



APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:
AMMM0000318

This is to certify:

That

Arvind Pipes Fittings Industries
Plot No. 203, Siddhi Industrial Infra Park, Opp Waghodia GIDC,
Near MGVCL Waghodia, Baroda 391 760,
India

is an approved manufacturer of
Steel Pipes and Fittings

in accordance with
DNV rules for classification – Ships
DNV class programme – DNV-CP-0252 Steel pipes and steel pipe fittings
DNV class programme – DNV-CP-0247 Steel forgings

and the following particulars:

Product	Pipe fittings
Application area	Forged fittings and flanges
Steel type	Piping fittings
	Carbon and carbon-manganese,
	Alloy,
	Austenitic stainless,
	Ferritic-austenitic (Duplex) stainless,
	See page 2
Manufacturing method	Seamless and forged
Max. outer diameter	See page 2
Max. wall thickness	See page 2
Heat treatment condition	See page 2
Additional approval conditions	See page 2

Manufacturer(s) approved by this certificate is/are accepted to deliver according to DNV GL, DNV and GL rules.
Materials to be applied to DNV classed object shall fulfill the material requirements in the applicable DNV class rules.

Issued at **Hamburg** on **2023-03-30**

for **DNV**

This Certificate is valid until **2026-03-29**.

DNV local unit: **India CMC & NB**

Approval Engineer: **Christian Wildhagen**

Thorsten Lohmann
Head of Section

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Form code: AM 311

Revision: 2022-12

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Particulars of the approval

Piping fittings ³⁾

Steel type	Grade ⁴⁾	Manufacturing method ¹⁾	Max. outer diameter [mm]	Max. wall thickness [mm]	Heat treatment condition ²⁾
C and C-Mn	ASTM A234	CFS	324	34	N
Austenitic	304	CFS	324	34	SHT
	304L				
	316				
	316L				
Duplex	22Cr	CFS	324	34	SHT
	25Cr				

Forged fittings and flanges

Steel type	Grade ⁴⁾	Manufacturing method ¹⁾	Max. outer diameter [mm]	Max. wall thickness [mm]	Heat treatment condition ²⁾
C and C-Mn	NV 450H	CD	324	80	N
	NV 490H				
	ASTM A105				
Austenitic	304	CD	324	80	SHT
	304L				
	316				
	316L				
Duplex	22Cr	CD	324	80	SHT
	25Cr				

Remarks:

- 1) CFS: cold finished seamless
CD: closed die forging
- 2) N: Normalised
SHT: Solution Heat Treated (solution annealing)
- 3) Suitable pipe fittings shall be selected from the following recognized standards:
EN 10253, EN 10222, ASTM A182, ASTM A234, ASTM A350, ASTM A403, ASTM A420, ASTM A774, ASTM A815, ASTM A960, ASTM A961, JIS B2312, JIS B2313 or JIS B2316.
- 4) Incl. equivalent grades in acc. to other standards

Special conditions:

Including austenitic stainless steel for approved low-temperature applications