

## Technology Offer

# Suction apparatus used in the hydrostatic actuating field

## Summary

*A Romanian research institute has developed an apparatus which can be used in the hydrostatic actuating field. The novelty is the substitution of the double effect cylinders (with two joints) with some simple effect ones (with one joint), that implicitly leads to the replacement of the four jointed hydraulic distributors, that actuated the substituted cylinders, with three jointed distributors. An industrial partner, interested in a commercial agreement with technical assistance, is sought.*

<b>Creation Date</b>	16 December 2015
<b>Last Update</b>	13 January 2016
<b>Expiration Date</b>	13 January 2017
<b>Reference</b>	TORO20151116002

## Details

### Description

A Romanian research institute has developed a suction apparatus that comprises a pressure joint, a suction joint (that makes the connection, through a tank of a control distributor, with a work chamber of a simple effect hydraulic cylinder) and a tank joint, that connects the work chamber to a reservoir of a specific installation. The apparatus contains a body in which one has mounted a conic throttle that may close or open the supply aperture of a calibrated nozzle and which can be actuated by hand, using a core bar and can be screwed into a threaded bushing. The throttle settlement on the closed position is achieved by tightening a screw nut. Some roves limit the placement of the dynamic sealing of a throttle bar, while the sealing of the nozzle is carried out by a fitting. In the apparatus body there is also threaded a nipple that is sealed by a fitting. In the pressure joint one has mounted a filter for protecting the nozzle. The suction apparatus has already been tested in laboratory conditions and represents the subject of a Romanian granted patent. The institute is looking for a partner interested in a commercial agreement with technical assistance.

### Advantages and Innovations

- the functional scheme is much simplified, by substituting the double effect cylinders with simple effect cylinders. This fact leads to the replacement of the hydraulic distributors with four joints with distributors with three joints;
- the diminution of the joints and hydraulic hoses number, existing in the installation;
- increased safety when functioning;
- decreased maintenance costs.

### Stage of Development

Under development/lab tested

## IPR Status

Patents granted

## Comment Regarding IPR status

Patent applied for at the State Office for Inventions and Trademarks. IP rights on national level - Romania.

---

## Keywords

### Technology

02006001	Materials, components and systems for construction
02006005	Construction maintenance and monitoring methods & equipment

### Market

08003007	Other industrial equipment and machinery
----------	--

### NACE

M.72.1.9	Other research and experimental development on natural sciences and engineering
----------	---

---

## Network Contact

### Issuing Partner

NATIONAL INSTITUTE OF RESEARCH AND DEVELOPMENT FOR OPTOELECTRONICS

### Contact Person

Laura-Cristina Luca

### Phone Number

0040-264-420590

### Email

laura.luca@icia.ro

---

**Open for EOI :**    **Yes**

---

## Client

## Type and Size of Organisation Behind the Profile

R&D Institution

## Year Established

0

## Already Engaged in Trans-National Cooperation

No.

## Languages Spoken

English

## Client Country

Romania

---

## Partner Sought

---

### Type and Role of Partner Sought

- Type of partner sought: industry
- Specific area of activity of the partner: mechanics, hydraulics
- Task to be performed: in the commercial agreement with technical assistance, the partner will assemble the suction apparatus, using appropriate equipment and qualified personnel. The Romanian research institute will support its partner with effective start-up and technical consultancy.

### Type of Partnership Considered

Commercial agreement with technical assistance