

Title (en)

A method for protecting a turbo compressor from operating in an unstable range by means of valves having two actuating speeds

Title (de)

Verfahren zum Schutz eines Turbokompressors vor Betrieb im instabilen Arbeitsbereich mittels Armaturen mit zwei Stellgeschwindigkeiten

Title (fr)

Procédé de protection d'un turbo compresseur contre l'opération dans un domaine instable au moyen de vannes ayant deux vitesses de réglage

Publication

EP 0771950 B1 20021120 (DE)

Application

EP 96115284 A 19960924

Priority

DE 19541192 A 19951104

Abstract (en)

[origin: EP0771950A1] The method involves deriving a control parameter from measured values for at least the compressor throughflow and pressure, and from predetermined reference values, in order to regulate the opening of the blower using a pump limiting controller. The controller couples the measured values for the temperature, throughflow, and pressure to a dynamic bleed characteristic line (42), and drives both bleed elements (3,4) in the device in sequence. The signal for a rapid opening of both elements is sent first to a small blowing element (3), and after the opening of the latter, to a large blowing element (4). The controller has data to determine the compressor working point motion in the direction of the pumping limit, and if this motion is slow the elements are driven in sequence, and if it is rapid they are adjusted simultaneously.

IPC 1-7

F04D 27/02

IPC 8 full level

F04D 27/02 (2006.01)

CPC (source: EP US)

F04D 27/0223 (2013.01 - EP US); **F04D 27/023** (2013.01 - EP US)

Designated contracting state (EPC)

CH DE FR GB IT LI NL

DOCDB simple family (publication)

EP 0771950 A1 19970507; **EP 0771950 B1 20021120**; DE 19541192 A1 19970515; DE 19541192 C2 19990204; DE 59609882 D1 20030102; US 5762468 A 19980609

DOCDB simple family (application)

EP 96115284 A 19960924; DE 19541192 A 19951104; DE 59609882 T 19960924; US 74203896 A 19961101