

Fermenters



Maceration is a very important and at the same time a very sensitive process of vinification. It requires a lot of knowledge, a constant supervision and a lot of feeling. Only if the maceration process is carried out correctly, the wine will have the right character - color, bouquet and taste. It is extremely important that this process is adapted to the variety, characteristic and quality of grapes and the type of wine one wants to produce.

Winemakers, who do not want this important process to be a matter of coincidence, can make use of this modern oenological device - the fermenter.



type FK



type K



type KC



type FPK



type PK



type PIP

Open pump-over fermenter type FK



- dimension: 1350 l – 8000 l, greater dimensions are available on request
- with in-built system of pumping of must over the cap



- suitable also for smaller quantities of grape pomace
- the open system enables an easy and simple use
- inclined bottom enables an easy liquid discharge and a simple emptying of the fermenter
- reinforced upper rim (piped reinforcement) gives the tank strength and stability and prevents any deformations of the tank wall
- the fermenter can also be used as a classic wine storage tank; in this case we remove the upper, removable pumping pipe and the rotating sprayer and close the connector on the lid with a blind nut

typ	NOMINAL VOLUME (L)	TOTAL HEIGHT Z (MM) CA.	WEIGHT (KG) ca.
FK2E_1350L_S1RAPC_D1110_H1500	1350	2400	180
FK2E_1900L_S1RAPC_D1110_H2000	1900	2900	194
FK2E_1800L_S1RAPC_D1270_H1500	1800	2400	220
FK2E_2400L_S1RAPC_D1270_H2000	2400	2900	237
FK2E_2100L_S1RAPC_D1370_H1500	2100	2400	249
FK2E_2900L_S1RAPC_D1370_H2000	2900	2900	267
FK2E_2800L_S1RAPC_D1580_H1500	2800	2550	304
FK2E_3800L_S1RAPC_D1580_H2000	3800	3050	324
FK2E_4800L_S1RAPC_D1580_H2500	4800	3550	365
FK2E_3600L_S1RAPC_D1780_H1500	3600	2550	349
FK2E_4800L_S1RAPC_D1780_H2000	4800	3050	372
FK2E_6000L_S1RAPC_D1780_H2500	6000	3550	428
FK2E_6400L_S1RAPC_D2050_H2000	6400	3050	459
FK2E_8000L_S1RAPC_D2050_H2500	8000	3550	526

EQUIPMENT

EQUIPMENT

DRAIN PORT DRA DN40 DIN11851, EN1.4301

RACKING PORT DN40 DIN11851, EN1.4301

SAMPLE VALVE PORT DN20 DIN11851, EN1.4301

RECTANGULAR DOOR 310x420mm LA B5E RING 80x8 NYLON HANDLE 14301



DIRECTION DRAIN PLATE 80 X 2, 300MM

TANK INLET DN50 FI48 DIN11851, EN1.4404

TANK INLET RD78 FI58 DIN11851-VERTICAL, EN1.4404

CONNECTION FOR TEMPERATURE INT. THREAD 1/2", EN1.4301

WELL SUPPORT L=225 X 2,5

DOUBLE JACKET INLET V2 3/4" EXTERNAL THREAD

LADDER HOLDER L= 420 X 2,0 /EXTENDED, EN1.4301

SIEVE ON RACKING PORT

PUMP OVER TUBE DN50 DISMANTLING, EN1.4301

FLOATING LID CRANE

CRANE BRACKET 2" H470 , EN1.4301

Tanks D>=1580

CRANE BRACKET 5/4" H300 , EN1.4301

Tanks D<1580

WINDLASS SUPPORT, EN1.4301

Tanks D>=1370

ACCESSORIES

BALL VALVE EV NW40 DN32-5/4WG+PLUG, EN1.4301

SAMPLE VALVE NW20, EV ART.210, EN1.4301

THERMOMETER WELL R1/2"-L=220MM

DIGITAL THERMOMETER DT5-1

PRESSURE COMPENSATING VALVE DN50, BR ART.251

ROTATIONAL SPARGER

FLOATING LID GASKET

PUMP WITH MANOMETER AND VALVE AP01

WINDLASS 350 KG, GALVANIZED

Tanks D>=1370

Closed pump-over fermenter type K



- dimension: 1400 l – 21000 l, greater dimensions are available on request
- with in-built system of pumping of must over the cap
- suitable for low-ceiling wine cellars
- inclined bottom enables an easy liquid discharge and a simple emptying of the fermenter
- a large rectangular manway simplifies the emptying and cleaning of the tank
- the fermenter can also be used as a classic wine storage tank

type	NOMINAL VOLUME (L)	TOTAL HEIGHT Z (MM) CA.	WEIGHT (KG) ca.
KV2E_1400L_S1RAKE_D1110_H1500	1400	2500	182
KV2E_2000L_S1RAKE_D1110_H2000	2000	3000	201
KV2E_2000L_S1RAKE_D1270_H1500	2000	2500	217
KV2E_2500L_S1RAKE_D1270_H2000	2500	3000	238
KV2E_2200L_S1RAKE_D1370_H1500	2200	2500	243
KV2E_3000L_S1RAKE_D1370_H2000	3000	3000	270
KV2E_3000L_S1RAKE_D1580_H1500	3000	2500	290



KV2E_3900L_S1RAKE_D1580_H2000	3900	3000	315
KV2E_4900L_S1RAKE_D1580_H2500	4900	3500	360
KV2E_5900L_S1RAKE_D1580_H3000	5900	4000	412
KV2E_3800L_S1RAKE_D1780_H1500	3800	2500	328
KV2E_5000L_S1RAKE_D1780_H2000	5000	3000	355
KV2E_6300L_S1RAKE_D1780_H2500	6300	3500	416
KV2E_7500L_S1RAKE_D1780_H3000	7500	4000	464
KV2E_6600L_S1RAKE_D2050_H2000	6600	3000	454
KV2E_8300L_S1RAKE_D2050_H2500	8300	3500	525
KV2E_9900L_S1RAKE_D2050_H3000	9900	4000	595
KV2E_12400L_S1RAKE_D2050_H3750	12400	4750	649
KV2E_7600L_S1RAKE_D2200_H2000	7600	3000	525
KV2E_9500L_S1RAKE_D2200_H2500	9500	3500	587
KV2E_11000L_S1RAKE_D2200_H3000	11000	4000	663
KV2E_14000L_S1RAKE_D2200_H3750	14000	4750	755
KV2E_17000L_S1RAKE_D2200_H4500	17000	5500	870
KV2E_9500L_S1RAKE_D2450_H2000	9500	3000	591
KV2E_11800L_S1RAKE_D2450_H2500	11800	3500	660
KV2E_14000L_S1RAKE_D2450_H3000	14000	4000	746
KV2E_17500L_S1RAKE_D2450_H3750	17500	4750	902
KV2E_21000L_S1RAKE_D2450_H4500	21000	5500	996

EQUIPMENT

EQUIPMENT

DRAIN PORT DRA DN80 DIN11851, EN1.4301

RACKING PORT DN40 DIN11851, EN1.4301

RACKING PORT DN40 DIN11851, EN1.4301

SAMPLE VALVE PORT DN20 DIN11851, EN1.4301

RECTANGULAR DOOR 310x420mm LA B5E RING 80x8 NYLON HANDLE 14301

D<=1270



DIRECTION DRAIN PLATE 80 X 2, 300MM	<i>D<=1270</i>
RECTANGULAR DOOR 410x530mm, LA B2E RING 80x8, INOX HANDLE 14301	<i>D>1270</i>
DIRECTION DRAIN PLATE 80 X 2, 400MM	<i>D>1270</i>
OVAL MANWAY 310X440 MM OP SK, EN1.4301	<i>D<=2050</i>
OVAL MANWAY 310x440mm, AL A3E RING 30x10mm, WITHOUT S-ARM 14301	<i>D>2050</i>
TOP MANWAY DN420mm, LA D22E, h100/220mm, EN1.4404	
TANK INLET RD78 FI58 DIN11851-VERTICAL, EN1.4404	
CONNECTION FOR TEMPERATURE INT. THREAD 1/2", EN1.4301	
WELL SUPPORT L=225 X 2,5	
DOUBLE JACKET INLET V2 3/4" EXTERNAL THREAD	
LADDER HOLDER L= 420 X 2,0, EN1.4301	
LIFTING RING 4,0mm	
SIEVE ON RACKING PORT	
PUMP OVER TUBE DN50 , EN1.4301	

ACCESSORIES

SAMPLE VALVE NW20, EV ART.210, EN1.4301
THERMOMETER WELL R1/2"-L=220MM
DIGITAL THERMOMETER DT5-1
PRESSURE COMPENSATING VALVE DN50, BR ART.251
ROTATIONAL SPARGER



Cone-shaped pump-over fermenter type KC

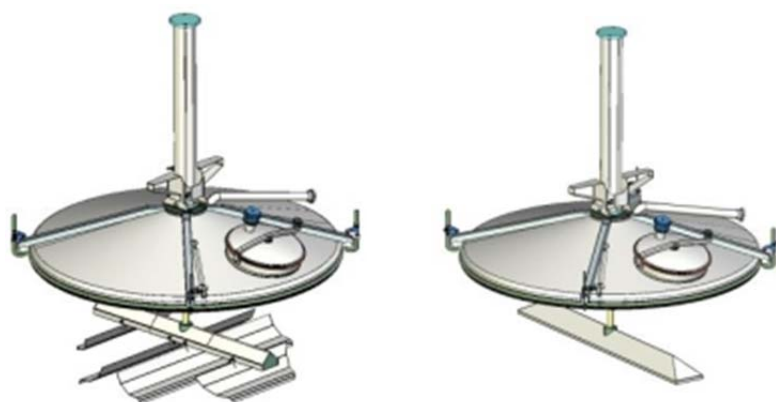


- this tank is used for fermentation of white and red grape varieties and for storage of wine under atmospheric pressure
- the tank shape revives the tradition of ancient cooperage – cone-shaped jacket delays the raising of lees and enables a more efficient cap submerging and breaking
- a larger surface in contact with must enables a greater cooling area
- due to a more efficient cap submerging and breaking, the extraction of phenols and aromas is improved
- on request, the vessel can be equipped with the system of pumping of must over the cap

Punch-down fermenter with dismantling lid type FPK



- FPK fermenters are also suitable for smaller quantities of grape pomace
- the control unit enables setting submerging cycles and switching on/off of the must pump
- the dismantling lid is equipped by cap submerging system (pneumatic cylinder, submerged agitator) and the system of pumping must over the cap (pumping pipe, rotating sprayer). The dismantling lid can be lifted by means of special lid fittings and attached to the reinforced upper rim. One lid can be used for several tanks with same diameter and the reinforced upper rim.





lid with a submerged agitator

lid with a rotating submerged agitator

typ	NOMINAL VOLUME (L)	TOTAL HEIGHT Z (MM) CA.	WEIGHT (KG) ca.
FPKS_1350L_S1RAPC_D1110_H1500	1350	3200	234
FPKS_1900L_S1RAPC_D1110_H2000	1900	3900	282
FPKS_1800L_S1RAPC_D1270_H1500	1800	3250	312
FPKS_2400L_S1RAPC_D1270_H2000	2400	3950	332
FPKS_2100L_S1RAPC_D1370_H1500	2100	3250	344
FPKS_2900L_S1RAPC_D1370_H2000	2900	3950	366
FPKS_2800L_S1RAPC_D1580_H1500	2800	3250	402
FPKS_3800L_S1RAPC_D1580_H2000	3800	3950	426
FPKS_4800L_S1RAPC_D1580_H2500	4800	4650	469
FPKS_3600L_S1RAPC_D1780_H1500	3600	3300	463
FPKS_4800L_S1RAPC_D1780_H2000	4800	4000	489
FPKS_6000L_S1RAPC_D1780_H2500	6000	4700	548

OPREMA

OPREMA

TOTALNI IZPUST DRA DN40 DIN11851, EN1.4301

TOČILNI IZPUST DN40 DIN11851, EN1.4301

DEGUSTACIJSKI IZPUST DN20 DIN11851, EN1.4301

PRAVOKOTNA VRATA 310x420mm LA B5E OBROČ 80x8 NYLON ROČ 14301

ODKAPNA PLOČEVINA 80 X 2, 300MM

POKROV DN420mm, LA D22E, h50/170mm, EN1.4301

POLNILNI PRIKLJUČEK RD78 FI58 DIN11851-POKONČEN, EN1.4404

PRIKLJUČEK ZA TERMOMETER NN 1/2", EN1.4301



OJAČITEV STROČNICE L=225 X 2,5

PRIKLJUČEK DVOJNEGA PLAŠČA V2 3/4" ZN

NASLON ZA LESTEV L= 420 X 2,0 /PODALJŠAN, EN1.4301

SITO NA TOČILNEM IZPUSTU

CEV ZA PREČRPAVANJE DN50 DEMONTAŽNA, EN1.4301

KRMILNIK RM 1CIL

LASERSKO VARJEN DVOJNI PLAŠČ V2 h750, POSODA H1500 in H2000

LASERSKO VARJEN DVOJNI PLAŠČ V2 h1000, POSODA H2500 IN H3750

ARMATURE

PIPA POIZKUSNA NW20, EV ART.210, EN1.4301

STR. ZA TERMOMETER R1/2"-L=220MM

DIGITALNI TERMOMETER DT5-1

VENTIL ZA IZRAVNAVO TLAKA DN50, BR ART.251

ROTACIJSKI RAZPRŠILNIK

TESNILNA ZRAČNICA

TLAČILKA Z MANOMETROM IN VENILOM AP01

CILINDER PCG Fi 125

NASTAVKI ZA DVIG DEMONTAŽNEGA POKROVA - SPREDAJ

Punch-down fermenter type PK



- it enables both maceration techniques: the cap submerging system and the system of pumping must over the cap
- the control unit enables setting submerging cycles, switching on/off of the must pump and the regulation of temperature
- inclined bottom and large rectangular manway (optional: sliding door) enable a fast and simple emptying of the fermenter
- the entire cap-submerging construction can be removed and the fermenter used as an ordinary tank for must fermentation or as a wine storage tank under atmospheric pressure

typ	NOMINAL VOLUME (L)	TOTAL HEIGHT Z (MM) CA.	WEIGHT (KG) ca.
PK2E_3200L_S1RABM_D1580_H1500	3200	3550/2361	457
PK2E_4200L_S1RABM_D1580_H2000	4200	4450	518
PK2E_5200L_S1RABM_D1580_H2500	5200	4950	568
PK2E_4200L_S1RABM_D1780_H1500	4200	3600	505
PK2E_5400L_S1RABM_D1780_H2000	5400	4500	570
PK2E_6700L_S1RABM_D1780_H2500	6700	5000	637
PK2E_7300L_S1RABM_D2050_H2000	7300	4550	692
PK2E_9000L_S1RABM_D2050_H2500	9000	5050	757
PK2E_8500L_S1RABM_D2200_H2000	8500	4600	750



PK2E_10400L_S1RABM_D2200_H2500	10400	5100	819
PK2E_10500L_S1RABM_D2450_H2000	10500	4650	980
PK2E_13000L_S1RABM_D2450_H2500	13000	5150	1,076
PK2E_15000L_S1RABM_D2450_H3000	15000	5850	1,166
PK2E_20000L_S1RABM_D2450_H4000	20000	7050	1,4

EQUIPMENT

EQUIPMENT

DRAIN PORT DRA DN80 DIN11851, EN1.4301

RACKING PORT DN40 DIN11851, EN1.4301

RACKING PORT DN40 DIN11851, EN1.4301

SAMPLE VALVE PORT DN20 DIN11851, EN1.4301

RECTANGULAR DOOR 410x530mm, LA B2E RING 80x8, INOX HANDLE 14301

DIRECTION DRAIN PLATE 80 X 2, 400MM

OVAL MANWAY 310x440mm, AL A3E RING 30x10mm, WITHOUT S-ARM 14301

TOP MANWAY DN420mm, LA D22E, h200/320mm, EN1.4301

D<2050

TOP MANWAY DN420mm, LA D22E, h300/420mm, EN1.4301

D>=2050

TANK INLET RD78 FI58 DIN11851-VERTICAL, EN1.4404

CONNECTION FOR TEMPERATURE INT. THREAD 1/2", EN1.4301

WELL SUPPORT L=225 X 2,5

DOUBLE JACKET INLET V2 3/4" EXTERNAL THREAD

LADDER HOLDER L= 420 X 2,0, EN1.4301



LIFTING RING 4,0mm

SIEVE ON RACKING PORT

PUMP OVER TUBE DN50 , EN1.4301

AUTOMATICS RV 1CYL., PUMP.EXT, TEMP.

D<2450

AUTOMATICS RV 2CYL., PUMP.EXT, TEMP

D>=2450

LASER WELDED JACKET V2 h750, TANKS H1500 AND H2000

LASER WELDED JACKET V2 h1000, TANKS H2500

LASER WELDED JACKET V2 h1250, TANKS H3000

ACCESSORIES

SAMPLE VALVE NW20, EV ART.210, EN1.4301

THERMOMETER WELL R1/2"-L=220MM

PRESSURE COMPENSATING VALVE DN50, BR ART.251

ROTATIONAL SPARGER

CYLINDER PCG Fi 160



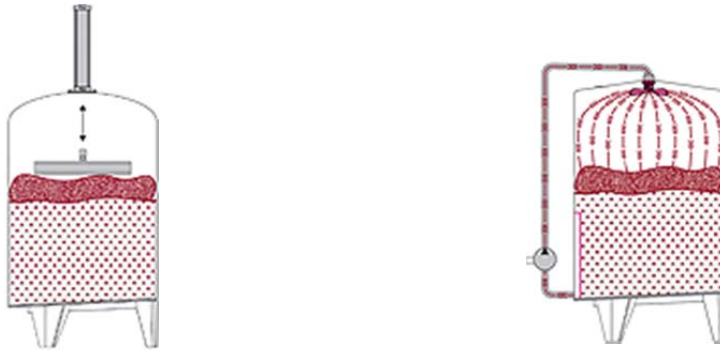
Punch-down fermenter with an in-built system for removal of pips type PIP



- it enables both maceration techniques: the cap submerging system and the system of pumping must over the cap
- the in-built system for the automatic removal of pips: during the fermentation of grape pomace pips tend to fall to the bottom of the fermenter. By means of a scraper pips are collected in a container and by activating the pneumatic valve then removed from the tank. By removing pips from lees during maceration and fermentation, the extraction of herb and unripe (green) tannins into wine is reduced.
- the control unit enables setting submerging cycles, switching on/off of the must pump, regulation of temperature, switching on/off of the scraper and pips discharge valve
- the entire cap-submerging construction can be removed and the fermenter used as an ordinary tank for must fermentation or as a wine storage tank under atmospheric pressure

Maceration systems

For the maceration, two different systems can be installed:



the cap submerging system and the system of pumping must over the cap

These systems are available independently (only submerging or only pumping) or as a combination of both.

Additional equipment

The tank can be equipped with several additional accessories which enable different possibilities to actively interfere into the winemaking processes which are in progress and in this way influence the selective leaching of pigments (anthocyanins), tannins and aromas from grape berries:

- An efficient and simple system of temperature management and control. Winemakers/technologists can choose the desired temperature range, in order to get the best and most typical aromatic compounds of wine.
- A system for the automatic removal of pips and discharge of grape skins (PIP system). By removing pips from grape pomace during maceration and fermentation, the extraction of herb and unripe (green) tannins into wine is reduced. The bottom design with scraper and metering hatch enables a fast and simple fermenter emptying.



- With a RM or RV control unit, the fermenter can operate predominantly automatically. The control unit enables setting submerging cycles, switching on/off of the pump, management of the pip removal valve and setting and regulation of temperature. In this way the user has a better control over the processes which evolve in the tank.
- A system of injection of air into the tank. Through 2–4 injection units (depending on tank dimensions) gas (filtered air from the compressor or nitrogen) can be supplied into the tank during pomace fermentation. Controlled airing (oxidation) of must has a beneficial influence on the proportion of tannins and anthocyanins in must and on the intensity and stability of color.