Operation Control Panel

Model YP

Die Change Operation Panel with User-Friendly Controls Prevents misoperation with the interlock function.

Ensures safety with various interlock functions with press machine.

Operating Condition of Press Machine

- **Die Change Key Switch**: “OFF” (Signal of Pressure Switch)
- **Upper Clamp**: Lock (Signal of Pressure Switch)
- **Lower Clamp**: Lock (Signal of Pressure Switch)
- **Air Cylinder for Clamp Automatic Slide**: Forward Limit (Signal of Proximity Switch for Die Detection)
- **RA Die Lifter**: Down (Signal of Pressure Switch)

Ready to Operate Press Machine

Operating Condition of Upper Clamp

- **Die Change Key Switch**: “ON” (Signal of Rotary Cam Switch)
- **Press Slide**: Bottom Dead Center
- **RA Die Lifter**: Down (Signal of Pressure Switch)

Ready to Operate Upper Clamp

Operating Condition of Lower Clamp

- **Die Change Key Switch**: “ON” (Signal of Rotary Cam Switch)
- **RA Die Lifter**: Down (Signal of Pressure Switch)

Ready to Operate Lower Clamp

Operating Condition of RA Die Lifter

- **Die Change Key Switch**: “ON” (Signal of Rotary Cam Switch)
- **Press Slide**: Upper Dead Center (Signal of Pressure Switch)
- **Lower Clamp**: Release (Signal of Pressure Switch)

Ready to Operate RA Die Lifter

Model No. Indication

YP 105 0 -

1 Circuit Construction

Please refer to the circuit construction list.

2 Design No.

0 : Revision Number

3 Special Symbol

Please contact us.

Possible to provide the name plate of operation button with another language and others.
Specifications

Model No. | YP
---|---
Type | Operation and Control Panel Separated Type
Power Supply Voltage | AC 100 V・50 / 60 Hz
Power Supply Capacity | 5 A
Operation Switch・Power Supply | Circuit Protector (Inside Control Panel)
Die Change Selector Switch | Key Switch
Each Operation Switch | Lighted Type Push Button Switch
Standard Paint Color (Operation Panel・Control Panel) | Munsell Number : SYB 4/0.5

Notes:
1. When specifying paint color, please indicate by Munsell number or sample color. Special costs involved with non-standard color.
2. When using YP operation panel / control unit, electric remodeling on press side should be conducted by customer.
3. We provide name plate with other languages such as English. Please contact us for more information.

Circuit Construction List

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Upper Clamp</th>
<th>Lower Clamp</th>
<th>Die Lifter</th>
<th>Hydraulic Unit Circuit Symbol</th>
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<tbody>
<tr>
<td>YP1000</td>
<td>Clamp</td>
<td>Clamp</td>
<td>-</td>
<td>CP/CR</td>
</tr>
<tr>
<td>YP1010</td>
<td>Clamp</td>
<td>Clamp</td>
<td>Die Lifter</td>
<td>CP/CQ</td>
</tr>
<tr>
<td>YP1020</td>
<td>Clamp</td>
<td>Clamp + Slider</td>
<td>Clamp</td>
<td>C</td>
</tr>
<tr>
<td>YP1030</td>
<td>Clamp</td>
<td>Clamp + Slider</td>
<td>Clamp</td>
<td>C</td>
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<tr>
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<td>Clamp</td>
<td>-</td>
<td>C</td>
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<tr>
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<td>-</td>
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<tr>
<td>YP1090</td>
<td>Clamp + Slider</td>
<td>Clamp + Slider</td>
<td>Clamp + Slider</td>
<td>-</td>
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<tr>
<td>YP1100</td>
<td>Clamp + Slider</td>
<td>Clamp + Slider</td>
<td>Die Lifter</td>
<td>C</td>
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<tr>
<td>YP1110</td>
<td>Clamp + Slider</td>
<td>Clamp + Slider</td>
<td>Die Lifter</td>
<td>C</td>
</tr>
</tbody>
</table>

Notes:
2. "Slider" indicates the air cylinder used for GD/GBE/GBF automatic slide clamp. The number of sliders that standard operation panel / control unit can control is less than four for each upper and lower clamp. Please contact us for controlling more than four sliders.

External Dimensions

![Operation Panel](image1)

![Control Panel](image2)

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Operation Panel</th>
<th>Control Panel</th>
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<tr>
<td>YP1000</td>
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<td>YP1010</td>
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<tr>
<td>YP1110</td>
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</table>
Cautions

Installation Notes (Cautions for Hydraulic Series)

1) Check the fluid to use
   - Please use the appropriate fluid by referring to the Hydraulic Fluid List.
   - If hydraulic oil with viscosity grade higher than ISO-VG-32 is used, action time would be longer.
   - If using it at low temperature, action time will be longer because the viscosity of hydraulic oil becomes higher.

2) Procedure before Piping
   - The pipeline, piping connector and fixture circuits should be cleaned by thorough flushing.
   - The dust and cutting chips in the circuit may lead to fluid leakage and malfunction.
   - Our products except some valves are not equipped with protective function to prevent dust and cutting chips going into the hydraulic system and pipeline.

3) Applying Sealing Tape
   - Wrap with tape 1 to 2 times following the screwing direction.
   - Pieces of the sealing tape can lead to air leaks and malfunction.
   - In order to prevent a foreign substance from going into the product during piping, it should be carefully cleaned.

4) Air Bleeding in the Hydraulic Circuit
   - If the hydraulic circuit has excessive air, the action time may become very long.
     After installing the hydraulic circuit, or if the pump run out of oil, be sure to bleed air by the following step.
     ① Reduce hydraulic supply pressure to less than 2MPa.
     ② Please loosen the cap nut of pipe fitting that is closest to clamps • RA die lifters by one full turn.
     ③ Wiggle the pipeline to loosen the outlet of pipeline fitting.
     The hydraulic fluid mixed with air comes out.

![GA Clamp Diagram]

② Tighten the cap nut after bleeding.
⑤ It is more effective to bleed air at the highest point inside the circuit or at the end of the circuit.

5) Checking Looseness and Retightening
   - At the beginning of the machine installation, the bolt/nut may be tightened lightly.
     Check torque and re-tighten as required.

Hydraulic Fluid List

<table>
<thead>
<tr>
<th>ISO Viscosity Grade ISO-VG-32</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maker</td>
</tr>
<tr>
<td>Showa Shell Sekiyu</td>
</tr>
<tr>
<td>Idemitsu Kosan</td>
</tr>
<tr>
<td>JK Nippon Oil &amp; Energy</td>
</tr>
<tr>
<td>Cosmo Oil</td>
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<tr>
<td>ExxonMobil</td>
</tr>
<tr>
<td>Matsumura Oil</td>
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<tr>
<td>Castrol</td>
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</tbody>
</table>

Note: As it may be difficult to purchase the products as shown in the table from overseas, please contact the respective manufacturer.
Notes on Hydraulic Cylinder Speed Control Unit

Please pay attention to the cautions below. Design the hydraulic circuit for controlling the action speed of hydraulic cylinder. Improper circuit design may lead to malfunctions and damages. Please review the circuit design in advance.

Flow Control Circuit for Single Acting Cylinder
For spring return single acting cylinders, restricting flow during release can extremely slow down or disrupt release action. The preferred method is to control the flow during the lock action using a valve that has free-flow in the release direction. It is also preferred to provide a flow control valve at each actuator.

Accelerated clamping speed by excessive hydraulic flow to the cylinder may sustain damage. In this case add flow control to regulate flow.

Flow Control Circuit for Double Acting Cylinder
Flow control circuit for double acting cylinder should have meter-out circuits for both the lock and release sides. Meter-in control can have adverse effect by presence of air in the system.

In the case of meter-out circuit, the hydraulic circuit should be designed with the following points.

1. Single acting components should not be used in the same flow control circuit as the double acting components. The release action of the single acting cylinders may become erratic or very slow.

Refer to the following circuit when both the single acting cylinder and double acting cylinder are used together.

- Separate the control circuit.

- Reduce the influence of double acting cylinder control unit. However, due to the back pressure in tank line, single action cylinder is activated after double action cylinder works.

In the case of meter-out circuit, the inner circuit pressure may increase during the cylinder action because of the fluid supply. The increase of the inner circuit pressure can be prevented by reducing the supplied fluid beforehand via the flow control valve. Especially when using sequence valve or pressure switches for clamping detection. If the back pressure is more than the set pressure then the system will not work as it is designed to.
**Cautions**

**Notes on Handling**

1) It should be handled by qualified personnel.
2) Do not handle or remove the machine unless the safety protocols are ensured.
3) Do not touch clamps (cylinders) while they are working. Otherwise, your hands may be injured.
4) Do not disassemble or modify.

**Maintenance • Inspection**

1) Removal of the Machine and Shut-off of Pressure Source
2) Regularly clean the area around the equipment.
3) If disconnecting by couplers on a regular basis, air bleeding should be carried out daily to avoid air mixed in the circuit.
4) Regularly tighten bolts and pipe line, mounting bolts, nuts, circlips and cylinders to ensure proper use.
5) Make sure the hydraulic fluid has not deteriorated.
6) Make sure there is smooth action and no abnormal noise.
7) The products should be stored in the cool and dark place without direct sunshine or moisture.
8) Please contact us for overhaul and repair.
Warranty

1) Warranty Period

- The product warranty period is 18 months from shipment from our factory or 12 months from initial use, whichever is earlier.

2) Warranty Scope

- If the product is damaged or malfunctions during the warranty period due to faulty design, materials or workmanship, we will replace or repair the defective part at our expense.
- Defects or failures caused by the following are not covered.

   ① If the stipulated maintenance and inspection are not carried out.
   ② If the product is used while it is not suitable for use based on the operator’s judgment, resulting in defect.
   ③ If it is used or handled in inappropriate way by the operator.
      (Including damage caused by the misconduct of the third party.)
   ④ If the defect is caused by reasons other than our responsibility.
   ⑤ If repair or modifications are carried out by anyone other than Kosmek, without our approval and confirmation, it will void warranty.
   ⑥ Other caused by natural disasters or calamities not attributable to our company.
   ⑦ Parts or replacement expenses due to parts consumption and deterioration.
      (Such as rubber, plastic, seal material and some electric components.)

- Damages excluding from direct result of a product defect shall be excluded from the warranty.
Sales Offices

Sales Offices across the World

<table>
<thead>
<tr>
<th>Country</th>
<th>Office Name</th>
<th>Contact Information</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan</td>
<td>KOSMEK LTD</td>
<td><strong>TEL. +81-78-991-5162</strong> FAX. +81-78-991-8787</td>
<td>1-5, 2-chome, Murotani, Nishi-ku, Kobe-city, Hyogo, Japan 651-2241</td>
</tr>
<tr>
<td>USA</td>
<td>KOSMEK (USA) LTD.</td>
<td><strong>TEL. +1-630-620-7650</strong> FAX. +1-630-620-9015</td>
<td>650 Springer Drive, Lombard, IL 60148 USA</td>
</tr>
<tr>
<td>Mexico</td>
<td>KOSMEK USA Mexico Office</td>
<td><strong>TEL. +52-442-161-2347</strong></td>
<td>Blvd Jurica la Campana 1040, B Colonia Punta Juriquilla Queretaro, QRO 76230 Mexico</td>
</tr>
<tr>
<td>Europe</td>
<td>KOSMEK EUROPE GmbH</td>
<td><strong>TEL. +43-463-287587</strong> FAX. +43-463-287587-20</td>
<td>Schleppeplatz 2 9020 Klagenfurt am Wörthersee Austria</td>
</tr>
<tr>
<td>China</td>
<td>KOSMEK (CHINA) LTD.</td>
<td><strong>TEL. +86-21-54253000</strong> FAX. +86-21-54253709</td>
<td>Room601, RIVERSIDE PYRAMID No.55, Lane21, Pusan Rd, Pudong Shanghai 200125, China</td>
</tr>
<tr>
<td>India</td>
<td>KOSMEK LTD - INDIA</td>
<td><strong>TEL. +91-9880561695</strong></td>
<td>F 203, Level-2, First Floor, Prestige Center Point, Cunningham Road, Bangalore -560052 India</td>
</tr>
<tr>
<td>Thailand</td>
<td>Thailand Representative Office</td>
<td><strong>TEL. +66-2-300-5132</strong> FAX. +66-2-300-5133</td>
<td>67 Soi 58, RAMA 9 Rd., Suanluang, Suanluang, Bangkok 10250, Thailand</td>
</tr>
<tr>
<td>Taiwan</td>
<td>Full Life Trading Co., Ltd.</td>
<td><strong>TEL. +886-2-82261860</strong> FAX. +886-2-82261890</td>
<td>16F-4, No.2, Jian Ba Rd, Zhonghe District, New Taipei City Taiwan 23511</td>
</tr>
<tr>
<td>Philippines</td>
<td>G.E.T. Inc., Phil.</td>
<td><strong>TEL. +63-2-310-7286</strong> FAX. +63-2-310-7286</td>
<td>Victoria Wave Special Economic Zone Mt, Apo Building, Brgy, 186, North Caloocan City, Metro Manila, Philippines 1427</td>
</tr>
</tbody>
</table>

Sales Offices in Japan

<table>
<thead>
<tr>
<th>Office Name</th>
<th>Contact Information</th>
<th>Address</th>
</tr>
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<tbody>
<tr>
<td>Head Office</td>
<td><strong>TEL. 078-991-5162</strong> FAX. 078-991-8787</td>
<td>〒651-2241 兵庫県神戸市西区堂谷2丁目1番5号</td>
</tr>
<tr>
<td>Osaka Sales Office</td>
<td></td>
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</tr>
<tr>
<td>Overseas Sales</td>
<td></td>
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<tr>
<td>Tokyo Sales Office</td>
<td><strong>TEL. 048-652-8839</strong> FAX. 048-652-8828</td>
<td>〒331-0815 埼玉県さいたま市北区大成町4丁目81番地</td>
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<tr>
<td>Nagoya Sales Office</td>
<td><strong>TEL. 0566-74-8778</strong> FAX. 0566-74-8808</td>
<td>〒446-0076 愛知県安城市美園町2丁目10番地1</td>
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<tr>
<td>Fukuoka Sales Office</td>
<td><strong>TEL. 092-433-0424</strong> FAX. 092-433-0426</td>
<td>〒812-0006 福岡県福岡市博多区上牟田1丁目8-10-101</td>
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Global Network

Asia Detailed Map

Overseas Affiliates and Sales Offices
Distributors

- Overseas Affiliates and Sales Offices
- Distributors

FOR FURTHER INFORMATION ON UNLISTED SPECIFICATIONS AND SIZES, PLEASE CALL US.

SPECIFICATIONS IN THIS CATALOG ARE SUBJECT TO CHANGE WITHOUT NOTICE.