

# Dry-mix concrete spraying machine



Illustrated kit may include options and additional equipment

# **Features**

The NORMET PICCOLA is a dry-mix concrete spraying machine, based on the rotor principle. Its well-proven design makes it extremely robust, easy to set up and simple to operate. Various configurations and a wide choice of specialized nozzle kits make it the machine of choice for small-to-medium applications in:

- >Slope protection
- >Small-to-medium area repairs
- > Swimming pool construction
- > House building
- > Spraying of fine mortars for joint repairs
- > Emergency and back-up work on TBMs
- > Refractory lining
- > Conveyance of all types of dry materials such as gravel
- > Sandblasting
- > Sprayable membranes
- > Fire protection

#### Main features:

- > Very robust and simple design for a long service life
- > Easy cleaning due to single-spindle clamping system
- > Freely accessible wear parts
- > Air distributor with 2 ball valves for conveying air and needle valve for individual control of upper and lower air flow, including magnetic valve in the main air line (only with Control Box 20)

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- > Quick exchange of rotor type and outlet for different outputs/applications
- > Rubber pads and friction discs can be refaced for a long service life
- > Huge range of nozzle sizes, shapes and materials for all applications and conditions

Disclaimer: Product will be quoted according to information and specification provided.

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# **Technical specifications**

# **CONCRETE SPRAYING PUMP/FEED**

- Sturdy hopper and mesh design on silent blocks
- > Special self-levelling, single-spindle clamping system for uniform pressure to all sealing surfaces
- > Fast cleaning device at the upper rubber pad
- > Self-cleaning discharge spout with conical blow-out and rubber inlet
- > Wear-optimized rotor components for a long service life
- > Bag ripper for integrated mesh
- > Dust collector with filter bag
- > Spraying capacity (max. theoretical) 5.0 m<sup>3</sup>/h > Feeding hopper height 1 100 mm
- > Feeding hopper volume 45 L 500/100 m Conveying distance/height, max
- > Recommended grain size, max 4-6 mm

# **CONTROL SYSTEM**

- > Easily accessible control system in dust- and splashproof central control box
- > Simple control elements and 2-wire emergency circuit
- > Motor protection and earth leakage circuit breaker
- > Hour meter counter

# **CARRIER**

- > Rigid frame with pneumatic tyres, guide fork and tow
- > Spur gear reduction drive with protection hood for motor and V-belt pulleys

### **ELECTRICAL SYSTEM**

Control system	24V DC

CEE 3P/N/E, 32A > Socket with phase change switch

> Protection class IP55

# **Optional equipment**

# **POWER PACK**

> Electric motor, 2-speed

3x400/440V / 50/60 Hz

2 stage electric motor 2.2/3.3 kW

> Electric motor, variable speed

3x400/440V / 50/60 Hz

electric motor 4.0 kW

requires Control Box 20

Compressed air motor, variable speed

5.6 kW motor air consumption (for motor only) 5.0 m<sup>3</sup>/min 6.0 bar

pressure

# FEED SYSTEM/ROTORS

Rotor	type	Practical output capacity
> Half-	-size rotor, 12 round holes	<del></del>
•	normal hardened discs	0.8/1.0 m <sup>3</sup> /h
•	super hardened disc	0.8/1.0 m <sup>3</sup> /h
•	special (sandblasting),	
	super hardened discs	0.3 m <sup>3</sup> /h
>Half-	size rotor, 12 sector holes	0.6/2.1 m <sup>3</sup> /h
•	normal hardened discs	
> 9 round hole rotor		2.1/2.7 m <sup>3</sup> /h
•	normal hardened discs	
•	super hardened discs	
> 12 round hole rotor		1.5/2.0 m <sup>3</sup> /h
•	normal hardened discs	
•	super hardened discs	
> 12 sector holes		2.7/3.5 m <sup>3</sup> /h
•	normal hardened discs	

Practical output capacity is based on past experience. Deviations are possible due to different mix design or material characteristics.

# **MISCELLANEOUS**

> Discharge spout	Ø 25/32/40/50 mm
> Hopper mesh sizes	15/20/25 mm

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# Additional equipment

#### SPRAYING/NOZZLE/ CONVEYING SYSTEM

➤ Conveying/nozzle system Ø 32/40/50 mm

Ring gap nozzle system

for low dust emission Ø 32/50 mm

Conveying/nozzle system

for sprayable membrane Ø32 mm

All including conveying hose 20 m, spraying hose 20 m (total hose length 40 m), conical spraying nozzle, couplings and gaskets.

# **CONTROL SYSTEM**

Remote control with cable

40 m

50 L

> Extension cable to remote control

40 m

- > Control Box 20 for electric variable speed drive
  - Easy access control cabinet with PLC including sockets for electric vibrator, remote control and water booster pump

#### WATER SYSTEM

> Booster pump, max capacity 17.5 L/min at 12 bar

electric drive 2.2k

compressed air drive
 2.4kW

> High-pressure water hose 2x20m with quick couplings

• 16/23 mm, 20 bar

#### **ACCESSORIES**

- > Bag ripper for hopper extension
- > Electric vibrator (on hopper)
- > Air driven vibrator (on hopper)
- > Hopper extension
  - weldment open with mesh (not recommended for feeding with bagged material and silo)
  - weldment closed with mesh

# WATERPROOF MEMBRANE

- > Special machine versions (MA and ME) for sprayable membrane (e.g. TamSeal 800) including water absorber, special seals, hopper lid and nozzle configuration
- > Piccola MA (M= Membrane spraying, A= Air driven)
  - Including compressed air motor (variable speed), half-size 12-rh rotor, discharge spout 32 mm, air driven vibrator, water booster pump and water separator for compressed air
- > Piccola ME (M= Membrane spraying, E= Electric driven)
  - Including electric motor (variable speed), halfsize 12-rh rotor, discharge spout 32 mm, electric vibrator, remote control with 40 m cable, Control Box 20, water booster pump and water separator for compressed air
- Conversion kit to sprayable membrane version for existing machines

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#### **ACCELERATOR DOSING SYSTEM**

 Nordoser 4D dosing system for liquid alkali-free accelerator (DOC030146)

# LTC services

#### SPARE PARTS

Spare parts packages: Available for different working hours. Include periodic service, the most common wear parts and most critical safety parts. Spare parts\* packages available on request.

\* Recommendations are based on average hours and can vary greatly depending on worksite conditions.

# TRAINING SERVICES

Available before delivery, at start-up and after delivery **Product training:** 

Operation and maintenance

NorSmart

Foundation in electrics, hydraulics and mechanics Audit

# **Process training:**

Concrete spraying

Charging

Process audit

# **AUDIT SERVICES**

To improve the performance of the machines
To improve the performance of your processes
To help improve the quality of maintenance operations

# SERVICE CONTRACTS

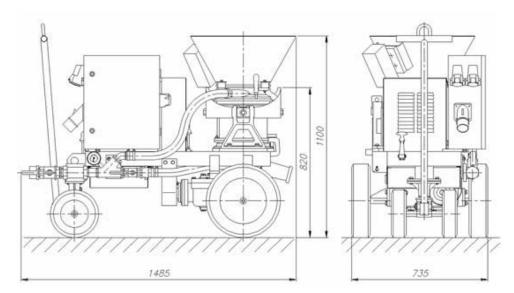
Spare parts supply programmes Scheduled inspection programmes Supervision programmes Periodic maintenance programmes Machine usage programmes

#### LINK ONE

Link One electronic spare part manuals

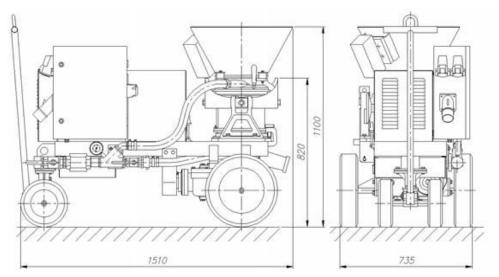


# **Dimensions**



# SIDE AND FRONT VIEW

NORMET Piccola with electric motor



# SIDE AND FRONT VIEW

NORMET Piccola with electric motor and variable gear

# **DIMENSIONS**

>	Length
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•	with electric motor	1 485 mm
•	with electric motor and variable gear	1 510 mm
> Width		735 mm
Height		1 100 mm
> Hoppe	er filling height	1 100 mm
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Weight

with electric motor 450kgwith electric motor and variable gear 470kg

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