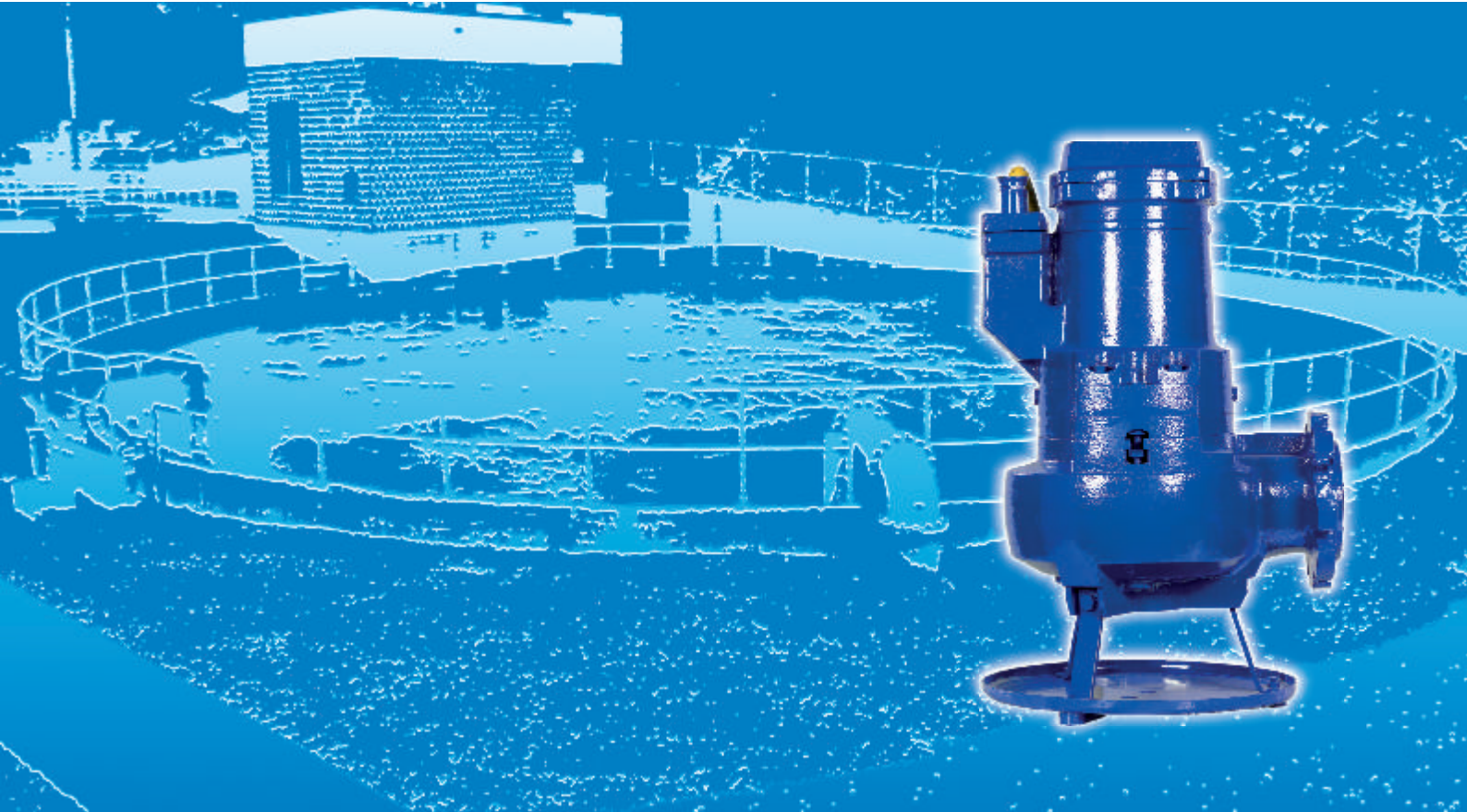


# Submersible Motor Pumps for Sewage - KRTU



## Applications

KRTU pumpsets are used for handling all kinds of waste water in :

### Municipal sector

Pumping stations : Untreated domestic sewage  
Hotels, Subways & Airports : Faeces, mixed liquor, eatables etc.  
Lifting stations : Storm water  
Sewage works (Treatment plants) : Grit trap pumping, raw sludge, activated sludge, digested sludge

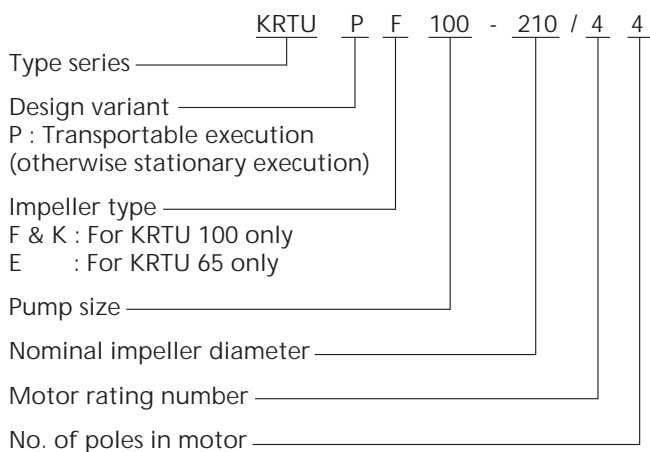
### Industrial sector

Iron & Steel : Raw water, sinter water, cooling water with solids, scrubber liquor  
Cellulose, Paper Manufacturer of insulation materials : Process water with glass wool, Asbestos fibre  
Mechanical engineering : Cutting oil  
Chemical : All kinds of effluents  
Sugar : Sugarcane tails, wash water etc.  
Food processing : Transportation of tomatoes etc.  
Sea water, Industrial water : Sandy water, Waste water  
Refinery : Hydrocarbons (Oil, Gasoline, Butane, Methane etc.)

## Design

KRTU pumps are single stage, submersible centrifugal pumps of closed coupled (monobloc) construction. They are available with three types of impellers - E (single vane) K (non-clog two channel) and F (free flow) for two types of installations, namely transportable and stationary.

## Designation



## Operating data

Pump sizes : DN 65 and DN 100  
Capacity : up to 200 m<sup>3</sup>/hr  
Head : up to 24 m  
Motor rating : up to 9.5 kW  
Temperature : up to 70°C

## Drive

Three phase induction motor for operating voltage of 380 V and 415 V, insulation class F with built-in temperature protection.

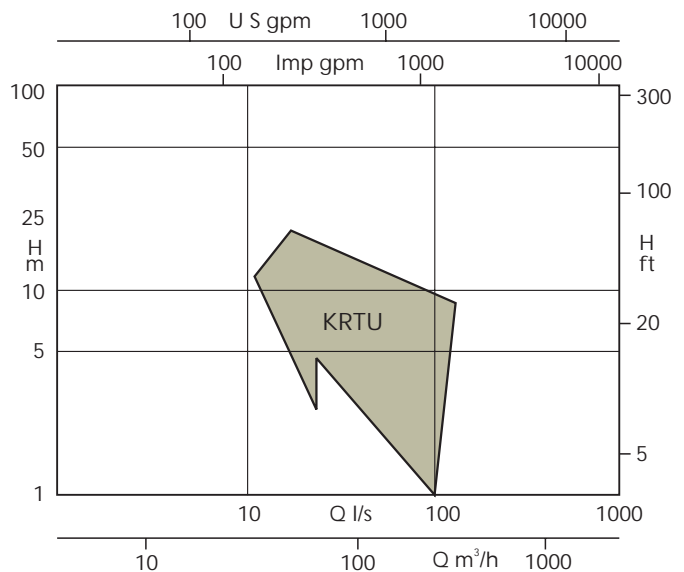
## Shaft sealing

KRTU 65 : Pump side : Mechanical seal  
Motor side : Oil seals  
KRTU 100 : Pump side : Mechanical seal  
Motor side : Mechanical seal

## Bearings

Antifriction ball bearings as per DIN 625, packed with grease for life.

## Family curve



## Materials

Materials for standard C.I. execution are as under :

Part Name	KRTU 65	KRTU 100
Pump casing	C.I.	C.I.
Impeller	C.I.	C.I.
Shaft	Carbon steel	Carbon steel
Motor casing	C.I.	C.I.
Shaft protection sleeve	—	Stainless steel
Guide rope	Stainless steel	Stainless steel

Lateral cable entry  
**Your benefit :**  
Transport and installation damage is avoided.

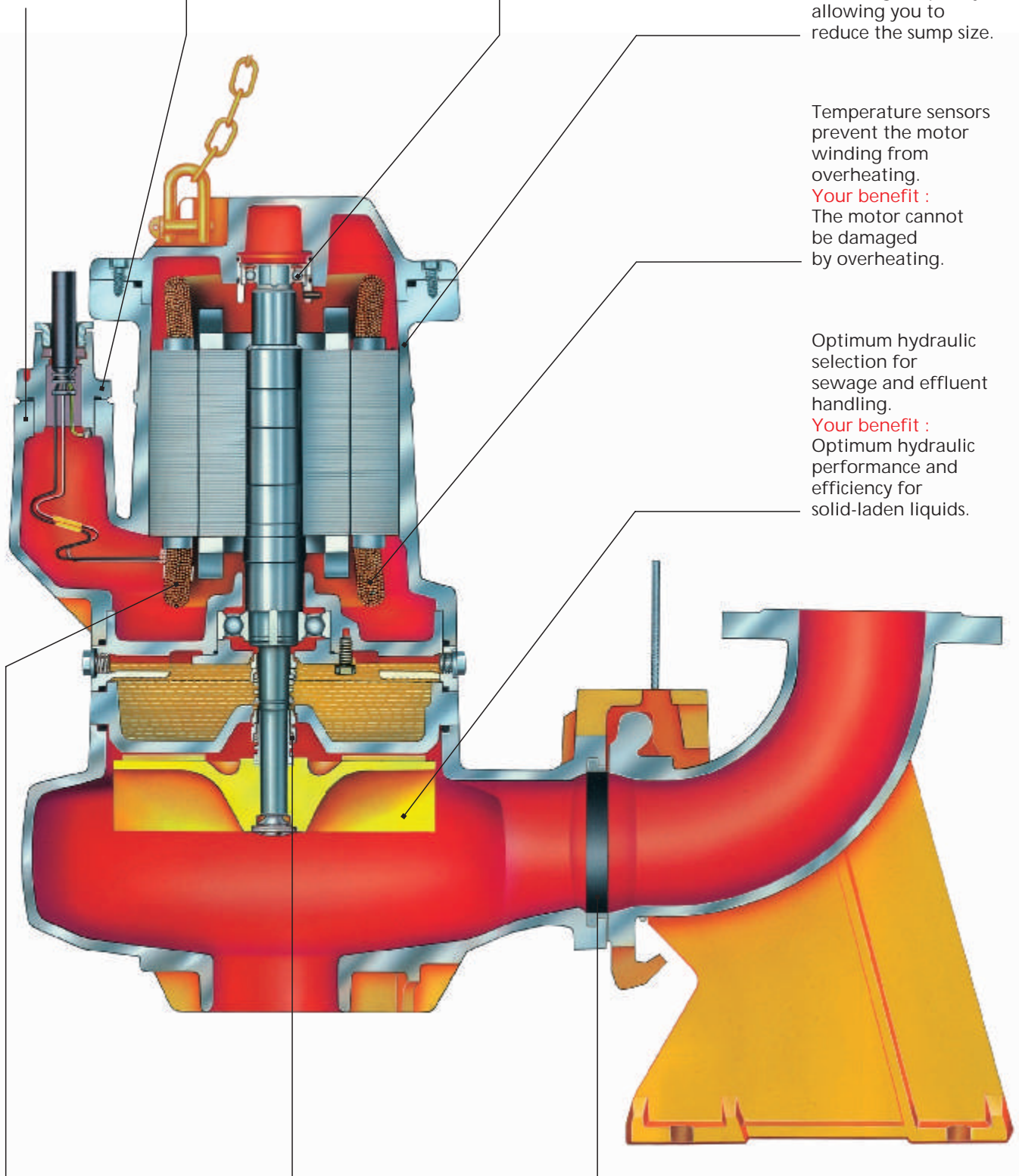
Resin filled, triple protection cable assembly  
**Your benefit :**  
No leakage in the motor even in the event of damage to cable or core.

Sealed bearing on both sides, lubricated for life.  
**Your benefit :**  
No maintenance.

Dry, fully submersible perfectly sealed motor with temperature class F & S1 duty.  
**Your benefit :**  
High permissible switching frequency allowing you to reduce the sump size.

Temperature sensors prevent the motor winding from overheating.  
**Your benefit :**  
The motor cannot be damaged by overheating.

Optimum hydraulic selection for sewage and effluent handling.  
**Your benefit :**  
Optimum hydraulic performance and efficiency for solid-laden liquids.



Special moisture sensor  
**Your benefit :**  
Motor winding is protected in the event of accidental water entry.

Two bi-directional mechanical seals in tandem, with silicon carbide faces.  
**Your benefit :**  
Long service life.

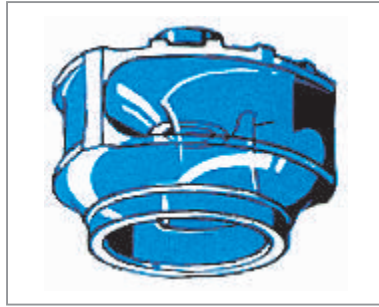
Automatic, bolt-free connection, leakage prevented by means of elastic seal.  
**Your benefit :**  
Simple and operator-friendly allowing easy installation and removal of the pumpset.

## The right impeller for the job



### Free-flow impeller (F-impeller)

For liquids containing coarse solids and fibrous admixtures such as untreated sewage; also for sludges and liquids with a high gas or air content. Very large free passage up to the nominal diameter of the pump connection; non-clogging and resistant to deposits due to friction, excellent for handling entrained gas.



### Closed two or three vane non-clogging impeller (K-impeller)

For pumping solid-laden contaminated liquid not containing any fibrous admixtures liable to bunch or plait.

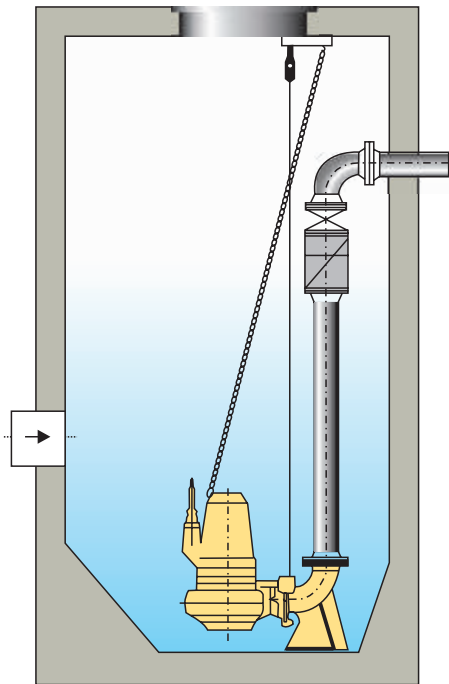
For dirty water, prescreened sewage, activated sludge, treated sewage; for handling fragile products suspended in water.



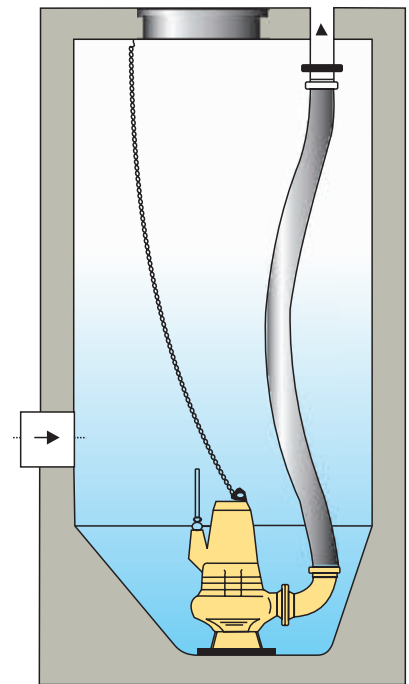
### Single-vane impeller (E-impeller)

For liquids containing coarse solids and admixtures, for untreated sewage and all types of sludge. Very large free passage; non-clogging and resistant to plaiting when handling textile waste and fibrous constituents; for handling fragile products suspended in water.

## Installation Options :



▲ A permanent wet-well installation with KSB's own guide wire device (available for all KRTU Sizes)



▲ A transportable wet-well installation with baseplate (available for all KRTU Sizes)



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