

Pressure ratings for NEUMO NEG–Clamps

from 1/2" up to 4 1/2"

Description

NEUMO NEG–Clamps (types: NEG–S, NEG–SH, NEG–SAFE and NEG–SSH) in different sizes (from 1/2" up to 4 1/2") are subjected to pressure and leakage tests as detailed below.

Test description

The tests have been carried out to prove that the NEUMO NEG–Clamps can sustain the test specifications. The test system (NEUMO NEG–Clamps, appropriate clamp ferrules and measurement devices) is filled with water at ambient conditions, heated to the target test temperature and adjusted to the target test pressure. After stabilization of temperature and pressure, the test begins.

Test specifications

Gasket material used:	Silicone
Ferrules used:	DIN11864-3, partially custom made (stainless steel)
Target test temperature:	150°C
Target test pressure:	see figure 1
Target test time:	5 minutes

Test acceptance criteria

No leakage within target test time
No pressure drop below target test pressure

Test results

All tests have been successfully passed.

Derivation of maximum working pressure ratings

The maximum working pressure ratings for the NEUMO NEG–Clamps are derived from the test specifications based on the method described in the standard "AD 2000-Merkblatt, S5, Ausg. 07.2009".

Maximum working temperature: 150°C (*)
Maximum working pressure ratings: see figure 2

(*): a suitable, temperature resistant gasket material must be chosen

Suitability of NEUMO NEG–Clamps

Figure 3 shows the maximum allowed working pressures according to various common standards. A comparison with the maximum working pressure ratings of NEUMO NEG–Clamps (see figure 2) shows that the types NEG–S, NEG–SH and NEG–SAFE can be used for components according to DIN 32676:2025-09, ASME BPE-2024 and NEUMO BioConnect®. In addition the type NEG–SSH can also be used for components in accordance with DIN 11864-3:2025-04 and NEUMO ConnectS®, if maximum pressure is needed (see figure 3).

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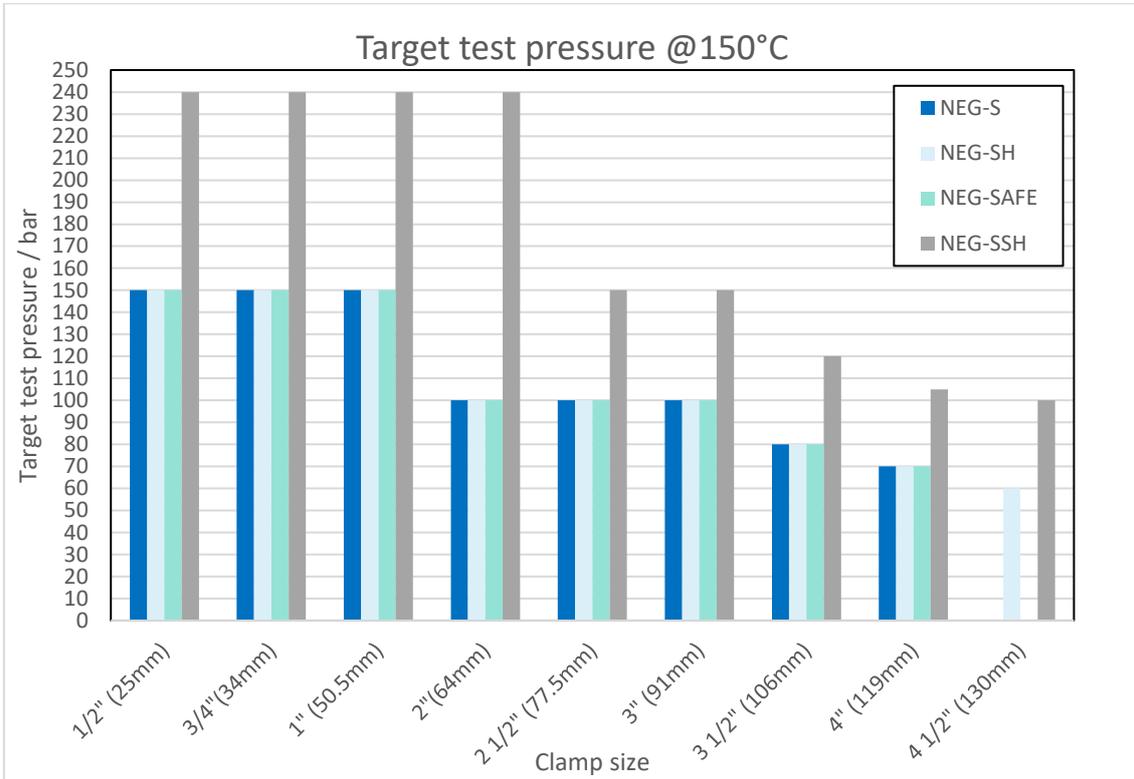


Figure 1: Target test pressure for clamp sizes from 1/2" up to 4 1/2"

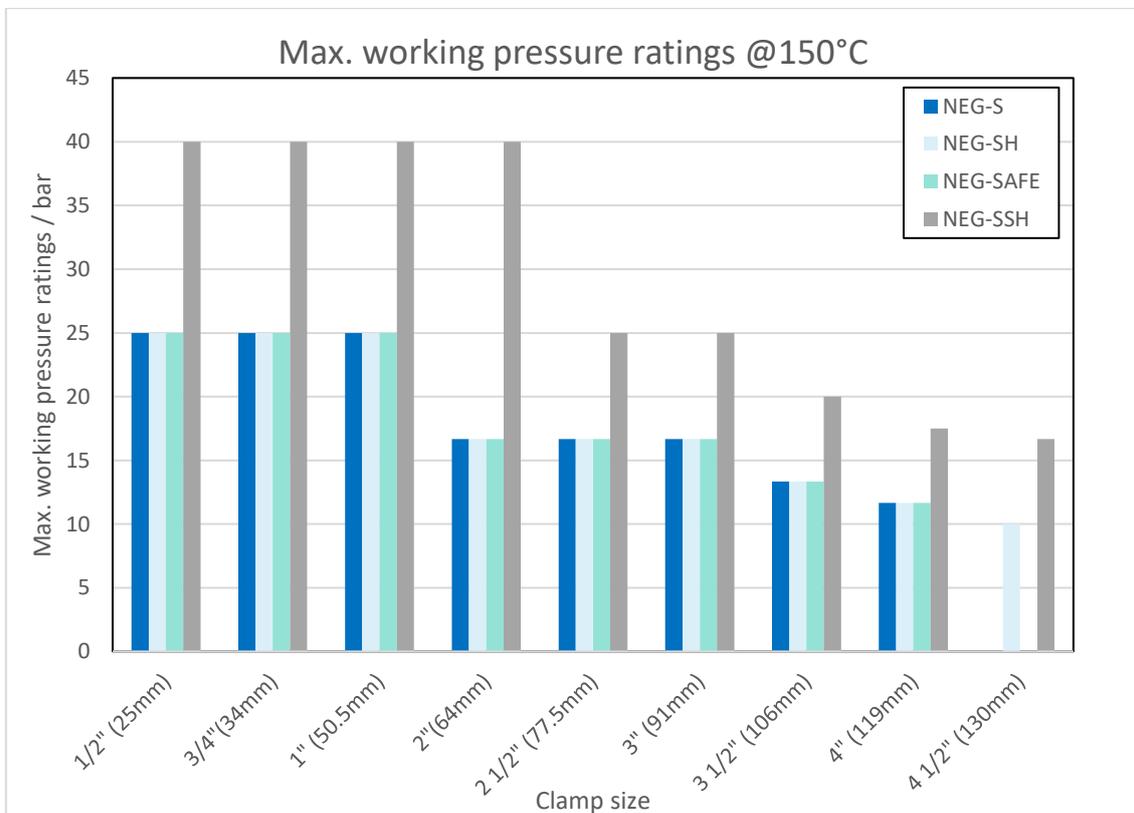


Figure 2: Maximum working pressure ratings for clamp sizes from 1/2" up to 4 1/2"

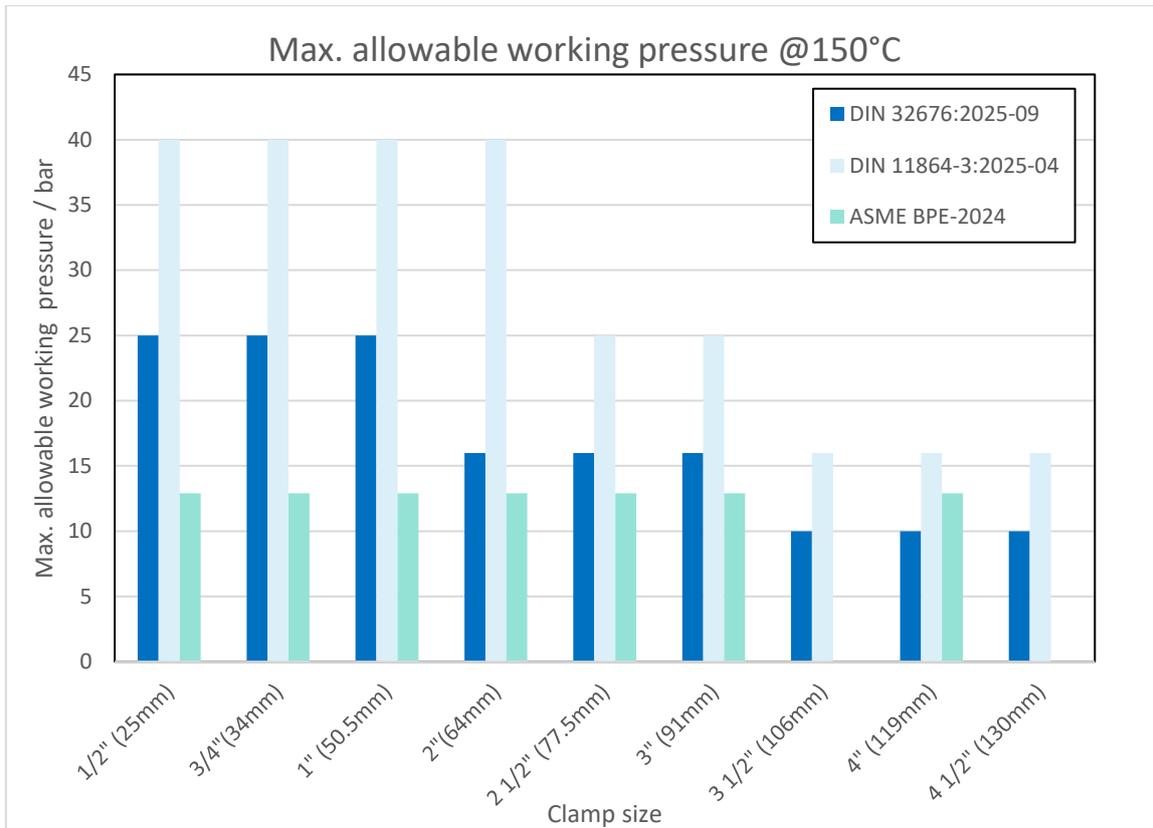


Figure 3: Maximum allowable working pressure according to various common standards for clamp sizes from 1/2" up to 4 1/2"