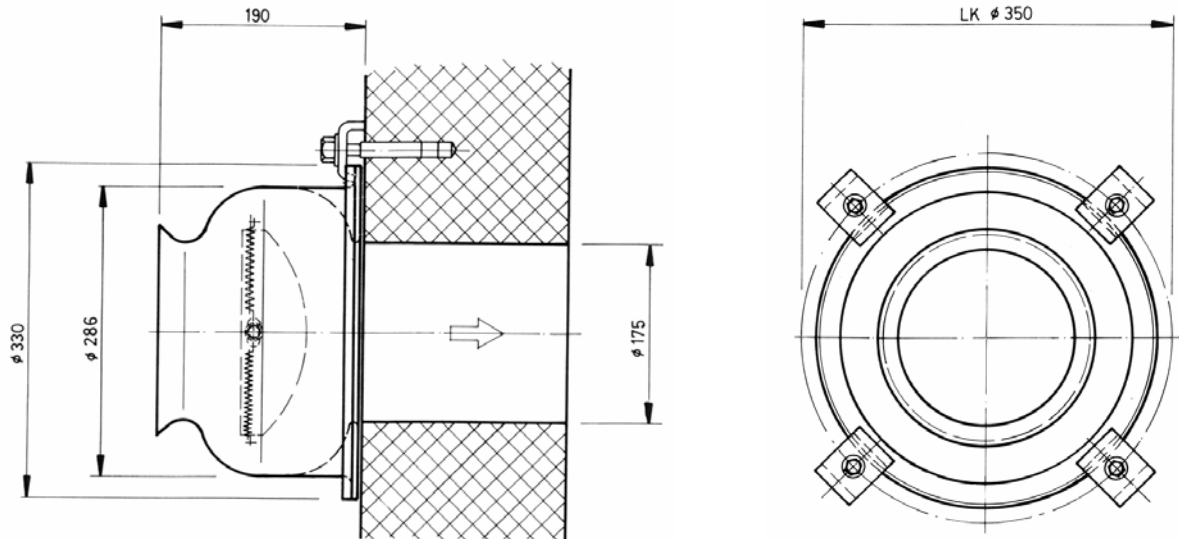


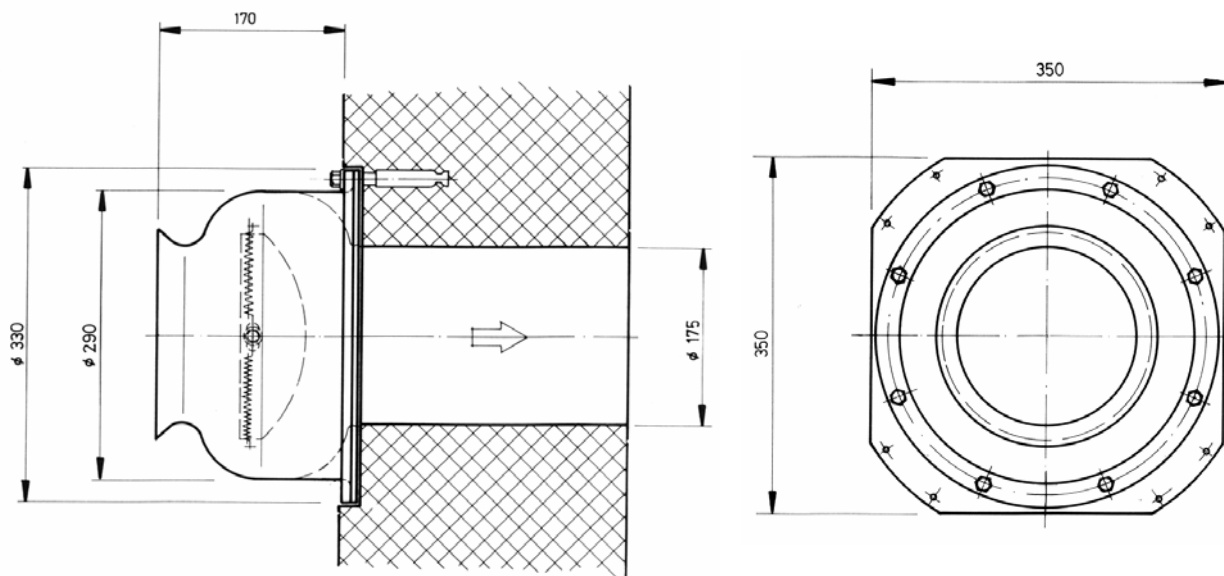
Lunor blast valves ESV are used in air outlet openings of civil defence shelters, military facilities and industrial buildings to block out the destructive effects of all type of explosions. The valve is tested and approved by the Armament Technology and Procurement Group of Switzerland and is designed according to the directives of the Swiss Federal Office of Civil Defence.

Variant: Fixation without wallframe



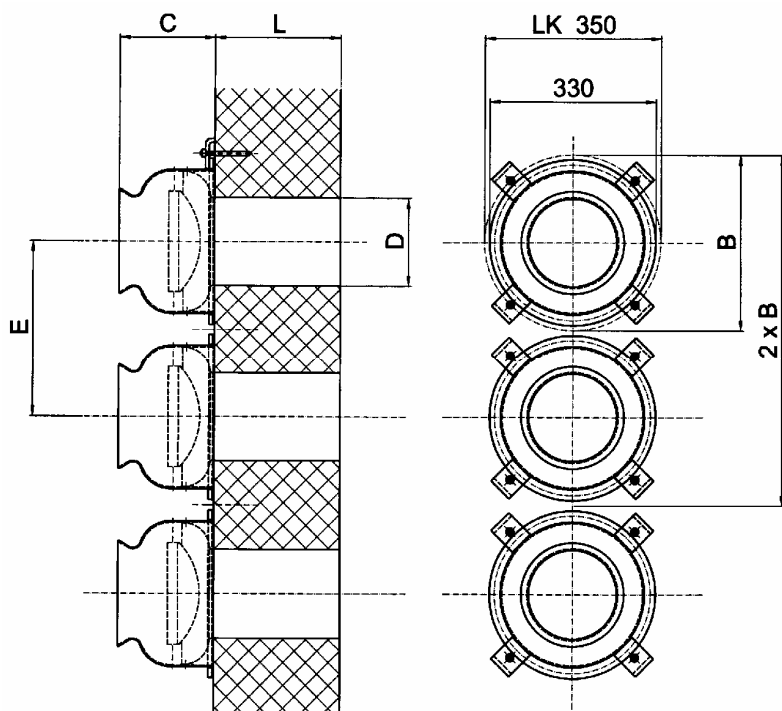
Diameter of tube: 175 mm
 Distance axe/axe: 350 mm
 Accessories see page: 07.Zub-Vent.602 and 07.Zub-Vent.603

Variant: with wallframe

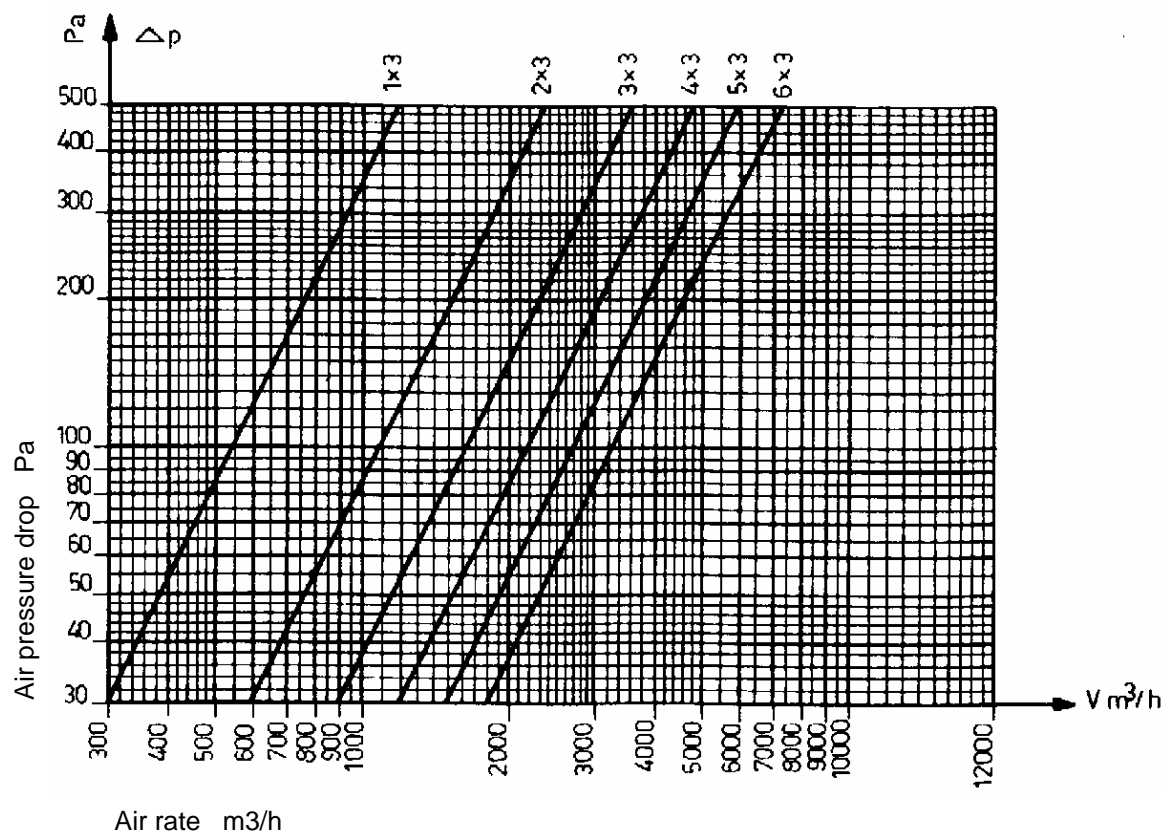


Wallframe in galvanized steel. Anchoring bolts are made of stainless steel.
 Fabrication according to order, for wall thickness.

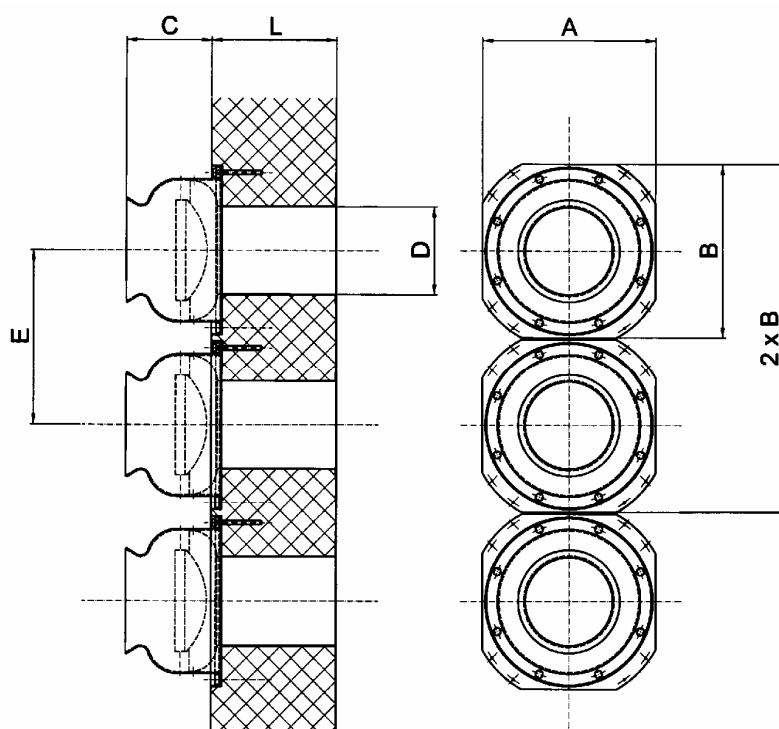
Variant: Fixation without wallframe



Type	LK	B	C	D	E
1x3	350	350	190	175	350
2x3	350	700	190	175	350
3x3	350	1050	190	175	350
4x3	350	1400	190	175	350
5x3	350	1750	190	175	350
6x3	350	2100	190	175	350

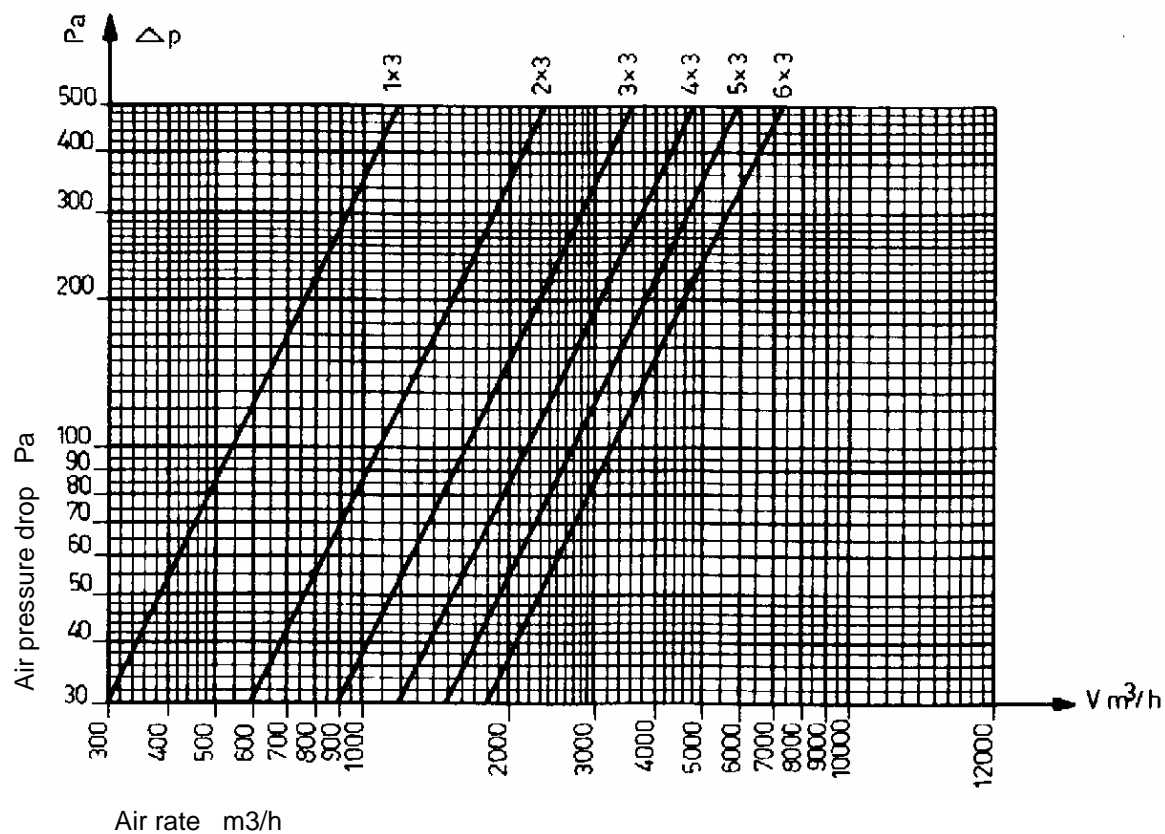


Variant: with wallframe



Type	A	B	C	D	E
1x3	350	350	170	175	350
2x3	350	700	170	175	350
3x3	350	1050	170	175	350
4x3	350	1400	170	175	350
5x3	350	1750	170	175	350
6x3	350	2100	170	175	350

L = Wall thickness according to order



**Explosion protection valve
mounted directly to the wall by dowels**

made by : LUNOR G.Kull AG, CH-8041 Zürich

Design according to the directives of the Swiss Federal Office of Civil Defence. Type tested and approved by the Armament Technology and Procurement Group.

Valve casing made of hot galvanized steel.
The complete shutting device is made of stainless steel.

Total air rate m³/h
Only if several valves are recommended.

Type of valve, size ESV ... X 3 pcs

Attest Nr. ESV-3 T 83-004
Air rate per valve (size) m³ / h
Pressure drop Pa
Protection degree 1 bar

Optional:

Wall tube size Ø 175 mm pcs
Wall thickness cm
Protection screen ESV-3 inside pcs
Protection screen ESV-3 outside pcs
Splitter plate ESV-3 pcs

**Explosion protection valve
and wallframe**

made by : LUNOR G.Kull AG, CH-8041 Zürich

Design according to the directives of the Swiss Federal Office of Civil Defense. Type tested and approved by the Armament Technology and Procurement Group.

Valve casing and wallframe made of hot galvanized steel.
The complete shutting device and the anchoring bolts are made of stainless steel.

Total air rate m³/h
Only if several wallframes are recommended.

Type of valve, size ESV ... X 3 pcs

Attest Nr. ESV-3 T 83-004
Air rate per wallframe (size) m³ / h
Pressure drop Pa
Protection degree 1 bar

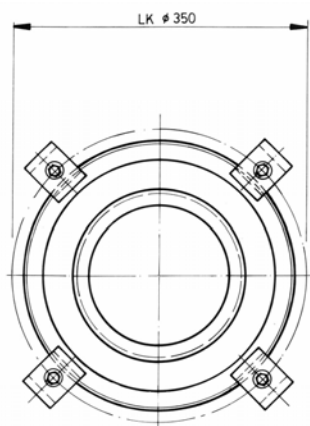
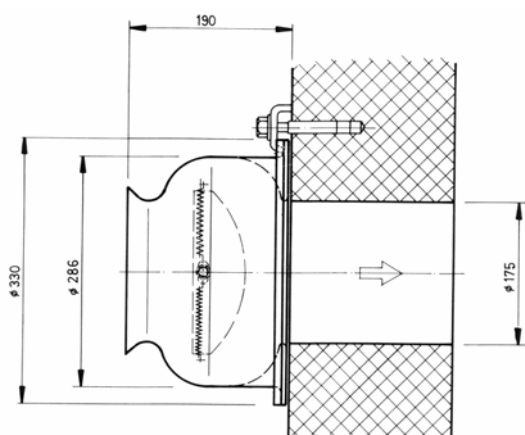
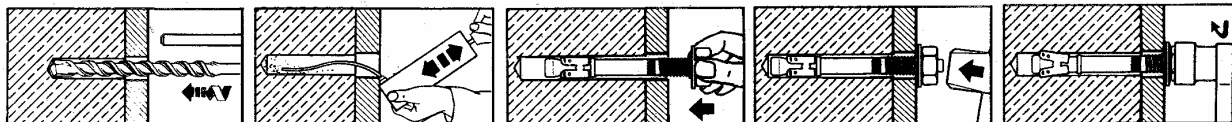
Wallframe size MAU-ESV ... X 3
Wall thickness cm

Optional:

Protection screen ESV-3 inside pcs
Protection screen ESV-3 outside pcs
Splitter plate ESV-3 pcs

Variant: fixation with dowels

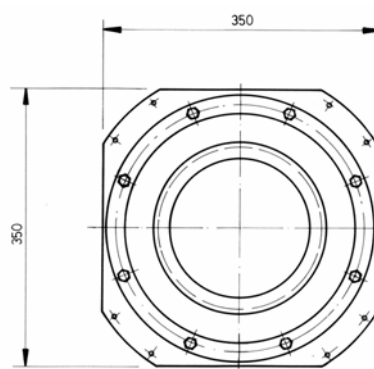
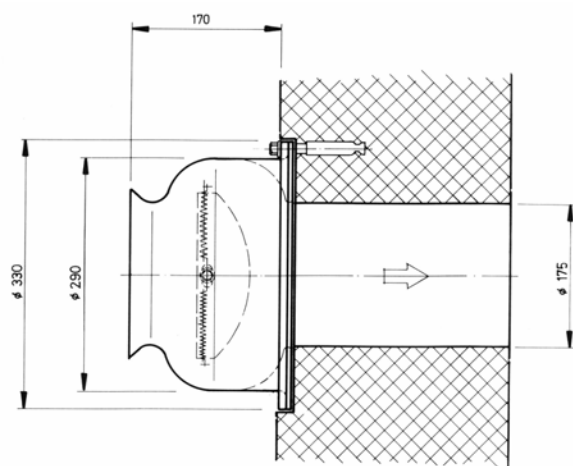
1. Place the valve and arrange the 4 clips around the flange. Mark the holes for the dowels.
2. Drill the holes according to the dowel suppliers instruction. Recommended dowel type: Hilti HST M 10/30
3. Clean and blow out the dowel-holes.
4. Turn the nut of the dowel to upper edge of the thread.
5. Place the sealing plastic on the flange of the valve.
6. Place the valve in position. (pay attention to arrow)
7. Stick the dowel through the clip and drive in with light hammerblows, until the washer is self supporting against the clip.



dowel type	Hilti HST M 10/30
quantity	4 pieces
borehole diameter	10 mm
borehole depth	90 mm
tightening torque	45 Nm

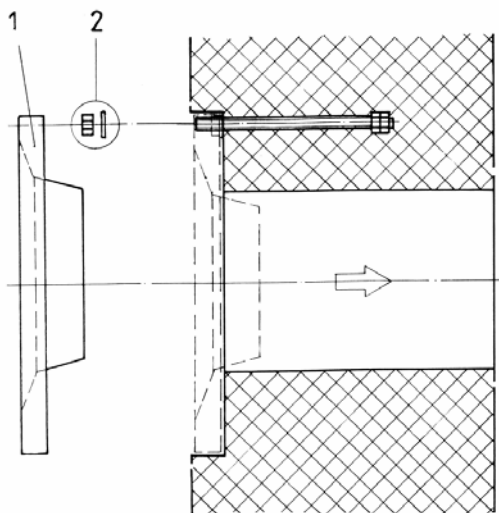
Variant: with wallframe

1. Remove protection cover (to be thrown away)
2. Fix the ESV with the screws M 8 x 25
tightening torque 20 Nm

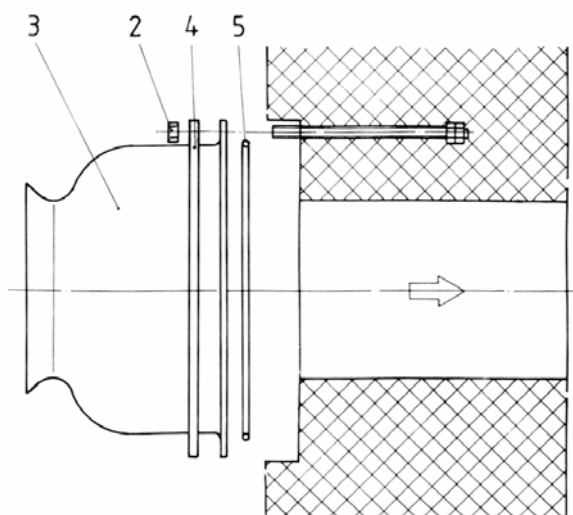


Proviso for technical change

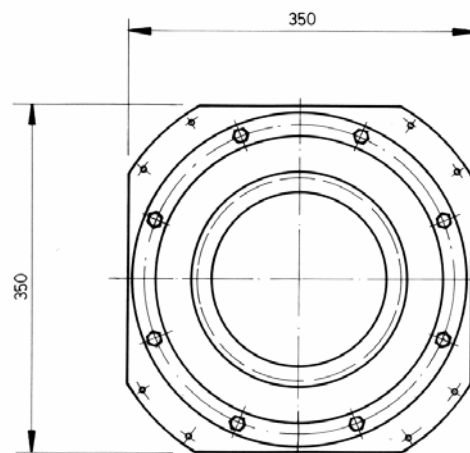
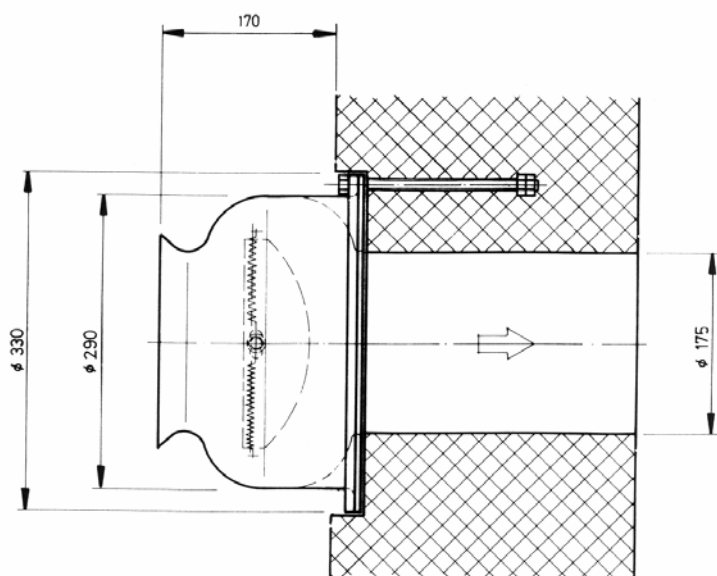
Fixation with wallframe:



1. Remove protection cover (pos. 1)
(to be thrown away)
2. Unbolt the nuts M 8 (pos. 2) and the
washers (pos. 2)
3. Clean the wall frame



4. Put sealing rubber (pos. 5) on base
plate of the valve (pos. 3)
5. Bolt the ESV (pos.3) with fixing ring
(pos. 4) and the nuts with washers
(pos. 2)
6. Tighten nuts (pos. 2) with a dynomo -
metric wrench, tightening torque 20 Nm



Proviso for technical change