



SAP Beverage Template

Solutions in SAP for the beverage and liquid food industry



Krones SAP Beverage Template



Creating transparency along the entire value chain presents a major challenge to our customers in the beverage and liquid food industry. With the SAP S/4HANA Beverage Template, Krones offers just the right solution for the end-to-end digital illustration all of the processes in a factory – from planning through to transportation.

Our solution

- SAP S/4HANA as the latest ERP solution from SAP
- Template approach for quick and cost-efficient implementation
- Can be updated using SAP expansion tools for the industry solution
- Prototyping with best practices during the project phase > provision of processes, master data and movement data
- Standardisation of processes and interfaces (e.g. shopfloor integration, WMS system)



Creating, changing and displaying master data



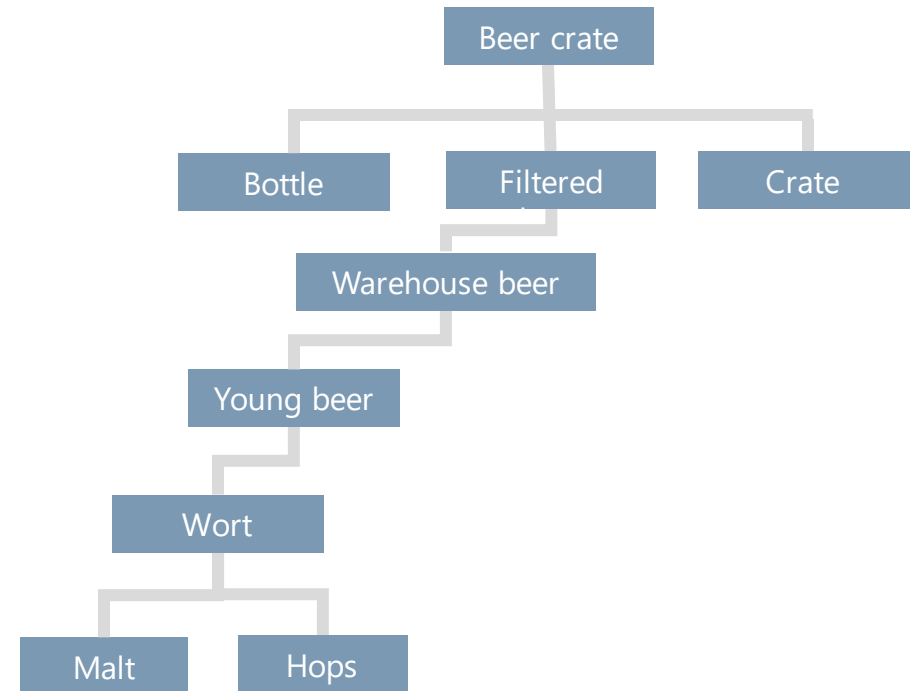
- Planning at SKU level on a weekly/yearly basis using the planning table
- Use of bills of materials for requirements explosion according to MRP logic
- Prognosis for raw material requirements

Produktgruppen /Kapa-gesamt		EH	fällig	W 32 (07.08)	W 33 (14.08)	W 34 (21.08)	W 35 (28.08)	W 36 (04.09)	W 37 (11.09)	W 38 (18.09)	W 39 (25.09)
<input type="checkbox"/> Prod-Gr 12	L		264192	195000	105000	276000					
<input type="checkbox"/> Bedarf	L		558360		93000	105000	276000				
<input type="checkbox"/> Verfügbare Menge	L		-115224								
<input type="checkbox"/> FILPET01/001 PET Linie 1 AP	%		40,365	132,813	154,445	200					
<input type="checkbox"/> Bedarf -	H		97	128	185	240					
<input type="checkbox"/> Angebot -	H			96	120	120	120	120	120	120	120
<input type="checkbox"/> FILPET02/001 PET Linie 2 AP	%		23,763	25,454							
<input type="checkbox"/> Bedarf -	H		57	24							

Materialdaten		EH	fällig	W 32 (07.08)	W 33 (14.08)	W 34 (21.08)	W 35 (28.08)	W 36 (04.09)	W 37 (11.09)	W 38 (18.09)	W 39 (25.09)
<input type="checkbox"/> 4000000090 Pfanner Apfel gespr. still 6x0,5l E...	ST	•••	-4408								
<input type="checkbox"/> Verfügbare Menge	ST										
<input type="checkbox"/> Summe Bedarfe	ST		82060	13000	18000	42000					
<input type="checkbox"/> PET1 FILPET01	ST		4408	13000	18000	42000					
<input type="checkbox"/> FE/PR-A	ST		16855								
<input type="checkbox"/> PET2 FILPET02	ST										
<input type="checkbox"/> FE/PR-A	ST		29201								
<input type="checkbox"/> nicht zugeordnet	ST										
<input type="checkbox"/> 4000000091 Pfanner Apfel gespritzt 6x0,5l EW...	ST	•••	-34000								
<input type="checkbox"/> Verfügbare Menge	ST										
<input type="checkbox"/> Summe Bedarfe	ST		104060	18000	17000	50000					
<input type="checkbox"/> PET1 FILPET01	ST			32000	17000	50000					
<input type="checkbox"/> FE/PR-A	ST		29200								
<input type="checkbox"/> PET2 FILPET02	ST		8400	20000							
<input type="checkbox"/> nicht zugeordnet	ST										



Example of a bill of material



Purchasing and incoming-goods process

Using hopper material as an example



- Easy selection and change of planned deliveries
- QM-supported incoming-goods process for hopper material
- Automatic generation of inspection lots
- Digital recording of inspection results with automatic evaluation of characteristics on site

< KRONES Wareneingang erfassen

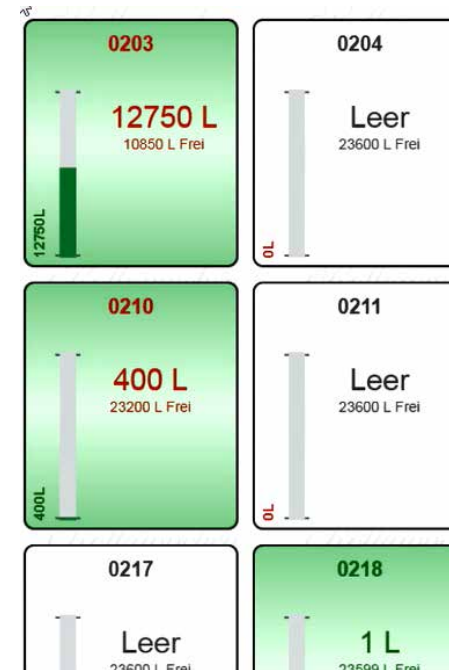
Ergebniserfassung zum Prüflot

Prüflosnummer	10000000868	LKW-Kennzeichen	NEW-T-212
Material	1000000020	Lieferant	1000060
Materialbeleg	5000000345	Prüflot entstanden am	09.09.2022

Bezeichnung	Ergebnis	Bewertung	Prüfbemerkung
Beigefügtes Zertifikat	<input type="text" value="s.k."/>	✓	
Sichtkontrolle	<input type="text" value="s.k."/>	✓	

Bezeichnung	UTG	OTG	Ergebnis	Bewertung	Prüfbemerkung
Restfeuchte [%]		1.00	<input type="text" value="1"/>	✓	

Prüfanweisung anzeigen



Production including material provision



- Illustration of the entire brewing process in PP-PI
- Processing of orders, bills of materials and recipes
- Provision of materials and consumption postings
- Confirmations of process times
- Depth integration of process section, filling and packaging
- Complete illustration of all manufacturing stages:



- Complete tracking and tracing

**Batch Where-Used List
Top-Down Analysis**

Material: 113
Plant: 1000
Batch: 5800000175

*Expand Transfer Postings
Expand Even If Quantity = 0*

Top-Down Analysis	T	Material Short Text	Plant	Batch	Quantity	Unit
5800000175		Brand 1 33 cl returnable 24 Bot Crate	1000	5800000175	1.000	PC
5800000175		Brand 1 33 cl returnable 24 Bot Crate	1000	5800000175	1.000	PC
		Paper Labels Brand 1 Neck 33 CL	1000	0000000112	24.000	PC
		Paper Labels Brand 1 Front Body33 ...	1000	0000000111	24.000	PC
		Paper Labels Brand 1 Back33 Cl	1000	0000000110	24.000	PC
		Crowns Brand 1	1000	0000000109	24.000	PC
		Empty 33CL X 24 Crate	1000	0000000112	1.000	PC
			1000	0000000111	24.000	PC
			1000	5000001245	80	HL
			1000	5000001245	3.400	HL
			1000	0000000108	30	KG
			1000	0000000107	150	KG
			1000	0000000106	39	KG
			1000	5000001244	2.400	HL
			1000	5000001244	2.400	HL
			1000	5000001243	2.400	HL
			1000	5000001243	2.400	HL
			1000	5000001242	2.400	HL
			1000	5000001241	2.400	HL
			1000	5000001241	2.400	HL

**Batch Where-Used List
Bottom-Up Analysis**

Material: 104
Plant: 1000
Batch: 0000000101

*Expand Transfer Postings
Expand Even If Quantity = 0*

Bottom-Up Analysis	T	Material Short Text	Plant	Batch	Quantity	Unit
0000000101		Malt A	1000	0000000101		
5000001241		Malt A	1000	0000000101	42.200	KG
5000001241		Brand A Wort	1000	5000001241	2.400	HL
5000001243		Brand A Wort	1000	5000001241	2.400	HL
5000001243		Young Beer Brand A	1000	5000001243	2.400	HL
5000001244		Young Beer Brand A	1000	5000001243	2.400	HL
5000001244		Mature Beer Brand A	1000	5000001244	2.400	HL
5000001245		Mature Beer Brand A	1000	5000001244	2.400	HL
5000001245		Bright Beer Brand A	1000	5000001245	3.400	HL
5800000175		Bright Beer Brand A	1000	5000001245	80	HL
5800000175		Brand 1 33 cl returnable 24 Bot Crate	1000	5800000175	1.000	PC

Quality management



- Complete LIMS system
- Integration in all logistics and finance modules
- Incoming-goods inspection, manufacture-assisting inspection
- Optimised results recording
- Connection of laboratory equipment
- Sample management
- Counter reading or time-based generation of samples

The screenshot shows the SAP QM-Monitor interface with the following sections and buttons:

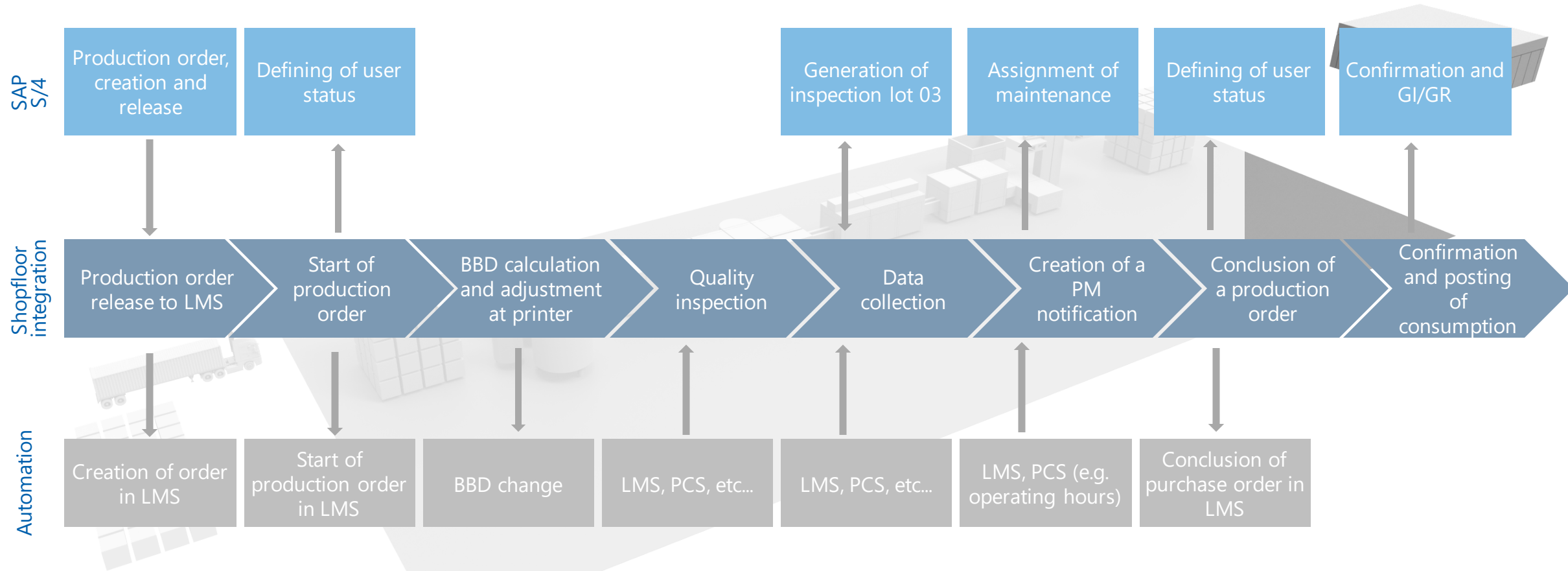
- Stammdaten:** Grunddaten (Material anzeigen, Equipment anzeigen, Prüfmerkmale anzeigen), Stammdaten Prüfplanung (Stammdaten Prüfplanung), Probenahme (Probenahme öffnen).
- Ergebniserfassung und Bewertung:** Fertigungsbegleitende Proben, WE-Prüfungen, Wartungsplan terminieren, Manuelle Prüfung, Stufenkontrolle, Prüfung bearbeiten, VE-bearbeiten.
- MIBI:** Ergebnisse erfassen, Etiketten drucken.
- Auswertungen:** Chargenverfolgung, NOK-Liste, Auswertungen, Etiketten drucken.

The screenshot shows the SAP Tabellarische Ergebniserfassung interface with the following details:

- Physische Probe:
- Anzahl Proben: 38
- Proben scannen!
- Geben Sie hier Text ein...
- VITQ0036 - Füllmengenkontrolle / -
- Grenzwert: 1000,00-1003,00
- Richtwert:
- Sollwert:
- Buttons: Aktualisieren, Mehr, Datum/Zeit and., Merkmale zur Probe, Wert übernehmen, Merkmal erzwingen, Prüfpunkt erzwingen, Etikett drucken

Be...	Prüflos	Probe	Kurztext Vorgang	BenFeld	BenFid	Material	Materialkurztext	Füllmengenkontrolle	CO2 Prüfung Anton Paar	Temperatur Anton Paar	pH Wert Anton Paar
<input checked="" type="checkbox"/>	30000000310	200007826	Blama			7907232	Mineraalwater/MiWa 6x1.0 DP/...				
<input type="checkbox"/>	30000000310	200007835	Blama			7907232	Mineraalwater/MiWa 6x1.0 DP/...				
<input type="checkbox"/>	30000000310	200007826	Füllmengenkontrolle			7907232	Mineraalwater/MiWa 6x1.0 DP/...				
<input type="checkbox"/>	30000000310	200007829	automatische Analyse			7907232	Mineraalwater/MiWa 6x1.0 DP/...				
<input type="checkbox"/>	30000000310	200007837	automatische Analyse			7907232	Mineraalwater/MiWa 6x1.0 DP/...				
<input type="checkbox"/>	30000000310	200007831	Palettierer			7907232	Mineraalwater/MiWa 6x1.0 DP/...				

Integration in production, maintenance and quality management



Maintenance and servicing

Example of malfunction-based servicing

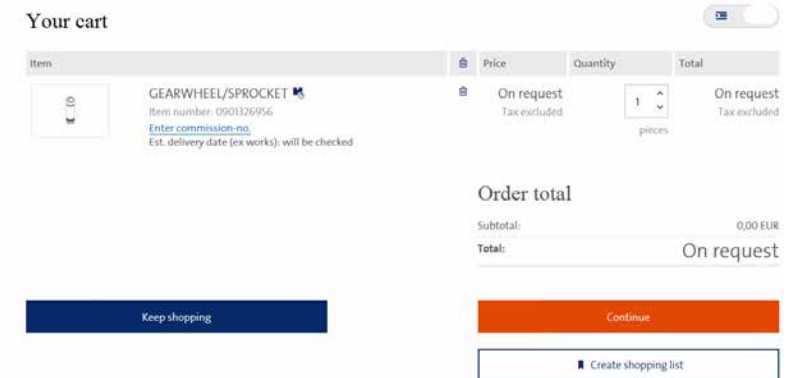
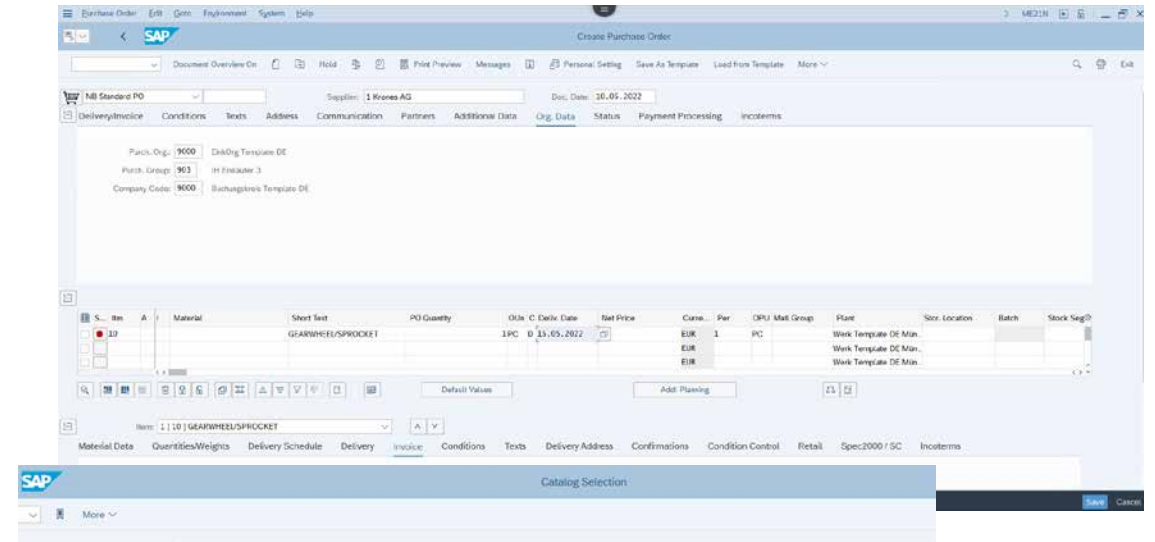


Connection of Krones.shop to SAP



Purchase order process with connection to SAP

- Purchase order possible without material number
- Omission of manual search for spare parts
- Omission of manual entry of purchase order data in ERP system
- Correct and fast transfer of order data
- Possible expansion: automatic transfer of material numbers based on supplier material numbers



Sales and distribution



- Processing of customer orders
- Illustration of own deposit payment conditions for empties
- Tracking of empties (empties management)
- Weight controls, dispatch planning
- App for driver registration
- Management of pallets
- Management of contracts and discount agreements
- Budget monitoring for advertising campaigns
- Free delivery
- Recording of prices and conditions
- Processing of return deliveries (dispatch and return delivery)

The screenshot shows the SAP Fiori 'Eingabe Fahrerdaten' (Enter Driver Data) form. The form is titled 'Eingabe Fahrerdaten' and includes a 'Transponderzuordnung' icon. The main content area contains the following fields:

- Lieferung*: 8001425
- Liefdatum: 11.11.2021, 00:00:00
- Fixe Lieferzeit: [empty]
- Gesamtwicht: 20,00 KG
- Anzahl Artikel: 1
- Spedition: Assmann Logistik GmbH 15938 Gollßen
- Versandstelle: 3000 - Brandenburger Urstromquelle
- Warempfänger: Döhler Neuenkirchen GmbH 21763 Neuenkirchen
- Artikelsortierte Beladung: NEIN
- Gepflanzter Ladepunkt: idf 8M/yy; 2H/mm
- LKW-Kennzeichen*: DE [empty]
- Name d. Fahrers/In: |Vorname [empty] Nachname [empty]
- Telefon-Nummer*: [empty]
- Lkw-Typ: 1 - Sattelzug
- Priorität für Beladeschlange*: 2 - Niedrige Priorität
- Beladestation*: BLO
- Transponder-Nummer*: [empty]

Buttons at the bottom: Speichern, Abbrechen.

Transport management with Last Mile Distribution



- Compilation and planning of transportations
- Selection of a freight forwarder
- Costs calculation and credit note processing
- Route posting
 - Check-in
 - Creation of new orders
 - Recording of returns
 - Recording of empties
- Mobile app

The screenshot displays the SAP Transport Cockpit interface. The top navigation bar includes options like 'Aufbrechen', 'Rückgängig', 'Wiederherstellen', and 'Karte aktualisieren'. The main area is divided into sections for 'Frachteinheitsabschnitte (1)' and 'Frachtaufträge (1)'. Below these, there are various controls and data tables. A map at the bottom right shows a route across Europe, with Hamburg highlighted as a key location.

The diagram illustrates three mobile app screens for last-mile distribution tasks:

- Warehouse Checkout:** Confirm truck load, Change planned quantities, Create checkout documents*.
- Customer Visit:** Navigate in favorite map app to visit, Deliver goods, Collect returns, Create invoice*, Collect payments*.
- Warehouse Check-In:** Confirm undelivered items & returns, Confirm collected cash / check*, Create check-in documents*.

*Planned scope for release V1.1

Support along the entire business process



Modular design

Flexibility

- Different deployment options
 - On premise
 - Cloud
 - Migration scenarios
- Use of individual modules as services
- Option of introduction in stages
- Consideration of inventory systems



Digital factory

Transparency and efficiency

- Illustration of the entire business processes in the system
- Continuous, integrated interaction of the modules
- Fast and intuitive operation through modern UX design



Implementation

Industry-specific expertise

- Two variants possible
 - Complete new SAP installation
 - Expansion of the existing installation
- SAP consultants with beverage-related expertise
- Fit-gap analysis for Beverage Template

Benefits to you



Efficiency



Our pre-configured template contains both best-practice processes and relevant data that allow you to save on both costs and time in the implementation.

Transparency



From planning to transportation – all of the processes in your factory can be portrayed with our solutions. This holistic approach provides extra clarity and reduces complexity.

Security



Our solution reliably supports you in complying with the statutory regulations.

Flexibility



Our template on the basis of S/4 HANA can be installed as an on-premise or cloud variant. In addition to a migration concept for historical data, we offer you regular updates and support.

Industry-specific expertise



Benefit from our beverage-related expertise as a global market leader: Our SAP solution is precisely tailored to the requirements and processes of the beverage and liquid-food industry.

Scalability



The modules and functions of the Beverage Template can be individually activated and added in line with your needs.

Added value for our customers



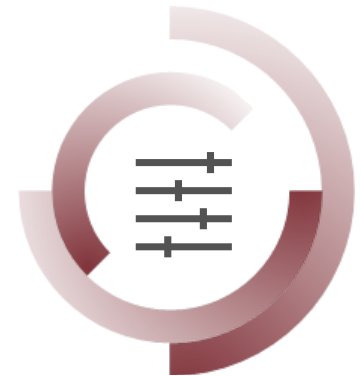
Downtimes



Waste



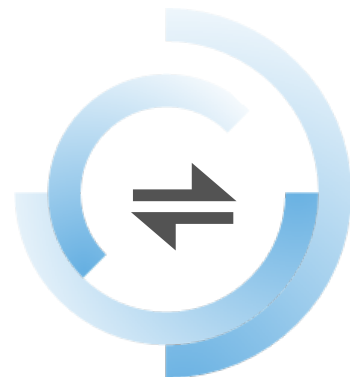
Maintenance planning



Production parameters



Employee training and knowledge



Change-overs



Consumption



Material management

Our solutions

To make complexity manageable, lower costs and maximise output through intelligent solutions



Shopfloor Guidance

Notification – prioritisation – instruction



Analytics

Advanced – Integrated – Energy and Media – Track and Trace Analytics



Line Control

Managing complex production – reducing manual interventions – scalability



MSA Performance

Krones Service supports customers – mutual transparency – causes – action plans



SAP-Based Solutions | SAP Integration

Standard solutions – development – engineering – implementation



Automated Parameter Optimisation

Services for intelligent machine generation – AI – machine learning



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