

Efficientamento Energetico e Servizi nelle trasmissioni di potenza

07-Nov-23 CIB, Ecomondo Rimini

Davide Mattioli
Sector Sales



We engineer dreams



1956

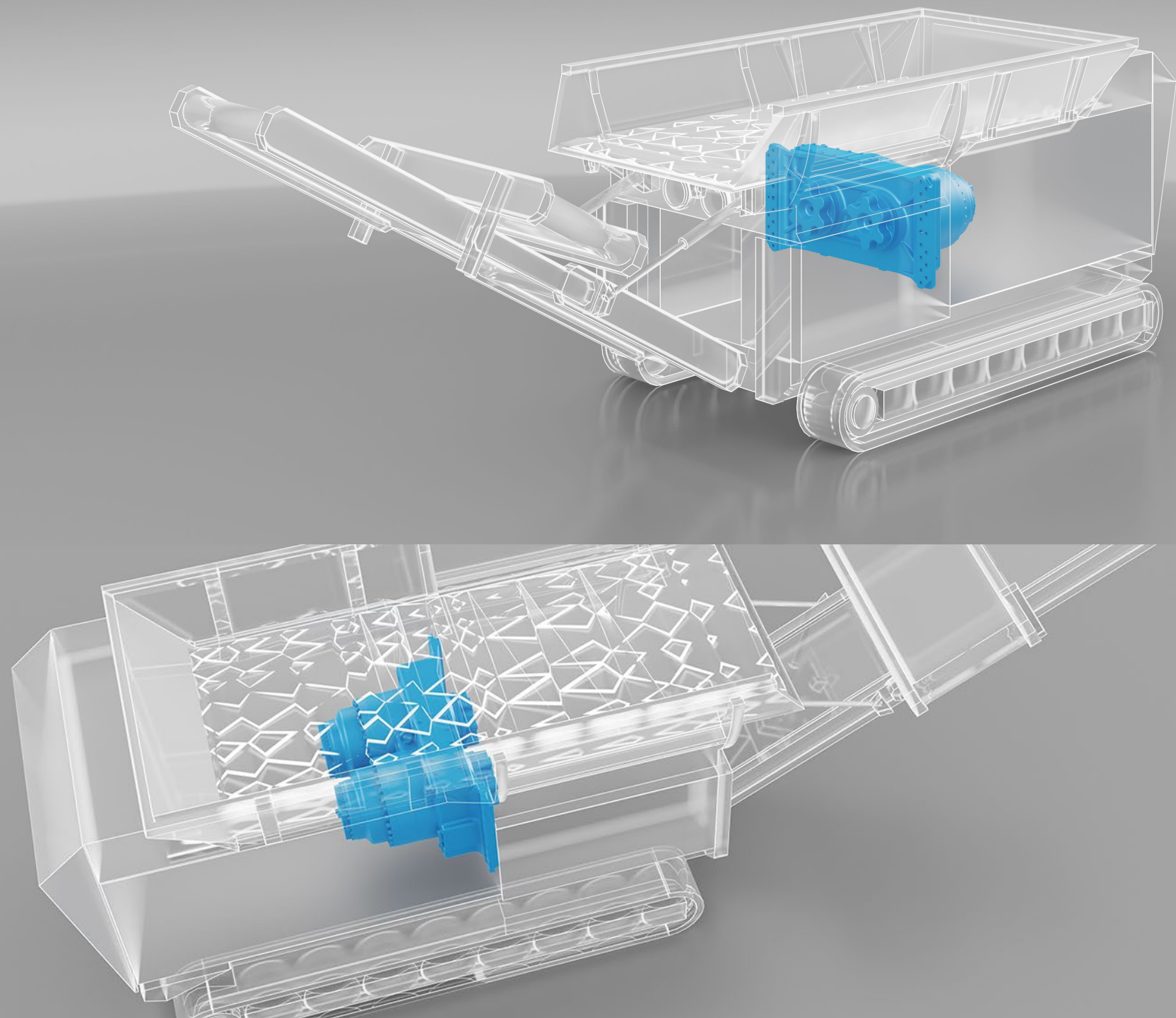


4700+

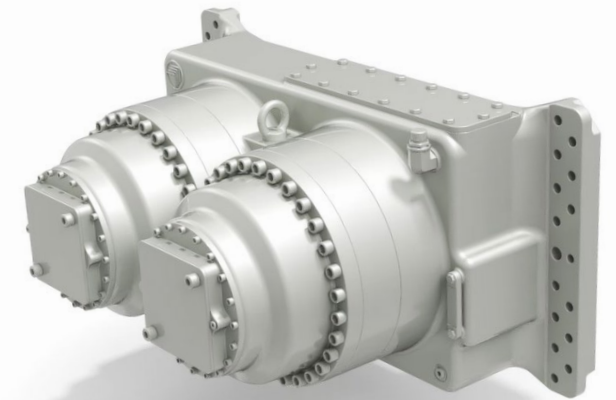


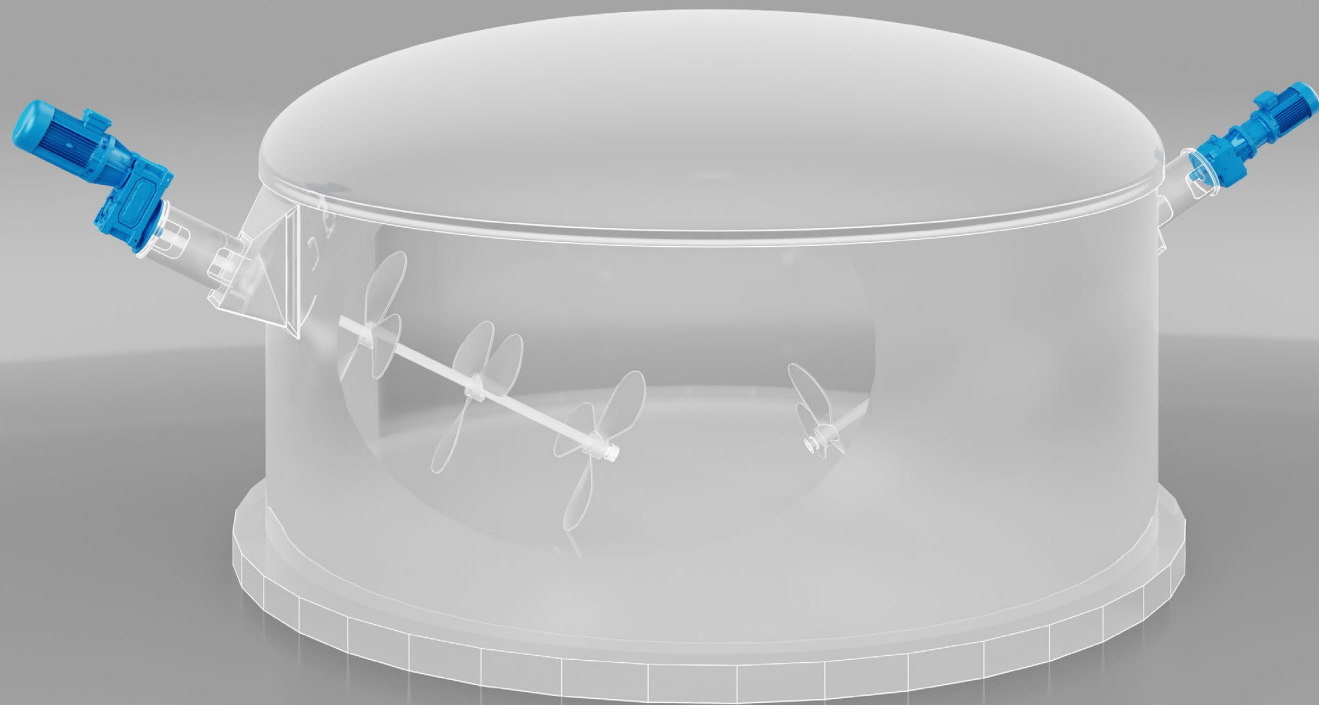
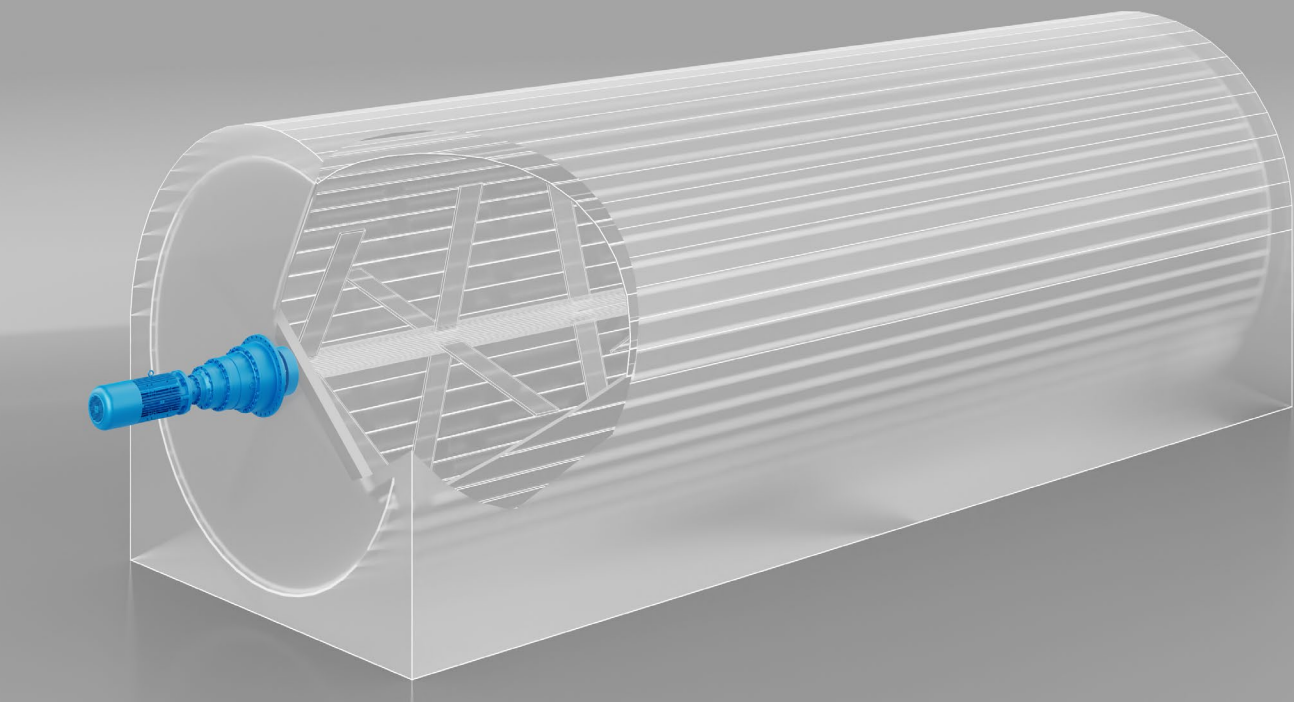
80

1,2B€

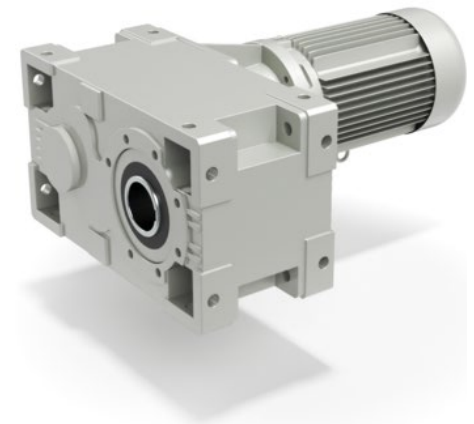


RECYCLING

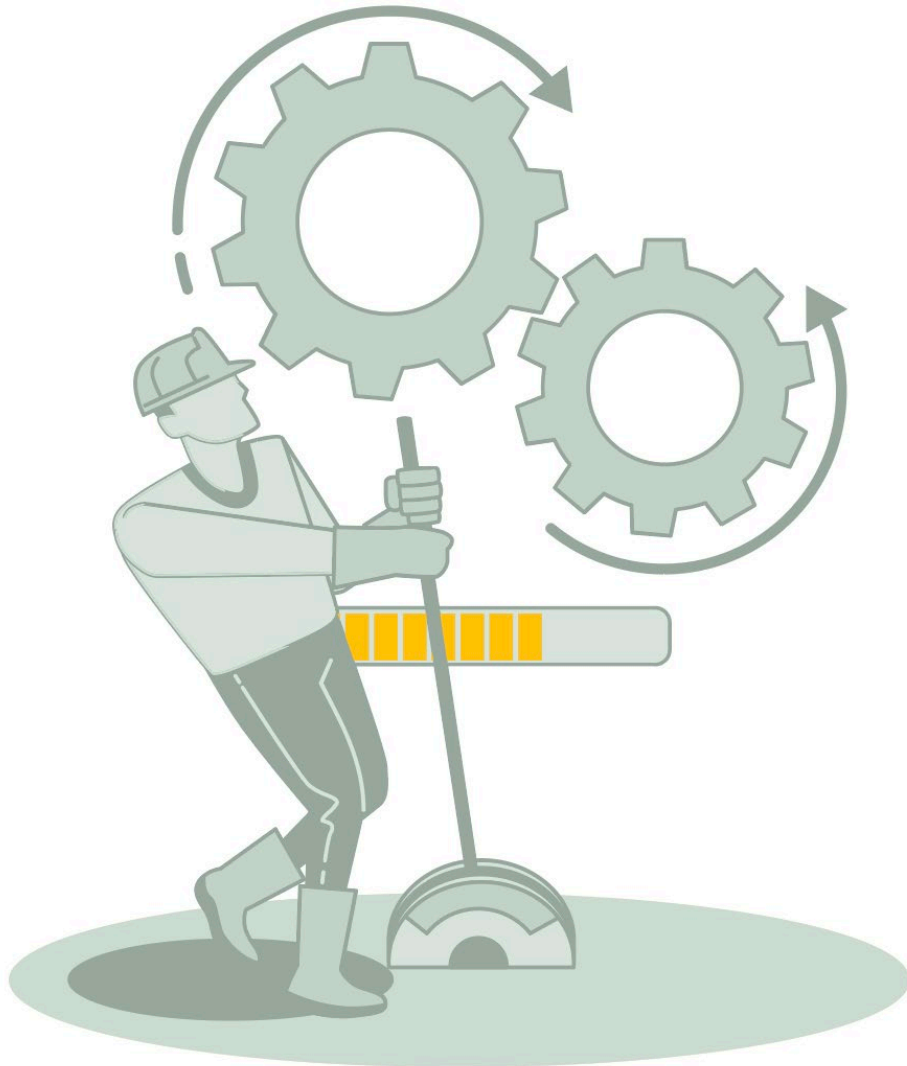




BIOGAS



1 EFFICIENTAMENTO ENERGETICO DELL'IMPIANTO BIOGAS



I costi dell'energia influiscono negativamente sui profitti



Efficientare gli attuatori attuali con una classe energetica superiore



TOTAL COST OF OWNERSHIP DELL'IMPIANTO BIOGAS

- ✓ Ore produzione al giorno
- ✓ Costo energia €/kW
- ✓ Potenza installata kW

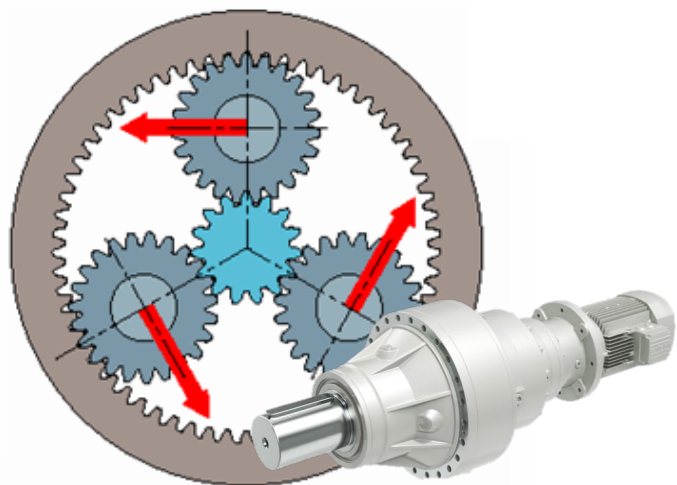
RIDUTTORE EPICICLOIDALE



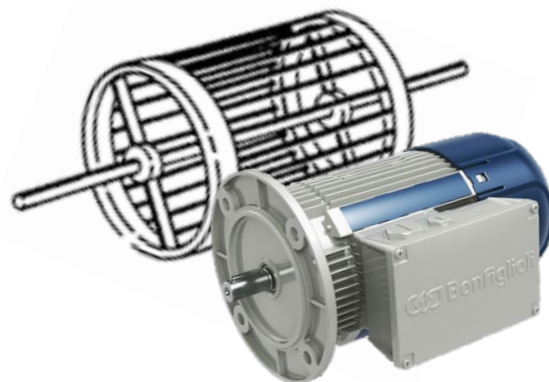
MOTORE ASINCRONO



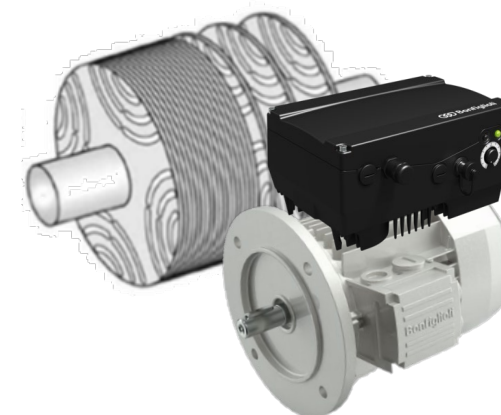
MOTORE SINCRONO E INVERTER



- ✓ Ridotto strisciamento
- ✓ Giochi controllati
- ✓ Alta densità di potenza

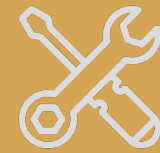


- ✓ Efficienza standard IE3
- ✓ Range potenze ampio
- ✓ Motore Universale



- ✓ Efficienza standard IE4
- ✓ Velocità controllate
- ✓ Alta densità di potenza

2 MANUTENZIONE E SERVIZI PER L'IMPIANTO BIOGAS



I fermi di produzione sono costosi e imprevedibili



Effettuare la manutenzione in modo preventivo e predittivo



TOTAL COST OF DOWNTIME
DELL'IMPIANTO BIOGAS

- ✓ Ore di fermo impianto
- ✓ Costo cogenerazione mancata €/kW
- ✓ Costo interventi straordinari

MANUTENZIONE PREVENTIVA



MANUTENZIONE PREDITTIVA



TAILOR-MADE



GARANZIA

- ✓ Mappatura impianto Biogas
- ✓ Pronta disponibilità dei consumabili
- ✓ Costi preventivati e trasparenti
- ✓ Visite programmate



SENSORI IoT



DASHBOARD

- ✓ Rilevare stato di salute dei prodotti
- ✓ Prevedere la manutenzione
- ✓ Stabilire la sostituzione

ACTUATOR

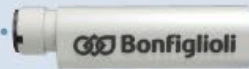


**DRIVE/
GEARBOX
BONFIGLIOLI**

SENSOR



W-SENSOR



Z-SENSOR



AXIAVERT

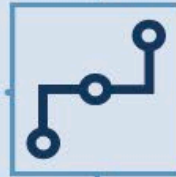


3rd PARTY SENSOR

EDGE AND DATA MODELS



DATA MODELS



**EDGE
COMPUTER**

CLOUD



Bonfiglioli



LETTURA IN REAL-TIME

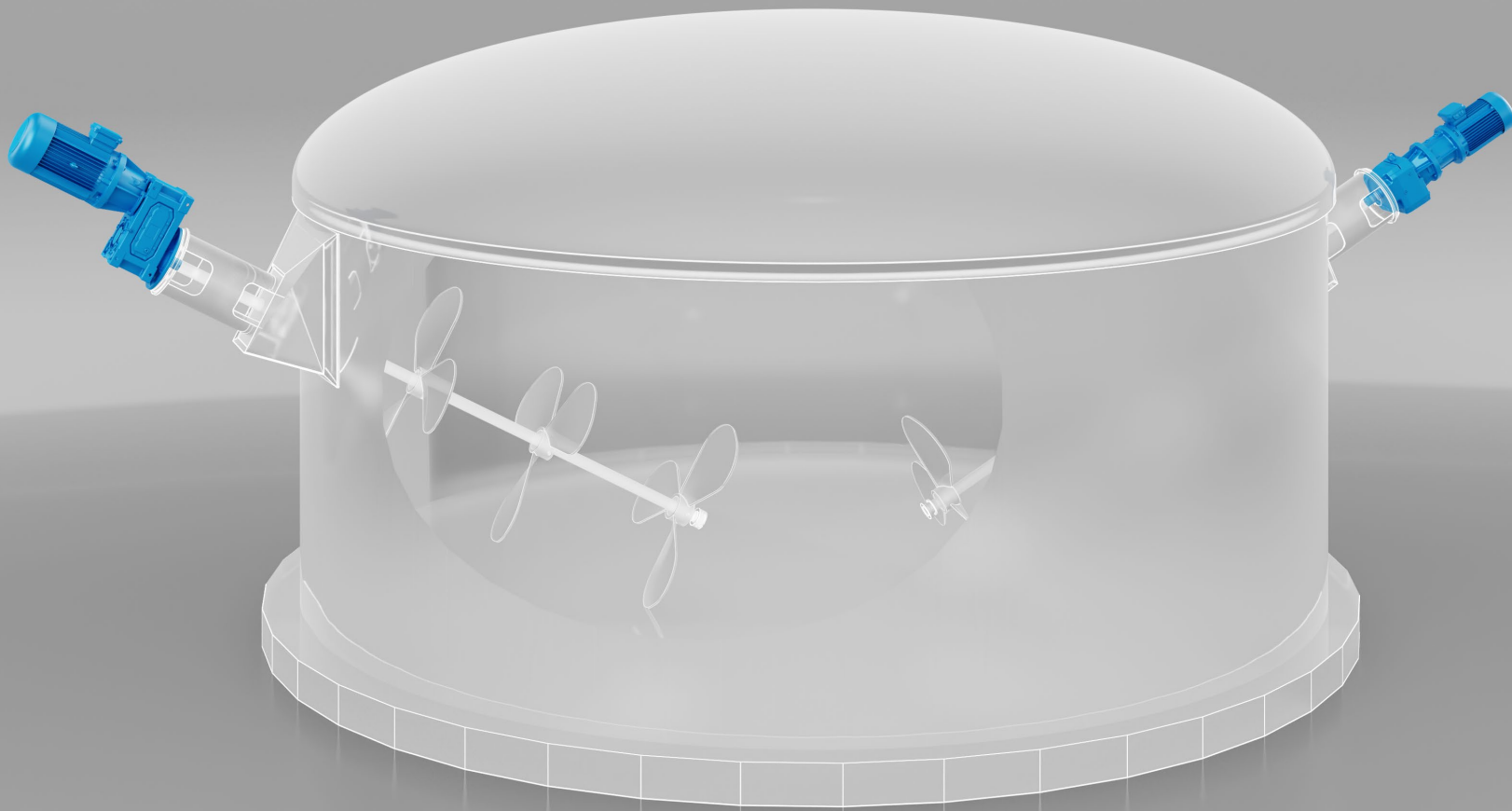
- Motor Power [Inverter] 1.5 kW
- Motor Current [Inverter] 2.4 A
- Motor Voltage [Inverter] 375 V
- Motor [WSensor] 49.9 °C
- Gearbox [ZSensor] 47.6 °C
- Motor RMS [WSensor] 0.21 g
- Gearbox RMS [ZSensor] 0.10 g

ALERT E PREVISIONI

- Gearbox Total Working Hours [Model] 1332 h
- Gear Damage [Model] 104.7 % **ALERT**
- Bearings Damage [Model] 94.0 % **ALERT**
- Oil Damage [Model] 5.3 % **OK**
- Gearbox Oil Estimated Temperature [Model] 47.3 °C
- GB Preventive Maintenance Schedule [Model] 7 feb 2022
- Oil Preventive Change Schedule [Model] 16 ott 2024
- Gearbox Efficiency [Model] $\eta = 93.9 \%$

STORICO CICLI DI LAVORO

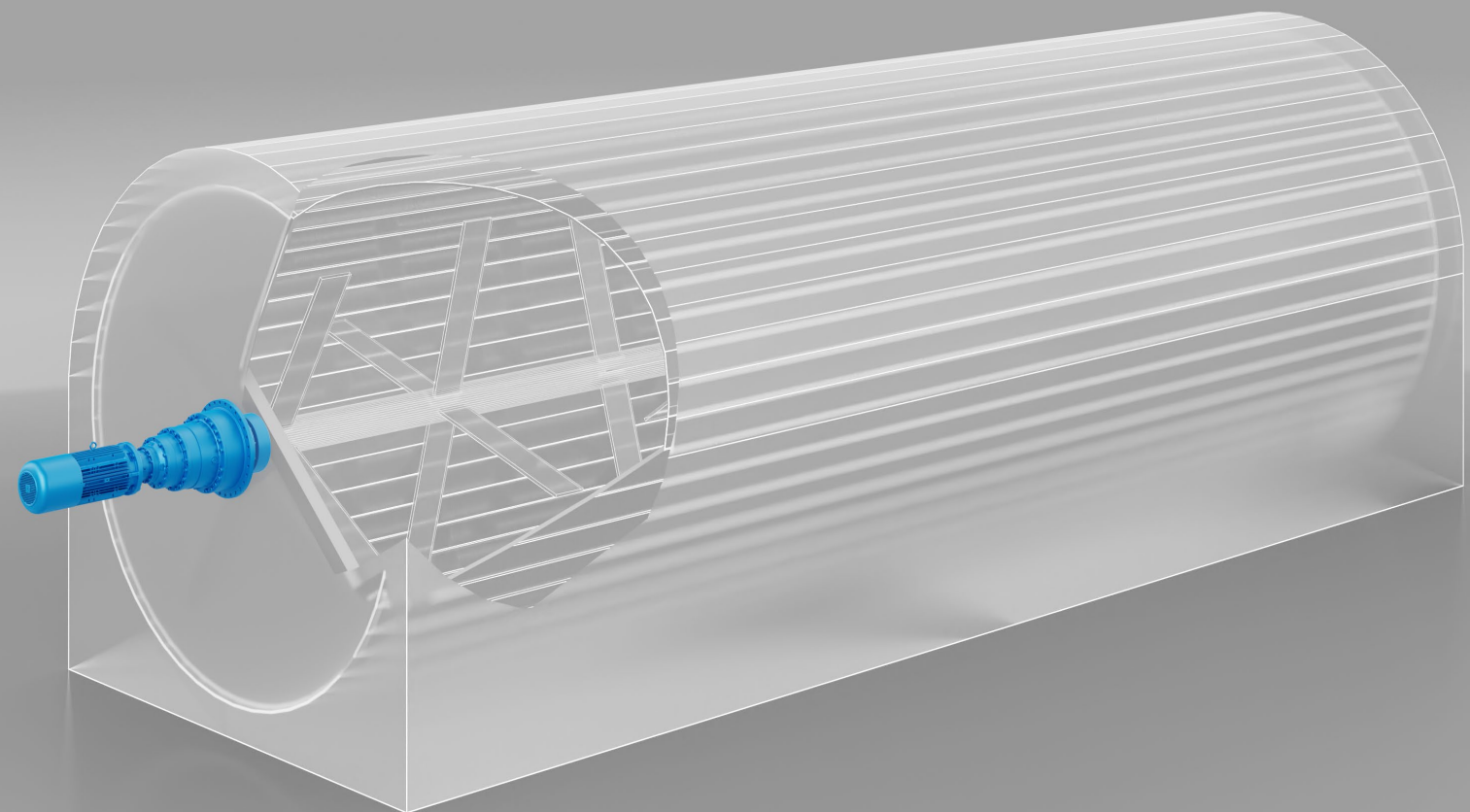
- Torque [Inverter] 8.1 Nm
- Speed [Inverter] 1522 rpm
- Duty Cycle
- Overload 85.4 %
- Load Status 1 **OVERLOAD**



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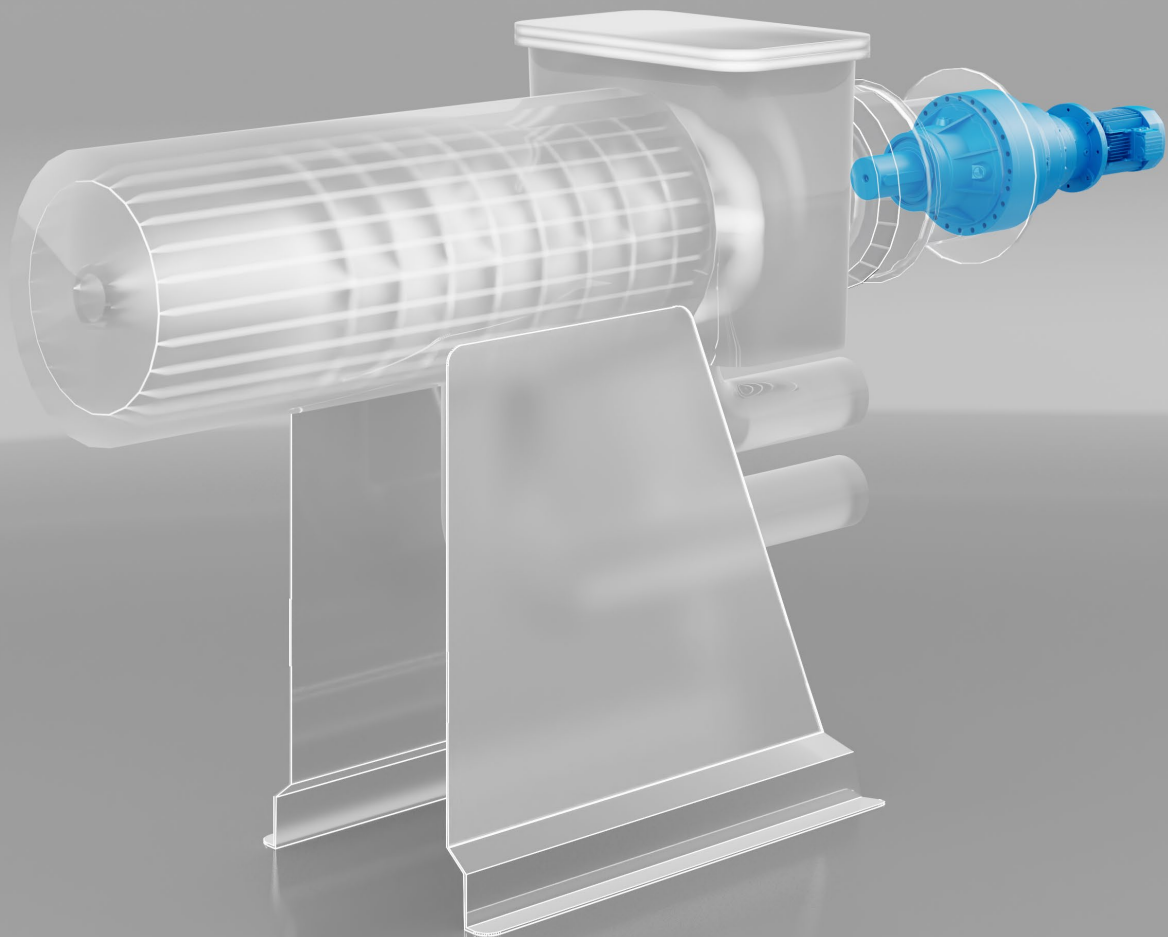


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THANK YOU

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 **Bonfiglioli**