

# VA-High Precision Gear Pump For the Food Industries



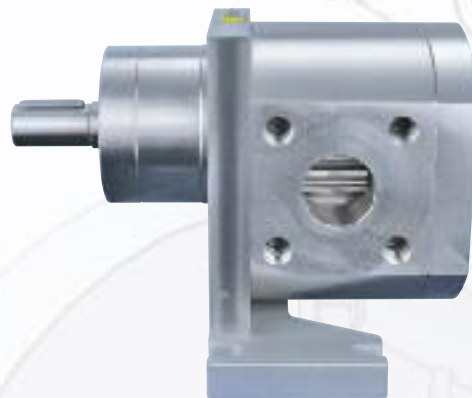
Drehzahl [1/min]



## VA - Precision gear pump for transferring and metering applications in food industry

**VA-** precision gear pump for conveying and metering of fluids with medium to low viscosity. Typical areas of application for this type of pump are to be found in the cosmetic and food industries industries e.g. for conveying butter, margarine or vegetable oils.

Pumps of this type can be supplied with or without heating. To improve cleaning, the pump can be supplied with additional flushing ports. Also the special design of the pump helps to reduce dead spots to a minimum. Due to the general functional principle of gear pumps, a completely dead spot free design is not possible. The WITTE modular construction system for friction bearings, gears and shaft seals offers a maximum of flexibility for the end customer.



### Technical Features

#### Housing

Stainless steel • tantalum • titanium • hastelloy

#### Gears

Through hardened DIN 1.4112 standard, examples of optional materials include Ferralium 255, DIN 1.4571, Hastelloy, ferro titanite and other available included coated options • spur gearing

#### Friction Bearings

Carbon • NiAg (nickel-silver) • zirconium oxide • Al-bronze • tool steel • silicon carbide • special materials • with optional surface coating

#### Shaft Seals

Single mechanical seal (ED) • Single mechanical seal with buffer fluid (AD) • Double mechanical seal with buffer fluid (DD) • magnetic coupling • stuffing box • mechanical seals of other suppliers are available as an option

#### Heating Systems

Steam • water • heat transfer oil • electrical

#### Operating Parameters

##### Viscosity

0.5 to 1.000.000 mPas (cP)

##### Temperature

Up to 300 °C (580°F)

##### Inlet Pressure

Vaccum to max. 15 bar (215 psig)

##### Conveying Pressure / Differential Pressure

Up to 120 bar (1740 psig)

The values listed are maximum values and must not coincide under certain circumstances.

##### Pump Sizes

From 22/6 (1.28 cc/rev – 20 l/h) to 180/180 (3200 cc/rev – 69100 l/h).

#### Application Examples

##### Food industry

Vegetable oils • margarine • flavourings • chocolate • fudge • liquorice • chewing gum • vitamins • syrup • gelatine • mustard • ketchup • etc.

##### Pharmaceutical and cosmetic products

Amino acids • lotions • shampoo • vitamins • etc.

# VA High Precision Gear Pump

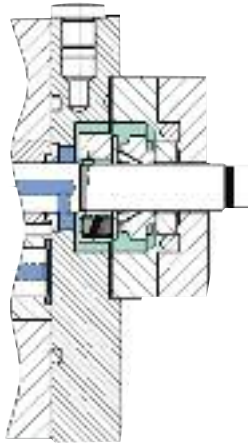
# Mechanical Seals

## Single mechanical seal (ED)

Single mechanical seal (ED)

Suction pressure: up to 15 bar (abs) (215psig)

Viscosity: 0.2-50000 mPas  
Temperature: max. 300°C (580°F)

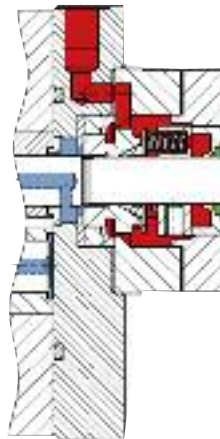


## Single mechanical seal with buffer fluid (AD)

Suction pressure: vacuum to max. 5 bar (abs.) (75 psig)

Viscosity: 0.2-100000 mPas

Temperature: max. 250°C (500°F)

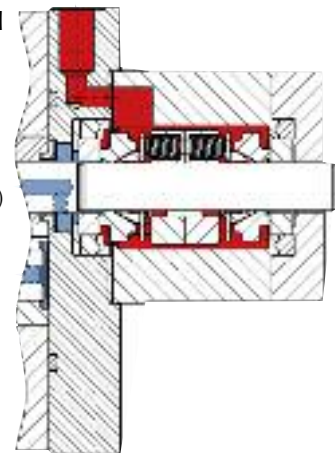


## Double mechanical seal with buffer fluid (DD)

Suction pressure: vacuum to max. 15 bar (abs.) (215 psig)

Viscosity: 0.2-100000 mPas

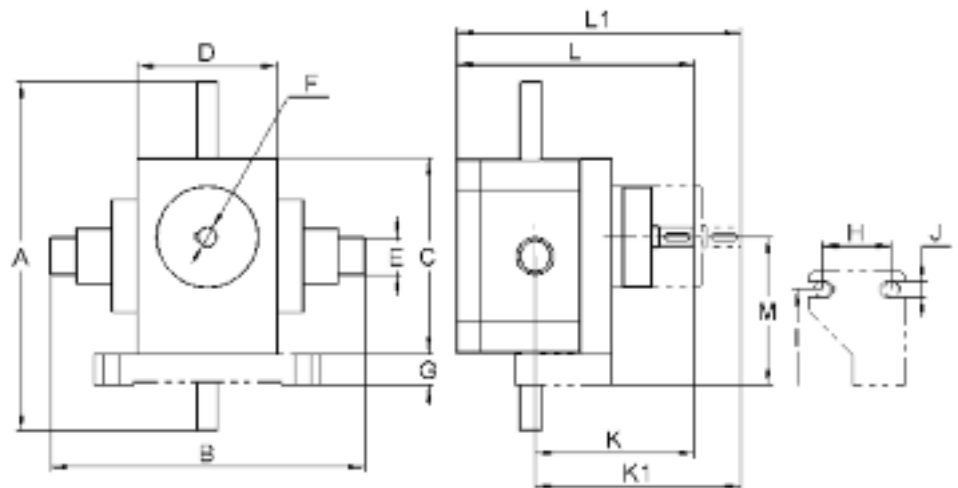
Temperature: max. 300°C (580°F)



Product   Buffer fluid 

Spec. displacement volume (cc/rev)  
Capacity (l/h)

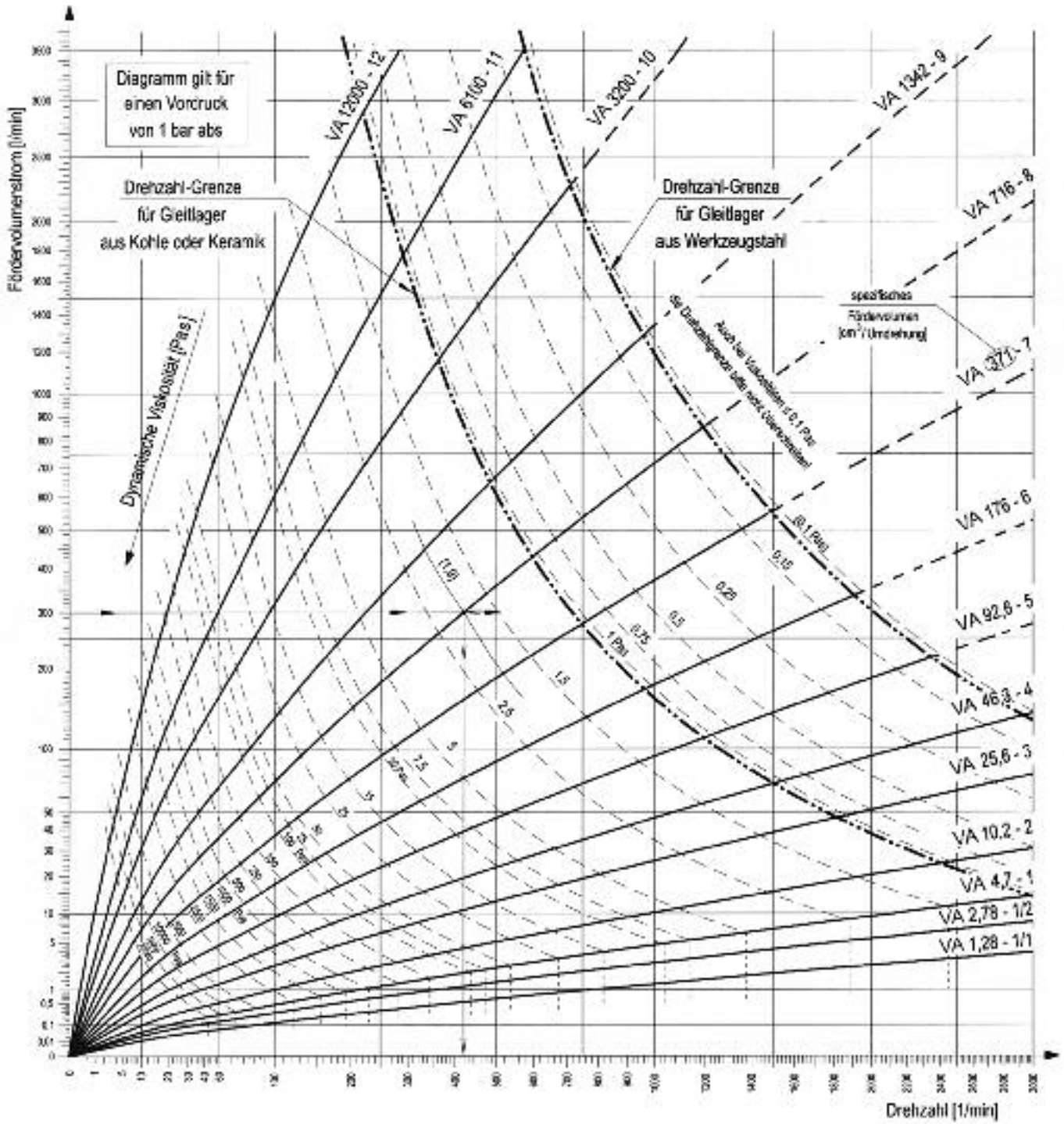
Pump size	Spec. displacement volume (cc/rev)	Capacity (l/h)
1/1 (22/6)	1,28	20 - 200
1/2 (22/13)	2,78	40 - 400
1 (22/22)	4,7	70 - 700
2 (28/28)	10,2	140 - 1400
3 (36/36)	25,6	280 - 2800
4 (45/45)	46,3	410 - 4100
5 (56/56)	92,6	650 - 6500
6 (70/70)	176	990 - 9900
7 (90/90)	371	1600 - 16200
8 (110/110)	716	2500 - 25300
9 (140/140)	1.342	3800 - 37800
10 (180/180)	3.200	6900 - 69100



Pump size	A	B	C	D	E	F	G	H	I	J	K	K1	L	L1	M	Weight
1/1 (22/6)	200	116	112	80	20x15	11	18	40	110	9	83	110	120	147	85	6 Kg
1/2 (22/13)	200	116	112	80	20x15	11	18	40	110	9	86.5	113.5	127	154	85	6 Kg
1 (22/22)	200	180	112	80	21.3x17.9	11	18	40	110	9	91	118	136	163	85	6 Kg
2 (28/28)	235	208	138	108	33.7x28.5	16	22	40	130	11	109	138	160	189	105	15 Kg
3 (36/36)	250	214	152	114	48.3x40	19	16	60	140	12	124	157	188	221	110	20 Kg
4 (45/45)	234	244	176	134	60.3x54	24	25	75	170	14	148	186	226	265	135.5	26 Kg
5 (56/56)	360	264	210	168	60.3x54	32	27	100	220	20	195.5	239.5	289.5	333.5	160	50 Kg
6 (70/70)	350	346	258	208	76.1x70	38	27	115	250	22	225.5	275.5	338.5	388.5	191	125 Kg
7 (90/90)	498	416	300	269	88.9x80.9	48	42	130	310	28	265	329	405	469	237	220 Kg
8 (110/110)	470	488	380	310	114.3x106	60	42	180	410	28	319	478	384	543	287	340 Kg
9 (140/140)	600	538	454	340	168.3x157	70	47	230	430	28	410	457	612	669	344	500 Kg
10 (180/180)	800	*	590	440	Ø 200	*	65	285	520	33	617	617	902	902	450	700 Kg

\* W100 x 2,5 x 38 / DIN 5480

\* Upon request



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