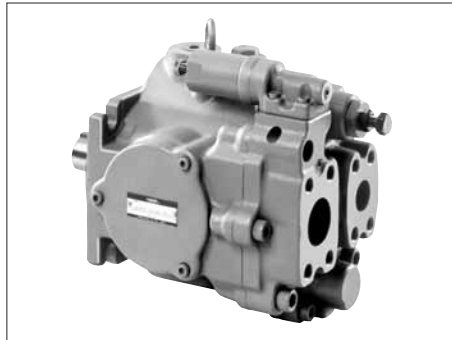
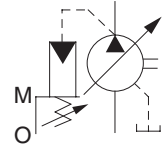


"A3H" Series Variable Displacement Piston Pumps-Single Pump, Pressure Compensator Type



Graphic Symbol



Specifications

| Model Numbers | Geometric Displacement cm ³ /rev (cu.in./rev) | Minimum Adj. Flow cm ³ /rev (cu.in./rev) | Operating Pressure MPa (PSI) | | Shaft Speed Range r/min | | Approx. Mass kg (lbs.) | |
|-------------------|--|---|---------------------------------|--------------|----------------------------|------|---------------------------|-------------|
| | | | Rated ^{*1} | Intermittent | Max. ^{*2} | Min. | Flange Mtg. | Foot Mtg. |
| A3H 16-*R01KK-10* | 16.3 (.995) | 8.0 (.488) | 28 (4060) | 35 (5080) | 3600 | 600 | 14.5 (32.0) | 23.4 (51.6) |
| A3H 37-*R01KK-10* | 37.1 (2.26) | 16.0 (.976) | | | 2700 | 600 | 19.5 (43.0) | 27.0 (59.5) |
| A3H 56-*R01KK-10* | 56.3 (3.44) | 35.0 (2.14) | | | 2500 | 600 | 25.7 (56.7) | 33.2 (73.2) |
| A3H 71-*R01KK-10* | 70.7 (4.31) | 45.0 (2.75) | | | 2300 | 600 | 35.0 (77.2) | 42.5 (93.7) |
| A3H100-*R01KK-10* | 100.5 (6.13) | 63.0 (3.84) | | | 2100 | 600 | 44.6 (98.3) | 72.6 (160) |
| A3H145-*R01KK-10* | 145.2 (8.86) | 95.0 (5.80) | | | 1800 | 600 | 60.0 (132) | 88.0 (194) |
| A3H180-*R01KK-10* | 180.7 (11.03) | 125.0 (7.63) | | | 1800 | 600 | 70.4 (155) | 98.4 (217) |

- ★1. Consult Yuken when pump is used over rated pressure because there is a restriction on operating condition.
- ★2. The maximum shaft speeds shown in the above table are at suction pressure 0 kPa (0 PSIG).
- ★3. The table above shows specifications for using petroleum based oils.
Pumps (customized design) for special fluids are also available. Their operating pressure and maximum shaft speed however differ from the values in the table above depending on the fluid type.
Range of operating temperature and viscosities may differ from those of petroleum based oils due to their characteristics.

Specifications and Design numbers for Special Fluids

| Type of Fluids | Operating Pressure MPa (PSI) | | Allowable Maximum Shaft Speed r/min | | Temperature Range °C (°F) | Viscosity Range mm ² /s (SSU) | Design Numbers for Special Fluid (Occasion of Japanese Std. "JIS") ^{*2} |
|----------------------|---------------------------------|--------------|--|----------------------|------------------------------|---|--|
| | Rated | Intermittent | Rated | Max. | | | |
| Water-Glycols | 21 (3050) | 21 (3050) | 1200 | (1800) ^{*1} | 0 - 50 (32 - 104) | 20 - 200 (98 - 927) | 1030 |
| Phosphate Ester Type | 21 (3050) | 21 (3050) | 1200 | (1800) ^{*1} | 0 - 60 (32 - 140) | | 1006 |
| Polyol Ester Type | 21 (3050) | 25 (3630) | 1200 | 1800 | 0 - 60 (32 - 140) | 20 - 200 (98 - 927) | 10450 |

- ★1. As the specific gravities of water-glycol fluids and phosphate ester type fluids are higher than one, an overhead reservoir is required when pumps are operated at 1500 r/min or more.
- ★2. For the design numbers of pumps for European Design and North American Design Standards, please contact us.

Model Number Designation

| A3H16 | -F | R | 01 | K | K | -10 | * | |
|--|---|--|-------------------------------|----------------------------|--------------------|--|-------------|----|
| Series Number | Mounting | Direction of Rotation | Control Type | Pres. Adj. Range MPa (PSI) | Shaft Extension *2 | Design Number | Design Std. | |
| A3H16 (16.3 cm ³ /rev) | F: Flange Mtg. | (Viewed from Shaft End) R: Clockwise *1 (Normal) | 01: Pressure Compensator Type | K: 5 - 35 (725 - 5080) | K : Keyed Shaft | 10 | Refer to ★3 | |
| A3H37 (37.1 cm ³ /rev) | | | | | | 10 | | |
| A3H56 (56.3 cm ³ /rev) | L: Foot Mtg. | | | | | 10 | | |
| A3H71 (70.7 cm ³ /rev) | 10 | | | | | | | |
| A3H100 (100.5 cm ³ /rev) | F: Flange Mtg. | | | | | 10 | | |
| A3H145 (145.2 cm ³ /rev) | L: Foot Mtg. *4 | | | | | K : Keyed Shaft 44.45mm (1.75 IN.) Dia. | | 10 |
| A3H180 (180.7 cm ³ /rev) | K1: Keyed Shaft *5 50.8mm (2.0 IN.) Dia. | | | | | 10 | | |

- ★1. Available to supply pump with anti-clockwise rotation. Consult Yuken for details.
- ★2. We can also supply spline-type shaft extension. Consult Yuken for details.
- ★3. Design Standards: None Japanese Standard "JIS"
80 European Design Standard
950 N. American Design Standard (Applicable only for A3H16/37/56/71)
954 N. American Design Standard (Applicable only for A3H100/145/180)
- ★4. Mounting type "L" is not available for N. American Design Standard.
- ★5. Shaft extension "K1" is applicable only for N. American Design Standard.

Pipe Flange Kits

Pipe flange kits are available. When ordering, specify the kit number from the table below.

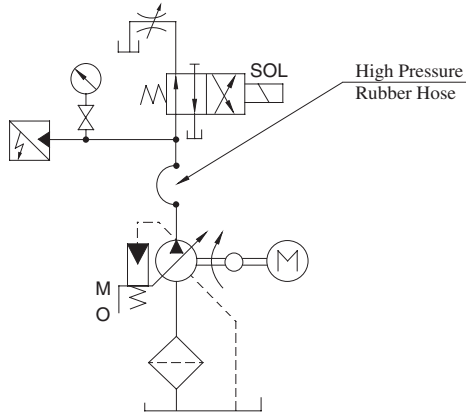
| Pump Model Numbers | Name of Port | Threaded Connection | | | Socket Welding | | Butt Welding | |
|----------------------------|--------------|---------------------|----------------------|-----------------------------|--|-----------------------------|--|-----------------------------|
| | | Japanese Std. "JIS" | European Design Std. | N. American Design Standard | Japanese Std. "JIS" & European Design Std. | N. American Design Standard | Japanese Std. "JIS" & European Design Std. | N. American Design Standard |
| A3H16-★R01 | Suction | F5-08-A-10 | F5-08-A-1080 | — | F5-08-B-10 | F5-08-B-1090 | F5-08-C-10 | F5-08-C-1090 |
| | Discharge | F6-06-A-M-10 *1 | F6-06-A-M-1080 | — | F6-06-B-M-10 | F6-06-B-U-1090 | — | — |
| A3H37-★R01 | Suction | F5-10-A-10 | F5-10-A-1080 | — | F5-10-B-10 | F5-10-B-1090 | F5-10-C-10 | F5-10-C-1090 |
| | Discharge | F6-08-A-M-10 *1 | F6-08-A-M-1080 | — | F6-08-B-M-10 | F6-08-B-U-1090 | — | — |
| A3H56-★R01 | Suction | F5-12-A-10 | F5-12-A-1080 | — | F5-12-B-10 | F5-12-B-1090 | F5-12-C-10 | F5-12-C-1090 |
| | Discharge | F6-08-A-M-10 *1 | F6-08-A-M-1080 | — | F6-08-B-M-10 | F6-08-B-U-1090 | — | — |
| A3H71-★R01 | Suction | F5-16-A-10 | F5-16-A-1080 | — | F5-16-B-10 | F5-16-B-1090 | F5-16-C-10 | F5-16-C-1090 |
| | Discharge | F6-10-A-M-10 *1 | F6-10-A-M-1080 | — | F6-10-B-M-10 | F6-10-B-U-1090 | — | — |
| A3H100-★R01 A3H145-★R01 | Suction | F5-20-A-10 | F5-20-A-1080 | — | F5-20-B-10 | F5-20-B-1090 | F5-20-C-10 | F5-20-C-1090 |
| | Discharge | F6-10-A-M-10 *1 | F6-10-A-M-1080 | — | F6-10-B-M-10 | F6-10-B-U-1090 | — | — |
| A3H180-★R01 | Suction | F5-24-A-10 | F5-24-A-1080 | — | F5-24-B-10 | F5-24-B-1090 | — | — |
| | Discharge | F6-12-A-M-10 *1 | F6-12-A-M-1080 | — | F6-12-B-M-10 | F6-12-B-U-1090 | — | — |

- ★1. These flanges are with tapered threaded port, maximum pressure is restricted at 31 MPa (4500 PSI).
- ★2. As dimensions of the surface of pipe flanges are conformed to the SAE standards mentioned below, the pipe flanges conforming to the SAE standards can be used.
 - Suction Port: SAE 4 Bolt Split Flange (Standard Pressure Series)
 - Discharge Port: SAE 4 Bolt Split Flange (High Pressure Series)
- Details of pipe flange kits are shown on page 824 & 829.

Response Characteristics Change in Accordance with Circuits and Operating Conditions.

● **Test Circuit and Conditions**

● **Circuit**



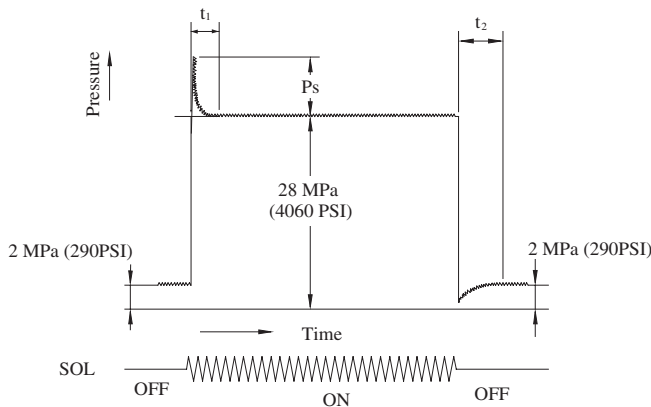
● **Conditions**

Drive Speed: 1500 r/min
 Hydraulic Fluid: ISO VG32 Oil
 Oil Temperature: 40 °C (104 °F) [Viscosity 32 mm²/s (150 SSU)]

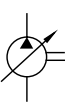
● **Size of High Pressure Rubber House**

| Model | High Pressure Rubber Housea |
|-------------|-----------------------------|
| A3H16 | 3/4B × 1500 mm (4.9 ft.) |
| A3H37/56/71 | 3/4B × 2000 mm (6.6 ft.) |
| A3H100/145 | 1-1/4B × 2000 mm (6.6 ft.) |
| A3H180 | 1-1/4B × 2500 mm (8.2 ft.) |

● **Result of Measurement**

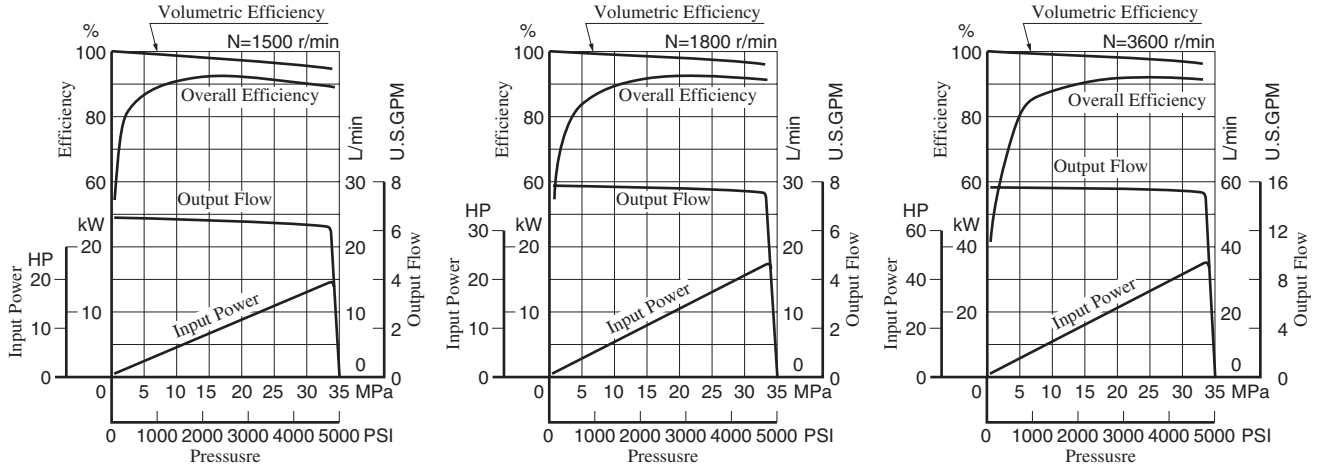


| Model | Response Time ms | | Ps Overshoot Pres. MPa (PSI) |
|--------|------------------|-------|------------------------------------|
| | t_1 | t_2 | |
| A3H 16 | 30 | 140 | 2.5 (363) |
| A3H 37 | 40 | 80 | 3.5 (508) |
| A3H 56 | 50 | 90 | 7.5 (1088) |
| A3H 71 | 50 | 140 | 10.0 (1450) |
| A3H100 | 70 | 170 | 11.0 (1595) |
| A3H145 | 70 | 180 | 12.5 (1813) |
| A3H180 | 70 | 220 | 12.0 (1740) |

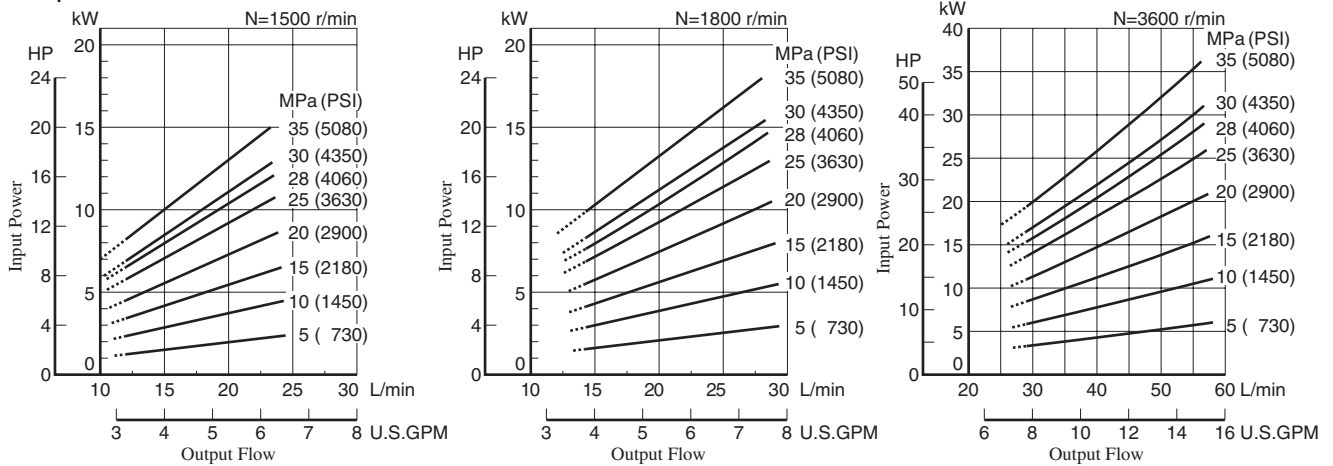


Typical Performance Characteristics of Type "A3H16" at Viscosity 32 mm²/s (150 SSU) [ISO VG32 oils, 40°C (104°F)]

Performance Characteristic Curve

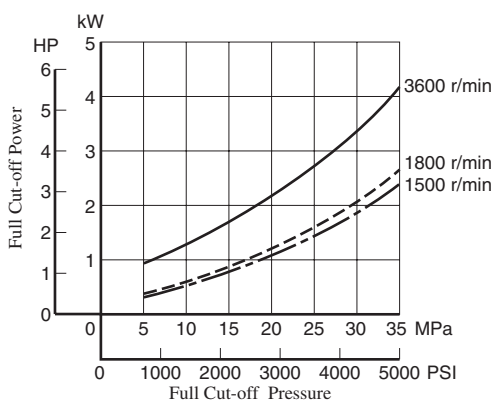


Input Power

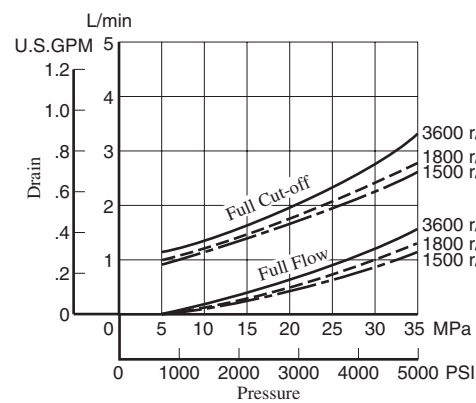


Note) The dotted line in the graph indicates less than minimum adjustable flow.

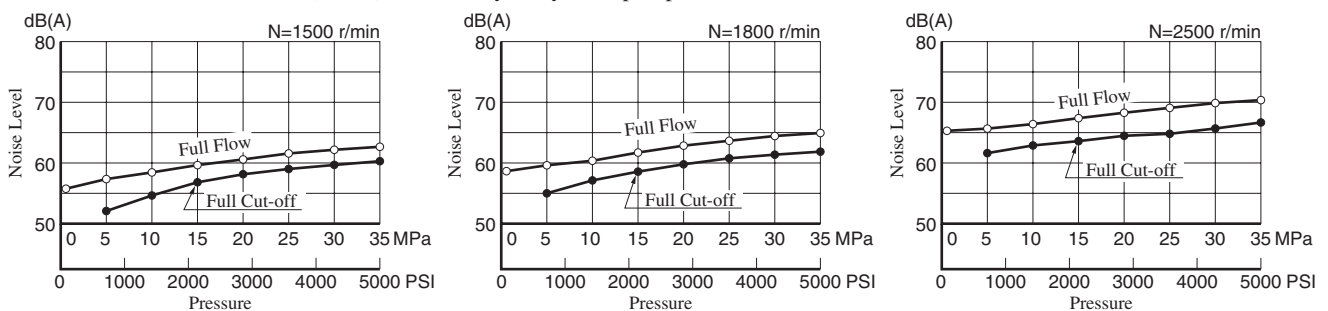
Full Cut-off Power



Drain

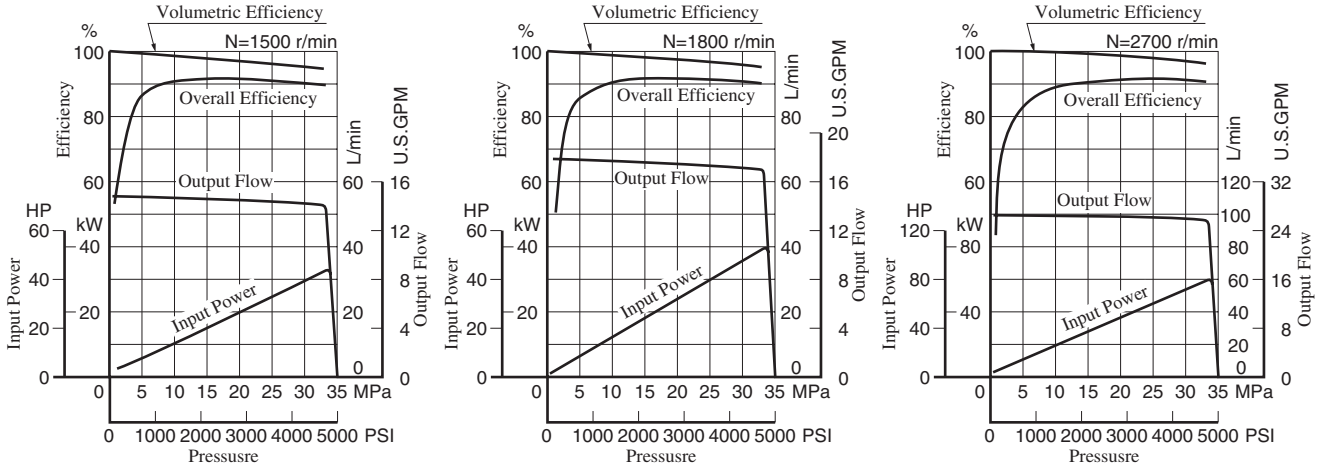


Noise Level [One metre (3.3 ft.) horizontally away from pump head cover]

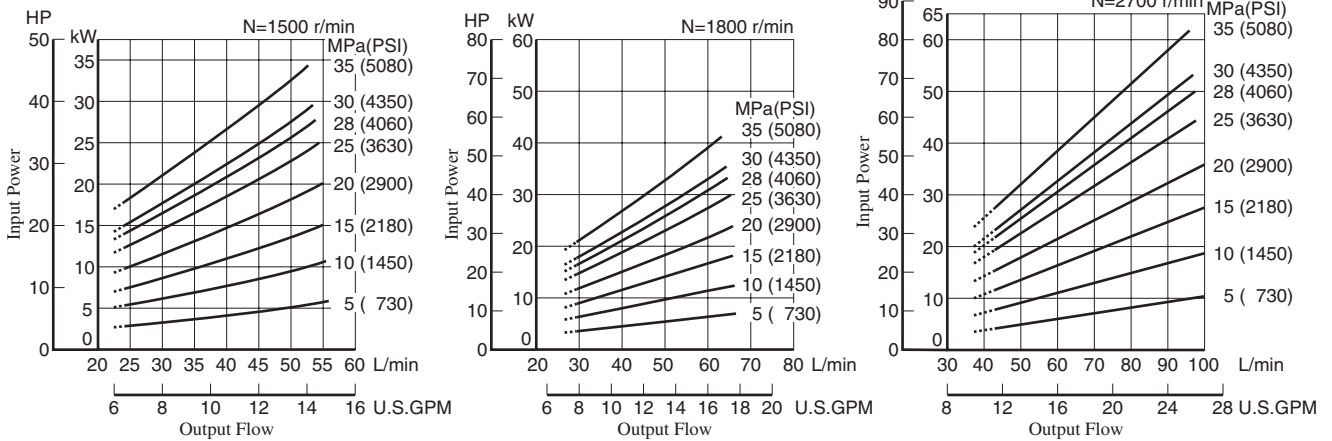


Typical Performance Characteristics of Type "A3H37" at Viscosity 32 mm²/s (150 SSU) [ISO VG32 oils, 40°C (104°F)]

Performance Characteristic Curve

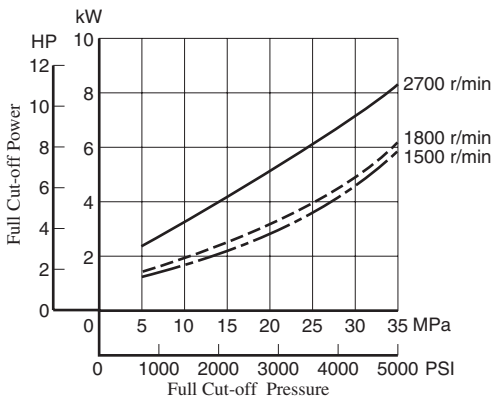


Input Power

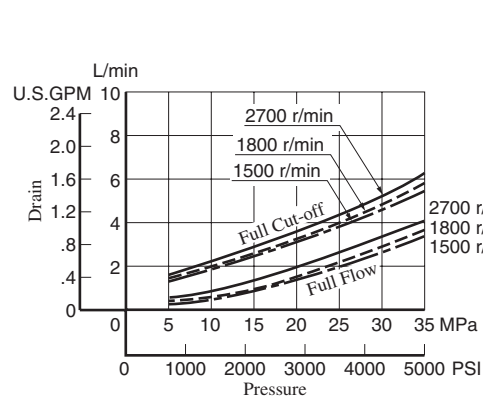


Note) The dotted line in the graph indicates less than minimum adjustable flow.

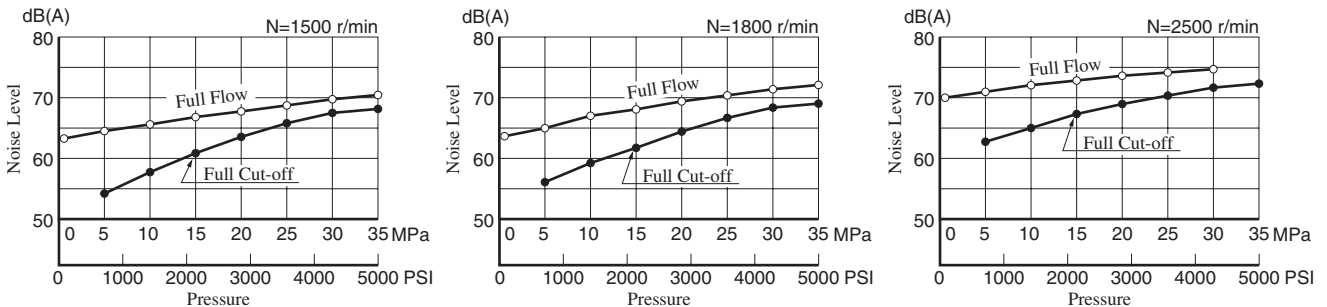
Full Cut-off Power



Drain



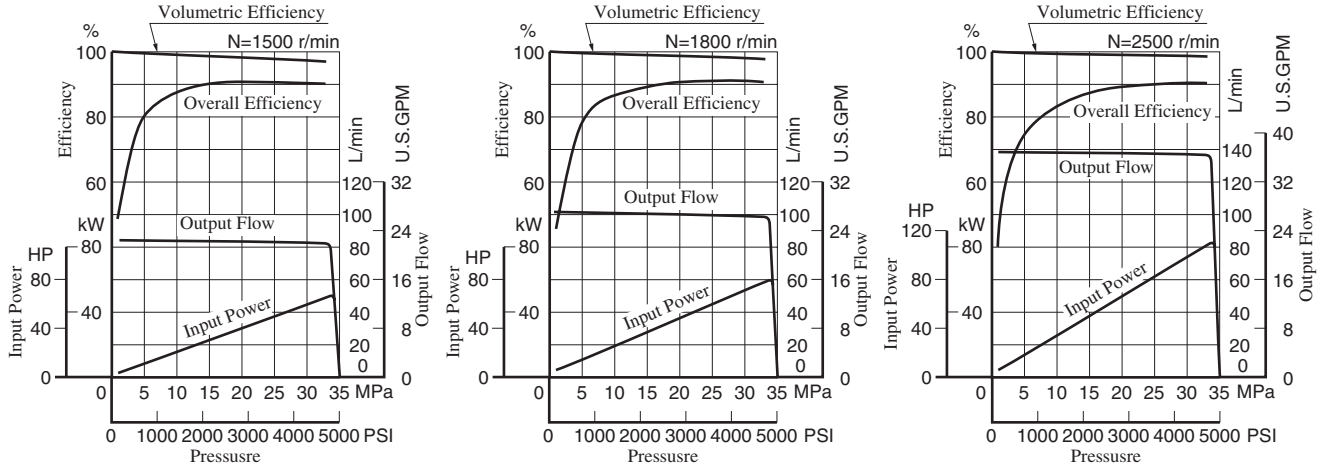
Noise Level [One metre (3.3 ft.) horizontally away from pump head cover]



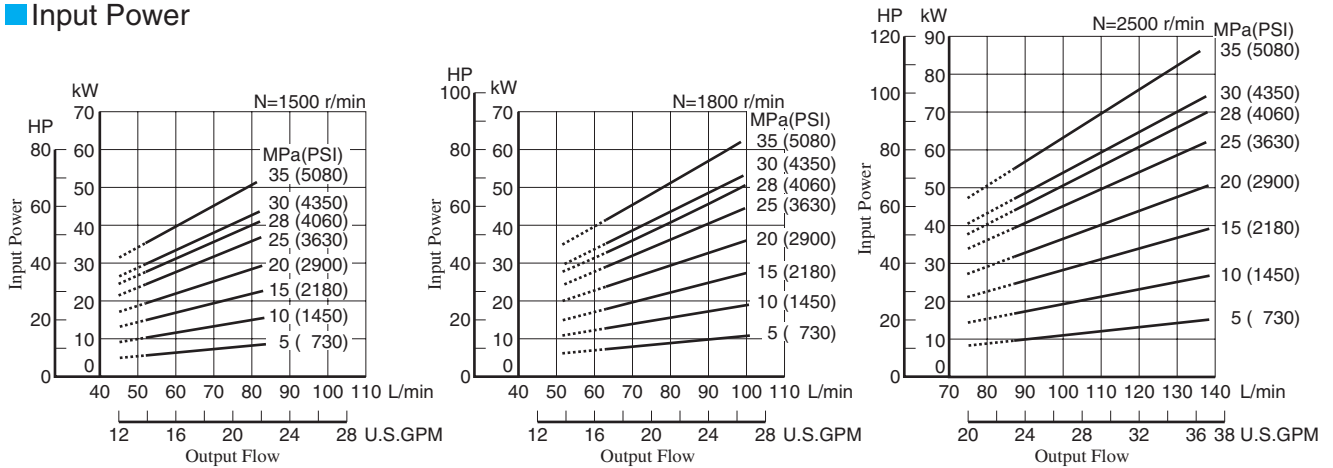


Typical Performance Characteristics of Type "A3H56" at Viscosity 32 mm²/s (150 SSU) [ISO VG32 oils, 40°C (104°F)]

Performance Characteristic Curve

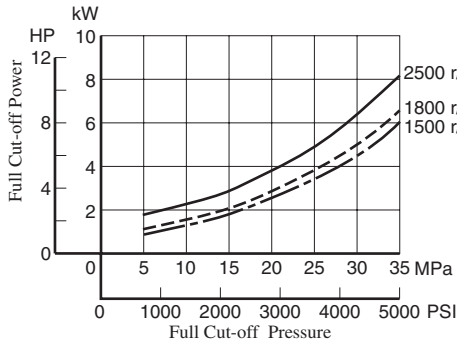


Input Power

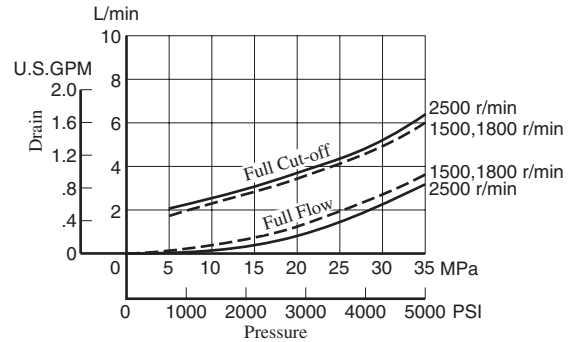


Note) The dotted line in the graph indicates less than minimum adjustable flow.

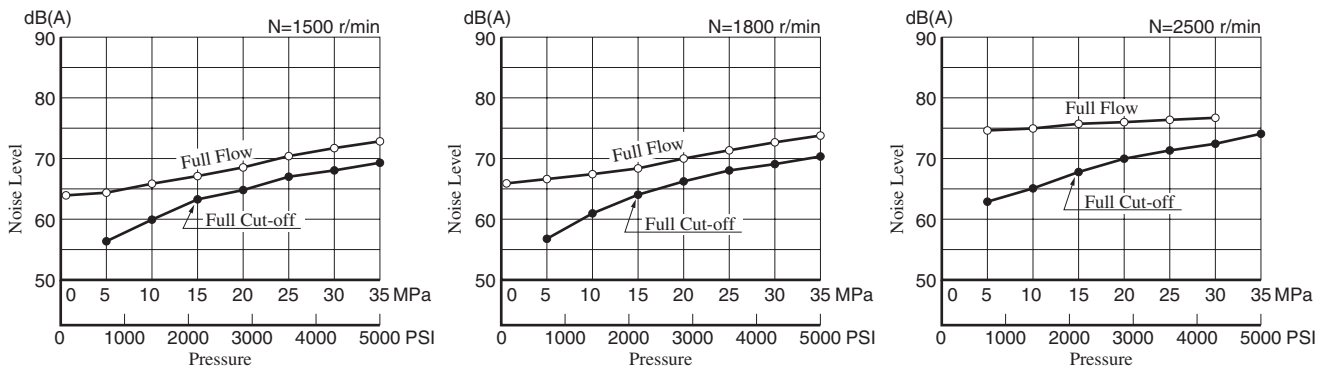
Full Cut-off Power



Drain

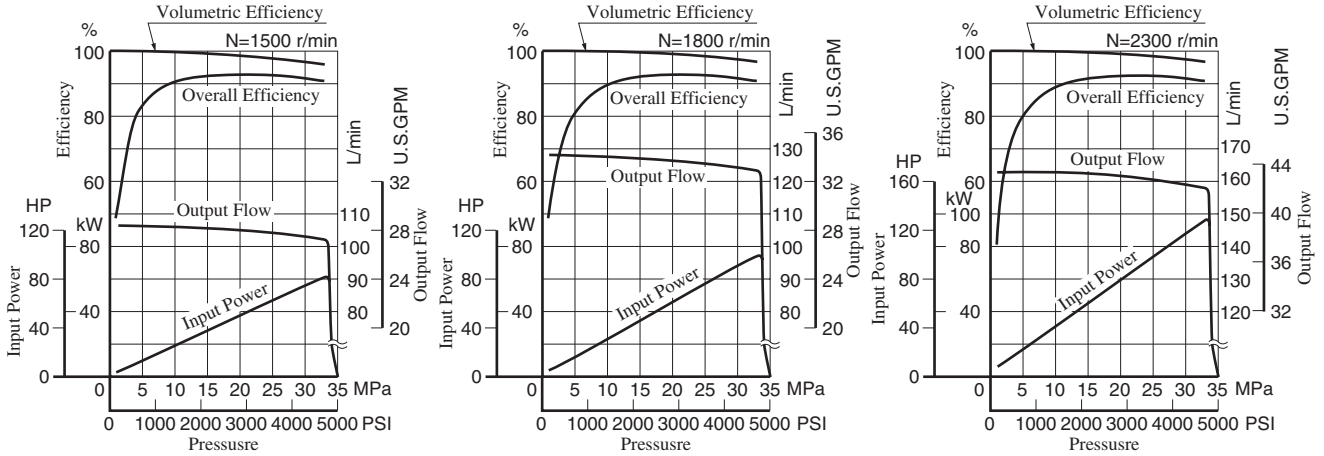


Noise Level [One metre (3.3 ft.) horizontally away from pump head cover]

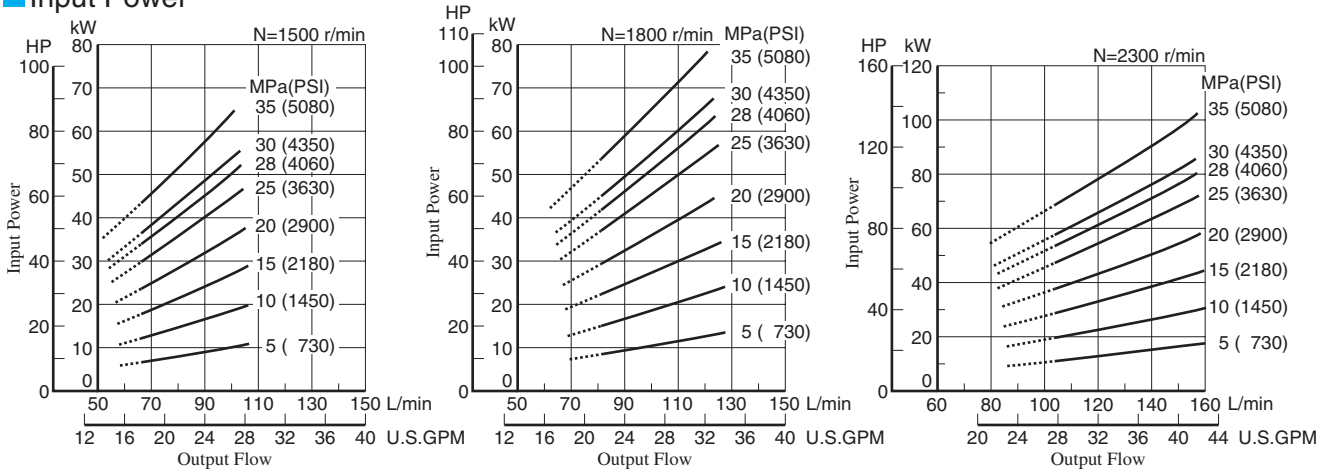


Typical Performance Characteristics of Type "A3H71" at Viscosity 32 mm²/s (150 SSU) [ISO VG32 oils, 40°C (104°F)]

Performance Characteristic Curve

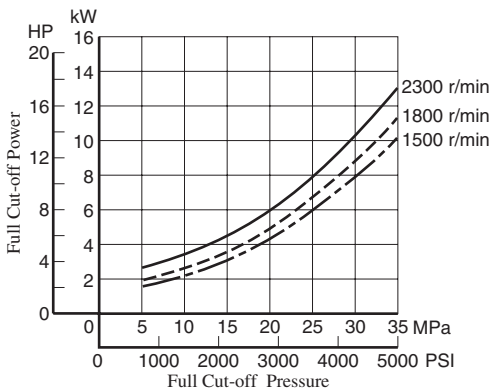


Input Power

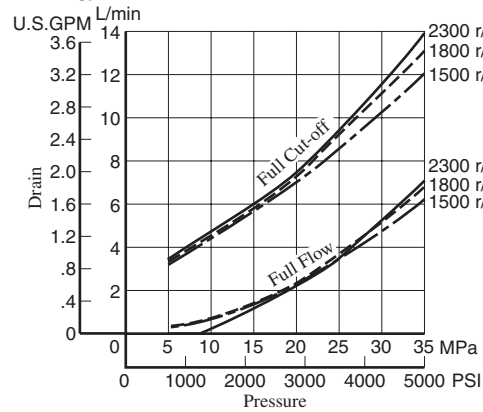


Note) The dotted line in the graph indicates less than minimum adjustable flow.

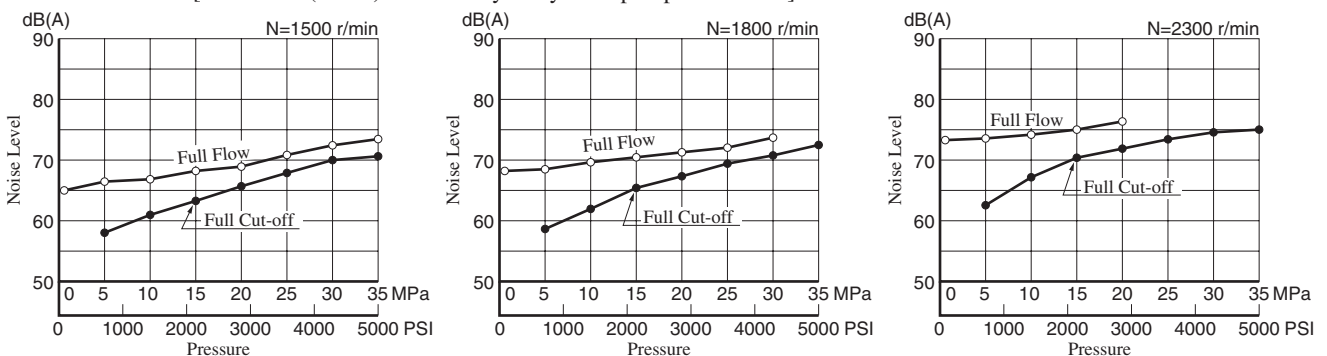
Full Cut-off Power



Drain



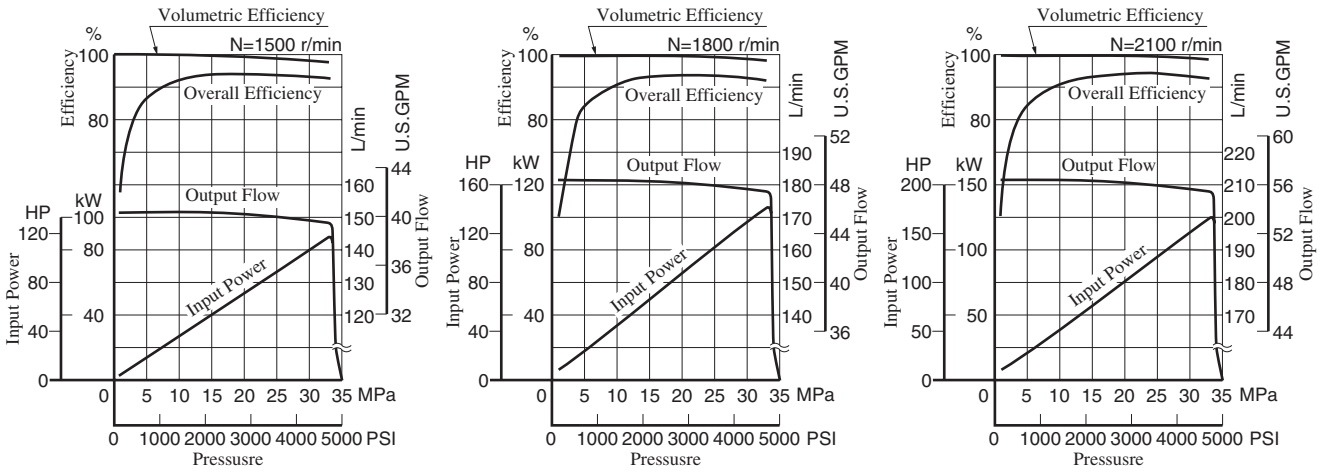
Noise Level [One metre (3.3 ft.) horizontally away from pump head cover]



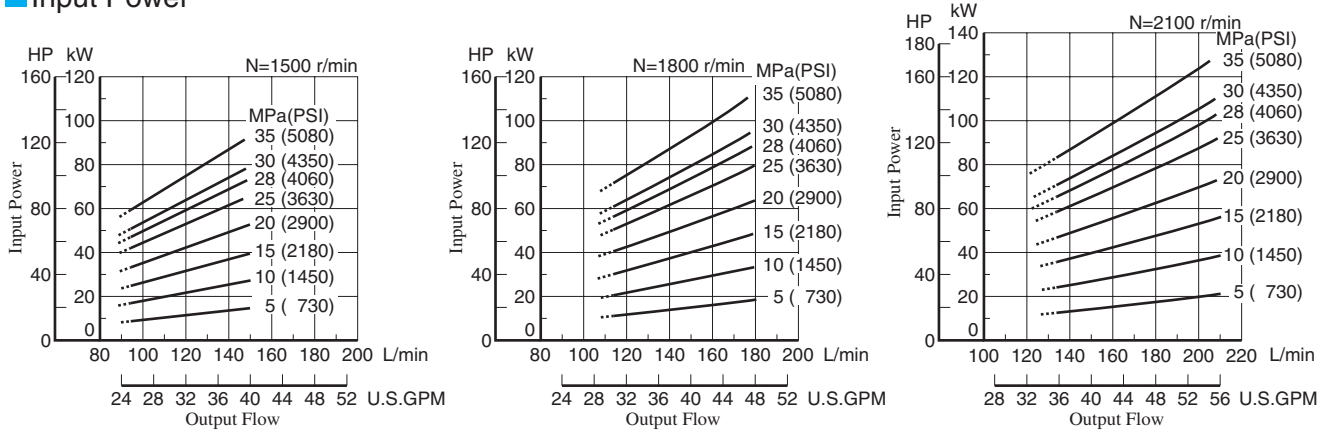


Typical Performance Characteristics of Type "A3H100" at Viscosity 32 mm²/s (150 SSU) [ISO VG32 oils, 40°C (104°F)]

Performance Characteristic Curve

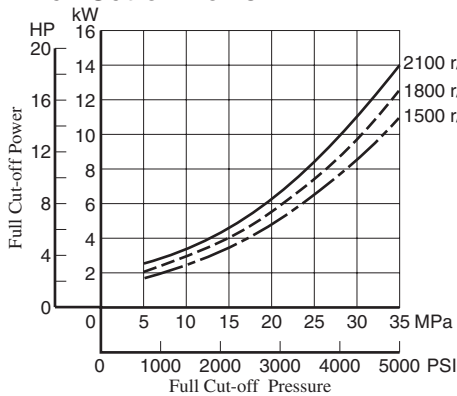


Input Power

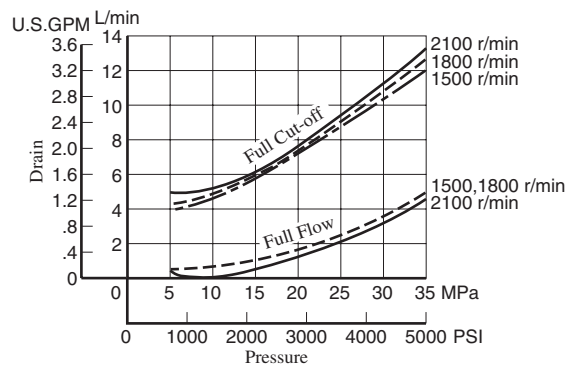


Note) The dotted line in the graph indicates less than minimum adjustable flow.

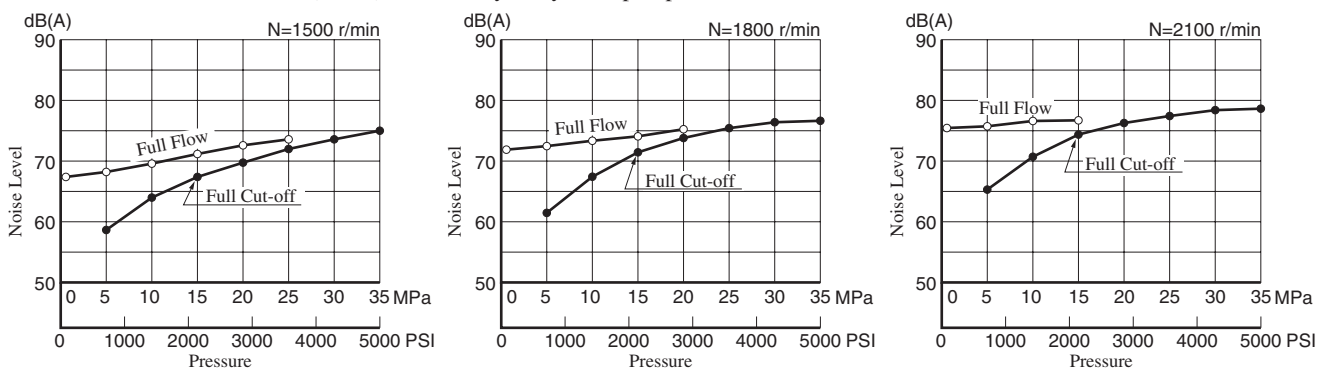
Full Cut-off Power



Drain

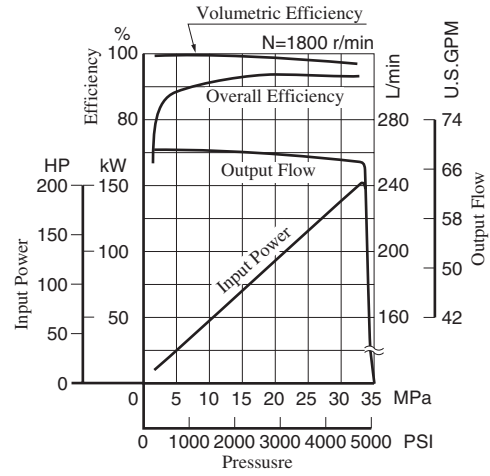
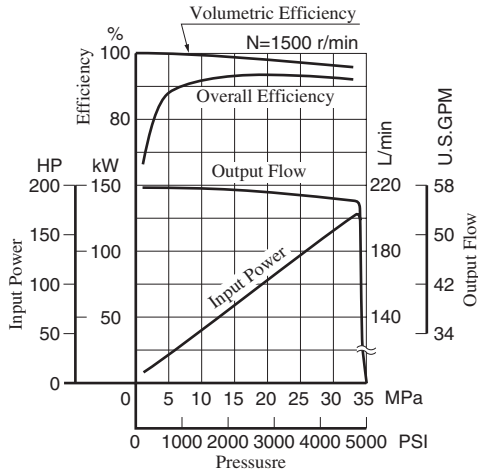


Noise Level [One metre (3.3 ft.) horizontally away from pump head cover]

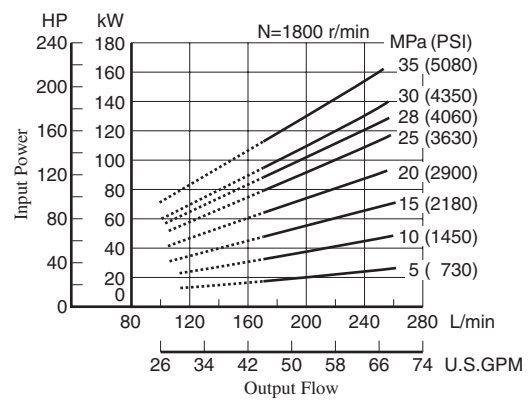
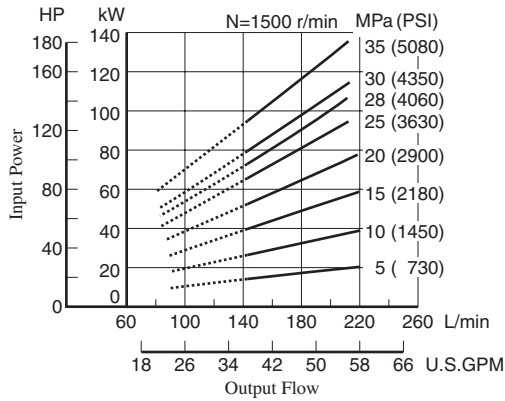


Typical Performance Characteristics of Type "A3H145" at Viscosity 32 mm²/s (150 SSU) [ISO VG32 oils, 40°C (104°F)]

Performance Characteristic Curve

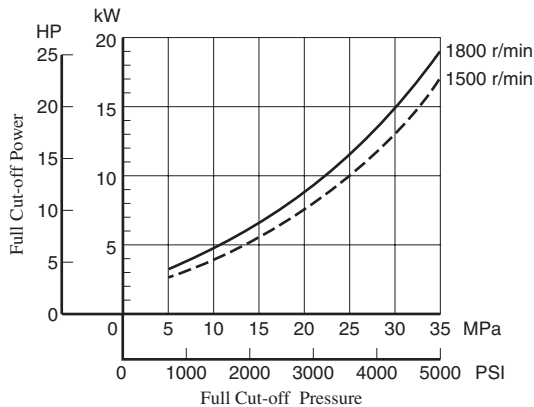


Input Power

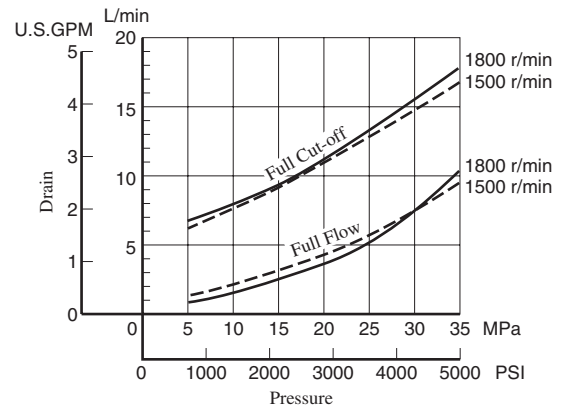


Note) The dotted line in the graph indicates less than minimum adjustable flow.

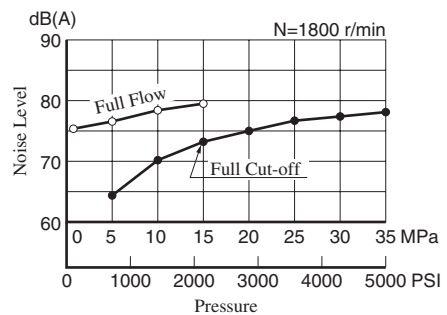
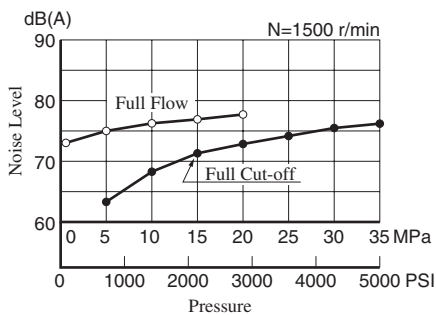
Full Cut-off Power

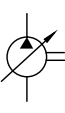


Drain



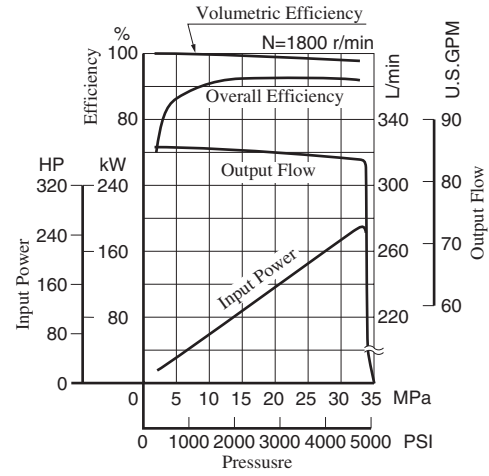
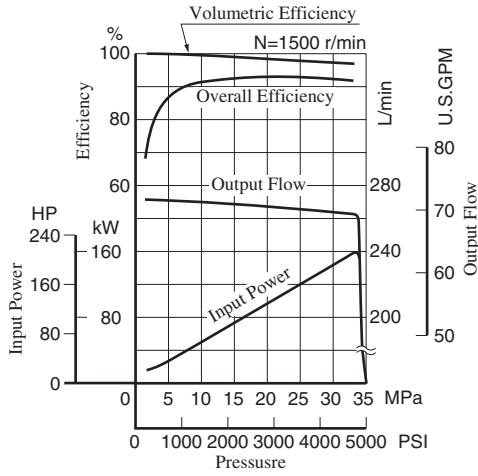
Noise Level [One metre (3.3 ft.) horizontally away from pump head cover]



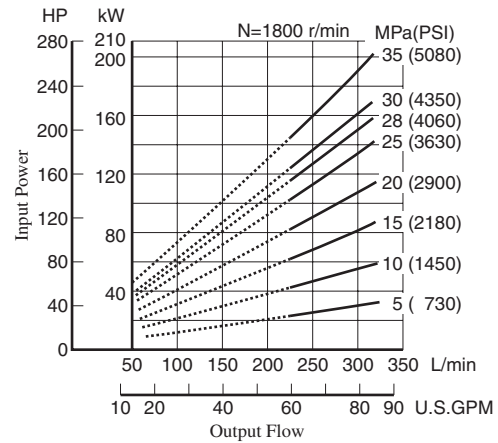
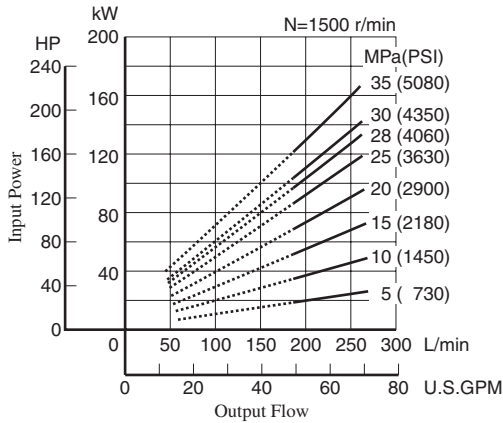


Typical Performance Characteristics of Type "A3H180" at Viscosity 32 mm²/s (150 SSU) [ISO VG32 oils, 40°C (104°F)]

Performance Characteristic Curve

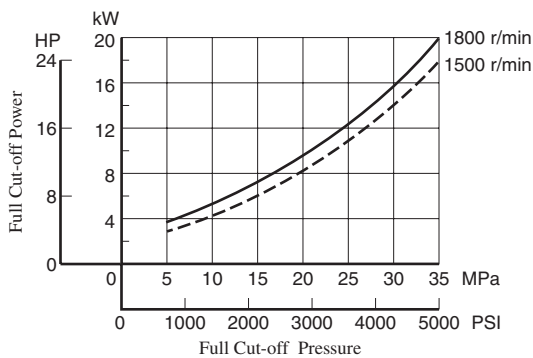


Input Power

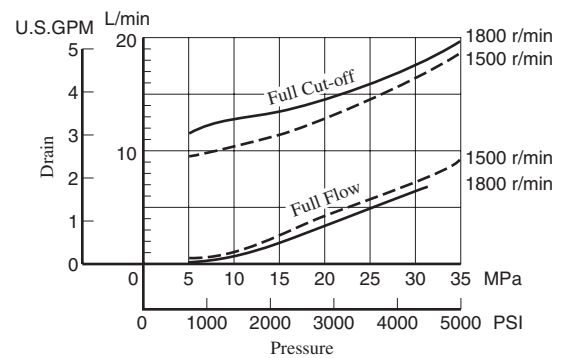


Note) The dotted line in the graph indicates less than minimum adjustable flow.

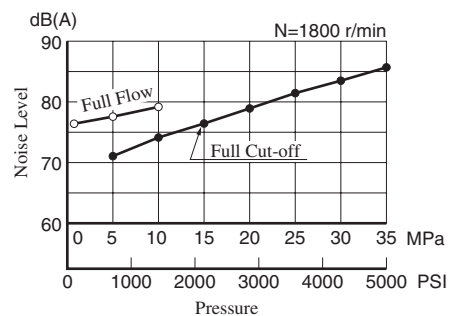
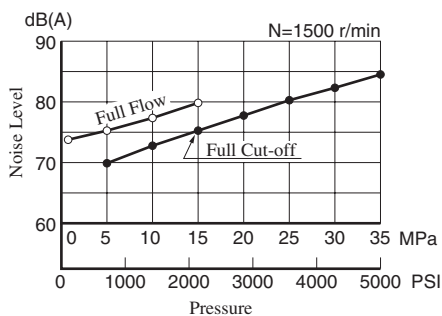
Full Cut-off Power



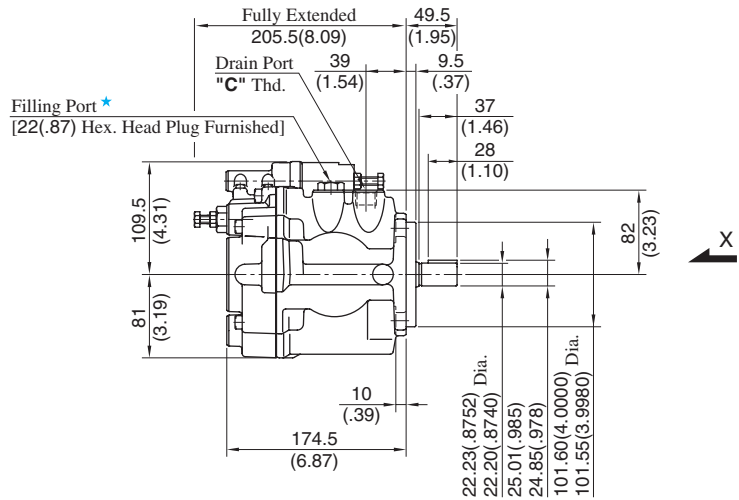
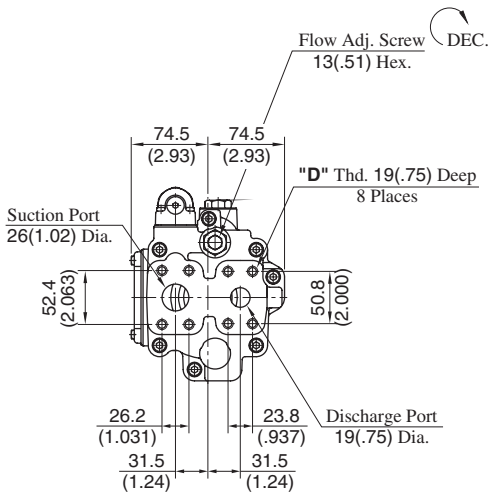
Drain



Noise Level [One metre (3.3 ft.) horizontally away from pump head cover]

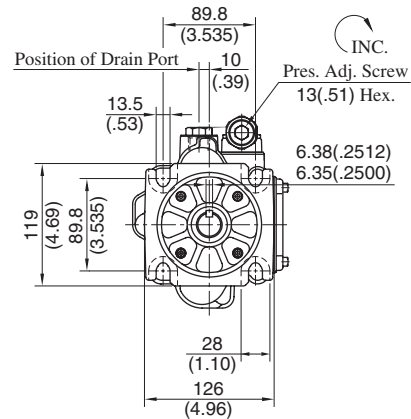


Flange Mtg.: A3H16-FR01KK-10/1080/10950



★ Install the pump so that the "Filling port" is at the top.

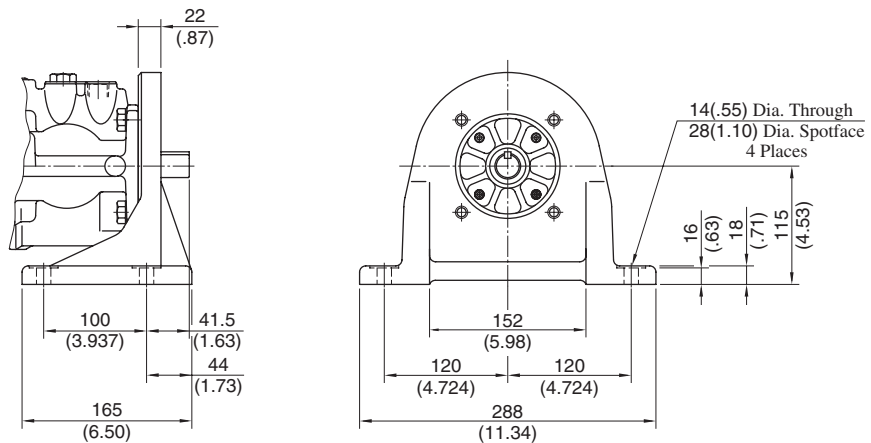
| Model Numbers | "C" Thd. | "D" Thd. |
|--------------------|-----------|------------|
| A3H16-FR01KK-10 | Rc 1/2 | M10 |
| A3H16-FR01KK-1080 | 1/2 BSP.F | |
| A3H16-FR01KK-10950 | SAE #10 | 3/8-16 UNC |



View Arrow X

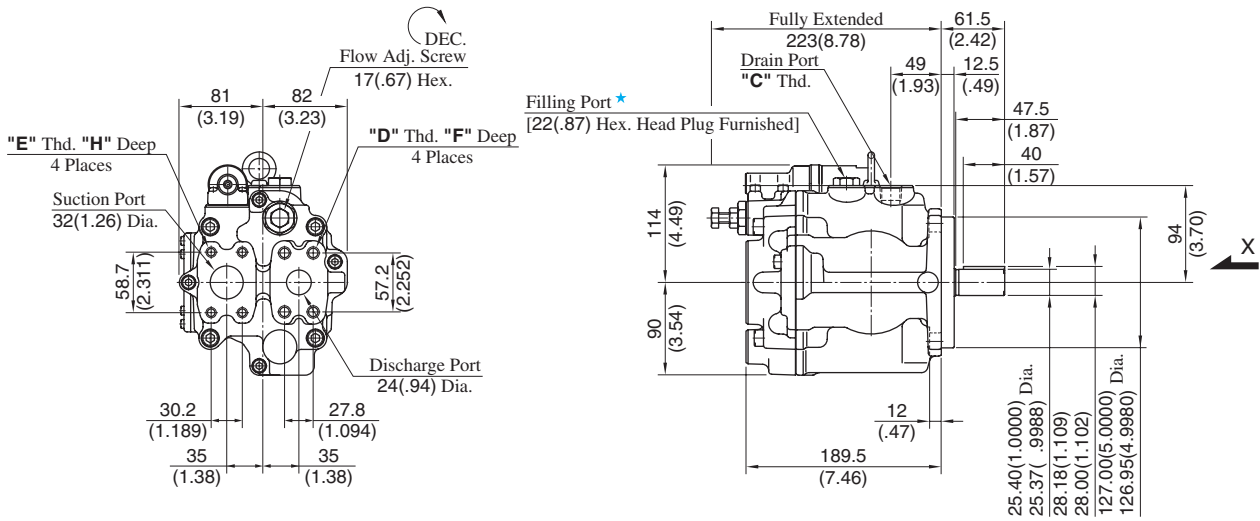
DIMENSIONS IN MILLIMETRES (INCHES)

Foot Mtg.: A3H16-LR01KK-10/1080/10950



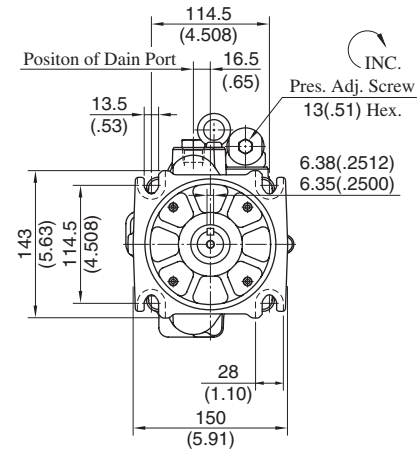
● For other dimensions, refer to "Flange Mtg.".

Flange Mtg.: A3H37-FR01KK-10/1080/10950



★ Install the pump so that the "Filling port" is at the top.

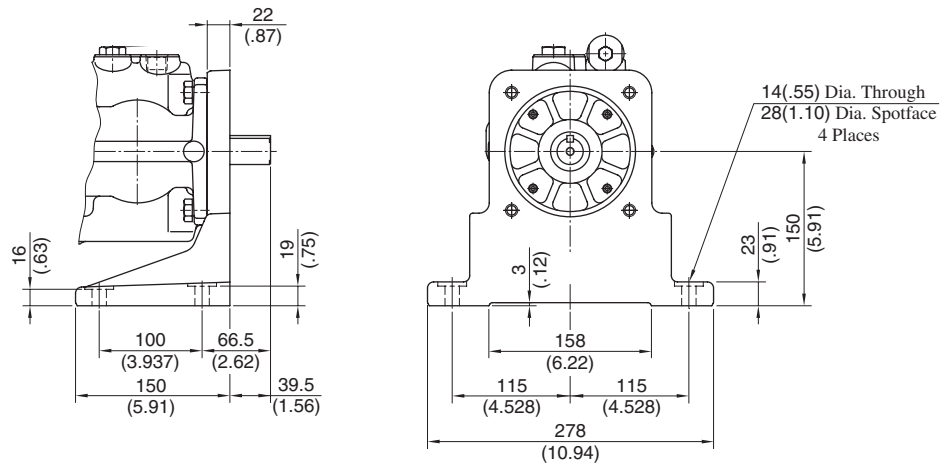
| Model Numbers | "C" Thd. | "D" Thd. | "E" Thd. | F mm(IN.) | H mm(IN.) |
|--------------------|-----------|------------|-------------|--------------|--------------|
| A3H37-FR01KK-10 | Rc 1/2 | M12 | M10 | 22 (.87) | 18 (.71) |
| A3H37-FR01KK-1080 | 1/2 BSP.F | | | | |
| A3H37-FR01KK-10950 | SAE #10 | 1/2-13 UNC | 7/16-14 UNC | 21 (.83) | 20 (.79) |



View Arrow X

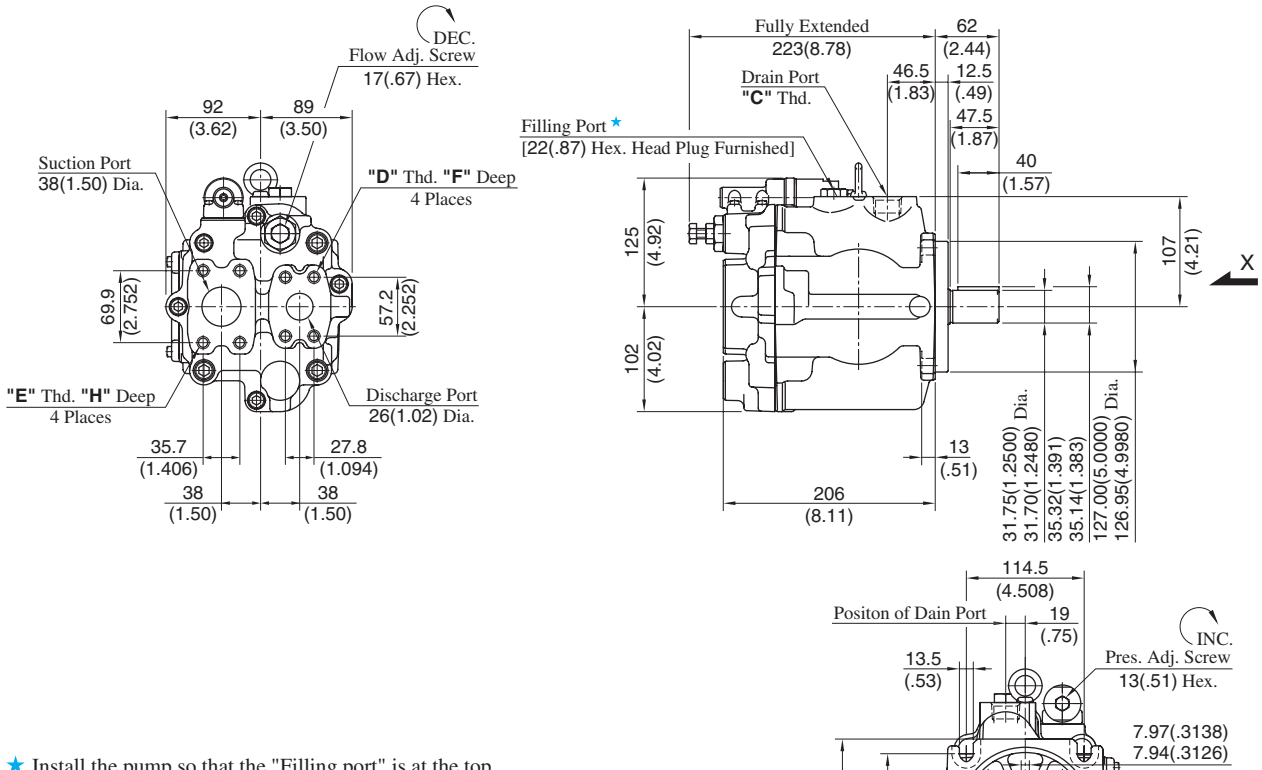
DIMENSIONS IN MILLIMETRES (INCHES)

Foot Mtg.: A3H37-LR01KK-10/1080/10950



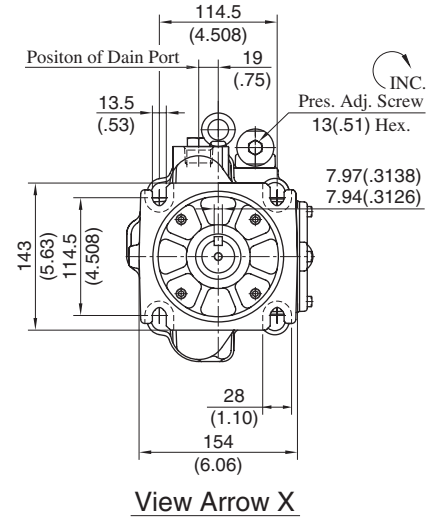
● For other dimensions, refer to "Flange Mtg.".

Flange Mtg.: A3H56-FR01KK-10/1080/10950



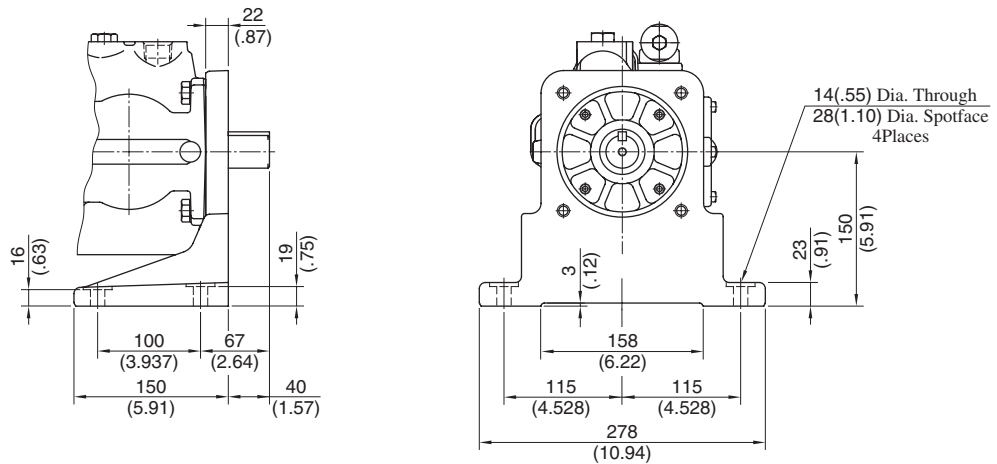
★ Install the pump so that the "Filling port" is at the top.

| Model Numbers | "C" Thd. | "D" Thd. | "E" Thd. | F mm(IN.) | H mm(IN.) |
|--------------------|-----------|------------|-------------|--------------|--------------|
| A3H56-FR01KK-10 | Rc 3/4 | M12 | M12 | 22 (.87) | 22 (.87) |
| A3H56-FR01KK-1080 | 3/4 BSP.F | | | | |
| A3H56-FR01KK-10950 | SAE #12 | 1/2-13 UNC | 7/16-14 UNC | 21 (.83) | 20 (.79) |



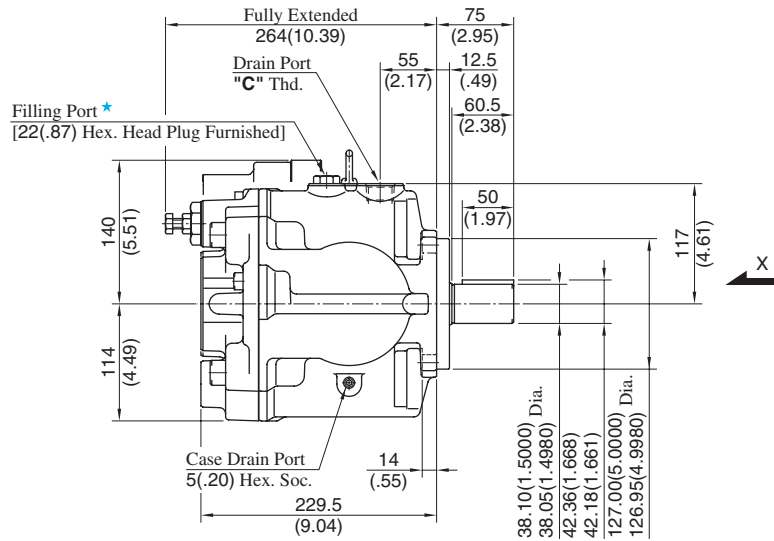
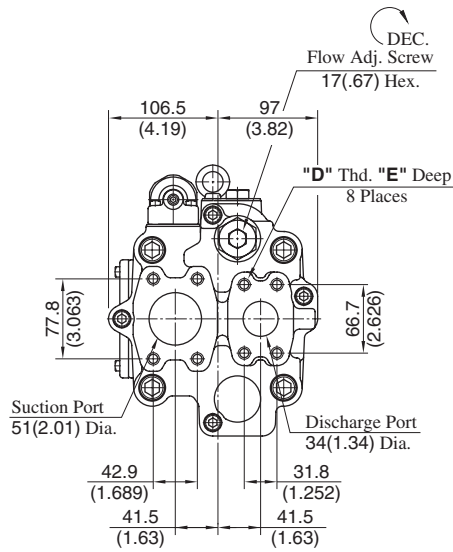
DIMENSIONS IN MILLIMETRES (INCHES)

Foot Mtg.: A3H56-LR01KK-10/1080/10950



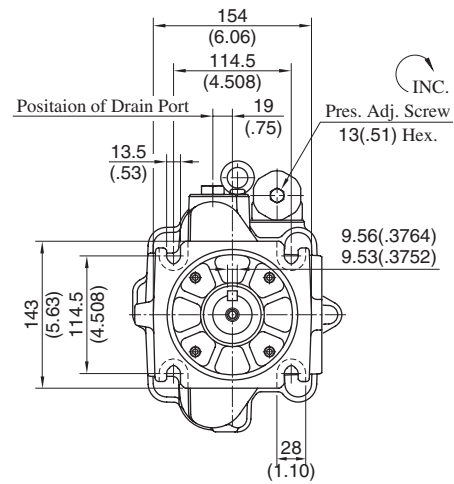
● For other dimensions, refer to "Flange Mtg.".

Flange Mtg.: A3H71-FR01KK-10/1080/10950



★ Install the pump so that the "Filling port" is at the top.

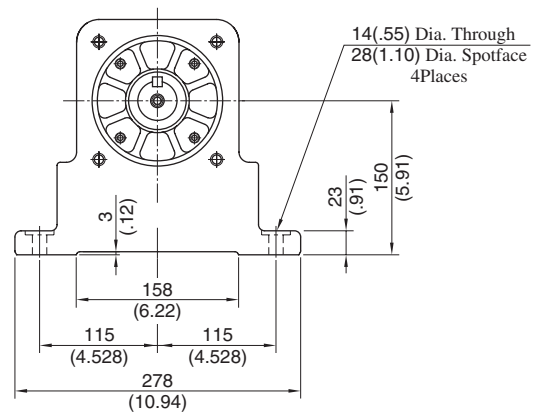
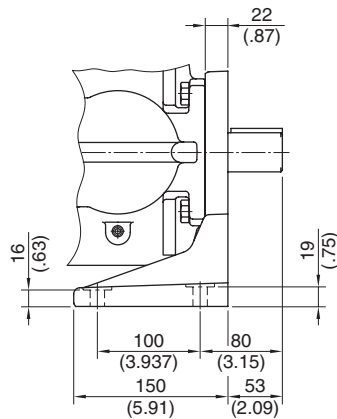
| Model Numbers | "C" Thd. | "D" Thd. | E mm (IN.) |
|--------------------|-----------|------------|------------|
| A3H71-FR01KK-10 | Rc 3/4 | M12 | 19 (.75) |
| A3H71-FR01KK-1080 | 3/4 BSP.F | | |
| A3H71-FR01KK-10950 | SAE #12 | 1/2-13 UNC | 21 (.83) |



View Arrow X

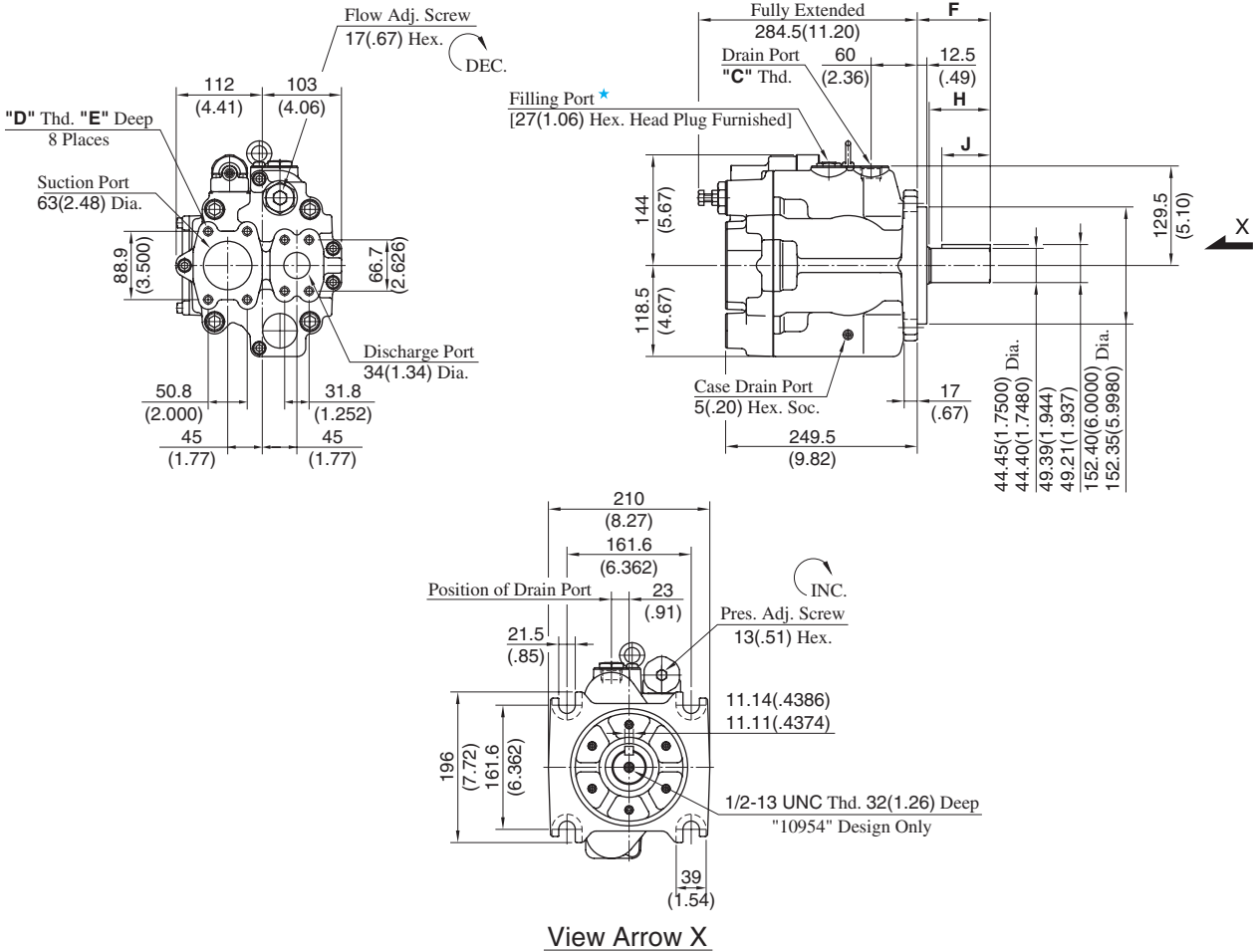
DIMENSIONS IN MILLIMETRES (INCHES)

Foot Mtg.: A3H71-LR01KK-10/1080/10950



● For other dimensions, refer to "Flange Mtg.".

Flange Mtg.: A3H100-FR01KK-10/1080/10954

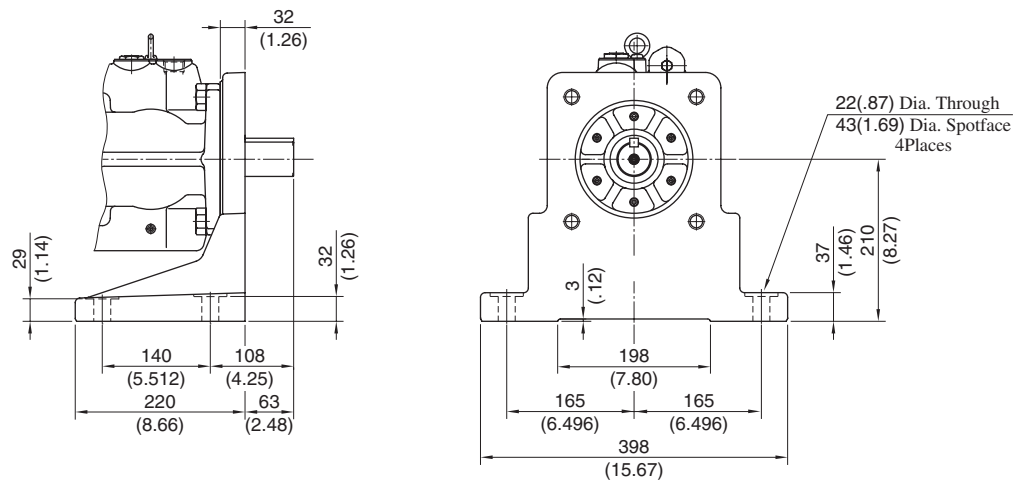


★ Install the pump so that the "Filling port" is at the top.

| Model Numbers | Thread Size | | Dimensions mm (Inches) | | | |
|---------------------|-------------|------------|------------------------|-------------|-------------|-----------|
| | C | D | E | F | H | J |
| A3H100-FR01KK-10 | Rc 3/4 | M12 | 19 (.75) | 95 (3.74) | 81 (3.19) | 63 (2.48) |
| A3H100-FR01KK-1080 | 3/4 BSP.F | | | | | |
| A3H100-FR01KK-10954 | SAE #12 | 1/2-13 UNC | 21 (.83) | 74.6 (2.94) | 60.6 (2.39) | 50 (1.97) |

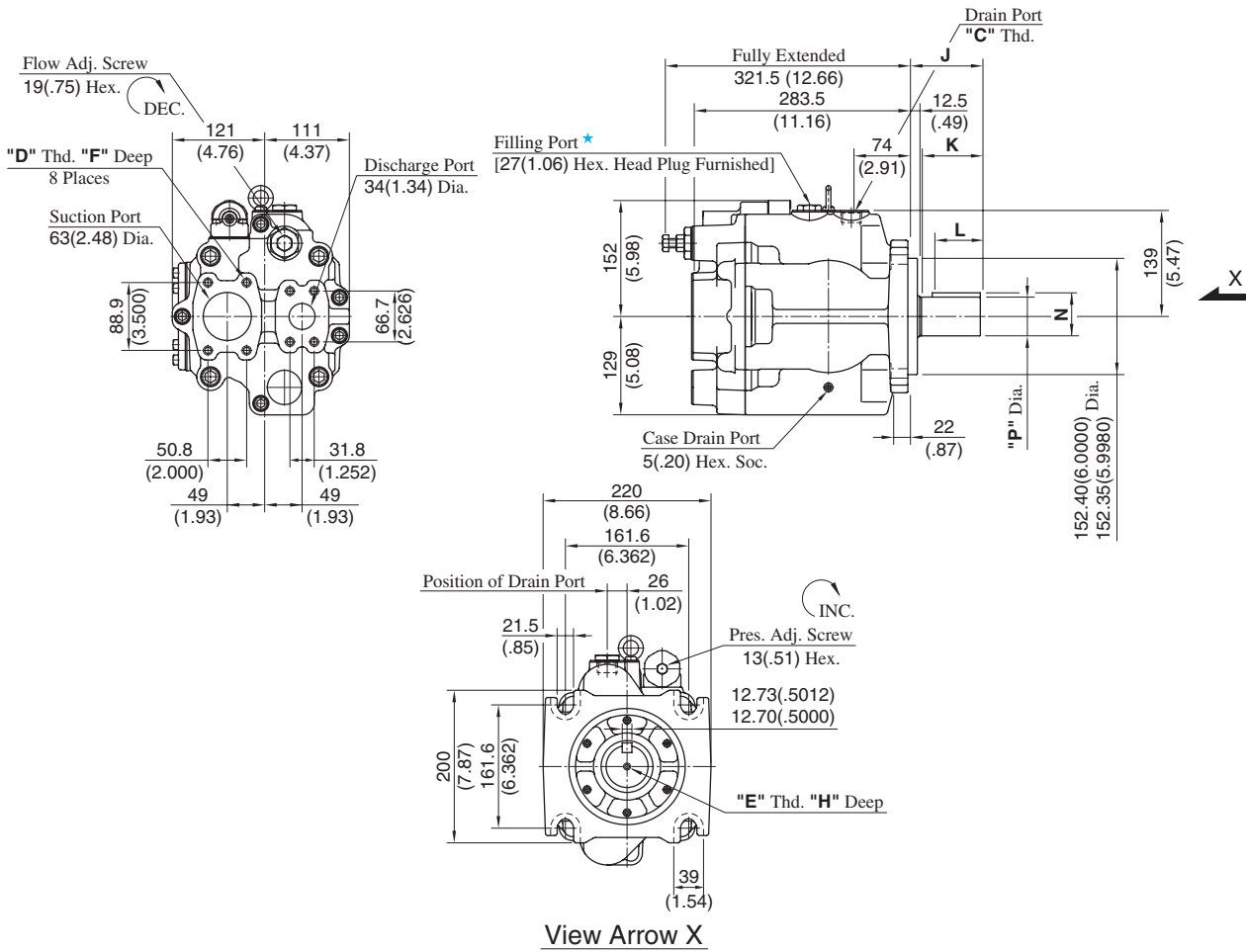
DIMENSIONS IN MILLIMETRES (INCHES)

Foot Mtg.: A3H100-LR01KK-10/1080



● For other dimensions, refer to "Flange Mtg.".

Flange Mtg.: A3H145-FR01KK*-10/1080/10954

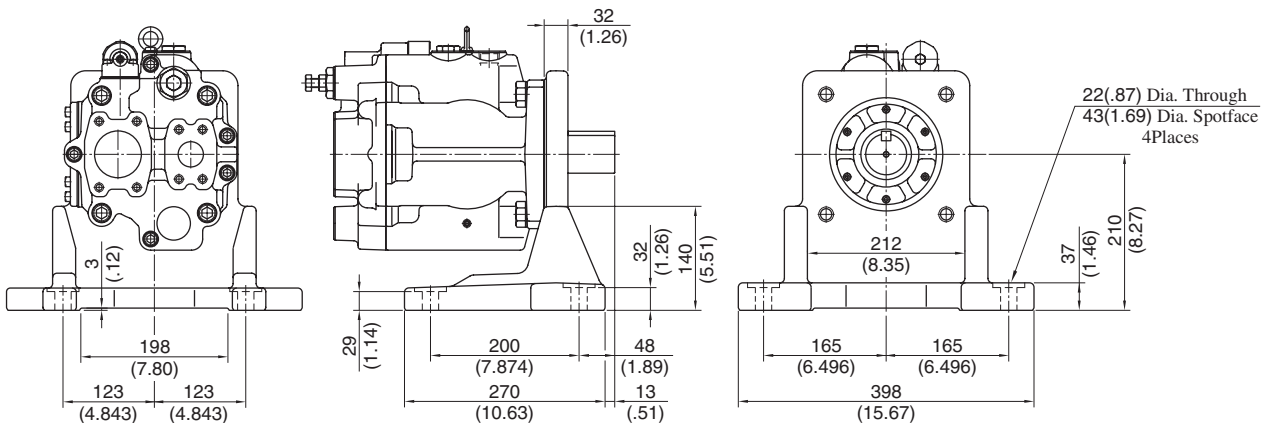


★ Install the pump so that the "Filling port" is at the top.

| Model Numbers | Thread Size | | | Dimensions mm (Inches) | | | | | | |
|----------------------|-------------|------------|------------|------------------------|-----------|-------------|-------------|-----------|---------------|----------------|
| | C | D | E | F | H | J | K | L | N | P |
| A3H145-FR01KK-10 | Rc 3/4 | M12 | — | 22 (.87) | — | 95 (3.74) | 81 (3.19) | 63 (2.48) | 49.39 (1.944) | 44.45 (1.7500) |
| A3H145-FR01KK-1080 | 3/4 BSP.F | | | | | | | | 49.21 (1.937) | 44.40 (1.7480) |
| A3H145-FR01KK-10954 | SAE #12 | 1/2-13 UNC | 1/2-13 UNC | 21 (.83) | 32 (1.26) | 74.6 (2.94) | 60.6 (2.39) | 50 (1.97) | 49.39 (1.944) | 44.45 (1.7500) |
| A3H145-FR01KK1-10954 | | | | | | | | | 5/8-11 UNC | 36 (1.42) |
| | | | | | | | | | | |

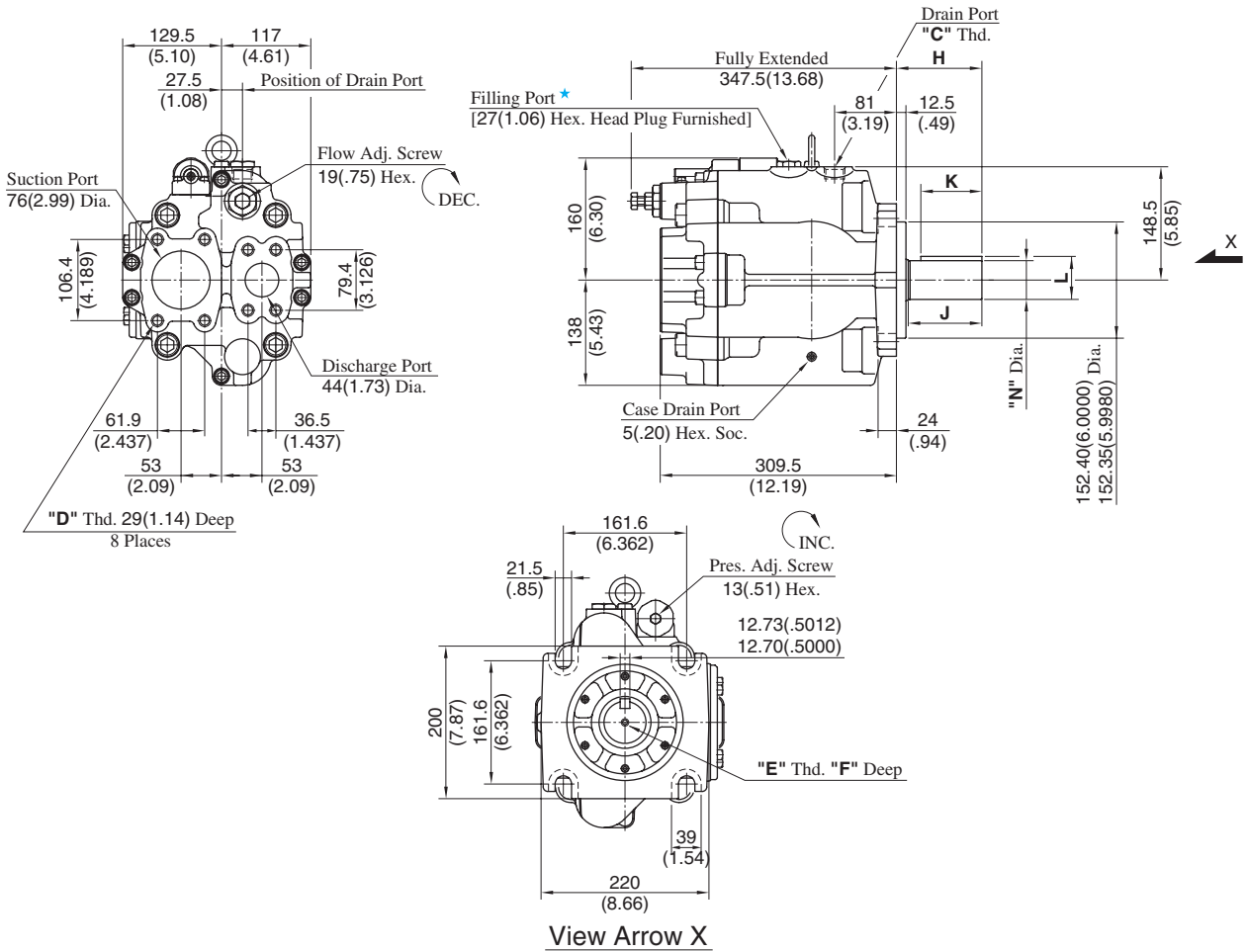
DIMENSIONS IN MILLIMETRES (INCHES)

Foot Mtg.: A3H145-LR01KK-10/1080



● For other dimensions, refer to "Flange Mtg.".

Flange Mtg.: A3H180-FR01KK*-10/1080/10954

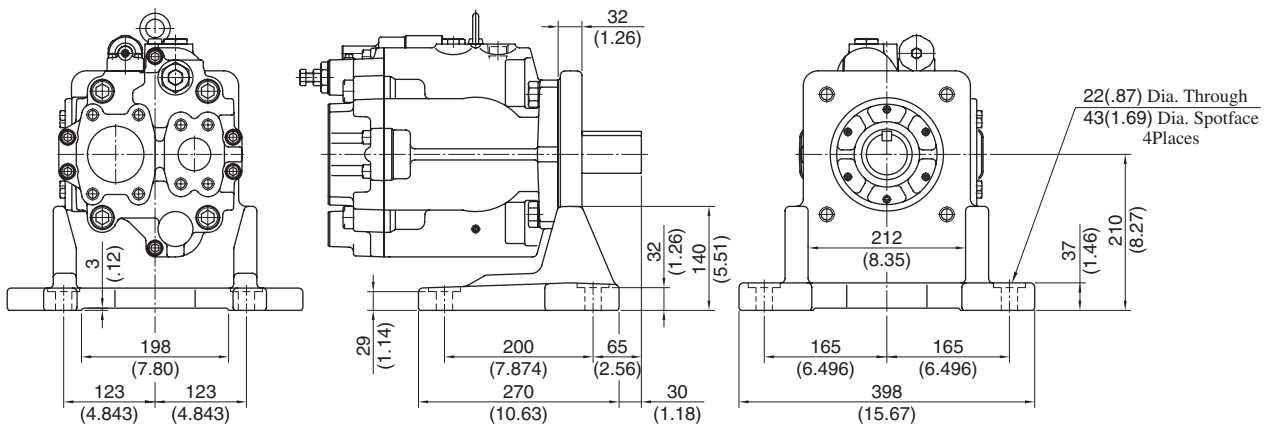


★ Install the pump so that the "Filling port" is at the top.

| Model Numbers | Thread Size | | | Dimensions mm (Inches) | | | | | | |
|----------------------|-------------|------------|------------|------------------------|-------------|-------------|-----------|---------------|----------------|--|
| | C | D | E | F | H | J | K | L | N | |
| A3H180-FR01KK-10 | Rc 3/4 | M12 | — | — | 112 (4.41) | 97.5 (3.84) | 80 (3.15) | 56.43 (2.222) | 50.80 (2.0000) | |
| A3H180-FR01KK-1080 | 3/4 BSP.F | | | | | | | 56.25 (2.215) | 50.75 (1.9980) | |
| A3H180-FR01KK-10954 | SAE #12 | 5/8-11 UNC | 1/2-13 UNC | 32 (1.26) | 74.6 (2.94) | 60.6 (2.39) | 50 (1.97) | 49.39 (1.944) | 44.45 (1.7500) | |
| A3H180-FR01KK1-10954 | | | 5/8-11 UNC | 36 (1.42) | | | | 56.43 (2.222) | 50.80 (2.0000) | |
| | | | | | | | | 56.25 (2.215) | 50.75 (1.9980) | |

DIMENSIONS IN MILLIMETRES (INCHES)

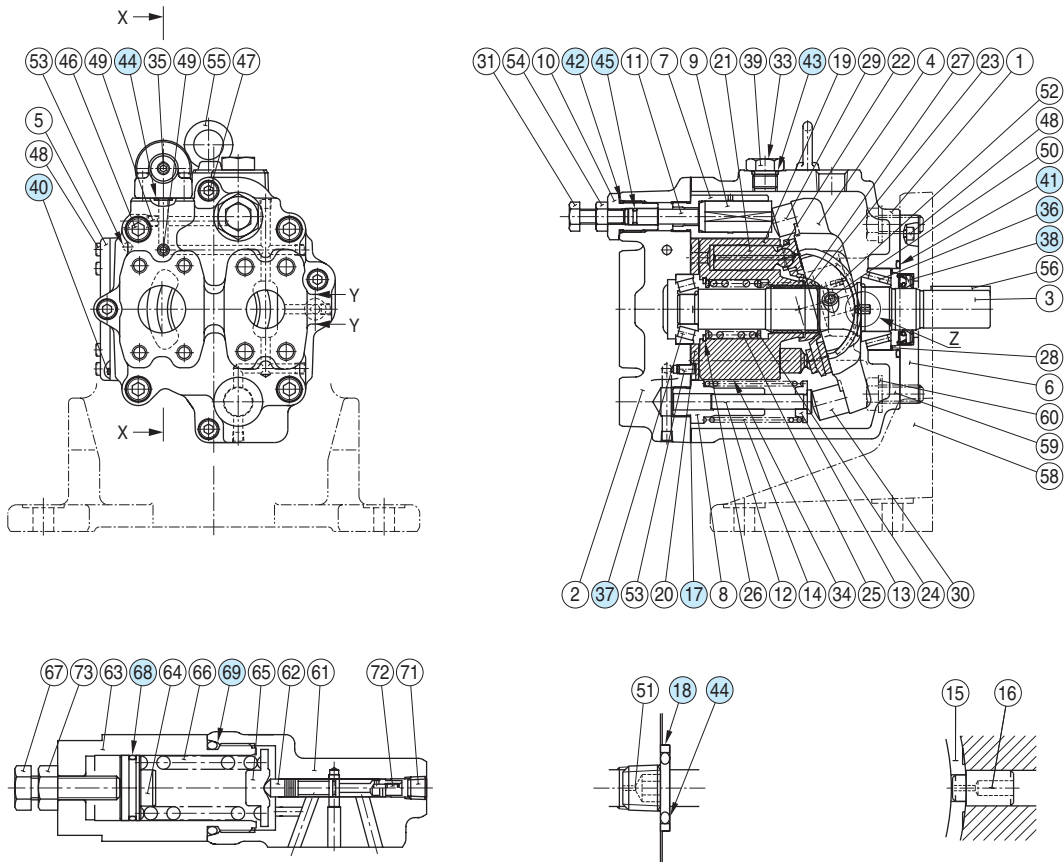
Foot Mtg.: A3H180-LR01KK-10/1080



● For other dimensions, refer to "Flange Mtg.".

Spear Parts List

A3H16/A3H37/A3H56-*R01KK-10/1080/10950



Detail of Section X – X

Detail of Section Y – Y

Detail of "Z"

● List of Seals and Bearings

| Item | Name of Parts | Part Numbers | | | Q'ty. |
|------|----------------------------|------------------|------------------|-----------------|-------|
| | | A3H16 | A3H37 | A3H56 | |
| 17* | Gasket | 2270-PK313655-3 | 2271-PK-313518-3 | 2272-PK313433-5 | 1 |
| 18* | Back Up Ring | 1310E-PK412440-0 | | | 1 |
| 36 | Cylindrical Roller Bearing | NUP205E | — | — | 1 |
| | Tapered Roller Bearing | — | 4T-30204 | 4T-33008 | |
| 37 | Needle Roller Bearing | HMK2025V2 | — | — | 1 |
| | Tapered Roller Bearing | — | 4T-33006 | 4T-32205R | |
| 38* | Oil Seal | TCN254511 (FKM) | TCN284811 (FKM) | TCN355511 (FKM) | 1 |
| 40* | O-Ring | S65 (NBR, Hs70) | S85 (NBR, Hs70) | S95 (NBR, Hs70) | 1 |
| 41* | O-Ring | SO-NA-G60 | SO-NA-G60 | S71 (NBR, Hs70) | 1 |
| 42* | O-Ring | SO-NB-P14 | SO-NB-P18 | SO-NB-P21 | 1 |
| 43* | O-Ring | SO-NB-P14 | | | 1 |
| 44* | O-Ring | SO-NB-P9 | | | 4 |
| 45* | O-Ring | SO-NB-P6 | SO-NB-P8 | SO-NB-P9 | 1 |
| 68* | O-Ring | SO-NA-A018 | | | 1 |
| 69* | O-Ring | SO-NB-P26 | | | 1 |

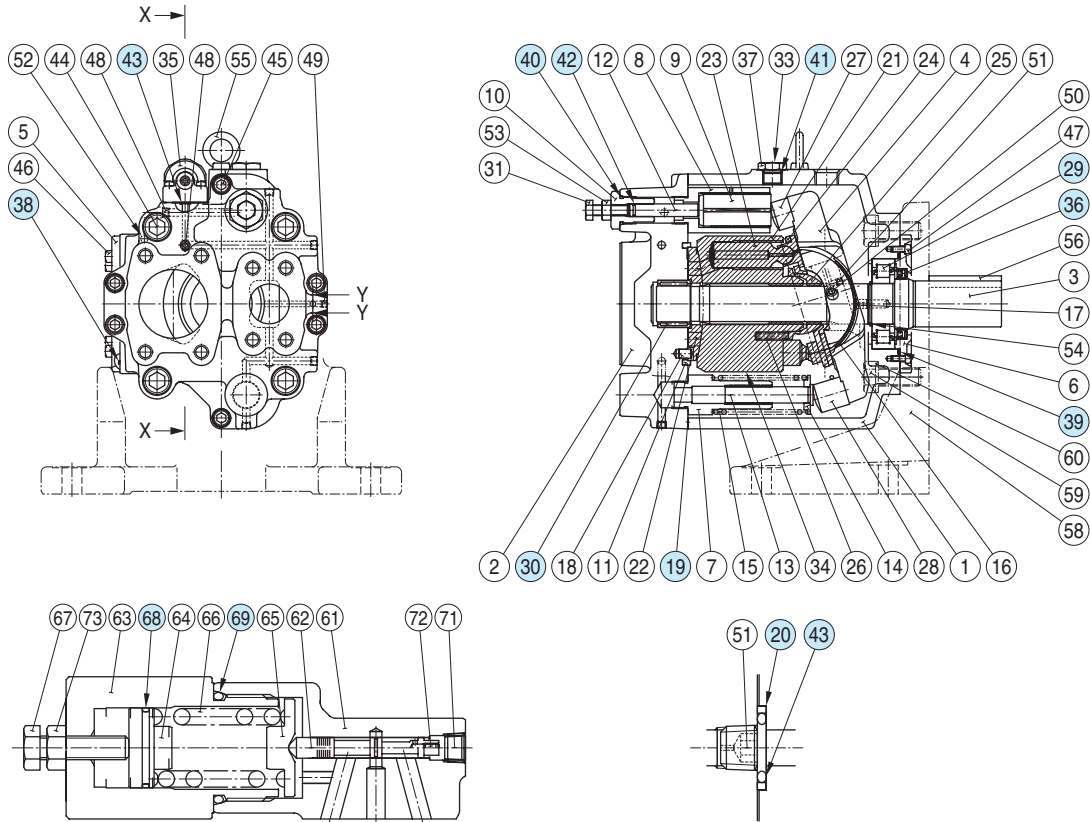
★ When ordering seals, please specify the kit number from the table below.

● List of Seals kit

| Pump Model Numbers | Seal Kit Numbers |
|----------------------------|------------------|
| A3H16-*R01KK-10/1080/10950 | A3H16-01-10 |
| A3H37-*R01KK-10/1080/10950 | A3H37-01-10 |
| A3H56-*R01KK-10/1080/10950 | A3H56-01-10 |

Spear Parts List

A3H71-*R01KK-10/1080/10950
 A3H100/A3H145/A3H180-*R01KK*-10/1080/10954



Detail of Section X – X

Detail of Section Y – Y

List of Seals and Bearings

| Item | Name of Parts | Part Numbers | | | | Q'ty. |
|------|----------------------------|------------------|------------------|------------------|------------------|-------|
| | | A3H71 | A3H100 | A3H145 | A3H180 | |
| 19* | Gasket | 2273-PK212356-0 | 2274-PK212368-5 | 2275-PK212382-6 | 2276-PK212301-6 | 1 |
| 20* | Back Up Ring | 1310E-PK412440-0 | | | | 1 |
| 29 | Tapered Roller Bearing | 33009JR | 4T-33206 | HR33011 | — | 1 |
| | Cylindrical Roller Bearing | — | — | — | 2276-PK412859-1 | |
| 30 | Tapered Roller Bearing | 32205JR | 4T-30210 | 4T-33206 | — | 1 |
| | Needle Roller Bearing | — | — | — | 2276-PK412860-9 | |
| 36* | Oil Seal | TCN426512 (FKM) | TCN507212 (FKM) | TCN557812 (FKM) | TCN557812 (FKM) | 1 |
| 38* | O-Ring | S100 (NBR, Hs70) | S110 (NBR, Hs70) | S125 (NBR, Hs70) | S130 (NBR, Hs70) | 1 |
| 39* | O-Ring | SO-NA-G80 | SO-NA-G95 | SO-NA-G95 | SO-NA-G105 | 1 |
| 40* | O-Ring | SO-NB-P24 | | SO-NB-P26 | | 1 |
| 41* | O-Ring | SO-NB-P14 | SO-NB-P18 | SO-NB-P18 | | 1 |
| 42* | O-Ring | SO-NB-P9 | | | SO-NB-P10A | 1 |
| 43* | O-Ring | SO-NB-P9 | | | | 4 |
| 68* | O-Ring | SO-NA-A021 | | | | 1 |
| 69* | O-Ring | SO-NB-P32 | | | | 1 |

★ When ordering seals, please specify the kit number from the table below.

List of Seals kit

| Pump Model Numbers | Seal Kit Numbers |
|-----------------------------|------------------|
| A3H71-*R01KK-10/1080/10950 | A3H71-01-10 |
| A3H100-*R01KK-10/1080/10954 | A3H100-01-10 |
| A3H145-*R01KK-10/1080/10954 | A3H145-01-10 |
| A3H180-*R01KK-10/1080/10954 | A3H180-01-10 |