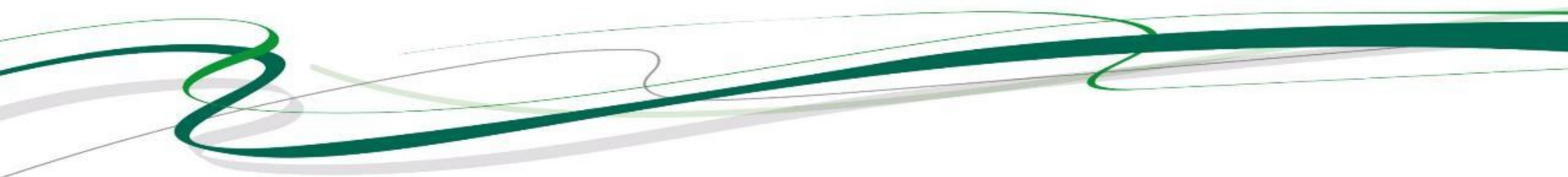




# New series MC & RC Oilfree Main Air Compressors



# Technical Data

Type	Length (mm)	Width (mm)	Height (mm)	Weight (kg)	Mechanical power (kW)	FAD (l/min) 50 Hz @ 9 bar	Milestones		
							Prototypes	Serial production	Free for tenders
MC-400 	700	650	533	105	3,7	420	09/17	03/18	03/17
MC-700 	940	650	510	220	7,5	720	✓	05/17	✓
MC-1000 	940	650	510	230	7,5	1020	05/17	07/17	✓
MC-1200 	1089	642	495	320	11	1220	08/17	06/18	06/17
RC-800 * 	500*	713	680	117*	-	835	✓	02/17	✓
RC-1000 ** 	520	740	630	127*	11	1000	✓	✓	✓

\*: incl. Direct coupling and filters, without motor

\*\* : incl. Direct coupling, without motor and filter

# Benefits of the MC-Range



## Environment-friendly

Thanks to the oil free technology, the oil deposits due to the discharge of condensate would not be necessary anymore and hence an elimination of groundwater pollution. Compared to similar models, the MC-Range is distinguished by its low noise level- The compressor is integrated in a fully closed soundproofing box, which protects it from all external agents and enables a further noise reduction.



## Economical

Through the maintenance reduction, the life cycle costs are significantly lowered. The periodic maintenance is limited on a simple change of air filters and cleaning of cooling systems. Compared to oil-lubricated solutions, intensive revision levels, periodic change of oil and of the air-oil separator filters is not needed anymore. Thanks to the innovative materials, a.o. for the compression rings, a long life time is ensured.



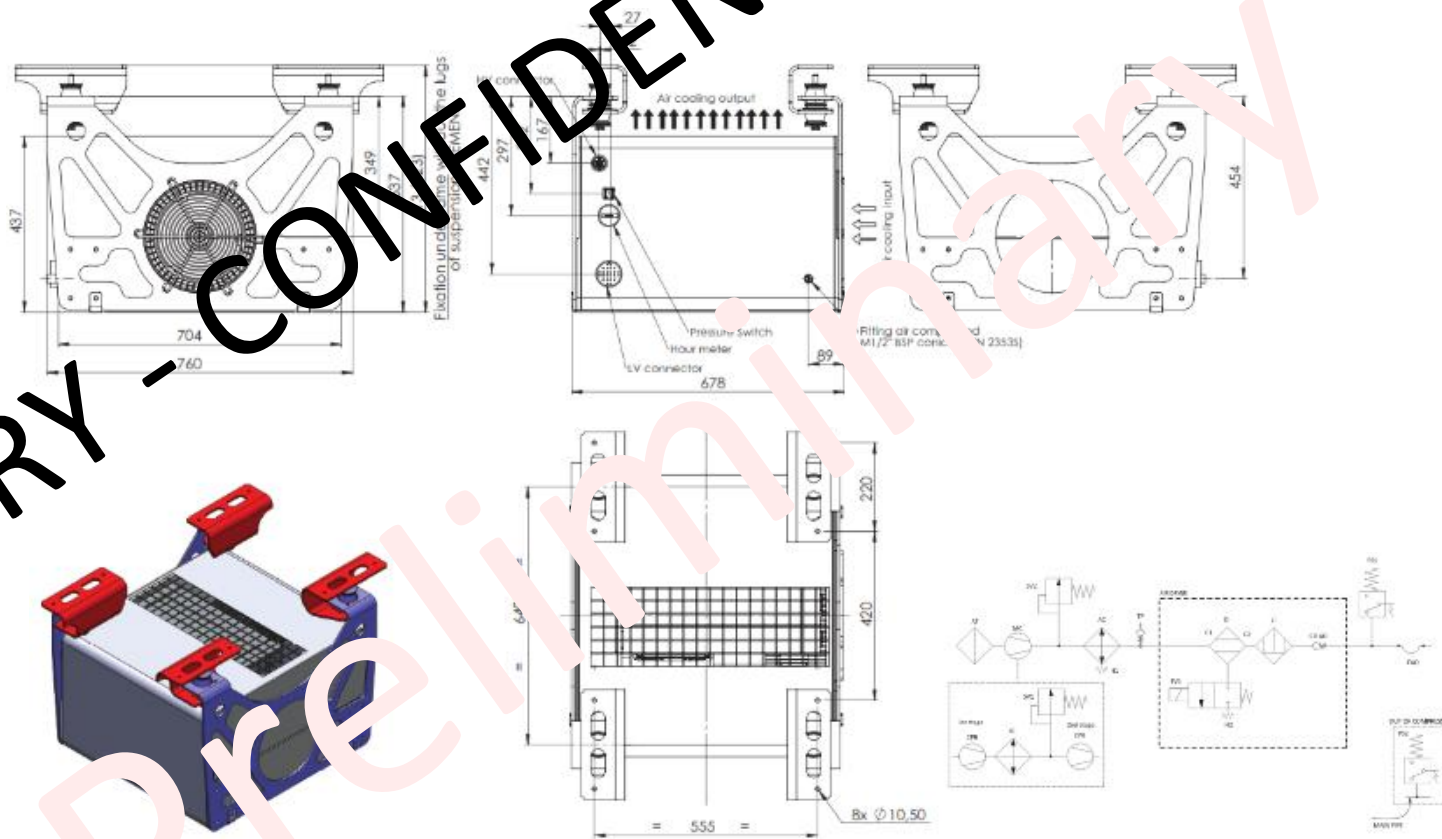
## Flexible

With its small dimensions, the MC-range is very straightforward to install. The compressor can be installed on the roof, under the body or on side panels. The maintenance steps can easily conducted on the train, without dismantling the unit. The RC-range offers also flexibility through adapting the motor assembly to the volume limitation: direct and belt drive are both possible.

# MC-400

## TECHNICAL CHARACTERISTICS MC-400

Technology	Oil free piston
Type	Two stages
Number of cylinders	2
FAD @ 9 bar	420 NI/min @50 Hz
Air quality (ISO 8573-1)	2.4.0
Ambient temperature	-25°C / +50°C
Output air temperature	+8°C ambient temperature
Motor voltage	400V / 3~ / 50Hz
Motor power	3,7 kW
Rotation Speed	1450 rpm at 50 Hz
Safety valve (EN ISO 4126-1)	8 / 12 bar
Duty cycle	Up to 100%
Maximal working pressure	12 bar
Noise level	76 dB (A)
Weight	90 kg / 105 kg

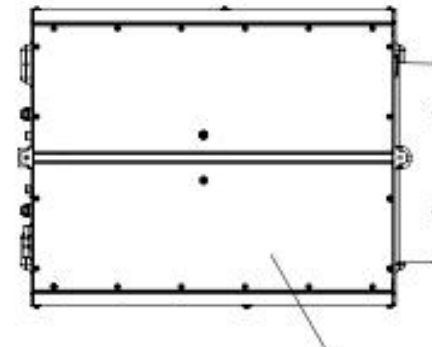
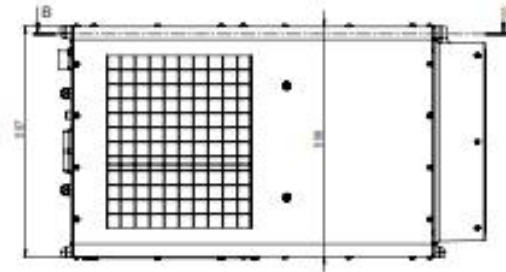
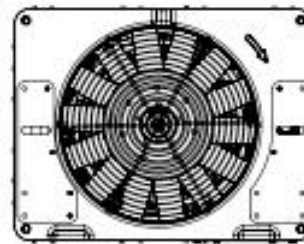
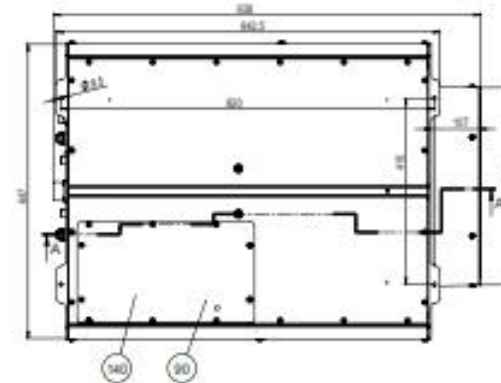


AP	Air Filter	B	Drain
MC	Main Compressor	CL/C2	Column
CPH	Compressor	EV5	Solenoid Valve column
IC	Inter cooler	HS	Heater air dryer
S01	Safety Valve 1 <sup>st</sup> stage at 8 bar (DIN EN ISO 4126-1)	PF	1 <sup>st</sup> Final Filter integrated in the dryer
S02	Safety Valve 2 <sup>nd</sup> stage at 12 bar (DIN EN ISO 4126-1)	CV AD	Check valve air dryer
AC	After Cooler	PSL	Pressure switch Low Air Alarm
HL	Heater after cooler	PAC	1 <sup>st</sup> Mobile Air Outlet
TP	Test Point	PSS	Pressure switch Start/Stop Control

# MC-700 - available

## TECHNICAL CHARACTERISTICS MC-700

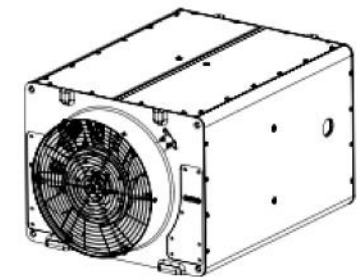
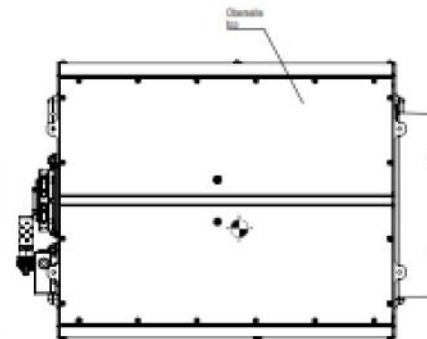
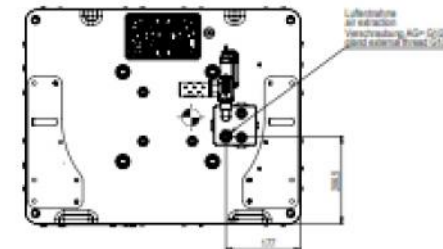
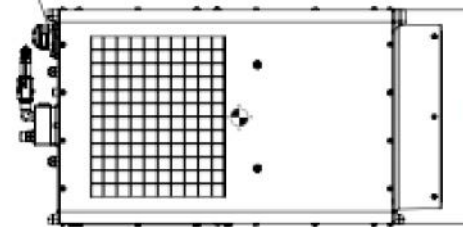
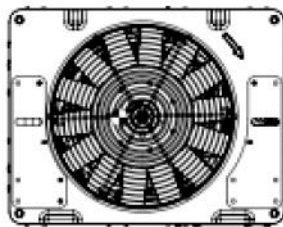
Technology	Oil free piston
Type	Two stages
Number of cylinders	3 (2 LP & 1 HP)
FAD @ 9 bar	720 NI/min @50 Hz
Air quality (ISO 8573-1)	2.x.0
Ambient temperature	-50°C / +60°C
Output air temperature	+10°C ambient temperature
Motor voltage	400V / 3~ / 50-60 Hz
Mechanical Power	7,5 kW
Rotation Speed	1450 rpm at 50 Hz
Safety valve (EN ISO 4126-1)	12 bar
Duty cycle	Up to 100%
Maximal working pressure	11 bar
Noise level	73 dB (A)
Weight	220 kg



# MC-1000 - available

## TECHNICAL CHARACTERISTICS MC-1000

Technology	Oil free piston
Type	Single stage
Number of cylinders	3
FAD @ 9 bar	1020 NI/min @50 Hz
Air quality (ISO 8573-1)	2.x.0
Ambient temperature	-40°C / +40°C
Output air temperature	+10°C ambient temperature
Motor voltage	400V / 3~ / 50-60 Hz
Motor power	7,5 kW
Rotation Speed	1450 rpm at 50 Hz
Safety valve (EN ISO 4126-1)	11 bar
Duty cycle	Up to 100%
Maximal working pressure	10.5 bar
Noise level	78 dB (A)
Weight	230 kg

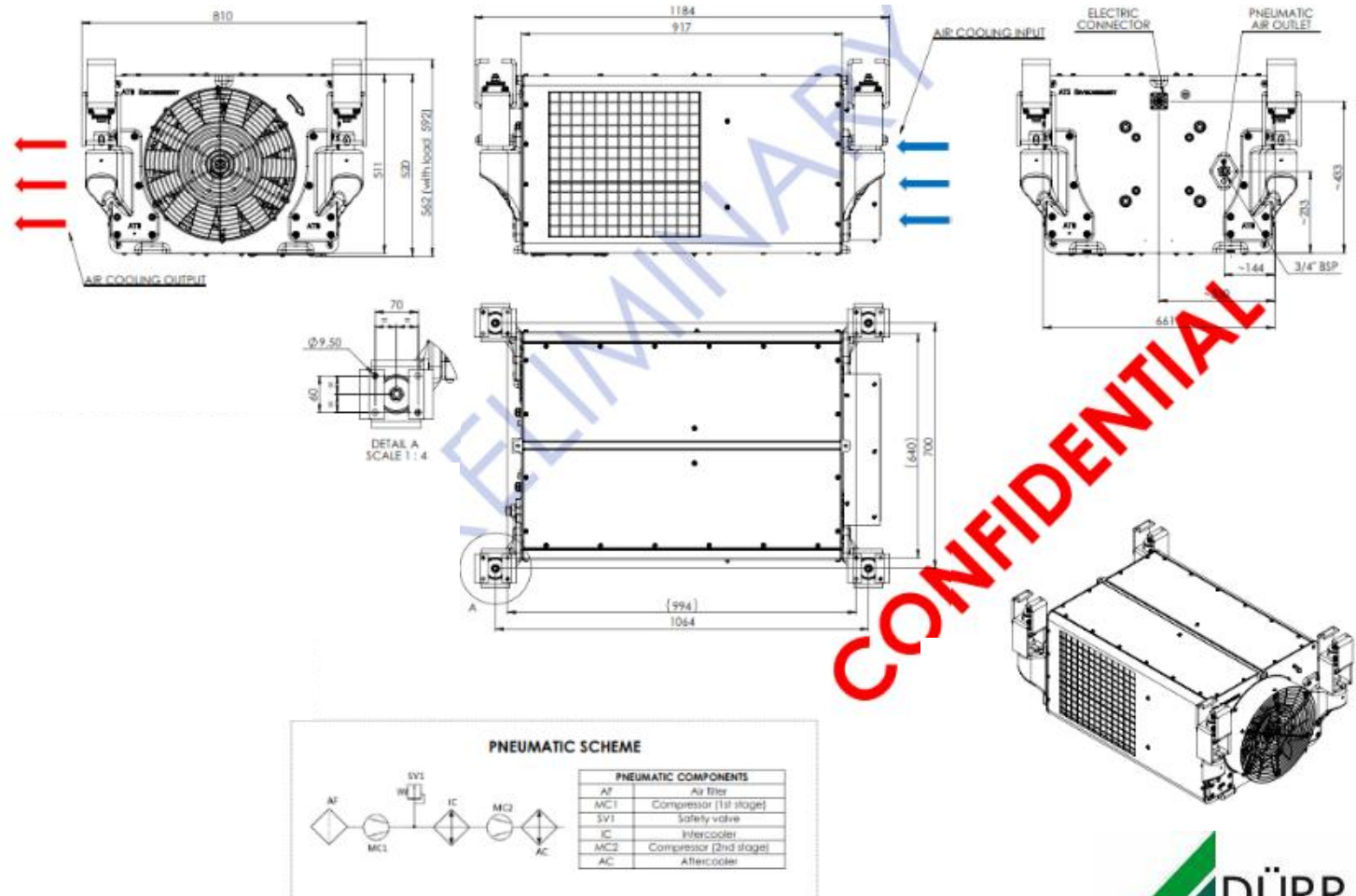




# MC-1200

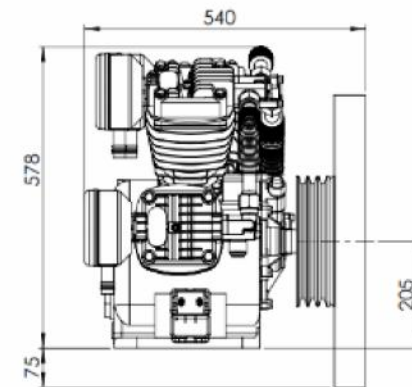
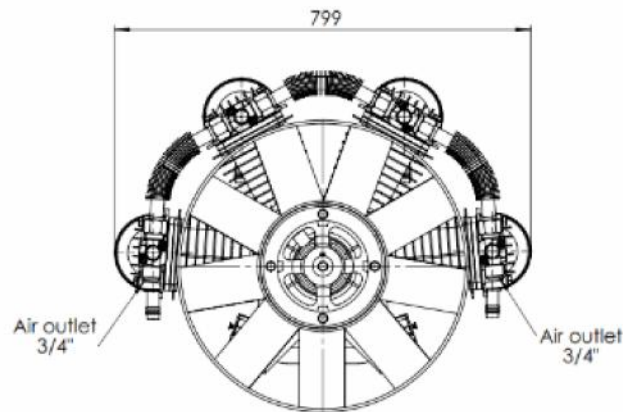
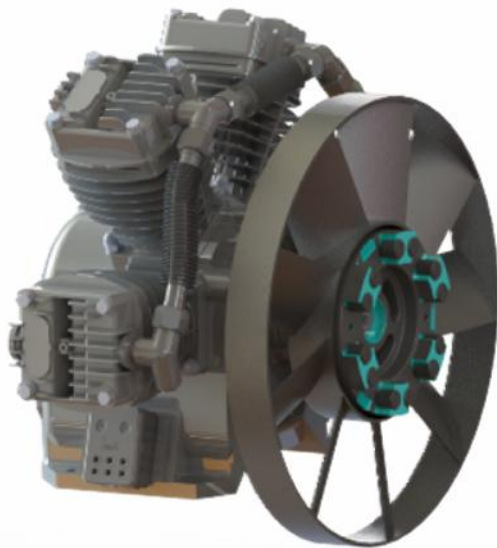
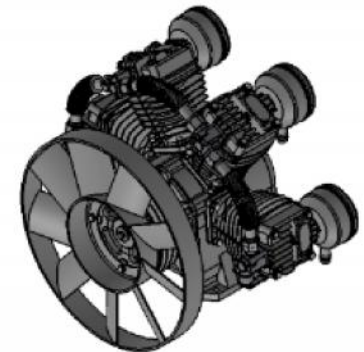
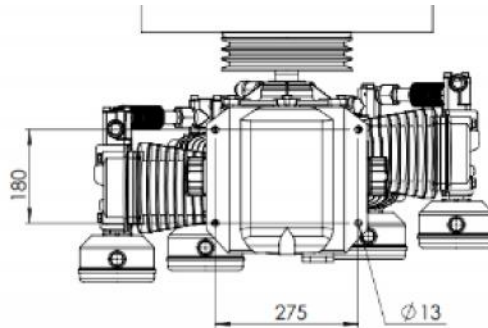
## TECHNICAL CHARACTERISTICS MC-1200

Technology	Oil free piston
Type	Double stage
Number of cylinders	3 (2LP+1HP)
FAD @ 9 bar	1220 NI/min @50 Hz
Air quality (ISO 8573-1)	2.x.0
Ambient temperature	-40°C / +50°C
Temperature outlet	+15°C ambient temperature
Motor voltage	400V / 3~ / 50Hz
Motor power	11 kW
Rotation Speed	1450 rpm at 50 Hz
Safety valve LP (EN ISO 4126-1)	4 bar
Duty cycle	Up to 100%
Maximal working pressure	10.5 bar
Noise level	82 dB (A)
Weight	320 kg



# RC-1000

- 1st oil free compressor worldwide for braking system: since 2001
- Certified by the french national operator SNCF
- Modular system: direct drive / belt drive

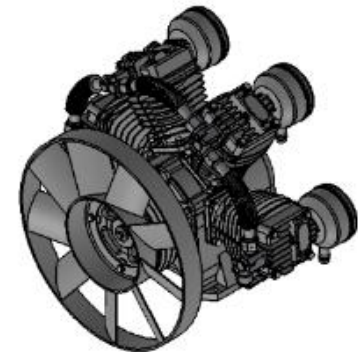
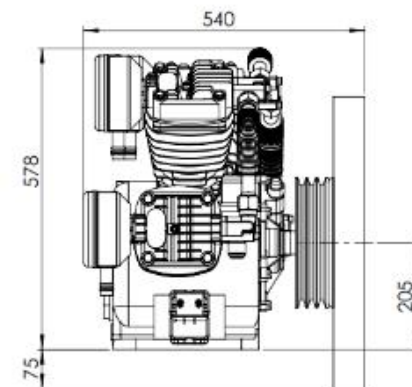
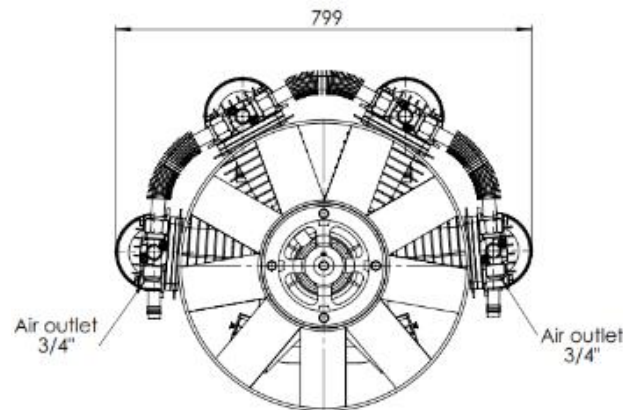
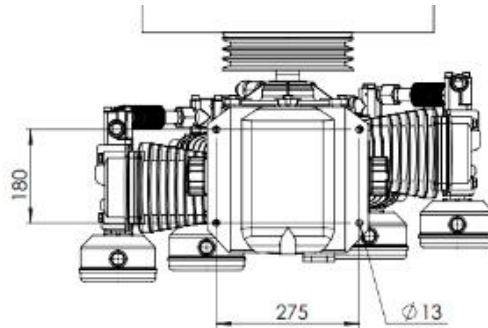




# RC-1000B with belt pulley

## TECHNICAL CHARACTERISTICS RC-1000

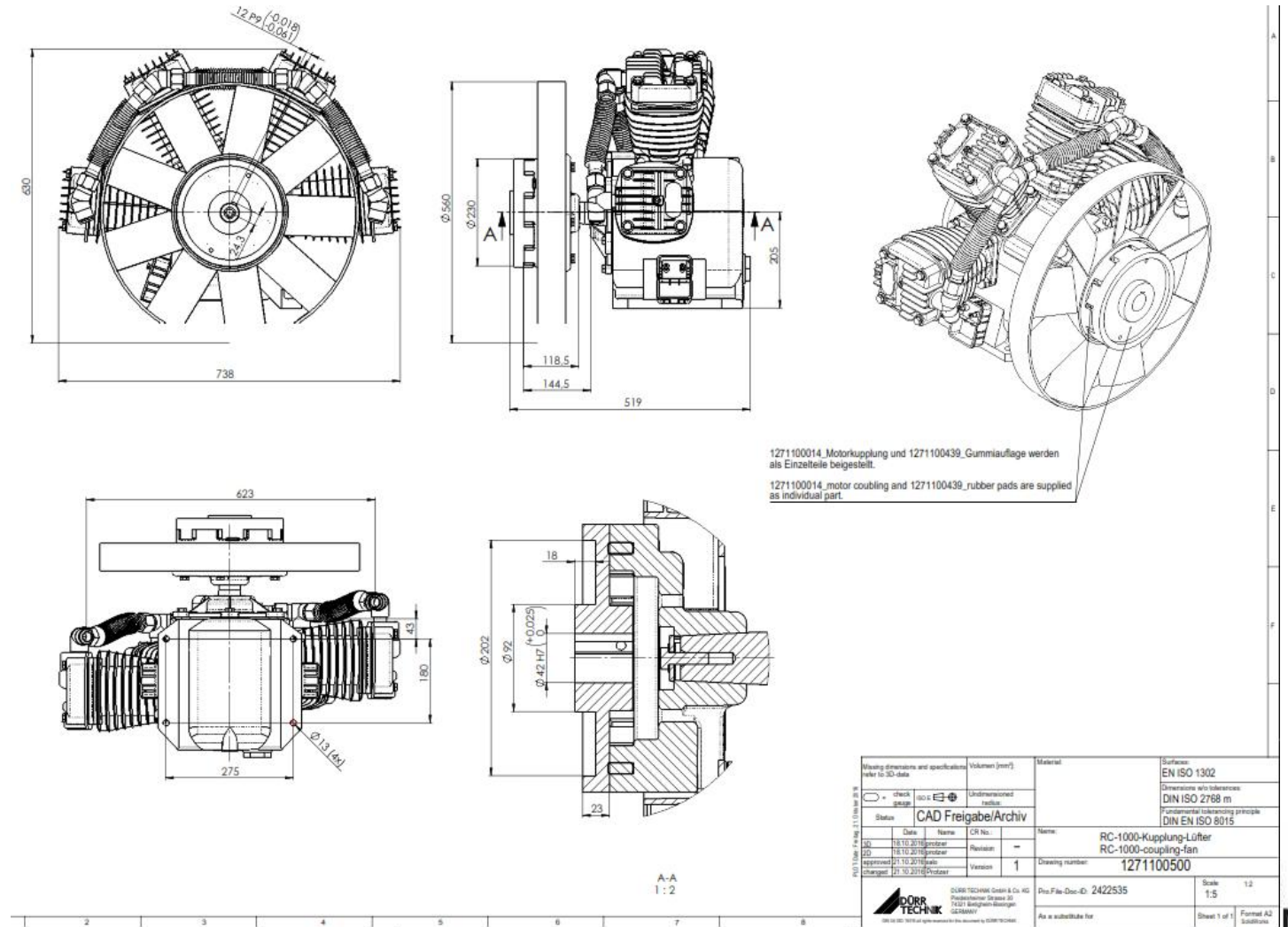
Technology	Oil free piston
Type	Single stage
Number of cylinders	4
FAD @ 9 bar	1000 NI/min
Air quality (ISO 8573-1)	-
Ambient temperature	-
Temperature outlet	-
Motor voltage	without
Motor power	without
Rotation Speed	960 rpm at 50 Hz
Duty cycle	50%
Maximal working pressure	10,5 bar
Noise level	-
Weight	127 kg



## RC-1000 with direct coupling

## TECHNICAL CHARACTERISTICS RC-1000

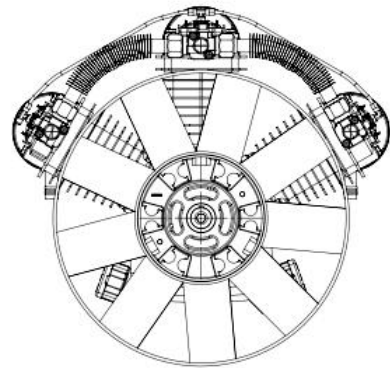
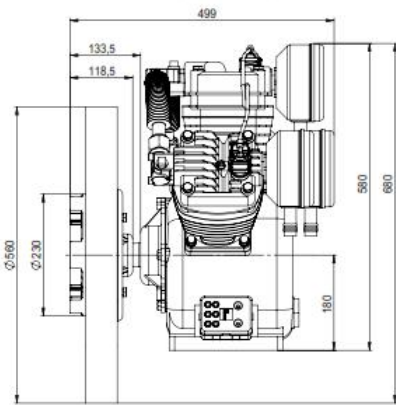
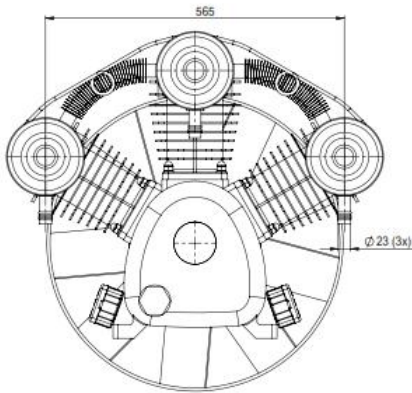
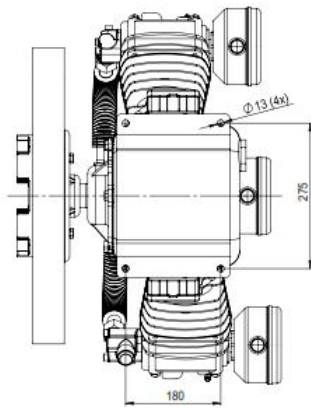
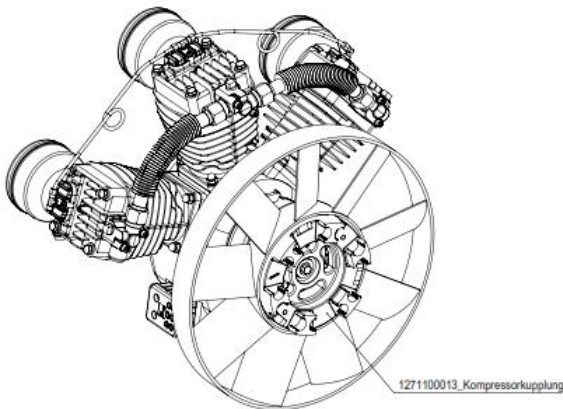
Technology	Oil free piston
Type	Single stage
Number of cylinders	4
FAD @ 9 bar	1000 NI/min
Air quality (ISO 8573-1)	-
Ambient temperature	-
Temperature outlet	-
Motor voltage	without
Motor power	without
Rotation Speed	960 rpm at 50 Hz
Duty cycle	50%
Maximal working pressure	10,5 bar
Noise level	-
Weight	127 kg



## RC-800 with direct coupling

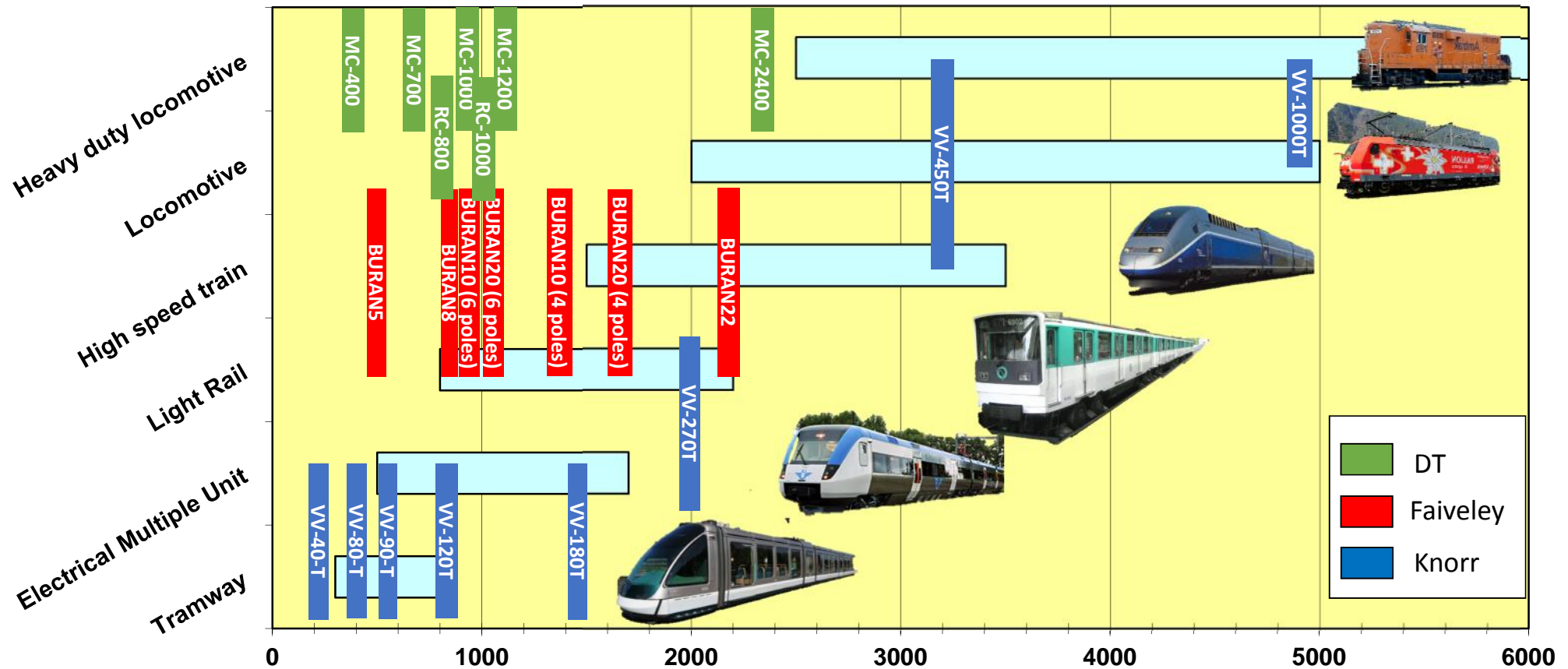
## TECHNICAL CHARACTERISTICS RC-800

Technology	Oil free piston
Type	Single stage
Number of cylinders	3
FAD @ 9 bar	800 NI/min
Air quality (ISO 8573-1)	-
Ambient temperature	-
Temperature outlet	-
Motor voltage	without
Motor power	without
Rotation Speed	960 rpm at 50 Hz
Duty cycle	50%
Maximal working pressure	10,5 bar
Noise level	-
Weight	117 kg



Measuring dimensions and specifications Indicate in 3D-state		Volume [m³]	Material:	Surface: EN ISO 1302
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Date:	Date:	Name:	BG Kompressor-Kompressorcoupling	
SD 10.10.2016/protobinder	Realisation:	Version:	Assembly/Compressor coupling	
SD 10.10.2016/protobinder	Released:	1	Drawing number: 4271100401	
approved 10.10.2016/Protobinder	changed 10.10.2016/Protobinder			
			Pro File-Doc-ID: 2412858 Scale: 1:5	

# Competitors with oil free piston compressors





# References

- AM86 (Bombardier / SNCB)
- KTX (Hyundai Rotem / Korail)
- MF77 (Alstom / RATP)
- TGV (Alstom / SNCF)
- Val 206 bis (Siemens / Keolis)
- Z150 / Z850 (Stadler / SNCF)

