



Red wine mash tank with internal plunger FD-IT

OUR ADVANTAGES

- Little space required
- Gentle processing of the grape material
- High colour and aroma extraction
- Single systems can be combined
- Perfect grape seed output
- Controllable heating / cooling of the tanks
- Tried and tested immersion technique

The mounting of the pneumatic cylinder on the tank top requires more space. In low-ceilinged cellar rooms this can sometimes pose a problem and often there is no possibility to use such tank systems.

Speidel's innovative "internal plunger" solves this problem once and for all. Speidel's well-tried immersion system via pneumatics is an integral part of the tank's interior, thus allowing to reduce the tank's height considerably.

At a comparable total height of the tank systems the reduction of height allows 50 % more capacity.

Due to the new level adjustment of the immersion wings the minimum filling amount can be reduced up to 40 % of mash tank's nominal volume. This way even smaller amounts can be processed.

European patent

STANDARD EQUIPMENT FOR RED WINE MASH INTERNAL PLUNGER FD-IT

- For non-pressurized use

Tank top

- Up to tank- \varnothing 2,000 mm made of AISI 316 stainless steel, surface IIIId (2R)
- From tank- \varnothing of 2,200 mm upwards made of AISI 316 stainless steel, surface IIIId (2R) / IIIc (2B)
- Ladder safety bow, lifting lugs

Tank shell

- Made of AISI 304 stainless steel, surface IIIId (2R), marbled outside

Tank bottom

- Up to tank- \varnothing of 2,000 mm made of AISI 304 stainless steel, surface IIIId (2R)
- From tank- \varnothing of 2,200 mm upwards made of AISI 304 stainless steel, surface IIIId (2R) / IIIc (2B)
- Free-standing on welded-on box-shaped legs

Filler Neck

- Filler neck NW 400, located in tank top with an upright forward position (tank top with bead extrusion for complete ventilation)
- Flap lid with vent neck NW 50 Rd 78 x 1/6"

Temperature measurement

- Weld-on thread NW 10 DIN 11851
- Threaded sleeve with locking screw and cap nut NW 10 DIN 11851
- Bi-metal dial thermometer \varnothing 100 mm, measuring range -20 °C to +60 °C

Sampling

- Weld-on thread NW 20 DIN 11851
- Sampling tap with cap nut NW 20 DIN 11851

Racking outlet

- Reinforcing plate with drilled hole \varnothing 48 mm (to hold flap valve Gr. 37 or weld-on thread NW 50 DIN 11851)

Juice total outlet / -filling

- Welded-on neck NW 65 DIN 11851

Mash immersion system

- Electronic control system (stainless steel control cabinet, by default located on the right)
- Connection 220V, 50Hz, IP 44
- Immersion time and pause time inverter controlled
- Pneumatic cylinder flange-mounted inside on the reinforced top, piston rod and immersion unit made of stainless steel



SYSTEM REQUIREMENTS FOR RED WINE MASH INTERNAL PLUNGER FD-IT

Compressor

- Compressor capacity minimum 90 liter
- Fan efficiency 500 liter / minimum at 6 bar
- The compressor's pressurised air must be cleaned with an air preparation unit!
- We recommend the following air preparation units: Parker G 1/2" Order No. 90476 (see accessories page 194)

Required air mass

- Immersion depth 1,000 mm 12.3 liter / lifting force
- Immersion depth 1,500 mm 18.3 liter / lifting force
- Immersion depth 1,250 mm 15.3 liter / lifting force
- Immersion depth 1,750 mm 21.4 liter / lifting force

OPTIONS FOR RED WINE MASH INTERNAL PLUNGER FD-IT

FD-ITTK: With mash bottom outlet AND hinged door

- Mash bottom outlet W = 530 mm x H = 400 mm, with outwards opening hinged door: the door is left hinged; door handle on the right (extract a sufficient amount of juice in order to avoid the emission of wine while opening)
- Discharge height X = 580 mm

FD-ITAK: Automatic mash release and hinged door

- Mash outlet W = 530 mm x H = 400 mm with outwards opening hinged door: the door is left hinged; door handle on the right (extract a sufficient amount of juice in order to avoid the emission of wine while opening)
- Stainless steel remover with gear motor (approx. 4 U / min), Electricity supply 380 V, 50 Hz
- Discharge height A = see chart
- Tank bottom made of AISI 304 stainless steel, surface IIIc (2B)










FD-ITTS: With mash bottom outlet and slide feed proportionin

- Mash outlet W = 530 mm x H = 400 mm with slide feed proportioning, easy to dose, also for thin mash release
- Discharge height X = 520 mm

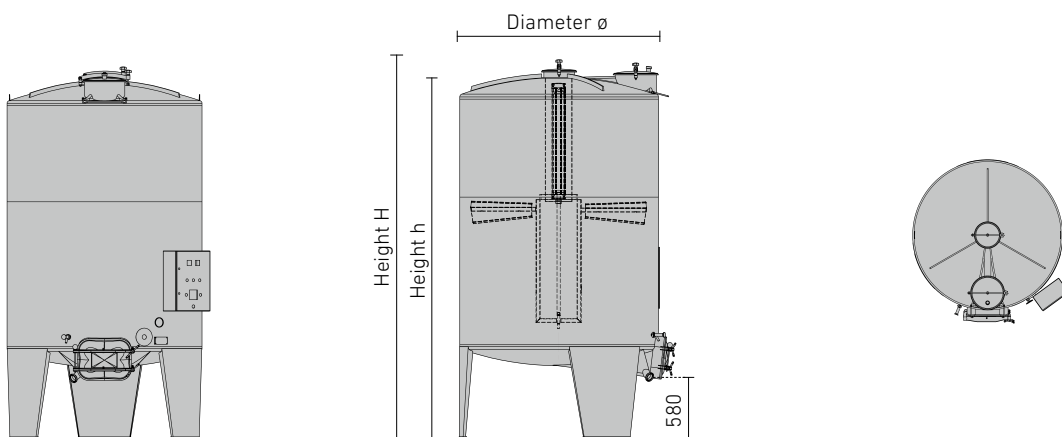
FD-ITAS: Automatic mash release and slide feed proportioning

- Mash outlet W = 530 mm x H = 400 mm with slide feed proportioning, easy to dose, also for thin mash release
- Stainless steel remover with gear motor (approx. 4 rot. / min), electricity supply 380 V, 50 Hz
- Discharge height B = see chart
- Tank bottom made of AISI 304 stainless steel, surface IIIc (2B)

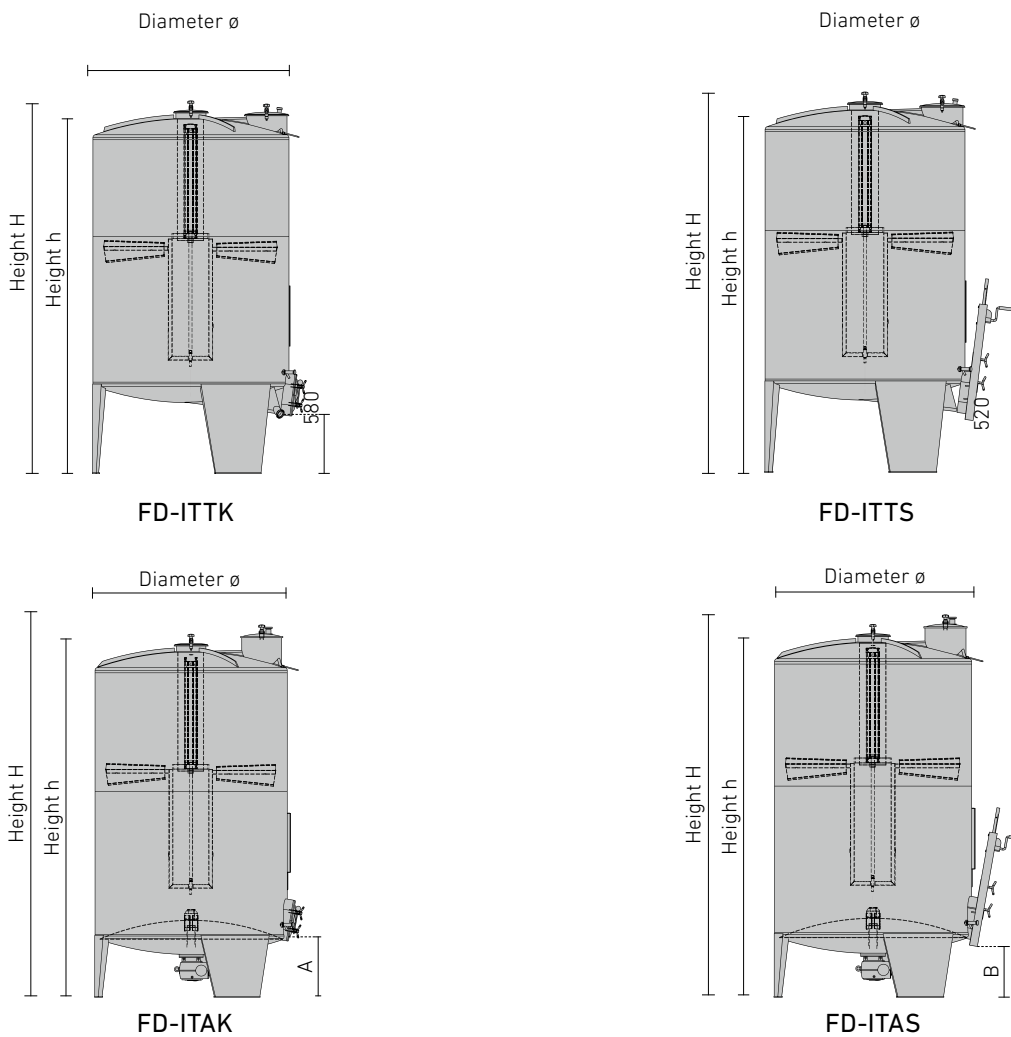
SET-UP EXAMPLE FOR RED WINE MASH INTERNAL PLUNGER FD-ITTS

Item	Order No.
	<p>Red wine mash internal plunger with bottom outlet and slide feed proportioning FD-ITTS-200-10000</p> <ul style="list-style-type: none"> · h = 4,155 mm, H = 4,410 mm, · $H_{\text{compl.}} = 4,410 \text{ mm (H)} + \text{approx. } 100 \text{ mm (height compensation)} = \text{approx. } 4,510 \text{ mm}$ · Standard equipment as on page 89 <p style="text-align: right;">FD-ITTS-200-10000</p>
	<p>Racking outlet (page 175)</p> <ul style="list-style-type: none"> · Welded gland with thread NW 50 · With ball valve NW 50 DIN 11851 <p style="text-align: right;">KA-120D 65158</p>
	<p>Fill level (page 180)</p> <ul style="list-style-type: none"> · Fill level indicator NW 20 mounted <p style="text-align: right;">FS-130W</p>
	<p>Juice total outlet / filling (page 175)</p> <ul style="list-style-type: none"> · With ball valve NW 65 DIN 11851 <p style="text-align: right;">65159</p>
	<p>Heating and cooling jacket (page 130)</p> <ul style="list-style-type: none"> · Double jacket B6 6,2 m² with welded gland onto thread G 1" for the connection to available warm water / cold water sources · Version 1, layout 61, connection position B1 <p style="text-align: right;">1B1</p>
	<p>Automatic temperature control with target indicator and actual indicator (page 192)</p> <ul style="list-style-type: none"> · Mash heating / cooling via local warm water / cold water source is automatically regulated according to target value input by the control system via magnet valve <p style="text-align: right;">DMS-1</p>
	<p>Juice pumpover (page 188)</p> <ul style="list-style-type: none"> · Stainless steel pipeline NW 50 with self-rotating sprinkling system and connection thread connection NW 50 DIN 11851 · With ball valve NW 50 DIN 11851 <p style="text-align: right;">ÜF-4 65158</p>
	<p>Three juice extracting sieves with large surface (page 193)</p> <ul style="list-style-type: none"> · Easily removable · With juice extraction on tank shell NW 50 DIN 11851 · With ball valve NW 50 DIN 11851 <p style="text-align: right;">ESS-3 65158</p>
	<p>Adjustable feet (page 186)</p> <ul style="list-style-type: none"> · With adjustable feet for tank legs (H = + approx. 100 mm) <p style="text-align: right;">46128</p>
<p>Maintenance unit mash plunger (page 194)</p> <ul style="list-style-type: none"> · Parker G 1/2" 	<p style="text-align: right;">90476</p>

DIMENSIONS OF RED WINE MASH INTERNAL FD-ITTK



DIMENSIONS OF RED WINE MASH INTERNAL PLUNGER FD-ITTK / FD-ITTS / FD-ITAK / FD-ITAS



Please note: installation space H + 500 mm for motor installation. Cylinder can be dismantled via tank chamber.

RED WINE MASH INTERNAL PLUNGER FD-ITTK WITH MASH BOTTOM OUTLET AND HINGED DOOR
RED WINE MASH INTERNAL PLUNGER FD-ITTS WITH MASH BOTTOM OUTLET AND SLIDE FEED PROPORTIONING

Capacity	Mash fill quantity	Immersion depth	ø	h	H	Legs	Order No.	Order No.
liter	% max. / min.	mm	mm	mm	mm	pieces	ITTK	ITTS
6,000	75 / 40	750	2,000	2,905	3,160	3	FD-ITTK-200- 6000	FD-ITTS-200- 6000
6,800	75 / 40	750	2,000	3,155	3,410	3	FD-ITTK-200- 6800	FD-ITTS-200- 6800
7,600	75 / 40	1,000	2,000	3,405	3,660	3	FD-ITTK-200- 7600	FD-ITTS-200- 7600
8,400	75 / 40	1,000	2,000	3,655	3,910	3	FD-ITTK-200- 8400	FD-ITTS-200- 8400
9,200	75 / 40	1,250	2,000	3,905	4,160	3	FD-ITTK-200- 9200	FD-ITTS-200- 9200
10,000	75 / 40	1,250	2,000	4,155	4,410	3	FD-ITTK-200- 10000	FD-ITTS-200- 10000
11,200	75 / 40	1,000	2,400	3,570	3,875	4	FD-ITTK-240-11200	FD-ITTS-240-11200
12,300	75 / 40	1,000	2,400	3,820	4,125	4	FD-ITTK-240-12300	FD-ITTS-240-12300
13,500	75 / 40	1,250	2,400	4,070	4,375	4	FD-ITTK-240-13500	FD-ITTS-240-13500
14,500	75 / 40	1,250	2,400	4,320	4,625	4	FD-ITTK-240-14500	FD-ITTS-240-14500
15,500	75 / 40	1,500	2,400	4,570	4,875	4	FD-ITTK-240-15500	FD-ITTS-240-15500
16,500	75 / 40	1,500	2,400	4,820	5,125	4	FD-ITTK-240-16500	FD-ITTS-240-16500
18,000	75 / 40	1,750	2,400	5,070	5,375	4	FD-ITTK-240-18000	FD-ITTS-240-18000
19,000	75 / 40	1,750	2,400	5,320	5,625	4	FD-ITTK-240-19000	FD-ITTS-240-19000
20,000	75 / 40	1,750	2,400	5,570	5,875	4	FD-ITTK-240-20000	FD-ITTS-240-20000
17,000	75 / 40	1,000	2,800	3,920	4,305	4	FD-ITTK-280-17000	FD-ITTS-280-17000
18,500	75 / 40	1,250	2,800	4,170	4,555	4	FD-ITTK-280-18500	FD-ITTS-280-18500
20,000	75 / 40	1,250	2,800	4,420	4,805	4	FD-ITTK-280-20000	FD-ITTS-280-20000
21,500	75 / 40	1,500	2,800	4,670	5,055	4	FD-ITTK-280-21500	FD-ITTS-280-21500
23,000	75 / 40	1,500	2,800	4,920	5,305	4	FD-ITTK-280-23000	FD-ITTS-280-23000
24,500	75 / 40	1,750	2,800	5,170	5,555	4	FD-ITTK-280-24500	FD-ITTS-280-24500

Convenient manual mash release



RED WINE MASH INTERNAL PLUNGER FD-ITAK WITH AUTOMATIC MASH RELEASE AND HINGED DOOR
RED WINE MASH INTERNAL PLUNGER FD-ITAS WITH AUTOMATIC MASH RELEASE AND SLIDE FEED PROPORTIONING

Capacity liter	Mash fill quantity % max./min.	Immersion depth mm	ø mm	h mm	H mm	Legs pieces	Discharge height A/B	Order No.	
								ITAK	ITAS
7,000	75/40	750	2,000	3,149	3,400	3	580/520	FD-ITAK-200- 7000	FD-ITAS-200- 7000
7,800	75/40	750	2,000	3,399	3,650	3	580/520	FD-ITAK-200- 7800	FD-ITAS-200- 7800
8,500	75/40	1,000	2,000	3,649	3,900	3	580/520	FD-ITAK-200- 8500	FD-ITAS-200- 8500
9,300	75/40	1,000	2,000	3,899	4,150	3	580/520	FD-ITAK-200- 9300	FD-ITAS-200- 9300
10,000	75/40	1,250	2,000	4,149	4,400	3	580/520	FD-ITAK-200- 10000	FD-ITAS-200- 10000
10,000	75/40	750	2,400	3,400	3,705	4	740/670	FD-ITAK-240- 10000	FD-ITAS-240-10000
11,200	75/40	750	2,400	3,650	3,955	4	740/670	FD-ITAK-240- 11200	FD-ITAS-240-11200
12,300	75/40	1,000	2,400	3,900	4,205	4	740/670	FD-ITAK-240- 12300	FD-ITAS-240-12300
13,500	75/40	1,000	2,400	4,150	4,455	4	740/670	FD-ITAK-240- 13500	FD-ITAS-240-13500
14,500	75/40	1,250	2,400	4,400	4,705	4	740/670	FD-ITAK-240- 14500	FD-ITAS-240-14500
15,500	75/40	1,250	2,400	4,650	4,955	4	740/670	FD-ITAK-240- 15500	FD-ITAS-240-15500
16,500	75/40	1,250	2,400	4,900	5,205	4	740/670	FD-ITAK-240- 16500	FD-ITAS-240-16500
18,000	75/40	1,500	2,400	5,150	5,455	4	740/670	FD-ITAK-240- 18000	FD-ITAS-240-18000
19,000	75/40	1,750	2,400	5,400	5,705	4	740/670	FD-ITAK-240- 19000	FD-ITAS-240-19000
15,500	75/40	750	2,800	3,750	4,135	4	760/685	FD-ITAK-280- 15500	FD-ITAS-280-15500
17,000	75/40	1,000	2,800	4,000	4,385	4	760/685	FD-ITAK-280- 17000	FD-ITAS-280-17000
18,500	75/40	1,000	2,800	4,250	4,635	4	760/685	FD-ITAK-280- 18500	FD-ITAS-280-18500
20,000	75/40	1,250	2,800	4,500	4,885	4	760/685	FD-ITAK-280- 20000	FD-ITAS-280-20000
21,500	75/40	1,250	2,800	4,750	5,135	4	760/685	FD-ITAK-280- 21500	FD-ITAS-280-21500
23,000	75/40	1,500	2,800	5,000	5,385	4	760/685	FD-ITAK-280- 23000	FD-ITAS-280-23000
24,500	75/40	1,500	2,800	5,250	5,635	4	760/685	FD-ITAK-280- 24500	FD-ITAS-280-24500

Automatic mash release at the push of a button

