

Extraction pump

TURBAIR®

**Drainage of process water
from vacuum chamber.**

Characteristic features

- Non-clogging
- Self-priming
- Self-regulating
- Intermittent operation



**Well-proven design, over
10,000 units in operation**

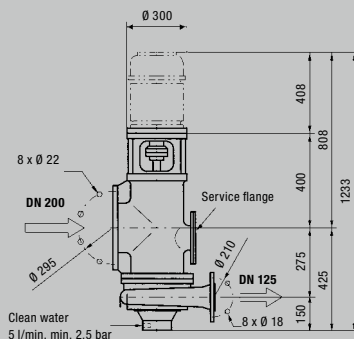
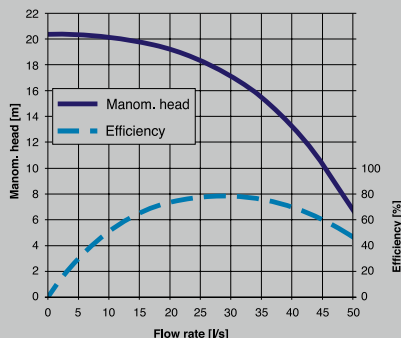
Extraction pump NPCV 12½

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Operating data

type	flow rate [l/min]	delivery head geod.	power [kW] electric motor	speed [rpm]	weight [kg]
NPCV 12½	2,000	15 m	7.5	1,450 or 1,750	200

(clean de-aerated water)



Operation

The pump is vertically mounted and in continuous operation; thus a suction control is not necessary. The pump is self-regulated according to the amount of water to be handled. It operates stable even if there is no medium flow through the pump. A clean-water supply is provided to the bottom end bearing for lubrication and also for sealing against the inrush of process water. In addition, the clean-water supply serves for cooling of the pump when there is no delivery medium flow through the pump. As the pump normally operates under vacuum, a non-return valve is to be installed in the discharge pipe in order to prevent any back flow of the medium as well as the inrush of atmospheric air.

Design

The NPCV extraction pump is a single-stage centrifugal pump featuring a central inlet and a tangential discharge as well as a vertical shaft, single-stage spiral casing with single flow direction. A deairing line must be installed only between the NPCV 12½ pump and the corresponding vacuum chamber to optimize the medium flow amount through the pump. The bearing assembly comprises a clean-water lubricated, low-maintenance plain bearing at the bottom end, a solid coupling and a fixed bearing in the electric motor at the drive end. This guarantees an exact concentricity.

The spiral casing (discharge casing) can be rotated at steps of 45° to the intermediate casing (suction casing). The shaft seal consists of an easy accessible, maintenance-free labyrinth-sealed bush.

The pump is driven by a three-phase squirrel-cage motor with air cooling and with a fixed bearing at the drive end. Construction IM V1, enclosure IP55 according to IEC standard or NEMA and main dimensions according to DIN or ANSI.

Material specification

- NPCV-12.5 à grey cast iron casing with stainless steel impeller
- NPCV-12.5X à made completely out of stainless steel



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