Régie
du bâtiment
Québec

Direction générale de l'inspection

Montréal, 7 décembre 2021.

MADAME NATHALIE DUGO
ABSA
9410 - 20 AVENUE N.W.
EDMONTON ALBERTA
CANADA T6N 0A4

Fabricant : PARKER HANNIFIN
RIVERSIDE RD, POTTINGTON BUSINESS PARK
BARNSTAPLE DEVON
UK EX31 1NP

Numéro de dossier : 948640
Numéro(s) de dessin(s) : HPAHM-DWG-CRN rev 4

Objet : Enregistrement des plans et devis – Confirmation de l'enregistrement

Bonjour,

Nous vous informons que votre demande d'enregistrement de plans et devis a été traitée et que cette conception a été enregistrée sous le numéro d'enregistrement canadien (NEC\CRN) suivant : **0H12507.26.**

Nous portons votre attention sur certaines exigences réglementaires concernant les installations sous pression, ainsi que des codes et normes qui y sont associés :

- Le fabricant doit maintenir un programme de contrôle de la qualité valide pour fabriquer un équipement selon ce NEC;
- Ce numéro d'enregistrement demeure valide tant et aussi longtemps que les paramètres de conception demeurent inchangés. Dans le cas d'accessoires, l'enregistrement est valide pour une durée de 10 ans à partir de la date de conception doivent alors être resoumis pour validation;
- Le fabricant doit nous transmettre une copie de l *Déclaration de conformité du constructeur (Manufacturer's Data Report)* pour chaque appareil ou chaudière fabriqué selon ce NEC dans les 30 jours suivant la signature de cette déclaration;
- Le numéro de dessin enregistré et le numéro de révision doivent être indiqués sur la déclaration de conformité pour les équipements fabriqués selon ce NEC.

Le présent avis d'approbation ne dégage pas le fabricant de ses responsabilités quant à la conception ou à la construction des équipements ou d'accessoires fabriqués selon un NEC.

Bureau d'expertise et d'homologation en équipements sous pression

Régie
du bâtiment
Québec

Direction générale de l'inspection

Montréal, le 7 décembre 2021.

MRS. NATHALIE DUGO
ABSA
9410 - 20 AVENUE N.W.
EDMONTON ALBERTA
CANADA T6N 0A4

Manufacturer : PARKER HANNIFIN
RIVERSIDE RD, POTTINGTON BUSINESS PARK
BARNSTAPLE DEVON
UK EX31 1NP

OUR REFERENCE : 948640
Design number : HPAHM-DWG-CRN rev 4

Subject: Design registration confirmation

Hi,

We wish to inform you that your design registration application has been evaluated and that it was registered under the following Canadian Registration Number (CRN): **0H12507.26.**

The following is a reminder of your obligations regarding certain requirements of the regulation respecting pressure vessels, and the referenced codes and standards:

- The manufacturer must maintain a valid quality control program to manufacture equipment according to the CRN.
- The CRN remains valid as long as there are no changes to the design calculations that might affect the pressure boundary. The design registration of fittings expires 10 years after acceptance. It must, therefore, be resubmitted for validation.
- The manufacturer shall submit a copy of the *Manufacturer's Data Report* to us for each equipment manufactured according to this CRN within 30 days following the signing of this report.
- The drawing number and the revision number registered under this CRN must be indicated on the *Manufacturer's Data Report* for equipment manufactured according to the CRN.

This notice of approval does not relieve the manufacturer of their responsibilities with respect to the design or fabrication of equipment manufactured according to this CRN.

Yours sincerely,

Bureau d'expertise et d'homologation en équipements sous pression

Montréal
545, boul. Crémazie Est, 7ième étage
Montréal (Québec) H2M 2V2
Téléphone : 514 873-6459
Sans frais : 1 866 262-2084
www.rbq.gouv.qc.ca

Régie du bâtiment Québec

Statutory Declaration Registration of Fittings

Building Act (B-1.1)
Regulation respecting pressure vessels (B-1.1, r. 6.1)
Boiler, pressure vessel, and pressure piping code (CSA B51)

This declaration must be filled out and sent to the Régie du bâtiment du Québec (RBQ) by pressure fitting manufacturers when they make an application registration for fittings.

For more information on the application registration for fittings, consult the www.rbq.gouv.qc.ca/fittings-pv.

1. Fittings to register

List the fittings included in this declaration and that you wish to register.

N°	Description	Additional information (detail, calculations or approval sheets)
1	HPAHM* Air Distribution Manifolds	Drawings: HPAHM-DWG-CRN-REV.4
2		HPAHMS1016F01MSW8F8FBVO [Flanged 150#]
3		HPAHMS616N8N8NBVO [THD]
4		Calculations: HPAHM-10-CRN-CALC REV.6
5		Existing CRN for ball valves 0C9622.56R1

2. Declaration of the person in charge

The person in charge is someone in a position of authority, such as a vice-president, a plant manager or a chief engineer.

2.1 Design

I, the undersigned, Marcus Ashford (Name of the person in charge), Engineering Manager IPDE (Title of the person in charge),

from Parker Hannifin Ltd - IPDE (Company's name), located at Riverside Road, Barnstaple, Devon, EX31 1NP United Kingdom (Plant's address)

hereby declare that the above-mentioned fittings and subject to the Regulation respecting pressure installations:

- [x] comply with the requirements of the ANSI/ASME codes as to their dimensions, identification, material and purpose

or

- [ ] are not covered by the ANSI/ASME codes, but are in compliance with ______________ (Name of code or standard)

code or standard and are designed according to the best current engineering practice, as proven by the enclosed approval report.

2.2 Manufacturing quality control

I further declare that the manufacture of these fittings is controlled by a quality control program that complies with the requirements of the following code: ISO 9001 (Name of code), and has been verified by Bureau Veritas (Authorized agency).

Signature of the person in charge: [signature]	Date (yyyy-mm-dd): 15/11/2021

3. Declaration of commissioner for oaths

I certify that this declaration has been administered before me, at ______________________, on ______________________ .
(Location) (Date (yyyy-mm-dd)):

Signature of commissioner for oaths:	Date (yyyy-mm-dd):

Stamp the seal:

4. Registration confirmation (for RBQ's use only)

As far as I know, this application complies with the requirements of the Act and with standard CSA B51, Part 1, section 4.2, and is accepted for registration in the class ______________________________ .

This registration expires in ten (10) years after the date of registration indicated above, and it must be validated again after this period.

Canadian registration number (CRN):	Registration date (yyyy-mm-dd):

Enregistré au Québec
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Québec
02/12/2021
Revue par la RBQ

Documents to attach

Any application registration for fittings must include these documents:

- Statutory Declaration Registration of Fittings (2 copies)
- Detailed calculations or burst test report (1 copy)
- Detailed technical drawings or catalogues (2 copies)
- Example of the manufacturer's marking (1 copy)
- Proof that a valid and approved quality control program has been implemented (1 copy)
- Form Application for design registration (1 copy)

Sending the form

This declaration is necessary to submit an application for design registration. Design registration applications must be sent by email only to enregistrementdesplans@rbq.gouv.qc.ca.

Documents must be in PDF format and in separate files.

Table 1 Scope of Fitting Designs**

Item #	Primary Pressure Bearing / Retaining Component	Material of Construction	Port Connections and Size Range	MDMT	Rated Pressure		Pressure Class(es) / Schedule(s)	Design Code(s) of Construction	Reference Catalogue (pages) or Drawing(s)
					At Ambient Temperature	At Maximum Temperature			
Air Distribution Manifolds HPAHM	Nominal Bore Pipe Flanged Inlet	A182 F316/316L, S31254, N04400,	NPS 2 BW, MNPT, FNPT, SW, flanged	-55°C	See Dwg HPAHM-10-DWG-CRN-03 DESIGN DATA TABLE MATERIAL SPECIFIC 316 LP Class 150# @ 40°C	See Dwg HPAHM-10-DWG-CRN-03 DESIGN DATA TABLE MATERIAL SPECIFIC 316 LP Class 150# @ 200°C	Flange Class 150# 300# Schedule 80	ASME VIII Div 1.	Cat 4190-DM
	Nominal Bore Pipe Threaded Inlet	A182 F316/316L, S31254, N04400,	NPS 2 BW, MNPT, FNPT, SW,	-55°C	See Dwg HPAHM-10-DWG-CRN-03 DESIGN DATA TABLE MATERIAL SPECIFIC 316 HP @ 40°C	See Dwg HPAHM-10-DWG-CRN-03 DESIGN DATA TABLE MATERIAL SPECIFIC 316 HP @ 200°C	N/A	ASME VIII Div 1.	
	Ball Valve	A479 UNS 31600/S31603, S31254, N04400,	FNPT, MNPT Compression fittings	-54°C	6000 Psig PTFE / PEEK Seat option	PTFE Seat: 150°C 900 Psig PEEK Seat: 200°C 6000 Psig	Up to 2500#	MMS SP99 ANSI/ASME B16.34	

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0H12507.26
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02/12/2021
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2021-04746

Tracking #:____________________

Table 2 Additional Scope Information

List/Attach Additional Detail and References (Product Configurations, Options, Illustrations, etc.)
Example: Series X Options
Flanged Inlet Style [LP Class 150#] - See Following Drawings: HPAHMS1016F01MSW8F8FBVO - MSW Male Socket Weld Distribuiton Outlets HPAHMS616F1508N8NBVO - Thread Nipple Body connection Distribuiton Outlets Threaded Inlet Style - See Following Drawings: HPAHMS616N8N8NBVO - Threaded Nipple Body connection Distribution Outlets

** For additional alternatives of Table 1, refer to Form AB-41a, Guide for Completing Form AB-41

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02/12/2021
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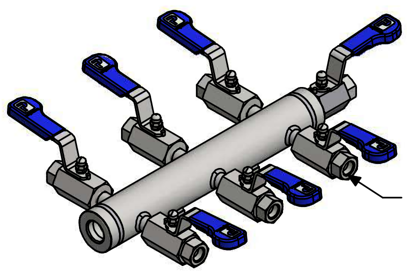
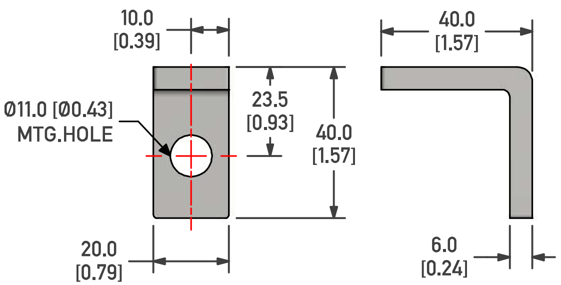
2021-04746

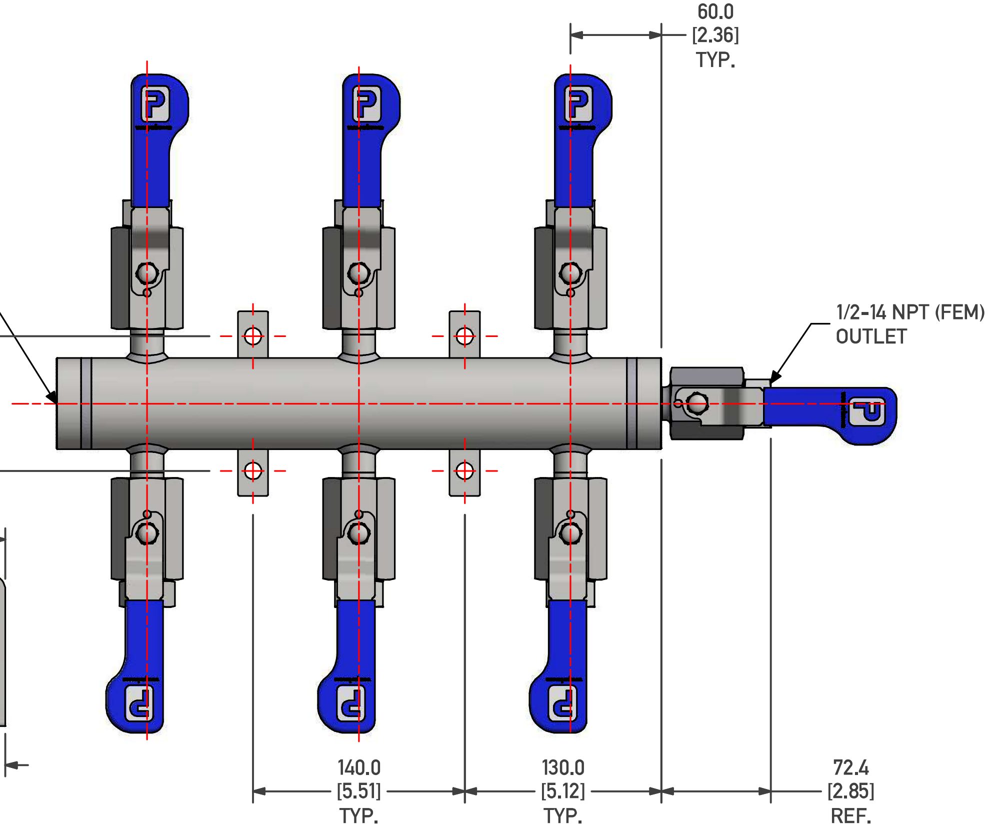
Tracking #:______________________

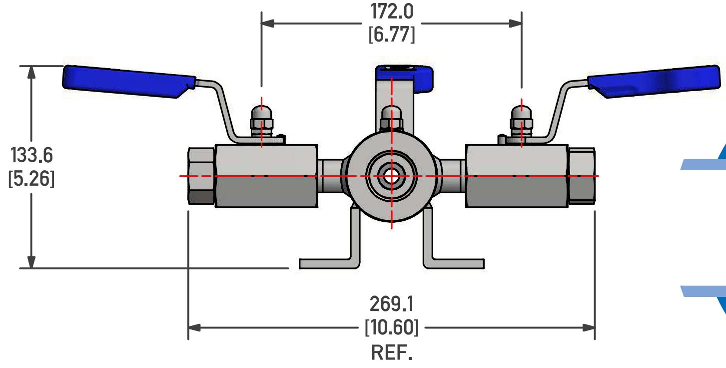


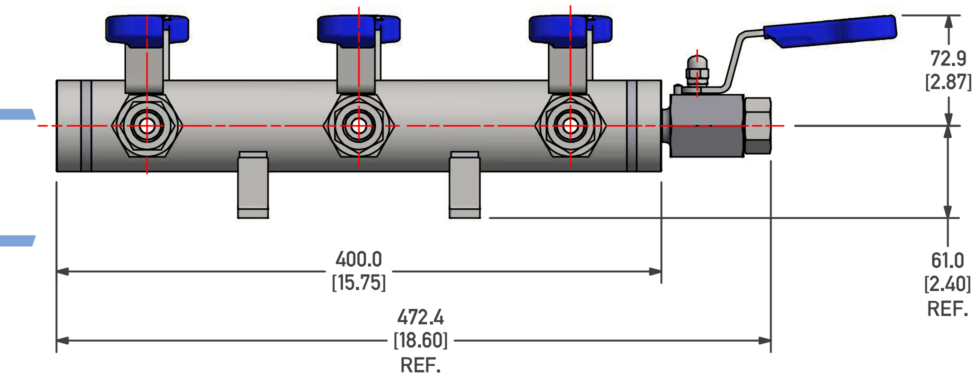
HI-PRO AIR HEADER DISTRIBUTION MANIFOLD
6 WAY
MAIN INLET : 1-11.5 NPT (FEM)
MAIN OUTLET : 1/2-14 NPT (FEM) (10mm BORE HI PRO BALL VALVE)
DISTRIBUTION OUTLET : 6-OFF 1/2-14 NPT (FEM) (10mm BORE HI PRO BALL VALVE)
MATERIAL : 316/316L ST. STL.
PACKING MATERIAL : PTFE
SEAT MATERIAL : PTFE
SUPPLIED WITH MOUNTING FEET
BODY CONSTRUCTED FROM 2" NB Sch 80 Pipe
MASS : 10.8 kg Approx.
FOR OTHER MATERIALS OF CONSTRUCTION :
SEE 'HI-PRO MATERIAL SPEC'

AIR HEADER FOOT









ALL DIMENSIONS IN mm WITH IMPERIAL EQUIVALENTS IN PARENTHESIS

DRAWING TITLE :
HI-PRO AIR HEADER DISTRIBUTION MANIFOLD
6 WAY DISTRIBUTION
1-11.5 NPT (FEM) MAIN INLET
1/2-14 NPT (FEM) MAIN OUTLET
6-OFF 1/2-14 NPT (FEM) DISTRIBUTION OUTLET

CUSTOMER ASSEMBLY DRAWING

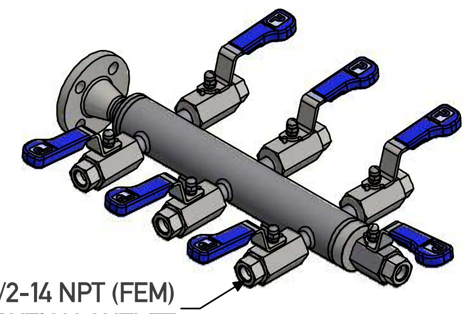
DO NOT SCALE IF IN DOUBT ASK WWW.PARKER.COM/IPD

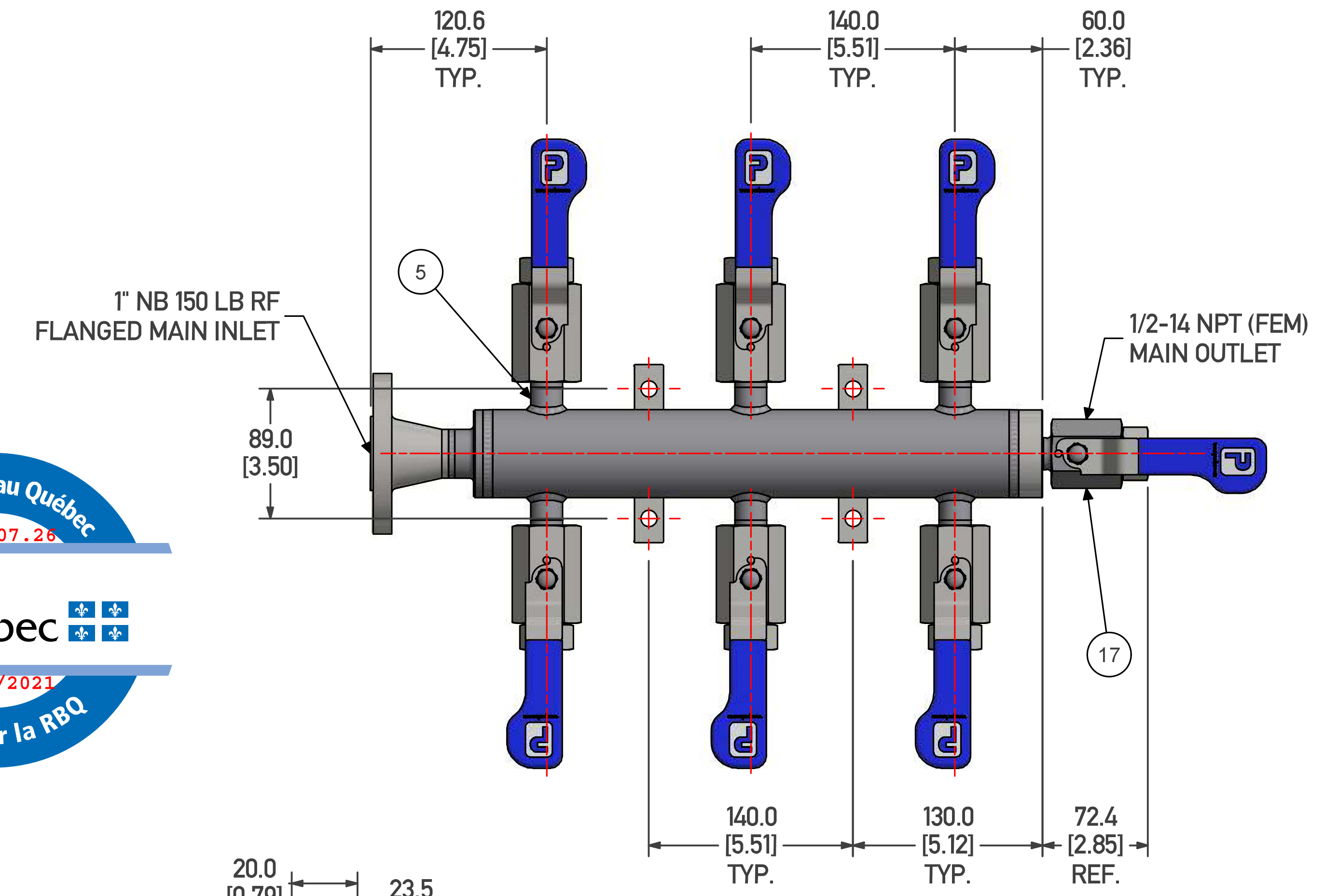
REV No. -	Version No. -
ECO NO. : ECO-0326035	ECO DATE: 03/04/2020
DRAWN BY: TECHM	DRAWN DATE: 03/04/2020
DESCRIPTION OF REV / VERSION CHANGE	
CHECKED & APPROVED BY: Approvals Using Electronic 'ENOVIA ECO WORKFLOW'	

UNLESS STATED 3rd ANGLE PROJECTION

Parker
ENGINEERING YOUR SUCCESS.

HPAHMS616N8N8NBV0



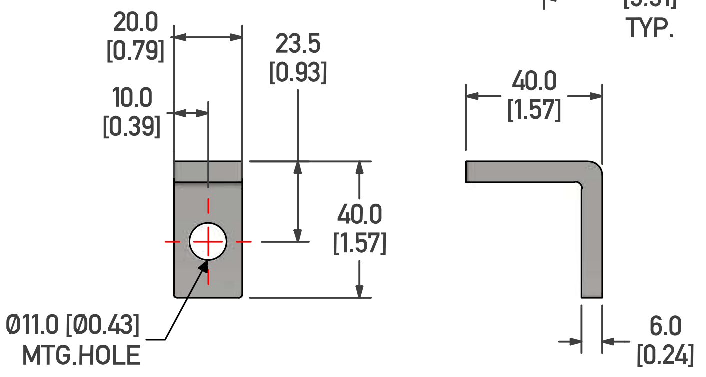


Enregistré au Québec
0H12507.26
Régie du bâtiment Québec
02/12/2021
Revue par la RBQ

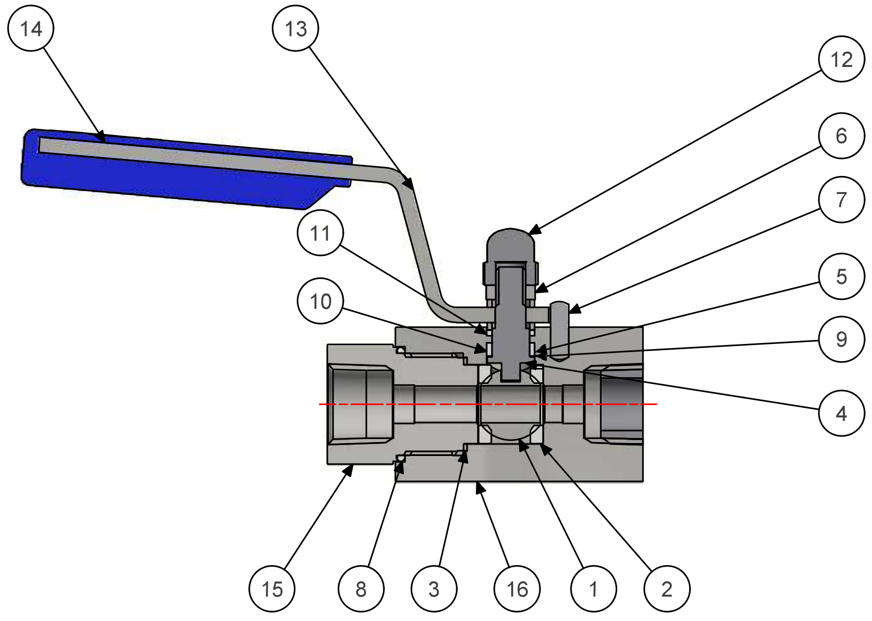
HI-PRO AIR HEADER DISTRIBUTION MANIFOLD
6 WAY DISTRIBUTION
MAIN INLET: 1" NB 150 LB RF FLANGED
MAIN OUTLET: 1/2-14 NPT (FEM)
HI-PRO BALL VALVE (10mm Bore)
DISTRIBUTION OUTLETS: 6-OFF 1/2-14 NPT (FEM)
HI-PRO BALL VALVE (10mm Bore)
BODY CONSTRUCTED FROM 2" NB SCH 80 PIPE, WELDED CONSTRUCTION
MASS: 11.8 kg Approx.

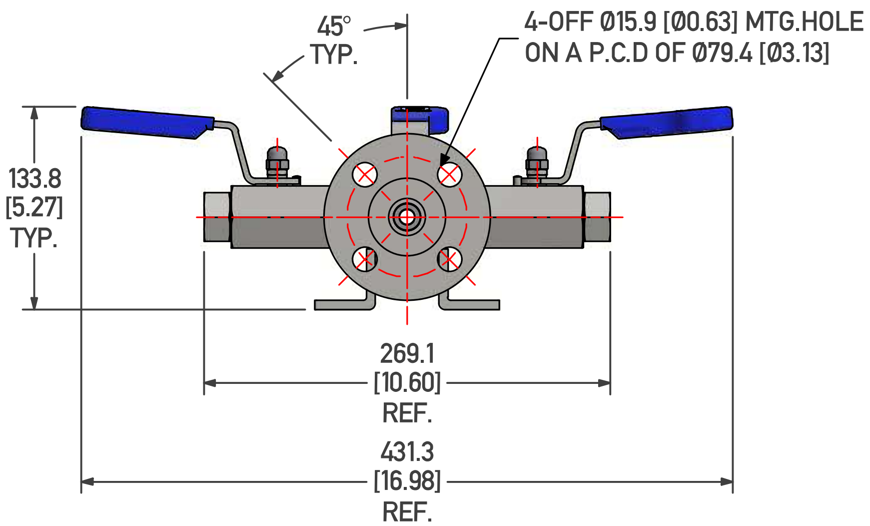
PART LIST

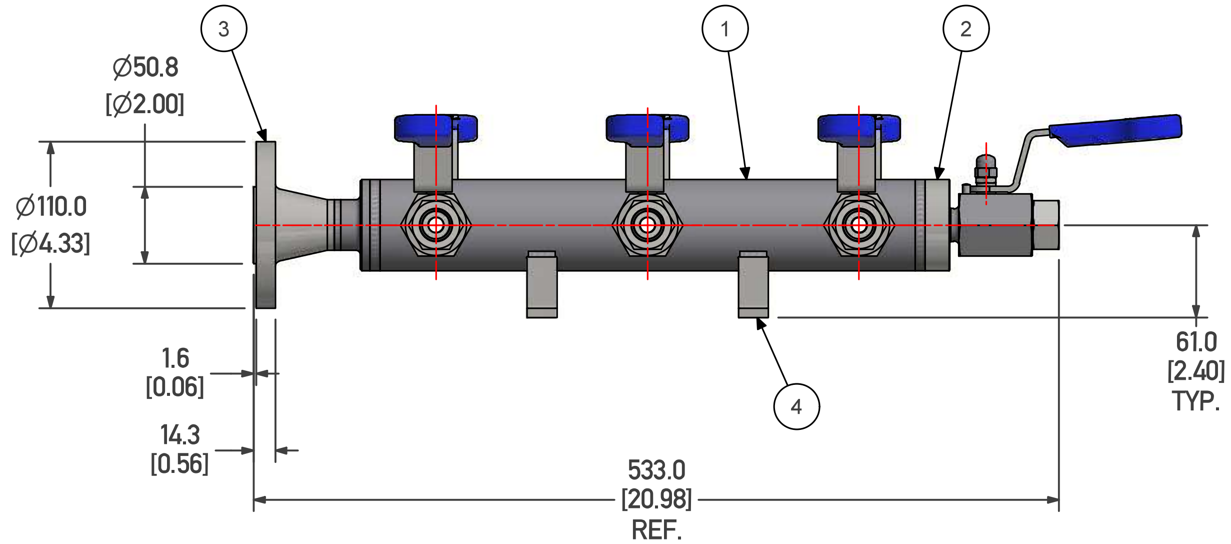
ITEM NO.	QTY.	DESCRIPTION	MATERIAL
1	7	BALL	STAINLESS STEEL, 316
2	14	SEAT	PTFE
3	7	JOINT SEAL	STAINLESS STEEL,316
4	7	STEM	STAINLESS STEEL,316
5	14	THRUST BUSH	STAINLESS STEEL,316
6	7	NUT	STAINLESS STEEL,316
7	7	SPIRAL PIN	STAINLESS STEEL,316
8	7	ENVIRONMENTAL SEAL	PTFE
9	7	THRUST SEAL	GLASS REINFORCED PTFE
10	7	PACKING	PTFE
11	7	UPPER PACKING	PTFE
12	7	DOME NUT	STAINLESS STEEL,316
13	7	HANDLE	STAINLESS STEEL,316
14	7	HANDLE GRIP	PLASTIC LDPE BLUE
15	7	BALL VALVE END CONNECTOR	STAINLESS STEEL,316
16	6	BALL VALVE BODY	STAINLESS STEEL,316
17	1	BALL VALVE BODY (MALE)	STAINLESS STEEL,316



AIR HEADER FOOT







ITEM	QTY.	DESCRIPTION	MATERIAL
1	1	6-WAY PIPE AIR HEADER	316 ST.STL.
2	1	AIR HEADER END PLATE	316 ST.STL.
3	1	WELD NECK FLANGE	316L ST.STL.
4	2	AIR HEADER FOOT	316 ST.STL.
5	6	MALE WELD STUB	316L ST.STL.

ALL DIMENSIONS IN mm WITH IMPERIAL EQUIVALENTS IN PARENTHESIS

DRAWING TITLE :
HI-PRO AIR HEADER DISTRIBUTION MANIFOLD
6 WAY DISTRIBUTION
1" NB 150 LB RF FLANGED MAIN INLET
1/2-14 NPT (FEM) MAIN OUTLET
6-OFF 1/2-14 NPT (FEM) DISTRIBUTION OUTLET
275 PSI RANGE
CUSTOMER ASSEMBLY DRAWING

DO NOT SCALE IF IN DOUBT ASK WWW.PARKER.COM/IPD

REV No.	Version No.
-	.2
ECO NO. : ECO-0273060	ECO DATE: 03/01/2019
DRAWN BY: TECHM	DRAWN DATE: 23/11/2020

UNLESS STATED 3rd ANGLE PROJECTION

DESCRIPTION OF REV / VERSION CHANGE
1. Updated with latest template and air header foot
2. Updated with BOM

CHECKED & APPROVED BY: Approvals Using Electronic 'ENOVIA ECO WORKFLOW'

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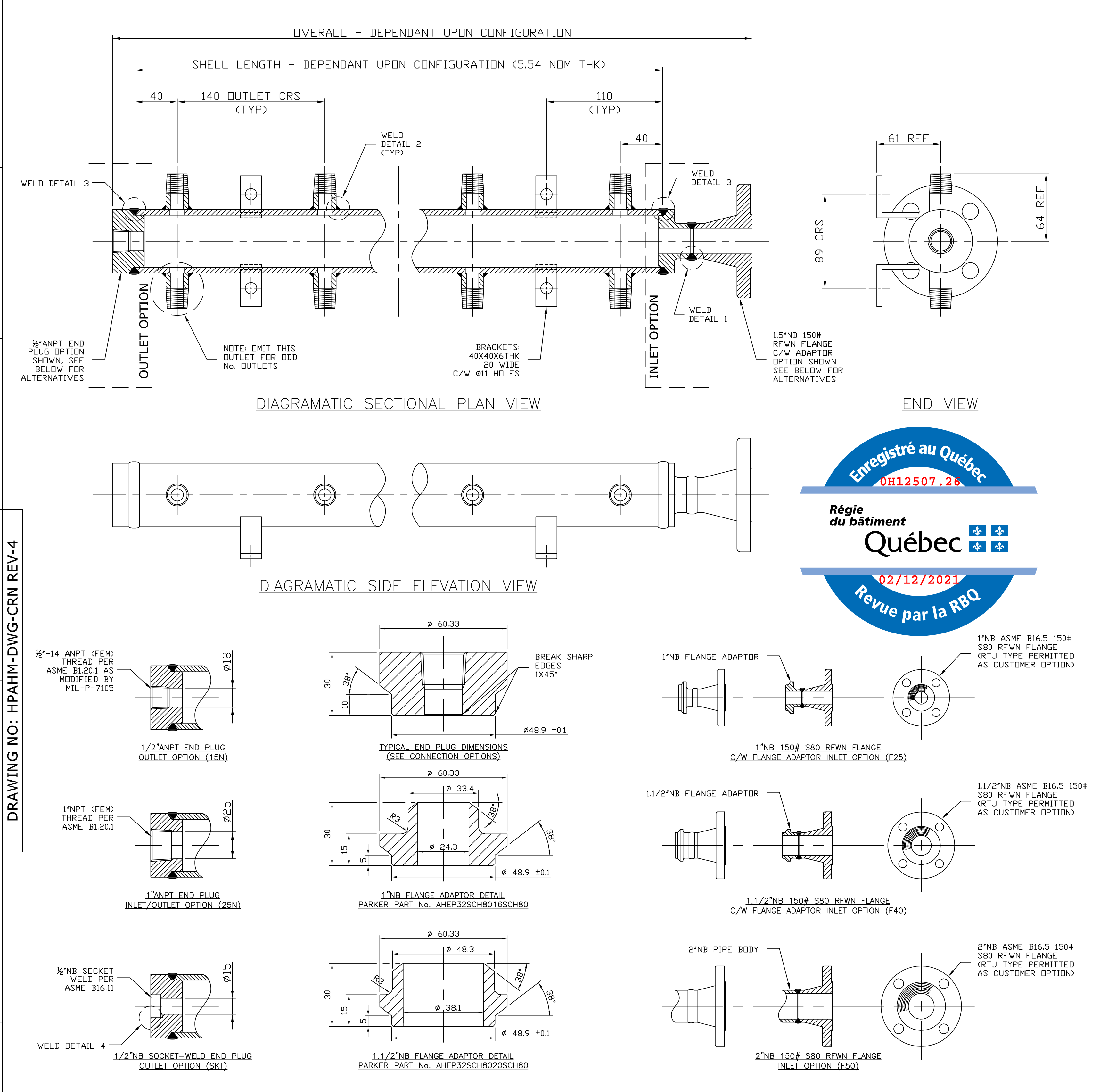
HPAHMS616F1508N8NBV0

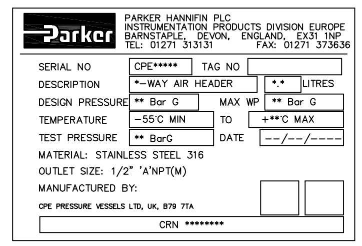
DRAWING NO: HPAHM-DWG-CRN REV-4



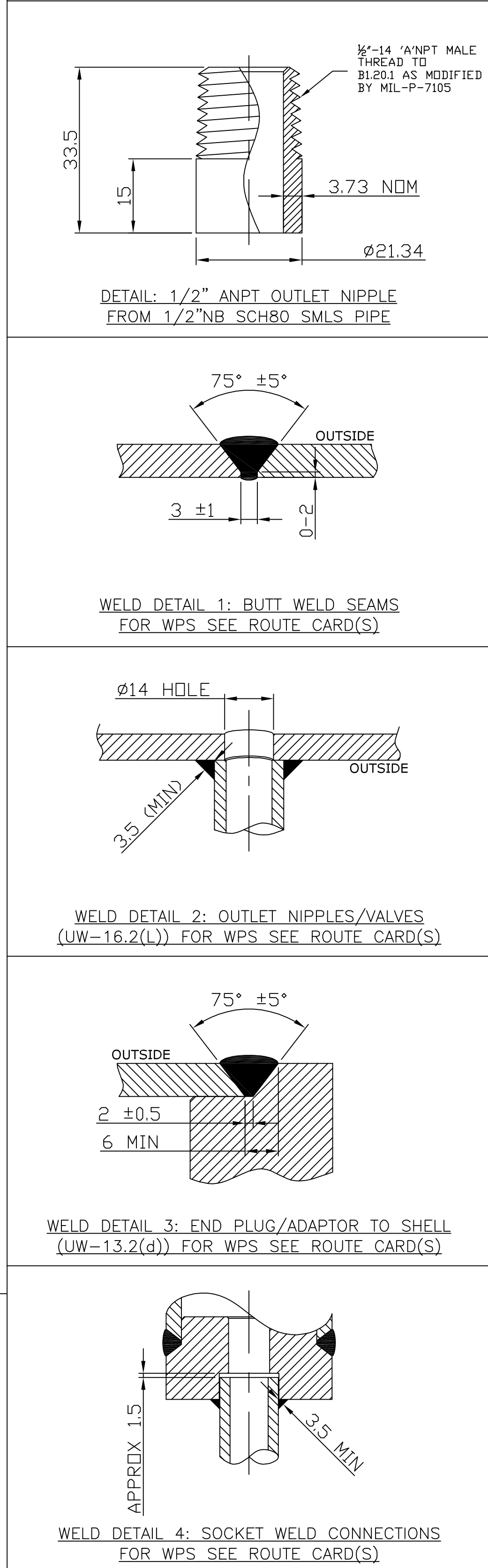
AIR HEADER DESIGNATOR:	OUTLET NUMBER:	MATERIAL:	INLET:	OUTLET:	SIDE CONNS:	DESIGNATOR OF CRN REQUIREMENT
AH	E.G. 6-WAY = 6W 4W, 5W, 6W, 8W, 10W, 12W, 14W, 16W, 18W, 20W ETC. *S = SINGLE SIDED	316 = SS.316 316L = SS.316L 254 = S31254 MON = MONEL	F25 = 1"NB 150# S80 RFWN F40 = 1.5"NB 150# S80 RFWN F50 = 2"NB 150# S80 RFWN 25N = 1"ANPT *RTJ = SUFFIX FOR RTJ OPT.	15N = 1/2"ANPT 25N = 1"ANPT SKT = SKT WLD	ANPT = 1/2"(M)ANPT NIPPLES HP = HI-PRO BALL VALVES (DIRECT WELDED TYPE)	

AH - 8W - 316 - F40 - 15N - ANPT - CRN

PART NUMBER NOMENCLATURE AND ORDERING INFORMATION (EXAMPLE SHOWN)



NAMEPLATE DETAIL: SHOWING EXAMPLE DATA
95mm x 65mm METALLISED PLASTIC STICKER



DESIGN DATA - GENERAL

DESIGN CODE	ASME VIII DIVISION 1
EDITION	2010
ADDENDA	2011a
CODE STAMP	NOT CODE STAMPED
DIRECTIVE	N/A
OTHER SPECIFICATIONS	CRN REQUIRED
PRESSURE CYCLES	NONE SPECIFIED
NOZZLE LOADINGS	NONE SPECIFIED
OTHER LOADINGS	NONE SPECIFIED
RADIOGRAPHY (CIRC SEAMS)	NONE JOINT EFF. 0.60
RADIOGRAPHY (LONG SEAMS)	NONE JOINT EFF. 0.85 (SMLS PIPE)
PT/MT (DPI/MPI)	5% PER BATCH (CUSTOMER REQUEST)
ULTRASONIC (UT)	NONE
OTHER NDE	100% VISUAL ONLY
INSPECTION	CPE ONLY
IMPACT TESTING	EXEMPT - SEE CALCULATIONS
TO CONTAIN	NON-HAZARDOUS GASES
EXTERNAL FINISH	BEAD BLAST TO UNIFORM FINISH
INTERNAL FINISH	AS MANUFACTURED - CLEAN & DRY
MDMT	-55°C
CORROSION ALLOWANCE	0mm
PWHT	NONE

DESIGN DATA - MATERIAL SPECIFIC

	DESIGN TEMP.:	40°C	65°C	80°C	100°C	125°C	150°C	200°C	250°C	300°C	325°C	350°C
MAWP (BAR G)	316 LP (150#)	19.0	17.8	17.0	16.2	15.5	14.8	13.7	12.1	10.2	9.3	8.4
	316 HP	192.0	178.0	172.0	164.0	155.0	148.0	138.0	129.0	122.0	119.0	117.0
	316L LP (150#)	15.9	14.8	14.1	13.3	12.7	12.0	11.2	10.5	10.0	9.3	8.4
	316L HP	160.0	147.0	139.0	129.0	127.0	121.0	113.0	105.0	100.0	99.0	97.0
	S31254 LP (150#)	20.0	19.0	18.4	17.7	16.8	15.8	13.8	12.1	10.2	9.3	8.4
	S31254 HP	257.0	243.0	235.0	225.0	214.0	204.0	190.0	179.0	174.0	171.0	168.0
	N04400 LP (150#)	15.9	15.0	14.4	13.8	13.4	12.9	12.5	12.1	10.2	9.3	8.4
	N04400 HP	162.0	151.0	146.0	140.0	135.0	133.0	131.0	129.0	126.0	126.0	126.0

TEST PRESSURE (BarG)	LP	HP
316	25	250
316L	22	209
S31254	27	335
N04400	21	213

MATERIAL DATA

ITEM \ MATERIAL TYPE	SS316	SS316L	S31254	N04400
SHELL	SA-312 TP316	SA-312 F316L	SA-312 S31254	SB-165 N04400
END PLUGS	SA-182 F316	SA-182 F316L	SA-182 F44	SB-164 N04400
FLANGE ADAPTORS	SA-182 F316	SA-182 F316L	SA-182 F44	SB-164 N04400
FLANGES	SA-182 F316	SA-182 F316L	SA-182 F44	SB-164 N04400
THREADED NIPPLES	SA-312 TP316	SA-312 TP316L	SA-312 S31254	SB-165 N04400
HI-PRO BALL VALVES	SS316	SS316L	S31254	N04400
MOUNTING BRACKETS	SS316	SS316L	S31254	N04400

NOZZLE SCHEDULE

NOZZLE	DUTY	NOM BORE	RATING	TYPE	SCHEDULE
-	-	-	-	-	-

NOZZLE SCHEDULE DEPENDANT UPON AIR-HEADER CONFIGURATION - SEE DETAILS AND PURCHASE ORDER(S)

CUSTOMER:	PARKER HANNIFIN PLC
SERIAL NUMBER(S):	SEE ROUTE CARD(S)
PED RISK CATEGORY:	N/A
EC UNIT VERIFICATION MODULE:	N/A
MANUFACTURER	CPE PRESSURE VESSELS LTD

TOLERANCES (U.O.S.)	
DIMENSIONS 0-500mm	± 3mm
DIMENSIONS 501-1000mm	± 5mm
DIMENSIONS 1001-5000mm	± 10mm
DIMENSIONS 5000-10000mm	± 20mm
DIMENSIONS >10000mm	± 25mm
ANGULAR DIMENSIONS	± 2°
OUT OF ROUND (CYLINDERS)	1% NOM DIA
MACHINED DIMS	AS SPECIFIED

DRAWN BY : P.O. CHECKED BY : -

REV	DATE	DESCRIPTION	ISS
4	24/09/21	TEST PRESSURES ADDED	P.O.
3	25/08/21	PRESSURE/TEMP RATINGS ADDED	P.O.
2	23/04/14	MDMT CHANGE	M.B.
1	08/06/12	HI-PRO BALL VALVE ADDED, RTJ FLANGE OPTION, PARKER BRANDING	P.O.
0	15/05/12	ORIGINAL ISSUE	P.O.

AIR HEADER MANIFOLD ASSEMBLY

DATE	SCALE	DRAWING No
24/09/21	--:--	HPAHM-DWG-CRN

DO NOT SCALE

ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

IF IN DOUBT - ASK!

FIRST ANGLE PROJECTION

PARKER HANNIFIN PLC
INSTRUMENTATION PRODUCTION DIVISION
RIVERSIDE ROAD, POTTINGTON BUSINESS PARK, BARNSTAPLE,
DEVON, EX31 1NP, UK; TEL: +44(0)1271 313131