

Fire Pumps





An introduction

Established in 1985 in UAE, AIKAH PUMP ASSEMBLY LLC is a manufacturing division under Al Khoory group of companies. An ISO 9001:2008 Certified company, the firm is involved in production, assembly and fabrication of all kinds of water pumps, firefighting pumps, vertical multistage pumps, generators etc. The firm is also engaged in service and repair activities of various equipment's and facilitates testing and laser alignment services providing quality service support for its customers.

In pursuance of its constant endeavor to keep up with the market demand and improve the capability and range of its products, the firm has expanded its product portfolio by launching a range of certified centrifugal fire pumps under the brand "Al Khoory pumps". Being in compliance with NFPA 20, AL Khoory fire pumps are listed by Underwriters laboratory (UL) and approved by Factory Mutual (FM).

The firm has its own state of the art testing facility where the fire pumps are tested and inspected by UL and FM engineers. The test facility is fully equipped and utilizes all test instruments calibrated to ISO 17025 where every pump is subject to performance and hydrostatic test.

The facility also has a fully equipped assembly line where pumps undergo inspection and production control to ensure highest levels of quality standards. Having the complete unit responsibility of the fire pump set, we at Aikah Pump Assembly undertakes strict quality control measures to ensure total compliance with NFPA 20.

Horizontal Split Case Pumps

- Split case fire pumps are specified when the source of water isater is located above the surface of the ground and provides a positive suction pressure to the pump at any performance point.
- Certified by Underwriters Laboratories (UL)and Factory Mutual (FM), Al Khoory fire pumps are engineered for reliable operation and built to the rigid standards of NFPA 20.
- Available in a broad range of operating pressures and flows from a minimum of 300 US GPM to 1500 USGPM
- Every fire pump is tested for its rated performance under Positive Suction Pressure as per NFPA 20 and provided with factory Certified Test report.
- All pumps are hydrostatically tested in the factory as per NFPA 20 at not less than 250 psi.
- Suitable to be used with electric motor and diesel engine drives
- Applicable For Residential, Commercial, Industrial and Marine Use



CERTIFIED FIRE PUMP MODELS:

RATED CAPACITY - 300 US GPM

Sl. No.	Pump Model	UL Listed/FM Approved Pressure(PSI)	Rated Speed (RPM)	Suction Inlet Dia. (Inch)	Discharge Outlet Dia. (Inch)	Stage(s)
1	AKH-80-270	94-149	2900	5	3	1

RATED CAPACITY - 500 US GPM

Sl. No.	Pump Model	UL Listed/FM Approved Pressure(PSI)	Rated Speed (RPM)	Suction Inlet Dia. (Inch)	Discharge Outlet Dia. (Inch)	Stage(s)
1	AKH 80-270	94-149	2900	5	3	1
2	AKC-100-320	112-212	2950	6	4	1

RATED CAPACITY - 750 US GPM

Sl. No.	Pump Model	UL Listed/FM Approved Pressure(PSI)	Rated Speed (RPM)	Suction Inlet Dia. (Inch)	Discharge Outlet Dia. (Inch)	Stage(s)
1	AKC-100-320	105-211	2950	6	4	1

RATED CAPACITY - 1000 US GPM

Sl. No.	Pump Model	UL Listed/FM Approved Pressure(PSI)	Rated Speed (RPM)	Suction Inlet Dia. (Inch)	Discharge Outlet Dia. (Inch)	Stage(s)
1	AKC-100-320	144-205	2950	6	4	1
2	AKC-125-380	148-230	2900	8	5	1

RATED CAPACITY - 1250 US GPM

Sl. No.	Pump Model	UL Listed/FM Approved Pressure(PSI)	Rated Speed (RPM)	Suction Inlet Dia. (Inch)	Discharge Outlet Dia. (Inch)	Stage(s)
1	AKC-125-380	144-231	2900	8	5	1

RATED CAPACITY - 1500 US GPM

Sl. No.	Pump Model	UL Listed/FM Approved Pressure(PSI)	Rated Speed (RPM)	Suction Inlet Dia. (Inch)	Discharge Outlet Dia. (Inch)	Stage(s)
1	AKC-125-380	138-230	2900	8	5	1



PUMP FEATURES:

PUMP CASING

The casing is axially split, which permits removal of the complete rotor assembly without moving either the piping or motor thus providing ease of maintenance. Replaceable wear rings protect the casing at the impeller running clearances.

IMPELLER

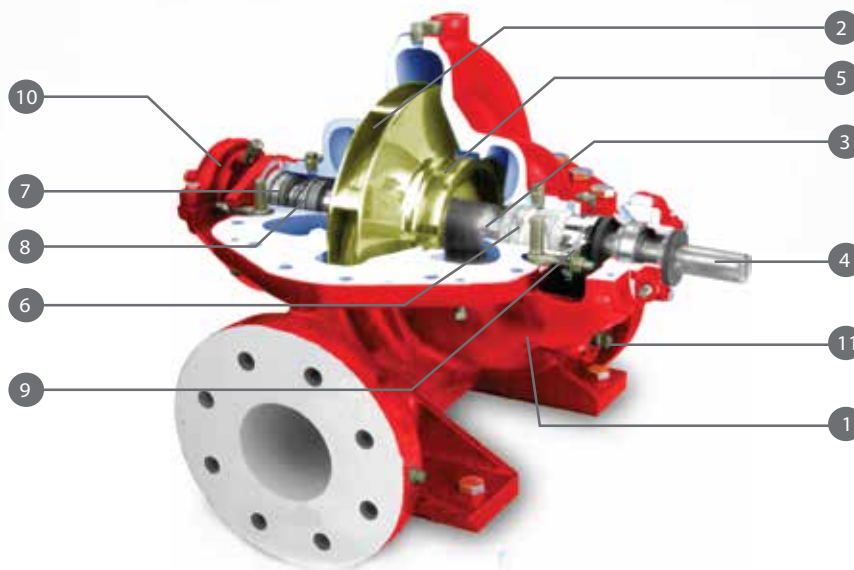
The enclosed impeller have double curved vanes. The double suction design gives practically zero axial forces balancing hydraulic thrust loads. Each impeller is dynamically balanced to G6.3 balance quality grade.

BEARINGS

Deep groove grease lubricated ball bearings selected for 5,000 hour minimum life at maximum load.

SHAFT SEAL

Interwoven, Graphite Impregnated T.F.E. diagonally cut packing rings seal the pump shaft



PUMP PARTS DESCRIPTION

DESCRIPTION		
Part No	Part Name	Material
1.	Casing	Ductile Iron
2.	Impeller	Bronze
3.	Shaft Sleeve	SS 304
4.	Shaft	Alloy Steel (ASTM 4340)
5.	Wear Ring	Bronze/SS 304
6.	Stuffing Box	Ductile Iron
7.	Gland Packing	Graphite Impregnated
8.	Lantern Ring	SS 304
9.	Packing Gland	SS 304
10.	Bearing Cover	Ductile Iron
11.	Bearing Housing	Ductile Iron

FIRE PUMP CONFIGURATION

Electric Motor Driven

Al Khoory fire pumps are available in electrical motor driven configuration, where in fire pumps are coupled to listed motors using a flexible coupling. The unit is assembled on a skid, factory aligned and comes with all necessary accessories. A listed electric fire pump control panel dedicated for the unit operation is provided to complete the fire pump unit in compliance with NFPA 20.



Diesel Engine Driven

Al Khoory fire pumps are available in Diesel Engine driven configuration, where in fire pumps are coupled to listed Diesel Engine using a flexible coupling. The unit is assembled on a skid, factory aligned and comes with all necessary accessories. A listed Diesel fire pump control panel dedicated for the unit operation is provided to complete the fire pump unit in compliance with NFPA 20.



Jockey pumps

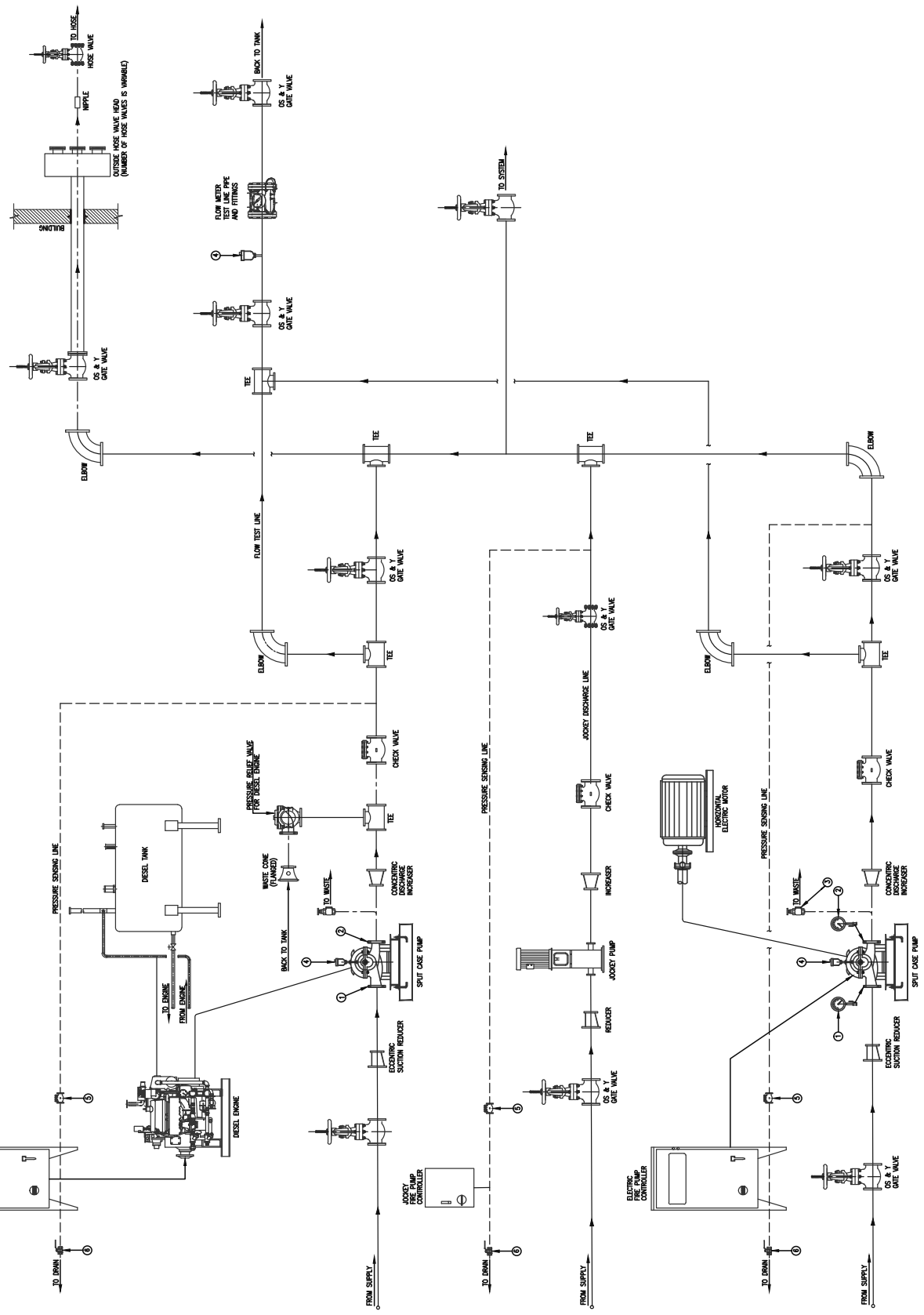
AL khoory Vertical multi stage pumps are used as jockey pumps and are non-listed. They are used in fire protection system to compensate for minor leaks there by maintaining the system pressure.

They prevent the main pump from frequent operation. A dedicated listed control panel is provided for the jockey pump operation.



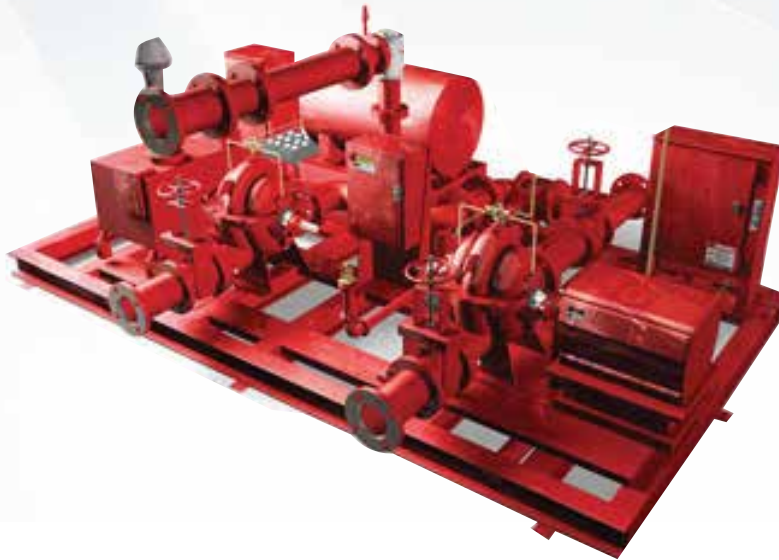
General Arrangement Drawing For Fire Pump

NO.	DESCRIPTION
1	SUCTION PRESSURE GAUGE
2	DISCHARGE PRESSURE GAUGE
3	CASING RELIEF VALVE (ELECTRIC VALVE)
4	AUTOMATIC AIR RELEASE VALVE
5	NRY WITH 3/16" HOLE
6	BALL VALVE (THREADED)



Packaged Fire Pump Set

At Aikah Pump assembly, we design and build fire pump systems to meet fire protection demands based on industry specific requirements. The complete unit comes assembled on a skid and is field tested at the factory to ensure the performance guarantee.



Packaged fire pump set features:

- UL Listed /FM approved Al Khoory Fire Pumps
- UL listed Electric motor
- UL listed/FM approved Diesel engine
- UL Listed/FM Approved Fire Pump Controller
- Al Khoory vertical multi stage Jockey Pump
- UL Listed Jockey Pump Controller
- Pressure Sensing Lines Complete per NFPA 20
- Listed OS & Y Gate & Butterfly Valves
- Flowmeter loop
- Listed main relief valve & waste cone(diesel packages)
- Pre-piped fuel system(diesel packages)
- Listed check valve
- Fuel tank sized as per NFPA #20
- Suction and Discharge Pressure Gauges
- Automatic Casing Air Release Valve
- Casing Pressure Relief Valve (Electric Packages)
- Suction and Discharge Piping per NFPA 20



