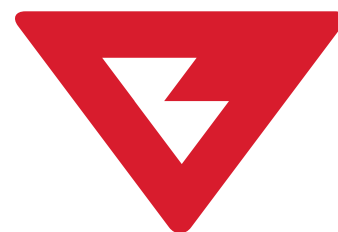


# AC-4 shotcrete plastering machine

Solutions for building, reconstruction and refractory application



**TORNADO**  
shotcrete equipment



- 1 YEAR GUARANTEE
- WORKS WITH COMPRESSOR 0,5 M<sup>3</sup>/MIN
- PLASTER STATION FUNCTION
- CONCRETE MIXER OPTION

- PAY FOR EQUIPMENT FROM OBTAINED PROFIT
- WE WILL LOWER COSTS OF WORKS TO 45%
- WE WILL HELP YOU TO WIN A TENDER

**Shotcrete** — is the construction technique, where concrete pneumatically conveyed through a hose and projected layer by layer at high velocity onto a surface



Wet mix shotcrete is a versatile, flexible and economical method of construction and reconstruction. Properly chosen equipment allows to achieve good results in sprayed concrete application. TORNADO offers equipment, effective for the following types of work:

## Applications

The optimal areas for the use of wet shotcreting are the objects with the need to apply large volumes in a constant mode, if possible, to provide the equipment with the necessary quantity of hydrated shotcrete:

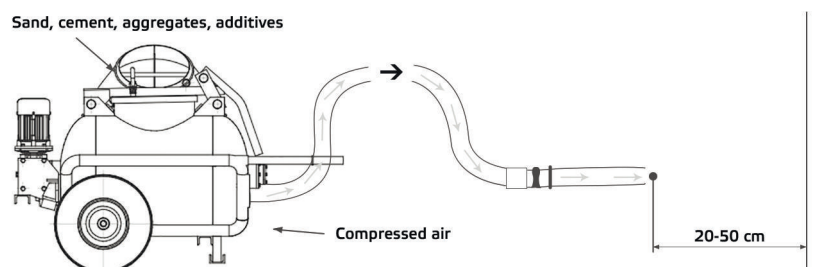
- preparation and transportation of concrete and plaster mixtures
- plastering
- the installation for cast-in-place floor
- construction of reservoirs, tanks, basins, cones, shells
- repair of concrete and reinforced concrete structures
- application of refractory materials
- soil stabilisation (pits and storage facilities, strengthening of the slopes at the construction of interchanges, bridges and so on.)
- conveying of loose materials (sand, gravel, etc.).

## Method advantages:

- reduced dust formation
- possibility of final grouting
- minimum "rebound" of the material, minimization of material losses
- increased productivity of shotcrete works
- ability to work in tight working space minimum
- costs for site protection
- possibility of using the unit as a concrete pump
- prepared shotcrete can be used for manual application
- independence from concrete suppliers (the possibility of preparing mix on building site)
- control of water-cement ratio

## Working principle

The components of the shotcrete mixture or ready hydrated concrete are loaded into the working capacity of the machine. Mixing blades stir the mixture. The working capacity is sealed with a lid, compressed air is supplied to it, which gradually squeezes out the concrete and feeds it through the hose to the spray nozzle. Upon impact with the surface, significant concrete consolidation is achieved



# Overview

The shotcrete plastering machine AS-4 is a pneumatic conveyor, which provides unprecedented versatility from preparing and transporting the mixture as mortar pump to plastering and shotcreting – and all this is done with a single machine. Replaceable nozzles and nozzle holders allow you to adapt the machine to the required type of work. The design of the equipment misses consumable parts

## Features and benefits



**1** Pneumatic large-diameter wheels allow the wet shotcrete machine to become unprecedentedly compact. Transportation and unloading can be carried out manually without the help of crane mechanisms



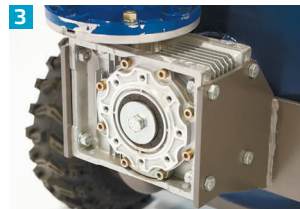
**2** Telescopic handles are used to facilitate movement through the construction site



It works with any shotcrete mixtures and concretes. The machine is capable of pumping hard concrete with mobility up to P2 and fraction up to 16 mm



**4** It combines the shotcrete machine, concrete pump and concrete mixer. It is possible to prepare the shotcrete mixture directly in the machine, which greatly simplifies the performance of works. As a concrete pump, the machine can be used for pouring floors, pumping concrete for pouring foundation slabs and a floor screed installation



**3** Reliable European component parts. The reducer and the engine produced by STM (Italy) is installed. Significantly less equipment than it is available on the market



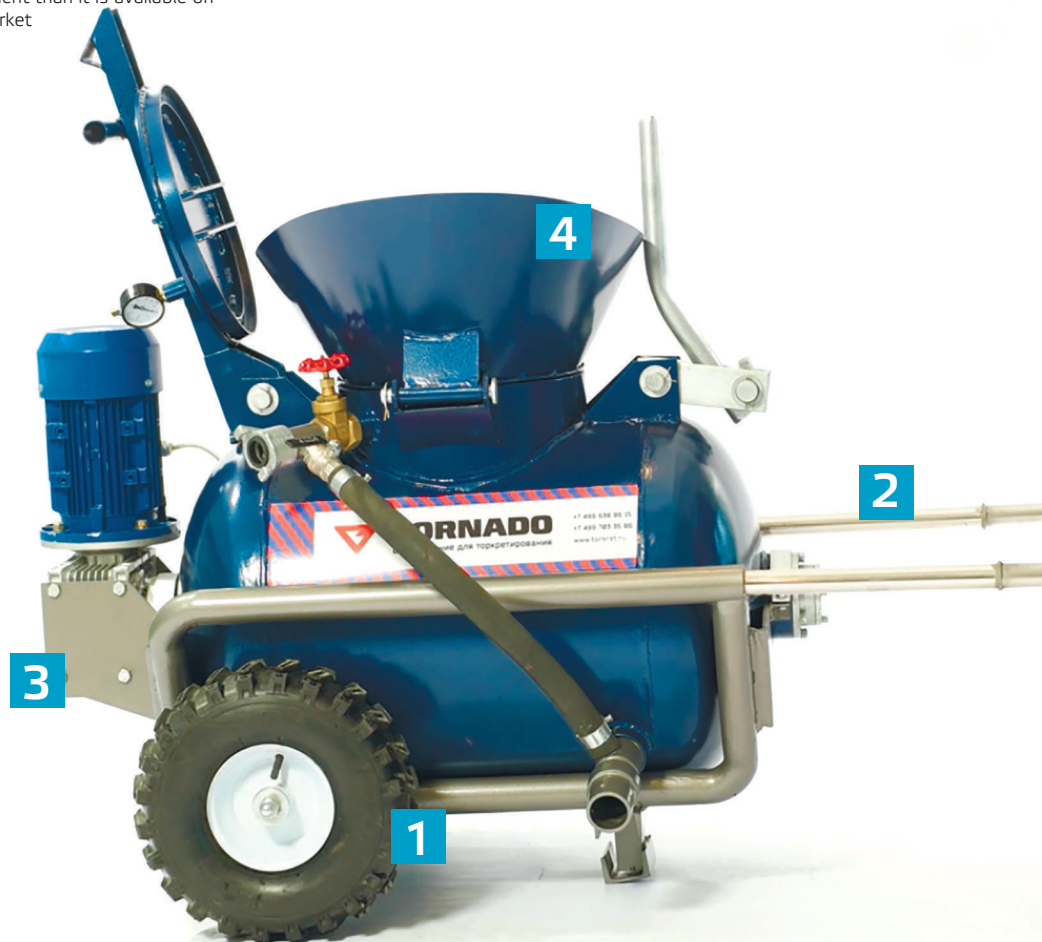
It is possible to use as a plaster station. With a compressor of 500 liters/min and hoses of 25 mm, the unit can be used in plastering mode to apply mixtures without compaction for decorative purposes



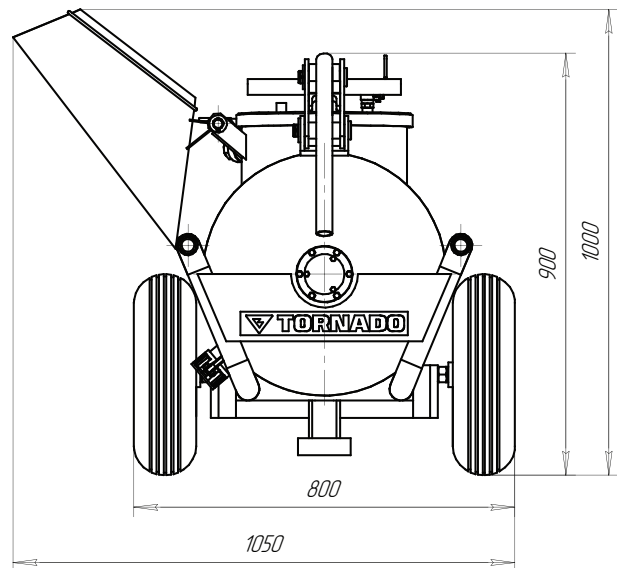
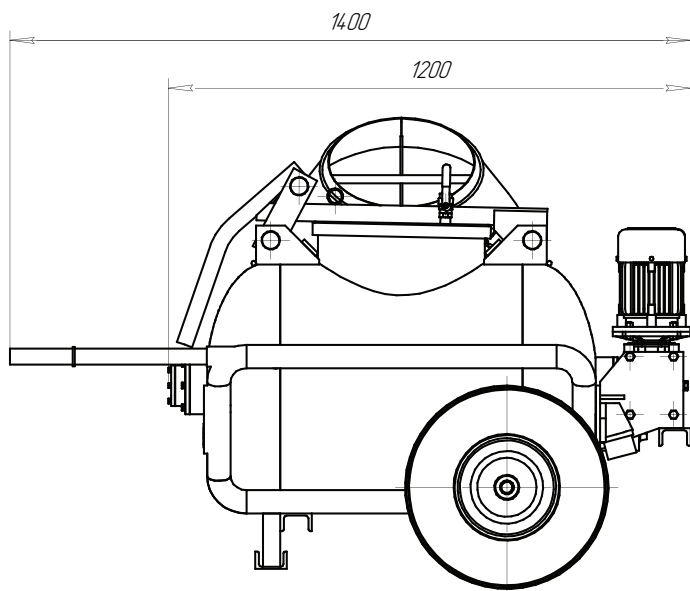
Significantly less equipment than it is available on the market



The supply distance is up to 60 m. If there is a compressor of the required capacity, the supply of concrete is possible up to 25 m vertically and 60 m horizontally.







## Technical specifications

Theoretical output	m <sup>3</sup> /hour	0.5 – 1.5*
Volume of the working capacity	dm <sup>3</sup>	150
Available diameter of the material hose	mm	25/32/38/42/50
Minimal mobility of the working mixture		P2
Maximum particle size of conveyed material	mm	8 – 16**
Horizontal transport distance	m	40 – 140***
Vertical transport distance	m	15 – 60***
Required air inlet pressure	mPa	0.5 – 0.6
Air consumption in shotcrete mode	m <sup>3</sup> /min	1.5
Air consumption in plaster station mode	m <sup>3</sup> /min	0.5
Motor capacity	kW	1.5
Grid connection		380 V 50 Hz / 220 V 50 Hz
Main dimensions:		
- Length	mm	1200
- Width	mm	1030
- Height with sieve		1030
Weight (without accessories)	kg	233

\*depending on the method of preparation of the mixture

\*\* depending on the diameter of the working hose

\*\*\* with the use of a nozzle for pneumatic transport

## Recommended assembly:

- AC-4 shotcrete machine
- abrasion resistant hose, 20 meters
- assembled nozzle
- 1 spare nozzle tip
- ball for washing hoses

Available for order: mortar bunker, hoses of various diameters, remote control, nozzles for different materials, explosion-proof electric motor, diesel and pneumatic drive, skids, rail platform, automatic lubrication system.

For the operation of the AC-4 machine required: the compressed air at least 0.5 m<sup>3</sup>/min





## Why did 1600+ customers from 12 countries select TORNADO equipment:

- 6 specialized shotcrete equipment models for any tasks, reliable European components
- Experience in performing shotcrete works as a contractor since 1996 allows us to reduce the cost of work of our customers to 45%

– We provide templates of profitable cost sheets, technological flow charts and work performance projects

– We select optimal formulations of shotcrete mixtures on the base of local raw materials, reduce the rebound

- Free training of shotcrete specialists at the customer's site
- Provide job applications, help win the tender
- Buy out shotcrete equipment S/H from any manufacturer
- Consumable products and equipment are always available
- Technical Support Channel 24/7

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