



Progressing Cavity Pump  
**WANGEN Xpress**



The pump for low-viscosity mediums,  
with the (r)evolution in pump technology:  
the X-LIFT quick change system.

Progressing cavity pumps

## WANGEN Xpress

As the latest innovation from WANGEN PUMPEN, the Xpress pump range has been specially developed for easy maintenance. With a typical no-compromise Wangen complete solution, servicing times are considerably shortened, and therefore, repair costs are considerably reduced.

The X-LIFT quick change system developed by WANGEN PUMPEN ensures reliable pumping of media and a fast rotor/stator change. The X-LIFT flange is constructed on standard flange design principles. The pump rotor and stator are both constructed in one piece with no risk of product leakage due to a split sealing design. This ensures the high mechanical stability of the pump housing. And thanks to the block construction, it remains extremely compact. A clever solution that lives up to the high standards set by WANGEN PUMPEN.

Technical highlights:

- Flowrate up to 246.6 gpm
- Temperature up to 140 °F
- Max. differential pressure 87.02 psi
- Viscosity up to 20.000 mPa·s
- High solids content up to 8%.



## Applications

# Conveying Materials

The following media is typically pumped using the WANGEN Xpress progressing cavity pump:

- Raw water
- Thin, excess and digested sludge
- Polymer solutions, lime milk
- Household and industrial waste water with neutral pH
- Light aluminium and iron sulphate solutions
- Slurry, bovine manure, fermentation residues
- Dispersions for glues or galvanic sludges
- Starch suspensions, adhesives, resins or pigment sludges
- Bilge water on ships
- Secondary fibers
- Galvanic sludges
- Bentonite and rinsing mud
- Oil and bituminous emulsions
- Press water from separator
- Lubricants and coolants with neutral pH
- Cleaning and washing water from agricultural processes
- Cleaning water from milking parlor
- Grease separation
- Lubricants and coolants with neutral pH
- Binders of the woodindustry



Features

# Construction Characteristics

WANGEN Xpress 64



Shaft seal is very easy to replace (see page 7)



Robust cardan shaft and joints



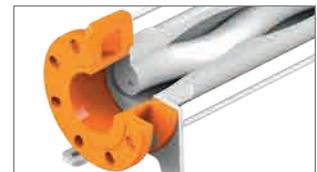
Inspection ports for easy access to the interior



Robust rotor and stator in the highest quality from own manufacturing plant



Innovative X-LIFT design of discharge flange for quick rotor/stator change



The construction of our pumps has been consistently designed with performance and reliability in mind. The WANGEN-typical cardan shaft ensures extensive power reserves.

## Functionality

# The (r)evolutionary and safe solution

It is now possible to change wear parts with very few steps without removing the pump from the pipeline system. The WANGEN Xpress manages this challenge even in tight spaces due to Service in Place.

The innovative X-LIFT quick change system from WANGEN PUMPEN means that the suction housing remains attached to the pipeline and the discharge pipeline remains in place. This makes it easier to work in locations that are hard to access.



The easy removal of the discharge flange means that WANGEN customers profit exclusively from the benefits of the X-LIFT quick change system.

Since the WANGEN solution does not need additional splitting of the pump housing or additional sealing joints, additional components such as seals are unnecessary. This innovative design feature ensures stability and reliability of the pump remains inherent without any detriment to operational performance. Thus failure caused by leaking does not occur in the first place.



## Benefits

# Rotor/stator removal in just 4 steps

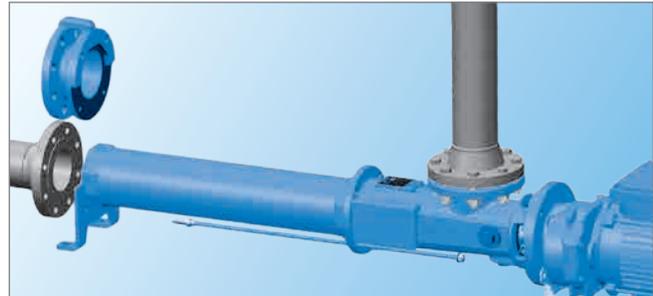
The new WANGEN X-LIFT quick change system enables the easy removal of rotor and stator and the entire drive section (cardan shaft and joints) in just 4 steps.

The pump remains in the installation thus considerably reducing the amount of mounting time required compared to traditional pumps. An additional benefit of the X-LIFT quick change system on the WANGEN Xpress is that the procedure can generally be carried out by a single person.

Changing the complete drive section of the WANGEN Xpress can be carried out using 4 standard tools, quickly and easily. The WANGEN Xpress ensures reduced maintenance downtime and substantial labour savings.



Only 4 standard tools are needed to carry out the change



Step 1: Undo the connecting rod on the discharge flange side and push back. Remove the discharge flange by lifting up.



Step 2: Undo the closure screws and remove the connecting bolt.



Step 3: Pull the stator and rotor along with the cardan shaft forwards, tip upwards and pull out of the pump housing.



Step 4: Remove the stator from the rotor. Done.

## Benefits

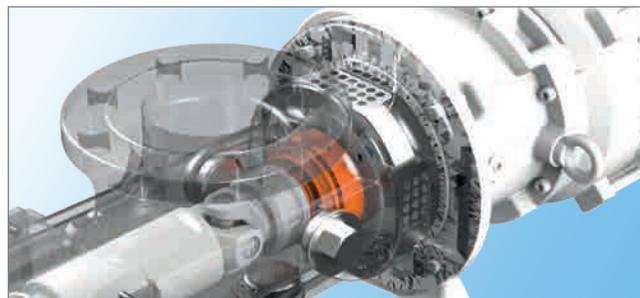
# Quick change of shaft seal

When it comes to changing the shaft seal, the engineers of WANGEN PUMPEN have succeeded in increasing the service-friendliness of the Xpress range. When changing wear parts it is extremely important to position the separating points of components in such a way that the parts that will need to be replaced are easily accessible. This avoids the necessity to remove irrelevant elements and reduces the downtimes.

Changing the main shaft seal of the WANGEN Xpress can be carried out with just a few actions. Removing the motor from the housing and decoupling the drive section readily exposes the main shaft seal which can then be easily changed.

As with the rotor/stator change, the change of the main shaft seal can be carried out with the pump still in place (SIP, Service in Place). This ensures that these tasks can be carried out at any time without additional costs.

This procedure also only requires standard tools.



Main shaft seal in the pump



Remove the drive



Remove the old seal unit



Insert new seal unit

## Benefits

# Xpress delivery

The name Xpress stands for quick and easy component changes, but also for another distinct benefit:

The Xpress pump consists of standard components, which are constantly further developed. Due to the low product variations based on multi-functioning elements, all areas of use are covered. The fast spare part delivery (due to storage of parts) results in increased production time of the Xpress and makes the pump more economic.

When it comes to handling and logistics, our many decades of experience ensure that your pumps will be quickly and reliably delivered.

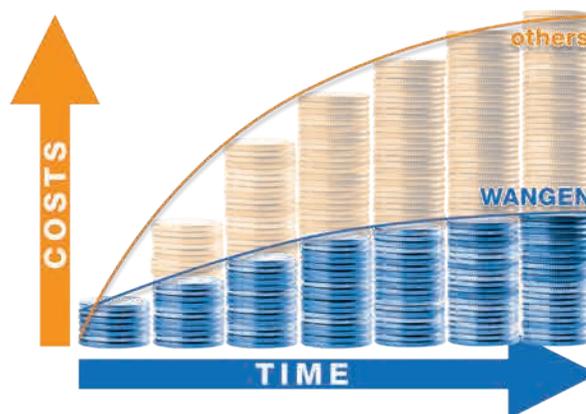


## Benefits

# Low Life-Cycle Costs

When purchasing a pump, we recommend that you carefully consider the operating costs as well as the purchase price. It is often overlooked that maintenance costs, production downtimes and energy costs make up a considerable share of the total costs over the life-cycle of a pump.

In this case, a decisive advantage of our philosophy becomes apparent: in order to keep total costs as low as possible over the entire life-cycle of the pump, the frequency of maintenance is restricted to a minimum. We achieved this thanks to the robust construction of our pumps, the use of high quality wearing parts and implementing a wear-resistant design for each pump.



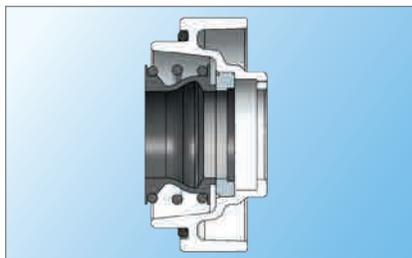
Our energy-efficient drives are tailored specifically to their area of use. The Xpress range already meets the IE3 norm for the environmentally-friendly design of electrical motors.

## Technical Data

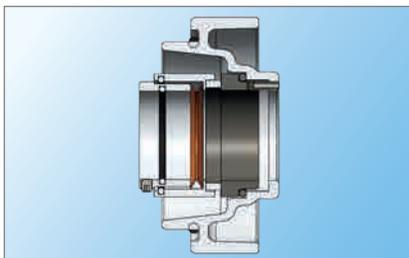
# Options and Accessories

We offer a large selection of accessories, which are perfectly matched to our product range, providing the ideal complement or adaptation to your individual requirements. This allows you to create customized solutions, which we are always happy to assist with.

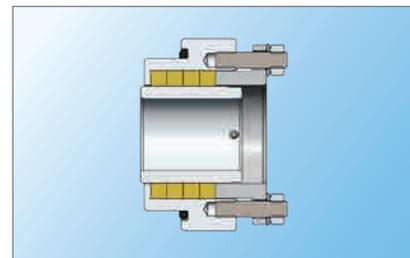
- Retrofitting a base plate
- The special shaft seal pack or encapsulated mechanical seal can be retrofitted
- PT100 temperature measured can be retrofitted in stator



Mechanical seal with bellows



Encapsulated mechanical seal



Gland packing

## Technical data

# Performance Data KL-RS

In order to ensure the highest possible operating safety, WANGEN PUMPEN uses only the highest quality of materials and substances for each project solution. Over many years of experience in the conveyance of various mediums, our design values continue to surpass justice to modern requirements.

- Housing, pressure- and suction-flange: Cast iron, construction steel 1.0038
- Joint: Cardan joint in steel
- Seals: Single acting mechanical seals with bellow or encapsulated versions, gland packing
- Stators: diverse NBR materials
- Rotor: Hardened steel
- Drive: Drive motors in three performance classes (4.0kW, 5.5kW and 7.5kW)



## Spare Parts

By using original spare parts from WANGEN PUMPEN, we guarantee that the performance output of our pumps will be fully restored. With our decades of manufacturing competence, you will profit from our first class quality as a manufacturer and in consequence ensure the long service life of your pump.

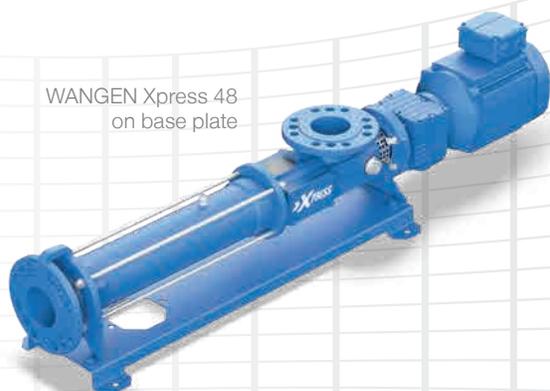


Technical data

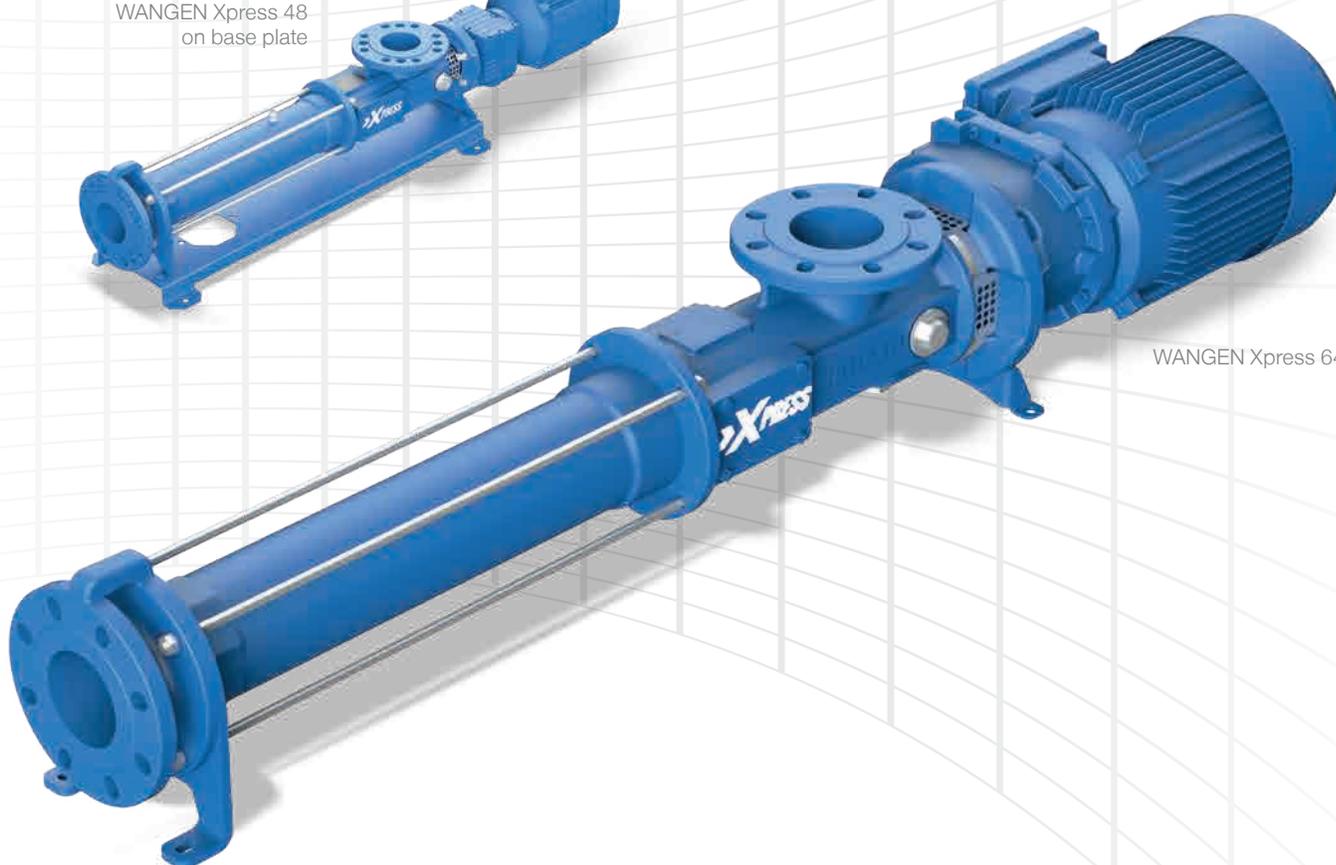
# Performance Data WANGEN Xpress

Pump size	Maximum particle size (inch)	Flowrate (gpm) at viscosity 1 mPa·s	Maximum differential pressure (bar / psi)
48	1.49	up to 79.25	6 / 87.02
64	2.00	up to 246.6	6 / 87.02

WANGEN Xpress 48  
on base plate



WANGEN Xpress 64



Side view



Top view



**Quality and Environmentally committed**

WANGEN PUMPEN is ISO 9001:2008 and ISO 14001:2004 certified.



*Represented by:*

**KG  
Group Ltd.**

*“The Benefit of Experience”*

Engineered pump  
& process systems



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