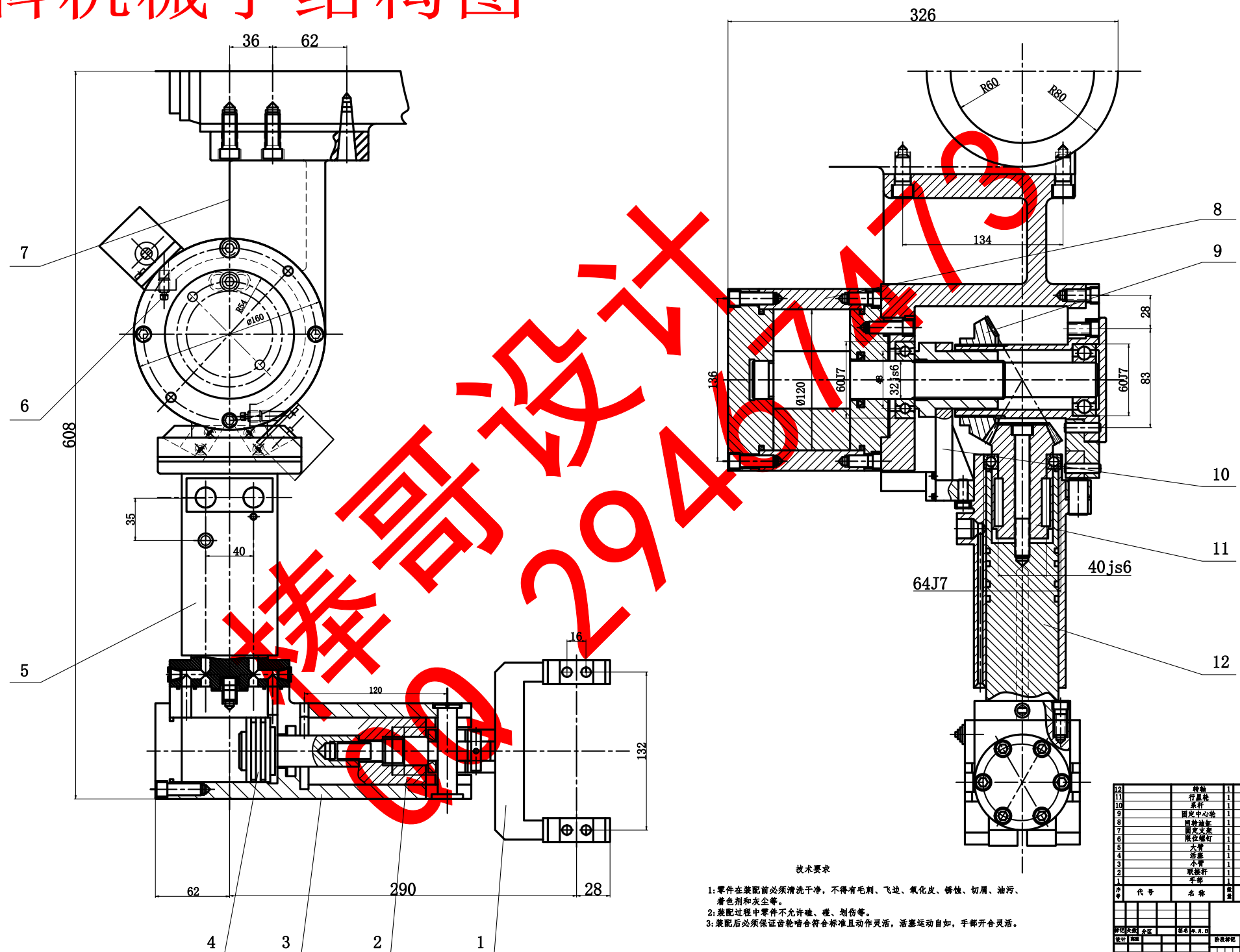


# 上料机械手结构图



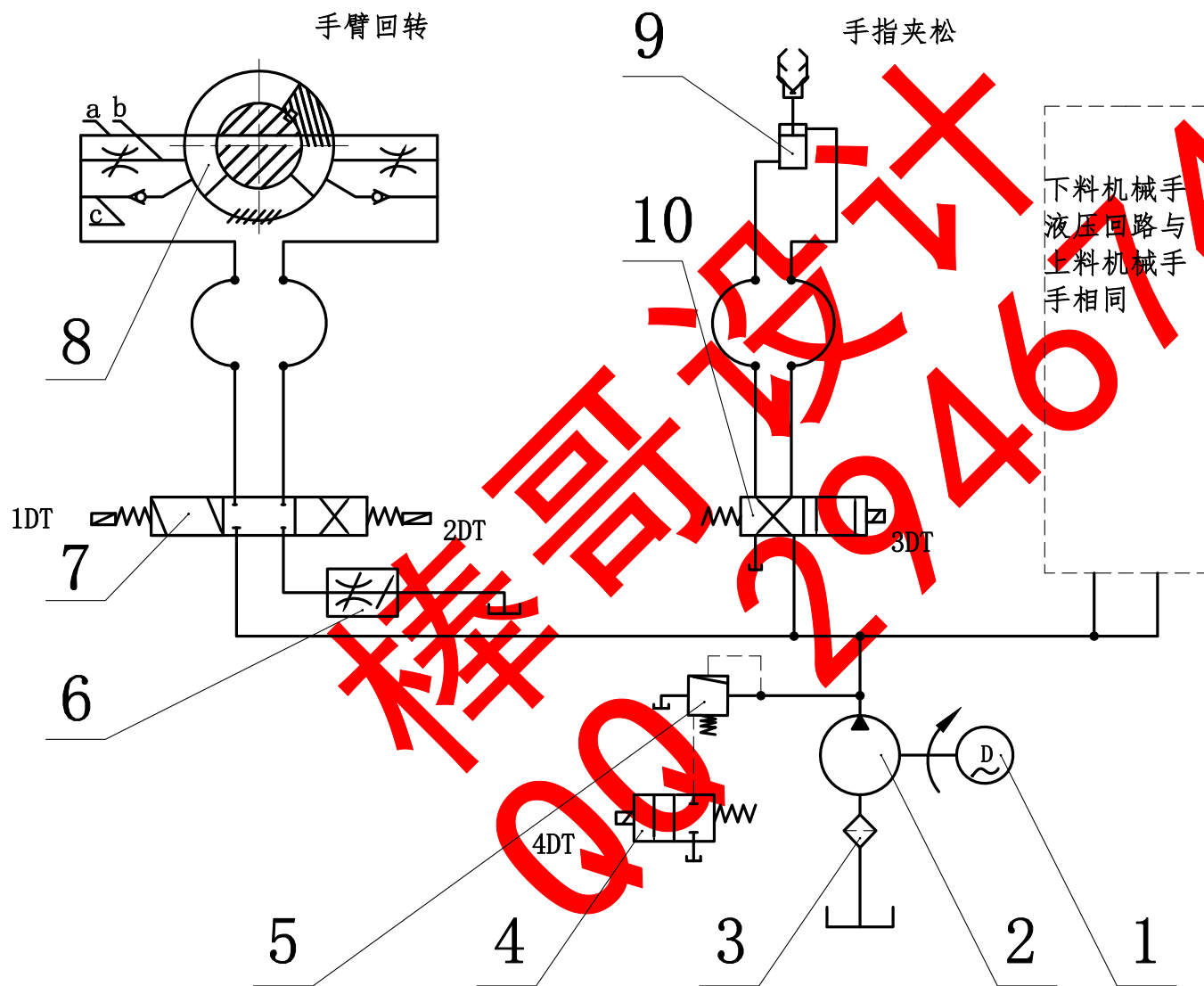
## 技术要求

- 1: 零件在装配前必须清洗干净, 不得有毛刺、飞边、氧化皮、锈蚀、切屑、油污、着色剂和灰尘等。
- 2: 装配过程中零件不允许碰、碰、划伤等。
- 3: 装配后必须保证齿轮啮合符合标准且动作灵活, 活塞运动自如, 手部开合灵活。

| 代号 | 名称    | 数量 | 材料 | 备注 |
|----|-------|----|----|----|
| 12 | 轴     | 1  |    |    |
| 11 | 行星轮   | 1  |    |    |
| 10 | 行星架   | 1  |    |    |
| 9  | 固定中心轮 | 1  |    |    |
| 8  | 行星轴套  | 1  |    |    |
| 7  | 固定支架  | 1  |    |    |
| 6  | 固定螺钉  | 1  |    |    |
| 5  | 大带    | 1  |    |    |
| 4  | 活塞    | 1  |    |    |
| 3  | 小带    | 1  |    |    |
| 2  | 联接杆   | 1  |    |    |
| 1  | 手部    | 1  |    |    |
| 12 | 轴     | 1  |    |    |
| 11 | 行星轮   | 1  |    |    |
| 10 | 行星架   | 1  |    |    |
| 9  | 固定中心轮 | 1  |    |    |
| 8  | 行星轴套  | 1  |    |    |
| 7  | 固定支架  | 1  |    |    |
| 6  | 固定螺钉  | 1  |    |    |
| 5  | 大带    | 1  |    |    |
| 4  | 活塞    | 1  |    |    |
| 3  | 小带    | 1  |    |    |
| 2  | 联接杆   | 1  |    |    |
| 1  | 手部    | 1  |    |    |
| 12 | 轴     | 1  |    |    |
| 11 | 行星轮   | 1  |    |    |
| 10 | 行星架   | 1  |    |    |
| 9  | 固定中心轮 | 1  |    |    |
| 8  | 行星轴套  | 1  |    |    |
| 7  | 固定支架  | 1  |    |    |
| 6  | 固定螺钉  | 1  |    |    |
| 5  | 大带    | 1  |    |    |
| 4  | 活塞    | 1  |    |    |
| 3  | 小带    | 1  |    |    |
| 2  | 联接杆   | 1  |    |    |
| 1  | 手部    | 1  |    |    |

设计: 机械手结构图  
审核: 机械手结构图  
共 1 页 第 1 页

# 液压系统图



动作顺序表

| 动作名称       | 1DT | 2DT | 3DT | 4DT |
|------------|-----|-----|-----|-----|
| 1. 手臂逆时针旋转 | +   | -   | -   | -   |
| 2. 手臂顺时针旋转 | -   | +   | -   | -   |
| 3. 手指夹紧    | -   | -   | +   | -   |
| 4. 手指松开    | -   | -   | -   | -   |
| 5. 卸 荷     | -   | -   | -   | +   |

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|----|-------------|---------|-----|-----|-----|-----|--|------|-----|
| 10 | 24E-25B     | 二位四通电磁阀 | 1   | 45# |     |     |  |      |     |
| 9  |             | 换向缸     | 1   |     |     |     |  |      |     |
| 8  |             | 换向缸     | 1   |     |     |     |  |      |     |
| 7  | 34E-25B     | 三位四通电磁阀 | 1   | 45# |     |     |  |      |     |
| 6  | Q-10B       | 调速阀     | 1   | 45# |     |     |  |      |     |
| 5  | Y-25B       | 溢流阀     | 1   | 45# |     |     |  |      |     |
| 4  | 22E-10B     | 二位二通电磁阀 | 1   | 45# |     |     |  |      |     |
| 3  | XU-100X100J | 过滤器     | 1   |     |     |     |  |      |     |
| 2  | YB-25       | 叶片泵     | 1   |     |     |     |  |      |     |
| 1  | Y2-90S-4    | 电机      | 1   |     |     |     |  |      |     |
| 序号 | 代 号         |         | 名 称 |     | 数 量 | 材 料 |  | 单件重量 | 备 注 |
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Technical drawing of a mechanical device, showing two views: a side elevation (top) and a top plan view (bottom).

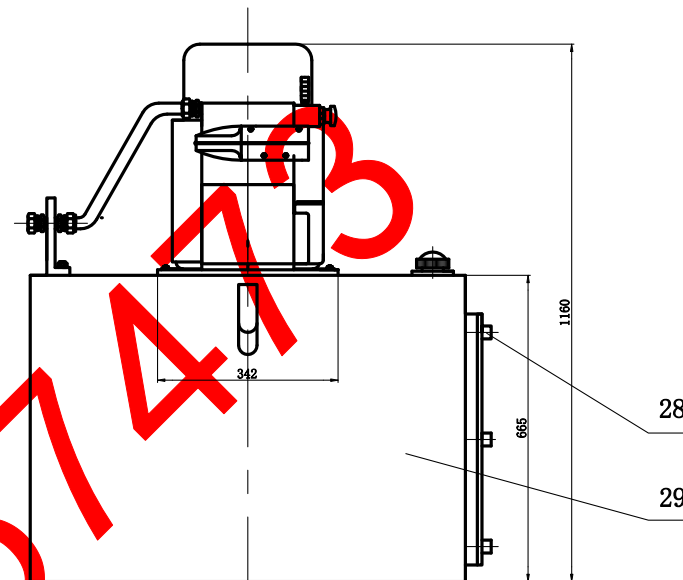
**Side Elevation View (Top):**

- Dimensions: 520 (height), 1374 (width), 1614 (total width), 70 (small width).
- Components labeled: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27.
- Specific features: A vertical assembly on the right side with a cylindrical component labeled 19, and a horizontal assembly on the left side with a cylindrical component labeled 10.

**Top Plan View (Bottom):**

- Dimensions: 945 (height), 1614 (width).
- Components labeled: 1, 2, 3, 4.
- Specific features: A central vertical assembly and a circular component on the right side.

A large red watermark "Q 29" is overlaid on the drawing.

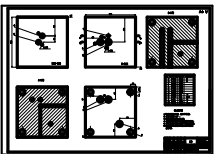


1. 总装前所有液压元件和辅助件必须进行清洗，并通过试验来检验其性能；系统中所有测量仪表、电气元件需要检验校对，保证准确性和可靠性。
2. 安装油泵时，不要过大敲击泵轴，以免引起泵内零件损坏。
3. 安装集成块时，各元件上的油口与集成块上的油口要对应准确。
4. 保证各连接处紧密可靠，不得渗油和漏油。

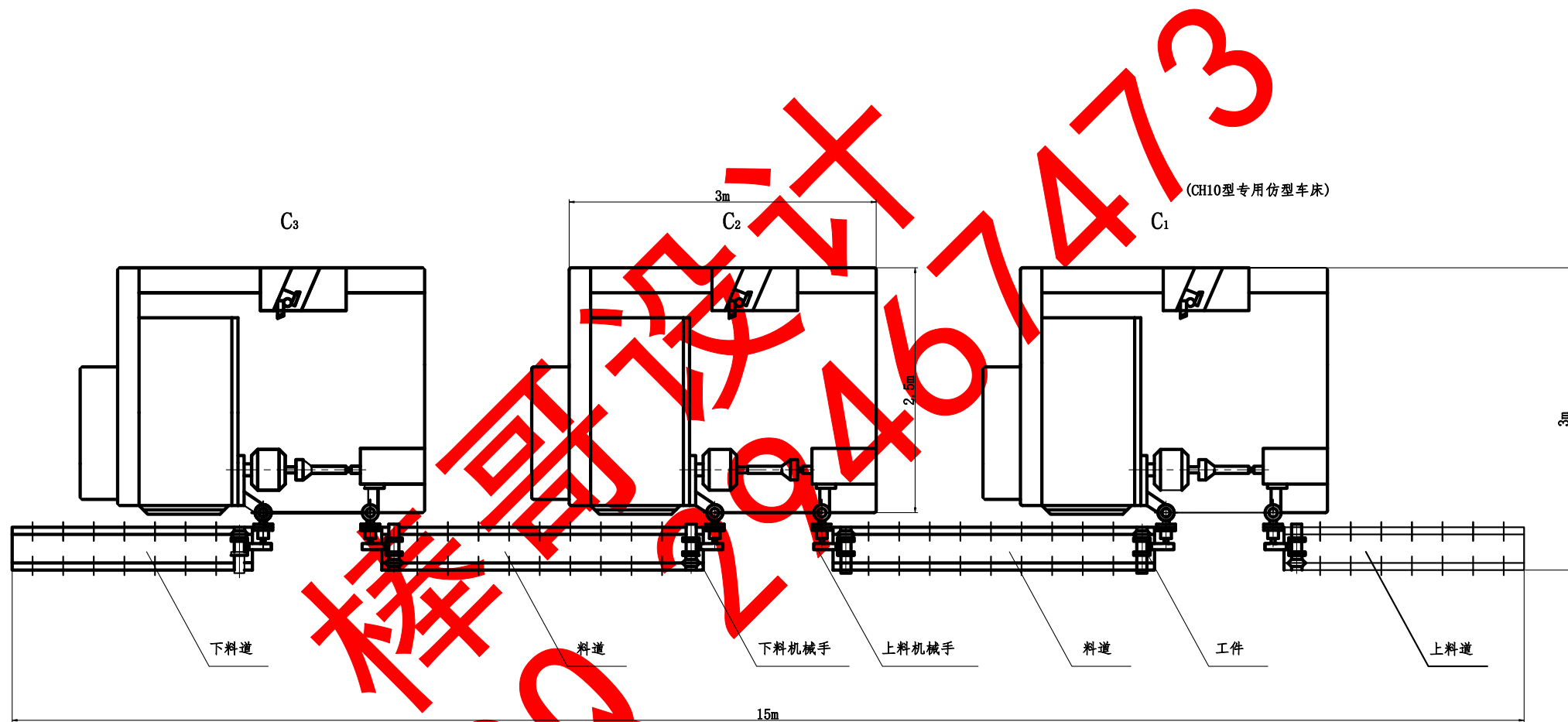
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| 25 | 161A-14     | 垫圈       | 1 | 458 |  |  |  |  |  |
| 27 | 216         | 伞齿式密封头   | 1 |     |  |  |  |  |  |
| 28 | 232         | 伞齿式直连密封头 | 1 |     |  |  |  |  |  |
| 29 | 232         | 伞齿式直连密封头 | 1 |     |  |  |  |  |  |
| 30 | 233         | 伞齿式直连密封头 | 1 |     |  |  |  |  |  |
| 31 | 4           | 螺母       | 6 | 458 |  |  |  |  |  |
| 32 | 18          | 螺母       | 6 | 458 |  |  |  |  |  |
| 33 | 3131A-27    | 碳袖       | 6 |     |  |  |  |  |  |
| 34 | 20 TL07     | 碳袖       | 1 |     |  |  |  |  |  |
| 35 | 11108-4     | 碳袖       | 1 |     |  |  |  |  |  |
| 36 | 17-058      | 碳袖       | 1 |     |  |  |  |  |  |
| 37 | 248-083     | 二齿直连密封头  | 1 |     |  |  |  |  |  |
| 38 | 14          | 压力开关     | 1 |     |  |  |  |  |  |
| 39 | 12-100T     | 压力表      | 1 |     |  |  |  |  |  |
| 40 | 14          | 碳袖       | 1 |     |  |  |  |  |  |
| 41 | 1348-265    | 三齿直连密封头  | 1 |     |  |  |  |  |  |
| 42 | 3-1038      | 碳袖       | 1 |     |  |  |  |  |  |
| 43 | 17-1008     | 碳袖       | 1 |     |  |  |  |  |  |
| 44 | 10          | 碳袖       | 1 |     |  |  |  |  |  |
| 45 | 9           | 碳袖       | 1 |     |  |  |  |  |  |
| 46 | TR031-64    | 螺母       | 1 | 158 |  |  |  |  |  |
| 47 | TR031-64    | 螺母       | 1 | 158 |  |  |  |  |  |
| 48 | 3P-100T1003 | 碳袖       | 1 | 158 |  |  |  |  |  |
| 49 | TR031-64    | 螺母       | 1 | 158 |  |  |  |  |  |
| 50 | 4           | 伞齿式直连密封头 | 1 |     |  |  |  |  |  |
| 51 | 234         | 伞齿式直连密封头 | 1 | 458 |  |  |  |  |  |
| 52 | 234         | 伞齿式直连密封头 | 1 |     |  |  |  |  |  |
| 53 | TR031-64    | 螺母       | 1 | 158 |  |  |  |  |  |

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| 序 号 | 代 号 | 名 称 | 数 量 | 材 料 | 备 注 |
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棒哥设计  
QQ 29467473



# 生产线总体布局图



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|----|----|----|-------|----|-----|--------------------|-------|------|
| 标记 | 块数 | 分区 | 更改文件号 | 签名 | 年月日 | 哈尔滨理工大学<br>机电09-2班 |       |      |
| 设计 | 数量 |    | 标准化   |    |     | 阶段标记               | 数量    | 比例   |
| 审核 |    |    |       |    |     |                    |       | 1:20 |
| 工艺 |    |    | 批准    |    |     | 共 1 张              | 第 1 张 |      |