

LIV SLIMLINE  
MONOFLANGE VALVES

**SERIES SL**  
Small Bore

## Principle

LIV Slimline Monoflange valve solutions for single block, single block & bleed, double block & bleed and double block configurations. Monoflange solutions offer the greatest cost, weight, and space saving with isolation and vent valves incorporated into the process interface with simplified installation. Monoflange valves are offered in flange to thread configuration. Flange to flange configuration on request.

## Features

Reduced potential leak points compared to traditional to 3 valve combination, lower weight, reduced loading and vibration stresses, and space saving. The primary shut off valves can be supplied as process valves with outside screw and yoke (OS&Y). The operation is with handwheel or T-bar.

## Construction

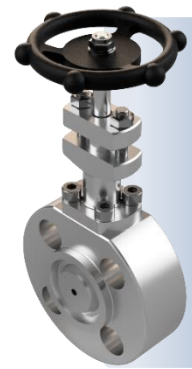
- The valve body is machined from a round bar stock material.
- The raw material of the valve can be supplied according to Norsok M 630 or to customer's specific requirements.
- Inlet is a flanged connection, outlet 1/2" NPT.
- The valve spindle thread is external to stuffing box.
- Valve with fire safe requirement is supplied with graphite packings.
- The valve has back seating and non-rotating valve tip.
- The standard bore size is 5 mm. The large bore version has 10 mm bore. See data sheet lv-0-05-002.
- The dust covers are coloured for application indication (isolate, vent)
- The valves are designed for PED 2014/68/EU.

## Technical Data

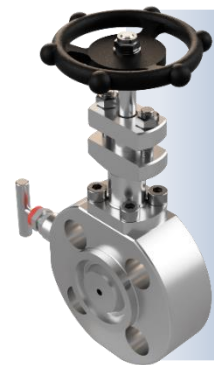
|                 |   |
|-----------------|---|
| Size            | 1/2 - 3"  |
| Pressure rating | 150 lbs - 2500 lbs  |
| Flange facing   | RF or RTJ to ANSI B 16.5  |
| Material        | AISI 316, A350LF2, 22Cr Duplex, 25Cr Duplex, 6Mo, Titanium, Monel 400, Hastelloy C, Inconel 625 and 825 |
| Packing         | PTFE, Graphite.   |
| Temperature     | ÷100 to +260 °C PTFE<br>÷50 to +500 °C Graphite   |
| Operation       | OS&Y, handwheel or T-bar, T-bar or Anti tamper.   |
| Coating         | Standard offshore, to customer's spec., or none   |

## Testing and Documentation

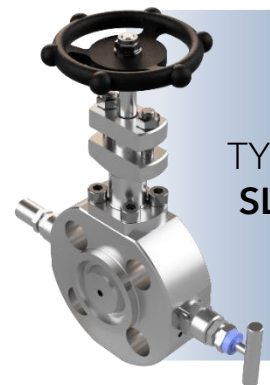
- Material certificate to EN 10204-3.1
- Certificate of compliance to NACE MR 01-75 or EN 15156
- Optional: cleaned for oxygen and hydrogen
- PMI test
- Pressure test certificate
- Fire safe tested acc. to EN 10497-2010
- Penetrant test on valve body to ASME BPV, ISO 3452-1 2021
- Fugitive emission to ISO 15848-1 2017



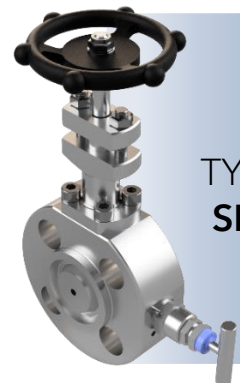
TYPE  
SL1



TYPE  
SL2



TYPE  
SL3



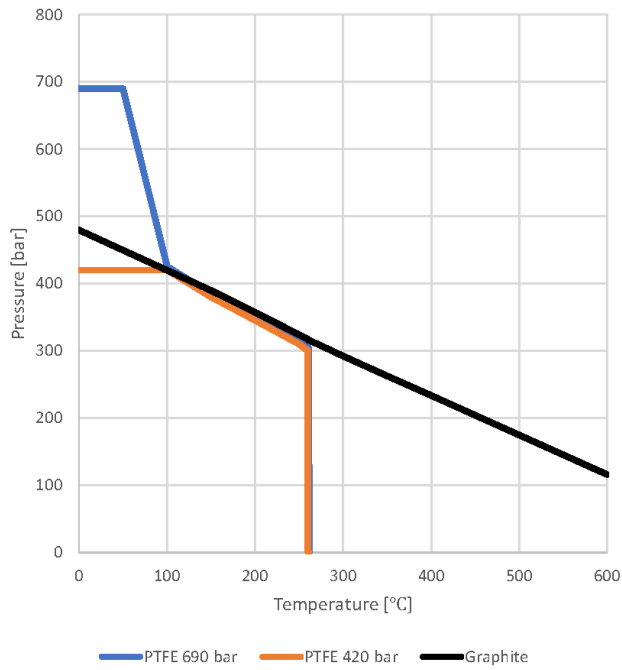
TYPE  
SL4



## Accessories

- 1/4" & 1/2" NPT plugs (for valves with bleed connection)
- Locking device for valve operation (only valves with handwheel)

## Pressure and Temperature Rating



## HOW TO ORDER

Choose a code for each of the configuration steps. For special orders, please reach out to our sales team.

| 1 VALVE TYPE          |                      |                  | 2 VALVE SIZE |                      | 3 PRESSURE RATING |                     | 4 FLANGE FACING |                  |                      |                      |                  |             |
|-----------------------|----------------------|------------------|--------------|----------------------|-------------------|---------------------|-----------------|------------------|----------------------|----------------------|------------------|-------------|
| SL1                   | Single block         | 3                | ½"           | 01                   | 150 lbs           | F                   | Raised face     |                  |                      |                      |                  |             |
| SL2                   | Block and bleed      | 4                | ¾"           | 03                   | 300 lbs           | J                   | Ring type joint |                  |                      |                      |                  |             |
| SL3                   | Double B&B           | 5                | 1"           | 06                   | 600 lbs           |                     |                 |                  |                      |                      |                  |             |
| SL4                   | Double block         | 6                | 1½"          | 15                   | 1500 lbs          |                     |                 |                  |                      |                      |                  |             |
|                       |                      | 7                | 2"           | 25                   | 2500 lbs          |                     |                 |                  |                      |                      |                  |             |
|                       |                      | 8                | 3"           |                      |                   |                     |                 |                  |                      |                      |                  |             |
| 5 VALVE MATERIAL      |                      |                  |              |                      |                   |                     |                 |                  |                      |                      |                  |             |
|                       | <i>Body material</i> |                  |              | <i>Trim material</i> |                   |                     |                 |                  |                      |                      |                  |             |
| 01                    | A350 LF2             |                  |              | AISI 316             |                   |                     |                 |                  |                      |                      |                  |             |
| 02                    | A479 316             |                  |              | AISI 316             |                   |                     |                 |                  |                      |                      |                  |             |
| 03                    | A182 316             |                  |              | AISI 316             |                   |                     |                 |                  |                      |                      |                  |             |
| 04                    | A182 22Cr. Duplex    |                  |              | 22Cr. Duplex         |                   |                     |                 |                  |                      |                      |                  |             |
| 06                    | A182 25Cr. Duplex    |                  |              | 25Cr. Duplex         |                   |                     |                 |                  |                      |                      |                  |             |
| 08                    | A182 6Mo             |                  |              | 6Mo                  |                   |                     |                 |                  |                      |                      |                  |             |
| 10                    | Titanium             |                  |              | Titanium             |                   |                     |                 |                  |                      |                      |                  |             |
| 11                    | Monel 400            |                  |              | Monel 400            |                   |                     |                 |                  |                      |                      |                  |             |
| 12                    | Hastelloy C-276      |                  |              | Hastelloy C-276      |                   |                     |                 |                  |                      |                      |                  |             |
| 13                    | Inconel 625          |                  |              | Inconel 625          |                   |                     |                 |                  |                      |                      |                  |             |
| 14                    | Inconel 825          |                  |              | Inconel 825          |                   |                     |                 |                  |                      |                      |                  |             |
| 6 BONNET TYPES        |                      |                  |              |                      |                   |                     |                 |                  |                      |                      |                  |             |
| 1                     | OS&Y                 |                  | 2            | Needle               |                   | 3                   | Anti-tamper     |                  | 4                    | Anti-tamper lockable |                  |             |
| 7 BONNET COMBINATIONS |                      |                  |              |                      |                   |                     |                 |                  |                      |                      |                  |             |
|                       | SL1                  |                  |              | SL2                  |                   |                     | SL3             |                  |                      | SL4                  |                  |             |
|                       | <i>Primary</i>       | <i>Secondary</i> | <i>Vent</i>  | <i>Primary</i>       | <i>Secondary</i>  | <i>Vent</i>         | <i>Primary</i>  | <i>Secondary</i> | <i>Vent</i>          | <i>Primary</i>       | <i>Secondary</i> | <i>Vent</i> |
| 01                    | 1                    | -                | -            | 1                    | -                 | 2                   | 1               | 2                | 2                    | 1                    | 2                | -           |
| 02                    | 2                    | -                | -            | 1                    | -                 | 3                   | 1               | 2                | 3                    | 1                    | 3                | -           |
| 03                    | 3                    | -                | -            | 1                    | -                 | 4                   | 1               | 2                | 4                    | 1                    | 4                | -           |
| 04                    | 4                    | -                | -            | 2                    | -                 | 2                   | 1               | 3                | 3                    | 2                    | 2                | -           |
| 05                    | -                    | -                | -            | 2                    | -                 | 3                   | 1               | 3                | 4                    | 2                    | 3                | -           |
| 06                    | -                    | -                | -            | 2                    | -                 | 4                   | 2               | 2                | 2                    | 2                    | 4                | -           |
| 07                    | -                    | -                | -            | 3                    | -                 | 2                   | 2               | 2                | 3                    | 3                    | 3                | -           |
| 08                    | -                    | -                | -            | 3                    | -                 | 3                   | 2               | 2                | 4                    | 3                    | 2                | -           |
| 8 OS&Y OPERATION      |                      |                  | 9 SEALS      |                      |                   | 10 BLEED CONNECTION |                 |                  | 11 CONNECTION OUTLET |                      |                  |             |
| HH                    | Handwheel            |                  | T            | PTFE Solid           |                   | 14                  | ¼" NPT Int.     |                  | 1                    | ½" NPT Int.          |                  |             |
| HL                    | Handwheel lockable   |                  | G            | Graphite             |                   | 12                  | ½" NPT Int.     |                  | 2                    | ¾" NPT Int.          |                  |             |
| TB                    | T-bar                |                  |              |                      |                   |                     |                 |                  | 3                    | ½" BSPT Int.         |                  |             |
| 00                    | None                 |                  |              |                      |                   |                     |                 |                  | 4                    | ¾" BSPT Int.         |                  |             |
|                       |                      |                  |              |                      |                   |                     |                 |                  | 5                    | ½" SW                |                  |             |
|                       |                      |                  |              |                      |                   |                     |                 |                  | 6                    | ¾" SW                |                  |             |
|                       |                      |                  |              |                      |                   |                     |                 |                  | 7                    | Kidney Flange        |                  |             |

### Example: SL3503F-02-02-HLGTT121

Slim line valve double block and bleed, 1" 300lbs Raised face. Body material A182 316 trim material AISI 316.

Primary isolate = OS&Y - Secondary isolate = Needle - Vent=Anti-tamper

OS&Y operation is a lockable handwheel, seals is Graphite/PTFE/PTFE, ½" NPT int. connection, ½" NPT int. outlet connection.