



MAKEEN
ENERGY

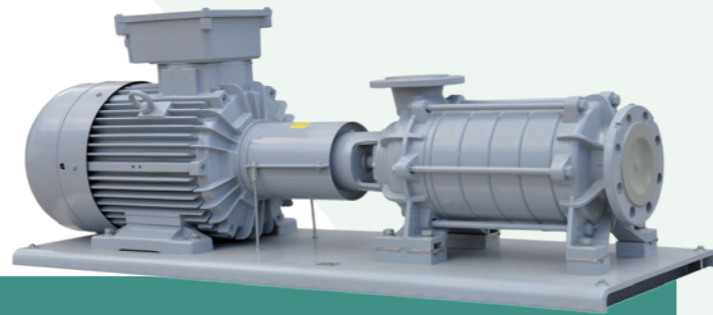
FAS LPG NZ Pump Technology

Efficiency - Experience - Reliability

FAS
A MAKEEN Energy Company

The FAS NZ series centrifugal pumps are designed to optimise performance while significantly reducing energy consumption. The compact construction, the optimisation of the hydraulic components, and the reduction of noise level and vibrations are further advantages.

These pumps are specifically suitable for the use in innovative and highly complex large-scale projects such as LPG terminals, tank farms, district heating power stations, refineries etc. The pumps may also be supplied with adapters for exchange of other pump models.



Overview FAS NZ Pump Models

Model	Capacity m ³ /hr	Differential pressure bar	Motor capacity kW	Flange connection Inlet/Outlet, DN
NZ 18-8-10	18	8	10.0	65/40
NZ 25-13-15	25	13	15.0	80/65
NZ 30-9-15	30	9		
NZ 30-14-24	30	14	24.0	80/65
NZ 40-6-12,5	40	6	12.5	
NZ 40-8-15		8	15.0	
NZ 40-10-20		10	20.0	
NZ 60-5-15	60	5	15.0	125/100
NZ 60-7-20		7	20.0	
NZ 60-10-28		10	28.0	
NZ 80-6-24	80	6	24.0	125/100
NZ 80-7-28		7		
NZ 80-11-47		11	47.0	
NZ 100-5-24	100	5	24.0	125/100
NZ 100-7-28		7	28.0	
NZ 100-10-47		10	47.0	
NZ 150-5-36	150	5	36.0	125/100
NZ 150-7-47		7	47.0	
NZ 150-10-58		10	58.0	
NZ 170-5-47	170	5	47	125/100
NZ 170-8-75		9	75	

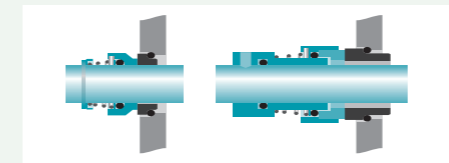
Other pump models and executions available on request.

Technical features:

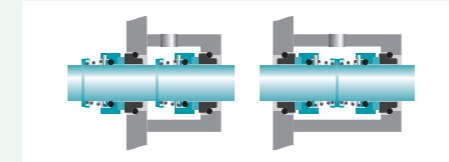
- Capacities up to 170 m³/h
- Max. differential pressure 14 bar

Options:

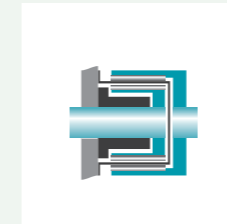
- Single-acting mechanical seal (standard)



- Double-acting mechanical seal



- Magnetic coupling



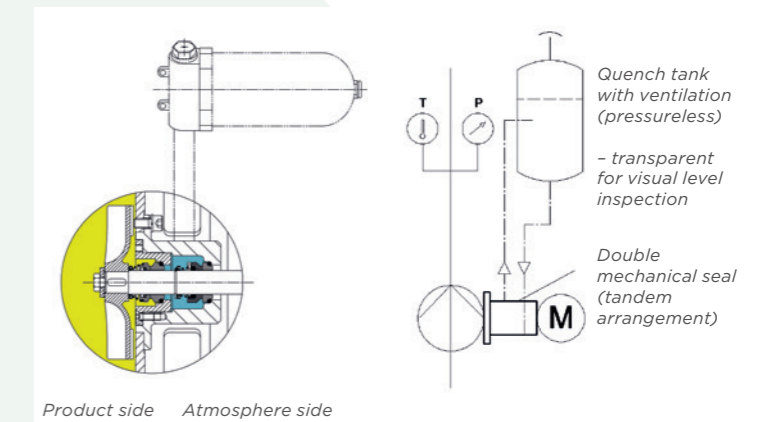
Key benefits:

- Prevention of leakages
- Monitoring of leakage rate
- Cooling and lubrication
- Dry-running protection
- Stabilisation of lubrication film e.g. in vacuum operation
- Hermetic sealing for media reacting in an undesired way or crystallising when in contact with oxygen
- Prevention of icing
- Reduction of operating costs

Use of double mechanical seals in Tandem Arrangement

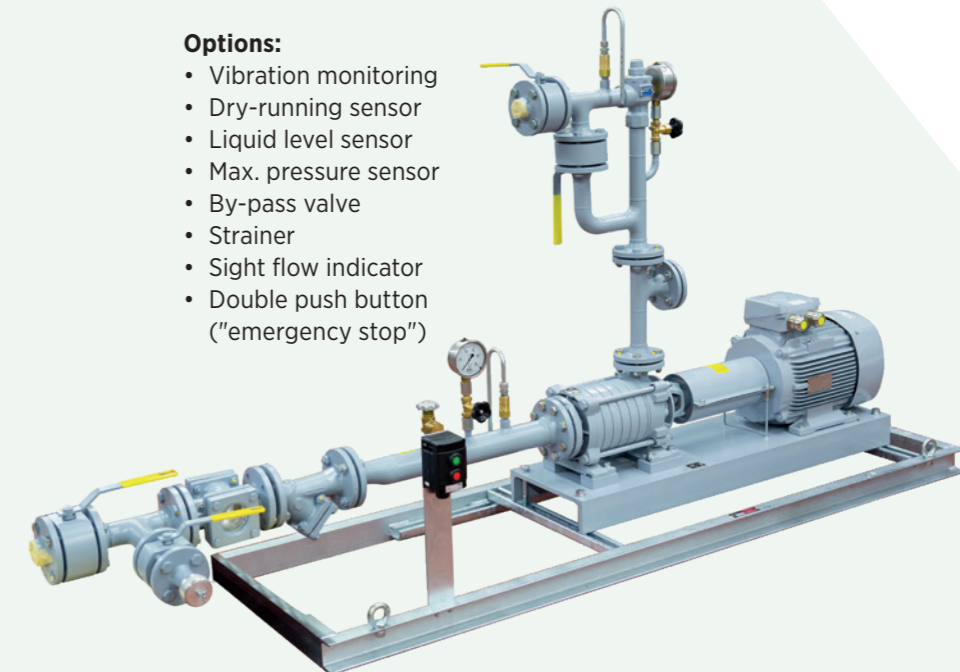
Unlike single mechanical seals, the double mechanical seals prevent the medium from escaping into the atmosphere, even if the first seal fails, for a limited period of time. The tandem arrangement is a combination of two single mechanical seals arranged in a series. For double mechanical seals in tandem arrangement, a supply system is needed for the flushing liquid or quench medium.

The option with a magnetic coupling is the safest solution for a highly reliable and leak-free operation. The magnetic couplings are long lasting as per design with the lowest maintenance costs.



Options:

- Vibration monitoring
- Dry-running sensor
- Liquid level sensor
- Max. pressure sensor
- By-pass valve
- Strainer
- Sight flow indicator
- Double push button ("emergency stop")



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MAKEEN Energy is a global, market-leading corporation that delivers equipment, solutions and **services** to the energy industry. We employ approx. 4,000 people across 6 continents and operate in over 140 countries. With our global reach, local presence and decades of experience, we can deliver responsible solutions that make a difference to people and planet.

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