of deep-hole processing machine hi-tech and further heighten the clients’ confidence to the products and meet your demand for the rotary connectors and deep-hole machine system and we also look forward to making a humble contribution to the development of the field.
EZ-CLAMP

THE INDUSTRIAL USE

PAPER & PULP
Paper manufacturing, corrugated cardboard, long and circular net paper machines, super and machine calenders, hoop reels, digesters, corrugate machines, coaters.

FIBER & SPINNING
Vacuum driers, sizing machines, dying adjusters.

PRINTING, PAINT, OIL-INK
Offset rotary and photogravure presses, dry laminator blenders.

RUBBER & PLASTICS
Calender rolls, extruders, mixing rolls, rotary and laminating presses, injection molding machines, intensives and banbury mixers, foaming machines, film manufacturing machines.

CHEMICAL & MEDICINAL
Conical and double drum driers, test rolls, ball mills, laminators.

FOOD
Kneaders, blenders, grinding rolls, Rotary kilnes (oil refinery use)

AUTOMOBILE
Engine test devices.

MACHINERY
(Oil hydraulic pressure, air pressure, water hydraulic pressure, machining) screw (for cooling), press (for clutch), reducing gear, hose reel, turntable, Grinder, vacuum equipment.

MISCELLANEOUS
Applicable for rotating body for drying, Heating, cooling.

旋轉接頭用途略述

造紙、印刷工業
- 紙烘乾機、車光機捲輪、紙漿機

纖維、印染工業
- 滾輪式烘乾機、印花機

造漆、油墨、印刷工業
- 冷卻系統印刷機、管式磨粉機三式活輪

造膠、橡膠工業
- 車光機捲輪、攪拌機捲輪、壓出機 冷卻引取裝置

化學、藥品工業
- 粒狀磨粉機

食品工業
- 捏合機、混合機、研磨捲輪、迴轉爐

汽車工業
- 引擎試驗裝置

機械工業
- 油壓機、空壓機、液壓機轉盤、磨床 冷卻螺杆、印刷機、離合器、真空裝置 減速齒輪裝置、軟管卷筒裝置

其他企業
- 滾筒乾燥機及各式冷卻系統
<table>
<thead>
<tr>
<th>流体介质</th>
<th>最大压力 Pressure Max</th>
<th>最大温度 Temperatura Max</th>
<th>最大转速 RPM Max</th>
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<td>50 bar</td>
<td>100 °C</td>
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<tr>
<td>蒸汽 Steam</td>
<td>10</td>
<td>180 °C</td>
<td>1000(R038--R200)</td>
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<td>油 Oil</td>
<td>10</td>
<td>200 °C</td>
<td>3000(R038--R100)</td>
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<tr>
<td>空气 Air</td>
<td>10</td>
<td>100</td>
<td>1500(R038--R100)</td>
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</tbody>
</table>

旋转接头是将流体介质传输到旋转动态传输机构，经由精细密封面装置，来达到无泄漏且
的传输的功能和效力。旋转接头适用于那些需要耐高温、耐高压的特殊工作环境，新
品在不同行业及使用条件下让客户选择使用，满足客户加工设备上的工作条件，降低
业者之产品成本，来达到使用旋转接头产品实质上的效益。

流体介质包括水、蒸汽、油、空气等等。而旋转接头产品内的零件中，连接密封件装置是采用
特殊耐温、耐压、耐腐蚀材质，经过精密加工组装后达到品质好、寿命长且无泄漏的旋转接头，来
对不同行业及使用条件下让客户选择使用，满足客户加工设备上的工作条件，降低业者之产品成
本，来达到使用旋转接头产品实质上的效益。

如上图所图标（P3、P4），客户可依工作流体物质种类、压力、温度、转速、产品材质，连接
方式来选择订购。

The rotary joint used to delicer the fluid medium to the rotary dynamic transmission organ and
to pass through precision sealing equipment, which can achieve no-leak and perfect transmission
function and efficacy. The application of the rotary joints covers a wild area in the field, therefore,
the use scope of the products includes machine tool, textile, printing and
dyeing, printing, rubber, paper making, chemistry and food processing etc.

The fluid medium includes water, steam, oil and air etc. In the parts of the rotary connectors
products, it is employed special abrasion-resistant, heating-resistant and corrosion-resistant
material to connect the sealing equipment. After precision processing assembly, a high quality, long
life span and non-leakage rotary joints are produced. The customers in different fields and different
fields and different work conditions can make their own choice to the products to meet the demand
of work conditions of processing equipment. The joints can reduce the products cost of the clients
to achieve the actual efficiency by using the rotary joints.

If there are some problem in terms of technology, please consult with our company or our agents.

http://www.ez-clamp.com
<table>
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<th>specification/type</th>
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<tr>
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<td>R112</td>
<td>R200</td>
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</table>

### 密封面材質
#### the materials of sealing surface

| A. | 碳化矽对石墨碳精 | Silicon carbide and Graphite gas carbon |
| B. | 碳化矽对碳化矽 | Silicon carbide and Silicon carbide |
| C. | 碳化鈷對碳化鈷 | Tungsten carbide and Tungsted carbide |

### 密封圈材質
#### the materials of the sealing ring
1. NBR
2. SI
3. EPDM
4. VITON
5. TEFLON

### 迴路型式
#### passage

1. 單迴路   Single passage
2. 雙迴路   Double passage stable pattern
3. 雙迴路   Double passage rotary pattern

### 結構材質
#### The materials of configuration

1. 標準 (鋁合金對合金鋼)   Aluminum alloy and Steel alloy
2. 鋁合金對不銹鋼   Aluminum alloy and Stainless Steel SUS 304
3. 不銹鋼   Stainless Steel SUS 304

### 結構方式
#### Connection methods

| R. | G (ISO 228)   RH   |
| L. | RC (ISO 7)    RH   |
| N. | NPT          RH   |
| Q. | K型法蘭       |
| S. | F型法蘭       |

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Single passage rotary joint can choose the connection method according to the work condition.

The entrance of the transmission medium can freely enter form the sode or the back according to the work conditions.

Sealing surface and sealing ring are made of special materisls with abrasion resistang,long life span,corrosion resistant and non-leakage.

There are two precise bearing inside the rotory joint.It can run stably and permanently and is very hard and flexible.

The coefficient of the abrasiveness is very samll, so it can run at a high speed.

The abrasive condition of inner sealing parts can be known by the visual observation of the product appearance, which can avoid stopping the machine or impairing the machine to achieve the prevention effect and to reduce the loss.

It is easy to repace and maintain the worn sealing parts. It isunnecessary to purchase the new ones, so it can save the cost.
Single passage rotary joint can choose the connection method according to the work condition.

The entrance of the transmission medium can freely enter from the side or the back according to the work conditions.

Sealing surface and sealing ring are made of special materials with abrasion resistance, long life span, corrosion resistant and non-leakage.

There are two precise bearings inside the rotary joint. It can run stably and permanently and is very hard and flexible.

The coefficient of the abrasiveness is very small, so it can run at a high speed.

The abrasive condition of inner sealing parts can be known by the visual observation of the product appearance, which can avoid stopping the machine or impairing the machine to achieve the prevention effect and to reduce the loss.

It is easy to replace and maintain the worn sealing parts. It is unnecessary to purchase the new ones, so it can save the cost.

http://www.ez-clamp.com
This kind of rotary joint can be divided into parts: double passage stable specification and double passage rotary specification.

Sealing surface and sealing ring are made of special materials with abrasion resistant, long life span, corrosion resistant and non-leakage.

The abrasive condition of inner sealing parts can be known by the visual observation of the product appearance, which can avoid stopping the machine or impairing the machine to achieve the prevention effect and to reduce the loss.

There is separate circuit inside the connector. One can make choice according to different work requirements to exert the benefit to the utmost.

The shell and bearing are supported by the precision bearing, which can facilitate the rotation and reduce the friction force. The fluid mediums include water, oil and air etc and are used wildly.

It is easy to replace and maintain the worn sealing parts. It is unnecessary to purchase the new ones, so it can save the cost.
FOR STATIONARY SYPHON PIPE

THE RPTARY PARTS (SUCH AS PROLLER, DRUM, CYPLINDER... ETC) PROVIDE STEAM, WATER, OIL LIQUID; AND THESE (STEAM, WATER, OIL LIQUID) AIR BEING DRAINED OUT AT THE SAME SIDE.

EXAMPLE 1: STEAM AIR BEING SENT INTO THE ROTARY JOINT, PASSING THROUGH INTERNAL PIPE, THEM LIQUID IS BEING DRAINED OUT.
EXAMPLE: PAPER MAKING DRYER, PLASTIC MAKING CALENDER, DYING MACHINE DRYER

EXAMPLE 2: THERMALOILY MEDIA BEING SENT INTO THE INTERNAL PIPE AND LIQUID BEING DRAINED OUT THROUGH THE MAIN SHAFT OF THE JOINT.
EXAMPLE: PLASTIC MAKING EXTRUDER, PLASTIC COOLING ROLLER, RUBBER MACHINE

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http://www.ez-clamp.com
COOLING-WATER, OIL OR SATURATED VAPOUR PASSES THROUGH THE ROTARY PARTS (SUCH AS ROLLER, DRUM, CYLINDER...ETC) THEN LIQUID IS DRAINED OUT THROUGH THE OTHER SIDE.

EXAMPLE:
- STEEL-MAKING ROLLER
- PLASTIC COOLING SYSTEM ROLLER
- PAPER CALENDER ROLLER

### SINGLE PASSAGE

**主要使用範圍**: 鐵質機械滾輪
制紙用單光機滚輪
塑膠機械冷却引取滾輪

### DOUBLE PASSAGE

**主要使用範圍**: 造紙烘乾機
遙轉式烘乾機
袖珍型烘乾機

*STEAM, WATER VAPOUR, OR THERMAL OIL MEDIUM PASSES INTO THE ROLLER, DRUM, CYLINDER THROUGH THE INTERNAL PIPE. THEN LIQUID IS BEING DRAINED OUT THROUGH THE SYPHON.*

**EXAMPLE:**
- PAPER-MAKING DRYER
- ROTATING DRYER
- DRYER IN MAINI SIZE

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When ordering the rotary joints, please mark the different conditions distinctly:

A. Fluid medium, highest pressure, highest temperature, rotary speed per second
B. The specification and size of the rotary joints.
C. Connection type (flange or solenoglyphic tooth)
D. The direction the rotation (light helicoids or left helicoids)
E. Passage pattern (single passage or double passage)
F. The machine type and other listed conditions.

The correct installation method of rotary joints needs much adaptation and chooses rotary joints with the suitable work conditions, which not only can make the performance of the rotary joints exert the efficiency to the utmost. What's more the life-span will last and it is helpful to improve the work efficiency. If installed wrongly, it will make the rotary joints not achieve the sealing efficacy and make the inner parts worn and useless. So the users must master the correct installation method.

1. The first target is to choose the rotary joint specification and type under the suitable work condition.
2. Adjust the rotary joint and stand in a line with the rotary center of the equipment rotary installation.
3. When the equipment installation runs, the shell of the normal connectors must stop running. It should restrict its running in a gentle way not in a rigid way and direction of degree of freedom requires adequate conditions.
4. It is always the metal hose that is used to connect the rotary joint. When choosing the length of the metal hose, you must take the installation of degree of freedom into account. The metal hose must not be over strained and over bent to stop the running.
5. When installing, one should avoid hitting and exerting strong outside force to the joint, which will damage the joint and inner sealing parts.

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## 單位換算表

### 體積 (L³)

<table>
<thead>
<tr>
<th>立方公分 (cm³)</th>
<th>立方寸 (in³)</th>
<th>公升 (1)</th>
<th>美制加侖 (gal)</th>
<th>立方尺 (ft³)</th>
<th>立方公尺 (m³(s))</th>
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### 壓力 (ML⁻¹ T⁻²) (FL⁻²)

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<th>(bar)</th>
<th>公斤重/平方公分 (Kgf/cm²)</th>
<th>磅重/平方寸 (1bf/in²)</th>
<th>(Hg)(0°C)</th>
<th>水柱(H₂O)(15°C)</th>
<th>巴斯卡 (Pa(SI))</th>
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<td></td>
<td></td>
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<td>mm</td>
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1 bar = 10⁵ dyn/cm² = 10⁴ pa, 1 bf/in² = 1 psia(1bf/in²)
1 kgf/cm² = 1 atm, 1 pa(SI) = 1 N/m², 1 mmHg = 1 Torr(托)
### K TYPE FLANGE

<table>
<thead>
<tr>
<th>TYPE</th>
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<th>K</th>
<th>M</th>
<th>N</th>
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