

AERZEN

SCREW COMPRESSORS

Aerzen Screw Compressors VR for process gas technology
Modular system single- and multi-stage for
dry compression of process gases



AERZEN

AERZENER MASCHINENFABRIK
GMBH

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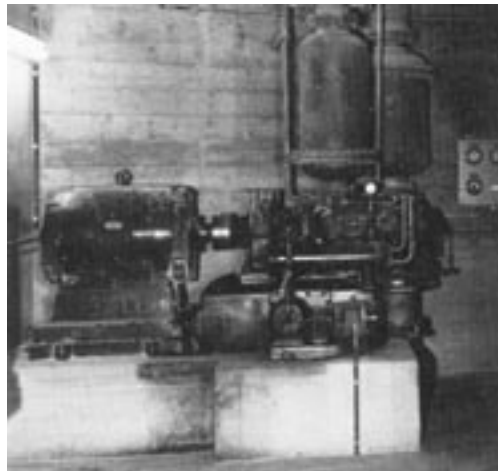
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Tradition with plans most up-to-date

The Aerzener Maschinenfabrik has been manufacturing screw compressors since 1943, based on the SRM principle, with our more than 50 years' experience of special screw compressor types to meet the needs of the processing industry.

Consequently, the company has gained an all-round knowledge relating to the design and manufacture of process gas screw compressors as well as specialized knowledge regarding the various fields of application for these machines - *as no other manufacturer world-wide!*



Aerzen process gas compressor VR 325.0019-5
built in 1951 - *and it runs and runs and runs*



Soda Sanayii, Mersin (Turkey),
compression of lime kiln gas
VRO 836 L,
intake volume flow of 45.000 m³/h, compression of 0,85 to 3,5 bar (abs.),
water-purged carbon labyrinth sealing

In 1998 the Aerzen process gas screw compressor VRO was subject to a complete product optimization. In order to offer shortest planning- and delivery times at a maximum amount of flexibility and planning security, the compressor as well as the plant engineering were standardized consistently.

With the optimized series of the Aerzen process gas compressors a push concerning development is combined which can fulfill also in future the constantly rising market requirements.

This also includes the following:

- Segmental type of construction which results in optimum adjustment to all process gas technical requirements.
- Sealing variants can be exchanged among themselves
- Convection cooling of the compressor casing
- Separate oil system
- Casing material made of nodular cast iron GGG 40 as minimum requirement
- Higher volume flows at lower rotor circumferential speeds
- Simple and clear construction of the unit
- 50 years' experience regarding process gas technology
- Starting from quotation preparation up to service - carried out exclusively by Aerzen experienced staff
- Quality assurance acc. to DIN ISO 9001
- Aerzen reliability

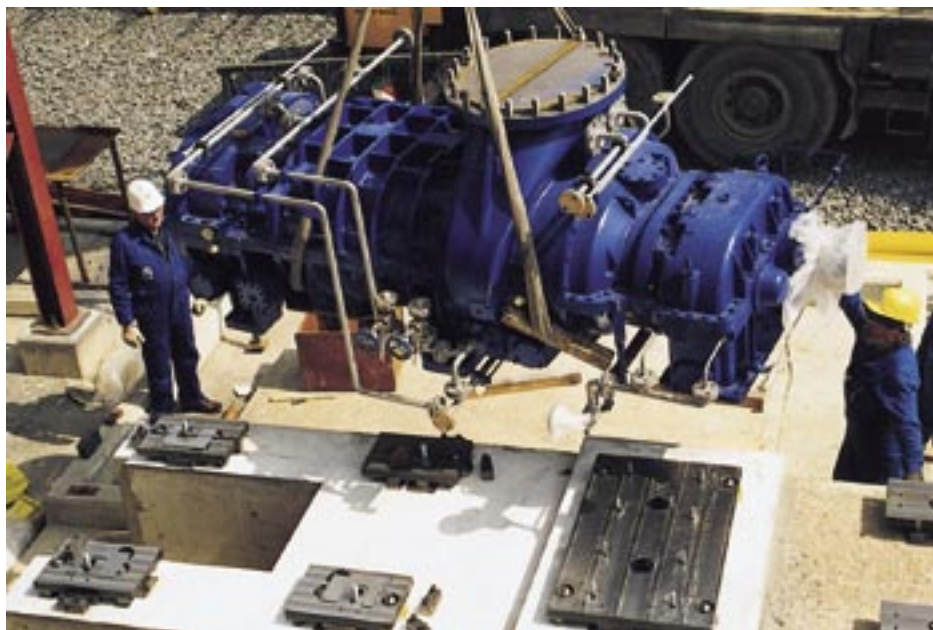
Fields of application

The screw compressors of the series VR are used for instance in chemical industries, refineries, soda works, steel production plants etc. for the compression of nearly all gases. Additional liquid injection enables the compression of considerably contaminated or polymerized gases. Practically all gases can be compressed, such as, ammonia, argon, ethylene, acetylene, butadiene, chlorine, hydrochloric, natural, flare, blast furnace, marsh, helium, lime-kiln, coke oven, carbon monoxide, all hydrocarbon combinations, town gas, air, methane, propane, propylene, flue gas, crude gas, sulphur dioxide, oxide of nitrogen, nitrogen, styrene gas, vinylchloride and hydrogen.

Kaucuk A.S., Kralupi (Czech republic)
compression of styrene gas
VRa 736 L - intake volume flow from 28.000 m³/h
compression from 0,28 to 1,62 bar (abs.)
sealing by carbon labyrinth rings
with nitrogen as purge gas

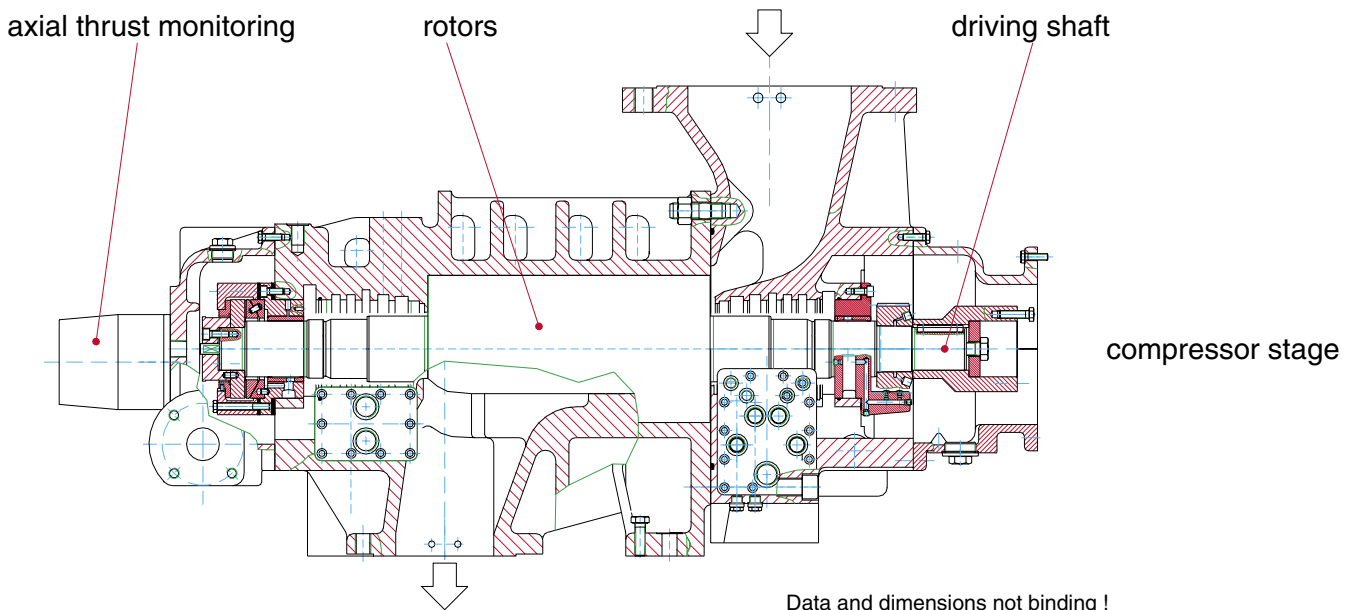
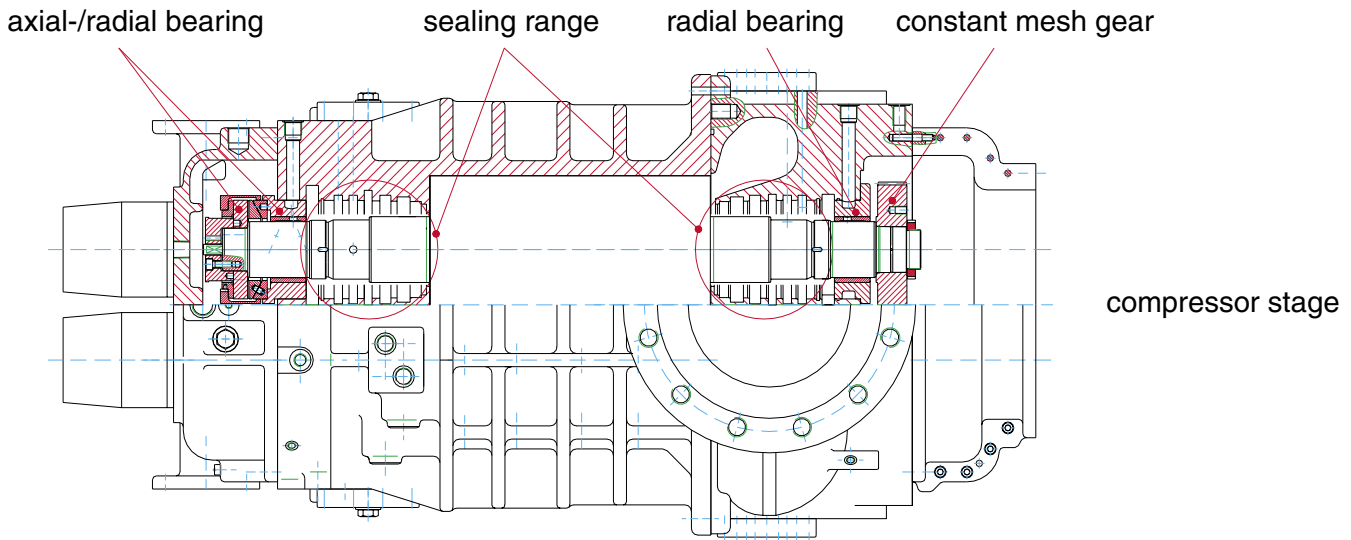


Kaucuk A.S., Kralupi
(Czech republic)
installation of a process gas com-
pressor VRa 736 L



The screw compressor can be delivered in 13 variants with swept volume flows from 600 m³/h to 120.000 m³/h. Differential pressures between 7 and 12 bar are standard at single-stage compression. With multi-stage design discharge pressures of 25 bar and 40 bar max., but also vacuums lower P_e -0,9 bar are achieved. The maximum (1350 mm) and the minimum rotor length (155 mm) gives an impression of the entire breadth of the offer. For the adjustment to the different process gases, rotors made of steel or special steel and casing of nodular cast iron, steel- or special steel casting can be applied.

The Aerzen segmental type of construction offers for the sealing of the conveying chamber gas- or water-purged carbon labyrinths as well as oil- and gas purged mechanical sealings which can be chosen without any modifications of the casing construction. The same is valid for all different drive types. No matter if direct drive or drive via primary switchgear, by electric motors or steam turbines, the application of proven components guarantees a high amount of safety.



Data and dimensions not binding !

Performance data and main dimensions of the compressor unit (without oil supply)

Size	Swept volume (m ³ /h)	Differential pressure (bar) *	Dimensions of unit l x w x h (mm)	Weight (kg)	DN (SS)	DN (DS)
VRa 136 S	550 - 1400	12	2800 x 2000 x 2600	4000	150	100
VRa 137 L	950 - 2450	7	3000 x 2000 x 2600	4500	150	100
VRa 336 S	1400 - 3550	12	3500 x 2200 x 3100	6000	200	150
VRa 337 L	2500 - 6500	7	3700 x 2200 x 3100	7500	200	150
VRa 436 S	2150 - 5600	12	4000 x 2200 x 3600	10000	300	200
VRa 437 L	3800 - 9900	7	4200 x 2200 x 3600	11500	300	200
VRa 536 S	3500 - 9100	12	4400 x 2200 x 3800	16000	400	250
VRa 537 L	6150 - 16000	7	4600 x 2200 x 3800	18500	400	250
VRa 736 S	8500 - 22000	12	5000 x 2400 x 4400	26000	600	400
VRa 736 L	14000 - 36000	7	5400 x 2400 x 4400	27500	600	400
VRa 836 L	18900 - 49000	7	5800 x 2400 x 4800	42000	700	500
VRa 936 L	29500 - 77000	7	7200 x 2900 x 5200	55000	900	600
VRa 1037 L	46000 - 120000	7	8500 x 3500 x 6500	75000	1400	1000

The data are to be regarded as standard values on compression of all gases in the industry.

Intake conditions: $p_1 = 1 \text{ bar}$; $t_1 = 20 \text{ °C}$

* Performance data for higher compression discharge pressures resp. vacuum pressures are especially to be asked for.



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