



## Horizontal Jet Pumps 1/3 - 1-1/2 HP

# CPJ, CPH, EK AND FJ SERIES



**CPJ CONVERTIBLE**

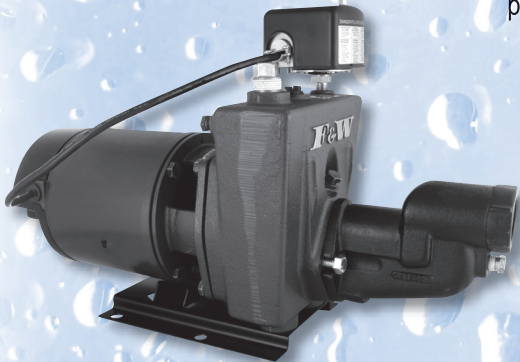
### FULL CITY PRESSURE

Whether operating as a shallow well or deep well pump, count on F & W's versatile, powerful jet pumps to deliver more water at full city pressures! These pumps provide higher single stage capacities and pressures; depths to 150 feet, capacities to 1800 GPH and as much as 90 pound pressure!

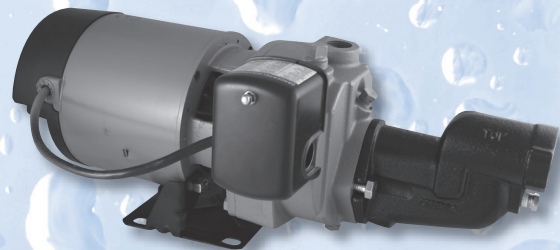
The CPJ, CPH and EK models feature the famous Flint and Walling "**Service Plus**" motor, available in either NEMA J or Uni-frame flange construction. The F & W 56 frame, double ball bearing motor offers the ultimate in performance and dependability.

Designed for years of trouble-free operation and simple, swift, on-site servicing, the CPJ and CPH feature unique interchangeability of replacement parts to keep inventories at a minimum.

The FJ Pump is designed for shallow wells with suction lifts from 0 - 25 ft. Featuring cast iron construction, the pump incorporates an integral shallow well ejector for ready use installation. The TEFC, permanent split capacitor motor is dual voltage (115/230V) with easy change voltage switch. This pump is quick to prime and features a NEMA Class C cover to protect the capacitor from moisture. The proven hydraulic pump design meets essential household water pressure demands.



**CPJS CONVERTIBLE**



**EK & CPHS SHALLOW WELL**

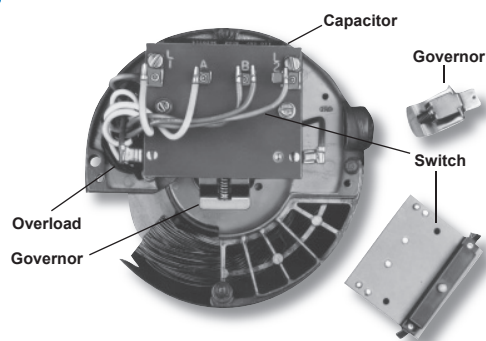
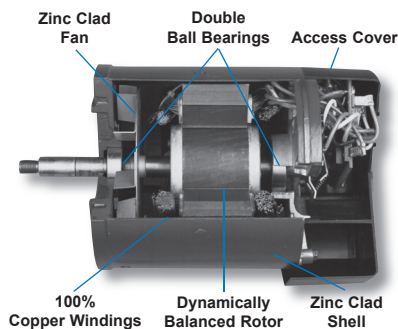


**CPH CONVERTIBLE**



**FJ SHALLOW WELL**

**Service Plus**  
**JET PUMP MOTORS**



**“Service Plus” means top reliability plus quick access to all electrical components.**

Routine maintenance is simplified through the convenient mounting of electrical components. Removal of the rear access cover exposes components for fast replacement. Spade connectors enable quick hookup and voltage change.

**Rear access cover** directs ventilating air over the windings and bearings, and away from the switch mechanism. All electrical components are protected from dirt, dust and insects.

**Copper wound double insulated stator** uses nylon overcoated copper magnet wire with an additional varnish dip to insure against moisture penetration. Class B wire insulation rated for 266°F.

**Permanently lubricated ball bearings** are located on each end of the motor insuring alignment of the dynamically balanced rotor for smooth operation and extended motor life.

**Fully enclosed transfer switch** mounted on a UL recognized thermo-set plastic board utilizes spark quenching and extra large silver cadmium oxide contact points.

**Patented governor** features an advanced simplified design, using a stainless steel compression spring to insure proper motor RPM before switching from start to run windings.

**Zinc clad steel shell and cooling fan** resist corrosion and dissipate motor heat.

**Automatic overload** senses both start and run winding heat to ensure complete winding protection.

**“Service Plus” motors** are manufactured by Flint & Walling, Inc. in Kendallville, IN, USA—An industry exclusive among jet pump manufacturers.

## EK, CPJ, CPH PRODUCT FEATURES

**High tensile gray iron pump bodies** with large water cavities for fast, easy priming. Separate priming ports enable quick water fill and the fast evacuation of air. Separate 1/4" tapings are provided for the convenient mounting of pressure/vacuum gauges and the pressure switch, and for pump draining.

**Buna-n quadraseal** is reusable and provides a positive seal between the pump case and motor bracket.

**Molded diffusers** are corrosion and abrasion resistant, and provide precision alignment with the impeller for maximum performance. The snap-in diffuser design uses no bolts and is held in place by compression.

**Molded thermoplastic impellers** on 1/3 thru 1 HP CPJ, CPH, and EK models. Precision balanced, these impellers are ultra-smooth for high efficiency. 1-1/2 HP CPJ models feature brass impellers.

**All pipe plugs and priming plugs** are coated with a non-hardening, non-toxic, non-corrosive material which allows for easy removal even after the pump has been in service for years.

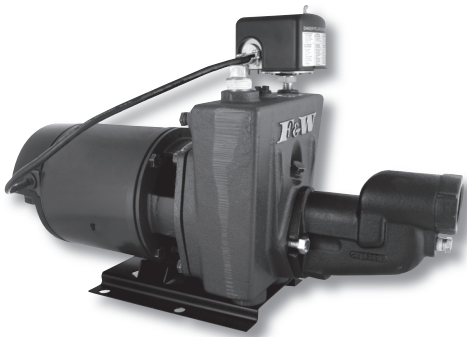
**Standard shaft seal** with ceramic and carbon face is self-adjusting throughout the seal life. One size fits all models.

**Patented uni-frame motor bracket** used on CPH and EK models is unique to the water systems industry and is designed to accept any NEMA J motor if motor replacement is ever necessary.

**Automatic overload** senses both start and run winding heat to ensure complete winding protection.

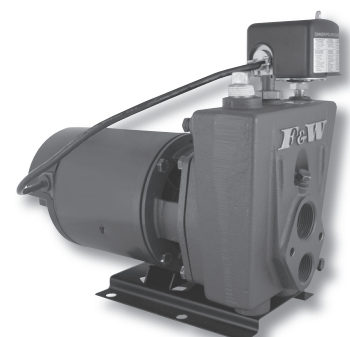
**CPJ models** feature NEMA J motors. All motors are dual voltage, capacitor start with automatic thermal overload protection.

## 1/3 and 1/2 HP CPJ SERIES



### CPJS SHALLOW WELL

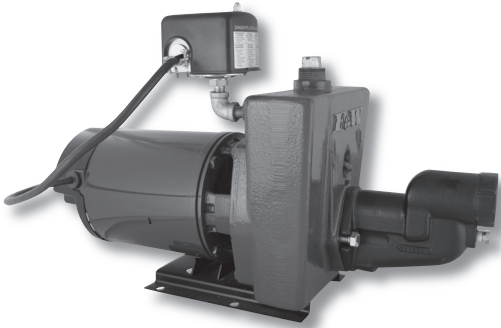
Includes: Pump, Motor, Pressure Switch and Shallow Well Ejector.



### CPJ CONVERTIBLE

Includes: Pump, Motor, Pressure Switch and Flow Control Screw. Order Ejector and Pressure Gauge Separately.

**3/4, 1 and 1-1/2 HP CPJ SERIES**



**CPJS SHALLOW WELL**

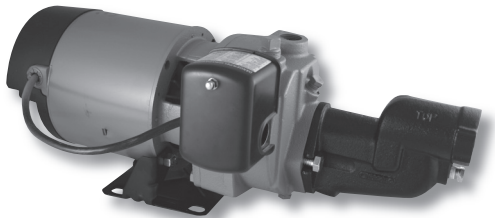
Includes: Pump, Motor, Pressure Switch and Shallow Well Ejector.



**CPJ CONVERTIBLE**

Includes: Pump, Motor, Pressure Switch and Pressure Regulator. Order Ejector and Pressure Gauge Separately.

**1/2, 3/4 and 1 HP CPH SERIES**



**CPH05S 1/2 HP SHALLOW WELL**

Includes: Pump, Motor, Pressure Switch and Shallow Well Ejector.



**CPH CONVERTIBLE**

Available in 1/2, 3/4 and 1 HP. Includes: Pump, Motor and Pressure Switch. Order Ejector, Control Package and Pressure Gauge Separately.

134349 Control Package

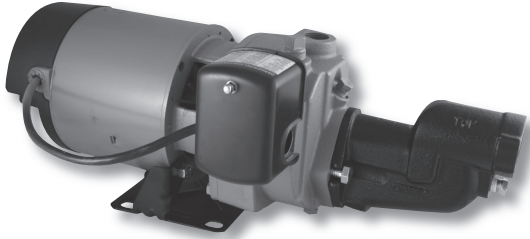


Order Separately for Deep Well Applications.

# EK and FJ Series Jet Pumps



## EK SHALLOW WELL JET PUMPS



### EK SHALLOW WELL JET PUMP

Includes: Pump, Motor, Pressure Switch and Ejector.



### EK SHALLOW WELL CAPACITIES

Model	HP	Suction Lift. Ft.	Capacities GPM at Discharge Pressures PSI				Shut Off Pressure PSIG	Suction & Discharge	Pressure Switch Setting - PSI	Pump Shipping Weight
			20	30	40	50				
EK05S	1/2	5	11.6	11.0	9.8	7.0	74	1-1/4" x 3/4"	30-50	40
		15	9.0	8.8	8.0	5.6	69			
		25	5.6	5.6	5.5	4.5	65			
EK07S	3/4	5	17.5	17.0	15.0	10.0	69	1-1/4" x 3/4"	30-50	42
		15	13.0	12.9	12.5	8.0	64			
		25	8.0	7.8	7.5	5.5	60			
EK10S	1	5	20.0	20.0	19.5	18.3	65	1-1/4" x 1"	30-50	51
		15	15.8	15.5	15.0	14.5	60			
		25	10.0	9.7	9.5	9.0	55			

Maximum Pump Case Pressure = 150 PSI

## FJ SHALLOW WELL JET PUMP



### FJ SHALLOW WELL JET PUMP

Includes: Pump with Built-in Shallow Well Ejector, Motor and Pressure Switch

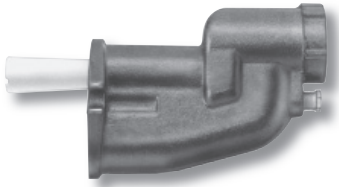


### FJ SHALLOW WELL CAPACITIES

Model	HP	Suction Lift Ft.	Pressure Switch Setting PSI	Capacities GPM at Discharge Pressure PSI			Shut Off Pressure PSIG	Suction & Discharge	Pump Shipping Weight
				20	30	40			
FJ05S	1/2	5	30-50	10.1	9.6	7.8	5.7	1-1/4" x 1"	42
		15		7.0	7.3	4.5	3.3		
		25		4.2	3.9	3.7	2.7		

Maximum pump case pressure - 150 PSI

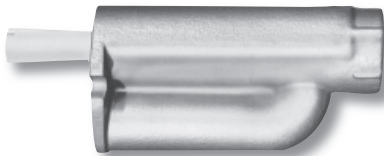
# CPJS, CPHS, CPJ and CPH Shallow Well Capacities



## CPJS AND CPHS MODEL SHALLOW WELL PERFORMANCE WITH SHALLOW WELL EJECTORS

Model No.	HP	Ejector* Assembly	Suction Lift Ft.	Capacities - GPM at Discharge PSI					Suction & Discharge	Pressure Switch Setting	Shut Off Pressure PSI	Pump Shipping Weight
				20	30	40	50	60				
CPJ03SB	1/3	SW03E-1626	5	11.3	10.7	9.5	6.7		1-1/4" X 3/4"	30-50	74	49
			15	8.7	8.5	7.8	5.3	69				
			25	5.3	5.3	5.2	4.2	65				
CPJ05SB CPH05S	1/2	SW05E-1630	5	17.2	16.8	14.8	10.0		1-1/4" X 3/4"	30-50	69	50
			15	12.8	12.7	12.2	7.7	64				
			25	7.7	7.5	7.2	5.3	60				
CPJ07SB	3/4	SW07E-1432	5	19.8	19.5	19.2	18.0		1-1/4" X 1"	30-50	65	58
			15	15.5	15.2	14.8	14.2	60				
			25	9.8	9.5	9.3	8.8	55				
CPJ10SB	1	SW10E-1334	5	23.7	23.5	23.3	23.0		1-1/4" X 1"	30-50	70	62 53
			15	18.3	18.3	18.2	18.0	65				
			25	11.7	11.7	11.5	11.3	58				
CPJ15S	1-1/2	SW15E-1238	5	30.0	29.8	29.8	29.8	23.3	1-1/4" X 1"	30-50	77	72
			15	24.0	23.8	23.7	23.5	18.7			72	
			25	15.0	15.0	15.0	14.8	8.0			63	

\* Ejector assembly included  
Maximum Pump Case Pressure = 150 PSI



**NOTE:** The DW40E ejector can be bolted to the pump as a shallow well ejector or submerged in casing as a convertible "deep well" ejector.

## CPJ AND CPH MODEL SHALLOW WELL CAPACITIES WITH CONVERTIBLE EJECTOR

### DW40E Ejector

Model No.	HP	Ejector Assembly	Suction Lift Ft.	Capacities - GPM at Discharge PSI								Suction & Discharge	Pressure Switch Setting	Shut Off Pressure PSI	Pump Shipping Weight	
				20	30	40	50	60	70	80	90					
CPJ05B CPH05	1/2	DW40E-1730	5	14.8	14.5	13.2	10.0	6.7				1-1/4" X 3/4"	30-50	76	46 38	
			15	11.8	11.3	11.2	8.3	5.0			72					
			25	7.3	7.2	7.0	6.5	3.3			67					
		DW40E-1828	5	12.0	11.5	11.3	10.2	7.8	5.0				1-1/4" X 3/4"	30-50		90
			15	9.0	8.8	8.7	8.5	6.7	4.2			85				
			25	5.3	5.3	5.2	5.2	5.0	3.3			80				
CPJ07B CPH07	3/4	DW40E-1630	5	16.0	15.7	15.5	15.0	10.3				1-1/4" X 3/4"	30-50	75	56	
			15	12.5	12.3	12.3	12.2	7.0			72					
			25	8.3	8.3	8.2	8.0	4.2			66					
		DW40E-1726	5	10.2	10.0	9.7	9.5	9.3	9.2	7.5	5.7	1-1/4" x 3/4"	30-50	120		
			15	8.0	7.5	7.3	7.3	7.2	7.2	6.7	5.0			115		
			25	4.8	4.7	4.5	4.3	4.2	4.2	4.2	3.3			110		
CPH10B CPH10	1	DW40E-1634	5	20.8	20.8	20.5	20.3	15.8				1-1/4" X 1"	30-50	80	58 49	
			15	16.7	16.7	16.3	16.2	13.0			75					
			25	11.7	11.5	11.3	11.2	9.3			70					
		DW40E-1828	5	12.2	11.7	11.7	11.3	11.2	11.2	10.8	8.0	1-1/4' x 1"	30-50	125		
			15	9.5	9.2	9.0	8.8	8.8	8.8	8.7	6.7			120		
			25	5.7	5.5	5.3	5.2	5.0	5.0	5.0	5.0			115		
CPJ15	1-1/2	DW40E-1736	5	23.8	23.3	23.3	23.0	18.7	13.8	8.3		1-1/4" x 1"	30-50	93	66	
			15	18.0	17.8	17.5	17.3	16.3	11.7	6.0				88		
			25	11.0	10.7	10.7	10.5	10.3	8.3	2.0				82		

Maximum Pump Case Pressure = 150 PSI

# CPJ and CPH Deep Well Capacities



## CPJ AND CPH MODEL DEEP WELL CAPACITIES WITH TWO-PIPE CONVERTIBLE EJECTOR



**DW40E\* CAST IRON TWO PIPE CONVERTIBLE EJECTOR**



**DP30B\*\* TWO PIPE 3" BRASS EJECTOR WITH FOOT VALVE**

Model No.	HP	Ejector Assembly	Minimum Oper. Press.	Discharge Press. PSI	Vertical Distance to Water in Feet, Capacity in GPM														Press. Switch Setting	Pump Ship Wt.
					20	30	40	50	60	70	80	90	100	110	120	130	140			
CPJ05B CPH05	1/2	DW40E-1730	25	30 50 Shut Off	12.5 5.5 67	10.8 3.7 63	8.7 2.0 57												30-50	46 38
		DW40E-1828	25-28	30 50 Shut Off	11.2 6.7 75	10.8 5.5 69	8.8 2.3 64	7.2 0.8 59	5.0 0.8 54										30-50	
		DW40E-1622	30	30 50 Shut Off			6.7 4.3 91	6.0 3.8 86	5.3 3.3 80	4.3 2.5 74	3.3 1.7 68	2.5 0.8 60							30-50	
CPJ07B CPH07	3/4	DW40E-1630	35-37	30 50 Shut Off	16.7 12.5 75	14.2 8.3 70	12.2 5.0 65	8.3 2.5 59											30-50	56
		DW40E-1726	37-39	30 50 Shut Off	11.7 9.2 98	11.7 9.2 91	11.5 8.21 86	10.3 7.0 80	9.0 5.7 74	7.7 4.3 69	6.2 3.2 65	4.8 1.7 58						30-50		
		DW40E-1520	39	30 50 Shut Off								5.0 3.7 105	4.8 3.3 95	4.3 3.0 90	3.7 2.7 85	3.2 2.0 80	2.7 1.8 75		30-50	
CPJ10B CPH10	1	DW40E-1634	46	30 50 Shut Off	19.2 10.0 71	15.0 7.5 66	11.7 5.0 62	8.3 2.5 57											30-50	58 49
		DW40E-1828	46-47	30 50 Shut Off	13.0 12.0 110	13.0 12.0 105	12.8 10.8 99	12.5 9.5 93	10.5 7.8 87	9.0 6.2 81	7.5 5.0 76	5.8 3.5 70	4.0 2.0 64					30-50		
		DW40E-1520	46-47	30 50 Shut Off							5.5 5.2 130	5.5 4.7 123	5.0 4.2 117	4.5 3.7 110	3.8 3.2 104	3.5 2.7 98	2.7 2.2 92		30-50	
CPJ15	1-1/2	DW40E-1736	46-52	30 50 Shut Off	21.7 15.0 80	17.5 11.7 76	13.3 8.3 71	10.0 5.0 65	6.7 2.7 60										30-50	66
		DW40E-1728	50-53	30 50 Shut Off			12.8 11.7 105	12.5 11.3 98	10.7 9.7 92	9.0 7.8 87	7.7 6.7 82	6.2 5.0 77	5.0 3.3 72	3.5 2.5 65				30-50		
		DW40E-1520	52-54	30 50 Shut Off							5.3 5.2 135	5.3 5.0 128	5.2 4.7 123	5.0 4.2 118	4.3 3.8 112	3.8 3.3 105	3.3 2.8 100		30-50	

Maximum Pump Case Pressure = 150 PSI

\* Suction & pressure pipe tapping 1-1/4" x 1"

\*\*Suction & pressure pipe tapping 1" x 3/4" -- reduced pipe sizes will result in lower than published performance

## CPJ AND CPH MODEL DEEP WELL CAPACITIES WITH 2" SINGLE PIPE EJECTOR



**TWO INCH SINGLE PIPE EJECTOR**

Model No.	HP	Ejector Assembly	Minimum Oper. Press.	Discharge Press. PSI	Vertical Distance to Water in Feet, Capacity in GPM															Press. Switch Setting	Pump Ship Wt.
					20	30	40	50	60	70	80	90	100	110	120	130	140	150			
CPJ05B CPH05	1/2	SP20BL-1730	27	30 50 Shut Off	10.8 5.0 65	9.2 3.3 60	7.5 1.7 55												30-50	46 38	
		SP20BL-1828	27-30	30 50 Shut Off	11.7 6.7 76	9.7 4.7 68	7.5 2.8 60	5.8 1.2 55	3.8										30-50		
		SP20BL-1622	31	30 50 Shut Off			6.2 4.2 90	5.8 3.7 83	5.0 2.8 76	4.0 2.2 70	3.3 1.3 61	2.3 0.3 55							30-50		
CPJ07B CPH07	3/4	SP20BL-1630	39	30 50 Shut Off	16.2 11.7 75	13.7 7.5 70	10.8 5.0 65	7.5 1.7 55											30-50	56	
		SP20BL-1726	39	30 50 Shut Off	11.0 8.3 91	11.0 7.5 87	9.7 6.7 82	9.5 5.3 78	7.2 4.2 72	5.8 2.8 66	3.3 1.8 62							30-50			
		SP20BL-1520	40	30 50 Shut Off					5.3 4.2 108	5.0 3.8 100	4.5 3.3 92	3.8 2.7 84	3.3 2.2 77	2.8 1.7 70					30-50		
CPJ10B CPH10	1	SP20BL-1634	44-47	30 50 Shut Off	16.7 10.0 71	15.0 7.5 66	11.7 4.7 61	8.3 2.0 55											30-50	49	
		SP20BL-1828	44-47	30 50 Shut Off	11.7 11.0 104	11.7 9.8 98	11.2 8.8 92	10.0 7.3 86	8.3 6.0 80	7.0 4.5 72	5.5 3.3 67	3.8 1.8 61	2.2 0.5 55					30-50			
		SP20BL-1520	45-47	30 50 Shut Off						5.3 5.0 119	5.3 4.5 113	5.0 4.0 106	4.3 3.5 100	3.7 2.5 94	3.2 2.0 89	2.5 1.3 78			30-50		
CPJ15	1-1/2	SP20BL-1736	46-52	30 50 Shut Off	20.0 13.3 80	15.8 10.0 75	12.5 7.5 70	9.7 5.0 60	6.7 2.7 60										30-50	66	
		SP20BL-1728	51-53	30 50 Shut Off			11.7 10.0 102	11.7 9.0 96	10.0 7.5 90	8.0 5.8 84	6.3 4.3 78	4.8 3.0 71	3.5 1.8 65					30-50			
		SP20BL-1520	52-55	30 50 Shut Off						5.3 5.3 130	5.3 5.0 125	5.3 4.5 120	4.8 4.2 115	4.2 3.7 110	3.7 3.2 103	3.2 2.7 95	2.7 2.2 88		30-50		

Maximum Pump Case Pressure = 150 PSI

# Jet Pump Accessories, Service Kits



## “EK” SHALLOW WELL TANK MOUNTED SYSTEMS

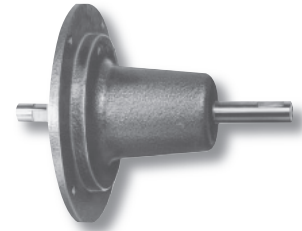
Model	HP	Tank Type	Approximate Dimensions - Inches			Ship Wt.
			L	W	H	
EK05SAT25H	1/2	AT25H	23.5	14.0	28.5	62
EK07SAT44H	3/4	AT44H	24.50	12.25	33.5	

For performance specifications, see page 5.

Includes: Pump, motor, pressure switch, ejector, pressure tank and connection fittings from pump to tank.

## POWER CONVERSION UNIT FOR JET AND CENTRIFUGAL PUMPS

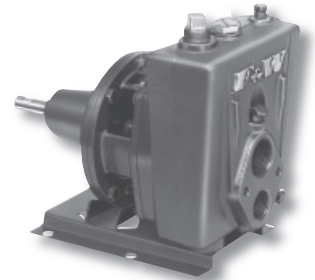
Order No.	Application
122649 NEMA C	Can be used with any jet or centrifugal pump equipped with NEMA C or NEMA J standard electric motors. Gasoline engine or electric motor can be directly coupled with shaft or can be used with belt and pulley. For electric motor used with belt drive, the motor HP should be doubled. The gasoline engine HP should be doubled that of standard motor in either case above.
135458 NEMA J	5/8" Dia. steel shaft, mounted in two heavy duty ball bearings, carry all radial and thrust loads.



## CONVERTIBLE JET PUMPS WITH POWER CONVERSION UNIT

Model No.	Description	Pressure Control Valve Required†
CPJ05 222	Threaded Shaft	124330
CPJ07 222	Threaded Shaft	132446
CPJ10 222	Threaded Shaft	132446
CPJ15 222	Threaded Shaft	133383

†Pressure control valve required for deep well applications - order separately. Order ejector separately.  
CPJ Convertible Jet Pumps fitted with a power conversion unit offer the flexibility of electric motor or gasoline engine drive. Can be belt or direct driven. Power conversion unit features cast iron body and double, heavy duty ball bearings.



## SERVICE KITS FOR JET PUMPS



Model No.	Service Kit For:	Kit Contents	Card Size Inches
KF01	1/3 HP CPJ Jet Pumps	Impeller, Diffuser, Rotary Seal, Quadraseal, Diffuser Rubber	8 x 11
KF02	1/2 HP CPJ & CPH Jet Pumps		
KF03	3/4 HP CPJ & CPH Jet Pumps		
KF16	1 HP CPJ, CPH & VPH10 Jet Pumps		
KF04	All CPJ, CPH & EK Jet Pumps	Rotary Seal, Quadraseal (2), Diffuser Rubber	8 x 11
KF05	1/2 HP EK Jet Pump	Diffuser, Rotary Seal, Quadraseal, Diffuser Rubber (Order Impeller Separately)	8 x 11
KF07	3/4 HP EK Jet Pump		
KF10	1 HP EK Jet Pump		
KF84	1/2 HP FJ05S Jet Pump	Impeller, Diffuser, Rotary Seal, O-Ring	8 x 11

Flint & Walling, Inc. • 95 North Oak Street • Kendallville, IN 46755  
800-345-9422 • Fax: 260-347-0909 • www.flintandwalling.com