



Customer benefits

- Clean and dry vacuum
- Particle-free, extremely reliable with long-term stability
- Low maintenance
- Low operating costs



ACP 15 / 28 / 40

Dry compact multi-stage Roots pumps, clean vacuum,
high reliability



ACP 15 / 28 / 40

The multi-stage Roots pump technology of the ACP series meets the requirements of applications where a clean and dry vacuum is needed.

Series at a glance:

Standard version (SD version):

The SD version is designed for applications that require the pumping of clean (dust-free) and non-corrosive gases. Standard pumps are equipped with a gas ballast device to improve the pumping of light gases and avoid vapor condensation inside the pump. Three gas ballast options are available to satisfy customer needs.

Version for corrosive gases (G version):

The G version pump is compatible with traces of corrosive gases. An inert purge gas protects low pressure and high pressure bearings and dilutes corrosive gases in the suction chamber.

Version for condensable vapors (CV version):

The CV version is specially designed for avoiding vapor condensation inside the pump block. This occurs through:

- a high gas ballast throughput for heating up pumps and diluting condensable gases.
- A silencer with a drain screw for releasing liquid at the lowest point of the exhaust.
- Purge gas injection to protect the ball bearings and the shaft seals.

The CV version has a water vapor capacity of up to 1,000 grams per hour.

Customer benefits

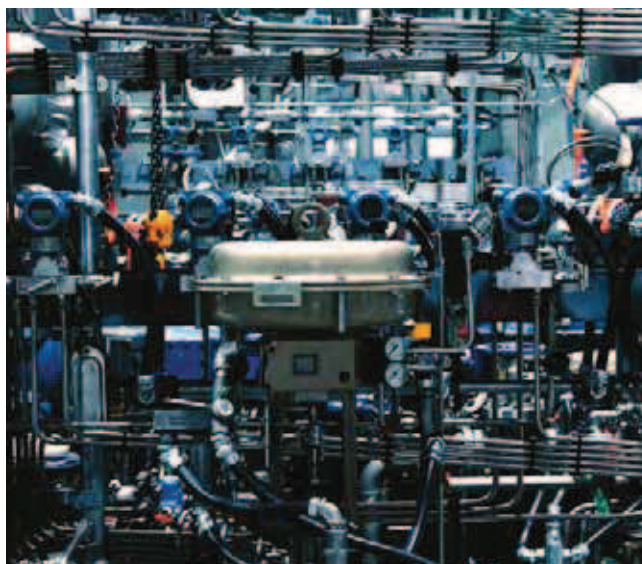
- Enhanced process quality thanks to oil-free pump system
- Ideal replacement for scroll pumps and oil-lubricated pumps
- Low operating costs due to long maintenance intervals and air cooling
- Longterm stability of process conditions
- Pump parameters can be adjusted to the process using the integrated frequency converter

Typical applications

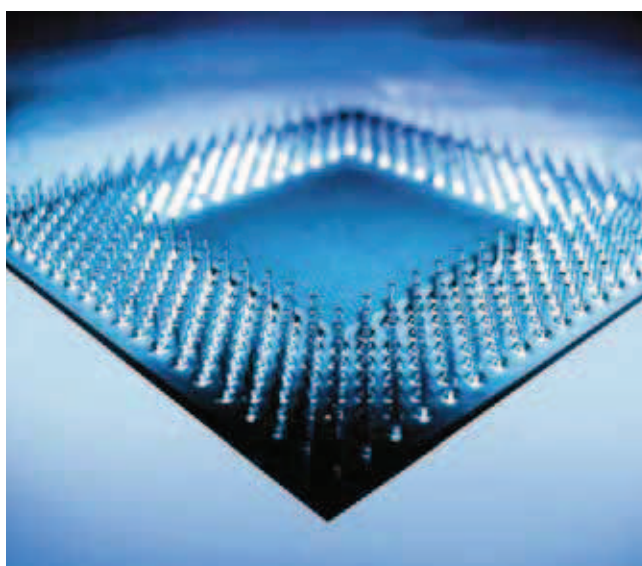
- Analytical instruments
- Research & development
- Plasma cleaning
- Load-lock and transfer chambers
- Portable turbopumping stations



Microscopy



Industry



Semiconductors



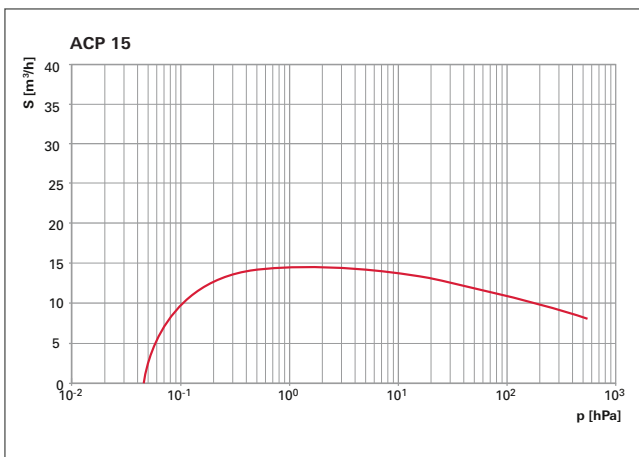
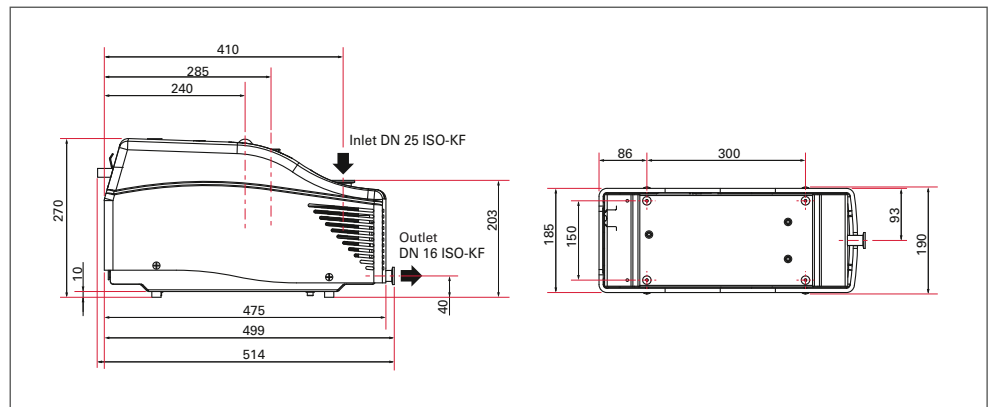
ACP 15

Dry, compact multi-stage Roots pumps with a pumping speed of max. 14 m³/h

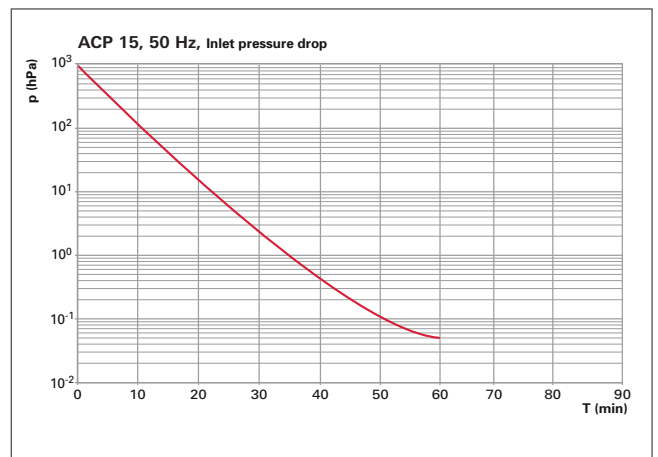
Due to frictionless design, no contamination through particles: no wearing parts in the path of the gas flow

- No hydrocarbon vapor backstreaming: pumps in the ACP series are lubricant-free in the pumping module
- Constant performance (pumping speed, maximum continuous inlet pressure and ultimate pressure)
- High reliability: thanks to extensive experience with dry Roots pumps since 1988
- Low maintenance costs: no annual service, complete overhaul only every 20,000 hours (ACP 15)
- Suitable for condensable vapors: with gas ballast and drainable silencer

Dimensions



ACP 15 pumping speed



ACP 15 pump down time

Technical data	ACP 15, standard	ACP 15, G version
Dimensions (L x W x H)	514 x 190 x 270 mm	514 x 190 x 270 mm
Flange (out)	DN 16 ISO-KF	DN 16 ISO-KF
Flange (in)	DN 25 ISO-KF	DN 25 ISO-KF
Weight	23 kg	23 kg
Helium leak rate, max.	$5 \cdot 10^{-8}$ Pa m ³ /s	$5 \cdot 10^{-8}$ Pa m ³ /s
Continuous inlet pressure, max.	1013 hPa	1013 hPa
Corrosive gas		Yes (light duty)
Cooling	Air	Air
Power consumption at ultimate pressure	450 W	450 W
N ₂ purge gas flow, min.		5 slm
Mains requirement: Voltage	100-230 V +/-10%, 50/60 Hz, 200-440 V +/-10%, 50/60 Hz	100-230 V +/-10%, 50/60 Hz, 200-440 V +/-10%, 50/60 Hz
Processes	Clean Processes	Light duty applications
Pumping speed, max.	14 m ³ /h	14 m ³ /h
Typical ultimate pressure	0.03 hPa	0.03 hPa
Typical ultimate pressure with gas ballast	0.1 hPa	
Typical ultimate pressure with N ₂ purge		0.1 hPa
Ambient temperature	12 to 40 °C	12 to 40 °C
Version	Standard	Corrosive gas
Water vapor capacity, max.	80 g/h	

Accessories		
External silencer ES 25 S, DN 25	109873	109873
Noise Reduction Cover NRC 15, for ACP 15 pumps	111968	111968
Sound Enclosure kit SEK 15, for ACP 15 pumps	112779	112779

Order number guide ACP 15

V5	a	T	S	b	c	d	F
Pump model	Versions	Inlet port DN 25	Exhaust port DN 16	Gas ballast	Frequency converter	Power cord	Rubber feet
ACP 15	SA, GA	T	S	M, B, R ¹⁾ , F	F, T	K, A, S, J, E, Z, R ²⁾	F

¹⁾ R is the only option for G version

²⁾ R is the only option for three phased pump

**Order number matrix
ACP 15**

Order number

V5 a TS b c d F

Versions		a
SD version		SA
G version		GA

Gas ballast		b
Manual (On/Off)		M
Blanked		B
R 1/4" port (GA version)		R¹⁾
Permanent filter (mesh) with defined gas throughput		F

Frequency converter		c
1-phase		F
3-phase		T

Power cord		c
UK		K
US		A
Switzerland		S
Japan (1 cable only)		J
Europe		E
Without		Z
3-phase (without plug)		R²⁾

¹⁾ R is the only option for G version

²⁾ R is the only option for three phased pump

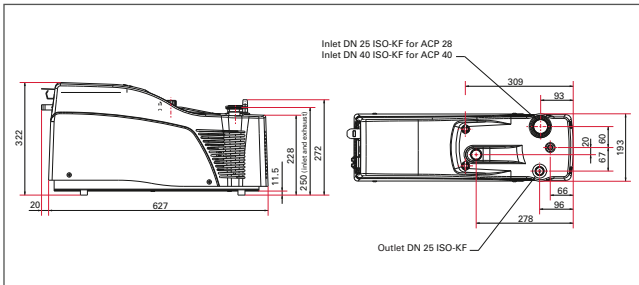


ACP 28

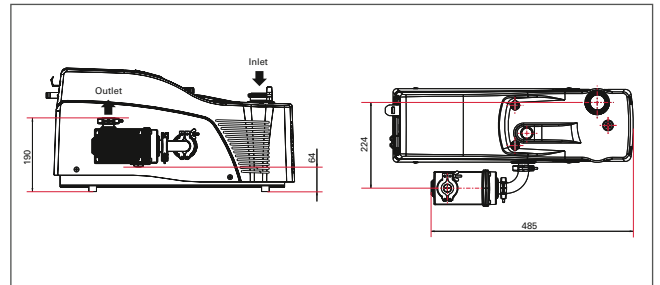
Dry, compact multi-stage Roots pumps with a pumping speed of max. 27 m³/h

- Due to frictionless design, no contamination due to particles: no wearing parts in the path of the gas flow
- No hydrocarbon vapor backstreaming: pumps in the ACP series are lubricant-free in the pumping module
- Constant performance (pumping speed, maximum continuous inlet pressure and ultimate pressure)
- High reliability: thanks to extensive experience with dry Roots pumps since 1988
- Low maintenance costs: no annual service, complete overhaul only every 22,000 hours of operation for the ACP 28/40
- Suitable for condensable vapors: with gas ballast and drainable silencers.

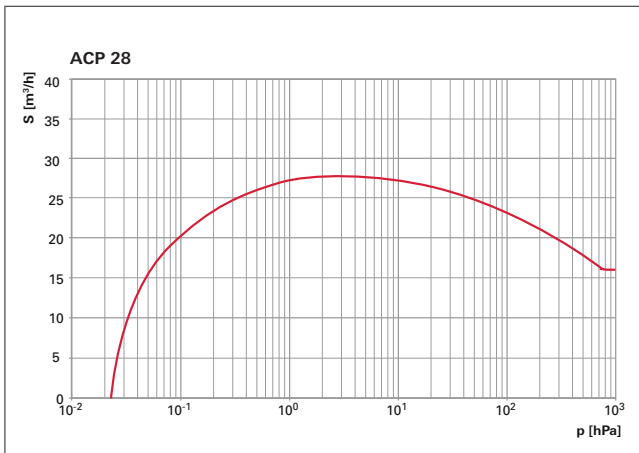
Dimensions



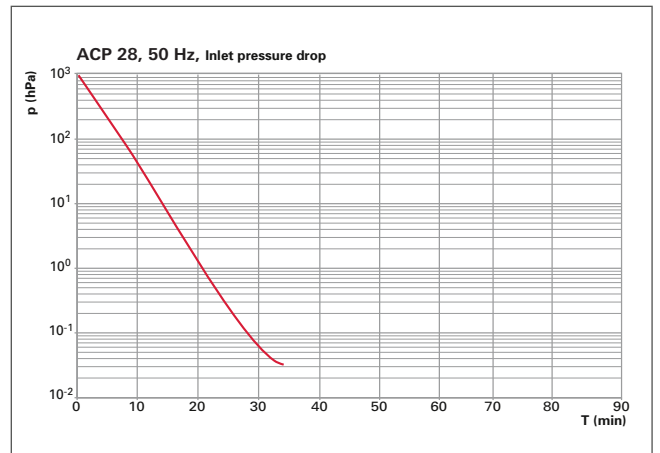
ACP 28 Standard



ACP 28 CV version



ACP 28 pumping speed



ACP 28 pump down time

Technical data:	ACP 28, standard	ACP 28, G version	ACP 28, CV version
Dimensions (L x W x H)	647 x 193 x 322 mm	647 x 193 x 322 mm	647 x 308 x 322 mm
Flange (out)	DN 25 ISO-KF	DN 25 ISO-KF	DN 25 ISO-KF
Flange (in)	DN 25 ISO-KF	DN 25 ISO-KF	DN 25 ISO-KF
Weight	30 kg	30 kg	30 kg
Helium leak rate, max.	$5 \cdot 10^{-8}$ Pa m ³ /s	$5 \cdot 10^{-8}$ Pa m ³ /s	$5 \cdot 10^{-8}$ Pa m ³ /s
Continuous inlet pressure, max.	1013 hPa	1013 hPa	1013 hPa
Corrosive gas		Yes (light duty)	Yes (light duty)
Cooling	Air	Air	Air
Power consumption at ultimate pressure	700 W	700 W	700 W
N ₂ purge gas flow, min.		3.7 slm	
Mains requirement: Voltage	100-230 V +/-10%, 50/60 Hz; 200-440 V +/-10%, 50/60 Hz	100-230 V +/-10%, 50/60 Hz; 200-440 V +/-10%, 50/60 Hz	100-230 V +/-10%, 50/60 Hz; 200-440 V +/-10%, 50/60 Hz
Processes	Clean Processes	Light duty applica- tions	Light duty applications
Pumping speed, max.	27 m ³ /h	27 m ³ /h	27 m ³ /h
Typical ultimate pressure	0.03 hPa	0.03 hPa	0.03 hPa
Typical ultimate pressure with gas ballast	0.1 hPa		0.2 hPa
Typical ultimate pressure with N ₂ purge		0.1 hPa	
Ambient temperature	12 to 40 °C	12 to 40 °C	12 to 40 °C
Version	Standard	Corrosive gas	For condensable gases
Water vapor capacity, max.	120 g/h		700 g/h

Accessories			
Inlet particle filter IPF 25, DN 25	111649	111649	111649
External silencer ES 25 S, DN 25	109873	109873	109873
Noise Reduction Cover NRC 28/40, for ACP 28 and ACP 40	112637	112637	
Sound Enclosure Kit SEK 28/40, for ACP 28 and ACP 40	114379	114379	

Order number guide ACP 28

V6	a	T	S	b	c	d	e
Pump model	Versions	Inlet/Exhaust	Motor	Frequency converter	Power cord	Gas ballast	Options
ACP 28	SA, GA, GV	DN 25/ DN 25	S	F, T	K, A, S, J, E, Z, R ¹⁾	M, B ²⁾ , F, V ³⁾ , H ³⁾	F, R

¹⁾ R is the only option for 3-phased pumps

²⁾ B is the only option for G version

³⁾ V or H are the only options for CV versions

Order number matrix ACP 28

Order number

V6 a TS b c d e

Versions		a
SD version		SA
G version		GA
CV version		GV

Frequency converter		b
1-phase		F
3-phase		T

Power cord		c
UK		K
US		A
Switzerland		S
Japan (1 cable only)		J
Europe		E
Without		Z
3-phase (without plug)		R ¹⁾

Gas ballast		d
Manual (On/Off)		M
Blanked		B ²⁾
Permanent filter (mesh)		F
Manual (On/Off) (CV version)		V ³⁾
Permanent filter (CV version)		H ³⁾

Options		e
Rubber feet		F
Wheels		R

¹⁾ R is the only option for 3-phased pumps

²⁾ B is the only option for G version

³⁾ V or H are the only options for CV versions

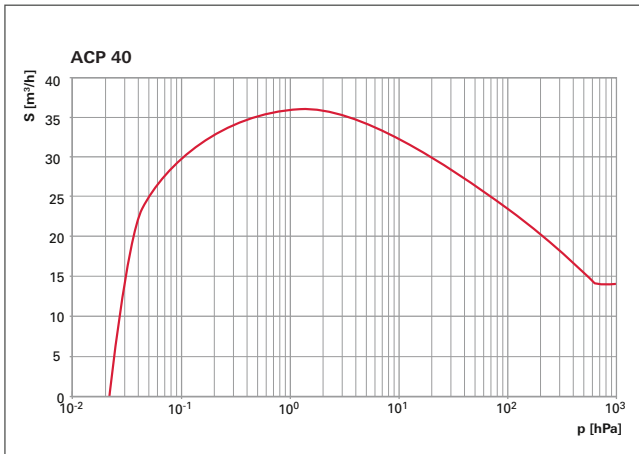
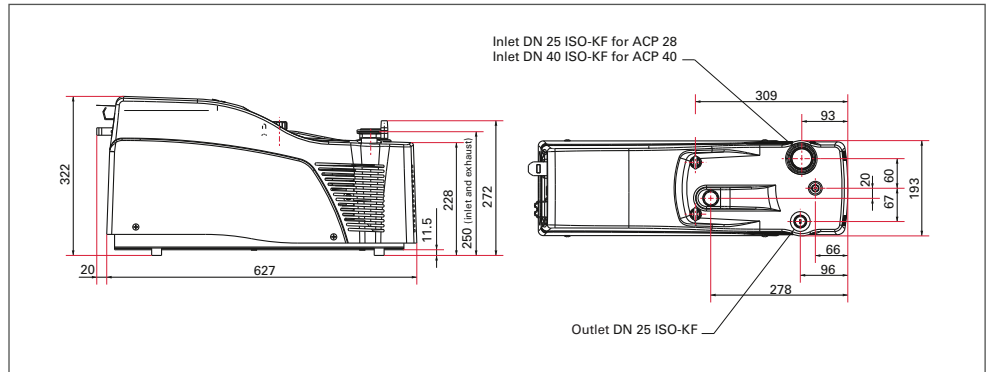
ACP 40



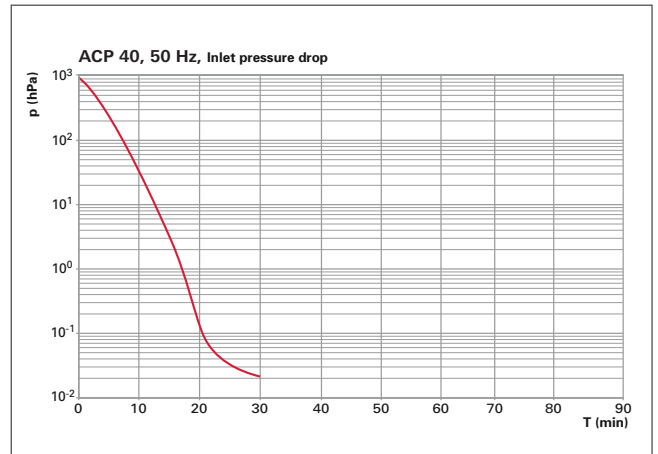
Dry, compact multi-stage Roots pumps with a pumping speed of max, 37 m³/h

- Due to frictionless design, no contamination due to particles: no wearing parts in the path of gas flow
- No hydrocarbon vapor backstreaming: pumps in the ACP series are lubricant-free in the pumping module
- Constant performance (pumping speed, maximum continuous inlet pressure and ultimate pressure)
- High reliability: thanks to extensive experience with dry Roots pumps since 1988
- Low maintenance costs: no annual service, complete overhaul only every 22,000 hours for the ACP 28/40
- Suitable for condensable vapors: with gas ballast and drainable silencers.

Dimensions



ACP 40 pumping speed



ACP 40 pump down time

Technical data	ACP 40, standard	ACP 40, G version	ACP 40, CV version
Dimensions (L x W x H)	647 x 193 x 322 mm	647 x 193 x 322 mm	647 x 308 x 322 mm
Flange (out)	DN 25 ISO-KF	DN 25 ISO-KF	DN 25 ISO-KF
flange (in)	DN 40 ISO-KF	DN 40 ISO-KF	DN 40 ISO-KF
Weight	32 kg	32 kg	32 kg
Helium leak rate, max.	$5 \cdot 10^{-8}$ Pa m ³ /s	$5 \cdot 10^{-8}$ Pa m ³ /s	$5 \cdot 10^{-8}$ Pa m ³ /s
Continuous inlet pressure, max.	1013 hPa	1013 hPa	1013 hPa
Corrosive gas		Yes (light duty)	Yes (light duty)
Cooling	Air	Air	Air
Power consumption at ultimate pressure	700 W	700 W	700 W
N ₂ Sperrgasfluss, min		3,7 Slm	
Mains requirement: Voltage	100–230 V +/-10%, 50/60 Hz, 200–440 V +/-10%, 50/60 Hz	100–230 V +/-10%, 50/60 Hz, 200–440 V +/-10%, 50/60 Hz	100–230 V +/-10%, 50/60 Hz, 200–440 V +/-10%, 50/60 Hz
Processes	Clean Processes	Light duty applications	Light duty applications
Pumping speed, max.	37 m ³ /h	37 m ³ /h	37 m ³ /h
Typical ultimate pressure	0.03 hPa	0.03 hPa	0.03 hPa
Typical ultimate pressure with gas ballast	0.1 hPa		0.2 hPa
Typical ultimate pressure with N ₂ purge		0.1 hPa	
Ambient temperature			12 to 40 °C
Version	Standard	Corrosive gas	For condensable gases
Water vapor capacity, max.	120 g/h		700 g/h

Accessories			
Inlet particle filter IPF 40, DN40	111647	111647	111647
External silencer ES 25 S, DN 25	109873	109873	109873
Noise Reduction Cover NRC 28/40, for ACP 28 and ACP 40	112637	112637	
Sound Enclosure Kit SEK 28/40, for ACP 28 and ACP 40	114379	114379	

Order number guide ACP 40

V8	a	C	S	b	c	d	e
Pump model	Versions	Inlet/Exhaust	Motor	Frequency converter	Power cord	Gas ballast	Options
ACP 40	SA, GA, GV	DN 40/ DN 25	S	F, T	K, A, S, J, E, Z, R ¹⁾	M, B ²⁾ , F, V ³⁾ , H ³⁾	F, R

¹⁾ R is the only option for 3-phased pumps

²⁾ B is the only option for G version

³⁾ V or H are the only options for CV versions

**Order number matrix
ACP 40**

Order number

V8 a CS b c d e

Versions		a
SD version		SA
G version		GA
CV version		GV

Frequency converter		b
1-phase		F
3-phase		T

Power cord		c
UK		K
US		A
Switzerland		S
Japan (1 cable only)		J
Europe		E
Without		Z
3-phase (without plug)		R¹⁾

Gas ballast		d
Manual (On/Off)		M
Blanked		B²⁾
Permanent filter (mesh)		F
Manual (On/Off) (CV version)		V³⁾
Permanent filter (CV version)		H³⁾

Options		e
Rubber feet		F
Wheels		R

¹⁾ R is the only option for 3-phased pumps
²⁾ B is the only option for G version
³⁾ V or H are the only options for CV versions



A 100 L and A 180 L

Integrated pump for light duty processes

