

## PUMP TECHNOLOGY

### L4NC

#### The new compact screw pump design for the oil & gas industry!

- With focus on tank farm applications such as transfer, stripping, loading and unloading pumps. Further applications: Up- and midstream, shipbuilding and other offshore technology, chemical and petrochemical industry
- Developed for low capital expenditure (CAPEX) combined with highest efficiency and reliability for optimized operational expenditure (OPEX)

#### 1 Pump Casing:

- Economic and slim design for reduced weight
- Cast steel (1.0619) with integrated liner
- ANSI & DIN flanges possible

#### 2 Spindles:

- Single bar stock for maximum stiffness
- Case-hardened steel (1.7139), nitrided for max. hardness
- Side by side arrangement for excellent lubrication capabilities of spindle, bearings and seals
- Smooth running with reduced bearing load

#### 3 Timing gears:

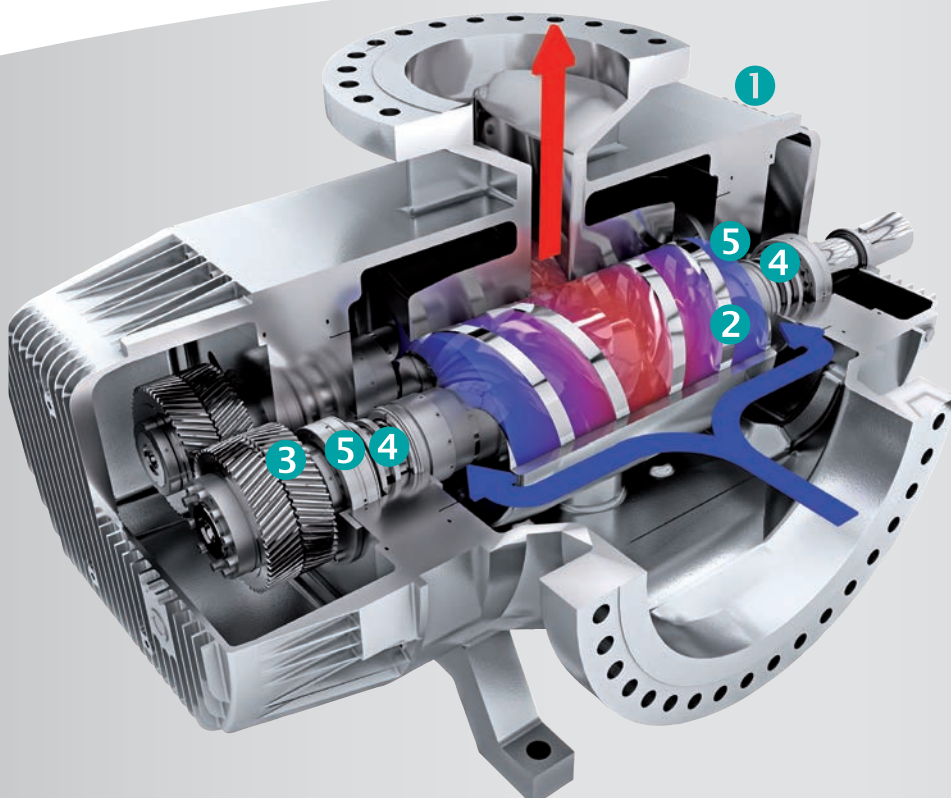
- External double helical gear for efficient power transmission

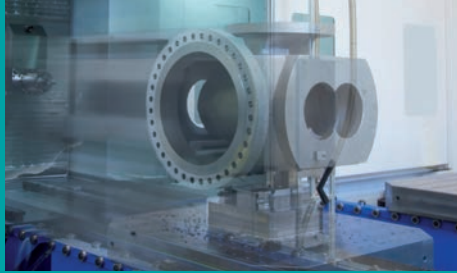
#### 4 Mechanical seal:

- Single acting seals
- Component or cartridge design (API conform) possible
- API Plan 02 or 11 with or without oil/steam quench

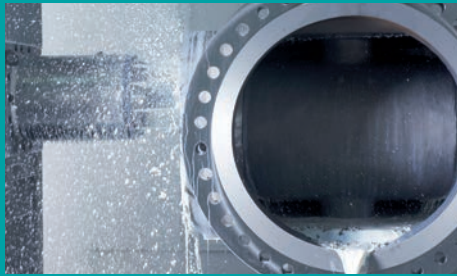
#### 5 Bearings:

- Self-aligning roller bearings on DE and NDE side
- Oil lubricated as an API 676 demand and better lubrication of the shaft seals
- External lube oil cooler and systems for special applications possible

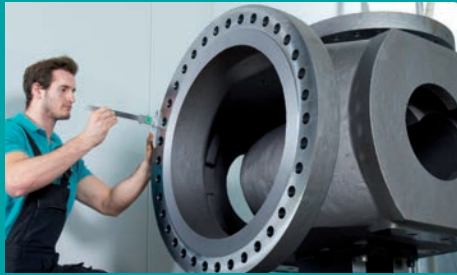




L4NC in a fully automatic milling center



L4NC milling of pump casing



Quality control for the L4NC pump casing

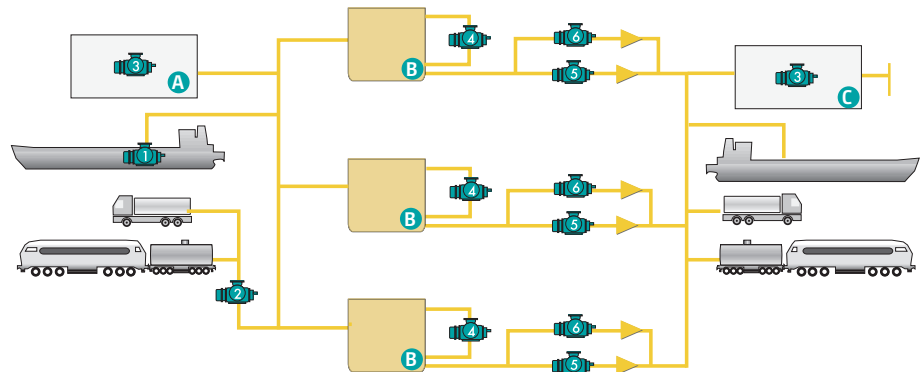


Final assembling of spindles for L4NC

## OPERATING CONDITIONS

Viscosity	up to 10,000 mm <sup>2</sup> /s
Temperature	up to 100 °C
Flow rate	up to 5,000 m <sup>3</sup> /h
Suction pressure	Cavitation limit up to 5 barg
Differential pressure	up to 20 barg
Casing design pressure	25 barg
Speed	up to 3,600 1/min

## L4NC IN TANKFARM APPLICATIONS

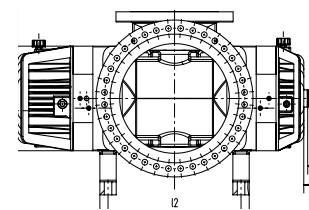


— Crude and refined product

- 1 On-Board crude oil cargo pump
- 2 Crude oil unloading pump
- 3 Booster pump
- 4 Circulation pump
- 5 Stripping pump
- 6 Loading and transfer pump
- A Oil field
- B Storage tank
- C Booster station

## DESIGN CODE

Pump series				Pump size				Design code					Seal
Leistritz	No. of Spindle-packages:	Pressure range:	Design:	OD Spindle:	Pitch:			Roller bearing:	Mounting:	Heating:	Mounting flange:	Inlet-Outlet:	Shaft sealing:
L	4	N	C	-	/	-	A	H	O	K	R	G	
		Low	Compact				External	Foot	Without	Small B14	Side in top out	Mechanical seal	
				-	135	/	29	46	63	80	-		
				-	172	/	38	65	83	105	-		
				-	230	/	51	78	106	133	-		
				-	295	/	64	98	132	166	-		
				-	345	/	95	126	158	190	-		
				-	395	/	120	146	173	200	-		
				-	450	/	130	154	177	200	-		



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