

**Canadian registration numbers (CRN) for K-Patents refractometer PR-23-RP & CFC**

**Scope of registration:**

Sensor PR-23-RP & Cross Flow Cell CFC-RP

Design pressure: 362 psig (25 bar)

Design temperature: -40°F...+302°F (-40°C ...+150°C)

Materials/sensor: SA-240 316L, SA-479 316L, SB-463, SB-473, SB-575, SB-574

Materials/CFC: SA-249 TP316L, SB-464, SB-619

**Registration numbers:**

0F16276.5	Ontario
0F16276.51	British Columbia
0F16276.52	Alberta
0F16276.54	Manitoba
0F16276.50	Newfoundland & Labrador
CSA-0F16276.56	Quebec (by CSA)
CSA-0F16276.56	Saskatchewan (by CSA)
0F16276.57	New Brunswick
0F16276.58	Nova Scotia
0F16276.59	Prince Edward Island
0F16276.5Y	Yukon
0F16276.5T	Northwest Territories
0F16276.5N	Nunavut

This registration number shall be engraved on the products to be delivered to Canada.



Veikko Kähkönen  
Approvals Engineer



14th Floor, Centre Tower  
3300 Bloor Street West  
Toronto, Ontario  
Canada M8X 2X4  
Tel.: 416.734.3300  
Fax: 416.231.1626  
Toll Free: 1.877.682.8772

[www.tssa.org](http://www.tssa.org)

September 04, 2013

VEIKKO KAHKONEN  
K-PATENTS OY  
ELANNONTIE 5  
VANTAA 01510  
FI

**Service Request Type:** BPV-Fitting Registration  
**Service Request No.:** 1131284  
**Your Reference No.:**  
**Registered to:** K-PATENTS OY

Dear VEIKKO KAHKONEN,

Technical Standards and Safety Authority (TSSA) is pleased to inform you that your submission has been reviewed and registered as follows:

CRN No.: 0F16276.5  
Main Design No.: K-PATENTS CATALOG, DWG# 2762 REV. A, 2295 REV. C, 2294 REV. C, 2520 REV. C, 2271 REV. I, 2278 REV. F  
Expiry Date: 04-Sep-2023

Please be advised that a valid quality control system must be maintained for the fitting registration to remain valid until the expiry date.

Note:

Refractometer Sensor: Model PR-23-RP.

Cross Flow Cell: Model: CFC-RP-M20-HA-M10-NC, CFC-RP-M20-HC-M10-NC, CFC-RP-M20-SS-M10-NC, CFC-RP-M20-HA-M20-NC, CFC-RP-M20-HC-M20-NC, CFC-RP-M20-SS-M20-NC, CFC-RP-M20-HA-M30-NC, CFC-RP-M20-HC-M30-NC, CFC-RP-M20-SS-M30-NC.

The stamped copy of the approved registration and the invoice are mailed separately. Should you have any questions or require further assistance, please contact a Customer Service Advisor at 1.877.682.TSSA (8772) or e-mail [customerservices@tssa.org](mailto:customerservices@tssa.org). We will be happy to assist you. When contacting TSSA regarding this file, please refer to the Service Request number provided above.

Yours truly,

*Norman Ngai*

Norman Ngai, P. Eng.  
Mechanical Engineer BPV  
Tel. : 416-734-3557  
Fax : 416-231-6183  
Email : [nngai@tssa.org](mailto:nngai@tssa.org)  
[www.tssa.org](http://www.tssa.org)





**TECHNICAL STANDARDS &  
SAFETY AUTHORITY**  
14th Floor, Centre Tower  
3300 Bloor Street West  
Toronto, Ontario  
Canada M8X 2X4

Show facsimile of manufacturer's logo or trademark, as it will appear on the fitting, in the space below

**K-PATENTS**  
PROCESS INSTRUMENTS

## STATUTORY DECLARATION Registration of Fittings

I, Arto Härmäläinen, Technical Director

(Name and Position, e.g. President, Plant Manager, Chief Engineer)

of K-Patents Oy

(Name of Manufacturer)

Located at Elannontie 5, 01510 Vantaa, Finland

(Plant Address)

+358 207 291 570

(Telephone No.)

+358 207 291 577

(Fax No.)

☐ do solemnly declare that the fittings listed hereunder, which are subject to the **Technical Standards and Safety Act**, Boilers and Pressure Vessels Regulation, comply with all of the requirements of

(Title of recognized North American Standard)

which specifies the dimensions, materials of construction, pressure/temperature ratings, identification marking the fittings and service;

☒ or are not covered by the provisions of a recognized North American standard and are therefore manufactured to comply with the specifications as supported by the attached data which identifies the dimensions, material of construction, pressure/temperature ratings and the basis for such ratings, the marking of the fitting for identification and service.

I further declare that the manufacture of these fittings is controlled by a quality system meeting the requirements of ISO 9001:2008 which has been verified by the following authority, Det Norske Veritas

The items covered by this declaration, for which I seek registration, are category F type fittings. In support of this application, the following information and/or test data are attached as follows:

Drawings: DIM2762/A, MAN2295/C, 2294/C, MTG2520/C, DIM2277/I, 2278/F; Design calculations by Mekateam Oy

(FEM13040010V1, FEM1304009V2) (drawings, calculations, test reports, etc.)

Declared before me at Vantaa, Finland in the \_\_\_\_\_ of \_\_\_\_\_

the 13 day of June AD 2013

Commissioner for Oaths:

Marjo Valonen

(Printed name)

Marjo Valonen  
henkikirjoittaja, notariuskirjuri  
julkinen notaari, notarius publicus

(Signature)

Arto Härmäläinen

(Signature of Declarer)

### FOR OFFICE USE ONLY

To the best of my knowledge and belief, the application meets the requirements of the **Technical Standards and Safety Act**, Boilers and Pressure Vessels Regulation, and CSA Standard B51 and is accepted for registration in Category F

CRN: OF16276.5

Registered by: NORMAN NGA

Dated: SEPT. 4, 2013.

NOTE: This registration expires on \_\_\_\_\_

**Technical  
Standards  
and Safety  
Authority**

**Boilers and  
Pressure Vessels  
Safety Program**

**REGISTERED**

C.R.N.: OF16276.5

Signed: Norman Nga

Date: SEPT. 4, 2013.

Re: TSSA SR # 1131284

**SCOPE OF REGISTRATION**

**a) Refractometer Sensor**

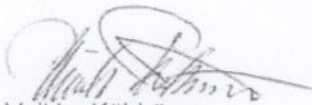
- Model: PR-23-RP
- Design pressure: 362 psig (25 bar)
- Design temperature: -40 F...302 F (-40...+150°C)
- Material specification: SA-240 316L, SA-479 316L, SB-463, SB-473, SB-575, SB-574

**b) Cross Flow Cell**

- Model: CFC-RP-M20-HA-M10-NC, CFC-RP-M20-HC-M10-NC, CFC-RP-M20-SS-M10-NC, CFC-RP-M20-HA-M20-NC, CFC-RP-M20-HC-M20-NC, CFC-RP-M20-SS-M20-NC, CFC-RP-M20-HA-M30-NC, CFC-RP-M20-HC-M30-NC, CFC-RP-M20-SS-M30-NC
- Size: 1-3 inch process connection (M10...M30)
- Design pressure: 362 psig (25 bar)
- Design temperature: -40 F...302 F (-40...+150°C)
- Material specification: SA-249 TP316L, SB-464, SB-619

**c) Applicable specifications**

- Sensor: ASME Sec. VIII Div.1 and Div. 2 Ed. 2010 + Addenda 2011
- Cross Flow cell: ASME Sec. VIII Div. 1 Ed. 2010 + Addenda 2011

  
Veikko Kähkönen  
Approvals Engineer

**THIS IS PART OF**  
**CRN 0F16276.5**  
Technical Standards & Safety Authority  
Boilers & Pressure Vessels  
Safety N.N. SEPT. 4. 2013.