

REGISTRATION OF A PRESSURE FITTING DESIGN

27-Mar-23

TSSA
345 Carlingview Drive
Toronto, Ontario
M9W 6N9**Attention: Tanya Francis****File Number: 13558 [0 F]****Re: Manufacturer: Parker Hannifin Manufacturing France SAS**
Item: Transair Modular Pipe System Fittings
Catalog or Drawing: Scope of Registration (23-Nov-22) & Design Reports R-1812A Rev. 0

TSASK Codes and Standards Compliance has registered the design listed above in accordance with The Boiler and Pressure Vessel Act and Regulations and CSA B51. The Canadian Registration Number (CRN) is:

0A15761.53 Expiry Date: September 14, 2032

Please note that every fitting shall be constructed in strict accordance with the registered design.

Fitting registrations are required to be resubmitted for validation after ten (10) years from the registration date in accordance with CSA B51, Clause 4.2.1.

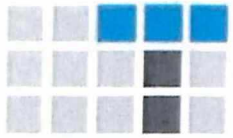
Should you require anything further, please do not hesitate to contact the Codes and Standards Compliance Office at your convenience.

Yours truly,

Athan Syrgiannis, P.Eng.
Codes and Standards Compliance**Remarks:**

A valid quality control program must be maintained at the production facilities for the fitting registration to remain valid until the expiry date.

See Worldwide Locations Appendix (rev. May, 2022) for list of manufacturing locations.



Technical Safety Authority of Saskatchewan

2202 2nd Ave.
Regina, SK S4R 1K3
PH: (306)798-7112 Toll Free: (866)530-8599
FAX: (306)787-9273 Toll Free: (866)760-9255
Email: boilerpermits@tsask.ca
Website: www.tsask.ca

Statutory Declaration (Registration of Fittings)

TSK-1008

I. Declaration Information

I, Olivier Nadou,
General Manager
(company title, e.g. vice president, plant manager, chief engineer)
(must be in a position of authority in the manufacturing plant where the fitting is produced)
of: Parker Hannifin Manufacturing France SAS
(name of manufacturer)

In this space, show facsimile of manufacturer's logo or trademark as it will appear on the fitting.



located at: 1 Rue Andre et Yvonne Meynier, Rennes, France, 35069
(Plant Address – Apt/Street) (City, Prov) (Postal Code)

do solemnly declare that the fittings listed hereinunder, which are subject to the **Saskatchewan Boiler and Pressure Vessel Safety Act** (check one)

- ☒ Comply with the requirements of ASME B31.3, B31.1 which specifies the dimensions,
(title of recognized North American Standard)
Materials of construction, pressure / temperature ratings and identification marking of the fittings, or
- ☐ Are not covered by the provisions of a recognized North American standard and are therefore manufactured to comply with _____ as supported by the attached data which identifies the dimensions, materials of construction, pressure / temperature ratings and the basis for such ratings, and the marking of the fittings for identification.

I further declare that the manufacturer of these fittings is controlled by a quality control program which has been verified by the following authority, ISO 9001: 2015 AFNOR as being suitable for the manufacturer of these fittings to the stated standard. The fittings covered by this declaration, for which I seek registration, are CATEGORY A - TRANSAIR MODULAR PIPE SYSTEM

In support of this application, the following information, calculations and / or test data are attached:

SCOPE OF CRN, DRAWINGS, CALCULATIONS, REPORTS

II. Declaration

DECLARED before me at Annerby of office
this 5 day of December, 2022
Thierry ANDRIEUX (print name) (Signature)
(Signature of Commissioner of Oaths)

III. Office Use Only

To the best of my knowledge and belief, the application meets the requirements of the **Boiler and Pressure Vessel Safety Act** and CSA B51, Clause 4.2, and is accepted for registration in Category _____



Technical
Safety Authority
of Saskatchewan

Registration No. 0A15761.53

File No. 13558

Registered

Date: March 27, 2023

Expiry Date: September 14, 2032

Codes & Standards Compliance Office

(Date Registered – MM DD YYYY)
(For the Administrator / Chief Inspector)

(Expiry Date – MM DD YYYY)

TSK-1008
Rev. 10/2012
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**PARKER HANNIFIN
MANUFACTURING FRANCE**

1, rue Andre et Yvonne Meynier,
Parc Alcyone Bat D
35069 Rennes Cedex (France)



| | |
|-------------------------------------|--------------------|
| | |
| Registration No. | 0A15761.53 |
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| Registered | |
| Date: | March 27, 2023 |
| Expiry Date: | September 14, 2032 |
| Codes & Standards Compliance Office | |

23-Nov-22

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SCOPE OF CRN REGISTRATION

| Pipe Sizes: | 1/2" (16.5mm), 1" (25mm), 1-1/2" (40mm), 2" (50mm), 2-1/2" (63mm) | | | | |
|------------------------------|---|---|-------------------------------------|-----------------|-------------------|
| Product Description | Design Code | Fitting Body Material | CRN MAWP at MAWT (Note 1,2,3) | MDMT | Design Report No. |
| Transair Modular Pipe System | ASME B31.3, ASME B31.1 | Nylon (See Note 4), Aluminum (See Note 5), Brass (See Note 6) | 145 psig at 140°F / 10 barg at 60°C | -4°F / -20°C | R-1812A Rev. 0 |
| Description | Size | | Part No. | Material | |
| Male Threaded NPT 90 Elbow | 1/2" (16.5mm) x 1/4" NPT | | 6609 17 14 | Nylon, Brass | |
| | 1/2" (16.5mm) x 1/2" NPT | | 6609 17 22 | Nylon, Brass | |
| | 1" (25mm) x 1/2" NPT | | 6609 25 22 | Nylon, Brass | |
| | 1" (25mm) x 3/4" NPT | | 6609 25 28 | Nylon, Brass | |
| | 1" (25mm) x 1" NPT | | 6609 25 35 | Nylon, Brass | |
| | 1-1/2" (40mm) x 1" NPT | | 6609 40 35 | Nylon, Brass | |
| | 1-1/2" (40mm) x 1-1/4" NPT | | 6609 40 43 | Nylon, Brass | |
| | 1-1/2" (40mm) x 1-1/2" NPT | | 6609 40 50 | Nylon, Brass | |
| | 1-1/2" (40mm) x 2" NPT | | 6609 40 44 | Nylon, Brass | |
| | 2" (50mm) x 1-1/2" NPT | | 6609 50 50 | Nylon, Aluminum | |
| | 2" (50mm) x 2" NPT | | 6609 50 44 | Aluminum | |
| | 2-1/2" (63mm) x 2-1/2" NPT | | 6609 63 41 | Aluminum | |
| | 2-1/2" (63mm) x 3" NPT | | 6609 63 46 | Aluminum | |
| Male Threaded NPT 45 Elbow | 1" (25mm) x 1/2" NPT | | 6619 25 22 | Nylon, Brass | |
| | 1" (25mm) x 3/4" NPT | | 6619 25 28 | Nylon, Brass | |
| | 1" (25mm) x 1" NPT | | 6619 25 35 | Nylon, Brass | |
| | 1-1/2" (40mm) x 1" NPT | | 6619 40 35 | Nylon, Brass | |
| | 1-1/2" (40mm) x 1-1/4" NPT | | 6619 40 43 | Nylon, Brass | |
| | 1-1/2" (40mm) x 1-1/2" NPT | | 6619 40 50 | Nylon, Brass | |
| | 1-1/2" (40mm) x 2" NPT | | 6619 40 44 | Nylon, Brass | |
| | 2" (50mm) x 1-1/2" NPT | | 6619 50 50 | Nylon, Aluminum | |
| | 2" (50mm) x 2" NPT | | 6619 50 44 | Aluminum | |
| | 2-1/2" (63mm) x 2" NPT | | 6619 63 44 | Aluminum | |
| 45 Elbow | 2-1/2" (63mm) | | 6612 63 00 | Nylon | |
| Reducing Tee | 2" (50mm) x 1" (25mm) | | 6604 50 25 | Nylon, Aluminum | |
| | 2-1/2" (63mm) x 2" (50mm) | | 6604 63 50 | Aluminum | |
| Plug-In Reducer | 2" (50mm) x 1" (25mm) | | 6666 25 50 | Nylon, Aluminum | |
| | 2" (50mm) x 1-1/2" (63mm) | | 6666 40 50 | Nylon, Aluminum | |



SCOPE OF CRN REGISTRATION

| Description | Size | Part No. | Material |
|--------------------------------|-----------------------------|------------|-----------------|
| Male Threaded NPT Connector | 1/2" (16.5mm) x 1/4" NPT | 6605 17 14 | Nylon, Brass |
| | 1/2" (16.5mm) x 1/2" NPT | 6605 17 22 | Nylon, Brass |
| | 1" (25mm) x 1/2" NPT | 6605 25 22 | Nylon, Brass |
| | 1" (25mm) x 3/4" NPT | 6605 25 28 | Nylon, Brass |
| | 1" (25mm) x 1" NPT | 6605 25 35 | Nylon, Brass |
| | 1-1/2" (40mm) x 1" NPT | 6605 40 35 | Nylon, Brass |
| | 1-1/2" (40mm) x 1-1/4" NPT | 6605 40 43 | Nylon, Brass |
| | 1-1/2" (40mm) x 1-1/2" NPT | 6605 40 50 | Nylon, Brass |
| | 1-1/2" (40mm) x 2" NPT | 6605 40 44 | Nylon, Brass |
| | 2" (50mm) x 1-1/2" NPT | 6605 50 50 | Nylon, Aluminum |
| | 2" (50mm) x 2" NPT | 6605 50 44 | Aluminum |
| | 2-1/2" (63mm) x 2" NPT | 6605 63 44 | Aluminum |
| | 2-1/2" (63mm) x 2-1/2" NPT | 6605 63 41 | Aluminum |
| | 2-1/2" (63mm) x 3" NPT | 6605 63 46 | Aluminum |
| Male Threaded NPT Stud Adapter | 1" (25mm) x 1/2" NPT | 6615 25 22 | Nylon, Brass |
| | 1" (25mm) x 3/4" NPT | 6615 25 28 | Nylon, Brass |
| | 1" (25mm) x 1" NPT | 6615 25 35 | Nylon, Brass |
| | 1-1/2" (40mm) x 1-1/4" NPT | 6615 40 43 | Nylon, Brass |
| | 1-1/2" (40mm) x 1-1/2" NPT | 6615 40 50 | Nylon, Brass |
| | 2" (50mm) x 1-1/2" NPT | 6615 50 50 | Nylon, Aluminum |
| | 2" (50mm) x 2" NPT | 6615 50 44 | Aluminum |
| Male Threaded NPT Stud Nut | 1/2" (16.5mm) x 1/2" NPT | 6611 17 22 | Brass |
| | 1" (25mm) x 1/2" NPT | 6611 25 22 | Brass |
| | 1" (25mm) x 3/4" NPT | 6611 25 28 | Brass |
| | 1" (25mm) x 1" NPT | 6611 25 35 | Brass |
| | 1-1/2" (40mm) x 1" NPT | 6611 40 35 | Brass |
| | 1-1/2" (40mm) x 1-1/4" NPT | 6611 40 43 | Brass |
| | 1-1/2" (40mm) x 1-1/2" NPT | 6611 40 50 | Brass |
| | 1-1/2" (40mm) x 2" NPT | 6611 40 44 | Brass |
| | 2" (50mm) x 2" NPT | 6611 50 44 | Brass |
| | 2" (50mm) x 1-1/2" NPT | 6611 50 50 | Brass |
| | 2-1/2" (63mm) x 2" NPT | 6611 63 44 | Brass |
| | 2-1/2" (63mm) x 2-1/2" MNPT | 6611 63 41 | Brass |

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 Parc Alcyone Bat D
 35069 Rennes Cedex (France)



23-Nov-22

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SCOPE OF CRN REGISTRATION

| Description | Size | Part No. | Material |
|---|-----------------------------|------------|--------------|
| Male Threaded NPT Adapter | 1/2" (16.5mm) x 1/2" NPT | 6621 17 22 | Brass |
| | 1" (25mm) x 1/2" | 6621 25 22 | Brass |
| | 1" (25mm) x 3/4" NPT | 6621 25 28 | Brass |
| | 1" (25mm) 1" NPT | 6621 25 35 | Brass |
| | 1-1/2" (40mm) x 1-1/4" NPT | 6621 40 43 | Brass |
| | 1-1/2" (40mm) x 1-1/2" NPT | 6621 40 50 | Brass |
| Simple Reducing Bracket | 1/2"(16.5mm)x1/2"(16.5mm) | RA69 25 17 | Nylon |
| | 1-1/2"(40mm) x 1"(25mm) | RA69 40 25 | Nylon |
| | 2" (50mm) x 1" (25mm) | RA69 50 25 | Nylon |
| | 2-1/2"(63mm) x 1"(25mm) | RA69 63 25 | Nylon |
| Female Threaded NPT Simple Reducing Bracket | 1" (25mm) x 1/2" NPT | RA68 25N04 | Nylon, Brass |
| | 1-1/2" (40mm) x 1/2" NPT | RA68 40N04 | Nylon, Brass |
| | 2" (50mm) x 1/2" NPT | RA68 50N04 | Nylon, Brass |
| | 2" (50mm) x 1" NPT | RA68 50N08 | Nylon, Brass |
| | 2-1/2" (63mm) x 1" NPT | RA68 63N08 | Nylon, Brass |
| | 2-1/2" (63mm) x 1/2" NPT | RA68 63N04 | Nylon, Brass |
| Quick Assembly Bracket | 1-1/2"(40mm)x1/2"(16.5mm) | 6662 40 17 | Nylon |
| | 1-1/2"(40mm) x 1"(25mm) | 6662 40 25 | Nylon |
| | 2" (50mm) x 1" (25mm) | 6662 50 25 | Nylon |
| | 2-1/2"(63mm) x 1"(25mm) | 6662 63 25 | Nylon |
| Female Threaded NPT Quick Assembly Bracket | 1-1/2" (40mm) x 1/2" NPT | 6663 40 22 | Nylon, Brass |
| | 2" (50mm) x 1/2" NPT | 6663 50 22 | Nylon, Brass |
| | 2" (50mm) x 3/4" NPT | 6663 50 28 | Nylon, Brass |
| | 2-1/2" (63mm) x 1/2" NPT | 6663 63 22 | Nylon, Brass |
| | 2-1/2" (63mm) x 3/4" NPT | 6663 63 28 | Nylon, Brass |
| 1 Port 45 Wall Bracket - Threaded NPT Port | 1/2" (16.5mm) x 1/2" x 1/4" | 6640 17 22 | Nylon, Brass |
| | 1" (25mm) x 1/2" x 1/4" | 6640 25 22 | Nylon, Brass |
| Threaded NPT 1 Port 45 Wall Bracket | 1/2" x 1/4" x 1/2" | 6642 22 22 | Brass |
| 2 Port 45 Wall Bracket - Threaded NPT Port | 1/2" (16.5mm) x 1/2" x 1/4" | 6689 17 22 | Nylon, Brass |
| | 1" (25mm) x 1/2" x 1/4" | 6689 25 22 | Nylon, Brass |
| Threaded NPT 2 Port 45 Wall Bracket | 1/2" x 1/4" x 1/2" | 6691 22 22 | Brass |
| 2 Port 90 Wall Bracket - Threaded NPT Port | 1/2" (16.5mm) x 1/2" x 1/4" | 6684 17 22 | Nylon, Brass |
| | 1" (25mm) x 1/2" x 1/4" | 6684 25 22 | Nylon, Brass |

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SCOPE OF CRN REGISTRATION

| Description | Size | Part No. | Material |
|---|-------------------------|------------|--------------|
| Threaded NPT 2 Port 90 Wall Bracket | 1/2" x 1/4" x 1/2" | 6688 22 22 | Brass |
| 3 Port Wall Bracket - Threaded NPT Port | 1" (25mm) x 1/2" x 1/4" | 6696 25 22 | Nylon, Brass |
| Threaded NPT 3 Port Wall Bracket | 1/2" x 1/4" x 3/4" | 6636 28 22 | Brass |

Notes:

1) MAWP = Maximum Allowable Working Pressure, MAWT = Maximum Allowable Working Temperature, MDMT = Minimum Design Metal Temperature.

2) The pressure-temperature ratings shown are the maximum CRN pressure-temperature ratings. In all cases the MAWP or MAWT may be limited by other considerations. Please consult Parker literature.

3) The CRN pressure-temperature ratings are valid when the Parker fittings are installed on Aluminum UNS A96063 with the following nominal wall thickness:

| |
|-------------------------|
| 16.5mm OD x 1.70mm wall |
| 25mm OD x 1.50mm wall |
| 40mm OD x 1.50mm wall |
| 50mm OD x 1.70mm wall |
| 63mm OD x 2.00mm wall |

4) Nylon = Nylon 66 GF30% equal to PA66 30% GF as stated in Parker Standard BES 9301

5) Aluminum = Aluminum Alloy Group AlSi9Cu Numerical EN AC-46500 Chemical Symbols EN AC-Al Si9Cu3(Fe)(Zn) in accordance with EN 1706

6) Brass = Brass CW614N CuZn39Pb3 in accordance with EN 12164

7) See Attached List of Manufacturing locations applicable to this CRN.



WORLDWIDE LOCATIONS APPENDIX

PARKER HANNIFIN MANUFACTURING FRANCE SAS MANUFACTURING LOCATIONS & CERTIFYING AUTHORITIES

(rev. May, 2022)

PARKER HANNIFIN MFG FRANCE SAS
LOW PRESSURE CONNECTORS DIVISION EUROPE
PARC ALCYONE - BATIMENT D
1 RUE ANDRE ET YVONNE MEYNIER
RENNES
FRANCE
35069
ISO 9001 Certified by AFNOR

PARKER HANNIFIN MFG FRANCE SAS
LOW PRESSURE CONNECTORS DIVISION EUROPE
ROUTE DE QUESTEMBERT
BEL AIR
MUZILLAC
FRANCE
56190
ISO 9001 Certified by AFNOR

PARKER HANNIFIN MFG FRANCE SAS
LOW PRESSURE CONNECTORS DIVISION EUROPE
LA CROIX DES 5 CHEMINS
BAILLE
FRANCE
35460
ISO 9001 Certified by AFNOR

PARKER HANNIFIN MFG FRANCE SAS
LOW PRESSURE CONNECTORS DIVISION EUROPE
SAINT-MARCEL
MALESTROIT
FRANCE
56140
ISO 9001 Certified by AFNOR

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|---|---|
|  | Technical Safety Authority of Saskatchewan |
| Registration No. | 0A15761.53 |
| File No. | 13558 |
| | <input type="checkbox"/> Registered |
| Date: | March 27, 2023 |
| Expiry Date: | September 14, 2032 |
| Codes & Standards Compliance Office | |