

# Duo 20 M

Dual-stage rotary vane pumps with a pumping speed up to 24 m<sup>3</sup>/h :





Similar Image

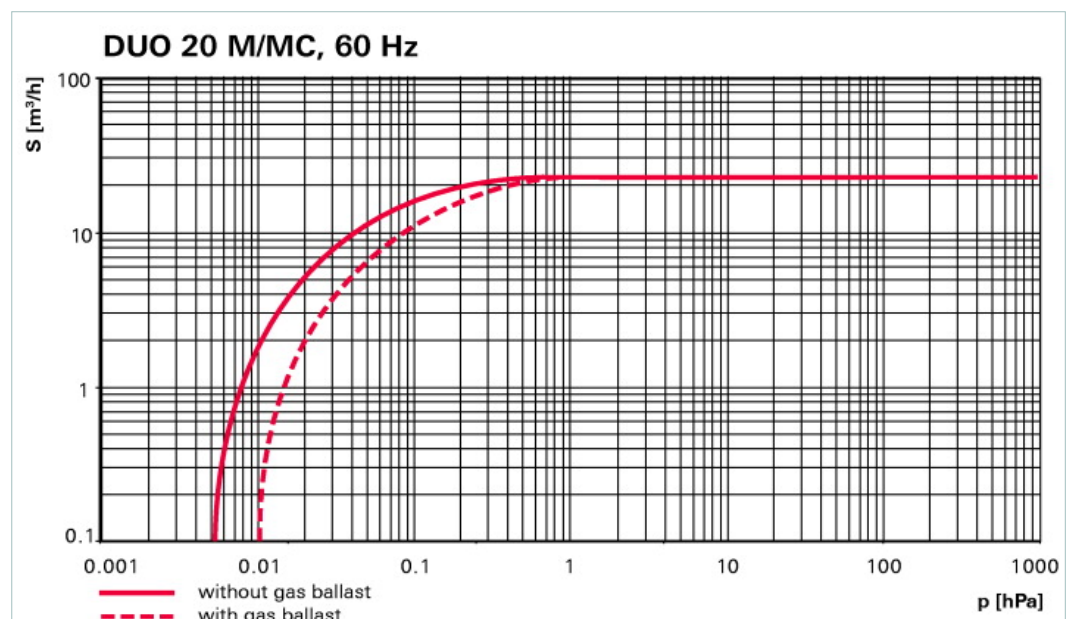
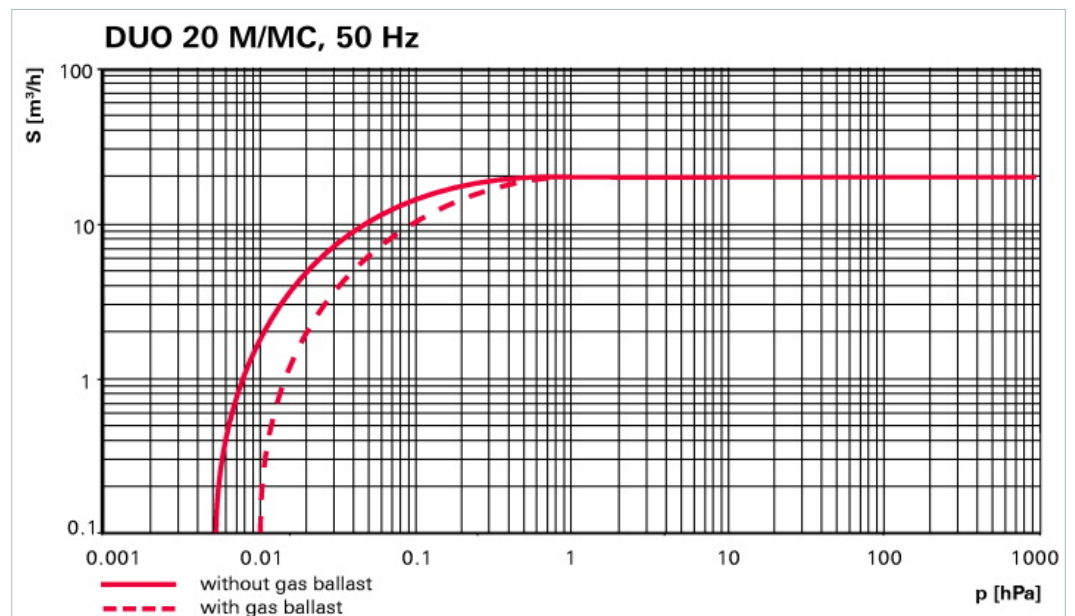
## Duo 20 M, 3-phase motor, 3TF, 220-240/380-420 V, 50 Hz; 250-277/440-480 V, 60 Hz

- Dual-stage, high-performance rotary vane pump with a pumping speed up to 24 m<sup>3</sup>/h
- With 3-phase motor
- With temperature sensor (3TF) for optimum motor protection
- Integrated gas ballast and HV safety valve
- For all low and medium vacuum applications
- Magnetically coupled
- Special feature: Various motor voltages for worldwide employment
- Other motor voltages available on request

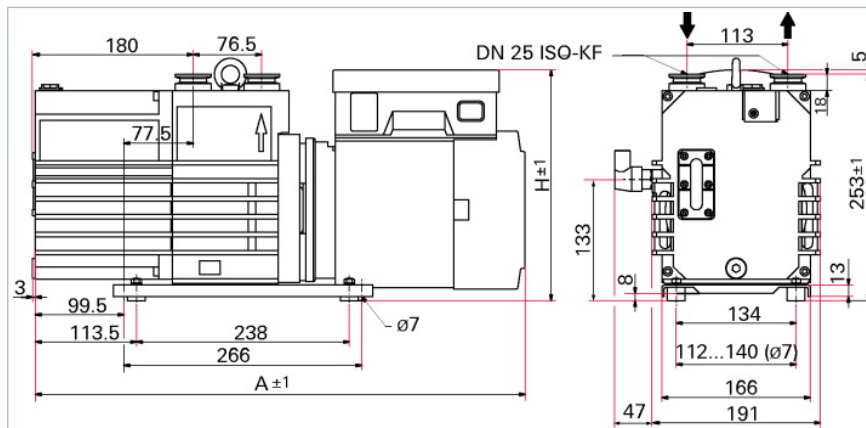
M = Magnetically coupled

MC = Corrosive gas version, magnetically coupled

TF = Temperature sensor



## Dimensions



A	542 mm
H	212 mm

Technical Data	Duo 20 M, 3-phase motor, 3TF, 220-240/380-420 V, 50 Hz; 250-277/440-480 V, 60 Hz
Ambient temperature	12-40 °C   53.6-104 °F   285-313 K
Cooling method, standard	Air
Emission sound pressure level without gas ballast at 50 Hz	≤ 55 dB (A)
Exhaust pressure, max.	1,500 hPa   1,125 Torr   1,500 mbar
Exhaust pressure, min.	250 hPa   187.5 Torr   250 mbar
Flange (in)	DN 25 ISO-KF
Flange (out)	DN 25 ISO-KF
Leak rate safety valve	≤ 1 · 10 <sup>-5</sup> Pa m <sup>3</sup> /s   ≤ 7.5 · 10 <sup>-5</sup> Torr l/s   ≤ 1 · 10 <sup>-4</sup> mbar l/s
Magnetic coupling	yes
Mains requirement: voltage 50 Hz	220-240/380-420 (± 5 %) V
Mains requirement: voltage 60 Hz	250-277/440-480 (± 5 %) V
Motor protection	3TF
Motor version	3-phase Motor
Operating fluid	P3
Operating fluid filling	1.1 l
Protection category	IP55
Pumping speed at 50 Hz	20 m <sup>3</sup> /h
Pumping speed at 60 Hz	24 m <sup>3</sup> /h
Rated power 50 Hz	0.55 kW
Rated power 60 Hz	0.66 kW
Rotation speed at 50 Hz	1500 min <sup>-1</sup>
Rotation speed at 60 Hz	1800 min <sup>-1</sup>
Ultimate pressure with gas ballast	4 · 10 <sup>-3</sup> hPa   3 · 10 <sup>-3</sup> Torr   4 · 10 <sup>-3</sup> mbar
Ultimate pressure without gas ballast	2 · 10 <sup>-3</sup> hPa   1.5 · 10 <sup>-3</sup> Torr   2 · 10 <sup>-3</sup> mbar
Weight	33 kg   72.75 lb

Typical ultimate pressure according to PNEUROP

## Order number

Duo 20 M

PK D63 105

Accessories	
<b>Accessories</b>	
FAK 025, activated carbon filter	PK Z30 006
Oil return unit from ONF 16 M to Duo 5 M, from ONF 25 M to Duo 10 M, from ONF 25 L to Duo 20 M, standard version	PK 196 172 -T
ONF 25 L, oil mist filter for pumping speeds of up to 30 m <sup>3</sup> /h	PK Z40 158
ZFO 025, zeolite trap	PK Z70 006
<b>Accessories UnoLine</b>	
KAS 25 L, condensate separator for pumping speeds up to 34 m <sup>3</sup> /h	PK Z10 033
KLF 025, cold trap	PK Z80 006
Oil pressure switch for Duo 5/10/20 M and Penta 20/35	PK 196 484 -T
Operations monitoring unit 1 for Duo 1.6/3/6/11 and Duo 5/10/20 M	PK 196 157 -T
Operations monitoring unit 2 for Duo 1.6/3/6/11 and Duo 5/10/20 M	PK 196 142 -T
Operations monitoring unit 3 for Duo 1.6/3/6/11 and Duo 5/10/20 M	PK 196 141 -T
SAS 25, DN 25 ISO-KF, polyester filter	PK Z60 508
URB 025, catalytic trap, 115 V	PT U10 761
URB 025, catalytic trap, 230 V	PT U10 760
<b>Accessories UnoLine Plus</b>	
PTC-resistor tripping device	P 4768 051 FQ
<b>Consumables</b>	
P3, mineral oil, 1 l	PK 001 106 -T
P3, mineral oil, 5 l	PK 001 107 -T
P3, mineral oil, 20 l	PK 001 108 -T