



# Mobile maintenance module for on site employment in mining

for oil change for mobile maintenance and repair  
of large mining machinery

**Kram**poitz<sup>®</sup>  
TANKSYSTEM GMBH





# The on-site maintenance concept



Krampitz - solution: mobile maintenance module







maintenance unit for large machinery of the open-cast mining



We have developed a completely new maintenance unit for the new generation of large machinery of the open-cast mining - the mobile maintenance module. It transports different kinds of hydraulic oil, engine oil, transmission oil as well as cooling water and waste oil, which is removed.

Our module is extremely robust, works independently and containerized as an exchange system.

The mobile maintenance module of Krampitz Tanksystem GmbH is characterized by future-oriented and innovative technology. It allows the refueling and maintenance of large machinery on-site.

The single-walled cubic steel body is the striking trademark of all Krampitz constructions.

By means of special statics, construction and perfect manufacturing, our products also show high stability and structural strength under extreme conditions.

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# Tasks



changing oils



refilling cooling water



repairs - welding





The following media are provided for maintenance services:

- engine oil
- 3 types of hydraulic oil
- transmission oil
- cooling water
- washing water
- waste oil is extracted, removed and disposed of

Shorter maintenance times are achieved because of the mobile service modul. Refueling and maintenance by the employee directly, quickly and perfectly in the field and on site of each machine are guaranteed.

Perfect and fast maintenance service means:

- gain in real production time and reducing of operating costs.

An integrated high-pressure cleaner with a big washing water tank ensures perfect machine cleaning on-site.

A welding set enables welds and repairs on site.



**Robust - Perfect - Fast**  
**Professional**  
**finest German Quality**

on-site - directly at the machines





# Advantages



easy transport



cubic body



interchangeable bridge system

## Design features

- ISO - type according to ISO 668
- CSC international approval for ship, rail and road
- high stability and robust construction
- 8 ISO-corners
- revolving protection profiles

## Container body

- robust, cubic body
- single-walled steel construction
- equipment protected in the niches of the tank body
- every niche secured by a hinged door
- burglar-proof closure system
- one key for all locks

## Interchangeable bridge system

- allows stable placing of the transport tank container
- 4 x interchangeable bridge feet
- dimensions according to DIN EN 284
- permissible load max. 18.000 kg
- adjustable pick up height of 1.080 to 1.430 mm



### Transport

- tank container in transport design
- smooth road behavior in rough terrain by multi-chamber structure
- optimized axle-load and weight distribution
- low lying balance point on vehicle

### Special design

- low tank height only 1.500 mm
- container's total height only 2.000 mm
- no problems with low passages
- removable railing
- folding access ladder
- easy access to the roof area

### Ease of use

- fast and convenient access to the fuel nozzles, placed alongside
- level indicators and flow meter installed at eye level
- easy access to control panels



robust construction



special design



convenient and easy handling





# Equipment



hose drum for waste oil



high-pressure cleaner



welding equipment

## Supply of oils and cooling water

- oil and cooling water dispensing nozzle with swivel joint and anti-drip nozzle
- electrically powered oil and cooling water pumps
- 1 x extraction point for cooling water approx. 13 l/min, hose length 10 m

## Dispose of waste oils

Waste oil can also be extracted and removed through integrated waste oil tank

## Niche for spare parts includes:

- portable toolbox
- wear parts such as filters, pumps, seals, etc.

By means of these carried consumables, minor repairs and changing used up filters is possible very fast.



cooling water fuel nozzle with hose drum



coupling for tank chamber filling



### Power supply of the transport tank container by:

- a.) its own power generator (diesel Gen-Set) for autarkic isolated operation
  - electrical continuous power rating about 13 kW
  - three-cylinder diesel engine, water-cooled design
  - alternating current generator, single bearing version,
  - generator niche with sound insulation, air flow, exhaust pipe and exhaust silencer
  - generator's maintenance, easy and comfortable by means of an extending platform with integrated day tank, approx. 100 l
  - control for generator integrated into a niche for spare parts
- b.) alternatively: connection to the public power supply system

### Compressed-air supply

- transport tank container is equipped with an air compressor
- resetting tire pressure
- cleaning dustfilter with compressed air
- automatic refill of the compressed air tank



high-pressure cleaner



exhaust gas silencer on container roof



oil pumps



man hole tank chamber



drawn-out Gen-Set



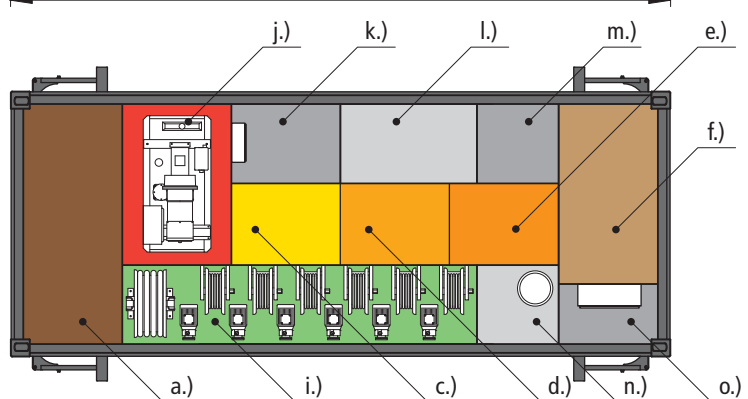
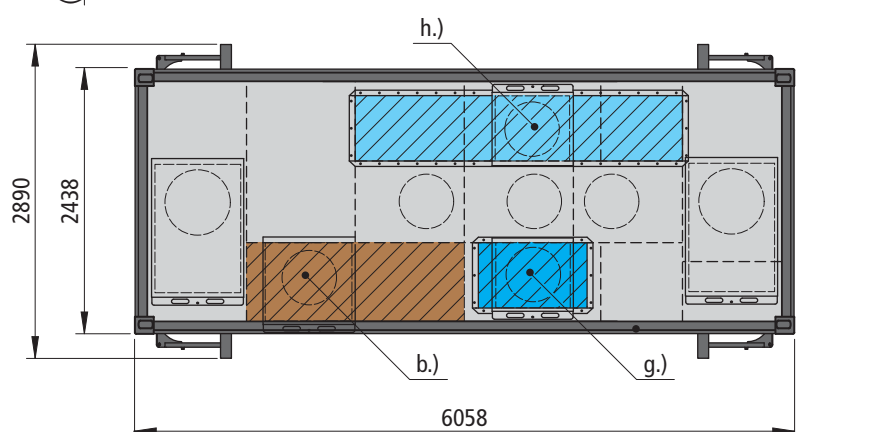
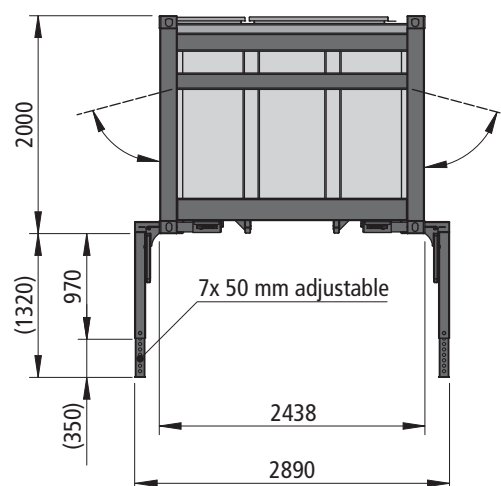
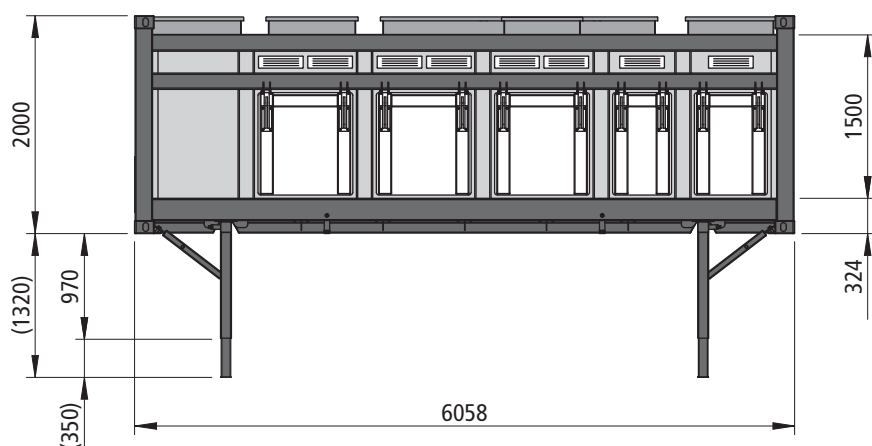
compressor













compressed air display








# Technical data



## Legend:

	a.) waste oil chamber		f.) engine oil chamber
	b.) transmission oil chamber		g.) cooling water tank
	c.) hydraulic oil chamber		h.) washing water tank
	d.) hydraulic oil chamber		i.) dispensing niche
	e.) hydraulic oil chamber		j.) generator niche

	k.) niche for hand welder
	l.) high-pressure cleaner niche
	m.) niche for spare parts
	n.) air compressor niche
	o.) electrical niche

- tank container type MINOTAUR® and PEGASUS® for storage and transport
- in ISO design with heavy container frame and 8 ISO-corners
- single-walled, robust, cubic body made of steel S235 JR
- general construction supervision approval Z-38.11-143 for storage tanks
- 4 x interchangeable bridge feet mounted on container frame
- all niches equipped with lighting, light switch and emergency shut-off button
- all niches protected with hinged doors
- complete installation of all components inside the container tank

## Corrosion protection for outdoor installation:

- inside: raw, oiled
- external: corrosion protection system L-A-4-WA for resistance, analogous to C4i resources by EN 12944, sandblasted, primed and painted, RAL 9010 (pure white)

type	total length	total width	total height	tank height	weight (empty)	max. approved weight
	mm	mm	mm	mm	kg (approx.)	kg (approx.)
TCE-V3-20	6.058	2.438	2.000	500 / 1.500	6.800	16.000

medium	waste oil	transmission oil	hydraulic oil	engine oil	cooling water	washing water
	litre	litre	litre	litre	litre	litre
volume	2.800	700	3x 950	2.100	250	780

Technical changes reserved!



# General equipment

## a.) Waste oil chamber

- divided in three small chambers by surge plates
- a hatch compartment on the tank roof
- man hole DN 600 Type TS and connection interfaces
- filling pipe DN 25 through the mobile oil pump
- exhaust pipe DN 25 with foot valve and dry clutch
- level limiter type AE 201 overflow protection with design approval
- level sensor type LC VII radar sensor
- ventilation and exhaust valve with tilt safety device AM-911.5
- removal of residues including ball valve in floor area

## b.) Transmission oil tank

- placed in dispensing niche below the ceiling
- a hatch compartment on the tank roof
- man hole DN 500 Type TS and connection interfaces
- filling pipe DN 50 with connection in roof area
- filling hose DN 25 with dry clutch placed in high pressure cleaner niche
- intake line DN 25 suction line with foot valve ends at the supply pump in the dispensing niche
- ventilation and exhaust valve with tilt safety device AM-911.5
- removal of residues including ball valve in floor area
- 4 x level sensor AE-100-E, preset to 10%, 40%, 75%, 90% including horn

## c, d, e.) Hydraulic oil chamber

- 1 x hatch compartment on the tank roof
- 3 x man hole DN 500 Type TS and connection interfaces
- 3 x filling pipe DN 50 with connection in the roof area
- 3 x filling hose DN 25 with dry clutch placed in high pressure cleaner niche
- 3 x DN 25 suction line with foot valve ends at the pump in the dispensing niche
- 3 x ventilation and exhaust valve with tilt safety device AM-911.5
- 3 x emptying including ball valve in the floor area
- 12 x level sensor AE-100-E, set to 10%, 40%, 75%, 90% including horn

## f.) Engine oil chamber

- divided in two small chambers by surge plates
- equipment: see transmission oil tank

## g.) Cooling water tank

- placed in dispensing niche below the ceiling
- cubic tank, completely made of stainless steel
- a hatch compartment on the tank roof
- DN 115 inspection opening and connection interfaces
- filling pipe DN 50 with connection in roof area
- filling hose DN 25 with dry clutch placed in high pressure cleaner niche
- DN 25 suction line with foot valve ends at the pump in the dispensing niche
- ventilation and exhaust valve with tilt safety device AM-911.5
- emptying including ball valve in floor area
- 4 x level sensor AE-100-E, set to 10%, 40%, 75%, 90%, including horn

## h.) Washing water tank

- placed in high-pressure cleaner niche below the ceiling
- cubic tank, completely made of stainless steel
- equipment: see cooling water tank

## i.) Dispensing niche

- 1 x oil extraction point for approx. 26 l/min, hose reel with 15 m hose length
- 1 x extraction point for engine oil, transmission oil and cooling water approx. 13 l/min, hose reel with 10 m hose length
- 3 x extraction point for hydraulic oil, approx. 13 l/min, hose reel with 10 m hose length
- electronic flow meter for each extraction point
- quality industrial gerotor pump for each extraction point
- oil and cooling water nozzle with swivel joint and anti-drip nozzle
- automatic hose reels are spring activated, i.e. the hose is rolled up automatically by spring force
- digital level gauge for oil
- ten-stage LED level indicator for engine oil, hydraulic oil and cooling water
- floor area of the dispensing niche as a drip tray made with an approved leak detector OM 5 WHG §19

## j.) Generator niche

- diesel generator set, electric. continuous power approx. 13 kW, 400 V, 50 Hz
- three-cylinder diesel engine, water-cooled design
- generators niche with sound insulation, air flow, exhaust pipe and exhaust silencer
- maintenance for generators, easy and comfortable by means of drawn-out platform with integrated day tank approx. 100 l

## k.) Niche for hand welder

- control box for generator
- hand welder, welding area electrode up to 350 A

## l.) High-pressure cleaner niche

- operating pressure max. 200 bar, water consumption 15 l/min.
- high pressure hose length 15 m
- filling connections with dry clutch for transmission oil, hydraulic oil, engine oil, cooling water tank and washing water

## m.) Niche for spare parts

- 1 x box for spare parts
- 1 x toolbox

## n.) Air compressor niche

- air compressor 10 bar, 80 l air surge tank
- air compressor niche with air flow and additional cooling fan

## o.) Electrical niche

- electricity supply and junction box, centralized control
- wiring of existing electric components
- electronic niche with air flow



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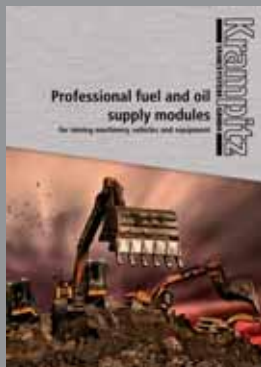
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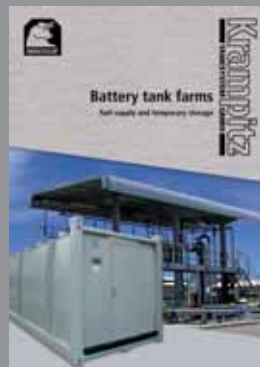
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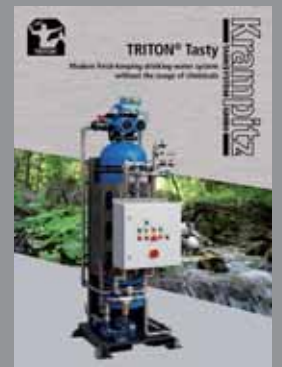
Mobile service module for on-site employment in mining



Mobile maintenance module for on-site employment in mining



KRP-5000 - Automatic fuel cleaning and treatment station for tank systems



TRITON® Tasty fresh-keeping drinking-water system

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