7000 VERTICAL TURBINE PUMP SPECIFICATIONS
ENCLOSED LINESHAFT CONSTRUCTION – OIL LUBRICATED

PART 1. GENERAL

1.01 This specification includes the supply of ____ vertical turbine oil lubricated enclosed lineshaft pump(s). Each unit shall include a bowl assembly, suction strainer, column, lineshaft, enclosing tube, discharge head, sealing assembly and driver.

1.02 QUALITY ASSURANCE

A. All pumping equipment furnished under this Section shall be of a design and manufacture that has been used in similar applications, and it shall be demonstrated to the satisfaction of the Owner that the quality is equal to equipment made by that manufacturer specifically named herein.
B. Unit responsibility. Pump(s), complete with motor, necessary guards and all other specified accessories and appurtenances shall be furnished by the pump manufacturer to insure compatibility and integrity of the individual components, and provide the specified warranty for all components.
C. The vertical turbine pump(s) specified in this section shall be furnished by and be the product of one manufacturer.
D. Pumps are to be engineered and manufactured under a written Quality Assurance program. The Quality Assurance program is to be in effect for at least ten years, to include a written record of periodic internal and external audits to confirm compliance with such program.
E. Pump(s) are to be engineered and manufactured under the certification of ISO-9001:2000.

1.03 PERFORMANCE

A. The pump(s) shall be designed for continuous operation and will be operated continuously under normal service.
B. OPERATION CRITERIA

	Flow (GPM)	TDH (ft.)	Max. Pump Speed (RPM)	Max. Solids Passage	Max. Shutoff Head (ft.)	Minimum Submergence (inches)
Design Condition						
Secondary Condition						

C. Total dynamic head shall be as measured at the discharge of the pump and shall include velocity head and vertical static head from the minimum water level to the centerline of the pump discharge.
D. Minimum water level shall be at elevation _____ feet.
E. Pump(s) are to be mounted at _____ feet elevation with the sump floor at _____ feet elevation.
F. Pump discharge centerline shall be at _____feet elevation.
G. Maximum pump speed shall not exceed _____ RPM.
H. Driver size shall be limited to _____ HP maximum.
I. Liquid pumped is _____ with a maximum temperature of ___ deg. F.

PART 2, PRODUCTS

2.01 Pumps

A. Manufacturers
1. Pump(s) shall be the product of Fairbanks Nijhuis
2. Manufacturer shall have installations of like or similar application with a minimum of 5 years service for this pump size.

B. Design
1. Rotation
a. The pump will be counterclockwise rotation when viewed from the driver end looking at the pump.
2. Impeller
a. The impeller shall be of bronze construction conforming to ASTM B584, C83600. They shall be of one-piece construction, single suction, enclosed, and radial flow design. The waterways through the impeller shall have extremely smooth contours, devoid of sharp corners, so as to promote maximum efficiency.
b. The impeller is to be balanced and secured to the shaft by means of a stainless steel drive collet for bowl sizes 18" and smaller. For bowl sizes larger than 18" impellers shall be secured to the shaft using a combination of a thrust washer, key and/or snap rings.
c. Impellers shall be adjustable by means of a top shaft-adjusting nut.

3. Bowls
   a. The bowls shall be made of close-grained cast iron conforming to ASTM A48 CL30. Castings shall be free from blowholes, sand holes and shall be accurately machined and fitted to close dimensions.
   b. Bowls 14" and above shall be flange connected. Bowls below 14" nominal diameter may use either flanged or threaded connections.
   c. Bowls shall be designed with smooth passages to ensure efficient operation. The interior shall be coated with Tnemec N140 Pota-Pox Plus, or equal, for bowl sizes 21" and below.
4. Impeller Shaft
   a. Impeller shaft shall be of stainless steel construction conforming to ASTM A582 (416 stainless steel).
   b. The shaft shall be supported by bronze or neoprene bearings located on both sides of each impeller.
   c. Impeller shaft coupling shall be of stainless steel construction conforming to ASTM A582 (416 stainless steel).
5. Wear Rings
   a. Wear rings shall be provided on both the impellers and bowls on bowls of nominal diameter of 8" or larger so that clearances can be maintained throughout the life of the rings and minimize recirculation.
   b. Impeller wear rings shall be of the radial-type.
   c. Bowl wear rings shall be of the radial-type.
   d. Wear rings shall be attached to the impellers and bowls using an interference fit and Loctite.
   e. Wear rings shall be bronze conforming to ASTM, B505 C93200.
6. Column
   a. Total length of discharge column shall be ___ feet, ____ inches.
   b. Column pipe shall be not less than ___ inches inside diameter and weigh not less than ___ pounds per foot.
   c. Column pipe in sizes 4" through 12" diameter shall be furnished in interchangeable sections not over ten feet in length, and shall be connected with threaded, sleeve-type couplings. Column pipe 14" diameter and larger shall be flanged and furnished in interchangeable sections not over ten feet in length.
   d. Threaded column sections shall be connected with threaded, sleeve-type couplings. Column joints are to be butted to insure perfect column alignment after assembly.
7. Lineshafts
   a. Lineshafting shall be of ample size to transmit the torque and operate the pump without distortion or vibration.
   b. Lineshafting shall be made of carbon steel conforming to AISI 1045 and be furnished in interchangeable sections not over ten feet in length.
   c. Lineshafting shall be coupled with extra-strong threaded steel couplings machined from solid bar steel.
   d. An enclosing tube shall be provided to house the lineshaft. It shall be of extra-strong ASTM A120, Schedule 80 pipe construction and furnished in interchangeable sections not over five feet in length. Each end of the enclosing tube shall be machined to receive a bronze connector bearing.
   e. Enclosing tube connector bearings shall be of bronze material conforming to ASTM B505 C93200 material.
   f. Units with overall lengths exceeding 30 feet shall incorporate an enclosing tube stabilizer for each additional 50 feet of the tube assembly.
8. Discharge Head Assembly (above ground)
   a. The pump discharge head shall be of the above ground type of either cast iron or fabricated steel construction with an ANSI 125# or 250# discharge flange.
   b. The discharge head shall be of sufficient design to support the entire weight of the pump and driver.
   c. If the application uses a variable frequency drive, the discharge head shall be fabricated steel and specifically designed to elevate the discharge head natural frequency above the operating speed.
   d. A drive shaft of the same material as the lineshaft shall extend through the sealing assembly of the discharge head and be coupled to a vertical hollow shaft driver.
   e. The shaft sealing assembly shall consist of a bronze tension nut, a suitable oiler and oil reservoir to ensure proper lubrication for the bearings when the pump is in operation. The oiler shall be furnished with a ___ volt solenoid for automatic operation.
   f. Discharge head openings shall be fitted with guards to prevent access to the rotating shaft and/or coupling.

OR

9. Discharge Head Assembly (below ground)
   a. The pump discharge shall be of the below ground construction and consist of a driver mounting-base, underground elbow and riser pipe.
   b. The driver mounting-base shall be of sufficient design to support the entire weight of the pump and driver.

c. If the application uses a variable frequency drive, the mounting-base shall be fabricated steel and specifically designed to elevate the mounting-base natural frequency above the operating speed.
d. The underground elbow shall be of fabricated steel and have an ANSI 150# or 300# discharge flange.
e. A driveshaft of the same material as the lineshaft shall extend through the sealing assembly of the driver-mounting base and be coupled to a vertical hollow shaft driver.
f. The shaft sealing assembly shall consist of a bronze tension nut, a suitable oiler and oiler reservoir to ensure proper lubrication for the bearings when the pump is in operation. The oiler shall be furnished with a ___ bolt solenoid for automatic operation.
g. Driver mounting-base shall be fitted with guards to prevent access to the rotating shaft and/or coupling.

10. Vibration Limitations (Field)
    a. The limits of vibration as set forth in the standards of the Hydraulic Institute shall govern.

11. Testing
    a. A certified factory hydrostatic and performance test shall be performed on each bowl assembly in accordance with Hydraulic Institute Standards, latest edition. Tests shall be sufficient to determine the curves of head, input horsepower, and efficiency relative to capacity from shutoff to 150% of design flow. A minimum of six points, including shutoff, shall be taken for each test. At least one point of the six shall be taken as near as possible to each specified condition.
    b. Results of the performance tests shall be certified by a Registered Professional Engineer and submitted for approval before final shipment.
    c. The casing shall be hydrostatically tested to 1.5 times the design head or 1.25 times the shutoff head, whichever is greater.

7000 VERTICAL TURBINE PUMP SPECIFICATIONS
OPEN LINESHAFT CONSTRUCTION

PART 1. GENERAL

1.01 This specification includes the supply of ____ vertical turbine product lubricated open lineshaft pump(s). Each unit shall include a bowl assembly, suction strainer, column and open lineshaft, discharge head, sealing assembly and driver.

1.02 QUALITY ASSURANCE

A. All pumping equipment furnished under this Section shall be of a design and manufacture that has been used in similar applications, and it shall be demonstrated to the satisfaction of the Owner that the quality is equal to equipment made by that manufacturer specifically named herein.

B. Unit responsibility. Pump(s), complete with motor, necessary guards and all other specified accessories and appurtenances shall be furnished by the pump manufacturer to insure compatibility and integrity of the individual components, and provide the specified warranty for all components.

C. The vertical turbine pump(s) specified in this section shall be furnished by and be the product of one manufacturer.

D. Pumps are to be engineered and manufactured under a written Quality Assurance program. The Quality Assurance program is to be in effect for at least ten years, to include a written record of periodic internal and external audits to confirm compliance with such program.

E. Pump(s) are to be engineered and manufactured under the certification of ISO-9001:2000.

1.03 PERFORMANCE

A. The pump(s) shall be designed for continuous operation and will be operated continuously under normal service.

B. OPERATION CRITERIA

	Flow (GPM)	TDH (ft.)	Max. Pump Speed (RPM)	Max. Solids Passage	Max. Shutoff Head (ft.)	Minimum Submergence (inches)
Design Condition						
Secondary Condition						

C. Total dynamic head shall be as measured at the discharge of the pump and shall include velocity head and vertical static head from the minimum water level to the centerline of the pump discharge.

D. Minimum water level shall be at elevation _____ feet.

E. Pump(s) are to be mounted at _____ feet elevation with the sump floor at _____ feet elevation.

F. Pump discharge centerline shall be at _____feet elevation.

G. Maximum pump speed shall not exceed _____ RPM.

H. Driver size shall be limited to _____ HP maximum.

I. Liquid pumped is _____ with a maximum temperature of ___ deg. F.

PART 2, PRODUCTS

2.01 PUMPS

A. Manufacturers

1. Pump(s) shall be the product of Fairbanks Nijhuis
2. Manufacturer shall have installations of like or similar application with a minimum of 5 years service for this pump size.

B. Design

1. Rotation
   a. The pump will be counterclockwise rotation when viewed from the driver end looking at the pump.
2. Impeller
   a. The impeller shall be of bronze construction conforming to ASTM B584, C83600. They shall be of one-piece construction, single suction, enclosed, and radial flow design. The waterways through the impeller shall have extremely smooth contours, devoid of sharp corners, so as to promote maximum efficiency.
   b. The impeller is to be balanced and secured to the shaft by means of a stainless steel drive collet for bowl sizes 18" diameter and smaller. For bowl sizes larger than 18" impellers shall be secured to the shaft using a combination of a thrust washer, key and/or snap rings.
   c. Impellers shall be adjustable by means of a top shaft-adjusting nut.

3. Bowls
   a. The bowls shall be made of close-grained cast iron conforming to ASTM A48 CL30. Castings shall be free from blowholes, sand holes and shall be accurately machined and fitted to close dimensions.
   b. Bowls 14" and above shall be flange connected. Bowls below 14" nominal diameter may use either flanged or threaded connections.
   c. Bowls shall be designed with smooth passages to ensure efficient operation. The interior shall be coated with Tnemec N140 Pota-Pox Plus, or equal, for bowl sizes 21" and below.
4. Impeller Shaft
   a. Impeller shaft shall be of stainless steel construction conforming to ASTM A582 (416 stainless steel).
   b. The shaft shall be supported by bronze or neoprene bearings located on both sides of each impeller.
   c. Impeller shaft coupling shall be of stainless steel construction conforming to ASTM A582 (416 stainless steel).
5. Wear Rings
   a. Wear rings shall be provided on both the impellers and bowls on bowls of nominal diameter of 8" or larger so that clearances can be maintained throughout the life of the rings and minimize recirculation.
   b. Impeller wear rings shall be of the radial-type.
   c. Bowl wear rings shall be of the radial-type.
   d. Wear rings shall be attached to the impellers and bowls using an interference fit and Loctite.
   e. Wear rings shall be bronze conforming to ASTM, B505 C93200.
6. Column
   a. Total length of discharge column shall be ___ feet, ____ inches.
   b. Column pipe shall be not less than ___ inches inside diameter and weigh not less than ___ pounds per foot.
   c. Column pipe in sizes 4" through 12" diameter shall be furnished in interchangeable sections not over ten feet in length, and shall be connected with threaded, sleeve-type couplings. Column pipe 14" diameter and larger shall be flanged and furnished in interchangeable sections not over ten feet in length.
   d. Threaded column sections shall be connected with threaded, sleeve-type couplings. Column joints are to be butted to insure perfect column alignment after assembly.
7. Lineshafts
   a. Lineshafting shall be of ample size to transmit the torque and operate the pump without distortion or vibration.
   b. Lineshafting shall be made of carbon steel conforming to AISI 1045 and be furnished in interchangeable sections not over ten feet in length.
   c. Lineshafting shall be coupled with extra-strong threaded steel couplings machined from solid bar steel.
   d. Lineshafting shall be fitted with stainless steel replaceable sleeves at each bearing and shall conform to AISI 304 material.
   e. Lineshaft bearings shall be of neoprene material construction.
   f. Lineshaft bearings shall be retained in bronze guides that are fitted into the column coupling and secured in place by the butted column pipe ends. (for column sizes larger than 16" retainers shall be steel and fabricated into the column assembly.
8. Discharge Head Assembly (above ground, packed box)
   a. The pump discharge head shall be of the above ground type of either cast iron or fabricated steel construction with an ANSI 125# or 250# discharge flange.
   b. The discharge head shall be of sufficient design to support the entire weight of the pump and driver.
   c. If the application uses a variable frequency drive, the discharge head shall be fabricated steel and specifically designed to elevate the discharge head natural frequency above the operating speed.
   d. A drive shaft of stainless steel construction conforming to ASTM A582 (416 stainless steel) shall extend through the sealing assembly of the discharge head and be coupled to a vertical hollow shaft driver.
   e. The shaft sealing assembly shall consist of a cast iron packing box, cast iron packing gland, bronze packing box bushing, stainless steel packing gland nuts and bolts, and synthetic packing.
   f. Packing box for 125# discharge head shall be rated for 175 PSI. Packing box for a 250# discharge head shall be rated for 400 PSI.
   g. The 175 PSI rated by-pass packing box (optional) and 400 PSI rated packing box shall also incorporate a Teflon water seal ring.
   h. Discharge head openings shall be fitted with guards to prevent access to the rotating shaft and/or coupling.

OR

9. Discharge Head Assembly (above ground, mechanical seal)
   a. The pump discharge head shall be of the above ground type of either cast iron or fabricated steel construction with an ANSI 125# or 250# discharge flange.
   b. The discharge head shall be of sufficient design to support the entire weight of the pump and driver.

c. If the application uses a variable frequency drive, the discharge head shall be fabricated steel and specifically designed to elevate the discharge head natural frequency above the operating speed.
d. A drive shaft of stainless steel construction conforming to ASTM A582 (416 stainless steel) shall extend through the sealing assembly of the discharge head and be coupled to a vertical solid shaft driver using a spacer type coupling to permit easy field removal of the mechanical seal.
e. The shaft sealing assembly shall consist of a cast iron packing box, bronze packing box bushing, and mechanical seal.
f. Packing box for 125# discharge head shall be rated for 175 PSI. Packing box for a 250# discharge head shall be rated for 400 PSI.
g. Discharge head openings shall be fitted with guards to prevent access to the rotating shaft and/or coupling.

OR

10. Discharge Head Assembly (below ground, packed box)
    a. The pump discharge shall be of the below ground construction and consist of a driver mounting-base, underground elbow and riser pipe.
    b. The driver mounting-base shall be of sufficient design to support the entire weight of the pump and driver.
    c. If the application uses a variable frequency drive, the mounting-base shall be fabricated steel and specifically designed to elevate the mounting-base natural frequency above the operating speed.
    d. The underground elbow shall be of fabricated steel and have an ANSI 150# or 300# discharge flange.
    e. A driveshaft of stainless steel construction conforming to ASTM A582 (416 stainless steel) shall extend through the sealing assembly of the driver-mounting base and be coupled to a vertical hollow shaft driver.
    f. The shaft sealing assembly shall consist of a cast iron packing box, cast iron packing gland, bronze packing box bushing, stainless steel packing gland nuts and bolts, and synthetic packing.
    g. Packing box for 150# discharge head shall be rated for 175 PSI. Packing box for a 300# discharge head shall be rated for 400 PSI.
    h. The 175 PSI rated by-pass packing box (optional) and 400 PSI rated packing box shall also incorporate a Teflon water seal ring.
    i. Driver mounting-base shall be fitted with guards to prevent access to the rotating shaft and/or coupling.

OR

11. Discharge Head Assembly (below ground, mechanical seal)
    a. The pump discharge shall be of below ground construction and consist of a driver mounting-base, underground elbow and riser pipe.
    b. The driver mounting-base shall be of sufficient design to support the entire weight of the pump and driver.
    c. If the application uses a variable frequency drive, the mounting-base shall be fabricated steel and specifically designed to elevate the mounting-base natural frequency above the operating speed.
    d. The underground elbow shall be of fabricated steel and have an ANSI 150# or 300# discharge flange.
    e. A drive shaft of stainless steel construction conforming to ASTM A582 (416 stainless steel) shall extend through the sealing assembly of the discharge head and be coupled to a vertical solid shaft driver using a spacer type coupling to permit easy field removal of the mechanical seal.
    f. The shaft sealing assembly shall consist of a cast iron packing box, cast iron packing gland, bronze packing box bushing, and mechanical seal.
    g. Driver mounting-base shall be fitted with guards to prevent access to the rotating shaft and/or coupling.

12. Vibration Limitations (Field)
    a. The limits of vibration as set forth in the standards of the Hydraulic Institute shall govern.

13. Testing
    a. A certified factory hydrostatic and performance test shall be performed on each bowl assembly in accordance with Hydraulic Institute Standards, latest edition. Tests shall be sufficient to determine the curves of head, input horsepower, and efficiency relative to capacity from shutoff to 150% of design flow. A minimum of six points, including shutoff, shall be taken for each test. At least one point of the six shall be taken as near as possible to each specified condition.
    b. Results of the performance tests shall be certified by a Registered Professional Engineer and submitted for approval before final shipment.
    c. The casing shall be hydrostatically tested to 1.5 times the design head or 1.25 times the shutoff head, whichever is greater.

7000 VERTICAL TURBINE PUMP SPECIFICATIONS
ENCLOSED LINESHAFT CONSTRUCTION – WATER FLUSH LUBRICATED

PART 1. GENERAL

1.01 This specification includes the supply of ____ vertical turbine water-flush lubricated enclosed lineshaft pump(s). Each unit shall include a bowl assembly, suction strainer, column, lineshaft, enclosing tube, discharge head, sealing assembly and driver.

1.02 QUALITY ASSURANCE

A. All pumping equipment furnished under this Section shall be of a design and manufacture that has been used in similar applications, and it shall be demonstrated to the satisfaction of the Owner that the quality is equal to equipment made by that manufacturer specifically named herein.

B. Unit responsibility. Pump(s), complete with motor, necessary guards and all other specified accessories and appurtenances shall be furnished by the pump manufacturer to insure compatibility and integrity of the individual components, and provide the specified warranty for all components.

C. The vertical turbine pump(s) specified in this section shall be furnished by and be the product of one manufacturer.

D. Pumps are to be engineered and manufactured under a written Quality Assurance program. The Quality Assurance program is to be in effect for at least ten years, to include a written record of periodic internal and external audits to confirm compliance with such program.

E. Pump(s) are to be engineered and manufactured under the certification of ISO-9001:2000.

1.03 PERFORMANCE

A. The pump(s) shall be designed for continuous operation and will be operated continuously under normal service.

B. OPERATION CRITERIA

	Flow (GPM)	TDH (ft.)	Max. Pump Speed (RPM)	Max. Solids Passage	Max. Shutoff Head (ft.)	Minimum Submergence (inches)
Design Condition						
Secondary Condition						

C. Total dynamic head shall be as measured at the discharge of the pump and shall include velocity head and vertical static head from the minimum water level to the centerline of the pump discharge.

D. Minimum water level shall be at elevation _____ feet.

E. Pump(s) are to be mounted at _____ feet elevation with the sump floor at _____ feet elevation.

F. Pump discharge centerline shall be at _____feet elevation.

G. Maximum pump speed shall not exceed _____ RPM.

H. Driver size shall be limited to _____ HP maximum.

I. Liquid pumped is _____ with a maximum temperature of ___ deg. F.

PART 2, PRODUCTS

2.01 PUMPS

A. Manufacturers

1. Pump(s) shall be the product of Fairbanks Nijhuis
2. Manufacturer shall have installations of like or similar application with a minimum of 5 years service for this pump size.

B. Design

1. Rotation
   a. The pump will be counterclockwise rotation when viewed from the driver end looking at the pump.
2. Impeller
   a. The impeller shall be of bronze construction conforming to ASTM B584, C83600. They shall be of one-piece construction, single suction, enclosed ____-vane, and radial flow design. The waterways through the impeller shall have extremely smooth contours, devoid of sharp corners, so as to promote maximum efficiency.
   b. The impeller is to be balanced and secured to the shaft by means of a stainless steel drive collet for bowl sizes 18" and smaller. For bowl sizes larger than 18" impellers shall be secured to the shaft using a combination of a thrust washer, key and/or snap rings.
   c. Impellers shall be adjustable by means of a top shaft-adjusting nut.

3. Bowls
   a. The bowls shall be made of close-grained cast iron conforming to ASTM A48 CL30. Castings shall be free from blowholes, sand holes and shall be accurately machined and fitted to close dimensions.
   b. Bowls 14" and above shall be flange connected. Bowls below 14" nominal diameter may use either flanged or threaded connections.
   c. Bowls shall be designed with smooth passages to ensure efficient operation. The interior shall be coated with Tnemec N140 Pota-Pox Plus, or equal, for bowl sizes 21" and below.
4. Impeller Shaft
   a. Impeller shaft shall be of stainless steel construction conforming to ASTM A582 (416 stainless steel).
   b. The shaft shall be supported by bronze or neoprene bearings located on both sides of each impeller.
   c. Impeller shaft coupling shall be of stainless steel construction conforming to ASTM A582 (416 stainless steel).
5. Wear Rings
   a. Wear rings shall be provided on both the impellers and bowls on bowls of nominal diameter of 8" or larger so that clearances can be maintained throughout the life of the rings and minimize recirculation.
   b. Impeller wear rings shall be of the radial-type.
   c. Bowl wear rings shall be of the radial-type.
   d. Wear rings shall be attached to the impellers and bowls using an interference fit and Loctite.
   e. Wear rings shall be bronze conforming to ASTM, B505 C93200.
6. Column
   a. Total length of discharge column shall be ___ feet, _____ inches.
   b. Column pipe shall be not less than ___ inches inside diameter and weigh not less than ___ pounds per foot.
   c. Column pipe in sizes 4" through 12" diameter shall be furnished in interchangeable sections not over ten feet in length, and shall be connected with threaded, sleeve-type couplings. Column pipe 14" diameter and larger shall be flanged and furnished in interchangeable sections not over ten feet in length.
   d. Threaded column sections shall be connected with threaded, sleeve-type couplings. Column joints are to be butted to insure perfect column alignment after assembly.
7. Lineshafts
   a. Lineshafting shall be of ample size to transmit the torque and operate the pump without distortion or vibration.
   b. Lineshafting shall be made of stainless steel conforming to ASTM A582 (416 stainless steel) and be furnished in interchangeable sections not over ten feet in length.
   c. Lineshafting shall be coupled with extra-strong threaded stainless steel couplings machined from ASTM A582 (416 stainless steel).
   d. An enclosing tube shall be provided to house the lineshaft. It shall be of extra-strong ASTM A120, Schedule 80 pipe construction and furnished in interchangeable sections not over five feet in length. Each end of the enclosing tube shall be machined to receive a bronze connector bearing.
   e. Enclosing tube connector bearings shall be of bronze material conforming to ASTM B505 C93200 material.
   f. Units with overall lengths exceeding 30 feet shall incorporate an enclosing tube stabilizer for each additional 50 feet of the tube assembly.
8. Discharge Head Assembly (above ground, packed box)
   a. The pump discharge head shall be of the above ground type of either cast iron or fabricated steel construction with an ANSI 125# or 250# discharge flange.
   b. The discharge head shall be of sufficient design to support the entire weight of the pump and driver.
   c. If the application uses a variable frequency drive, the discharge head shall be fabricated steel and specifically designed to elevate the discharge head natural frequency above the operating speed.
   d. A drive shaft of the same material as the lineshaft shall extend through the sealing assembly of the discharge head and be coupled to a vertical hollow shaft driver.
   e. The shaft sealing assembly shall consist of a cast iron tension box, cast iron packing gland, bronze connector bearing, stainless steel packing box washer, stainless steel packing gland nuts and bolts and synthetic packing.
   f. Discharge head openings shall be fitted with guards to prevent access to the rotating shaft and/or coupling.
   g. A sufficient clean water supply shall be supplied by the owner for this water flush lubrication.

OR

9. Discharge Head Assembly (above ground, mechanical seal)
   a. The pump discharge head shall be of the above ground type of either cast iron or fabricated steel construction with an ANSI 125# or 250# discharge flange.
   b. The discharge head shall be of sufficient design to support the entire weight of the pump and driver.
   c. If the application uses a variable frequency drive, the discharge head shall be fabricated steel and specifically designed to elevate the discharge head natural frequency above the operating speed.

d. A drive shaft of the same material as the lineshaft shall extend through the sealing assembly of the discharge head and be coupled to a vertical solid shaft driver using a spacer type coupling to permit easy field removal of the mechanical seal.
e. The shaft sealing assembly shall consist of a cast iron tension box, bronze connector bearing, gland studs and nuts and cartridge-type or split-type mechanical seal.
f. Discharge head openings shall be fitted with guards to prevent access to the rotating shaft and/or coupling.
g. A sufficient clean water supply shall be supplied by the owner for this water flush lubrication.

OR

10. Discharge Head Assembly (below ground, packed box)
    a. The pump discharge shall be of the below ground construction and consist of a driver mounting-base, underground elbow and riser pipe.
    b. The driver mounting-base shall be of sufficient design to support the entire weight of the pump and driver.
    c. If the application uses a variable frequency drive, the mounting-base shall be fabricated steel and specifically designed to elevate the mounting-base natural frequency above the operating speed.
    d. The underground elbow shall be of fabricated steel and have an ANSI 150# or 300# discharge flange.
    e. A driveshaft of the same material as the lineshaft shall extend through the sealing assembly of the driver-mounting base and be coupled to a vertical hollow shaft driver.
    f. The shaft sealing assembly shall consist of a cast iron tension box, cast iron packing gland, bronze connector bearing, stainless steel packing gland nuts and bolts and synthetic packing.
    g. Driver mounting-base shall be fitted with guards to prevent access to the rotating shaft and/or coupling.
    h. A sufficient clean water supply shall be supplied by the owner for this water flush lubrication.

OR

11. Discharge Head Assembly (below ground, mechanical seal)
    a. The pump discharge shall be of below ground construction and consist of a driver mounting-base, underground elbow and riser pipe.
    b. The driver mounting-base shall be of sufficient design to support the entire weight of the pump and driver.
    c. If the application uses a variable frequency drive, the mounting-base shall be fabricated steel and specifically designed to elevate the mounting-base natural frequency above the operating speed.
    d. The underground elbow shall be of fabricated steel and have an ANSI 150# or 300# discharge flange.
    e. A drive shaft of the same material as the lineshaft shall extend through the sealing assembly and be coupled to a vertical solid shaft driver using a spacer type coupling to permit easy field removal of the mechanical seal.
    f. The shaft sealing assembly shall consist of a cast iron tension box, bronze connector bearing, gland studs and nuts, and cartridge-type or split-type mechanical seal.
    g. Driver mounting-base shall be fitted with guards to prevent access to the rotating shaft and/or coupling.
    h. A sufficient clean water supply shall be supplied by the owner for this water flush lubrication.

12. Vibration Limitations (Field)
    a. The limits of vibration as set forth in the standards of the Hydraulic Institute shall govern.

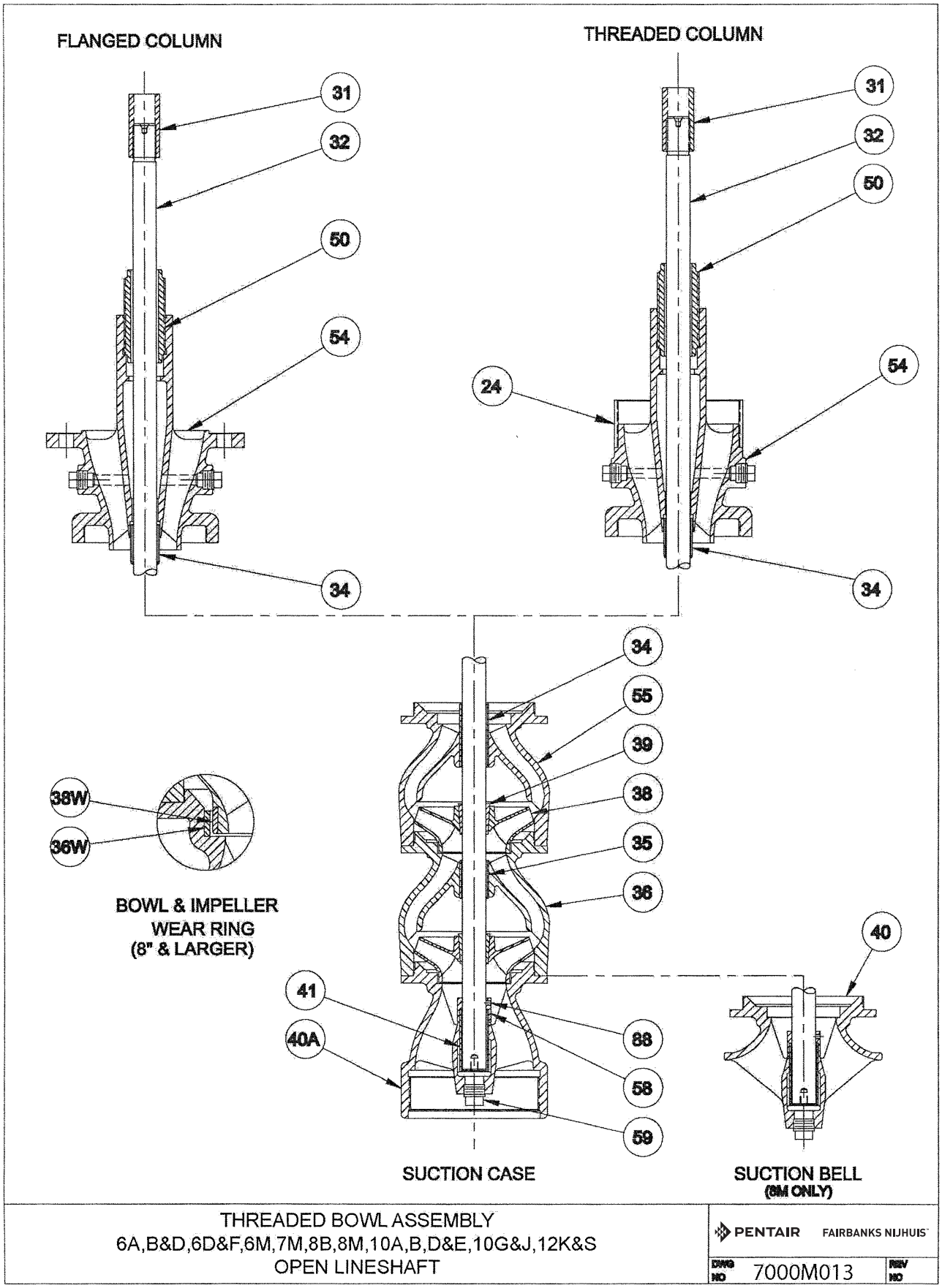
13. Testing
    a. A certified factory hydrostatic and performance test shall be performed on each bowl assembly in accordance with Hydraulic Institute Standards, latest edition. Tests shall be sufficient to determine the curves of head, input horsepower, and efficiency relative to capacity from shutoff to 150% of design flow. A minimum of six points, including shutoff, shall be taken for each test. At least one point of the six shall be taken as near as possible to each specified condition.
    b. Results of the performance tests shall be certified by a Registered Professional Engineer and submitted for approval before final shipment.

    c. The casing shall be hydrostatically tested to 1.5 times the design head or 1.25 times the shutoff head whichever is greater.

Open Lineshaft Material Specifications

Item	Description	Material	Specification
1	Top Shaft Adjusting Nut	Steel	A108 Grade 12L14
6	Water Slinger	Rubber	Neoprene
7	Discharge Head	Cast Iron / Steel	A48 Class 30 / A53 & A36 (3)
8	Gland Bolt	Stainless Steel	18-8
8A	Gland Nut	Stainless Steel	18-8
9	Packing Gland	Cast Iron	A48 Class 30
11	Gasket	Tag Board	F104
13	Top Shaft Sleeve	Stainless Steel	AISI 304
15	Packing	Synthetic	Commercial
15A	Water Seal Ring	Teflon	Teflon
16	Column Flange Gasket	Tag Board	F104
17	Packing Box	Cast Iron	A48 Class 30
17A	Packing Box Bushing	Bronze	B505 C93200
19A	Drive Shaft	Steel	AISI 1045
19B	Top Shaft	Stainless Steel	A582 - 416
21	Top Column	Steel	A53 & A36 (3)
23	Lineshaft	Steel	AISI 1045
24	Column Coupling	Steel	A53 Grade B
25	Bearing Retainer	Bronze	B584 C83600
26	Bearing	Neoprene	Commercial
27	Snap Ring	Stainless Steel	A564 Alloy 632
27A	Thrust Ring	Stainless Steel	A583 – 416
29	Shaft Sleeve	Stainless Steel	AISI 304
30	Column	Steel	A53 & A36 (3)
31	Shaft Coupling	Steel (4)	A108 Grade 12L14
32	Pump Shaft	Stainless Steel	A582 – 416
34	Top Bowl Bearing	Bronze	B505 C93200
35	Inter Bowl Bearing	Bronze	B505 C93200
36	Inter Bowl	Cast Iron (2)	A48 Class 30
36W	Bowl Wear Ring	Bronze	B505 C93200
38	Impeller	Bronze	B584 C83600
38A	Impeller Key	Steel	A108 Grade 1018
38W	Impeller Wear Ring	Bronze	B505 C93200
39	Drive Collet	Stainless Steel	A582 – 416
40	Suction Bell	Cast Iron	A48 Class 30
40A	Suction Case	Cast Iron	A48 Class 30
41	Suction Bearing	Bronze	B505 C93200
50	Connector Bearing	Bronze	B505 C93200
52	Underground Discharge Elbow	Steel	A53 & A36 (3)
54	Discharge Case	Cast Iron (2)	A48 Class 30
A54	Column Adapter	Cast Iron	A48 Class 30
55	Top Inter Bowl	Cast Iron (2)	A48 Class 30
58	Sand Collar	Bronze	B505 C93200
59	Suction Bowl Plug	Cast Iron	Commercial
62	Driver Pedestal	Steel	A53 & A36 (3)
88	Set Screw	Stainless Steel	A320
220	High Ring Base	Cast Iron or Steel	A48 Class 30 or A53 & A36 (3)
267	Coupling Guard	Sheet Steel	Commercial
Options			
13	Top Shaft Sleeve	Stainless Steel	AISI 304
19B	Top Shaft (For use w/sleeve)	Steel	AISI 1045
95	Sole Plate	Cast Iron / Steel	A48 Class 30 / A36
456	Mechanical Seal	Commercial	Commercial

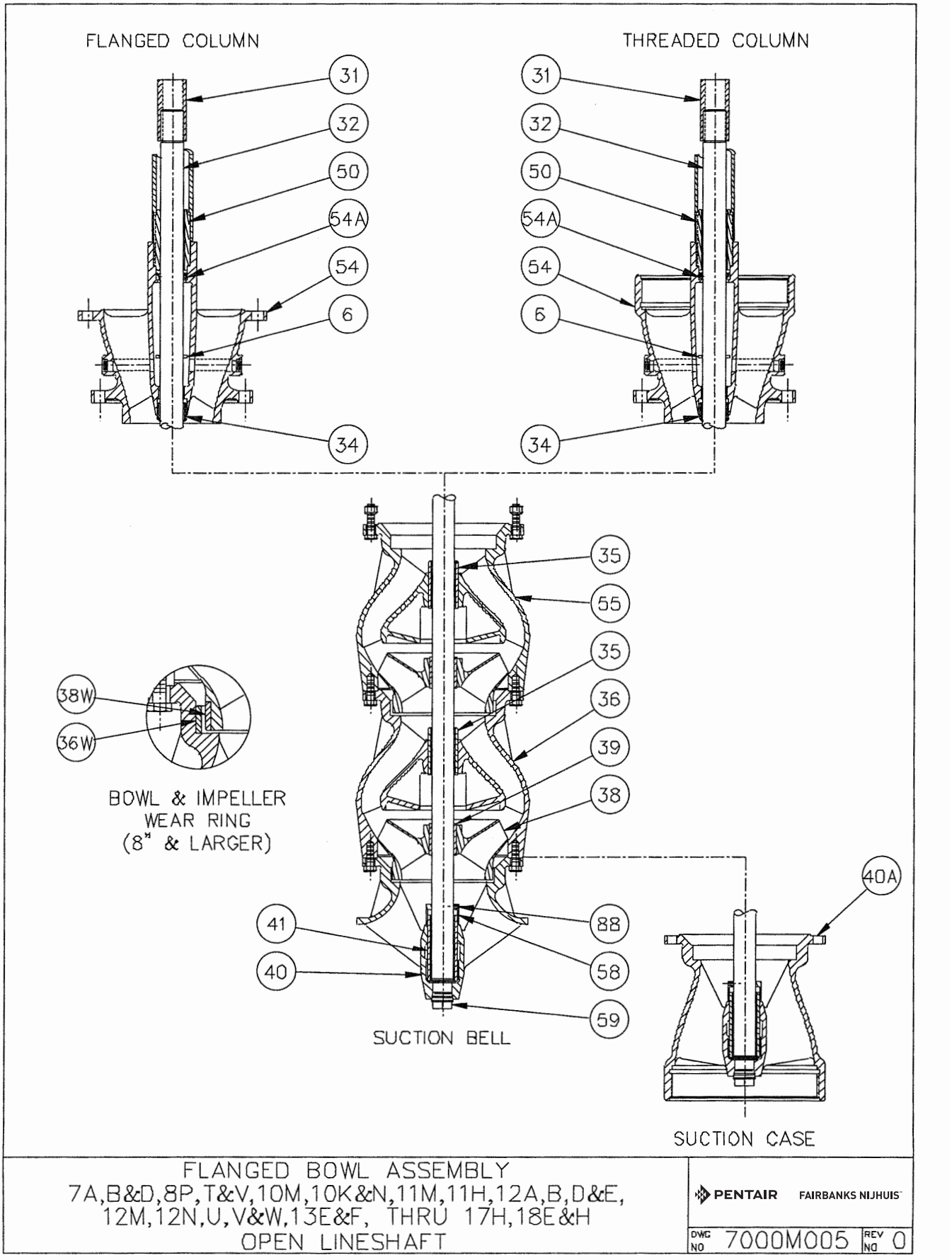
Notes: 1. All material specifications are ASTM unless otherwise noted and are a description of chemistry only.
2. Bowl interior is coated with Tnemec N140 Pota-Pox Plus, or equal. 3. Circular sections are A53 & plate is A36.
4. Pump shaft coupling is stainless steel, ASTM A582 S41600.



THREADED BOWL ASSEMBLY
6A,B&D,6D&F,6M,7M,8B,8M,10A,B,D&E,10G&J,12K&S
OPEN LINESHAFT

PENTAIR FAIRBANKS NIJHUIS

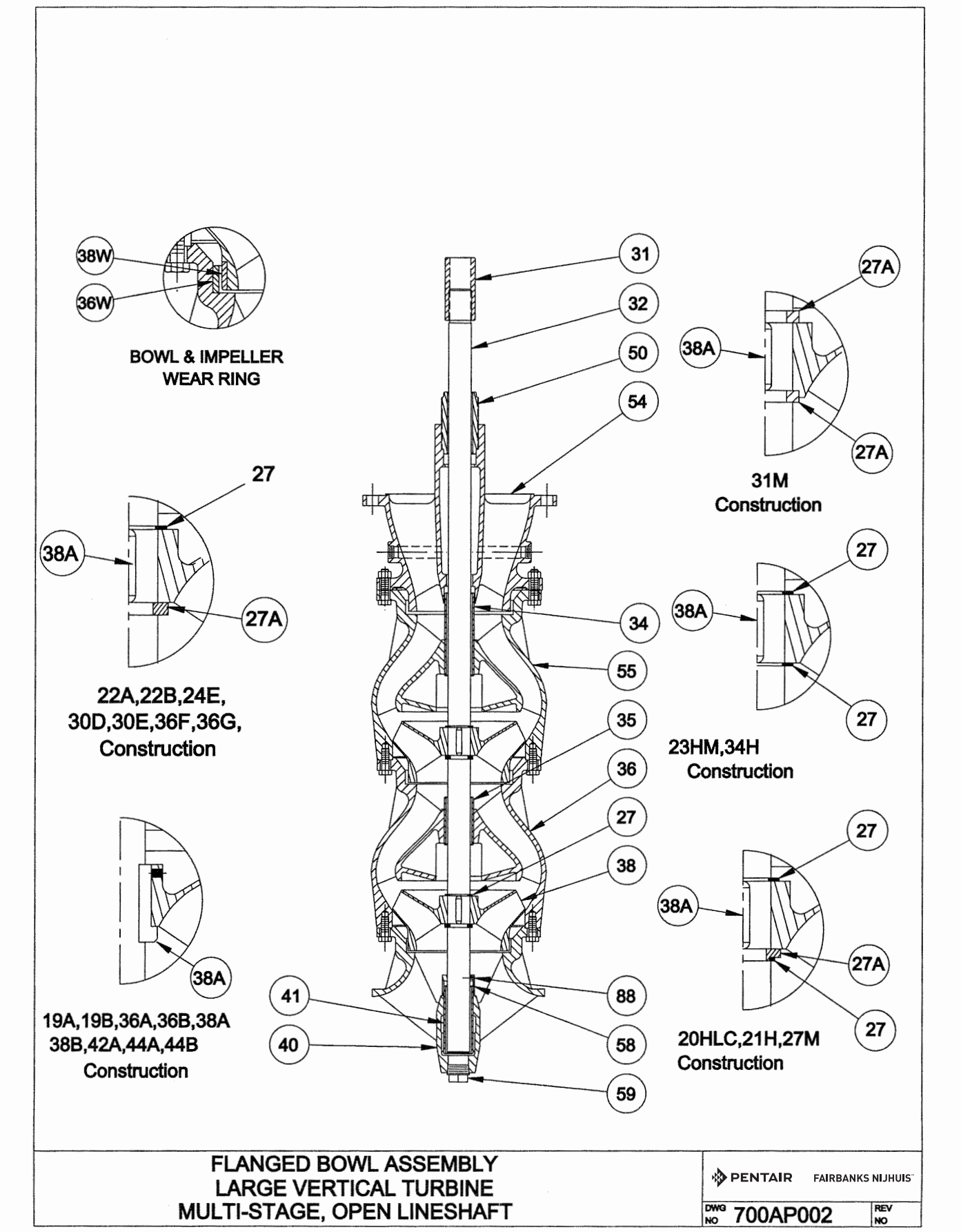
DWG NO 7000M013 REV NO



FLANGED BOWL ASSEMBLY
7A,B&D,8P,T&V,10M,10K&N,11M,11H,12A,B,D&E,
12M,12N,U,V&W,13E&F, THRU 17H,18E&H
OPEN LINESHAFT

PENTAIR FAIRBANKS NIJHUIS

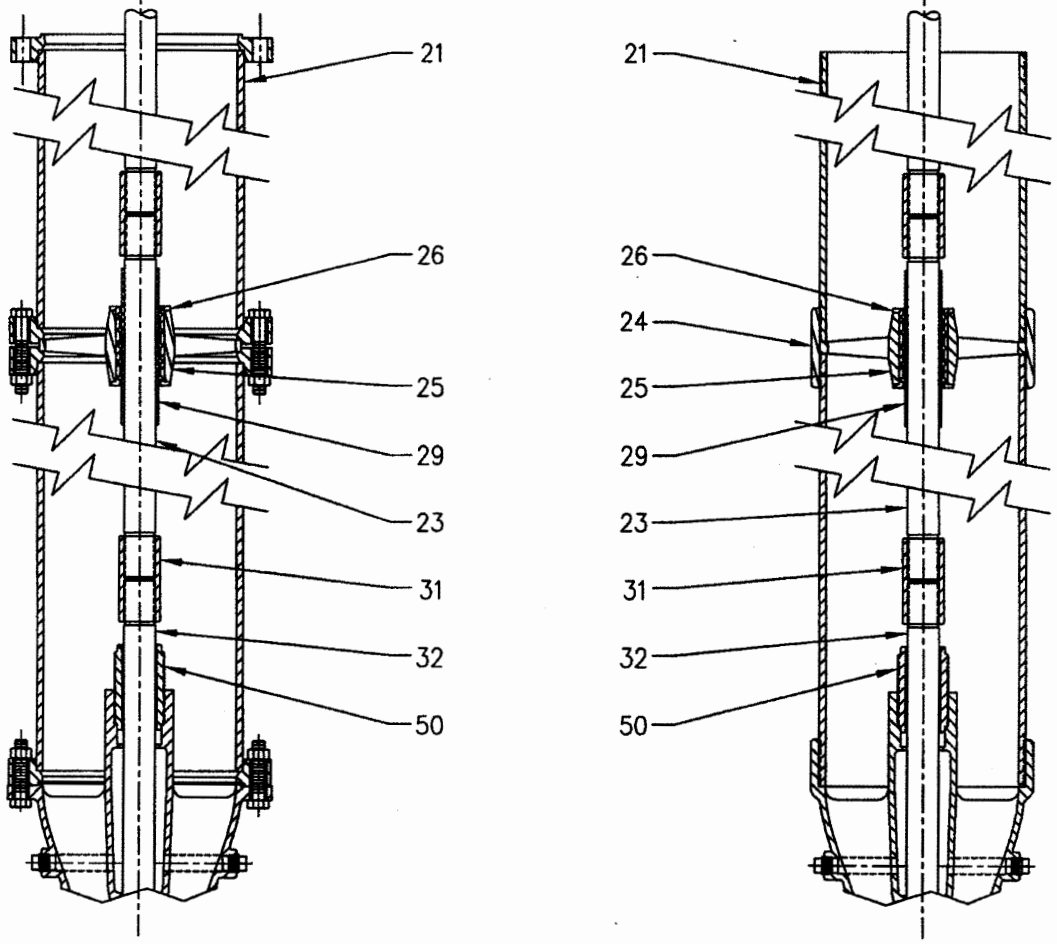
DWG NO 7000M005 REV NO 0


38W
36W
BOWL & IMPELLER
WEAR RING
31
32
50
54
34
55
35
36
27
38
88
58
59
41
40
27
38A
27A
22A,22B,24E,
30D,30E,36F,36G,
Construction
38A
19A,19B,36A,36B,38A
38B,42A,44A,44B
Construction
27A
38A
27A
31M
Construction
27
38A
27
23HM,34H
Construction
27
38A
27A
27
20HLC,21H,27M
Construction
FLANGED BOWL ASSEMBLY
LARGE VERTICAL TURBINE
MULTI-STAGE, OPEN LINESHAFT
PENTAIR FAIRBANKS NIJHUIS
DWG NO 700AP002
REV NO

⚠ WARNING

ALWAYS BE SURE LIFTING EQUIPMENT IS OF ADEQUATE SIZE TO PREVENT POSSIBLE SERIOUS PERSONAL INJURY OR DAMAGE TO THE EQUIPMENT.

SEE PACKING BOX
OR
MECHANICAL SEAL DETAIL



FLANGED COLUMN

THREADED COLUMN

NOTES:
(1) COLUMN SECTIONS ARE TO BE LIFTED BY EYEBOLTS OR "COLUMN CLAMPS" (SUPPLIED BY OTHERS).
(2) COLUMN, AND SHAFT ASSEMBLIES SHOULD BE SECURED TOGETHER BY ROPE SLINGS OR OTHER SUITABLE MEANS.
(3) BEARING CENTERS (MAX)
TOP: 6.5'
INTER: 5'
COLUMN & SHAFT LENGTHS (MAX): 10'
SHAFT PROJECTION: 17.5"
(4) REFER TO TECHINICAL DATA PAGE FOR OTHER DIMENSIONS AND WEIGHTS.

OPEN LINESHAFT
COLUMN SECTIONS

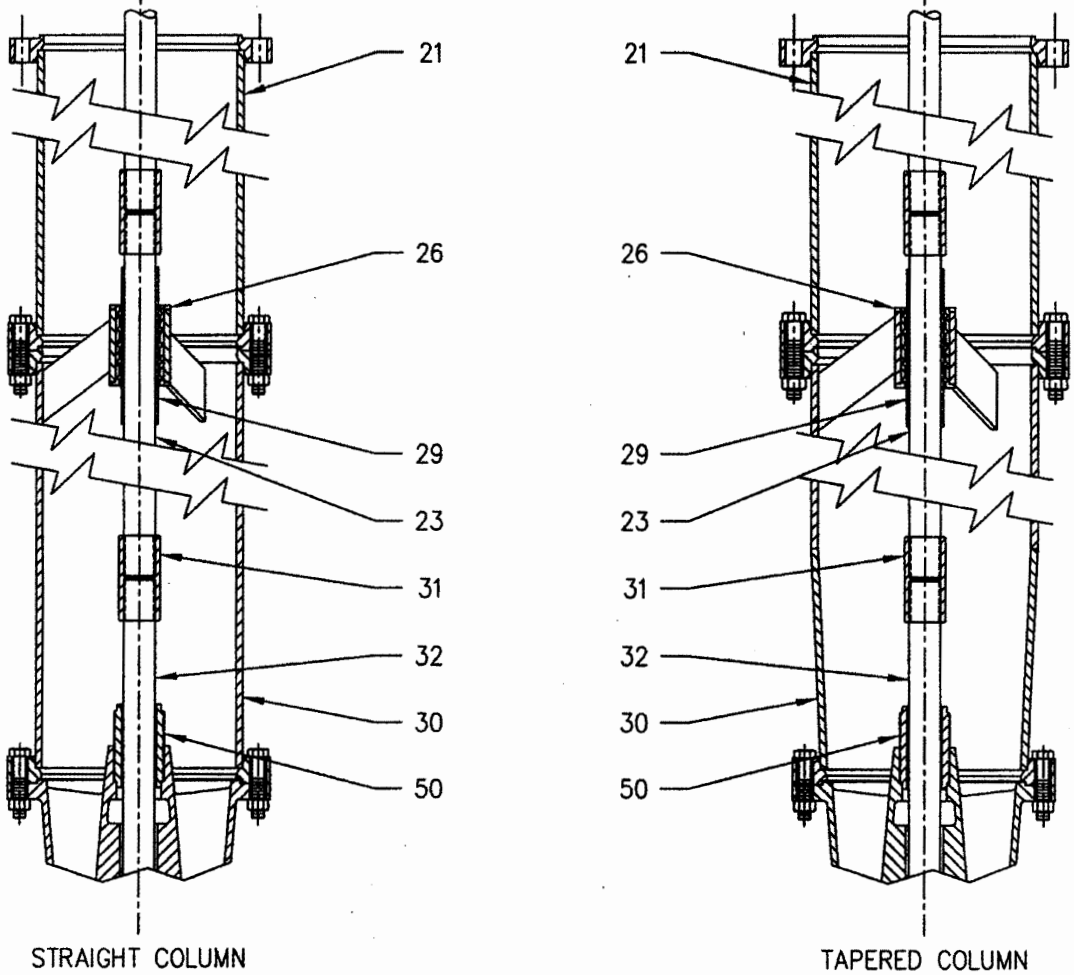
PENTAIR FAIRBANKS NIJHUIS

DWG NO 7000A041 REV NO 1

WARNING

ALWAYS BE SURE LIFTING EQUIPMENT IS OF ADEQUATE SIZE TO PREVENT POSSIBLE SERIOUS PERSONAL INJURY OR DAMAGE TO THE EQUIPMENT.

SEE PACKING BOX
OR
MECHANICAL SEAL DETAIL



STRAIGHT COLUMN

TAPERED COLUMN

NOTES:
(1) COLUMN SECTIONS ARE TO BE LIFTED BY EYEBOLTS OR "COLUMN CLAMPS" (SUPPLIED BY OTHERS).
(2) COLUMN, AND SHAFT ASSEMBLIES SHOULD BE SECURED TOGETHER BY ROPE SLINGS OR OTHER SUITABLE MEANS.
(3) BEARING CENTERS (MAX)
TOP:
INTER:
COLUMN & SHAFT LENGTHS (MAX): 10'
SHAFT PROJECTION: 17.5"
(4) REFER TO TECHINICAL DATA PAGE FOR OTHER DIMENSIONS AND WEIGHTS.

OPEN LINESHAFT
18" AND LARGER COLUMN

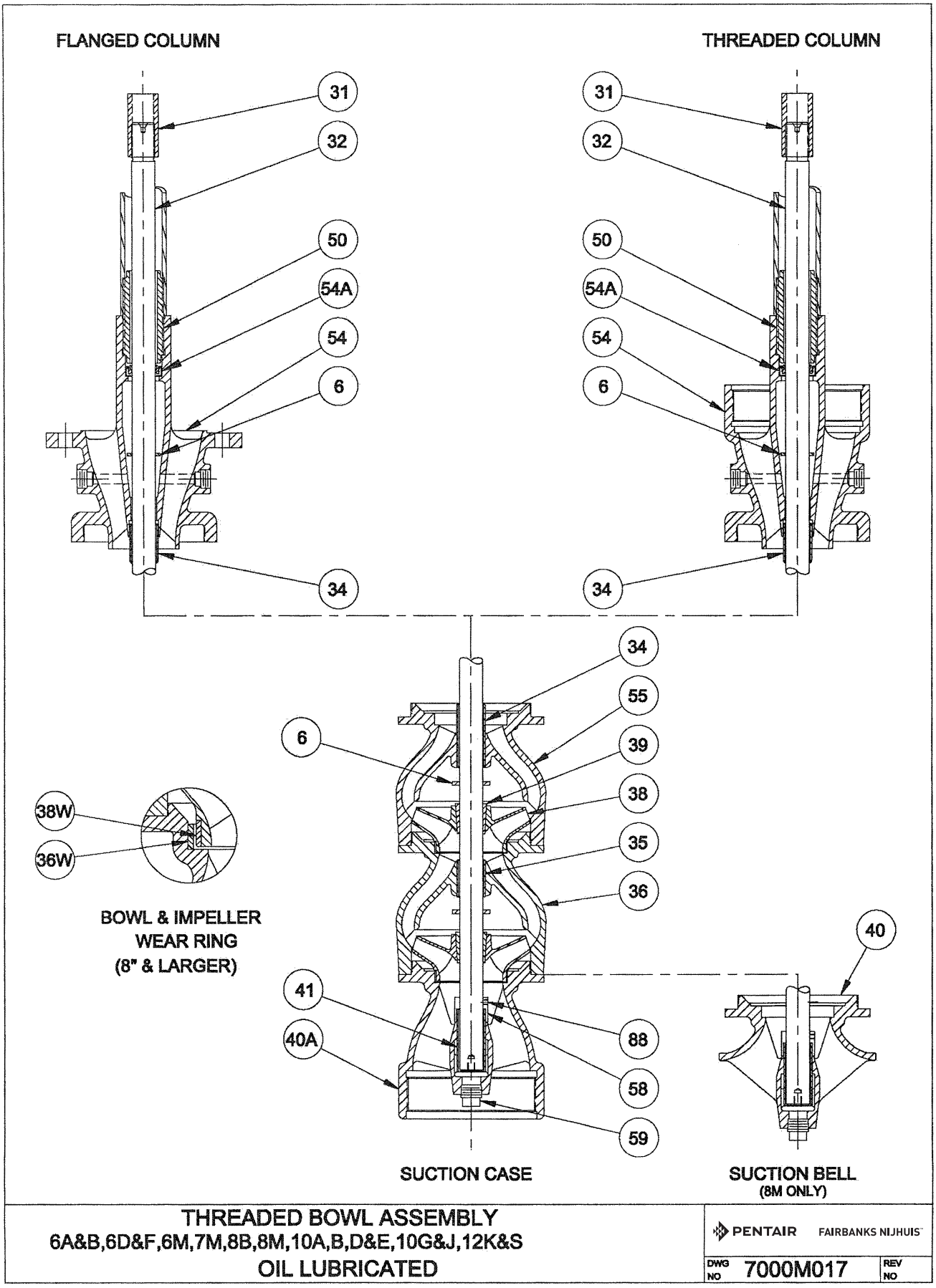
PENTAIR FAIRBANKS NIJHUIS

DWG NO 8000A043 REV NO 1

Oil Lubricated Enclosed Lineshaft Material Specifications

Item	Description	Material	Specification
1	Top Shaft Adjusting Nut	Steel	A108 Grade 12L14
6	Water Slinger	Rubber	Neoprene
7	Discharge Head	Cast Iron / Steel	A48 Class 30 / A53 & A36 (3)
11	Gasket	Tag Board	F104
16	Column Flange Gasket	Tag Board	F104
19A	Drive Shaft	Steel	AISI 1045
19B	Top Shaft	Steel	AISI 1045
21	Top Column	Steel	A53 & A36 (3)
23	Lineshaft	Steel	AISI 1045
24	Column Coupling	Steel	A53 Grade B
27	Snap Ring	Stainless Steel	A564 Alloy 632
27A	Thrust Ring	Stainless Steel	A583 – 416
30	Column	Steel	A53 & A36 (3)
31	Shaft Coupling	Steel (4)	A108 Grade 12L14
32	Pump Shaft	Stainless Steel	A582 – 416
34	Top Bowl Bearing	Bronze	B505 C93200
35	Inter Bowl Bearing	Bronze	B505 C93200
36	Inter Bowl	Cast Iron (2)	A48 Class 30
36W	Bowl Wear Ring	Bronze	B505 C93200
38	Impeller	Bronze	B584 C83600
38A	Impeller Key	Steel	A108 Grade 1018
38W	Impeller Wear Ring	Bronze	B505 C93200
39	Drive Collet	Stainless Steel	A582 – 416
40	Suction Bell	Cast Iron	A48 Class 30
40A	Suction Case	Cast Iron	A48 Class 30
41	Suction Bearing	Bronze	B505 C93200
50	Connector Bearing	Bronze	B505 C93200
51	Inter & Bottom Enclosing Tube	Steel	A120, Schedule 80
51A	Top Enclosing Tube	Steel	A120, Schedule 80
52	Underground Discharge Elbow	Steel	A53 & A36 (3)
53	Step Connector Bearing	Bronze	B505 C93200
54	Discharge Case	Cast Iron (2)	A48 Class 30
55	Top Inter Bowl	Cast Iron (2)	A48 Class 30
58	Sand Collar	Bronze	B505 C93200
59	Suction Bowl Plug	Cast Iron	Commercial
62	Driver Pedestal	Steel	A53 & A36 (3)
63	Tube Tension Nut	Bronze	B584 C83600
63A	Tension Nut Gasket	Copper	B152 Alloy 110
65	Tube Stabilizer	Rubber	Commercial
88	Set Screw	Stainless Steel	A320
220	High Ring Base	Cast Iron or Steel	A48 Class 30 or A53 & A36 (3)
267	Coupling Guard	Sheet Steel	Commercial
Options			
95	Sole Plate	Cast Iron / Steel	A48 Class 30 / A36

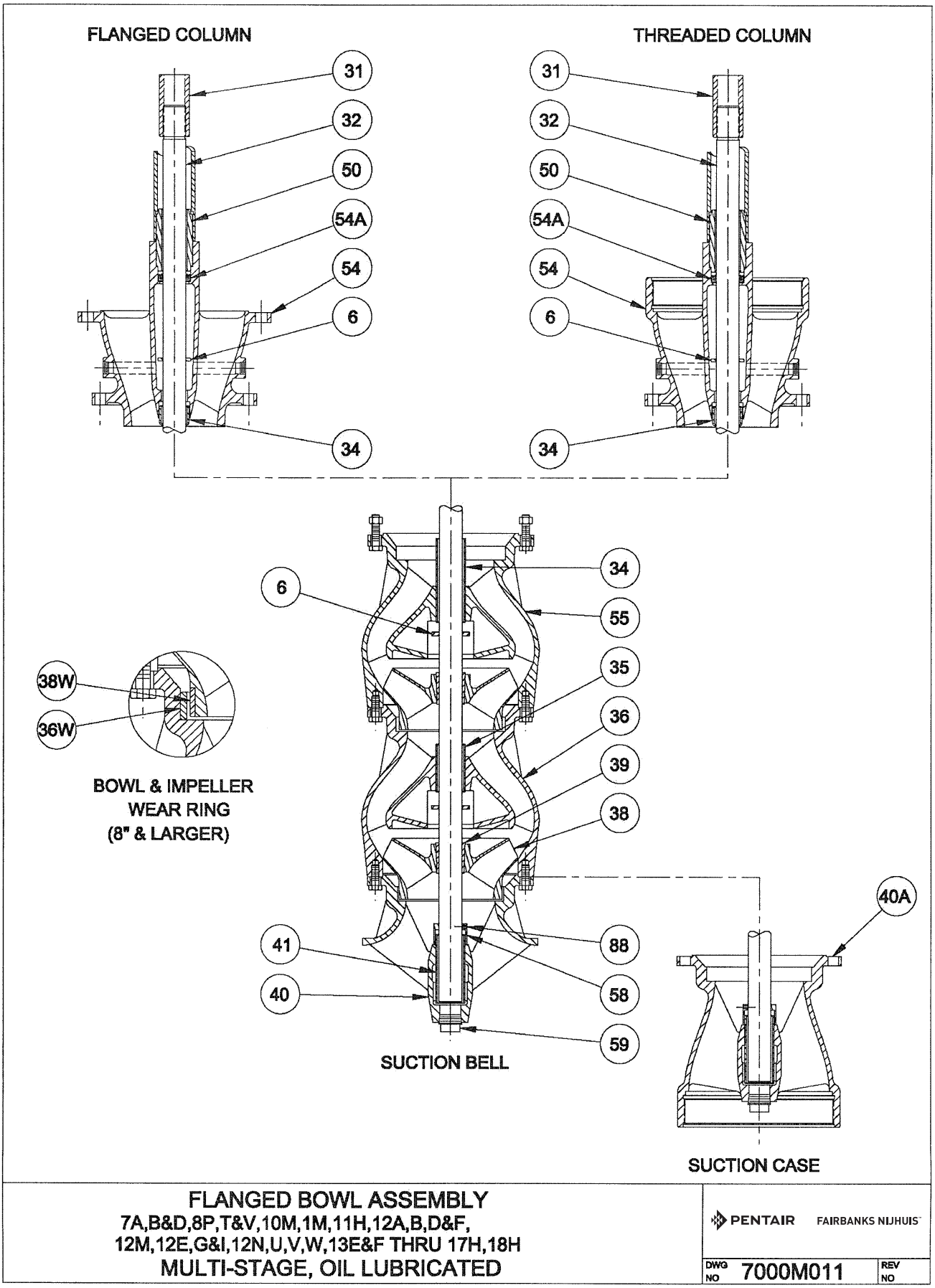
Notes:
1. All material specifications are ASTM unless otherwise noted and are a description of chemistry only.
2. Bowl interior is coated with Tnemec N140 Pota-Pox Plus, or equal.
3. Circular sections are A53 & plate is A36.
4. Pump shaft coupling is stainless steel, ASTM A582 S41600.



THREADED BOWL ASSEMBLY
6A&B,6D&F,6M,7M,8B,8M,10A,B,D&E,10G&J,12K&S
OIL LUBRICATED

PENTAIR FAIRBANKS NIJHUIS

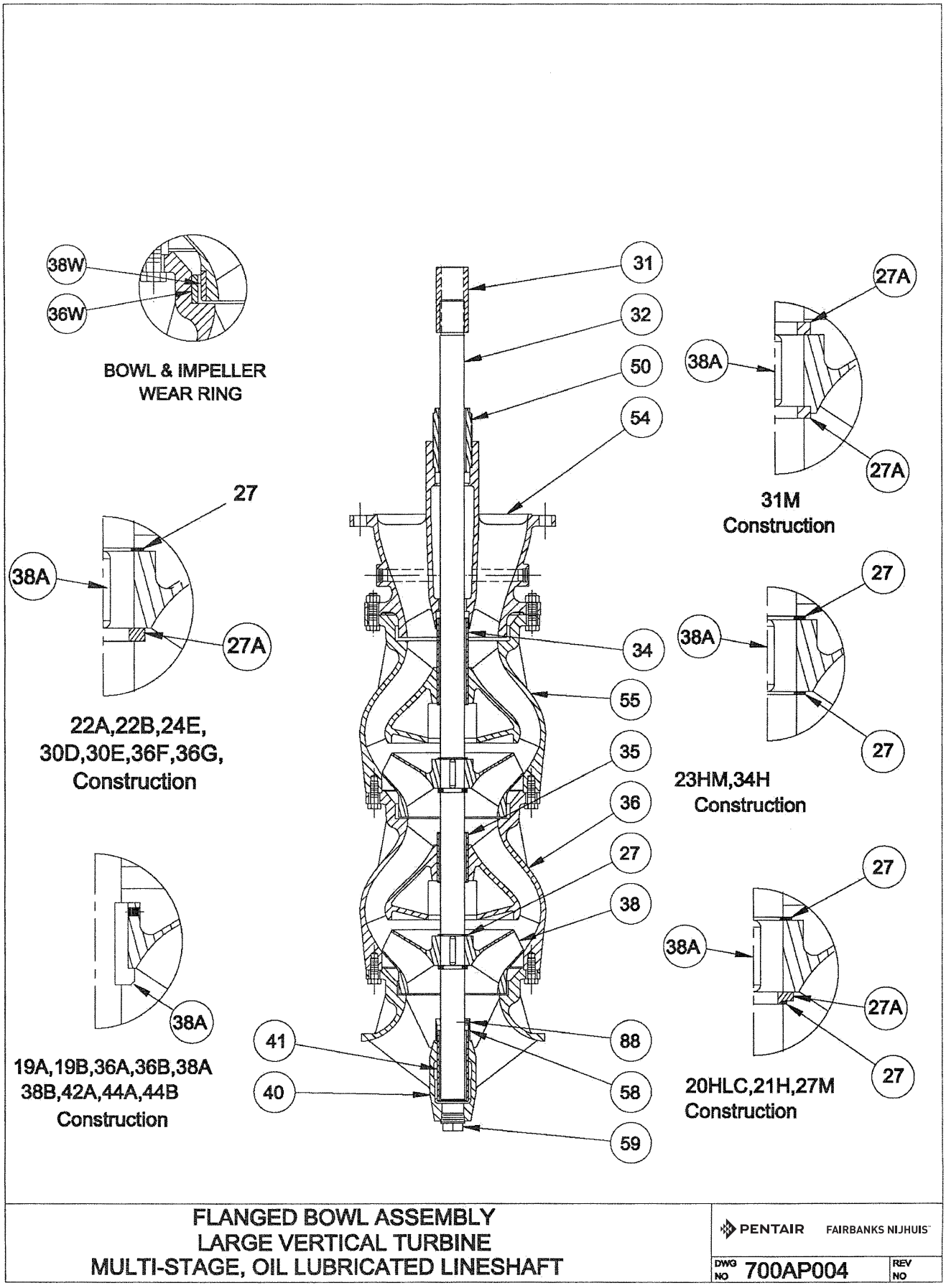
DWG NO 7000M017 REV NO



FLANGED BOWL ASSEMBLY
7A,B&D,8P,T&V,10M,1M,11H,12A,B,D&F,
12M,12E,G&I,12N,U,V,W,13E&F THRU 17H,18H
MULTI-STAGE, OIL LUBRICATED

PENTAIR FAIRBANKS NIJHUIS

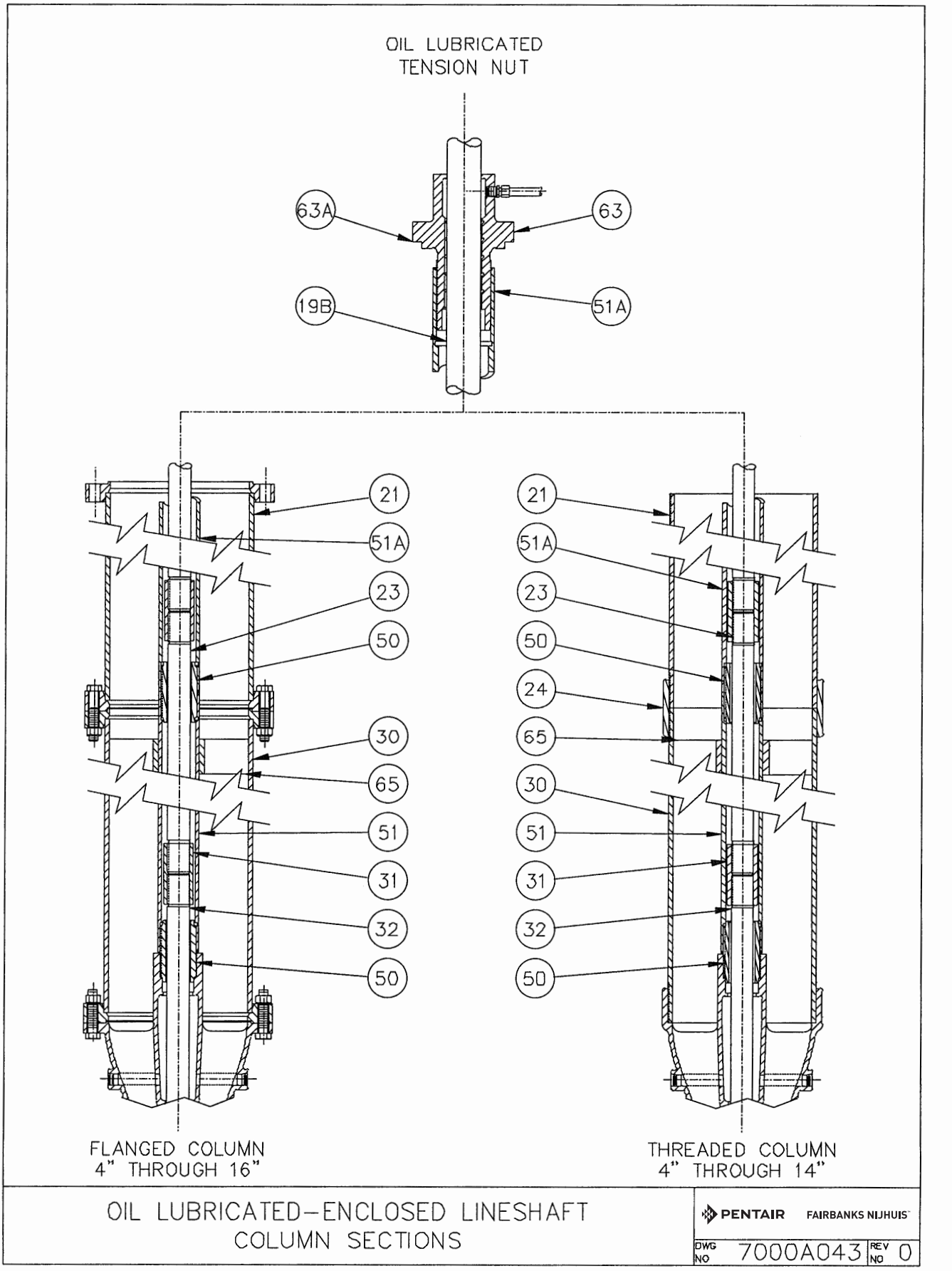
DWG NO 7000M011 REV NO



FLANGED BOWL ASSEMBLY
LARGE VERTICAL TURBINE
MULTI-STAGE, OIL LUBRICATED LINESHAFT

PENTAIR FAIRBANKS NIJHUIS

DWG NO 700AP004 REV NO



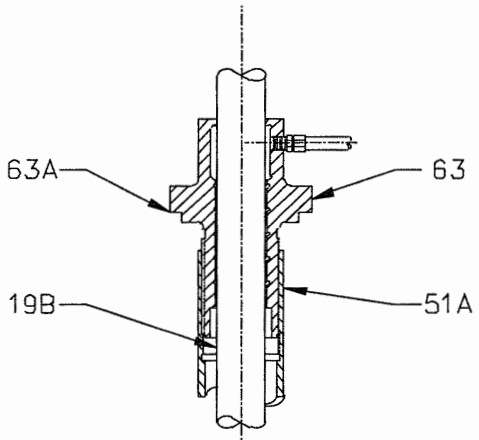
COLUMN SECTIONS ARE TO BE LIFTED BY EYEBOLTS OR "COLUMN CLAMPS" (SUPPLIED BY OTHERS)

WARNING:
ALWAYS MAKE SURE LIFTING EQUIPMENT IS OF ADEQUATE SIZE TO PREVENT POSSIBLE SERIOUS PERSONAL INJURY OR DAMAGE TO THE EQUIPMENT.

COLUMN TUBE AND SHAFT ASSEMBLIES SHOULD BE SECURED TOGETHER BY ROPE SLINGS OR OTHER SUITABLE MEANS.

TUBE STABILIZERS ARE REQUIRED WHEN SETTING EXCEEDS 30 FT.

OIL LUBRICATED
TENSION NUT

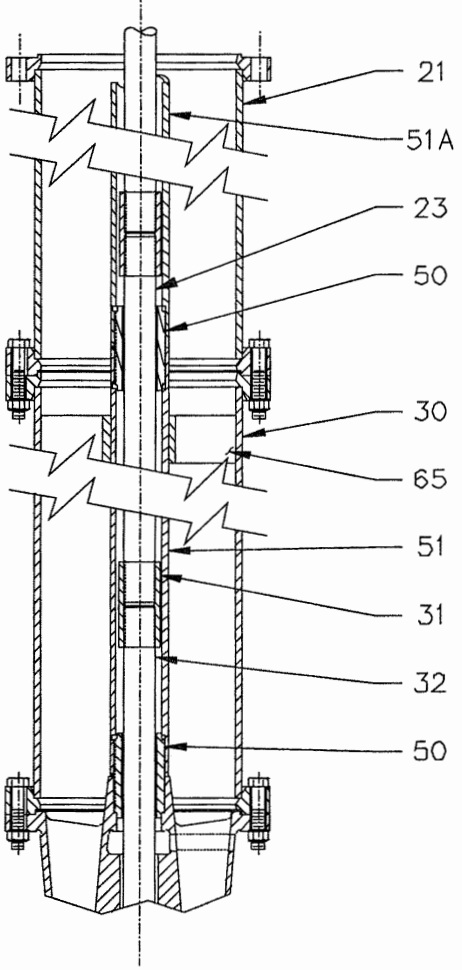


BEARING CENTERS (MAX)
TOP 6.5 FT.
INTER 5 FT.

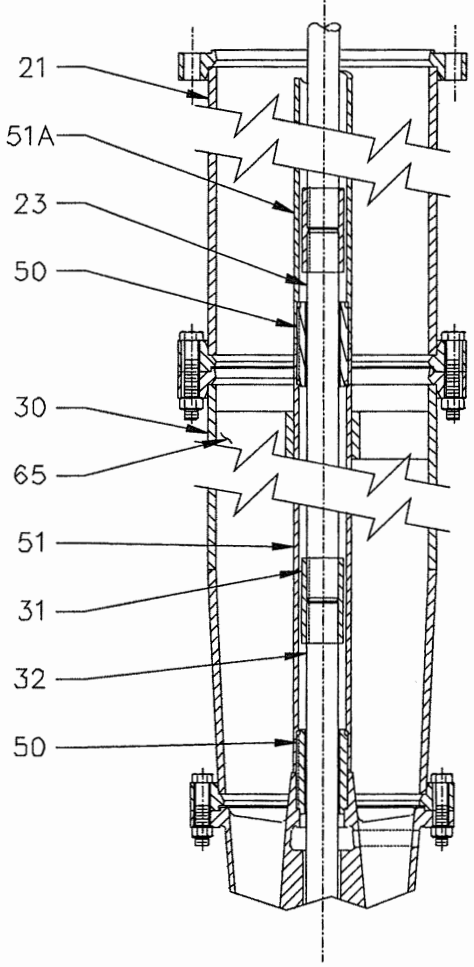
COLUMN & SHAFT LENGTHS
MAX 10 FT.

SHAFT PROJECTION
17-1/2"

REFER TO TECHNICAL DATA PAGE FOR OTHER DIMENSIONS AND WEIGHTS.



STRAIGHT COLUMN



TAPERED COLUMN

OIL LUBRICATED-ENCLOSED LINESHAFT
4" THRU 20" COLUMN

PENTAIR FAIRBANKS NIJHUIS

DWG NO 8000A045 REV NO 0

COLUMN SECTIONS ARE TO BE LIFTED BY EYEBOLTS OR "COLUMN CLAMPS" (SUPPLIED BY OTHERS)

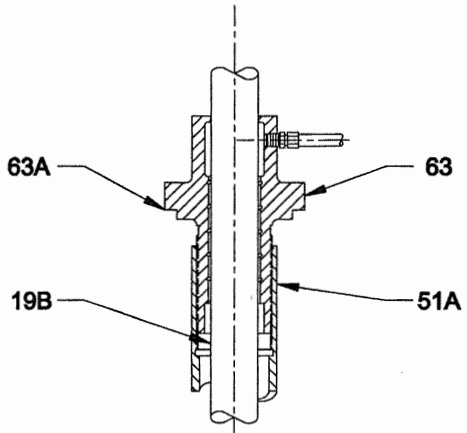
WARNING:

ALWAYS MAKE SURE LIFTING EQUIPMENT IS OF ADEQUATE SIZE TO PREVENT POSSIBLE SERIOUS PERSONAL INJURY OR DAMAGE TO THE EQUIPMENT.

COLUMN TUBE AND SHAFT ASSEMBLIES SHOULD BE SECURED TOGETHER BY ROPE SLINGS OR OTHER SUITABLE MEANS.

TUBE STABILIZERS ARE REQUIRED WHEN SETTING EXCEEDS 30 FT.

OIL LUBRICATED TENSION NUT

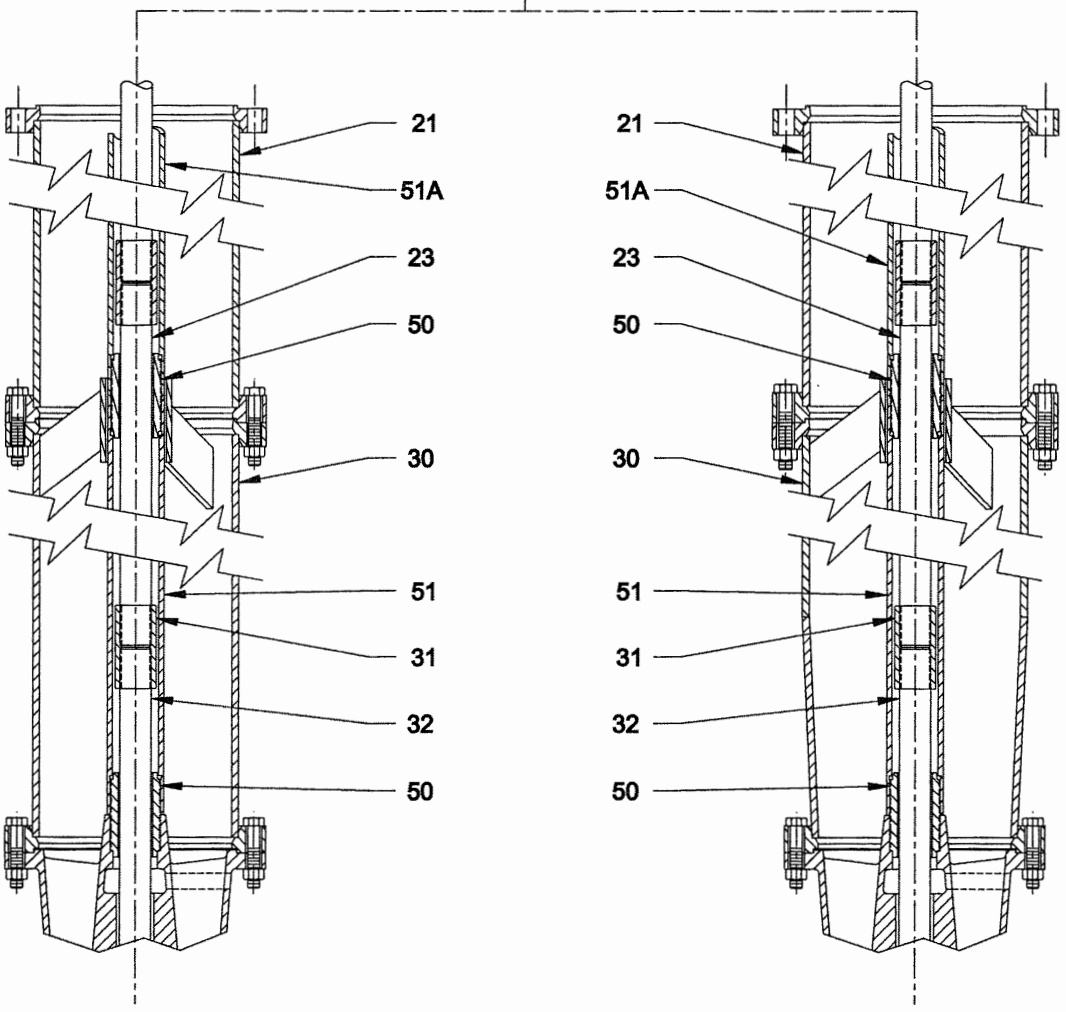


BEARING CENTERS (MAX)
TOP 6.5 FT.
INTER 5 FT.

COLUMN & SHAFT LENGTHS
MAX 10 FT.

SHAFT PROJECTION
17-1/2"

REFER TO TECHNICAL DATA PAGE FOR OTHER DIMENSIONS AND WEIGHTS.



STRAIGHT COLUMN

TAPERED COLUMN

OIL LUBRICATED-ENCLOSED LINESHAFT 24" AND LARGER COLUMN (AVAILABLE ALL SIZES)

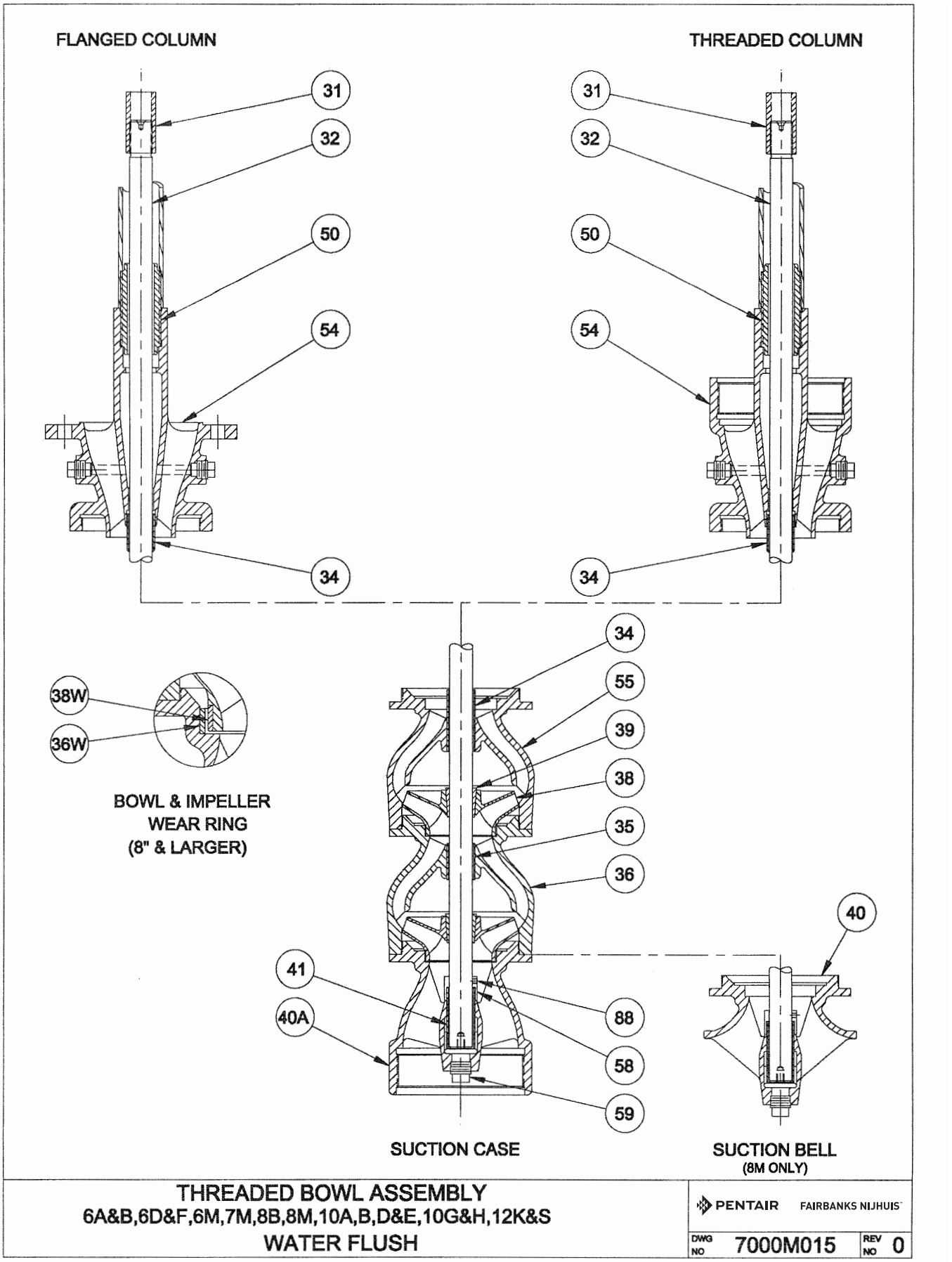
PENTAIR FAIRBANKS NIJHUIS

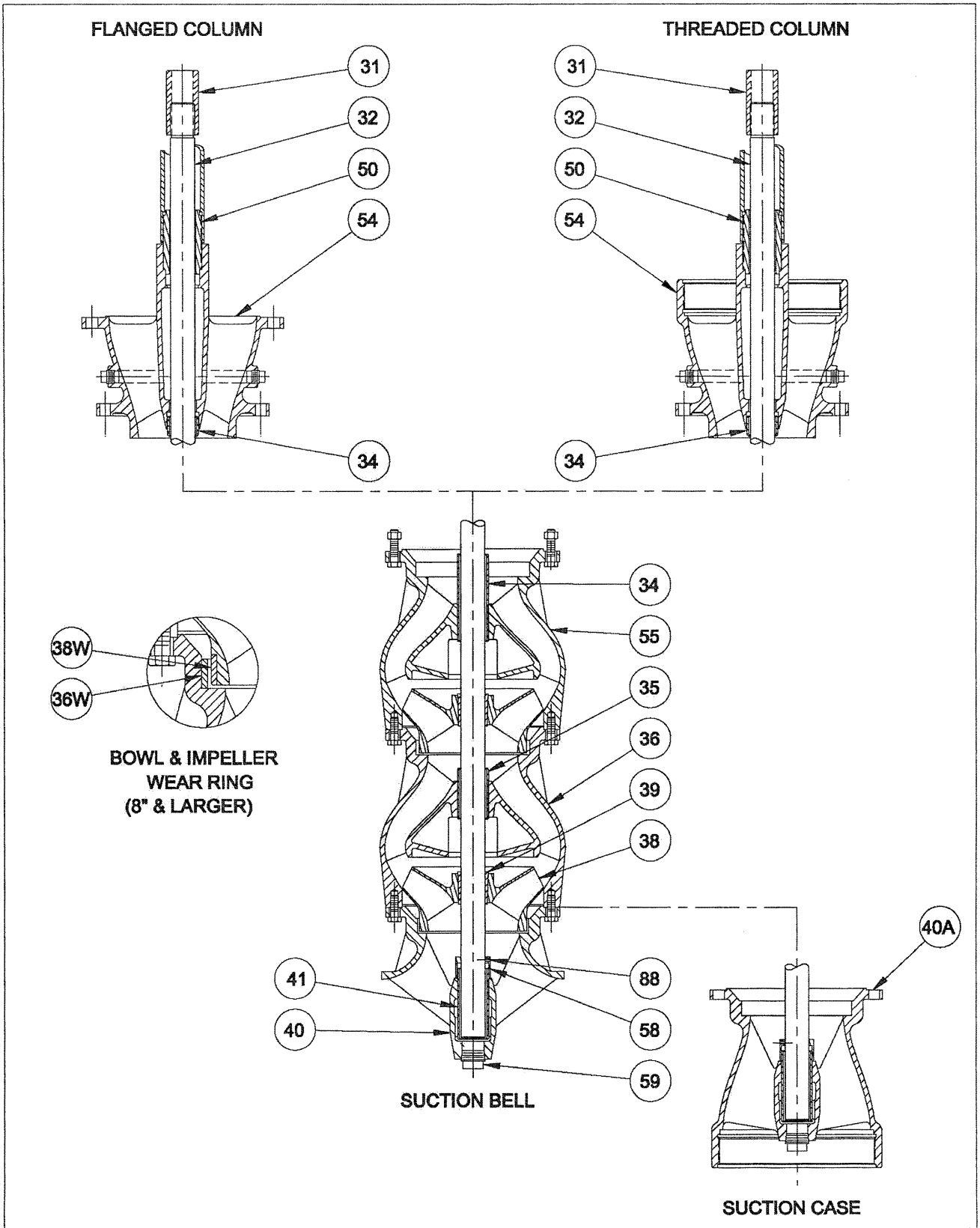
DWG NO 8000A047 REV NO 0

Water Flush Lineshaft Material Specifications

Item	Description	Material	Specification
1	Top Shaft Adjusting Nut	Steel	A108 Grade 12L14
6	Water Slinger	Rubber	Neoprene
7	Discharge Head	Cast Iron / Steel	A48 Class 30 / A53 & A36 (3)
8	Gland Bolt	Stainless Steel	18-8
8A	Gland Nut	Stainless Steel	18-8
9	Packing Gland	Cast Iron	A48 Class 30
13	Top Shaft Sleeve	Stainless Steel	AISI 304
15	Packing	Synthetic	Commercial
16	Column Flange Gasket	Tag Board	F104
17	Packing (Tension) Box	Cast Iron	A48 Class 30
17B	Packing Box Washer	Stainless Steel	Commercial
19A	Drive Shaft	Steel	AISI 1045
19B	Top Shaft	Stainless Steel	A582 - 416
21	Top Column	Steel	A53 & A36 (3)
23	Lineshaft	Stainless Steel	A582 - 416
24	Column Coupling	Steel	A53 Grade B
27	Snap Ring	Stainless Steel	A564 Alloy 632
27A	Thrust Ring	Stainless Steel	A583 – 416
30	Column	Steel	A53 & A36 (3)
31	Shaft Coupling	Steel (4)	A108 Grade 12L14
32	Pump Shaft	Stainless Steel	A582 – 416
34	Top Bowl Bearing	Bronze	B505 C93200
35	Inter Bowl Bearing	Bronze	B505 C93200
36	Inter Bowl	Cast Iron (2)	A48 Class 30
36W	Bowl Wear Ring	Bronze	B505 C93200
38	Impeller	Bronze	B584 C83600
38A	Impeller Key	Steel	A108 Grade 1018
38W	Impeller Wear Ring	Bronze	B505 C93200
39	Drive Collet	Stainless Steel	A582 – 416
40	Suction Bell	Cast Iron	A48 Class 30
40A	Suction Case	Cast Iron	A48 Class 30
41	Suction Bearing	Bronze	B505 C93200
50	Connector Bearing	Bronze	B505 C93200
51	Inter & Bottom Enclosing Tube	Steel	A120, Schedule 80
51A	Top Enclosing Tube	Steel	A120, Schedule 80
52	Underground Discharge Elbow	Steel	A53 & A36 (3)
53	Step Connector Bearing	Bronze	B505 C93200
54	Discharge Case	Cast Iron (2)	A48 Class 30
55	Top Inter Bowl	Cast Iron (2)	A48 Class 30
58	Sand Collar	Bronze	B505 C93200
59	Suction Bowl Plug	Cast Iron	Commercial
62	Driver Pedestal	Steel	A53 & A36 (3)
63A	Tension Box Gasket	Copper	B152 Alloy 110
65	Tube Stabilizer	Rubber	Commercial
88	Set Screw	Stainless Steel	A320
220	High Ring Base	Cast Iron or Steel	A48 Class 30 or A53 & A36 (3)
267	Coupling Guard	Sheet Steel	Commercial
Options			
13	Top Shaft Sleeve	Stainless Steel	AISI 304
95	Sole Plate	Cast Iron / Steel	A48 Class 30 / A36

Notes:
1. All material specifications are ASTM unless otherwise noted and are a description of chemistry only.
2. Bowl interior is coated with Tnemec 140 Pota-Pox Plus, or equal.
3. Circular sections are A53 & plate is A36.

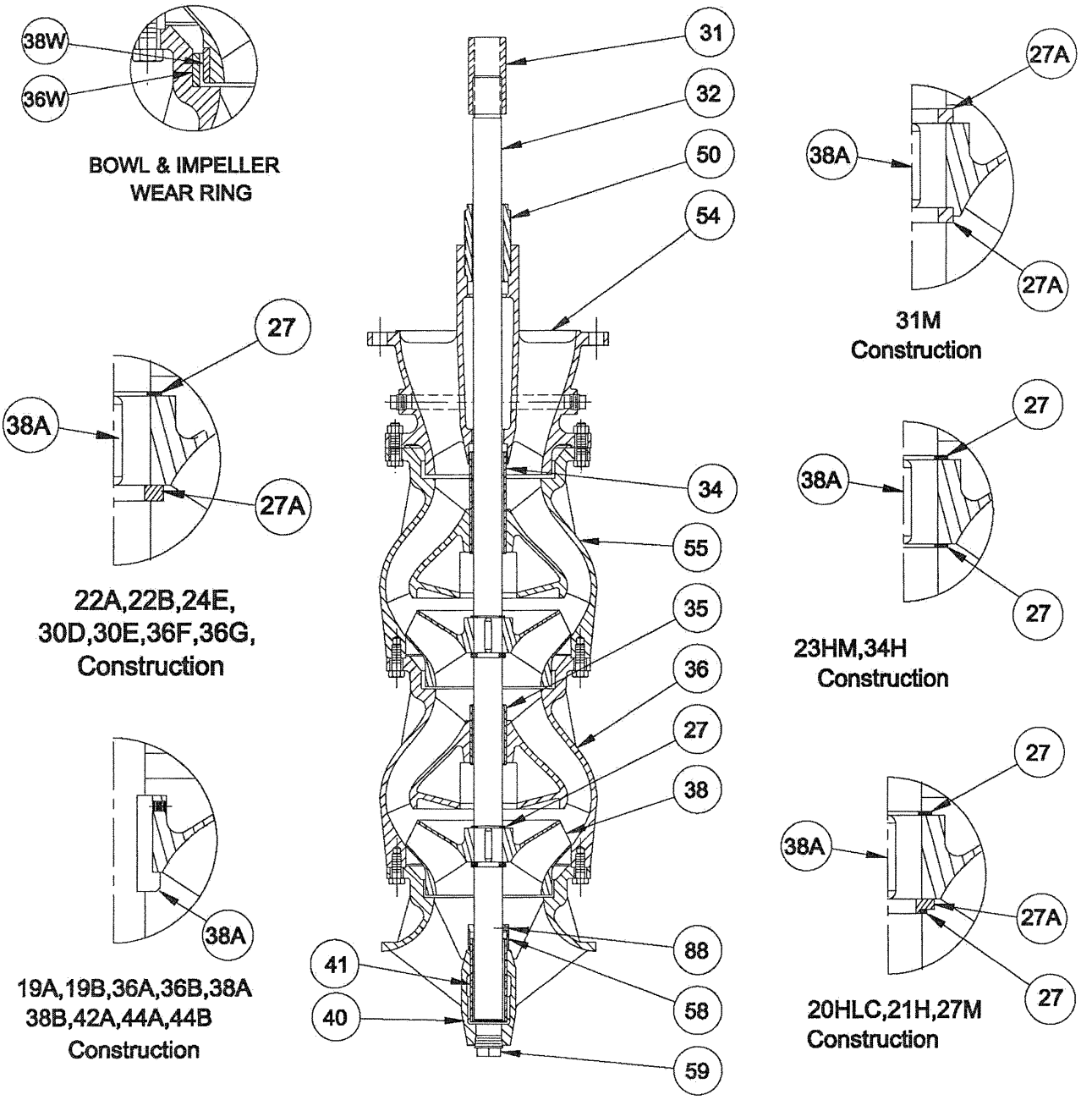




FLANGED BOWL ASSEMBLY
7A,B&D,8P,T&V,10M,11M,11H,12A,B,D&F,
12M,12E,G&I,12N,U,V,W,13E&F THRU 17H,18H
MULTI-STAGE, WATER FLUSH

PENTAIR FAIRBANKS NIJHUIS

DWG NO 7000M007 REV NO 0



FLANGED BOWL ASSEMBLY
LARGE VERTICAL TURBINE
MULTI-STAGE, WATERFLUSH LINESHAFT

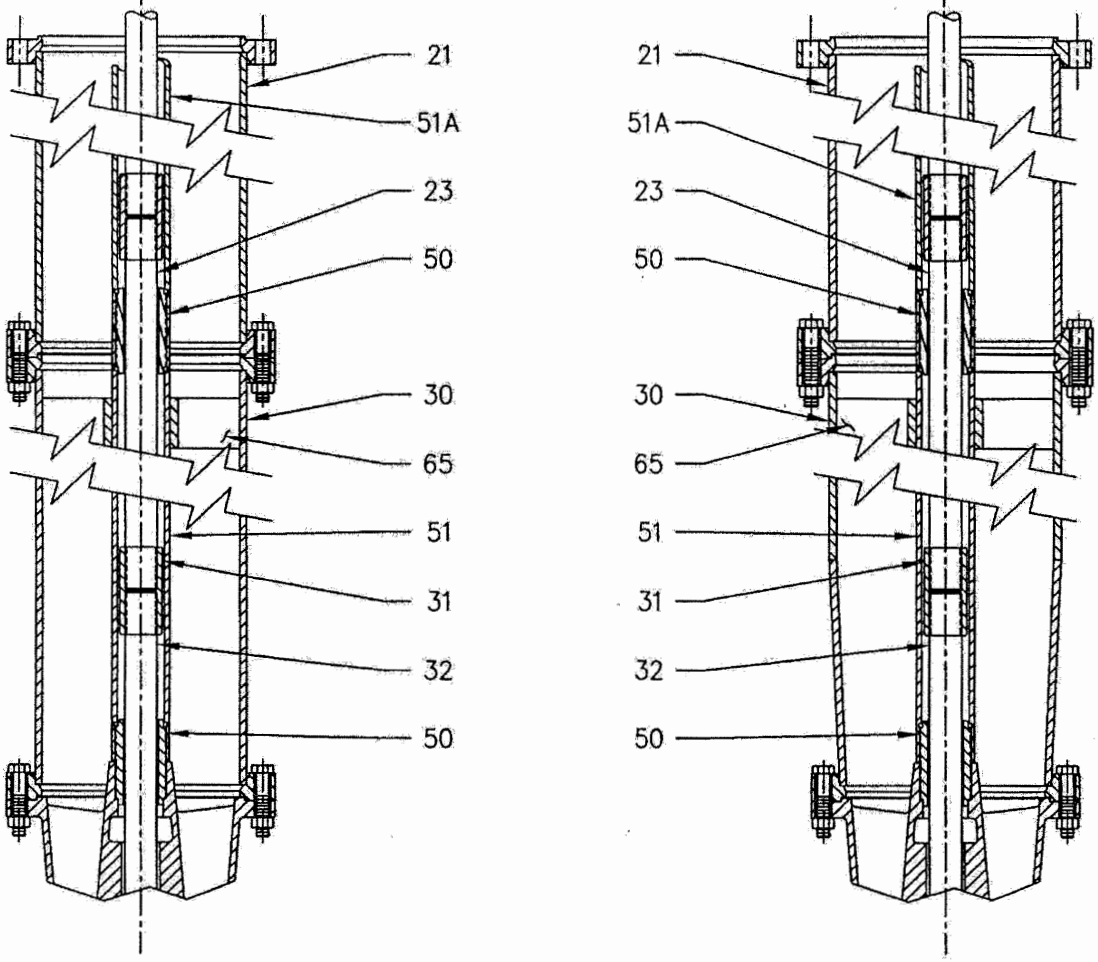
PENTAIR FAIRBANKS NIJHUIS

DWG NO 700AP008 REV NO

WARNING

ALWAYS BE SURE LIFTING EQUIPMENT IS OF ADEQUATE SIZE TO PREVENT POSSIBLE SERIOUS PERSONAL INJURY OR DAMAGE TO THE EQUIPMENT.

SEE PACKING BOX
OR
MECHANICAL SEAL DETAIL



STRAIGHT COLUMN

TAPERED COLUMN

NOTES:
(1) COLUMN SECTIONS ARE TO BE LIFTED BY EYEBOLTS OR "COLUMN CLAMPS" (SUPPLIED BY OTHERS).
(2) COLUMN, TUBE AND SHAFT ASSEMBLIES SHOULD BE SECURED TOGETHER BY ROPE SLINGS OR OTHER SUITABLE MEANS.
(3) TUBE STABILIZERS ARE REQUIRED WHEN SETTING EXCEEDS 30 FT.
(4) BEARING CENTERS (MAX)
TOP: 6.5'
INTER: 5'
COLUMN & SHAFT LENGTHS (MAX): 10'
SHAFT PROJECTION: 17.5"
(5) REFER TO TECHINICAL DATA PAGE FOR OTHER DIMENSIONS AND WEIGHTS.

WATER FLUSH–ENCLOSED LINESHAFT
8" THRU 20" COLUMN

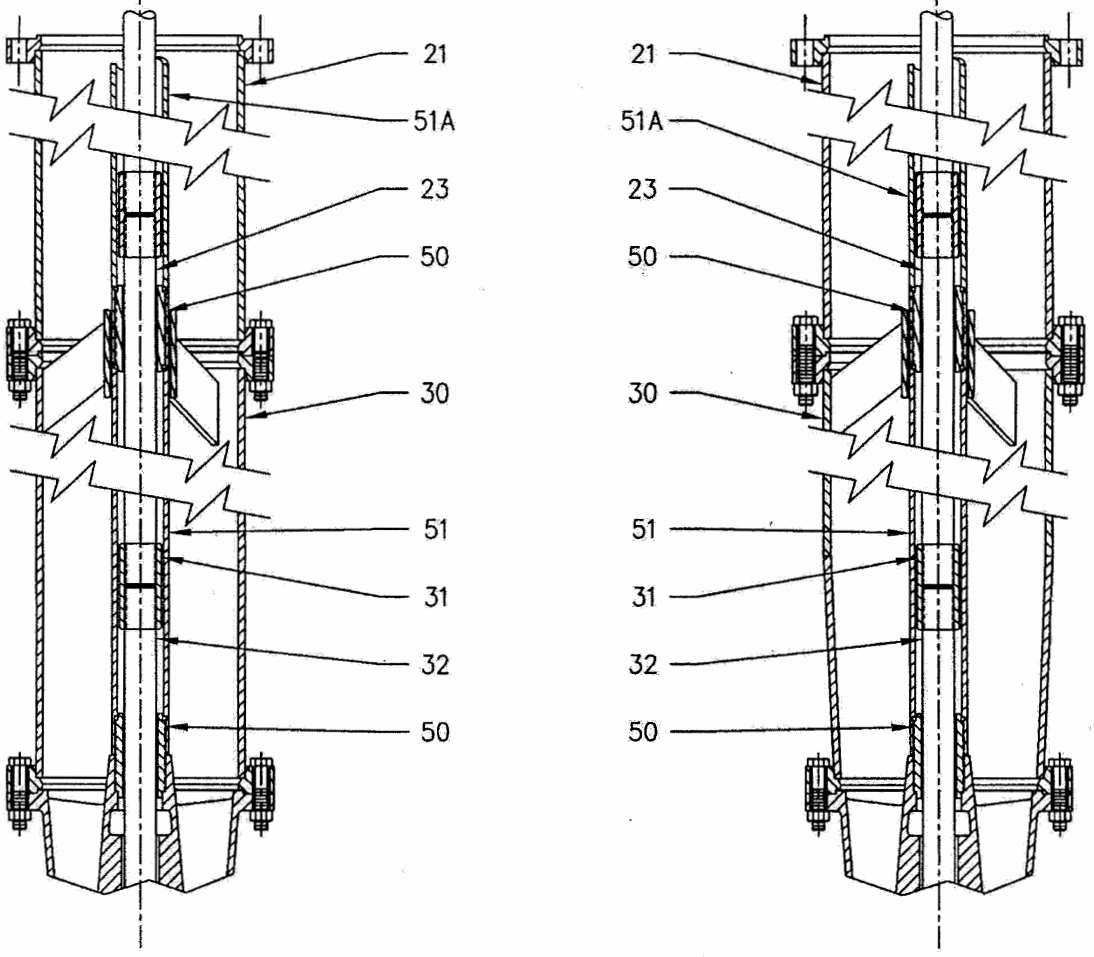
PENTAIR FAIRBANKS NIJHUIS

DWG NO 8000A049 REV NO 1

WARNING

ALWAYS BE SURE LIFTING EQUIPMENT IS OF ADEQUATE SIZE TO PREVENT POSSIBLE SERIOUS PERSONAL INJURY OR DAMAGE TO THE EQUIPMENT.

SEE PACKING BOX
OR
MECHANICAL SEAL DETAIL



STRAIGHT COLUMN

TAPERED COLUMN

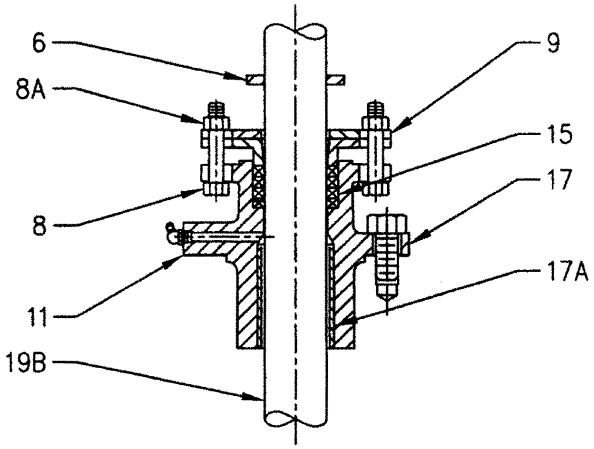
NOTES:
(1) COLUMN SECTIONS ARE TO BE LIFTED BY EYEBOLTS OR "COLUMN CLAMPS" (SUPPLIED BY OTHERS).
(2) COLUMN, TUBE AND SHAFT ASSEMBLIES SHOULD BE SECURED TOGETHER BY ROPE SLINGS OR OTHER SUITABLE MEANS.
(3) TUBE STABILIZERS ARE REQUIRED WHEN SETTING EXCEEDS 30 FT.
(4) BEARING CENTERS (MAX)
TOP: 6.5'
INTER: 5'
COLUMN & SHAFT LENGTHS (MAX): 10'
SHAFT PROJECTION: 17.5"
(5) REFER TO TECHINICAL DATA PAGE FOR OTHER DIMENSIONS AND WEIGHTS.

WATER FLUSH–ENCLOSED LINESHAFT
24" AND LARGER COLUMN (AVAILABLE ALL SIZES)

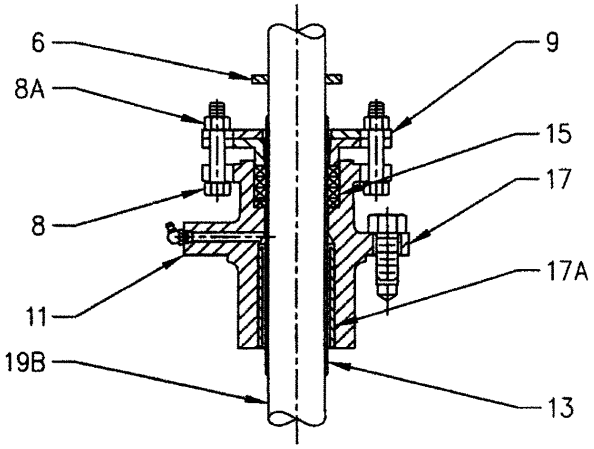
PENTAIR FAIRBANKS NIJHUIS

DWG NO 8000A051 REV NO 1

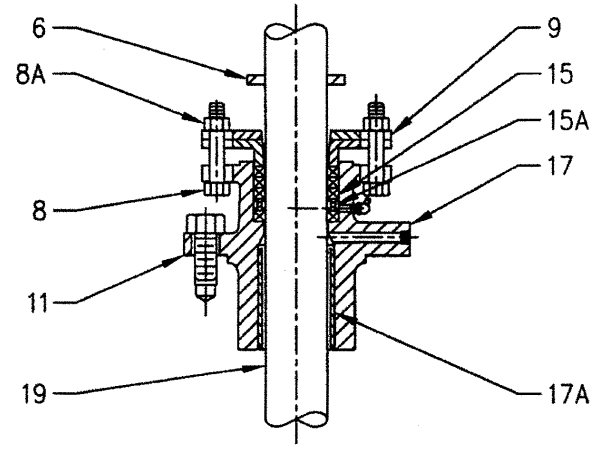
175# PACKING BOX
WITHOUT SHAFT SLEEVE



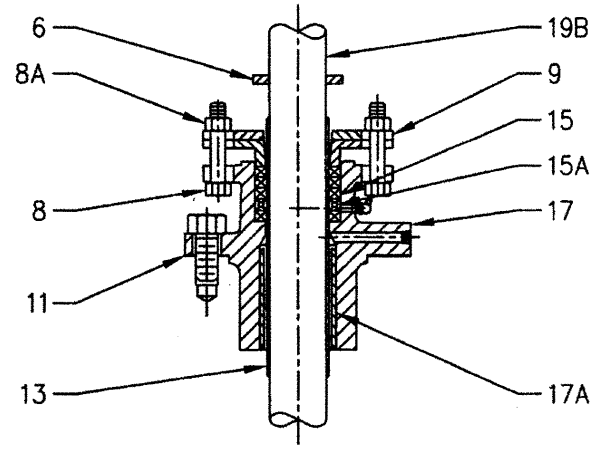
175# PACKING BOX
WITH OPTIONAL SHAFT SLEEVE



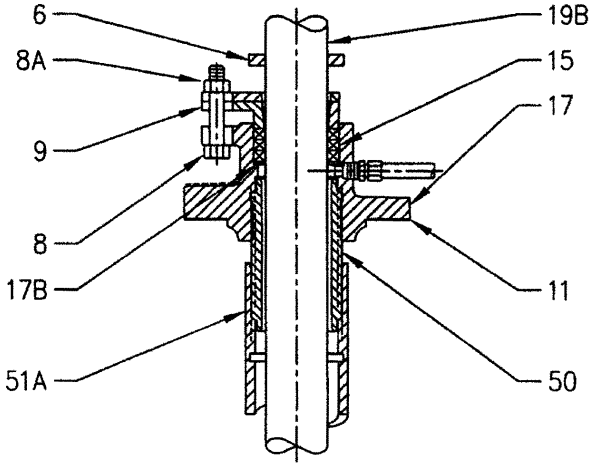
400# PACKING BOX
OR 175# BY-PASS PACKING BOX
WITHOUT SHAFT SLEEVE



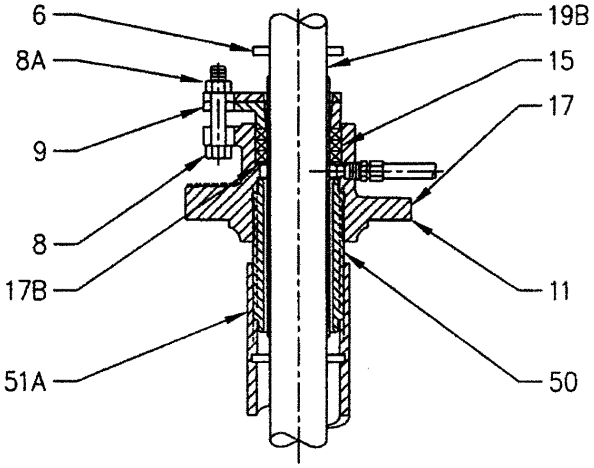
400# PACKING BOX
OR 175# BY-PASS PACKING BOX
WITH OPTIONAL SHAFT SLEEVE



WATER FLUSH PACKING BOX
WITHOUT SHAFT SLEEVE



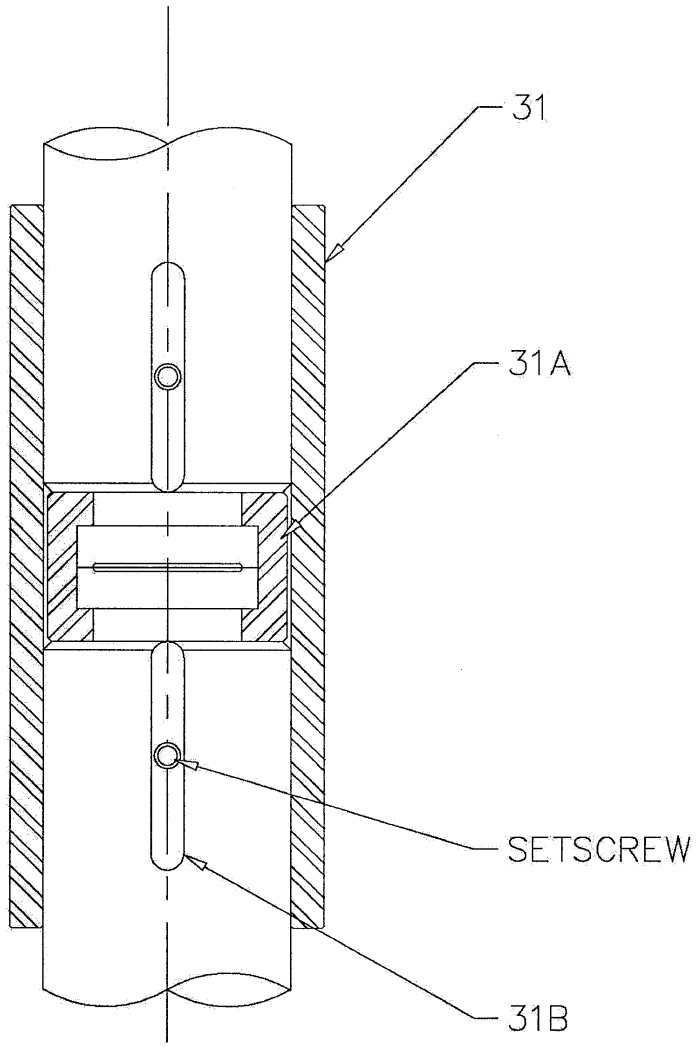
WATER FLUSH PACKING BOX
WITH OPTIONAL SHAFT SLEEVE



PACKING BOX DETAILS

PENTAIR FAIRBANKS NIJHUIS

DWG NO 7000A083 REV NO 0



SHAFT COUPLINGS

PENTAIR FAIRBANKS NIJHUIS

DWG NO 7000-CPLG REV NO 0

BOWL TECHNICAL DATA*

Bowl Size	6A	6B	6D	6F	6M	6G	6J
Pump Shaft Diameter - Inches	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Bowl Weight, 1st Stage - Lbs.	100	100	100	100	50	60	60
Bowl Weight, Ea. Add. Stage - Lbs.	25	25	25	25	15	16	16
Allowable Shaft Stretch - Inches	0.36	0.36	0.50	0.50	0.27	0.25	0.25
Maximum Working Pressure - PSI	530	530	530	530	826	400	400
Maximum Hydro Pressure - PSI	795	795	795	795	1239	600	600
Impeller Eye Area - Sq. In.	2.86	3.38	3.88	4.32	4.10	6.28	6.28
Rotor Weight 1st/add stages - K_a	8.0 / 3.3	8.4 / 3.7	8.3 / 3.6	7.9 / 3.2	4.0 / 4.0	9.3/3.8	9.3/3.8
Maximum Sphere Size - Inches	0.34	0.34	0.28	0.34	0.43	0.34	0.34
Thrust Factor - K_t	1.50	1.60	2.40	2.50	1.74	2.20	2.10
WR^2	0.03	0.03	0.03	0.03	0.05	0.03	0.03
Running Position (above seat) - In.	0.187	0.187	0.250	0.125	0.200	0.125	0.125
Submergence - In.	13	16	21	27	30	28	32
Max. Bowl Brg Clearance - In. Diam.	0.009	0.009	0.009	0.009	0.014	0.009	0.009
Max Wear Ring Clearance - In. Diam.	0.018	0.018	0.018	0.018	0.018	0.018	0.018
Max Bowl O.D. - In.	5.63	5.63	5.63	5.63	5.50	5.50	5.50
Suct Bell O.D. - In.	5.50	5.50	5.50	5.50	NA	5.50	5.50

Bowl Size	7M	7A	7D	7B	8B	8M	8P
Pump Shaft Diameter - Inches	1.000	1.000	1.000	1.000	1.188	1.188	1.188
Bowl Weight, 1st Stage - Lbs.	71	84	84	84	107	82	140
Bowl Weight, Ea. Add. Stage - Lbs.	22	30	30	30	37	31	45
Allowable Shaft Stretch - Inches	0.39	0.25	0.25	0.25	0.44	0.37	0.375
Maximum Working Pressure - PSI	823	400	400	400	800	804	400
Maximum Hydro Pressure - PSI	1234	600	600	600	1200	1206	600
Impeller Eye Area - Sq. In.	6.05	7.56	7.56	7.56	4.11	6.93	10.4
Rotor Weight 1st/add stages - K_a	4.4 / 4.4	9.7/4.7	9.7/4.7	9.7/4.7	17.3 / 7.7	5.25 / 5.25	19.0/11.0
Maximum Sphere Size - Inches	0.50	0.44	0.44	0.44	0.41	0.56	0.56
Thrust Factor - K_t	2.56	3.70	3.00	3.70	2.20	2.32	4.30
WR^2	0.09	0.1	0.16	0.1	0.13	0.17	0.16
Running Position (above seat) - In.	0.200	0.125	0.125	0.125	0.250	0.200	0.125
Submergence - In.	30	24	26	32	14	32	19
Max. Bowl Brg Clearance - In. Diam.	0.014	0.009	0.009	0.009	0.009	0.014	0.009
Max Wear Ring Clearance - In. Diam.	0.018	0.018	0.018	0.018	0.018	0.018	0.018
Max Bowl O.D. - In.	6.50	7.13	7.13	7.13	7.75	7.70	7.63
Suct Bell O.D. - In.	NA	7.50	7.50	7.50	7.50	8.00	9.50

Bowl Size	8T	8V	10M	10G	10J	10A	10B
Pump Shaft Diameter - Inches	1.188	1.188	1.437	1.500	1.500	1.500	1.500
Bowl Weight, 1st Stage - Lbs.	140	140	180	200	200	185	185
Bowl Weight, Ea. Add. Stage - Lbs.	45	45	49	73	73	67	67
Allowable Shaft Stretch - Inches	0.375	0.375	0.63	0.44	0.44	0.920	0.560
Maximum Working Pressure - PSI	400	400	475	450	450	530	700
Maximum Hydro Pressure - PSI	600	600	712	675	675	795	1050
Impeller Eye Area - Sq. In.	10.40	10.40	11.19	16.53	19.53	10.15	11.36
Rotor Weight 1st/add stages - K_a	19.0/11.0	19.0/11.0	15.8/15.8	34.6/18.3	32.2/15.9	30.8/14.5	30.5/14.2
Maximum Sphere Size - Inches	0.56	0.56	0.68	0.63	0.94	0.47	0.63
Thrust Factor - K_t	4.30	4.30	3.80	6.00	10.00	5.20	4.00
WR^2	0.16	0.16	0.52	0.63	0.54	0.44	0.432
Running Position (above seat) - In.	0.125	0.125	0.200	0.250	0.250	0.437	0.437
Submergence - In.	20	20	33	26	36	25	30
Max. Bowl Brg Clearance - In. Diam.	0.009	0.009	0.014	0.013	0.013	0.013	0.013
Max Wear Ring Clearance - In. Diam.	0.018	0.018	0.018	0.023	0.023	0.023	0.023
Max Bowl O.D. - In.	7.63	7.63	9.63	9.88	9.88	9.75	9.75
Suct Bell O.D. - In.	9.50	9.50	10.00	9.50	9.50	9.50	9.50

*Maximum operating temperature is 160° F with bronze bearings and 150° with rubber bearings.

BOWL TECHNICAL DATA*

Bowl Size	10D	10E	11M	11H	12A	12B	12D
Pump Shaft Diameter - Inches	1.500	1.500	1.437	1.437	1.687	1.687	1.687
Bowl Weight, 1st Stage - Lbs.	185	185	240	236	278	278	278
Bowl Weight, Ea. Add. Stage - Lbs.	67	67	75	115	105	105	105
Allowable Shaft Stretch - Inches	0.680	0.860	0.680	0.80	0.70	0.70	0.70
Maximum Working Pressure - PSI	700	700	488	488	580	580	580
Maximum Hydro Pressure - PSI	1050	1050	732	732	870	870	870
Impeller Eye Area - Sq. In.	11.63	19.50	14.86	22.40	16.40	16.40	16.40
Rotor Weight 1st/add stages - K_a	29.3/12.7	10.2/10.2	22.0/22.0	33.0/33.0	42.2/21.5	43.6/22.4	43.5/22.3
Maximum Sphere Size - Inches	0.84	0.63	0.81	0.88	0.88	0.88	0.88
Thrust Factor - K_t	4.00	4.00	5.02	8.71	6.00	5.20	6.20
WR^2	0.37	0.43	1.03	1.90	0.95	1.00	1.00
Running Position (above seat) - In.	0.437	0.437	0.200	0.200	0.312	0.312	0.312
Submergence - In.	20	30	34	30	20	25	25
Max. Bowl Brg Clearance - In. Diam.	0.013	0.013	0.014	0.014	0.013	0.013	0.013
Max Wear Ring Clearance - In. Diam.	0.023	0.023	0.018	0.018	0.023	0.023	0.023
Max Bowl O.D. - In.	9.75	9.75	10.86	11.48	11.75	11.75	11.75
Suct Bell O.D. - In.	9.50	9.50	11.38	11.38	11.50	11.50	11.50

Bowl Size	12F	12K	12S	12M	12E	12G	12I
Pump Shaft Diameter - Inches	1.687	1.687	1.687	1.687	1.938	1.938	1.938
Bowl Weight, 1st Stage - Lbs.	278	328	328	290	410	410	410
Bowl Weight, Ea. Add. Stage - Lbs.	105	123	123	105	145	145	145
Allowable Shaft Stretch - Inches	0.70	0.50	0.50	0.920	0.375	0.375	0.375
Maximum Working Pressure - PSI	580	410	410	380	400	400	400
Maximum Hydro Pressure - PSI	870	615	615	570	600	600	600
Impeller Eye Area - Sq. In.	16.40	28.30	29.63	19.40	25.50	25.50	25.50
Rotor Weight 1st/add stages - K_a	45.6/24.3	50.1/29.8	47.3/27.0	29.5/29.5	58.0/31.0	58.0/31.0	58.0/31.0
Maximum Sphere Size - Inches	0.88	1.12	1.06	0.94	0.75	0.75	0.75
Thrust Factor - K_t	5.50	8.50	8.00	6.33	9.40	9.40	9.40
WR^2	1.12	1.52	1.28	1.62	1.30	1.30	1.30
Running Position (above seat) - In.	0.312	0.125	0.125	0.200	0.125	0.125	0.125
Submergence - In.	27	33	46	33	22	23	24
Max. Bowl Brg Clearance - In. Diam.	0.013	0.013	0.013	0.014	0.014	0.014	0.014
Max Wear Ring Clearance - In. Diam.	0.023	0.023	0.023	0.018	0.023	0.023	0.023
Max Bowl O.D. - In.	11.75	11.75	11.75	12.26	11.38	11.38	11.38
Suct Bell O.D. - In.	11.50	11.50	11.50	13.00	13.00	13.00	13.00

Bowl Size	12N	12U	12W	12V	13E	13F	13H
Pump Shaft Diameter - Inches	1.938	1.938	1.938	1.687	1.687	1.687	1.687
Bowl Weight, 1st Stage - Lbs.	240	240	240	280	278	278	327
Bowl Weight, Ea. Add. Stage - Lbs.	130	130	130	120	116	116	157
Allowable Shaft Stretch - Inches	0.560	0.560	0.560	1.00	0.64	0.64	0.80
Maximum Working Pressure - PSI	400	400	400	400	400	400	380
Maximum Hydro Pressure - PSI	600	600	600	600	600	600	570
Impeller Eye Area - Sq. In.	27.50	37.40	37.40	34.94	25.50	25.50	28.40
Rotor Weight 1st/add stages - K_a	51.0/27.0	51.0/27.0	51.0/27.0	18.0/18.0	46.5/25.7	46.5/25.7	43.3/43.3
Maximum Sphere Size - Inches	0.75	1.5	0.75	0.88	1.00	1.00	1.00
Thrust Factor - K_t	13.20	13.20	13.20	12.50	13.50	15.20	12.02
WR^2	1.68	1.68	1.68	1.40	1.45	1.45	3.11
Running Position (above seat) - In.	0.125	0.125	0.125	0.125	0.125	0.125	0.20
Submergence - In.	24	30	30	48	33	41	34
Max. Bowl Brg Clearance - In. Diam.	0.014	0.014	0.014	0.013	0.013	0.013	0.014
Max Wear Ring Clearance - In. Diam.	0.023	0.023	0.023	0.023	0.023	0.023	0.018
Max Bowl O.D. - In.	11.50	11.50	11.50	11.75	12.63	12.63	12.90
Suct Bell O.D. - In.	13.00	13.00	13.00	11.50	11.50	11.50	13.00

*Maximum operating temperature is 160° F with bronze bearings and 150° with rubber bearings.

BOWL TECHNICAL DATA*

Bowl Size	14C / F	14D	14M	14I / J	15H	16E	17M
Pump Shaft Diameter - Inches	2.188	2.188	1.938	2.188	1.937	2.187	2.187
Bowl Weight, 1st Stage - Lbs.	700	700	376	650	469	400	600
Bowl Weight, Ea. Add. Stage - Lbs.	265	265	138	240	200	250	250
Allowable Shaft Stretch - Inches	0.70	0.70	0.93	0.56	0.86	0.44	0.88
Maximum Working Pressure - PSI	400	400	433	400	476	300	460
Maximum Hydro Pressure - PSI	600	600	649	600	714	450	690
Impeller Eye Area - Sq. In.	41.20	41.20	24.80	56.00	37.80	51.20	56.95
Rotor Weight 1st/add stages - K_a	95.0/53.0	95.0/53.0	37.5	85/45	53.4	98.4/61.3	65
Maximum Sphere Size - Inches	1.25 / 1.00	1.25	1.00	1.25	1.31	1.42	1.38
Thrust Factor - K_t	15.50	15.50	8.41	23.20	14.47	22.00	21.08
WR^2	4.15	4.15	3.55	2.90	4.91	7.20	7.50
Running Position (above seat) - In.	0.125	0.125	0.200	0.125	0.200	0.125	0.200
Submergence - In.	30	33	36	36 / 38	34	32	26
Max. Bowl Brg Clearance - In. Diam.	.010/.011	.010/.011	0.014	.010/.011	0.014	.010/.011	0.014
Max Wear Ring Clearance - In. Diam.	0.023	0.023	0.018	0.023	0.018	0.023	0.028
Max Bowl O.D. - In.	14.25	14.25	14.00	13.63	15.00	16.25	16.92
Suct Bell O.D. - In.	17.00	17.00	14.75	17	14.75	17.25	18

Bowl Size	17H	18H	19A	19B	20HL	21H	22A
Pump Shaft Diameter - Inches	2.187	2.187	2.187	2.187	2.187	2.437	2.687
Bowl Weight, 1st Stage - Lbs.	664	500	610	610	698	900	1200
Bowl Weight, Ea. Add. Stage - Lbs.	274	350	350	350	529	435	550
Allowable Shaft Stretch - Inches	0.81	0.38	0.62	0.62	0.44	0.94	0.56
Maximum Working Pressure - PSI	452	300	300	300	RTF	465	350
Maximum Hydro Pressure - PSI	678	450	450	450	RTF	697	525
Impeller Eye Area - Sq. In.	50.47	59.00	69.50	82.80	97.47	77.50	91.44
Rotor Weight 1st/add stages - K_a	70.1	131.0/93.0	100.0/80.0	100.0/80.0	138.5/138.5	88.0/88.0	167.0/119.0
Maximum Sphere Size - Inches	1.48	1.62	1.25	1.25	RTF	1.62	1.42
Thrust Factor - K_t	18.54	27	32	31	49	28.49	40
WR^2	7.62	10.20	7.45	7.45	19.20	16.93	22.00
Running Position (above seat) - In.	0.200	0.125	0.125	0.125	0.12	0.12	0.250
Submergence - In.	25	44	32	32	36	31	30
Max. Bowl Brg Clearance - In. Diam.	0.014	.010/.011	.010/.011	.010/.011	.014	.017	.010/.011
Max Wear Ring Clearance - In. Diam.	0.026	0.023	0.027	0.027	0.029	0.028	0.027
Max Bowl O.D. - In.	16.92	17.38	18.50	18.50	21.50	19.56	21.50
Suct Bell O.D. - In.	16.75	17.25	17.5/22.5	17.5/22.5	24.00	20.75	22.50

Bowl Size	22B	23HL	23HM	23HH	24E	27M	27ML
Pump Shaft Diameter - Inches	2.687	2.438	2.438	2.438	2.687	3.187	3.187
Bowl Weight, 1st Stage - Lbs.	1200	961	961	961	1300	1388	1388
Bowl Weight, Ea. Add. Stage - Lbs.	550	695	695	695	680	940	940
Allowable Shaft Stretch - Inches	0.56	0.88	0.88	0.88	0.44	1.25	1.25
Maximum Working Pressure - PSI	350	RTF	RTF	RTF	RTF	377	377
Maximum Hydro Pressure - PSI	525	RTF	RTF	RTF	RTF	565	565
Impeller Eye Area - Sq. In.	91.44	147.40	145.60	145.60	115.00	139.36	139.36
Rotor Weight 1st/add stages - K_a	167/119	155/155	155/155	155/155	217/217	225/225	225/225
Maximum Sphere Size - Inches	1.42	1.89	1.67	1.88	1.88	2.75	2.75
Thrust Factor - K_t	44.00	69.00	69.00	69.00	48.00	48.63	48.63
WR^2	22.0	36.4	36.4	36.4	40.0	60.0	60.0
Running Position (above seat) - In.	0.25	0.10	0.10	0.10	0.25	0.12	0.12
Submergence - In.	30	44	44	44	40	42	42
Max. Bowl Brg Clearance - In. Diam.	.010/.011	.017	.017	.017	.010/.011	.010/.015	.010/.015
Max Wear Ring Clearance - In. Diam.	0.027	0.031	0.031	0.031	0.027	0.031	0.031
Max Bowl O.D. - In.	21.50	23.00	23.00	23.00	24.00	26.60	26.60
Suct Bell O.D. - In.	22.50	29.00	29.00	29.00	22.50	28.11	28.11

*Maximum operating temperature is 160° F with bronze bearings and 150° with rubber bearings.

BOWL TECHNICAL DATA*

Bowl Size	30D LT	30D HVY	30E LT	30E HVY	31M	33HH	34H LT
Pump Shaft Diameter - Inches	3.187	3.187	3.187	3.187	3.687	3.687	2.437
Bowl Weight, 1st Stage - Lbs.	1860	1860	1860	1860	1750	2279	3500
Bowl Weight, Ea. Add. Stage - Lbs.	1057	1057	1057	1057	1200	1765	1400
Allowable Shaft Stretch - Inches	1.00	1.00	1.00	1.00	1.00	1.25	0.38
Maximum Working Pressure - PSI	300	RTF	300	RTF	485	RTF	363
Maximum Hydro Pressure - PSI	450	RTF	450	RTF	727	RTF	544
Impeller Eye Area - Sq. In.	146.12	146.12	174.0	174.0	168.0	293.4	227.0
Rotor Weight 1st/add stages - K_a	177/177	177/177	177/177	177/177	285/285	479/479	305/305
Maximum Sphere Size - Inches	1.81	1.81	2.36	2.36	3.25	2.36	3.25
Thrust Factor - K_t	70.00	70.00	65.00	65.00	62.04	137.00	111.00
WR^2	48.0	48.0	56.0	56.0	83.2	174.0	171.0
Running Position (above seat) - In.	0.25	0.25	0.25	0.25	0.18	0.18	0.18
Submergence - In.	40	40	47	47	47	58	80
Max. Bowl Brg Clearance - In. Diam.	.010/.011	.010/.011	.010/.011	.010/.011	.012/.018	.012/.018	.012/.018
Max Wear Ring Clearance - In. Diam.	0.027	0.027	0.027	0.027	0.034	0.033	0.032
Max Bowl O.D. - In.	27.75	27.75	27.75	27.75	29.56	32.25	34.75
Suct Bell O.D. - In.	27.00	27.00	27.00	27.00	31.30	41.50	32.00

Bowl Size	34H HVY	36F	36G	38A	38B	42A	44A
Pump Shaft Diameter - Inches	3.188	3.437	3.437	3.437	3.437	3.687	3.687
Bowl Weight, 1st Stage - Lbs.	3500	2580	2580	4000	4000	5905	8411
Bowl Weight, Ea. Add. Stage - Lbs.	1400	2150	2150	2370	2370	3352	4657
Allowable Shaft Stretch - Inches	0.38	1.20	1.20	1.12	0.76	1.00	1.50
Maximum Working Pressure - PSI	363	300	300	320	320	310	300
Maximum Hydro Pressure - PSI	544	450	450	480	480	465	450
Impeller Eye Area - Sq. In.	227.0	258.9	308.4	205.0	205.00	270.00	361.29
Rotor Weight 1st/add stages - K_a	305/305	417/417	417/417	320/320	320	425	687
Maximum Sphere Size - Inches	3.25	2.41	2.41	2.50	2.50	1.50	2.85
Thrust Factor - K_t	111.00	120.00	115.00	86.00	74	100	175
WR^2	171.0	195.0	195.0	160.0	170	300	440
Running Position (above seat) - In.	0.18	0.25	0.25	0.50	0.500	0.005	0.625
Submergence - In.	80	39	44	32	32	48	44
Max. Bowl Brg Clearance - In. Diam.	.012.018	0.013	0.013	0.013	0.013	0.014	0.014
Max Wear Ring Clearance - In. Diam.	0.032	0.027	0.027	0.027	0.027	0.027	0.027
Max Bowl O.D. - In.	34.75	35.75	35.75	34.25	34.25	40.00	43.00
Suct Bell O.D. - In.	32.00	40.00	40.00	34.25	34.25	43.00	43.00

Bowl Size	44B	57H	10HRO	14HRO	16HRO	17HRO	18HRO
Pump Shaft Diameter - Inches	3.687	5.500	1.187	1.688	1.938	2.187	2.187
Bowl Weight, 1st Stage - Lbs.	8411	11,500	85	244	328	425	525
Bowl Weight, Ea. Add. Stage - Lbs.	4657	8800	62	177	237	307	380
Allowable Shaft Stretch - Inches	1.50	RTF	RTF	RTF	RTF	RTF	RTF
Maximum Working Pressure - PSI	350	318	364	364	364	364	364
Maximum Hydro Pressure - PSI	525	477	546	546	546	546	546
Impeller Eye Area - Sq. In.	480.00	832.6	10.5	23.1	28.21	34.5	40.4
Rotor Weight 1st/add stages - K_a	707	1850	6	16	22	28	35
Maximum Sphere Size - Inches	3.75	3.2	0.75	1.14	1.22	1.34	1.45
Thrust Factor - K_t	159	364	4.5	9.8	12	14.5	17.2
WR^2	480	1440	0.10	0.80	1.30	2.10	3.0
Running Position (above seat) - In.	0.625	0.25	0.133	0.133	0.133	0.133	0.133
Submergence - In.	43	114	30.0	31.0	36.0	40.0	45.0
Max. Bowl Brg Clearance - In. Diam.	0.014	RTF	0.014	0.016	0.016	0.016	0.016
Max Wear Ring Clearance - In. Diam.	0.027	RTF	0.020	0.022	0.022	0.022	0.024
Max Bowl O.D. - In.	43.00	56.00	9.6	14.1	15.6	17.2	18.57
Suct Bell O.D. - In.	43.00	58.00	9.5	14.0	15.5	17.0	18

*Maximum operating temperature is 160° F with bronze bearings and 150° with rubber bearings.

ENCLOSING TUBE AND THREADED LINESHAFT TECHNICAL DATA

Enclosing Tube		**1-1/2"**	**2"**	**2-1/2"**		**3"**	
Lineshaft Size		**1"**	**1-1/4"**	**1-1/2"**	**1-11/16"**	**1-15/16"**	**2-3/16"**
Tube Technical Data							
Schedule Number		80	80	80		80	
Maximum Setting (Feet)		RTF	RTF	RTF		RTF	
Outside Diameter (Inches)		1.900	2.375	2.875		3.500	
Inside Diameter (Inches)		1.500	1.939	2.323		2.900	
Wall Thickness (Inches)		.200	.218	.276		.300	
Weight Per Foot (Lbs./Ft.)		3.63	5.02	7.66		10.25	
Connector Bearing Length (Inches)		3-7/8	4-3/4	5		5-1/4	
Connector Bearing Weight (Lbs.)		1.5	3	5		7.5	
Shaft Technical Data							
Exact Lengths	5 Foot Section	5'0"	5'0"	5'0"	5'0"	5'0"	5'0"
	10 Foot Section	10'0"	10'0"	10'0"	10'0"	10'0"	10'0"
	20 Foot Section	20'0"	20'0"	20'0"	20'0"	20'0"	20'0"
Weight Per Foot (Lbs./Ft.)		2.76	4.18	6.01	7.60	10.02	12.78
Shaft Coupling Weight (Lbs.)		.5	1.6	1.8	2.3	4.5	5.6
Open Lineshaft Sleeve Thickness (Inches)		.093	.093	.093	.093	.093	.093
Open Lineshaft Sleeve Length (Inches)		7	7	7	7	7	7
Open Lineshaft Sleeve Weight (Lbs.)		.6	.7	.9	1.0	1.2	1.3
Open Lineshaft Bearing and Retainer Weight (Lbs.)	4" Column	1.4	1.4	N/A	N/A	N/A	N/A
	5" Column	2.2	2.2	2.6	N/A	N/A	N/A
	6" Column	2.7	2.7	2.9	2.9	N/A	N/A
	8" Column	3.7	3.7	4.2	4.2	4.8	N/A
	10" Column	6.9	6.9	6.9	6.9	6.9	6.9
	12" Column	9.8	9.8	9.8	9.8	9.8	98
	14" Column	16.0	16.0	16.0	16.0	16.0	16.0
	16" Column	N/A	N/A	26.5	26.5	26.5	26.5
	20" Column & Larger	N/A	N/A	N/A	N/A	N/A	N/A

ENCLOSING TUBE, THREADED LINESHAFT, BEARING AND RETAINER TECHNICAL DATA

Enclosing Tube		**3-1/2"**	**4"**	**5"**			**6"**
Lineshaft Size		**2-7/16"**	**2-11/16"**	**2-15/16"**	**3-3/16"**	**3-7/16"**	**3-11/16"**
Tube Technical Data							
Schedule Number		80	80	80			80
Maximum Setting (Feet)		RTF	RTF	RTF			RTF
Outside Diameter (Inches)		4.000	4.500	5.563			6.625
Inside Diameter (Inches)		3.364	3.826	4.813			5.761
Wall Thickness (Inches)		.318	.337	.375			.432
Weight Per Foot (Lbs./Ft.)		12.50	14.98	20.78			28.57
Connector Bearing Length (Inches)		5-1/2	5-3/4	6			7-1/4
Connector Bearing Weight (Lbs.)		9	12	23			39
Shaft Technical Data							
Exact Lengths	5 Foot Section	5'0"	5'0"	5'0"	5'0"	5'0"	5'0"
	10 Foot Section	10'0"	10'0"	10'0"	10'0"	10'0"	10'0"
	20 Foot Section	20'0"	20'0"	20'0"	20'0"	20'0"	20'0"
Weight Per Foot (Lbs./Ft.)		15.87	19.31	23.06	27.16	31.58	36.35
Shaft Coupling Weight (Lbs.)		5.6	13	18	22	28	36
Open Lineshaft Sleeve Thickness (Inches)		.125	.125	.125	.125	.125	.125
Open Lineshaft Sleeve Length (Inches)		7	8.125	8.875	9.125	9.500	9.750
Open Lineshaft Sleeve Weight (Lbs.)		1.6	2.5	3.0	3.4	3.8	4.1
Bearing and Retainer Technical Data							
Open Lineshaft Bearing and Retainer Weight (Lbs.)	4" Column	N/A	N/A	N/A	N/A	N/A	N/A
	5" Column	N/A	N/A	N/A	N/A	N/A	N/A
	6" Column	N/A	N/A	N/A	N/A	N/A	N/A
	8" Column	N/A	N/A	N/A	N/A	N/A	N/A
	10" Column	7.5	N/A	N/A	N/A	N/A	N/A
	12" Column	10.5	N/A	N/A	N/A	N/A	N/A
	14" Column	16.0	16.0	N/A	N/A	N/A	N/A
	16" Column	26.5	26.5	26.5	N/A	N/A	N/A
	20" Column & Larger	N/A	Bearing Retainers For These Sizes Are Fabricated In The Column				

ENCLOSING TUBE AND KEYED LINESHAFT TECHNICAL DATA

Enclosing Tube		**3-1/2"**	**4"**		**5"**		
Lineshaft Size		**1-11/16"**	**1-15/16"**	**2-3/16"**	**2-7/16"**	**2-11/16**	**2-15/16**
Tube Technical Data							
Schedule Number		80	80		80		
Maximum Setting (Feet)		RTF	RTF		RTF		
Outside Diameter (Inches)		4.000	4.500		5.563		
Inside Diameter (Inches)		3.364	3.826		4.813		
Wall Thickness (Inches)		.318	.337		.375		
Weight Per Foot (Lbs./Ft.)		12.50	14.98		20.78		
Connector Bearing Length (Inches)		5-1/2	5-3/4		6		
Connector Bearing Weight (Lbs.)		9	12		23		
Shaft Technical Data							
Exact Lengths	5 Foot Section	5'0"	5'0"	5'0"	5'0"	5'0"	5'0"
	10 Foot Section	10'0"	10'0"	10'0"	10'0"	10'0"	10'0"
	20 Foot Section	20'0"	20'0"	20'0"	20'0"	20'0"	20'0"
Weight Per Foot (Lbs./Ft.)		7.60	10.02	12.78	15.87	19.31	23.06
Shaft Coupling Weight (Lbs.)		20.3	24.7	27.6	45.5	48.3	50.1
Open Lineshaft Sleeve Thickness (Inches)		.093	.093	.093	.122	.125	.125
Open Lineshaft Sleeve Length (Inches)		7	7	7	7	8.125	8.875
Open Lineshaft Sleeve Weight (Lbs.)		1.0	1.2	1.3	1.6	2.5	3.0
Open Lineshaft Bearing and Retainer Weight (Lbs.)	4" Column	N/A	N/A	N/A	N/A	N/A	N/A
	5" Column	N/A	N/A	N/A	N/A	N/A	N/A
	6" Column	2.9	N/A	N/A	N/A	N/A	N/A
	8" Column	4.2	4.8	N/A	N/A	N/A	N/A
	10" Column	6.9	6.9	6.9	7.5	N/A	N/A
	12" Column	9.8	9.8	9.8	10.5	N/A	N/A
	14" Column	16.0	16.0	16.0	16.0	16.0	N/A
	16" Column	26.5	26.5	26.5	26.5	26.5	26.5
	20" Column & Larger	N/A	Bearing Retainers For These Sizes Are Fabricated In The Column				

ENCLOSING TUBE AND KEYED LINESHAFT TECHNICAL DATA

Enclosing Tube		**6”**		
Lineshaft Size		**3-3/16”**	**3-7/16**	**3-11/16**
Tube Technical Data				
Schedule Number		80		
Maximum Setting (Feet)		RTF		
Outside Diameter (Inches)		6.625		
Inside Diameter (Inches)		5.761		
Wall Thickness (Inches)		.432		
Weight Per Foot (Lbs./Ft.)		28.57		
Connector Bearing Length (Inches)		5-1/2		
Connector Bearing Weight (Lbs.)		9		
Shaft Technical Data				
Exact Lengths	5 Foot Section	5’0”	5’0”	5’0”
	10 Foot Section	10’0”	10’0”	10’0”
	20 Foot Section	20’0”	20’0”	20’0”
Weight Per Foot (Lbs./Ft.)		27.16	31.58	36.35
Shaft Coupling Weight (Lbs.)		50.1	52.76	54.6
Open Lineshaft Sleeve Thickness (Inches)		.125	.125	.125
Open Lineshaft Sleeve Length (Inches)		9.125	9.500	9.750
Open Lineshaft Sleeve Weight (Lbs.)		3.4	3.8	4.1
Open Lineshaft Bearing and Retainer Weight (Lbs.)	4” Column	N/A	N/A	N/A
	5” Column	N/A	N/A	N/A
	6” Column	N/A	N/A	N/A
	8” Column	N/A	N/A	N/A
	10” Column	N/A	N/A	N/A
	12” Column	N/A	N/A	N/A
	14” Column	N/A	N/A	N/A
	16” Column	N/A	N/A	N/A
	20” Column & Larger	Bearing Retainers For These Sizes Are Fabricated In The Column		

COLUMN TECHNICAL DATA

Data	4"	5"	6"	8"	10"	12"	14"
.250 WALL PIPE							
Schedule Number	N/A	N/A	N/A	20	20	20	10
Outside Diameter (Inches)	N/A	N/A	6.625	8.625	10.750	12.750	14.000
Inside Diameter (Inches)	N/A	N/A	6.125	8.125	10.250	12.250	13.500
Wall Thickness (Inches)	N/A	N/A	.250	.250	.250	.250	.250
Weight Per Foot (Lbs./Ft.)	N/A	N/A	17.02	22.36	28.04	33.38	36.71

AWWA STANDARD WALL PIPE									
Schedule Number			40	40	40	30	N/A	N/A	30
Outside Diameter (Inches)			4.500	5.563	6.625	8.625	10.750	12.750	14.000
Inside Diameter (Inches)			4.026	5.047	6.065	8.071	10.192	12.000	13.250
Wall Thickness (Inches)			.237	.258	.280	.277	.279	.375	.375
Weight Per Foot (Lbs./Ft.)			10.79	14.62	18.97	24.70	31.20	49.56	54.60
.250 WALL AND AWWA STANDARD WALL PIPE									
Exact Column Lengths	Open Lineshaft Construction	5' Section	4'11-1/2"	4'11-1/4"	4'11-1/4"	4'11-1/4"	4'11-1/4"	4'11-1/4"	4'11-1/4"
		10' Section	9'11-1/2"	9'11-1/4"	9'11-1/4"	9'11-1/4"	9'11-1/4"	9'11-1/4"	9'11-1/4"
	Enclosed Lineshaft Construction	5 ' Section	5'0"	5'0"	5'0"	5'0"	5'0"	5'0"	5'0"
		10' Section	10'0"	10'0"	10'0"	10'0"	10'0"	10'0"	10'0"
		20' Section	20'0"	20'0"	20'0"	20'0"	20'0"	5'0"	20'0"
Coupling Outside Diameter (Inches)			5.00	6.25	7.31	9.56	11.69	13.88	15.00
Coupling Weight (Lbs.)			5.65	10.74	12.70	23.90	32.58	47.21	62.00
Flange Outside Diameter (Inches)			6.63	7.63	9.25	11.75	13.88	16.38	17.63
Flange Weight (Lbs.)			6.01	7.68	11.72	17.98	21.73	29.81	35.60

Data	16"	18"	20"	24"	30"	36"
.250 WALL PIPE						
Schedule Number	10	10	10	10	N/A	N/A
Outside Diameter (Inches)	16.000	18.000	20.000	24.000	N/A	N/A
Inside Diameter (Inches)	15.500	17.500	19.500	23.500	N/A	N/A
Wall Thickness (Inches)	.250	.250	.250	.250	N/A	N/A
Weight Per Foot (Lbs./Ft.)	42.05	47.39	52.73	63.41	N/A	N/A

AWWA STANDARD WALL PIPE							
Schedule Number		30	N/A	20	20	N/A	N/A
Outside Diameter (Inches)		16.000	18.000	20.000	24.000	30.000	36.000
Inside Diameter (Inches)		15.250	17.250	19.250	23.250	29.250	32.250
Wall Thickness (Inches)		.375	.375	.375	.375	.375	.375
Weight Per Foot (Lbs./Ft.)		62.50	70.53	78.60	94.62	119.00	143.34
.250 WALL AND AWWA STANDARD WALL PIPE							
Exact Column Lengths	Open Lineshaft Construction	5' Section	4'11-1/4"	5'0"	5'0"	5'0"	5'0"	5'0"
		10' Section	9'11-1/4"	10'0"	10'0"	10'0"	10'0"	10'0"
	Enclosed Lineshaft Construction	5' Section	5'0"	5'0"	5'0"	5'0"	5'0"	5'0"
		10' Section	10'0"	10'0"	10'0"	10'0"	10'0"	10'0"
		20' Section	20'0"	20'0"	20'0"	20'0"	20'0"	20'0"
Flange Outside Diameter			20.00	22.00	24.250	28.500	34.500	40.500
Flange Weight (Lbs.)			44.72	49.69	63.72	86.71	131.11	155.50

DISCHARGE HEADS TECHNICAL DATA

CT AND DT DISCHARGE HEADS

DATA		12X4 DT	16-1/2x6 CT	16-1/2x 8 CT	16-1/2x10 CT	20x12 CT
Discharge Flange Size (Inches)		4	6	8	10	12
Available Threaded Column Size (Inches)		4	6	8	10	12
Available Flanged Column Size (Inches)		N/A	N/A	N/A	N/A	N/A
NEMA Driver "AK" Size (Inches)		8-1/4	8-1/4, 13-1/2	8-1/4, 13-1/2	8-1/4, 13-1/2	13-1/2
Maximum Discharge Pressure (PSI) (Non-Shock Rating At Room Temperature)	125 lb. Flange	175	175	175	175	175
	250 lb. Flange	400	N/A	N/A	N/A	N/A
Weight (Including Packing Box) (Lbs.)		311	432	456	499	657

Reference: Assembly Drawing 700MA002 and 700MA004

D DISCHARGE HEADS

DATA		16-1/2x6	16-1/2x8	20x10
Discharge Flange Size (Inches)		6	8	10
Available Threaded Column Size (Inches)		4,6,8,10,12	4,6,8,10,12	4,6,8,10,12
Available Flanged Column Size (Inches)		4,6,8,10	4,6,8,10	4,6,8,10
NEMA Driver "AK" Size (Inches)		8-1/2, 13-1/2	8-1/4, 13-1/2	13-1/2
Maximum Discharge Pressure (PSI) (Non-Shock Rating At Room Temperature)	125 lb. Flange	175	175	175
	250 lb. Flange	400*	400*	400*
Weight (Including Packing Box) (Lbs.)		487	544	682

Reference: Assembly Drawing 700MA001

H DISCHARGE HEADS

DATA		20X12	24-1/2X14
Discharge Flange Size (Inches)		12	14
Available Threaded Column Size (Inches)		10,12	12,14
Available Flanged Column Size (Inches)		10,12	12,14
NEMA Driver "AK" Size (Inches)		13-1/2	13-1/2
Maximum Discharge Pressure (PSI) (Non-Shock Rating At Room Temperature)	125 lb. Flange	175	175
	250 lb. Flange	N/A	N/A
Weight (Including Packing Box) (Lbs.)		1015	1660

Reference: Assembly Drawing 700MA003

***ON WATER LUBRICATED APPLICATIONS, A 400 PSI PACKING BOX IS INCLUDED.**

DISCHARGE HEADS TECHNICAL DATA

LS DISCHARGE HEADS

Data		12x4	12x6	16-1/2x6	12x8	16-1/2x8	20x8	12x10
Discharge Flange Size (Inches)		4	6	6	8	8	8	10
Available Threaded Column Size (Inches)		4,6	4,6,8	4,6,8	6,8,10	4,6,8,10	4,6,8,10	8,10,12
Available Flanged Column Size (Inches)		4,6	4,6,8	4,6,8,	6,8,10	4,6,8,10	4,6,8,10	8,10,12
NEMA Driver "AK" Size (Inches)		8-1/4	13-1/2	13-1/2	8-1/4	13-1/2	13-1/2	8-1/4
Maximum Discharge Pressure (PSI) (Non-Shock Rating At Room Temp)	150 lb. Flange	175	175	175	175	175	175	175
	300 lb. Flange	400*	400*	400*	400*	400*	400*	400*
Weight (Including Packing Box) (Lbs.)		313	324	341	342	366	426	448

Data		16-1/2x10	20x10	12x12	16-1/2x12	20x12	12x14
Discharge Flange Size (Inches)		10	10	10	12	12	14
Available Threaded Column Size (Inches)		8,10,12	8,10,12	8,10,12	10,12	10,12	14
Available Flanged Column Size (Inches)		8,10,12	8,10,12	8,10,12	10,12	10,12	14
NEMA Driver "AK" Size (Inches)		13-1/2	13-1/2	8-1/4	13-1/2	13-1/2	8-1/4
Maximum Discharge Pressure (PSI) (Non-Shock Rating At Room Temp)	150 lb. Flange	175	175	175	175	175	175
	300 lb. Flange	400*	400*	400*	400*	400*	400*
Weight (Including Packing Box) (Lbs.)		457	518	551	617	678	706

Data		16-1/2x14	20x14	24-1/2x14	12x16	16-1/2x16
Discharge Flange Size (Inches)		14	14	16	16	16
Available Threaded Column Size (Inches)		14	14	16	16	16
Available Flanged Column Size (Inches)		14	14	16	16	16
NEMA Driver "AK" Size (Inches)		13-1/2	13-1/2	13-1/2	8-1/4	13-1/2
Maximum Discharge Pressure (PSI) (Non-Shock Rating At Room Temp)	150 lb. Flange	175	175	175	175	175
	300 lb. Flange	400*	400*	400*	400*	400*
Weight (Including Packing Box) (Lbs.)		754	791	855	895	902

Data		20x16	24-1/2x16
Discharge Flange Size (Inches)		16	16
Available Threaded Column Size (Inches)		16	16
Available Flanged Column Size (Inches)		16	16
NEMA Driver "AK" Size (Inches)		13-1/2	13-1/2
Maximum Discharge Pressure (PSI) (Non-Shock Rating At Room Temp)	150 lb. Flange	175	175
	300 lb. Flange	400*	400*
Weight (Including Packing Box) (Lbs.)		1006	1088

Reference: Assembly Drawing 700MA012 and 700MA013

***ON WATER LUBRICATED APPLICATIONS, A 400 PSI PACKING BOX IS INCLUDED.**

DISCHARGE HEADS TECHNICAL DATA

F DISCHARGE HEADS

Data		12x8	16-1/2x8	20x8	12X10	16-1/2x10	20X10
Discharge Flange Size (Inches)		8	8	8	10	10	10
Available Threaded Column Size (Inches)		8	8	8	10	10	10
Available Flanged Column Size (Inches)		8	8	8	10	10	10
NEMA Driver "AK" Size (Inches)		8-1/4	13-1/2	13-1/2	8-1/4	13-1/2	13-1/2
Maximum Discharge Pressure (PSI) (Non-Shock Rating At Room Temp)	150 lb. Flange	175	175	175	175	175	175
	300 lb. Flange	400*	400*	400*	400*	400*	400*
Weight (Including Packing Box) (Lbs.)		370	420	485	486	492	557

Data		12X12	16-1/2X12	20X12	12X14	16-1/2X14	20X14
Discharge Flange Size (Inches)		12	12	12	14	14	14
Available Threaded Column Size (Inches)		12	12	12	14	14	14
Available Flanged Column Size (Inches)		12	12	12	14	14	14
NEMA Driver "AK" Size (Inches)		8-1/4	13-1/2	13-1/2	8-1/4	13-1/2	13-1/2
Maximum Discharge Pressure (PSI) (Non-Shock Rating At Room Temp)	150 lb. Flange	175	175	175	175	175	175
	300 lb. Flange	400*	400*	400*	400*	400*	400*
Weight (Including Packing Box) (Lbs.)		605	671	732	786	834	871

Data		24-1/2X14	12X16	16-1/2X16	20x16	24-1/2x16
Discharge Flange Size (Inches)		14	16	16	16	16
Available Threaded Column Size (Inches)		14	N/A	N/A	N/A	N/A
Available Flanged Column Size (Inches)		14	16	16	16	16
NEMA Driver "AK" Size (Inches)		13-1/2	8-1/4	13-1/2	22	22
Maximum Discharge Pressure (PSI) (Non-Shock Rating At Room Temp)	150 lb. Flange	175	175	175	175	175
	300 lb. Flange	400*	400*	400*	400*	400*
Weight (Including Packing Box) (Lbs.)		934	992	1000	1103	1185

Reference: Assembly Drawing 700MA006 and 700MA007

***ON WATER LUBRICATED APPLICATIONS A 400 PSI PACKING BOX IS INCLUDED.**

DISCHARGE HEADS TECHNICAL DATA

L HEADS

Data		12x4	16-1/2x4	12x6	16-1/2x6	12x8	16-1/2x8
Discharge Flange Size (Inches)		4	4	6	6	8	8
Available Threaded Column Size (Inches)		4	4	6	6	8	8
Available Flanged Column Size (Inches)		4	4	6	6	8	8
Available Base Flange Size (Inches)		12,14	12,14,16	12,14,16	12,14,16	16	16,18,20
NEMA Driver "AK" Size (Inches)		8-1/4	13-1/2	8-1/4	13-1/2	8-1/4	13-1/2
Maximum Discharge Pressure (PSI)	150 lb. Flange	175	175	175	175	175	175
(Non-Shock Rating At Room Temperature)	300 lb. Flange	400*	400*	400*	400*	400*	400*
Weight (Including Packing Box) (Lbs.)		497	537	535	575	502	605

Data		20x8	16-1/2x10	20x10	24-1/2x10	16-1/2x12
Discharge Flange Size (Inches)		8	10	10	10	12
Available Threaded Column Size (Inches)		8	10	10	10	12
Available Flanged Column Size (Inches)		8	10	10	10	12
Available Base Flange Size (Inches)		16,18,20	18,20,24	18,20,24	24	20,24,30
NEMA Driver "AK" Size (Inches)		13-1/2	13-1/2	13-1/2	13-1/2	13-1/2
Maximum Discharge Pressure (PSI)	150 lb. Flange	175	175	175	175	175
(Non-Shock Rating At Room Temperature)	300 lb. Flange	400*	400*	400*	400*	400*
Weight (Including Packing Box) (Lbs.)		615	696	728	802	871

Data		20x12	24-1/2x12	16-1/2x14	20x14	24-1/2x14
Discharge Flange Size (Inches)		12	12	14	14	14
Available Threaded Column Size (Inches)		12	12	14	14	14
Available Flanged Column Size (Inches)		12	12	14	14	14
Available Base Flange Size (Inches)		20,24,30	24,30	24,30,36	30,36	24,30,36
NEMA Driver "AK" Size (Inches)		13-1/2	13-1/2	13-1/2	13-1/2	13-1/2
Maximum Discharge Pressure (PSI)	150 lb. Flange	175	175	175	175	175
(Non-Shock Rating At Room Temperature)	300 lb. Flange	400*	400*	400*	400*	400*
Weight (Including Packing Box) (Lbs.)		930	995	1718	1750	1815

Data		16-1/2x16	20x16	24-1/2x16	30-1/2x16
Discharge Flange Size (Inches)		16	16	16	16
Available Threaded Column Size (Inches)		NA	NA	NA	NA
Available Flanged Column Size (Inches)		16	16	16	16
Available Base Flange Size (Inches)		30,36	30,36	30,36	36
NEMA Driver "AK" Size (Inches)		13-1/2	13-1/2	13-1/2	22
Maximum Discharge Pressure (PSI)	150 lb. Flange	175	175	175	175
(Non-Shock Rating At Room Temperature)	300 lb. Flange	400*	400*	400*	400*
Weight (Including Packing Box) (Lbs.)		1802	1840	1955	1970

Reference: Assembly Drawing 700MA012

***ON WATER LUBRICATED APPLICATIONS A 400 PSI PACKING BOX IS INCLUDED.**

DISCHARGE HEADS TECHNICAL DATA

T HEADS

Data		12x4	16-1/2x4	12x6	16-1/2x6	12x8	16-1/2x8
Discharge Flange Size (Inches)		4	4	6	6	8	8
Available Suction Flange Size (Inches)		6	6	8	8,10	10	10,12
Available Flanged Column Size (Inches)		4	4	6	6	8	8
Available Base Flange Size (inches)		12,14	12,14	12,14,16	12,14,16	16	16,18,20
NEMA Driver "AK" Size (Inches)		8-1/4	13-1/2	8-1/4	13-1/2	8-1/4	13-1/2
Maximum Discharge Pressure (PSI) (Non-Shock Rating At Room Temperature)	150 lb. Flange	175	175	175	175	175	175
	300 lb. Flange	400*	400*	400*	400*	400*	400*
Weight (Including Packing Box) (Lbs.)		560	600	599	639	577	840

Data		20x8	16-1/2x10	20x10	24-1/2x10	16-1/2x12
Discharge Flange Size (Inches)		8	10	10	10	12
Suction Flange Size (Inches)		10,12	12,14	12,14	12,14	14,16,20
Available Flanged Column Size (Inches)		8	10	10	10	12
Available Base Flange Size (inches)		16,18,20	18,20,24	18,20,24	24	20,24,30
NEMA Driver "AK" Size (Inches)		13-1/2	13-1/2	13-1/2	13-1/2	13-1/2
Maximum Discharge Pressure (PSI) (Non-Shock Rating At Room Temperature)	150 lb. Flange	175	175	175	175	175
	300 lb. Flange	400*	400*	400*	400*	400*
Weight (Including Packing Box) (Lbs.)		855	967	972	1082	1115

Data		20x12	24-1/2x12	16-1/2x14	20x14	24-1/2x14
Discharge Flange Size (Inches)		12	12	14	14	14
Suction Flange Size (Inches)		14,16,20	14,16,20	16,20,24	16,20,24	16,20,24
Available Flanged Column Size (Inches)		12	12	14	14	10
Available Base Flange Size (inches)		20,24,30	24,30	24,30,36	24,30,36	30,36
NEMA Driver "AK" Size (Inches)		13-1/2	13-1/2	13-1/2	13-1/2	13-1/2
Maximum Discharge Pressure (PSI) (Non-Shock Rating At Room Temperature)	150 lb. Flange	175	175	175	175	175
	300 lb. Flange	400*	400*	400*	400*	400*
Weight (Including Packing Box) (Lbs.)		1130	1240	2723	2730	2840

Data		16-1/2x16	20x16	24-1/2x16	30-1/2x16
Discharge Flange Size (Inches)		16	16	16	16
Suction Flange Size (Inches)		20,24,30	20,24,30	20,24,30	24,30
Available Flanged Column Size (Inches)		16	16	16	16
Available Base Flange Size (inches)		30,36	30,36	30,36	30,36
NEMA Driver "AK" Size (Inches)		13-1/2	13-1/2	13-1/2	22
Maximum Discharge Pressure (PSI) (Non-Shock Rating At Room Temperature)	150 lb. Flange	175	175	175	175
	300 lb. Flange	400*	400*	400*	400*
Weight (Including Packing Box) (Lbs.)		2755	2762	2872	3050

Reference: Assembly Drawing 700MA014

***ON WATER LUBRICATED APPLICATIONS A 400 PSI PACKING BOX IS INCLUDED.**

DISCHARGE HEADS TECHNICAL DATA

UG AND UF HEADS

Data		12x4	12x6	16-1/2x6	12x8	16-1/2x8
Discharge Flange Size (Inches)		4	6	6	8	8
Available Threaded Column Size (Inches)		4	6	6	8	8
Available Flanged Column Size (Inches)		4	6	6	8	8
NEMA Driver "AK" Size (Inches)		8-1/4	8-1/4	13-1/2	8-1/4	13-1/2
Maximum Discharge Pressure (PSI) (Non-Shock Rating At Room Temperature)	150 lb. Flange	175	175	175	175	175
	300 lb. Flange	400*	400*	400*	400*	400*
Weight (Including Packing Box) (Lbs.)		406	464	574	576	686

Data		12x10	16-1/2x10	20x10	12x12	16-1/2x12
Discharge Flange Size (Inches)		10	10	10	12	12
Available Threaded Column Size (Inches)		10	10	10	12	12
Available Flanged Column Size (Inches)		10	10	10	12	12
NEMA Driver "AK" Size (Inches)		8-1/4	13-1/2	13-1/2	8-1/4	13-1/2
Maximum Discharge Pressure (PSI) (Non-Shock Rating At Room Temperature)	150 lb. Flange	175	175	175	175	175
	300 lb. Flange	400*	400*	400*	400*	400*
Weight (Including Packing Box) (Lbs.)		780	890	964	845	955

Data		20x12	12x14	16-1/2x14	20x14	24-1/2x14
Discharge Flange Size (Inches)		12	14	14	14	14
Available Threaded Column Size (Inches)		12	14	14	14	14
Available Flanged Column Size (Inches)		12	14	14	14	14
NEMA Driver "AK" Size (Inches)		13-1/2	8-1/4	13-1/2	13-1/2	13-1/2
Maximum Discharge Pressure (PSI) (Non-Shock Rating At Room Temperature)	150 lb. Flange	175	175	175	175	175
	300 lb. Flange	400*	400*	400*	400*	400*
Weight (Including Packing Box) (Lbs.)		1030	1015	1090	1200	1405

Data		12x16	16-1/2x16	20x16	24-1/2x16
Discharge Flange Size (Inches)		16	16	16	16
Available Threaded Column Size (Inches)		16	16	16	16
Available Flanged Column Size (Inches)		16	16	16	16
NEMA Driver "AK" Size (Inches)		8-1/4	13-1/2	13-1/2	13-1/2
Maximum Discharge Pressure (PSI) (Non-Shock Rating At Room Temperature)	150 lb. Flange	175	175	175	175
	300 lb. Flange	400*	400*	400*	400*
Weight (Including Packing Box) (Lbs.)		1181	1291	1366	1571

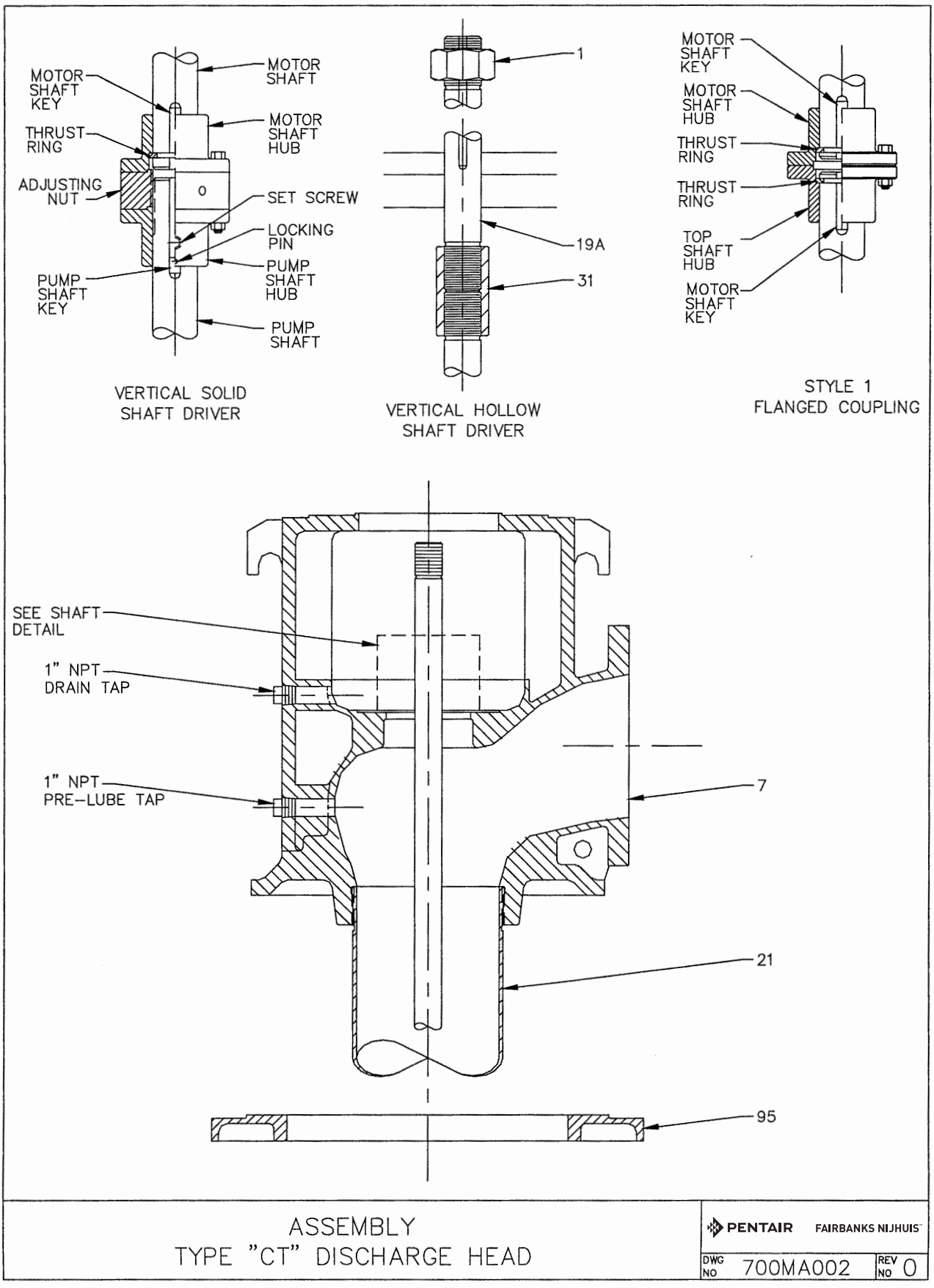
Reference: Assembly Drawings 700MA008, 700MA009, 700MA010, and 700MA011

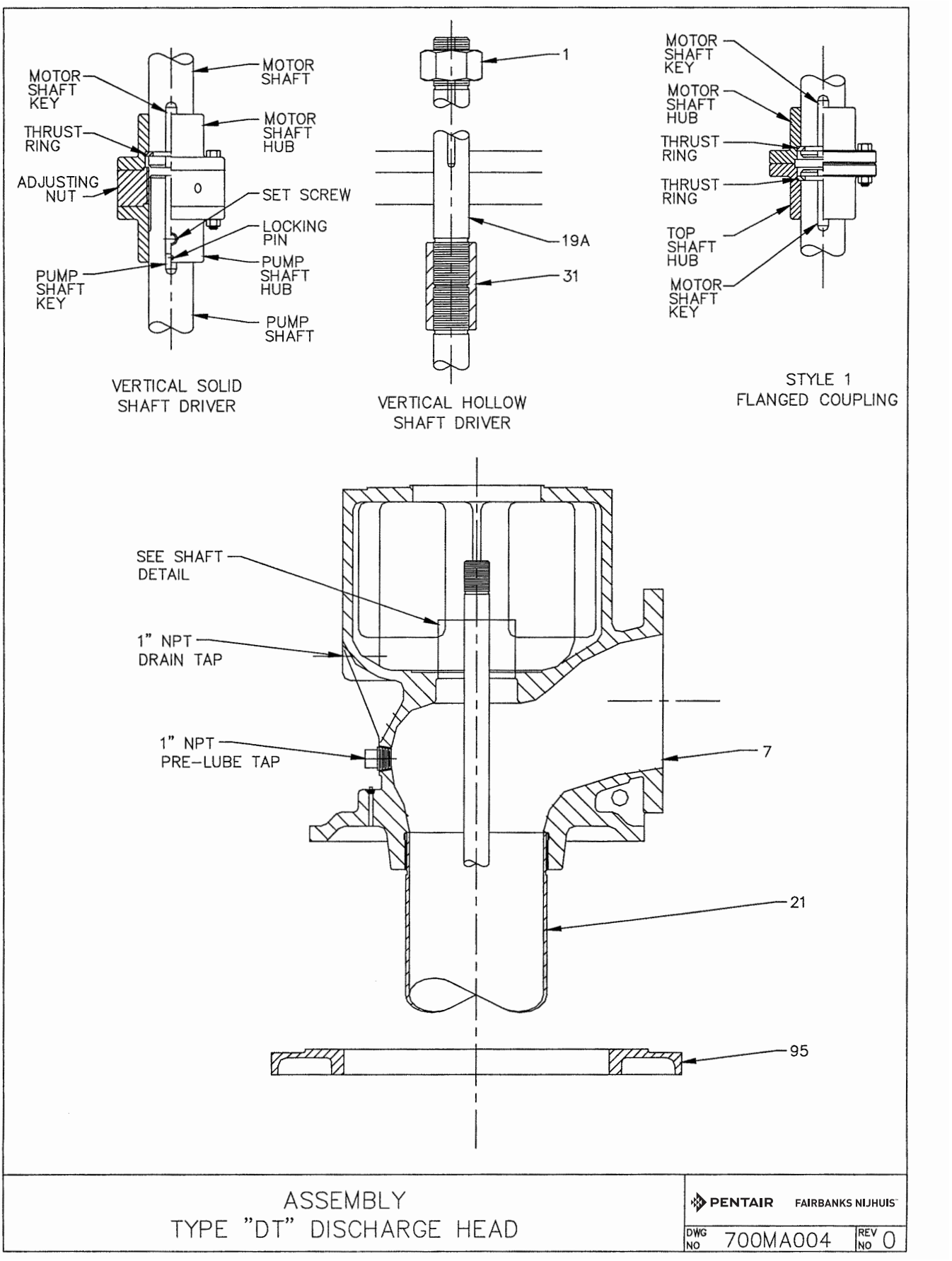
***ON WATER LUBRICATED APPLICATIONS A 400 PSI PACKING BOX IS INCLUDED.**

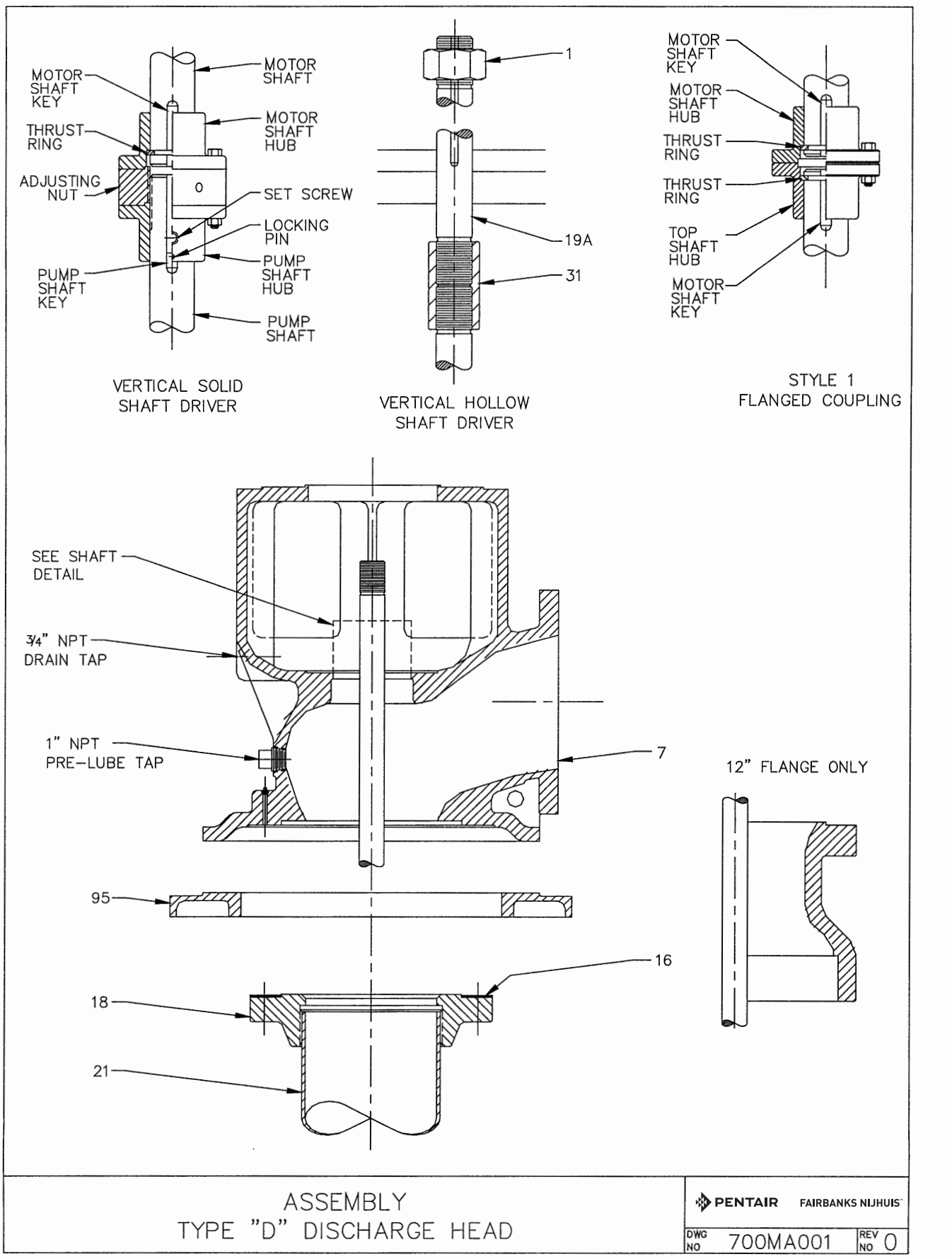
PACKING BOX TECHNICAL DATA

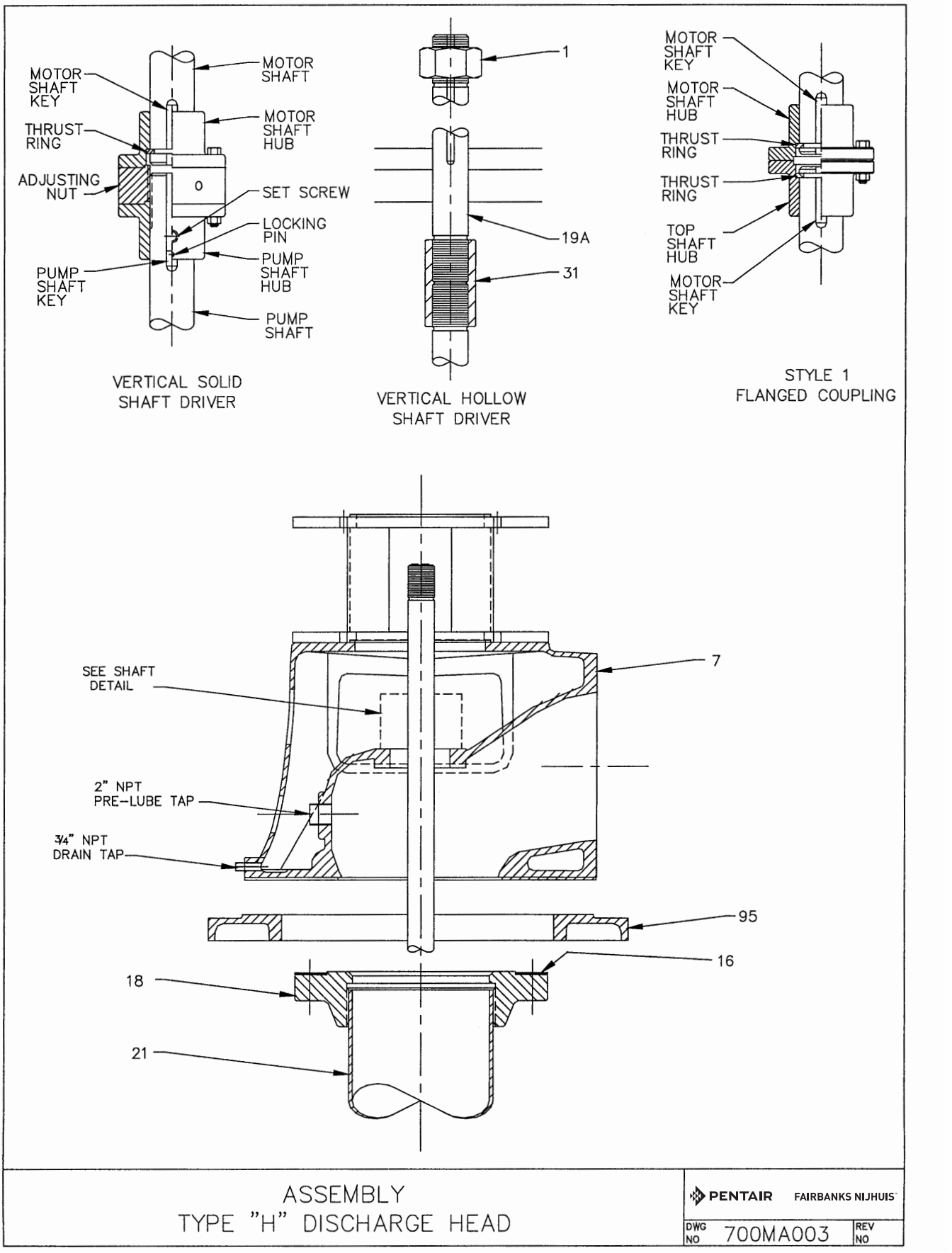
Data		1"	1-1/4"	1-1/2"	1-11/16"	1-15/16"	2-3/16"
Inside Diameter of Box (Inches)		1-15/16"	2-3/16"	2-7/16"	2-5/8"	2-7/8"	3-1/8"
Depth of Box (Inches)	Standard 175 PSI	1-5/8"	1-5/8"	1-5/8"	1-5/8"	1-5/8"	1-5/8"
	Optional 400 PSI	2-3/8"	2-3/8"	2-3/8"	2-3/8"	2-3/8"	2-3/8"
Outside Diameter of Sleeve (Inches)		1-3/16"	1-7/16"	1-11/16"	1-7/8"	2-1/8"	2-3/8"
Packing Size (Inches)		3/8"	3/8	3/8	3/8	3/8	3/8
Rings Per Box		4	4	4	4	4	4
Bearing Length (Inches)		2	2-1/2	2-3/4	3	3-1/2	3-3/4
Gland Bolt Size (Inches)		1/2x2-3/4	1/2x2-3/4	1/2x2-3/4	1/2x2-3/4	1/2x2-3/4	1/2x2-3/4
Maximum Working Pressure (PSI)	Standard	175	175	175	175	175	175
	Optional	400	400	400	400	400	400

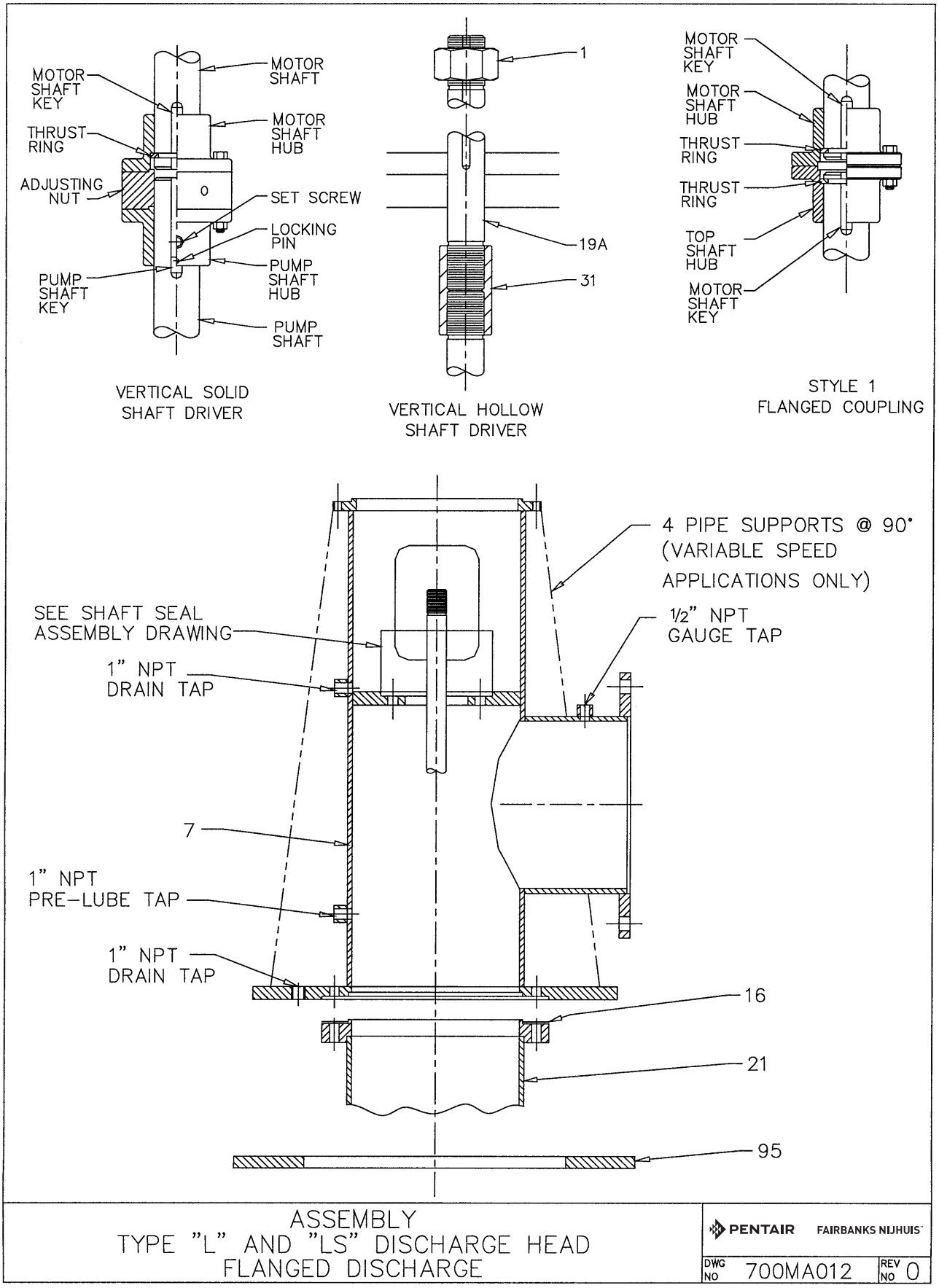
Data		2-7/16"	2-11/16"	2-15/16"	3-3/16"	3-7/16"	3-11/16"
Inside Diameter of Box (Inches)		3-5/8"	3-15/16"	4-3/16"	4-7/16"	4-11/16"	4-15/16"
Depth of Box (Inches)	Standard 175 PSI	2-1/4"	2-1/4"	2-1/4"	2-1/4"	2-1/4"	2-1/4"
	Optional 400 PSI	3-1/4"	3-1/4"	3-1/4"	3-1/4"	3-1/4"	3-1/4"
Outside Diameter of Sleeve (Inches)		2-5/8"	2-15/16"	3-3/16"	3-7/16"	3-11/16"	3-15/16"
Packing Size (Inches)		1/2	1/2	1/2	1/2	1/2	1/2
Rings Per Box		4	4	4	4	4	4
Bearing Length (Inches)		4-1/4	5	3-3/4	RTF	RTF	RTF
Gland Bolt Size (Inches)		1/2x2-3/4	1/2x2-3/4	1/2x2-3/4	1/2x2-3/4	1/2x2-3/4	1/2x2-3/4
Maximum Working Pressure (PSI)	Standard	175	175	175	175	175	175
	Optional	400	400	400	400	400	400







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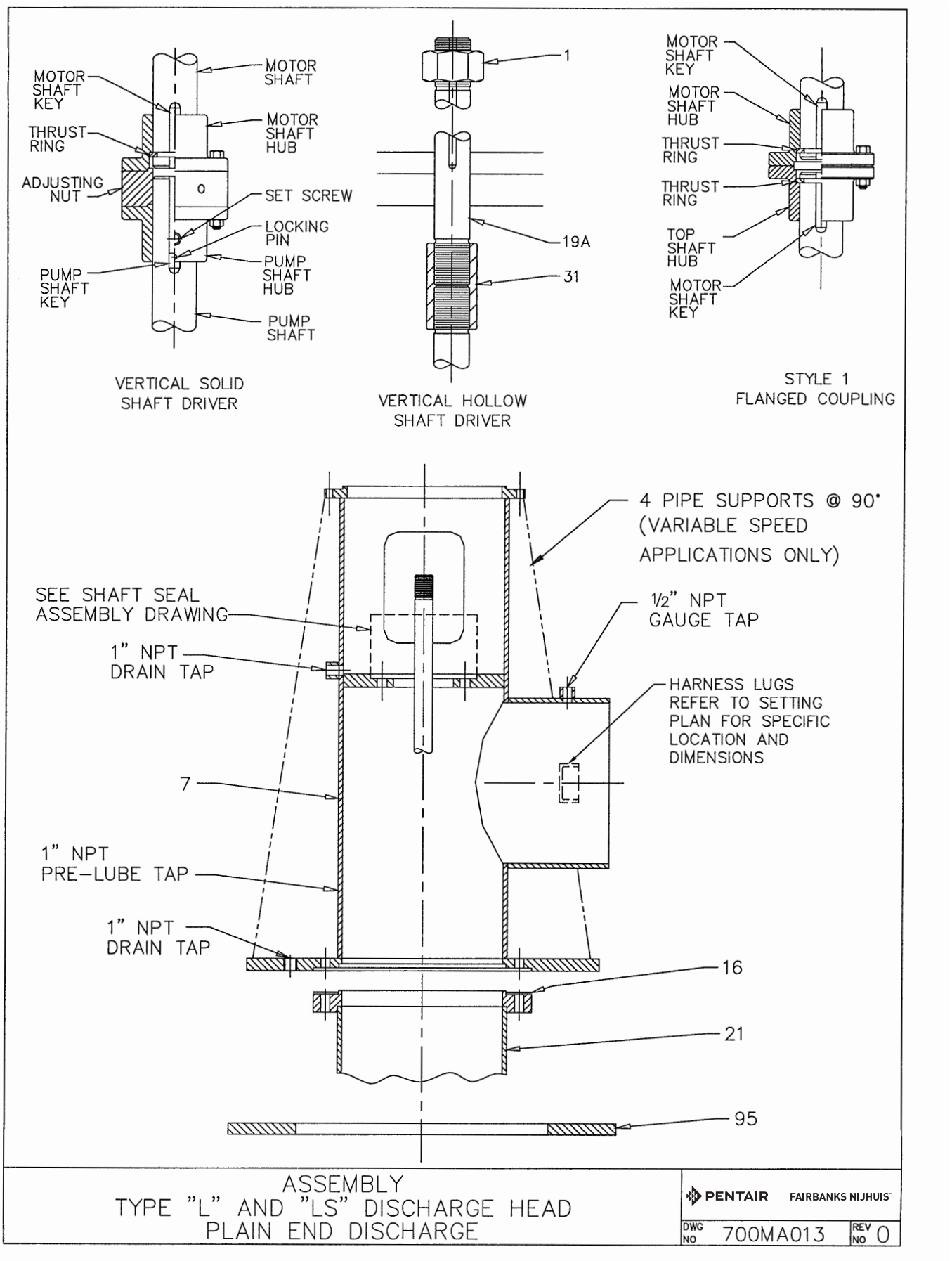
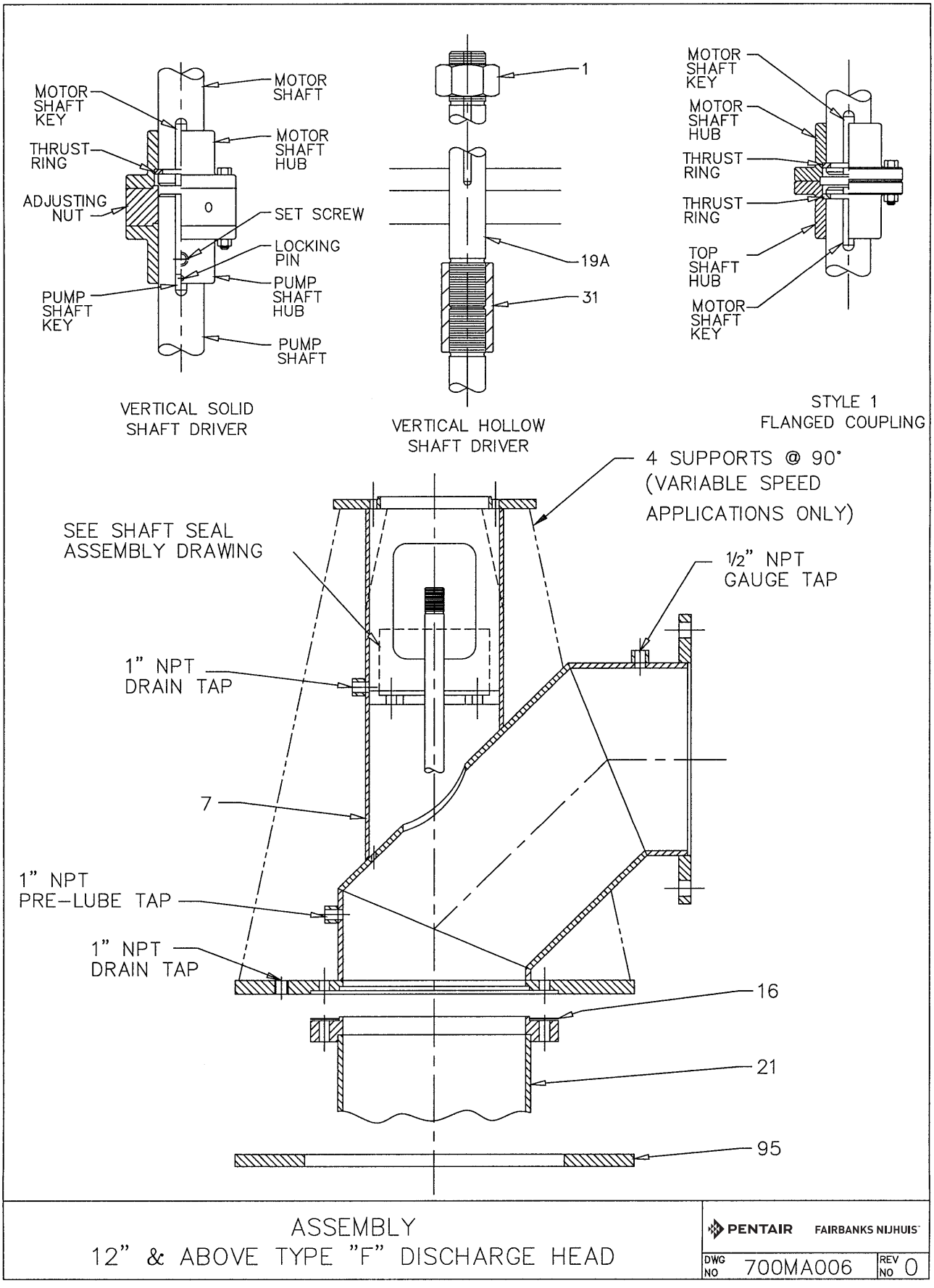
MOTOR SHAFT
MOTOR SHAFT HUB
THRUST RING
ADJUSTING NUT
SET SCREW
LOCKING PIN
PUMP SHAFT HUB
PUMP SHAFT KEY
PUMP SHAFT
VERTICAL SOLID SHAFT DRIVER
1
19A
31
VERTICAL HOLLOW SHAFT DRIVER
MOTOR SHAFT KEY
MOTOR SHAFT HUB
THRUST RING
THRUST RING
TOP SHAFT HUB
MOTOR SHAFT KEY
STYLE 1 FLANGED COUPLING
4 PIPE SUPPORTS @ 90° (VARIABLE SPEED APPLICATIONS ONLY)
SEE SHAFT SEAL ASSEMBLY DRAWING
1/2" NPT GAUGE TAP
1" NPT DRAIN TAP
7
1" NPT PRE-LUBE TAP
1" NPT DRAIN TAP
16
21
95
ASSEMBLY
TYPE "L" AND "LS" DISCHARGE HEAD
FLANGED DISCHARGE
PENTAIR FAIRBANKS NIJHUIS
DWG NO 700MA012
REV NO 0

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LOCKING PIN
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PUMP SHAFT
VERTICAL SOLID SHAFT DRIVER
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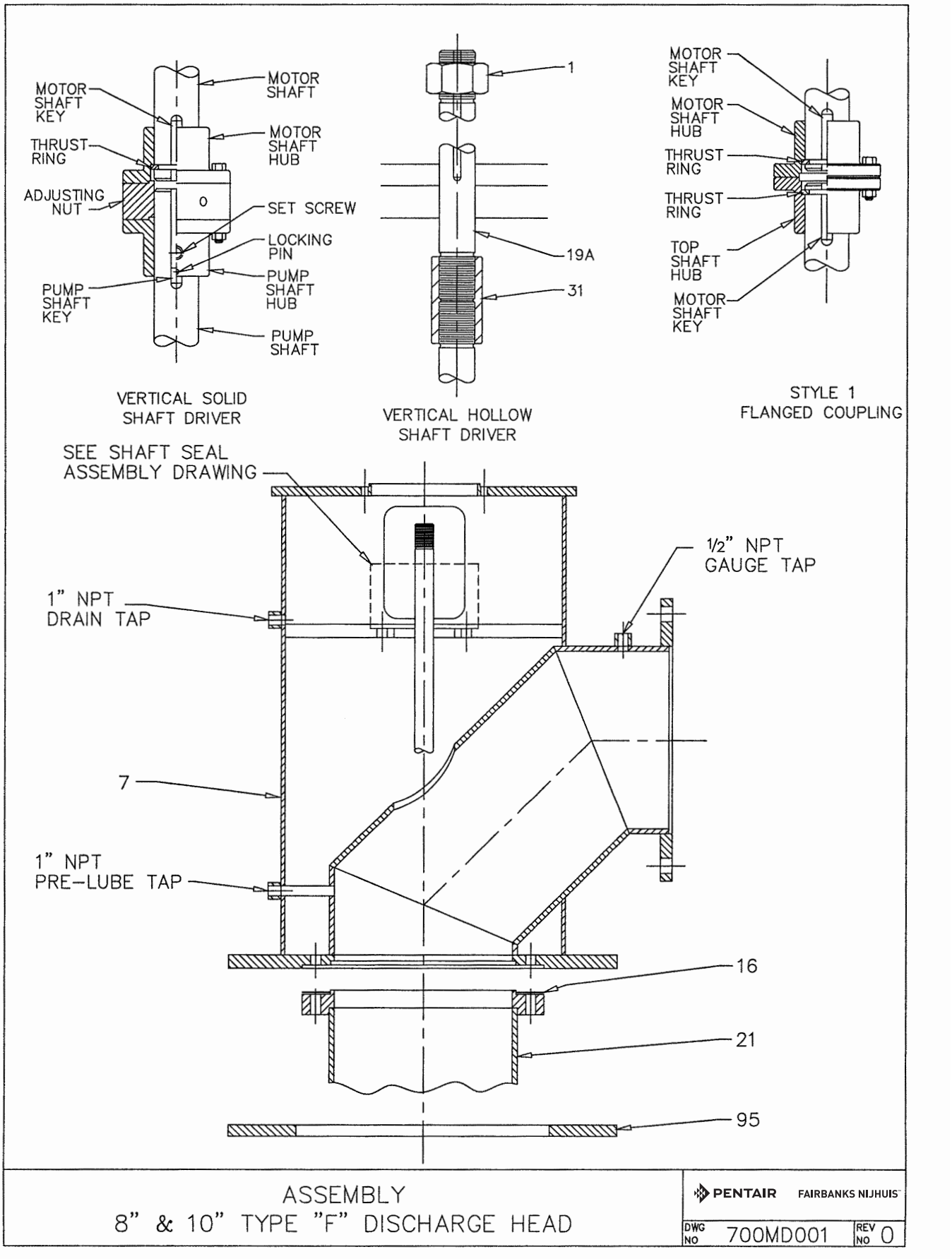
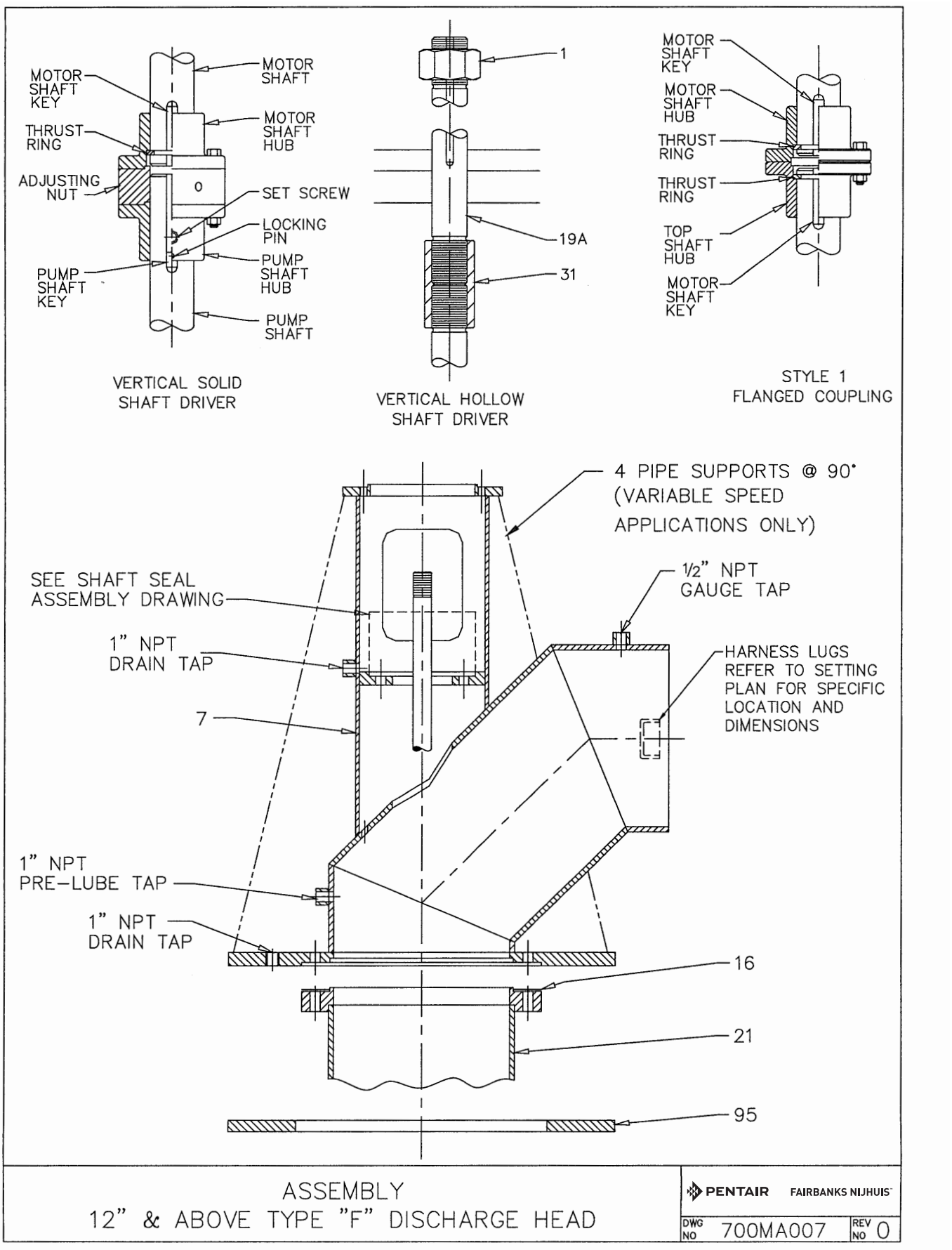
VERTICAL HOLLOW SHAFT DRIVER
MOTOR SHAFT KEY
MOTOR SHAFT HUB
THRUST RING
THRUST RING
TOP SHAFT HUB
MOTOR SHAFT KEY
STYLE 1 FLANGED COUPLING
4 SUPPORTS @ 90° (VARIABLE SPEED APPLICATIONS ONLY)
SEE SHAFT SEAL ASSEMBLY DRAWING
1/2" NPT GAUGE TAP
1" NPT DRAIN TAP
7
1" NPT PRE-LUBE TAP
1" NPT DRAIN TAP
16
21
95
ASSEMBLY
12" & ABOVE TYPE "F" DISCHARGE HEAD
PENTAIR FAIRBANKS NIJHUIS
DWG NO 700MA006
REV NO 0

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MOTOR SHAFT HUB
ADJUSTING NUT
SET SCREW
LOCKING PIN
PUMP SHAFT HUB
PUMP SHAFT KEY
PUMP SHAFT
VERTICAL SOLID SHAFT DRIVER
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VERTICAL HOLLOW SHAFT DRIVER
MOTOR SHAFT KEY
MOTOR SHAFT HUB
THRUST RING
THRUST RING
TOP SHAFT HUB
MOTOR SHAFT KEY
STYLE 1 FLANGED COUPLING
4 PIPE SUPPORTS @ 90° (VARIABLE SPEED APPLICATIONS ONLY)
SEE SHAFT SEAL ASSEMBLY DRAWING
1/2" NPT GAUGE TAP
1" NPT DRAIN TAP
HARNESS LUGS REFER TO SETTING PLAN FOR SPECIFIC LOCATION AND DIMENSIONS
7
1" NPT PRE-LUBE TAP
1" NPT DRAIN TAP
16
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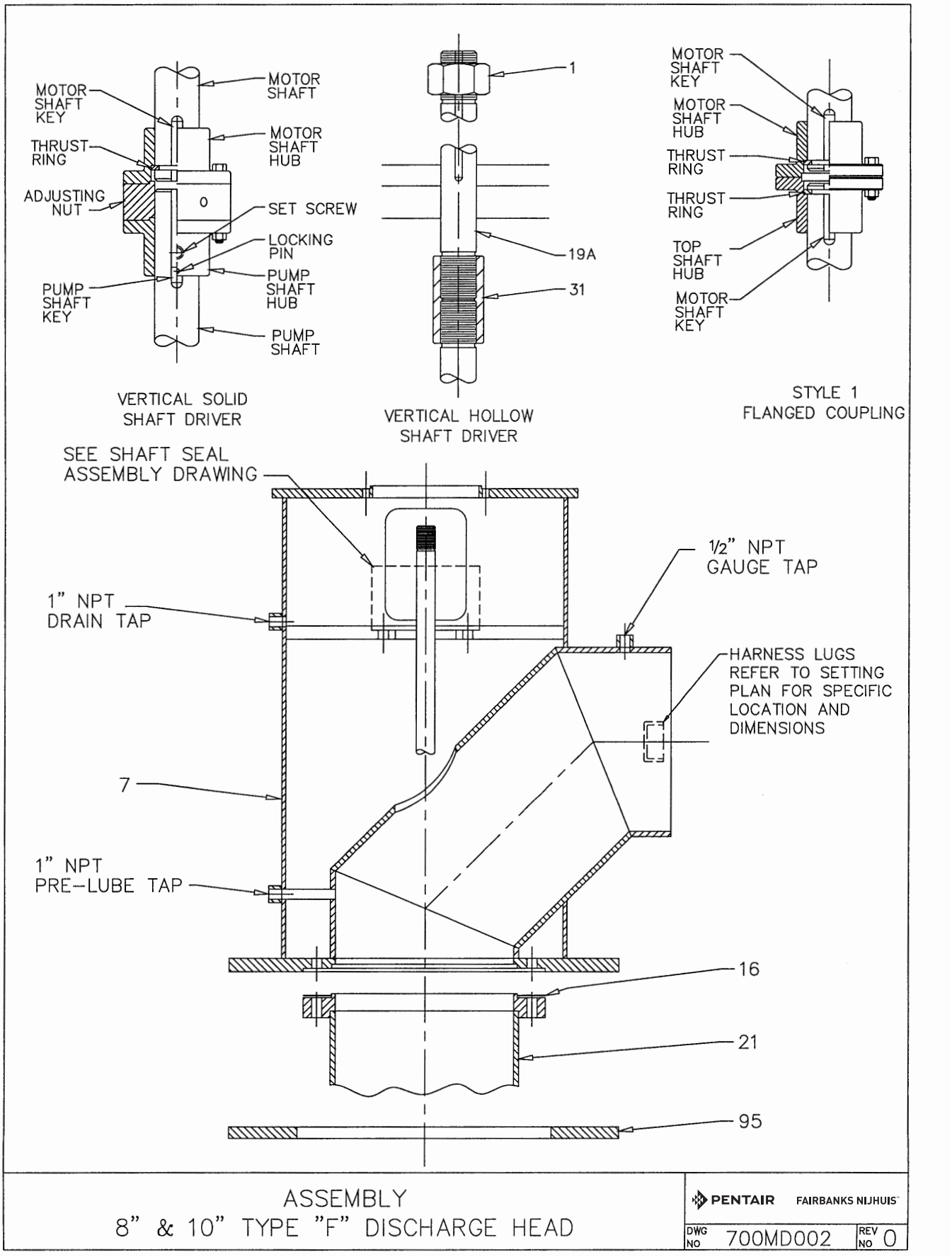
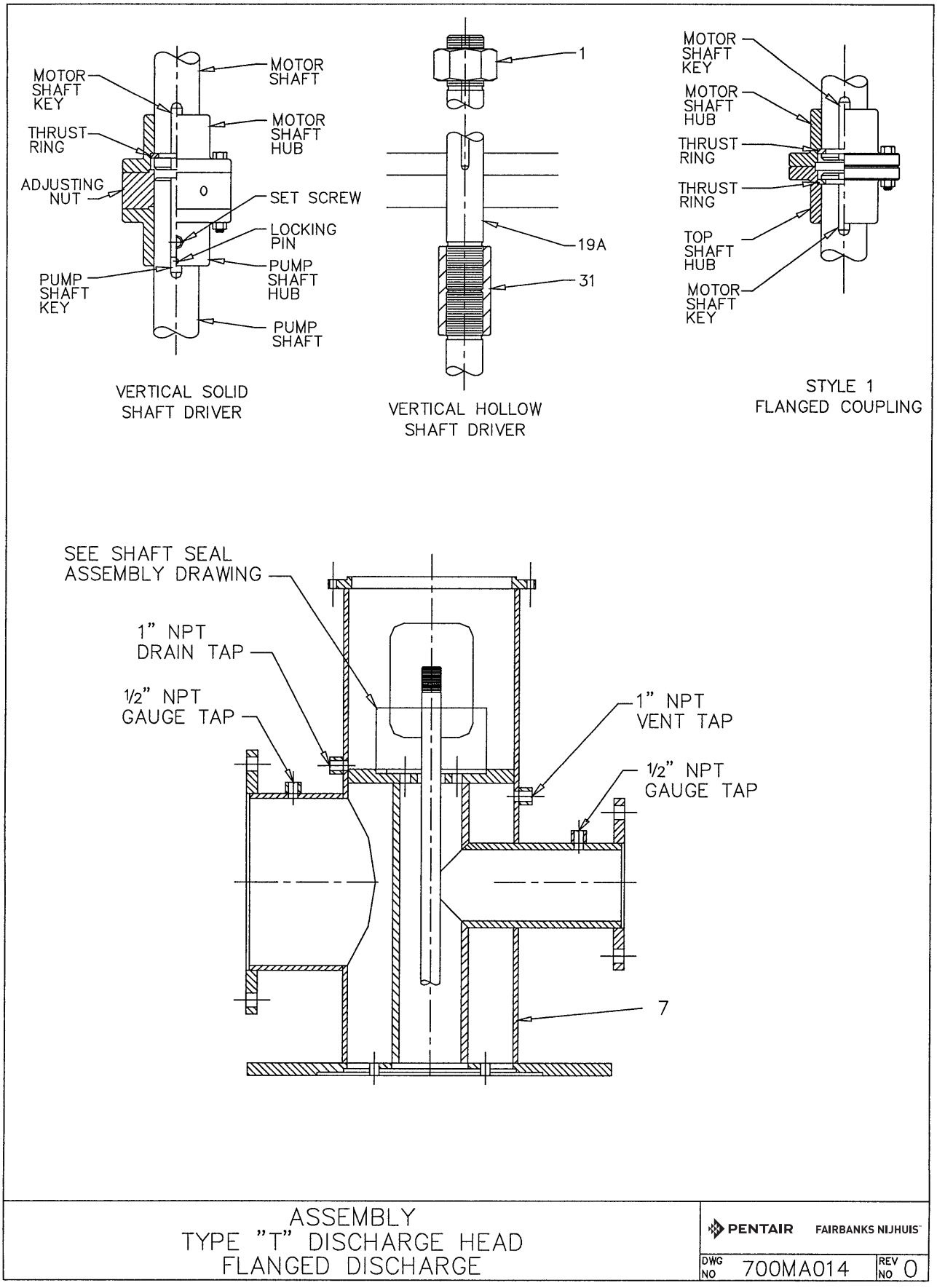
ASSEMBLY
12" & ABOVE TYPE "F" DISCHARGE HEAD
PENTAIR FAIRBANKS NIJHUIS
DWG NO 700MA007
REV NO 0

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SET SCREW
LOCKING PIN
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PUMP SHAFT
VERTICAL SOLID SHAFT DRIVER
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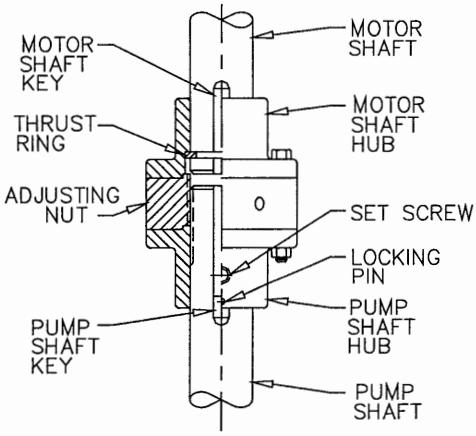
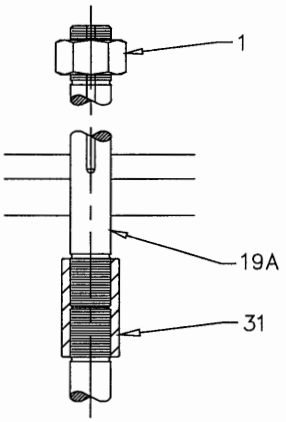
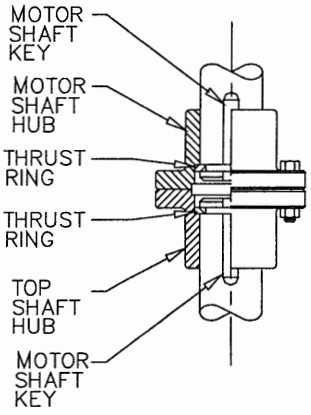
VERTICAL HOLLOW SHAFT DRIVER
MOTOR SHAFT KEY
MOTOR SHAFT HUB
THRUST RING
THRUST RING
TOP SHAFT HUB
MOTOR SHAFT KEY
STYLE 1 FLANGED COUPLING
SEE SHAFT SEAL ASSEMBLY DRAWING
1" NPT DRAIN TAP
1/2" NPT GAUGE TAP
1" NPT VENT TAP
1/2" NPT GAUGE TAP
7
ASSEMBLY
TYPE "T" DISCHARGE HEAD
FLANGED DISCHARGE
PENTAIR FAIRBANKS NIJHUIS
DWG NO 700MA014
REV NO 0



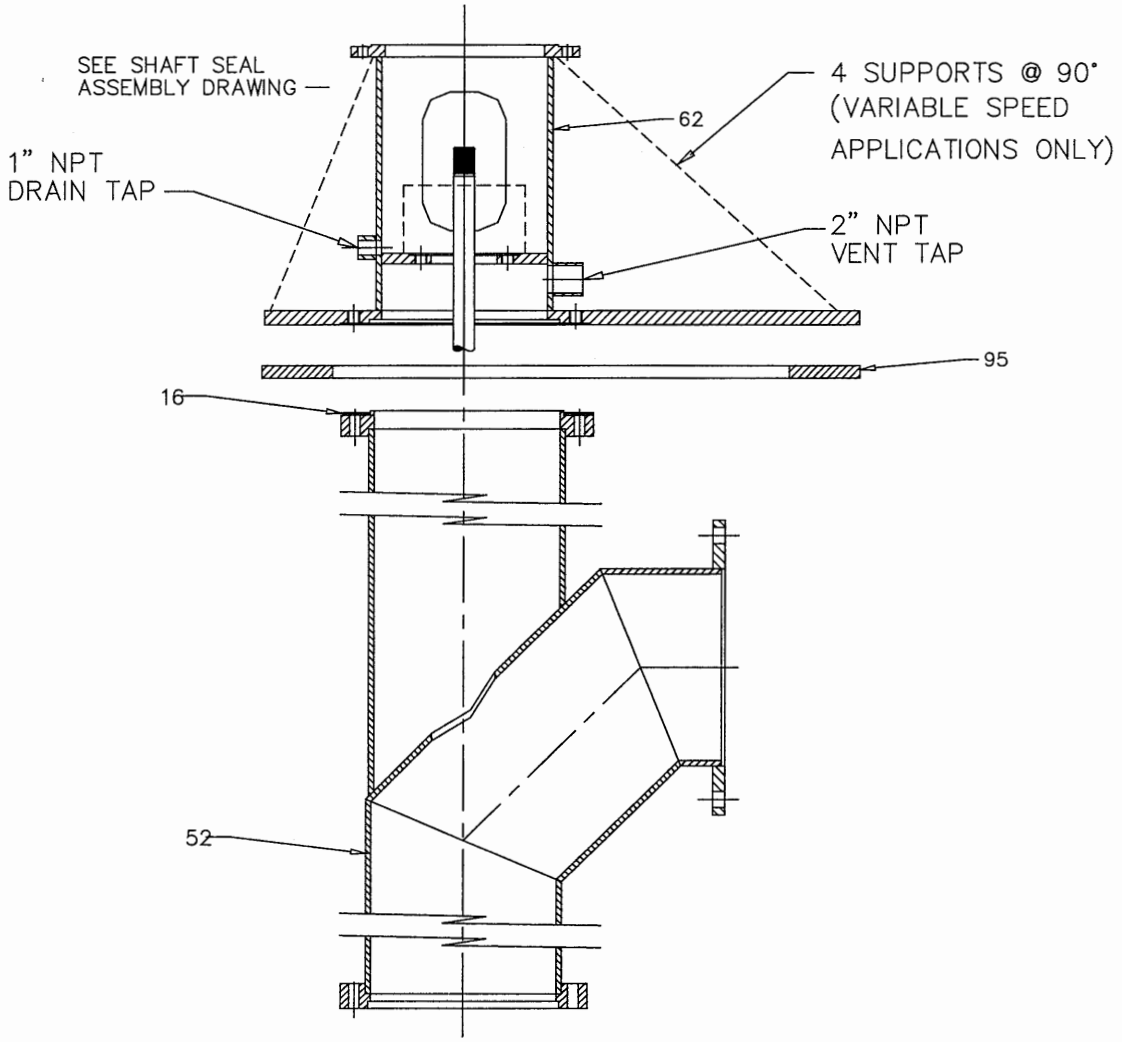
VERTICAL SOLID SHAFT DRIVER



VERTICAL HOLLOW SHAFT DRIVER



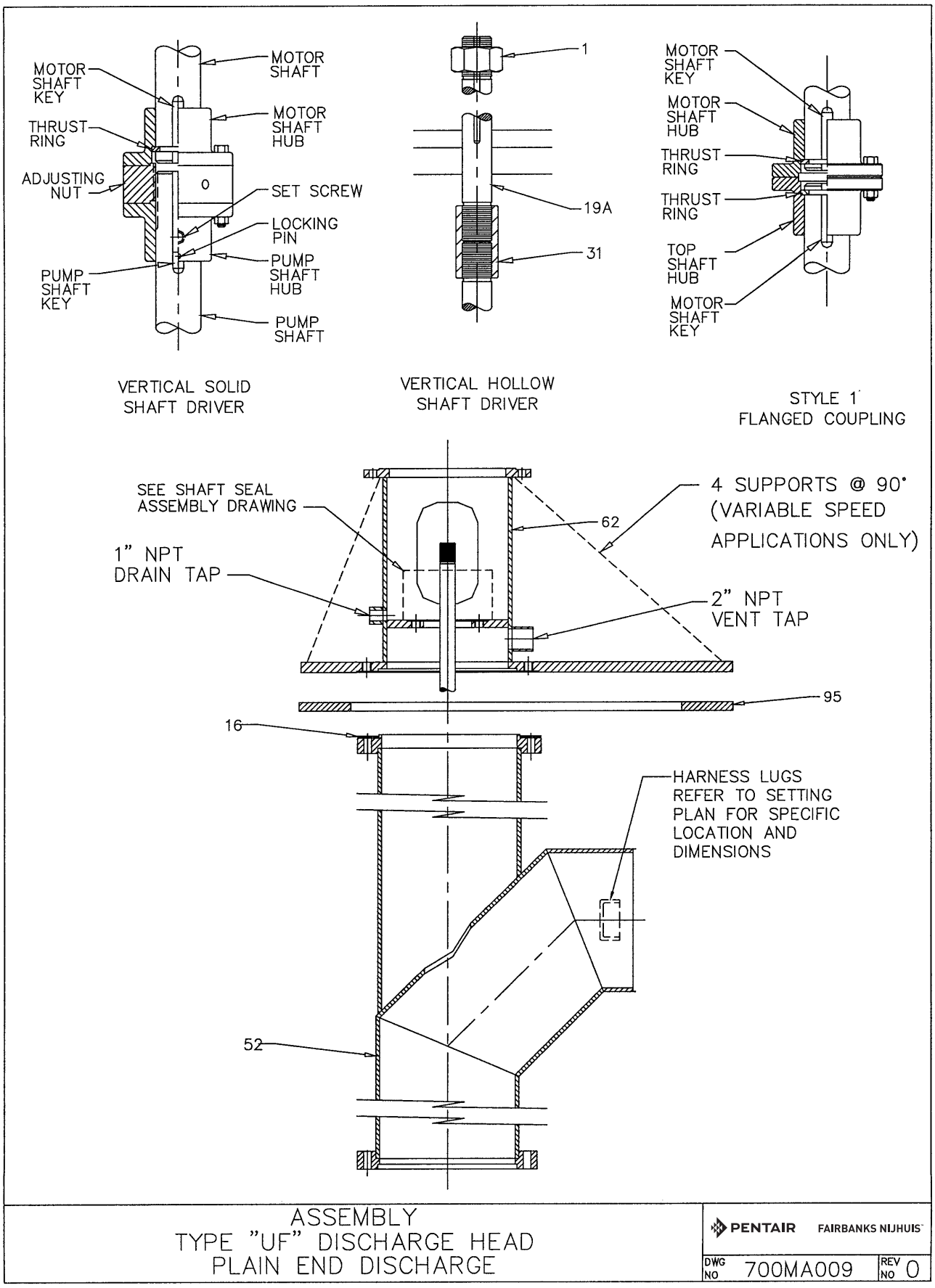
STYLE 1 FLANGED COUPLING



ASSEMBLY
TYPE "UF" DISCHARGE HEAD
FLANGED END DISCHARGE

PENTAIR FAIRBANKS NIJHUIS

DWG NO 700MA008 REV NO 0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MOTOR SHAFT HUB
THRUST RING
ADJUSTING NUT
SET SCREW
LOCKING PIN
PUMP SHAFT HUB
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PUMP SHAFT
VERTICAL SOLID SHAFT DRIVER
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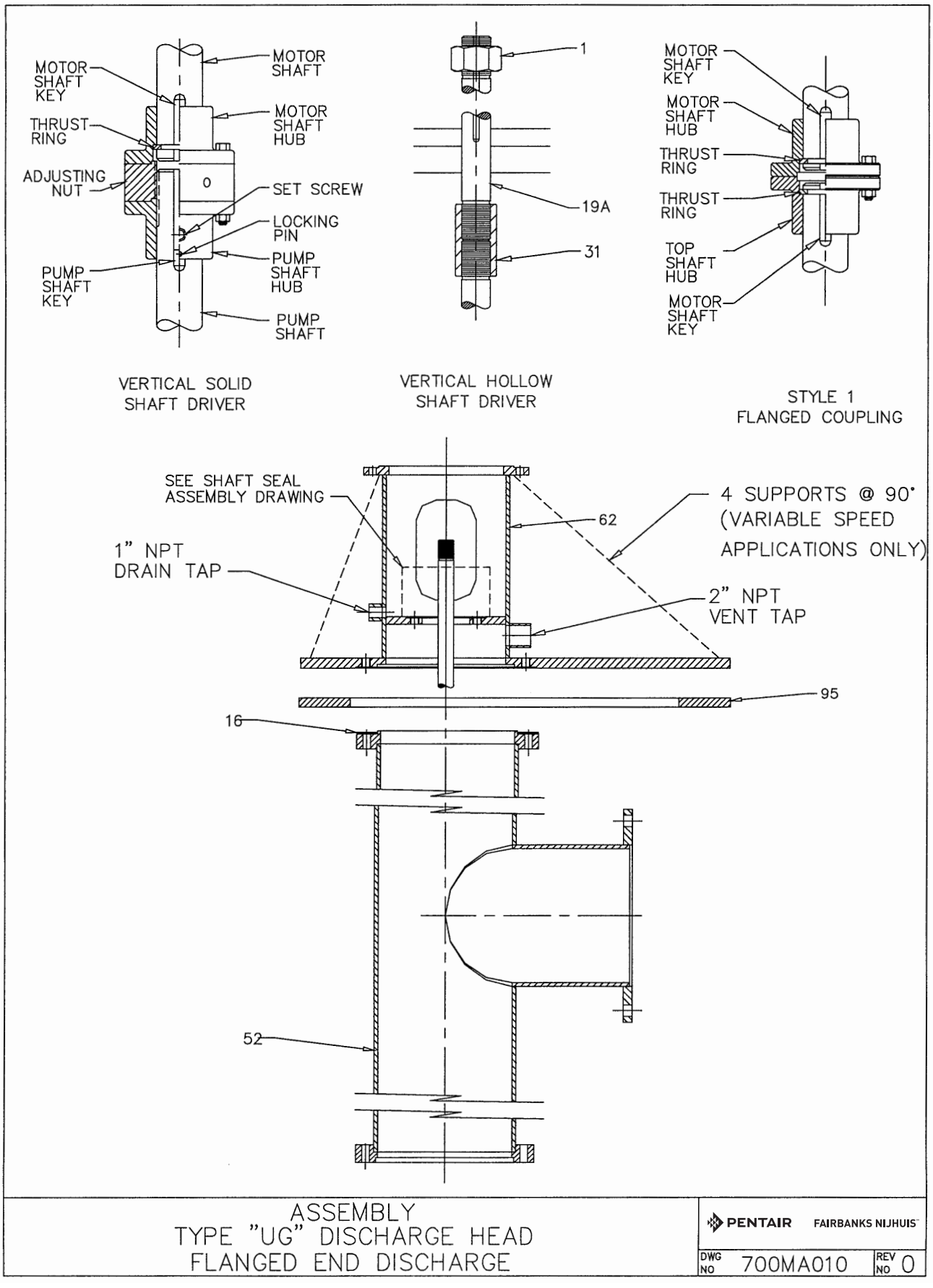
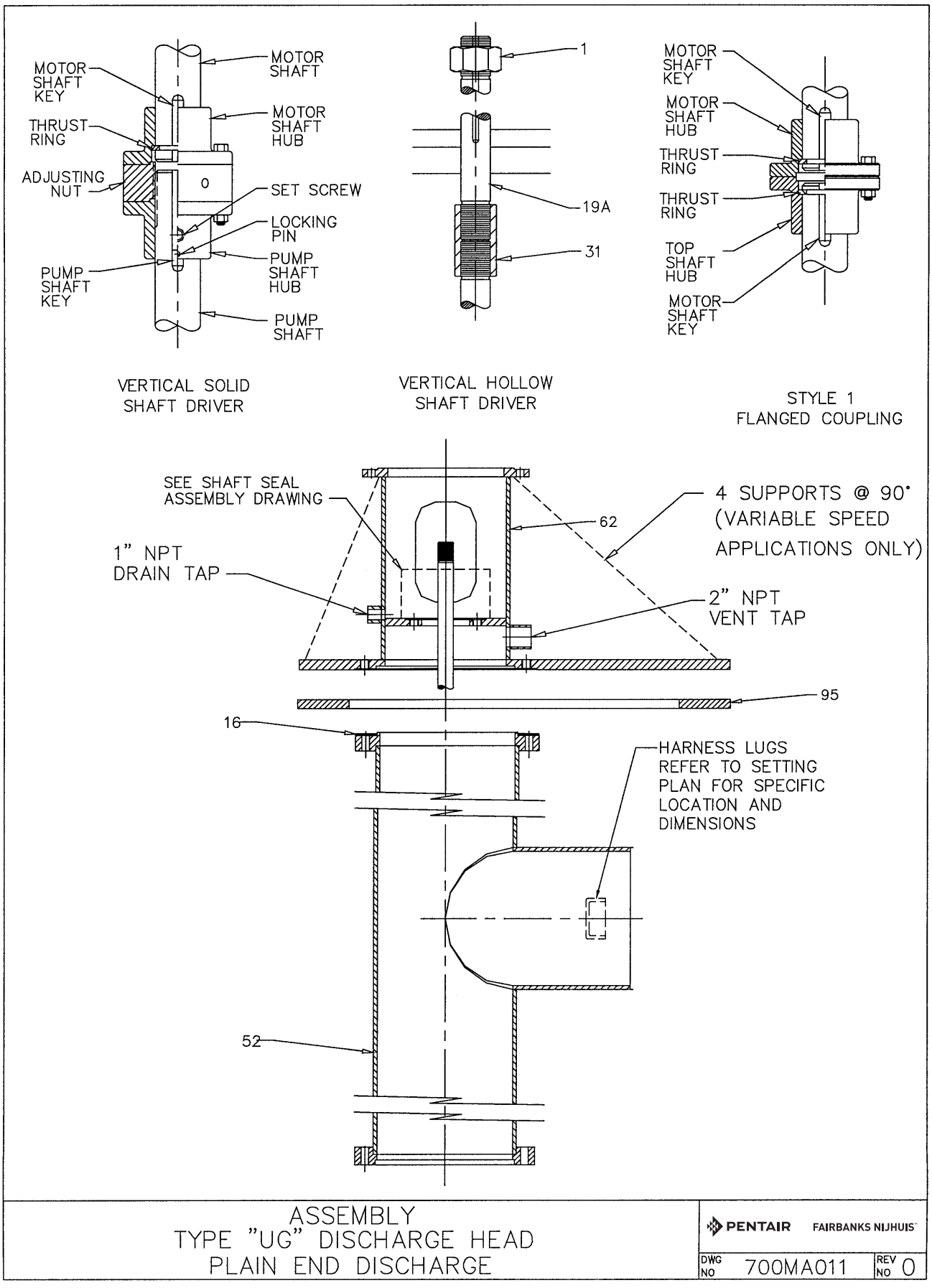
VERTICAL HOLLOW SHAFT DRIVER
MOTOR SHAFT KEY
MOTOR SHAFT HUB
THRUST RING
THRUST RING
TOP SHAFT HUB
MOTOR SHAFT KEY
STYLE 1 FLANGED COUPLING
SEE SHAFT SEAL ASSEMBLY DRAWING
1" NPT DRAIN TAP
62
4 SUPPORTS @ 90° (VARIABLE SPEED APPLICATIONS ONLY)
2" NPT VENT TAP
95
16
HARNESS LUGS REFER TO SETTING PLAN FOR SPECIFIC LOCATION AND DIMENSIONS
52
ASSEMBLY
TYPE "UF" DISCHARGE HEAD
PLAIN END DISCHARGE
PENTAIR FAIRBANKS NIJHUIS
DWG NO 700MA009
REV NO 0

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PUMP SHAFT
VERTICAL SOLID SHAFT DRIVER
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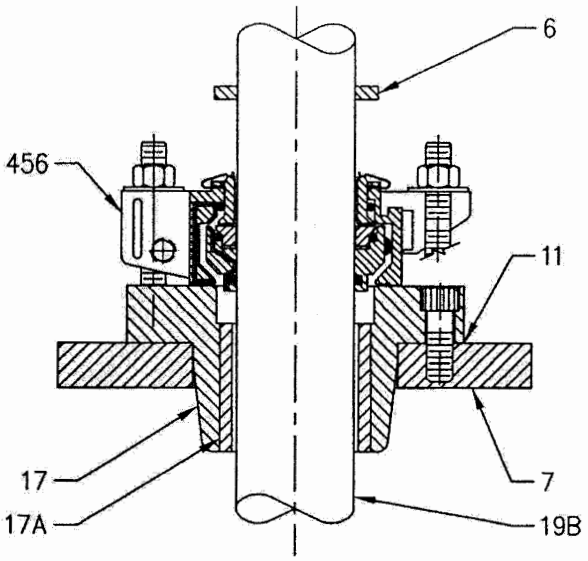
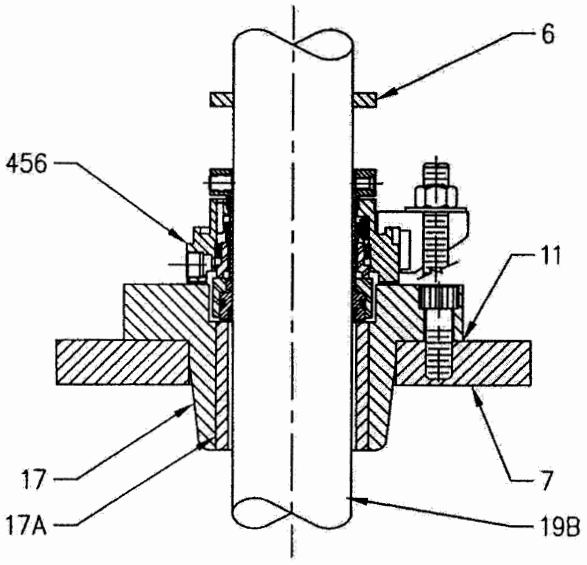
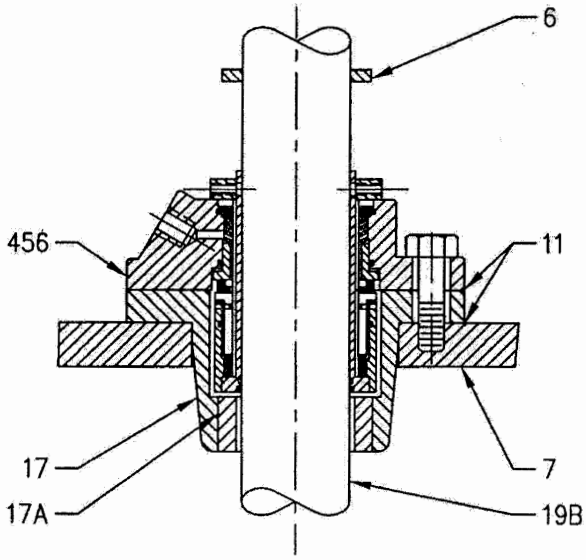
31
VERTICAL HOLLOW SHAFT DRIVER
MOTOR SHAFT KEY
MOTOR SHAFT HUB
THRUST RING
THRUST RING
TOP SHAFT HUB
MOTOR SHAFT KEY
STYLE 1 FLANGED COUPLING
SEE SHAFT SEAL ASSEMBLY DRAWING
1" NPT DRAIN TAP
62
4 SUPPORTS @ 90° (VARIABLE SPEED APPLICATIONS ONLY)
2" NPT VENT TAP
95
16
HARNESS LUGS REFER TO SETTING PLAN FOR SPECIFIC LOCATION AND DIMENSIONS
52
ASSEMBLY
TYPE "UG" DISCHARGE HEAD
PLAIN END DISCHARGE
PENTAIR FAIRBANKS NIJHUIS
DWG NO 700MA011
REV NO 0



SPLIT MECHANICAL SEAL ASSEMBLY



OUTSIDE CARTRIDGE
MECHANICAL SEAL ASSEMBLY

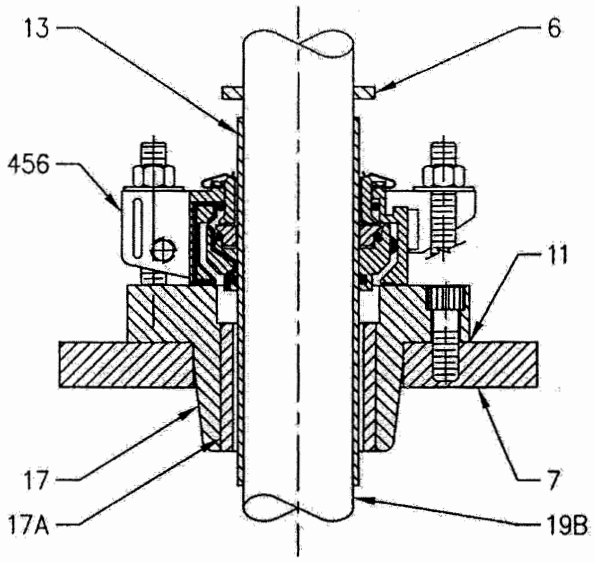


INSIDE CARTRIDGE
MECHANICAL SEAL ASSEMBLY

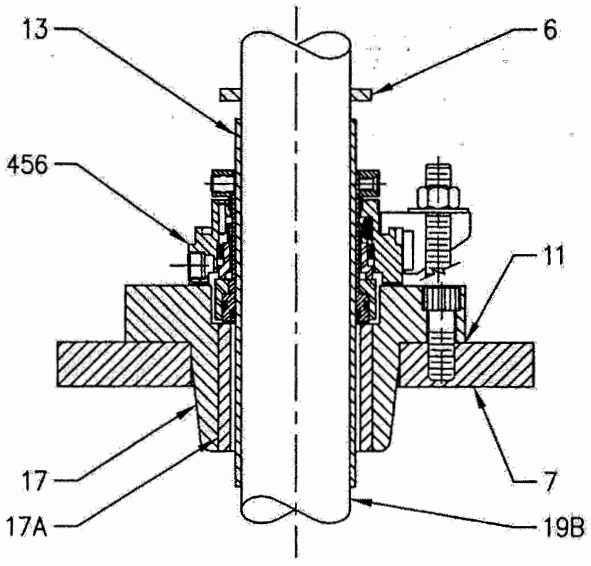
MECHANICAL SEALS
WITHOUT SHAFT SLEEVE

PENTAIR FAIRBANKS NIJHUIS

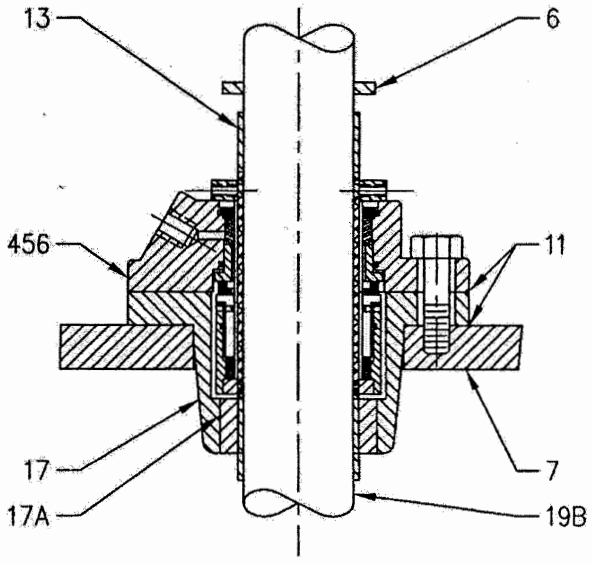
DWG NO 7000A082 REV NO 0



SPLIT MECHANICAL SEAL ASSEMBLY



OUTSIDE CARTRIDGE
MECHANICAL SEAL ASSEMBLY



INSIDE CARTRIDGE
MECHANICAL SEAL ASSEMBLY

MECHANICAL SEALS
WITH OPTIONAL SHAFT SLEEVE

PENTAIR FAIRBANKS NIJHUIS

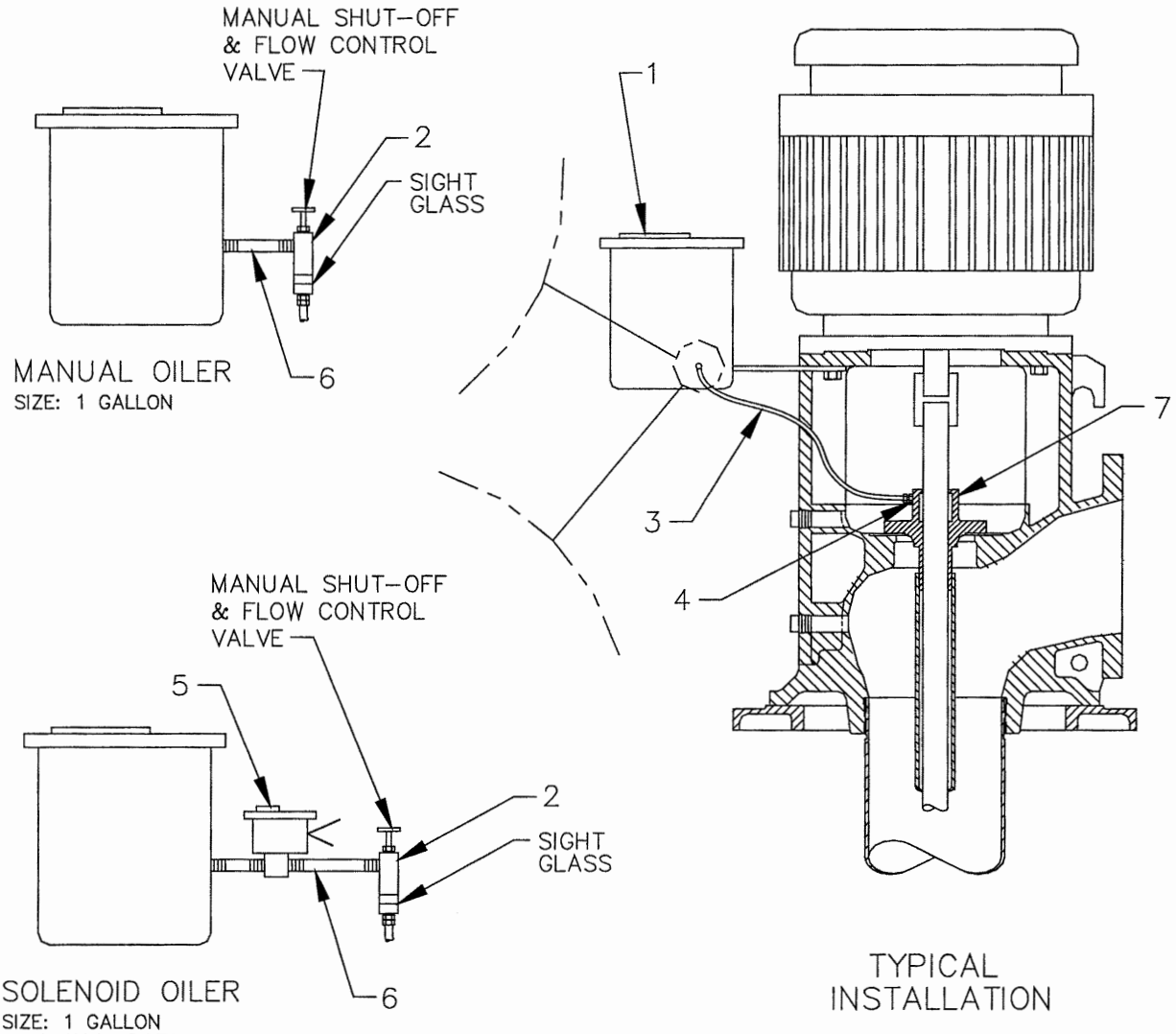
DWG NO 7000A084 REV NO 0

MECHANICAL SEALS MATERIAL SPECIFICATIONS

Item	Description	Material	Specification
6	Water Slinger	Rubber	Neoprene
7	Discharge Head	Cast Iron	ASTM A48 Class 30
11	Seal Box Gasket	Tag Board	ASTM D1170 GRADE 3111
17	Seal Box	Cast Iron	ASTM A48 Class 30
17A	Seal Box Bushing	Bronze	ASTM B505 Alloy 932
19B	Top Shaft	Stainless Steel	A582 - 416
456	Mechanical Seal	As Required	As Required
Options:			
13	Top Shaft Sleeve	Stainless Steel	AISI 304
19B	To Shaft (For use w/sleeve)	Steel	AISI 1045

Reference: Assembly Drawing 7000A082 or 7000A083.

Notes: 1. All material specifications are ASTM unless otherwise noted, and are a description of chemistry only.



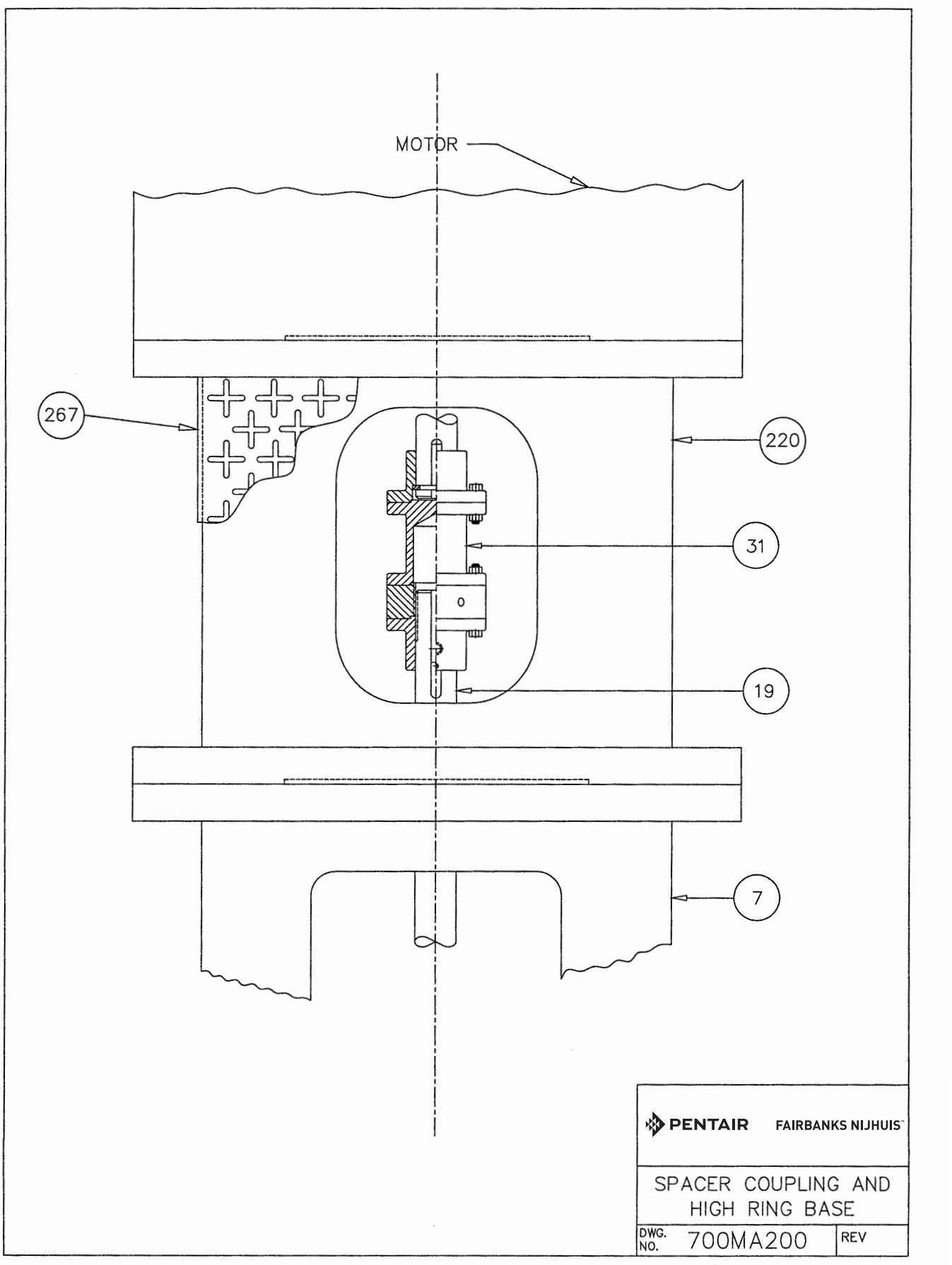
BILL OF MATERIAL LIST

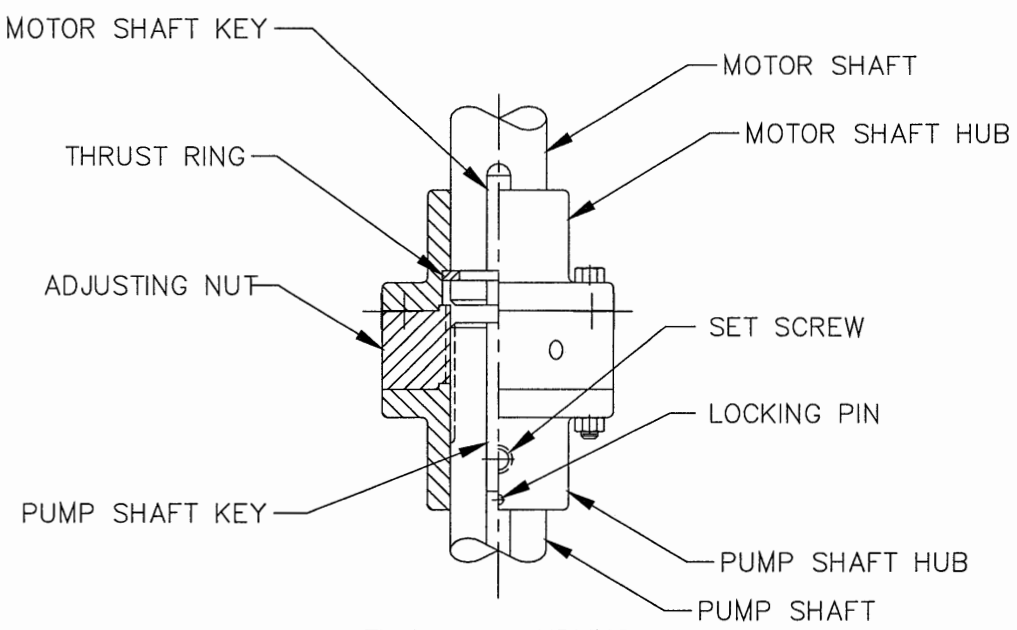
REF	DESCRIPTION	MATERIAL	SPECIFICATION
1	OILER, RESERVOIR & BRACKET	ALUMINUM	COMMERCIAL
2	OIL DRIPPER ASSEMBLY	PURCHASED	COMMERCIAL
3	COPPER TUBING 1/4 X 24" LG.	COPPER	ASTM B280
4	COMPRESSION FITTING, 1/4"	BRASS	COMMERCIAL
5	SOLENOID VALVE	PURCHASED	COMMERCIAL
6	PIPE NIPPLE 1/8 X 3/4	STEEL	ASTM A120
7	PIPE PLUG 1/4	MALLEABLE IRON	COMMERCIAL

ASSEMBLY
OILER WITH ENCLOSED LINESHAFT

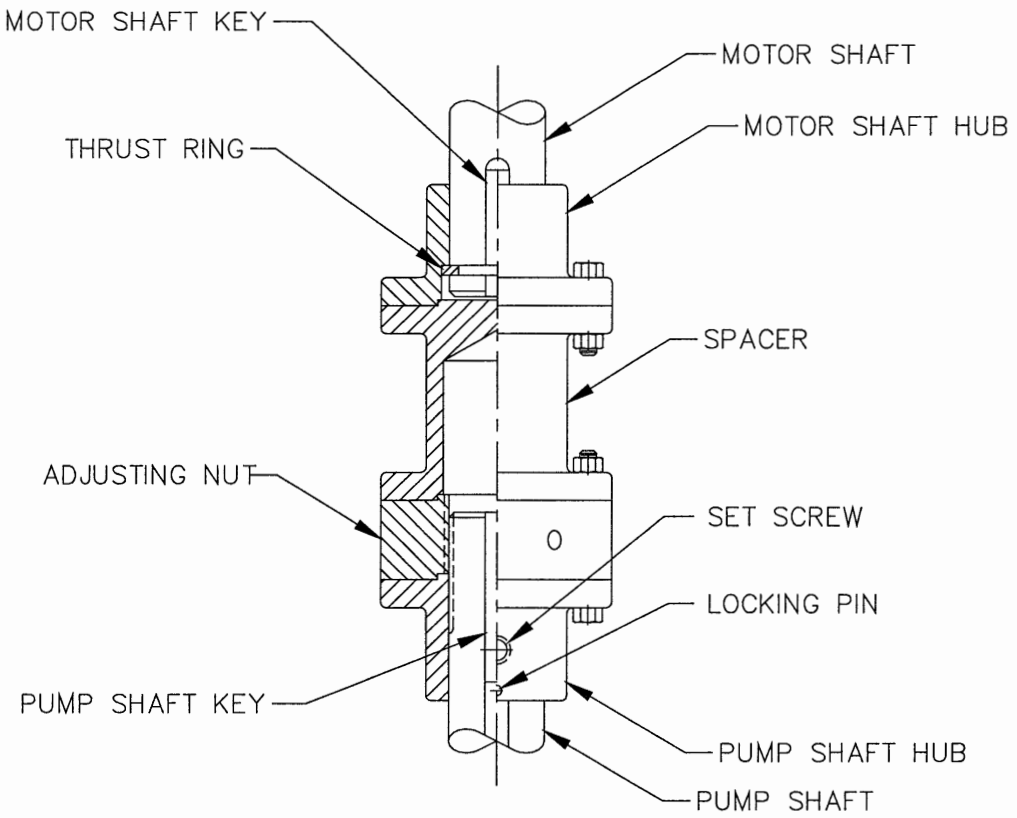
PENTAIR FAIRBANKS NIJHUIS

DWG NO 700MA100 REV NO 0





FLANGED COUPLING



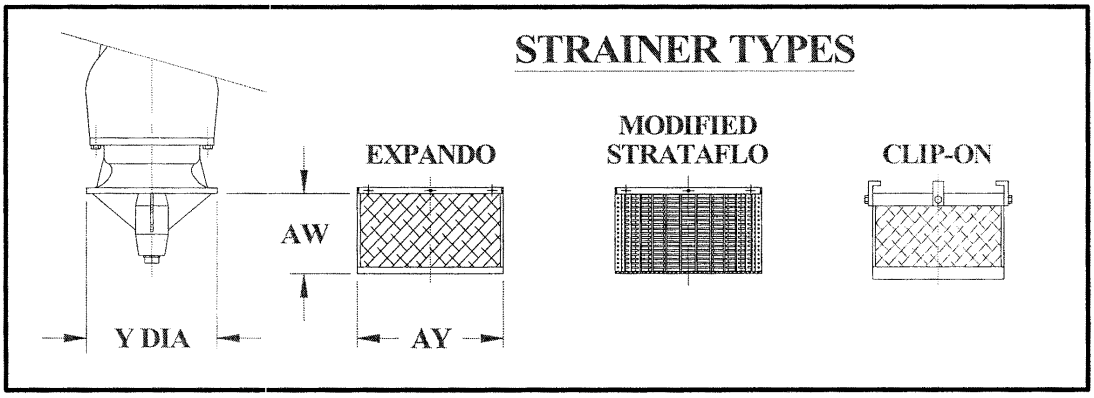
FLANGED SPACER COUPLING

VSS MOTOR COUPLINGS

PENTAIR FAIRBANKS NIJHUIS

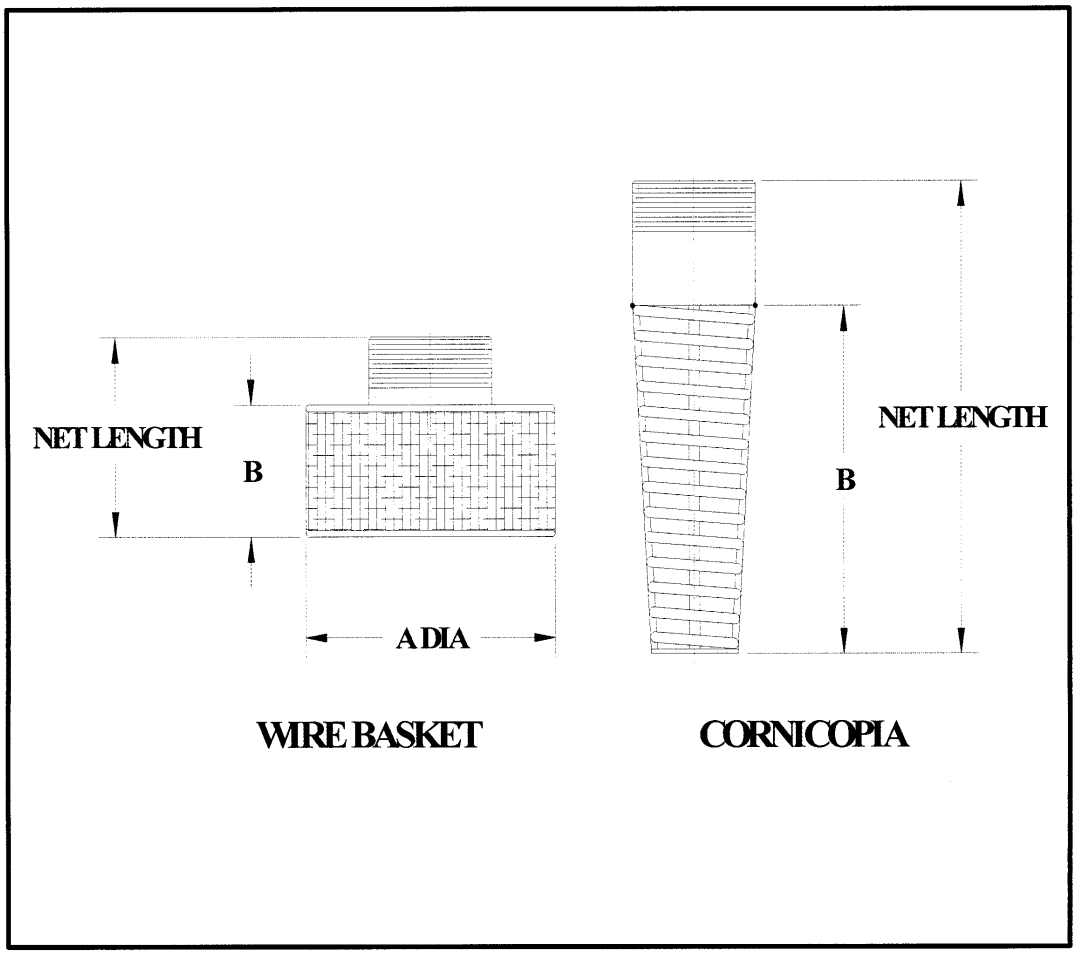
DWG NO 7000A091 REV NO 0

BASKET STRAINERS NON-THREADED

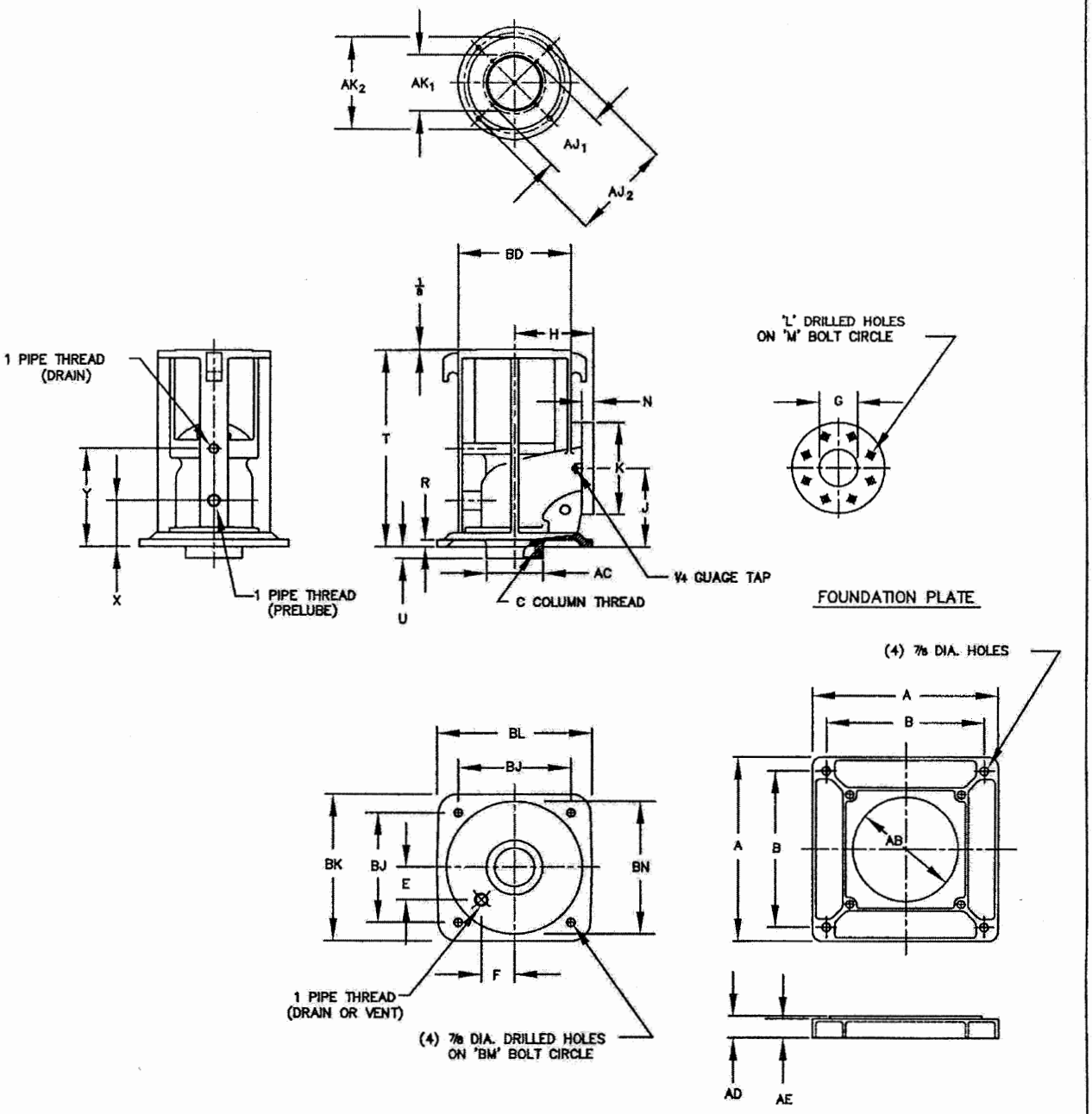


BOWL DIMS.		STRAINER TYPE			STRAINER DIMENSIONS		QTY. OF FASTENERS		
BOWL DESIGN	BELL DIA 'Y'	EXPANDO	MODIFIED STRATFLO	CLIP-ON	AY	AW	EXP.	MOD.	CLIP.
6A,B	5.50	X	X	--	6.50	4.00	4	4	--
6D,F	5.50	X	X	--	6.50	4.00	4	4	--
6G,J	5.50	X	X	--	6.50	4.00	4	4	--
7A,B,D	7.50	X	X	--	8.50	5.00	4	4	--
8B	7.50	X	X	--	8.50	5.00	4	4	--
8P,T,V	9.50	X	X	--	10.50	5.00	4	4	--
8M	8.00	--	--	X	8.00	7.00	--	--	4
10A,B,D,E	9.50	X	X	--	10.50	5.00	4	4	--
10M	10.00	--	--	X	10.00	6.00	--	--	4
10G,J, HRO	9.50	X	X	--	10.50	5.00	4	4	--
11M	11.38	--	--	X	11.50	8.00	--	--	4
11H	11.38	--	--	X	11.50	8.00	--	--	4
12A,B,D,F	11.50	X	X	--	12.50	6.00	4	4	--
12K,S	11.50	X	X	--	12.50	6.00	4	4	--
12M	13.00	--	--	X	13.00	7.00	--	--	4
12E,G,I	13.00	X	X	--	14.13	7.00	4	6	--
12N,U,W	13.00	X	X	--	14.13	7.00	4	6	--
12V	11.50	X	X	--	12.50	6.00	4	4	--
13E,F	11.50	X	X	--	12.50	6.00	4	4	--
13H	13.00	--	--	X	13.00	11.00	--	--	4
14C,D,F	17.00	X	X	--	18.25	9.00	4	6	--
14HRO	14.00	X	X	--	15.25	7.0	4	6	4
14M	14.75	--	--	X	14.75	13.00	--	--	4
14I,J, 17HRO	17.00	X	X	--	18.25	9.00	4	6	--
15H	14.75	--	--	X	14.75	13.00	--	--	4
16E	17.25	X	X	--	18.25	9.00	4	6	--
16HRO	15.45	X	X	--	16.75	8.0	4	6	4
17H	16.75	--	--	X	16.75	9.00	--	--	4
17M, 18HRO	18.00	--	--	X	18.00	9.00	--	--	4
18H	17.25	X	X	--	18.25	9.00	4	6	--
19A,B	17.25	X	X	--	18.25	9.00	4	6	--
19A-1,B-1	22.50	X	X	--	23.50	12.00	8	8	--
20HL	21.50	--	--	X	20.75	8.00	--	--	6
21H	20.75	--	--	X	20.75	8.00	--	--	6
22A,B	22.50	X	X	--	23.50	12.00	8	8	--
23HL,M,H	--	*REFER TO FACTORY*			--	--	--	--	--
24E	22.50	X	X	--	23.50	12.00	8	8	--
27M	28.11	--	--	X	28.00	9.00	--	--	6
30D,E	27.00	--	X	--	28.00	15.00	--	--	--
31M	31.30	--	--	X	31.00	11.00	--	--	10
33HH	--	*REFER TO FACTORY*			--	--	--	--	--
34H	32.00	--	--	X	31.00	11.00	--	--	10
36F,G	40.00	--	X	--	41.00	20.00	--	8	--
38A,B	34.25	--	X	--	35.25	18.00	--	8	--
42A	40.00	--	X	--	41.00	20.00	--	8	--
44A,B	43.00	*REFER TO FACTORY*			44.00	22.00	--	--	--
57H	54.00	--	--	X	54.00	9.00	--	--	10

BASKET STRAINERS THREADED



COLUMN SIZE	WIRE BASKET			CORNICOPIA	
	NET LENGTH	A DIA	B	NET LENGTH	B
4	7.00	8.00	4.00	12.75	9.75
6	9.00	10.00	6.00	16.75	13.75
8	11.00	12.00	8.00	23.00	20.00
10	13.00	18.00	10.00	30.50	27.50
12	15.00	18.00	12.00	32.50	29.50
14	16.00	20.00	12.00	42.50	38.50



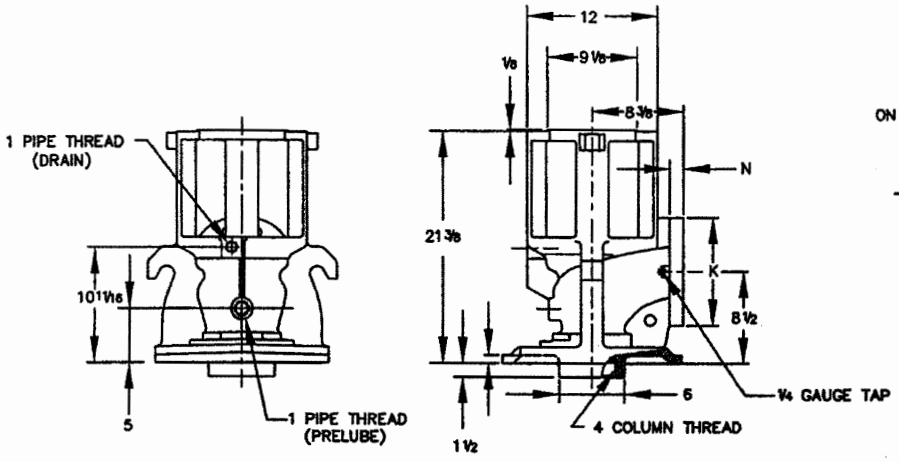
SIZE	FLANGE SIZE	A	B	C	E	F	G	H	J	K	L	M	N	R	T	U	X	Y	AB	AC	AD	AE	AJ_1	AK_1
16½ X 6	6	24	21	6	3⅜	5⅞	6⅛	11⅜	8½	11⅛	(8)⅞	9½	1⅛	⅞	21½	1⅜	6	11¼	17⅛	8¼	1½	1⅜	9⅛	8¼
16½ X 8	8	24	21	8	3⅜	5⅞	8⅛	11⅜	8½	13⅝	(8)⅞	11¾	1¼	⅞	21½	1¾	5	11¼	17⅛	10¼	1½	1⅜	9⅛	8¼
16½ X 10	10	24	21	10	3⅜	5⅞	10⅛	13-7/8	8½	16⅛	(12)1	14¼	1¼	⅞	21½	2	5	11¼	17⅛	12¼	1½	1⅜	9⅛	8¼
20 X 12	12	29	24	12	5¼	5¼	12⅛	17¼	11	19	(12)1	17	1¼	1	21½	2⅛	5	11¼	21⅜	21	1½	1⅜	NA	NA

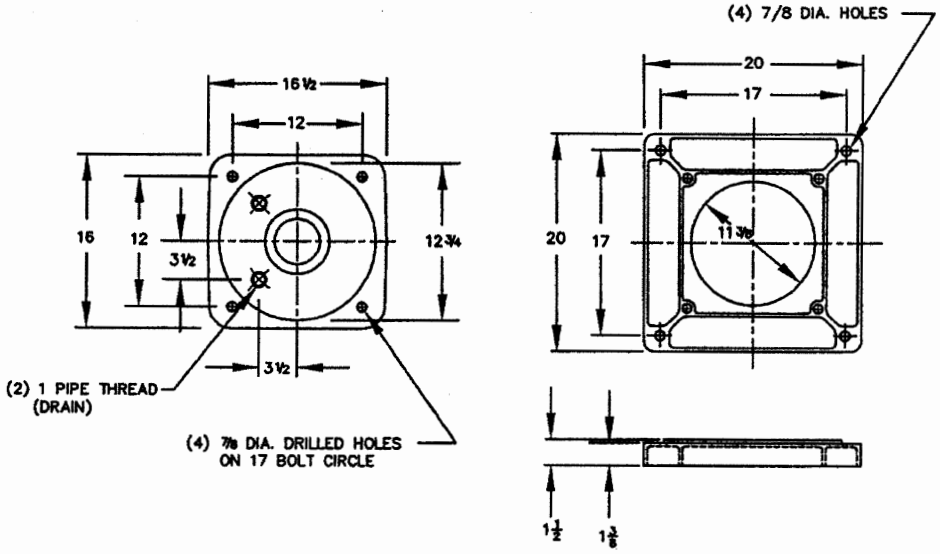
SIZE	AJ_2	AK_2	BD	BJ	BK	BL	BM	BN
16½ X 6	14¾	13½	16½	16¾	20	20½	23¾	16
16½ X 8	14¾	13½	16½	16¾	20	20½	23¾	16
16½ X 10	14¾	13½	16½	16¾	20	20½	23¾	16
20 X 12	14¾	13½	20	20½	23¾	24¼	29	21

PENTAIR FAIRBANKS NIJHUIS

TYPE "CT" SURFACE HEAD

DWG. NO. 7000DM003 REV 1



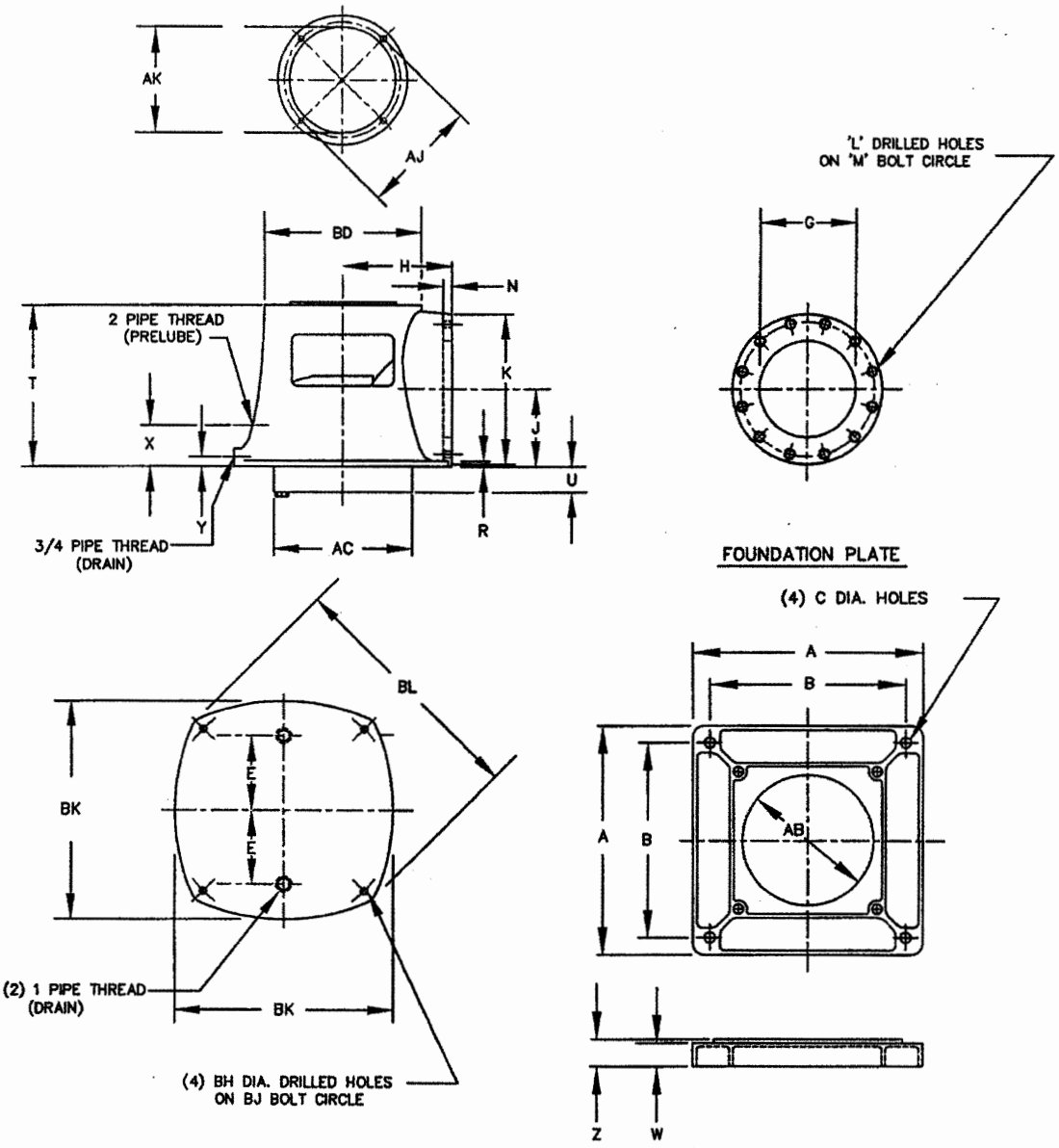


DISCHARGE FLANGE DIMENSIONS					
	K	L		M	N
125 Lb.	9	(8)	3/4	7 1/2	3/4
250 Lb.	10	(8)	7/8	7 7/8	1 1/4

PENTAIR FAIRBANKS NIJHUIS

TYPE "DT" SURFACE HEAD
12 X 4

DWG. NO. 7000DM001 REV 1



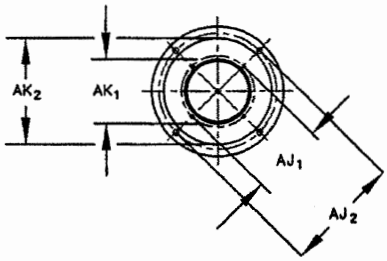
SIZE	FLANGE SIZE	A	B	C	E	G	H	J	K	L	M	N	R	T	U	X	Y	W	Z	AB	AC
20 X 12	12	29	24	1	9 3/8	12 1/8	13 7/8	9-3/4	19	(12) 7/8	17	1 1/8	7/8	19-3/4	2 1/2	7 1/4	2 5/8	1 3/8	1 1/2	21 3/8	17 5/8
24 1/2 X 14	14	35	29	1 1/8	11 1/4	14 1/8	16 7/8	10-3/4	21	(12)1	18 3/4	1 1/4	1	22-3/4	1 7/8	8 3/8	1 1/8	1 3/4	1 7/8	25 1/8	21

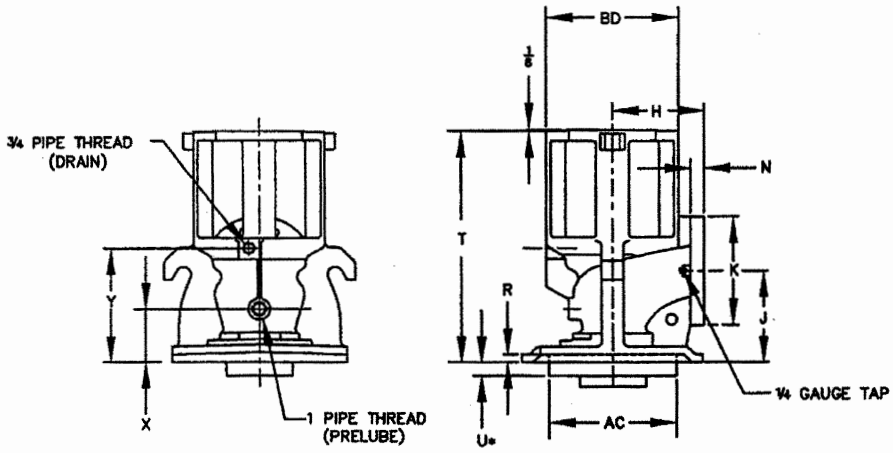
SIZE	AJ	AK	BD	BJ	BK	BL	BM
20 x 12	14 3/4	13 1/2	16 1/2	16 3/4	20	20 1/2	23 3/4
24-1/2 x 14	14 3/4	13 1/2	16 1/2	16 3/4	20	20 1/2	23 3/4

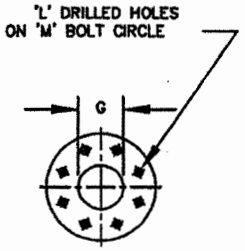
PENTAIR FAIRBANKS NIJHUIS

TYPE "H" SURFACE HEAD

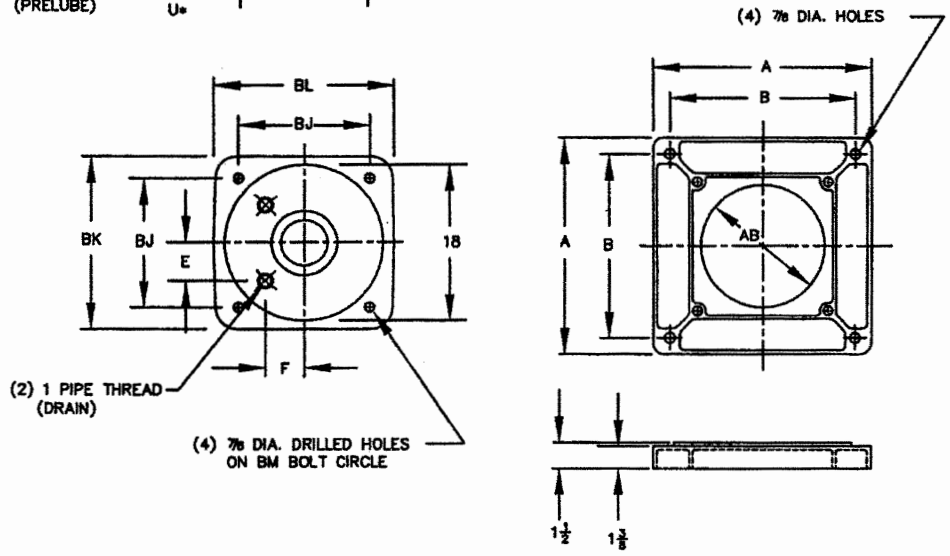
DWG. NO. 7000DM004 REV 1







FOUNDATION PLATE



SIZE	FLANGE SIZE	A	B	E	F	G	H	J	K	L	M	N	R	T	U	X	Y	AB	AC	AJ_1	AK_1
16½ X 6	6	24	21	3⅜	5¾	6⅛	10¼	8½	11⅛	(8)⅞	9½	1⅛	⅞	21½	1¼+	5	11⅛	17⅛	14¾	9⅛	8¼
16½ X 8	8	24	21	3⅜	5¾	8⅛	11⅜	8⅝	13⅝	(8)⅞	11¾	1¼	⅞	21½	1¼+	5	11⅛	17⅛	14¾	9⅛	8¼
20 X 10	10	24	21	3⅜	5¾	10⅛	13⅞	9	16⅛	(12)1	14¼	1¼	⅞	21½	1¼+	4⅜	11⅛	17⅛	14¾	NA	8¼

SIZE	AJ_2	AK_2	BD	BJ	BK	BL	BM
16½ X 6	14¾	13½	16½	16¾	20	20½	23¾
16½ X 8	14¾	13½	16½	16¾	20	20½	23¾
20 X 10	14¾	13½	20	16¾	20	20½	23¾

OPTIONAL 250 LB. FLANGES	FLANGE SIZE	K	L	M	N
	6	12⅝	(12)⅞	10⅝	¾
	8	15⅛	(12)1**	13	1¾
	10	17⅝	(16)⅛	15¼	2

*U=3" WITH 10" COLUMN AND 9¾" WITH 12" COLUMN
** BOTTOM 2 HOLES ARE TAPPED ⅞–9 UNC THROUGH

PENTAIR FAIRBANKS NIJHUIS™

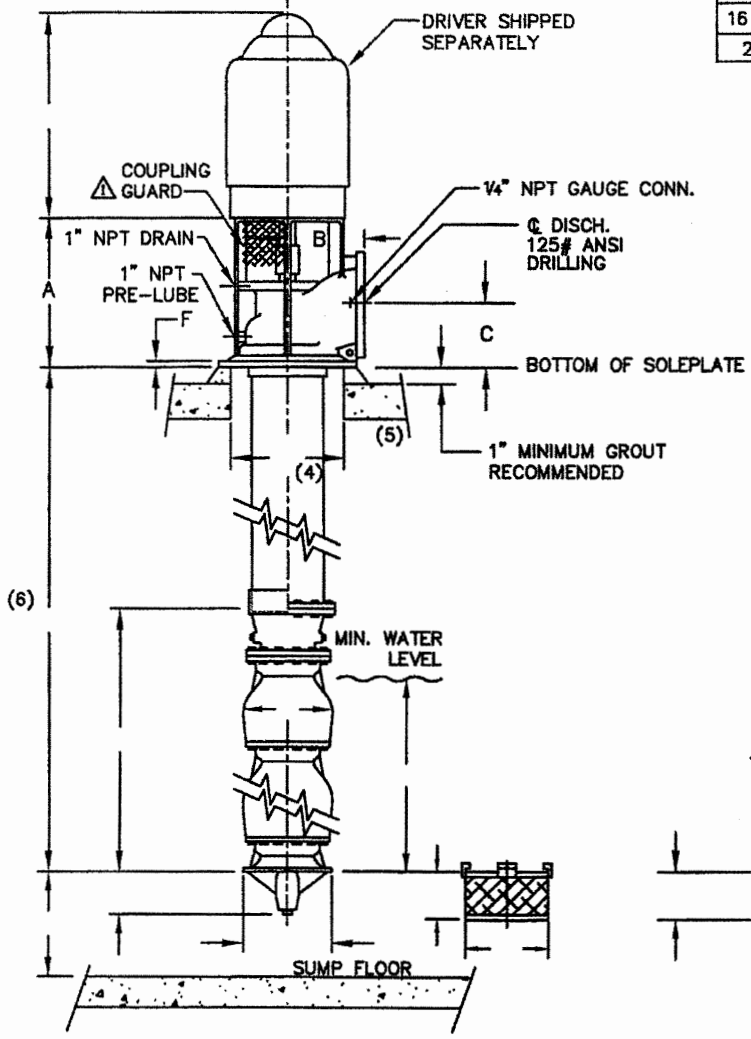
TYPE "D" SURFACE HEAD

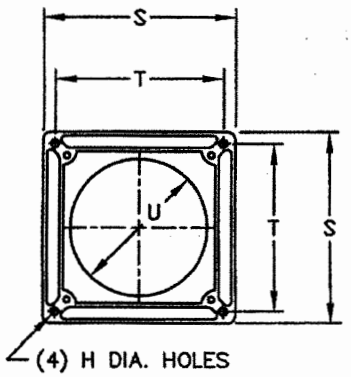
DWG. NO. 7000DM002 REV 1

⚠ WARNING

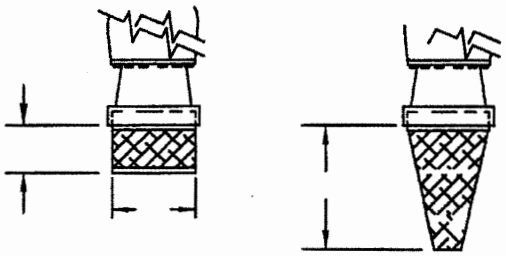
DO NOT OPERATE THIS MACHINE WITHOUT PROTECTIVE GUARD IN PLACE. ANY OPERATION OF THIS MACHINE WITHOUT PROTECTIVE GUARD CAN RESULT IN SEVERE BODILY INJURY.

DISCHARGE HEAD DIMENSIONS								
HEAD SIZE	A	B	C	F	H	S	T	U
16 1/2 x 6	23	11 3/8	10	1 3/8	7/8	24	21	17 1/8
16 1/2 x 8	23	11 3/8	10	1 3/8	7/8	24	21	17 1/8
16 1/2 X 10	23	13 7/8	10 1/2	1 3/8	7/8	24	21	17 1/8
20 X 12	23	17 1/4	12 7/16	1 5/16	1	29	24	21 3/8





BOTTOM VIEW OF FOUNDATION PLATE



1. THIS DRAWING NOT FOR CONSTRUCTION OR INSTALLATION UNLESS CERTIFIED. DIMENSIONS SHOWN ARE TYPICAL AND MAY VARY DUE TO VARIOUS TOLERANCES.
2. FOUNDATION PLATE MUST BE SUPPORTED ON ALL FOUR (4) SIDES AND GROUTED IN PLACE.
3. MINIMUM SUBMERGENCE REQUIRED AT MAXIMUM FLOW.
4. MINIMUM DIAMETER REQUIRED TO REMOVE BOWL ASSEMBLY
5. DETAIL SHOWN FOR ILLUSTRATION ONLY AND IS NOT INTENDED TO REPRESENT THE ACTUAL INSTALLATION.
6. CUSTOMER TO VERIFY OR ADVISE OVERALL LENGTH PRIOR TO OR AT RELEASE.

CUSTOMER				P.O.		
JOB NAME						
PUMP SIZE & MODEL	STAGES	GPM	TDH	RPM	ROT CCW	
MOTOR	HP	FRAME	PHASE	HERTZ	VOLTS	ENCL
CERTIFIED FOR	CERTIFIED BY			DATE		

PENTAIR FAIRBANKS NIJHUIS

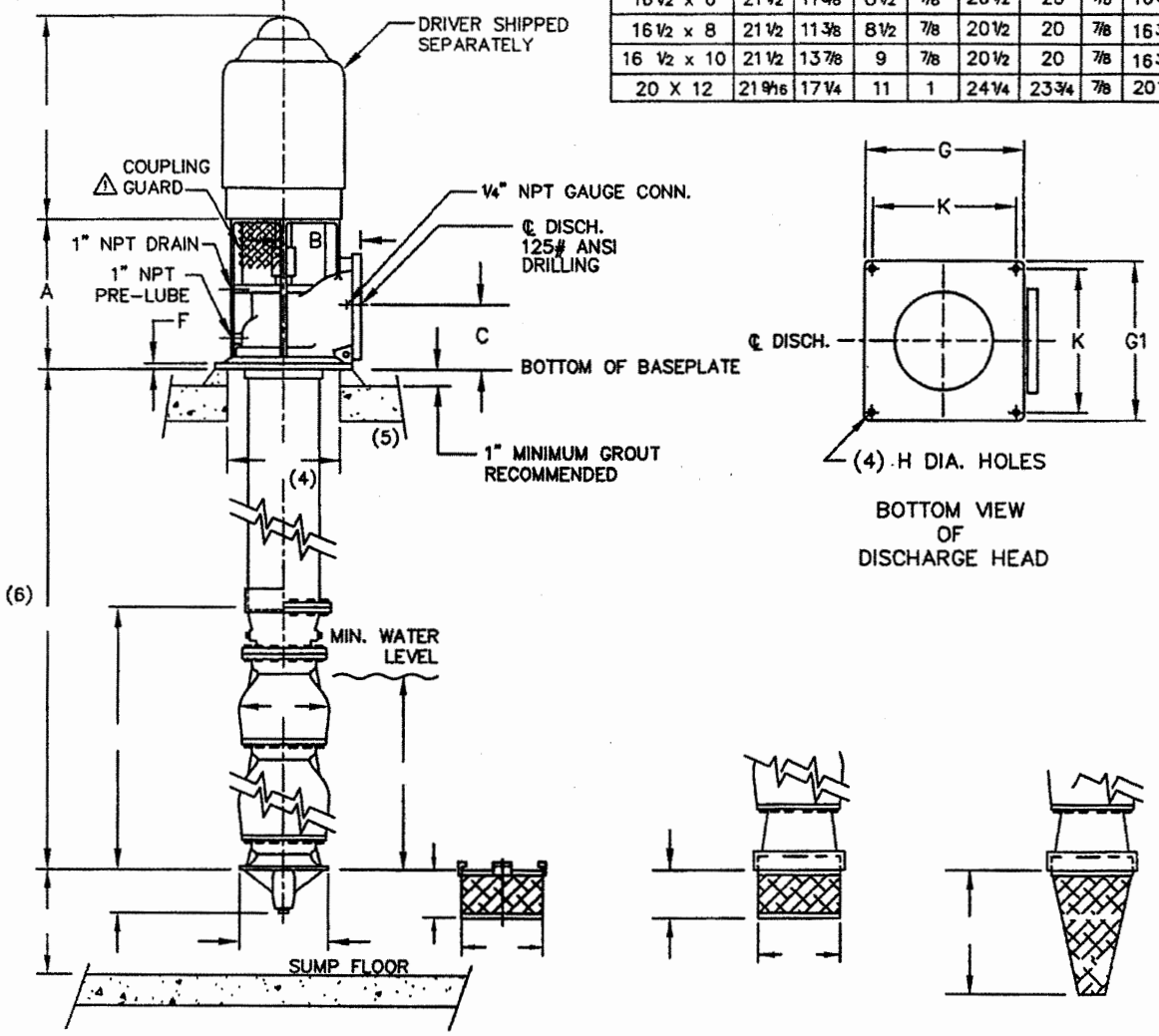
SETTING PLAN
MODEL 7000/7100 PUMP
TYPE "CT" SURFACE HEAD
WITH FOUNDATION PLATE

DWG. NO. 7000FS001 REV 1

⚠ WARNING

DO NOT OPERATE THIS MACHINE WITHOUT PROTECTIVE GUARD IN PLACE. ANY OPERATION OF THIS MACHINE WITHOUT PROTECTIVE GUARD CAN RESULT IN SEVERE BODILY INJURY.

DISCHARGE HEAD DIMENSIONS								
HEAD SIZE	A	B	C	F	G	G1	H	K
16 1/2 x 6	21 1/2	11 3/8	8 1/2	7/8	20 1/2	20	7/8	16 3/4
16 1/2 x 8	21 1/2	11 3/8	8 1/2	7/8	20 1/2	20	7/8	16 3/4
16 1/2 x 10	21 1/2	13 7/8	9	7/8	20 1/2	20	7/8	16 3/4
20 X 12	21 9/16	17 1/4	11	1	24 1/4	23 3/4	7/8	20 1/2



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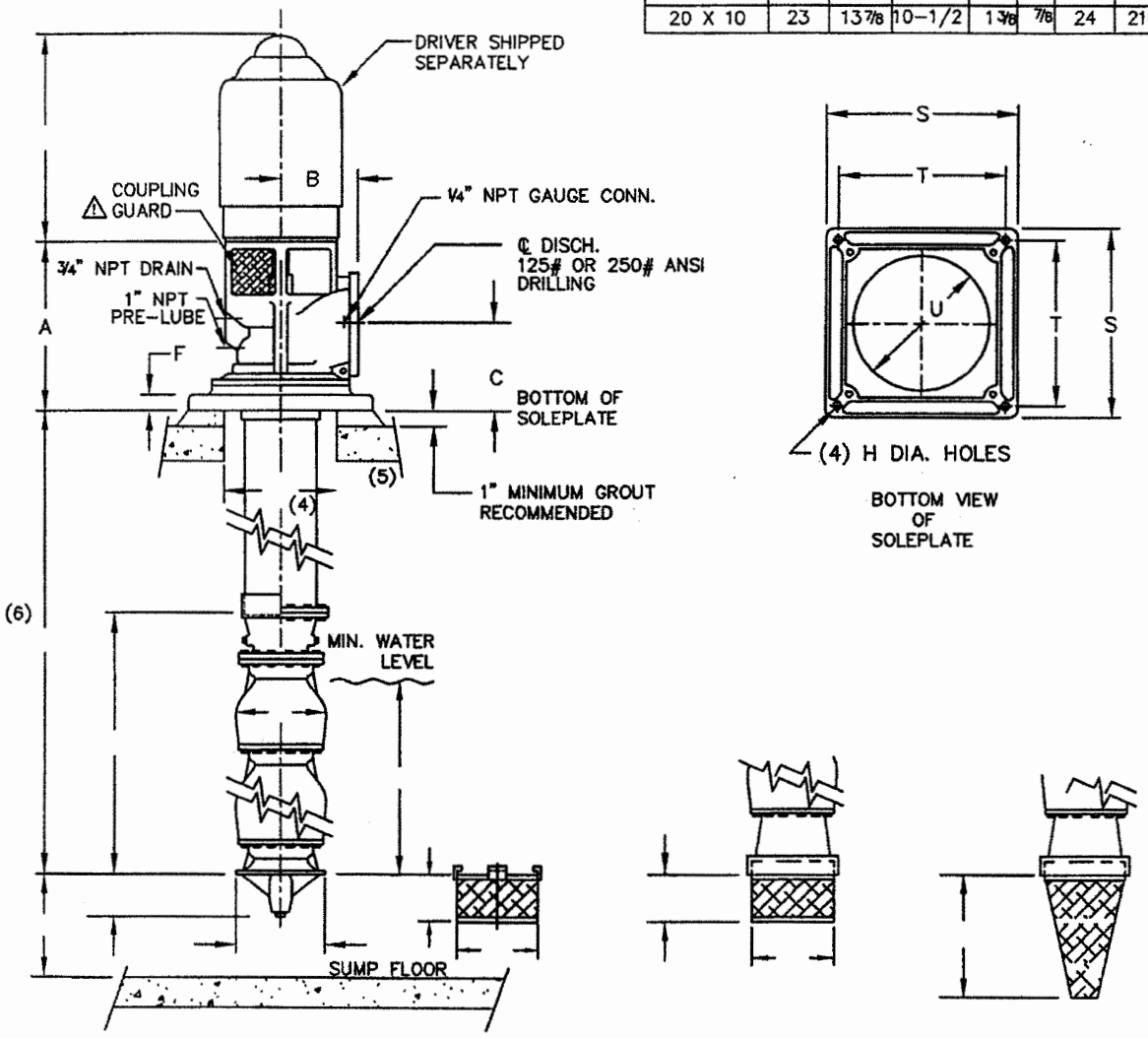
2. BASE PLATE (OR OPTIONAL SOLE PLATE) MUST BE SUPPORTED ON ALL FOUR (4) SIDES AND GROUTED IN PLACE.
3. MINIMUM SUBMERGENCE REQUIRED AT MAXIMUM FLOW.
4. MINIMUM DIAMETER REQUIRED TO REMOVE BOWL ASSEMBLY
5. DETAIL SHOWN FOR ILLUSTRATION ONLY AND IS NOT INTENDED TO REPRESENT THE ACTUAL INSTALLATION.
6. CUSTOMER TO VERIFY OR ADVISE OVERALL LENGTH PRIOR TO OR AT RELEASE.

CUSTOMER						P.O.	PENTAIR FAIRBANKS NIJHUIS
JOB NAME							
PUMP SIZE & MODEL	STAGES	GPM	TDH	RPM	ROT CCW		SETTING PLAN MODEL 7000/7100 PUMP TYPE "CT" SURFACE HEAD NO FOUNDATION PLATE
MOTOR	HP	FRAME	PHASE	HERTZ	VOLTS	ENCL	
CERTIFIED FOR	CERTIFIED BY			DATE		DWG. NO. 7000FS002	REV 1

⚠ WARNING

DO NOT OPERATE THIS MACHINE WITHOUT PROTECTIVE GUARD IN PLACE. ANY OPERATION OF THIS MACHINE WITHOUT PROTECTIVE GUARD CAN RESULT IN SEVERE BODILY INJURY.

DISCHARGE HEAD DIMENSIONS								
HEAD SIZE	A	B	C	F	H	S	T	U
16 1/2 x 6	23	10 1/4	10	1 3/8	7/8	24	21	17 1/8
16 1/2 x 8 (7)	23	11 3/8	10	1 3/8	7/8	24	21	17 1/8
20 X 10	23	13 7/8	10-1/2	1 3/8	7/8	24	21	17 1/8



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4. MINIMUM DIAMETER REQUIRED TO REMOVE BOWL ASSEMBLY
5. DETAIL SHOWN FOR ILLUSTRATION ONLY AND IS NOT INTENDED TO REPRESENT THE ACTUAL INSTALLATION.
6. CUSTOMER TO VERIFY OR ADVISE OVERALL LENGTH PRIOR TO OR AT RELEASE.
7. BOTTOM TWO DISCHARGE FLANGE HOLES ARE TAPPED WHEN 250# FLANGE OPTION IS SELECTED.

CUSTOMER				P.O.		
JOB NAME						
PUMP SIZE & MODEL	STAGES	GPM	TDH	RPM	ROT CCW	
MOTOR	HP	FRAME	PHASE	HERTZ	VOLTS	ENCL
CERTIFIED FOR	CERTIFIED BY			DATE		

PENTAIR FAIRBANKS NIJHUIS

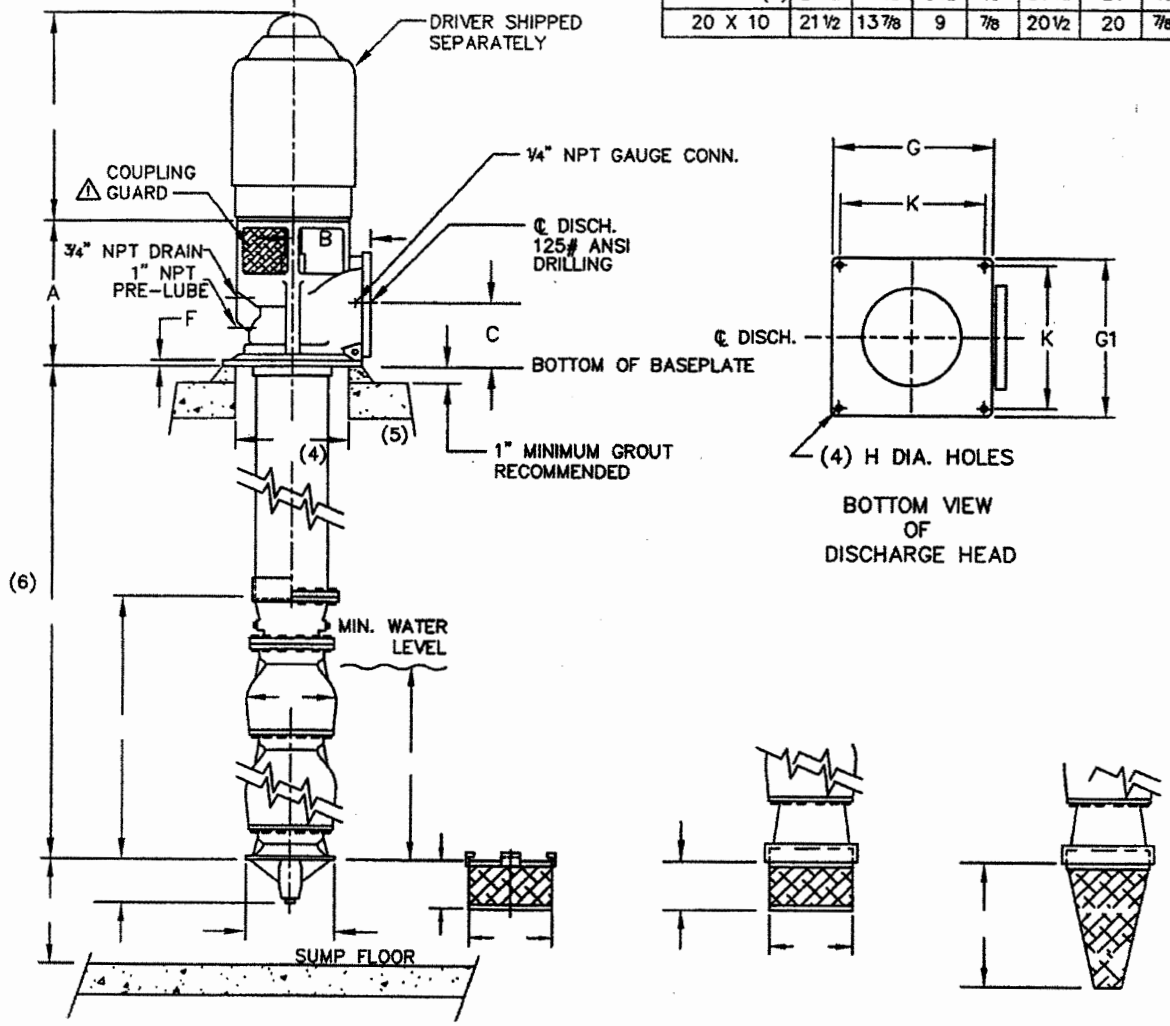
SETTING PLAN
MODEL 7000/7100 PUMP
TYPE "D" DISCHARGE HEAD
WITH FOUNDATION PLATE

DWG. NO. 7000FS003 REV 1

⚠ WARNING

DO NOT OPERATE THIS MACHINE WITHOUT PROTECTIVE GUARD IN PLACE. ANY OPERATION OF THIS MACHINE WITHOUT PROTECTIVE GUARD CAN RESULT IN SEVERE BODILY INJURY.

DISCHARGE HEAD DIMENSIONS								
HEAD SIZE	A	B	C	F	G	G1	H	K
16 1/2 x 6	21 1/2	10 1/4	8 1/2	7/8	20 1/2	20	7/8	16 13/16
16 1/2 x 8 (7)	21 1/2	11 3/8	8 1/2	7/8	20 1/2	20	7/8	16 13/16
20 X 10	21 1/2	13 7/8	9	7/8	20 1/2	20	7/8	16 13/16



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3. MINIMUM SUBMERGENCE REQUIRED AT MAXIMUM FLOW.
4. MINIMUM DIAMETER REQUIRED TO REMOVE BOWL ASSEMBLY
5. DETAIL SHOWN FOR ILLUSTRATION ONLY AND IS NOT INTENDED TO REPRESENT THE ACTUAL INSTALLATION.
6. CUSTOMER TO VERIFY OR ADVISE OVERALL LENGTH PRIOR TO OR AT RELEASE.
7. BOTTOM TWO DISCHARGE FLANGE HOLES ARE TAPPED WHEN 250# FLANGE OPTION IS SELECTED.

CUSTOMER				P.O.		
JOB NAME						
PUMP SIZE & MODEL	STAGES	GPM	TDH	RPM	ROT CCW	
MOTOR	HP	FRAME	PHASE	HERTZ	VOLTS	ENCL
CERTIFIED FOR	CERTIFIED BY			DATE		

PENTAIR FAIRBANKS NIJHUIS

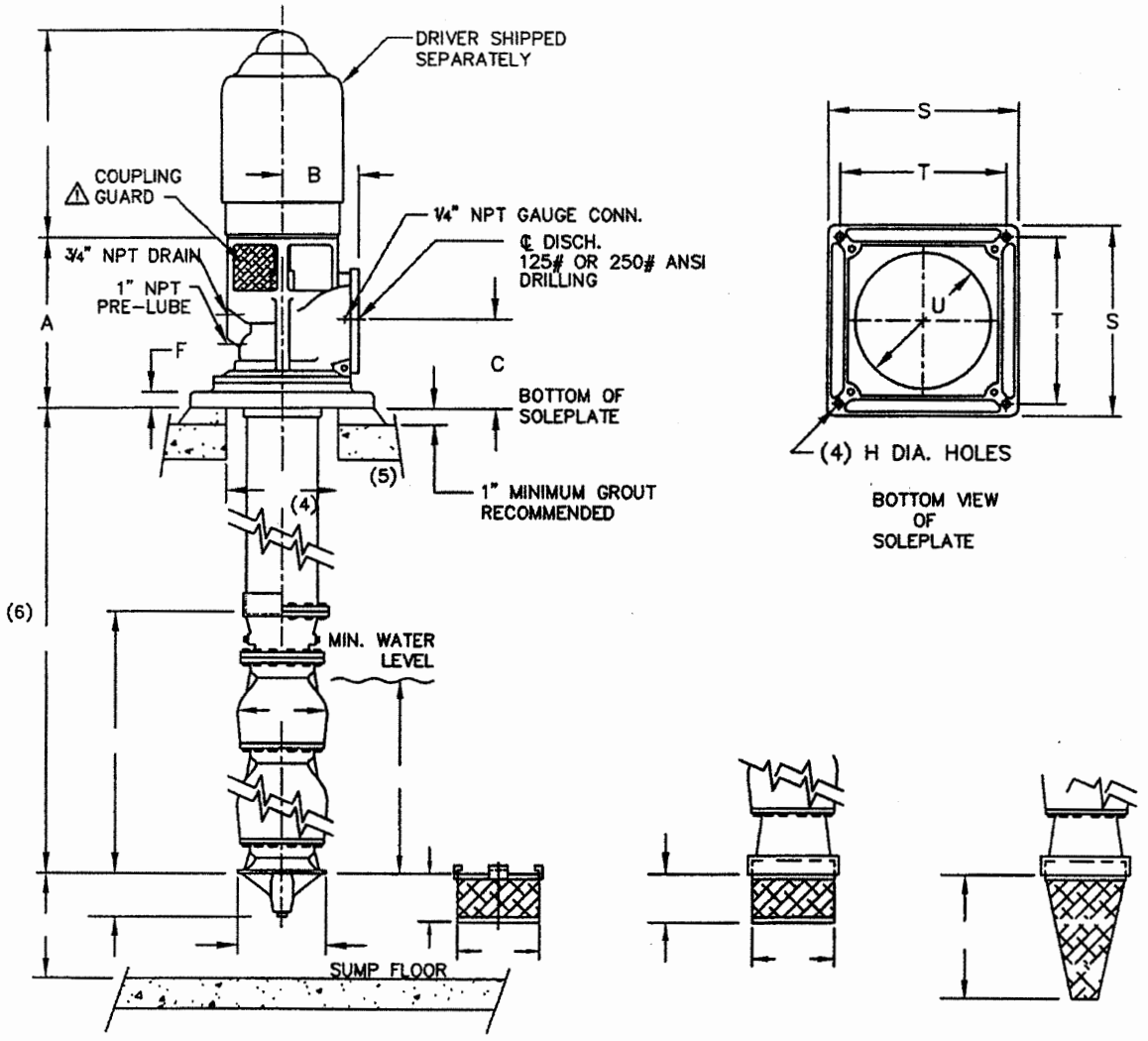
SETTING PLAN
MODEL 7000/7100 PUMP
TYPE "D" SURFACE HEAD
NO FOUNDATION PLATE

DWG. NO. 7000FS004 REV 1

⚠ WARNING

DO NOT OPERATE THIS MACHINE WITHOUT PROTECTIVE GUARD IN PLACE. ANY OPERATION OF THIS MACHINE WITHOUT PROTECTIVE GUARD CAN RESULT IN SEVERE BODILY INJURY.

DISCHARGE HEAD DIMENSIONS								
HEAD SIZE	A	B	C	F	H	S	T	U
12 X 4	22 3/4	8 3/8	10	1 3/8	7/8	20	17	11 3/8



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4. MINIMUM DIAMETER REQUIRED TO REMOVE BOWL ASSEMBLY
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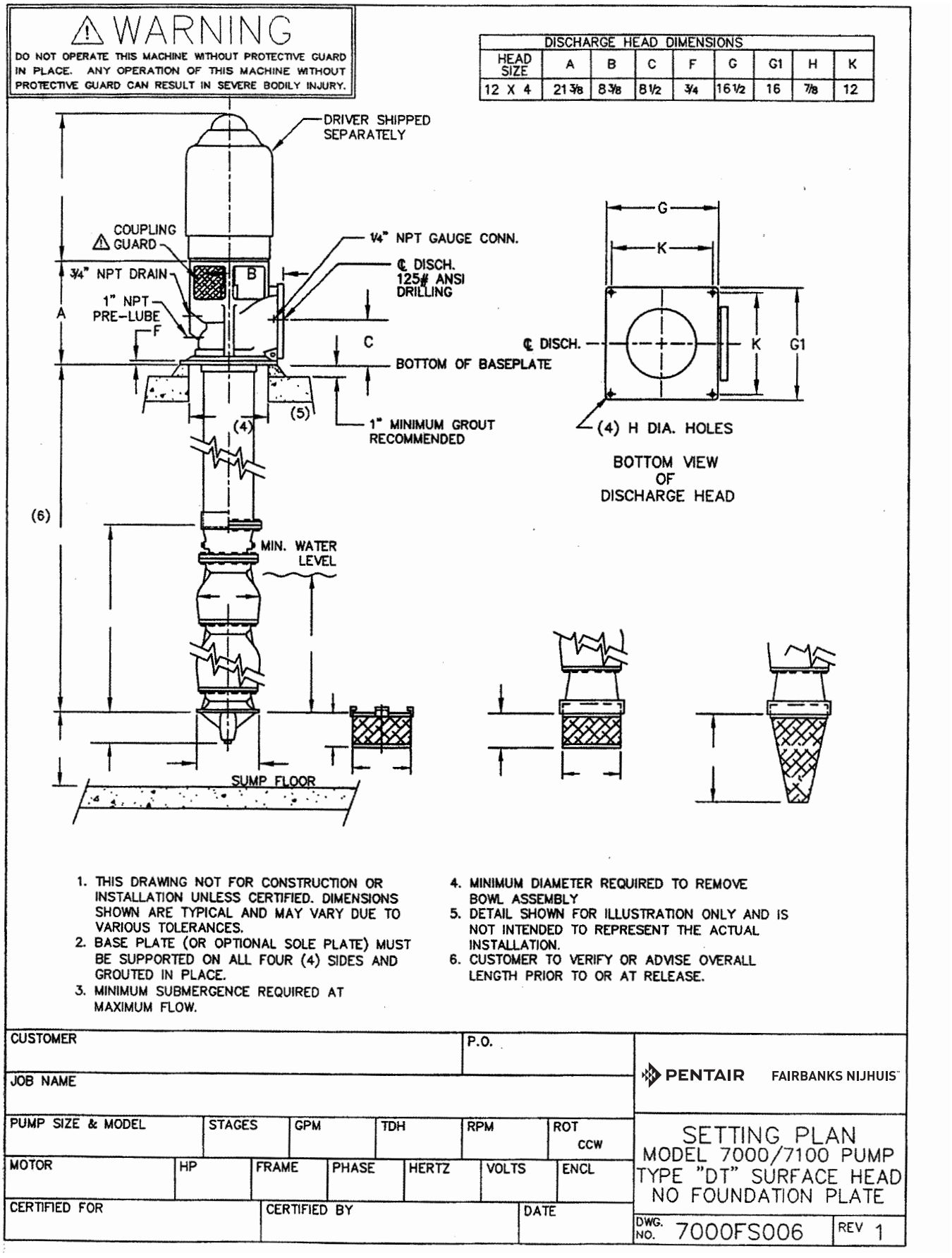
6. CUSTOMER TO VERIFY OR ADVISE OVERALL LENGTH PRIOR TO OR AT RELEASE.

CUSTOMER					P.O.	
JOB NAME						
PUMP SIZE & MODEL	STAGES	GPM	TDH	RPM	ROT CCW	
MOTOR	HP	FRAME	PHASE	HERTZ	VOLTS	ENCL
CERTIFIED FOR	CERTIFIED BY			DATE		

PENTAIR FAIRBANKS NIJHUIS

SETTING PLAN
MODEL 7000/7100 PUMP
TYPE "DT" DISCHARGE HEAD
WITH FOUNDATION PLATE

DWG. NO. 7000FS005 REV 1


⚠ WARNING
DO NOT OPERATE THIS MACHINE WITHOUT PROTECTIVE GUARD IN PLACE. ANY OPERATION OF THIS MACHINE WITHOUT PROTECTIVE GUARD CAN RESULT IN SEVERE BODILY INJURY.
DISCHARGE HEAD DIMENSIONS
HEAD SIZE | A | B | C | F | G | G1 | H | K
12 X 4 | 21 3/8 | 8 3/8 | 8 1/2 | 3/4 | 16 1/2 | 16 | 7/8 | 12
DRIVER SHIPPED SEPARATELY
COUPLING GUARD
3/4" NPT DRAIN
1" NPT PRE-LUBE
1/4" NPT GAUGE CONN.
℄ DISCH. 125# ANSI DRILLING
BOTTOM OF BASEPLATE
1" MINIMUM GROUT RECOMMENDED
MIN. WATER LEVEL
SUMP FLOOR
G
K
℄ DISCH.
G1
(4) H DIA. HOLES
BOTTOM VIEW OF DISCHARGE HEAD
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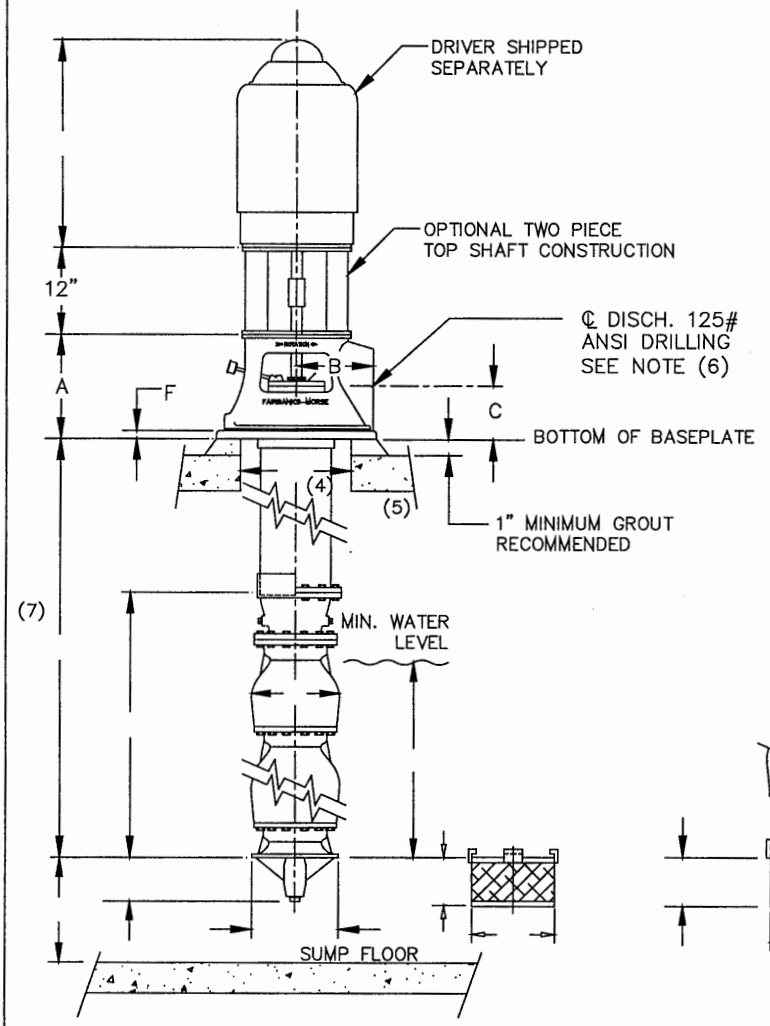
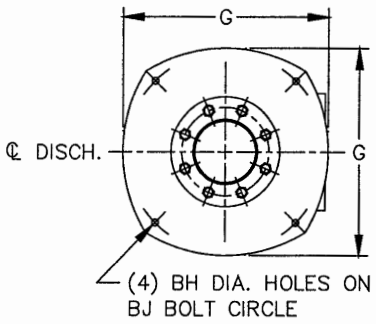
CUSTOMER
P.O.
JOB NAME
PENTAIR FAIRBANKS NIJHUIS
PUMP SIZE & MODEL | STAGES | GPM | TDH | RPM | ROT CCW
MOTOR | HP | FRAME | PHASE | HERTZ | VOLTS | ENCL
CERTIFIED FOR | CERTIFIED BY | DATE
SETTING PLAN
MODEL 7000/7100 PUMP
TYPE "DT" SURFACE HEAD
NO FOUNDATION PLATE
DWG. NO. 7000FS006
REV 1

⚠ WARNING

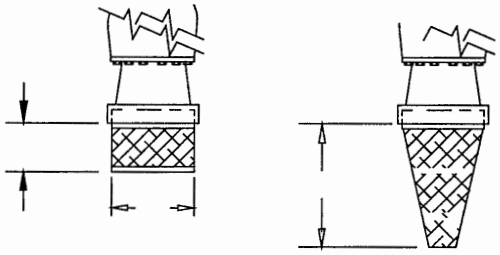
DO NOT OPERATE THIS MACHINE WITHOUT PROTECTIVE GUARD IN PLACE. ANY OPERATION OF THIS MACHINE WITHOUT PROTECTIVE GUARD CAN RESULT IN SEVERE BODILY INJURY.

DISCHARGE HEAD DIMENSIONS							
HEAD SIZE	A	B	C	F	BJ	G	BH
20 X 12	19 1/16	13 7/8	9 13/16	3/4	29	27 3/4	7/8
24 1/2 X 14	22 1/16	16 7/8	10 13/16	1	35	33 3/4	7/8





BOTTOM VIEW OF DISCHARGE HEAD



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6. FLANGE HOLES ARE TAPPED.
7. CUSTOMER TO VERIFY OR ADVISE OVERALL LENGTH PRIOR TO OR AT RELEASE.

CUSTOMER				P.O.		
JOB NAME						
PUMP SIZE & MODEL	STAGES	GPM	TDH	RPM	ROT C.C.W.	
MOTOR	HP	FRAME	PHASE	HERTZ	VOLTS	ENCL
CERTIFIED FOR	CERTIFIED BY			DATE		

PENTAIR FAIRBANKS NIJHUIS

SETTING PLAN
MODEL 7000/7100 PUMP
TYPE "H" SURFACE HEAD
NO FOUNDATION PLATE

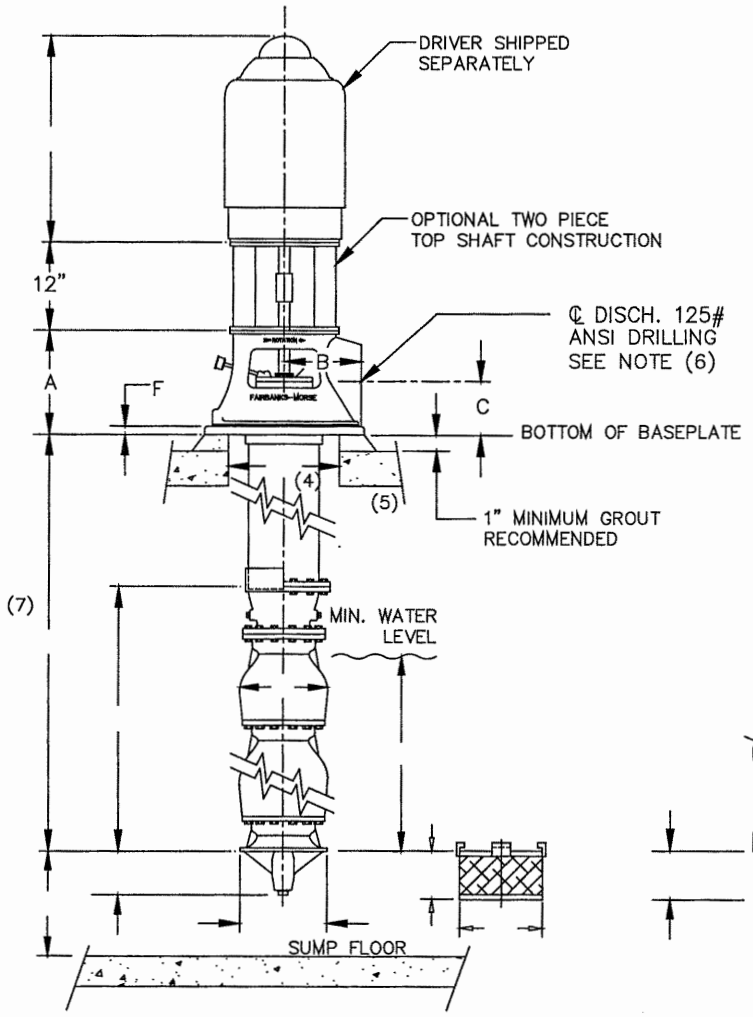
DWG. NO. 7000FS007 REV

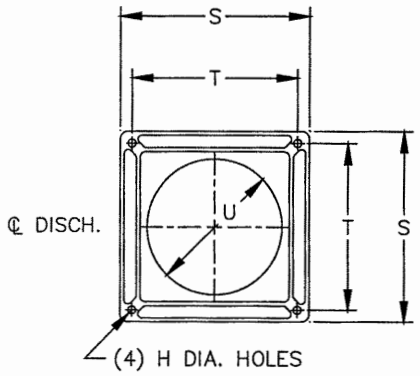
⚠ WARNING

DO NOT OPERATE THIS MACHINE WITHOUT PROTECTIVE GUARD IN PLACE. ANY OPERATION OF THIS MACHINE WITHOUT PROTECTIVE GUARD CAN RESULT IN SEVERE BODILY INJURY.

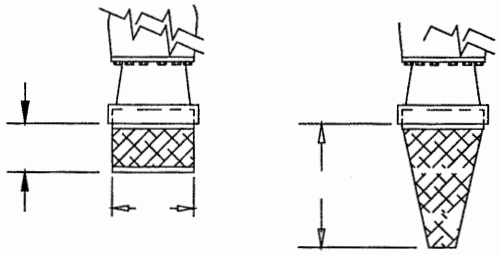
DISCHARGE HEAD DIMENSIONS

HEAD SIZE	A	B	C	F	H	S	T	U
20 X 12	21 1/8	13 7/8	11 1/4	1 5/16	1	29	24	21 3/8
24 1/2 x 14	24 1/2	16 7/8	12 5/8	1 11/16	1 1/8	35	29	25 1/8





BOTTOM VIEW OF DISCHARGE SOLEPLATE



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6. FLANGE HOLES ARE TAPPED.
7. CUSTOMER TO VERIFY OR ADVISE OVERALL LENGTH PRIOR TO OR AT RELEASE.

CUSTOMER						P.O.
JOB NAME						
PUMP SIZE & MODEL	STAGES	GPM	TDH	RPM	ROT C.C.W.	
MOTOR	HP	FRAME	PHASE	HERTZ	VOLTS	ENCL
CERTIFIED FOR	CERTIFIED BY			DATE		

PENTAIR FAIRBANKS NIJHUIS

SETTING PLAN
MODEL 7000/7100 PUMP
TYPE "H" DISCHARGE HEAD
WITH FOUNDATION PLATE

DWG. NO. 7000FS008 REV

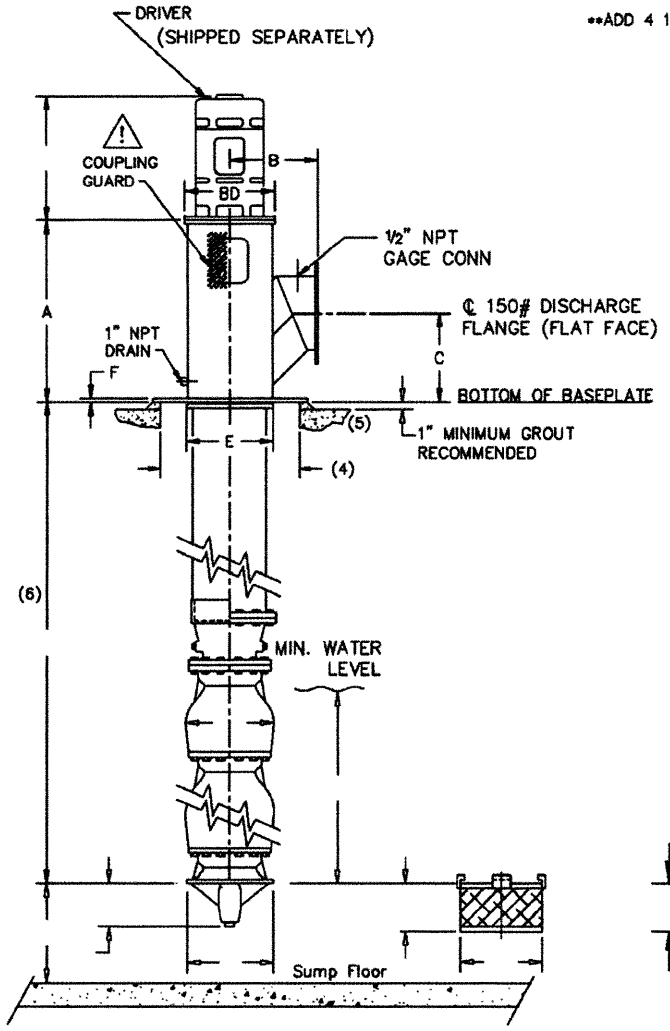
⚠ WARNING

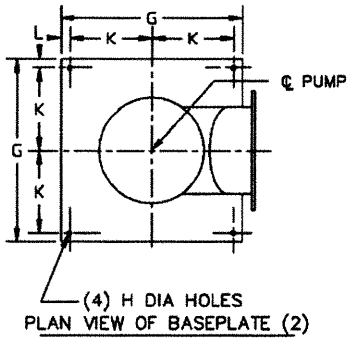
DO NOT OPERATE THIS MACHINE WITHOUT PROTECTIVE GUARD IN PLACE. ANY OPERATION OF THIS MACHINE WITHOUT PROTECTIVE GUARD CAN RESULT IN SEVERE BODILY INJURY.

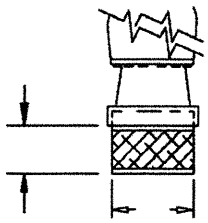
DISCHARGE HEAD DIMENSIONS

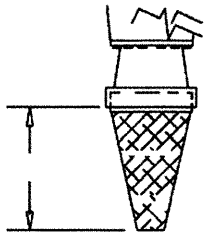
DISCH SIZE	COL SIZE	A** MTR BASE DIA (BD) 12	16 1/2	20	24 1/2	B	C	E	F	G	H	K	L
8	8	30	30	--	--	16	11	11 1/2	1	31	7/8	13 1/2	2
10	10	32 1/8	32 1/8	32 1/8	--	16	12	13 3/4	1	31	7/8	13 1/2	2

**ADD 4 1/2" FOR VSS DRIVER AND SPACER COUPLING









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6. CUSTOMER TO VERIFY OR ADVISE OVERALL LENGTH PRIOR TO OR AT RELEASE.

CUSTOMER					P.O.	PENTAIR FAIRBANKS NIJHUIS
JOB NAME			SERVICE			
PUMP SIZE & MODEL	STAGES	GPM	TDH	RPM	ROT CCW	SETTING PLAN MODEL 7000/7100 PUMP 8" & 10" TYPE"F"SURFACE HEAD NO SOLEPLATE FLANGED DISCHARGE
MOTOR	HP	FRAME	PHASE	HERTZ	VOLTS / ENCL	
CERTIFIED FOR	CERTIFIED BY			DATE		DWG. NO. 7000FD001 REV 1

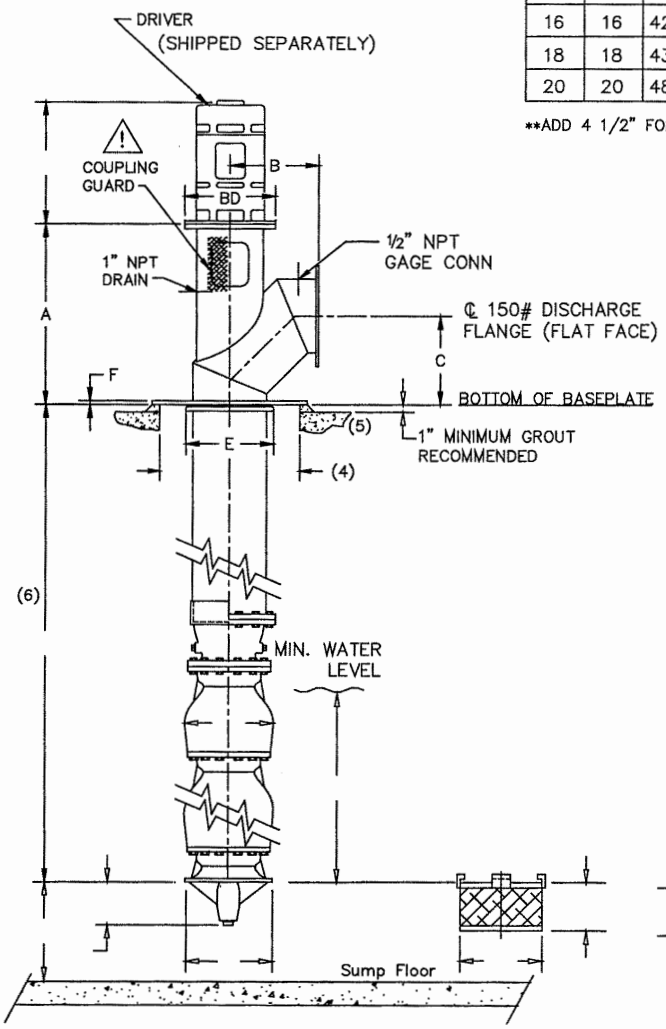
⚠ WARNING

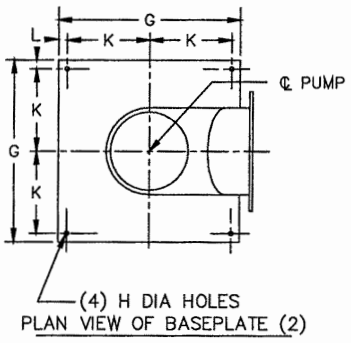
DO NOT OPERATE THIS MACHINE WITHOUT PROTECTIVE GUARD IN PLACE. ANY OPERATION OF THIS MACHINE WITHOUT PROTECTIVE GUARD CAN RESULT IN SEVERE BODILY INJURY.

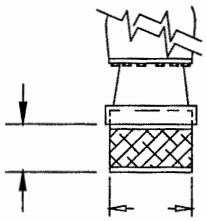
DISCHARGE HEAD DIMENSIONS

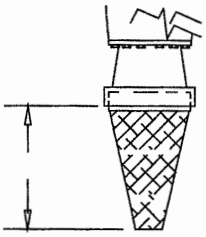
DISCH SIZE	COL SIZE	A** MTR BASE DIA (BD) 12	16 1/2	20	24 1/2	30 1/2	B	C	E	F	G	H	K	L
12	12	36 1/8	36 1/8	36 1/8	--	--	15	15	16 1/4	1	31	7/8	13 1/2	2
14	14	38 3/4	38 3/4	38 3/4	41 1/2	--	17	17	17 1/2	1 1/2	34	1	15	2
16	16	42 3/4	42 3/4	42 3/4	45 1/2	--	20	20	19 1/2	1 1/2	36	1	16	2
18	18	43 3/4	43 3/4	43 3/4	46 1/2	--	20	20	22	1 1/2	38	1	17	2
20	20	48 3/4	48 3/4	48 3/4	51 1/2	--	24	24	23 3/4	1 1/2	44	1	20	2

**ADD 4 1/2" FOR VSS DRIVER AND SPACER COUPLING









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CUSTOMER				P.O.		
JOB NAME			SERVICE			
PUMP SIZE & MODEL	STAGES	GPM	TDH	RPM	ROT CCW	
MOTOR	HP	FRAME	PHASE	HERTZ	VOLTS	ENCL
CERTIFIED FOR	CERTIFIED BY			DATE		

PENTAIR FAIRBANKS NIJHUIS

SETTING PLAN
MODEL 7000/7100 PUMP
TYPE "F" SURFACE HEAD
NO SOLEPLATE
12" THRU 20" DISCH
FLANGED DISCHARGE

DWG. NO. 7000FS009 REV

⚠ WARNING

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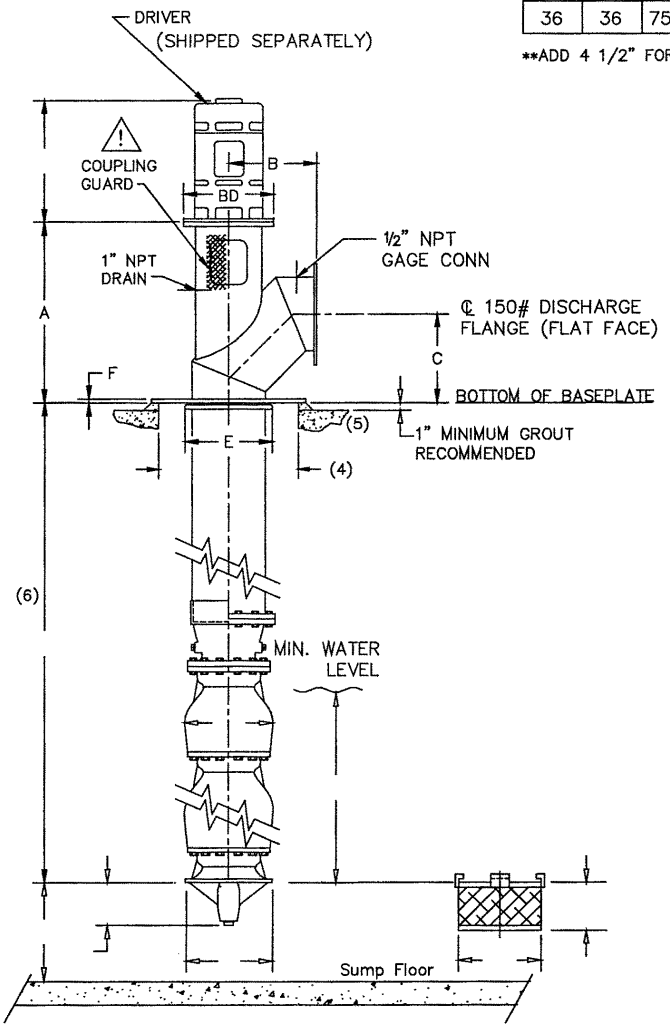
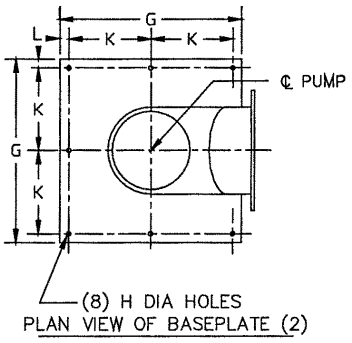
DISCHARGE HEAD DIMENSIONS

DISCH SIZE	COL SIZE	A** MTR BASE DIA (BD) 12	16½	20	24½	30½	B	C	E	F	G	H	K	L
24	24	55¾	55¾	55¾	58½	--	29	29	28	1½	50	1	23	2
30	30	65¾	65¾	65¾	68½	--	36	36	34	2	60	1⅛	28	2
36	36	75¾	75¾	75¾	78½	--	43	43	40	2	72	1⅛	34	2

**ADD 4 1/2" FOR VSS DRIVER AND SPACER COUPLING





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4. MINIMUM DIAMETER REQUIRED TO REMOVE BOWL ASSEMBLY
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6. CUSTOMER TO VERIFY OR ADVISE OVERALL LENGTH PRIOR TO OR AT RELEASE.

CUSTOMER					P.O.	
JOB NAME			SERVICE			
PUMP SIZE & MODEL	STAGES	GPM	TDH	RPM	ROT CCW	
MOTOR	HP	FRAME	PHASE	HERTZ	VOLTS	ENCL
CERTIFIED FOR		CERTIFIED BY			DATE	

PENTAIR FAIRBANKS NIJHUIS

SETTING PLAN
MODEL 7000/7100 PUMP
TYPE"F"SURFACE HEAD
NO SOLEPLATE
24" THRU 36" DISCH
FLANGED DISCHARGE

DWG. NO. 7000FS025 REV

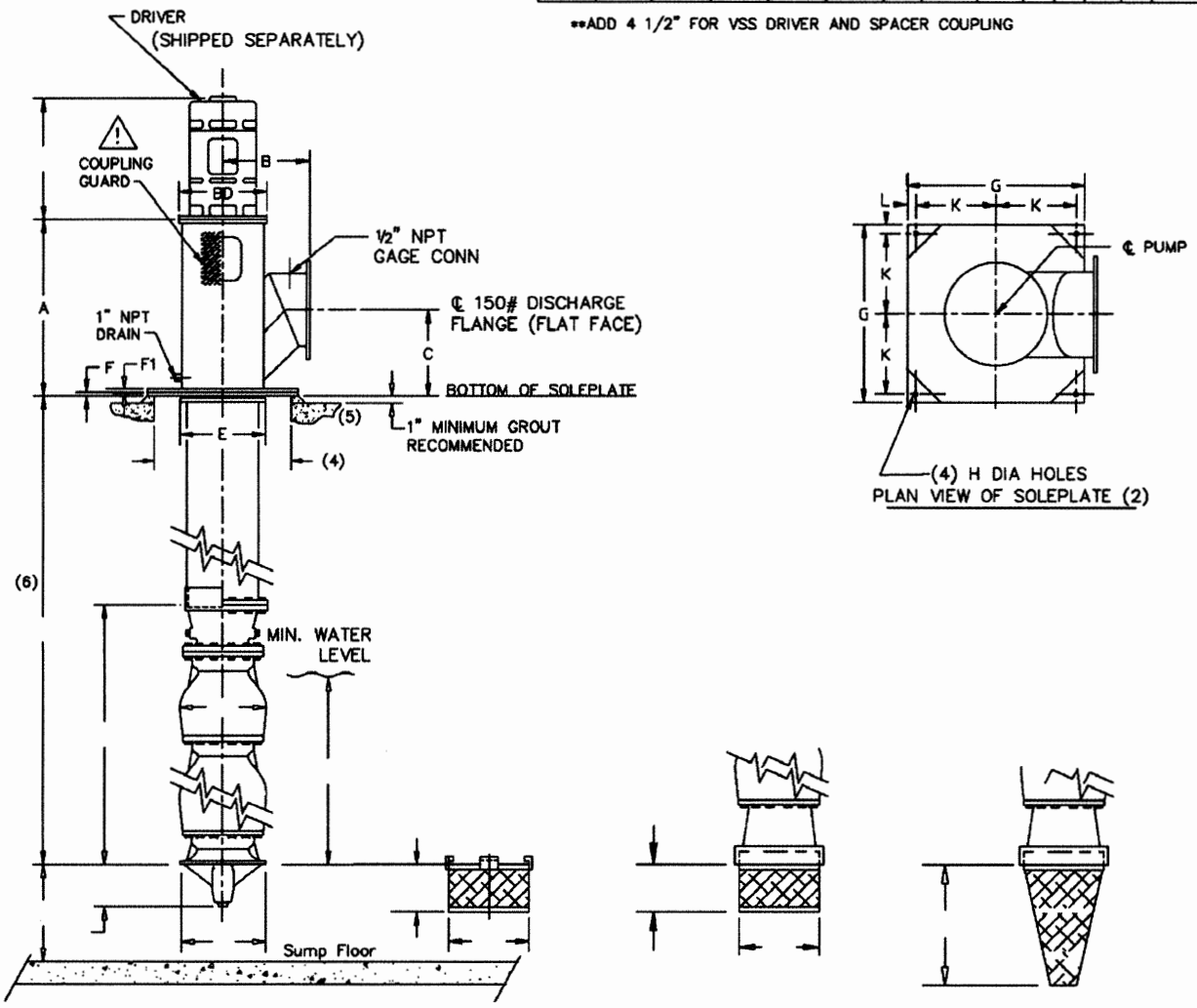
⚠ WARNING

DO NOT OPERATE THIS MACHINE WITHOUT PROTECTIVE GUARD IN PLACE. ANY OPERATION OF THIS MACHINE WITHOUT PROTECTIVE GUARD CAN RESULT IN SEVERE BODILY INJURY.

DISCHARGE HEAD DIMENSIONS

DISCH SIZE	COL SIZE	A** MTR BASE DIA (BD) 12	16½	20	24½	B	C	E	F	F1	G	H	K	L
8	8	30	30	--	--	16	11	11½	1	1	31	⅞	13½	2
10	10	32⅛	32⅛	32⅛	--	16	12	13¾	1	1	31	⅞	13½	2

**ADD 4 1/2" FOR VSS DRIVER AND SPACER COUPLING



1. THIS DRAWING NOT FOR CONSTRUCTION OR INSTALLATION UNLESS CERTIFIED. DIMENSIONS SHOWN ARE TYPICAL AND MAY VARY DUE TO VARIOUS TOLERANCES.
2. SOLEPLATE MUST BE SUPPORTED ON ALL 4 SIDES AND GROUTED IN PLACE.
3. MINIMUM SUBMERGENCE REQUIRED AT MAXIMUM FLOW.
4. MINIMUM DIAMETER REQUIRED TO REMOVE BOWL ASSEMBLY
5. DETAIL SHOWN FOR ILLUSTRATION ONLY AND IS NOT INTENDED TO REPRESENT THE ACTUAL INSTALLATION.
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CUSTOMER				P.O.		PENTAIR FAIRBANKS NIJHUIS
JOB NAME			SERVICE			
PUMP SIZE & MODEL	STAGES	GPM	TDH	RPM	ROT CCW	SETTING PLAN MODEL 7000/7100 PUMP 8" & 10"TYPE"F"SURFACE HEAD WITH SOLEPLATE FLANGED DISCHARGE
MOTOR	HP	FRAME	PHASE	HERTZ	VOLTS	ENCL
CERTIFIED FOR	CERTIFIED BY			DATE		DWG. NO. 7000FD002 REV 1

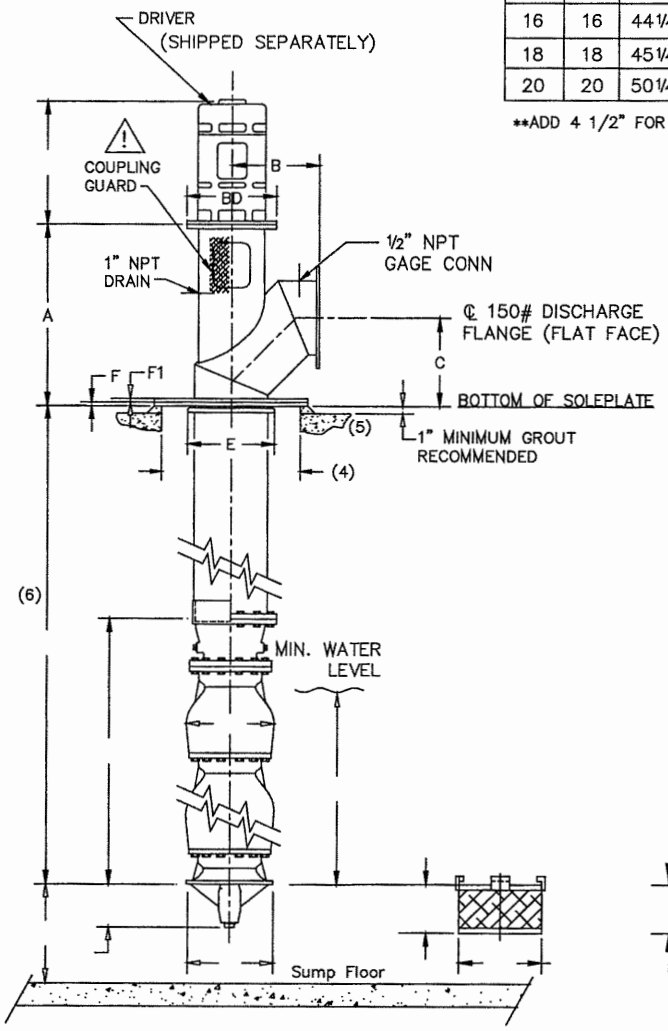
⚠ WARNING

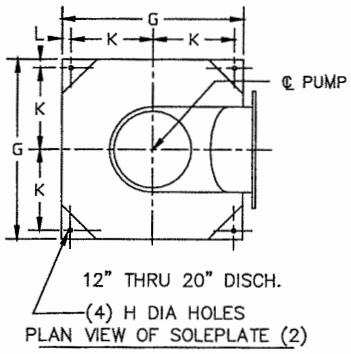
DO NOT OPERATE THIS MACHINE WITHOUT PROTECTIVE GUARD IN PLACE. ANY OPERATION OF THIS MACHINE WITHOUT PROTECTIVE GUARD CAN RESULT IN SEVERE BODILY INJURY.

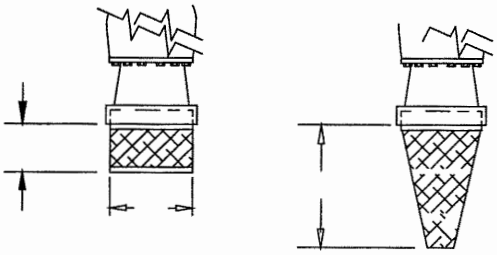
DISCHARGE HEAD DIMENSIONS

DISCH SIZE	COL SIZE	A** MTR BASE DIA (BD) 12	16½	20	24½	B	C	E	F	F1	G	H	K	L
12	12	37⅛	37⅛	37⅛	--	15	16½	16¼	1	1	31	⅞	13½	2
14	14	40¼	40¼	40¼	43	17	18½	17½	1½	1½	34	1	15	2
16	16	44¼	44¼	44¼	47	20	21½	19½	1½	1½	36	1	16	2
18	18	45¼	45¼	45¼	48	20	21½	22	1½	1½	38	1	17	2
20	20	50¼	50¼	50¼	53	24	25½	23¾	1½	1½	44	1	20	2

**ADD 4 1/2" FOR VSS DRIVER AND SPACER COUPLING







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2. SOLEPLATE MUST BE SUPPORTED ON ALL 4 SIDES AND GROUTED IN PLACE.
3. MINIMUM SUBMERGENCE REQUIRED AT MAXIMUM FLOW.
4. MINIMUM DIAMETER REQUIRED TO REMOVE BOWL ASSEMBLY
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6. CUSTOMER TO VERIFY OR ADVISE OVERALL LENGTH PRIOR TO OR AT RELEASE.

CUSTOMER						P.O.	PENTAIR FAIRBANKS NIJHUIS
JOB NAME				SERVICE			
PUMP SIZE & MODEL	STAGES	GPM	TDH	RPM	ROT CCW		SETTING PLAN MODEL 7000/7100 PUMP TYPE "F" SURFACE HEAD WITH SOLEPLATE 12" THRU 20" DISCH FLANGED DISCHARGE
MOTOR	HP	FRAME	PHASE	HERTZ	VOLTS	ENCL	
CERTIFIED FOR	CERTIFIED BY			DATE			DWG. NO. 7000FS010 REV

⚠ WARNING

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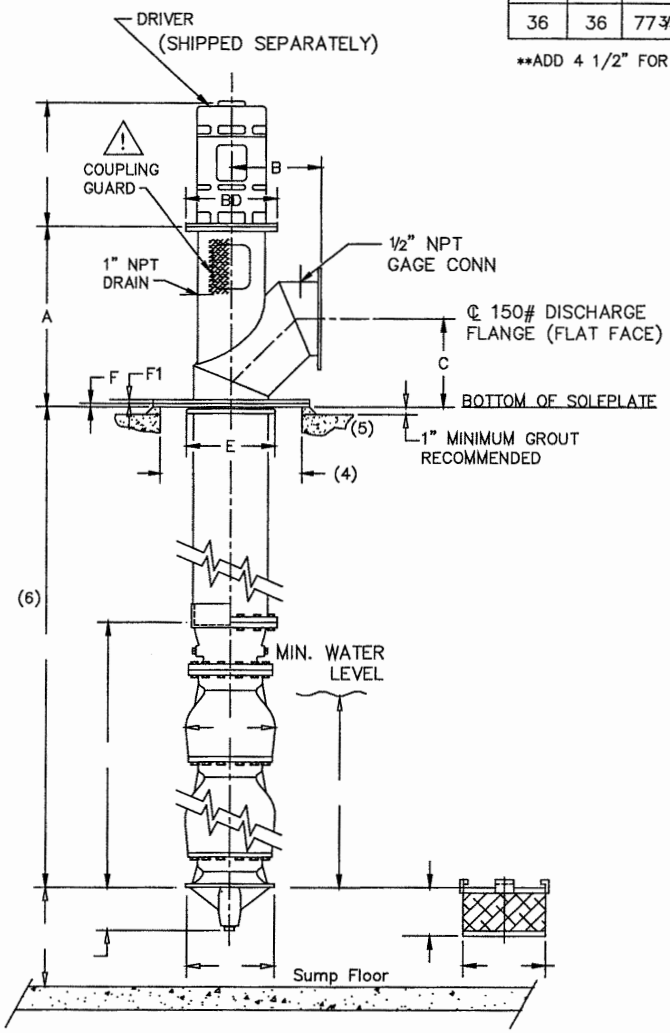
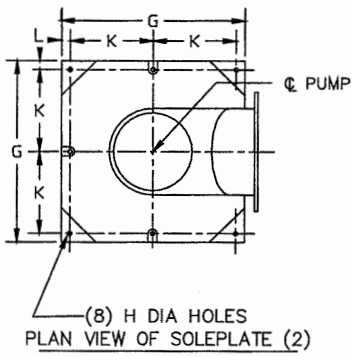
DISCHARGE HEAD DIMENSIONS

DISCH SIZE	COL SIZE	A** MTR BASE DIA (BD) 12	16½	20	24½	B	C	E	F	F1	G	H	K	L
24	24	57¼	57¼	57¼	58½	29	30½	28	1½	1½	50	1	23	2
30	30	67¾	67¾	67¾	68½	36	38	34	2	2	60	1⅛	28	2
36	36	77¾	77¾	77¾	18½	43	45	40	2	2	72	1⅛	34	2

**ADD 4 1/2" FOR VSS DRIVER AND SPACER COUPLING





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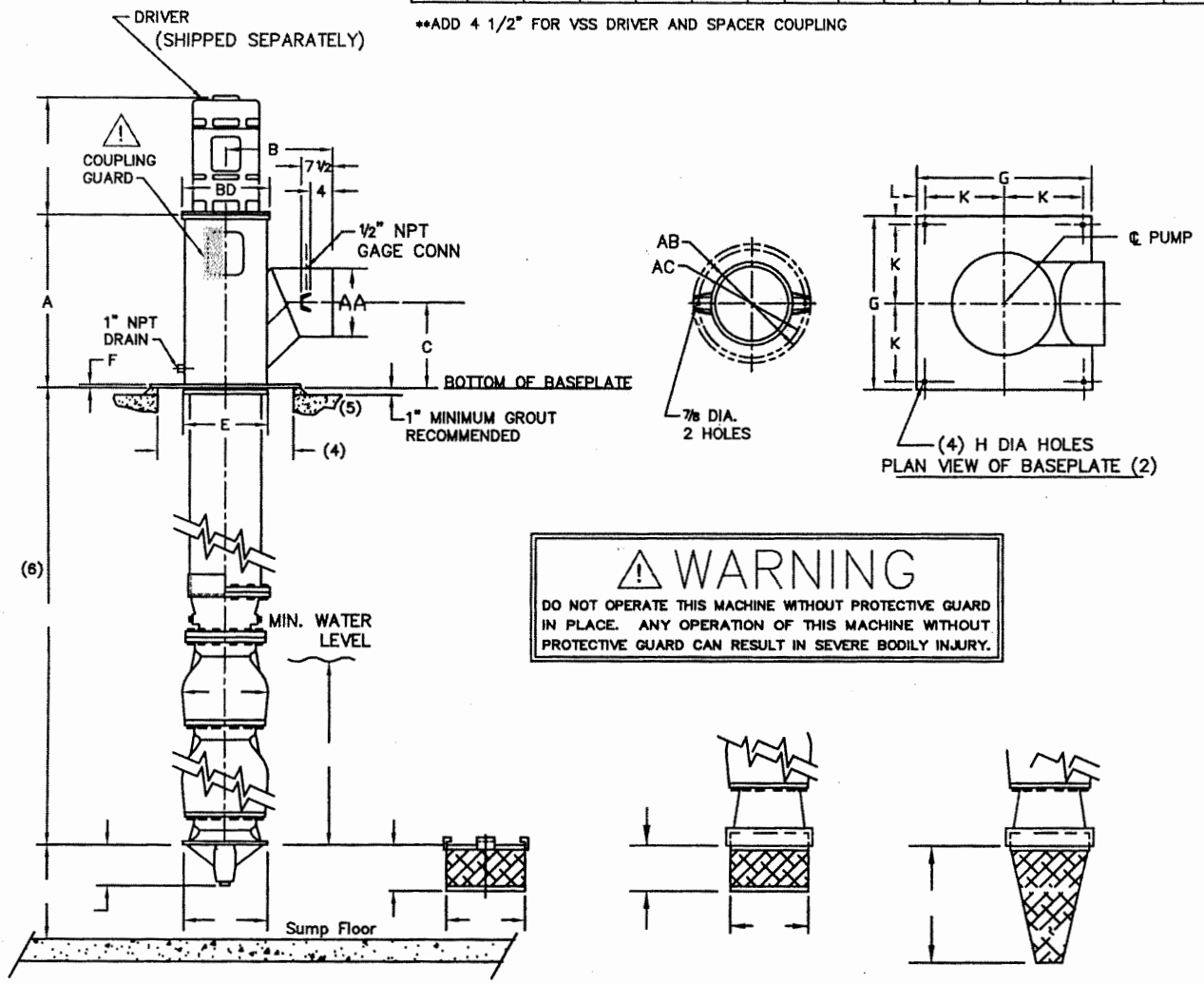
CUSTOMER				P.O.	PENTAIR FAIRBANKS NIJHUIS	
JOB NAME			SERVICE			
PUMP SIZE & MODEL	STAGES	GPM	TDH	RPM	ROT CCW	SETTING PLAN MODEL 7000/7100 PUMP TYPE "F" SURFACE HEAD WITH SOLEPLATE 24" THRU 36" DISCH FLANGED DISCHARGE
MOTOR	HP	FRAME	PHASE	HERTZ	VOLTS	ENCL
CERTIFIED FOR	CERTIFIED BY			DATE	DWG. NO. 7000FS026	REV

DISCHARGE HEAD DIMENSIONS

DISCH SIZE	COL SIZE	A** MTR BASE DIA (BD) 12	16 1/2	20	24 1/2	B	C	E	F	G	H	K	L	AA	AB	AC
8	8	30	30	--	--	17	11	11 1/2	1	31	7/8	13 1/2	2	8 5/8	17 1/8	14 5/8
10	10	32 1/8	32 1/8	32 1/8	--	18	12	13 3/4	1	31	7/8	13 1/2	2	10 3/4	19 1/4	16 3/4

**ADD 4 1/2" FOR VSS DRIVER AND SPACER COUPLING



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CUSTOMER					P.O.
JOB NAME			SERVICE		
PUMP SIZE & MODEL	STAGES	GPM	TDH	RPM	ROT CCW
MOTOR	HP	FRAME	PHASE	HERTZ	VOLTS / ENCL
CERTIFIED FOR	CERTIFIED BY				DATE

PENTAIR FAIRBANKS NIJHUIS

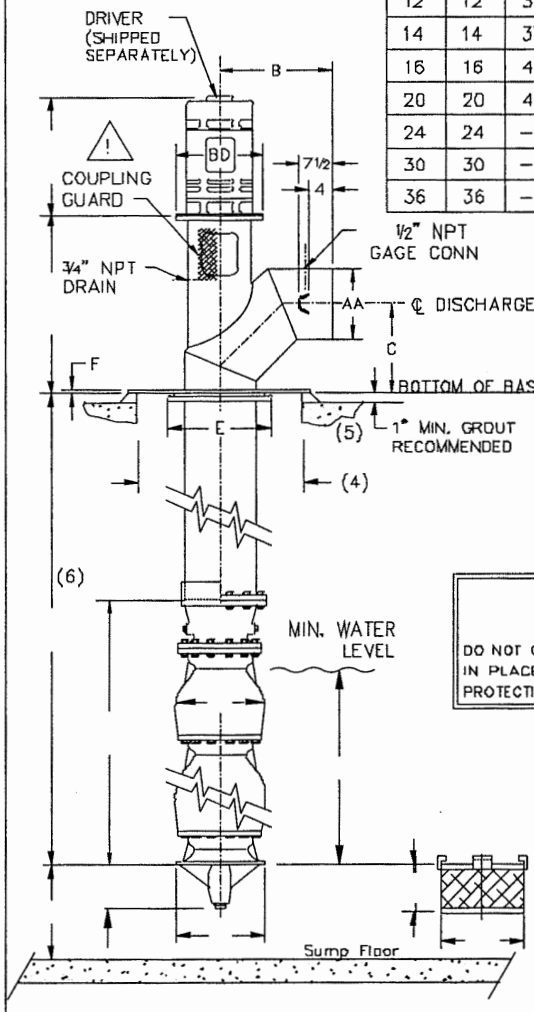
SETTING PLAN
MODEL 7000/7100 PUMP
8" & 10" TYPE"F"SURFACE HEAD
NO SOLEPLATE
PLAIN END DISCHARGE

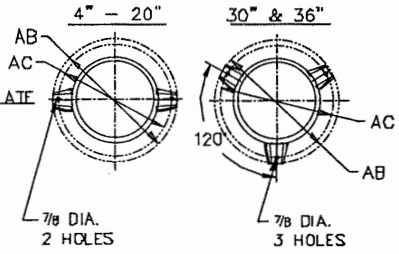
DWG. NO. 7000FD003 REV

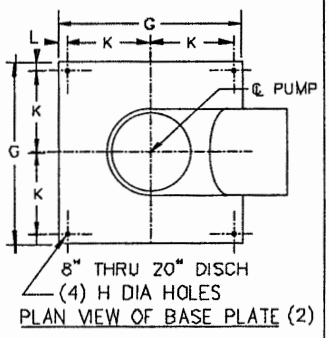
DISCHARGE HEAD DIMENSIONS

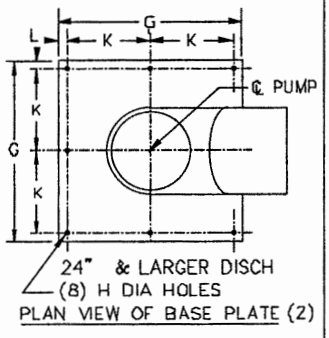
DISCH SIZE	COL SIZE	A** MTR BASE DIA (BD) 12	16½	20	24½	30½	B	C	E	F	G	H	K	L	AA	AB	AC
8	8	30	--	--	--	--	17	10	11½	⅞	21	⅞	8½	2	8⅝	17⅛	14⅝
10	10	33	--	--	--	--	18	12	13¾	⅞	23	⅞	9½	2	10¾	19¼	16¾
12	12	36	37	--	--	--	21	15	16¼	⅞	26	⅞	11	2	12¾	21½	19
14	14	37	38	42	--	--	23	17	17½	⅞	29	1	12½	2	14	22¾	20¼
16	16	40	41	44	--	--	25	20	19½	⅞	32	1	14	2	16	24¾	22¼
20	20	45	45	50	51	57	30	24	23¾	⅞	44	1	20	2	20	29	26½
24	24	--	58	54	55	63	34	29	28	⅞	50	1	23	2	24	33	30½
30	30	--	--	60	61	69	40	36	34	⅞	60	1⅛	28	2	30	39	36½
36	36	--	--	--	72	76	46	43	40	⅞	72	1⅛	34	2	36	45	42½

**ADD 4 1/2" FOR VSS DRIVER AND SPACER COUPLING









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3. MINIMUM SUBMERGENCE REQUIRED AT MAXIMUM FLOW.
4. MINIMUM DIAMETER REQUIRED TO REMOVE BOWL ASSEMBLY
5. DETAIL SHOWN FOR ILLUSTRATION AND IS NOT INTENDED TO REPRESENT THE ACTUAL INSTALLATION.
6. CUSTOMER TO VERIFY OR ADVISE OVERALL LENGTH PRIOR TO RELEASE.

CUSTOMER				P.O.		
JOB NAME			SERVICE			
PUMP SIZE & MODEL	STAGES	GPM	TDH	RPM	ROT CCW	
MOTOR	HP	FRAME	PHASE	HERTZ	VOLTS	ENCL
CERTIFIED FOR	CERTIFIED BY			DATE		

PENTAIR FAIRBANKS NIJHUIS

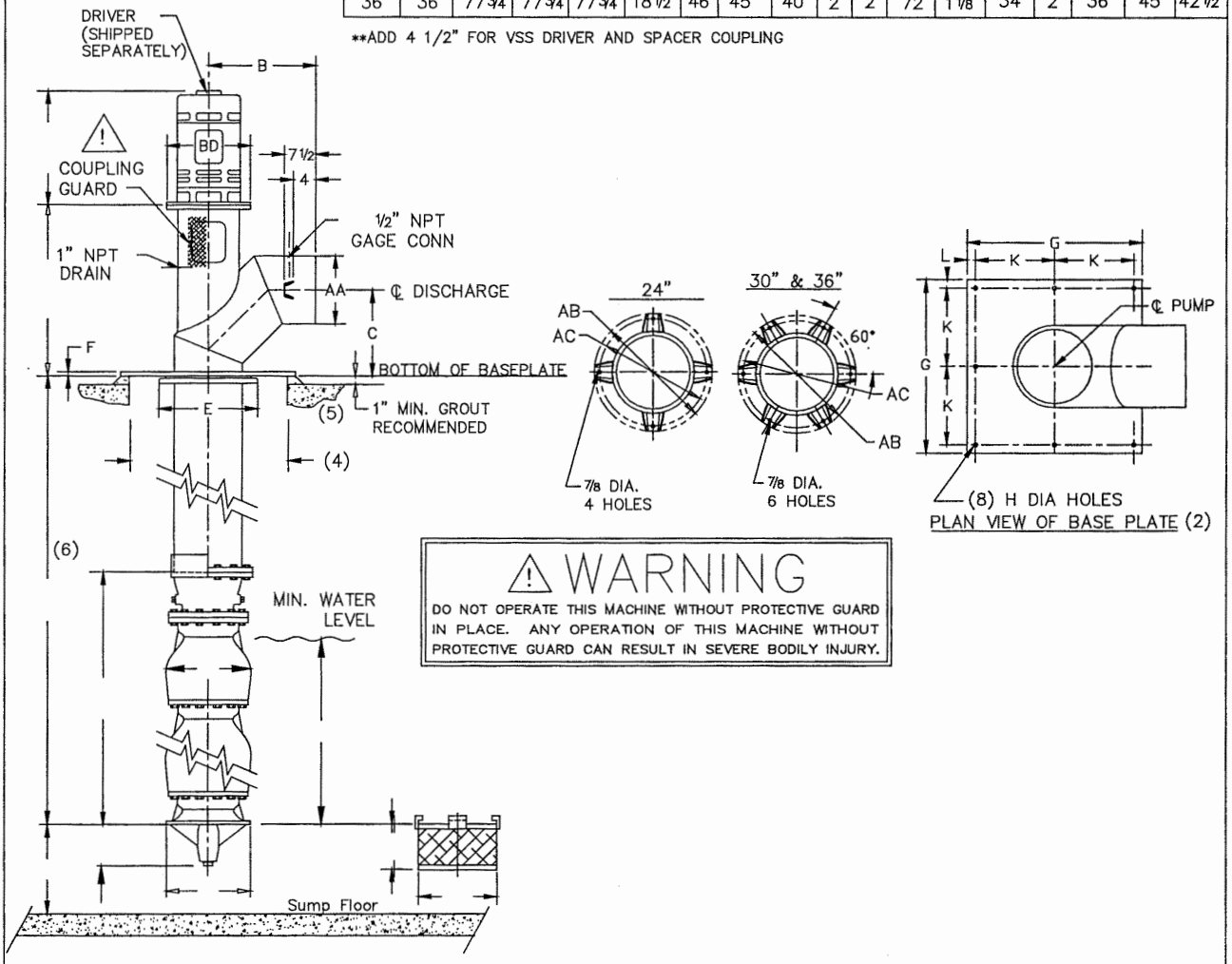
SETTING PLAN
MODEL 7000/7100 PUMP
TYPE "F" SURFACE HEAD
NO SOLEPLATE
PLAIN END DISCHARGE

DWG. NO. 7000FS011 REV

DISCHARGE HEAD DIMENSIONS

DISCH SIZE	COL SIZE	A** MTR BASE DIA (BD) 12	16½	20	24½	B	C	E	F	F1	G	H	K	L	AA	AB	AC
24	24	57¼	57¼	57¼	58½	34	30½	28	1½	1½	50	1	23	2	24	33	30½
30	30	67¾	67¾	67¾	68½	40	38	34	2	2	60	1⅛	28	2	30	39	36½
36	36	77¾	77¾	77¾	18½	46	45	40	2	2	72	1⅛	34	2	36	45	42½

**ADD 4 1/2" FOR VSS DRIVER AND SPACER COUPLING



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CUSTOMER				P.O.		
JOB NAME			SERVICE			
PUMP SIZE & MODEL	STAGES	GPM	TDH	RPM	ROT CCW	
MOTOR	HP	FRAME	PHASE	HERTZ	VOLTS	ENCL
CERTIFIED FOR		CERTIFIED BY		DATE		

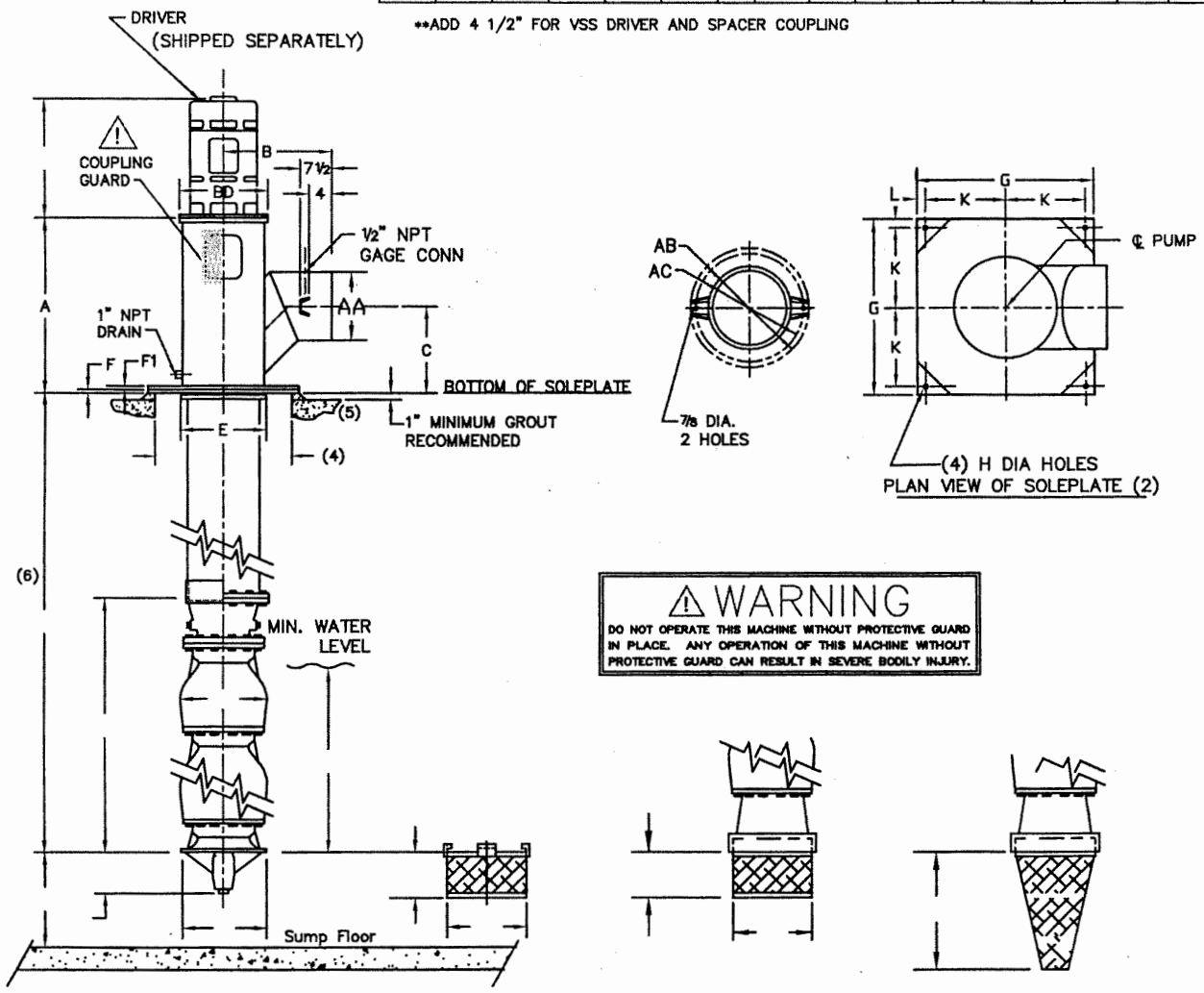
PENTAIR FAIRBANKS NIJHUIS

SETTING PLAN
MODEL 7000/7100 PUMP
TYPE"F"SURFACE HEAD
NO SOLEPLATE
24" THRU 36" DISCH
PLAIN END DISCHARGE

DWG. NO. 7000FS027 REV

DISCHARGE HEAD DIMENSIONS																	
DISCH SIZE	COL SIZE	A** MTR BASE DIA (BD) 12	16½	20	24½	B	C	E	F	F1	G	H	K	L	AA	AB	AC
8	8	31	31	--	--	17	12	11½	1	1	31	⅞	13½	2	8⅝	17⅛	14⅝
10	10	33⅛	33⅛	33⅛	--	18	12	13¾	1	1	31	⅞	13½	2	10¾	19¼	16¾

**ADD 4 1/2" FOR VSS DRIVER AND SPACER COUPLING



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CUSTOMER				P.O.		
JOB NAME			SERVICE			
PUMP SIZE & MODEL	STAGES	GPM	TDH	RPM	ROT CCW	
MOTOR	HP	FRAME	PHASE	HERTZ	VOLTS	ENCL
CERTIFIED FOR	CERTIFIED BY			DATE		

PENTAIR FAIRBANKS NIJHUIS

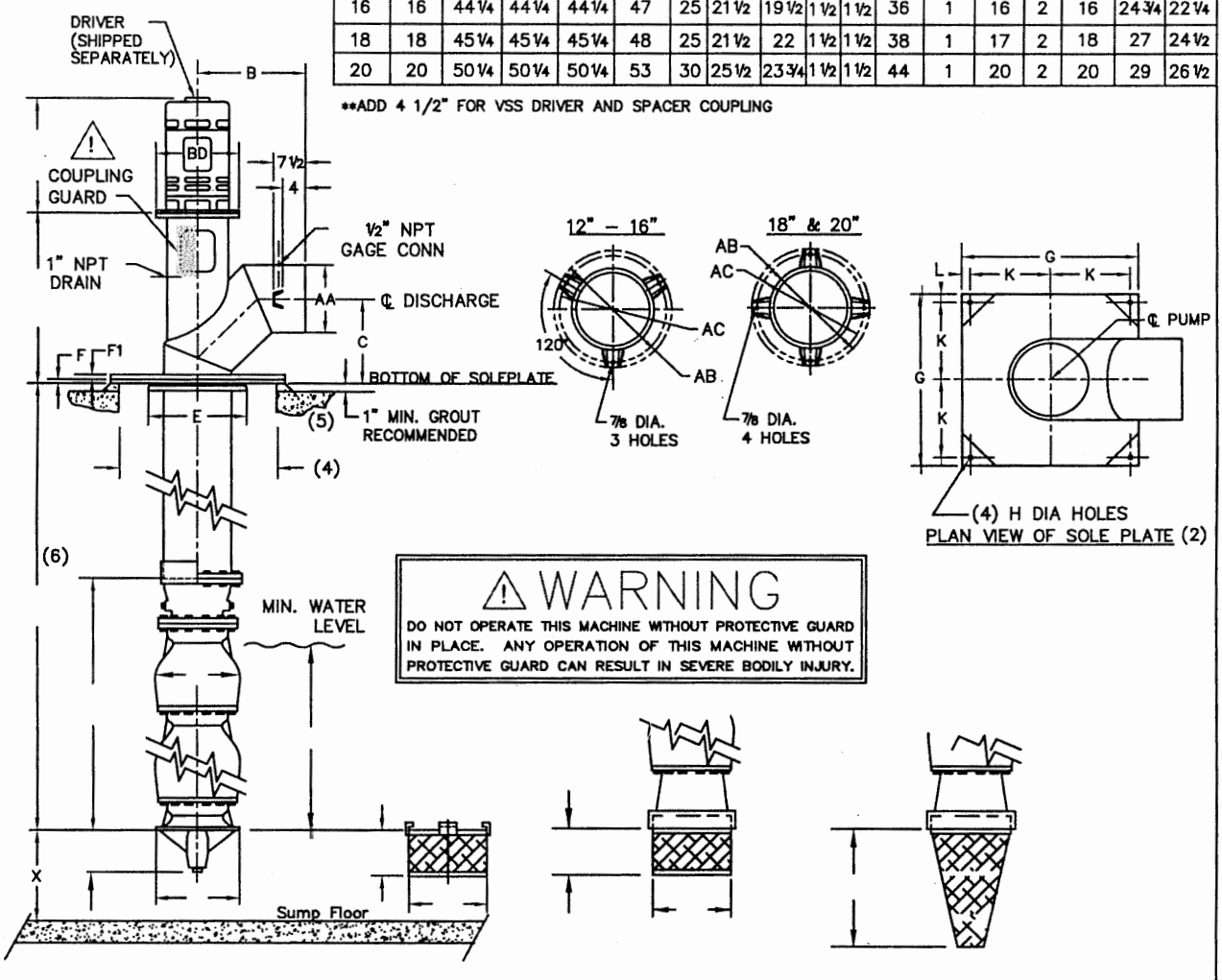
SETTING PLAN
MODEL 7000/7100 PUMP
8" & 10" TYPE"F"SURFACE HEAD
WITH SOLEPLATE
PLAIN END DISCHARGE

DWG. NO. 7000FD004 REV

DISCHARGE HEAD DIMENSIONS

DISCH SIZE	COL SIZE	A** MTR BASE DIA (BD) 12	16 1/2	20	24 1/2	B	C	E	F	F1	G	H	K	L	AA	AB	AC
12	12	37 1/8	37 1/8	37 1/8	--	21	16 1/2	16 1/4	1	1	31	7/8	13 1/2	2	12 3/4	21 1/2	19
14	14	40 1/4	40 1/4	40 1/4	43	23	18 1/2	17 1/2	1 1/2	1 1/2	34	1	15	2	14	22 3/4	20 1/4
16	16	44 1/4	44 1/4	44 1/4	47	25	21 1/2	19 1/2	1 1/2	1 1/2	36	1	16	2	16	24 3/4	22 1/4
18	18	45 1/4	45 1/4	45 1/4	48	25	21 1/2	22	1 1/2	1 1/2	38	1	17	2	18	27	24 1/2
20	20	50 1/4	50 1/4	50 1/4	53	30	25 1/2	23 3/4	1 1/2	1 1/2	44	1	20	2	20	29	26 1/2

**ADD 4 1/2" FOR VSS DRIVER AND SPACER COUPLING



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CUSTOMER					P.O.	
JOB NAME				SERVICE		
PUMP SIZE & MODEL	STAGES	GPM	TDH	RPM	ROT CCW	
MOTOR	HP	FRAME	PHASE	HERTZ	VOLTS	ENCL
CERTIFIED FOR		CERTIFIED BY			DATE	

PENTAIR FAIRBANKS NIJHUIS

SETTING PLAN
MODEL 7000/7100 PUMP
TYPE "F" SURFACE HEAD
WITH SOLEPLATE
12" THRU 20" DISCH
PLAIN END DISCHARGE

DWG. NO. 7000FS012 REV

DISCHARGE HEAD DIMENSIONS

DISCH SIZE	COL SIZE	A** MTR BASE DIA (BD) 12	16½	20	24½	B	C	E	F	F1	G	H	K	L	AA	AB	AC
24	24	57¼	57¼	57¼	58½	34	30½	28	1½	1½	50	1	23	2	24	33	30½
30	30	67¾	67¾	67¾	68½	40	38	34	2	2	60	1⅛	28	2	30	39	36½
36	36	77¾	77¾	77¾	18½	46	45	40	2	2	72	1⅛	34	2	36	45	42½

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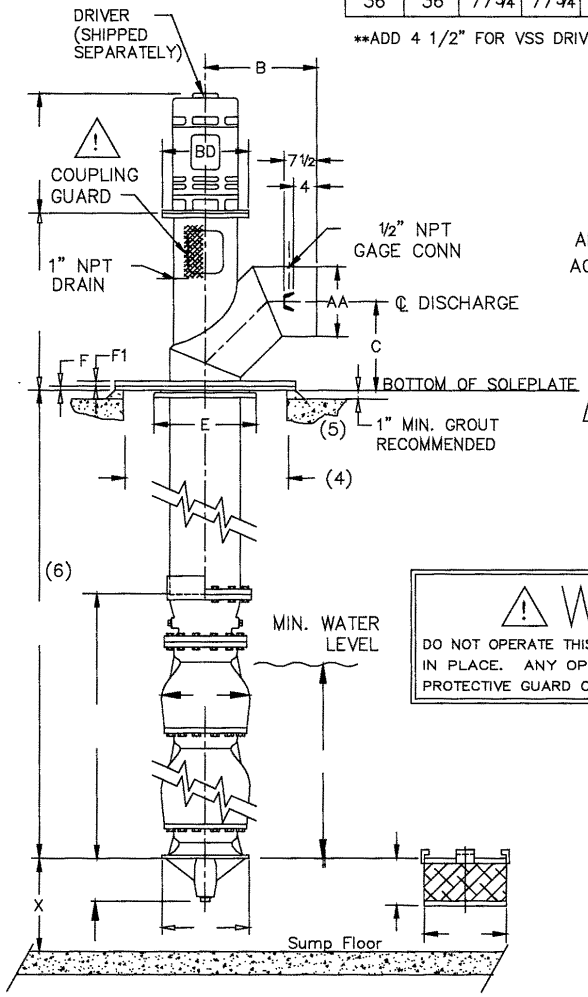

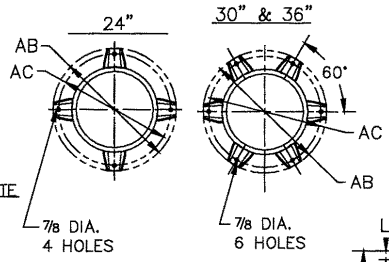

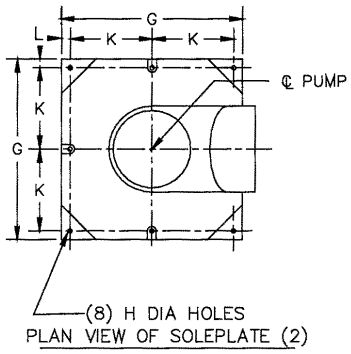

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3. MINIMUM SUBMERGENCE REQUIRED AT MAXIMUM FLOW.
4. MINIMUM DIAMETER REQUIRED TO REMOVE BOWL ASSEMBLY
5. DETAIL SHOWN FOR ILLUSTRATION AND IS NOT INTENDED TO REPRESENT THE ACTUAL INSTALLATION.
6. CUSTOMER TO VERIFY OR ADVISE OVERALL LENGTH PRIOR TO RELEASE.

CUSTOMER					P.O.	
JOB NAME				SERVICE		
PUMP SIZE & MODEL	STAGES	GPM	TDH	RPM	ROT CCW	
MOTOR	HP	FRAME	PHASE	HERTZ	VOLTS	ENCL
CERTIFIED FOR	CERTIFIED BY			DATE		

PENTAIR FAIRBANKS NIJHUIS

SETTING PLAN
MODEL 7000/7100 PUMP
TYPE "F" SURFACE HEAD
WITH SOLEPLATE
24" THRU 36" DISCH
PLAIN END DISCHARGE

DWG. NO. 7000FS028 REV

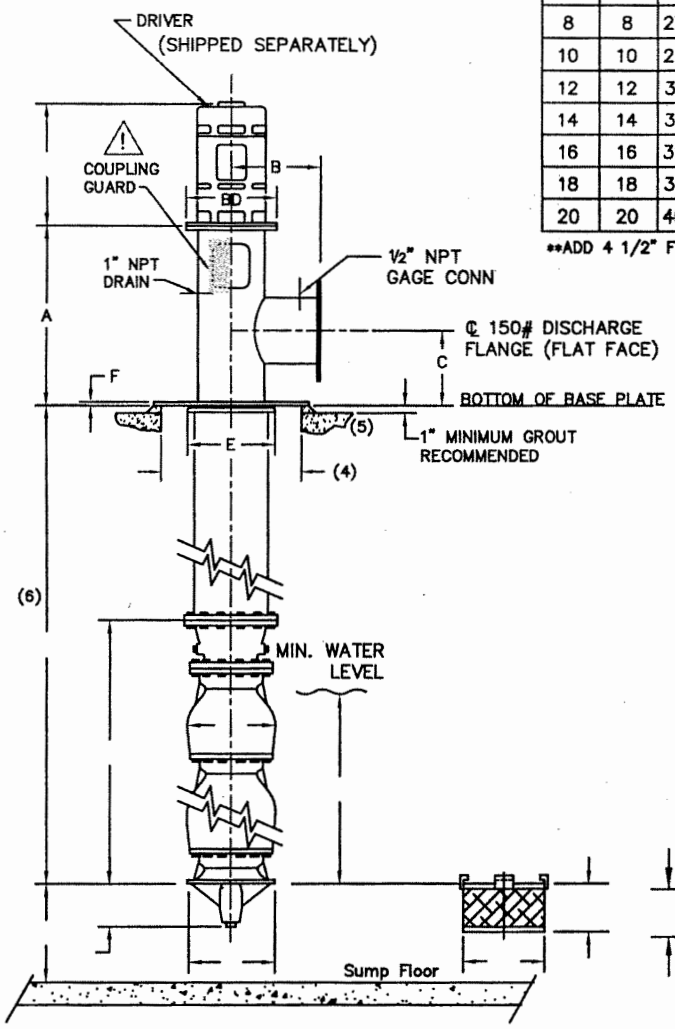
⚠ WARNING

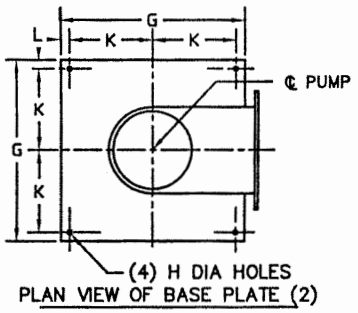
DO NOT OPERATE THIS MACHINE WITHOUT PROTECTIVE GUARD IN PLACE. ANY OPERATION OF THIS MACHINE WITHOUT PROTECTIVE GUARD CAN RESULT IN SEVERE BODILY INJURY.

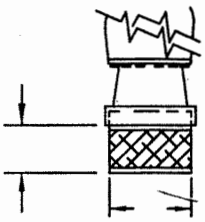
DISCHARGE HEAD DIMENSIONS

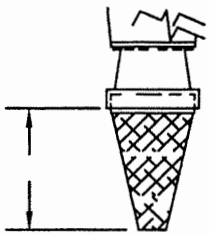
DISCH SIZE	COL SIZE	A** MTR BASE DIA (BD) 12	16½	20	24½	B	C	E	F	G	H	K	L
4	4	23¼	--	--	--	14½	6½	6⅝	1	27	⅞	11½	2
6	6	25⅜	25⅜	--	--	14½	7½	9	1	27	⅞	11½	2
8	8	27⅝	27⅝	27⅝	--	16½	8¾	11½	1	31	⅞	13½	2
10	10	29⅞	29⅞	29⅞	--	16½	10	13¾	1	31	⅞	13½	2
12	12	32⅜	32⅜	32⅜	--	16½	11½	16¼	1	31	⅞	13½	2
14	14	34½	34½	34½	37¼	18	13	17½	1½	34	1	15	2
16	16	36¾	36¾	36¾	39½	19	14¼	19½	1½	36	1	16	2
18	18	38½	38½	38½	41¼	20	15	22	1½	38	1	17	2
20	20	40¾	40¾	40¾	43½	23	16¼	23¾	1½	44	1	20	2

**ADD 4 1/2" FOR VSS DRIVER AND SPACER COUPLING









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2. BASE PLATE MUST BE SUPPORTED ON ALL 4 SIDES AND GROUTED IN PLACE.
3. MINIMUM SUBMERGENCE REQUIRED AT MAXIMUM FLOW.
4. MINIMUM DIAMETER REQUIRED TO REMOVE BOWL ASSEMBLY
5. DETAIL SHOWN FOR ILLUSTRATION ONLY AND IS NOT INTENDED TO REPRESENT THE ACTUAL INSTALLATION.
6. CUSTOMER TO VERIFY OR ADVISE OVERALL LENGTH PRIOR TO OR AT RELEASE.

CUSTOMER				P.O.		PENTAIR FAIRBANKS NIJHUIS
JOB NAME			SERVICE			
PUMP SIZE & MODEL	STAGES	GPM	TDH	RPM	ROT CCW	SETTING PLAN MODEL 7000/7100 PUMP TYPE"LS"SURFACE HEAD NO SOLEPLATE
MOTOR	HP	FRAME	PHASE	HERTZ	VOLTS	ENCL
CERTIFIED FOR		CERTIFIED BY		DATE		DWG. NO. 7000FS015 REV

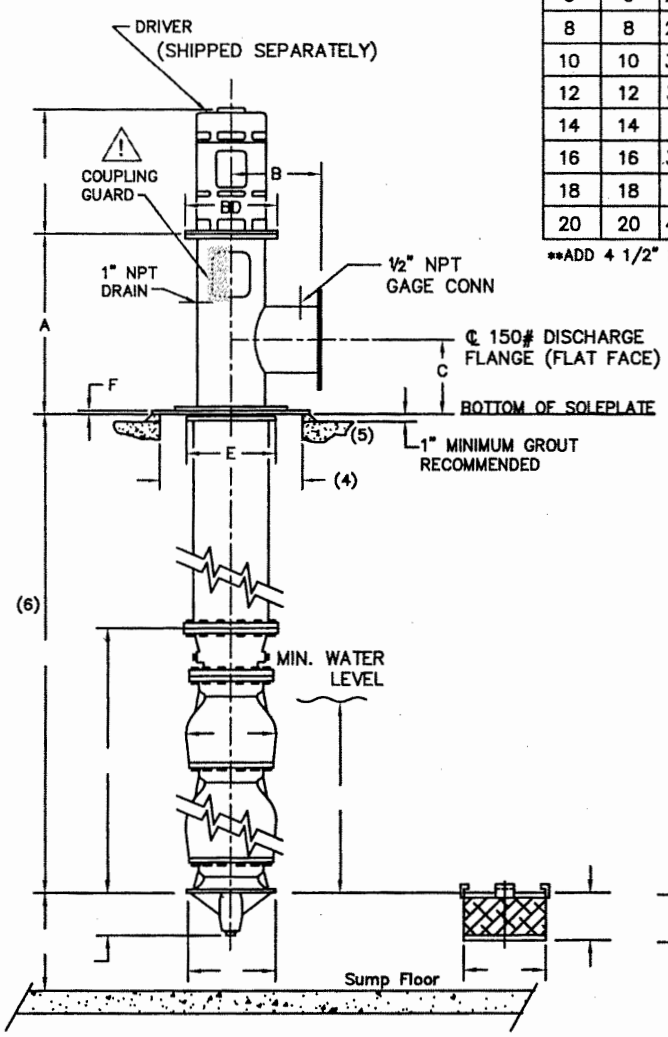
⚠ WARNING

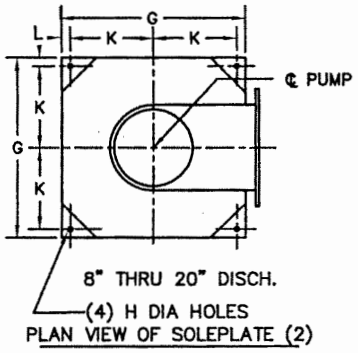
DO NOT OPERATE THIS MACHINE WITHOUT PROTECTIVE GUARD IN PLACE. ANY OPERATION OF THIS MACHINE WITHOUT PROTECTIVE GUARD CAN RESULT IN SEVERE BODILY INJURY.

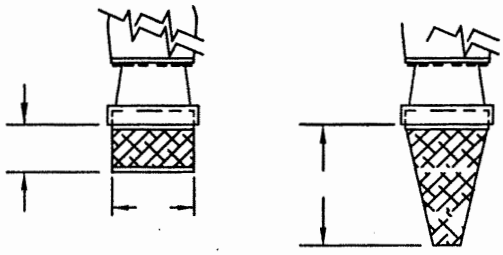
DISCHARGE HEAD DIMENSIONS

DISCH SIZE	COL SIZE	A** MTR BASE DIA (BD) 12	16 1/2	20	24 1/2	B	C	E	F	F1	G	H	K	L
4	4	24 1/4	--	--	--	14 1/2	7 1/2	6 5/8	1	1	27	7/8	11 1/2	2
6	6	26 3/8	26 3/8	--	--	14 1/2	8 1/2	9	1	1	27	7/8	11 1/2	2
8	8	28 5/8	28 5/8	28 5/8	--	16 1/2	9 3/4	11 1/2	1	1	31	7/8	13 1/2	2
10	10	30 7/8	30 7/8	30 7/8	--	16 1/2	11	13 3/4	1	1	31	7/8	13 1/2	2
12	12	33 3/8	33 3/8	33 3/8	--	16 1/2	12 1/2	16 1/4	1	1	31	7/8	13 1/2	2
14	14	36	36	36	38 3/4	18	14 1/2	17 1/2	1 1/2	1 1/2	34	1	15	2
16	16	38 1/4	38 1/4	38 1/4	41	19	15 3/4	19 1/2	1 1/2	1 1/2	36	1	16	2
18	18	40	40	40	42 3/4	20	16 1/2	22	1 1/2	1 1/2	38	1	17	2
20	20	42 1/4	42 1/4	42 1/4	45	23	17 3/4	23 3/4	1 1/2	1 1/2	44	1	20	2

**ADD 4 1/2" FOR VSS DRIVER AND SPACER COUPLING







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CUSTOMER				P.O.		
JOB NAME			SERVICE			
PUMP SIZE & MODEL	STAGES	GPM	TDH	RPM	ROT CCW	
MOTOR	HP	FRAME	PHASE	HERTZ	VOLTS	ENCL
CERTIFIED FOR		CERTIFIED BY		DATE		

PENTAIR FAIRBANKS NIJHUIS

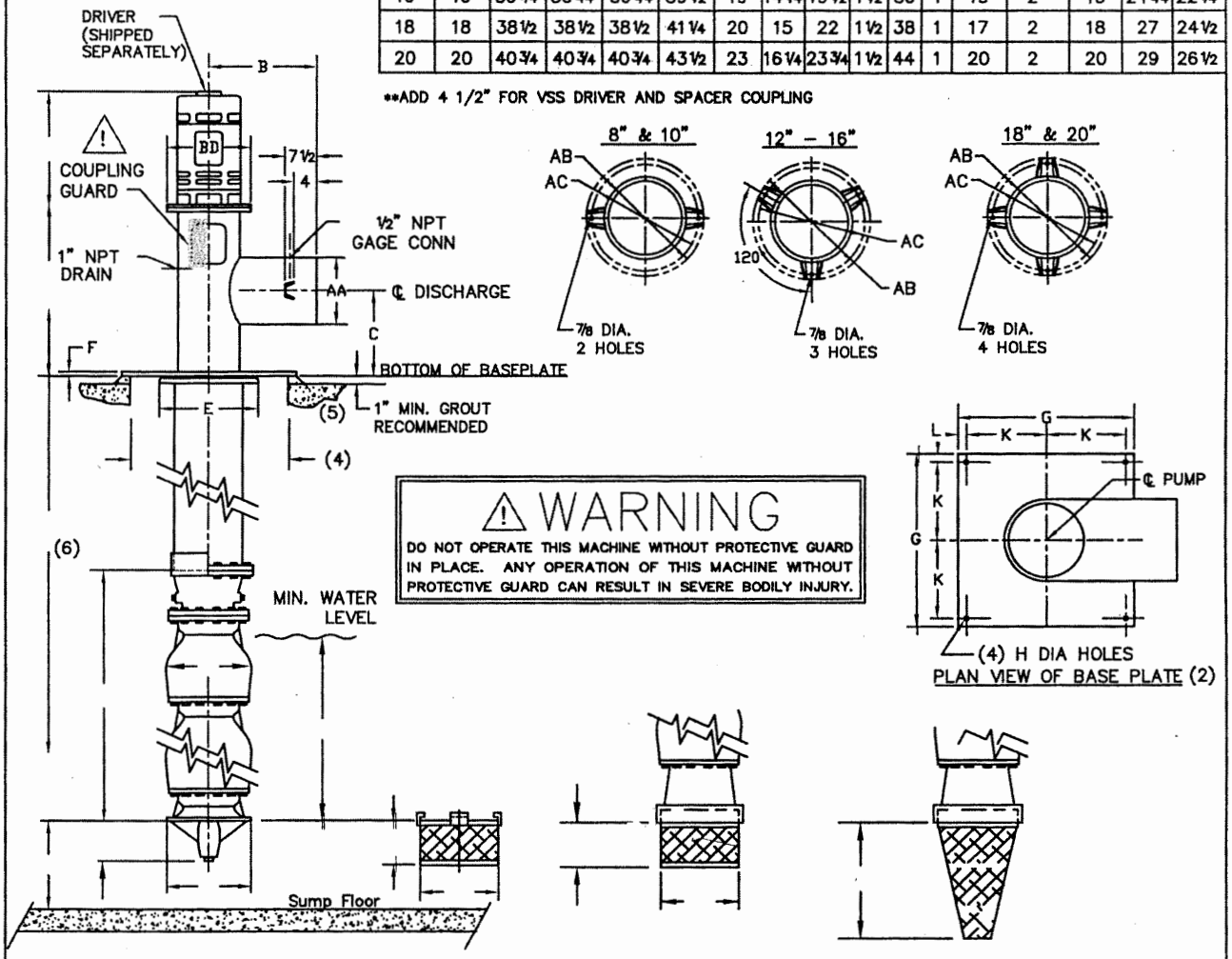
SETTING PLAN
MODEL 7000/7100 PUMP
TYPE"LS"SURFACE HEAD
WITH SOLEPLATE

DWG. NO. 7000FS016 REV

DISCHARGE HEAD DIMENSIONS

DISCH SIZE	COL SIZE	A** MTR BASE DIA (BD) 12	16 1/2	20	24 1/2	B	C	E	F	G	H	K	L	AA	AB	AC
8	8	27 5/8	27 5/8	27 5/8	--	16 1/2	8 3/4	11 1/2	1	31	7/8	13 1/2	2	8 5/8	17 1/8	14 5/8
10	10	29 7/8	29 7/8	29 7/8	--	16 1/2	10	13 3/4	1	31	7/8	13 1/2	2	10 3/4	19 1/4	16 3/4
12	12	32 3/8	32 3/8	32 3/8	--	16 1/2	11 1/2	16 1/4	1	31	7/8	13 1/2	2	12 3/4	21 1/2	19
14	14	34 1/2	34 1/2	34 1/2	37 1/4	18	13	17 1/2	1 1/2	34	1	15	2	14	22 3/4	20 1/4
16	16	36 3/4	36 3/4	36 3/4	39 1/2	19	14 1/4	19 1/2	1 1/2	36	1	16	2	16	24 3/4	22 1/4
18	18	38 1/2	38 1/2	38 1/2	41 1/4	20	15	22	1 1/2	38	1	17	2	18	27	24 1/2
20	20	40 3/4	40 3/4	40 3/4	43 1/2	23	16 1/4	23 3/4	1 1/2	44	1	20	2	20	29	26 1/2

**ADD 4 1/2" FOR VSS DRIVER AND SPACER COUPLING



⚠ WARNING

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CUSTOMER					P.O.	
JOB NAME			SERVICE			
PUMP SIZE & MODEL	STAGES	GPM	TDH	RPM	ROT CCW	
MOTOR	HP	FRAME	PHASE	HERTZ	VOLTS	ENCL
CERTIFIED FOR	CERTIFIED BY			DATE		

PENTAIR FAIRBANKS NIJHUIS

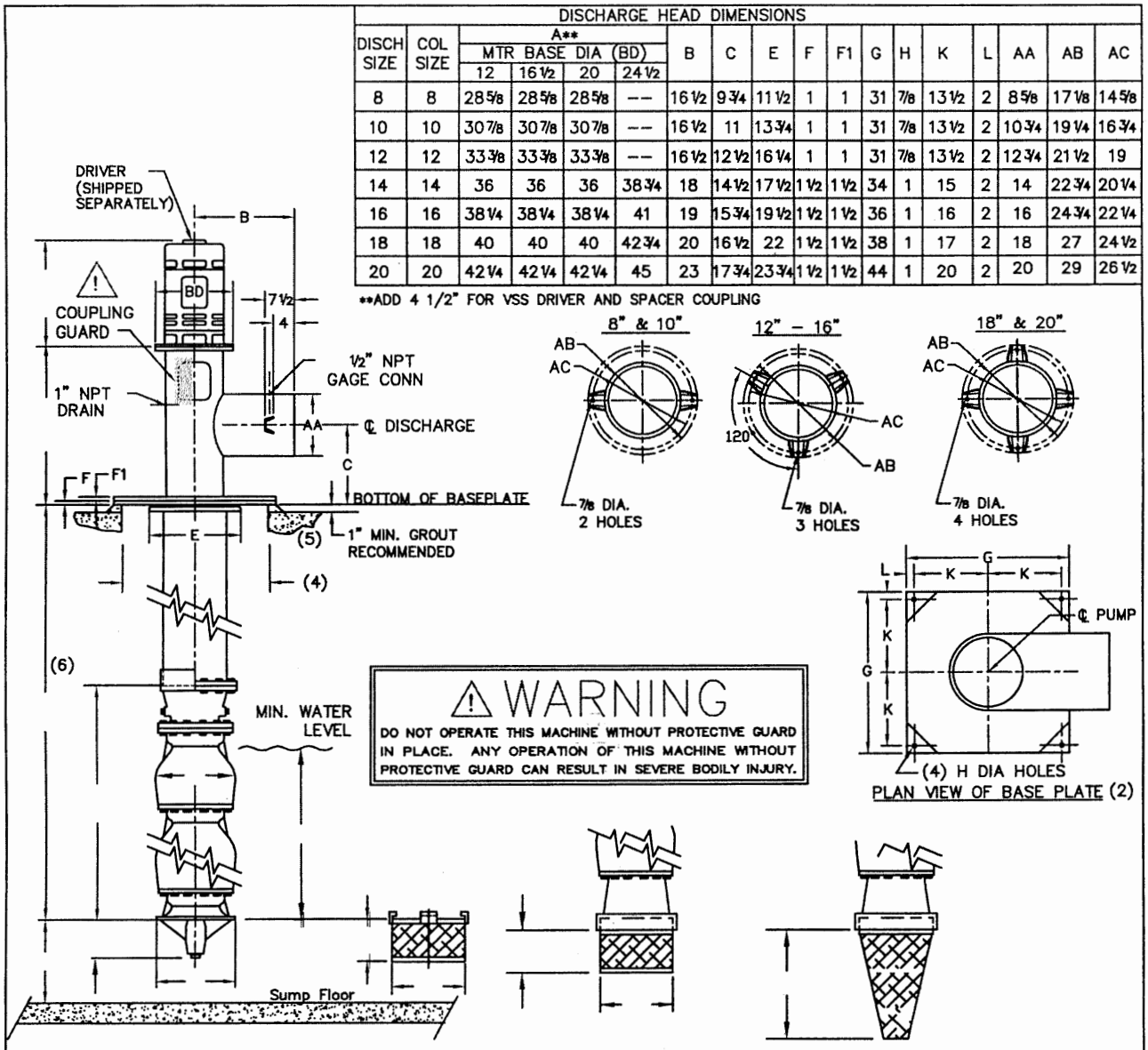
SETTING PLAN
MODEL 7000/7100 PUMP
TYPE "LS" SURFACE HEAD
NO SOLEPLATE
PLAIN END DISCHARGE

DWG. NO. 7000FS017 REV

DISCHARGE HEAD DIMENSIONS

DISCH SIZE	COL SIZE	A** MTR BASE DIA (BD) 12	16½	20	24½	B	C	E	F	F1	G	H	K	L	AA	AB	AC
8	8	28⅝	28⅝	28⅝	--	16½	9¾	11½	1	1	31	⅞	13½	2	8⅝	17⅛	14⅝
10	10	30⅞	30⅞	30⅞	--	16½	11	13¾	1	1	31	⅞	13½	2	10¾	19¼	16¾
12	12	33⅜	33⅜	33⅜	--	16½	12½	16¼	1	1	31	⅞	13½	2	12¾	21½	19
14	14	36	36	36	38¾	18	14½	17½	1½	1½	34	1	15	2	14	22¾	20¼
16	16	38¼	38¼	38¼	41	19	15¾	19½	1½	1½	36	1	16	2	16	24¾	22¼
18	18	40	40	40	42¾	20	16½	22	1½	1½	38	1	17	2	18	27	24½
20	20	42¼	42¼	42¼	45	23	17¾	23¾	1½	1½	44	1	20	2	20	29	26½

**ADD 4 1/2" FOR VSS DRIVER AND SPACER COUPLING



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6. CUSTOMER TO VERIFY OR ADVISE OVERALL LENGTH PRIOR TO RELEASE.

CUSTOMER						P.O.
JOB NAME				SERVICE		
PUMP SIZE & MODEL	STAGES	GPM	TDH	RPM	ROT CCW	
MOTOR	HP	FRAME	PHASE	HERTZ	VOLTS	ENCL
CERTIFIED FOR		CERTIFIED BY			DATE	

PENTAIR FAIRBANKS NIJHUIS

SETTING PLAN
MODEL 7000/7100 PUMP
TYPE "LS" SURFACE HEAD
WITH SOLEPLATE
PLAIN END DISCHARGE

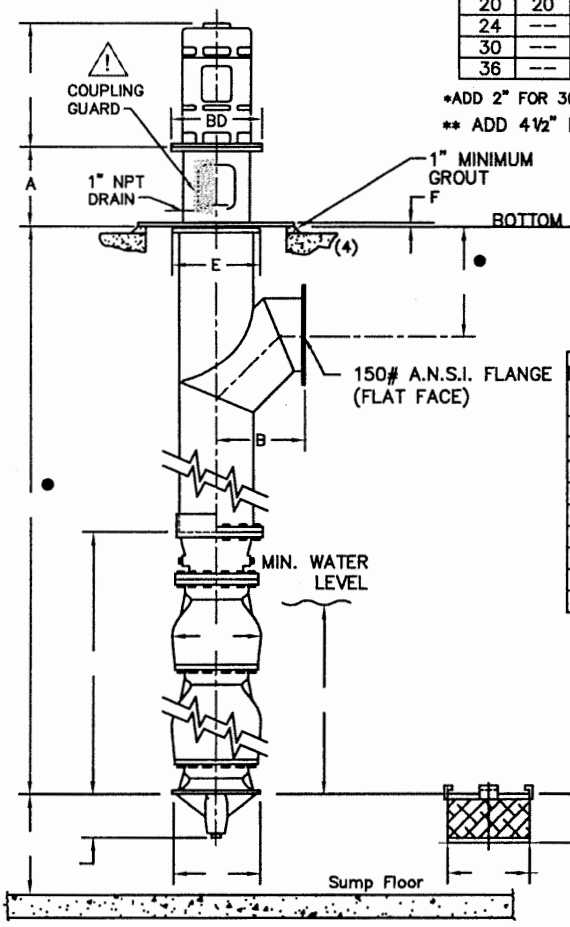
DWG. NO. 7000FS018 REV

⚠ WARNING
DO NOT OPERATE THIS MACHINE WITHOUT PROTECTIVE GUARD IN PLACE. ANY OPERATION OF THIS MACHINE WITHOUT PROTECTIVE GUARD CAN RESULT IN SEVERE BODILY INJURY.

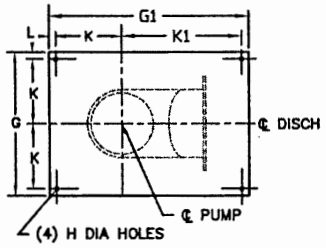
DISCH SIZE	A** MTR BASE DIA 12	16½	20	24½	B*	E	F	G	G1	H	K	K1	L
8	20	20	—	—	11	11½	1	21	33	7/8	8½	20½	2
10	20	20	—	—	13	13¾	1	23	35	7/8	9½	21½	2
12	20	20	24	—	15	16¼	1	26	40	7/8	11	25	2
14	20	20	24	24	17	17½	1¼	29	43	1	12½	26½	2
16	20	20	24	24	20	19½	1¼	32	48	1	14	30	2
20	20	20	24	24	24	23¾	1¼	44	60	1	20	36	2
24	—	20	24	24	29	28	1¼	50	68	1	23	41	2
30	—	—	24	24	36	34	1½	54	80	1⅛	25	51	2
36	—	—	24	24	43	40	1¾	66	94	1⅛	31	59	2

*ADD 2" FOR 300# DISCHARGE FLANGE
** ADD 4½" FOR VSS DRIVER & SPACER CPLG

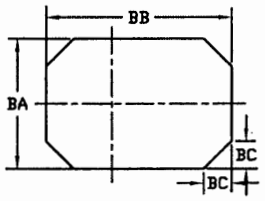
DRIVER IS SHIPPED SEPARATELY



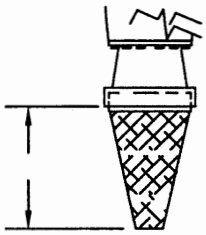
DISCH SIZE	FLOOR OPENING DIMENSIONS BA	BB	BC
8	17	27	4
10	18	30	5
12	21	35	6
14	24	38	7
16	27	43	8
20	38	54	11
24	43	61	12
30	45	71	13
36	57	85	14



PLAN VIEW OF BASE PLATE (2)



PLAN VIEW OF FLOOR OPENING



° CUSTOMER TO VERIFY/ADVISE OVERALL LENGTH AND LOCATION OF DISCHARGE AT RELEASE.

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4. DETAIL SHOWN FOR ILLUSTRATION ONLY AND IS NOT INTENDED TO REPRESENT THE ACTUAL INSTALLATION.

CUSTOMER						P.O.
JOB NAME				SERVICE		
PUMP SIZE & MODEL	STAGES	GPM	TDH	RPM	ROT CCW	
MOTOR	HP	FRAME	PHASE	HERTZ	VOLTS	ENCL
CERTIFIED FOR	CERTIFIED BY			DATE		

PENTAIR FAIRBANKS NIJHUIS

SETTING PLAN
MODEL 7000/7100 PUMP
"UF" U. G. PEDESTAL
NO SOLEPLATE

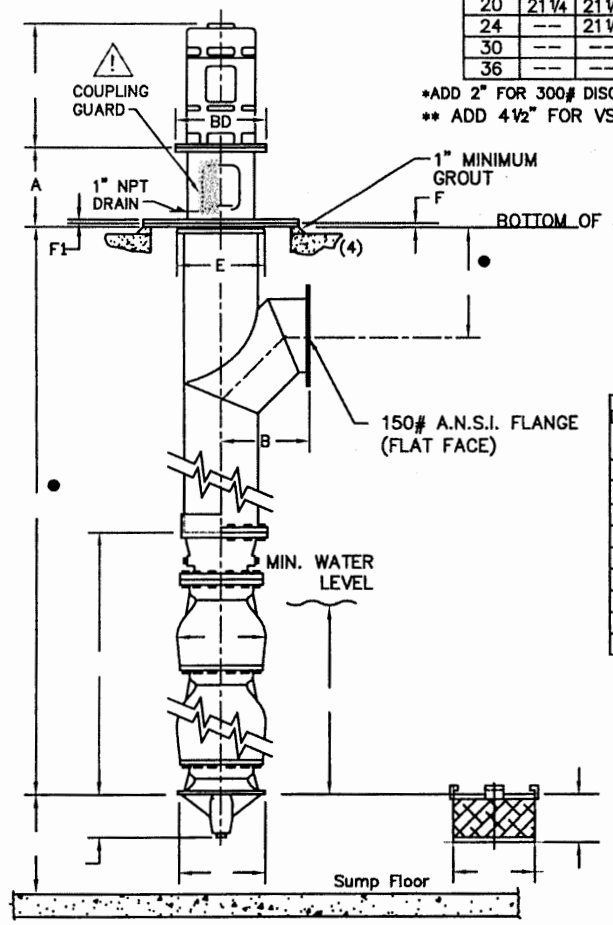
DWG. NO. 7000FS013 REV

⚠ WARNING
DO NOT OPERATE THIS MACHINE WITHOUT PROTECTIVE GUARD IN PLACE. ANY OPERATION OF THIS MACHINE WITHOUT PROTECTIVE GUARD CAN RESULT IN SEVERE BODILY INJURY.

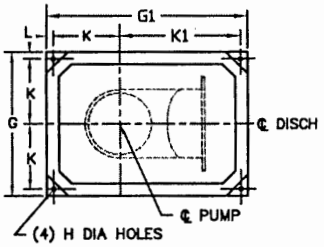
DISCH SIZE	A** MTR BASE DIA 12	16½	20	24½	B*	E	F	F1	G	G1	H	K	K1	L
8	21	21	--	--	11	11½	1	1	21	33	⅞	8½	20½	2
10	21	21	--	--	13	13¾	1	1	23	35	⅞	9½	21½	2
12	21	21	25	--	15	16¼	1	1	26	40	⅞	11	25	2
14	21¼	21¼	25¼	25¼	17	17½	1¼	1¼	29	43	1	12½	26½	2
16	21¼	21¼	25¼	25¼	20	19½	1¼	1¼	32	48	1	14	30	2
20	21¼	21¼	25¼	25¼	24	23¾	1¼	1¼	44	60	1	20	36	2
24	--	21¼	25¼	25¼	29	28	1¼	1¼	50	68	1	23	41	2
30	--	--	25½	25½	36	34	1½	1½	54	80	1⅛	25	51	2
36	--	--	25¾	25¾	43	40	1¾	1¾	66	94	1⅛	31	59	2

*ADD 2" FOR 300# DISCHARGE FLANGE
** ADD 4½" FOR VSS DRIVER & SPACER CPLG

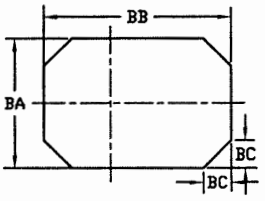
DRIVER IS SHIPPED SEPARATELY



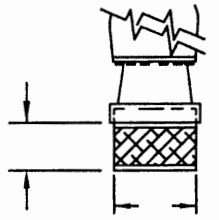
DISCH SIZE	FLOOR OPENING DIMENSIONS BA	BB	BC
8	17	27	4
10	18	30	5
12	21	35	6
14	24	38	7
16	27	43	8
20	38	54	11
24	43	61	12
30	45	71	13
36	57	85	14

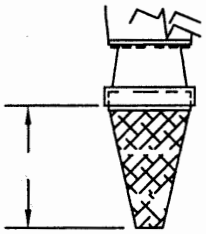


PLAN VIEW OF SOLE PLATE (2)



PLAN VIEW OF FLOOR OPENING





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CUSTOMER					P.O.	
JOB NAME				SERVICE		
PUMP SIZE & MODEL	STAGES	GPM	TDH	RPM	ROT CCW	
MOTOR	HP	FRAME	PHASE	HERTZ	VOLTS	ENCL
CERTIFIED FOR	CERTIFIED BY			DATE		

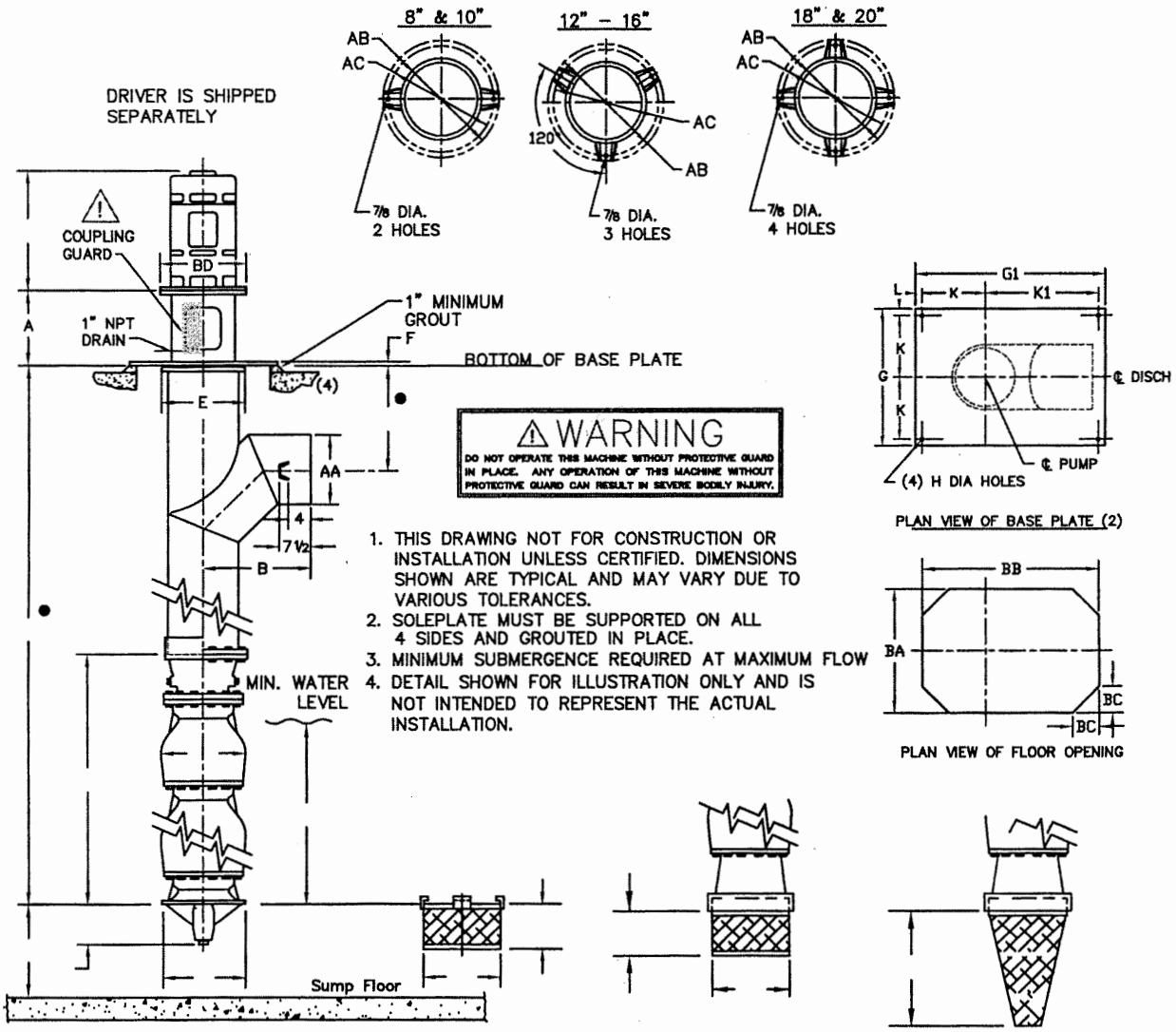
PENTAIR FAIRBANKS NIJHUIS

SETTING PLAN
MODEL 7000/7100 PUMP
"UF" U.G. PEDESTAL
WITH SOLEPLATE

DWG. NO. 7000FS014 REV

DISCH SIZE	A** MTR BASE DIA				B	E	F	G	G1	H	K	K1	L	AA	AB	AC	FLOOR OPENING DIMENSIONS		
	12	16 1/2	20	24 1/2													BA	BB	BC
8	20	20	--	--	17	11 1/2	1	21	33	7/8	8 1/2	20 1/2	2	8 5/8	17 1/8	14 5/8	17	27	4
10	20	20	--	--	18	13 3/4	1	23	35	7/8	9 1/2	21 1/2	2	10 3/4	19 1/4	16 3/4	18	30	5
12	20	20	24	--	21	16 1/4	1	26	40	7/8	11	25	2	12 3/4	21 1/2	19	21	35	6
14	20	20	24	24	23	17 1/2	1 1/4	29	43	1	12 1/2	26 1/2	2	14	22 3/4	20 1/4	24	38	7
16	20	20	24	24	25	19 1/2	1 1/4	32	48	1	14	30	2	16	24 3/4	22 1/4	27	43	8
20	20	20	24	24	30	23 3/4	1 1/4	44	60	1	20	36	2	20	29	26 1/2	38	54	11

** ADD 4 1/2" FOR VSS DRIVER & SPACER CPLG



● CUSTOMER TO VERIFY/ADVISE OVERALL LENGTH AND LOCATION OF DISCHARGE AT RELEASE.

CUSTOMER				P.O.		PENTAIR FAIRBANKS NIJHUIS
JOB NAME			SERVICE			
PUMP SIZE & MODEL	STAGES	GPM	TDH	RPM	ROT CCW	SETTING PLAN MODEL 7000/7100 PLAIN END TYPE"UF" U. G. PEDESTAL NO SOLEPLATE
MOTOR	HP	FRAME	PHASE	HERTZ	VOLTS	ENCL
CERTIFIED FOR	CERTIFIED BY			DATE		DWG. NO. 7000FS019 REV

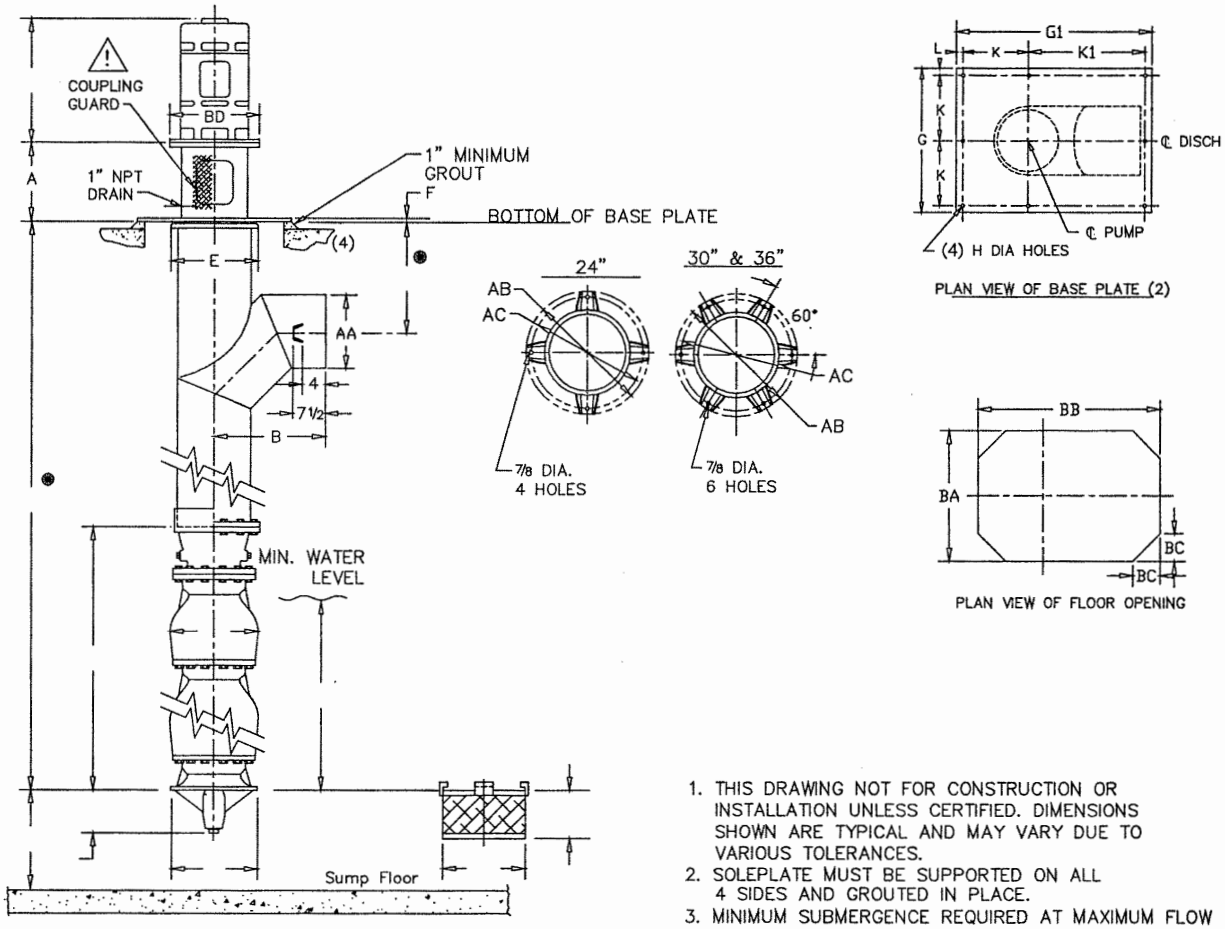
DISCH SIZE	A** MTR BASE DIA				B	E	F	G	G1	H	K	K1	L	AA	AB	AC	FLOOR OPENING DIMENSIONS		
	12	16½	20	24½													BA	BB	BC
24	--	20	24	24	34	28	1¼	50	68	1	23	41	2	24	33	30½	43	61	12
30	--	--	24	24	40	34	1½	54	80	1⅛	25	51	2	30	39	36½	45	71	13
36			24	24	46	40	1¾	66	94	1⅛	31	59	2	36	45	42½	57	85	14

** ADD 4½" FOR VSS DRIVER & SPACER CPLG

⚠ WARNING

DO NOT OPERATE THIS MACHINE WITHOUT PROTECTIVE GUARD IN PLACE. ANY OPERATION OF THIS MACHINE WITHOUT PROTECTIVE GUARD CAN RESULT IN SEVERE BODILY INJURY.

DRIVER IS SHIPPED SEPARATELY



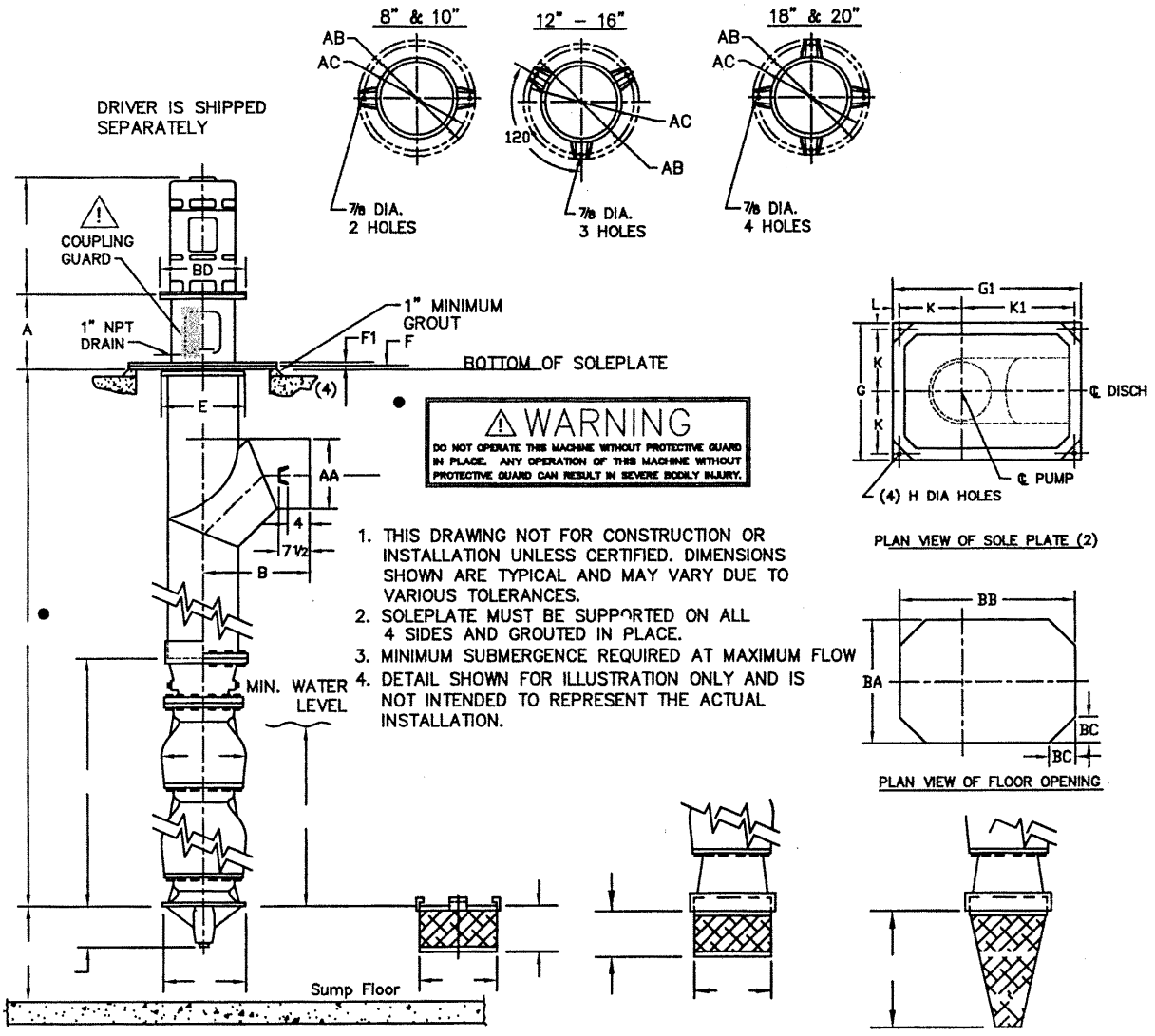
● CUSTOMER TO VERIFY/ADVISE OVERALL LENGTH AND LOCATION OF DISCHARGE AT RELEASE.

1. THIS DRAWING NOT FOR CONSTRUCTION OR INSTALLATION UNLESS CERTIFIED. DIMENSIONS SHOWN ARE TYPICAL AND MAY VARY DUE TO VARIOUS TOLERANCES.
2. SOLEPLATE MUST BE SUPPORTED ON ALL 4 SIDES AND GROUTED IN PLACE.
3. MINIMUM SUBMERGENCE REQUIRED AT MAXIMUM FLOW
4. DETAIL SHOWN FOR ILLUSTRATION ONLY AND IS NOT INTENDED TO REPRESENT THE ACTUAL INSTALLATION.

CUSTOMER				P.O.		PENTAIR FAIRBANKS NIJHUIS
JOB NAME			SERVICE			
PUMP SIZE & MODEL	STAGES	GPM	TDH	RPM	ROT CCW	SETTING PLAN MODEL 7000/7100 PLAIN END TYPE"UF" U. G. PEDESTAL NO SOLEPLATE
MOTOR	HP	FRAME	PHASE	HERTZ	VOLTS	ENCL
CERTIFIED FOR	CERTIFIED BY			DATE		DWG. NO. 7000FS029 REV

DISCH SIZE	A** MTR BASE DIA 12	16½	20	24½	B	E	F	F1	G	G1	H	K	K1	L	AA	AB	AC	FLOOR OPENING DIMENSIONS BA	BB	BC
8	21	21	—	—	17	11½	1	1	21	33	7/8	8½	20½	2	8 5/8	17 1/8	14 5/8	17	27	4
10	21	21	—	—	18	13 3/4	1	1	23	35	7/8	9½	21½	2	10 3/4	19 1/4	16 3/4	18	30	5
12	21	21	25¼	—	21	16¼	1	1	26	40	7/8	11	25	2	12 3/4	21½	19	21	35	6
14	21¼	21¼	25¼	25¼	23	17½	1¼	1¼	29	43	1	12½	26½	2	14	22 3/4	20¼	24	38	7
16	21¼	21¼	25¼	25¼	25	19½	1¼	1¼	32	48	1	14	30	2	16	24 3/4	22¼	27	43	8
20	21¼	21¼	25¼	25¼	30	23 3/4	1¼	1¼	44	60	1	20	36	2	20	29	26½	38	54	11

** ADD 4½" FOR VSS DRIVER & SPACER CPLG



CUSTOMER				P.O.		
JOB NAME			SERVICE			
PUMP SIZE & MODEL	STAGES	GPM	TDH	RPM	ROT CCW	
MOTOR	HP	FRAME	PHASE	HERTZ	VOLTS	ENCL
CERTIFIED FOR	CERTIFIED BY			DATE		

PENTAIR FAIRBANKS NIJHUIS

SETTING PLAN
MODEL 7000/7100 PLAIN END
TYPE"UF" U. G. PEDESTAL
WITH SOLEPLATE

DWG. NO. 7000FS020 REV

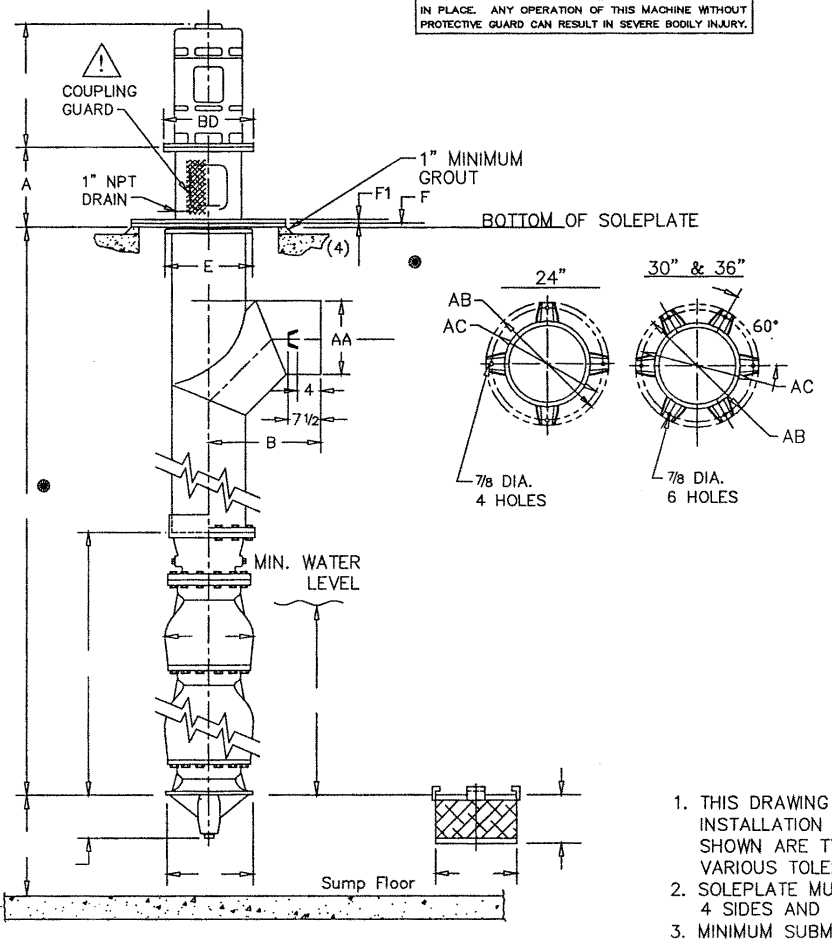
DISCH SIZE	A** MTR BASE DIA 12	16 1/2	20	24 1/2	B	E	F	F1	G	G1	H	K	K1	L	AA	AB	AC	FLOOR OPENING DIMENSIONS BA	BB	BC
24	--	21 1/4	25 1/4	25 1/4	34	28	1 1/4	1 1/4	50	68	1	23	41	2	24	33	30 1/2	43	61	12
30	--	--	25 1/2	25 1/2	40	34	1 1/2	1 1/2	54	80	1 1/8	25	51	2	30	39	36 1/2	45	71	13
36	--	--	25 3/4	25 3/4	46	40	1 3/4	1 3/4	66	94	1 1/8	31	59	2	36	45	42 1/2	57	85	14

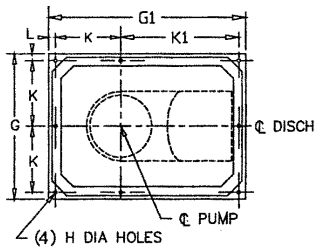
** ADD 4 1/2" FOR VSS DRIVER & SPACER CPLG

DRIVER IS SHIPPED SEPARATELY

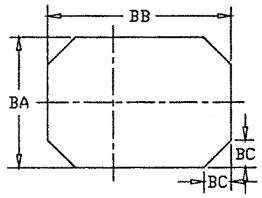
⚠ WARNING

DO NOT OPERATE THIS MACHINE WITHOUT PROTECTIVE GUARD IN PLACE. ANY OPERATION OF THIS MACHINE WITHOUT PROTECTIVE GUARD CAN RESULT IN SEVERE BODILY INJURY.





PLAN VIEW OF SOLE PLATE (2)



PLAN VIEW OF FLOOR OPENING

● CUSTOMER TO VERIFY/ADVISE OVERALL LENGTH AND LOCATION OF DISCHARGE AT RELEASE.

1. THIS DRAWING NOT FOR CONSTRUCTION OR INSTALLATION UNLESS CERTIFIED. DIMENSIONS SHOWN ARE TYPICAL AND MAY VARY DUE TO VARIOUS TOLERANCES.
2. SOLEPLATE MUST BE SUPPORTED ON ALL 4 SIDES AND GROUTED IN PLACE.
3. MINIMUM SUBMERGENCE REQUIRED AT MAXIMUM FLOW
4. DETAIL SHOWN FOR ILLUSTRATION ONLY AND IS NOT INTENDED TO REPRESENT THE ACTUAL INSTALLATION.

CUSTOMER				P.O.		
JOB NAME			SERVICE			
PUMP SIZE & MODEL	STAGES	GPM	TDH	RPM	ROT CCW	
MOTOR	HP	FRAME	PHASE	HERTZ	VOLTS	ENCL
CERTIFIED FOR		CERTIFIED BY		DATE		

PENTAIR FAIRBANKS NIJHUIS

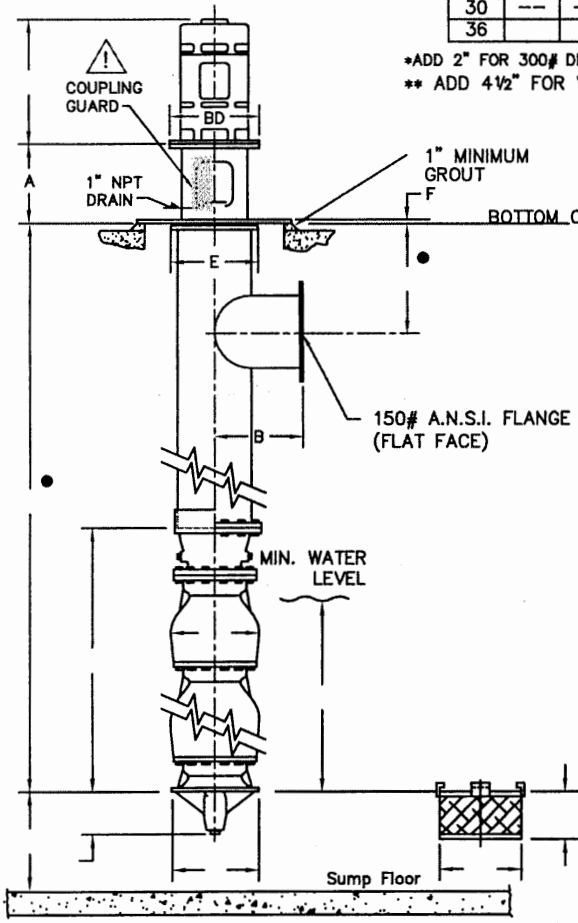
SETTING PLAN
MODEL 7000/7100 PLAIN END
TYPE"UF" U. G. PEDESTAL
WITH SOLEPLATE

DWG. NO. 7000FS030 REV

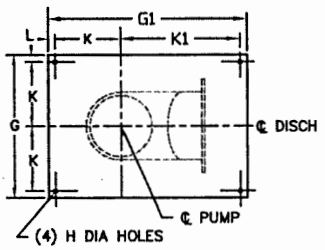
⚠ WARNING
DO NOT OPERATE THIS MACHINE WITHOUT PROTECTIVE GUARD IN PLACE. ANY OPERATION OF THIS MACHINE WITHOUT PROTECTIVE GUARD CAN RESULT IN SEVERE BODILY INJURY.

DISCH SIZE	A** MTR BASE DIA 12	16 1/2	20	24 1/2	B*	E	F	G	G1	H	K	K1	L
4	20	--	--	--	5	6 5/8	1	18	23	7/8	7	12	2
6	20	20	--	--	9	9	1	21	33	7/8	8 1/2	20 1/2	2
8	20	20	--	--	11	11 1/2	1	21	33	7/8	8 1/2	20 1/2	2
10	20	20	24	--	13	13 3/4	1	23	35	7/8	9 1/2	21 1/2	2
12	20	20	24	--	15	16 1/4	1	26	40	7/8	11	25	2
14	20	20	24	24	17	17 1/2	1 1/4	29	43	1	12 1/2	26 1/2	2
16	20	20	24	24	20	19 1/2	1 1/4	32	48	1	14	30	2
20	20	20	24	24	24	23 3/4	1 1/4	44	60	1	20	36	2
24	--	20	24	24	29	28	1 1/4	50	68	1	23	41	2
30	--	--	24	24	36	34	1 1/2	54	80	1 1/8	25	51	2
36			24	24	43	40	1 3/4	66	94	1 1/8	31	59	2

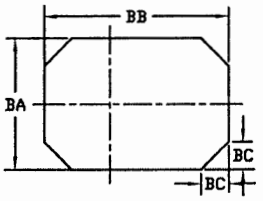
*ADD 2" FOR 300# DISCHARGE FLANGE
** ADD 4 1/2" FOR VSS DRIVER & SPACER CPLG



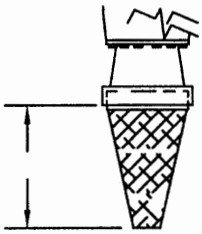
DISCH SIZE	FLOOR OPENING DIMENSIONS BA	BB	BC
4	13	18	4
6	17	27	4
8	17	27	4
10	18	30	5
12	21	35	6
14	24	38	7
16	27	43	8
20	38	54	11
24	43	61	12
30	45	71	13
36	57	85	14



PLAN VIEW OF BASE PLATE (2)



PLAN VIEW OF FLOOR OPENING



- CUSTOMER TO VERIFY/ADVISE OVERALL LENGTH AND LOCATION OF DISCHARGE AT RELEASE.

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2. PEDESTAL MUST BE SUPPORTED ON ALL 4 SIDES AND GROUTED IN PLACE.
3. MINIMUM SUBMERGENCE REQUIRED AT MAXIMUM FLOW.

CUSTOMER				P.O.		
JOB NAME			SERVICE			
PUMP SIZE & MODEL	STAGES	GPM	TDH	RPM	ROT CCW	
MOTOR	HP	FRAME	PHASE	HERTZ	VOLTS	ENCL
CERTIFIED FOR		CERTIFIED BY		DATE		

PENTAIR FAIRBANKS NIJHUIS

SETTING PLAN
MODEL 7000/7100 PUMP
TYPE"UG" U. G. PEDESTAL
NO SOLEPLATE

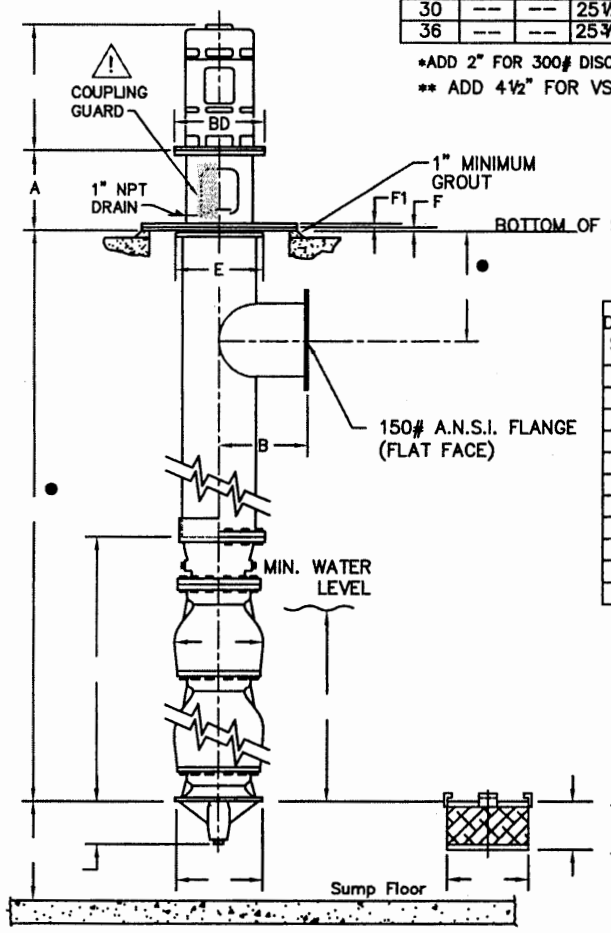
DWG. NO. 7000FS021 REV

⚠ WARNING
DO NOT OPERATE THIS MACHINE WITHOUT PROTECTIVE GUARD IN PLACE. ANY OPERATION OF THIS MACHINE WITHOUT PROTECTIVE GUARD CAN RESULT IN SEVERE BODILY INJURY.

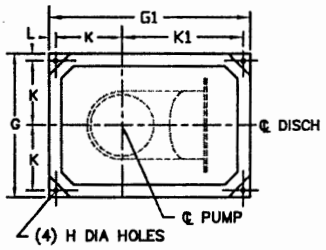
DISCH SIZE	A** MTR BASE DIA 12	16 1/2	20	24 1/2	B*	E	F	F1	G	G1	H	K	K1	L
4	21	--	--	--	5	6 5/8	1	1	18	23	7/8	7	12	2
6	21	21	--	--	9	9	1	1	21	33	7/8	8 1/2	20 1/2	2
8	21	21	--	--	11	11 1/2	1	1	21	33	7/8	8 1/2	20 1/2	2
10	21	21	25	--	13	13 3/4	1	1	23	35	7/8	9 1/2	21 1/2	2
12	21	21	25	--	15	16 1/4	1	1	26	40	7/8	11	25	2
14	21 1/4	21 1/4	25 1/4	25 1/4	17	17 1/2	1 1/4	1 1/4	29	43	1	12 1/2	26 1/2	2
16	21 1/4	21 1/4	25 1/4	25 1/4	20	19 1/2	1 1/4	1 1/4	32	48	1	14	30	2
20	21 1/4	21 1/4	25 1/4	25 1/4	24	23 3/4	1 1/4	1 1/4	44	60	1	20	36	2
24	--	21 1/4	25 1/4	25 1/4	29	28	1 1/4	1 1/4	50	68	1	23	41	2
30	--	--	25 1/2	25 1/2	36	34	1 1/2	1 1/2	54	80	1 1/8	25	51	2
36	--	--	25 3/4	25 3/4	43	40	1 3/4	1 3/4	66	94	1 1/8	31	59	2

*ADD 2" FOR 300# DISCHARGE FLANGE
** ADD 4 1/2" FOR VSS DRIVER & SPACER CPLG

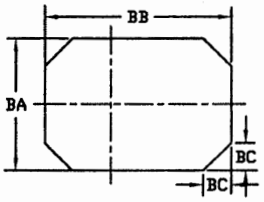
DRIVER IS SHIPPED SEPARATELY



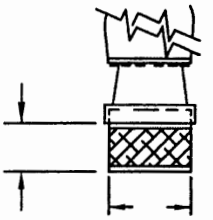
DISCH SIZE	FLOOR OPENING DIMENSIONS BA	BB	BC
4	13	18	4
6	17	27	4
8	17	27	4
10	18	30	5
12	21	35	6
14	24	38	7
16	27	43	8
20	38	54	11
24	43	61	12
30	45	71	13
36	57	85	14

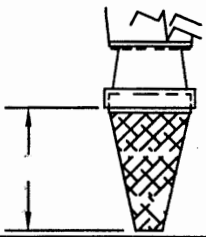


PLAN VIEW OF SOLE PLATE (2)



PLAN VIEW OF FLOOR OPENING





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3. MINIMUM SUBMERGENCE REQUIRED AT MAXIMUM FLOW

CUSTOMER					P.O.	
JOB NAME				SERVICE		
PUMP SIZE & MODEL	STAGES	GPM	TDH	RPM	ROT CCW	
MOTOR	HP	FRAME	PHASE	HERTZ	VOLTS	ENCL
CERTIFIED FOR	CERTIFIED BY			DATE		

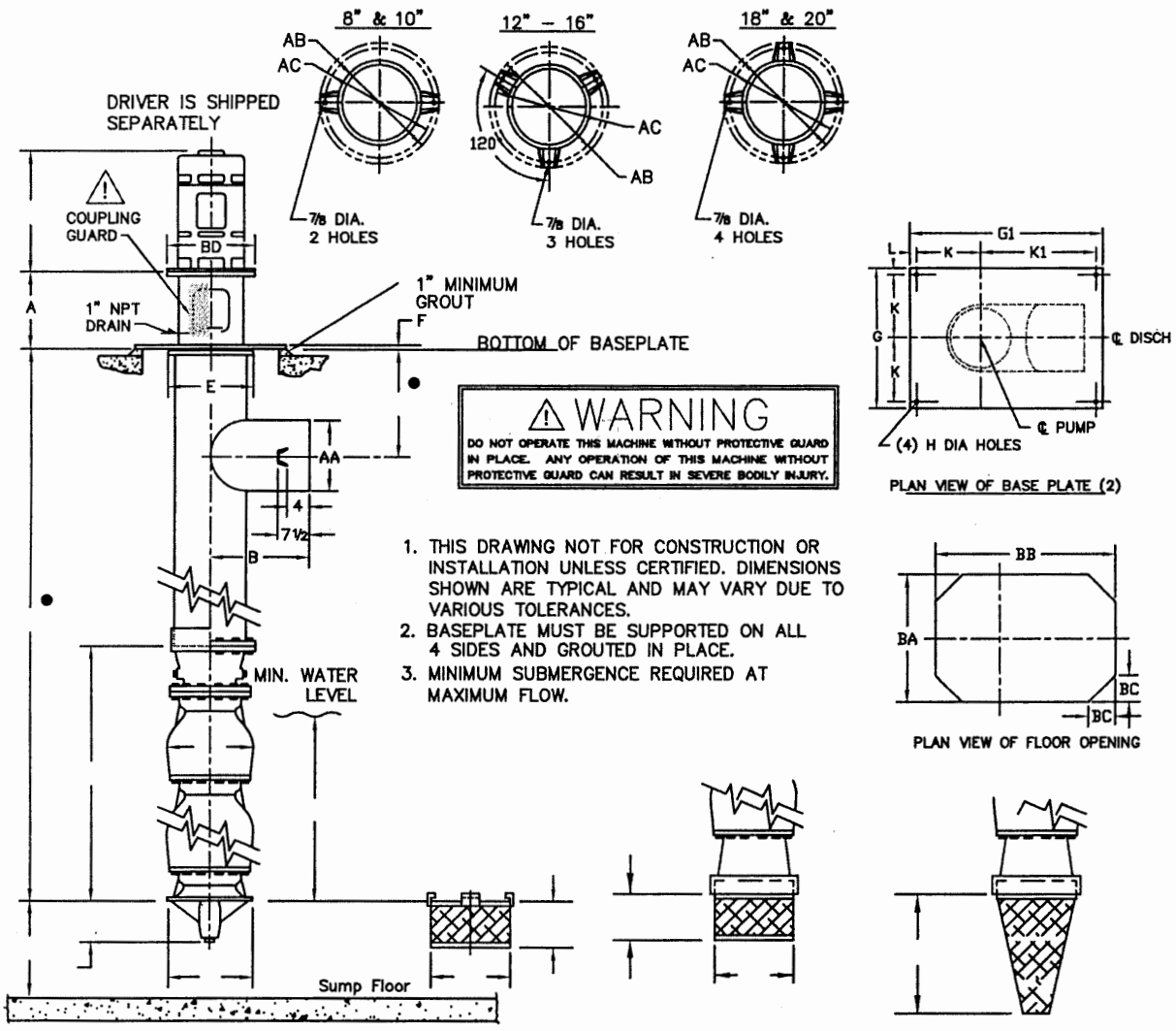
PENTAIR FAIRBANKS NIJHUIS

SETTING PLAN
MODEL 7000/7100 PUMP
TYPE"UG" U. G. PEDESTAL
WITH SOLEPLATE

DWG. NO. 7000FS022 REV

DISCH SIZE	A** MTR BASE DIA				B	E	F	G	G1	H	K	K1	L	AA	AB	AC	FLOOR OPENING DIMENSIONS		
	12	16 1/2	20	24 1/2													BA	BB	BC
8	20	20	—	—	17	11 1/2	1	21	33	7/8	8 1/2	20 1/2	2	8 5/8	17 1/8	14 5/8	17	27	4
10	20	20	24	—	18	13 3/4	1	23	35	7/8	9 1/2	21 1/2	2	10 3/4	19 1/4	16 3/4	18	30	5
12	20	20	24	—	21	16 1/4	1	26	40	7/8	11	25	2	12 3/4	21 1/2	19	21	35	6
14	20	20	24	24	23	17 1/2	1 1/4	29	43	1	12 1/2	26 1/2	2	14	22 3/4	20 1/4	24	38	7
16	20	20	24	24	25	19 1/2	1 1/4	32	48	1	14	30	2	16	24 3/4	22 1/4	27	43	8
20	20	20	24	24	30	23 3/4	1 1/4	44	60	1	20	36	2	20	29	26 1/2	38	54	11

** ADD 4 1/2" FOR VSS DRIVER & SPACER CPLG



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2. BASEPLATE MUST BE SUPPORTED ON ALL 4 SIDES AND GROUTED IN PLACE.
3. MINIMUM SUBMERGENCE REQUIRED AT MAXIMUM FLOW.

● CUSTOMER TO VERIFY/ADVISE OVERALL LENGTH AND LOCATION OF DISCHARGE AT RELEASE.

CUSTOMER				P.O.		
JOB NAME			SERVICE			
PUMP SIZE & MODEL	STAGES	GPM	TDH	RPM	ROT CCW	
MOTOR	HP	FRAME	PHASE	HERTZ	VOLTS	ENCL
CERTIFIED FOR	CERTIFIED BY			DATE		

PENTAIR FAIRBANKS NIJHUIS

SETTING PLAN
MODEL 7000/7100 PLAIN END
TYPE"UG" U. G. PEDESTAL
NO SOLEPLATE

DWG. NO. 7000FS023 REV

DISCH SIZE	A** MTR BASE DIA				B	E	F	G	G1	H	K	K1	L	AA	AB	AC	FLOOR OPENING DIMENSIONS		
	12	16½	20	24½													BA	BB	BC
24	—	20	24	24	34	28	1¼	50	68	1	23	41	2	24	33	30½	43	61	12
30	—	—	24	24	40	34	1½	54	80	1⅛	25	51	2	30	39	36½	45	71	13
36	—	—	24	24	46	40	1¾	66	94	1⅛	31	59	2	36	45	42½	57	85	14

** ADD 4½" FOR VSS DRIVER & SPACER CPLG

⚠ WARNING

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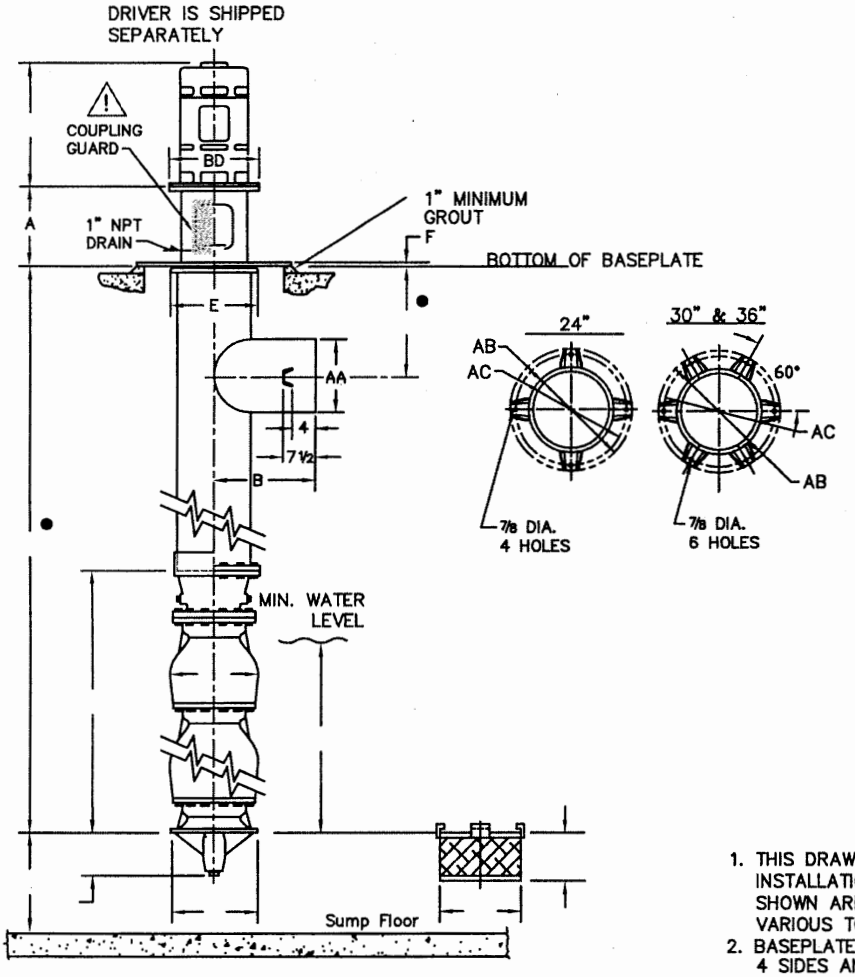
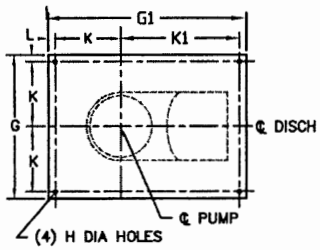
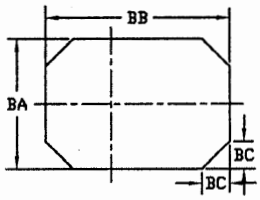




PLAN VIEW OF BASE PLATE (2)



PLAN VIEW OF FLOOR OPENING

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2. BASEPLATE MUST BE SUPPORTED ON ALL 4 SIDES AND GROUTED IN PLACE.
3. MINIMUM SUBMERGENCE REQUIRED AT MAXIMUM FLOW.

● CUSTOMER TO VERIFY/ADVISE OVERALL LENGTH AND LOCATION OF DISCHARGE AT RELEASE.

CUSTOMER					P.O.	
JOB NAME				SERVICE		
PUMP SIZE & MODEL	STAGES	GPM	TDH	RPM	ROT CCW	
MOTOR	HP	FRAME	PHASE	HERTZ	VOLTS	ENCL
CERTIFIED FOR		CERTIFIED BY			DATE	

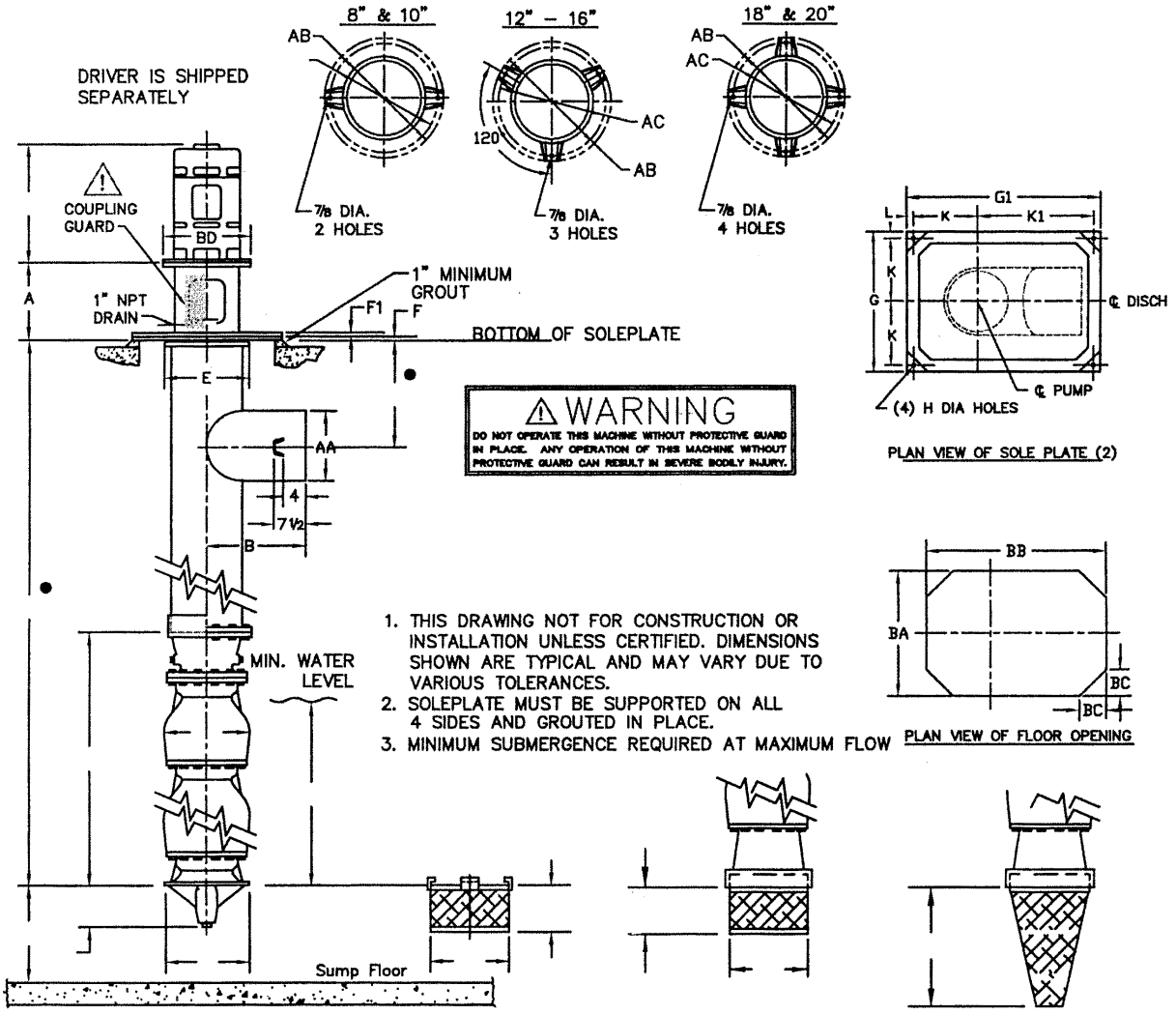
PENTAIR FAIRBANKS NIJHUIS

SETTING PLAN
MODEL 7000/7100 PLAIN END
TYPE"UG" U. G. PEDESTAL
NO SOLEPLATE

DWG. NO. 7000FS031 REV

DISCH SIZE	A** MTR BASE DIA 12	16½	20	24½	B	E	F	F1	G	G1	H	K	K1	L	AA	AB	AC	FLOOR OPENING DIMENSIONS BA	BB	BC
8	21	21	—	—	17	11½	1	1	21	33	7/8	8½	20½	2	8 5/8	17 1/8	14 5/8	17	27	4
10	21	21	25	—	18	13 3/4	1	1	23	35	7/8	9½	21½	2	10 3/4	19 1/4	16 3/4	18	30	5
12	21	21	25	—	21	16 1/4	1	1	26	40	7/8	11	25	2	12 3/4	21½	19	21	35	6
14	21 1/4	21 1/4	25 1/4	25 1/4	23	17½	1 1/4	1 1/4	29	43	1	12½	26½	2	14	22 3/4	20 1/4	24	38	7
16	21 1/4	21 1/4	25 1/4	25 1/4	25	19½	1 1/4	1 1/4	32	48	1	14	30	2	16	24 3/4	22 1/4	27	43	8
20	21 1/4	21 1/4	25 1/4	25 1/4	30	23 3/4	1 1/4	1 1/4	44	60	1	20	36	2	20	29	26½	38	54	11

** ADD 4½" FOR VSS DRIVER & SPACER CPLG



1. THIS DRAWING NOT FOR CONSTRUCTION OR INSTALLATION UNLESS CERTIFIED. DIMENSIONS SHOWN ARE TYPICAL AND MAY VARY DUE TO VARIOUS TOLERANCES.
2. SOLEPLATE MUST BE SUPPORTED ON ALL 4 SIDES AND GROUTED IN PLACE.
3. MINIMUM SUBMERGENCE REQUIRED AT MAXIMUM FLOW

● CUSTOMER TO VERIFY/ADVISE OVERALL LENGTH AND LOCATION OF DISCHARGE AT RELEASE.

CUSTOMER				P.O.		
JOB NAME			SERVICE			
PUMP SIZE & MODEL	STAGES	GPM	TDH	RPM	ROT CCW	
MOTOR	HP	FRAME	PHASE	HERTZ	VOLTS	ENCL
CERTIFIED FOR		CERTIFIED BY		DATE		

PENTAIR FAIRBANKS NIJHUIS

SETTING PLAN
MODEL 7000/7100 PLAIN END
TYPE"UG" U. G. PEDESTAL
WITH SOLEPLATE

DWG. NO. 7000FS024 REV

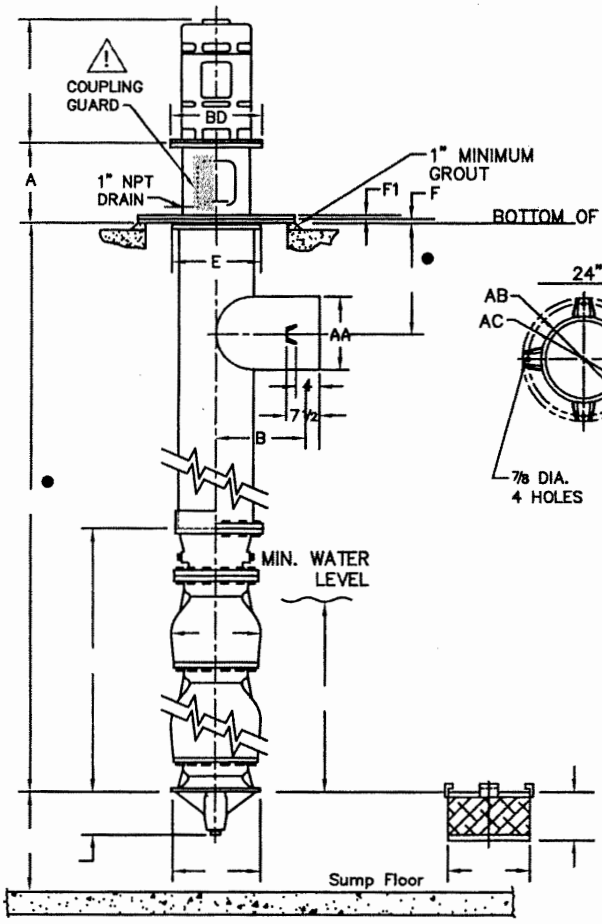
DISCH SIZE	A** MTR BASE DIA 12	16½	20	24½	B	E	F	F1	G	G1	H	K	K1	L	AA	AB	AC	FLOOR OPENING DIMENSIONS BA	BB	BC
24	--	21¼	25¼	25¼	34	28	1¼	1¼	50	68	1	23	41	2	24	33	30½	43	61	12
30	--	--	25½	25½	40	34	1½	1½	54	80	1⅛	25	51	2	30	39	36½	45	71	13
36	--	--	25¾	25¾	46	40	1¾	1¾	66	94	1⅛	31	59	2	36	45	42½	57	85	14

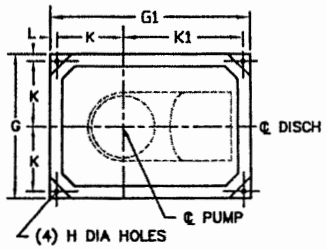
** ADD 4½" FOR VSS DRIVER & SPACER CPLG

⚠ WARNING

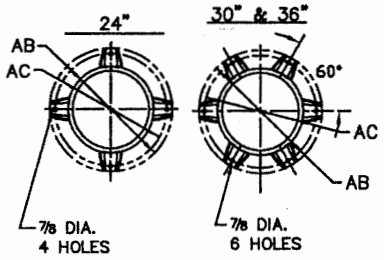
DO NOT OPERATE THIS MACHINE WITHOUT PROTECTIVE GUARD IN PLACE. ANY OPERATION OF THIS MACHINE WITHOUT PROTECTIVE GUARD CAN RESULT IN SEVERE BODILY INJURY.

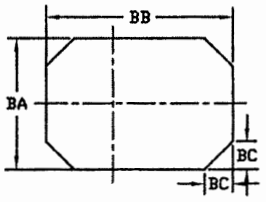
DRIVER IS SHIPPED SEPARATELY





PLAN VIEW OF SOLE PLATE (2)





PLAN VIEW OF FLOOR OPENING

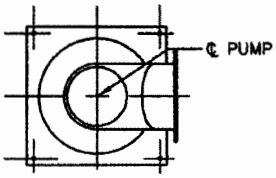
● CUSTOMER TO VERIFY/ADVISE OVERALL LENGTH AND LOCATION OF DISCHARGE AT RELEASE.

1. THIS DRAWING NOT FOR CONSTRUCTION OR INSTALLATION UNLESS CERTIFIED. DIMENSIONS SHOWN ARE TYPICAL AND MAY VARY DUE TO VARIOUS TOLERANCES.
2. SOLEPLATE MUST BE SUPPORTED ON ALL 4 SIDES AND GROUTED IN PLACE.
3. MINIMUM SUBMERGENCE REQUIRED AT MAXIMUM FLOW

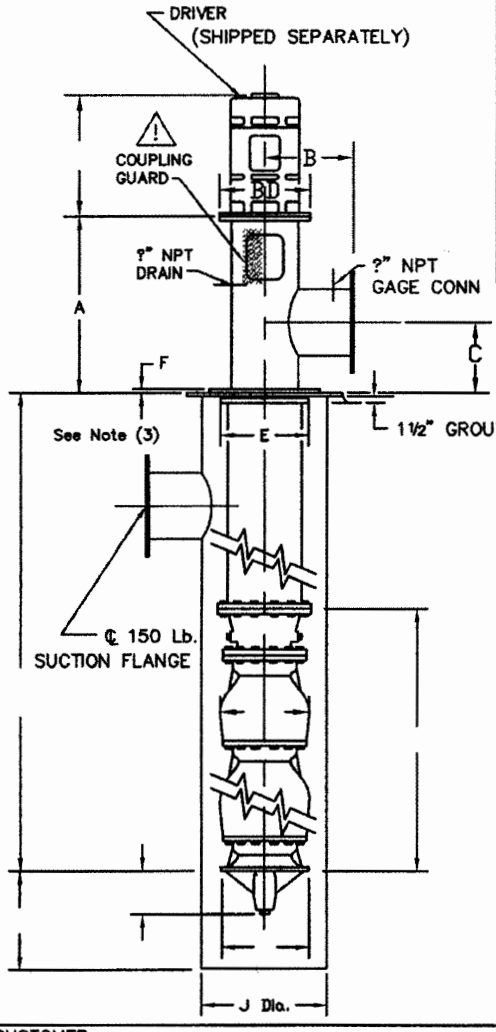
CUSTOMER				P.O.		PENTAIR FAIRBANKS NIJHUIS
JOB NAME			SERVICE			
PUMP SIZE & MODEL	STAGES	GPM	TDH	RPM	ROT CCW	SETTING PLAN MODEL 7000/7100 PLAIN END TYPE"UG" U. G. PEDESTAL WITH SOLEPLATE
MOTOR	HP	FRAME	PHASE	HERTZ	VOLTS	ENCL
CERTIFIED FOR	CERTIFIED BY			DATE		DWG. NO. 7000FS032 REV

⚠ WARNING

DO NOT OPERATE THIS MACHINE WITHOUT PROTECTIVE GUARD IN PLACE. ANY OPERATION OF THIS MACHINE WITHOUT PROTECTIVE GUARD CAN RESULT IN SEVERE BODILY INJURY.



PLAN VIEW OF SUCTION CAN (2)

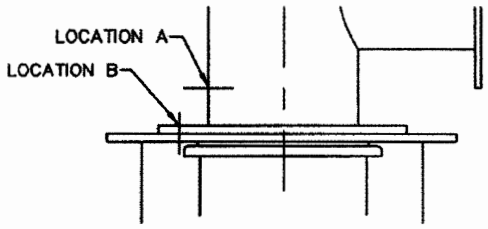


DISCHARGE HEAD DIMENSIONS

DISCH SIZE	COL SIZE	A** MTR BASE DIA (BD) 12	16?	20	24?	30?	B CONST SPD	B VAR SPD	C	S	T	E	F	"J" CAN FLANGE
4	4	28	28	--	--	--	10½	13½	7	¾	A	6⅝	1¼	12
4	4	28	28	--	--	--	11½	14½	7	¾	A	6⅝	1¼	14
6	6	30	30	--	--	--	10½	13½	8	¾	A	9	1¼	12
6	6	30	30	--	--	--	11½	14½	8	¾	A	9	1¼	14
6	6	30	30	--	--	--	12¾	16	8	¾	A	9	1¼	16
8	8	32	32	32	--	--	12¾	16	9	¾	A	11½	1¼	16
8	8	--	32	32	--	--	13½	16½	9	¾	A	11½	1½	18
8	8	--	32	32	--	--	14¾	17½	9	¾	A	11½	1½	20
10	10	--	35	35	--	--	13½	16½	11	¾	A	13¾	1½	18
10	10	--	35	35	--	--	14¾	17½	11	1	B	13¾	1½	20
10	10	--	35	35	38	--	17	20	11	1	B	13¾	1½	24
12	12	--	37	37	--	--	14¾	17½	12	1	B	16¼	1½	20
12	12	--	37	37	40	--	17	20	12	1	B	16¼	1½	24
12	12	--	37	37	40	--	20⅜	23½	12	1	B	16¼	1¾	30
14	14	--	40	40	--	--	17	20	14	1	B	17½	1½	24
14	14	--	40	40	43	--	20⅜	23½	14	1	B	17½	1¾	30
14	14	--	40	40	43	--	24	24½	14	1	B	17½	1¾	36
16	16	--	42	42	45	--	20⅜	23½	15	1	B	19½	1¾	30
16	16	--	42	42	45	50	24	24½	15	1	B	19½	1¾	36

** ADD 4½" FOR VSS DRIVER & SPACER CPLG

CAN VENT SIZE (S NPT)
AND LOCATION (T)

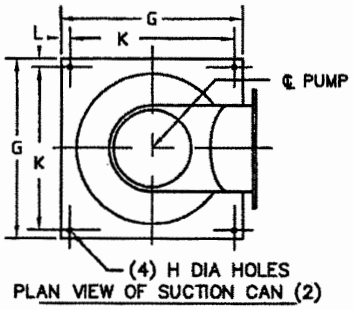


1. THIS DRAWING NOT FOR CONSTRUCTION OR INSTALLATION UNLESS CERTIFIED. DIMENSIONS SHOWN ARE TYPICAL AND MAY VARY DUE TO VARIOUS TOLERANCES.
2. SUCTION CAN MUST BE SUPPORTED ON ALL 4 SIDES AND GROUTED IN PLACE.
3. CUSTOMER TO VERIFY OR ADVISE OVERALL LENGTH PRIOR TO OR AT RELEASE.

CUSTOMER				P.O.	PENTAIR FAIRBANKS NIJHUIS	
JOB NAME			SERVICE			
PUMP SIZE & MODEL	STAGES	GPM	TDH	RPM	ROT CCW	SETTING PLAN TYPE "L" SURFACE HEAD
MOTOR	HP	FRAME	PHASE	HERTZ	VOLTS	ENCL
CERTIFIED FOR	CERTIFIED BY			DATE	DWG. NO. 7000CS001	REV 1

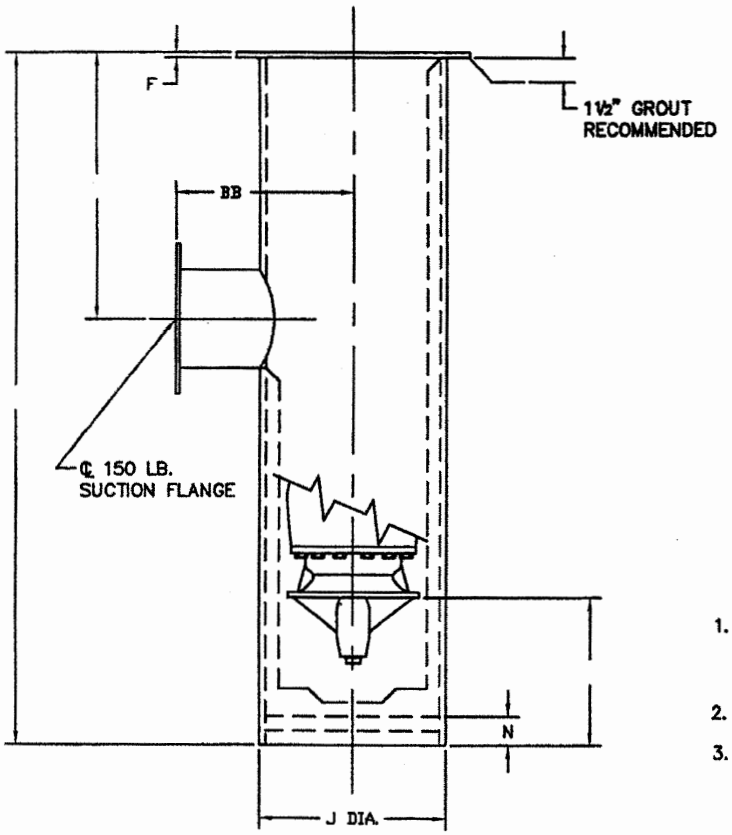
⚠ WARNING

DO NOT OPERATE THIS MACHINE WITHOUT PROTECTIVE GUARD IN PLACE. ANY OPERATION OF THIS MACHINE WITHOUT PROTECTIVE GUARD CAN RESULT IN SEVERE BODILY INJURY.



PLAN VIEW OF SUCTION CAN (2)

SUCTION CAN DIMENSIONS								
"J" CAN SIZE	SUCT	BB	F	G	H	K	L	N
12	6	10	1 1/4	26	7/8	23	1 1/2	1 1/4
12	8	10	1 1/4	26	7/8	23	1 1/2	1 1/4
12	10	10	1 1/4	26	7/8	23	1 1/2	1 1/4
14	8	11	1 1/4	28	7/8	25	1 1/2	1 1/4
14	10	11	1 1/4	28	7/8	25	1 1/2	1 1/4
16	10	12	1 1/4	31	7/8	28	1 1/2	1 1/2
16	12	12	1 1/4	31	7/8	28	1 1/2	1 1/2
16	14	12	1 1/4	31	7/8	28	1 1/2	1 1/2
18	12	13	1 1/2	32	1	29	1 1/2	1 1/2
18	14	13	1 1/2	32	1	29	1 1/2	1 1/2
18	16	13	1 1/2	32	1	29	1 1/2	1 1/2
20	14	15	1 1/2	34	1	31	1 1/2	1 3/4
20	16	15	1 1/2	34	1	31	1 1/2	1 3/4
20	18	15	1 1/2	34	1	31	1 1/2	1 3/4



150# SUCTION FLG. DIM.					
NOM. SIZE	FLG. DIA.	FLG. THK.	NO. BOLTS	HOLE SIZE	B.C. DIA
6	11	1	8	7/8	9 1/2
8	13 1/2	1 1/8	8	7/8	11 3/4
10	16	1 1/4	12	1	14 1/4
12	19	1 1/4	12	1	17
14	21	1 3/8	12	1 1/8	18 3/4
16	23 1/2	1 1/2	16	1 1/8	21 1/4
18	25	1 5/8	16	1 1/4	22 3/4

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3. CUSTOMER TO VERIFY OR ADVISE OVERALL LENGTH PRIOR TO OR AT RELEASE.

PENTAIR FAIRBANKS NIJHUIS

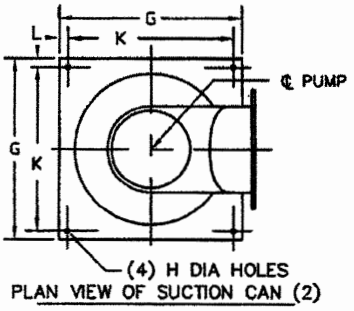
CUSTOMER	P.O.
JOB NAME	SERVICE
CERTIFIED FOR	CERTIFIED BY / DATE

SETTING PLAN
TYPE "L"
SUCTION CAN DIMENSIONS

DWG. NO. 7000CS002 REV 1

⚠ WARNING

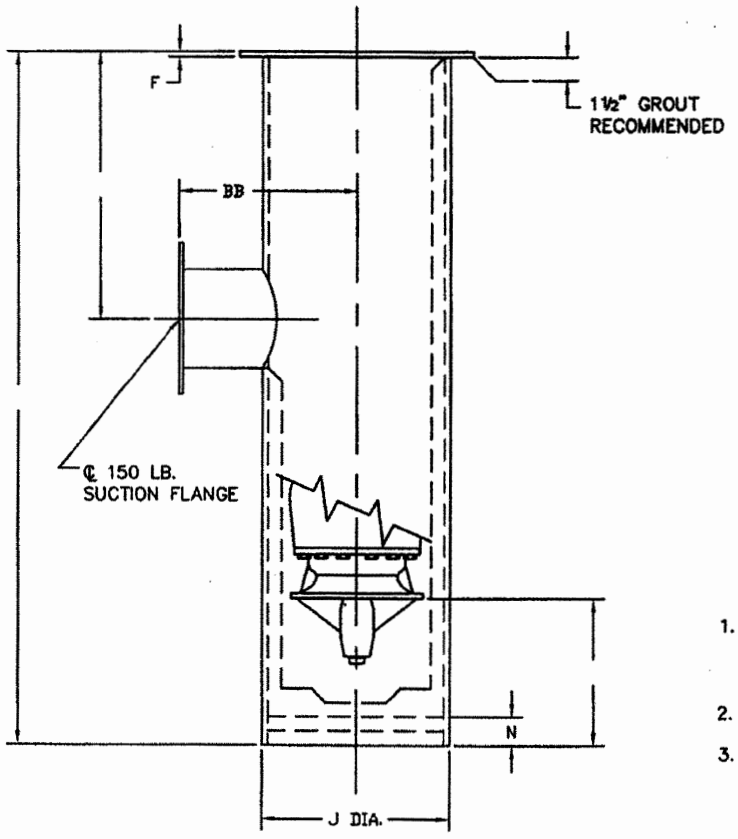
DO NOT OPERATE THIS MACHINE WITHOUT PROTECTIVE GUARD IN PLACE. ANY OPERATION OF THIS MACHINE WITHOUT PROTECTIVE GUARD CAN RESULT IN SEVERE BODILY INJURY.



PLAN VIEW OF SUCTION CAN (2)

SUCTION CAN DIMENSIONS

"J" CAN SIZE	SUCT.	BB	F	G	H	K	L	N
24	16	17	1 1/2	39	1	36	1 1/2	2 1/2
24	18	17	1 1/2	39	1	36	1 1/2	2 1/2
24	20	17	1 1/2	39	1	36	1 1/2	2 1/2
30	16	21	1 3/4	46	1	43	1 1/2	3
30	18	21	1 3/4	46	1	43	1 1/2	3
30	20	21	1 3/4	46	1	43	1 1/2	3
30	24	21	1 3/4	46	1	43	1 1/2	3



150# SUCTION FLG. DIM.

NOM. SIZE	FLG. DIA.	FLG. THK.	NO. BOLTS	HOLE SIZE	B.C. DIA
12	19	1 1/4	12	1	17
14	21	1 3/8	12	1 1/8	18 3/4
16	23 1/2	1 1/2	16	1 1/8	21 1/4
18	25	1 5/8	16	1 1/4	22 3/4
20	27 1/2	1 3/4	20	1 1/4	25
24	32	1 7/8	20	1 3/8	29 1/2
30	38 3/4	2 1/8	28	1 3/8	36

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2. SUCTION CAN MUST BE SUPPORTED ON ALL 4 SIDES AND GROUTED IN PLACE.
3. CUSTOMER TO VERIFY OR ADVISE OVERALL LENGTH PRIOR TO OR AT RELEASE.

PENTAIR FAIRBANKS NIJHUIS

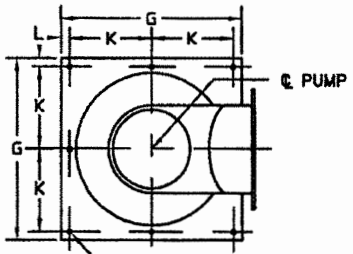
CUSTOMER	P.O.
JOB NAME	SERVICE
CERTIFIED FOR	CERTIFIED BY / DATE

SETTING PLAN
TYPE "L"
SUCTION CAN DIMENSIONS

DWG. NO. 7000CS003 REV 1

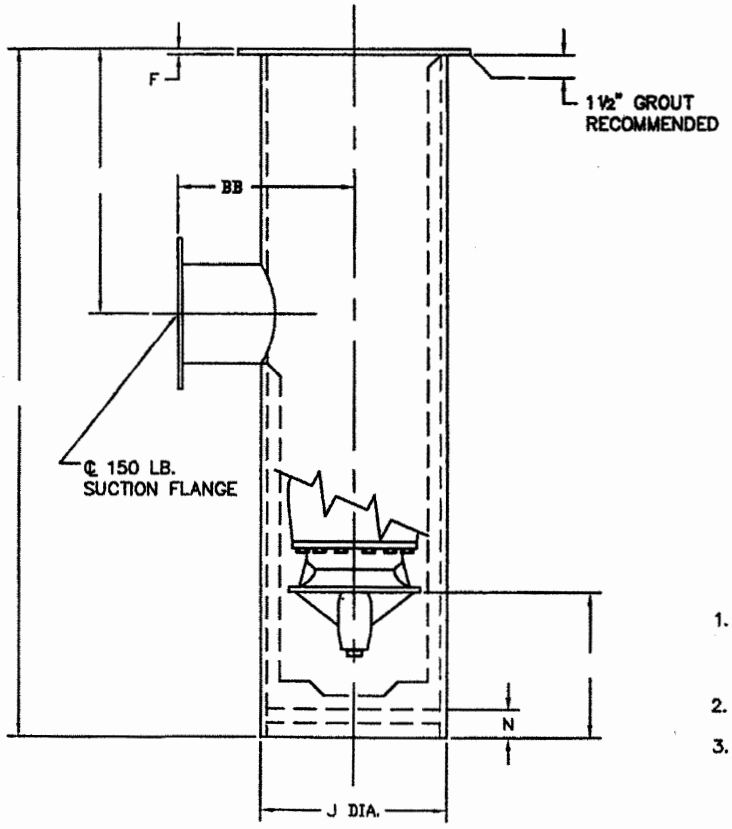
⚠ WARNING

DO NOT OPERATE THIS MACHINE WITHOUT PROTECTIVE GUARD IN PLACE. ANY OPERATION OF THIS MACHINE WITHOUT PROTECTIVE GUARD CAN RESULT IN SEVERE BODILY INJURY.



PLAN VIEW OF SUCTION CAN (2)

SUCTION CAN DIMENSIONS								
"J" CAN SIZE	SUCT.	BB	F	G	H	K	L	N
36	20	24	1 3/4	49	1 1/8	21 1/2	3	2 3/8
36	24	24	1 3/4	49	1 1/8	21 1/2	3	2 3/8
36	30	24	1 3/4	49	1 1/8	21 1/2	3	2 3/8
42	30	28	1 3/4	56	1 1/8	25	3	2 3/8
42	36	28	1 3/4	56	1 1/8	25	3	2 3/8
48	36	32	2	63	1 1/4	28 1/2	3	2 5/8
48	42	32	2	63	1 1/4	28 1/2	3	2 5/8
54	42	35	2 1/2	70	1 1/4	32	3	2 5/8
54	48	35	2 1/2	70	1 1/4	32	3	2 5/8
60	48	40	2 1/2	77	1 1/4	36	2 1/2	2 7/8
60	54	40	2 1/2	77	1 1/4	36	2 1/2	2 7/8
72	54	46	2 1/2	91	1 1/2	42	3 1/2	2 7/8
72	60	46	2 1/2	91	1 1/2	42	3 1/2	2 7/8



150# SUCTION FLG. DIM.					
NOM. SIZE	FLG. DIA.	FLG. THK.	NO. BOLTS	HOLE SIZE	B.C. DIA
20	27 1/2	1 3/4	20	1 1/4	25
24	32	1 7/8	20	1 3/8	29 1/2
30	38 3/4	2 1/8	28	1 3/8	36
36	46	2 3/8	32	1 5/8	42 3/4
42	53	2 5/8	36	1 5/8	49 1/2
48	59 1/2	2 3/4	44	1 5/8	56
54	66 1/4	3	44	1 7/8	62 3/4
60	73	3 1/8	52	1 7/8	69 1/4
72	86 1/2	3 1/2	60	1 7/8	82 1/2

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2. SUCTION CAN MUST BE SUPPORTED ON ALL 4 SIDES AND GROUTED IN PLACE.
3. CUSTOMER TO VERIFY OR ADVISE OVERALL LENGTH PRIOR TO OR AT RELEASE.

PENTAIR FAIRBANKS NIJHUIS

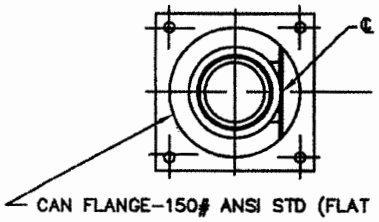
CUSTOMER	P.O.
JOB NAME	SERVICE
CERTIFIED FOR	CERTIFIED BY / DATE

SETTING PLAN
TYPE "L"
SUCTION CAN DIMENSIONS

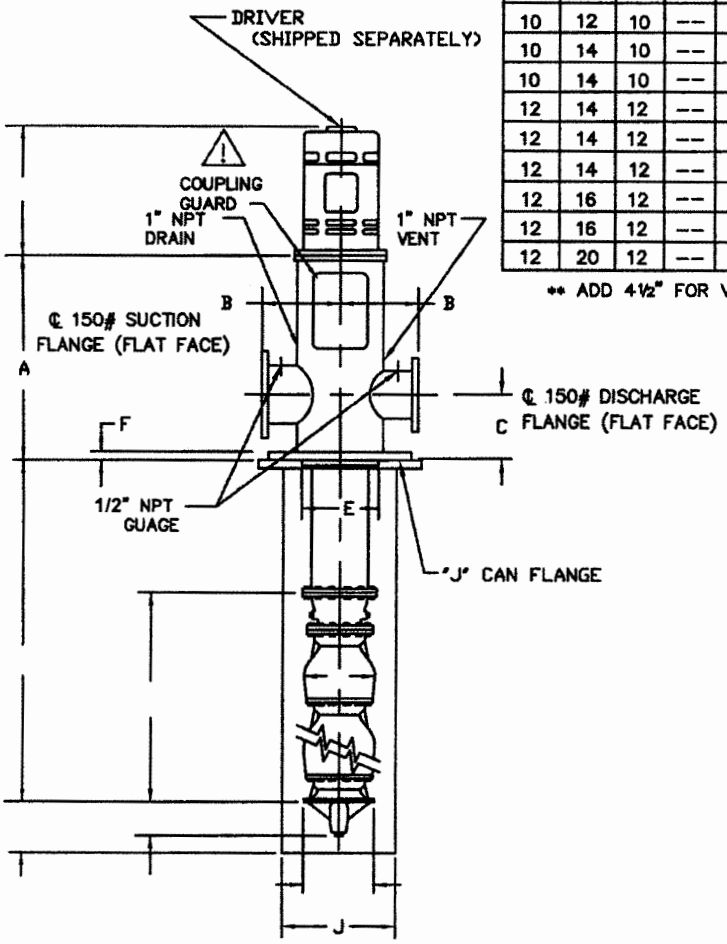
DWG. NO. 7000CS008 REV 1

⚠ WARNING

DO NOT OPERATE THIS MACHINE WITHOUT PROTECTIVE GUARD IN PLACE. ANY OPERATION OF THIS MACHINE WITHOUT PROTECTIVE GUARD CAN RESULT IN SEVERE BODILY INJURY.



PLAN VIEW OF MOUNTING FLANGE (2)



DISCH SIZE	SUCT SIZE	COL SIZE	A** MTR BASE DIA (BD) 12	16½	20	24½	30½	B	C	E	F	"J" CAN FLANGE
4	6	4	30	30	--	--	--	10½	8	6⅝	1¼	12¾
4	6	4	30	30	--	--	--	11½	8	6⅝	1¼	14
6	8	6	32	32	--	--	--	10½	9	9	1¼	12¾
6	8	6	32	32	--	--	--	11½	9	9	1¼	14
6	8	6	32	32	--	--	--	12¾	9	9	1¼	16
6	10	6	35	35	--	--	--	12¾	11	9	1¼	16
8	10	8	35	35	35	--	--	12¾	11	11½	1¼	16
8	10	8	--	35	35	--	--	13½	11	11½	1½	18
8	10	8	--	35	35	--	--	14¾	11	11½	1½	20
8	12	8	--	37	37	--	--	13½	12	11½	1½	18
8	12	8	--	37	37	--	--	14¾	12	11½	1½	20
10	12	10	--	37	37	--	--	13½	12	13¾	1½	18
10	12	10	--	37	37	--	--	14¾	12	13¾	1½	20
10	12	10	--	37	37	40	--	17	12	13¾	1½	24
10	14	10	--	39	40	--	--	14¾	14	13¾	1½	20
10	14	10	--	39	40	43	--	17	14	13¾	1½	24
12	14	12	--	39	40	--	--	14¾	14	16¼	1½	20
12	14	12	--	39	40	43	--	17	14	16¼	1½	24
12	14	12	--	--	40	43	--	20⅜	14	16¼	1¾	30
12	16	12	--	41	42	--	--	17	15	16¼	1½	24
12	16	12	--	41	42	45	--	20⅜	15	16¼	1¾	30
12	20	12	--	45	46	49	--	20⅜	17	16¼	1¾	30

** ADD 4½" FOR VSS DRIVERS & SPACER CPLG

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2. SUCTION CAN FLANGE MUST BE SUPPORTED ON ALL FOUR (4) SIDES AND GROUTED IN PLACE.
3. CUSTOMER TO VERIFY/ADVISE DIMENSIONS

CUSTOMER				P.O.		
JOB NAME			SERVICE			
PUMP SIZE & MODEL	STAGES	GPM	TDH	RPM	ROT CCW	
MOTOR	HP	FRAME	PHASE	HERTZ	VOLTS	ENCL
CERTIFIED FOR		CERTIFIED BY		DATE		

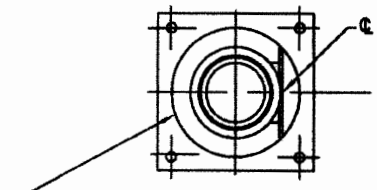
PENTAIR FAIRBANKS NIJHUIS

SETTING PLAN
TYPE "T"
SURFACE HEAD

DWG. NO. 7000CS004 REV 1

⚠ WARNING

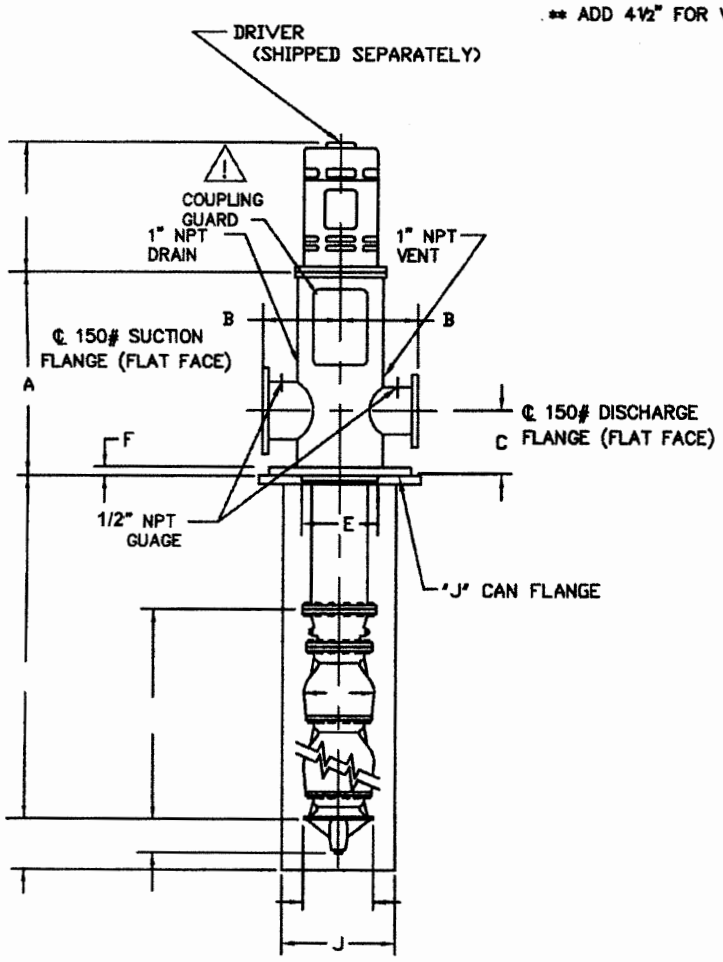
DO NOT OPERATE THIS MACHINE WITHOUT PROTECTIVE GUARD IN PLACE. ANY OPERATION OF THIS MACHINE WITHOUT PROTECTIVE GUARD CAN RESULT IN SEVERE BODILY INJURY.



PLAN VIEW OF MOUNTING FLANGE (2)

DISCH SIZE	SUCT SIZE	COL SIZE	A** MTR BASE DIA (BD) 12	16½	20	24½	30½	B	C	E	F	"J" CAN FLANGE
14	16	14	---	41	42	---	---	17	15	17½	1½	24
14	16	14	---	41	42	45	---	20⅜	15	17½	1¾	30
14	16	14	---	41	42	45	---	24	15	17½	1¾	36
14	20	14	---	45	46	49	---	20⅜	17	17½	1¾	30
14	20	14	---	45	46	49	---	24	17	17½	1¾	36
14	24	14	---	50	51	54	---	20⅜	20	17½	1¾	30
14	24	14	---	50	51	54	---	24	20	17½	1¾	36
16	20	16	---	45	46	49	---	20⅜	17	19½	1¾	30
16	20	16	---	45	46	49	---	24	17	19½	1¾	36
16	24	16	---	50	51	54	59	20⅜	20	19½	1¾	30
16	24	16	---	50	51	54	59	24	20	19½	1¾	36
16	30	16	---	56	57	60	65	24	23	19½	1¾	36

** ADD 4½" FOR VSS DRIVERS & SPACER CPLG



1. THIS DRAWING NOT FOR CONSTRUCTION OR INSTALLATION UNLESS CERTIFIED. DIMENSIONS SHOWN ARE TYPICAL AND MAY VARY DUE TO VARIOUS TOLERANCES.
2. SUCTION CAN FLANGE MUST BE SUPPORTED ON ALL FOUR (4) SIDES AND GROUTED IN PLACE.
3. CUSTOMER TO VERIFY/ADVISE DIMENSIONS

CUSTOMER				P.O.		
JOB NAME			SERVICE			
PUMP SIZE & MODEL	STAGES	GPM	TDH	RPM	ROT CCW	
MOTOR	HP	FRAME	PHASE	HERTZ	VOLTS	ENCL
CERTIFIED FOR	CERTIFIED BY			DATE		

PENTAIR FAIRBANKS NIJHUIS

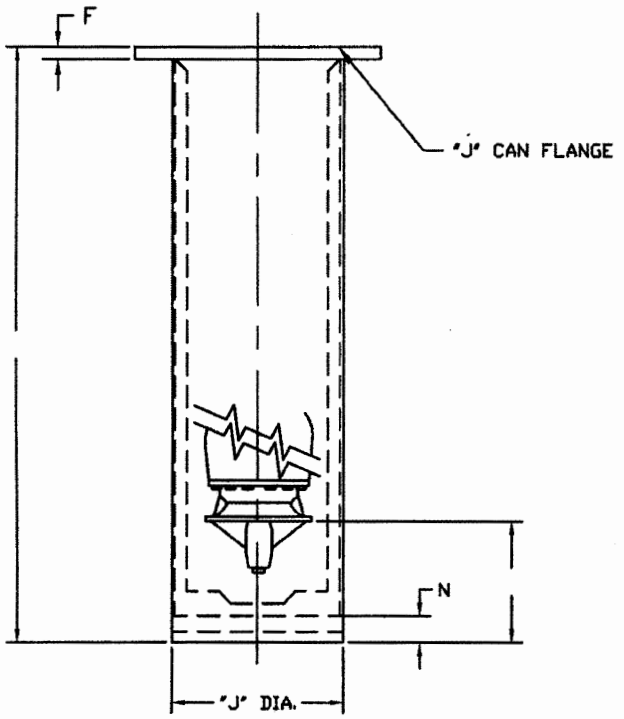
SETTING PLAN
TYPE "T"
SURFACE HEAD

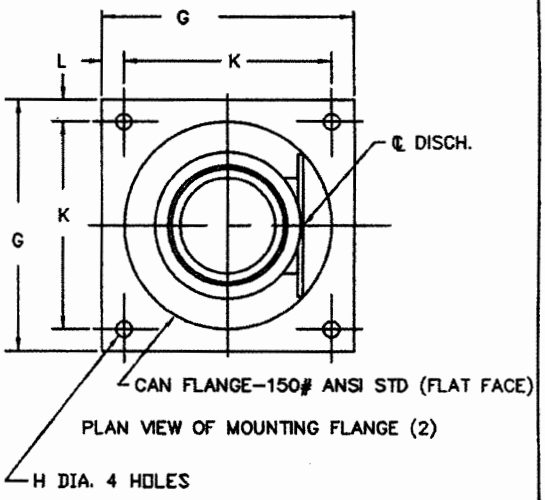
DWG. NO. 7000CS005 REV 1

⚠ WARNING

DO NOT OPERATE THIS MACHINE WITHOUT PROTECTIVE GUARD IN PLACE. ANY OPERATION OF THIS MACHINE WITHOUT PROTECTIVE GUARD CAN RESULT IN SEVERE BODILY INJURY.

"J" DIA.	F	G	H	K	L	N
12¾	1¼	22	⅞	19	1½	1¼
14	1¼	24	⅞	20	2	1¼
16	1½	27	⅞	22	2½	1½
18	1½	28	1	23	2½	1½
20	1½	30	1	25	2½	1¾
24	1½	35	1	30	2½	2½
30	1¾	42	1	37	2½	3
36	1¾	56	1	50	3	3¾





1. THIS DRAWING NOT FOR CONSTRUCTION OR INSTALLATION UNLESS CERTIFIED. DIMENSIONS SHOWN ARE TYPICAL AND MAY VARY DUE TO VARIOUS TOLERANCES.
2. SUCTION CAN FLANGE MUST BE SUPPORTED ON ALL FOUR (4) SIDES AND GROUTED IN PLACE.
3. CUSTOMER TO VERIFY OR ADVISE OVERALL LENGTH PRIOR TO OR AT RELEASE.

PENTAIR FAIRBANKS NIJHUIS

CUSTOMER	P.O.
JOB NAME	SERVICE
CERTIFIED FOR	CERTIFIED BY / DATE

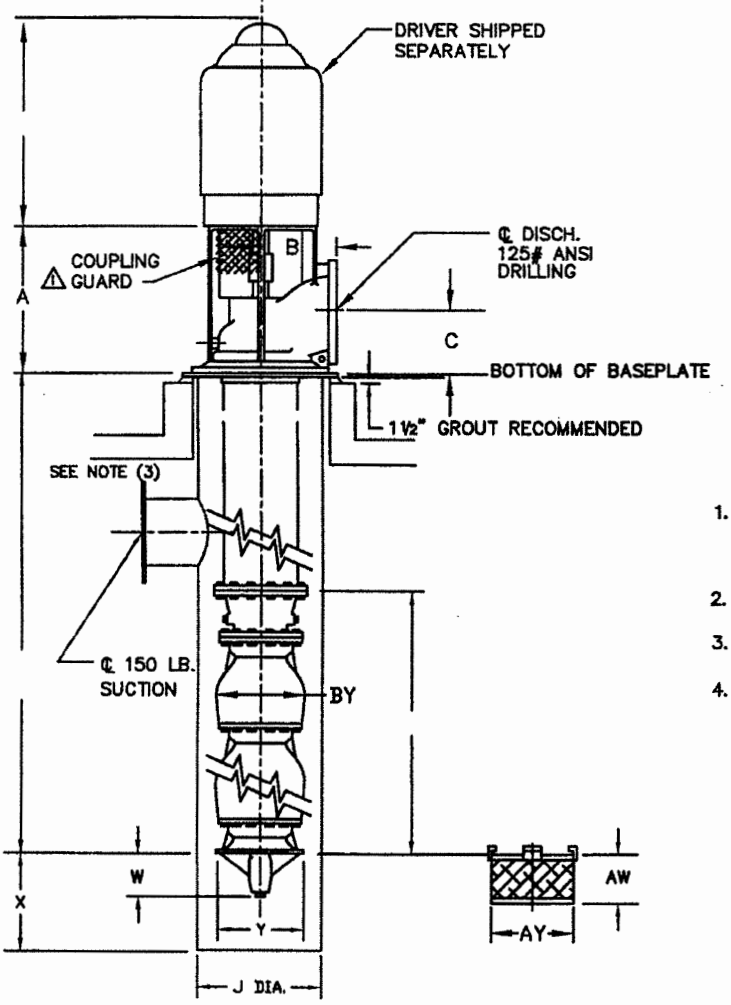
SETTING PLAN
TYPE "T"
CAN DIMENSIONS

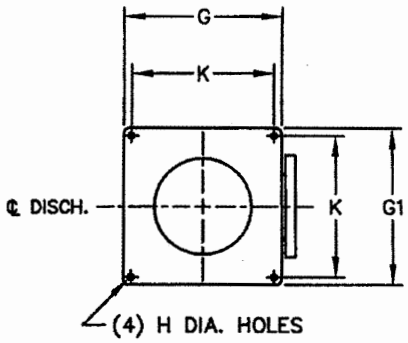
DWG. NO. 7000CS006 REV 1

⚠ WARNING

DO NOT OPERATE THIS MACHINE WITHOUT PROTECTIVE GUARD IN PLACE. ANY OPERATION OF THIS MACHINE WITHOUT PROTECTIVE GUARD CAN RESULT IN SEVERE BODILY INJURY.

DISCHARGE HEAD DIMENSIONS								
HEAD SIZE	A	B	C	F	G	G1	H	K
16 1/2 x 6	21 1/2	11 3/8	8 1/2	7/8	20 1/2	20	7/8	16 13/16
16 1/2 x 8	21 1/2	11 3/8	8 1/2	7/8	20 1/2	20	7/8	16 13/16
16 1/2 x 10	21 1/2	13 7/8	9	7/8	20 1/2	20	7/8	16 13/16
20 x 12	21 9/16	17 1/4	11	1	24 1/4	23 3/4	7/8	20 1/2





BOTTOM VIEW OF DISCHARGE HEAD

1. THIS DRAWING NOT FOR CONSTRUCTION OR INSTALLATION UNLESS CERTIFIED. DIMENSIONS SHOWN ARE TYPICAL AND MAY VARY DUE TO VARIOUS TOLERANCES.
2. SUCTION CAN MUST BE SUPPORTED ON ALL 4 SIDES AND GROUTED IN PLACE.
3. SEE SHEET 2 OF 2 FOR ADDITIONAL POT DIMENSIONS
4. CUSTOMER TO VERIFY OR ADVISE OVERALL LENGTH PRIOR TO OR AT RELEASE.

o CONTRACTOR TO ADVISE ℄ INLET ELEVATION.

CUSTOMER					P.O.	
JOB NAME						
PUMP SIZE & MODEL	STAGES	GPM	TDH	RPM	ROT	
MOTOR	HP	FRAME	PHASE	HERTZ	VOLTS	ENCL
CERTIFIED FOR	CERTIFIED BY			DATE		

PENTAIR FAIRBANKS NIJHUIS

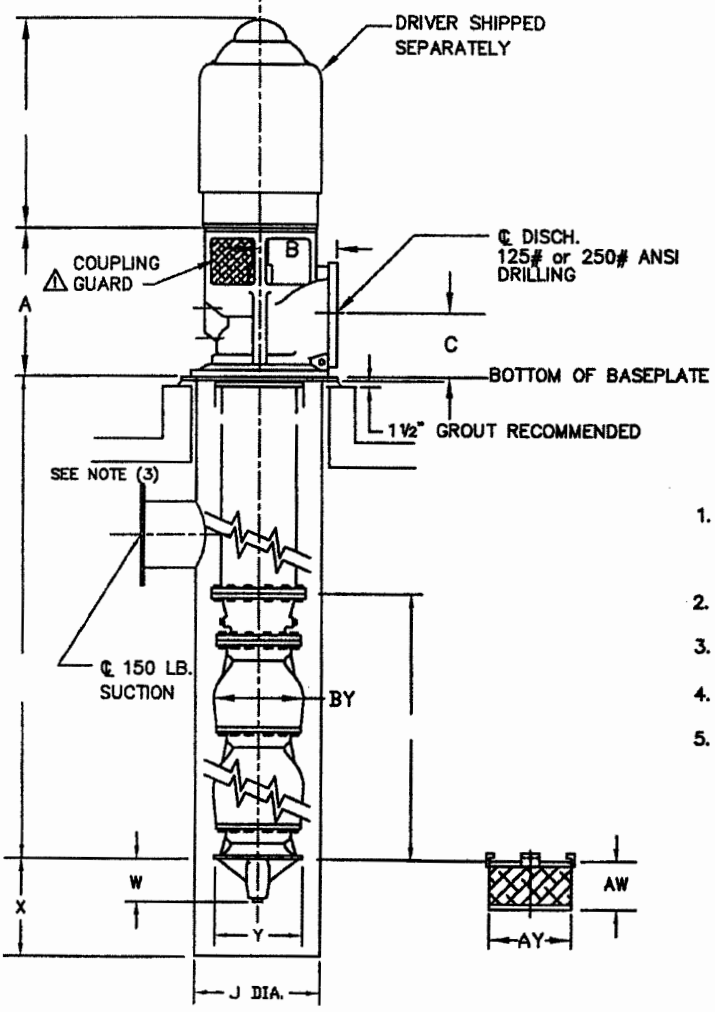
SETTING PLAN
MODEL 7000/7100 PUMP
TYPE "CT" SURFACE
DISCHARGE HEAD

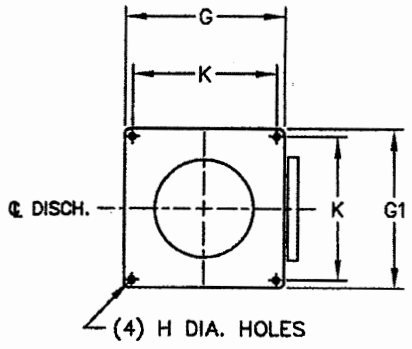
DWG. NO. 7000CS013 REV 1

⚠ WARNING

DO NOT OPERATE THIS MACHINE WITHOUT PROTECTIVE GUARD IN PLACE. ANY OPERATION OF THIS MACHINE WITHOUT PROTECTIVE GUARD CAN RESULT IN SEVERE BODILY INJURY.

DISCHARGE HEAD DIMENSIONS								
HEAD SIZE	A	B	C	F	G	G1	H	K
12 x 4	22 3/4	8 3/8	8 1/2	3/4	16 1/2	16	7/8	12
16 1/2 x 6	21 1/2	10 1/4	8 1/2	7/8	20 1/2	20	7/8	16 13/16
16 1/2 x 8 (5)	21 1/2	11 3/8	8 1/2	7/8	20 1/2	20	7/8	16 13/16
20 x 10	21 1/2	13 7/8	9	7/8	20 1/2	20	7/8	16 13/16





BOTTOM VIEW OF DISCHARGE HEAD

1. THIS DRAWING NOT FOR CONSTRUCTION OR INSTALLATION UNLESS CERTIFIED. DIMENSIONS SHOWN ARE TYPICAL AND MAY VARY DUE TO VARIOUS TOLERANCES.
2. SUCTION CAN MUST BE SUPPORTED ON ALL 4 SIDES AND GROUTED IN PLACE.
3. SEE SHEET 2 OF 2 FOR ADDITIONAL POT DIMENSIONS
4. CUSTOMER TO VERIFY OR ADVISE OVERALL LENGTH PRIOR TO OR AT RELEASE.
5. BOTTOM 2 HOLES ON THE DISCHARGE FLANGE ARE TAPPED WHEN 250# FLANGE IS SELECTED.

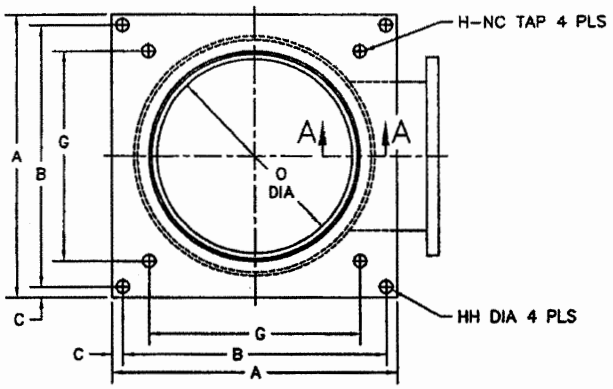
o CONTRACTOR TO ADVISE ℄ INLET ELEVATION.

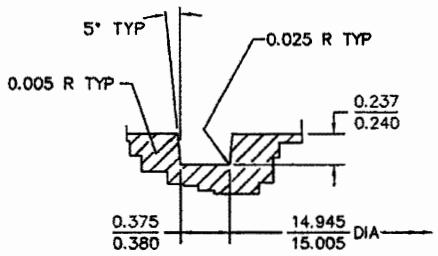
CUSTOMER				P.O.		
JOB NAME						
PUMP SIZE & MODEL	STAGES	GPM	TDH	RPM	ROT	
MOTOR	HP	FRAME	PHASE	HERTZ	VOLTS	ENCL
CERTIFIED FOR	CERTIFIED BY			DATE		

PENTAIR FAIRBANKS NIJHUIS

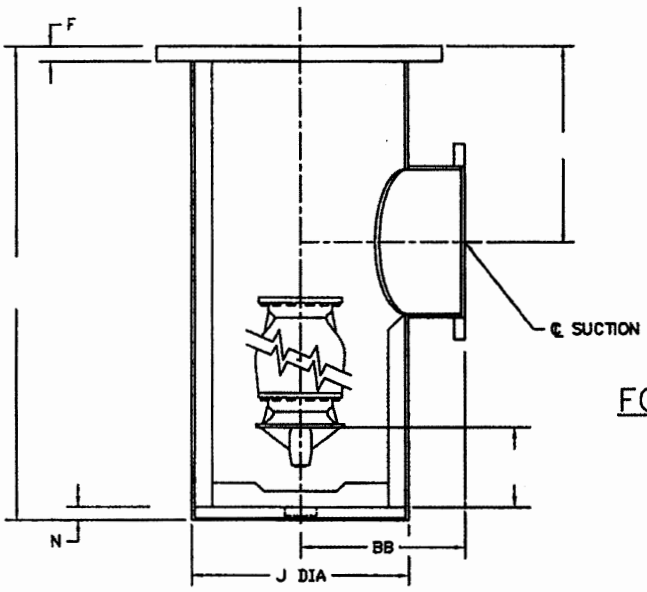
SETTING PLAN
MODEL 7000/7100 PUMP
TYPE "D" & "DT" SURFACE DISCHARGE HEAD

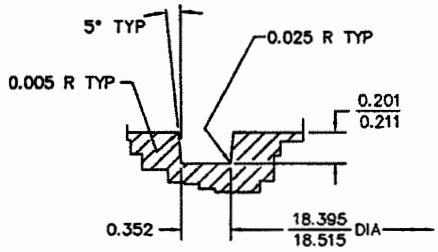
DWG. NO. 7000CS012 REV 1





15" O-RING GROOVE
FOR 4" DISCHARGE HEADS
SECTION A-A





18½" O-RING GROOVE
FOR 6"-10" DISCHARGE HEADS
SECTION A-A

1. THIS DRAWING NOT FOR CONSTRUCTION OR INSTALLATION UNLESS CERTIFIED. DIMENSIONS SHOWN ARE TYPICAL AND MAY VARY DUE TO VARIOUS TOLERANCES.
2. SUCTION CAN FLANGE MUST BE SUPPORTED ON ALL FOUR (4) SIDES AND GROUTED IN PLACE.
3. CUSTOMER TO VERIFY OR ADVISE OVERALL LENGTH PRIOR TO OR AT RELEASE.
4. SUCTION PRESSURE LIMITED TO 40 PSI.

SUCTION CAN DIMENSIONS

CAN SIZE	J DIA	O-RING SIZE	A	B	C	F	G	H	N	O	BB	HH
8	8 5/8	15	20	17	1 1/2	1	12	3/4"-10	1 5/8	8 1/16	7 13/16	3/4
10	10 3/4	15	20	17	1 1/2	1 1/4	12	3/4"-10	1 7/8	10 3/16	8 7/8	3/4
10	10 3/4	18 1/2	25	21	2	1 1/4	16 5/8	3/4"-10	1 7/8	10 3/16	8 7/8	7/8
12	12 3/4	15	20	17	1 1/2	1 1/4	12	3/4"-10	1 7/8	12 1/16	9 7/8	3/4
12	12 3/4	18 1/2	25	21	2	1 1/4	16 5/8	3/4"-10	1 7/8	12 1/16	9 7/8	7/8
14	14	15	20	17	1 1/2	1 1/4	12	3/4"-10	1 7/8	13 1/4	10 7/8	3/4
14	14	18 1/2	25	21	2	1 1/4	16 5/8	3/4"-10	1 7/8	13 1/4	10 7/8	7/8
16	16	18 1/2	27	22	2 1/2	1 1/4	16 5/8	3/4"-10	1 7/8	15 1/4	11 1/2	7/8
18	18	18 1/2	27	22	2 1/2	1 1/2	16 5/8	3/4"-10	2 1/8	17 3/8	12 1/2	7/8
20	20	18 1/2	27	22	2 1/2	1 1/2	16 5/8	3/4"-10	2 1/8	17 3/8	13 1/2	1
24	24	18 1/2	34	28	3	1 1/2	16 5/8	3/4"-10	2 1/8	17 1/2	15 1/2	1
30	30	18 1/2	40	35	2 1/2	1 3/4	16 5/8	3/4"-10	2 1/8	17 1/2	18 1/2	1 1/8

150# SUCTION FLG. DIM.

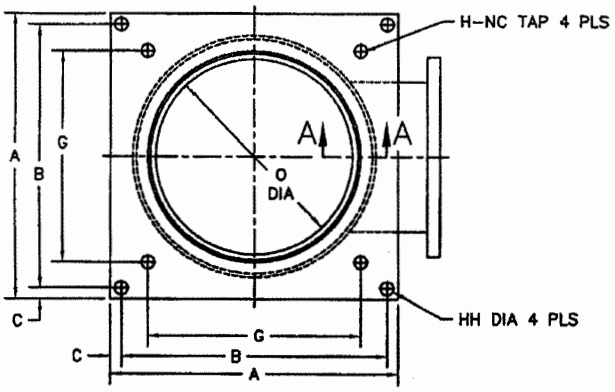
NOM. SIZE	FLG. DIA.	FLG. THK.	NO. BOLTS	HOLE SIZE	B.C. DIA
6	11	1	8	7/8	9 1/2
8	13 1/2	1 1/8	8	7/8	11 3/4
10	16	1 1/4	12	1	14 1/4
12	19	1 1/4	12	1	17
14	21	1 3/8	12	1 1/8	18 3/4
16	23 1/2	1 1/2	16	1 1/8	21 1/4
18	25	1 5/8	16	1 1/4	22 3/4
20	27 1/2	1 3/4	20	1 1/4	25
24	32	1 7/8	20	1 3/8	29 1/2
30	38 3/4	2 1/8	28	1 3/8	36

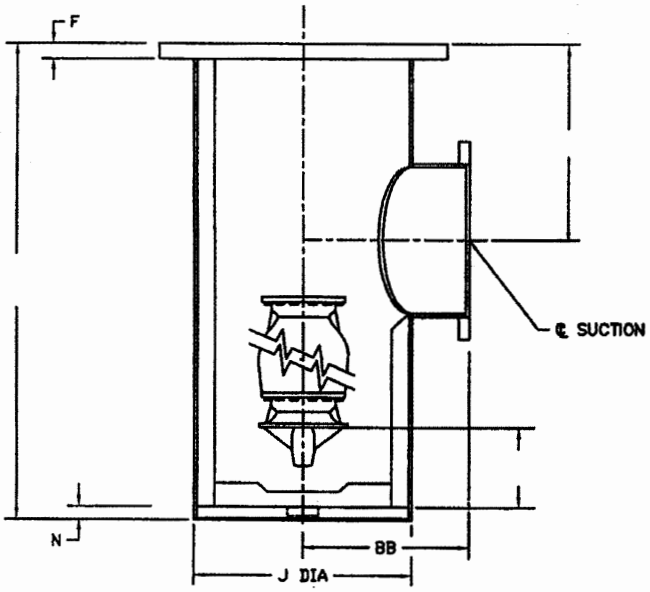
CUSTOMER					P.O. NO.	
JOB NAME					TAG NAME	
PUMP SIZE AND MODEL	STAGES	GPM	TDH	RPM	ROTATION	DISCH POS
MOTOR	HP	FRAME	PHASE	HERTZ	VOLTS	ENCLOSURE
CERTIFIED FOR			CERTIFIED BY		DATE	

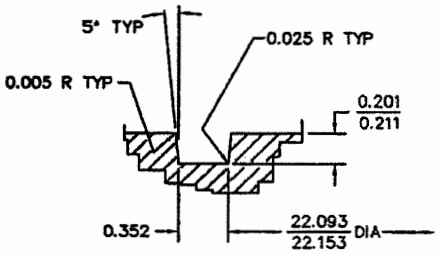
PENTAIR FAIRBANKS NIJHUIS

4" THRU 10"
"CT" "DT"&"D" Head
TURBINE SUCTION
CAN DIMENSIONS

DWG NO 7000CS007 REV NO 2







22½" O–RING GROOVE FOR 12" DISCHARGE HEADS SECTION A–A

1. THIS DRAWING NOT FOR CONSTRUCTION OR INSTALLATION UNLESS CERTIFIED. DIMENSIONS SHOWN ARE TYPICAL AND MAY VARY DUE TO VARIOUS TOLERANCES.
2. SUCTION POT FLANGE MUST BE SUPPORTED ON ALL FOUR (4) SIDES AND GROUTED IN PLACE.
3. CUSTOMER TO VERIFY OR ADVISE OVERALL LENGTH PRIOR TO OR AT RELEASE.
4. SUCTION PRESSURE LIMITED TO 40 PSI.

SUCTION CAN DIMENSIONS											
CAN SIZE	J DIA	O–RING SIZE	A	B	C	F	G	H	N	BB	HH
20	20	22½	34	28	3	1½	20½	¾"–10	2⅛	13½	1
24	24	22½	34	28	3	1½	20½	¾"–10	2⅛	15½	1
30	30	22½	46	43	2½	1¾	20½	¾"–10	2⅛	18½	1⅛
36	36	22½	49	43	3	1¾	20½	¾"–10	2⅜	24	1⅛

150# SUCTION FLG. DIM.					
NOM. SIZE	FLG. DIA.	FLG. THK.	NO. BOLTS	HOLE SIZE	B.C. DIA
14	21	1⅜	12	1⅛	18¾
16	23½	1½	16	1⅛	21¼
18	25	1⅝	16	1¼	22¾
20	27½	1¾	20	1¼	25
24	32	1⅞	20	1⅜	29½
30	38¾	2⅛	28	1⅜	36

CUSTOMER				P.O. NO.	PENTAIR FAIRBANKS NIJHUIS	
JOB NAME				TAG NAME		
PUMP SIZE AND MODEL	STAGES	GPM	TDH	RPM	ROTATION	DISCH POS
MOTOR	HP	FRAME	PHASE	HERTZ	VOLTS	ENCLOSURE
CERTIFIED FOR			CERTIFIED BY		DATE	

12" "CT" Head TURBINE SUCTION CAN DIMENSIONS

DWG NO 7000CS014 REV NO 1