CLAIMS

1. A device that eliminates internal corrosion in welded joints because the device prevents damage of welding heat to an inner coating of pipes to which the device is installed, by dissipating the welding heat naturally and spontaneously, the device including a first part (1) and a second part (2) which is assembled to the first part (1) producing a confined space (51) wherein both parts (1, 2) are formed by two concentric rings, an inner ring (4, 21) of the same inner diameter (38) as the pipe connected thereto, and an outer ring (3, 20), the inner ring and the outer ring of each part (1, 2) joined together by a solid steel mantle (5, 22); the inner ring (4) of the first part (1) having a cavity (8) where the guide wedge (29) of the inner ring (21) of the second part (2) is assembled, wherein at the bottom of the cavity (8) of the first part (1) there is a concavity (9) to accommodate a cylindrical fluorelastomer ring (45), wherein at the end of the guide wedge (29) of the second part (2) there is a concavity (30) confining said cylindrical fluorelastomer ring (45) to the concavity (9), wherein the inner area of the contact surfaces (39) between the inner rings (4, 21) of both parts (1, 2) are protected with a highly adhesive epoxy seal, the assembly (52) of parts (1, 2) achieving a separation of 2 to 3 millimeters (46) between the outer rings (3, 20) of both parts (1, 2) where the welded joint (44) is done, CHARACTERIZED in that the width (10, 23) of the solid steel mantle (5, 22) that separates the inner and outer rings of both parts (1, 2) is at least 50 mm and the thickness (14, 24) of this solid steel mantle (5, 22) and the thickness of the assembly area (52) between the cavity (8) of the first part (1) and the guide wedge (29) of the second part (2) is at least twice the thickness (40, 41) of the pipe.

2. A device according to claim 1, CHARACTERIZED in that the inner ring (4) of the first part (1) has a minimum width (12) corresponding to 30 millimeters plus twice the thickness (40, 41) of the pipe plus the width of the welding neck (18).

3. A device according to claim 1, CHARACTERIZED in that the inner ring (21) of the second part (2) has a minimum width (32) corresponding to the width of the guide wedge (29) plus 20 mm, plus twice the thickness (40, 41) of the pipe plus the width of the welding neck (26).

4. A device according to claim 1, CHARACTERIZED in that the outer rings (3 and 20) of both parts (1, 2) have a minimum outer diameter (11, 33) equivalent to the inner diameter (38) of the pipe plus 100 millimeters, plus 6 times the thickness (40, 41) of the pipe and the minimum width (16, 34) of the outer rings (3, 20) of both parts (1, 2) is at least 23.5 millimeters plus twice the thickness (40, 41) of the pipe.

5. A device according to claim 1, CHARACTERIZED in that the cylindrical fluorelastomer ring (45) acts as a tight seal preventing the fluid transported by the pipe (50) to enter and cause corrosion inside the confined space (51).

6. A device according to claim 1, CHARACTERIZED in that the contact area (39) of both faces of the inner rings (4, 21) of both parts (1, 2) where the epoxy seal is applied has a minimum separation of 0.5 millimeters with a maximum clearance of +/- 20% which prevents crevice corrosion in the device.