Aerzen Positive Displacement Blowers in standard design

3-lobe positive displacement blowers type GM
intake volume flow approx. 30 to 65.000 m³/h

22 sizes GM 3 S to GM 1080 L

Fields of application
Oil-free conveying of air and neutral gases.
Operating pressure up to max. 1000 mbar gauge.
Suction operation: up to max. -500 mbar gauge.

Design
Blower with 3-lobe rotors and two cast-in pre-inlet channels in the discharge-sided cylinder part to minimize the sound by pulsation reduction.
Housing ribbed and air-cooled.
Blower cylinder undivided up to GM 400 L.
From GM 430 S the cylinders are horizontally divided.
Up to GM 80 L the feet at the blower are bolted on, larger sizes are cast on.
Lube oil supply by splash lubrication.

Materials
Housing parts (cylinder, side plates, gear case and housing cover) made of GG-20. Shafts made of C 45 N and rotors made of C 45 N (GM 3 S up to GM 80 L)
shafts and rotors are forged in one piece.
On size GM 90 S and GM 130 L pistons and shafts are cast of one piece EN-GJS-500-7 (GGG50). Rotors made of EN-GJS-400-15 (GGG40). (GM 150 S up to GM 1080 L)
helical timing gears made of 16 Mn Cr 5E.

In case other materials are needed, please ask for!

Shaft sealings
Conveying chamber seal by 4 piston ring labyrinth seals with oil slingers at each shaft end.
On request, 4 radial seal ring-piston ring-labyrinth seals are available.
Driving shaft seal by radial seal ring.
In case of gastight design of the driving shaft 2 radial seal rings are used with an intermediate grease trap.

Direction of flow
from top to bottom (vertical)

Position of the driving shaft
left (viewed onto the driving shaft)
alternatively the driving shaft is possible at the right

Drive
Overhung drive via narrow v-belt, directly driven via flexible coupling or with gearbox.

Regarding further details please see leaflet G1-066.
If required, please ask for.

GM 3 S