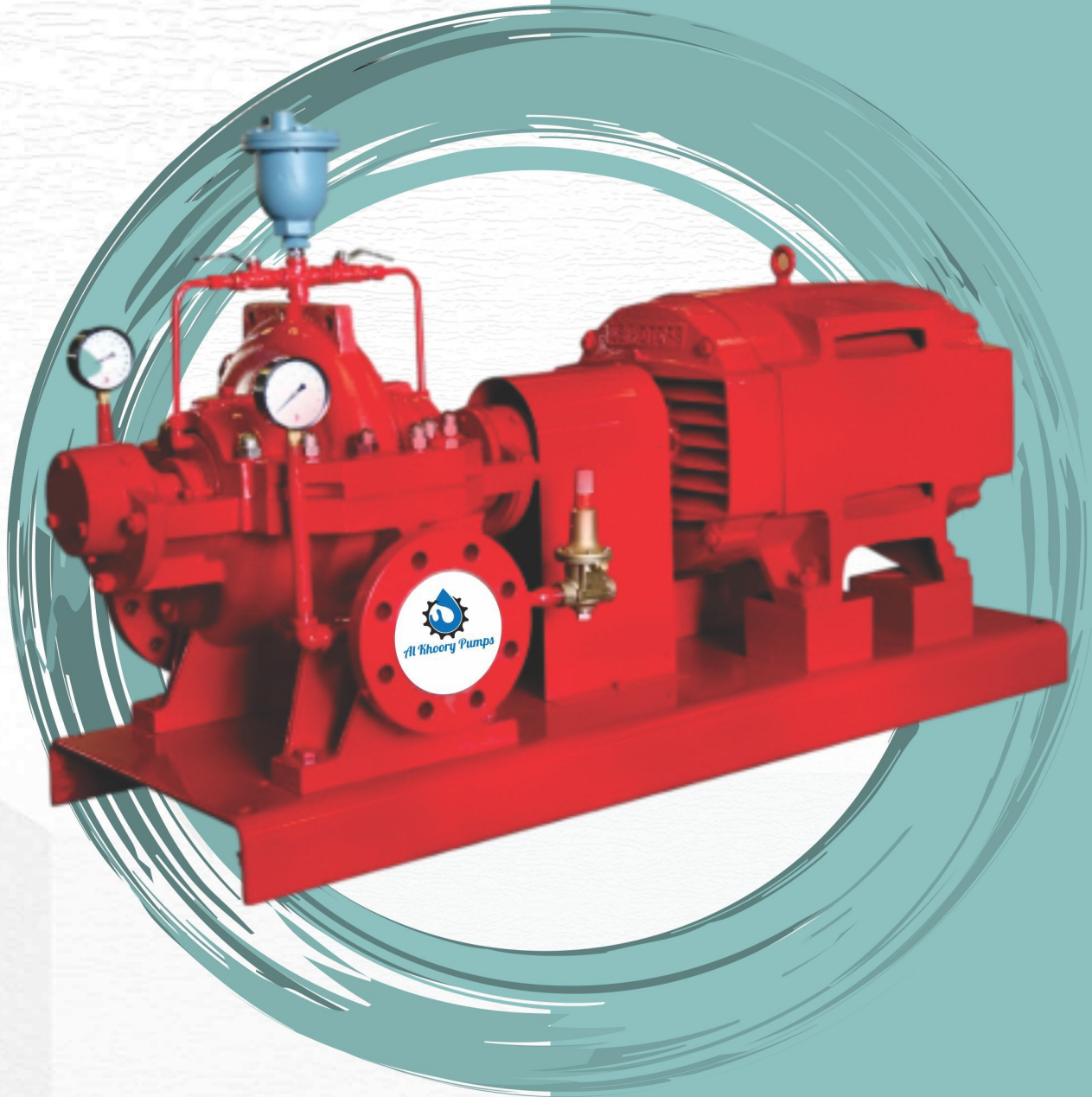




Al Khoory Pumps

واردات و فروش پمپ فهرست شده آتش نشانی
مورد تائید سازمان آتش نشانی

دارای تائیدیه UL



www.sabatam.com



General Data:

- ▶ End suction fire pumps are specified when the source of water 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) Al Khoory fire pumps are engineered for reliable operation and built per the rigid standards of NFPA 20.
- ▶ Available in a broad range of operating pressures and flows from a minimum of 50 US GPM to 750 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 no less than 250 psi.
- ▶ Suitable to be used with electric motor and diesel engine drives
- ▶ Applicable For Residential, Commercial, Industrial Use



Pump Construction Features

► Pump casing:

The back pull out design of the casing enables the elements of the casing to be removed without disturbing the suction and discharge piping. Having integrally cast feet, the ductile iron volute casing design features vertical centerline discharge with axial suction.

► Impeller:

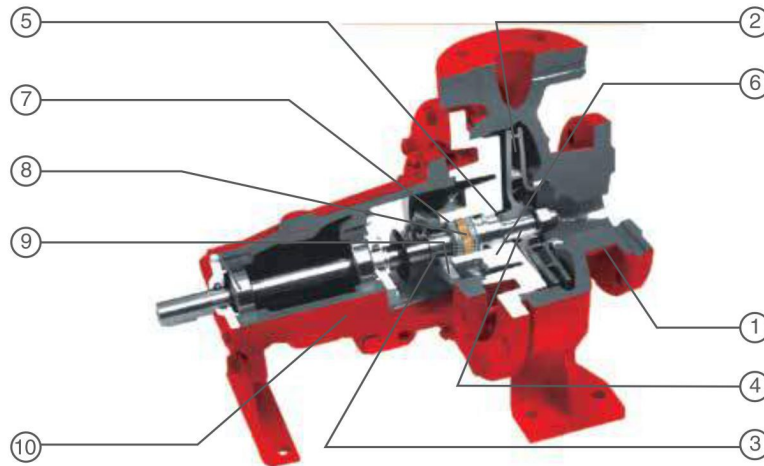
Driven by shaft key, impellers are axially locked between sleeve and impeller nut. Double shrouded type impellers are hydraulically balanced, besides each impeller is dynamically balanced to G 6.3 quality grade.

► Bearings:

Grease lubricated ball bearings selected for 5,000 hours minimum life at maximum load.

► Shaft Seal:

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



Material of Construction:

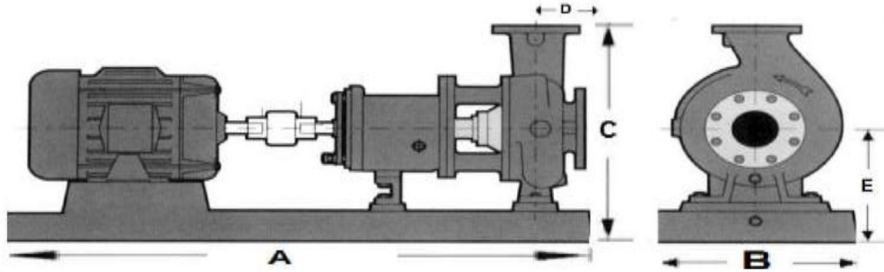
Part No	Part Name	Material
1	Casing	Ductile Iron
2	Impeller	Bronze
3	Shaft Sleeve	SS 304
4	Shaft	All0y Steel
5	Wear Ring	Bronze/SS 304
6	Stuffing Box	Ductile Iron
7	Gland Packing	Graphite Impregnated
8	Lantern Ring	SS 304
9	Packing Gland	SS 304
10	Bearing Housing	Cast Iron



UL Listed End Suction Pumps

Electrical Fire Pump Dimensional Data

IN FIRE



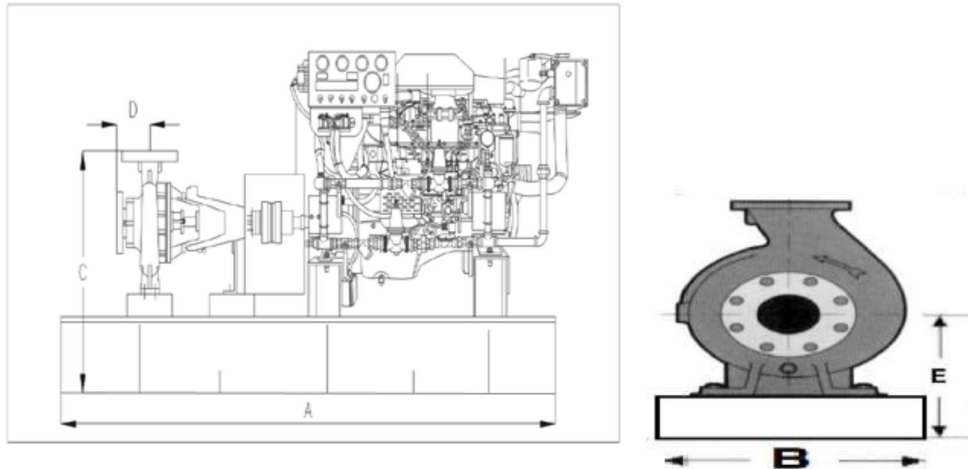
PUMP MODEL	MOTOR FRAME	SUCTION (in)	DISCHARGE (in)	REFER
AKS-40-26	256T	2.5	1.5	A
	284TS			A
	286TS			B
AKS 50-26	256T	2.5	2	A
	284TS			A
	286TS			B
	324TS			B
AKS 65-26 E	286TS	3	2.5	C
	324TS			C
	326 TS			D
	365/5TS			D
AKS 80-26 E	326TS	4	3	E
	364/5TS			E
AKS 100-26EH	364/5TS	5	4	F
	404/5TS			G
AKS 100-32EH	404/5TS	5	4	H
	444/5TS			I

REFER	A (cm)	B (cm)	C (cm)	D (cm)	E (cm)
A	100	50	57.5	10.5	34.5
B	110	50	57.5	10.5	34.5
C	120	65	59	10.5	36.5
D	130	65	59	10.5	36.5
E	130	65	67.5	12.5	39
F	135	65	70.5	14.5	42
G	145	65	70.5	14.5	42
H	150	75	76	14	44
I	160	75	76	14	44

1. Pump's rotation is clockwise when viewed from the motor end.
2. Suction and discharge flanges are ASME 16.42 standard class 300.
3. Suction and discharge dimensions are in inches. All the other dimensions are in cm.



Diesel fire pump Dimensional Data



PUMP MODEL	SUCTION (in)	DISCHARGE (in)	MANUFACTURER	ENGINE MODEL	REFER
AKS-40-26	2.5	1.5	CLARKE	KA4H-UFKA24	A
AKS 50-26	2.5	2	CLARKE	KA4H-UFKA24	A
AKS 65-26E	3	2.5	CLARKE	KA4H-UFKA24	B
				JU4H-UF04	C
AKS 80-26E	4	3	CLARKE	JU4H-UF04	D
				JU4H-UF24	D
AKS 100-26EH	5	4	CLARKE	JU4H-UF24	E
				JU4H-UF34	E
				JU4H-UF54	E
AKS 100-32EH	5	4	CLARKE	JU4H-UF34	F
				JU4H-UF54	F
				JU6H-UF34	G
				JU6H-UF54	G

REFER	A (cm)	B (cm)	C (cm)	D (cm)	E (cm)
A	170	75	63	10.5	40
B	180	75	65.5	10.5	40
C	200	85	73.5	10.5	48
D	200	85	76.5	12.5	48
E	210	85	76.5	14.5	48
F	220	85	80	14	48
G	230	85	80	14	48

NOTES

1. Pump's rotation is clockwise when viewed from the motor end.
2. Suction and discharge flanges are ASME 16.42 standard class 300.
3. Suction and discharge dimensions are in inches. All the other dimensions are in cm.





General Data:

- ▶ Split case fire pumps are specified when the source of water 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), Al Khoory fire pumps are engineered for reliable operation and built per 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 no less than 250 psi.
- ▶ Suitable to be used with electric motor and diesel engine drives
- ▶ Applicable For Residential, Commercial, and Industrial Use



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:**

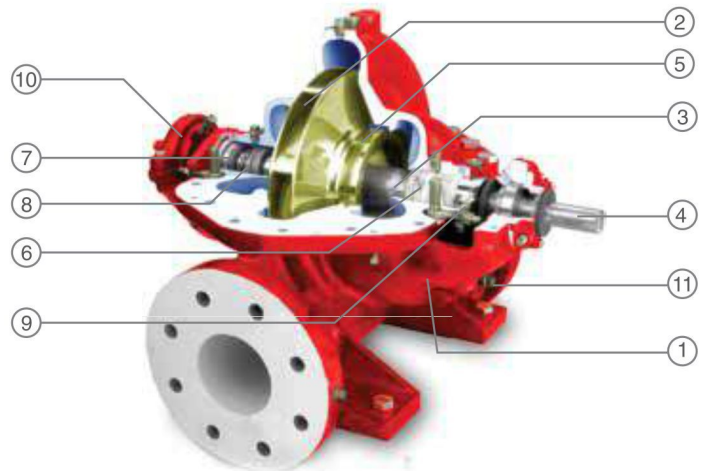
The enclosed impeller have double curved vanes. The double suction design gives practically zero axial forces balancing hydraulic thrust loads. Each impeller is dynamically balanced to G6.3 balance quality grade.

► **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



Material of Construction:

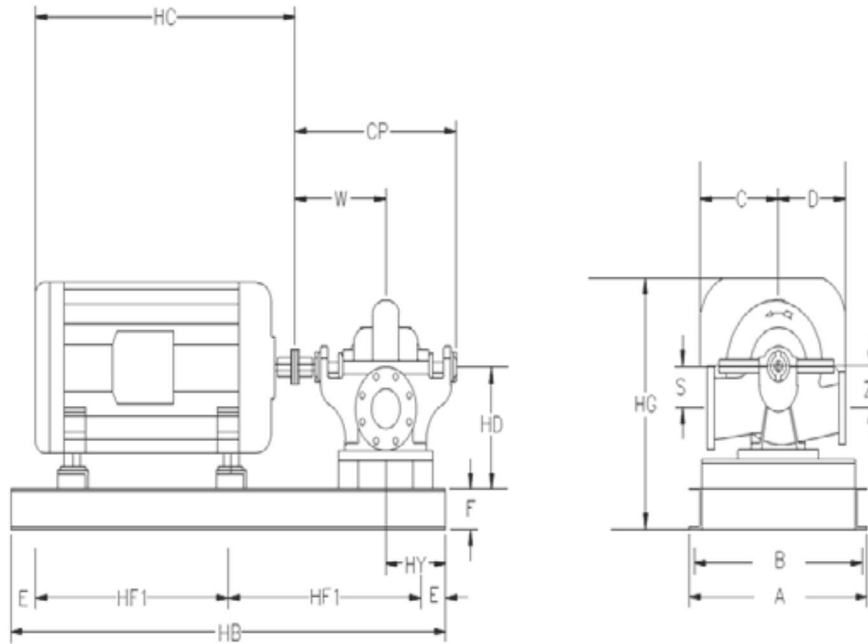
1	Casing	Ductile Iron
2	Impeller	Bronze
3	Shaft Sleeve	SS 304
4	Shaft	All0y Steel
5	Wear Ring	Bronze/SS 304
6	Stuffing Box	Ductile Iron
7	Gland Packing	Graphite Impregnated
8	Lantern Ring	SS 304
9	Packing Gland	SS 304
10	Bearing Housing	Cast Iron

*AKC -125-300 comes with SS 304 impeller



Electrical Fire Pump Dimensional Data

IN FIRE



PUMP MODEL	MOTOR FRAME	SUCTION (in)	DISCHARGE (in)	REFER
AKH 80-270	326/5TS	5	3	A
	364/5TS	5	3	A
	404/5TS	5	3	B
AKC 100-320	404/5TS	6	4	C
	444/5TS	6	4	D
AKC 125-300	444/5TS	8	5	E
AKC 125-380	444/5TS	8	5	F

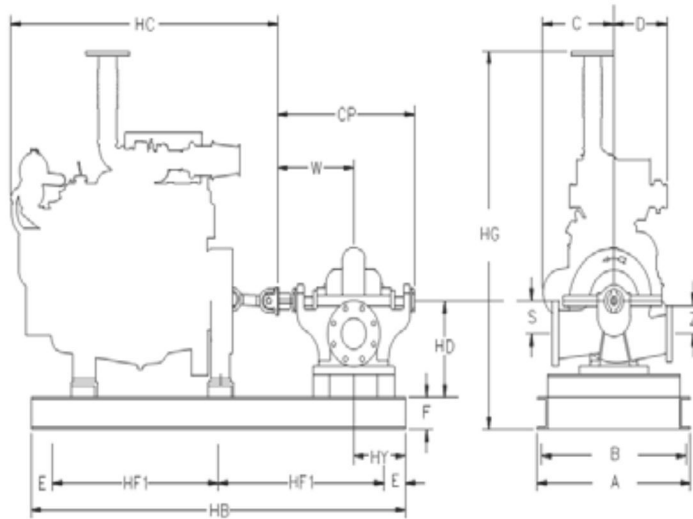
REFER	S (cm)	Z (cm)	F (cm)	A (cm)	B (cm)	HB (cm)	HF1 (cm)	E (cm)	HY (cm)	HD (cm)	HG (cm)	HC (cm)
A	14	14	13	75	68	170	65	20	33	45	90	170
B	14	14	13	75	68	170	65	20	33	45	80	170
C	17	17	13	75	68	170	65	20	35	48	80	170
D	17	17	13	75	68	185	73	20	35	48	95	185
E	19	19	13	90	83	190	75	20	40	53	95	190
F	19	19	13	90	83	190	75	20	41	53	95	190

NOTES

1. Pump's rotation is clockwise when viewed from the motor end.
2. Suction and discharge flanges are ASME 16.42 standard class 300.
3. Suction and discharge dimensions are in inches. All the other dimensions are in cm.



Diesel Fire Pump Dimensional Data



PUMP MODEL	SUCTION (in)	DISCHARGE (in)	MANUFACTURER	ENGINE MODEL	REFER
AKH 80-270	5	3	CLARKE	JU4H-UF24	A
				JU4H-UF34	B
AKC 100-320	6	4	CLARKE	JU4H-UF34	C
				JU4H-UF54	C
				JU6H-UF34	D
				JU6H-UF54	E
AKC 125-300	8	5	CLARKE	JU6H-UF54	F
				JU6H-UF84	F
AKC 125-380	8	5	CLARKE	JU6H-UF54	G
				JU6H-UF84	G

REFER	S (cm)	Z (cm)	F (cm)	A (cm)	B (cm)	HB (cm)	HF1 (cm)	E (cm)	HY (cm)	HD (cm)	HG (cm)	HC (cm)
A	14	14	13	85	78	200	80	20	33	48	147	220
B	14	14	13	90	83	200	80	20	33	48	147	220
C	17	17	13	90	83	220	90	20	35	48	165	220
D	17	17	13	90	83	240	100	20	35	48	165	250
E	17	17	13	90	83	240	100	20	35	48	175	250
F	19	19	13	90	83	250	105	20	40	53	185	250
G	19	19	13	90	83	250	105	20	41	53	185	250

NOTES

1. Pump's rotation is clockwise when viewed from the motor end.
2. Suction and discharge flanges are ASME 16.42 standard class 300.
3. Suction and discharge dimensions are in inches. All the other dimensions are in cm.



At **AIKAH PUMP ASSEMBLY**, we design and build custom 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.

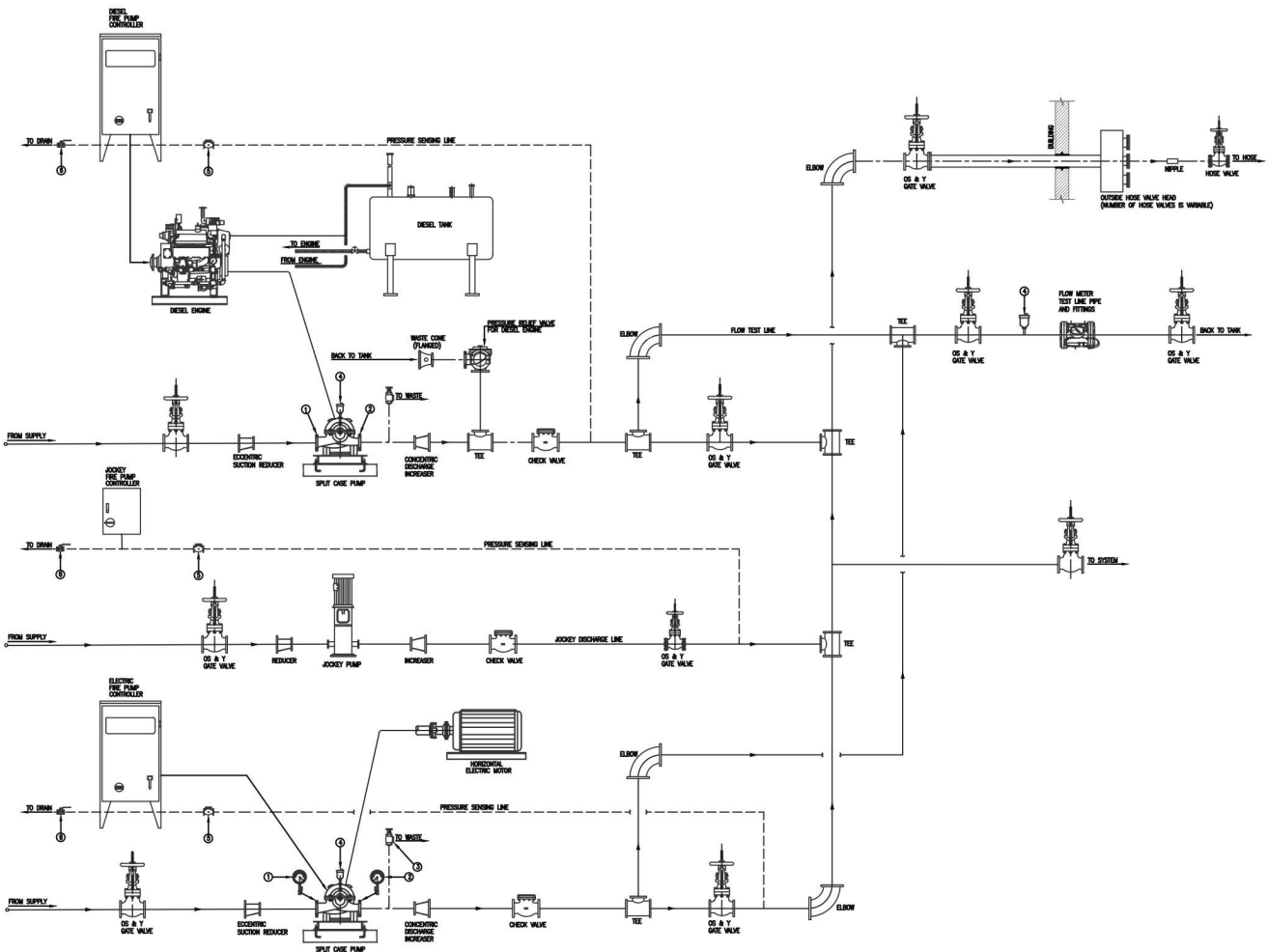


Packaged fire pump set highlights:

- ▶ UL Listed 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



NO.	DESCRIPTION
1	SUCTION PRESSURE GUAGE
2	DISCHARGE PRESSURE GUAGE
3	CASING RELIEF VALVE (ELECTRIC PUMP)
4	AUTOMATIC AIR RELEASE VALVE
5	NRV WITH 3/32" HOLE
6	BALL VALVE (THREADED)



Electrical 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.

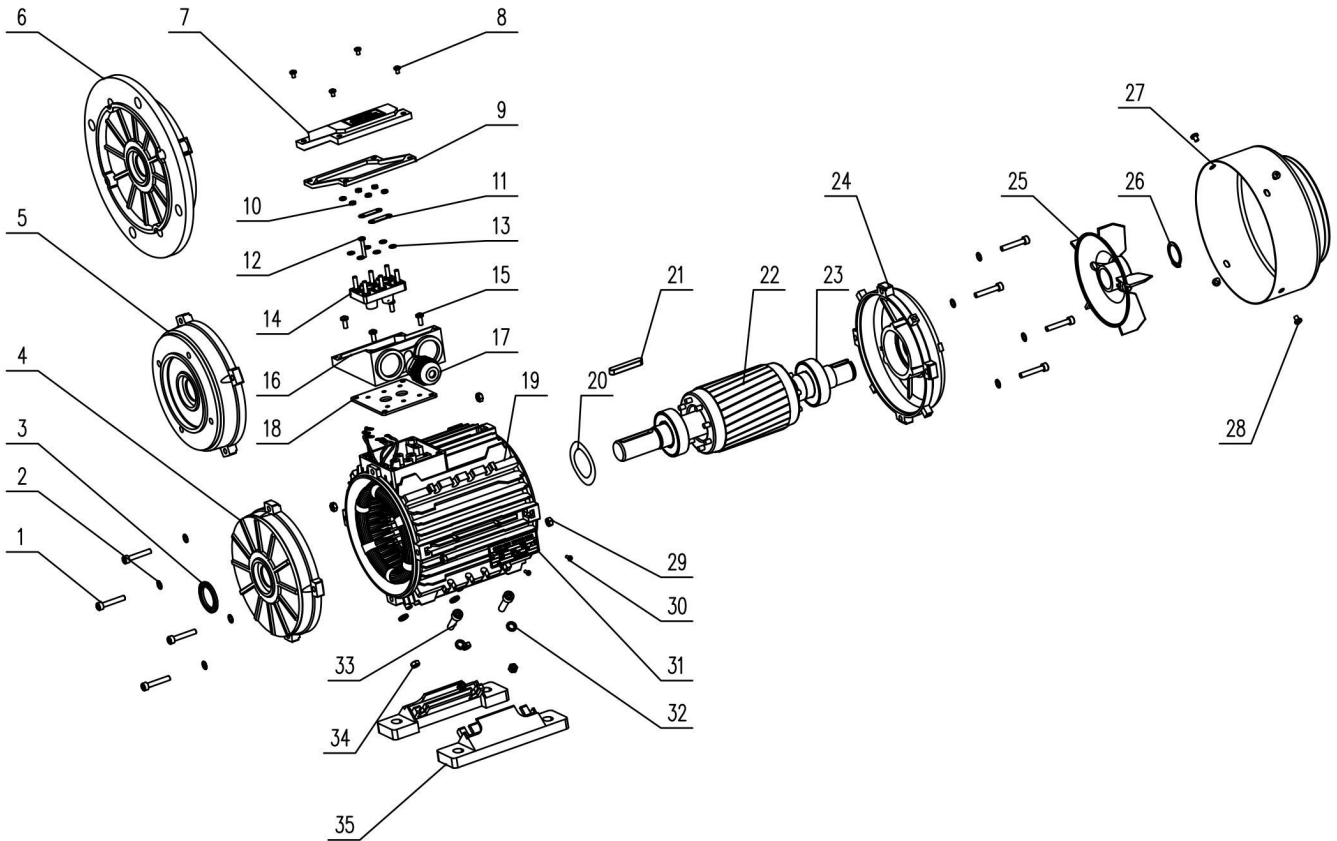


Jockey Pumps

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.





- | | | |
|------------------------------|---------------------|----------------------------|
| 1.screw | 13.Terminal shim | 25.Cooling fan |
| 2.Gasket | 14.Terminal board | 26.Fan circlip |
| 3.V-ring | 15.TB fixing screws | 27.Fan cover |
| 4.Front endshield | 16.TB base | 28.Fan cover fixing screws |
| 5.B14 flange | 17.Cable gland | 29.Endshield fixing nut |
| 6.B5 flange | 18.TB bottomgasket | 30.Rivet |
| 7.TB cover | 19.Frame | 31.Rivet |
| 8.TB fixing screws | 20.Preload washer | 32.Foot fixing gasket |
| 9.TB upper gasket | 21.Key | 33.Foot fixing screws |
| 10.Terminal board fixing nut | 22.Rotor | 34.Foot fixing nut |
| 11.Terminal bridge | 23.Bearing | 35.Foot |
| 12.Terminal pin | 24.NDE endshield | |





Standard Features

- ViZiTouch V2 operator interface
- Pressure and event recorder
- Voltage and amperage display
- Single operator for both isolating switch and circuit breaker
- Surge arrestor
- Lifting lugs
- Run test push button
- Available with automatic power transfer switch
- Emergency start handle
- Start and stop pushbuttons
- Locked rotor protector
- Phase reversal indication
- Remote start / deluge valve start provision
- Pressure transducer and run test solenoid valve externally mounted
- Gland plate
- Audible alarm
- Alarm contacts for remote indication
- Available with full voltage and reduced voltage starting

Starting Methods

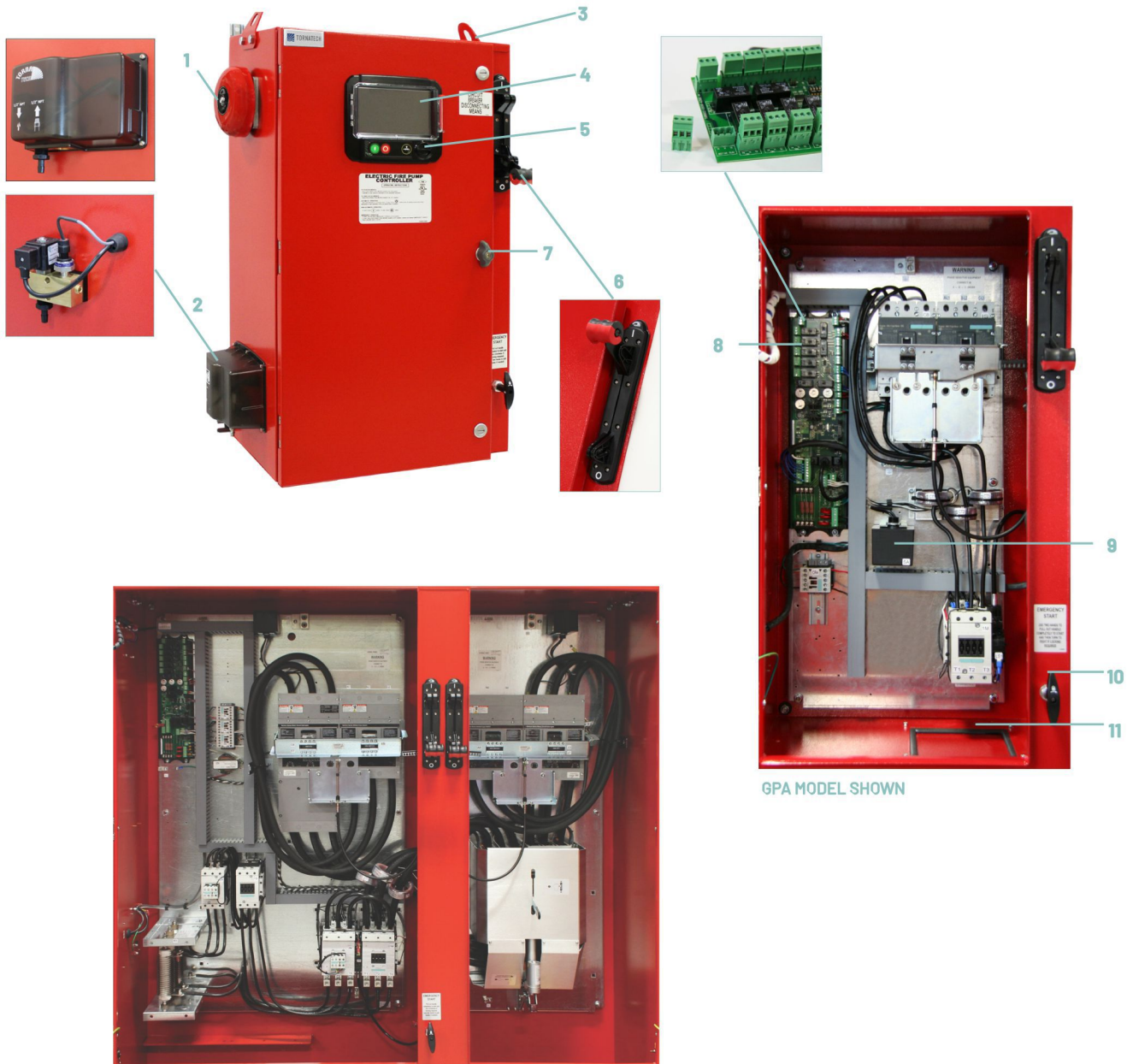
- Model GPA - Across-the-line
- Model GPY - Wye-Delta Open
- Model GPP - Partwinding
- Model GPR - Autotransformer
- Model GPW - Wye-Delta Closed
- Model GPS - Soft Start Soft Stop



	Tornatech Inc Laval, Canada	Tornatech Europe SA Wavre, Belgium	Tornatech FZE Dubai, UAE
Standard Enclosure Rating	NEMA 2	IP55	NEMA 2
CE	Optional	Standard	Optional
SEISMIC COMPLIANT	Optional	Optional	Optional



1. Alarm bell
2. Externally mounted pressure transducer and run test solenoid valve with protective cover
3. Lifting Lugs
4. ViZiTouch V2 operator interface
5. Exterior USB Port (Interior USB port also supplied)
6. Custom designed Isolation switch / Circuit breaker operator handle
7. Key lock
8. Remote alarm contacts with removable terminals
9. Surge arrestor
10. Custom designed emergency start mechanism with integrated limit switch
11. Gland plate
12. Automatic power transfer switch



GPW + GPU MODEL SHOWN

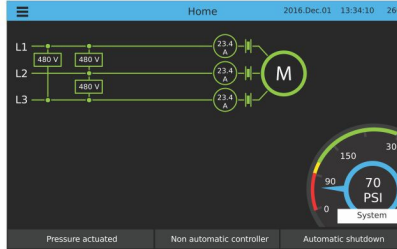
GPA MODEL SHOWN



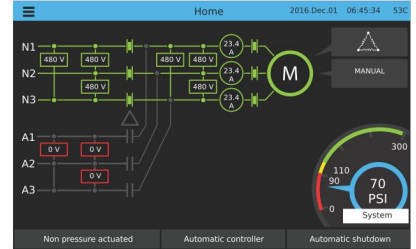
IN FIRE










Electric Fire Pump Controller HOME SCREEN



Electric Fire Pump Controller with Automatic Transfer Switch



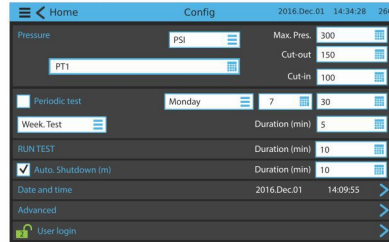
ON-SCREEN MENU

-  Home
-  Alarm
-  Configuration
-  History
-  Service
-  Manual
-  Languages

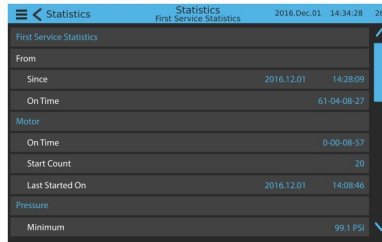
VIZITOUCH V2 MAJOR FEATURES INCLUDE:

- Touch screen operation with 7" color display and intuitive graphics
- Multi-language
- Upgradable software
- Password protected

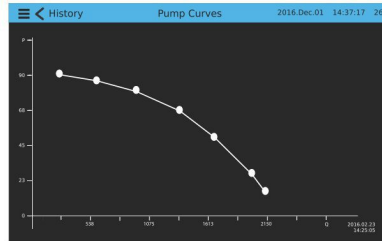
SETTINGS



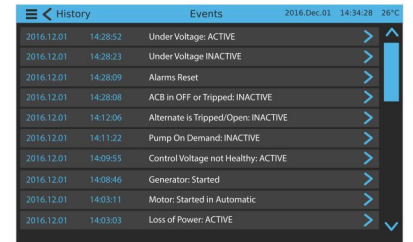
HISTORY/STATISTICS



PUMP CURVES



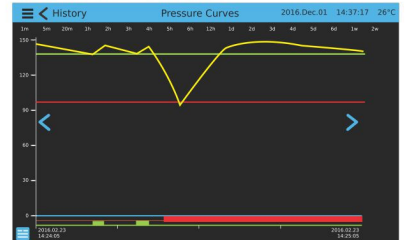
EVENTS



SERVICE



PRESSURE CURVES



GPX SERIES / VOLTAGE / HP / SHORT CIRCUIT WITHSTAND RATING / SEISMIC CERTIFICATION

Model	Voltage	HP	Short Circuit Withstand Rating	Seismic Certified	
GPA GPA+GPIJ	200V - 208V	5-150	100kA	Yes	
		200	50kA	No	
	220V - 240V	5-200	100kA	Yes	
		250	50kA	No	
GPP GPP+GPIJ	380V - 416V	5-300	100kA	Yes	
		350-450	50kA	No	
GPI GPI+GPIJ	440V - 480V	5-400	100kA	Yes	
		450		No	
		500	50kA	Yes	
GPR GPR+GPIJ	200V - 208V	5-150	100kA	Yes	
		200	50kA	No	
	220V - 240V	5-200	100kA	Yes	
		250	50kA	No	
	380V - 416V	5-300	100kA	Yes	
		350-450	50kA	No	
	GPW GPW+GPIJ	440V - 480V	5-400	100kA	Yes
			450		No
500	50kA	Yes			
575V - 600V	5-500		Yes		

Model	Voltage	HP	Short Circuit Withstand Rating	Seismic Certified
GPS GPS+GPIJ	200V - 208V	5-100	100kA	Yes
		150		No
		200	50kA	No
		5-150	100kA	Yes
	220V - 240V	200	100kA	No
		250	50kA	No
		5-250	100kA	Yes
		300		No
	380V - 416V	350-450	50kA	No
		5-300		Yes
		350		No
		400	100kA	No
440V - 480V	450		No	
	500		No	
	5-400		Yes	
	450	50kA	No	
575V - 600V	450		No	
	500		No	

HOW TO ORDER: GPX - V / HP / Ph / Hz / Options
Ex.: GPA - 208 / 30 / 3 / 60 / Options

