

ITEM	PAGES
Bulletin 1210	
Product Numbering System (L Series)	1
Product Numbering System (LVM Series).....	2
Typical Architect / Engineer Specifications (L Series)	3 - 4
Typical Architect / Engineer Specifications (LVM Series)	5 - 6
Materials of Construction, Models L1 thru L6 and LVM1 thru LVM6	7
Materials of Construction, Models L7, L8, LVM7, LVM8.....	8

**For further information regarding,
installation of shaft seals, pump assembly data,
dimensions and performance curves, refer to**

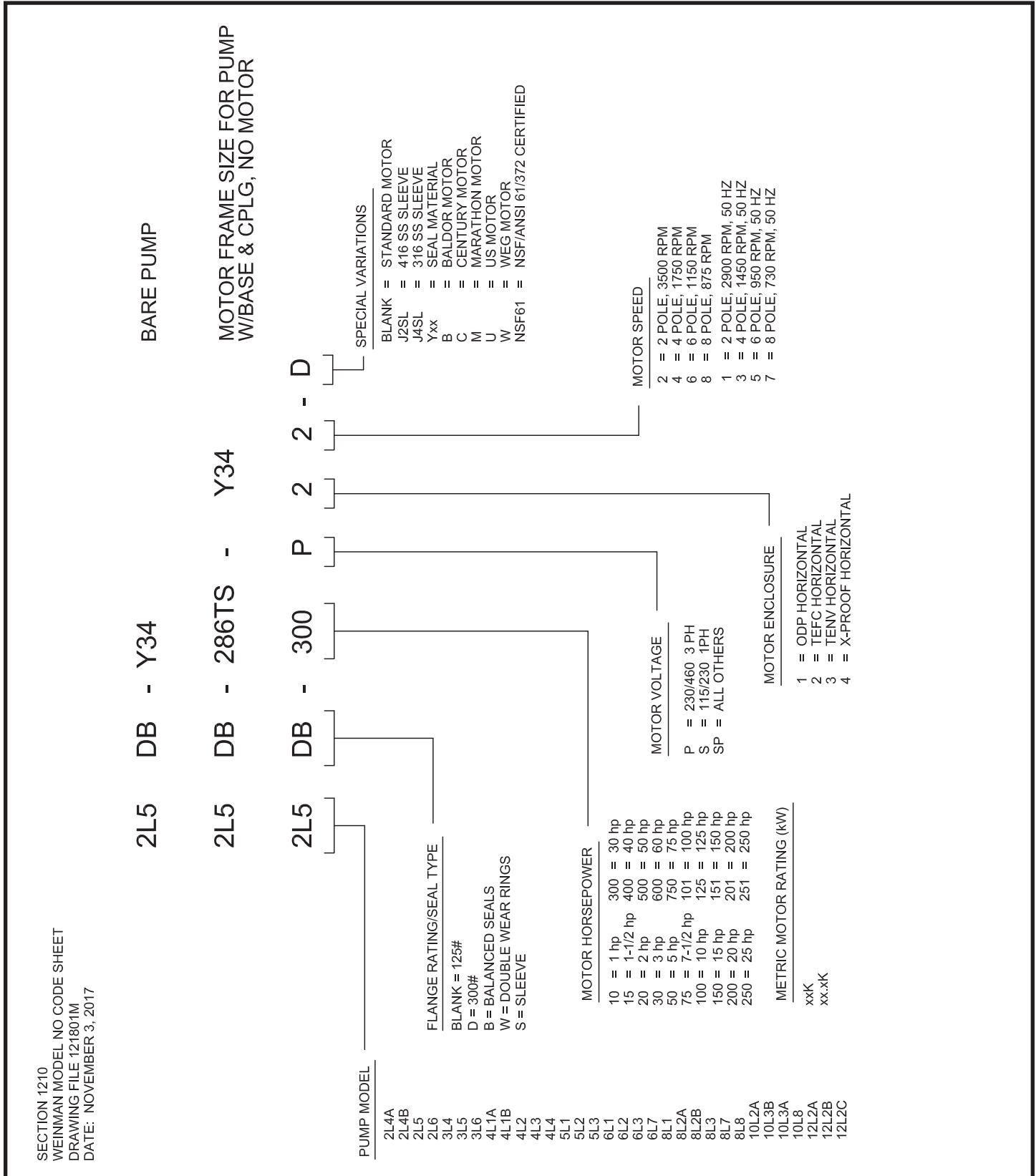
- **Weinman section 1200** for Horizontal Split Case pumps (L Series)
- **Weinman section 1100** for Vertical Split Case pumps (LVM Series)

Subject to Change Without Notice

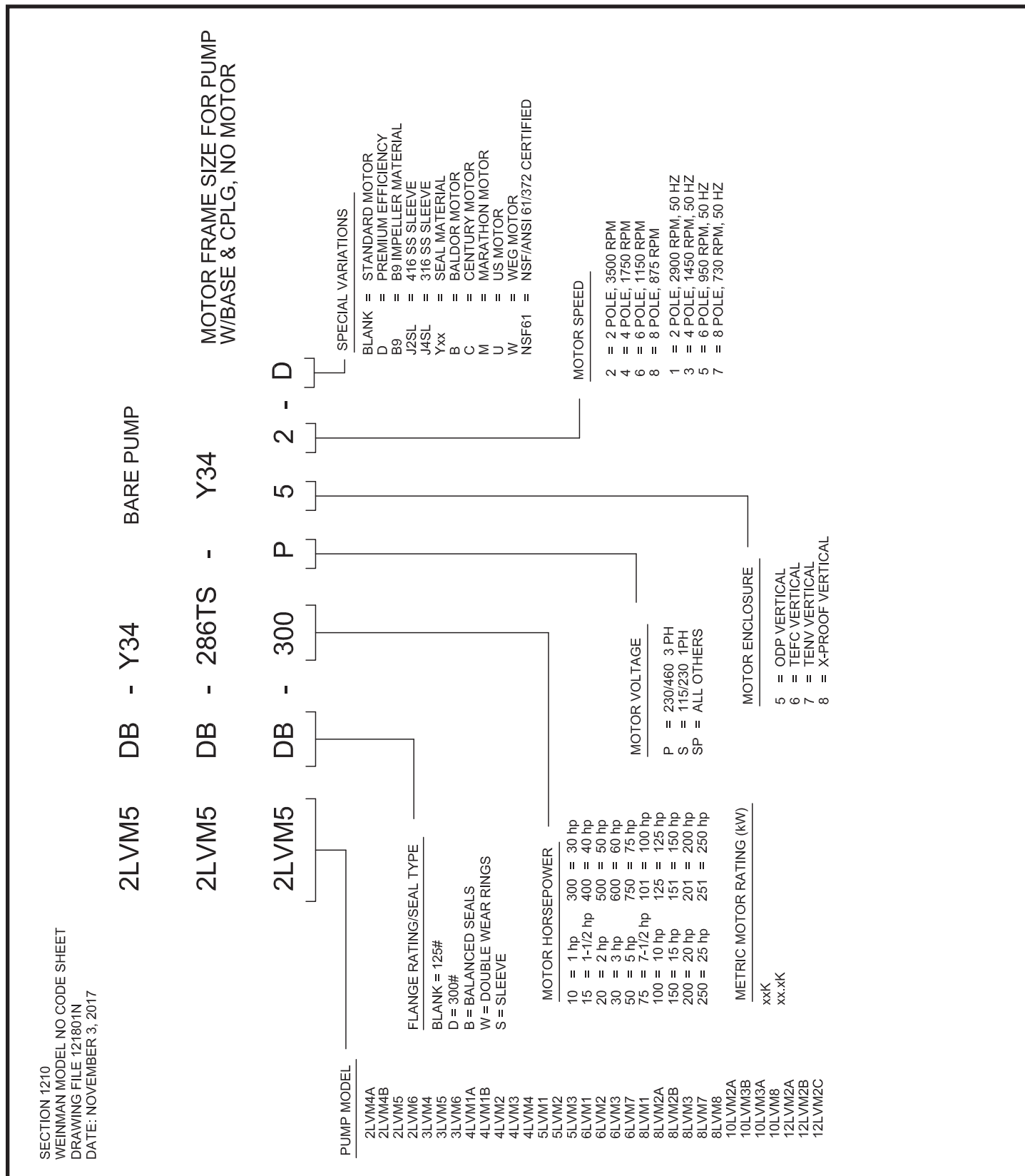
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NSF 61 / 372 - Split Case Pumps

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NSF 61 / 372 - Split Case Pumps



NSF 61 / 372 - Split Case Pumps

General

Furnish and install as shown on the plans, _____ (qty) Weinman®-Deming® NSF 61/372 certified horizontal split-case Series 1210 size (____x____x____) model _____. Each shall be capable of pumping _____ GPM when operating against a total pumping head of _____ feet (suction lift/suction pressure) at the temperature, specific gravity and viscosity indicated. The pump shall operate at _____ RPM and shall have _____ percent minimum efficiency at the design point. Rotation shall be (clockwise/counter-clockwise) when viewed from the driver end. The pump(s) shall be rated for continuous service, and shall be aluminum bronze and cast iron (Ductile iron for high pressure) fitted construction suitable for pumping a liquid with the following characteristics:

Liquid handled _____
Specific Gravity _____
Temperature _____
Viscosity of liquid at pumping temperature _____
NPSHA _____

Note: Add any additional facts concerning the nature of the liquid or installation which might affect the pump construction, application or operation.

Construction

The pump casing shall be of extra heavy cast iron, with minimum tensile strength of 30,000 psi. High pressure cases shall be ductile iron with minimum tensile strength of 60,000 psi, split parallel to the shaft. Bearing housing supports, suction and discharge flanges shall be cast, bored and machined integrally with the lower casing half. Bearing housings shall be machined, bolted and rabbet fitted to the bearing housing supports for positive alignment. Upper and lower casing shall be doweled and bolted together. Removable upper and lower half casing and bearing caps permit inspection or removal of the entire rotating assembly without disturbing the piping. Seals are replaceable without removing the upper case. Flanges shall be standard 125# ANSI drilled flat face (300# ANSI drilled, flat face). The upper case shall be fitted with lifting lugs, 3/4" P.T. vent, 1/2" P.T. drains and 1/4" P.T. gauge connections on the suction and discharge nozzles. The impeller shall be of one-piece cast aluminum bronze of the enclosed, Francis design double suction type, accurately machined, dynamically and hydraulically balanced to minimize thrust load on the bearings.

The impeller shall be keyed and axially adjusted on a 416 S.S. shaft with lock collars.

Shaft design shall be 416 stainless steel designed to limit maximum deflection at the seal cavities to .002 in and shall have no shaft sleeves. Casing wear ring shall be aluminum bronze. Optional impeller wear ring shall be aluminum bronze or 12% chrome stainless steel and held in place with pins. Heavy-duty grease lubricated ball bearings shall support the rotating assembly. The outboard bearing shall be locked in position by a snap ring. The inboard bearing shall be free to move axially in the bearing housing. Removable bearing caps and bearing covers shall permit inspection or service of the bearing without disturbing the pump casing or piping. Bearing housings shall be designed for grease lubrication. Grease relief shall prevent over-lubrication.

Stuffing boxes shall be fitted with FDA approved single stainless steel spring type mechanical seals with carbon/ceramic faces and Buna elastomers (or optional silicon carbide, silicon carbide faces and Buna elastomers).

The pump base plate shall be fabricated from 1/4" rigid steel plate and shall have a 1 1/2" wide anchorage flanges down each side, 2 grouting holes, a drip trough running the full length of the base with closed plates at both ends fitted with a 3/4" P.T. couplings for drain pipe connection. Motor risers shall be of the platform type with no motor blocks higher than 1". The coupling shall be (flexible) (steel) type; size rated for full torque. The coupling guard shall be (standard) (OSHA) type.

Motor

The motor shall be not less than _____ hp _____ RPM, NEMA design B squirrel cage type, (drip proof)(TEFC) EISA efficiency motor with (1.15)(1.0) service factor and suitable for operation on (115)(230) volt, 1 phase, (50) (60) Hertz power supply OR (200)(230)(460)(575) volt, 3 phase, 60 hertz power supply. Motor size shall be sufficient to prevent overloading at operating conditions or at the lowest listed head conditions whichever point requires greater horsepower. Following installation, grouting and connection of all piping, pump and motor must be checked for alignment in accordance with standards of the Hydraulic Institute.

Typical Specification

Horizontally Mounted
Models L7, L8

www.cranepumps.com

NSF 61 / 372 - Split Case Pumps

General

Furnish and install as shown on the plans, _____ (qty) Weinman®-Deming® NSF 61/372 horizontal split-case Series 1210 size (____x____x____) model _____. Each shall be capable of pumping _____ GPM when operating against a total pumping head of _____ feet (suction lift/suction pressure) at the temperature, specific gravity and viscosity indicated. The pump shall operate at _____ RPM and shall have _____ percent minimum efficiency at the design point. Rotation shall be (clockwise/ counter-clockwise) when viewed from the driver end. The pump(s) shall be rated for continuous service and shall be aluminum bronze and cast iron (Ductile iron for high pressure) fitted construction suitable for pumping a liquid with the following characteristics:

Liquid handled _____
Specific Gravity _____
Temperature _____
Viscosity of liquid at pumping temperature _____
NPSHA _____

Note: Add any additional facts concerning the nature of the liquid or installation which might affect the pump construction, application or operation.

Construction

The pump casing shall be of extra heavy cast iron, with minimum tensile strength of 30,000 psi. High pressure cases shall be ductile iron with minimum tensile strength of 60,000 psi, split parallel to the shaft. Bearing housing supports, suction and discharge flanges shall be cast, bored and machined integrally with the lower casing half. Bearing housings shall be machined, bolted and rabbet fitted to the bearing housing supports for positive alignment. Upper and lower casing shall be doweled and bolted together. Removable upper and lower half casing and bearing caps must permit inspection or removal of the entire rotating assembly without disturbing the piping. Seals must be replaceable without removing the upper case. Flanges shall be standard 125# ANSI drilled flat face. The upper case shall be fitted with lifting lugs, 3/4" P.T. vent, 1/2" P.T. drains and 1/4" P.T. gauge connections on the suction and discharge nozzles. The impeller shall be of one-piece cast aluminum bronze of the enclosed, Francis design double suction type, accurately machined, dynamically and hydraulically balanced to minimize thrust load on the bearings. The impeller shall be keyed and axially adjusted on a 4140 alloy shaft. The pump shall have a 416SS (316SS) shaft sleeve.

Shaft design shall be SAE-4140 alloy designed to limit maximum deflection at the seal cavities to .002 in. Casing wear ring shall be of aluminum bronze and optional impeller wear ring shall be aluminum bronze (12% chrome stainless steel). Heavy-duty grease lubricated ball bearings shall support the rotating assembly. The outboard bearing shall be locked in position by bearing lock nuts. The inboard bearing shall be free to move axially in the bearing housing. Removable bearing caps and bearing covers shall permit inspection or service of the bearing without disturbing the pump casing or piping. Bearing housings shall be designed for grease lubrication. Grease relief shall prevent over-lubrication.

Stuffing boxes shall be fitted with FDA approved single stainless steel spring type mechanical seals with carbon/ ceramic faces and Buna elastomers (or optional silicon carbide, silicon carbide faces and Buna elastomers).

The pump base plate shall be fabricated from 1/4" rigid steel plate and shall have a 1 1/2" wide anchorage flanges down each side, 2 grouting holes, a drip trough running the full length of the base with closed plates at both ends fitted with a 3/4" P.T. couplings for drain pipe connection. Motor risers shall be of the platform type with no motor blocks higher than 1". The coupling shall be (flexible) (steel) type; size rated for full torque. The coupling guard shall be (standard) (OSHA) type.

Motor

The motor shall be not less than _____ hp _____ RPM, NEMA design B squirrel cage type, (drip proof)(TEFC) EISA efficiency motor with (1.15)(1.0) service factor and suitable for operation on (115)(230) volt, 1 phase, (50)(60) Hertz power supply OR (200)(230)(460)(575) volt, 3 phase, 60 hertz power supply. Motor size shall be sufficient to prevent overloading at operating conditions or at the lowest listed head conditions whichever point requires greater horsepower. Following installation, grouting and connection of all piping, pump and motor must be checked for alignment in accordance with standards of the Hydraulic Institute.

Testing

The following (witnessed/non-witnessed) tests are to be performed in accordance to Hydraulic Institute test standard.

_____ Pump performance (A,B) level
Routine Motor Test
Hydrostatic - Completed Pump

NSF 61 / 372 - Split Case Pumps

General

Furnish and install as shown on the plans, _____ (qty) Weinman®-Deming® vertical mounted split-case Series 1210 size (____x____x____) model _____. Each shall be capable of pumping _____ GPM when operating against a total pumping head of _____ feet (Suction lift/ suction pressure) at the temperature, specific gravity and viscosity indicated. The pump shall operate at _____ RPM and shall have _____ percent minimum efficiency at the design point. Rotation shall be (clockwise/counter-clockwise) when viewed from the driver end. The pump(s) shall be rated for continuous service, and shall be aluminum bronze and cast iron (ductile iron for high pressure) fitted construction suitable for pumping a liquid with the following characteristics:

Liquid handled _____
Specific Gravity _____
Temperature _____
Viscosity of liquid at pumping temperature _____
NPSHA _____

Note: Add any additional facts concerning the nature of the liquid or installation which might affect the pump construction, application or operation.

Construction

The pump casing shall be of extra heavy cast iron, with minimum tensile strength of 30,000 psi. High pressure cases shall be ductile iron with minimum tensile strength of 60,000 psi, split parallel to the shaft. Bearing housing supports, suction and discharge flanges shall be cast, bored and machined integrally with the lower casing half. Bearing housings shall be machined, bolted and rabbet fitted to the bearing housing supports for positive alignment. Upper and lower casing shall be doweled and bolted together. Removable upper and lower half casing and bearing caps permit inspection or removal of the entire rotating assembly without disturbing the piping. Seals are replaceable without removing the upper case. Flanges shall be standard 125# ANSI drilled flat face (300# ANSI drilled, flat face). The upper case shall be fitted with lifting lugs, 3/4" P.T. vent, 1/2" P.T. drains and 1/4" P.T. gauge connections on the suction and discharge nozzles. The impeller shall be of one-piece vacuum cast aluminum bronze of the enclosed, Francis design double suction type, accurately machined, dynamically and hydraulically balanced to minimize thrust load on the bearings. The impeller shall be keyed and axially adjusted on a 416 S.S. shaft with lock collars. Shaft

design shall be 416 stainless steel designed to limit maximum deflection at the seal cavities to .002 in and shall have no shaft sleeves.

Casing wear ring shall be aluminum bronze. Optional impeller wear ring shall be aluminum bronze or 12% chrome stainless steel. Heavy-duty grease lubricated ball bearings shall support the rotating assembly. The outboard bearing shall be locked in position by bearing lock nuts. The inboard bearing shall be free to move axially in the bearing housing. Removable bearing caps and bearing covers shall permit inspection or service of the bearing without disturbing the pump casing or piping. Bearing housings shall be designed for grease lubrication. Grease relief shall prevent over-lubrication.

Stuffing boxes shall be fitted with FDA approved single stainless steel spring type mechanical seals with carbon, ceramic faces and Buna elastomers (or optional silicon carbide, silicon carbide faces and Buna elastomers).

The pump support frame shall be fabricated from 1/2" rigid steal plate and shall have an adjustable motor mount plate to allow for perfect alignment. The coupling shall be spacer type allowing service of the upper bearing and seal with out distrubing motor alignment. The coupling guard shall be (standard) (OSHA) type.

Motor

The motor shall be not less than _____ hp _____ RPM, NEMA design B squirrel cage type, (drip proof)(TEFC) (EISA)(premium) efficiency motor with (1.15)(1.0) service factor and suitable for operation on (115)(230) volt, 1 phase, (50)(60) Hertz power supply OR (200)(230)(460) (575) volt, 3 phase, 60 hertz power supply. Motor size shall be sufficient to prevent overloading at operating conditions or at the lowest listed head conditions whichever point requires greater horsepower. Following installation, grouting and connection of all piping, pump and motor must be checked for alignment in accordance with standards of the Hydraulic Institute.

Testing

The following (witnessed)(non-witnessed) tests are to be performed in accordance to Hydraulic Institute test standard.

_____ Pump Performance (A, B) level
_____ Routine Motor Test
_____ Hydrostatic - Complete Pump

Typical Specification

Vertically Mounted
Models LVM7, LVM8

NSF 61 / 372 - Split Case Pumps

General

Furnish and install as shown on the plans, _____ (qty) Weinman®-Deming® vertical mounted split-case Series 1210 size (____x____x____) model _____. Each shall be capable of pumping _____ GPM when operating against a total pumping head of _____ feet (Suction lift/ suction pressure) at the temperature, specific gravity and viscosity indicated. The pump shall operate at _____ RPM and shall have _____ percent minimum efficiency at the design point. Rotation shall be (clockwise/counter-clockwise) when viewed from the driver end. The pump(s) shall be rated for continuous service, and shall be aluminum bronze and cast iron (ductile iron for high pressure) fitted construction suitable for pumping a liquid with the following characteristics:

Liquid handled _____
Specific Gravity _____
Temperature _____
Viscosity of liquid at pumping temperature _____
NPSHA _____

Note: Add any additional facts concerning the nature of the liquid or installation which might affect the pump construction, application or operation.

Construction

The pump casing shall be of extra heavy cast iron, with minimum tensile strength of 30,000 psi. High pressure cases shall be ductile iron with minimum tensile strength of 60,000 psi, split parallel to the shaft. Bearing housing supports, suction and discharge flanges shall be cast, bored and machined integrally with the lower casing half. Bearing housings shall be machined, bolted and rabbet fitted to the bearing housing supports for positive alignment. Upper and lower casing shall be doweled and bolted together. Removable upper and lower half casing and bearing caps permit inspection or removal of the entire rotating assembly without disturbing the piping. Seals are replaceable without removing the upper case. Flanges shall be standard 125# ANSI drilled flat face (300# ANSI drilled, flat face). The upper case shall be fitted with lifting lugs, 3/4" P.T. vent, 1/2" P.T. drains and 1/4" P.T. gauge connections on the suction and discharge nozzles. The impeller shall be of one-piece vacuum cast aluminum bronze of the enclosed, Francis design double suction type, accurately machined, dynamically and hydraulically balanced to minimize thrust load on the bearings. The impeller shall be keyed and axially adjusted on a 4140 alloy shaft with lock collars. Shaft

design shall be 4140 alloy steel designed to limit maximum deflection at the seal cavities to .002 in and shall have 416 S.S. (316 S.S.) shaft sleeves threaded to the shaft and free to expand at the stuffing box end.

Casing wear ring shall be aluminum bronze. Optional impeller wear ring shall be aluminum bronze (or 12% chrome stainless steel). Heavy-duty grease lubricated ball bearings shall support the rotating assembly. The outboard bearing shall be locked in position by bearing lock nuts. The inboard bearing shall be free to move axially in the bearing housing. Removable bearing caps and bearing covers shall permit inspection or service of the bearing without disturbing the pump casing or piping. Bearing housings shall be designed for grease lubrication. Grease relief shall prevent over-lubrication.

Stuffing boxes shall be fitted with FDA Approved single stainless steel spring type mechanical seals with carbon, ceramic faces and Buna elastomers (or optional silicon carbide, silicon carbide faces and Buna elastomers).

The pump support frame shall be fabricated from 1/2" rigid steal plate and shall have an adjustable motor mount plate to allow for perfect alignment. The coupling shall be spacer type allowing service of the upper bearing and seal with out distrubing motor alignment. The coupling guard shall be (standard) (OSHA) type.

Motor

The motor shall be not less than _____ hp _____ RPM, NEMA design B squirrel cage type, (drip proof)(TEFC) (EISA)(premium) efficiency motor with (1.15)(1.0) service factor and suitable for operation on (115)(230) volt, 1 phase, (50)(60) Hertz power supply OR (200)(230)(460) (575) volt, 3 phase, 60 hertz power supply. Motor size shall be sufficient to prevent overloading at operating conditions or at the lowest listed head conditions whichever point requires greater horsepower. Following installation, grouting and connection of all piping, pump and motor must be checked for alignment in accordance with standards of the Hydraulic Institute.

Testing

The following (witnessed)(non-witnessed) tests are to be performed in accordance to Hydraulic Institute test standard.

_____ Pump Performance (A, B) level
_____ Routine Motor Test
_____ Hydrostatic - Complete Pump

NSF 61 / 372 - Split Case Pumps

Item No.	Name of Part	Standard / Optional for NSF 61 / 372 Listed Pump
1A	Lower Half Casing	Cast Iron (125#) / Ductile Iron (300#)
1B	Upper Half Casing	Cast Iron (125#) / Ductile Iron (300#)
2	Impeller	Lead Free & Zinc Free Aluminum Bronze
6	Shaft (Sleeveless) - Unbalanced	416SS / 316SS
6	Shaft (Sleeved) - Unbalanced	Steel / 416SS / 316SS
6	Shaft (Sleeved) - Balanced	416SS / 316SS
7	Casing Ring	Lead Free & Zinc Free Aluminum Bronze
8	Impeller Ring	Lead Free & Zinc Free Aluminum Bronze / 12% CR SS
13	Packing	NA
14	Shaft Sleeve - Packing	NA
14	Shaft Sleeve - Seal	416SS / 316SS
16	Bearing (Inboard)	Steel
17	Packing Box Gland	NA
17A	Seal Cap	Ductile Iron
18	Bearing (Outboard)	Steel
20	Shaft Sleeve Nut	Bronze
24A	Shaft Collar	416SS / 316SS
29	Lantern Ring	Bronze
31	Bearing Housing (Inboard)	Cast Iron
32	Impeller Key	316SS
33	Bearing Housing (Outboard)	Cast Iron
38	Shaft Sleeve Gasket	Vellumoid
40	Deflector	Neoprene
41	Bearing Cap (Inboard)	Cast Iron
43	Bearing Cap (Outboard)	Cast Iron
65	Mechanical Seal (Stationary)	Ceramic / Silicon Carbide
	Mechanical Seal (Rotating)	Carbon / Silicon Carbide
	Mechanical Seal Elastomers	Buna (FDA)
68	Seal Collar	416SS / 316SS
73	Casing Gasket - Suction Side	Lexide
73A	Casing Gasket - Discharge Side	Lexide
127	Seal Piping	Copper
192	Retaining Ring (Bearing)	Steel

Horizontal & Vertical Mounted
Models L7, L8, LVM7 and LVM8

www.cranepumps.com

NSF 61 / 372 - Split Case Pumps

Item No.	Name of Part	Standard / Optional for NSF 61 / 372 Listed Pump
1A	Lower Half Casing	Cast Iron (125#) / Ductile Iron (300#)
1B	Upper Half Casing	Cast Iron (125#) / Ductile Iron (300#)
2	Impeller	Lead Free & Zinc Free Aluminum Bronze
6	Shaft (Sleeved)	Steel / 416SS / 316SS
7	Casing Ring	Lead Free & Zinc Free Aluminum Bronze
8	Impeller Ring	Lead Free & Zinc Free Aluminum Bronze / 12% CR SS
14	Shaft Sleeve	416SS / 316SS
16	Bearing (Inboard)	Steel
17A	Seal Cap	Cast Iron
18	Bearing (Outboard)	Steel
31	Bearing Housing (Inboard)	Cast Iron
32	Impeller Key	Steel
33	Bearing Housing (Outboard)	Cast Iron
38	Shaft Sleeve Gasket	Vellumoid
40	Deflector	Neoprene
41	Bearing Cap (Inboard)	Cast Iron
43	Bearing Cap (Outboard)	Cast Iron
65	Mechanical Seal (Stationary)	Ceramic / Silicon Carbide
68	Seal Collar	N/A
73	Casing Gasket - Suction Side	Vellumoid
73A	Casing Gasket - Discharge Side	Vellumoid
80	Mechanical Seal (Rotating)	Carbon / Silicon Carbide
	Mechanical Seal Elastomers	Buna (FDA)
127	Seal Piping	Copper
192	Retaining Ring (Bearing)	Steel
259	Seal Gasket	Vellumoid