



**CERTIFICATE OF APPROVAL OF MANUFACTURERS OF
MATERIALS**
No. **FAB044821XG**

This is to certify that the manufacture of the product identified below is in compliance with the applicable requirements of the RINA Rules for the Approval of Manufacturers of Materials.

<i>Description</i>	Pipes and fittings
<i>Type</i>	Press Fitting System: NiroSan Series 9000, NiroSan Gas Series 17000, NiroSan Industry Series 18000
<i>Manufacturer</i>	Sanha Gmbh & Co. KG
<i>Place of manufacture</i>	Hauptstraße 76 01909 Großharthau-Schmiedefeld Germany
<i>Reference standards</i>	RINA Rules for the approval of manufacturers of materials

Issued in **HAMBURG** on **January 28, 2021**. This Certificate is valid until **January 27, 2026**



T. Wilmsmann

**RINA Services S.p.A.
Tobias Wilmsmann**

This certificate consists of this page and 2 enclosure





CERTIFICATE OF APPROVAL OF MANUFACTURERS OF MATERIALS

No. FAB044821XG

Enclosure - Page 2 of 3

Press Fitting System in Stainless and Carbon Steel

APPROVAL CONDITIONS

Press fittings for different applications made from stainless steel AISI 316L (1.4404) or AISI 316 (1.4408) with nominal diameters of 15 mm up to 108 mm and with wall thickness of 1.0 mm to 2.0 mm. Fittings are sealed with a synthetic rubber O-ring and to be assembled by pressing tool.

Shaped fittings from galvanized carbon steel E195 (1.0034) with nominal diameters of 12 mm up to 108 mm and with wall thickness of 1.0 mm to 2.0 mm. Fittings are sealed with a synthetic rubber O-ring and to be assembled by pressing tool.

Press Fittings stainless steel - Technical Data

Type	Dimension / Diameter	Working Pressure	Fitting Material	Gasket material
Nirosan Serie 9000	15 mm - 108 mm	max. 16 bar	AISI 316L / 1.4404 AISI 316 / 1.4408	EPDM
Nirosan Gas Serie 17000	15 mm - 108 mm	max. 16 bar	AISI 316L / 1.4404 AISI 316 / 1.4408	HNBR
Nirosan Industry Serie 18000	15 mm - 108 mm	max. 16 bar	AISI 316L / 1.4404 AISI 316 / 1.4408	FKM

Press Fittings carbon steel - Technical Data

Type	Dimension / Diameter	Working Pressure	Fitting Material	Gasket material
SANHA-Therm Serie 24000	12 mm - 108 mm	max. 16 bar	E195 (1.0034)	EPDM
SANHA-Therm Industry Serie 28000	12 mm - 108 mm	max. 16 bar	E195 (1.0034)	FKM

Pipes:

Type: NiroSan Systemrohr Serie 9000 and F Serie 9700, compliant to EN 10312

NiroSan Systemrohr 9600 NiroSan-Eco, NiroTherm Systemrohr Serie 9100, compliant to EN 10312

Externally galvanized carbon steel SANHA-Therm Serie 24000

Complete galvanized carbon steel SANHA-Therm DZ Serie 24000-DZ

Material: Stainless Steel AISI 316(L) (1.4404 & 1.4408), Stainless Steel AISI 304 (1.4301) or AISI 444 (1.4521)

Carbon Steel E195 (1.0034)



The temperature range for the fittings are limited by selected soft seal material.

Gasket material	Temperature
EPDM	-30°C up to +120°C
HNBR	-20°C up to +70°C
FKM	-20°C up to +200°C

General conditions for the approval

-The approval is granted on condition that the RINA Rules for the approval, manufacture, testing and certification of materials are complied with in all respects.

-RINA is to be notified of any change of materials, manufacturing process, quality control routines that may affect the validity of this certificate.

HAMBURG 08.03.2021

