Technical description

Concrete Spraying Machines

TTS 300, 400, 600, 800

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I. Field of Application

The „TTS“ concrete and refractory spraying machines have been designed for spraying concrete and refractory mixtures in the so-called dry way when the transported mixture gets moistened at the moment of spraying.

The „TTS“ machines are used, in particular, in the metallurgy and foundry industries to spray the lining of the steel furnaces, ladles, boilers, range of coke ovens and other units with refractory mixtures (refractories).

Due to their special construction, it is possible to carry out concrete spraying in cold and hot environments.

The machine can be also used for blasting concrete, reinforced concrete and stone areas.

II. Working Principle

The „TTS“ concrete and refractory spraying machines work on the principle of pneumatic transport when the dry mixture is pressed into the transport hoses or pipes (if hot) by the air pressure and it is transported into the spraying jet to the place of application. The mixture is moistened in the spraying jet by water (alternatively by water with a curing agent) led into it by a separate hose. The jet is operated by one of the service personnel.

The machine is filled with the dry mixture from the chute which has a screen and a separating comb. The pressure vessel is filled using the shut-off bell underneath the chute controlled by the service personnel.

The output of the machine can be regulated manually using the lever regulating the amount of the mixture going into the transport hose.

The concrete and refractory spraying machine works in cycles determined by the time of pressing the mixture out of the vessel and the time necessary for filling it up again. The volume of the pressure vessel amounts to 300, 400, 600 or 800 litres depending on the model of the machine.

The machine does not require any other sources of power, apart from the compressed air.

III. Technical Data

Technical parameters

PARAMETER	TTS 300	TTS 400	TTS 600	TTS 800
Volume of pressure vessel (tank) [l]	300	400	600	800
Theoretical output [m^3/h]	2 ÷ 3			
Maximum transport distance - horizontal [m]	50			
Maximum transport distance - vertical [m]	20			
Maximum granularity of mixture [mm]	5			
Maximum moisture content [%]	4			
Inner diameter of transport hose(s) [mm]	DN 40			
Maximum air pressure [MPa]	0.6			
Air consumption [m^3/min]	5			

Principal dimensions

PARAMETER	TTS 300	TTS 400	TTS 600	TTS 800
Length [mm]	1640	1630	1830	2030
Width [mm]	1060	1080	1080	1280
Height [mm]	1820	2150	2470	2800
Weight (without accessories) [kg]	632	710	765	835

IV. Accessories

Standard accessories set consist of:

- jet DN 40/P
- rotating jet DN 40/O
- end piece 30° a 45°
- tail hose DN 40
- water hose DN 20

An option to provide accessories with clearance of 2“ (50 mm) is also available.

End

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