# Design Appraisal Document

**Document Number** 

: DAD-IND-010351-01

Issue Number

: 02

Dated

: 1 July 2017

Page Number

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Client Name	FLUID CONTROLS PVT. LTD	IND Number or W/o Number	IND-010351
Item Description	SINGLE FERRUL FITTINGS	TÜV SÜD South Asia coordinator	MR. ANAND DESHPANDE
Design Code	ISO 8434-1 & DIN 2353	Client Project Details	NA
Client Contact Person And Contact Number	MR. RAHUL PATIL 020-46901000	Client email ID / Website	rahul.patil@fluidcontrols.com

The undernoted documents are review for compliance with the above mentioned design code for the specified design / operating conditions and following are the observations of our design examination -

## Results of the Design Examination / Appraisal:

☑	No objections were found.
	A re-evaluation is required.
	Please observe our comments mentioned on the appraised documents.
	Re-submission of documents is required.
	Deviations, additions to or exclusions from the test specification.
	Non-standard test methods or procedures utilized.
	Utilised measurements, examinations and derived results.

#### **General Notes:**

- 1. All the appraised documents are sent in e-format only. In-case hard copies of the appraised documents are required, client has to send the required hard copies of these documents to our office.
- The results of this evaluation are valid only for the undernoted documents. A partial duplication of this report / appraisal without our written consent is not permitted.
- 3. The invoice in conjunction with this evaluation will be sent separately.

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#### A. General Comments:

- 1. The following are outside the scope of this appraisal unless otherwise noted; Client to take necessary action to comply with the same wherever applicable.
  - i. Checking to standards other than the design Code mentioned above.
  - ii. Review of process suitability.
  - iii. Review of civil foundation and anchorage requirement.
  - iv. Review of internal / external attachments, supports, lifting / rigging, etc. and its effect (local as well as global) on the equipment.
  - v. Suitability of gasket material for the design & operation condition.
  - vi. Review of effect form differential thermal expansion, expansion elements, cyclic loading, high temperature design in creep range, etc.
  - vii. Review of effect from external loads like nozzle loads, wind/seismic/snow loads, etc.
- 2. The mechanical properties must be guaranteed by the materials manufacturers within the quality system and certification as per the above mentioned design Codes.
- 3. Construction & testing should be carried out to the requirements of the design Code and to the satisfaction of the surveyor.

# B. Design Appraisal Comments:

1. Based upon type testing details provided by the customer, pressure / temperature rating for the stainless steel fittings from size 10 mm to 42 mm (both inclusive) mentioned in the appraised documents complies to ISO 8434-1.



# **List of Appraised Documents:**

Sr. No.	Description	Document Number	Revision	Received Date	Status
1	BULKHEAD ELBOW 24° CONE ENDS	NA	A3	06-Mar-2017	Р
2	BULKHEAD UNION 24° CONE ENDS	NA	A3	06-Mar-2017	Р
3	FERRULE	NA	A1 .	06-Mar-2017	Р
4	FITTING END CLOSURE	NA	A3	06-Mar-2017	Р
5	MALE CONNECTOR 24° CONE x BSPP THREAD METAL TO METAL SEALING	NA	A3	06-Mar-2017	Р
6	MALE CONNECTOR 24° CONE x BSPP THREAD WITH ED-SEAL	NA	A3	06-Mar-2017	Р
7	MALE CONNECTOR 24° CONE x METRIC THREAD METAL TO METAL SEALING	NA	A3	06-Mar-2017	Р
8	NUT	NA	A3	06-Mar-2017	Р
9	O-SEAL MALE CONNECTOR 24° CONE x METRIC THREAD WITH O-RING	NA	A3	06-Mar-2017	Р
10	POSITIONABLE ELBOW 24° CONE x BSPP(M)	NA	A3	06-Mar-2017	Р
11	POSITIONABLE RUN TEE 24° CONE x BSPP(M)	NA	A3	06-Mar-2017	Р
12	REDUCING SWIVEL CONNECTOR 24° DKO SWIVEL x 24° CONE	NA	A3	06-Mar-2017	Р
13	REDUCING TEE BODY 24° CONE ENDS	NA	A3	06-Mar-2017	P
14	ROUND LONG UNION 24° CONE ENDS	NA	A3	06-Mar-2017	Р
15	SWIVEL BRANCH TEE 24° CONE x 24° DKO SWIVEL	NA	A3	06-Mar-2017	Р
16	SWIVEL ELBOW 24° CONE x 24° DKO SWIVEL	NA	A3	06-Mar-2017	P
17	SWIVEL MALE CONNECTOR 24° DKO SWIVEL x BSPP THREAD WITH ED-SEAL	NA	A3	06-Mar-2017	P
18	SWIVEL MALE CONNECTOR 24° DKO SWIVEL x METRIC THREAD WITH ED-SEAL	NA	A3	06-Mar-2017	Р
19	SWIVEL O-SEAL MALE CONNECTOR 24° DKO SWIVEL x METRIC THREAD WITH ED-SEAL	NA	A3	06-Mar-2017	P
20	SWIVEL RUN TEE 24° CONE x 24° DKO SWIVEL	NA	A3	06-Mar-2017	Р
21	SWIVEL UNION 24° CONE x 24° DKO SWIVEL	NA	A3	06-Mar-2017	Р
22	UNION 24° CONE ENDS	NA	A3	06-Mar-2017	Р
23	UNION CROSS 24° CONE ENDS	NA	A3	06-Mar-2017	Р
24	UNION ELBOW 24° CONE ENDS	NA	A3	06-Mar-2017	Р
25	UNION TEE 24° CONE ENDS	NA	A3	06-Mar-2017	Р
26	WELD-ON STRAIGHT CONNECTOR 24° CONE x WELD OD	NA	А3	06-Mar-2017	Р

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Sr.	Description	Document	Revision	Received	Status
No.		Number		Date	
27	Type test certificate	16p10039 + PUN/16/NT/562	Dated 14-10- 2016	28-06-2017	PI

With Best Regards



Abhijit Umarkar

For TÜV SÜD South Asia Pvt. Ltd. IS – Design Appraisal

### **Abbreviation List:**

Р	Appraised	PI	Retained for Information
PR	Company to provide the resolution pertaining to the matters identified within the Commented Documents and this Design Appraisal Document.		
PS	Company to provide the details pertaining to the matters identified within the Commented Documents and this Design Appraisal Document to		
	our Local Surveyor Office or Attending Surveyor for the compliance.		

Appeals against the results of the examination laid down in this report can be addressed to our department at any time in written format only.