

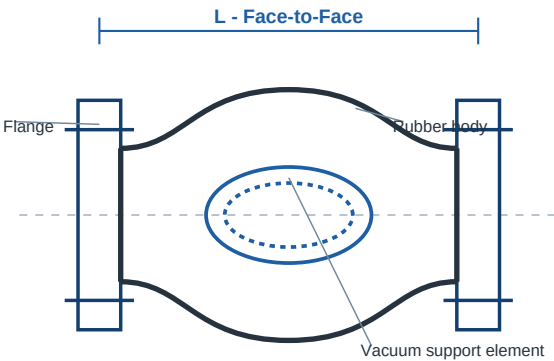


# Vacuum-Resistant Rubber Expansion Joint

For suction and negative-pressure piping | Vacuum-support configuration + fast custom production



Mingchao vacuum-resistant rubber joint



Schematic only - final geometry follows approved drawing  
**Vacuum-service structural schematic**

## Key Supply & Configuration Data

|                         |                                                                                                           |
|-------------------------|-----------------------------------------------------------------------------------------------------------|
| Service                 | Suction / negative-pressure piping where external pressure can exceed internal pressure                   |
| Vacuum Protection       | Internal vacuum-support configuration can be used to reduce rubber-body collapse or deformation risk      |
| Catalog Pressure Grades | 0.6 / 1.0 / 1.6 / 2.5 MPa                                                                                 |
| Size / Length           | Standard rubber-joint sizes and face-to-face dimensions + custom sizes to approved project requirements   |
| Rubber Options          | EPDM / NBR / NR / CR / other compounds selected for medium, temperature and project conditions            |
| Flange Standards        | GB / DIN / EN / ASME-ANSI / JIS / BS; drilling to specified standard or approved drawing                  |
| Movement                | Axial / lateral / angular capability confirmed by DN, body construction and vacuum-support arrangement    |
| Installation            | Support pipeline weight; tighten flange bolts diagonally and evenly; restraint can be added when required |
| Production              | Common configurations available for fast supply + custom production after drawing confirmation            |

### Stock & Custom Production

- Common configurations can be supplied quickly; custom production can start after drawing and specification confirmation.
- Vacuum condition, DN, L, rubber, flange and support/restraint details can be configured to the approved project drawing.



# Vacuum Service Selection Reference

Vacuum capability is configuration-specific. Confirm the actual suction condition before production and final drawing approval.

## Project Information to Confirm

|                     |                                              |                                                                    |
|---------------------|----------------------------------------------|--------------------------------------------------------------------|
| Nominal Size        | DN / NPS                                     | Standard size or custom to project drawing                         |
| Vacuum Condition    | Operating vacuum / minimum absolute pressure | Required for vacuum-support selection                              |
| Positive Pressure   | Working / design / test pressure             | Checked separately from vacuum capability                          |
| Medium              | Water / air / oil / chemical / other         | Determines rubber compound and corrosion requirements              |
| Temperature         | Minimum / normal / maximum                   | Used for rubber and pressure suitability                           |
| Face-to-Face        | Required L                                   | Standard or custom installation length                             |
| Movement            | Axial / lateral / angular                    | Final allowable movement confirmed with vacuum-support arrangement |
| Flange              | Standard / class / material / drilling       | GB / DIN / EN / ASME-ANSI / JIS / BS or approved drawing           |
| Support / Restraint | Pipe support / guides / tie rods if required | Joint should not carry pipeline weight                             |
| Quantity / Drawing  | Quantity + CAD / sketch / sample             | Enables direct production confirmation                             |

## Catalog Pressure Grade Reference

| Catalog Grade                     | 0.6 MPa   | 1.0 MPa   | 1.6 MPa   | 2.5 MPa   |
|-----------------------------------|-----------|-----------|-----------|-----------|
| Published catalog pressure levels | Available | Available | Available | Available |

Pressure grade is not a vacuum rating. The allowable vacuum condition must be confirmed for the selected body and support configuration.

## Engineering & Installation Notes

- Declare suction / vacuum service before ordering; do not select only by positive-pressure class.
- Provide adequate pipe supports and guides so the rubber joint does not carry pipeline weight.
- Tighten flange bolts diagonally, gradually and evenly; avoid torsion and severe misalignment during installation.
- For high-pressure piping or installations requiring movement control, external restraint / limit hardware can be configured.
- Final vacuum-support geometry, dimensions, allowable movement and operating limits are confirmed by approved drawing.

For detailed technical requirements, custom configurations or project questions, please contact us.