

STR 701/702/703 - Demo Guide

Robust and reliable, suitable for all hard works on construction sites and in industry. Multi-purpose in use like grinding, smoothing concrete removing of coatings, cleaning of formwork panels, degreasing and demossing of parkways and pavements.



Special characteristics

- + Motor overload protection switch (STR 701)
- + Gear wheel drive, metal
- + Dead man's switch
- + Off-set mounted motor (230/400 V)
- + Easy change of accessories

Technical data

Voltage/frequency	Volt/Hz	220/60 & 3x220/60	Work.pressure max	kg(LB)	89(196)**
Power option, electric	Watt/HP	1500(2HP)	Torque	Nm	98
Power option, gasoline	Watt/HP	4000(5.4HP)*	Cable length	m(inch)	12/25(39/82)
Protection class, electric	I/-		Noise level	dB(A)	63
Protection grade	IP	44	Weight	kg(LB)	65(143)
Working width- Ø	mm(inch)	510(20")	Underclearance	cm(inch)	33(13")
Pad - Ø	mm(inch)	430(17")	Handle	cm(inch)	1200(47")
Working speed	r.p.m.	72/145/0-180*	CE Certificate		yes

** with saddle weight 24 Kg(53 LB)

Range of application

STR 701/702:

Polishing, cleaning, grinding, vitrification, sealing, trowelling, removing of coatings, scarifying and dust collection

STR 703:

Cleaning, sealing, grinding, trowelling, degreasing, demossing.

Order information

Machine	Volt/Hz	r.p.m.	Watt	Handle	Plug	Ref.
STR 701	3x400/50	145	1500	930 mm	16A,EU	100012
STR 701LVF	110/50	116	1500	1200 mm	UK	105929
STR 701	3x400/50	145	1500	1200 mm	16A,EU	106012
STR 701L	110/50	145	1500	930 mm	none	106229
STR 701L	230/50	145	1500	930 mm	EU	106251
STR 702	3x400/50	72/145	1500	1200 mm	16A,EU	106412
STR 702	3x220/60	72/145	1500	1200 mm	US	106508
STR 702	3x400/60	72/145	1500	1200 mm	16A,EU	106512
STR 702VF	3x400/50	72/145	1500	1600 mm	16A,EU	107012
STR 702S	3x400/50	72/145	2000	1200 mm	16A,EU	107212
STR 701LVF	110/50	145	1500	1200 mm	EU	107329
STR 701LVF	230/50	145	1500	1200 mm	EU	107351
STR 701LVF	120/60	145	1500	1200 mm	US	107428
STR 703VF	gasoline	0-180	4000	1600 mm	-	795068
STR 703	gasoline	0-180	4000	1200 mm	-	795069



Features	&	Benefits
<u>Weight</u>	=	Machine weight of 65 kg(143 LB) gives a high work pressure and quick results. The higher the work pressure the better the work results. Economical
<u>Torque</u>	=	High motor torque of 98 Nm (72 LB=ft). The higher the torque the more stable the motor speed which turns our in better and more efficient work results Economical
<u>Two-speed version</u>	=	STR 702 with 2-working speeds of 72/145 r.p.m. can turn clockwise/counterclockwise to be used for multipurpose applications Economical
<u>Off-set motor</u>	=	Gives a uniform mass balance between motor speed and used accessories to have a more comortable operation Ergonomical
<u>Accessory exchange</u>	=	Click On/Off device for accessories for more operator comfort and time savings Ergonomical
<u>Handle bearing</u>	=	Heavy duty made in cast iron, steplessly adjustabl for individual operator adjustments Ergonomical Reliability
<u>Motor</u>	=	Maintenance free single phase/3-phase squirrel squirrel cage without carbon brushes Reliability
<u>Gear drive</u>	=	With shock absorbing clutch device to protect motor pinion against overload (STR 701) Reliability
<u>Helical spur gear</u>	=	Made of spheroidal graphite iron for high and safe power transmission Reliability
<u>Bearings</u>	=	Two-fold sealed with long life self lubrication for temperatures from minus 30(-86°F) to + 110 ° C (230 °F) Reliability
<u>Casing</u>	=	Machine casing heavy duty made in cast alumium gives full protection against external damage Reliability
<u>Deadman switch</u>	=	Two-fold operator safety on the power switch Safety
<u>Motor protection</u>	=	Electrical motor overload protection on STR 701 Safety
<u>Dust control</u>	=	Dust skirt optional available for save dust control Safety

Features & Benefits



Quick tool exchange



Grinding with heavy duty handle bearing and diamond ring



Machine with cast aluminium housing and saddle weight



Grinding with dust control



Cleaning and grinding with electrical or gasoline type



Scrubbing, cleaning and sealing



Vitrification and renovation of marble and terrazzo



Weed control



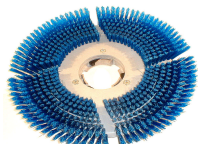
Trowelling of concrete with electrical or gasoline type



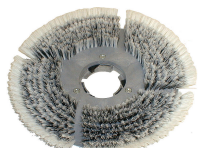
FORMWORK MAINTENANCE



Polishing brush



Scrubbing/waxing brush



Brush, PPN/wire



Brush, 5-head PPN/wire



Brush, 5-head wire 0.35



Brush, 5-head stranded wire

Polishing, scrubbing and waxing brushes		Ref. No
Scrubbing brush, PPN 0.7, Ø 510 mm, medium		510000
Drive plate, rubber, Ø 430 mm		510400
Scrubbing brush, PPN/wire, Ø 510 mm, hard		511000
Polishing brush, Union/wire, Ø 510 mm, medium		511100
Brush, 5-head, PPN/wire, Ø 580 mm		511200
Brush, 5-head, wire 0.35, Ø 580 mm		511300
Cast wire, Ø 510 mm		511500
Brush, 5-head, stranded wire, Ø 450 mm		795176

Working procedure:








1. Clean wet or dry
2. Before applying wax on the plywood make sure that the surface is dry by using a rubber squeegee.
3. Polishing is required to remove surplus wax to prevent that wax residues remain on the concrete after dismantling the formwork. Furthermore the wax gets compressed and increases the number of operations and leaves a smoother surface on the concrete.
4. Non-heated steel tables in pre-fabricated construction can be coated with wax as well and polished with the polishing brush.

Description	Ref. No.	Formwork				
		Solid wood	Plywood	Form, skins	Steel forms, steel tables	Groove and tongue planed
Cleaning - Dry						
Scrubbing brush, PPN/wire, Ø 510 mm	511000					X
Brush, 5-head, PPN/wire, Ø 580 mm	511200	X	X	X	X	X
Brush, 5-head, wire 0.35, Ø 580 mm	511300	X	X	X		
Cast wire, Ø 510 mm	511500				X	
Brush, 5-head, stranded wire, Ø 450 mm	795176	X	X	X		
Cleaning - Wet						
Drive plate, rubber, Ø 430 mm	510400	X	X	X		
Pad brown, Ø 432 mm	531400	X	X	X		
Waxing						
Brush, PPN 0.7, Ø 510 mm	510000	X	X	X	X	X
Polishing brush, Union/wire, Ø 510 mm	511100	X	X	X	X	X
Formwork wax for plywood	702650	X	X	X	X	X
Grinding						
Drive plate, rubber, Ø 430 mm	510400	X	X	X	X	X
Sanding disc, grain 30, Ø 430 mm	702661		X	X	X	X
Sanding disk, grain 60, Ø 430 mm	702662	X	X	X	X	X
Grinding grid, grain 120, Ø 430 mm	702790				X	

GRINDING

		Padholders & drive plates	Ref. No
	Drive plate Ø 430 mm	Drive plate, rubber, Ø 430 mm, for steel wool,sanding discs	510400
		Kit, centering sanding disc	Stabipad, Ø 432 mm, for pads
		Mounting kit, for centering sanding discs, fits drive plate 510400	513600
		Diamond-padholder, 5-head, Ø 480 mm, for Ø 127 mm diamond pads	514800
		Suction ring, hose Ø 50 mm, for drive plate 510400, Stabipad 511600	502600
		WK grinding ring 526800, grinding missile 795199, surface milling plate 525700, spring steel brush, 510199	
	Saddle weight	Sanding discs, double-sided	
		Sanding disc, grain 30, Ø 430 mm	702661
		Sanding disc, grain 60, Ø 430 mm	702662
		Sanding disc, grain 16, Ø 430 mm	702663
		WK grinding disc, grain 16, Ø 430 mm	702668
		WK grinding disc, grain 30, Ø 430 mm	702670
		Grinding grid, grain 120, Ø 430 mm	702790
		Sanding disc, grain 12, Ø 430 mm	702791
		Grinding grid, grain 150, Ø 430 mm	704390
		Grinding grid, grain 100, Ø 430 mm	704391
	Suction ring	Grinding grid, grain 80, Ø 430 mm	704392
		Grinding rings and Grinding missiles (WK= tungsten carbide)	
	Sanding disc	Grinding ring, corundum, cpl., gr. 16, Ø 430 mm	521600
		Grinding ring, corundum, cpl., gr. 30, Ø 430 mm	522900
		Corundum ring, 5-head, gr. 16, Ø 430 mm	526600
		WK grinding ring, cpl. gr. 16, Ø 440 mm	526800
		WK, 5-head, elastic, gr. 10, Ø 450 mm	795156
		WK, 5-head, elastic, gr. 16, Ø 450 mm	795199
		WK, 5-head, elastic, gr. 03, Ø 450 mm	795205
		Diamond grind.ring, cpl. f. concrete, Ø 430 mm	795208
	Diamond grinding, 5-head, f. concrete, Ø 450 mm	795215	
	WK- disc		WK-ring
	Corundum ring		WK-ring, 5-head, gr. 05
			WK-ring, 5-head, gr. 18
			Diamond ring
			Diamond ring, 5-head
			Corundum ring, 5-head

GRINDING						
Description	Ref. No.	Surfaces				
		Concret	Anhy-drite screed	Resin Bond coatings	Poured Asphalt	Epoxy resin mortar
Corundum ring, cpl., gr. 16, Ø 430 mm	521600	X				X
Corundum ring, cpl., gr. 30, Ø 430 mm	522900	X		X		
Surface milling plate, Ø 430 mm	525700	X	X			
Corundum ring, 5-head, gr. 16, Ø 430 mm	526600	X			X	X
WK grinding ring, cpl. gr. 16, Ø 440 mm	526800	X	X		X	X
Sanding disc, grain 30, Ø 430 mm	702661			X		X
Sanding disc, grain 60, Ø 430 mm	702662			X		
Sanding disc, grain 16, Ø 430 mm	702663	X	X		X	X
WK grinding disc, grain 16, Ø 430 mm	702668	X	X	X	X	
WK-Scheibe, K 30, Ø 430 mm	702670	X	X	X	X	X
Sanding disc, grain 12, Ø 430 mm	702791	X	X	X	X	
Screed scraper	795166		X			
WK, 5-head, elastic, gr. 16, Ø 450 mm	795199	X	X		X	X
WK, 5-head, elastic, gr. 03, Ø 450 mm	795205	X			X	
Diamond ring, Ø 430 mm	795208	X	X	X		
Diamond ring, 5-head, Ø 450 mm	795215	X	X	X		

SCARIFYING - WEED CONTROL - RUST REMOVAL			
 <p>Surface milling plate</p>	Scarifying		
	Surface milling plate, Ø 430 mm	525700	
	Screed scraper	795166	
	Spring steel, short bristles, Ø 510 mm	510200	
	Brush, 5-head, spring steel, Ø 580 mm	520600	
	Brush, 5-head, cross wire, Ø 580 mm	520800	
	Brush, 5-head, stranded wire, Ø 450 mm	795176	
 <p>Screed scraper</p>	 <p>Spring steel, short</p>	 <p>Brush 5-head, spring steel</p>	 <p>Brush 5-head, cross wire</p>
 <p>Spring steel brush, oblique</p>	Weed and moss control		
	Spring steel, oblique bristles	795174	
 <p>Brush, 5-head, stranded wire</p>	Rust removal		
	Brush, cast wire, Ø 510 mm	511500	
	Brush, 5-head, stranded wire, Ø 450 mm	795176	

JOINTING OF SLABS AND PAVEMENTS

Jointing and cleaning resin bond mortar

Working squence:

1. Mix resin bond mortar 8 - 10 kg
2. Distribute the mortar evenly with a rubber squeegee on 20 to 25 m²
3. Use the jointing plate to compress the joints smoothly and evenly with a high degree of edge contact.
4. Remove surplus mortar with a rubber squeegee
5. After the mortar has set slight, clean the surface with the brown pad together with some water.
6. Remove remaining laitance diagonally to the slabs with a soft metal-sponge rubber scraper.
if required rinse the scraper and repeat the process.
7. Remove remaining water.
8. Rinse cleaning pad

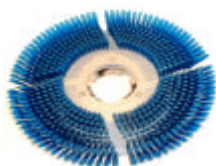
Jointing and cleaning cement mortar

Working squence:

1. Distribute the cement mortar evenly over the surface with a rubber squeegee.
2. Spread dry cement material with a sieve over the surface.
3. Use the STR 702 with low speed
4. Remove remaining residues of cement mortar using the drive plate and brown pad.
(If required add siliceous sand)
5. Remove remaining greyness with drive plate and brown pad.

TIPS:


- + Use allways a soft and dry brush on cement mortar and with 145 rpm.
- + On profiled coatings use drive plate & brown pad and add humid saw dust. Depending on the different coatings it is recommended to add some siliceous sand to the sawdust.
- + Clean tiles immediately after jointing. Carry out subsequent acid washing only after setting of the joints with Polypropylene (PPN) brush.
- + Depending on joint width and surface type use brown, blue or red pad to clean joints with resin bond mortar



Description	Surfaces			
	Ref. No.	Resin bond mortar	Cement mortar	Cubes
Jointing				
Jointing plate, Ø 470 mm, use STR 702 at 72 rpm only	200600			X
Cleaning				
Drive plate, rubber, Ø 430 mm	510400	X	X	
Brush, PPN/wire, Ø 510 mm	511000			X
Brush, 5-head, PPN/wire, Ø 580 mm	511200			X
Tank, 12 litres, for handle 930 mm	525500	X	X	
Pad brown, Ø 406 mm	531400	X	X	
Re-Cleaning				
Drive plate, rubber, Ø 430 mm	510400	X	X	
Tank, 12 litres, for handle 930 mm	525500	X	X	
Pad brown, Ø 406 mm	531400	X	X	
Acid treatment				
Scrubbing brush, PPN 0.7, Ø 510 mm *	510000		X	


* Clean brush after use

TROWELLING CONCRETE




Smoothing


	Ref. No
Wing float, Ø 1050 mm, use STR 702 at 72 rpm only	522700
Smoothing plate, Ø 580 mm, MLG = centre hole,	523400
Smoothing plate, Ø 580 mm, OLG = w/o centre hole,	525000
Smoothing plate, Ø 730 mm, OLG = w/o centre hole,	525100
Smoothing plate Ø 730 mm, MLG =centre hole,	526500
Wing float, Ø 900 mm	528200
Smoothing plate, PVC, Ø 700 mm	795207
Wing float, Ø 790 mm with plastic backing	795301



	Machines STR 702/703			
Application	Ref. No.	Concrete	Screed	Reaction resins
House building				
Smoothing plate, Ø 730 mm	526500	X	X	-
Smoothing plate, PVC, Ø 700 mm	795207	-	-	X
Surfaces with a good grip				
Smoothing plate, Ø 730 mm	526500	X	X	-
Smooth and compact surfaces				
Wing float, Ø 1050 mm	522700	X	X	X *
Smoothing plate, Ø 730 mm	526500	X	X	-
Wing float, Ø 900 mm	528200	-	-	X *



Smooth.pl. w. centre hole



Smoothing plate PVC

* to prevent striations on coatings with coloured pigments use plastic blades instead steel blades

Trowelling procedure

Trowelling can be started after the concrete surface is passable. The waiting time prior starting with trowelling depends on followings:

- a) Environmental conditions (wind influence, exposure to sunlight or indoor area)
- b) Concrete quality
- c) Concrete thickness
- d) Concrete consistence
- e) Use of chemical additives e.g. retarder, liquefier etc..

Upcoming striations on the surface after starting means smoothing has been started to early. In this case a longer waiting time is required. It is recommended to pre-smooth the complete area first in one pass to get more time for the final finish. During sunshine and high air temperature it has to be considered that the trowelling surface is not too big in order to avoid that the concrete is setting faster than it can be smoothed. The setting and drying process can be delayed by adding a retarder or by spraying some water on the surface. Experience has shown that under warm weather conditions the trowelling area should not exceed over 150 - 200 m² to prevent the above described problems.

Working with the wing float

Before using the wing float make sure that the surface has been levelled with the smoothing plate first. The purpose of the wing float is to receive a complete compact and even surface. Use the wing float at a low speed (with STR 702 at 72 r.p.m.). Depending on the concrete setting process the blades has to be adjusted via a spindle. The more advanced the concrete setting process the steeper is the wing float blade adjustment.