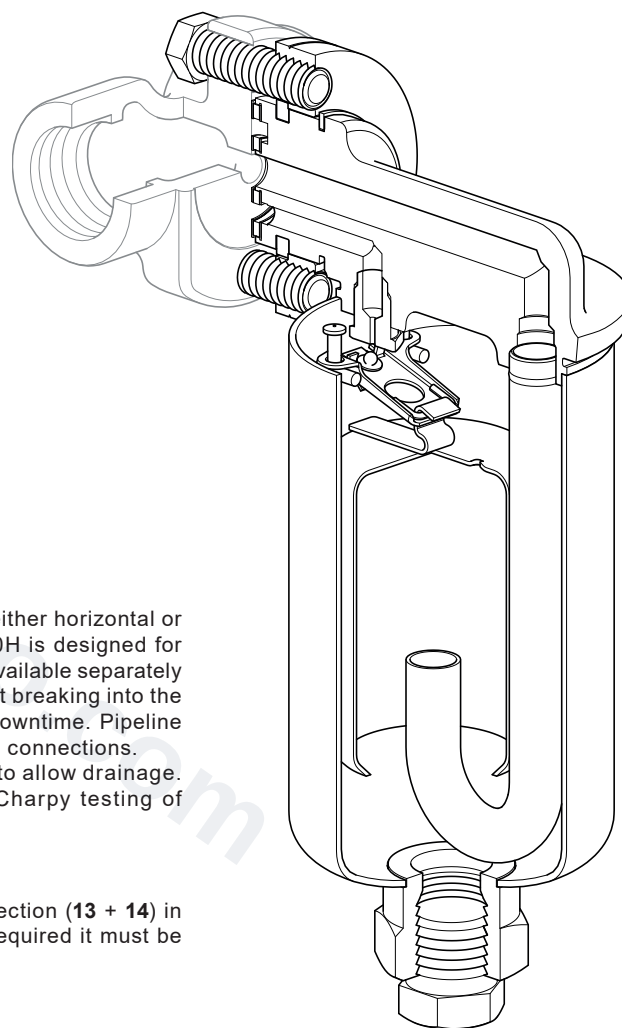




TI-P113-01  
CMGT Issue 12

## UIB30 and UIB30H

### Sealed Inverted Bucket Steam Traps (for use with Pipeline Connectors)



#### Description

The UIB30 and UIB30H are sealed inverted bucket steam traps for either horizontal or vertical installation (with the cover hanging downwards). The UIB30H is designed for higher capacities. When installed with a suitable pipeline connector (available separately from Spirax Sarco) the UIB can easily and simply be removed without breaking into the pipeline, thus speeding up trap replacement with minimal system downtime. Pipeline connectors are available with screwed, socket weld and flanged end connections.

The cover is also available with the option of a threaded base port to allow drainage. The body and cover meet typical industry standards including Charpy testing of 27J @ -30 °C (-22 °F).

#### Optional extras

The cover (1) is also available with a threaded drain plug and connection (13 + 14) in 3/8" NPT, 1/2" NPT or 1/2" BSP to allow for drainage. If this option is required it must be specified at the time of order placement.

#### Standards

This product fully complies with the requirements of the Pressure Equipment Directive (PED).

#### Certification

This product is available with certification to EN 10204 3.1.

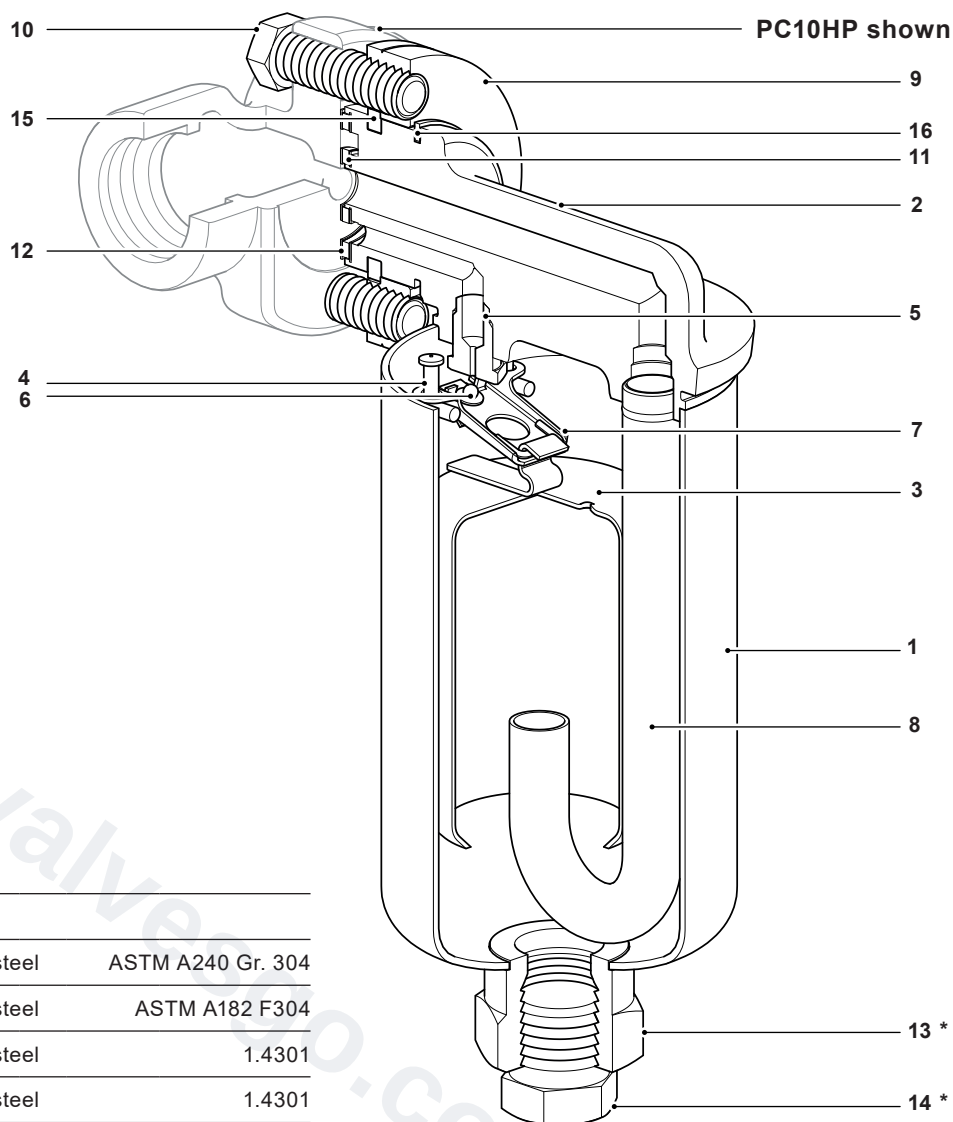
**Note:** All certification/inspection requirements must be stated at the time of order placement.

#### Pipeline connector options

The UIB can be fitted to a variety of pipeline connectors including:

|        |                             |          |              |                                                                                                                              |
|--------|-----------------------------|----------|--------------|------------------------------------------------------------------------------------------------------------------------------|
| PC10HP | Straight connector          | ASME 600 | (TI-P128-10) | See the relevant Technical Information sheet as listed for details of the connections available for each pipeline connector. |
| PC20   | + 'Y' type strainer         | ASME 300 | (TI-P128-15) |                                                                                                                              |
| PC3_   | + 1 piston isolation valve  | ASME 600 | (TI-P128-02) |                                                                                                                              |
| PC4_   | + 2 piston isolation valves | ASME 600 | (TI-P128-03) |                                                                                                                              |

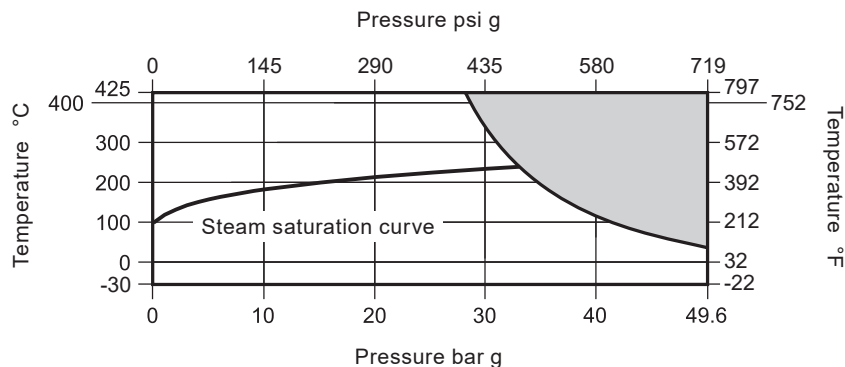
## Materials



| No.  | Part             | Material                          |                        |
|------|------------------|-----------------------------------|------------------------|
| 1    | Cover            | Stainless steel                   | ASTM A240 Gr. 304      |
| 2    | Body             | Stainless steel                   | ASTM A182 F304         |
| 3    | Bucket           | Stainless steel                   | 1.4301                 |
| 4    | Pivot pin        | Stainless steel                   | 1.4301                 |
| 5    | Valve seat       | Stainless steel                   | 440B                   |
| 6    | Valve            | Stainless steel                   | 440B                   |
| 7    | Valve lever      | Stainless steel                   | 1.4301                 |
| 8    | Internal tube    | Stainless steel                   | 1.4306                 |
| 9    | Flange           | Alloy steel - ELNP                | ASTM A193 B7           |
| 10   | Connector screw  | Steel                             | ASTM A193 B7           |
| 11   | Inlet gasket     | Graphite/Stainless steel laminate | AISI 304 strip         |
| 12   | Outlet gasket    |                                   |                        |
| 13 * | Drain connection | Stainless steel                   | ASTM A182 F304 / F304L |
| 14 * | Drain plug       | Stainless steel - ELNP            | ASTM A479 316          |
| 15   | Split ring       | Stainless steel                   | ASTM A240 304          |
| 16   | Crescent ring    | Carbon spring steel               |                        |

\* **Note:** Items 13 and 14 are optional extras that, if required, must be specified at the time of order placement.

## Pressure/temperature limits (ISO 6552)



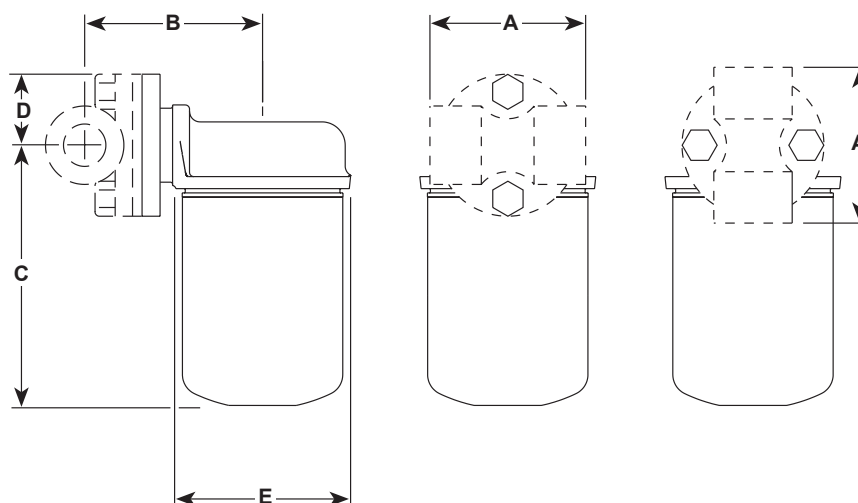
The product **must not** be used in this region.

**Note:** The model of pipeline connector and connections selected will dictate the maximum operating limits of the complete assembly. Reference the specific pipeline connector Technical Information sheet as detailed in 'Pipeline connector options'.

|                                                                    |                                                        |          |                    |                    |                  |
|--------------------------------------------------------------------|--------------------------------------------------------|----------|--------------------|--------------------|------------------|
| Body design conditions                                             |                                                        |          |                    | ASME 300           |                  |
| PMA                                                                | Maximum allowable pressure                             |          | 49.6 bar g @ 38 °C | 719 psi g @ 100 °F |                  |
| TMA                                                                | Maximum allowable temperature                          |          | 425 °C @ 28 bar g  | 797 °F @ 406 psi g |                  |
| Minimum ambient temperature                                        |                                                        |          | -30 °C             | -22 °F             |                  |
| PMO                                                                | Maximum operating pressure for saturated steam service |          | 32 bar g           | 464 psi g          |                  |
| TMO                                                                | Maximum operating temperature                          |          | 425 °C @ 28 bar g  | 797 °F @ 406 psi g |                  |
| Minimum operating temperature                                      |                                                        |          | 0 °C               | 32 °F              |                  |
| <b>Note:</b> For lower operating temperatures consult Spirax Sarco |                                                        |          |                    |                    |                  |
| Product is safe for use under full vacuum conditions               |                                                        |          |                    |                    |                  |
| Designed for a maximum cold hydraulic test pressure of             |                                                        |          | 75 bar g           | 1088 psi g         |                  |
| Δ PMX                                                              | Maximum differential pressure                          | 30.0 bar | (435 psi)          | <b>UIB30/4</b>     | <b>UIB30H/5</b>  |
|                                                                    |                                                        | 20.0 bar | (290 psi)          | <b>UIB30/5</b>     | <b>UIB30H/6</b>  |
|                                                                    |                                                        | 12.0 bar | (174 psi)          | <b>UIB30/6</b>     | <b>UIB30H/7</b>  |
|                                                                    |                                                        | 8.5 bar  | (123 psi)          | <b>UIB30/7</b>     | <b>UIB30H/8</b>  |
|                                                                    |                                                        | 5.0 bar  | (72.5 psi)         |                    | <b>UIB30H/10</b> |
|                                                                    |                                                        | 4.0 bar  | (58 psi)           | <b>UIB30/8</b>     |                  |
|                                                                    |                                                        | 2.5 bar  | (36.3 psi)         | <b>UIB30/10</b>    |                  |
|                                                                    |                                                        | 2.0 bar  | (29.0 psi)         |                    | <b>UIB30H/12</b> |
|                                                                    |                                                        | 1.5 bar  | (21.8 psi)         | <b>UIB30/12</b>    |                  |

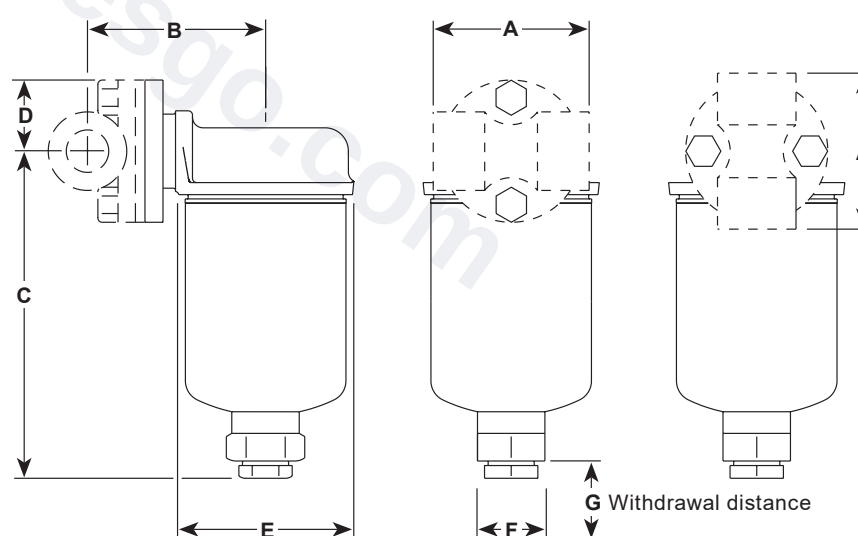
**Dimensions/weights** (approximate) in mm (inches) and kg (lbs)

### UIB30 and UIB30H + PC10HP



| Size      | A              | B            | C               |                 | D              | E            | Weight         |                |                |                 |
|-----------|----------------|--------------|-----------------|-----------------|----------------|--------------|----------------|----------------|----------------|-----------------|
|           |                |              | UIB30           | UIB30H          |                |              | UIB30          | UIB30 + PC10HP | UIB30H         | UIB30H + PC10HP |
| DN15 - ½" | 61.5<br>(2.42) | 88<br>(3.46) | 124.5<br>(4.90) | 159.0<br>(6.26) | 33.5<br>(1.32) | 83<br>(3.27) | 1.70<br>(3.75) | 2.30<br>(5.07) | 1.85<br>(4.08) | 2.45<br>(5.40)  |
| DN20 - ¾" | 73.5<br>(2.89) | 86<br>(3.39) |                 |                 |                |              |                | 2.40<br>(5.29) |                | 2.55<br>(5.62)  |
| DN25 - 1" | 90.0<br>(3.54) | 89<br>(3.50) |                 |                 |                |              |                |                |                |                 |

### UIB30 and UIB30H with optional drain plug + PC10HP

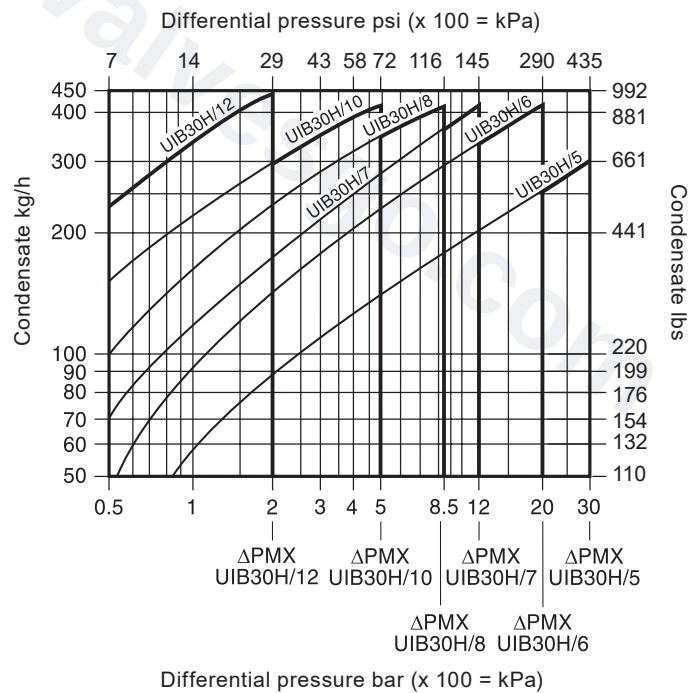
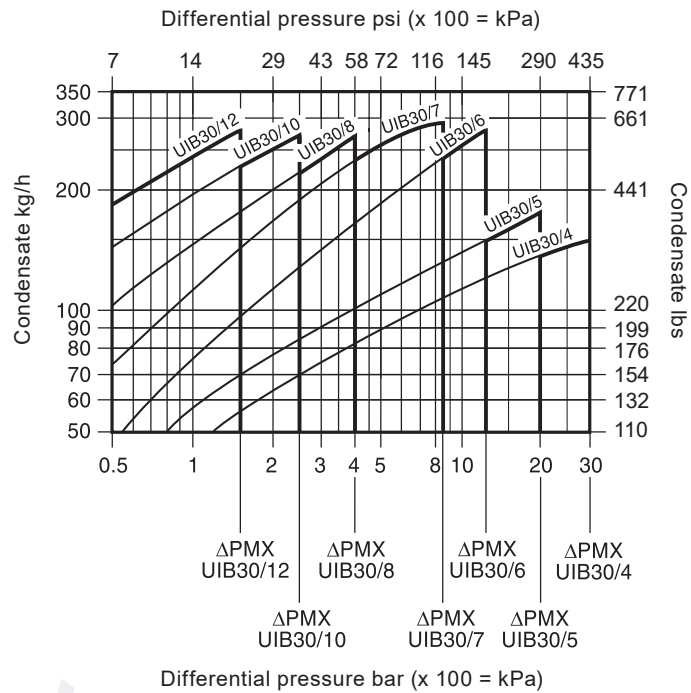


| Size      | A              | B            | C             |               | D              | E            | F            | G<br>Plug<br>withdrawal<br>distance | Weight         |                |                |                 |
|-----------|----------------|--------------|---------------|---------------|----------------|--------------|--------------|-------------------------------------|----------------|----------------|----------------|-----------------|
|           |                |              | UIB30         | UIB30H        |                |              |              |                                     | UIB30          | UIB30 + PC10HP | UIB30H         | UIB30H + PC10HP |
| DN15 - ½" | 61.5<br>(2.42) | 88<br>(3.46) | 158<br>(6.22) | 192<br>(7.56) | 33.5<br>(1.32) | 83<br>(3.27) | 32<br>(1.26) | 20<br>(0.79)                        | 1.90<br>(4.19) | 2.50<br>(5.51) | 2.05<br>(4.52) | 2.65<br>(5.84)  |
| DN20 - ¾" | 73.5<br>(2.89) | 86<br>(3.39) |               |               |                |              |              |                                     |                | 2.60<br>(5.73) |                | 2.75<br>(6.06)  |
| DN25 - 1" | 90.0<br>(3.54) | 89<br>(3.50) |               |               |                |              |              |                                     |                |                |                |                 |

## Capacities

**Note:** The trap should be selected for the most appropriate working pressure differential and not on the basis of load.

**For example:** 80 kg/h at 7 bar differential should be handled with the UIB30/7 and not the UIB30/4.



**How to order** The UIB30 is supplied in two parts:

|                                                                                   | PC10HP | Standard connection     | <b>Note:</b> Any optional extras need to be specified at the time of order placement. |
|-----------------------------------------------------------------------------------|--------|-------------------------|---------------------------------------------------------------------------------------|
| 1. The swivel pipeline connector                                                  | PC20   | + 'Y' type strainer     |                                                                                       |
|                                                                                   | PC3_   | + 1 integral ISO valve  |                                                                                       |
|                                                                                   | PC4_   | + 2 integral ISO valves |                                                                                       |
|                                                                                   |        |                         |                                                                                       |
| 2. The UIB30 trap complete with inner and outer gaskets and two connector screws. |        |                         |                                                                                       |

**How to order example:**

1 off ½" PC10HP swivel connector having screwed NPT connections for use with a UIB30/4 sealed inverted bucket steam trap.

1 off UIB30/4 sealed inverted bucket steam trap complete with gaskets and connector screws.

or

1 off UIB30/4 sealed inverted bucket steam trap with a ½" NPT drain plug and connection, complete with gaskets and connector screws.

## Safety information, installation and maintenance

For full details see the Installation and Maintenance Instructions (IM-P113-02) supplied with the product.

**Installation note:**

The pipeline connector can be installed in either horizontal or vertical pipework.

**Disposal:**

The UIB30 trap unit is manufactured from stainless steel and is therefore totally recyclable. No ecological hazard is anticipated with the disposal of this product provided due care is taken.

## Spare parts

The spare parts available are shown in heavy outline. Parts drawn in a grey line are not supplied as spares.

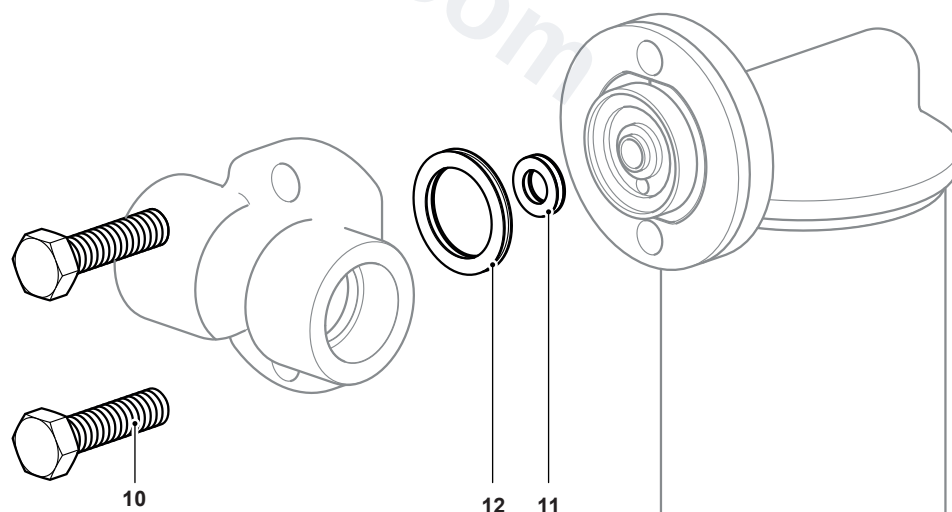
### Available spares

|                                |            |
|--------------------------------|------------|
| Connector screw and gasket set | 10, 11, 12 |
|--------------------------------|------------|

### How to order spares

Always order spares by using the description given in the column headed 'Available spares' and state the type of trap.

**Example:** 1 - Connector screw and gasket set for a Spirax Sarco UIB30 sealed inverted bucket steam trap.



## Recommended tightening torques

| Item | Part             |  or  | N m |
|------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 10   | Connector screws | 9/16"                                                                                                                                                                      | 33  |