

VARIPURE Orbital Cleaner

for tank and vessel cleaning

Made by GEA Tuchenhagen



Process Equipment

GEA Tuchenhagen

VARIPURE Orbital Cleaner

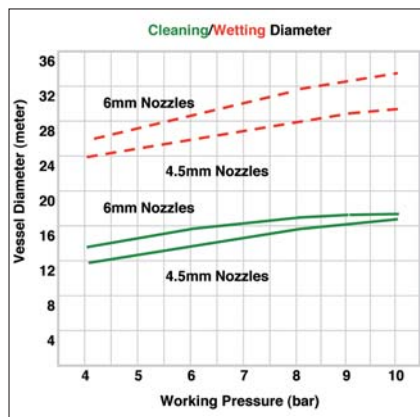
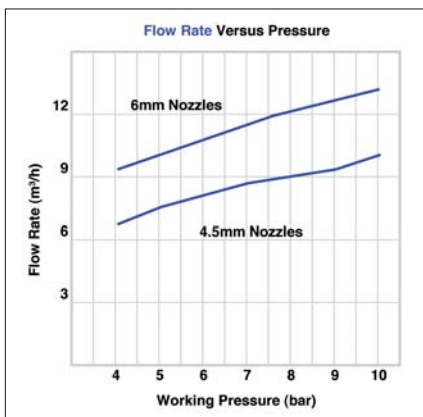


Typhoon ... one of the strongest cleaner in its class combined with hygienic design



- Hygienic design
 - Low maintenance
 - Economic flow rates
 - Long dwell time jets
- FDA conform or ATEX exempt
 - Energy-saving drive technology
 - Different nozzle diameters
 - Working pressure 4 - 10 bar
 - Cleaning diameter up to 17 m
 - Flow rate 6.8 – 13.2 m³/h
 - Spray pattern 360°
 - Operation temperature 95 °C max.
 - Ambient temperature 140 °C max.
 - Insertion Ø 110 mm minimum
 - Materials:
Stainless Steel 316L (1.4404),
PTFE or C-PTFE, PEEK
 - Pipe connection: 1" BSP / NPT Female
 - Monitoring by rotation sensor (optional)
 - Weight 3.5 kg
- Preferred mounting position: any

ATEX exempt



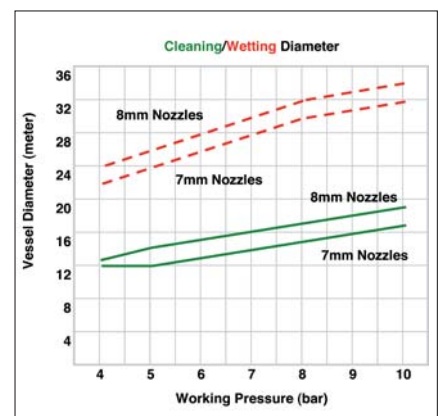
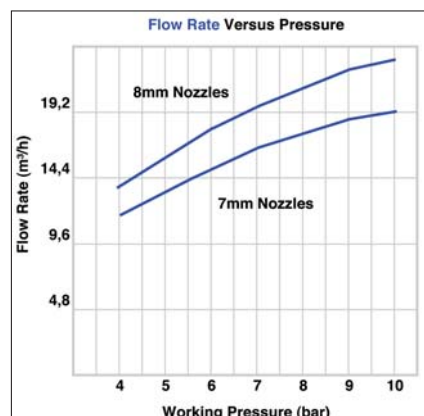
Tempest ... for a strong mechanical cleaning in large tanks up to 19 meters diameter

- Hygienic design
- Low maintenance
- Economic flow rates
- Long dwell time jets

- FDA conform or ATEX exempt
 - Energy-saving drive technology
 - Different nozzle diameters
 - Working pressure 4 - 10 bar
 - Cleaning diameter up to 19 m
 - Flow rate 11.6 – 24 m³/h
 - Spray pattern 360°
 - Operation temperature 95 °C max.
 - Ambient temperature 140 °C max.
 - Insertion Ø 210 mm minimum
 - Materials:
Stainless Steel 316L (1.4404), PTFE or C-PTFE, PEEK
 - Pipe connection: 1 1/2" BSP / NPT Female
 - Monitoring by rotation sensor (optional)
 - Weight 3.9 kg
- Preferred mounting position: any



ATEX exempt



VARIPURE® Orbital Cleaner

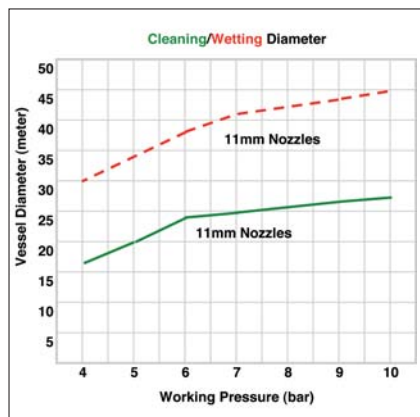
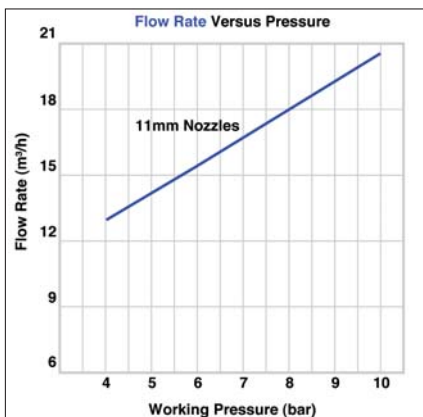


Tornado ... for a strong mechanical cleaning in large tanks up to 27 meters diameter



- Hygienic design
 - Low maintenance
 - Economic flow rates
 - Long dwell time jets
- FDA conform or ATEX exempt
 - Energy-saving drive technology
 - Working pressure 4 - 10 bar
 - Cleaning diameter up to 27 m
 - Flow rate 13.2 – 20.7 m³/h
 - Spray pattern 360°
 - Operation temperature 95 °C max.
 - Ambient temperature 140 °C max.
 - Insertion Ø 220 mm minimum
 - Materials:
Stainless Steel 316L (1.4404), PTFE or C-PTFE, PEEK
 - Pipe connection: 1.5" BSP / NPT Female
 - Monitoring by rotation sensor (optional)
 - Weight 3.2 kg
- Preferred mounting position: any

ATEX exempt



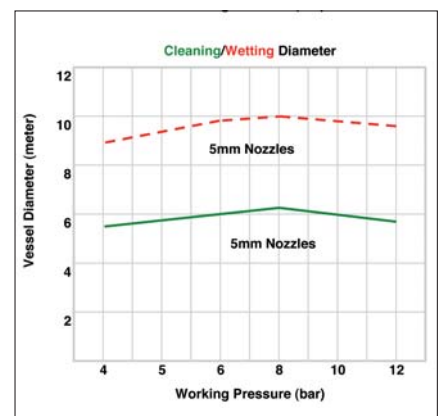
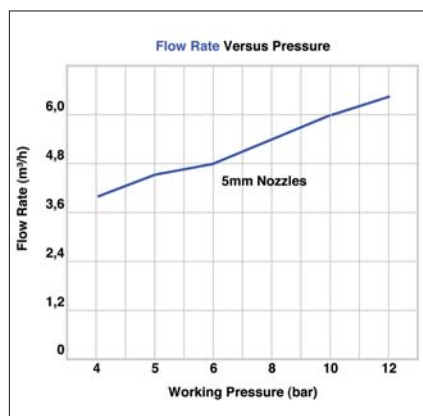
Monarc ... minimum water consumption coupled with a robust drive mechanism

- Economic flow rates
 - Powerful round jets
 - Insensitive to blockage
 - External gear
- FDA conform or ATEX exempt
 - Energy-saving drive technology
 - Working pressure 4 - 12 bar
 - Cleaning diameter up to 6 m
 - Flow rate 2.7 – 6.6 m³/h
 - Spray pattern 360°
 - Operation temperature 85 °C max.
 - Ambient temperature 140 °C max.
 - Insertion Ø 110 mm min.
 - Materials:
Stainless Steel 316L (1.4404), PTFE or C-PTFE
 - Pipe connection: 3/4" BSP / NPT Female
 - Monitoring by rotation sensor (optional)
 - Weight 1.6 kg

Preferred mounting position: vertical down, vertical up



ATEX exempt



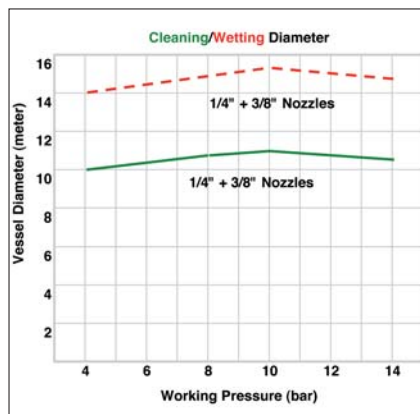
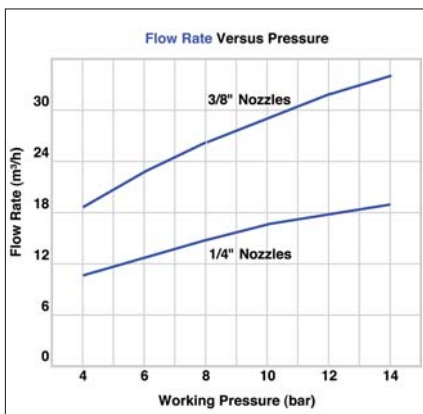
VARIPURE Orbital Cleaner



Jumbo 6 ... simple and durable drive mechanism



- Powerful round jets
 - High flow rate
 - Insensitive to blockage
 - External gear
- FDA conform
 - Energy-saving drive technology
 - Different nozzle diameter
 - Working pressure 4 - 14 bar
 - Cleaning diameter up to 10 m
 - Flow rate 10.8 – 34.2 m³/h
 - Spray pattern 360°
 - Operation temperature 95 °C max.
 - Ambient temperature 140 °C max.
 - Insertion Ø 280 mm min.
 - Materials:
Stainless Steel 316L (1.4404), PTFE
 - Pipe connection: 1 1/2" BSP / NPT Female
 - Monitoring by rotation sensor (optional)
 - Weight 4.4 kg
- Preferred mounting position: vertical down, vertical up

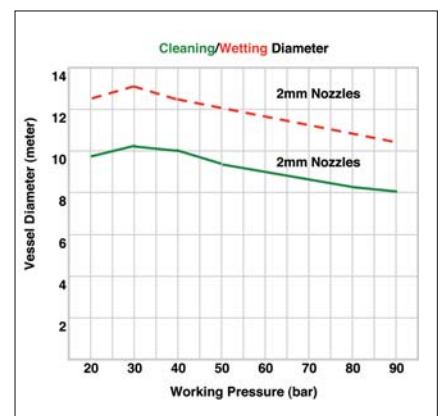
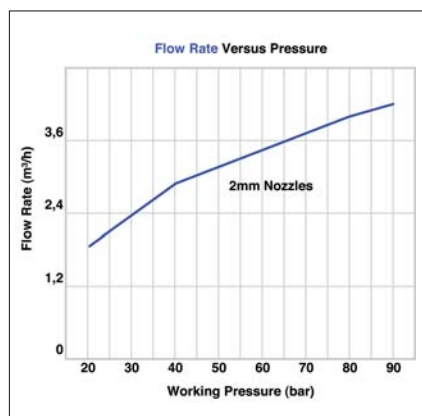


Fury TWB HP ... ideal for mobile applications in the high-pressure area

- High power jets
 - Low cleaning agent consumption
 - Cage protection
- ATEX exempt
 - Low wear
 - Working pressure 5 - 90 bar
 - Cleaning diameter up to 10 m
 - Flow rate 0.9 – 4.2 m³/h
 - Spray pattern 360°
 - Operation temperature 120 °C max.
 - Insertion Ø 200 mm min., optional 120 mm min.
 - Materials:
Stainless Steel 316L (1.4404), C-PTFE, C- PEEK
 - O-rings: NBR, optional FKM or Kalrez
 - Pipe connection: 3/4" BSP / NPT Female
 - Monitoring by rotation sensor (optional)
 - Weight 4.4 kg
- Preferred mounting position: vertical down, vertical up



ATEX exempt



VARIPURE Orbital Cleaner

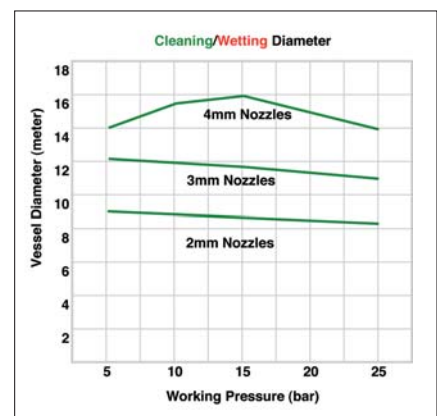
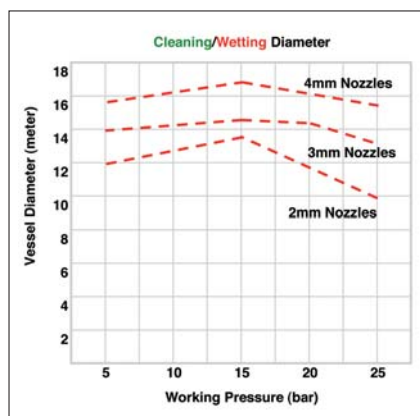
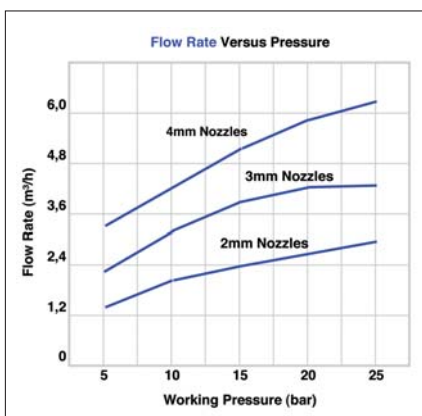


Fury TWB ... ideal for mobile use in the middle pressure range for large tank diameters



- Powerful round jets
 - Economic flow rates
 - Cage protection
- ATEX exempt
 - Minimizing waste water costs
 - Low wear
 - Working pressure 5 - 25 bar
 - Cleaning diameter up to 16 m
 - Flow rate 1.5 – 6.3 m³/h
 - Spray pattern 360°, optional 180°
 - Operation temperature 120 °C max.
 - Insertion Ø 200 mm min., optional 120 mm min.
 - Materials:
Stainless Steel 316L (1.4404), C-PTFE, C- PEEK
 - O-rings: NBR, optional FKM or Kalrez
 - Pipe connection: 3/4" BSP / NPT Female
 - Monitoring by rotation sensor (optional)
 - Weight 4.4 kg
- Prefered mounting position: vertical down, vertical up

ATEX exempt



Monitoring sensor SMW 100 ... unique in its function

Monitoring sensor for jet detection at rotary cleaning devices

- Aseptic instrumentation
 - Elastomer free sealing
 - Product wetted parts in Peek
 - FDA/ EHDG- conform
-
- Welding sleeve system GEA Tuchenhagen
 - Housing in 1.4305
 - Supply voltage 18 ... 32 VDC
 - Power requirement < 20 mA
 - Output signal active 50 mA max.
 - Switch on delay < 0,3 s
 - Response time < 75 ms
 - Rated temperature 25°C
 - Head interior temperature 70 °C max.
 - Ambient temperature -10 - + 70 °C
 - Protection class IP 65 / 67
 - Working pressure max. 10 bar max.
 - Medium temperature durable 0 ... +100 °C
 - CIP-/ SIP – cleaning 0 ... 150 °C (max. 30 min.)

Use in:

- Water and water-based cleaning media
- Kinematic viscosity $1.004 \times 10^{-6} \text{ m}^2/\text{s}$
- Conductivity 0.05 S/m





Process Equipment

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